EAST YORKSHIRE SOLAR FARM

East Yorkshire Solar Farm

EN010143

Environmental Statement

Volume 2, Appendix 16-2: Glint and Glare Assessment
Document Reference: EN010143/APP/6.2

Regulation 5(2)(a)
Infrastructure Planning (Applications: Prescribed Forms and Procedure) Regulations 2009

November 2023
Revision Number: 00

BOOM-POWER.CO.UK

BOOM POWER

Disclaimer

Neo Environmental Limited shall have no liability for any loss, damage, injury, claim, expense, cost or other consequence arising as a result of use or reliance upon any information contained in or omitted from this document.

Neo Environmental Ltd	
Head Office - Glasgow: Wright Business Centre, 1 Lonmay Road, Glasgow. G33 4EL **T** 0141 773 6262 **E:** info@neo-environmental.co.uk	
Warrington Office: Cinnamon House, Crab Lane, Warrington, WA2 0XP. **T:** 01925 661 716 **E:** info@neo-environmental.co.uk	**Rugby Office:** Valiant Suites, Lumonics House, Valley Drive, Swift Valley, Rugby, Warwickshire, CV21 1TQ. **T:** 01788 297012 **E:** info@neo-environmental.co.uk
Ireland Office: C/O Origin Enterprises PLC, 4-6 Riverwalk, Citywest Business Campus Dublin 24, D24 DCW0, T: 00 353 (1) 5634900 **E:** info@neo-environmental.ie	**Northern Ireland Office:** 83-85 Bridge Street Ballymena, Co. Antrim BT43 5EN **T:** 0282 565 04 13 **E:** info@neo-environmental.co.uk

Prepared For:

East Yorkshire Solar Farm Limited

Prepared By:

Tom Saddington BEng MSc

Michael McGhee BSc TechIOA

	Name	Date
Edited By:	Colleen Patterson	12/10/2023
Checked By:	Michael McGhee	12/10/2023
	Name	**Signature**
Approved By	Paul Neary	

Contents

1. EXECUTIVE SUMMARY

1.1. This assessment considers the potential impacts on ground-based receptors such as roads, rail, users of Public Rights of Way (PRoW) (including bridleways) and residential dwellings as well as aviation assets change as a result of the proposed East Yorkshire Solar Farm (hereafter referred to as the Scheme). A 1 km study area around the extent of the Solar PV Panels is considered adequate for the assessment of ground-based (residential, road, rail and PRoW/Permissive Path) receptors, whilst a 30 km study area is chosen for aviation receptors. Within the ground-based study areas of the Solar PV Site, there are 188 residential receptors, 197 road receptors, 27 rail receptors and 232 PRoW/Permissive Path receptors that were considered. As per the methodology section, where there are several residential receptors within close proximity, a representative dwelling or dwellings is/are chosen for full assessment as the impacts will not vary to any significant degree across small distances. Where small groups of receptors have been evident, the receptors on either end of the group have been assessed in detail. 15 residential, 12 road, and 11 PRoW/Permissive Path receptors were dismissed as they are located within the no reflection zones (see paragraph 5.5). 14 aerodromes are located within the 30km study area; however, only Breighton Airfield and Leeds East Airport required a detailed assessment as the Solar PV Site is located within their respective safeguarding buffer zones. The other 12 aerodromes did not require a detailed assessment due to their size and/or orientation in relation to the Solar PV Site.

1.2. Geometric analysis was conducted at 173 individual residential receptors, 185 road receptors, 27 rail receptors and 221 PRoW/Permissive Path receptors. Also, geometric analysis was conducted at two runway approach paths at Breighton Airfield.

1.3. The rows of solar PV panels will be oriented in a north to south direction and rotate east-west along a single axis to maximise solar gain throughout the day and during the year (i.e., they will rotate east to west to track the movement of the sun). The panels will have a maximum tracking angle of 60 degrees and the axis tilt will vary throughout the site depending on the lay of the land. For example, when the sun is lower on the horizon (dusk/dawn) the panel position will be nearer vertical, whereas when the sun is high in the sky (midday) the panel position will be near horizontal. This type of panel generally attenuates most glint and glare effects by avoiding the angles of incidence with the sun that most likely cause glint and glare; modelling is required to verify this and check there are not exceptions where significant effects occur, but the nature of development (which is single axis tracker panels) is expected to provide embedded mitigation.

1.4. The modelled impact at each receptor does not take consideration of local vegetation or other obstacles and assumes no cloud at any point in the year. It is therefore likely to overestimate the actual impacts associated with the Scheme.

1.5. The assessment concludes that:

- Solar reflections are possible at none of the 173 residential receptors assessed within the 1km study area. Therefore, overall impacts on residential receptors are considered to be **None**.
- Solar reflections are possible at none of the 185 road receptors assessed within the 1km study area. Therefore, overall impacts on road receptors are considered to be **None**.
- Solar reflections are possible at none of the 27 rail receptors assessed within the 1km study area. Therefore, overall impacts on rail receptors are considered to be **None**.
- Solar reflections are possible at none of the 221 PRoW/Permissive Path receptors assessed within the 1km study area. Therefore, overall impacts on PRoW/Permissive Path receptors are considered to be **None**.
- Four runway approach paths and one Air Traffic Control Tower (ATCT) were assessed in detail at Breighton Airfield and Leeds East Airport. Only Green Glare (Low-Potential for after-image) impacts were predicted for Runway 28 at Breighton Airfield, green glare impacts on approach is an **acceptable impact** according to US Federal Aviation Administration (FAA) guidance. Overall aviation impacts are **Low** and **Not Significant**.

1.6. The Rivers Derwent and Ouse are outside of the 1 km Study Area and therefore detailed modelling to assess the impacts on boat users on the Rivers Derwent and Ouse was not undertaken. However, following detailed modelling, the impacts upon ground-based receptors (road, rail, residential and PRoW/Permissive Path) in much closer proximity to the Solar PV Site (within the 1 km Study Area) than the rivers are **None**. It can therefore be concluded that impacts upon the Rivers Derwent and Ouse are unlikely to occur but if they were to, they would be no greater than **Negligible** and **Not Significant.**

1.7. **No Mitigation** is required due to the **Low** and no impacts (**None**) found for aviation and ground-based (residential, road, rail and PRoW/Permissive Path) receptors, respectively.

1.8. The effects of glint and glare and their impact on local receptors has been analysed in detail and there is predicted to be **Low** impacts at one runway approach path, whilst the remaining aviation receptors are predicted to have **No Impacts**. Impacts upon ground-based receptors are predicted to be **None.** Therefore, overall impacts are **Negligible**.

2. INTRODUCTION

BACKGROUND

2.1. Neo Environmental Ltd has been appointed by East Yorkshire Solar Farm Ltd (the "Applicant") to undertake a Glint and Glare Assessment for the proposed East Yorkshire Solar Farm (the "Scheme") on lands approximately 1.5km north of Howden in the East Riding of Yorkshire.

SCHEME DESCRIPTION

2.2. The Scheme will comprise the construction, operation (including maintenance and repair) and decommissioning of a solar photovoltaic (PV) electricity generating facility with a total capacity exceeding 50 megawatts (MW) and export connection to the national grid, at National Grid's Drax Substation. Due to its proposed generating capacity being more than 50 MW, the Scheme is classified as a Nationally Significant Infrastructure Project (NSIP) and will therefore require consent via a Development Consent Order (DCO).

2.3. The Order limits shown in **Figures 1 to 4 of Annex A** delineate the expected area of land required for the construction, operation and decommissioning of the Scheme. The 'Site' comprises all land within the Order limits, approximately 1,276.4 hectares (ha) which is predominantly agricultural in nature. The Site is made up of the Solar PV Site, Ecology Mitigation Area, the Interconnecting Cable Corridor, the Grid Connection Corridor and Site Accesses.

2.4. The Solar PV Site (totalling 966.4 ha) is made up of 18 Solar PV Areas, which are areas of land within which the Solar PV Panels and associated solar PV infrastructure, including two Grid Connection Substations, are to be located. The Solar PV Areas also incorporate areas of habitat creation/enhancement and landscaping. This report therefore focusses on the Solar PV Site as the only potential source of Glint and Glare during operation of the Scheme. The landscape features within the Solar PV Site consist predominately of agricultural fields mainly under arable production, with some areas of pasture, interspersed with individual trees, hedgerows, tree belts (linear) small woodland blocks and farm access tracks. The field boundaries consist of hedgerows. Ground levels within the Solar PV Site vary from approximately 14 m Above Ordnance Datum (AOD) in the south-west to 64 m AOD at the east where the land starts to rise towards the Wolds.

2.5. The other elements of the Scheme being wildlife habitats, underground cabling and site accesses. The Solar PV Site, Ecology Mitigation Area, and the Interconnecting Cable Corridor lie wholly within the East Riding of Yorkshire, whilst the Grid Connection Corridor which links the Solar PV Site to National Grid's Drax Substation and the Site Accesses lie within East Riding of Yorkshire and the unitary authority of North Yorkshire.

SCOPE OF REPORT

2.6. Although there may be small amounts of glint and glare from the metal structures associated with the solar PV panels, this is not likely to be significant and the main source of glint and glare will be from the solar PV panels themselves and this will be the focus of this assessment. Since the Grid Connection and Interconnecting Cable Corridors comprise below ground infrastructure and does not comprise of reflective surfaces, there is no potential for glint and glare effects, therefore this is not considered further in this assessment. Similarly, as the Ecology Mitigation Area will contain no infrastructure there is no potential for glint and glare effects, and therefore this is not considered further in this assessment.

2.7. Solar PV panels are designed to absorb as much light as possible and not to reflect it. However, glint can be produced as a reflection of the sun from the surface of the solar PV panel. This can also be described as a momentary flash. This may be an issue due to visual impact and viewer distraction on ground-based receptors and on aviation.

2.8. Glare is significantly less intense in comparison to glint and can be described as a continuous source of bright light, relative to diffused lighting. This is not a direct reflection of the sun, but a reflection of the sky around the sun.

2.9. This report focusses on the effects of glint and glare and its impact on local receptors and will be supported with the following Figures and Appendices.

- Annex A: Figures
  - Figure 1: Residential Receptor Map
  - Figure 2: Road Receptor Map
  - Figure 3: Rail Receptor Map
  - Figure 4: PRoW Receptor map
- Annex B: Residential Receptor Glare Results (1 – 60)
- Annex C: Residential Receptor Glare Results (61 – 120)
- Annex D: Residential Receptor Glare Results (121 – 173)
- Annex E: Road Receptor Glare Results (1 – 60)
- Annex F: Road Receptor Glare Results (61 – 120)
- Annex G: Road Receptor Glare Results (121 – 185)
- Annex H: Rail Receptor Glare Results

- Annex I: PRoW Receptor Glare Results (1 – 80)
- Annex J: PRoW Receptor Glare Results (81 – 160)
- Annex K: PRoW Receptor Glare Results (161 – 229)
- Annex L: Aviation Receptor Glare Results
- Annex M: Solar Module Glare and Reflectance Technical Memo

2.10. Due to the distance between the River Derwent/Ouse from the Solar PV Site (1.4 and 3.0km, respectively), a detailed model has not been run along the rivers. However, considerations have been considered for boat users along the rivers within the Impact Assessment section of this report.

2.11. It is noted that PRoW also include bridleways and that impacts to both pedestrians and horse riders are assessed. As well as the existing PRoW in the Study Area, the assessment has also included an assessment of the proposed permissive routes which will be created by the Scheme within Solar PV Area 1e.

STATEMENT OF COMPETENCE

2.12. This Glint and Glare Assessment has been produced by Tom Saddington and Michael McGhee of Neo Environmental. Having completed a civil engineering degree in 2012, Michael has produced Glint and Glare assessments for over 1GW of solar farm developments across the UK and Ireland. Tom has an undergraduate degree in Bioengineering and graduated with an MSc in Environmental and Energy Engineering in January 2020. He has been working on various technical assessments including glint and glare reports for numerous solar farms in Ireland and the UK.

DEFINITIONS

2.13. This study examined the potential hazard and nuisance effects of glint and glare in relation to ground-based receptors, which includes the occupants of surrounding dwellings as well as road users. The US Federal Aviation Administration (FAA) in their "*Technical Guidance for Evaluating Selected Solar Technologies on Airports*"[1] have defined the terms 'Glint' and 'Glare' as meaning:

1 Harris, Miller, Miller & Hanson Inc. (November 2010). Technical Guidance for Evaluating Selected Solar Technologies on Airports; 3.1.2 Reflectivity. Technical Guidance for Evaluating Selected Solar Technologies on Airports. Available at:

https://www.faa.gov/airports/environmental/policy_guidance/media/airport-solar-guide.pdf

- Glint – "*A momentary flash of bright light*"
- Glare – "*A continuous source of bright light*"

2.14. Glint and glare are essentially the unwanted reflection of sunlight from reflective surfaces. This study used a multi-step process of elimination to determine which receptors have the potential to experience the effects of glint and glare. It then examined, using a computer-generated geometric model, the times of the year and the times of the day such effects could occur. This is based on the relative angles between the sun, the panels, and the receptor throughout the year.

2.15. The ocular impact upon a receptor will be assessed and used as the basis of categorising the magnitude of impact at each receptor. For the avoidance of doubt specular impact is a term that refers to the impact produced by the PV panels, whilst ocular impact is the impact observed by the observer.

General Nature of Reflectance from Photovoltaic Panels

2.16. In terms of reflectance, solar PV panels are by no means a highly reflective surface. They are designed to absorb sunlight and not to reflect it. Nonetheless, solar PV panels have a flat polished surface that omit 'specular' reflectance rather than a 'diffuse' reflectance, which would occur from a rough surface. Several studies have shown that solar PV panels (as opposed to Concentrated Solar Power) have similar reflectance characteristics to water, which is much lower than the likes of glass, steel, snow and white concrete by comparison (**See Annex M**). Similar levels of reflectance can be found in rural environments from the likes of shed roofs and the lines of plastic mulch used in cropping. In terms of the potential[11] for reflectance from solar PV panels to cause hazard and/ or nuisance effects, there have been a number of studies undertaken in respect of schemes in close proximity to airports. The most recent of these was compiled by the Solar Trade Association (STA) in April 2016 and used a number of case studies and expert opinions, including that from Neo. The summary of this report states that "*the STA does not believe that there is cause for concern in relation to the impact of glint and glare from solar PV on aviation and airports…*"[2].

Time Zones / Datums

2.17. Locations in this report are given in Eastings and Northings using the 'British National Grid' grid reference system unless otherwise stated.

2 Solar Trade Association. (April 2016). Summary of evidence compiled by the Solar Trade Association to help inform the debate around permitted development for non - domestic solar PV in Scotland. Impact of solar PV on aviation and airports. Available at: http://www.solar-trade.org.uk/wp-content/uploads/2016/04/STA-glint-and-glare-briefing-April-2016-v3.pdf

2.18. England uses British Summer Time (BST, UTC + 01:00) in the summer months and Greenwich Mean Time (UTC+0) in the winter period. For the purposes of this report all time references are in GMT.

3. LEGISLATION AND GUIDANCE

3.1. There is no legislation and limited guidance or policy available in the UK at present in relation to the assessment of glint and glare from Scheme developments. Available UK guidance is reviewed below, in addition to references to international guidance where deemed suitable.

NATIONAL PLANNING POLICY GUIDANCE (NPPG) ON RENEWABLE AND LOW CARBON ENERGY (UK) [3]

3.2. Paragraph 013 (Reference ID: 5-013-20150327) sets out planning considerations that relate to large scale ground-mounted solar PV farms. This determines that the deployment of large-scale solar farms can have a negative impact on the rural environment, particularly in undulating landscapes. However, the visual impact of a well-planned and well-screened solar farm can be properly addressed within the landscape if planned sensitively. Considerations to be taken into account by local planning authorities are:

- *"the proposal's visual impact, the effect on landscape of glint and glare and on neighbouring uses and aircraft safety;*
- *the extent to which there may be additional impacts if solar arrays follow the daily movement of the sun."*

NATIONAL POLICY STATEMENT FOR RENEWABLE ENERGY INFRASTRUCTURE (EN-3), ADOPTED 2011

3.3. Section 2.4 of EN-3 provides policy on Criteria for "good design" for energy infrastructure. Paragraph 2.4.1 of this section refers back to the criteria for good design in NPS EN-1. Paragraph 2.4.2 of EN-3 goes on to state that: *"Proposals for renewable energy infrastructure should demonstrate good design in respect of landscape and visual amenity".*

[3] NPPG Renewable and Low Carbon Energy. Available at: http://planningguidance.communities.gov.uk/blog/guidance/renewable-and-low-carbon-energy/particular-planning-considerations-for-hydropower-active-solar-technology-solar-farms-and-wind-turbines/#paragraph_012

DRAFT NATIONAL POLICY STATEMENT FOR RENEWABLE ENERGY INFRASTRUCTURE (DRAFT EN-3)[4]

3.4. Section 3.10 of the Draft EN-3 provides the following commentary in relation to Glint and Glare impacts:

"23.10.93 Solar panels are specifically designed to absorb, not reflect, irradiation. However, solar panels may reflect the sun's rays at certain angles, causing glint and glare. Glint is defined as a momentary flash of light that may be produced as a direct reflection of the sun in the solar panel. Glare is a continuous source of excessive brightness experienced by a stationary observer located in the path of reflected sunlight from the face of the panel. The effect occurs when the solar panel is stationed between or at an angle of the sun and the receptor.

3.10.94 Applicants should map receptors to qualitatively identify potential glint and glare issues and determine if a glint and glare assessment is necessary as part of the application.

3.10.95 When a quantitative glint and glare assessment is necessary, applicants are expected to consider the geometric possibility of glint and glare affecting nearby receptors and provide an assessment of potential impact and impairment based on the angle and duration of incidence and the intensity of the reflection.

3.10.96 The extent of reflectivity analysis required to assess potential impacts will depend on the specific project site and design. This may need to account for 'tracking' panels if they are proposed as these may cause differential diurnal and/or seasonal impacts.

3.10.97 When a glint and glare assessment is undertaken, the potential for solar PV panels, frames and supports to have a combined reflective quality may need to be assessed, although the glint and glare of the frames and supports is likely to be significantly less than the panels.

....

3.10.125 Applicants should consider using, and in some cases the Secretary of State may require, solar panels to comprise of (or be covered with) anti-glare/anti-reflective coating with a specified angle of maximum reflection attenuation for the lifetime of the permission.

3.10.126 Applicants may consider using screening between potentially affected receptors and the reflecting panels to mitigate the effects.

3.10.127 Applicants may consider adjusting the azimuth alignment of or changing the elevation tilt angle of a solar panel, within the economically viable range, to alter the angle of

[4] Draft: National Policy Statement for renewable energy infrastructure (EN-3). Available at: https://www.gov.uk/government/consultations/planning-for-new-energy-infrastructure-revisions-to-national-policy-statements

incidence. In practice this is unlikely to remove the potential impact altogether but in marginal cases may contribute to a mitigation strategy.

…

3.10.149 Solar PV panels are designed to absorb, not reflect, irradiation. However, the Secretary of State should assess the potential impact of glint and glare on nearby homes, motorists, public rights of way, and aviation infrastructure (including aircraft departure and arrival flight paths).

3.10.150 Whilst there is some evidence that glint and glare from solar farms can be experienced by pilots and air traffic controllers in certain conditions, there is no evidence that glint and glare from solar farms results in significant impairment on aircraft safety. Therefore, unless a significant impairment can be demonstrated, the Secretary of State is unlikely to give any more than limited weight to claims of aviation interference because of glint and glare from solar farms."

3.5. This Glint and Glare Assessment will be taking account of impacts upon nearby homes, motorists, PRoW and aviation receptors.

PLANNING GUIDANCE FOR THE DEVELOPMENT OF LARGE-SCALE GROUND MOUNTED SOLAR PV SYSTEMS

3.6. As outlined within the BRE document 'Planning Guidance for the Development of Large-Scale Ground Mounted Solar PV Systems'[5]:

"Glint may be produced as a direct reflection of the sun in the surface of the solar PV panel. It may be the source of the visual issues regarding viewer distraction. Glare is a continuous source of brightness, relative to diffused lighting. This is not a direct reflection of the sun, but rather a reflection of the bright sky around the sun. Glare is significantly less intense than glint.

Solar PV panels are designed to absorb, not reflect, irradiation. However, the sensitivities associated with glint and glare, and the landscape/ visual impact and the potential impact on aircraft safety, should be a consideration. In some instances, it may be necessary to seek a glint and glare assessment as part of a planning application. This may be particularly important if 'tracking' panels are proposed as these may cause differential diurnal and/or seasonal impacts.

[5] BRE (2013) *Planning Guidance for the Development of Large Scale Ground Mounted Solar PV Systems*. Available at: https://www.bre.co.uk/filelibrary/pdf/other_pdfs/KN5524_Planning_Guidance_reduced.pdf

The potential for solar PV panels, frames and supports to have a combined reflective quality should be assessed. This assessment needs to consider the likely reflective capacity of all of the materials used in the construction of the solar PV farm."

3.7. This Glint and Glare Assessment will assess the overall impact of the Scheme onto the local environment.

INTERIM CIVIL AVIATION AUTHORITY GUIDANCE – SOLAR PHOTOVOLTAIC SYSTEMS (2010)

3.8. There is little guidance on the assessment of glint and glare from solar farms with regards to aviation safety. The Civil Aviation Authority (CAA) has published interim guidance on 'Solar Photovoltaic Systems[6]'; they also intend to undertake a review of the potential impacts of solar PV developments upon aviation, however this is yet to be published.

3.9. The interim guidance identifies the key safety issues with regards to aviation, including *"glare, dazzling pilots leading them to confuse reflections with aeronautical lights."* It is outlined that solar farm developers should be aware of the requirements to comply with the Air Navigation Order (ANO), published in 2016 and amended in 2022. In particular, developers should be cognisant of the following articles of the ANO[7], including:

- ***Article 240*** *– Endangering safety of an aircraft – "A person must not recklessly or negligently act in a manner likely to endanger an aircraft, or any person in an aircraft."*
- ***Article 224*** *– Lights liable to endanger – "A person must not exhibit in the United Kingdom any light which:*
  - *a) by reason of its glare is liable to endanger aircraft taking off or from landing at an aerodrome; or*
  - *b) by reason of its liability to be mistaken for an aeronautical ground light liable to endanger aircraft"*
- ***Article 225*** *– Lights which dazzle or distract – "A person must not in the United Kingdom direct or shine any light at any aircraft in flight so as to dazzle or distract the pilot of the aircraft."*

[6] *CAA (2010) Interim CAA Guidance – Solar Photovoltaic Systems. Available at: https://publicapps.caa.co.uk/modalapplication.aspx?catid=1&appid=11&mode=detail&id=4370*

[7] CAA (2016) Air Navigation: The Order and Regulations. Available at: https://www.caa.co.uk/media/1a2cigrq/air-navigation-order-2016-amended-april-2022-version.pdf

3.10. Relevant studies generally agree that there is potential for glint and glare from photovoltaic panels to cause a hazard or nuisance for surrounding receptors, but that the intensity of such reflections is similar to that emanating from still water. This is considerably lower than for other manmade materials such as glass, steel or white concrete (SunPower – 2009).

3.11. These Articles are considered within the assessment of glint and glare for the Scheme.

CAA – CAP738: SAFEGUARDING OF AERODROMES 3RD EDITION[8]

3.12. In 2003, the CAA first introduced the CAP738 document to help provide advice and guidance to ensure aerodrome safeguarding. Subsequently, there have been two updates to this document in 2006 and 2020.

3.13. Within the latest edition of CAP738, it outlines that the purpose of the document is to protect an aerodrome and to ensure safe operation. Specifically stating:

"Its purpose is to protect:

Aircraft from the risk of glint and glare e.g. solar panels."

3.14. Within the section named as "Appendix C – Solar Photovoltaic Cells", the following is stated:

"Policy

1. In 2010 the CAA published interim guidance on Solar Photovoltaic Cells (SPCs). At that time, it was agreed that we would review our policy based on research carried out by the Federal Aviation Authorities (FAA) in the United States, in addition to reviewing guidance issued by other National Aviation Authorities. New information and field experience, particularly with respect to compatibility and glare, has resulted in the FAA reviewing its original document 'Technical Guidance for Evaluating Selected Solar Technologies on Airports', which is likely to be subject to change, see link; https://www.federalregister.gov/documents/2013/10/23/2013-24729/interimpolicy-faa-review-of-solar-energy-system-projects-on-federally-obligated-airports

2. In the United Kingdom there has been a further increase in SPV cells, including some located close to aerodrome boundaries; to date the CAA has not received any detrimental comments or issues of glare at these established sites. Whilst this early indication is encouraging, those responsible for safeguarding should remain vigilant to the possibility."

3.15. In summary, the above is stating that to date, there has not been any complications on airfields due to glare originating from solar farms across the UK.

[8] Civil Avaition Authority (2020). CAP738 – Safeguarding of Aerodromes 3rd Edition. Available at: https://publicapps.caa.co.uk/docs/33/CAP738%20Issue%203.pdf

US FEDERAL AVIATION ADMINISTRATION POLICY

3.16. The US Federal Aviation Administration (FAA) in their Solar Guide (Federal Aviation Authority, 2010)[9] incorporates a chapter on the impact and assessment of glint from solar panels. It concludes that (although subject to revision):

> *"…evidence suggests that either significant glare is not occurring during times of operation or if glare is occurring, it is not a negative effect and is a minor part of the landscape to which pilots and tower personnel are exposed."*

3.17. The interim policy (Federal Register, 2013)[10] demands that an ocular impact assessment must be assessed at 1-minute intervals from when the sun rises above the horizon until the sun sets below the horizon. Specifically, the developer must use the 'Solar Glare Hazard Analysis Tool' (SGHAT) tool specifically and reference its results as this was developed by the FAA and Sandia National Laboratories as a standard and approved methodology for assessing potential impacts on aviation interests, although it notes other assessment methods may be considered. The SGHAT tool has since been licensed to a private organisation who were also involved in its development, and it is the software model used in this assessment.

3.18. Crucially, the policy provides a quantitative threshold that is lacking in the English guidance. This outlines that a solar development will not automatically receive an objection on glint grounds if low intensity glint is visible to pilots on final approach. In other words, low intensity glint with a low potential to form a temporary after-image (Green Glare) would be considered acceptable under US guidance. Due to the lack of legislation and guidance within England, this US document has been utilised as guidance for this report, which is accepted as best practice in the UK with the absence of quantitative guidance.

3.19. The FAA guidance states that for a solar PV development to obtain FAA approval or to receive no objection, the following two criteria must be met:

- No potential for glint or glare in the existing or planned Air Traffic Control Tower (ATCT); and
- No potential for glare (glint) or "low potential for after-image" (Green Glare) along the final approach path for any existing or future runway landing thresholds (including planned or interim phases), as shown by the approved layout plan (ALP). The final

[9] FAA (2010), Technical Guidance for Evaluating Selected Solar Technologies on Airports. Available at https://www.faa.gov/airports/environmental/policy_guidance/media/airport-solar-guide-print.pdf

[10] FAA (2013), Interim Policy, *FAA Review of Solar Energy System Projects on Federally Obligated Airports*. Available at https://www.federalregister.gov/documents/2013/10/23/2013-24729/interim-policy-faa-review-of-solar-energy-system-projects-on-federally-obligated-airports

approach path is defined as 2 miles from 50 feet above the landing threshold using a standard 3-degree glide path.

3.20. The geometric analysis included later in this report, which defines the extent and time at which glint may occur, is required by the FAA as the methodology to be used when assessing glint and glare impacts on aviation receptors. This report follows the methodology required by the FAA as it offers the most robust assessment method currently available.

FAA POLICY: REVIEW OF SOLAR ENERGY SYSTEMS PROJECTS ON FEDERALLY – OBLIGATED AIRPORTS[11]

3.21. The FAA updated their Interim Policy from 2013 as part of their commitment to "*update policies and procedures as part of an iterative process as new information and technologies become available.*" The main development regarding Glint and Glare since the Interim Policy is the following:

> *"Initially, FAA believed that solar energy systems could introduce a novel glint and glare effect to pilots on final approach. FAA has subsequently concluded that in most cases, the glint and glare from solar energy systems to pilots on final approach is similar to glint and glare pilots routinely experience from water bodies, glass-façade buildings, parking lots, and similar features. However, FAA has continued to receive reports of potential glint and glare from on-airport solar energy systems on personnel working in ATCT cabs."*

3.22. This is outlining that solar panels are similar to nuisances that are already caused by other existing infrastructure, such as car parks, glass buildings and water bodies. Furthermore, the ATCT has been outlined as the key receptor to be assessed when determining Glint and Glare impacts from a solar farm.

3.23. Again, in respect of an absence of UK guidance, the use of US guidance is best practice when assessing aviation receptors. Use of this methodology has been widely accepted for the assessment of solar developments across the UK and Ireland.

[11] FAA (2021). FAA Policy: Review of Solar Energy Systems Projects on Federally – Obligated Airports. Available at: https://www.federalregister.gov/documents/2021/05/11/2021-09862/federal-aviation-administration-policy-review-of-solar-energy-system-projects-on-federally-obligated

4. METHODOLOGY

4.1. A desk-based assessment was undertaken to identify when and where glint and glare may be visible at receptors within the vicinity of the Scheme, throughout the day and the year.

SUN POSITION AND REFLECTION MODEL

Sun Data Model

4.2. The calculations in the solar position calculator are based on equations from Astronomical Algorithms[12]. The sunrise and sunset results are theoretically accurate to within a minute for locations between +/- 72° latitude, and within 10 minutes outside of those latitudes. However, due to variations in atmospheric composition, temperature, pressure and conditions, observed values may vary from calculations.

Solar Reflection Model

4.3. The position of the sun is calculated at one-minute intervals of a typical year.

4.4. In order to determine if a solar reflection will reach a receptor, the following variables are required:

- Sun position;
- Observer location; and
- Tilt, orientation, and extent of the modules in the solar array.

4.5. The model assumes that the azimuth and horizontal angle of the sun is the same across the whole of the Solar PV Site. This is considered acceptable due to the distance of the sun from the Scheme and the miniscule differences in location of the sun over the Solar PV Site.

4.6. Once the position of the sun is known for each time interval, a vector reflection equation determines the reflected sun vector, based on the normal vector of the solar array panels. This assumes that the angle of reflection is equal to the angle of incidence reflected across a normal plane. In this instance, the plane being the vector which the solar panels are facing.

4.7. On knowing the vector of the solar reflection, the azimuth is calculated and the horizontal reflection from multiple points within the Solar PV Site. These are then compared with the

[12] Jean Meeus, Astronomical Algorithms (Second Edition), 1999

azimuth and horizontal angle of the receptor from the Solar PV Site to determine if it is within range to receive solar reflections.

4.8. The solar reflection in the model is considered to be specular as a worst-case scenario. In practice, the light from the sun will not be fully reflected as solar panels are designed to absorb light rather than reflect it. The text above and **Annex M** outlines the reflective properties of solar glass and compares it to other reflective surfaces. Although the exact figures in this report could contain a margin of error, it is included as a visual guide and it agrees with most other reports, in that solar glass has less reflective properties than other types of glass, bodies of water and snow, and that the amount of reflective energy drops as the angle of incidence decreases.

4.9. Most modern solar PV panels have a slight surface texture which should have a small effect on diffusing the solar radiation further. Although, this has not been modelled to conform with the worst-case scenario assessment.

4.10. The panel reflectivity has been modelled to assume an anti-reflective coating (ARC), which is the industry standard for solar PV panels and further reduces the reflective properties of the Solar PV Panels.

Determination of Ocular Impact

4.11. The software used for this assessment is based on the Sandia Laboratories Solar Glare Hazard Analysis Tool (SGHAT). This tool is specifically mentioned in the FAA guidance, outlined earlier in this report, as the software that should be used in this type of assessment. Again, this is following the current best practice available due to the lack of UK guidance.

4.12. Determination of the ocular impact requires knowledge of the direct normal irradiance, solar PV panel reflectance, size and orientation of the array, optical properties of the PV module, and ocular parameters. These values are used to determine the retinal irradiance and subtended source angle used in the ocular hazard plot.

4.13. The ocular impact[13] of viewed glare can be classified into three levels based on the retinal irradiance and subtended source angle: low potential for after-image (green), potential for after-image (yellow), and potential for permanent eye damage (red).

4.14. Green glare can be ignored when looking at ground based and some aviation receptors. Green glare does not cause temporary flash blindness and happens at an instant with very slight disturbance. As per FAA guidelines, mitigation is only required for green glare when affecting an Air Traffic Control Tower, but not for when affecting pilots. Therefore, it can be assumed that green glare is acceptable for ground-based receptors.

[13] Ho, C.K., C.M. Ghanbari, and R.B. Diver, 2011, Methodology to Assess Potential Glint and Glare Hazards From Concentrating Solar Power Plants: Analytical Models and Experimental Validation, Journal of Solar Energy Engineering-Transactions of the Asme, 133(3).

4.15. The subtended source angle represents the size of the glare viewed by an observer, while the retinal irradiance determines the amount of energy impacting the retina of the observer. Larger source angles can result in glare of high intensity, even if the retinal irradiance is low.

4.16. The modelling software outputs a hazard plot for each receptor predicted to be impacted by glare from the PV array. An orange dot is plotted for each minute of glare indicating the irradiance (power density) of the reflected solar light. A yellow dot is plotted to show the irradiance of the Sun when it is viewed directly. The hazard plot shows that the irradiance of the Sun is approximately three orders of magnitude greater than the reflected irradiance, i.e., the power density of solar reflections from photovoltaic panels are approximately 0.1% that of viewing the Sun. Due to the disparity in irradiance, whenever the Sun is observed in the same frame as solar reflections from a PV array, the Sun will be main source of glare impacts upon the observer. In such a case, the impact is deemed to be **Low** as a worst-case scenario.

Relevant Parameters of the Scheme

4.17. The rows of solar PV panels will be oriented in a north to south direction and rotate east-west along a single axis to maximise solar gain throughout the day and during the year (i.e. they will rotate east to west to track the movement of the sun). The panels will have a maximum tracking angle of 60 degrees and the axis tilt will vary throughout the site depending on the lay of the land. For example when the sun is lower on the horizon (dusk/dawn) the panel position will be nearer vertical, whereas when the sun is high in the sky (midday) the panel position will be near horizontal.

4.18. This type of panel generally attenuates most glint and glare effects by avoiding the angles of incidence with the sun that most likely cause glint and glare; modelling is required to verify this and check there are not exceptions where significant effects occur, but the nature of development (which is single axis tracker panels) is expected to provide embedded mitigation.

4.19. The maximum height of the Solar PV Panels will be 3.5 m. For the majority of the day the height will be lower than this as the panels will track the position of the sun. The panels will be highest in early morning and this will change through the day as the panels slowly rotate into a horizontal position (at approximately 2.3 m), ending the day at up to 3.5m. The panels are returned to the horizontal position overnight.

IDENTIFICATION OF RECEPTORS

Ground Based Receptors

4.20. Glint is most likely to impact upon a ground-based receptor close to dusk and dawn, when the sun is at its lowest in the sky. Therefore, any effect would likely occur early in the day or late in the day, reflected to the west at dawn and east at dusk.

4.21. A 1 km study area from the solar PV panels (as identified in the indicative layout plan for the ES) was deemed appropriate for the assessment of ground-based receptors as this seemed to contain a good spread of residential and road receptors in most directions from the Proposed Development. The further distance a receptor is from a solar farm, the less chance it has of being affected by glint and glare due to scattering of the reflected beam and atmospheric attenuation, in addition to obstructions from ground sources, such as any intervening vegetation or buildings. This is based on best practice and our experience of completing Glint and Glare Assessments across the UK and Ireland.

4.22. An observer height of 2m was utilised for residential receptors, as this is a typical height for a ground-floor window. With regards to road users, a receptor height of 1.5m was employed as this is typical of eye level. Rail driver's eye level was assumed to be 2.75m above the rail for signal signing purposes and therefore this is the height used for assessment purposes. Horse rider eye level has been assumed to be 2.5m above ground level for PRoW receptors as a worst case.

4.23. An assessment was undertaken to determine zones where solar reflections will never be directed near ground level.

4.24. Where there are several residential receptors within close proximity, a representative dwelling or dwellings is/are chosen for full assessment as the impacts will not vary to any significant degree. Where small groups of receptors have been evident, the receptors on either end of the group have been analysed in detail with the worst-case impacts attributed to that receptor.

4.25. For moving ground-based receptors (Road, Rail and PRoW) receptor points are placed every 200m to take into account any potential change of conditions along the route.

Aviation

4.26. Glint is only considered to be an issue with regards to aviation safety when the solar farm lies within close proximity to a runway, particularly when the aircraft is descending to land. This is outlined within the FAA guidance as being the key aviation receptors to assess and is considered best practice in the absence of UK guidance.

4.27. Should a solar farm be proposed within the safeguarded zone of an aerodrome, then a full geometric study may be required which would determine if there is potential for glint and glare at key locations, most likely on the descent to land.

4.28. Buffer zones to identify aviation assets vary depending on the safeguarding criteria of that asset. All aerodromes within 30km will be identified, however, generally the detailed assessments are only required within: 20km for large international aerodromes, 10km for military aerodromes and 5km for small aerodromes.

4.29. In the Scoping Opinion received on 20 October 2022, the Planning Inspectorate agreed that aviation receptors could be scoped out of the assessment. However, for completeness an assessment of aviation receptors has been included within this Glint and Glare Assessment.

MAGNITUDE OF IMPACT

Static Receptors

4.30. Although there is no specific guidance set out to identify the magnitude of impact from solar reflections, the following criteria has been set out for the purposes of this report:

- **High –** Solar reflections impacts of over 30 hours per year or over 30 minutes per day
- **Medium –** Solar reflections impacts between 20 and 30 hours per year or between 20 minutes and 30 minutes per day
- **Low –** Solar reflections impacts up to 20 hours per year or up to 20 minutes per day
- **None –** Effects not geometrically possible or no visibility of reflective surfaces likely due to high levels of intervening screening

4.31. These criteria set out above has been utilised and accepted across many solar developments over the UK and Ireland, including Nationally Significant Infrastructure projects (NSIPs).

Moving Receptors (Road and Rail)

4.32. Again, no specific guidance is available to identify the magnitude of impact from solar reflections on moving receptors except in aviation, however, it is thought that a similar approach should be applied to moving receptors as aviation, based on the ocular impact and the potential for after-image.

4.33. The FAA guidance states that for a solar PV development to obtain FAA approval or to receive no objection, the following criteria must be met:

- No potential for glare (glint) or "*low potential for after-image*" along the final approach path for any existing or future runway landing thresholds (including planned or interim phases), as shown by the approved layout plan (ALP).

4.34. The FAA produced an evaluation of glare as a hazard and concluded in their report[14] that:

> *"The more forward the glare is and the longer the glare duration, the greater the impairment to the pilots' ability to see their instruments and to fly the aircraft. These results taken together suggest that any sources of glare at an airport may be potentially mitigated if the angle of the glare is greater than 25 deg from the direction that the pilot is looking in. We therefore recommend that the design of any solar installation at an airport consider the approach of*

[14] Federal Aviation Authority, Evaluation of Glare as a Hazard for General Aviation Pilots on Final Approach (2015), Available at https://libraryonline.erau.edu/online-full-text/faa-aviation-medicine-reports/AM15-12.pdf

pilots and ensure that any solar installation that is developed is placed such that they will not have to face glare that is straight ahead of them or within 25 deg of straight ahead during final approach."

4.35. It is reasonable to assume that although this report is assessing pilots vision impairment, it can also be applied to drivers of other road and rail vehicles. Therefore, the driver's field of view will also be analysed where required and if the glare is out with 25 degrees either side of their line of sight then any impacts will reduce to **None**.

Moving Receptors (Aviation)

Approach Paths

4.36. Each final approach path which has the potential to receive glint is assessed using the SGHAT model. The model assumes an approach bearing on the runway centreline, a 3-degree glide path with the origin 50ft (15.24m) above the runway threshold.

4.37. The computer model considers the pilots field of view. The azimuthal field of view (AFOV) or horizontal field of view (HFOV) as it is sometimes referred, refers to the extents of the pilot's horizontal field of view measured in degrees left and right from directly in front of the cockpit. The vertical field of view (VFOV) refers to the extents of the pilot's vertical field of view measured in degrees from directly in front of the cockpit. The HFOV is modelled at 50 degrees left and right from the front of the cockpit whilst the VFOV is modelled at 30 degrees.

4.38. The FAA guidance states that there should be no potential for glare or '*low potential for after-image*' at any existing or future planned runway landing thresholds for the Scheme to be acceptable.

Air Traffic Control Tower (ATCT)

4.39. An air traffic controller uses the visual control room to monitor and direct aircraft on the ground, approaching and departing the aerodrome. It is essential that air traffic controllers have a clear unobstructed view of the aviation activity. The key areas on an aerodrome are the views towards the runway thresholds, taxiways and aircraft bays.

4.40. The FAA guidance states that no solar reflection towards the ATCT should be produced by a proposed solar development, however, this should be assessed on a site-by-site case and will depend on the operations at a particular aerodrome.

4.41. In order to determine the impact on the ATCT, the location and height of the tower will need to be fed into the SGHAT model and where there is a potential for 'low potential for After-Image' or more, then mitigation measures will be required.

Assessment Limitations

4.42. Below is a list of assumptions and limitations of the model and methods used within this report:

- The model does not consider obstacles (either man-made or natural) between the observation points and the prescribed solar installation that may obstruct observed glare, such as trees, vegetation, hills, buildings, etc;
- The model does not rigorously represent the detailed geometry of a system; detailed features such as gaps between modules, variable height of the PV array, and support structures may impact actual glare results;
- Due to variations in atmospheric composition, temperature, pressure and conditions, observed values may vary slightly from calculated positions;
- The model does not account for the effects of diffraction; however, buffers are applied as a factor of safety; and
- The model assumes clear skies at all times and does not account for meteorological effects such as cloud cover, fog, or any other weather event which may screen the sun.

4.43. Due to these assumptions and limitations the model overestimates the number of minutes of glint and glare which are possible at each receptor and presents the worst-case scenario. Where glint and glare are predicted a visibility assessment is carried out to determine a more accurate, real-world prediction of the impacts.

5. BASELINE CONDITIONS

GROUND BASED RECEPTORS REFLECTION ZONES

5.1. Based on the relatively flat topography in the area, solar reflections between five degrees below the horizontal plane to five degrees above it are described as near horizontal. Reflections from the Scheme within this arc have the potential to be seen by receptors at or near ground level.

5.2. Further analysis was conducted and it was shown that reflections will only occur between the azimuth of 251.24 degrees and 290.92 degrees in the western direction (late day reflections) and 72.61 degrees and 111.57 degrees in the eastern direction (morning reflections) and therefore any ground-based receptor outside these arcs will not have any impact from solar reflections. I.e., as panels track in an east to west direction there is no potential for glint and glare from panels to be received at receptors located to the north and south of their position.

5.3. **Figure 1, 2, 3 and 4 of Annex A** show the respective study areas whilst also subtracting from this the areas where solar reflections will not impact on ground-based receptors due to the reasons set out in **paragraphs 5.1 to 5.2** above.

Residential Receptors

5.4. Residential receptors located within 1 km of the Solar PV Site have been identified (**Table 5-1**). Glint was assumed to be possible if the receptor is located within the ground-based receptor zones as outlined previously.

5.5. As shown in **Table 5-1** there are 15 residential receptors (Receptors 174 to 188) which are within the no-reflection zones and are clearly identifiable in **Figure 1: Annex A.** The process of how these are calculated is explained in **paragraphs 5.1 to 5.2** of this report.

5.6. As per the methodology section, where there are a number of residential receptors within close proximity, a representative dwelling or dwellings is/are chosen for detailed analysis as the impacts will not vary to any significant degree. Where small groups of receptors are evident, the receptors on either end of the group have been assessed in detail.

Table 5-1: Residential Receptors

Receptor	Easting	Northing	Glint and Glare Possible
1	472446	436471	Yes
2	472445	436412	Yes
3	472465	436402	Yes
4	472460	436359	Yes
5	472531	436336	Yes
6	472593	436285	Yes
7	472598	436271	Yes
8	472688	436216	Yes
9	472719	436190	Yes
10	472745	436199	Yes
11	472785	436180	Yes
12	472904	436137	Yes
13	472881	436096	Yes
14	472714	436681	Yes

Receptor	Easting	Northing	Glint and Glare Possible
15	474078	435457	Yes
16	474147	435480	Yes
17	474380	435204	Yes
18	474543	435075	Yes
19	474442	435081	Yes
20	474439	435060	Yes
21	474459	435058	Yes
22	474194	434856	Yes
23	474415	434825	Yes
24	474428	434796	Yes
25	474798	434459	Yes
26	474820	434424	Yes
27	474589	434224	Yes
28	474567	434135	Yes
29	475129	434235	Yes
30	475122	434185	Yes
31	475177	433890	Yes
32	474026	433303	Yes
33	473987	433289	Yes
34	473856	433191	Yes
35	473828	433138	Yes
36	473526	433878	Yes
37	473507	433940	Yes
38	473312	433868	Yes
39	473237	433815	Yes
40	473315	433812	Yes

Receptor	Easting	Northing	Glint and Glare Possible
41	472122	433685	Yes
42	472047	433685	Yes
43	472322	432712	Yes
44	471546	431909	Yes
45	471496	431915	Yes
46	472448	431335	Yes
47	471613	431164	Yes
48	473074	431409	Yes
49	472472	430993	Yes
50	472500	430822	Yes
51	472442	430851	Yes
52	472462	430817	Yes
53	473662	432184	Yes
54	471874	429771	Yes
55	471949	429764	Yes
56	472013	429714	Yes
57	472055	429752	Yes
58	472047	429621	Yes
59	472008	429675	Yes
60	471903	429707	Yes
61	471773	429720	Yes
62	472111	429682	Yes
63	472123	429653	Yes
64	472032	429495	Yes
65	472112	429432	Yes
66	475208	429784	Yes

Receptor	Easting	Northing	Glint and Glare Possible
67	475156	429809	Yes
68	475240	429861	Yes
69	475220	429899	Yes
70	475225	429919	Yes
71	475238	430166	Yes
72	475257	430273	Yes
73	475192	430319	Yes
74	475202	430406	Yes
75	475233	430440	Yes
76	475193	430540	Yes
77	475194	430564	Yes
78	475036	430862	Yes
79	475084	430816	Yes
80	475183	430859	Yes
81	475228	430886	Yes
82	475279	430932	Yes
83	475583	430919	Yes
84	474695	430866	Yes
85	474666	430858	Yes
86	474649	430971	Yes
87	474585	431015	Yes
88	474843	431149	Yes
89	474721	431183	Yes
90	474394	431015	Yes
91	474309	430952	Yes
92	474255	431019	Yes

Receptor	Easting	Northing	Glint and Glare Possible
93	474240	430969	Yes
94	474170	430968	Yes
95	474064	430857	Yes
96	474046	430836	Yes
97	473933	430722	Yes
98	476858	430619	Yes
99	476984	430646	Yes
100	478152	431767	Yes
101	478223	431789	Yes
102	478282	431854	Yes
103	478299	431874	Yes
104	478453	431988	Yes
105	478480	432109	Yes
106	478545	432593	Yes
107	477004	432480	Yes
108	477010	432498	Yes
109	476622	432503	Yes
110	476484	432461	Yes
111	476323	432409	Yes
112	475852	432109	Yes
113	478314	433284	Yes
114	478268	433292	Yes
115	478269	433335	Yes
116	478262	433348	Yes
117	478194	433400	Yes
118	476472	433645	Yes

Receptor	Easting	Northing	Glint and Glare Possible
119	476412	433619	Yes
120	476374	433667	Yes
121	476306	433614	Yes
122	476303	433645	Yes
123	476227	433616	Yes
124	476225	433581	Yes
125	476180	433572	Yes
126	476137	433613	Yes
127	476159	433565	Yes
128	476106	433559	Yes
129	476038	433568	Yes
130	475989	433544	Yes
131	475945	433539	Yes
132	476045	433592	Yes
133	476010	433605	Yes
134	475940	433620	Yes
135	475896	433664	Yes
136	475843	433666	Yes
137	475882	433690	Yes
138	475754	433613	Yes
139	475919	433455	Yes
140	476006	433455	Yes
141	475911	433414	Yes
142	475941	433378	Yes
143	476010	433382	Yes
144	476106	433285	Yes

Receptor	Easting	Northing	Glint and Glare Possible
145	476117	433266	Yes
146	476140	433301	Yes
147	476888	434284	Yes
148	478609	433901	Yes
149	478677	433997	Yes
150	479160	433672	Yes
151	479188	433748	Yes
152	479159	433884	Yes
153	479107	434221	Yes
154	479129	434512	Yes
155	477985	435946	Yes
156	477983	435972	Yes
157	476140	435599	Yes
158	476117	435590	Yes
159	476060	435565	Yes
160	475978	435553	Yes
161	475929	435501	Yes
162	475916	435489	Yes
163	475900	435475	Yes
164	475842	435423	Yes
165	476288	436673	Yes
166	475542	436152	Yes
167	475512	436161	Yes
168	475476	436176	Yes
169	475526	436293	Yes
170	475511	436277	Yes

Receptor	Easting	Northing	Glint and Glare Possible
171	475481	436281	Yes
172	475542	436765	Yes
173	475529	436744	Yes
174	474218	437032	No
175	474576	437459	No
176	474094	437442	No
177	474012	437447	No
178	474032	437446	No
179	474064	437362	No
180	474048	437394	No
181	473832	437350	No
182	473801	437345	No
183	473669	437279	No
184	473796	437414	No
185	473654	437366	No
186	473759	437417	No
187	472850	429302	No
188	472887	429339	No

Road / Rail Receptors

5.7. There are 14 roads within the 1 km Study Area that require a detailed Glint and Glare Assessment: the A163, B1228, Willitoft Road, Wood Lane, Rowlandhall Lane, Green Lane, A63, Bring Lane, Station Road, Spaldington Lane, A614, Portington Road, Tottering Lane and Bell Lane. There are some minor roads that serve dwellings (e.g., access tracks leading to farms or other dwellings, and/or driveways); however, these have been dismissed as vehicle users of these roads will likely be travelling at low speeds and therefore, there is a negligible risk of safety impacts resulting from glint and glare of the Scheme.

5.8. The ground receptor no-reflection zones are clearly identifiable on **Figure 2: Annex A** and the process of how these are calculated is explained in **paragraphs 5.1 to 5.2** of this report.

5.9. **Table 5-2** shows a list of receptors points within the study area which are located 200m apart along the assessed roads.

Table 5-2: Road Based Receptors

Receptor	Easting	Northing	Glint and Glare Possible
1	473261	436929	Yes
2	473085	436837	Yes
3	472895	436775	Yes
4	472729	436667	Yes
5	472575	436539	Yes
6	472410	436400	Yes
7	472542	436300	Yes
8	472707	436188	Yes
9	472874	436080	Yes
10	473048	435737	Yes
11	473077	435540	Yes
12	473049	435343	Yes
13	473050	435149	Yes
14	473098	434955	Yes
15	473137	434759	Yes
16	473174	434563	Yes
17	473217	434367	Yes
18	473244	434170	Yes
19	473257	433971	Yes
20	473295	433777	Yes
21	473366	433595	Yes
22	473461	433444	Yes
23	473644	433366	Yes
24	473762	433206	Yes

Receptor	Easting	Northing	Glint and Glare Possible
25	473874	433040	Yes
26	473961	432862	Yes
27	474047	432682	Yes
28	474139	432506	Yes
29	474287	432371	Yes
30	474435	432237	Yes
31	474583	432103	Yes
32	474732	431969	Yes
33	474880	431835	Yes
34	475025	431697	Yes
35	475098	431516	Yes
36	475195	431130	Yes
37	475205	430930	Yes
38	475209	430730	Yes
39	475212	430530	Yes
40	475215	430330	Yes
41	475210	430130	Yes
42	475199	429931	Yes
43	475190	429755	Yes
44	473007	435951	Yes
45	473204	435916	Yes
46	473385	435837	Yes
47	473560	435741	Yes
48	473726	435640	Yes
49	473808	435458	Yes
50	473925	435367	Yes

Receptor	Easting	Northing	Glint and Glare Possible
51	474107	435449	Yes
52	474233	435333	Yes
53	474354	435185	Yes
54	474428	435032	Yes
55	474423	434847	Yes
56	474538	434684	Yes
57	474674	434538	Yes
58	474816	434399	Yes
59	474936	434239	Yes
60	475076	434097	Yes
61	475184	433930	Yes
62	475365	433852	Yes
63	475544	433875	Yes
64	475731	433906	Yes
65	475842	433749	Yes
66	475917	433563	Yes
67	476021	433400	Yes
68	476124	433235	Yes
69	476216	433058	Yes
70	476294	432874	Yes
71	476352	432684	Yes
72	476415	432402	Yes
73	474979	434518	Yes
74	475146	434628	Yes
75	475264	434756	Yes
76	475379	434873	Yes

Receptor	Easting	Northing	Glint and Glare Possible
77	475329	435067	Yes
78	475266	435256	Yes
79	475210	435448	Yes
80	475134	435629	Yes
81	475125	435828	Yes
82	475105	436023	Yes
83	475089	436218	Yes
84	475204	436382	Yes
85	475319	436545	Yes
86	475392	436714	Yes
87	475405	436954	Yes
88	471553	431109	Yes
89	471692	431242	Yes
90	471882	431299	Yes
91	472082	431294	Yes
92	472282	431294	Yes
93	472477	431320	Yes
94	472856	431767	Yes
95	472977	431927	Yes
96	473085	432095	Yes
97	473195	432261	Yes
98	473322	432416	Yes
99	473419	432589	Yes
100	473549	432739	Yes
101	473675	432892	Yes
102	473790	433056	Yes

Receptor	Easting	Northing	Glint and Glare Possible
103	473904	433220	Yes
104	474016	433386	Yes
105	474128	433551	Yes
106	474250	433710	Yes
107	474350	433877	Yes
108	474464	434034	Yes
109	474549	434210	Yes
110	474706	434333	Yes
111	471511	431586	Yes
112	471698	431656	Yes
113	471886	431724	Yes
114	472070	431802	Yes
115	472257	431874	Yes
116	472424	431903	Yes
117	472603	431838	Yes
118	472766	431662	Yes
119	472653	431525	Yes
120	472647	431325	Yes
121	472577	431138	Yes
122	472481	430963	Yes
123	472381	430789	Yes
124	472278	430618	Yes
125	472163	430455	Yes
126	472044	430294	Yes
127	471926	430133	Yes
128	471971	429960	Yes

Receptor	Easting	Northing	Glint and Glare Possible
129	471926	429765	Yes
130	475175	431275	Yes
131	475005	431170	Yes
132	474832	431068	Yes
133	474654	431005	Yes
134	474458	431016	Yes
135	474266	430961	Yes
136	474075	430905	Yes
137	473930	430940	Yes
138	473823	431110	Yes
139	473748	431294	Yes
140	473612	431430	Yes
141	473443	431537	Yes
142	473273	431642	Yes
143	473103	431747	Yes
144	471554	429806	Yes
145	471746	429752	Yes
146	471915	429646	Yes
147	472077	429528	Yes
148	472242	429415	Yes
149	476816	430141	Yes
150	476918	430314	Yes
151	477018	430473	Yes
152	477033	430656	Yes
153	477176	430796	Yes
154	477334	430912	Yes

Receptor	Easting	Northing	Glint and Glare Possible
155	477528	430938	Yes
156	477695	431043	Yes
157	477815	431202	Yes
158	477918	431373	Yes
159	478039	431532	Yes
160	478165	431688	Yes
161	478290	431844	Yes
162	478415	432000	Yes
163	478540	432156	Yes
164	478656	432318	Yes
165	478056	431278	Yes
166	478256	431281	Yes
167	478452	431265	Yes
168	478498	431085	Yes
169	478558	431016	Yes
170	475209	431798	Yes
171	475373	431914	Yes
172	475542	432018	Yes
173	475726	432096	Yes
174	475911	432174	Yes
175	476095	432252	Yes
176	476279	432330	Yes
177	476647	432487	Yes
178	476835	432554	Yes
179	477024	432621	Yes
180	477217	432669	Yes

Receptor	Easting	Northing	Glint and Glare Possible
181	477414	432702	Yes
182	477611	432735	Yes
183	477808	432770	Yes
184	478003	432812	Yes
185	478198	432857	Yes
186	472414	429315	No
187	472589	429218	No
188	472719	429078	No
189	472825	428916	No
190	473019	428885	No
191	474482	437477	No
192	474287	437436	No
193	474088	437413	No
194	473890	437386	No
195	473700	437336	No
196	473547	437209	No
197	473404	437069	No

5.10. There is one railway line, the Hull to Selby line, that dissects the Scheme (forming the boundary between Solar PV Areas 3b and 3c) which will require assessment.

5.11. **Table 5-3** shows a list of rail receptor points within the study area which are located 200m apart on the assessed railway line.

Table 5-3: Rail Based Receptors

Receptor	Easting	Northing	Glint and Glare Possible
1	471566	431151	Yes
2	471762	431111	Yes

Receptor	Easting	Northing	Glint and Glare Possible
3	471958	431072	Yes
4	472154	431032	Yes
5	472350	430993	Yes
6	472546	430954	Yes
7	472742	430914	Yes
8	472938	430875	Yes
9	473134	430835	Yes
10	473330	430796	Yes
11	473526	430756	Yes
12	473722	430717	Yes
13	473919	430678	Yes
14	474115	430638	Yes
15	474311	430599	Yes
16	474507	430559	Yes
17	474703	430520	Yes
18	474899	430481	Yes
19	475095	430441	Yes
20	475291	430402	Yes
21	475487	430362	Yes
22	475683	430323	Yes
23	475879	430283	Yes
24	476075	430244	Yes

Receptor	Easting	Northing	Glint and Glare Possible
25	476271	430205	Yes
26	476468	430165	Yes
27	476664	430126	Yes

PROW and Permissive Path Receptors

5.12. All PRoWs and Permissive Paths within 1 km of the Solar PV Site have been considered. As explained previously this includes bridleways and the assessment therefore considers both pedestrians and horse riders.

5.13. The ground receptor no-reflection zones are clearly identifiable on **Figure 2: Annex A** and the process of how these are calculated is explained in **paragraphs 5.1 to 5.2** of this report.

5.14. **Table 5-4** shows a list of receptors points within the study area which are located 200m apart along each of the assessed PRoWs and Permissive Paths.

Table 5-4: PRoW and Permissive Paths Receptors

Receptor	Easting	Northing	Glint and Glare Possible
1	472337	436089	Yes
2	472526	436154	Yes
3	472702	436239	Yes
4	472889	436310	Yes
5	473076	436382	Yes
6	473263	436453	Yes
7	473449	436524	Yes
8	473636	436596	Yes
9	473823	436667	Yes
10	474322	436436	Yes
11	474303	436237	Yes
12	474284	436038	Yes

Receptor	Easting	Northing	Glint and Glare Possible
13	474355	435911	Yes
14	474538	435841	Yes
15	474732	435881	Yes
16	474850	435767	Yes
17	474917	435578	Yes
18	474979	435388	Yes
19	475054	435238	Yes
20	475268	435236	Yes
21	475414	436685	Yes
22	475574	436570	Yes
23	475728	436457	Yes
24	475879	436342	Yes
25	475969	436254	Yes
26	476013	436862	Yes
27	476055	436672	Yes
28	476020	436479	Yes
29	475973	436094	Yes
30	475980	435900	Yes
31	475980	435722	Yes
32	476033	435606	Yes
33	476239	436563	Yes
34	476367	436610	Yes
35	476137	435634	Yes
36	476042	435811	Yes
37	475859	435453	Yes
38	475946	435288	Yes

Receptor	Easting	Northing	Glint and Glare Possible
39	476017	435113	Yes
40	476022	434913	Yes
41	476057	434718	Yes
42	476116	434527	Yes
43	476175	434336	Yes
44	476235	434145	Yes
45	476267	433963	Yes
46	476347	433780	Yes
47	476405	433646	Yes
48	473951	435364	Yes
49	474352	435187	Yes
50	474141	435084	Yes
51	474247	434919	Yes
52	474151	434795	Yes
53	474160	434638	Yes
54	474246	434457	Yes
55	474331	434276	Yes
56	474433	434105	Yes
57	475423	434707	Yes
58	475462	434511	Yes
59	475497	434314	Yes
60	475564	434126	Yes
61	475638	433947	Yes
62	476001	433954	Yes
63	475924	434138	Yes
64	475862	434328	Yes

Receptor	Easting	Northing	Glint and Glare Possible
65	475827	434518	Yes
66	474336	432922	Yes
67	474502	433033	Yes
68	474668	433145	Yes
69	474853	433214	Yes
70	475037	433162	Yes
71	475205	433243	Yes
72	475373	433352	Yes
73	475541	433461	Yes
74	475709	433569	Yes
75	476558	433467	Yes
76	476660	433294	Yes
77	476811	433313	Yes
78	476869	433122	Yes
79	476990	432991	Yes
80	477187	433012	Yes
81	477348	433089	Yes
82	477545	433125	Yes
83	477736	433179	Yes
84	477919	433259	Yes
85	478103	433339	Yes
86	476312	432868	Yes
87	476508	432911	Yes
88	476703	432955	Yes
89	477594	434538	Yes
90	477689	434362	Yes

Receptor	Easting	Northing	Glint and Glare Possible
91	477772	434180	Yes
92	477844	433994	Yes
93	477877	433843	Yes
94	477252	434061	Yes
95	477370	433899	Yes
96	477540	433891	Yes
97	477587	433822	Yes
98	478302	433031	Yes
99	478242	433221	Yes
100	478163	433405	Yes
101	478081	433587	Yes
102	477941	433629	Yes
103	477777	433729	Yes
104	477778	433833	Yes
105	477976	433830	Yes
106	478174	433801	Yes
107	478373	433817	Yes
108	478572	433837	Yes
109	478766	433879	Yes
110	478961	433920	Yes
111	478603	433207	Yes
112	478478	433363	Yes
113	478284	433410	Yes
114	478390	433576	Yes
115	478438	433768	Yes
116	477369	432706	Yes

Receptor	Easting	Northing	Glint and Glare Possible
117	477313	432898	Yes
118	476163	432277	Yes
119	476239	432092	Yes
120	476314	431907	Yes
121	476390	431722	Yes
122	477715	432751	Yes
123	477791	432566	Yes
124	477867	432381	Yes
125	477943	432196	Yes
126	475399	431310	Yes
127	475591	431366	Yes
128	475787	431404	Yes
129	475982	431448	Yes
130	476173	431506	Yes
131	476362	431573	Yes
132	476550	431639	Yes
133	476739	431706	Yes
134	476928	431772	Yes
135	477116	431838	Yes
136	477306	431901	Yes
137	477497	431962	Yes
138	477687	432024	Yes
139	477857	432120	Yes
140	478049	432160	Yes
141	478245	432197	Yes
142	478417	432285	Yes

Receptor	Easting	Northing	Glint and Glare Possible
143	478605	432284	Yes
144	478627	432281	Yes
145	475544	430446	Yes
146	475740	430474	Yes
147	475940	430466	Yes
148	476135	430430	Yes
149	476327	430372	Yes
150	476518	430315	Yes
151	476710	430257	Yes
152	476941	430338	Yes
153	472476	430950	Yes
154	472672	430910	Yes
155	472868	430871	Yes
156	473064	430832	Yes
157	473261	430793	Yes
158	473457	430754	Yes
159	473653	430715	Yes
160	473849	430675	Yes
161	473952	430523	Yes
162	473965	430325	Yes
163	473958	430125	Yes
164	473947	429925	Yes
165	473987	429733	Yes
166	474110	429576	Yes
167	474237	429421	Yes
168	473653	429205	Yes

Receptor	Easting	Northing	Glint and Glare Possible
169	473716	429395	Yes
170	473778	429585	Yes
171	473775	430014	Yes
172	473604	429916	Yes
173	473506	429742	Yes
174	473432	429756	Yes
175	473329	429895	Yes
176	473270	430085	Yes
177	473237	430282	Yes
178	473223	430481	Yes
179	473384	430458	Yes
180	473571	430509	Yes
181	473755	430586	Yes
182	473130	429837	Yes
183	472992	429920	Yes
184	472880	430085	Yes
185	472883	430226	Yes
186	473036	430355	Yes
187	472719	429967	Yes
188	472553	429856	Yes
189	472417	429720	Yes
190	472223	429693	Yes
191	471921	429628	Yes
192	471950	429466	Yes
193	472015	429314	Yes
194	471889	429285	Yes

Receptor	Easting	Northing	Glint and Glare Possible
195	471636	433268	Yes
196	471819	433188	Yes
197	472003	433109	Yes
198	472015	433012	Yes
199	472143	432879	Yes
200	472277	432731	Yes
201	472160	432610	Yes
202	471985	432512	Yes
203	471807	432423	Yes
204	471678	432276	Yes
205	471563	432114	Yes
206	472350	433756	Yes
207	472184	433645	Yes
208	471996	433599	Yes
209	471813	433638	Yes
210	471720	433461	Yes
211	471547	433487	Yes
212	473175	433497	Yes
213	472980	433532	Yes
214	472816	433645	Yes
215	472649	433756	Yes
216	472457	433810	Yes
217	472261	433849	Yes
218	472062	433866	Yes
219	471862	433876	Yes
220	471669	433831	Yes

Receptor	Easting	Northing	Glint and Glare Possible
221	471472	433827	Yes
222	474010	436738	No
223	474197	436810	No
224	474384	436881	No
225	474570	436952	No
226	474757	437024	No
227	474944	437095	No
228	475071	437144	No
229	474241	437422	No
230	474271	437224	No
231	474301	437026	No
232	474342	436635	No

5.15. PRoW receptors 222 – 229 are receptors along Permissive Paths within The Scheme.

Aviation Receptors

5.16. Aerodromes within 30km of the Solar PV Site can be found in **Table 5-5.**

Table 5-5: Airfields within close proximity

Airfield	Distance	Use
Breighton Airfield	0.9km	Licensed Aerodrome
Burn Gliding Club	12.6km	Small Unlicensed Aerodrome
Elvington Airfield	14.4km	Small Unlicensed Aerodrome
Mount Airy Airfield	15.9km	Small Unlicensed Aerodrome
Full Sutton Airfield	18.1km	Small Unlicensed Aerodrome
Leeds East Airport	19.5km	Licensed Aerodrome
Sherburn-in-Elmet Airfield	20.6km	Licensed Aerodrome
Askern Airfield	22.5km	Small Unlicensed Aerodrome

Airfield	Distance	Use
Rufforth Airfield	24.9km	Small Unlicensed Aerodrome
Finningley Village Airfield	26.9km	Small Unlicensed Aerodrome
North Moor Airfield	28.1km	Small Unlicensed Aerodrome
Walton Wood Airfield	28.1km	Small Unlicensed Aerodrome
Haxley Airfield	29.5km	Small Unlicensed Aerodrome
Garforth Airfield	29.5km	Small Unlicensed Aerodrome

5.17. As shown in **Table 5-5**, there are 14 aerodromes within 30km of the Solar PV Site. However, only Breighton Airfield and Leeds East Airport will require a detailed assessment as the Solar PV Site is located within their safeguarding buffer zone, outlined in paragraph 4.26 to 4.28.

5.18. The other 12 aerodromes do not require detailed assessments due to their location in relation to the Solar PV Site falling outside of the buffer zones outlined in paragraph 4.26 to 4.28.

Breighton Airfield

5.19. Breighton Airfield is designated as an unlicensed aerodrome. It is located approximately 0.4 nautical miles (NM) or 0.8 km northeast of the village of Breighton.

5.20. The elevation of the aerodrome at the Aerodrome Reference Point (ARP) is 23ft (7m). It has one grass runway, details of which are given in **Table 5-6**.

Table 5-6: Runways at Breighton Airfield

Runway Designation	True Bearing (°)	Length (m)	Width (m)
Runway 10	100.00	850	50
Runway 28	280.00	850	50

5.21. The threshold locations and heights of the runways at Breighton Airfield are given in **Table 5-7**.

Table 5-7: Breighton Airfield Runway Threshold Locations and Heights

Runway Designation	Threshold Latitude	Threshold Longitude	Height AOD (m)
10	53° 48′ 08″ N	000° 54′ 42″ W	7.73
28	53° 48′ 12″ N	000° 55′ 19″ W	6.75

5.22. No Air Traffic Control Tower (ATCT) is present at Breighton Airfield.

Leeds East Airport

5.23. Leeds East Airport is designated as a licensed aerodrome. It is located approximately 4 NM or 7.4 km southwest of the City of York.

5.24. The elevation of the aerodrome at the Aerodrome Reference Point (ARP) is 29 ft (8.8 m). It has one asphalt runway with two approach paths known as Runway 06 and Runway 24 details of which are given in **Table 5-8**.

Table 5-8: Runways at Leeds East Airport

Runway Designation	True Bearing (°)	Length (m)	Width (m)
Runway 06	054.67	1827	46
Runway 24	234.68	1827	46

5.25. The threshold locations and heights of the runways at Leeds East Airport are given in **Table 5-9**.

Table 5-9: Leeds East Airport Runway Threshold Locations and Heights

Runway Designation	Threshold Latitude	Threshold Longitude	Height AOD (m)
06	53° 49′ 49″ N	001° 12′ 18″ W	8.65
24	53° 50′ 21″ N	001° 11′ 02″ W	8.35

5.26. There is one ATCT resent at Leeds East Airport, see **Table 5-10** for details.

Table 5-10: ATCT at Leeds East Airport

	Latitude	Longitude	Height AOD (m)	ATCT Height (m)
ATCT	53° 50′ 07″ N	001° 11′ 57″ W	8.85	5

6. IMPACT ASSESSMENT

6.1. Following the methodology outlined earlier in this report, geometrical analysis comparing the azimuth and horizontal angle of the receptors from the Scheme and the solar reflection was

conducted. Although this model did not take into account obstructions such as vegetation and buildings, discussion on the potentially impacted receptors is provided where necessary. Such obstructions will be taken into account during the visibility assessment and will be discussed for each relevant receptor.

GROUND BASED RECEPTORS

Residential Receptors

6.2. **Table 6-1** identifies the residential receptors that will experience solar reflections based on solar reflection modelling and whether the reflections will be experienced in the morning (AM), evening (PM), or both.

6.3. The 15 receptors which were within the no-reflection zones outlined previously have been excluded from the detailed modelling as they will never receive glint and glare impacts from the Scheme.

6.4. **Annex B, C and D** show the analysis with the solar panels modelled as single-axis trackers. **Annex B** shows the analysis for Receptors 1 to 60, **Annex C** shows the analysis for Receptors 61 to 121 and **Annex D** shows the analysis for Receptors 121 to 173.

6.5. **Table 6-1** shows the worst-case impact at each receptor, based on a theoretical modelled impact without consideration of local vegetation or other obstacles and assuming no cloud at any point in the year.

Table 6-1: Potential for Glint and Glare impact on Residential Receptors

Receptor	Glint Possible from Site		Potential Glare Impact (per year)		Magnitude of Impact
	AM	PM	Minutes	Hours	
1	No	No	0	0	None
2	No	No	0	0	None
3	No	No	0	0	None
4	No	No	0	0	None
5	No	No	0	0	None
6	No	No	0	0	None
7	No	No	0	0	None
8	No	No	0	0	None

Receptor	Glint Possible from Site		Potential Glare Impact (per year)		Magnitude of Impact
	AM	PM	Minutes	Hours	
9	No	No	0	0	None
10	No	No	0	0	None
11	No	No	0	0	None
12	No	No	0	0	None
13	No	No	0	0	None
14	No	No	0	0	None
15	No	No	0	0	None
16	No	No	0	0	None
17	No	No	0	0	None
18	No	No	0	0	None
19	No	No	0	0	None
20	No	No	0	0	None
21	No	No	0	0	None
22	No	No	0	0	None
23	No	No	0	0	None
24	No	No	0	0	None
25	No	No	0	0	None
26	No	No	0	0	None
27	No	No	0	0	None
28	No	No	0	0	None
29	No	No	0	0	None
30	No	No	0	0	None
31	No	No	0	0	None
32	No	No	0	0	None
33	No	No	0	0	None

Receptor	Glint Possible from Site		Potential Glare Impact (per year)		Magnitude of Impact
	AM	PM	Minutes	Hours	
34	No	No	0	0	None
35	No	No	0	0	None
36	No	No	0	0	None
37	No	No	0	0	None
38	No	No	0	0	None
39	No	No	0	0	None
40	No	No	0	0	None
41	No	No	0	0	None
42	No	No	0	0	None
43	No	No	0	0	None
44	No	No	0	0	None
45	No	No	0	0	None
46	No	No	0	0	None
47	No	No	0	0	None
48	No	No	0	0	None
49	No	No	0	0	None
50	No	No	0	0	None
51	No	No	0	0	None
52	No	No	0	0	None
53	No	No	0	0	None
54	No	No	0	0	None
55	No	No	0	0	None
56	No	No	0	0	None
57	No	No	0	0	None
58	No	No	0	0	None

Receptor	Glint Possible from Site		Potential Glare Impact (per year)		Magnitude of Impact
	AM	PM	Minutes	Hours	
59	No	No	0	0	None
60	No	No	0	0	None
61	No	No	0	0	None
62	No	No	0	0	None
63	No	No	0	0	None
64	No	No	0	0	None
65	No	No	0	0	None
66	No	No	0	0	None
67	No	No	0	0	None
68	No	No	0	0	None
69	No	No	0	0	None
70	No	No	0	0	None
71	No	No	0	0	None
72	No	No	0	0	None
73	No	No	0	0	None
74	No	No	0	0	None
75	No	No	0	0	None
76	No	No	0	0	None
77	No	No	0	0	None
78	No	No	0	0	None
79	No	No	0	0	None
80	No	No	0	0	None
81	No	No	0	0	None
82	No	No	0	0	None
83	No	No	0	0	None

Receptor	Glint Possible from Site		Potential Glare Impact (per year)		Magnitude of Impact
	AM	PM	Minutes	Hours	
84	No	No	0	0	None
85	No	No	0	0	None
86	No	No	0	0	None
87	No	No	0	0	None
88	No	No	0	0	None
89	No	No	0	0	None
90	No	No	0	0	None
91	No	No	0	0	None
92	No	No	0	0	None
93	No	No	0	0	None
94	No	No	0	0	None
95	No	No	0	0	None
96	No	No	0	0	None
97	No	No	0	0	None
98	No	No	0	0	None
99	No	No	0	0	None
100	No	No	0	0	None
101	No	No	0	0	None
102	No	No	0	0	None
103	No	No	0	0	None
104	No	No	0	0	None
105	No	No	0	0	None
106	No	No	0	0	None
107	No	No	0	0	None
108	No	No	0	0	None

Receptor	Glint Possible from Site		Potential Glare Impact (per year)		Magnitude of Impact
	AM	PM	Minutes	Hours	
109	No	No	0	0	None
110	No	No	0	0	None
111	No	No	0	0	None
112	No	No	0	0	None
113	No	No	0	0	None
114	No	No	0	0	None
115	No	No	0	0	None
116	No	No	0	0	None
117	No	No	0	0	None
118	No	No	0	0	None
119	No	No	0	0	None
120	No	No	0	0	None
121	No	No	0	0	None
122	No	No	0	0	None
123	No	No	0	0	None
124	No	No	0	0	None
125	No	No	0	0	None
126	No	No	0	0	None
127	No	No	0	0	None
128	No	No	0	0	None
129	No	No	0	0	None
130	No	No	0	0	None
131	No	No	0	0	None
132	No	No	0	0	None
133	No	No	0	0	None

Receptor	Glint Possible from Site		Potential Glare Impact (per year)		Magnitude of Impact
	AM	PM	Minutes	Hours	
134	No	No	0	0	None
135	No	No	0	0	None
136	No	No	0	0	None
137	No	No	0	0	None
138	No	No	0	0	None
139	No	No	0	0	None
140	No	No	0	0	None
141	No	No	0	0	None
142	No	No	0	0	None
143	No	No	0	0	None
144	No	No	0	0	None
145	No	No	0	0	None
146	No	No	0	0	None
147	No	No	0	0	None
148	No	No	0	0	None
149	No	No	0	0	None
150	No	No	0	0	None
151	No	No	0	0	None
152	No	No	0	0	None
153	No	No	0	0	None
154	No	No	0	0	None
155	No	No	0	0	None
156	No	No	0	0	None
157	No	No	0	0	None
158	No	No	0	0	None

Receptor	Glint Possible from Site		Potential Glare Impact (per year)		Magnitude of Impact
	AM	PM	Minutes	Hours	
159	No	No	0	0	None
160	No	No	0	0	None
161	No	No	0	0	None
162	No	No	0	0	None
163	No	No	0	0	None
164	No	No	0	0	None
165	No	No	0	0	None
166	No	No	0	0	None
167	No	No	0	0	None
168	No	No	0	0	None
169	No	No	0	0	None
170	No	No	0	0	None
171	No	No	0	0	None
172	No	No	0	0	None
173	No	No	0	0	None

6.6. As can be seen in **Table 6-1,** there is **No impact** at any of the 173 receptors. Therefore, there are **no glare impacts** at the residential receptors.

Road Receptors

6.7. **Table 6-2** shows a summary of the modelling results for each of the Road Receptor Points whilst the detailed results and ocular impact charts can be viewed in **Annex E, F and G**.

6.8. **Annex E** shows the analysis for Receptors 1 to 60, **Annex F** shows the analysis for Receptors 61 to 120 and **Annex G** shows the analysis for Receptors 121 to 185.

6.9. The 12 receptors (186 to 197) within the no-reflection zones outlined previously have been excluded from the detailed modelling as they will never receive glint and glare impacts from the Scheme.

Table 6-2: Potential for Glint and Glare impact on Road Based Receptors

Receptor	Green Glare (mins)	Yellow Glare (mins)	Red Glare (mins)	Magnitude of Impact
1	0	0	0	None
2	0	0	0	None
3	0	0	0	None
4	0	0	0	None
5	0	0	0	None
6	0	0	0	None
7	0	0	0	None
8	0	0	0	None
9	0	0	0	None
10	0	0	0	None
11	0	0	0	None
12	0	0	0	None
13	0	0	0	None
14	0	0	0	None
15	0	0	0	None
16	0	0	0	None
17	0	0	0	None
18	0	0	0	None
19	0	0	0	None
20	0	0	0	None
21	0	0	0	None
22	0	0	0	None
23	0	0	0	None
24	0	0	0	None

Receptor	Green Glare (mins)	Yellow Glare (mins)	Red Glare (mins)	Magnitude of Impact
25	0	0	0	None
26	0	0	0	None
27	0	0	0	None
28	0	0	0	None
29	0	0	0	None
30	0	0	0	None
31	0	0	0	None
32	0	0	0	None
33	0	0	0	None
34	0	0	0	None
35	0	0	0	None
36	0	0	0	None
37	0	0	0	None
38	0	0	0	None
39	0	0	0	None
40	0	0	0	None
41	0	0	0	None
42	0	0	0	None
43	0	0	0	None
44	0	0	0	None
45	0	0	0	None
46	0	0	0	None
47	0	0	0	None
48	0	0	0	None
49	0	0	0	None

Receptor	Green Glare (mins)	Yellow Glare (mins)	Red Glare (mins)	Magnitude of Impact
50	0	0	0	None
51	0	0	0	None
52	0	0	0	None
53	0	0	0	None
54	0	0	0	None
55	0	0	0	None
56	0	0	0	None
57	0	0	0	None
58	0	0	0	None
59	0	0	0	None
60	0	0	0	None
61	0	0	0	None
62	0	0	0	None
63	0	0	0	None
64	0	0	0	None
65	0	0	0	None
66	0	0	0	None
67	0	0	0	None
68	0	0	0	None
69	0	0	0	None
70	0	0	0	None
71	0	0	0	None
72	0	0	0	None
73	0	0	0	None
74	0	0	0	None

Receptor	Green Glare (mins)	Yellow Glare (mins)	Red Glare (mins)	Magnitude of Impact
75	0	0	0	None
76	0	0	0	None
77	0	0	0	None
78	0	0	0	None
79	0	0	0	None
80	0	0	0	None
81	0	0	0	None
82	0	0	0	None
83	0	0	0	None
84	0	0	0	None
85	0	0	0	None
86	0	0	0	None
87	0	0	0	None
88	0	0	0	None
89	0	0	0	None
90	0	0	0	None
91	0	0	0	None
92	0	0	0	None
93	0	0	0	None
94	0	0	0	None
95	0	0	0	None
96	0	0	0	None
97	0	0	0	None
98	0	0	0	None
99	0	0	0	None

Receptor	Green Glare (mins)	Yellow Glare (mins)	Red Glare (mins)	Magnitude of Impact
100	0	0	0	None
101	0	0	0	None
102	0	0	0	None
103	0	0	0	None
104	0	0	0	None
105	0	0	0	None
106	0	0	0	None
107	0	0	0	None
108	0	0	0	None
109	0	0	0	None
110	0	0	0	None
111	0	0	0	None
112	0	0	0	None
113	0	0	0	None
114	0	0	0	None
115	0	0	0	None
116	0	0	0	None
117	0	0	0	None
118	0	0	0	None
119	0	0	0	None
120	0	0	0	None
121	0	0	0	None
122	0	0	0	None
123	0	0	0	None
124	0	0	0	None

Receptor	Green Glare (mins)	Yellow Glare (mins)	Red Glare (mins)	Magnitude of Impact
125	0	0	0	None
126	0	0	0	None
127	0	0	0	None
128	0	0	0	None
129	0	0	0	None
130	0	0	0	None
131	0	0	0	None
132	0	0	0	None
133	0	0	0	None
134	0	0	0	None
135	0	0	0	None
136	0	0	0	None
137	0	0	0	None
138	0	0	0	None
139	0	0	0	None
140	0	0	0	None
141	0	0	0	None
142	0	0	0	None
143	0	0	0	None
144	0	0	0	None
145	0	0	0	None
146	0	0	0	None
147	0	0	0	None
148	0	0	0	None
149	0	0	0	None

Receptor	Green Glare (mins)	Yellow Glare (mins)	Red Glare (mins)	Magnitude of Impact
150	0	0	0	None
151	0	0	0	None
152	0	0	0	None
153	0	0	0	None
154	0	0	0	None
155	0	0	0	None
156	0	0	0	None
157	0	0	0	None
158	0	0	0	None
159	0	0	0	None
160	0	0	0	None
161	0	0	0	None
162	0	0	0	None
163	0	0	0	None
164	0	0	0	None
165	0	0	0	None
166	0	0	0	None
167	0	0	0	None
168	0	0	0	None
169	0	0	0	None
170	0	0	0	None
171	0	0	0	None
172	0	0	0	None
173	0	0	0	None
174	0	0	0	None

Receptor	Green Glare (mins)	Yellow Glare (mins)	Red Glare (mins)	Magnitude of Impact
175	0	0	0	None
176	0	0	0	None
177	0	0	0	None
178	0	0	0	None
179	0	0	0	None
180	0	0	0	None
181	0	0	0	None
182	0	0	0	None
183	0	0	0	None
184	0	0	0	None
185	0	0	0	None

6.10. As can be seen in **Table 6-2**, there is **No impact** at any of the 185 receptors. Therefore, there are **no glare impacts** at the road receptors.

Rail Receptors

6.11. **Table 6-3** shows a summary of the modelling results for each of the Rail Receptor Points whilst the detailed results and ocular impact charts can be viewed in **Annex H**.

Table 6-3: Potential for Glint and Glare impact on Rail Based Receptors

Receptor	Green Glare (mins)	Yellow Glare (mins)	Red Glare (mins)	Magnitude of Impact
1	0	0	0	None
2	0	0	0	None
3	0	0	0	None
4	0	0	0	None
5	0	0	0	None
6	0	0	0	None

Receptor	Green Glare (mins)	Yellow Glare (mins)	Red Glare (mins)	Magnitude of Impact
7	0	0	0	None
8	0	0	0	None
9	0	0	0	None
10	0	0	0	None
11	0	0	0	None
12	0	0	0	None
13	0	0	0	None
14	0	0	0	None
15	0	0	0	None
16	0	0	0	None
17	0	0	0	None
18	0	0	0	None
19	0	0	0	None
20	0	0	0	None
21	0	0	0	None
22	0	0	0	None
23	0	0	0	None
24	0	0	0	None
25	0	0	0	None
26	0	0	0	None
27	0	0	0	None

6.12. As can be seen in **Table 6-3,** there is **No impact** at any of the 27 Rail Receptor Points. Therefore, there are **no glare impacts** at the rail receptors.

PRoW and Permissive Path Receptors

6.13. **Table 6-4** shows a summary of the modelling results for each of the PRoW Receptor Points whilst the detailed results and ocular impact charts can be viewed in **Annex I, J and K**.

6.14. The 11 receptors (230 – 240) within the no-reflection zones outlined previously have been excluded from the detailed modelling as they will never receive glint and glare impacts from the Scheme.

6.15. **Annex I** shows the analysis for Receptors 1 to 80, **Annex J** shows the analysis for Receptors 81 to 160 and **Annex K** shows the analysis for Receptors 161 to 229.

Table 6-4: Summary of PRoW and Permissive Paths Glare Results

Receptor	Green Glare (mins)	Yellow Glare (mins)	Red Glare (mins)	Magnitude of Impact
1	0	0	0	None
2	0	0	0	None
3	0	0	0	None
4	0	0	0	None
5	0	0	0	None
6	0	0	0	None
7	0	0	0	None
8	0	0	0	None
9	0	0	0	None
10	0	0	0	None
11	0	0	0	None
12	0	0	0	None
13	0	0	0	None
14	0	0	0	None
15	0	0	0	None
16	0	0	0	None
17	0	0	0	None
18	0	0	0	None
19	0	0	0	None
20	0	0	0	None

Receptor	Green Glare (mins)	Yellow Glare (mins)	Red Glare (mins)	Magnitude of Impact
21	0	0	0	None
22	0	0	0	None
23	0	0	0	None
24	0	0	0	None
25	0	0	0	None
26	0	0	0	None
27	0	0	0	None
28	0	0	0	None
29	0	0	0	None
30	0	0	0	None
31	0	0	0	None
32	0	0	0	None
33	0	0	0	None
34	0	0	0	None
35	0	0	0	None
36	0	0	0	None
37	0	0	0	None
38	0	0	0	None
39	0	0	0	None
40	0	0	0	None
41	0	0	0	None
42	0	0	0	None
43	0	0	0	None
44	0	0	0	None
45	0	0	0	None

Receptor	Green Glare (mins)	Yellow Glare (mins)	Red Glare (mins)	Magnitude of Impact
46	0	0	0	None
47	0	0	0	None
48	0	0	0	None
49	0	0	0	None
50	0	0	0	None
51	0	0	0	None
52	0	0	0	None
53	0	0	0	None
54	0	0	0	None
55	0	0	0	None
56	0	0	0	None
57	0	0	0	None
58	0	0	0	None
59	0	0	0	None
60	0	0	0	None
61	0	0	0	None
62	0	0	0	None
63	0	0	0	None
64	0	0	0	None
65	0	0	0	None
66	0	0	0	None
67	0	0	0	None
68	0	0	0	None
69	0	0	0	None
70	0	0	0	None

Receptor	Green Glare (mins)	Yellow Glare (mins)	Red Glare (mins)	Magnitude of Impact
71	0	0	0	None
72	0	0	0	None
73	0	0	0	None
74	0	0	0	None
75	0	0	0	None
76	0	0	0	None
77	0	0	0	None
78	0	0	0	None
79	0	0	0	None
80	0	0	0	None
81	0	0	0	None
82	0	0	0	None
83	0	0	0	None
84	0	0	0	None
85	0	0	0	None
86	0	0	0	None
87	0	0	0	None
88	0	0	0	None
89	0	0	0	None
90	0	0	0	None
91	0	0	0	None
92	0	0	0	None
93	0	0	0	None
94	0	0	0	None
95	0	0	0	None

Receptor	Green Glare (mins)	Yellow Glare (mins)	Red Glare (mins)	Magnitude of Impact
96	0	0	0	None
97	0	0	0	None
98	0	0	0	None
99	0	0	0	None
100	0	0	0	None
101	0	0	0	None
102	0	0	0	None
103	0	0	0	None
104	0	0	0	None
105	0	0	0	None
106	0	0	0	None
107	0	0	0	None
108	0	0	0	None
109	0	0	0	None
110	0	0	0	None
111	0	0	0	None
112	0	0	0	None
113	0	0	0	None
114	0	0	0	None
115	0	0	0	None
116	0	0	0	None
117	0	0	0	None
118	0	0	0	None
119	0	0	0	None
120	0	0	0	None

Receptor	Green Glare (mins)	Yellow Glare (mins)	Red Glare (mins)	Magnitude of Impact
121	0	0	0	None
122	0	0	0	None
123	0	0	0	None
124	0	0	0	None
125	0	0	0	None
126	0	0	0	None
127	0	0	0	None
128	0	0	0	None
129	0	0	0	None
130	0	0	0	None
131	0	0	0	None
132	0	0	0	None
133	0	0	0	None
134	0	0	0	None
135	0	0	0	None
136	0	0	0	None
137	0	0	0	None
138	0	0	0	None
139	0	0	0	None
140	0	0	0	None
141	0	0	0	None
142	0	0	0	None
143	0	0	0	None
144	0	0	0	None
145	0	0	0	None

Receptor	Green Glare (mins)	Yellow Glare (mins)	Red Glare (mins)	Magnitude of Impact
146	0	0	0	None
147	0	0	0	None
148	0	0	0	None
149	0	0	0	None
150	0	0	0	None
151	0	0	0	None
152	0	0	0	None
153	0	0	0	None
154	0	0	0	None
155	0	0	0	None
156	0	0	0	None
157	0	0	0	None
158	0	0	0	None
159	0	0	0	None
160	0	0	0	None
161	0	0	0	None
162	0	0	0	None
163	0	0	0	None
164	0	0	0	None
165	0	0	0	None
166	0	0	0	None
167	0	0	0	None
168	0	0	0	None
169	0	0	0	None
170	0	0	0	None

Receptor	Green Glare (mins)	Yellow Glare (mins)	Red Glare (mins)	Magnitude of Impact
171	0	0	0	None
172	0	0	0	None
173	0	0	0	None
174	0	0	0	None
175	0	0	0	None
176	0	0	0	None
177	0	0	0	None
178	0	0	0	None
179	0	0	0	None
180	0	0	0	None
181	0	0	0	None
182	0	0	0	None
183	0	0	0	None
184	0	0	0	None
185	0	0	0	None
186	0	0	0	None
187	0	0	0	None
188	0	0	0	None
189	0	0	0	None
190	0	0	0	None
191	0	0	0	None
192	0	0	0	None
193	0	0	0	None
194	0	0	0	None
195	0	0	0	None

Receptor	Green Glare (mins)	Yellow Glare (mins)	Red Glare (mins)	Magnitude of Impact
196	0	0	0	None
197	0	0	0	None
198	0	0	0	None
199	0	0	0	None
200	0	0	0	None
201	0	0	0	None
202	0	0	0	None
203	0	0	0	None
204	0	0	0	None
205	0	0	0	None
206	0	0	0	None
207	0	0	0	None
208	0	0	0	None
209	0	0	0	None
210	0	0	0	None
211	0	0	0	None
212	0	0	0	None
213	0	0	0	None
214	0	0	0	None
215	0	0	0	None
216	0	0	0	None
217	0	0	0	None
218	0	0	0	None
219	0	0	0	None
220	0	0	0	None

Receptor	Green Glare (mins)	Yellow Glare (mins)	Red Glare (mins)	Magnitude of Impact
221	0	0	0	None
222	0	0	0	None
223	0	0	0	None
224	0	0	0	None
225	0	0	0	None
226	0	0	0	None
227	0	0	0	None
228	0	0	0	None
229	0	0	0	None

6.16. As can be seen in **Table 6-4,** there is **No impact** at any of the 229 PRoW/Permissive Path Receptor Points. Therefore, there are **no glare impacts** at the PRoW/Permissive Path receptors.

River Derwent and Ouse

6.17. Although the Grid Connection Corridor crosses both the River Derwent and River Ouse, they are approximately 1.4 km and 3.0 km respectively from the Solar PV Site, at their closest points. Following detailed modelling, the impacts upon ground-based receptors (road, rail, residential and PRoW) in much closer proximity to the Solar PV Site (within the 1 km Study Area) than the rivers are **None**. It can therefore be concluded that impacts upon users of the River Derwent and Ouse are unlikely to occur but if they were to, they would be no greater than **Negligible** and **Not Significant.**

Aviation Receptors

6.18. **Table 6-5** shows a summary of the modelling results for each of the runway approach paths at Breighton Airfield and Leeds East Airport, and the ATC at Leeds East Airport. The detailed results and ocular impact charts can be viewed in **Annex L.**

Table 6-5: Summary of Aviation Glare Results

Component	Green Glare (mins)	Yellow Glare (mins)	Red Glare (mins)
Breighton Airfield			
Runway 10	0	0	0
Runway 28	36375	0	0
Leeds East Airport			
Runway 06	0	0	0
Runway 24	0	0	0
ATCT	0	0	0

6.19. As can be seen in **Table 6-5**, there are no Glare impacts on receptors at Leeds East Airport or Runway 10 at Breighton Airfield. There is Green Glare (Low-potential for after-image) potential originating from the northern extents of Solar PV Areas 2a and 2b during the morning for Runway 28 at Breighton Airfield, which is an **acceptable impact** upon runways according to FAA guidance.

6.20. Overall impacts on Aviation receptors is **Low** and **Not Significant**.

7. GROUND BASED RECEPTOR MITIGATION

7.1. **No Mitigation** is required due to no impacts being found after the geometric analysis was undertaken for the residential, road, rail and PRoW/Permissive Path receptors.

8. RESIDUAL EFFECTS

8.1. The as **no glare impacts** to ground based receptors was identified the residual effects to ground based receptors remain as report as reported in section 6.

8.2. As overall impacts to aviation receptors were **Low** and **Not Significant**, the residual effects to remain as report as reported in section 6.

9. CONCLUSION

9.1. Geometric analysis was conducted at 173 individual residential receptors, 185 road receptors, 27 rail receptors and 221 PRoW/Permissive Path receptors. Also, geometric analysis was conducted at two runway approach paths at Breighton Airfield; and two runway approaches and the ATCT at Leeds East Airport.

9.2. The solar PV panels will be single axis tracker panels oriented in a north to south direction and rotate east-west along a single axis to maximise solar gain throughout the day and during the year (i.e., they will rotate east to west to track the movement of the sun). This type of panel generally attenuates most glint and glare effects by avoiding the angles of incidence with the sun that most likely cause glint and glare, which modelling has sought to verify.

9.3. The assessment concludes that:

- Solar reflections are possible at none of the 173 residential receptors assessed within the 1 km study area. Therefore, overall impacts on residential receptors are considered to be **None**.
- Solar reflections are possible at none of the 185 road receptors assessed within the 1 km study area. Therefore, overall impacts on road receptors are considered to be **None**.
- Solar reflections are possible at none of the 27 rail receptors assessed within the 1 km study area. Therefore, overall impacts on rail receptors are considered to be **None**.
- Solar reflections are possible at none of the 229 PRoW/Permissive Path receptors assessed within the 1 km study area. Therefore, overall impacts on PRoW/Permssive Path receptors are considered to be **None**.
- Four runway approach paths and one ATCT were assessed in detail at Breighton Airfield and Leeds East Airport**.** Only Green Glare impacts were predicted for Runway 28 at Breighton Airfield, which is an **acceptable impact** upon runways according to FAA guidance. Overall aviation impacts are **Low** and **Not Significant**.

9.4. Following detailed modelling, the impacts upon ground-based receptors (road, rail, residential and PRoW/Permissive Path) in much closer proximity to the Solar PV Site (within the 1 km Study Area) than the rivers are **None**. It can therefore be concluded that impacts upon the River Derwent and Ouse are unlikely to occur but if they were to, they would be no greater than **Negligible** and **Not Significant.**

9.5. **No Mitigation** is required due to the **Low** and no impacts found for aviation and ground-based (residential, road, rail and PRoW/Permissive Path) receptors, respectively.

9.6. The effects of glint and glare and their impact on local receptors has been analysed in detail and there is predicted to be **Low** impacts at one runway approach path, whilst the remaining aviation receptors are predicted to have **No Impacts**. Impacts upon ground-based receptors are predicted to be **None.** Therefore, overall impacts are **Negligible**.

10. ANNEXES

ANNEX A: FIGURES

- Figure 1: Residential Receptor Map
- Figure 2: Road Receptor Map
- Figure 3: Rail Receptor Map
- Figure 4: PROW receptor Map

East Yorkshire Solar Farm
Residential Based Receptors
Figure 1

Key

- Order Limits
- Panel boundary
- 1km Study Area
- Glare Possible at Receptor
- Glare Not Possible at Receptor
- Residential Area
- Non-Reflection Zones

Neo Office Address:
Wright Business Centre, 1 Lonmay Road, Glasgow, G33 4EL

Contains Ordnance Survey data © Crown copyright and database right 2019

0 0.25 0.5 1 Kilometers

Date: 01/08/2023
Drawn By: Tom Saddington
Scale (A3): 1:35,000
Drawing No: NEO01082/001I/B

neo ENVIRONMENTAL

East Yorkshire Solar Farm
Road Based Receptors
Figure 2

Key

- Order Limits
- Panel boundary
- Glare Possible at Receptor
- Glare not Possible at Receptor
- 1km Study Area
- Non-Reflection Zones

0 0.25 0.5 1 Kilometers

Neo Office Address:
Wright Business Centre, 1 Lonmay Road, Glasgow, G33 4EL

Date: 01/08/2023
Drawn By: Tom Saddington
Scale (A3): 1:35,000
Drawing No: NEO01082/002I/B

neo ENVIRONMENTAL

East Yorkshire Solar Farm
Rail Based Receptors
Figure 3

N

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27

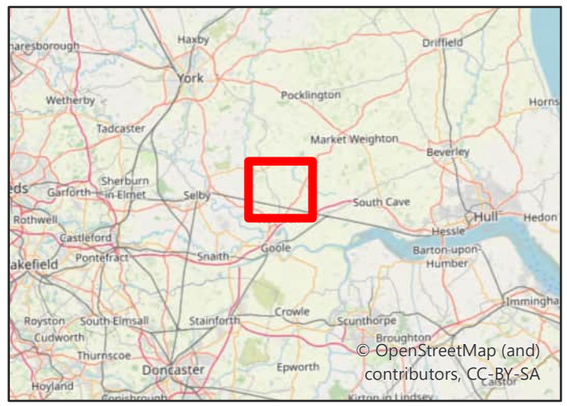
Maxar, Microsoft

Key

- Order Limits
- Panel boundary
- Glare Possible at Receptor
- Glare Not Possible at Receptor
- 1km Study Area
- Non-Reflection Zones

0 0.25 0.5 1 Kilometers

Neo Office Address:
Wright Business Centre, 1 Lonmay Road, Glasgow, G33 4EL



Date: 01/08/2023
Drawn By: Tom Saddington
Scale (A3): 1:35,000
Drawing No: NEO01082/003I/B

neo ENVIRONMENTAL

East Yorkshire Solar Farm
PROW Based Receptors
Figure 4

Key

- Order Limits
- Panel boundary
- Glare Possible at Receptor
- Glare Not Possible at Receptor
- 1km Study Area
- Non-Reflection Zones

0 0.25 0.5 1 Kilometers

Neo Office Address:
Wright Business Centre, 1 Lonmay Road, Glasgow, G33 4EL

Date: 01/08/2023
Drawn By: Tom Saddington
Scale (A3): 1:35,000
Drawing No: NEO01082/004I/B

neo ENVIRONMENTAL

ANNEX B: RESIDENTIAL RECEPTOR GLARE RESULTS (1 – 60)

ForgeSolar

East Yorkshire Solar Farm

East Yorkshire Solar Farm Residential 1 - 60

Created Aug 03, 2023
Updated Sep 20, 2023
Time-step 1 minute
Timezone offset UTC0
Minimum sun altitude 0.0 deg
Site ID 96776.16938

Project type Advanced
Project status: active
Category 100 MW to 1 GW

Misc. Analysis Settings

DNI: **varies (1,000.0 W/m^2 peak)**
Ocular transmission coefficient: **0.5**
Pupil diameter: **0.002 m**
Eye focal length: **0.017 m**
Sun subtended angle: **9.3 mrad**

PV Analysis Methodology: **Version 2**
Enhanced subtended angle calculation: **On**

Summary of Results No glare predicted!

PV Name	Tilt	Orientation	"Green" Glare	"Yellow" Glare	Energy Produced
	deg	deg	min	min	kWh
PV array 1	SA tracking	SA tracking	0	0	-
PV array 10	SA tracking	SA tracking	0	0	-
PV array 11	SA tracking	SA tracking	0	0	-
PV array 12	SA tracking	SA tracking	0	0	-
PV array 13	SA tracking	SA tracking	0	0	-
PV array 14	SA tracking	SA tracking	0	0	-
PV array 15	SA tracking	SA tracking	0	0	-
PV array 16	SA tracking	SA tracking	0	0	-
PV array 17	SA tracking	SA tracking	0	0	-
PV array 18	SA tracking	SA tracking	0	0	-
PV array 2	SA tracking	SA tracking	0	0	-
PV array 3	SA tracking	SA tracking	0	0	-
PV array 4	SA tracking	SA tracking	0	0	-
PV array 5	SA tracking	SA tracking	0	0	-
PV array 6	SA tracking	SA tracking	0	0	-
PV array 7	SA tracking	SA tracking	0	0	-
PV array 8	SA tracking	SA tracking	0	0	-
PV array 9	SA tracking	SA tracking	0	0	-

Component Data

PV Array(s)

Total PV footprint area: 8,103,505 m^2

Name: PV array 1
Footprint area: 509,399 m^2
Axis tracking: Single-axis rotation
Backtracking: None
Tracking axis orientation: 180.0 deg
Tracking axis tilt: 0.0 deg
Tracking axis panel offset: 0.0 deg
Maximum tracking angle: 60.0 deg

Rated power: -
Panel material: Light textured glass with AR coating
Vary reflectivity with sun position? Yes
Correlate slope error with surface type? Yes
Slope error: 9.16 mrad

Vertex	Latitude	Longitude	Ground elevation	Height above ground	Total elevation
	deg	deg	m	m	m
1	53.818886	-0.886729	6.34	3.50	9.84
2	53.814883	-0.884283	5.95	3.50	9.45
3	53.814346	-0.888924	7.41	3.50	10.91
4	53.812293	-0.882272	6.90	3.50	10.40
5	53.812699	-0.879482	7.20	3.50	10.70
6	53.813763	-0.878324	7.19	3.50	10.69
7	53.814194	-0.878796	7.39	3.50	10.89
8	53.814523	-0.874633	6.96	3.50	10.46
9	53.816145	-0.874247	6.11	3.50	9.61
10	53.816271	-0.873302	6.84	3.50	10.34
11	53.819464	-0.872702	6.50	3.50	10.00
12	53.818704	-0.878967	6.05	3.50	9.55
13	53.819109	-0.879010	5.90	3.50	9.40

Name: PV array 10
Footprint area: 860,067 m^2
Axis tracking: Single-axis rotation
Backtracking: None
Tracking axis orientation: 180.0 deg
Tracking axis tilt: 0.0 deg
Tracking axis panel offset: 0.0 deg
Maximum tracking angle: 60.0 deg

Rated power: -
Panel material: Light textured glass with AR coating
Vary reflectivity with sun position? Yes
Correlate slope error with surface type? Yes
Slope error: 9.16 mrad

Vertex	Latitude	Longitude	Ground elevation	Height above ground	Total elevation
	deg	deg	m	m	m
1	53.778810	-0.820903	5.07	3.50	8.57
2	53.775868	-0.819959	5.15	3.50	8.65
3	53.775209	-0.825366	5.97	3.50	9.47
4	53.768057	-0.847639	4.41	3.50	7.91
5	53.769858	-0.848455	5.00	3.50	8.50
6	53.769680	-0.850472	4.68	3.50	8.18
7	53.770745	-0.850686	4.00	3.50	7.50
8	53.770999	-0.849098	4.12	3.50	7.62
9	53.773408	-0.849570	5.00	3.50	8.50

Name: PV array 11
Footprint area: 205,559 m^2
Axis tracking: Single-axis rotation
Backtracking: None
Tracking axis orientation: 180.0 deg
Tracking axis tilt: 0.0 deg
Tracking axis panel offset: 0.0 deg
Maximum tracking angle: 60.0 deg

Rated power: -
Panel material: Light textured glass with AR coating
Vary reflectivity with sun position? Yes
Correlate slope error with surface type? Yes
Slope error: 9.16 mrad

Vertex	Latitude	Longitude	Ground elevation	Height above ground	Total elevation
	deg	deg	m	m	m
1	53.776817	-0.861222	5.00	3.50	8.50
2	53.776284	-0.862552	5.00	3.50	8.50
3	53.782826	-0.874268	5.15	3.50	8.65
4	53.784120	-0.871951	4.99	3.50	8.49
5	53.782674	-0.870578	5.10	3.50	8.60
6	53.780646	-0.865299	5.86	3.50	9.36
7	53.780772	-0.863840	6.00	3.50	9.50
8	53.779378	-0.862209	5.00	3.50	8.50
9	53.778972	-0.864012	5.00	3.50	8.50

Name: PV array 12
Footprint area: 153,870 m^2
Axis tracking: Single-axis rotation
Backtracking: None
Tracking axis orientation: 180.0 deg
Tracking axis tilt: 0.0 deg
Tracking axis panel offset: 0.0 deg
Maximum tracking angle: 60.0 deg

Rated power: -
Panel material: Light textured glass with AR coating
Vary reflectivity with sun position? Yes
Correlate slope error with surface type? Yes
Slope error: 9.16 mrad

Vertex	Latitude	Longitude	Ground elevation	Height above ground	Total elevation
	deg	deg	m	m	m
1	53.788227	-0.880191	5.89	3.50	9.39
2	53.788328	-0.881607	4.53	3.50	8.03
3	53.785920	-0.884311	5.06	3.50	8.56
4	53.782902	-0.880234	5.96	3.50	9.46
5	53.783359	-0.878388	5.63	3.50	9.13
6	53.783993	-0.877401	5.39	3.50	8.89
7	53.786021	-0.878388	5.24	3.50	8.74
8	53.786909	-0.879461	5.93	3.50	9.43

Name: PV array 13
Footprint area: 227,092 m^2
Axis tracking: Single-axis rotation
Backtracking: None
Tracking axis orientation: 180.0 deg
Tracking axis tilt: 0.0 deg
Tracking axis panel offset: 0.0 deg
Maximum tracking angle: 60.0 deg

Rated power: -
Panel material: Light textured glass with AR coating
Vary reflectivity with sun position? Yes
Correlate slope error with surface type? Yes
Slope error: 9.16 mrad

Vertex	Latitude	Longitude	Ground elevation	Height above ground	Total elevation
	deg	deg	m	m	m
1	53.782598	-0.896155	6.23	3.50	9.73
2	53.779048	-0.902335	5.55	3.50	9.05
3	53.778414	-0.901820	6.07	3.50	9.57
4	53.778262	-0.899503	6.30	3.50	9.80
5	53.776411	-0.897228	4.61	3.50	8.11
6	53.778287	-0.894610	4.73	3.50	8.23
7	53.780722	-0.891907	5.00	3.50	8.50

Name: PV array 14
Footprint area: 679,077 m^2
Axis tracking: Single-axis rotation
Backtracking: None
Tracking axis orientation: 180.0 deg
Tracking axis tilt: 0.0 deg
Tracking axis panel offset: 0.0 deg
Maximum tracking angle: 60.0 deg

Rated power: -
Panel material: Light textured glass with AR coating
Vary reflectivity with sun position? Yes
Correlate slope error with surface type? Yes
Slope error: 9.16 mrad

Vertex	Latitude	Longitude	Ground elevation	Height above ground	Total elevation
	deg	deg	m	m	m
1	53.776512	-0.895597	5.00	3.50	8.50
2	53.773976	-0.894396	5.00	3.50	8.50
3	53.773722	-0.894524	5.00	3.50	8.50
4	53.773190	-0.891563	5.00	3.50	8.50
5	53.773900	-0.890190	5.00	3.50	8.50
6	53.775193	-0.888774	5.00	3.50	8.50
7	53.773722	-0.884053	5.51	3.50	9.01
8	53.771719	-0.885555	5.49	3.50	8.99
9	53.771313	-0.881950	5.00	3.50	8.50
10	53.768675	-0.879332	5.00	3.50	8.50
11	53.767787	-0.880877	5.86	3.50	9.36
12	53.770273	-0.900919	5.27	3.50	8.77
13	53.772201	-0.899073	6.03	3.50	9.53
14	53.775067	-0.898344	5.81	3.50	9.31

Name: PV array 15
Footprint area: 277,556 m^2
Axis tracking: Single-axis rotation
Backtracking: None
Tracking axis orientation: 180.0 deg
Tracking axis tilt: 0.0 deg
Tracking axis panel offset: 0.0 deg
Maximum tracking angle: 60.0 deg

Rated power: -
Panel material: Light textured glass with AR coating
Vary reflectivity with sun position? Yes
Correlate slope error with surface type? Yes
Slope error: 9.16 mrad

Vertex	Latitude	Longitude	Ground elevation	Height above ground	Total elevation
	deg	deg	m	m	m
1	53.768980	-0.895254	5.00	3.50	8.50
2	53.765454	-0.897528	3.99	3.50	7.49
3	53.764363	-0.894138	4.98	3.50	8.48
4	53.764845	-0.892808	4.28	3.50	7.78
5	53.766062	-0.891520	4.50	3.50	8.00
6	53.765454	-0.887701	5.39	3.50	8.89
7	53.766773	-0.881392	5.53	3.50	9.03
8	53.767128	-0.881221	6.00	3.50	9.50

Name: PV array 16
Footprint area: 251,837 m^2
Axis tracking: Single-axis rotation
Backtracking: None
Tracking axis orientation: 180.0 deg
Tracking axis tilt: 0.0 deg
Tracking axis panel offset: 0.0 deg
Maximum tracking angle: 60.0 deg

Rated power: -
Panel material: Light textured glass with AR coating
Vary reflectivity with sun position? Yes
Correlate slope error with surface type? Yes
Slope error: 9.16 mrad

Vertex	Latitude	Longitude	Ground elevation	Height above ground	Total elevation
	deg	deg	m	m	m
1	53.765961	-0.871693	5.00	3.50	8.50
2	53.764769	-0.872766	5.00	3.50	8.50
3	53.765251	-0.879075	4.32	3.50	7.82
4	53.766671	-0.879676	4.39	3.50	7.89
5	53.766646	-0.880234	4.36	3.50	7.86
6	53.766139	-0.880362	4.41	3.50	7.91
7	53.763145	-0.889975	5.30	3.50	8.80
8	53.764617	-0.890362	4.92	3.50	8.42
9	53.764577	-0.890812	4.66	3.50	8.16
10	53.763044	-0.890619	6.20	3.50	9.70
11	53.761446	-0.894911	9.27	3.50	12.77
12	53.759593	-0.899846	7.65	3.50	11.15
13	53.758782	-0.900318	7.20	3.50	10.70
14	53.758934	-0.900747	7.16	3.50	10.66
15	53.759898	-0.900704	7.56	3.50	11.06
16	53.762029	-0.895469	9.27	3.50	12.77
17	53.762689	-0.896413	8.78	3.50	12.28
18	53.764591	-0.892336	4.64	3.50	8.14
19	53.764667	-0.890319	4.90	3.50	8.40
20	53.765581	-0.890362	4.32	3.50	7.82
21	53.765327	-0.888731	5.39	3.50	8.89
22	53.764211	-0.888688	6.95	3.50	10.45
23	53.764287	-0.887358	6.37	3.50	9.87
24	53.765149	-0.887014	5.83	3.50	9.33
25	53.766595	-0.880834	5.09	3.50	8.59
26	53.766925	-0.879375	4.83	3.50	8.33

Name: PV array 17
Footprint area: 259,874 m^2
Axis tracking: Single-axis rotation
Backtracking: None
Tracking axis orientation: 180.0 deg
Tracking axis tilt: 0.0 deg
Tracking axis panel offset: 0.0 deg
Maximum tracking angle: 60.0 deg

Rated power: -
Panel material: Light textured glass with AR coating
Vary reflectivity with sun position? Yes
Correlate slope error with surface type? Yes
Slope error: 9.16 mrad

Vertex	Latitude	Longitude	Ground elevation	Height above ground	Total elevation
	deg	deg	m	m	m
1	53.800000	-0.898244	8.11	3.50	11.61
2	53.799316	-0.898158	5.69	3.50	9.19
3	53.796553	-0.900947	5.33	3.50	8.83
4	53.795792	-0.901205	5.86	3.50	9.36
5	53.795032	-0.896699	5.54	3.50	9.04
6	53.794246	-0.893437	5.00	3.50	8.50
7	53.795083	-0.892579	5.13	3.50	8.63
8	53.798150	-0.892794	5.38	3.50	8.88
9	53.800076	-0.893394	5.88	3.50	9.38
10	53.800228	-0.897471	6.28	3.50	9.78

Name: PV array 18
Footprint area: 191,697 m^2
Axis tracking: Single-axis rotation
Backtracking: None
Tracking axis orientation: 180.0 deg
Tracking axis tilt: 0.0 deg
Tracking axis panel offset: 0.0 deg
Maximum tracking angle: 60.0 deg

Rated power: -
Panel material: Light textured glass with AR coating
Vary reflectivity with sun position? Yes
Correlate slope error with surface type? Yes
Slope error: 9.16 mrad

Vertex	Latitude	Longitude	Ground elevation	Height above ground	Total elevation
	deg	deg	m	m	m
1	53.792776	-0.893609	4.96	3.50	8.46
2	53.791736	-0.894982	5.48	3.50	8.98
3	53.790697	-0.896012	4.98	3.50	8.48
4	53.788998	-0.897042	4.27	3.50	7.77
5	53.789100	-0.897986	4.86	3.50	8.36
6	53.788973	-0.899360	5.24	3.50	8.74
7	53.788821	-0.900046	4.94	3.50	8.44
8	53.789227	-0.902020	4.84	3.50	8.34
9	53.789531	-0.902063	6.31	3.50	9.81
10	53.789556	-0.900990	5.15	3.50	8.65
11	53.792472	-0.900347	5.64	3.50	9.14
12	53.792903	-0.901849	6.09	3.50	9.59
13	53.794322	-0.900390	6.18	3.50	9.68

Name: PV array 2
Footprint area: 632,085 m^2
Axis tracking: Single-axis rotation
Backtracking: None
Tracking axis orientation: 180.0 deg
Tracking axis tilt: 0.0 deg
Tracking axis panel offset: 0.0 deg
Maximum tracking angle: 60.0 deg

Rated power: -
Panel material: Light textured glass with AR coating
Vary reflectivity with sun position? Yes
Correlate slope error with surface type? Yes
Slope error: 9.16 mrad

Vertex	Latitude	Longitude	Ground elevation	Height above ground	Total elevation
	deg	deg	m	m	m
1	53.813872	-0.874438	6.25	3.50	9.75
2	53.811034	-0.872979	7.20	3.50	10.70
3	53.811516	-0.871090	7.04	3.50	10.54
4	53.808804	-0.868730	6.72	3.50	10.22
5	53.809108	-0.867485	6.99	3.50	10.49
6	53.808323	-0.867687	6.25	3.50	9.75
7	53.806878	-0.867000	6.02	3.50	9.52
8	53.807183	-0.865970	6.43	3.50	9.93
9	53.805325	-0.864511	6.24	3.50	9.74
10	53.805173	-0.865283	6.58	3.50	10.08
11	53.804083	-0.864425	7.27	3.50	10.77
12	53.802993	-0.867987	6.40	3.50	9.90
13	53.802537	-0.867343	6.48	3.50	9.98
14	53.802283	-0.866228	6.35	3.50	9.85
15	53.800991	-0.864854	6.93	3.50	10.43
16	53.803094	-0.859876	6.29	3.50	9.79
17	53.803551	-0.859790	6.05	3.50	9.55
18	53.804210	-0.857087	6.54	3.50	10.04
19	53.807758	-0.858374	6.00	3.50	9.50
20	53.807859	-0.862666	5.93	3.50	9.43
21	53.810140	-0.863524	5.70	3.50	9.20
22	53.813897	-0.865584	6.85	3.50	10.35
23	53.813517	-0.868545	5.83	3.50	9.33
24	53.813618	-0.870433	5.69	3.50	9.19
25	53.814100	-0.871678	6.48	3.50	9.98

Name: PV array 3
Footprint area: 155,482 m^2
Axis tracking: Single-axis rotation
Backtracking: None
Tracking axis orientation: 180.0 deg
Tracking axis tilt: 0.0 deg
Tracking axis panel offset: 0.0 deg
Maximum tracking angle: 60.0 deg

Rated power: -
Panel material: Light textured glass with AR coating
Vary reflectivity with sun position? Yes
Correlate slope error with surface type? Yes
Slope error: 9.16 mrad

Vertex	Latitude	Longitude	Ground elevation	Height above ground	Total elevation
	deg	deg	m	m	m
1	53.813884	-0.865326	6.57	3.50	10.07
2	53.810185	-0.863052	6.00	3.50	9.50
3	53.808158	-0.862236	5.93	3.50	9.43
4	53.808132	-0.858760	6.07	3.50	9.57
5	53.810172	-0.859726	6.68	3.50	10.18
6	53.810844	-0.860477	5.85	3.50	9.35
7	53.811807	-0.860799	5.51	3.50	9.01
8	53.812909	-0.860777	5.73	3.50	9.23
9	53.813175	-0.860649	5.42	3.50	8.92
10	53.813922	-0.860949	5.47	3.50	8.97
11	53.814416	-0.860691	6.67	3.50	10.17

Name: PV array 4
Footprint area: 640,744 m^2
Axis tracking: Single-axis rotation
Backtracking: None
Tracking axis orientation: 180.0 deg
Tracking axis tilt: 0.0 deg
Tracking axis panel offset: 0.0 deg
Maximum tracking angle: 60.0 deg

Rated power: -
Panel material: Light textured glass with AR coating
Vary reflectivity with sun position? Yes
Correlate slope error with surface type? Yes
Slope error: 9.16 mrad

Vertex	Latitude	Longitude	Ground elevation	Height above ground	Total elevation
	deg	deg	m	m	m
1	53.814581	-0.855301	5.71	3.50	9.21
2	53.814100	-0.855130	5.26	3.50	8.76
3	53.813454	-0.854701	5.23	3.50	8.73
4	53.811148	-0.860065	5.60	3.50	9.10
5	53.810261	-0.859271	5.85	3.50	9.35
6	53.805383	-0.856782	5.66	3.50	9.16
7	53.805649	-0.855001	5.25	3.50	8.75
8	53.804901	-0.853842	5.22	3.50	8.72
9	53.805636	-0.849186	5.28	3.50	8.78
10	53.804496	-0.847255	5.46	3.50	8.96
11	53.804166	-0.847276	5.90	3.50	9.40
12	53.803748	-0.853327	6.05	3.50	9.55
13	53.798337	-0.850667	6.07	3.50	9.57
14	53.799972	-0.847148	5.62	3.50	9.12
15	53.800263	-0.845581	5.93	3.50	9.43
16	53.804103	-0.847276	5.53	3.50	9.03
17	53.804597	-0.847233	4.75	3.50	8.25
18	53.807681	-0.847384	5.70	3.50	9.20
19	53.808454	-0.848607	5.76	3.50	9.26
20	53.807238	-0.851632	5.81	3.50	9.31
21	53.808568	-0.853714	5.85	3.50	9.35
22	53.808366	-0.854658	5.82	3.50	9.32
23	53.809671	-0.855108	4.90	3.50	8.40
24	53.810000	-0.853907	5.43	3.50	8.93
25	53.809709	-0.853628	5.37	3.50	8.87
26	53.811558	-0.850538	5.71	3.50	9.21
27	53.813269	-0.852190	5.07	3.50	8.57
28	53.814244	-0.852684	5.73	3.50	9.23

Name: PV array 5
Footprint area: 1,762,515 m^2
Axis tracking: Single-axis rotation
Backtracking: None
Tracking axis orientation: 180.0 deg
Tracking axis tilt: 0.0 deg
Tracking axis panel offset: 0.0 deg
Maximum tracking angle: 60.0 deg

Rated power: -
Panel material: Light textured glass with AR coating
Vary reflectivity with sun position? Yes
Correlate slope error with surface type? Yes
Slope error: 9.16 mrad

Vertex	Latitude	Longitude	Ground elevation	Height above ground	Total elevation
	deg	deg	m	m	m
1	53.807708	-0.847197	5.51	3.50	9.01
2	53.804096	-0.847004	5.39	3.50	8.89
3	53.797342	-0.843764	5.19	3.50	8.69
4	53.797874	-0.841661	5.30	3.50	8.80
5	53.799610	-0.837906	5.60	3.50	9.10
6	53.801258	-0.834001	5.60	3.50	9.10
7	53.803577	-0.827735	5.05	3.50	8.55
8	53.802145	-0.825933	5.34	3.50	8.84
9	53.799851	-0.832398	6.04	3.50	9.54
10	53.797215	-0.829265	5.09	3.50	8.59
11	53.795048	-0.834844	5.24	3.50	8.74
12	53.792817	-0.833686	5.73	3.50	9.23
13	53.792944	-0.831368	5.17	3.50	8.67
14	53.794439	-0.826390	5.04	3.50	8.54
15	53.795301	-0.827248	5.36	3.50	8.86
16	53.795707	-0.826991	6.45	3.50	9.95
17	53.797253	-0.828793	5.75	3.50	9.25
18	53.797861	-0.826647	5.38	3.50	8.88
19	53.796214	-0.825274	5.21	3.50	8.71
20	53.796290	-0.824502	4.27	3.50	7.77
21	53.795200	-0.823558	4.11	3.50	7.61
22	53.795986	-0.819695	4.60	3.50	8.10
23	53.799027	-0.821626	4.56	3.50	8.06
24	53.801638	-0.823944	4.37	3.50	7.87
25	53.803944	-0.826519	4.96	3.50	8.46
26	53.804172	-0.825918	4.35	3.50	7.85
27	53.802018	-0.823558	5.21	3.50	8.71
28	53.802094	-0.822656	4.99	3.50	8.49
29	53.801511	-0.822442	5.47	3.50	8.97
30	53.801283	-0.822871	4.64	3.50	8.14
31	53.799103	-0.820940	4.71	3.50	8.21
32	53.800244	-0.816047	4.44	3.50	7.94
33	53.798368	-0.814846	4.75	3.50	8.25
34	53.797481	-0.814846	4.42	3.50	7.92
35	53.799737	-0.810683	4.71	3.50	8.21
36	53.802753	-0.814331	2.81	3.50	6.31
37	53.802221	-0.816477	4.38	3.50	7.88
38	53.802145	-0.818408	3.53	3.50	7.03
39	53.802981	-0.821240	5.10	3.50	8.60
40	53.803843	-0.822141	4.77	3.50	8.27
41	53.808202	-0.827077	4.72	3.50	8.22
42	53.807087	-0.832012	5.04	3.50	8.54
43	53.804451	-0.840724	5.00	3.50	8.50
44	53.806872	-0.843073	5.31	3.50	8.81
45	53.807125	-0.842815	4.94	3.50	8.44
46	53.807911	-0.843545	5.00	3.50	8.50
47	53.808443	-0.844746	4.87	3.50	8.37

Name: PV array 6
Footprint area: 53,769 m^2
Axis tracking: Single-axis rotation
Backtracking: None
Tracking axis orientation: 180.0 deg
Tracking axis tilt: 0.0 deg
Tracking axis panel offset: 0.0 deg
Maximum tracking angle: 60.0 deg

Rated power: -
Panel material: Light textured glass with AR coating
Vary reflectivity with sun position? Yes
Correlate slope error with surface type? Yes
Slope error: 9.16 mrad

Vertex	Latitude	Longitude	Ground elevation	Height above ground	Total elevation
	deg	deg	m	m	m
1	53.800588	-0.865277	6.65	3.50	10.15
2	53.801779	-0.862166	6.43	3.50	9.93
3	53.800132	-0.860192	6.45	3.50	9.95
4	53.799054	-0.863110	6.98	3.50	10.48
5	53.799802	-0.864419	7.68	3.50	11.18

Name: PV array 7
Footprint area: 283,999 m^2
Axis tracking: Single-axis rotation
Backtracking: None
Tracking axis orientation: 180.0 deg
Tracking axis tilt: 0.0 deg
Tracking axis panel offset: 0.0 deg
Maximum tracking angle: 60.0 deg

Rated power: -
Panel material: Light textured glass with AR coating
Vary reflectivity with sun position? Yes
Correlate slope error with surface type? Yes
Slope error: 9.16 mrad

Vertex	Latitude	Longitude	Ground elevation	Height above ground	Total elevation
	deg	deg	m	m	m
1	53.797257	-0.867135	6.45	3.50	9.95
2	53.794393	-0.864903	6.01	3.50	9.51
3	53.792770	-0.869624	6.00	3.50	9.50
4	53.791553	-0.868208	5.96	3.50	9.46
5	53.789018	-0.874988	6.33	3.50	9.83
6	53.790007	-0.876319	7.32	3.50	10.82
7	53.790311	-0.875374	5.97	3.50	9.47
8	53.790666	-0.875675	6.59	3.50	10.09
9	53.791199	-0.874130	6.37	3.50	9.87
10	53.791477	-0.874044	5.65	3.50	9.15
11	53.791731	-0.873486	5.89	3.50	9.39
12	53.792872	-0.873143	5.95	3.50	9.45
13	53.793201	-0.873100	5.86	3.50	9.36
14	53.793810	-0.871684	5.84	3.50	9.34
15	53.795457	-0.872800	5.36	3.50	8.86
16	53.796269	-0.871684	5.24	3.50	8.74
17	53.797232	-0.869409	5.79	3.50	9.29
18	53.796750	-0.868808	6.03	3.50	9.53

Name: PV array 8
Footprint area: 513,457 m^2
Axis tracking: Single-axis rotation
Backtracking: None
Tracking axis orientation: 180.0 deg
Tracking axis tilt: 0.0 deg
Tracking axis panel offset: 0.0 deg
Maximum tracking angle: 60.0 deg

Rated power: -
Panel material: Light textured glass with AR coating
Vary reflectivity with sun position? Yes
Correlate slope error with surface type? Yes
Slope error: 9.16 mrad

Vertex	Latitude	Longitude	Ground elevation	Height above ground	Total elevation
	deg	deg	m	m	m
1	53.790717	-0.857736	6.07	3.50	9.57
2	53.787725	-0.853702	5.77	3.50	9.27
3	53.787041	-0.856191	5.84	3.50	9.34
4	53.786458	-0.856277	5.48	3.50	8.98
5	53.786103	-0.857565	5.78	3.50	9.28
6	53.785291	-0.856792	5.63	3.50	9.13
7	53.785215	-0.852071	5.00	3.50	8.50
8	53.784328	-0.851900	4.64	3.50	8.14
9	53.784531	-0.849883	5.48	3.50	8.98
10	53.785038	-0.847179	5.34	3.50	8.84
11	53.783035	-0.846020	4.21	3.50	7.71
12	53.783694	-0.842587	5.00	3.50	8.50
13	53.785722	-0.843059	4.65	3.50	8.15
14	53.786736	-0.843789	4.23	3.50	7.73
15	53.789044	-0.845591	5.87	3.50	9.37
16	53.789756	-0.846235	5.45	3.50	8.95
17	53.788780	-0.849668	5.37	3.50	8.87
18	53.790301	-0.851406	6.41	3.50	9.91
19	53.792443	-0.853187	7.67	3.50	11.17

Name: PV array 9
Footprint area: 445,425 m^2
Axis tracking: Single-axis rotation
Backtracking: None
Tracking axis orientation: 180.0 deg
Tracking axis tilt: 0.0 deg
Tracking axis panel offset: 0.0 deg
Maximum tracking angle: 60.0 deg

Rated power: -
Panel material: Light textured glass with AR coating
Vary reflectivity with sun position? Yes
Correlate slope error with surface type? Yes
Slope error: 9.16 mrad

Vertex	Latitude	Longitude	Ground elevation	Height above ground	Total elevation
	deg	deg	m	m	m
1	53.783172	-0.836739	5.76	3.50	9.26
2	53.780154	-0.833434	5.23	3.50	8.73
3	53.779672	-0.835022	5.35	3.50	8.85
4	53.777263	-0.832447	5.19	3.50	8.69
5	53.775361	-0.841459	5.51	3.50	9.01
6	53.781245	-0.845408	5.09	3.50	8.59

Discrete Observation Receptors

Number	Latitude	Longitude	Ground elevation	Height above ground	Total Elevation
	deg	deg	m	m	m
OP 1	53.819470	-0.901029	8.30	2.00	10.30
OP 2	53.818955	-0.901072	8.30	2.00	10.30
OP 3	53.818873	-0.900732	9.09	2.00	11.09
OP 4	53.818468	-0.900860	9.02	2.00	11.02
OP 5	53.818308	-0.899680	8.21	2.00	10.21
OP 6	53.817793	-0.898811	8.39	2.00	10.39
OP 7	53.817628	-0.898809	8.24	2.00	10.24
OP 8	53.817150	-0.897368	9.44	2.00	11.44
OP 9	53.816925	-0.896952	8.55	2.00	10.55
OP 10	53.816971	-0.896625	8.85	2.00	10.85
OP 11	53.816808	-0.895880	9.09	2.00	11.09
OP 12	53.816381	-0.894093	7.14	2.00	9.14
OP 13	53.816064	-0.894407	8.12	2.00	10.12
OP 14	53.821346	-0.896902	7.36	2.00	9.36
OP 15	53.810133	-0.876445	7.83	2.00	9.83
OP 16	53.810345	-0.875458	7.59	2.00	9.59
OP 17	53.807805	-0.871957	6.86	2.00	8.86
OP 18	53.806681	-0.869532	6.36	2.00	8.36
OP 19	53.806706	-0.871088	6.96	2.00	8.96
OP 20	53.806510	-0.870680	6.52	2.00	8.52
OP 21	53.806494	-0.871061	6.78	1.00	7.78
OP 22	53.804799	-0.874891	7.86	2.00	9.86
OP 23	53.804403	-0.871560	6.49	2.00	8.49
OP 24	53.804185	-0.871399	6.43	2.00	8.43
OP 25	53.801029	-0.865852	7.53	2.00	9.53
OP 26	53.800782	-0.865423	7.46	2.00	9.46
OP 27	53.799002	-0.869092	6.93	2.00	8.93
OP 28	53.798292	-0.869296	6.97	2.00	8.97
OP 29	53.799006	-0.860823	7.01	2.00	9.01
OP 30	53.798564	-0.860941	7.15	2.00	9.15
OP 31	53.795908	-0.860201	6.69	2.00	8.69
OP 32	53.790808	-0.877710	7.02	2.00	9.02
OP 33	53.790716	-0.878455	7.16	2.00	9.16
OP 34	53.789777	-0.880321	5.76	2.00	7.76
OP 35	53.789365	-0.880879	6.32	2.00	8.32
OP 36	53.796064	-0.885245	6.16	2.00	8.16
OP 37	53.796609	-0.885535	6.44	2.00	8.44
OP 38	53.796058	-0.888131	6.29	2.00	8.29
OP 39	53.795456	-0.889977	5.53	2.00	7.53
OP 40	53.795481	-0.888507	7.06	2.00	9.06
OP 41	53.794492	-0.906643	7.33	2.00	9.33
OP 42	53.794404	-0.907920	6.81	2.00	8.81
OP 43	53.785718	-0.903742	5.86	2.00	7.86
OP 44	53.778656	-0.915758	6.84	2.00	8.84
OP 45	53.778653	-0.916396	6.92	2.00	8.92
OP 46	53.773315	-0.902299	7.42	2.00	9.42
OP 47	53.771920	-0.914953	7.12	2.00	9.12
OP 48	53.773874	-0.892767	5.13	2.00	7.13
OP 49	53.770260	-0.901898	7.34	2.00	9.34
OP 50	53.768783	-0.901533	7.52	2.00	9.52
OP 51	53.768967	-0.902424	8.06	2.00	10.06
OP 52	53.768669	-0.902059	8.19	2.00	10.19
OP 53	53.780806	-0.883564	6.00	2.00	8.00
OP 54	53.759342	-0.911349	7.87	2.00	9.87
OP 55	53.759342	-0.910126	7.50	2.00	9.50
OP 56	53.758854	-0.909224	7.93	2.00	9.93
OP 57	53.759260	-0.908548	7.23	2.00	9.23
OP 58	53.757903	-0.908763	7.71	2.00	9.71
OP 59	53.758467	-0.909289	6.98	2.00	8.98
OP 60	53.758664	-0.911027	7.61	2.00	9.61

Summary of PV Glare Analysis

PV configuration and total predicted glare

PV Name	Tilt	Orientation	"Green" Glare	"Yellow" Glare	Energy Produced	Data File
	deg	deg	min	min	kWh	
PV array 1	SA tracking	SA tracking	0	0	-	-
PV array 10	SA tracking	SA tracking	0	0	-	-
PV array 11	SA tracking	SA tracking	0	0	-	-
PV array 12	SA tracking	SA tracking	0	0	-	-
PV array 13	SA tracking	SA tracking	0	0	-	-
PV array 14	SA tracking	SA tracking	0	0	-	-
PV array 15	SA tracking	SA tracking	0	0	-	-
PV array 16	SA tracking	SA tracking	0	0	-	-
PV array 17	SA tracking	SA tracking	0	0	-	-
PV array 18	SA tracking	SA tracking	0	0	-	-
PV array 2	SA tracking	SA tracking	0	0	-	-
PV array 3	SA tracking	SA tracking	0	0	-	-
PV array 4	SA tracking	SA tracking	0	0	-	-
PV array 5	SA tracking	SA tracking	0	0	-	-
PV array 6	SA tracking	SA tracking	0	0	-	-
PV array 7	SA tracking	SA tracking	0	0	-	-
PV array 8	SA tracking	SA tracking	0	0	-	-
PV array 9	SA tracking	SA tracking	0	0	-	-

PV & Receptor Analysis Results

Results for each PV array and receptor

PV array 1 no glare found

Component	Green glare (min)	Yellow glare (min)
OP: OP 1	0	0
OP: OP 2	0	0
OP: OP 3	0	0
OP: OP 4	0	0
OP: OP 5	0	0
OP: OP 6	0	0
OP: OP 7	0	0
OP: OP 8	0	0
OP: OP 9	0	0
OP: OP 10	0	0
OP: OP 11	0	0
OP: OP 12	0	0
OP: OP 13	0	0
OP: OP 14	0	0
OP: OP 15	0	0
OP: OP 16	0	0
OP: OP 17	0	0
OP: OP 18	0	0
OP: OP 19	0	0
OP: OP 20	0	0
OP: OP 21	0	0
OP: OP 22	0	0
OP: OP 23	0	0
OP: OP 24	0	0
OP: OP 25	0	0
OP: OP 26	0	0
OP: OP 27	0	0
OP: OP 28	0	0
OP: OP 29	0	0
OP: OP 30	0	0
OP: OP 31	0	0
OP: OP 32	0	0
OP: OP 33	0	0
OP: OP 34	0	0
OP: OP 35	0	0
OP: OP 36	0	0
OP: OP 37	0	0
OP: OP 38	0	0
OP: OP 39	0	0
OP: OP 40	0	0
OP: OP 41	0	0
OP: OP 42	0	0
OP: OP 43	0	0
OP: OP 44	0	0
OP: OP 45	0	0
OP: OP 46	0	0
OP: OP 47	0	0
OP: OP 48	0	0
OP: OP 49	0	0
OP: OP 50	0	0
OP: OP 51	0	0
OP: OP 52	0	0
OP: OP 53	0	0

OP: OP 54	0	0
OP: OP 55	0	0
OP: OP 56	0	0
OP: OP 57	0	0
OP: OP 58	0	0
OP: OP 59	0	0
OP: OP 60	0	0

No glare found

PV array 10 no glare found

Component	Green glare (min)	Yellow glare (min)
OP: OP 1	0	0
OP: OP 2	0	0
OP: OP 3	0	0
OP: OP 4	0	0
OP: OP 5	0	0
OP: OP 6	0	0
OP: OP 7	0	0
OP: OP 8	0	0
OP: OP 9	0	0
OP: OP 10	0	0
OP: OP 11	0	0
OP: OP 12	0	0
OP: OP 13	0	0
OP: OP 14	0	0
OP: OP 15	0	0
OP: OP 16	0	0
OP: OP 17	0	0
OP: OP 18	0	0
OP: OP 19	0	0
OP: OP 20	0	0
OP: OP 21	0	0
OP: OP 22	0	0
OP: OP 23	0	0
OP: OP 24	0	0
OP: OP 25	0	0
OP: OP 26	0	0
OP: OP 27	0	0
OP: OP 28	0	0
OP: OP 29	0	0
OP: OP 30	0	0
OP: OP 31	0	0
OP: OP 32	0	0
OP: OP 33	0	0
OP: OP 34	0	0
OP: OP 35	0	0
OP: OP 36	0	0
OP: OP 37	0	0
OP: OP 38	0	0
OP: OP 39	0	0
OP: OP 40	0	0

OP: OP 41	0	0
OP: OP 42	0	0
OP: OP 43	0	0
OP: OP 44	0	0
OP: OP 45	0	0
OP: OP 46	0	0
OP: OP 47	0	0
OP: OP 48	0	0
OP: OP 49	0	0
OP: OP 50	0	0
OP: OP 51	0	0
OP: OP 52	0	0
OP: OP 53	0	0
OP: OP 54	0	0
OP: OP 55	0	0
OP: OP 56	0	0
OP: OP 57	0	0
OP: OP 58	0	0
OP: OP 59	0	0
OP: OP 60	0	0

No glare found

PV array 11 no glare found

Component	Green glare (min)	Yellow glare (min)
OP: OP 1	0	0
OP: OP 2	0	0
OP: OP 3	0	0
OP: OP 4	0	0
OP: OP 5	0	0
OP: OP 6	0	0
OP: OP 7	0	0
OP: OP 8	0	0
OP: OP 9	0	0
OP: OP 10	0	0
OP: OP 11	0	0
OP: OP 12	0	0
OP: OP 13	0	0
OP: OP 14	0	0
OP: OP 15	0	0
OP: OP 16	0	0
OP: OP 17	0	0
OP: OP 18	0	0
OP: OP 19	0	0
OP: OP 20	0	0
OP: OP 21	0	0
OP: OP 22	0	0
OP: OP 23	0	0
OP: OP 24	0	0
OP: OP 25	0	0
OP: OP 26	0	0
OP: OP 27	0	0

OP: OP 28	0	0
OP: OP 29	0	0
OP: OP 30	0	0
OP: OP 31	0	0
OP: OP 32	0	0
OP: OP 33	0	0
OP: OP 34	0	0
OP: OP 35	0	0
OP: OP 36	0	0
OP: OP 37	0	0
OP: OP 38	0	0
OP: OP 39	0	0
OP: OP 40	0	0
OP: OP 41	0	0
OP: OP 42	0	0
OP: OP 43	0	0
OP: OP 44	0	0
OP: OP 45	0	0
OP: OP 46	0	0
OP: OP 47	0	0
OP: OP 48	0	0
OP: OP 49	0	0
OP: OP 50	0	0
OP: OP 51	0	0
OP: OP 52	0	0
OP: OP 53	0	0
OP: OP 54	0	0
OP: OP 55	0	0
OP: OP 56	0	0
OP: OP 57	0	0
OP: OP 58	0	0
OP: OP 59	0	0
OP: OP 60	0	0

No glare found

PV array 12 no glare found

Component	Green glare (min)	Yellow glare (min)
OP: OP 1	0	0
OP: OP 2	0	0
OP: OP 3	0	0
OP: OP 4	0	0
OP: OP 5	0	0
OP: OP 6	0	0
OP: OP 7	0	0
OP: OP 8	0	0
OP: OP 9	0	0
OP: OP 10	0	0
OP: OP 11	0	0
OP: OP 12	0	0
OP: OP 13	0	0
OP: OP 14	0	0

OP: OP 15	0	0
OP: OP 16	0	0
OP: OP 17	0	0
OP: OP 18	0	0
OP: OP 19	0	0
OP: OP 20	0	0
OP: OP 21	0	0
OP: OP 22	0	0
OP: OP 23	0	0
OP: OP 24	0	0
OP: OP 25	0	0
OP: OP 26	0	0
OP: OP 27	0	0
OP: OP 28	0	0
OP: OP 29	0	0
OP: OP 30	0	0
OP: OP 31	0	0
OP: OP 32	0	0
OP: OP 33	0	0
OP: OP 34	0	0
OP: OP 35	0	0
OP: OP 36	0	0
OP: OP 37	0	0
OP: OP 38	0	0
OP: OP 39	0	0
OP: OP 40	0	0
OP: OP 41	0	0
OP: OP 42	0	0
OP: OP 43	0	0
OP: OP 44	0	0
OP: OP 45	0	0
OP: OP 46	0	0
OP: OP 47	0	0
OP: OP 48	0	0
OP: OP 49	0	0
OP: OP 50	0	0
OP: OP 51	0	0
OP: OP 52	0	0
OP: OP 53	0	0
OP: OP 54	0	0
OP: OP 55	0	0
OP: OP 56	0	0
OP: OP 57	0	0
OP: OP 58	0	0
OP: OP 59	0	0
OP: OP 60	0	0

No glare found

PV array 13 no glare found

Component	Green glare (min)	Yellow glare (min)
OP: OP 1	0	0

OP: OP 2	0	0
OP: OP 3	0	0
OP: OP 4	0	0
OP: OP 5	0	0
OP: OP 6	0	0
OP: OP 7	0	0
OP: OP 8	0	0
OP: OP 9	0	0
OP: OP 10	0	0
OP: OP 11	0	0
OP: OP 12	0	0
OP: OP 13	0	0
OP: OP 14	0	0
OP: OP 15	0	0
OP: OP 16	0	0
OP: OP 17	0	0
OP: OP 18	0	0
OP: OP 19	0	0
OP: OP 20	0	0
OP: OP 21	0	0
OP: OP 22	0	0
OP: OP 23	0	0
OP: OP 24	0	0
OP: OP 25	0	0
OP: OP 26	0	0
OP: OP 27	0	0
OP: OP 28	0	0
OP: OP 29	0	0
OP: OP 30	0	0
OP: OP 31	0	0
OP: OP 32	0	0
OP: OP 33	0	0
OP: OP 34	0	0
OP: OP 35	0	0
OP: OP 36	0	0
OP: OP 37	0	0
OP: OP 38	0	0
OP: OP 39	0	0
OP: OP 40	0	0
OP: OP 41	0	0
OP: OP 42	0	0
OP: OP 43	0	0
OP: OP 44	0	0
OP: OP 45	0	0
OP: OP 46	0	0
OP: OP 47	0	0
OP: OP 48	0	0
OP: OP 49	0	0
OP: OP 50	0	0
OP: OP 51	0	0
OP: OP 52	0	0
OP: OP 53	0	0
OP: OP 54	0	0
OP: OP 55	0	0
OP: OP 56	0	0

OP: OP 57	0	0
OP: OP 58	0	0
OP: OP 59	0	0
OP: OP 60	0	0

No glare found

PV array 14 no glare found

Component	Green glare (min)	Yellow glare (min)
OP: OP 1	0	0
OP: OP 2	0	0
OP: OP 3	0	0
OP: OP 4	0	0
OP: OP 5	0	0
OP: OP 6	0	0
OP: OP 7	0	0
OP: OP 8	0	0
OP: OP 9	0	0
OP: OP 10	0	0
OP: OP 11	0	0
OP: OP 12	0	0
OP: OP 13	0	0
OP: OP 14	0	0
OP: OP 15	0	0
OP: OP 16	0	0
OP: OP 17	0	0
OP: OP 18	0	0
OP: OP 19	0	0
OP: OP 20	0	0
OP: OP 21	0	0
OP: OP 22	0	0
OP: OP 23	0	0
OP: OP 24	0	0
OP: OP 25	0	0
OP: OP 26	0	0
OP: OP 27	0	0
OP: OP 28	0	0
OP: OP 29	0	0
OP: OP 30	0	0
OP: OP 31	0	0
OP: OP 32	0	0
OP: OP 33	0	0
OP: OP 34	0	0
OP: OP 35	0	0
OP: OP 36	0	0
OP: OP 37	0	0
OP: OP 38	0	0
OP: OP 39	0	0
OP: OP 40	0	0
OP: OP 41	0	0
OP: OP 42	0	0
OP: OP 43	0	0

OP: OP 44	0	0
OP: OP 45	0	0
OP: OP 46	0	0
OP: OP 47	0	0
OP: OP 48	0	0
OP: OP 49	0	0
OP: OP 50	0	0
OP: OP 51	0	0
OP: OP 52	0	0
OP: OP 53	0	0
OP: OP 54	0	0
OP: OP 55	0	0
OP: OP 56	0	0
OP: OP 57	0	0
OP: OP 58	0	0
OP: OP 59	0	0
OP: OP 60	0	0

No glare found

PV array 15 no glare found

Component	Green glare (min)	Yellow glare (min)
OP: OP 1	0	0
OP: OP 2	0	0
OP: OP 3	0	0
OP: OP 4	0	0
OP: OP 5	0	0
OP: OP 6	0	0
OP: OP 7	0	0
OP: OP 8	0	0
OP: OP 9	0	0
OP: OP 10	0	0
OP: OP 11	0	0
OP: OP 12	0	0
OP: OP 13	0	0
OP: OP 14	0	0
OP: OP 15	0	0
OP: OP 16	0	0
OP: OP 17	0	0
OP: OP 18	0	0
OP: OP 19	0	0
OP: OP 20	0	0
OP: OP 21	0	0
OP: OP 22	0	0
OP: OP 23	0	0
OP: OP 24	0	0
OP: OP 25	0	0
OP: OP 26	0	0
OP: OP 27	0	0
OP: OP 28	0	0
OP: OP 29	0	0
OP: OP 30	0	0

OP: OP 31	0	0
OP: OP 32	0	0
OP: OP 33	0	0
OP: OP 34	0	0
OP: OP 35	0	0
OP: OP 36	0	0
OP: OP 37	0	0
OP: OP 38	0	0
OP: OP 39	0	0
OP: OP 40	0	0
OP: OP 41	0	0
OP: OP 42	0	0
OP: OP 43	0	0
OP: OP 44	0	0
OP: OP 45	0	0
OP: OP 46	0	0
OP: OP 47	0	0
OP: OP 48	0	0
OP: OP 49	0	0
OP: OP 50	0	0
OP: OP 51	0	0
OP: OP 52	0	0
OP: OP 53	0	0
OP: OP 54	0	0
OP: OP 55	0	0
OP: OP 56	0	0
OP: OP 57	0	0
OP: OP 58	0	0
OP: OP 59	0	0
OP: OP 60	0	0

No glare found

PV array 16 no glare found

Component	Green glare (min)	Yellow glare (min)
OP: OP 1	0	0
OP: OP 2	0	0
OP: OP 3	0	0
OP: OP 4	0	0
OP: OP 5	0	0
OP: OP 6	0	0
OP: OP 7	0	0
OP: OP 8	0	0
OP: OP 9	0	0
OP: OP 10	0	0
OP: OP 11	0	0
OP: OP 12	0	0
OP: OP 13	0	0
OP: OP 14	0	0
OP: OP 15	0	0
OP: OP 16	0	0
OP: OP 17	0	0

OP: OP 18	0	0
OP: OP 19	0	0
OP: OP 20	0	0
OP: OP 21	0	0
OP: OP 22	0	0
OP: OP 23	0	0
OP: OP 24	0	0
OP: OP 25	0	0
OP: OP 26	0	0
OP: OP 27	0	0
OP: OP 28	0	0
OP: OP 29	0	0
OP: OP 30	0	0
OP: OP 31	0	0
OP: OP 32	0	0
OP: OP 33	0	0
OP: OP 34	0	0
OP: OP 35	0	0
OP: OP 36	0	0
OP: OP 37	0	0
OP: OP 38	0	0
OP: OP 39	0	0
OP: OP 40	0	0
OP: OP 41	0	0
OP: OP 42	0	0
OP: OP 43	0	0
OP: OP 44	0	0
OP: OP 45	0	0
OP: OP 46	0	0
OP: OP 47	0	0
OP: OP 48	0	0
OP: OP 49	0	0
OP: OP 50	0	0
OP: OP 51	0	0
OP: OP 52	0	0
OP: OP 53	0	0
OP: OP 54	0	0
OP: OP 55	0	0
OP: OP 56	0	0
OP: OP 57	0	0
OP: OP 58	0	0
OP: OP 59	0	0
OP: OP 60	0	0

No glare found

PV array 17 no glare found

Component	Green glare (min)	Yellow glare (min)
OP: OP 1	0	0
OP: OP 2	0	0
OP: OP 3	0	0
OP: OP 4	0	0

OP: OP 5	0	0
OP: OP 6	0	0
OP: OP 7	0	0
OP: OP 8	0	0
OP: OP 9	0	0
OP: OP 10	0	0
OP: OP 11	0	0
OP: OP 12	0	0
OP: OP 13	0	0
OP: OP 14	0	0
OP: OP 15	0	0
OP: OP 16	0	0
OP: OP 17	0	0
OP: OP 18	0	0
OP: OP 19	0	0
OP: OP 20	0	0
OP: OP 21	0	0
OP: OP 22	0	0
OP: OP 23	0	0
OP: OP 24	0	0
OP: OP 25	0	0
OP: OP 26	0	0
OP: OP 27	0	0
OP: OP 28	0	0
OP: OP 29	0	0
OP: OP 30	0	0
OP: OP 31	0	0
OP: OP 32	0	0
OP: OP 33	0	0
OP: OP 34	0	0
OP: OP 35	0	0
OP: OP 36	0	0
OP: OP 37	0	0
OP: OP 38	0	0
OP: OP 39	0	0
OP: OP 40	0	0
OP: OP 41	0	0
OP: OP 42	0	0
OP: OP 43	0	0
OP: OP 44	0	0
OP: OP 45	0	0
OP: OP 46	0	0
OP: OP 47	0	0
OP: OP 48	0	0
OP: OP 49	0	0
OP: OP 50	0	0
OP: OP 51	0	0
OP: OP 52	0	0
OP: OP 53	0	0
OP: OP 54	0	0
OP: OP 55	0	0
OP: OP 56	0	0
OP: OP 57	0	0
OP: OP 58	0	0
OP: OP 59	0	0

OP: OP 60	0	0

No glare found

PV array 18 no glare found

Component	Green glare (min)	Yellow glare (min)
OP: OP 1	0	0
OP: OP 2	0	0
OP: OP 3	0	0
OP: OP 4	0	0
OP: OP 5	0	0
OP: OP 6	0	0
OP: OP 7	0	0
OP: OP 8	0	0
OP: OP 9	0	0
OP: OP 10	0	0
OP: OP 11	0	0
OP: OP 12	0	0
OP: OP 13	0	0
OP: OP 14	0	0
OP: OP 15	0	0
OP: OP 16	0	0
OP: OP 17	0	0
OP: OP 18	0	0
OP: OP 19	0	0
OP: OP 20	0	0
OP: OP 21	0	0
OP: OP 22	0	0
OP: OP 23	0	0
OP: OP 24	0	0
OP: OP 25	0	0
OP: OP 26	0	0
OP: OP 27	0	0
OP: OP 28	0	0
OP: OP 29	0	0
OP: OP 30	0	0
OP: OP 31	0	0
OP: OP 32	0	0
OP: OP 33	0	0
OP: OP 34	0	0
OP: OP 35	0	0
OP: OP 36	0	0
OP: OP 37	0	0
OP: OP 38	0	0
OP: OP 39	0	0
OP: OP 40	0	0
OP: OP 41	0	0
OP: OP 42	0	0
OP: OP 43	0	0
OP: OP 44	0	0
OP: OP 45	0	0
OP: OP 46	0	0

OP: OP 47	0	0
OP: OP 48	0	0
OP: OP 49	0	0
OP: OP 50	0	0
OP: OP 51	0	0
OP: OP 52	0	0
OP: OP 53	0	0
OP: OP 54	0	0
OP: OP 55	0	0
OP: OP 56	0	0
OP: OP 57	0	0
OP: OP 58	0	0
OP: OP 59	0	0
OP: OP 60	0	0

No glare found

PV array 2 no glare found

Component	Green glare (min)	Yellow glare (min)
OP: OP 1	0	0
OP: OP 2	0	0
OP: OP 3	0	0
OP: OP 4	0	0
OP: OP 5	0	0
OP: OP 6	0	0
OP: OP 7	0	0
OP: OP 8	0	0
OP: OP 9	0	0
OP: OP 10	0	0
OP: OP 11	0	0
OP: OP 12	0	0
OP: OP 13	0	0
OP: OP 14	0	0
OP: OP 15	0	0
OP: OP 16	0	0
OP: OP 17	0	0
OP: OP 18	0	0
OP: OP 19	0	0
OP: OP 20	0	0
OP: OP 21	0	0
OP: OP 22	0	0
OP: OP 23	0	0
OP: OP 24	0	0
OP: OP 25	0	0
OP: OP 26	0	0
OP: OP 27	0	0
OP: OP 28	0	0
OP: OP 29	0	0
OP: OP 30	0	0
OP: OP 31	0	0
OP: OP 32	0	0
OP: OP 33	0	0

OP: OP 34	0	0
OP: OP 35	0	0
OP: OP 36	0	0
OP: OP 37	0	0
OP: OP 38	0	0
OP: OP 39	0	0
OP: OP 40	0	0
OP: OP 41	0	0
OP: OP 42	0	0
OP: OP 43	0	0
OP: OP 44	0	0
OP: OP 45	0	0
OP: OP 46	0	0
OP: OP 47	0	0
OP: OP 48	0	0
OP: OP 49	0	0
OP: OP 50	0	0
OP: OP 51	0	0
OP: OP 52	0	0
OP: OP 53	0	0
OP: OP 54	0	0
OP: OP 55	0	0
OP: OP 56	0	0
OP: OP 57	0	0
OP: OP 58	0	0
OP: OP 59	0	0
OP: OP 60	0	0

No glare found

PV array 3 no glare found

Component	Green glare (min)	Yellow glare (min)
OP: OP 1	0	0
OP: OP 2	0	0
OP: OP 3	0	0
OP: OP 4	0	0
OP: OP 5	0	0
OP: OP 6	0	0
OP: OP 7	0	0
OP: OP 8	0	0
OP: OP 9	0	0
OP: OP 10	0	0
OP: OP 11	0	0
OP: OP 12	0	0
OP: OP 13	0	0
OP: OP 14	0	0
OP: OP 15	0	0
OP: OP 16	0	0
OP: OP 17	0	0
OP: OP 18	0	0
OP: OP 19	0	0
OP: OP 20	0	0

OP: OP 21	0	0
OP: OP 22	0	0
OP: OP 23	0	0
OP: OP 24	0	0
OP: OP 25	0	0
OP: OP 26	0	0
OP: OP 27	0	0
OP: OP 28	0	0
OP: OP 29	0	0
OP: OP 30	0	0
OP: OP 31	0	0
OP: OP 32	0	0
OP: OP 33	0	0
OP: OP 34	0	0
OP: OP 35	0	0
OP: OP 36	0	0
OP: OP 37	0	0
OP: OP 38	0	0
OP: OP 39	0	0
OP: OP 40	0	0
OP: OP 41	0	0
OP: OP 42	0	0
OP: OP 43	0	0
OP: OP 44	0	0
OP: OP 45	0	0
OP: OP 46	0	0
OP: OP 47	0	0
OP: OP 48	0	0
OP: OP 49	0	0
OP: OP 50	0	0
OP: OP 51	0	0
OP: OP 52	0	0
OP: OP 53	0	0
OP: OP 54	0	0
OP: OP 55	0	0
OP: OP 56	0	0
OP: OP 57	0	0
OP: OP 58	0	0
OP: OP 59	0	0
OP: OP 60	0	0

No glare found

PV array 4 no glare found

Component	Green glare (min)	Yellow glare (min)
OP: OP 1	0	0
OP: OP 2	0	0
OP: OP 3	0	0
OP: OP 4	0	0
OP: OP 5	0	0
OP: OP 6	0	0
OP: OP 7	0	0

OP: OP 8	0	0
OP: OP 9	0	0
OP: OP 10	0	0
OP: OP 11	0	0
OP: OP 12	0	0
OP: OP 13	0	0
OP: OP 14	0	0
OP: OP 15	0	0
OP: OP 16	0	0
OP: OP 17	0	0
OP: OP 18	0	0
OP: OP 19	0	0
OP: OP 20	0	0
OP: OP 21	0	0
OP: OP 22	0	0
OP: OP 23	0	0
OP: OP 24	0	0
OP: OP 25	0	0
OP: OP 26	0	0
OP: OP 27	0	0
OP: OP 28	0	0
OP: OP 29	0	0
OP: OP 30	0	0
OP: OP 31	0	0
OP: OP 32	0	0
OP: OP 33	0	0
OP: OP 34	0	0
OP: OP 35	0	0
OP: OP 36	0	0
OP: OP 37	0	0
OP: OP 38	0	0
OP: OP 39	0	0
OP: OP 40	0	0
OP: OP 41	0	0
OP: OP 42	0	0
OP: OP 43	0	0
OP: OP 44	0	0
OP: OP 45	0	0
OP: OP 46	0	0
OP: OP 47	0	0
OP: OP 48	0	0
OP: OP 49	0	0
OP: OP 50	0	0
OP: OP 51	0	0
OP: OP 52	0	0
OP: OP 53	0	0
OP: OP 54	0	0
OP: OP 55	0	0
OP: OP 56	0	0
OP: OP 57	0	0
OP: OP 58	0	0
OP: OP 59	0	0
OP: OP 60	0	0

No glare found

PV array 5 no glare found

Component	Green glare (min)	Yellow glare (min)
OP: OP 1	0	0
OP: OP 2	0	0
OP: OP 3	0	0
OP: OP 4	0	0
OP: OP 5	0	0
OP: OP 6	0	0
OP: OP 7	0	0
OP: OP 8	0	0
OP: OP 9	0	0
OP: OP 10	0	0
OP: OP 11	0	0
OP: OP 12	0	0
OP: OP 13	0	0
OP: OP 14	0	0
OP: OP 15	0	0
OP: OP 16	0	0
OP: OP 17	0	0
OP: OP 18	0	0
OP: OP 19	0	0
OP: OP 20	0	0
OP: OP 21	0	0
OP: OP 22	0	0
OP: OP 23	0	0
OP: OP 24	0	0
OP: OP 25	0	0
OP: OP 26	0	0
OP: OP 27	0	0
OP: OP 28	0	0
OP: OP 29	0	0
OP: OP 30	0	0
OP: OP 31	0	0
OP: OP 32	0	0
OP: OP 33	0	0
OP: OP 34	0	0
OP: OP 35	0	0
OP: OP 36	0	0
OP: OP 37	0	0
OP: OP 38	0	0
OP: OP 39	0	0
OP: OP 40	0	0
OP: OP 41	0	0
OP: OP 42	0	0
OP: OP 43	0	0
OP: OP 44	0	0
OP: OP 45	0	0
OP: OP 46	0	0
OP: OP 47	0	0
OP: OP 48	0	0
OP: OP 49	0	0
OP: OP 50	0	0
OP: OP 51	0	0
OP: OP 52	0	0
OP: OP 53	0	0

OP: OP 54	0	0
OP: OP 55	0	0
OP: OP 56	0	0
OP: OP 57	0	0
OP: OP 58	0	0
OP: OP 59	0	0
OP: OP 60	0	0

No glare found

PV array 6 no glare found

Component	Green glare (min)	Yellow glare (min)
OP: OP 1	0	0
OP: OP 2	0	0
OP: OP 3	0	0
OP: OP 4	0	0
OP: OP 5	0	0
OP: OP 6	0	0
OP: OP 7	0	0
OP: OP 8	0	0
OP: OP 9	0	0
OP: OP 10	0	0
OP: OP 11	0	0
OP: OP 12	0	0
OP: OP 13	0	0
OP: OP 14	0	0
OP: OP 15	0	0
OP: OP 16	0	0
OP: OP 17	0	0
OP: OP 18	0	0
OP: OP 19	0	0
OP: OP 20	0	0
OP: OP 21	0	0
OP: OP 22	0	0
OP: OP 23	0	0
OP: OP 24	0	0
OP: OP 25	0	0
OP: OP 26	0	0
OP: OP 27	0	0
OP: OP 28	0	0
OP: OP 29	0	0
OP: OP 30	0	0
OP: OP 31	0	0
OP: OP 32	0	0
OP: OP 33	0	0
OP: OP 34	0	0
OP: OP 35	0	0
OP: OP 36	0	0
OP: OP 37	0	0
OP: OP 38	0	0
OP: OP 39	0	0
OP: OP 40	0	0

OP: OP 41	0	0
OP: OP 42	0	0
OP: OP 43	0	0
OP: OP 44	0	0
OP: OP 45	0	0
OP: OP 46	0	0
OP: OP 47	0	0
OP: OP 48	0	0
OP: OP 49	0	0
OP: OP 50	0	0
OP: OP 51	0	0
OP: OP 52	0	0
OP: OP 53	0	0
OP: OP 54	0	0
OP: OP 55	0	0
OP: OP 56	0	0
OP: OP 57	0	0
OP: OP 58	0	0
OP: OP 59	0	0
OP: OP 60	0	0

No glare found

PV array 7 no glare found

Component	Green glare (min)	Yellow glare (min)
OP: OP 1	0	0
OP: OP 2	0	0
OP: OP 3	0	0
OP: OP 4	0	0
OP: OP 5	0	0
OP: OP 6	0	0
OP: OP 7	0	0
OP: OP 8	0	0
OP: OP 9	0	0
OP: OP 10	0	0
OP: OP 11	0	0
OP: OP 12	0	0
OP: OP 13	0	0
OP: OP 14	0	0
OP: OP 15	0	0
OP: OP 16	0	0
OP: OP 17	0	0
OP: OP 18	0	0
OP: OP 19	0	0
OP: OP 20	0	0
OP: OP 21	0	0
OP: OP 22	0	0
OP: OP 23	0	0
OP: OP 24	0	0
OP: OP 25	0	0
OP: OP 26	0	0
OP: OP 27	0	0

OP: OP 28	0	0
OP: OP 29	0	0
OP: OP 30	0	0
OP: OP 31	0	0
OP: OP 32	0	0
OP: OP 33	0	0
OP: OP 34	0	0
OP: OP 35	0	0
OP: OP 36	0	0
OP: OP 37	0	0
OP: OP 38	0	0
OP: OP 39	0	0
OP: OP 40	0	0
OP: OP 41	0	0
OP: OP 42	0	0
OP: OP 43	0	0
OP: OP 44	0	0
OP: OP 45	0	0
OP: OP 46	0	0
OP: OP 47	0	0
OP: OP 48	0	0
OP: OP 49	0	0
OP: OP 50	0	0
OP: OP 51	0	0
OP: OP 52	0	0
OP: OP 53	0	0
OP: OP 54	0	0
OP: OP 55	0	0
OP: OP 56	0	0
OP: OP 57	0	0
OP: OP 58	0	0
OP: OP 59	0	0
OP: OP 60	0	0

No glare found

PV array 8 no glare found

Component	Green glare (min)	Yellow glare (min)
OP: OP 1	0	0
OP: OP 2	0	0
OP: OP 3	0	0
OP: OP 4	0	0
OP: OP 5	0	0
OP: OP 6	0	0
OP: OP 7	0	0
OP: OP 8	0	0
OP: OP 9	0	0
OP: OP 10	0	0
OP: OP 11	0	0
OP: OP 12	0	0
OP: OP 13	0	0
OP: OP 14	0	0

OP: OP 15	0	0
OP: OP 16	0	0
OP: OP 17	0	0
OP: OP 18	0	0
OP: OP 19	0	0
OP: OP 20	0	0
OP: OP 21	0	0
OP: OP 22	0	0
OP: OP 23	0	0
OP: OP 24	0	0
OP: OP 25	0	0
OP: OP 26	0	0
OP: OP 27	0	0
OP: OP 28	0	0
OP: OP 29	0	0
OP: OP 30	0	0
OP: OP 31	0	0
OP: OP 32	0	0
OP: OP 33	0	0
OP: OP 34	0	0
OP: OP 35	0	0
OP: OP 36	0	0
OP: OP 37	0	0
OP: OP 38	0	0
OP: OP 39	0	0
OP: OP 40	0	0
OP: OP 41	0	0
OP: OP 42	0	0
OP: OP 43	0	0
OP: OP 44	0	0
OP: OP 45	0	0
OP: OP 46	0	0
OP: OP 47	0	0
OP: OP 48	0	0
OP: OP 49	0	0
OP: OP 50	0	0
OP: OP 51	0	0
OP: OP 52	0	0
OP: OP 53	0	0
OP: OP 54	0	0
OP: OP 55	0	0
OP: OP 56	0	0
OP: OP 57	0	0
OP: OP 58	0	0
OP: OP 59	0	0
OP: OP 60	0	0

No glare found

PV array 9 no glare found

Component	Green glare (min)	Yellow glare (min)
OP: OP 1	0	0

OP: OP 2	0	0
OP: OP 3	0	0
OP: OP 4	0	0
OP: OP 5	0	0
OP: OP 6	0	0
OP: OP 7	0	0
OP: OP 8	0	0
OP: OP 9	0	0
OP: OP 10	0	0
OP: OP 11	0	0
OP: OP 12	0	0
OP: OP 13	0	0
OP: OP 14	0	0
OP: OP 15	0	0
OP: OP 16	0	0
OP: OP 17	0	0
OP: OP 18	0	0
OP: OP 19	0	0
OP: OP 20	0	0
OP: OP 21	0	0
OP: OP 22	0	0
OP: OP 23	0	0
OP: OP 24	0	0
OP: OP 25	0	0
OP: OP 26	0	0
OP: OP 27	0	0
OP: OP 28	0	0
OP: OP 29	0	0
OP: OP 30	0	0
OP: OP 31	0	0
OP: OP 32	0	0
OP: OP 33	0	0
OP: OP 34	0	0
OP: OP 35	0	0
OP: OP 36	0	0
OP: OP 37	0	0
OP: OP 38	0	0
OP: OP 39	0	0
OP: OP 40	0	0
OP: OP 41	0	0
OP: OP 42	0	0
OP: OP 43	0	0
OP: OP 44	0	0
OP: OP 45	0	0
OP: OP 46	0	0
OP: OP 47	0	0
OP: OP 48	0	0
OP: OP 49	0	0
OP: OP 50	0	0
OP: OP 51	0	0
OP: OP 52	0	0
OP: OP 53	0	0
OP: OP 54	0	0
OP: OP 55	0	0
OP: OP 56	0	0

OP: OP 57	0	0
OP: OP 58	0	0
OP: OP 59	0	0
OP: OP 60	0	0

No glare found

Assumptions

- Times associated with glare are denoted in Standard time. For Daylight Savings, add one hour.
- Glare analyses do not automatically account for physical obstructions between reflectors and receptors. This includes buildings, tree cover and geographic obstructions.
- Detailed system geometry is not rigorously simulated.
- The glare hazard determination relies on several approximations including observer eye characteristics, angle of view, and typical blink response time. Actual values and results may vary.
- The system output calculation is a DNI-based approximation that assumes clear, sunny skies year-round. It should not be used in place of more rigorous modeling methods.
- Several V1 calculations utilize the PV array centroid, rather than the actual glare spot location, due to algorithm limitations. This may affect results for large PV footprints. Additional analyses of array sub-sections can provide additional information on expected glare.
- The subtended source angle (glare spot size) is constrained by the PV array footprint size. Partitioning large arrays into smaller sections will reduce the maximum potential subtended angle, potentially impacting results if actual glare spots are larger than the sub-array size. Additional analyses of the combined area of adjacent sub-arrays can provide more information on potential glare hazards. (See previous point on related limitations.)
- Hazard zone boundaries shown in the Glare Hazard plot are an approximation and visual aid. Actual ocular impact outcomes encompass a continuous, not discrete, spectrum.
- Glare locations displayed on receptor plots are approximate. Actual glare-spot locations may differ.
- Refer to the **Help page** for detailed assumptions and limitations not listed here.

ANNEX C: RESIDENTIAL RECEPTOR GLARE RESULTS (61 – 120)

ForgeSolar

East Yorkshire Solar Farm

East Yorkshire Solar Farm Residential 61 - 120

Created Aug 23, 2023
Updated Sep 20, 2023
Time-step 1 minute
Timezone offset UTC0
Minimum sun altitude 0.0 deg
Site ID 98520.16938

Project type Advanced
Project status: active
Category 100 MW to 1 GW

Misc. Analysis Settings

DNI: **varies (1,000.0 W/m^2 peak)**
Ocular transmission coefficient: **0.5**
Pupil diameter: **0.002 m**
Eye focal length: **0.017 m**
Sun subtended angle: **9.3 mrad**

PV Analysis Methodology: **Version 2**
Enhanced subtended angle calculation: **On**

Summary of Results No glare predicted!

PV Name	Tilt	Orientation	"Green" Glare	"Yellow" Glare	Energy Produced
	deg	deg	min	min	kWh
PV array 1	SA tracking	SA tracking	0	0	-
PV array 10	SA tracking	SA tracking	0	0	-
PV array 11	SA tracking	SA tracking	0	0	-
PV array 12	SA tracking	SA tracking	0	0	-
PV array 13	SA tracking	SA tracking	0	0	-
PV array 14	SA tracking	SA tracking	0	0	-
PV array 15	SA tracking	SA tracking	0	0	-
PV array 16	SA tracking	SA tracking	0	0	-
PV array 17	SA tracking	SA tracking	0	0	-
PV array 18	SA tracking	SA tracking	0	0	-
PV array 2	SA tracking	SA tracking	0	0	-
PV array 3	SA tracking	SA tracking	0	0	-
PV array 4	SA tracking	SA tracking	0	0	-
PV array 5	SA tracking	SA tracking	0	0	-
PV array 6	SA tracking	SA tracking	0	0	-
PV array 7	SA tracking	SA tracking	0	0	-
PV array 8	SA tracking	SA tracking	0	0	-
PV array 9	SA tracking	SA tracking	0	0	-

Component Data

PV Array(s)

Total PV footprint area: 8,103,500 m^2

Name: PV array 1
Footprint area: 509,399 m^2
Axis tracking: Single-axis rotation
Backtracking: None
Tracking axis orientation: 180.0 deg
Tracking axis tilt: 0.0 deg
Tracking axis panel offset: 0.0 deg
Maximum tracking angle: 60.0 deg

Rated power: -
Panel material: Light textured glass with AR coating
Vary reflectivity with sun position? Yes
Correlate slope error with surface type? Yes
Slope error: 9.16 mrad

Vertex	Latitude	Longitude	Ground elevation	Height above ground	Total elevation
	deg	deg	m	m	m
1	53.818886	-0.886729	6.34	3.50	9.84
2	53.814883	-0.884283	5.95	3.50	9.45
3	53.814346	-0.888924	7.41	3.50	10.91
4	53.812293	-0.882272	6.90	3.50	10.40
5	53.812699	-0.879482	7.20	3.50	10.70
6	53.813763	-0.878324	7.19	3.50	10.69
7	53.814194	-0.878796	7.39	3.50	10.89
8	53.814523	-0.874633	6.96	3.50	10.46
9	53.816145	-0.874247	6.11	3.50	9.61
10	53.816271	-0.873302	6.84	3.50	10.34
11	53.819464	-0.872702	6.50	3.50	10.00
12	53.818704	-0.878967	6.05	3.50	9.55
13	53.819109	-0.879010	5.90	3.50	9.40

Name: PV array 10
Footprint area: 860,067 m^2
Axis tracking: Single-axis rotation
Backtracking: None
Tracking axis orientation: 180.0 deg
Tracking axis tilt: 0.0 deg
Tracking axis panel offset: 0.0 deg
Maximum tracking angle: 60.0 deg

Rated power: -
Panel material: Light textured glass with AR coating
Vary reflectivity with sun position? Yes
Correlate slope error with surface type? Yes
Slope error: 9.16 mrad

Vertex	Latitude	Longitude	Ground elevation	Height above ground	Total elevation
	deg	deg	m	m	m
1	53.778810	-0.820903	5.07	3.50	8.57
2	53.775868	-0.819959	5.15	3.50	8.65
3	53.775209	-0.825366	5.97	3.50	9.47
4	53.768057	-0.847639	4.41	3.50	7.91
5	53.769858	-0.848455	5.00	3.50	8.50
6	53.769680	-0.850472	4.68	3.50	8.18
7	53.770745	-0.850686	4.00	3.50	7.50
8	53.770999	-0.849098	4.12	3.50	7.62
9	53.773408	-0.849570	5.00	3.50	8.50

Name: PV array 11
Footprint area: 205,559 m^2
Axis tracking: Single-axis rotation
Backtracking: None
Tracking axis orientation: 180.0 deg
Tracking axis tilt: 0.0 deg
Tracking axis panel offset: 0.0 deg
Maximum tracking angle: 60.0 deg

Rated power: -
Panel material: Light textured glass with AR coating
Vary reflectivity with sun position? Yes
Correlate slope error with surface type? Yes
Slope error: 9.16 mrad

Vertex	Latitude	Longitude	Ground elevation	Height above ground	Total elevation
	deg	deg	m	m	m
1	53.776817	-0.861222	5.00	3.50	8.50
2	53.776284	-0.862552	5.00	3.50	8.50
3	53.782826	-0.874268	5.15	3.50	8.65
4	53.784120	-0.871951	4.99	3.50	8.49
5	53.782674	-0.870578	5.10	3.50	8.60
6	53.780646	-0.865299	5.86	3.50	9.36
7	53.780772	-0.863840	6.00	3.50	9.50
8	53.779378	-0.862209	5.00	3.50	8.50
9	53.778972	-0.864012	5.00	3.50	8.50

Name: PV array 12
Footprint area: 153,870 m^2
Axis tracking: Single-axis rotation
Backtracking: None
Tracking axis orientation: 180.0 deg
Tracking axis tilt: 0.0 deg
Tracking axis panel offset: 0.0 deg
Maximum tracking angle: 60.0 deg

Rated power: -
Panel material: Light textured glass with AR coating
Vary reflectivity with sun position? Yes
Correlate slope error with surface type? Yes
Slope error: 9.16 mrad

Vertex	Latitude	Longitude	Ground elevation	Height above ground	Total elevation
	deg	deg	m	m	m
1	53.788227	-0.880191	5.89	3.50	9.39
2	53.788328	-0.881607	4.53	3.50	8.03
3	53.785920	-0.884311	5.06	3.50	8.56
4	53.782902	-0.880234	5.96	3.50	9.46
5	53.783359	-0.878388	5.63	3.50	9.13
6	53.783993	-0.877401	5.39	3.50	8.89
7	53.786021	-0.878388	5.24	3.50	8.74
8	53.786909	-0.879461	5.93	3.50	9.43

Name: PV array 13
Footprint area: 227,092 m^2
Axis tracking: Single-axis rotation
Backtracking: None
Tracking axis orientation: 180.0 deg
Tracking axis tilt: 0.0 deg
Tracking axis panel offset: 0.0 deg
Maximum tracking angle: 60.0 deg

Rated power: -
Panel material: Light textured glass with AR coating
Vary reflectivity with sun position? Yes
Correlate slope error with surface type? Yes
Slope error: 9.16 mrad

Vertex	Latitude	Longitude	Ground elevation	Height above ground	Total elevation
	deg	deg	m	m	m
1	53.782598	-0.896155	6.23	3.50	9.73
2	53.779048	-0.902335	5.55	3.50	9.05
3	53.778414	-0.901820	6.07	3.50	9.57
4	53.778262	-0.899503	6.30	3.50	9.80
5	53.776411	-0.897228	4.61	3.50	8.11
6	53.778287	-0.894610	4.73	3.50	8.23
7	53.780722	-0.891907	5.00	3.50	8.50

Name: PV array 14
Footprint area: 679,077 m^2
Axis tracking: Single-axis rotation
Backtracking: None
Tracking axis orientation: 180.0 deg
Tracking axis tilt: 0.0 deg
Tracking axis panel offset: 0.0 deg
Maximum tracking angle: 60.0 deg

Rated power: -
Panel material: Light textured glass with AR coating
Vary reflectivity with sun position? Yes
Correlate slope error with surface type? Yes
Slope error: 9.16 mrad

Vertex	Latitude	Longitude	Ground elevation	Height above ground	Total elevation
	deg	deg	m	m	m
1	53.776512	-0.895597	5.00	3.50	8.50
2	53.773976	-0.894396	5.00	3.50	8.50
3	53.773722	-0.894524	5.00	3.50	8.50
4	53.773190	-0.891563	5.00	3.50	8.50
5	53.773900	-0.890190	5.00	3.50	8.50
6	53.775193	-0.888774	5.00	3.50	8.50
7	53.773722	-0.884053	5.51	3.50	9.01
8	53.771719	-0.885555	5.49	3.50	8.99
9	53.771313	-0.881950	5.00	3.50	8.50
10	53.768675	-0.879332	5.00	3.50	8.50
11	53.767787	-0.880877	5.86	3.50	9.36
12	53.770273	-0.900919	5.27	3.50	8.77
13	53.772201	-0.899073	6.03	3.50	9.53
14	53.775067	-0.898344	5.81	3.50	9.31

Name: PV array 15
Footprint area: 277,556 m^2
Axis tracking: Single-axis rotation
Backtracking: None
Tracking axis orientation: 180.0 deg
Tracking axis tilt: 0.0 deg
Tracking axis panel offset: 0.0 deg
Maximum tracking angle: 60.0 deg

Rated power: -
Panel material: Light textured glass with AR coating
Vary reflectivity with sun position? Yes
Correlate slope error with surface type? Yes
Slope error: 9.16 mrad

Vertex	Latitude	Longitude	Ground elevation	Height above ground	Total elevation
	deg	deg	m	m	m
1	53.768980	-0.895254	5.00	3.50	8.50
2	53.765454	-0.897528	3.99	3.50	7.49
3	53.764363	-0.894138	4.98	3.50	8.48
4	53.764845	-0.892808	4.28	3.50	7.78
5	53.766062	-0.891520	4.50	3.50	8.00
6	53.765454	-0.887701	5.39	3.50	8.89
7	53.766773	-0.881392	5.53	3.50	9.03
8	53.767128	-0.881221	6.00	3.50	9.50

Name: PV array 16
Footprint area: 251,832 m^2
Axis tracking: Single-axis rotation
Backtracking: None
Tracking axis orientation: 180.0 deg
Tracking axis tilt: 0.0 deg
Tracking axis panel offset: 0.0 deg
Maximum tracking angle: 60.0 deg

Rated power: -
Panel material: Light textured glass with AR coating
Vary reflectivity with sun position? Yes
Correlate slope error with surface type? Yes
Slope error: 9.16 mrad

Vertex	Latitude	Longitude	Ground elevation	Height above ground	Total elevation
	deg	deg	m	m	m
1	53.765961	-0.871693	5.00	3.50	8.50
2	53.764769	-0.872766	5.00	3.50	8.50
3	53.765251	-0.879075	4.32	3.50	7.82
4	53.766671	-0.879676	4.39	3.50	7.89
5	53.766646	-0.880234	4.36	3.50	7.86
6	53.766139	-0.880362	4.41	3.50	7.91
7	53.763145	-0.889975	5.30	3.50	8.80
8	53.764617	-0.890362	4.92	3.50	8.42
9	53.764553	-0.890834	4.70	3.50	8.20
10	53.763044	-0.890619	6.20	3.50	9.70
11	53.761446	-0.894911	9.27	3.50	12.77
12	53.759593	-0.899846	7.65	3.50	11.15
13	53.758782	-0.900318	7.20	3.50	10.70
14	53.758934	-0.900747	7.16	3.50	10.66
15	53.759898	-0.900704	7.56	3.50	11.06
16	53.762029	-0.895469	9.27	3.50	12.77
17	53.762689	-0.896413	8.78	3.50	12.28
18	53.764591	-0.892336	4.64	3.50	8.14
19	53.764667	-0.890319	4.90	3.50	8.40
20	53.765581	-0.890362	4.32	3.50	7.82
21	53.765327	-0.888731	5.39	3.50	8.89
22	53.764211	-0.888688	6.95	3.50	10.45
23	53.764287	-0.887358	6.37	3.50	9.87
24	53.765149	-0.887014	5.83	3.50	9.33
25	53.766595	-0.880834	5.09	3.50	8.59
26	53.766925	-0.879375	4.83	3.50	8.33

Name: PV array 17
Footprint area: 259,874 m^2
Axis tracking: Single-axis rotation
Backtracking: None
Tracking axis orientation: 180.0 deg
Tracking axis tilt: 0.0 deg
Tracking axis panel offset: 0.0 deg
Maximum tracking angle: 60.0 deg

Rated power: -
Panel material: Light textured glass with AR coating
Vary reflectivity with sun position? Yes
Correlate slope error with surface type? Yes
Slope error: 9.16 mrad

Vertex	Latitude	Longitude	Ground elevation	Height above ground	Total elevation
	deg	deg	m	m	m
1	53.800000	-0.898244	8.11	3.50	11.61
2	53.799316	-0.898158	5.69	3.50	9.19
3	53.796553	-0.900947	5.33	3.50	8.83
4	53.795792	-0.901205	5.86	3.50	9.36
5	53.795032	-0.896699	5.54	3.50	9.04
6	53.794246	-0.893437	5.00	3.50	8.50
7	53.795083	-0.892579	5.13	3.50	8.63
8	53.798150	-0.892794	5.38	3.50	8.88
9	53.800076	-0.893394	5.88	3.50	9.38
10	53.800228	-0.897471	6.28	3.50	9.78

Name: PV array 18
Footprint area: 191,697 m^2
Axis tracking: Single-axis rotation
Backtracking: None
Tracking axis orientation: 180.0 deg
Tracking axis tilt: 0.0 deg
Tracking axis panel offset: 0.0 deg
Maximum tracking angle: 60.0 deg

Rated power: -
Panel material: Light textured glass with AR coating
Vary reflectivity with sun position? Yes
Correlate slope error with surface type? Yes
Slope error: 9.16 mrad

Vertex	Latitude	Longitude	Ground elevation	Height above ground	Total elevation
	deg	deg	m	m	m
1	53.792776	-0.893609	4.96	3.50	8.46
2	53.791736	-0.894982	5.48	3.50	8.98
3	53.790697	-0.896012	4.98	3.50	8.48
4	53.788998	-0.897042	4.27	3.50	7.77
5	53.789100	-0.897986	4.86	3.50	8.36
6	53.788973	-0.899360	5.24	3.50	8.74
7	53.788821	-0.900046	4.94	3.50	8.44
8	53.789227	-0.902020	4.84	3.50	8.34
9	53.789531	-0.902063	6.31	3.50	9.81
10	53.789556	-0.900990	5.15	3.50	8.65
11	53.792472	-0.900347	5.64	3.50	9.14
12	53.792903	-0.901849	6.09	3.50	9.59
13	53.794322	-0.900390	6.18	3.50	9.68

Name: PV array 2
Footprint area: 632,085 m^2
Axis tracking: Single-axis rotation
Backtracking: None
Tracking axis orientation: 180.0 deg
Tracking axis tilt: 0.0 deg
Tracking axis panel offset: 0.0 deg
Maximum tracking angle: 60.0 deg

Rated power: -
Panel material: Light textured glass with AR coating
Vary reflectivity with sun position? Yes
Correlate slope error with surface type? Yes
Slope error: 9.16 mrad

Vertex	Latitude	Longitude	Ground elevation	Height above ground	Total elevation
	deg	deg	m	m	m
1	53.813872	-0.874438	6.25	3.50	9.75
2	53.811034	-0.872979	7.20	3.50	10.70
3	53.811516	-0.871090	7.04	3.50	10.54
4	53.808804	-0.868730	6.72	3.50	10.22
5	53.809108	-0.867485	6.99	3.50	10.49
6	53.808323	-0.867687	6.25	3.50	9.75
7	53.806878	-0.867000	6.02	3.50	9.52
8	53.807183	-0.865970	6.43	3.50	9.93
9	53.805325	-0.864511	6.24	3.50	9.74
10	53.805173	-0.865283	6.58	3.50	10.08
11	53.804083	-0.864425	7.27	3.50	10.77
12	53.802993	-0.867987	6.40	3.50	9.90
13	53.802537	-0.867343	6.48	3.50	9.98
14	53.802283	-0.866228	6.35	3.50	9.85
15	53.800991	-0.864854	6.93	3.50	10.43
16	53.803094	-0.859876	6.29	3.50	9.79
17	53.803551	-0.859790	6.05	3.50	9.55
18	53.804210	-0.857087	6.54	3.50	10.04
19	53.807758	-0.858374	6.00	3.50	9.50
20	53.807859	-0.862666	5.93	3.50	9.43
21	53.810140	-0.863524	5.70	3.50	9.20
22	53.813897	-0.865584	6.85	3.50	10.35
23	53.813517	-0.868545	5.83	3.50	9.33
24	53.813618	-0.870433	5.69	3.50	9.19
25	53.814100	-0.871678	6.48	3.50	9.98

Name: PV array 3
Footprint area: 155,482 m^2
Axis tracking: Single-axis rotation
Backtracking: None
Tracking axis orientation: 180.0 deg
Tracking axis tilt: 0.0 deg
Tracking axis panel offset: 0.0 deg
Maximum tracking angle: 60.0 deg

Rated power: -
Panel material: Light textured glass with AR coating
Vary reflectivity with sun position? Yes
Correlate slope error with surface type? Yes
Slope error: 9.16 mrad

Vertex	Latitude	Longitude	Ground elevation	Height above ground	Total elevation
	deg	deg	m	m	m
1	53.813884	-0.865326	6.57	3.50	10.07
2	53.810185	-0.863052	6.00	3.50	9.50
3	53.808158	-0.862236	5.93	3.50	9.43
4	53.808132	-0.858760	6.07	3.50	9.57
5	53.810172	-0.859726	6.68	3.50	10.18
6	53.810844	-0.860477	5.85	3.50	9.35
7	53.811807	-0.860799	5.51	3.50	9.01
8	53.812909	-0.860777	5.73	3.50	9.23
9	53.813175	-0.860649	5.42	3.50	8.92
10	53.813922	-0.860949	5.47	3.50	8.97
11	53.814416	-0.860691	6.67	3.50	10.17

Name: PV array 4
Footprint area: 640,744 m^2
Axis tracking: Single-axis rotation
Backtracking: None
Tracking axis orientation: 180.0 deg
Tracking axis tilt: 0.0 deg
Tracking axis panel offset: 0.0 deg
Maximum tracking angle: 60.0 deg

Rated power: -
Panel material: Light textured glass with AR coating
Vary reflectivity with sun position? Yes
Correlate slope error with surface type? Yes
Slope error: 9.16 mrad

Vertex	Latitude	Longitude	Ground elevation	Height above ground	Total elevation
	deg	deg	m	m	m
1	53.814581	-0.855301	5.71	3.50	9.21
2	53.814100	-0.855130	5.26	3.50	8.76
3	53.813454	-0.854701	5.23	3.50	8.73
4	53.811148	-0.860065	5.60	3.50	9.10
5	53.810261	-0.859271	5.85	3.50	9.35
6	53.805383	-0.856782	5.66	3.50	9.16
7	53.805649	-0.855001	5.25	3.50	8.75
8	53.804901	-0.853842	5.22	3.50	8.72
9	53.805636	-0.849186	5.28	3.50	8.78
10	53.804496	-0.847255	5.46	3.50	8.96
11	53.804166	-0.847276	5.90	3.50	9.40
12	53.803748	-0.853327	6.05	3.50	9.55
13	53.798337	-0.850667	6.07	3.50	9.57
14	53.799972	-0.847148	5.62	3.50	9.12
15	53.800263	-0.845581	5.93	3.50	9.43
16	53.804103	-0.847276	5.53	3.50	9.03
17	53.804597	-0.847233	4.75	3.50	8.25
18	53.807681	-0.847384	5.70	3.50	9.20
19	53.808454	-0.848607	5.76	3.50	9.26
20	53.807238	-0.851632	5.81	3.50	9.31
21	53.808568	-0.853714	5.85	3.50	9.35
22	53.808366	-0.854658	5.82	3.50	9.32
23	53.809671	-0.855108	4.90	3.50	8.40
24	53.810000	-0.853907	5.43	3.50	8.93
25	53.809709	-0.853628	5.37	3.50	8.87
26	53.811558	-0.850538	5.71	3.50	9.21
27	53.813269	-0.852190	5.07	3.50	8.57
28	53.814244	-0.852684	5.73	3.50	9.23

Name: PV array 5
Footprint area: 1,762,515 m^2
Axis tracking: Single-axis rotation
Backtracking: None
Tracking axis orientation: 180.0 deg
Tracking axis tilt: 0.0 deg
Tracking axis panel offset: 0.0 deg
Maximum tracking angle: 60.0 deg

Rated power: -
Panel material: Light textured glass with AR coating
Vary reflectivity with sun position? Yes
Correlate slope error with surface type? Yes
Slope error: 9.16 mrad

Vertex	Latitude	Longitude	Ground elevation	Height above ground	Total elevation
	deg	deg	m	m	m
1	53.807708	-0.847197	5.51	3.50	9.01
2	53.804096	-0.847004	5.39	3.50	8.89
3	53.797342	-0.843764	5.19	3.50	8.69
4	53.797874	-0.841661	5.30	3.50	8.80
5	53.799610	-0.837906	5.60	3.50	9.10
6	53.801258	-0.834001	5.60	3.50	9.10
7	53.803577	-0.827735	5.05	3.50	8.55
8	53.802145	-0.825933	5.34	3.50	8.84
9	53.799851	-0.832398	6.04	3.50	9.54
10	53.797215	-0.829265	5.09	3.50	8.59
11	53.795048	-0.834844	5.24	3.50	8.74
12	53.792817	-0.833686	5.73	3.50	9.23
13	53.792944	-0.831368	5.17	3.50	8.67
14	53.794439	-0.826390	5.04	3.50	8.54
15	53.795301	-0.827248	5.36	3.50	8.86
16	53.795707	-0.826991	6.45	3.50	9.95
17	53.797253	-0.828793	5.75	3.50	9.25
18	53.797861	-0.826647	5.38	3.50	8.88
19	53.796214	-0.825274	5.21	3.50	8.71
20	53.796290	-0.824502	4.27	3.50	7.77
21	53.795200	-0.823558	4.11	3.50	7.61
22	53.795986	-0.819695	4.60	3.50	8.10
23	53.799027	-0.821626	4.56	3.50	8.06
24	53.801638	-0.823944	4.37	3.50	7.87
25	53.803944	-0.826519	4.96	3.50	8.46
26	53.804172	-0.825918	4.35	3.50	7.85
27	53.802018	-0.823558	5.21	3.50	8.71
28	53.802094	-0.822656	4.99	3.50	8.49
29	53.801511	-0.822442	5.47	3.50	8.97
30	53.801283	-0.822871	4.64	3.50	8.14
31	53.799103	-0.820940	4.71	3.50	8.21
32	53.800244	-0.816047	4.44	3.50	7.94
33	53.798368	-0.814846	4.75	3.50	8.25
34	53.797481	-0.814846	4.42	3.50	7.92
35	53.799737	-0.810683	4.71	3.50	8.21
36	53.802753	-0.814331	2.81	3.50	6.31
37	53.802221	-0.816477	4.38	3.50	7.88
38	53.802145	-0.818408	3.53	3.50	7.03
39	53.802981	-0.821240	5.10	3.50	8.60
40	53.803843	-0.822141	4.77	3.50	8.27
41	53.808202	-0.827077	4.72	3.50	8.22
42	53.807087	-0.832012	5.04	3.50	8.54
43	53.804451	-0.840724	5.00	3.50	8.50
44	53.806872	-0.843073	5.31	3.50	8.81
45	53.807125	-0.842815	4.94	3.50	8.44
46	53.807911	-0.843545	5.00	3.50	8.50
47	53.808443	-0.844746	4.87	3.50	8.37

Name: PV array 6
Footprint area: 53,769 m^2
Axis tracking: Single-axis rotation
Backtracking: None
Tracking axis orientation: 180.0 deg
Tracking axis tilt: 0.0 deg
Tracking axis panel offset: 0.0 deg
Maximum tracking angle: 60.0 deg

Rated power: -
Panel material: Light textured glass with AR coating
Vary reflectivity with sun position? Yes
Correlate slope error with surface type? Yes
Slope error: 9.16 mrad

Vertex	Latitude	Longitude	Ground elevation	Height above ground	Total elevation
	deg	deg	m	m	m
1	53.800588	-0.865277	6.65	3.50	10.15
2	53.801779	-0.862166	6.43	3.50	9.93
3	53.800132	-0.860192	6.45	3.50	9.95
4	53.799054	-0.863110	6.98	3.50	10.48
5	53.799802	-0.864419	7.68	3.50	11.18

Name: PV array 7
Footprint area: 283,999 m^2
Axis tracking: Single-axis rotation
Backtracking: None
Tracking axis orientation: 180.0 deg
Tracking axis tilt: 0.0 deg
Tracking axis panel offset: 0.0 deg
Maximum tracking angle: 60.0 deg

Rated power: -
Panel material: Light textured glass with AR coating
Vary reflectivity with sun position? Yes
Correlate slope error with surface type? Yes
Slope error: 9.16 mrad

Vertex	Latitude	Longitude	Ground elevation	Height above ground	Total elevation
	deg	deg	m	m	m
1	53.797257	-0.867135	6.45	3.50	9.95
2	53.794393	-0.864903	6.01	3.50	9.51
3	53.792770	-0.869624	6.00	3.50	9.50
4	53.791553	-0.868208	5.96	3.50	9.46
5	53.789018	-0.874988	6.33	3.50	9.83
6	53.790007	-0.876319	7.32	3.50	10.82
7	53.790311	-0.875374	5.97	3.50	9.47
8	53.790666	-0.875675	6.59	3.50	10.09
9	53.791199	-0.874130	6.37	3.50	9.87
10	53.791477	-0.874044	5.65	3.50	9.15
11	53.791731	-0.873486	5.89	3.50	9.39
12	53.792872	-0.873143	5.95	3.50	9.45
13	53.793201	-0.873100	5.86	3.50	9.36
14	53.793810	-0.871684	5.84	3.50	9.34
15	53.795457	-0.872800	5.36	3.50	8.86
16	53.796269	-0.871684	5.24	3.50	8.74
17	53.797232	-0.869409	5.79	3.50	9.29
18	53.796750	-0.868808	6.03	3.50	9.53

Name: PV array 8
Footprint area: 513,457 m^2
Axis tracking: Single-axis rotation
Backtracking: None
Tracking axis orientation: 180.0 deg
Tracking axis tilt: 0.0 deg
Tracking axis panel offset: 0.0 deg
Maximum tracking angle: 60.0 deg

Rated power: -
Panel material: Light textured glass with AR coating
Vary reflectivity with sun position? Yes
Correlate slope error with surface type? Yes
Slope error: 9.16 mrad

Vertex	Latitude	Longitude	Ground elevation	Height above ground	Total elevation
	deg	deg	m	m	m
1	53.790717	-0.857736	6.07	3.50	9.57
2	53.787725	-0.853702	5.77	3.50	9.27
3	53.787041	-0.856191	5.84	3.50	9.34
4	53.786458	-0.856277	5.48	3.50	8.98
5	53.786103	-0.857565	5.78	3.50	9.28
6	53.785291	-0.856792	5.63	3.50	9.13
7	53.785215	-0.852071	5.00	3.50	8.50
8	53.784328	-0.851900	4.64	3.50	8.14
9	53.784531	-0.849883	5.48	3.50	8.98
10	53.785038	-0.847179	5.34	3.50	8.84
11	53.783035	-0.846020	4.21	3.50	7.71
12	53.783694	-0.842587	5.00	3.50	8.50
13	53.785722	-0.843059	4.65	3.50	8.15
14	53.786736	-0.843789	4.23	3.50	7.73
15	53.789044	-0.845591	5.87	3.50	9.37
16	53.789756	-0.846235	5.45	3.50	8.95
17	53.788780	-0.849668	5.37	3.50	8.87
18	53.790301	-0.851406	6.41	3.50	9.91
19	53.792443	-0.853187	7.67	3.50	11.17

Name: PV array 9
Footprint area: 445,425 m^2
Axis tracking: Single-axis rotation
Backtracking: None
Tracking axis orientation: 180.0 deg
Tracking axis tilt: 0.0 deg
Tracking axis panel offset: 0.0 deg
Maximum tracking angle: 60.0 deg

Rated power: -
Panel material: Light textured glass with AR coating
Vary reflectivity with sun position? Yes
Correlate slope error with surface type? Yes
Slope error: 9.16 mrad

Vertex	Latitude	Longitude	Ground elevation	Height above ground	Total elevation
	deg	deg	m	m	m
1	53.783172	-0.836739	5.76	3.50	9.26
2	53.780154	-0.833434	5.23	3.50	8.73
3	53.779672	-0.835022	5.35	3.50	8.85
4	53.777263	-0.832447	5.19	3.50	8.69
5	53.775361	-0.841459	5.51	3.50	9.01
6	53.781245	-0.845408	5.09	3.50	8.59

Discrete Observation Receptors

Number	Latitude	Longitude	Ground elevation	Height above ground	Total Elevation
	deg	deg	m	m	m
OP 1	53.758899	-0.912853	8.24	2.00	10.24
OP 2	53.758566	-0.907779	7.79	2.00	9.79
OP 3	53.758274	-0.907527	6.71	2.00	8.71
OP 4	53.756885	-0.908964	6.24	2.00	8.24
OP 5	53.756339	-0.907827	6.46	2.00	8.46
OP 6	53.758998	-0.860764	5.09	2.00	7.09
OP 7	53.759261	-0.861504	4.74	2.00	6.74
OP 8	53.759689	-0.860206	6.00	2.00	8.00
OP 9	53.760035	-0.860405	5.99	2.00	7.99
OP 10	53.760257	-0.860442	6.00	2.00	8.00
OP 11	53.762475	-0.860176	4.00	2.00	6.00
OP 12	53.763477	-0.859822	4.74	2.00	6.74
OP 13	53.763807	-0.860771	5.22	2.00	7.22
OP 14	53.764555	-0.860707	6.15	2.00	8.15
OP 15	53.764888	-0.860224	6.80	2.00	8.80
OP 16	53.765833	-0.860739	6.38	2.00	8.38
OP 17	53.766020	-0.860814	6.20	2.00	8.20
OP 18	53.768740	-0.863169	5.37	2.00	7.37
OP 19	53.768312	-0.862311	4.61	2.00	6.61
OP 20	53.768639	-0.860916	4.61	2.00	6.61
OP 21	53.768912	-0.860095	5.00	2.00	7.00
OP 22	53.769324	-0.859355	5.25	2.00	7.25
OP 23	53.769162	-0.854795	5.00	2.00	7.00
OP 24	53.768830	-0.868248	6.00	2.00	8.00
OP 25	53.768732	-0.868677	6.11	2.00	8.11
OP 26	53.769794	-0.868913	6.55	2.00	8.55
OP 27	53.770041	-0.869857	5.70	2.00	7.70
OP 28	53.771268	-0.866016	5.00	2.00	7.00
OP 29	53.771664	-0.867840	4.70	2.00	6.70
OP 30	53.770181	-0.872813	4.50	2.00	6.50
OP 31	53.769651	-0.874106	4.54	2.00	6.54
OP 32	53.770231	-0.874854	3.48	2.00	5.48
OP 33	53.769800	-0.875171	4.08	2.00	6.08
OP 34	53.769781	-0.876160	4.08	2.00	6.08
OP 35	53.768814	-0.877879	5.00	2.00	7.00
OP 36	53.768654	-0.878142	5.00	2.00	7.00
OP 37	53.767705	-0.879813	5.00	2.00	7.00
OP 38	53.766267	-0.835410	6.07	2.00	8.07
OP 39	53.766427	-0.833519	6.00	2.00	8.00
OP 40	53.776348	-0.815543	5.35	2.00	7.35
OP 41	53.776605	-0.814480	4.88	2.00	6.88
OP 42	53.777154	-0.813616	4.65	2.00	6.65
OP 43	53.777341	-0.813326	4.93	2.00	6.93
OP 44	53.778333	-0.810950	5.00	2.00	7.00
OP 45	53.779468	-0.810510	5.00	2.00	7.00
OP 46	53.783721	-0.809383	5.10	2.00	7.10
OP 47	53.782964	-0.832799	4.26	2.00	6.26
OP 48	53.783208	-0.832692	4.78	2.00	6.78
OP 49	53.783238	-0.838609	5.84	2.00	7.84
OP 50	53.782929	-0.840726	5.00	2.00	7.00
OP 51	53.782447	-0.843242	5.35	2.00	7.35
OP 52	53.779751	-0.850129	5.91	2.00	7.91
OP 53	53.790001	-0.812678	7.87	2.00	9.87
OP 54	53.790048	-0.813423	7.56	2.00	9.56
OP 55	53.790324	-0.813305	7.23	2.00	9.23
OP 56	53.790584	-0.813552	7.05	2.00	9.05
OP 57	53.791097	-0.814587	6.81	2.00	8.81
OP 58	53.793521	-0.840594	6.85	2.00	8.85
OP 59	53.793246	-0.841560	6.84	2.00	8.84
OP 60	53.793731	-0.842016	7.06	2.00	9.06

Summary of PV Glare Analysis

PV configuration and total predicted glare

PV Name	Tilt	Orientation	"Green" Glare	"Yellow" Glare	Energy Produced	Data File
	deg	deg	min	min	kWh	
PV array 1	SA tracking	SA tracking	0	0	-	-
PV array 10	SA tracking	SA tracking	0	0	-	-
PV array 11	SA tracking	SA tracking	0	0	-	-
PV array 12	SA tracking	SA tracking	0	0	-	-
PV array 13	SA tracking	SA tracking	0	0	-	-
PV array 14	SA tracking	SA tracking	0	0	-	-
PV array 15	SA tracking	SA tracking	0	0	-	-
PV array 16	SA tracking	SA tracking	0	0	-	-
PV array 17	SA tracking	SA tracking	0	0	-	-
PV array 18	SA tracking	SA tracking	0	0	-	-
PV array 2	SA tracking	SA tracking	0	0	-	-
PV array 3	SA tracking	SA tracking	0	0	-	-
PV array 4	SA tracking	SA tracking	0	0	-	-
PV array 5	SA tracking	SA tracking	0	0	-	-
PV array 6	SA tracking	SA tracking	0	0	-	-
PV array 7	SA tracking	SA tracking	0	0	-	-
PV array 8	SA tracking	SA tracking	0	0	-	-
PV array 9	SA tracking	SA tracking	0	0	-	-

PV & Receptor Analysis Results

Results for each PV array and receptor

PV array 1 no glare found

Component	Green glare (min)	Yellow glare (min)
OP: OP 1	0	0
OP: OP 2	0	0
OP: OP 3	0	0
OP: OP 4	0	0
OP: OP 5	0	0
OP: OP 6	0	0
OP: OP 7	0	0
OP: OP 8	0	0
OP: OP 9	0	0
OP: OP 10	0	0
OP: OP 11	0	0
OP: OP 12	0	0
OP: OP 13	0	0
OP: OP 14	0	0
OP: OP 15	0	0
OP: OP 16	0	0
OP: OP 17	0	0
OP: OP 18	0	0
OP: OP 19	0	0
OP: OP 20	0	0
OP: OP 21	0	0
OP: OP 22	0	0
OP: OP 23	0	0
OP: OP 24	0	0
OP: OP 25	0	0
OP: OP 26	0	0
OP: OP 27	0	0
OP: OP 28	0	0
OP: OP 29	0	0
OP: OP 30	0	0
OP: OP 31	0	0
OP: OP 32	0	0
OP: OP 33	0	0
OP: OP 34	0	0
OP: OP 35	0	0
OP: OP 36	0	0
OP: OP 37	0	0
OP: OP 38	0	0
OP: OP 39	0	0
OP: OP 40	0	0
OP: OP 41	0	0
OP: OP 42	0	0
OP: OP 43	0	0
OP: OP 44	0	0
OP: OP 45	0	0
OP: OP 46	0	0
OP: OP 47	0	0
OP: OP 48	0	0
OP: OP 49	0	0
OP: OP 50	0	0
OP: OP 51	0	0
OP: OP 52	0	0
OP: OP 53	0	0

OP: OP 54	0	0
OP: OP 55	0	0
OP: OP 56	0	0
OP: OP 57	0	0
OP: OP 58	0	0
OP: OP 59	0	0
OP: OP 60	0	0

No glare found

PV array 10 no glare found

Component	Green glare (min)	Yellow glare (min)
OP: OP 1	0	0
OP: OP 2	0	0
OP: OP 3	0	0
OP: OP 4	0	0
OP: OP 5	0	0
OP: OP 6	0	0
OP: OP 7	0	0
OP: OP 8	0	0
OP: OP 9	0	0
OP: OP 10	0	0
OP: OP 11	0	0
OP: OP 12	0	0
OP: OP 13	0	0
OP: OP 14	0	0
OP: OP 15	0	0
OP: OP 16	0	0
OP: OP 17	0	0
OP: OP 18	0	0
OP: OP 19	0	0
OP: OP 20	0	0
OP: OP 21	0	0
OP: OP 22	0	0
OP: OP 23	0	0
OP: OP 24	0	0
OP: OP 25	0	0
OP: OP 26	0	0
OP: OP 27	0	0
OP: OP 28	0	0
OP: OP 29	0	0
OP: OP 30	0	0
OP: OP 31	0	0
OP: OP 32	0	0
OP: OP 33	0	0
OP: OP 34	0	0
OP: OP 35	0	0
OP: OP 36	0	0
OP: OP 37	0	0
OP: OP 38	0	0
OP: OP 39	0	0
OP: OP 40	0	0

OP: OP 41	0	0
OP: OP 42	0	0
OP: OP 43	0	0
OP: OP 44	0	0
OP: OP 45	0	0
OP: OP 46	0	0
OP: OP 47	0	0
OP: OP 48	0	0
OP: OP 49	0	0
OP: OP 50	0	0
OP: OP 51	0	0
OP: OP 52	0	0
OP: OP 53	0	0
OP: OP 54	0	0
OP: OP 55	0	0
OP: OP 56	0	0
OP: OP 57	0	0
OP: OP 58	0	0
OP: OP 59	0	0
OP: OP 60	0	0

No glare found

PV array 11 no glare found

Component	Green glare (min)	Yellow glare (min)
OP: OP 1	0	0
OP: OP 2	0	0
OP: OP 3	0	0
OP: OP 4	0	0
OP: OP 5	0	0
OP: OP 6	0	0
OP: OP 7	0	0
OP: OP 8	0	0
OP: OP 9	0	0
OP: OP 10	0	0
OP: OP 11	0	0
OP: OP 12	0	0
OP: OP 13	0	0
OP: OP 14	0	0
OP: OP 15	0	0
OP: OP 16	0	0
OP: OP 17	0	0
OP: OP 18	0	0
OP: OP 19	0	0
OP: OP 20	0	0
OP: OP 21	0	0
OP: OP 22	0	0
OP: OP 23	0	0
OP: OP 24	0	0
OP: OP 25	0	0
OP: OP 26	0	0
OP: OP 27	0	0

OP: OP 28	0	0
OP: OP 29	0	0
OP: OP 30	0	0
OP: OP 31	0	0
OP: OP 32	0	0
OP: OP 33	0	0
OP: OP 34	0	0
OP: OP 35	0	0
OP: OP 36	0	0
OP: OP 37	0	0
OP: OP 38	0	0
OP: OP 39	0	0
OP: OP 40	0	0
OP: OP 41	0	0
OP: OP 42	0	0
OP: OP 43	0	0
OP: OP 44	0	0
OP: OP 45	0	0
OP: OP 46	0	0
OP: OP 47	0	0
OP: OP 48	0	0
OP: OP 49	0	0
OP: OP 50	0	0
OP: OP 51	0	0
OP: OP 52	0	0
OP: OP 53	0	0
OP: OP 54	0	0
OP: OP 55	0	0
OP: OP 56	0	0
OP: OP 57	0	0
OP: OP 58	0	0
OP: OP 59	0	0
OP: OP 60	0	0

No glare found

PV array 12 no glare found

Component	Green glare (min)	Yellow glare (min)
OP: OP 1	0	0
OP: OP 2	0	0
OP: OP 3	0	0
OP: OP 4	0	0
OP: OP 5	0	0
OP: OP 6	0	0
OP: OP 7	0	0
OP: OP 8	0	0
OP: OP 9	0	0
OP: OP 10	0	0
OP: OP 11	0	0
OP: OP 12	0	0
OP: OP 13	0	0
OP: OP 14	0	0

OP: OP 15	0	0
OP: OP 16	0	0
OP: OP 17	0	0
OP: OP 18	0	0
OP: OP 19	0	0
OP: OP 20	0	0
OP: OP 21	0	0
OP: OP 22	0	0
OP: OP 23	0	0
OP: OP 24	0	0
OP: OP 25	0	0
OP: OP 26	0	0
OP: OP 27	0	0
OP: OP 28	0	0
OP: OP 29	0	0
OP: OP 30	0	0
OP: OP 31	0	0
OP: OP 32	0	0
OP: OP 33	0	0
OP: OP 34	0	0
OP: OP 35	0	0
OP: OP 36	0	0
OP: OP 37	0	0
OP: OP 38	0	0
OP: OP 39	0	0
OP: OP 40	0	0
OP: OP 41	0	0
OP: OP 42	0	0
OP: OP 43	0	0
OP: OP 44	0	0
OP: OP 45	0	0
OP: OP 46	0	0
OP: OP 47	0	0
OP: OP 48	0	0
OP: OP 49	0	0
OP: OP 50	0	0
OP: OP 51	0	0
OP: OP 52	0	0
OP: OP 53	0	0
OP: OP 54	0	0
OP: OP 55	0	0
OP: OP 56	0	0
OP: OP 57	0	0
OP: OP 58	0	0
OP: OP 59	0	0
OP: OP 60	0	0

No glare found

PV array 13 no glare found

Component	Green glare (min)	Yellow glare (min)
OP: OP 1	0	0

OP: OP 2	0	0
OP: OP 3	0	0
OP: OP 4	0	0
OP: OP 5	0	0
OP: OP 6	0	0
OP: OP 7	0	0
OP: OP 8	0	0
OP: OP 9	0	0
OP: OP 10	0	0
OP: OP 11	0	0
OP: OP 12	0	0
OP: OP 13	0	0
OP: OP 14	0	0
OP: OP 15	0	0
OP: OP 16	0	0
OP: OP 17	0	0
OP: OP 18	0	0
OP: OP 19	0	0
OP: OP 20	0	0
OP: OP 21	0	0
OP: OP 22	0	0
OP: OP 23	0	0
OP: OP 24	0	0
OP: OP 25	0	0
OP: OP 26	0	0
OP: OP 27	0	0
OP: OP 28	0	0
OP: OP 29	0	0
OP: OP 30	0	0
OP: OP 31	0	0
OP: OP 32	0	0
OP: OP 33	0	0
OP: OP 34	0	0
OP: OP 35	0	0
OP: OP 36	0	0
OP: OP 37	0	0
OP: OP 38	0	0
OP: OP 39	0	0
OP: OP 40	0	0
OP: OP 41	0	0
OP: OP 42	0	0
OP: OP 43	0	0
OP: OP 44	0	0
OP: OP 45	0	0
OP: OP 46	0	0
OP: OP 47	0	0
OP: OP 48	0	0
OP: OP 49	0	0
OP: OP 50	0	0
OP: OP 51	0	0
OP: OP 52	0	0
OP: OP 53	0	0
OP: OP 54	0	0
OP: OP 55	0	0
OP: OP 56	0	0

OP: OP 57	0	0
OP: OP 58	0	0
OP: OP 59	0	0
OP: OP 60	0	0

No glare found

PV array 14 no glare found

Component	Green glare (min)	Yellow glare (min)
OP: OP 1	0	0
OP: OP 2	0	0
OP: OP 3	0	0
OP: OP 4	0	0
OP: OP 5	0	0
OP: OP 6	0	0
OP: OP 7	0	0
OP: OP 8	0	0
OP: OP 9	0	0
OP: OP 10	0	0
OP: OP 11	0	0
OP: OP 12	0	0
OP: OP 13	0	0
OP: OP 14	0	0
OP: OP 15	0	0
OP: OP 16	0	0
OP: OP 17	0	0
OP: OP 18	0	0
OP: OP 19	0	0
OP: OP 20	0	0
OP: OP 21	0	0
OP: OP 22	0	0
OP: OP 23	0	0
OP: OP 24	0	0
OP: OP 25	0	0
OP: OP 26	0	0
OP: OP 27	0	0
OP: OP 28	0	0
OP: OP 29	0	0
OP: OP 30	0	0
OP: OP 31	0	0
OP: OP 32	0	0
OP: OP 33	0	0
OP: OP 34	0	0
OP: OP 35	0	0
OP: OP 36	0	0
OP: OP 37	0	0
OP: OP 38	0	0
OP: OP 39	0	0
OP: OP 40	0	0
OP: OP 41	0	0
OP: OP 42	0	0
OP: OP 43	0	0

OP: OP 44	0	0
OP: OP 45	0	0
OP: OP 46	0	0
OP: OP 47	0	0
OP: OP 48	0	0
OP: OP 49	0	0
OP: OP 50	0	0
OP: OP 51	0	0
OP: OP 52	0	0
OP: OP 53	0	0
OP: OP 54	0	0
OP: OP 55	0	0
OP: OP 56	0	0
OP: OP 57	0	0
OP: OP 58	0	0
OP: OP 59	0	0
OP: OP 60	0	0

No glare found

PV array 15 no glare found

Component	Green glare (min)	Yellow glare (min)
OP: OP 1	0	0
OP: OP 2	0	0
OP: OP 3	0	0
OP: OP 4	0	0
OP: OP 5	0	0
OP: OP 6	0	0
OP: OP 7	0	0
OP: OP 8	0	0
OP: OP 9	0	0
OP: OP 10	0	0
OP: OP 11	0	0
OP: OP 12	0	0
OP: OP 13	0	0
OP: OP 14	0	0
OP: OP 15	0	0
OP: OP 16	0	0
OP: OP 17	0	0
OP: OP 18	0	0
OP: OP 19	0	0
OP: OP 20	0	0
OP: OP 21	0	0
OP: OP 22	0	0
OP: OP 23	0	0
OP: OP 24	0	0
OP: OP 25	0	0
OP: OP 26	0	0
OP: OP 27	0	0
OP: OP 28	0	0
OP: OP 29	0	0
OP: OP 30	0	0

OP: OP 31	0	0
OP: OP 32	0	0
OP: OP 33	0	0
OP: OP 34	0	0
OP: OP 35	0	0
OP: OP 36	0	0
OP: OP 37	0	0
OP: OP 38	0	0
OP: OP 39	0	0
OP: OP 40	0	0
OP: OP 41	0	0
OP: OP 42	0	0
OP: OP 43	0	0
OP: OP 44	0	0
OP: OP 45	0	0
OP: OP 46	0	0
OP: OP 47	0	0
OP: OP 48	0	0
OP: OP 49	0	0
OP: OP 50	0	0
OP: OP 51	0	0
OP: OP 52	0	0
OP: OP 53	0	0
OP: OP 54	0	0
OP: OP 55	0	0
OP: OP 56	0	0
OP: OP 57	0	0
OP: OP 58	0	0
OP: OP 59	0	0
OP: OP 60	0	0

No glare found

PV array 16 no glare found

Component	Green glare (min)	Yellow glare (min)
OP: OP 1	0	0
OP: OP 2	0	0
OP: OP 3	0	0
OP: OP 4	0	0
OP: OP 5	0	0
OP: OP 6	0	0
OP: OP 7	0	0
OP: OP 8	0	0
OP: OP 9	0	0
OP: OP 10	0	0
OP: OP 11	0	0
OP: OP 12	0	0
OP: OP 13	0	0
OP: OP 14	0	0
OP: OP 15	0	0
OP: OP 16	0	0
OP: OP 17	0	0

OP: OP 18	0	0
OP: OP 19	0	0
OP: OP 20	0	0
OP: OP 21	0	0
OP: OP 22	0	0
OP: OP 23	0	0
OP: OP 24	0	0
OP: OP 25	0	0
OP: OP 26	0	0
OP: OP 27	0	0
OP: OP 28	0	0
OP: OP 29	0	0
OP: OP 30	0	0
OP: OP 31	0	0
OP: OP 32	0	0
OP: OP 33	0	0
OP: OP 34	0	0
OP: OP 35	0	0
OP: OP 36	0	0
OP: OP 37	0	0
OP: OP 38	0	0
OP: OP 39	0	0
OP: OP 40	0	0
OP: OP 41	0	0
OP: OP 42	0	0
OP: OP 43	0	0
OP: OP 44	0	0
OP: OP 45	0	0
OP: OP 46	0	0
OP: OP 47	0	0
OP: OP 48	0	0
OP: OP 49	0	0
OP: OP 50	0	0
OP: OP 51	0	0
OP: OP 52	0	0
OP: OP 53	0	0
OP: OP 54	0	0
OP: OP 55	0	0
OP: OP 56	0	0
OP: OP 57	0	0
OP: OP 58	0	0
OP: OP 59	0	0
OP: OP 60	0	0

No glare found

PV array 17 no glare found

Component	Green glare (min)	Yellow glare (min)
OP: OP 1	0	0
OP: OP 2	0	0
OP: OP 3	0	0
OP: OP 4	0	0

OP: OP 5	0	0
OP: OP 6	0	0
OP: OP 7	0	0
OP: OP 8	0	0
OP: OP 9	0	0
OP: OP 10	0	0
OP: OP 11	0	0
OP: OP 12	0	0
OP: OP 13	0	0
OP: OP 14	0	0
OP: OP 15	0	0
OP: OP 16	0	0
OP: OP 17	0	0
OP: OP 18	0	0
OP: OP 19	0	0
OP: OP 20	0	0
OP: OP 21	0	0
OP: OP 22	0	0
OP: OP 23	0	0
OP: OP 24	0	0
OP: OP 25	0	0
OP: OP 26	0	0
OP: OP 27	0	0
OP: OP 28	0	0
OP: OP 29	0	0
OP: OP 30	0	0
OP: OP 31	0	0
OP: OP 32	0	0
OP: OP 33	0	0
OP: OP 34	0	0
OP: OP 35	0	0
OP: OP 36	0	0
OP: OP 37	0	0
OP: OP 38	0	0
OP: OP 39	0	0
OP: OP 40	0	0
OP: OP 41	0	0
OP: OP 42	0	0
OP: OP 43	0	0
OP: OP 44	0	0
OP: OP 45	0	0
OP: OP 46	0	0
OP: OP 47	0	0
OP: OP 48	0	0
OP: OP 49	0	0
OP: OP 50	0	0
OP: OP 51	0	0
OP: OP 52	0	0
OP: OP 53	0	0
OP: OP 54	0	0
OP: OP 55	0	0
OP: OP 56	0	0
OP: OP 57	0	0
OP: OP 58	0	0
OP: OP 59	0	0

OP: OP 60	0	0

No glare found

PV array 18 no glare found

Component	Green glare (min)	Yellow glare (min)
OP: OP 1	0	0
OP: OP 2	0	0
OP: OP 3	0	0
OP: OP 4	0	0
OP: OP 5	0	0
OP: OP 6	0	0
OP: OP 7	0	0
OP: OP 8	0	0
OP: OP 9	0	0
OP: OP 10	0	0
OP: OP 11	0	0
OP: OP 12	0	0
OP: OP 13	0	0
OP: OP 14	0	0
OP: OP 15	0	0
OP: OP 16	0	0
OP: OP 17	0	0
OP: OP 18	0	0
OP: OP 19	0	0
OP: OP 20	0	0
OP: OP 21	0	0
OP: OP 22	0	0
OP: OP 23	0	0
OP: OP 24	0	0
OP: OP 25	0	0
OP: OP 26	0	0
OP: OP 27	0	0
OP: OP 28	0	0
OP: OP 29	0	0
OP: OP 30	0	0
OP: OP 31	0	0
OP: OP 32	0	0
OP: OP 33	0	0
OP: OP 34	0	0
OP: OP 35	0	0
OP: OP 36	0	0
OP: OP 37	0	0
OP: OP 38	0	0
OP: OP 39	0	0
OP: OP 40	0	0
OP: OP 41	0	0
OP: OP 42	0	0
OP: OP 43	0	0
OP: OP 44	0	0
OP: OP 45	0	0
OP: OP 46	0	0

OP: OP 47	0	0
OP: OP 48	0	0
OP: OP 49	0	0
OP: OP 50	0	0
OP: OP 51	0	0
OP: OP 52	0	0
OP: OP 53	0	0
OP: OP 54	0	0
OP: OP 55	0	0
OP: OP 56	0	0
OP: OP 57	0	0
OP: OP 58	0	0
OP: OP 59	0	0
OP: OP 60	0	0

No glare found

PV array 2 no glare found

Component	Green glare (min)	Yellow glare (min)
OP: OP 1	0	0
OP: OP 2	0	0
OP: OP 3	0	0
OP: OP 4	0	0
OP: OP 5	0	0
OP: OP 6	0	0
OP: OP 7	0	0
OP: OP 8	0	0
OP: OP 9	0	0
OP: OP 10	0	0
OP: OP 11	0	0
OP: OP 12	0	0
OP: OP 13	0	0
OP: OP 14	0	0
OP: OP 15	0	0
OP: OP 16	0	0
OP: OP 17	0	0
OP: OP 18	0	0
OP: OP 19	0	0
OP: OP 20	0	0
OP: OP 21	0	0
OP: OP 22	0	0
OP: OP 23	0	0
OP: OP 24	0	0
OP: OP 25	0	0
OP: OP 26	0	0
OP: OP 27	0	0
OP: OP 28	0	0
OP: OP 29	0	0
OP: OP 30	0	0
OP: OP 31	0	0
OP: OP 32	0	0
OP: OP 33	0	0

OP: OP 34	0	0
OP: OP 35	0	0
OP: OP 36	0	0
OP: OP 37	0	0
OP: OP 38	0	0
OP: OP 39	0	0
OP: OP 40	0	0
OP: OP 41	0	0
OP: OP 42	0	0
OP: OP 43	0	0
OP: OP 44	0	0
OP: OP 45	0	0
OP: OP 46	0	0
OP: OP 47	0	0
OP: OP 48	0	0
OP: OP 49	0	0
OP: OP 50	0	0
OP: OP 51	0	0
OP: OP 52	0	0
OP: OP 53	0	0
OP: OP 54	0	0
OP: OP 55	0	0
OP: OP 56	0	0
OP: OP 57	0	0
OP: OP 58	0	0
OP: OP 59	0	0
OP: OP 60	0	0

No glare found

PV array 3 no glare found

Component	Green glare (min)	Yellow glare (min)
OP: OP 1	0	0
OP: OP 2	0	0
OP: OP 3	0	0
OP: OP 4	0	0
OP: OP 5	0	0
OP: OP 6	0	0
OP: OP 7	0	0
OP: OP 8	0	0
OP: OP 9	0	0
OP: OP 10	0	0
OP: OP 11	0	0
OP: OP 12	0	0
OP: OP 13	0	0
OP: OP 14	0	0
OP: OP 15	0	0
OP: OP 16	0	0
OP: OP 17	0	0
OP: OP 18	0	0
OP: OP 19	0	0
OP: OP 20	0	0

OP: OP 21	0	0
OP: OP 22	0	0
OP: OP 23	0	0
OP: OP 24	0	0
OP: OP 25	0	0
OP: OP 26	0	0
OP: OP 27	0	0
OP: OP 28	0	0
OP: OP 29	0	0
OP: OP 30	0	0
OP: OP 31	0	0
OP: OP 32	0	0
OP: OP 33	0	0
OP: OP 34	0	0
OP: OP 35	0	0
OP: OP 36	0	0
OP: OP 37	0	0
OP: OP 38	0	0
OP: OP 39	0	0
OP: OP 40	0	0
OP: OP 41	0	0
OP: OP 42	0	0
OP: OP 43	0	0
OP: OP 44	0	0
OP: OP 45	0	0
OP: OP 46	0	0
OP: OP 47	0	0
OP: OP 48	0	0
OP: OP 49	0	0
OP: OP 50	0	0
OP: OP 51	0	0
OP: OP 52	0	0
OP: OP 53	0	0
OP: OP 54	0	0
OP: OP 55	0	0
OP: OP 56	0	0
OP: OP 57	0	0
OP: OP 58	0	0
OP: OP 59	0	0
OP: OP 60	0	0

No glare found

PV array 4 no glare found

Component	Green glare (min)	Yellow glare (min)
OP: OP 1	0	0
OP: OP 2	0	0
OP: OP 3	0	0
OP: OP 4	0	0
OP: OP 5	0	0
OP: OP 6	0	0
OP: OP 7	0	0

OP: OP 8	0	0
OP: OP 9	0	0
OP: OP 10	0	0
OP: OP 11	0	0
OP: OP 12	0	0
OP: OP 13	0	0
OP: OP 14	0	0
OP: OP 15	0	0
OP: OP 16	0	0
OP: OP 17	0	0
OP: OP 18	0	0
OP: OP 19	0	0
OP: OP 20	0	0
OP: OP 21	0	0
OP: OP 22	0	0
OP: OP 23	0	0
OP: OP 24	0	0
OP: OP 25	0	0
OP: OP 26	0	0
OP: OP 27	0	0
OP: OP 28	0	0
OP: OP 29	0	0
OP: OP 30	0	0
OP: OP 31	0	0
OP: OP 32	0	0
OP: OP 33	0	0
OP: OP 34	0	0
OP: OP 35	0	0
OP: OP 36	0	0
OP: OP 37	0	0
OP: OP 38	0	0
OP: OP 39	0	0
OP: OP 40	0	0
OP: OP 41	0	0
OP: OP 42	0	0
OP: OP 43	0	0
OP: OP 44	0	0
OP: OP 45	0	0
OP: OP 46	0	0
OP: OP 47	0	0
OP: OP 48	0	0
OP: OP 49	0	0
OP: OP 50	0	0
OP: OP 51	0	0
OP: OP 52	0	0
OP: OP 53	0	0
OP: OP 54	0	0
OP: OP 55	0	0
OP: OP 56	0	0
OP: OP 57	0	0
OP: OP 58	0	0
OP: OP 59	0	0
OP: OP 60	0	0

No glare found

PV array 5 no glare found

Component	Green glare (min)	Yellow glare (min)
OP: OP 1	0	0
OP: OP 2	0	0
OP: OP 3	0	0
OP: OP 4	0	0
OP: OP 5	0	0
OP: OP 6	0	0
OP: OP 7	0	0
OP: OP 8	0	0
OP: OP 9	0	0
OP: OP 10	0	0
OP: OP 11	0	0
OP: OP 12	0	0
OP: OP 13	0	0
OP: OP 14	0	0
OP: OP 15	0	0
OP: OP 16	0	0
OP: OP 17	0	0
OP: OP 18	0	0
OP: OP 19	0	0
OP: OP 20	0	0
OP: OP 21	0	0
OP: OP 22	0	0
OP: OP 23	0	0
OP: OP 24	0	0
OP: OP 25	0	0
OP: OP 26	0	0
OP: OP 27	0	0
OP: OP 28	0	0
OP: OP 29	0	0
OP: OP 30	0	0
OP: OP 31	0	0
OP: OP 32	0	0
OP: OP 33	0	0
OP: OP 34	0	0
OP: OP 35	0	0
OP: OP 36	0	0
OP: OP 37	0	0
OP: OP 38	0	0
OP: OP 39	0	0
OP: OP 40	0	0
OP: OP 41	0	0
OP: OP 42	0	0
OP: OP 43	0	0
OP: OP 44	0	0
OP: OP 45	0	0
OP: OP 46	0	0
OP: OP 47	0	0
OP: OP 48	0	0
OP: OP 49	0	0
OP: OP 50	0	0
OP: OP 51	0	0
OP: OP 52	0	0
OP: OP 53	0	0

OP: OP 54	0	0
OP: OP 55	0	0
OP: OP 56	0	0
OP: OP 57	0	0
OP: OP 58	0	0
OP: OP 59	0	0
OP: OP 60	0	0

No glare found

PV array 6 no glare found

Component	Green glare (min)	Yellow glare (min)
OP: OP 1	0	0
OP: OP 2	0	0
OP: OP 3	0	0
OP: OP 4	0	0
OP: OP 5	0	0
OP: OP 6	0	0
OP: OP 7	0	0
OP: OP 8	0	0
OP: OP 9	0	0
OP: OP 10	0	0
OP: OP 11	0	0
OP: OP 12	0	0
OP: OP 13	0	0
OP: OP 14	0	0
OP: OP 15	0	0
OP: OP 16	0	0
OP: OP 17	0	0
OP: OP 18	0	0
OP: OP 19	0	0
OP: OP 20	0	0
OP: OP 21	0	0
OP: OP 22	0	0
OP: OP 23	0	0
OP: OP 24	0	0
OP: OP 25	0	0
OP: OP 26	0	0
OP: OP 27	0	0
OP: OP 28	0	0
OP: OP 29	0	0
OP: OP 30	0	0
OP: OP 31	0	0
OP: OP 32	0	0
OP: OP 33	0	0
OP: OP 34	0	0
OP: OP 35	0	0
OP: OP 36	0	0
OP: OP 37	0	0
OP: OP 38	0	0
OP: OP 39	0	0
OP: OP 40	0	0

OP: OP 41	0	0
OP: OP 42	0	0
OP: OP 43	0	0
OP: OP 44	0	0
OP: OP 45	0	0
OP: OP 46	0	0
OP: OP 47	0	0
OP: OP 48	0	0
OP: OP 49	0	0
OP: OP 50	0	0
OP: OP 51	0	0
OP: OP 52	0	0
OP: OP 53	0	0
OP: OP 54	0	0
OP: OP 55	0	0
OP: OP 56	0	0
OP: OP 57	0	0
OP: OP 58	0	0
OP: OP 59	0	0
OP: OP 60	0	0

No glare found

PV array 7 no glare found

Component	Green glare (min)	Yellow glare (min)
OP: OP 1	0	0
OP: OP 2	0	0
OP: OP 3	0	0
OP: OP 4	0	0
OP: OP 5	0	0
OP: OP 6	0	0
OP: OP 7	0	0
OP: OP 8	0	0
OP: OP 9	0	0
OP: OP 10	0	0
OP: OP 11	0	0
OP: OP 12	0	0
OP: OP 13	0	0
OP: OP 14	0	0
OP: OP 15	0	0
OP: OP 16	0	0
OP: OP 17	0	0
OP: OP 18	0	0
OP: OP 19	0	0
OP: OP 20	0	0
OP: OP 21	0	0
OP: OP 22	0	0
OP: OP 23	0	0
OP: OP 24	0	0
OP: OP 25	0	0
OP: OP 26	0	0
OP: OP 27	0	0

OP: OP 28	0	0
OP: OP 29	0	0
OP: OP 30	0	0
OP: OP 31	0	0
OP: OP 32	0	0
OP: OP 33	0	0
OP: OP 34	0	0
OP: OP 35	0	0
OP: OP 36	0	0
OP: OP 37	0	0
OP: OP 38	0	0
OP: OP 39	0	0
OP: OP 40	0	0
OP: OP 41	0	0
OP: OP 42	0	0
OP: OP 43	0	0
OP: OP 44	0	0
OP: OP 45	0	0
OP: OP 46	0	0
OP: OP 47	0	0
OP: OP 48	0	0
OP: OP 49	0	0
OP: OP 50	0	0
OP: OP 51	0	0
OP: OP 52	0	0
OP: OP 53	0	0
OP: OP 54	0	0
OP: OP 55	0	0
OP: OP 56	0	0
OP: OP 57	0	0
OP: OP 58	0	0
OP: OP 59	0	0
OP: OP 60	0	0

No glare found

PV array 8 no glare found

Component	Green glare (min)	Yellow glare (min)
OP: OP 1	0	0
OP: OP 2	0	0
OP: OP 3	0	0
OP: OP 4	0	0
OP: OP 5	0	0
OP: OP 6	0	0
OP: OP 7	0	0
OP: OP 8	0	0
OP: OP 9	0	0
OP: OP 10	0	0
OP: OP 11	0	0
OP: OP 12	0	0
OP: OP 13	0	0
OP: OP 14	0	0

OP: OP 15	0	0
OP: OP 16	0	0
OP: OP 17	0	0
OP: OP 18	0	0
OP: OP 19	0	0
OP: OP 20	0	0
OP: OP 21	0	0
OP: OP 22	0	0
OP: OP 23	0	0
OP: OP 24	0	0
OP: OP 25	0	0
OP: OP 26	0	0
OP: OP 27	0	0
OP: OP 28	0	0
OP: OP 29	0	0
OP: OP 30	0	0
OP: OP 31	0	0
OP: OP 32	0	0
OP: OP 33	0	0
OP: OP 34	0	0
OP: OP 35	0	0
OP: OP 36	0	0
OP: OP 37	0	0
OP: OP 38	0	0
OP: OP 39	0	0
OP: OP 40	0	0
OP: OP 41	0	0
OP: OP 42	0	0
OP: OP 43	0	0
OP: OP 44	0	0
OP: OP 45	0	0
OP: OP 46	0	0
OP: OP 47	0	0
OP: OP 48	0	0
OP: OP 49	0	0
OP: OP 50	0	0
OP: OP 51	0	0
OP: OP 52	0	0
OP: OP 53	0	0
OP: OP 54	0	0
OP: OP 55	0	0
OP: OP 56	0	0
OP: OP 57	0	0
OP: OP 58	0	0
OP: OP 59	0	0
OP: OP 60	0	0

No glare found

PV array 9 no glare found

Component	Green glare (min)	Yellow glare (min)
OP: OP 1	0	0

OP: OP 2	0	0
OP: OP 3	0	0
OP: OP 4	0	0
OP: OP 5	0	0
OP: OP 6	0	0
OP: OP 7	0	0
OP: OP 8	0	0
OP: OP 9	0	0
OP: OP 10	0	0
OP: OP 11	0	0
OP: OP 12	0	0
OP: OP 13	0	0
OP: OP 14	0	0
OP: OP 15	0	0
OP: OP 16	0	0
OP: OP 17	0	0
OP: OP 18	0	0
OP: OP 19	0	0
OP: OP 20	0	0
OP: OP 21	0	0
OP: OP 22	0	0
OP: OP 23	0	0
OP: OP 24	0	0
OP: OP 25	0	0
OP: OP 26	0	0
OP: OP 27	0	0
OP: OP 28	0	0
OP: OP 29	0	0
OP: OP 30	0	0
OP: OP 31	0	0
OP: OP 32	0	0
OP: OP 33	0	0
OP: OP 34	0	0
OP: OP 35	0	0
OP: OP 36	0	0
OP: OP 37	0	0
OP: OP 38	0	0
OP: OP 39	0	0
OP: OP 40	0	0
OP: OP 41	0	0
OP: OP 42	0	0
OP: OP 43	0	0
OP: OP 44	0	0
OP: OP 45	0	0
OP: OP 46	0	0
OP: OP 47	0	0
OP: OP 48	0	0
OP: OP 49	0	0
OP: OP 50	0	0
OP: OP 51	0	0
OP: OP 52	0	0
OP: OP 53	0	0
OP: OP 54	0	0
OP: OP 55	0	0
OP: OP 56	0	0

OP: OP 57	0	0
OP: OP 58	0	0
OP: OP 59	0	0
OP: OP 60	0	0

No glare found

Assumptions

- Times associated with glare are denoted in Standard time. For Daylight Savings, add one hour.
- Glare analyses do not automatically account for physical obstructions between reflectors and receptors. This includes buildings, tree cover and geographic obstructions.
- Detailed system geometry is not rigorously simulated.
- The glare hazard determination relies on several approximations including observer eye characteristics, angle of view, and typical blink response time. Actual values and results may vary.
- The system output calculation is a DNI-based approximation that assumes clear, sunny skies year-round. It should not be used in place of more rigorous modeling methods.
- Several V1 calculations utilize the PV array centroid, rather than the actual glare spot location, due to algorithm limitations. This may affect results for large PV footprints. Additional analyses of array sub-sections can provide additional information on expected glare.
- The subtended source angle (glare spot size) is constrained by the PV array footprint size. Partitioning large arrays into smaller sections will reduce the maximum potential subtended angle, potentially impacting results if actual glare spots are larger than the sub-array size. Additional analyses of the combined area of adjacent sub-arrays can provide more information on potential glare hazards. (See previous point on related limitations.)
- Hazard zone boundaries shown in the Glare Hazard plot are an approximation and visual aid. Actual ocular impact outcomes encompass a continuous, not discrete, spectrum.
- Glare locations displayed on receptor plots are approximate. Actual glare-spot locations may differ.
- Refer to the **Help page** for detailed assumptions and limitations not listed here.

ANNEX D: RESIDENTIAL RECEPTOR GLARE RESULTS (121 – 173)

ForgeSolar

East Yorkshire Solar Farm

East Yorkshire Solar Farm Residential 121 - 173

Created Aug 23, 2023
Updated Sep 20, 2023
Time-step 1 minute
Timezone offset UTC0
Minimum sun altitude 0.0 deg
Site ID 98521.16938

Project type Advanced
Project status: active
Category 100 MW to 1 GW

Misc. Analysis Settings

DNI: **varies (1,000.0 W/m^2 peak)**
Ocular transmission coefficient: **0.5**
Pupil diameter: **0.002 m**
Eye focal length: **0.017 m**
Sun subtended angle: **9.3 mrad**

PV Analysis Methodology: **Version 2**
Enhanced subtended angle calculation: **On**

Summary of Results No glare predicted!

PV Name	Tilt	Orientation	"Green" Glare	"Yellow" Glare	Energy Produced
	deg	deg	min	min	kWh
PV array 1	SA tracking	SA tracking	0	0	-
PV array 10	SA tracking	SA tracking	0	0	-
PV array 11	SA tracking	SA tracking	0	0	-
PV array 12	SA tracking	SA tracking	0	0	-
PV array 13	SA tracking	SA tracking	0	0	-
PV array 14	SA tracking	SA tracking	0	0	-
PV array 15	SA tracking	SA tracking	0	0	-
PV array 16	SA tracking	SA tracking	0	0	-
PV array 17	SA tracking	SA tracking	0	0	-
PV array 18	SA tracking	SA tracking	0	0	-
PV array 2	SA tracking	SA tracking	0	0	-
PV array 3	SA tracking	SA tracking	0	0	-
PV array 4	SA tracking	SA tracking	0	0	-
PV array 5	SA tracking	SA tracking	0	0	-
PV array 6	SA tracking	SA tracking	0	0	-
PV array 7	SA tracking	SA tracking	0	0	-
PV array 8	SA tracking	SA tracking	0	0	-
PV array 9	SA tracking	SA tracking	0	0	-

Component Data

PV Array(s)

Total PV footprint area: 8,103,509 m^2

Name: PV array 1
Footprint area: 509,399 m^2
Axis tracking: Single-axis rotation
Backtracking: None
Tracking axis orientation: 180.0 deg
Tracking axis tilt: 0.0 deg
Tracking axis panel offset: 0.0 deg
Maximum tracking angle: 60.0 deg

Rated power: -
Panel material: Light textured glass with AR coating
Vary reflectivity with sun position? Yes
Correlate slope error with surface type? Yes
Slope error: 9.16 mrad

Vertex	Latitude	Longitude	Ground elevation	Height above ground	Total elevation
	deg	deg	m	m	m
1	53.818886	-0.886729	6.34	3.50	9.84
2	53.814883	-0.884283	5.95	3.50	9.45
3	53.814346	-0.888924	7.41	3.50	10.91
4	53.812293	-0.882272	6.90	3.50	10.40
5	53.812699	-0.879482	7.20	3.50	10.70
6	53.813763	-0.878324	7.19	3.50	10.69
7	53.814194	-0.878796	7.39	3.50	10.89
8	53.814523	-0.874633	6.96	3.50	10.46
9	53.816145	-0.874247	6.11	3.50	9.61
10	53.816271	-0.873302	6.84	3.50	10.34
11	53.819464	-0.872702	6.50	3.50	10.00
12	53.818704	-0.878967	6.05	3.50	9.55
13	53.819109	-0.879010	5.90	3.50	9.40

Name: PV array 10
Footprint area: 860,067 m^2
Axis tracking: Single-axis rotation
Backtracking: None
Tracking axis orientation: 180.0 deg
Tracking axis tilt: 0.0 deg
Tracking axis panel offset: 0.0 deg
Maximum tracking angle: 60.0 deg

Rated power: -
Panel material: Light textured glass with AR coating
Vary reflectivity with sun position? Yes
Correlate slope error with surface type? Yes
Slope error: 9.16 mrad

Vertex	Latitude	Longitude	Ground elevation	Height above ground	Total elevation
	deg	deg	m	m	m
1	53.778810	-0.820903	5.07	3.50	8.57
2	53.775868	-0.819959	5.15	3.50	8.65
3	53.775209	-0.825366	5.97	3.50	9.47
4	53.768057	-0.847639	4.41	3.50	7.91
5	53.769858	-0.848455	5.00	3.50	8.50
6	53.769680	-0.850472	4.68	3.50	8.18
7	53.770745	-0.850686	4.00	3.50	7.50
8	53.770999	-0.849098	4.12	3.50	7.62
9	53.773408	-0.849570	5.00	3.50	8.50

Name: PV array 11
Footprint area: 205,559 m^2
Axis tracking: Single-axis rotation
Backtracking: None
Tracking axis orientation: 180.0 deg
Tracking axis tilt: 0.0 deg
Tracking axis panel offset: 0.0 deg
Maximum tracking angle: 60.0 deg

Rated power: -
Panel material: Light textured glass with AR coating
Vary reflectivity with sun position? Yes
Correlate slope error with surface type? Yes
Slope error: 9.16 mrad

Vertex	Latitude	Longitude	Ground elevation	Height above ground	Total elevation
	deg	deg	m	m	m
1	53.776817	-0.861222	5.00	3.50	8.50
2	53.776284	-0.862552	5.00	3.50	8.50
3	53.782826	-0.874268	5.15	3.50	8.65
4	53.784120	-0.871951	4.99	3.50	8.49
5	53.782674	-0.870578	5.10	3.50	8.60
6	53.780646	-0.865299	5.86	3.50	9.36
7	53.780772	-0.863840	6.00	3.50	9.50
8	53.779378	-0.862209	5.00	3.50	8.50
9	53.778972	-0.864012	5.00	3.50	8.50

Name: PV array 12
Footprint area: 153,870 m^2
Axis tracking: Single-axis rotation
Backtracking: None
Tracking axis orientation: 180.0 deg
Tracking axis tilt: 0.0 deg
Tracking axis panel offset: 0.0 deg
Maximum tracking angle: 60.0 deg

Rated power: -
Panel material: Light textured glass with AR coating
Vary reflectivity with sun position? Yes
Correlate slope error with surface type? Yes
Slope error: 9.16 mrad

Vertex	Latitude	Longitude	Ground elevation	Height above ground	Total elevation
	deg	deg	m	m	m
1	53.788227	-0.880191	5.89	3.50	9.39
2	53.788328	-0.881607	4.53	3.50	8.03
3	53.785920	-0.884311	5.06	3.50	8.56
4	53.782902	-0.880234	5.96	3.50	9.46
5	53.783359	-0.878388	5.63	3.50	9.13
6	53.783993	-0.877401	5.39	3.50	8.89
7	53.786021	-0.878388	5.24	3.50	8.74
8	53.786909	-0.879461	5.93	3.50	9.43

Name: PV array 13
Footprint area: 227,092 m^2
Axis tracking: Single-axis rotation
Backtracking: None
Tracking axis orientation: 180.0 deg
Tracking axis tilt: 0.0 deg
Tracking axis panel offset: 0.0 deg
Maximum tracking angle: 60.0 deg

Rated power: -
Panel material: Light textured glass with AR coating
Vary reflectivity with sun position? Yes
Correlate slope error with surface type? Yes
Slope error: 9.16 mrad

Vertex	Latitude	Longitude	Ground elevation	Height above ground	Total elevation
	deg	deg	m	m	m
1	53.782598	-0.896155	6.23	3.50	9.73
2	53.779048	-0.902335	5.55	3.50	9.05
3	53.778414	-0.901820	6.07	3.50	9.57
4	53.778262	-0.899503	6.30	3.50	9.80
5	53.776411	-0.897228	4.61	3.50	8.11
6	53.778287	-0.894610	4.73	3.50	8.23
7	53.780722	-0.891907	5.00	3.50	8.50

Name: PV array 14
Footprint area: 679,077 m^2
Axis tracking: Single-axis rotation
Backtracking: None
Tracking axis orientation: 180.0 deg
Tracking axis tilt: 0.0 deg
Tracking axis panel offset: 0.0 deg
Maximum tracking angle: 60.0 deg

Rated power: -
Panel material: Light textured glass with AR coating
Vary reflectivity with sun position? Yes
Correlate slope error with surface type? Yes
Slope error: 9.16 mrad

Vertex	Latitude	Longitude	Ground elevation	Height above ground	Total elevation
	deg	deg	m	m	m
1	53.776512	-0.895597	5.00	3.50	8.50
2	53.773976	-0.894396	5.00	3.50	8.50
3	53.773722	-0.894524	5.00	3.50	8.50
4	53.773190	-0.891563	5.00	3.50	8.50
5	53.773900	-0.890190	5.00	3.50	8.50
6	53.775193	-0.888774	5.00	3.50	8.50
7	53.773722	-0.884053	5.51	3.50	9.01
8	53.771719	-0.885555	5.49	3.50	8.99
9	53.771313	-0.881950	5.00	3.50	8.50
10	53.768675	-0.879332	5.00	3.50	8.50
11	53.767787	-0.880877	5.86	3.50	9.36
12	53.770273	-0.900919	5.27	3.50	8.77
13	53.772201	-0.899073	6.03	3.50	9.53
14	53.775067	-0.898344	5.81	3.50	9.31

Name: PV array 15
Footprint area: 277,556 m^2
Axis tracking: Single-axis rotation
Backtracking: None
Tracking axis orientation: 180.0 deg
Tracking axis tilt: 0.0 deg
Tracking axis panel offset: 0.0 deg
Maximum tracking angle: 60.0 deg

Rated power: -
Panel material: Light textured glass with AR coating
Vary reflectivity with sun position? Yes
Correlate slope error with surface type? Yes
Slope error: 9.16 mrad

Vertex	Latitude	Longitude	Ground elevation	Height above ground	Total elevation
	deg	deg	m	m	m
1	53.768980	-0.895254	5.00	3.50	8.50
2	53.765454	-0.897528	3.99	3.50	7.49
3	53.764363	-0.894138	4.98	3.50	8.48
4	53.764845	-0.892808	4.28	3.50	7.78
5	53.766062	-0.891520	4.50	3.50	8.00
6	53.765454	-0.887701	5.39	3.50	8.89
7	53.766773	-0.881392	5.53	3.50	9.03
8	53.767128	-0.881221	6.00	3.50	9.50

Name: PV array 16
Footprint area: 251,841 m^2
Axis tracking: Single-axis rotation
Backtracking: None
Tracking axis orientation: 180.0 deg
Tracking axis tilt: 0.0 deg
Tracking axis panel offset: 0.0 deg
Maximum tracking angle: 60.0 deg

Rated power: -
Panel material: Light textured glass with AR coating
Vary reflectivity with sun position? Yes
Correlate slope error with surface type? Yes
Slope error: 9.16 mrad

Vertex	Latitude	Longitude	Ground elevation	Height above ground	Total elevation
	deg	deg	m	m	m
1	53.765961	-0.871693	5.00	3.50	8.50
2	53.764769	-0.872766	5.00	3.50	8.50
3	53.765251	-0.879075	4.32	3.50	7.82
4	53.766671	-0.879676	4.39	3.50	7.89
5	53.766646	-0.880234	4.36	3.50	7.86
6	53.766139	-0.880362	4.41	3.50	7.91
7	53.763145	-0.889975	5.30	3.50	8.80
8	53.764617	-0.890362	4.92	3.50	8.42
9	53.764540	-0.890834	4.71	3.50	8.21
10	53.763044	-0.890619	6.20	3.50	9.70
11	53.761446	-0.894911	9.27	3.50	12.77
12	53.759593	-0.899846	7.65	3.50	11.15
13	53.758782	-0.900318	7.20	3.50	10.70
14	53.758934	-0.900747	7.16	3.50	10.66
15	53.759898	-0.900704	7.56	3.50	11.06
16	53.762029	-0.895469	9.27	3.50	12.77
17	53.762689	-0.896413	8.78	3.50	12.28
18	53.764591	-0.892336	4.64	3.50	8.14
19	53.764667	-0.890319	4.90	3.50	8.40
20	53.765581	-0.890362	4.32	3.50	7.82
21	53.765327	-0.888731	5.39	3.50	8.89
22	53.764211	-0.888688	6.95	3.50	10.45
23	53.764287	-0.887358	6.37	3.50	9.87
24	53.765149	-0.887014	5.83	3.50	9.33
25	53.766595	-0.880834	5.09	3.50	8.59
26	53.766925	-0.879375	4.83	3.50	8.33

Name: PV array 17
Footprint area: 259,874 m^2
Axis tracking: Single-axis rotation
Backtracking: None
Tracking axis orientation: 180.0 deg
Tracking axis tilt: 0.0 deg
Tracking axis panel offset: 0.0 deg
Maximum tracking angle: 60.0 deg

Rated power: -
Panel material: Light textured glass with AR coating
Vary reflectivity with sun position? Yes
Correlate slope error with surface type? Yes
Slope error: 9.16 mrad

Vertex	Latitude	Longitude	Ground elevation	Height above ground	Total elevation
	deg	deg	m	m	m
1	53.800000	-0.898244	8.11	3.50	11.61
2	53.799316	-0.898158	5.69	3.50	9.19
3	53.796553	-0.900947	5.33	3.50	8.83
4	53.795792	-0.901205	5.86	3.50	9.36
5	53.795032	-0.896699	5.54	3.50	9.04
6	53.794246	-0.893437	5.00	3.50	8.50
7	53.795083	-0.892579	5.13	3.50	8.63
8	53.798150	-0.892794	5.38	3.50	8.88
9	53.800076	-0.893394	5.88	3.50	9.38
10	53.800228	-0.897471	6.28	3.50	9.78

Name: PV array 18
Footprint area: 191,697 m^2
Axis tracking: Single-axis rotation
Backtracking: None
Tracking axis orientation: 180.0 deg
Tracking axis tilt: 0.0 deg
Tracking axis panel offset: 0.0 deg
Maximum tracking angle: 60.0 deg

Rated power: -
Panel material: Light textured glass with AR coating
Vary reflectivity with sun position? Yes
Correlate slope error with surface type? Yes
Slope error: 9.16 mrad

Vertex	Latitude	Longitude	Ground elevation	Height above ground	Total elevation
	deg	deg	m	m	m
1	53.792776	-0.893609	4.96	3.50	8.46
2	53.791736	-0.894982	5.48	3.50	8.98
3	53.790697	-0.896012	4.98	3.50	8.48
4	53.788998	-0.897042	4.27	3.50	7.77
5	53.789100	-0.897986	4.86	3.50	8.36
6	53.788973	-0.899360	5.24	3.50	8.74
7	53.788821	-0.900046	4.94	3.50	8.44
8	53.789227	-0.902020	4.84	3.50	8.34
9	53.789531	-0.902063	6.31	3.50	9.81
10	53.789556	-0.900990	5.15	3.50	8.65
11	53.792472	-0.900347	5.64	3.50	9.14
12	53.792903	-0.901849	6.09	3.50	9.59
13	53.794322	-0.900390	6.18	3.50	9.68

Name: PV array 2
Footprint area: 632,085 m^2
Axis tracking: Single-axis rotation
Backtracking: None
Tracking axis orientation: 180.0 deg
Tracking axis tilt: 0.0 deg
Tracking axis panel offset: 0.0 deg
Maximum tracking angle: 60.0 deg

Rated power: -
Panel material: Light textured glass with AR coating
Vary reflectivity with sun position? Yes
Correlate slope error with surface type? Yes
Slope error: 9.16 mrad

Vertex	Latitude	Longitude	Ground elevation	Height above ground	Total elevation
	deg	deg	m	m	m
1	53.813872	-0.874438	6.25	3.50	9.75
2	53.811034	-0.872979	7.20	3.50	10.70
3	53.811516	-0.871090	7.04	3.50	10.54
4	53.808804	-0.868730	6.72	3.50	10.22
5	53.809108	-0.867485	6.99	3.50	10.49
6	53.808323	-0.867687	6.25	3.50	9.75
7	53.806878	-0.867000	6.02	3.50	9.52
8	53.807183	-0.865970	6.43	3.50	9.93
9	53.805325	-0.864511	6.24	3.50	9.74
10	53.805173	-0.865283	6.58	3.50	10.08
11	53.804083	-0.864425	7.27	3.50	10.77
12	53.802993	-0.867987	6.40	3.50	9.90
13	53.802537	-0.867343	6.48	3.50	9.98
14	53.802283	-0.866228	6.35	3.50	9.85
15	53.800991	-0.864854	6.93	3.50	10.43
16	53.803094	-0.859876	6.29	3.50	9.79
17	53.803551	-0.859790	6.05	3.50	9.55
18	53.804210	-0.857087	6.54	3.50	10.04
19	53.807758	-0.858374	6.00	3.50	9.50
20	53.807859	-0.862666	5.93	3.50	9.43
21	53.810140	-0.863524	5.70	3.50	9.20
22	53.813897	-0.865584	6.85	3.50	10.35
23	53.813517	-0.868545	5.83	3.50	9.33
24	53.813618	-0.870433	5.69	3.50	9.19
25	53.814100	-0.871678	6.48	3.50	9.98

Name: PV array 3
Footprint area: 155,482 m^2
Axis tracking: Single-axis rotation
Backtracking: None
Tracking axis orientation: 180.0 deg
Tracking axis tilt: 0.0 deg
Tracking axis panel offset: 0.0 deg
Maximum tracking angle: 60.0 deg

Rated power: -
Panel material: Light textured glass with AR coating
Vary reflectivity with sun position? Yes
Correlate slope error with surface type? Yes
Slope error: 9.16 mrad

Vertex	Latitude	Longitude	Ground elevation	Height above ground	Total elevation
	deg	deg	m	m	m
1	53.813884	-0.865326	6.57	3.50	10.07
2	53.810185	-0.863052	6.00	3.50	9.50
3	53.808158	-0.862236	5.93	3.50	9.43
4	53.808132	-0.858760	6.07	3.50	9.57
5	53.810172	-0.859726	6.68	3.50	10.18
6	53.810844	-0.860477	5.85	3.50	9.35
7	53.811807	-0.860799	5.51	3.50	9.01
8	53.812909	-0.860777	5.73	3.50	9.23
9	53.813175	-0.860649	5.42	3.50	8.92
10	53.813922	-0.860949	5.47	3.50	8.97
11	53.814416	-0.860691	6.67	3.50	10.17

Name: PV array 4
Footprint area: 640,744 m^2
Axis tracking: Single-axis rotation
Backtracking: None
Tracking axis orientation: 180.0 deg
Tracking axis tilt: 0.0 deg
Tracking axis panel offset: 0.0 deg
Maximum tracking angle: 60.0 deg

Rated power: -
Panel material: Light textured glass with AR coating
Vary reflectivity with sun position? Yes
Correlate slope error with surface type? Yes
Slope error: 9.16 mrad

Vertex	Latitude	Longitude	Ground elevation	Height above ground	Total elevation
	deg	deg	m	m	m
1	53.814581	-0.855301	5.71	3.50	9.21
2	53.814100	-0.855130	5.26	3.50	8.76
3	53.813454	-0.854701	5.23	3.50	8.73
4	53.811148	-0.860065	5.60	3.50	9.10
5	53.810261	-0.859271	5.85	3.50	9.35
6	53.805383	-0.856782	5.66	3.50	9.16
7	53.805649	-0.855001	5.25	3.50	8.75
8	53.804901	-0.853842	5.22	3.50	8.72
9	53.805636	-0.849186	5.28	3.50	8.78
10	53.804496	-0.847255	5.46	3.50	8.96
11	53.804166	-0.847276	5.90	3.50	9.40
12	53.803748	-0.853327	6.05	3.50	9.55
13	53.798337	-0.850667	6.07	3.50	9.57
14	53.799972	-0.847148	5.62	3.50	9.12
15	53.800263	-0.845581	5.93	3.50	9.43
16	53.804103	-0.847276	5.53	3.50	9.03
17	53.804597	-0.847233	4.75	3.50	8.25
18	53.807681	-0.847384	5.70	3.50	9.20
19	53.808454	-0.848607	5.76	3.50	9.26
20	53.807238	-0.851632	5.81	3.50	9.31
21	53.808568	-0.853714	5.85	3.50	9.35
22	53.808366	-0.854658	5.82	3.50	9.32
23	53.809671	-0.855108	4.90	3.50	8.40
24	53.810000	-0.853907	5.43	3.50	8.93
25	53.809709	-0.853628	5.37	3.50	8.87
26	53.811558	-0.850538	5.71	3.50	9.21
27	53.813269	-0.852190	5.07	3.50	8.57
28	53.814244	-0.852684	5.73	3.50	9.23

Name: PV array 5
Footprint area: 1,762,515 m^2
Axis tracking: Single-axis rotation
Backtracking: None
Tracking axis orientation: 180.0 deg
Tracking axis tilt: 0.0 deg
Tracking axis panel offset: 0.0 deg
Maximum tracking angle: 60.0 deg

Rated power: -
Panel material: Light textured glass with AR coating
Vary reflectivity with sun position? Yes
Correlate slope error with surface type? Yes
Slope error: 9.16 mrad

Vertex	Latitude	Longitude	Ground elevation	Height above ground	Total elevation
	deg	deg	m	m	m
1	53.807708	-0.847197	5.51	3.50	9.01
2	53.804096	-0.847004	5.39	3.50	8.89
3	53.797342	-0.843764	5.19	3.50	8.69
4	53.797874	-0.841661	5.30	3.50	8.80
5	53.799610	-0.837906	5.60	3.50	9.10
6	53.801258	-0.834001	5.60	3.50	9.10
7	53.803577	-0.827735	5.05	3.50	8.55
8	53.802145	-0.825933	5.34	3.50	8.84
9	53.799851	-0.832398	6.04	3.50	9.54
10	53.797215	-0.829265	5.09	3.50	8.59
11	53.795048	-0.834844	5.24	3.50	8.74
12	53.792817	-0.833686	5.73	3.50	9.23
13	53.792944	-0.831368	5.17	3.50	8.67
14	53.794439	-0.826390	5.04	3.50	8.54
15	53.795301	-0.827248	5.36	3.50	8.86
16	53.795707	-0.826991	6.45	3.50	9.95
17	53.797253	-0.828793	5.75	3.50	9.25
18	53.797861	-0.826647	5.38	3.50	8.88
19	53.796214	-0.825274	5.21	3.50	8.71
20	53.796290	-0.824502	4.27	3.50	7.77
21	53.795200	-0.823558	4.11	3.50	7.61
22	53.795986	-0.819695	4.60	3.50	8.10
23	53.799027	-0.821626	4.56	3.50	8.06
24	53.801638	-0.823944	4.37	3.50	7.87
25	53.803944	-0.826519	4.96	3.50	8.46
26	53.804172	-0.825918	4.35	3.50	7.85
27	53.802018	-0.823558	5.21	3.50	8.71
28	53.802094	-0.822656	4.99	3.50	8.49
29	53.801511	-0.822442	5.47	3.50	8.97
30	53.801283	-0.822871	4.64	3.50	8.14
31	53.799103	-0.820940	4.71	3.50	8.21
32	53.800244	-0.816047	4.44	3.50	7.94
33	53.798368	-0.814846	4.75	3.50	8.25
34	53.797481	-0.814846	4.42	3.50	7.92
35	53.799737	-0.810683	4.71	3.50	8.21
36	53.802753	-0.814331	2.81	3.50	6.31
37	53.802221	-0.816477	4.38	3.50	7.88
38	53.802145	-0.818408	3.53	3.50	7.03
39	53.802981	-0.821240	5.10	3.50	8.60
40	53.803843	-0.822141	4.77	3.50	8.27
41	53.808202	-0.827077	4.72	3.50	8.22
42	53.807087	-0.832012	5.04	3.50	8.54
43	53.804451	-0.840724	5.00	3.50	8.50
44	53.806872	-0.843073	5.31	3.50	8.81
45	53.807125	-0.842815	4.94	3.50	8.44
46	53.807911	-0.843545	5.00	3.50	8.50
47	53.808443	-0.844746	4.87	3.50	8.37

Name: PV array 6
Footprint area: 53,769 m^2
Axis tracking: Single-axis rotation
Backtracking: None
Tracking axis orientation: 180.0 deg
Tracking axis tilt: 0.0 deg
Tracking axis panel offset: 0.0 deg
Maximum tracking angle: 60.0 deg

Rated power: -
Panel material: Light textured glass with AR coating
Vary reflectivity with sun position? Yes
Correlate slope error with surface type? Yes
Slope error: 9.16 mrad

Vertex	Latitude	Longitude	Ground elevation	Height above ground	Total elevation
	deg	deg	m	m	m
1	53.800588	-0.865277	6.65	3.50	10.15
2	53.801779	-0.862166	6.43	3.50	9.93
3	53.800132	-0.860192	6.45	3.50	9.95
4	53.799054	-0.863110	6.98	3.50	10.48
5	53.799802	-0.864419	7.68	3.50	11.18

Name: PV array 7
Footprint area: 283,999 m^2
Axis tracking: Single-axis rotation
Backtracking: None
Tracking axis orientation: 180.0 deg
Tracking axis tilt: 0.0 deg
Tracking axis panel offset: 0.0 deg
Maximum tracking angle: 60.0 deg

Rated power: -
Panel material: Light textured glass with AR coating
Vary reflectivity with sun position? Yes
Correlate slope error with surface type? Yes
Slope error: 9.16 mrad

Vertex	Latitude	Longitude	Ground elevation	Height above ground	Total elevation
	deg	deg	m	m	m
1	53.797257	-0.867135	6.45	3.50	9.95
2	53.794393	-0.864903	6.01	3.50	9.51
3	53.792770	-0.869624	6.00	3.50	9.50
4	53.791553	-0.868208	5.96	3.50	9.46
5	53.789018	-0.874988	6.33	3.50	9.83
6	53.790007	-0.876319	7.32	3.50	10.82
7	53.790311	-0.875374	5.97	3.50	9.47
8	53.790666	-0.875675	6.59	3.50	10.09
9	53.791199	-0.874130	6.37	3.50	9.87
10	53.791477	-0.874044	5.65	3.50	9.15
11	53.791731	-0.873486	5.89	3.50	9.39
12	53.792872	-0.873143	5.95	3.50	9.45
13	53.793201	-0.873100	5.86	3.50	9.36
14	53.793810	-0.871684	5.84	3.50	9.34
15	53.795457	-0.872800	5.36	3.50	8.86
16	53.796269	-0.871684	5.24	3.50	8.74
17	53.797232	-0.869409	5.79	3.50	9.29
18	53.796750	-0.868808	6.03	3.50	9.53

Name: PV array 8
Footprint area: 513,457 m^2
Axis tracking: Single-axis rotation
Backtracking: None
Tracking axis orientation: 180.0 deg
Tracking axis tilt: 0.0 deg
Tracking axis panel offset: 0.0 deg
Maximum tracking angle: 60.0 deg

Rated power: -
Panel material: Light textured glass with AR coating
Vary reflectivity with sun position? Yes
Correlate slope error with surface type? Yes
Slope error: 9.16 mrad

Vertex	Latitude	Longitude	Ground elevation	Height above ground	Total elevation
	deg	deg	m	m	m
1	53.790717	-0.857736	6.07	3.50	9.57
2	53.787725	-0.853702	5.77	3.50	9.27
3	53.787041	-0.856191	5.84	3.50	9.34
4	53.786458	-0.856277	5.48	3.50	8.98
5	53.786103	-0.857565	5.78	3.50	9.28
6	53.785291	-0.856792	5.63	3.50	9.13
7	53.785215	-0.852071	5.00	3.50	8.50
8	53.784328	-0.851900	4.64	3.50	8.14
9	53.784531	-0.849883	5.48	3.50	8.98
10	53.785038	-0.847179	5.34	3.50	8.84
11	53.783035	-0.846020	4.21	3.50	7.71
12	53.783694	-0.842587	5.00	3.50	8.50
13	53.785722	-0.843059	4.65	3.50	8.15
14	53.786736	-0.843789	4.23	3.50	7.73
15	53.789044	-0.845591	5.87	3.50	9.37
16	53.789756	-0.846235	5.45	3.50	8.95
17	53.788780	-0.849668	5.37	3.50	8.87
18	53.790301	-0.851406	6.41	3.50	9.91
19	53.792443	-0.853187	7.67	3.50	11.17

Name: PV array 9
Footprint area: 445,425 m^2
Axis tracking: Single-axis rotation
Backtracking: None
Tracking axis orientation: 180.0 deg
Tracking axis tilt: 0.0 deg
Tracking axis panel offset: 0.0 deg
Maximum tracking angle: 60.0 deg

Rated power: -
Panel material: Light textured glass with AR coating
Vary reflectivity with sun position? Yes
Correlate slope error with surface type? Yes
Slope error: 9.16 mrad

Vertex	Latitude	Longitude	Ground elevation	Height above ground	Total elevation
	deg	deg	m	m	m
1	53.783172	-0.836739	5.76	3.50	9.26
2	53.780154	-0.833434	5.23	3.50	8.73
3	53.779672	-0.835022	5.35	3.50	8.85
4	53.777263	-0.832447	5.19	3.50	8.69
5	53.775361	-0.841459	5.51	3.50	9.01
6	53.781245	-0.845408	5.09	3.50	8.59

Discrete Observation Receptors

Number	Latitude	Longitude	Ground elevation	Height above ground	Total Elevation
	deg	deg	m	m	m
OP 1	53.793220	-0.842985	7.18	2.00	9.18
OP 2	53.793543	-0.843136	7.00	2.00	9.00
OP 3	53.793296	-0.844386	8.14	2.00	10.14
OP 4	53.792836	-0.844251	8.15	2.00	10.15
OP 5	53.792821	-0.845013	6.87	2.00	8.87
OP 6	53.793239	-0.845619	7.18	2.00	9.18
OP 7	53.792830	-0.845437	7.43	2.00	9.43
OP 8	53.792754	-0.846226	6.90	2.00	8.90
OP 9	53.792846	-0.847186	6.44	2.00	8.44
OP 10	53.792675	-0.847947	6.75	2.00	8.75
OP 11	53.792640	-0.848618	7.16	2.00	9.16
OP 12	53.793109	-0.847100	7.82	2.00	9.82
OP 13	53.793122	-0.847706	7.31	2.00	9.31
OP 14	53.793359	-0.848629	7.16	2.00	9.16
OP 15	53.793711	-0.849246	8.78	2.00	10.78
OP 16	53.793797	-0.850104	7.60	2.00	9.60
OP 17	53.793857	-0.849396	8.68	2.00	10.68
OP 18	53.793278	-0.851577	7.34	2.00	9.34
OP 19	53.791896	-0.849012	6.65	2.00	8.65
OP 20	53.791826	-0.847800	6.36	2.00	8.36
OP 21	53.791479	-0.849208	7.52	2.00	9.52
OP 22	53.791207	-0.848666	7.64	2.00	9.64
OP 23	53.791229	-0.847684	6.89	2.00	8.89
OP 24	53.790323	-0.846252	6.85	2.00	8.85
OP 25	53.790132	-0.846000	6.24	2.00	8.24
OP 26	53.790552	-0.845641	5.67	2.00	7.67
OP 27	53.799191	-0.834109	6.81	2.00	8.81
OP 28	53.795510	-0.808053	5.36	2.00	7.36
OP 29	53.796309	-0.807066	4.72	2.00	6.72
OP 30	53.793333	-0.799786	5.56	2.00	7.56
OP 31	53.794005	-0.799320	5.26	2.00	7.26
OP 32	53.795269	-0.799845	4.52	2.00	6.52
OP 33	53.798276	-0.800457	4.62	2.00	6.62
OP 34	53.800906	-0.799963	4.56	2.00	6.56
OP 35	53.813917	-0.817060	5.50	2.00	7.50
OP 36	53.814241	-0.817103	5.45	2.00	7.45
OP 37	53.811133	-0.845218	5.13	2.00	7.13
OP 38	53.811061	-0.845550	5.57	2.00	7.57
OP 39	53.810836	-0.846344	6.82	2.00	8.82
OP 40	53.810744	-0.847632	7.02	2.00	9.02
OP 41	53.810272	-0.848345	6.78	2.00	8.78
OP 42	53.810171	-0.848571	7.14	2.00	9.14
OP 43	53.810060	-0.848860	7.65	2.00	9.65
OP 44	53.809556	-0.849644	6.46	2.00	8.46
OP 45	53.820882	-0.842614	6.83	2.00	8.83
OP 46	53.816188	-0.854115	6.63	2.00	8.63
OP 47	53.816255	-0.854555	7.10	2.00	9.10
OP 48	53.816400	-0.855113	6.28	2.00	8.28
OP 49	53.817458	-0.854308	6.56	2.00	8.56
OP 50	53.817297	-0.854566	6.87	2.00	8.87
OP 51	53.817338	-0.854968	6.75	2.00	8.75
OP 52	53.821750	-0.853808	7.40	2.00	9.40
OP 53	53.821488	-0.854136	6.55	2.00	8.55

Summary of PV Glare Analysis

PV configuration and total predicted glare

PV Name	Tilt	Orientation	"Green" Glare	"Yellow" Glare	Energy Produced	Data File
	deg	deg	min	min	kWh	
PV array 1	SA tracking	SA tracking	0	0	-	-
PV array 10	SA tracking	SA tracking	0	0	-	-
PV array 11	SA tracking	SA tracking	0	0	-	-
PV array 12	SA tracking	SA tracking	0	0	-	-
PV array 13	SA tracking	SA tracking	0	0	-	-
PV array 14	SA tracking	SA tracking	0	0	-	-
PV array 15	SA tracking	SA tracking	0	0	-	-
PV array 16	SA tracking	SA tracking	0	0	-	-
PV array 17	SA tracking	SA tracking	0	0	-	-
PV array 18	SA tracking	SA tracking	0	0	-	-
PV array 2	SA tracking	SA tracking	0	0	-	-
PV array 3	SA tracking	SA tracking	0	0	-	-
PV array 4	SA tracking	SA tracking	0	0	-	-
PV array 5	SA tracking	SA tracking	0	0	-	-
PV array 6	SA tracking	SA tracking	0	0	-	-
PV array 7	SA tracking	SA tracking	0	0	-	-
PV array 8	SA tracking	SA tracking	0	0	-	-
PV array 9	SA tracking	SA tracking	0	0	-	-

PV & Receptor Analysis Results

Results for each PV array and receptor

PV array 1 no glare found

Component	Green glare (min)	Yellow glare (min)
OP: OP 1	0	0
OP: OP 2	0	0
OP: OP 3	0	0
OP: OP 4	0	0
OP: OP 5	0	0
OP: OP 6	0	0
OP: OP 7	0	0
OP: OP 8	0	0
OP: OP 9	0	0
OP: OP 10	0	0
OP: OP 11	0	0
OP: OP 12	0	0
OP: OP 13	0	0
OP: OP 14	0	0
OP: OP 15	0	0
OP: OP 16	0	0
OP: OP 17	0	0
OP: OP 18	0	0
OP: OP 19	0	0
OP: OP 20	0	0
OP: OP 21	0	0
OP: OP 22	0	0
OP: OP 23	0	0
OP: OP 24	0	0
OP: OP 25	0	0
OP: OP 26	0	0
OP: OP 27	0	0
OP: OP 28	0	0
OP: OP 29	0	0
OP: OP 30	0	0
OP: OP 31	0	0
OP: OP 32	0	0
OP: OP 33	0	0
OP: OP 34	0	0
OP: OP 35	0	0
OP: OP 36	0	0
OP: OP 37	0	0
OP: OP 38	0	0
OP: OP 39	0	0
OP: OP 40	0	0
OP: OP 41	0	0
OP: OP 42	0	0
OP: OP 43	0	0
OP: OP 44	0	0
OP: OP 45	0	0
OP: OP 46	0	0
OP: OP 47	0	0
OP: OP 48	0	0
OP: OP 49	0	0
OP: OP 50	0	0
OP: OP 51	0	0
OP: OP 52	0	0
OP: OP 53	0	0

No glare found

PV array 10 no glare found

Component	Green glare (min)	Yellow glare (min)
OP: OP 1	0	0
OP: OP 2	0	0
OP: OP 3	0	0
OP: OP 4	0	0
OP: OP 5	0	0
OP: OP 6	0	0
OP: OP 7	0	0
OP: OP 8	0	0
OP: OP 9	0	0
OP: OP 10	0	0
OP: OP 11	0	0
OP: OP 12	0	0
OP: OP 13	0	0
OP: OP 14	0	0
OP: OP 15	0	0
OP: OP 16	0	0
OP: OP 17	0	0
OP: OP 18	0	0
OP: OP 19	0	0
OP: OP 20	0	0
OP: OP 21	0	0
OP: OP 22	0	0
OP: OP 23	0	0
OP: OP 24	0	0
OP: OP 25	0	0
OP: OP 26	0	0
OP: OP 27	0	0
OP: OP 28	0	0
OP: OP 29	0	0
OP: OP 30	0	0
OP: OP 31	0	0
OP: OP 32	0	0
OP: OP 33	0	0
OP: OP 34	0	0
OP: OP 35	0	0
OP: OP 36	0	0
OP: OP 37	0	0
OP: OP 38	0	0
OP: OP 39	0	0
OP: OP 40	0	0
OP: OP 41	0	0
OP: OP 42	0	0
OP: OP 43	0	0
OP: OP 44	0	0
OP: OP 45	0	0
OP: OP 46	0	0
OP: OP 47	0	0
OP: OP 48	0	0
OP: OP 49	0	0
OP: OP 50	0	0
OP: OP 51	0	0
OP: OP 52	0	0
OP: OP 53	0	0

No glare found

PV array 11 no glare found

Component	Green glare (min)	Yellow glare (min)
OP: OP 1	0	0
OP: OP 2	0	0
OP: OP 3	0	0
OP: OP 4	0	0
OP: OP 5	0	0
OP: OP 6	0	0
OP: OP 7	0	0
OP: OP 8	0	0
OP: OP 9	0	0
OP: OP 10	0	0
OP: OP 11	0	0
OP: OP 12	0	0
OP: OP 13	0	0
OP: OP 14	0	0
OP: OP 15	0	0
OP: OP 16	0	0
OP: OP 17	0	0
OP: OP 18	0	0
OP: OP 19	0	0
OP: OP 20	0	0
OP: OP 21	0	0
OP: OP 22	0	0
OP: OP 23	0	0
OP: OP 24	0	0
OP: OP 25	0	0
OP: OP 26	0	0
OP: OP 27	0	0
OP: OP 28	0	0
OP: OP 29	0	0
OP: OP 30	0	0
OP: OP 31	0	0
OP: OP 32	0	0
OP: OP 33	0	0
OP: OP 34	0	0
OP: OP 35	0	0
OP: OP 36	0	0
OP: OP 37	0	0
OP: OP 38	0	0
OP: OP 39	0	0
OP: OP 40	0	0
OP: OP 41	0	0
OP: OP 42	0	0
OP: OP 43	0	0
OP: OP 44	0	0
OP: OP 45	0	0
OP: OP 46	0	0
OP: OP 47	0	0
OP: OP 48	0	0
OP: OP 49	0	0
OP: OP 50	0	0
OP: OP 51	0	0
OP: OP 52	0	0
OP: OP 53	0	0

No glare found

PV array 12 no glare found

Component	Green glare (min)	Yellow glare (min)
OP: OP 1	0	0
OP: OP 2	0	0
OP: OP 3	0	0
OP: OP 4	0	0
OP: OP 5	0	0
OP: OP 6	0	0
OP: OP 7	0	0
OP: OP 8	0	0
OP: OP 9	0	0
OP: OP 10	0	0
OP: OP 11	0	0
OP: OP 12	0	0
OP: OP 13	0	0
OP: OP 14	0	0
OP: OP 15	0	0
OP: OP 16	0	0
OP: OP 17	0	0
OP: OP 18	0	0
OP: OP 19	0	0
OP: OP 20	0	0
OP: OP 21	0	0
OP: OP 22	0	0
OP: OP 23	0	0
OP: OP 24	0	0
OP: OP 25	0	0
OP: OP 26	0	0
OP: OP 27	0	0
OP: OP 28	0	0
OP: OP 29	0	0
OP: OP 30	0	0
OP: OP 31	0	0
OP: OP 32	0	0
OP: OP 33	0	0
OP: OP 34	0	0
OP: OP 35	0	0
OP: OP 36	0	0
OP: OP 37	0	0
OP: OP 38	0	0
OP: OP 39	0	0
OP: OP 40	0	0
OP: OP 41	0	0
OP: OP 42	0	0
OP: OP 43	0	0
OP: OP 44	0	0
OP: OP 45	0	0
OP: OP 46	0	0
OP: OP 47	0	0
OP: OP 48	0	0
OP: OP 49	0	0
OP: OP 50	0	0
OP: OP 51	0	0
OP: OP 52	0	0
OP: OP 53	0	0

No glare found

PV array 13 no glare found

Component	Green glare (min)	Yellow glare (min)
OP: OP 1	0	0
OP: OP 2	0	0
OP: OP 3	0	0
OP: OP 4	0	0
OP: OP 5	0	0
OP: OP 6	0	0
OP: OP 7	0	0
OP: OP 8	0	0
OP: OP 9	0	0
OP: OP 10	0	0
OP: OP 11	0	0
OP: OP 12	0	0
OP: OP 13	0	0
OP: OP 14	0	0
OP: OP 15	0	0
OP: OP 16	0	0
OP: OP 17	0	0
OP: OP 18	0	0
OP: OP 19	0	0
OP: OP 20	0	0
OP: OP 21	0	0
OP: OP 22	0	0
OP: OP 23	0	0
OP: OP 24	0	0
OP: OP 25	0	0
OP: OP 26	0	0
OP: OP 27	0	0
OP: OP 28	0	0
OP: OP 29	0	0
OP: OP 30	0	0
OP: OP 31	0	0
OP: OP 32	0	0
OP: OP 33	0	0
OP: OP 34	0	0
OP: OP 35	0	0
OP: OP 36	0	0
OP: OP 37	0	0
OP: OP 38	0	0
OP: OP 39	0	0
OP: OP 40	0	0
OP: OP 41	0	0
OP: OP 42	0	0
OP: OP 43	0	0
OP: OP 44	0	0
OP: OP 45	0	0
OP: OP 46	0	0
OP: OP 47	0	0
OP: OP 48	0	0
OP: OP 49	0	0
OP: OP 50	0	0
OP: OP 51	0	0
OP: OP 52	0	0
OP: OP 53	0	0

No glare found

PV array 14 no glare found

Component	Green glare (min)	Yellow glare (min)
OP: OP 1	0	0
OP: OP 2	0	0
OP: OP 3	0	0
OP: OP 4	0	0
OP: OP 5	0	0
OP: OP 6	0	0
OP: OP 7	0	0
OP: OP 8	0	0
OP: OP 9	0	0
OP: OP 10	0	0
OP: OP 11	0	0
OP: OP 12	0	0
OP: OP 13	0	0
OP: OP 14	0	0
OP: OP 15	0	0
OP: OP 16	0	0
OP: OP 17	0	0
OP: OP 18	0	0
OP: OP 19	0	0
OP: OP 20	0	0
OP: OP 21	0	0
OP: OP 22	0	0
OP: OP 23	0	0
OP: OP 24	0	0
OP: OP 25	0	0
OP: OP 26	0	0
OP: OP 27	0	0
OP: OP 28	0	0
OP: OP 29	0	0
OP: OP 30	0	0
OP: OP 31	0	0
OP: OP 32	0	0
OP: OP 33	0	0
OP: OP 34	0	0
OP: OP 35	0	0
OP: OP 36	0	0
OP: OP 37	0	0
OP: OP 38	0	0
OP: OP 39	0	0
OP: OP 40	0	0
OP: OP 41	0	0
OP: OP 42	0	0
OP: OP 43	0	0
OP: OP 44	0	0
OP: OP 45	0	0
OP: OP 46	0	0
OP: OP 47	0	0
OP: OP 48	0	0
OP: OP 49	0	0
OP: OP 50	0	0
OP: OP 51	0	0
OP: OP 52	0	0
OP: OP 53	0	0

No glare found

PV array 15 no glare found

Component	Green glare (min)	Yellow glare (min)
OP: OP 1	0	0
OP: OP 2	0	0
OP: OP 3	0	0
OP: OP 4	0	0
OP: OP 5	0	0
OP: OP 6	0	0
OP: OP 7	0	0
OP: OP 8	0	0
OP: OP 9	0	0
OP: OP 10	0	0
OP: OP 11	0	0
OP: OP 12	0	0
OP: OP 13	0	0
OP: OP 14	0	0
OP: OP 15	0	0
OP: OP 16	0	0
OP: OP 17	0	0
OP: OP 18	0	0
OP: OP 19	0	0
OP: OP 20	0	0
OP: OP 21	0	0
OP: OP 22	0	0
OP: OP 23	0	0
OP: OP 24	0	0
OP: OP 25	0	0
OP: OP 26	0	0
OP: OP 27	0	0
OP: OP 28	0	0
OP: OP 29	0	0
OP: OP 30	0	0
OP: OP 31	0	0
OP: OP 32	0	0
OP: OP 33	0	0
OP: OP 34	0	0
OP: OP 35	0	0
OP: OP 36	0	0
OP: OP 37	0	0
OP: OP 38	0	0
OP: OP 39	0	0
OP: OP 40	0	0
OP: OP 41	0	0
OP: OP 42	0	0
OP: OP 43	0	0
OP: OP 44	0	0
OP: OP 45	0	0
OP: OP 46	0	0
OP: OP 47	0	0
OP: OP 48	0	0
OP: OP 49	0	0
OP: OP 50	0	0
OP: OP 51	0	0
OP: OP 52	0	0
OP: OP 53	0	0

No glare found

PV array 16 no glare found

Component	Green glare (min)	Yellow glare (min)
OP: OP 1	0	0
OP: OP 2	0	0
OP: OP 3	0	0
OP: OP 4	0	0
OP: OP 5	0	0
OP: OP 6	0	0
OP: OP 7	0	0
OP: OP 8	0	0
OP: OP 9	0	0
OP: OP 10	0	0
OP: OP 11	0	0
OP: OP 12	0	0
OP: OP 13	0	0
OP: OP 14	0	0
OP: OP 15	0	0
OP: OP 16	0	0
OP: OP 17	0	0
OP: OP 18	0	0
OP: OP 19	0	0
OP: OP 20	0	0
OP: OP 21	0	0
OP: OP 22	0	0
OP: OP 23	0	0
OP: OP 24	0	0
OP: OP 25	0	0
OP: OP 26	0	0
OP: OP 27	0	0
OP: OP 28	0	0
OP: OP 29	0	0
OP: OP 30	0	0
OP: OP 31	0	0
OP: OP 32	0	0
OP: OP 33	0	0
OP: OP 34	0	0
OP: OP 35	0	0
OP: OP 36	0	0
OP: OP 37	0	0
OP: OP 38	0	0
OP: OP 39	0	0
OP: OP 40	0	0
OP: OP 41	0	0
OP: OP 42	0	0
OP: OP 43	0	0
OP: OP 44	0	0
OP: OP 45	0	0
OP: OP 46	0	0
OP: OP 47	0	0
OP: OP 48	0	0
OP: OP 49	0	0
OP: OP 50	0	0
OP: OP 51	0	0
OP: OP 52	0	0
OP: OP 53	0	0

No glare found

PV array 17 no glare found

Component	Green glare (min)	Yellow glare (min)
OP: OP 1	0	0
OP: OP 2	0	0
OP: OP 3	0	0
OP: OP 4	0	0
OP: OP 5	0	0
OP: OP 6	0	0
OP: OP 7	0	0
OP: OP 8	0	0
OP: OP 9	0	0
OP: OP 10	0	0
OP: OP 11	0	0
OP: OP 12	0	0
OP: OP 13	0	0
OP: OP 14	0	0
OP: OP 15	0	0
OP: OP 16	0	0
OP: OP 17	0	0
OP: OP 18	0	0
OP: OP 19	0	0
OP: OP 20	0	0
OP: OP 21	0	0
OP: OP 22	0	0
OP: OP 23	0	0
OP: OP 24	0	0
OP: OP 25	0	0
OP: OP 26	0	0
OP: OP 27	0	0
OP: OP 28	0	0
OP: OP 29	0	0
OP: OP 30	0	0
OP: OP 31	0	0
OP: OP 32	0	0
OP: OP 33	0	0
OP: OP 34	0	0
OP: OP 35	0	0
OP: OP 36	0	0
OP: OP 37	0	0
OP: OP 38	0	0
OP: OP 39	0	0
OP: OP 40	0	0
OP: OP 41	0	0
OP: OP 42	0	0
OP: OP 43	0	0
OP: OP 44	0	0
OP: OP 45	0	0
OP: OP 46	0	0
OP: OP 47	0	0
OP: OP 48	0	0
OP: OP 49	0	0
OP: OP 50	0	0
OP: OP 51	0	0
OP: OP 52	0	0
OP: OP 53	0	0

No glare found

PV array 18 no glare found

Component	Green glare (min)	Yellow glare (min)
OP: OP 1	0	0
OP: OP 2	0	0
OP: OP 3	0	0
OP: OP 4	0	0
OP: OP 5	0	0
OP: OP 6	0	0
OP: OP 7	0	0
OP: OP 8	0	0
OP: OP 9	0	0
OP: OP 10	0	0
OP: OP 11	0	0
OP: OP 12	0	0
OP: OP 13	0	0
OP: OP 14	0	0
OP: OP 15	0	0
OP: OP 16	0	0
OP: OP 17	0	0
OP: OP 18	0	0
OP: OP 19	0	0
OP: OP 20	0	0
OP: OP 21	0	0
OP: OP 22	0	0
OP: OP 23	0	0
OP: OP 24	0	0
OP: OP 25	0	0
OP: OP 26	0	0
OP: OP 27	0	0
OP: OP 28	0	0
OP: OP 29	0	0
OP: OP 30	0	0
OP: OP 31	0	0
OP: OP 32	0	0
OP: OP 33	0	0
OP: OP 34	0	0
OP: OP 35	0	0
OP: OP 36	0	0
OP: OP 37	0	0
OP: OP 38	0	0
OP: OP 39	0	0
OP: OP 40	0	0
OP: OP 41	0	0
OP: OP 42	0	0
OP: OP 43	0	0
OP: OP 44	0	0
OP: OP 45	0	0
OP: OP 46	0	0
OP: OP 47	0	0
OP: OP 48	0	0
OP: OP 49	0	0
OP: OP 50	0	0
OP: OP 51	0	0
OP: OP 52	0	0
OP: OP 53	0	0

No glare found

PV array 2 no glare found

Component	Green glare (min)	Yellow glare (min)
OP: OP 1	0	0
OP: OP 2	0	0
OP: OP 3	0	0
OP: OP 4	0	0
OP: OP 5	0	0
OP: OP 6	0	0
OP: OP 7	0	0
OP: OP 8	0	0
OP: OP 9	0	0
OP: OP 10	0	0
OP: OP 11	0	0
OP: OP 12	0	0
OP: OP 13	0	0
OP: OP 14	0	0
OP: OP 15	0	0
OP: OP 16	0	0
OP: OP 17	0	0
OP: OP 18	0	0
OP: OP 19	0	0
OP: OP 20	0	0
OP: OP 21	0	0
OP: OP 22	0	0
OP: OP 23	0	0
OP: OP 24	0	0
OP: OP 25	0	0
OP: OP 26	0	0
OP: OP 27	0	0
OP: OP 28	0	0
OP: OP 29	0	0
OP: OP 30	0	0
OP: OP 31	0	0
OP: OP 32	0	0
OP: OP 33	0	0
OP: OP 34	0	0
OP: OP 35	0	0
OP: OP 36	0	0
OP: OP 37	0	0
OP: OP 38	0	0
OP: OP 39	0	0
OP: OP 40	0	0
OP: OP 41	0	0
OP: OP 42	0	0
OP: OP 43	0	0
OP: OP 44	0	0
OP: OP 45	0	0
OP: OP 46	0	0
OP: OP 47	0	0
OP: OP 48	0	0
OP: OP 49	0	0
OP: OP 50	0	0
OP: OP 51	0	0
OP: OP 52	0	0
OP: OP 53	0	0

No glare found

PV array 3 no glare found

Component	Green glare (min)	Yellow glare (min)
OP: OP 1	0	0
OP: OP 2	0	0
OP: OP 3	0	0
OP: OP 4	0	0
OP: OP 5	0	0
OP: OP 6	0	0
OP: OP 7	0	0
OP: OP 8	0	0
OP: OP 9	0	0
OP: OP 10	0	0
OP: OP 11	0	0
OP: OP 12	0	0
OP: OP 13	0	0
OP: OP 14	0	0
OP: OP 15	0	0
OP: OP 16	0	0
OP: OP 17	0	0
OP: OP 18	0	0
OP: OP 19	0	0
OP: OP 20	0	0
OP: OP 21	0	0
OP: OP 22	0	0
OP: OP 23	0	0
OP: OP 24	0	0
OP: OP 25	0	0
OP: OP 26	0	0
OP: OP 27	0	0
OP: OP 28	0	0
OP: OP 29	0	0
OP: OP 30	0	0
OP: OP 31	0	0
OP: OP 32	0	0
OP: OP 33	0	0
OP: OP 34	0	0
OP: OP 35	0	0
OP: OP 36	0	0
OP: OP 37	0	0
OP: OP 38	0	0
OP: OP 39	0	0
OP: OP 40	0	0
OP: OP 41	0	0
OP: OP 42	0	0
OP: OP 43	0	0
OP: OP 44	0	0
OP: OP 45	0	0
OP: OP 46	0	0
OP: OP 47	0	0
OP: OP 48	0	0
OP: OP 49	0	0
OP: OP 50	0	0
OP: OP 51	0	0
OP: OP 52	0	0
OP: OP 53	0	0

No glare found

PV array 4 no glare found

Component	Green glare (min)	Yellow glare (min)
OP: OP 1	0	0
OP: OP 2	0	0
OP: OP 3	0	0
OP: OP 4	0	0
OP: OP 5	0	0
OP: OP 6	0	0
OP: OP 7	0	0
OP: OP 8	0	0
OP: OP 9	0	0
OP: OP 10	0	0
OP: OP 11	0	0
OP: OP 12	0	0
OP: OP 13	0	0
OP: OP 14	0	0
OP: OP 15	0	0
OP: OP 16	0	0
OP: OP 17	0	0
OP: OP 18	0	0
OP: OP 19	0	0
OP: OP 20	0	0
OP: OP 21	0	0
OP: OP 22	0	0
OP: OP 23	0	0
OP: OP 24	0	0
OP: OP 25	0	0
OP: OP 26	0	0
OP: OP 27	0	0
OP: OP 28	0	0
OP: OP 29	0	0
OP: OP 30	0	0
OP: OP 31	0	0
OP: OP 32	0	0
OP: OP 33	0	0
OP: OP 34	0	0
OP: OP 35	0	0
OP: OP 36	0	0
OP: OP 37	0	0
OP: OP 38	0	0
OP: OP 39	0	0
OP: OP 40	0	0
OP: OP 41	0	0
OP: OP 42	0	0
OP: OP 43	0	0
OP: OP 44	0	0
OP: OP 45	0	0
OP: OP 46	0	0
OP: OP 47	0	0
OP: OP 48	0	0
OP: OP 49	0	0
OP: OP 50	0	0
OP: OP 51	0	0
OP: OP 52	0	0
OP: OP 53	0	0

No glare found

PV array 5 no glare found

Component	Green glare (min)	Yellow glare (min)
OP: OP 1	0	0
OP: OP 2	0	0
OP: OP 3	0	0
OP: OP 4	0	0
OP: OP 5	0	0
OP: OP 6	0	0
OP: OP 7	0	0
OP: OP 8	0	0
OP: OP 9	0	0
OP: OP 10	0	0
OP: OP 11	0	0
OP: OP 12	0	0
OP: OP 13	0	0
OP: OP 14	0	0
OP: OP 15	0	0
OP: OP 16	0	0
OP: OP 17	0	0
OP: OP 18	0	0
OP: OP 19	0	0
OP: OP 20	0	0
OP: OP 21	0	0
OP: OP 22	0	0
OP: OP 23	0	0
OP: OP 24	0	0
OP: OP 25	0	0
OP: OP 26	0	0
OP: OP 27	0	0
OP: OP 28	0	0
OP: OP 29	0	0
OP: OP 30	0	0
OP: OP 31	0	0
OP: OP 32	0	0
OP: OP 33	0	0
OP: OP 34	0	0
OP: OP 35	0	0
OP: OP 36	0	0
OP: OP 37	0	0
OP: OP 38	0	0
OP: OP 39	0	0
OP: OP 40	0	0
OP: OP 41	0	0
OP: OP 42	0	0
OP: OP 43	0	0
OP: OP 44	0	0
OP: OP 45	0	0
OP: OP 46	0	0
OP: OP 47	0	0
OP: OP 48	0	0
OP: OP 49	0	0
OP: OP 50	0	0
OP: OP 51	0	0
OP: OP 52	0	0
OP: OP 53	0	0

No glare found

PV array 6 no glare found

Component	Green glare (min)	Yellow glare (min)
OP: OP 1	0	0
OP: OP 2	0	0
OP: OP 3	0	0
OP: OP 4	0	0
OP: OP 5	0	0
OP: OP 6	0	0
OP: OP 7	0	0
OP: OP 8	0	0
OP: OP 9	0	0
OP: OP 10	0	0
OP: OP 11	0	0
OP: OP 12	0	0
OP: OP 13	0	0
OP: OP 14	0	0
OP: OP 15	0	0
OP: OP 16	0	0
OP: OP 17	0	0
OP: OP 18	0	0
OP: OP 19	0	0
OP: OP 20	0	0
OP: OP 21	0	0
OP: OP 22	0	0
OP: OP 23	0	0
OP: OP 24	0	0
OP: OP 25	0	0
OP: OP 26	0	0
OP: OP 27	0	0
OP: OP 28	0	0
OP: OP 29	0	0
OP: OP 30	0	0
OP: OP 31	0	0
OP: OP 32	0	0
OP: OP 33	0	0
OP: OP 34	0	0
OP: OP 35	0	0
OP: OP 36	0	0
OP: OP 37	0	0
OP: OP 38	0	0
OP: OP 39	0	0
OP: OP 40	0	0
OP: OP 41	0	0
OP: OP 42	0	0
OP: OP 43	0	0
OP: OP 44	0	0
OP: OP 45	0	0
OP: OP 46	0	0
OP: OP 47	0	0
OP: OP 48	0	0
OP: OP 49	0	0
OP: OP 50	0	0
OP: OP 51	0	0
OP: OP 52	0	0
OP: OP 53	0	0

No glare found

PV array 7 no glare found

Component	Green glare (min)	Yellow glare (min)
OP: OP 1	0	0
OP: OP 2	0	0
OP: OP 3	0	0
OP: OP 4	0	0
OP: OP 5	0	0
OP: OP 6	0	0
OP: OP 7	0	0
OP: OP 8	0	0
OP: OP 9	0	0
OP: OP 10	0	0
OP: OP 11	0	0
OP: OP 12	0	0
OP: OP 13	0	0
OP: OP 14	0	0
OP: OP 15	0	0
OP: OP 16	0	0
OP: OP 17	0	0
OP: OP 18	0	0
OP: OP 19	0	0
OP: OP 20	0	0
OP: OP 21	0	0
OP: OP 22	0	0
OP: OP 23	0	0
OP: OP 24	0	0
OP: OP 25	0	0
OP: OP 26	0	0
OP: OP 27	0	0
OP: OP 28	0	0
OP: OP 29	0	0
OP: OP 30	0	0
OP: OP 31	0	0
OP: OP 32	0	0
OP: OP 33	0	0
OP: OP 34	0	0
OP: OP 35	0	0
OP: OP 36	0	0
OP: OP 37	0	0
OP: OP 38	0	0
OP: OP 39	0	0
OP: OP 40	0	0
OP: OP 41	0	0
OP: OP 42	0	0
OP: OP 43	0	0
OP: OP 44	0	0
OP: OP 45	0	0
OP: OP 46	0	0
OP: OP 47	0	0
OP: OP 48	0	0
OP: OP 49	0	0
OP: OP 50	0	0
OP: OP 51	0	0
OP: OP 52	0	0
OP: OP 53	0	0

No glare found

PV array 8 no glare found

Component	Green glare (min)	Yellow glare (min)
OP: OP 1	0	0
OP: OP 2	0	0
OP: OP 3	0	0
OP: OP 4	0	0
OP: OP 5	0	0
OP: OP 6	0	0
OP: OP 7	0	0
OP: OP 8	0	0
OP: OP 9	0	0
OP: OP 10	0	0
OP: OP 11	0	0
OP: OP 12	0	0
OP: OP 13	0	0
OP: OP 14	0	0
OP: OP 15	0	0
OP: OP 16	0	0
OP: OP 17	0	0
OP: OP 18	0	0
OP: OP 19	0	0
OP: OP 20	0	0
OP: OP 21	0	0
OP: OP 22	0	0
OP: OP 23	0	0
OP: OP 24	0	0
OP: OP 25	0	0
OP: OP 26	0	0
OP: OP 27	0	0
OP: OP 28	0	0
OP: OP 29	0	0
OP: OP 30	0	0
OP: OP 31	0	0
OP: OP 32	0	0
OP: OP 33	0	0
OP: OP 34	0	0
OP: OP 35	0	0
OP: OP 36	0	0
OP: OP 37	0	0
OP: OP 38	0	0
OP: OP 39	0	0
OP: OP 40	0	0
OP: OP 41	0	0
OP: OP 42	0	0
OP: OP 43	0	0
OP: OP 44	0	0
OP: OP 45	0	0
OP: OP 46	0	0
OP: OP 47	0	0
OP: OP 48	0	0
OP: OP 49	0	0
OP: OP 50	0	0
OP: OP 51	0	0
OP: OP 52	0	0
OP: OP 53	0	0

No glare found

PV array 9 no glare found

Component	Green glare (min)	Yellow glare (min)
OP: OP 1	0	0
OP: OP 2	0	0
OP: OP 3	0	0
OP: OP 4	0	0
OP: OP 5	0	0
OP: OP 6	0	0
OP: OP 7	0	0
OP: OP 8	0	0
OP: OP 9	0	0
OP: OP 10	0	0
OP: OP 11	0	0
OP: OP 12	0	0
OP: OP 13	0	0
OP: OP 14	0	0
OP: OP 15	0	0
OP: OP 16	0	0
OP: OP 17	0	0
OP: OP 18	0	0
OP: OP 19	0	0
OP: OP 20	0	0
OP: OP 21	0	0
OP: OP 22	0	0
OP: OP 23	0	0
OP: OP 24	0	0
OP: OP 25	0	0
OP: OP 26	0	0
OP: OP 27	0	0
OP: OP 28	0	0
OP: OP 29	0	0
OP: OP 30	0	0
OP: OP 31	0	0
OP: OP 32	0	0
OP: OP 33	0	0
OP: OP 34	0	0
OP: OP 35	0	0
OP: OP 36	0	0
OP: OP 37	0	0
OP: OP 38	0	0
OP: OP 39	0	0
OP: OP 40	0	0
OP: OP 41	0	0
OP: OP 42	0	0
OP: OP 43	0	0
OP: OP 44	0	0
OP: OP 45	0	0
OP: OP 46	0	0
OP: OP 47	0	0
OP: OP 48	0	0
OP: OP 49	0	0
OP: OP 50	0	0
OP: OP 51	0	0
OP: OP 52	0	0
OP: OP 53	0	0

No glare found

Assumptions

- Times associated with glare are denoted in Standard time. For Daylight Savings, add one hour.
- Glare analyses do not automatically account for physical obstructions between reflectors and receptors. This includes buildings, tree cover and geographic obstructions.
- Detailed system geometry is not rigorously simulated.
- The glare hazard determination relies on several approximations including observer eye characteristics, angle of view, and typical blink response time. Actual values and results may vary.
- The system output calculation is a DNI-based approximation that assumes clear, sunny skies year-round. It should not be used in place of more rigorous modeling methods.
- Several V1 calculations utilize the PV array centroid, rather than the actual glare spot location, due to algorithm limitations. This may affect results for large PV footprints. Additional analyses of array sub-sections can provide additional information on expected glare.
- The subtended source angle (glare spot size) is constrained by the PV array footprint size. Partitioning large arrays into smaller sections will reduce the maximum potential subtended angle, potentially impacting results if actual glare spots are larger than the sub-array size. Additional analyses of the combined area of adjacent sub-arrays can provide more information on potential glare hazards. (See previous point on related limitations.)
- Hazard zone boundaries shown in the Glare Hazard plot are an approximation and visual aid. Actual ocular impact outcomes encompass a continuous, not discrete, spectrum.
- Glare locations displayed on receptor plots are approximate. Actual glare-spot locations may differ.
- Refer to the **Help page** for detailed assumptions and limitations not listed here.

ANNEX E: ROAD RECEPTOR GLARE RESULTS (1 – 60)

ForgeSolar

East Yorkshire Solar Farm

East Yorkshire Solar Farm Road 1 - 60

Created Aug 03, 2023
Updated Sep 20, 2023
Time-step 1 minute
Timezone offset UTC0
Minimum sun altitude 0.0 deg
Site ID 96777.16938

Project type Advanced
Project status: active
Category 100 MW to 1 GW

Misc. Analysis Settings

DNI: **varies (1,000.0 W/m^2 peak)**
Ocular transmission coefficient: **0.5**
Pupil diameter: **0.002 m**
Eye focal length: **0.017 m**
Sun subtended angle: **9.3 mrad**

PV Analysis Methodology: **Version 2**
Enhanced subtended angle calculation: **On**

Summary of Results No glare predicted!

PV Name	Tilt	Orientation	"Green" Glare	"Yellow" Glare	Energy Produced
	deg	deg	min	min	kWh
PV array 1	SA tracking	SA tracking	0	0	-
PV array 10	SA tracking	SA tracking	0	0	-
PV array 11	SA tracking	SA tracking	0	0	-
PV array 12	SA tracking	SA tracking	0	0	-
PV array 13	SA tracking	SA tracking	0	0	-
PV array 14	SA tracking	SA tracking	0	0	-
PV array 15	SA tracking	SA tracking	0	0	-
PV array 16	SA tracking	SA tracking	0	0	-
PV array 17	SA tracking	SA tracking	0	0	-
PV array 18	SA tracking	SA tracking	0	0	-
PV array 2	SA tracking	SA tracking	0	0	-
PV array 3	SA tracking	SA tracking	0	0	-
PV array 4	SA tracking	SA tracking	0	0	-
PV array 5	SA tracking	SA tracking	0	0	-
PV array 6	SA tracking	SA tracking	0	0	-
PV array 7	SA tracking	SA tracking	0	0	-
PV array 8	SA tracking	SA tracking	0	0	-
PV array 9	SA tracking	SA tracking	0	0	-

Component Data

PV Array(s)

Total PV footprint area: 8,103,479 m^2

Name: PV array 1
Footprint area: 509,399 m^2
Axis tracking: Single-axis rotation
Backtracking: None
Tracking axis orientation: 180.0 deg
Tracking axis tilt: 0.0 deg
Tracking axis panel offset: 0.0 deg
Maximum tracking angle: 60.0 deg

Rated power: -
Panel material: Light textured glass with AR coating
Vary reflectivity with sun position? Yes
Correlate slope error with surface type? Yes
Slope error: 9.16 mrad

Vertex	Latitude	Longitude	Ground elevation	Height above ground	Total elevation
	deg	deg	m	m	m
1	53.818886	-0.886729	6.34	3.50	9.84
2	53.814883	-0.884283	5.95	3.50	9.45
3	53.814346	-0.888924	7.41	3.50	10.91
4	53.812293	-0.882272	6.90	3.50	10.40
5	53.812699	-0.879482	7.20	3.50	10.70
6	53.813763	-0.878324	7.19	3.50	10.69
7	53.814194	-0.878796	7.39	3.50	10.89
8	53.814523	-0.874633	6.96	3.50	10.46
9	53.816145	-0.874247	6.11	3.50	9.61
10	53.816271	-0.873302	6.84	3.50	10.34
11	53.819464	-0.872702	6.50	3.50	10.00
12	53.818704	-0.878967	6.05	3.50	9.55
13	53.819109	-0.879010	5.90	3.50	9.40

Name: PV array 10
Footprint area: 860,067 m^2
Axis tracking: Single-axis rotation
Backtracking: None
Tracking axis orientation: 180.0 deg
Tracking axis tilt: 0.0 deg
Tracking axis panel offset: 0.0 deg
Maximum tracking angle: 60.0 deg

Rated power: -
Panel material: Light textured glass with AR coating
Vary reflectivity with sun position? Yes
Correlate slope error with surface type? Yes
Slope error: 9.16 mrad

Vertex	Latitude	Longitude	Ground elevation	Height above ground	Total elevation
	deg	deg	m	m	m
1	53.778810	-0.820903	5.07	3.50	8.57
2	53.775868	-0.819959	5.15	3.50	8.65
3	53.775209	-0.825366	5.97	3.50	9.47
4	53.768057	-0.847639	4.41	3.50	7.91
5	53.769858	-0.848455	5.00	3.50	8.50
6	53.769680	-0.850472	4.68	3.50	8.18
7	53.770745	-0.850686	4.00	3.50	7.50
8	53.770999	-0.849098	4.12	3.50	7.62
9	53.773408	-0.849570	5.00	3.50	8.50

Name: PV array 11
Footprint area: 205,559 m^2
Axis tracking: Single-axis rotation
Backtracking: None
Tracking axis orientation: 180.0 deg
Tracking axis tilt: 0.0 deg
Tracking axis panel offset: 0.0 deg
Maximum tracking angle: 60.0 deg

Rated power: -
Panel material: Light textured glass with AR coating
Vary reflectivity with sun position? Yes
Correlate slope error with surface type? Yes
Slope error: 9.16 mrad

Vertex	Latitude	Longitude	Ground elevation	Height above ground	Total elevation
	deg	deg	m	m	m
1	53.776817	-0.861222	5.00	3.50	8.50
2	53.776284	-0.862552	5.00	3.50	8.50
3	53.782826	-0.874268	5.15	3.50	8.65
4	53.784120	-0.871951	4.99	3.50	8.49
5	53.782674	-0.870578	5.10	3.50	8.60
6	53.780646	-0.865299	5.86	3.50	9.36
7	53.780772	-0.863840	6.00	3.50	9.50
8	53.779378	-0.862209	5.00	3.50	8.50
9	53.778972	-0.864012	5.00	3.50	8.50

Name: PV array 12
Footprint area: 153,870 m^2
Axis tracking: Single-axis rotation
Backtracking: None
Tracking axis orientation: 180.0 deg
Tracking axis tilt: 0.0 deg
Tracking axis panel offset: 0.0 deg
Maximum tracking angle: 60.0 deg

Rated power: -
Panel material: Light textured glass with AR coating
Vary reflectivity with sun position? Yes
Correlate slope error with surface type? Yes
Slope error: 9.16 mrad

Vertex	Latitude	Longitude	Ground elevation	Height above ground	Total elevation
	deg	deg	m	m	m
1	53.788227	-0.880191	5.89	3.50	9.39
2	53.788328	-0.881607	4.53	3.50	8.03
3	53.785920	-0.884311	5.06	3.50	8.56
4	53.782902	-0.880234	5.96	3.50	9.46
5	53.783359	-0.878388	5.63	3.50	9.13
6	53.783993	-0.877401	5.39	3.50	8.89
7	53.786021	-0.878388	5.24	3.50	8.74
8	53.786909	-0.879461	5.93	3.50	9.43

Name: PV array 13
Footprint area: 227,092 m^2
Axis tracking: Single-axis rotation
Backtracking: None
Tracking axis orientation: 180.0 deg
Tracking axis tilt: 0.0 deg
Tracking axis panel offset: 0.0 deg
Maximum tracking angle: 60.0 deg

Rated power: -
Panel material: Light textured glass with AR coating
Vary reflectivity with sun position? Yes
Correlate slope error with surface type? Yes
Slope error: 9.16 mrad

Vertex	Latitude	Longitude	Ground elevation	Height above ground	Total elevation
	deg	deg	m	m	m
1	53.782598	-0.896155	6.23	3.50	9.73
2	53.779048	-0.902335	5.55	3.50	9.05
3	53.778414	-0.901820	6.07	3.50	9.57
4	53.778262	-0.899503	6.30	3.50	9.80
5	53.776411	-0.897228	4.61	3.50	8.11
6	53.778287	-0.894610	4.73	3.50	8.23
7	53.780722	-0.891907	5.00	3.50	8.50

Name: PV array 14
Footprint area: 679,077 m^2
Axis tracking: Single-axis rotation
Backtracking: None
Tracking axis orientation: 180.0 deg
Tracking axis tilt: 0.0 deg
Tracking axis panel offset: 0.0 deg
Maximum tracking angle: 60.0 deg

Rated power: -
Panel material: Light textured glass with AR coating
Vary reflectivity with sun position? Yes
Correlate slope error with surface type? Yes
Slope error: 9.16 mrad

Vertex	Latitude	Longitude	Ground elevation	Height above ground	Total elevation
	deg	deg	m	m	m
1	53.776512	-0.895597	5.00	3.50	8.50
2	53.773976	-0.894396	5.00	3.50	8.50
3	53.773722	-0.894524	5.00	3.50	8.50
4	53.773190	-0.891563	5.00	3.50	8.50
5	53.773900	-0.890190	5.00	3.50	8.50
6	53.775193	-0.888774	5.00	3.50	8.50
7	53.773722	-0.884053	5.51	3.50	9.01
8	53.771719	-0.885555	5.49	3.50	8.99
9	53.771313	-0.881950	5.00	3.50	8.50
10	53.768675	-0.879332	5.00	3.50	8.50
11	53.767787	-0.880877	5.86	3.50	9.36
12	53.770273	-0.900919	5.27	3.50	8.77
13	53.772201	-0.899073	6.03	3.50	9.53
14	53.775067	-0.898344	5.81	3.50	9.31

Name: PV array 15
Footprint area: 277,556 m^2
Axis tracking: Single-axis rotation
Backtracking: None
Tracking axis orientation: 180.0 deg
Tracking axis tilt: 0.0 deg
Tracking axis panel offset: 0.0 deg
Maximum tracking angle: 60.0 deg

Rated power: -
Panel material: Light textured glass with AR coating
Vary reflectivity with sun position? Yes
Correlate slope error with surface type? Yes
Slope error: 9.16 mrad

Vertex	Latitude	Longitude	Ground elevation	Height above ground	Total elevation
	deg	deg	m	m	m
1	53.768980	-0.895254	5.00	3.50	8.50
2	53.765454	-0.897528	3.99	3.50	7.49
3	53.764363	-0.894138	4.98	3.50	8.48
4	53.764845	-0.892808	4.28	3.50	7.78
5	53.766062	-0.891520	4.50	3.50	8.00
6	53.765454	-0.887701	5.39	3.50	8.89
7	53.766773	-0.881392	5.53	3.50	9.03
8	53.767128	-0.881221	6.00	3.50	9.50

Name: PV array 16
Footprint area: 251,811 m^2
Axis tracking: Single-axis rotation
Backtracking: None
Tracking axis orientation: 180.0 deg
Tracking axis tilt: 0.0 deg
Tracking axis panel offset: 0.0 deg
Maximum tracking angle: 60.0 deg

Rated power: -
Panel material: Light textured glass with AR coating
Vary reflectivity with sun position? Yes
Correlate slope error with surface type? Yes
Slope error: 9.16 mrad

Vertex	Latitude	Longitude	Ground elevation	Height above ground	Total elevation
	deg	deg	m	m	m
1	53.765961	-0.871693	5.00	3.50	8.50
2	53.764769	-0.872766	5.00	3.50	8.50
3	53.765251	-0.879075	4.32	3.50	7.82
4	53.766671	-0.879676	4.39	3.50	7.89
5	53.766646	-0.880234	4.36	3.50	7.86
6	53.766139	-0.880362	4.41	3.50	7.91
7	53.763145	-0.889975	5.30	3.50	8.80
8	53.764617	-0.890362	4.92	3.50	8.42
9	53.764534	-0.890844	4.73	3.50	8.23
10	53.763044	-0.890619	6.20	3.50	9.70
11	53.761446	-0.894911	9.27	3.50	12.77
12	53.759593	-0.899846	7.65	3.50	11.15
13	53.758782	-0.900318	7.20	3.50	10.70
14	53.758934	-0.900747	7.16	3.50	10.66
15	53.759898	-0.900704	7.56	3.50	11.06
16	53.762029	-0.895469	9.27	3.50	12.77
17	53.762689	-0.896413	8.78	3.50	12.28
18	53.764591	-0.892336	4.64	3.50	8.14
19	53.764667	-0.890319	4.90	3.50	8.40
20	53.765581	-0.890362	4.32	3.50	7.82
21	53.765327	-0.888731	5.39	3.50	8.89
22	53.764211	-0.888688	6.95	3.50	10.45
23	53.764287	-0.887358	6.37	3.50	9.87
24	53.765149	-0.887014	5.83	3.50	9.33
25	53.766595	-0.880834	5.09	3.50	8.59
26	53.766925	-0.879375	4.83	3.50	8.33

Name: PV array 17
Footprint area: 259,874 m^2
Axis tracking: Single-axis rotation
Backtracking: None
Tracking axis orientation: 180.0 deg
Tracking axis tilt: 0.0 deg
Tracking axis panel offset: 0.0 deg
Maximum tracking angle: 60.0 deg

Rated power: -
Panel material: Light textured glass with AR coating
Vary reflectivity with sun position? Yes
Correlate slope error with surface type? Yes
Slope error: 9.16 mrad

Vertex	Latitude	Longitude	Ground elevation	Height above ground	Total elevation
	deg	deg	m	m	m
1	53.800000	-0.898244	8.11	3.50	11.61
2	53.799316	-0.898158	5.69	3.50	9.19
3	53.796553	-0.900947	5.33	3.50	8.83
4	53.795792	-0.901205	5.86	3.50	9.36
5	53.795032	-0.896699	5.54	3.50	9.04
6	53.794246	-0.893437	5.00	3.50	8.50
7	53.795083	-0.892579	5.13	3.50	8.63
8	53.798150	-0.892794	5.38	3.50	8.88
9	53.800076	-0.893394	5.88	3.50	9.38
10	53.800228	-0.897471	6.28	3.50	9.78

Name: PV array 18
Footprint area: 191,697 m^2
Axis tracking: Single-axis rotation
Backtracking: None
Tracking axis orientation: 180.0 deg
Tracking axis tilt: 0.0 deg
Tracking axis panel offset: 0.0 deg
Maximum tracking angle: 60.0 deg

Rated power: -
Panel material: Light textured glass with AR coating
Vary reflectivity with sun position? Yes
Correlate slope error with surface type? Yes
Slope error: 9.16 mrad

Vertex	Latitude	Longitude	Ground elevation	Height above ground	Total elevation
	deg	deg	m	m	m
1	53.792776	-0.893609	4.96	3.50	8.46
2	53.791736	-0.894982	5.48	3.50	8.98
3	53.790697	-0.896012	4.98	3.50	8.48
4	53.788998	-0.897042	4.27	3.50	7.77
5	53.789100	-0.897986	4.86	3.50	8.36
6	53.788973	-0.899360	5.24	3.50	8.74
7	53.788821	-0.900046	4.94	3.50	8.44
8	53.789227	-0.902020	4.84	3.50	8.34
9	53.789531	-0.902063	6.31	3.50	9.81
10	53.789556	-0.900990	5.15	3.50	8.65
11	53.792472	-0.900347	5.64	3.50	9.14
12	53.792903	-0.901849	6.09	3.50	9.59
13	53.794322	-0.900390	6.18	3.50	9.68

Name: PV array 2
Footprint area: 632,085 m^2
Axis tracking: Single-axis rotation
Backtracking: None
Tracking axis orientation: 180.0 deg
Tracking axis tilt: 0.0 deg
Tracking axis panel offset: 0.0 deg
Maximum tracking angle: 60.0 deg

Rated power: -
Panel material: Light textured glass with AR coating
Vary reflectivity with sun position? Yes
Correlate slope error with surface type? Yes
Slope error: 9.16 mrad

Vertex	Latitude	Longitude	Ground elevation	Height above ground	Total elevation
	deg	deg	m	m	m
1	53.813872	-0.874438	6.25	3.50	9.75
2	53.811034	-0.872979	7.20	3.50	10.70
3	53.811516	-0.871090	7.04	3.50	10.54
4	53.808804	-0.868730	6.72	3.50	10.22
5	53.809108	-0.867485	6.99	3.50	10.49
6	53.808323	-0.867687	6.25	3.50	9.75
7	53.806878	-0.867000	6.02	3.50	9.52
8	53.807183	-0.865970	6.43	3.50	9.93
9	53.805325	-0.864511	6.24	3.50	9.74
10	53.805173	-0.865283	6.58	3.50	10.08
11	53.804083	-0.864425	7.27	3.50	10.77
12	53.802993	-0.867987	6.40	3.50	9.90
13	53.802537	-0.867343	6.48	3.50	9.98
14	53.802283	-0.866228	6.35	3.50	9.85
15	53.800991	-0.864854	6.93	3.50	10.43
16	53.803094	-0.859876	6.29	3.50	9.79
17	53.803551	-0.859790	6.05	3.50	9.55
18	53.804210	-0.857087	6.54	3.50	10.04
19	53.807758	-0.858374	6.00	3.50	9.50
20	53.807859	-0.862666	5.93	3.50	9.43
21	53.810140	-0.863524	5.70	3.50	9.20
22	53.813897	-0.865584	6.85	3.50	10.35
23	53.813517	-0.868545	5.83	3.50	9.33
24	53.813618	-0.870433	5.69	3.50	9.19
25	53.814100	-0.871678	6.48	3.50	9.98

Name: PV array 3
Footprint area: 155,482 m^2
Axis tracking: Single-axis rotation
Backtracking: None
Tracking axis orientation: 180.0 deg
Tracking axis tilt: 0.0 deg
Tracking axis panel offset: 0.0 deg
Maximum tracking angle: 60.0 deg

Rated power: -
Panel material: Light textured glass with AR coating
Vary reflectivity with sun position? Yes
Correlate slope error with surface type? Yes
Slope error: 9.16 mrad

Vertex	Latitude	Longitude	Ground elevation	Height above ground	Total elevation
	deg	deg	m	m	m
1	53.813884	-0.865326	6.57	3.50	10.07
2	53.810185	-0.863052	6.00	3.50	9.50
3	53.808158	-0.862236	5.93	3.50	9.43
4	53.808132	-0.858760	6.07	3.50	9.57
5	53.810172	-0.859726	6.68	3.50	10.18
6	53.810844	-0.860477	5.85	3.50	9.35
7	53.811807	-0.860799	5.51	3.50	9.01
8	53.812909	-0.860777	5.73	3.50	9.23
9	53.813175	-0.860649	5.42	3.50	8.92
10	53.813922	-0.860949	5.47	3.50	8.97
11	53.814416	-0.860691	6.67	3.50	10.17

Name: PV array 4
Footprint area: 640,744 m^2
Axis tracking: Single-axis rotation
Backtracking: None
Tracking axis orientation: 180.0 deg
Tracking axis tilt: 0.0 deg
Tracking axis panel offset: 0.0 deg
Maximum tracking angle: 60.0 deg

Rated power: -
Panel material: Light textured glass with AR coating
Vary reflectivity with sun position? Yes
Correlate slope error with surface type? Yes
Slope error: 9.16 mrad

Vertex	Latitude	Longitude	Ground elevation	Height above ground	Total elevation
	deg	deg	m	m	m
1	53.814581	-0.855301	5.71	3.50	9.21
2	53.814100	-0.855130	5.26	3.50	8.76
3	53.813454	-0.854701	5.23	3.50	8.73
4	53.811148	-0.860065	5.60	3.50	9.10
5	53.810261	-0.859271	5.85	3.50	9.35
6	53.805383	-0.856782	5.66	3.50	9.16
7	53.805649	-0.855001	5.25	3.50	8.75
8	53.804901	-0.853842	5.22	3.50	8.72
9	53.805636	-0.849186	5.28	3.50	8.78
10	53.804496	-0.847255	5.46	3.50	8.96
11	53.804166	-0.847276	5.90	3.50	9.40
12	53.803748	-0.853327	6.05	3.50	9.55
13	53.798337	-0.850667	6.07	3.50	9.57
14	53.799972	-0.847148	5.62	3.50	9.12
15	53.800263	-0.845581	5.93	3.50	9.43
16	53.804103	-0.847276	5.53	3.50	9.03
17	53.804597	-0.847233	4.75	3.50	8.25
18	53.807681	-0.847384	5.70	3.50	9.20
19	53.808454	-0.848607	5.76	3.50	9.26
20	53.807238	-0.851632	5.81	3.50	9.31
21	53.808568	-0.853714	5.85	3.50	9.35
22	53.808366	-0.854658	5.82	3.50	9.32
23	53.809671	-0.855108	4.90	3.50	8.40
24	53.810000	-0.853907	5.43	3.50	8.93
25	53.809709	-0.853628	5.37	3.50	8.87
26	53.811558	-0.850538	5.71	3.50	9.21
27	53.813269	-0.852190	5.07	3.50	8.57
28	53.814244	-0.852684	5.73	3.50	9.23

Name: PV array 5
Footprint area: 1,762,515 m^2
Axis tracking: Single-axis rotation
Backtracking: None
Tracking axis orientation: 180.0 deg
Tracking axis tilt: 0.0 deg
Tracking axis panel offset: 0.0 deg
Maximum tracking angle: 60.0 deg

Rated power: -
Panel material: Light textured glass with AR coating
Vary reflectivity with sun position? Yes
Correlate slope error with surface type? Yes
Slope error: 9.16 mrad

Vertex	Latitude	Longitude	Ground elevation	Height above ground	Total elevation
	deg	deg	m	m	m
1	53.807708	-0.847197	5.51	3.50	9.01
2	53.804096	-0.847004	5.39	3.50	8.89
3	53.797342	-0.843764	5.19	3.50	8.69
4	53.797874	-0.841661	5.30	3.50	8.80
5	53.799610	-0.837906	5.60	3.50	9.10
6	53.801258	-0.834001	5.60	3.50	9.10
7	53.803577	-0.827735	5.05	3.50	8.55
8	53.802145	-0.825933	5.34	3.50	8.84
9	53.799851	-0.832398	6.04	3.50	9.54
10	53.797215	-0.829265	5.09	3.50	8.59
11	53.795048	-0.834844	5.24	3.50	8.74
12	53.792817	-0.833686	5.73	3.50	9.23
13	53.792944	-0.831368	5.17	3.50	8.67
14	53.794439	-0.826390	5.04	3.50	8.54
15	53.795301	-0.827248	5.36	3.50	8.86
16	53.795707	-0.826991	6.45	3.50	9.95
17	53.797253	-0.828793	5.75	3.50	9.25
18	53.797861	-0.826647	5.38	3.50	8.88
19	53.796214	-0.825274	5.21	3.50	8.71
20	53.796290	-0.824502	4.27	3.50	7.77
21	53.795200	-0.823558	4.11	3.50	7.61
22	53.795986	-0.819695	4.60	3.50	8.10
23	53.799027	-0.821626	4.56	3.50	8.06
24	53.801638	-0.823944	4.37	3.50	7.87
25	53.803944	-0.826519	4.96	3.50	8.46
26	53.804172	-0.825918	4.35	3.50	7.85
27	53.802018	-0.823558	5.21	3.50	8.71
28	53.802094	-0.822656	4.99	3.50	8.49
29	53.801511	-0.822442	5.47	3.50	8.97
30	53.801283	-0.822871	4.64	3.50	8.14
31	53.799103	-0.820940	4.71	3.50	8.21
32	53.800244	-0.816047	4.44	3.50	7.94
33	53.798368	-0.814846	4.75	3.50	8.25
34	53.797481	-0.814846	4.42	3.50	7.92
35	53.799737	-0.810683	4.71	3.50	8.21
36	53.802753	-0.814331	2.81	3.50	6.31
37	53.802221	-0.816477	4.38	3.50	7.88
38	53.802145	-0.818408	3.53	3.50	7.03
39	53.802981	-0.821240	5.10	3.50	8.60
40	53.803843	-0.822141	4.77	3.50	8.27
41	53.808202	-0.827077	4.72	3.50	8.22
42	53.807087	-0.832012	5.04	3.50	8.54
43	53.804451	-0.840724	5.00	3.50	8.50
44	53.806872	-0.843073	5.31	3.50	8.81
45	53.807125	-0.842815	4.94	3.50	8.44
46	53.807911	-0.843545	5.00	3.50	8.50
47	53.808443	-0.844746	4.87	3.50	8.37

Name: PV array 6
Footprint area: 53,769 m^2
Axis tracking: Single-axis rotation
Backtracking: None
Tracking axis orientation: 180.0 deg
Tracking axis tilt: 0.0 deg
Tracking axis panel offset: 0.0 deg
Maximum tracking angle: 60.0 deg

Rated power: -
Panel material: Light textured glass with AR coating
Vary reflectivity with sun position? Yes
Correlate slope error with surface type? Yes
Slope error: 9.16 mrad

Vertex	Latitude	Longitude	Ground elevation	Height above ground	Total elevation
	deg	deg	m	m	m
1	53.800588	-0.865277	6.65	3.50	10.15
2	53.801779	-0.862166	6.43	3.50	9.93
3	53.800132	-0.860192	6.45	3.50	9.95
4	53.799054	-0.863110	6.98	3.50	10.48
5	53.799802	-0.864419	7.68	3.50	11.18

Name: PV array 7
Footprint area: 283,999 m^2
Axis tracking: Single-axis rotation
Backtracking: None
Tracking axis orientation: 180.0 deg
Tracking axis tilt: 0.0 deg
Tracking axis panel offset: 0.0 deg
Maximum tracking angle: 60.0 deg

Rated power: -
Panel material: Light textured glass with AR coating
Vary reflectivity with sun position? Yes
Correlate slope error with surface type? Yes
Slope error: 9.16 mrad

Vertex	Latitude	Longitude	Ground elevation	Height above ground	Total elevation
	deg	deg	m	m	m
1	53.797257	-0.867135	6.45	3.50	9.95
2	53.794393	-0.864903	6.01	3.50	9.51
3	53.792770	-0.869624	6.00	3.50	9.50
4	53.791553	-0.868208	5.96	3.50	9.46
5	53.789018	-0.874988	6.33	3.50	9.83
6	53.790007	-0.876319	7.32	3.50	10.82
7	53.790311	-0.875374	5.97	3.50	9.47
8	53.790666	-0.875675	6.59	3.50	10.09
9	53.791199	-0.874130	6.37	3.50	9.87
10	53.791477	-0.874044	5.65	3.50	9.15
11	53.791731	-0.873486	5.89	3.50	9.39
12	53.792872	-0.873143	5.95	3.50	9.45
13	53.793201	-0.873100	5.86	3.50	9.36
14	53.793810	-0.871684	5.84	3.50	9.34
15	53.795457	-0.872800	5.36	3.50	8.86
16	53.796269	-0.871684	5.24	3.50	8.74
17	53.797232	-0.869409	5.79	3.50	9.29
18	53.796750	-0.868808	6.03	3.50	9.53

Name: PV array 8
Footprint area: 513,457 m^2
Axis tracking: Single-axis rotation
Backtracking: None
Tracking axis orientation: 180.0 deg
Tracking axis tilt: 0.0 deg
Tracking axis panel offset: 0.0 deg
Maximum tracking angle: 60.0 deg

Rated power: -
Panel material: Light textured glass with AR coating
Vary reflectivity with sun position? Yes
Correlate slope error with surface type? Yes
Slope error: 9.16 mrad

Vertex	Latitude	Longitude	Ground elevation	Height above ground	Total elevation
	deg	deg	m	m	m
1	53.790717	-0.857736	6.07	3.50	9.57
2	53.787725	-0.853702	5.77	3.50	9.27
3	53.787041	-0.856191	5.84	3.50	9.34
4	53.786458	-0.856277	5.48	3.50	8.98
5	53.786103	-0.857565	5.78	3.50	9.28
6	53.785291	-0.856792	5.63	3.50	9.13
7	53.785215	-0.852071	5.00	3.50	8.50
8	53.784328	-0.851900	4.64	3.50	8.14
9	53.784531	-0.849883	5.48	3.50	8.98
10	53.785038	-0.847179	5.34	3.50	8.84
11	53.783035	-0.846020	4.21	3.50	7.71
12	53.783694	-0.842587	5.00	3.50	8.50
13	53.785722	-0.843059	4.65	3.50	8.15
14	53.786736	-0.843789	4.23	3.50	7.73
15	53.789044	-0.845591	5.87	3.50	9.37
16	53.789756	-0.846235	5.45	3.50	8.95
17	53.788780	-0.849668	5.37	3.50	8.87
18	53.790301	-0.851406	6.41	3.50	9.91
19	53.792443	-0.853187	7.67	3.50	11.17

Name: PV array 9
Footprint area: 445,425 m^2
Axis tracking: Single-axis rotation
Backtracking: None
Tracking axis orientation: 180.0 deg
Tracking axis tilt: 0.0 deg
Tracking axis panel offset: 0.0 deg
Maximum tracking angle: 60.0 deg

Rated power: -
Panel material: Light textured glass with AR coating
Vary reflectivity with sun position? Yes
Correlate slope error with surface type? Yes
Slope error: 9.16 mrad

Vertex	Latitude	Longitude	Ground elevation	Height above ground	Total elevation
	deg	deg	m	m	m
1	53.783172	-0.836739	5.76	3.50	9.26
2	53.780154	-0.833434	5.23	3.50	8.73
3	53.779672	-0.835022	5.35	3.50	8.85
4	53.777263	-0.832447	5.19	3.50	8.69
5	53.775361	-0.841459	5.51	3.50	9.01
6	53.781245	-0.845408	5.09	3.50	8.59

Discrete Observation Receptors

Number	Latitude	Longitude	Ground elevation	Height above ground	Total Elevation
	deg	deg	m	m	m
OP 1	53.823571	-0.888441	7.06	1.50	8.56
OP 2	53.822723	-0.891252	7.23	1.50	8.73
OP 3	53.822191	-0.894082	6.87	1.50	8.37
OP 4	53.821178	-0.896702	7.06	1.50	8.56
OP 5	53.820316	-0.898526	7.98	1.50	9.48
OP 6	53.818999	-0.901273	7.30	1.50	8.80
OP 7	53.817859	-0.899599	8.00	1.50	9.50
OP 8	53.816820	-0.897024	7.75	1.50	9.25
OP 9	53.815832	-0.894664	7.77	1.50	9.27
OP 10	53.813007	-0.892153	7.91	1.50	9.41
OP 11	53.810916	-0.891617	7.65	1.50	9.15
OP 12	53.809079	-0.892196	7.09	1.50	8.59
OP 13	53.807343	-0.892046	7.27	1.50	8.77
OP 14	53.805899	-0.891574	7.26	1.50	8.76
OP 15	53.803973	-0.890952	6.64	1.50	8.14
OP 16	53.802009	-0.890351	6.96	1.50	8.46
OP 17	53.800234	-0.889815	6.44	1.50	7.94
OP 18	53.798477	-0.889483	5.67	1.50	7.17
OP 19	53.796563	-0.889290	5.81	1.50	7.31
OP 20	53.795080	-0.888474	6.51	1.50	8.01
OP 21	53.793268	-0.887702	7.22	1.50	8.72
OP 22	53.792051	-0.885921	5.90	1.50	7.40
OP 23	53.791125	-0.883367	7.18	1.50	8.68
OP 24	53.789478	-0.881307	6.21	1.50	7.71
OP 25	53.788134	-0.879805	6.45	1.50	7.95
OP 26	53.786739	-0.878732	6.62	1.50	8.12
OP 27	53.785155	-0.877638	5.41	1.50	6.91
OP 28	53.783874	-0.876522	5.04	1.50	6.54
OP 29	53.782416	-0.873990	5.00	1.50	6.50
OP 30	53.781313	-0.872016	4.71	1.50	6.21
OP 31	53.780071	-0.869742	5.00	1.50	6.50
OP 32	53.778689	-0.867295	5.09	1.50	6.59
OP 33	53.777395	-0.865085	5.00	1.50	6.50
OP 34	53.776165	-0.862854	5.00	1.50	6.50
OP 35	53.774517	-0.861995	4.93	1.50	6.43
OP 36	53.771030	-0.860601	6.00	1.50	7.50
OP 37	53.769280	-0.860472	5.31	1.50	6.81
OP 38	53.767276	-0.860515	4.79	1.50	6.29
OP 39	53.765627	-0.860429	6.19	1.50	7.69
OP 40	53.763889	-0.860451	5.34	1.50	6.84
OP 41	53.762164	-0.860644	4.00	1.50	5.50
OP 42	53.760160	-0.860880	5.93	1.50	7.43
OP 43	53.758295	-0.861094	4.99	1.50	6.49
OP 44	53.814924	-0.892699	8.32	1.50	9.82
OP 45	53.814379	-0.889330	7.50	1.50	9.00
OP 46	53.813581	-0.886884	8.02	1.50	9.52
OP 47	53.812783	-0.884523	7.41	1.50	8.91
OP 48	53.811794	-0.881670	9.99	1.50	11.49
OP 49	53.810135	-0.880532	7.41	1.50	8.91
OP 50	53.809298	-0.878644	6.84	1.50	8.34
OP 51	53.810160	-0.875919	6.04	1.50	7.54
OP 52	53.808944	-0.874116	5.86	1.50	7.36
OP 53	53.807753	-0.872314	6.65	1.50	8.15
OP 54	53.805751	-0.871155	7.07	1.50	8.57
OP 55	53.804484	-0.871220	6.56	1.50	8.06
OP 56	53.803292	-0.869825	6.25	1.50	7.75
OP 57	53.801974	-0.867851	6.25	1.50	7.75
OP 58	53.800504	-0.865426	6.22	1.50	7.72
OP 59	53.798933	-0.863409	6.72	1.50	8.22
OP 60	53.797590	-0.861499	6.76	1.50	8.26

Summary of PV Glare Analysis

PV configuration and total predicted glare

PV Name	Tilt	Orientation	"Green" Glare	"Yellow" Glare	Energy Produced	Data File
	deg	deg	min	min	kWh	
PV array 1	SA tracking	SA tracking	0	0	-	-
PV array 10	SA tracking	SA tracking	0	0	-	-
PV array 11	SA tracking	SA tracking	0	0	-	-
PV array 12	SA tracking	SA tracking	0	0	-	-
PV array 13	SA tracking	SA tracking	0	0	-	-
PV array 14	SA tracking	SA tracking	0	0	-	-
PV array 15	SA tracking	SA tracking	0	0	-	-
PV array 16	SA tracking	SA tracking	0	0	-	-
PV array 17	SA tracking	SA tracking	0	0	-	-
PV array 18	SA tracking	SA tracking	0	0	-	-
PV array 2	SA tracking	SA tracking	0	0	-	-
PV array 3	SA tracking	SA tracking	0	0	-	-
PV array 4	SA tracking	SA tracking	0	0	-	-
PV array 5	SA tracking	SA tracking	0	0	-	-
PV array 6	SA tracking	SA tracking	0	0	-	-
PV array 7	SA tracking	SA tracking	0	0	-	-
PV array 8	SA tracking	SA tracking	0	0	-	-
PV array 9	SA tracking	SA tracking	0	0	-	-

PV & Receptor Analysis Results

Results for each PV array and receptor

PV array 1 no glare found

Component	Green glare (min)	Yellow glare (min)
OP: OP 1	0	0
OP: OP 2	0	0
OP: OP 3	0	0
OP: OP 4	0	0
OP: OP 5	0	0
OP: OP 6	0	0
OP: OP 7	0	0
OP: OP 8	0	0
OP: OP 9	0	0
OP: OP 10	0	0
OP: OP 11	0	0
OP: OP 12	0	0
OP: OP 13	0	0
OP: OP 14	0	0
OP: OP 15	0	0
OP: OP 16	0	0
OP: OP 17	0	0
OP: OP 18	0	0
OP: OP 19	0	0
OP: OP 20	0	0
OP: OP 21	0	0
OP: OP 22	0	0
OP: OP 23	0	0
OP: OP 24	0	0
OP: OP 25	0	0
OP: OP 26	0	0
OP: OP 27	0	0
OP: OP 28	0	0
OP: OP 29	0	0
OP: OP 30	0	0
OP: OP 31	0	0
OP: OP 32	0	0
OP: OP 33	0	0
OP: OP 34	0	0
OP: OP 35	0	0
OP: OP 36	0	0
OP: OP 37	0	0
OP: OP 38	0	0
OP: OP 39	0	0
OP: OP 40	0	0
OP: OP 41	0	0
OP: OP 42	0	0
OP: OP 43	0	0
OP: OP 44	0	0
OP: OP 45	0	0
OP: OP 46	0	0
OP: OP 47	0	0
OP: OP 48	0	0
OP: OP 49	0	0
OP: OP 50	0	0
OP: OP 51	0	0
OP: OP 52	0	0
OP: OP 53	0	0

OP: OP 54	0	0
OP: OP 55	0	0
OP: OP 56	0	0
OP: OP 57	0	0
OP: OP 58	0	0
OP: OP 59	0	0
OP: OP 60	0	0

No glare found

PV array 10 no glare found

Component	Green glare (min)	Yellow glare (min)
OP: OP 1	0	0
OP: OP 2	0	0
OP: OP 3	0	0
OP: OP 4	0	0
OP: OP 5	0	0
OP: OP 6	0	0
OP: OP 7	0	0
OP: OP 8	0	0
OP: OP 9	0	0
OP: OP 10	0	0
OP: OP 11	0	0
OP: OP 12	0	0
OP: OP 13	0	0
OP: OP 14	0	0
OP: OP 15	0	0
OP: OP 16	0	0
OP: OP 17	0	0
OP: OP 18	0	0
OP: OP 19	0	0
OP: OP 20	0	0
OP: OP 21	0	0
OP: OP 22	0	0
OP: OP 23	0	0
OP: OP 24	0	0
OP: OP 25	0	0
OP: OP 26	0	0
OP: OP 27	0	0
OP: OP 28	0	0
OP: OP 29	0	0
OP: OP 30	0	0
OP: OP 31	0	0
OP: OP 32	0	0
OP: OP 33	0	0
OP: OP 34	0	0
OP: OP 35	0	0
OP: OP 36	0	0
OP: OP 37	0	0
OP: OP 38	0	0
OP: OP 39	0	0
OP: OP 40	0	0

OP: OP 41	0	0
OP: OP 42	0	0
OP: OP 43	0	0
OP: OP 44	0	0
OP: OP 45	0	0
OP: OP 46	0	0
OP: OP 47	0	0
OP: OP 48	0	0
OP: OP 49	0	0
OP: OP 50	0	0
OP: OP 51	0	0
OP: OP 52	0	0
OP: OP 53	0	0
OP: OP 54	0	0
OP: OP 55	0	0
OP: OP 56	0	0
OP: OP 57	0	0
OP: OP 58	0	0
OP: OP 59	0	0
OP: OP 60	0	0

No glare found

PV array 11 no glare found

Component	Green glare (min)	Yellow glare (min)
OP: OP 1	0	0
OP: OP 2	0	0
OP: OP 3	0	0
OP: OP 4	0	0
OP: OP 5	0	0
OP: OP 6	0	0
OP: OP 7	0	0
OP: OP 8	0	0
OP: OP 9	0	0
OP: OP 10	0	0
OP: OP 11	0	0
OP: OP 12	0	0
OP: OP 13	0	0
OP: OP 14	0	0
OP: OP 15	0	0
OP: OP 16	0	0
OP: OP 17	0	0
OP: OP 18	0	0
OP: OP 19	0	0
OP: OP 20	0	0
OP: OP 21	0	0
OP: OP 22	0	0
OP: OP 23	0	0
OP: OP 24	0	0
OP: OP 25	0	0
OP: OP 26	0	0
OP: OP 27	0	0

OP: OP 28	0	0
OP: OP 29	0	0
OP: OP 30	0	0
OP: OP 31	0	0
OP: OP 32	0	0
OP: OP 33	0	0
OP: OP 34	0	0
OP: OP 35	0	0
OP: OP 36	0	0
OP: OP 37	0	0
OP: OP 38	0	0
OP: OP 39	0	0
OP: OP 40	0	0
OP: OP 41	0	0
OP: OP 42	0	0
OP: OP 43	0	0
OP: OP 44	0	0
OP: OP 45	0	0
OP: OP 46	0	0
OP: OP 47	0	0
OP: OP 48	0	0
OP: OP 49	0	0
OP: OP 50	0	0
OP: OP 51	0	0
OP: OP 52	0	0
OP: OP 53	0	0
OP: OP 54	0	0
OP: OP 55	0	0
OP: OP 56	0	0
OP: OP 57	0	0
OP: OP 58	0	0
OP: OP 59	0	0
OP: OP 60	0	0

No glare found

PV array 12 no glare found

Component	Green glare (min)	Yellow glare (min)
OP: OP 1	0	0
OP: OP 2	0	0
OP: OP 3	0	0
OP: OP 4	0	0
OP: OP 5	0	0
OP: OP 6	0	0
OP: OP 7	0	0
OP: OP 8	0	0
OP: OP 9	0	0
OP: OP 10	0	0
OP: OP 11	0	0
OP: OP 12	0	0
OP: OP 13	0	0
OP: OP 14	0	0

OP: OP 15	0	0
OP: OP 16	0	0
OP: OP 17	0	0
OP: OP 18	0	0
OP: OP 19	0	0
OP: OP 20	0	0
OP: OP 21	0	0
OP: OP 22	0	0
OP: OP 23	0	0
OP: OP 24	0	0
OP: OP 25	0	0
OP: OP 26	0	0
OP: OP 27	0	0
OP: OP 28	0	0
OP: OP 29	0	0
OP: OP 30	0	0
OP: OP 31	0	0
OP: OP 32	0	0
OP: OP 33	0	0
OP: OP 34	0	0
OP: OP 35	0	0
OP: OP 36	0	0
OP: OP 37	0	0
OP: OP 38	0	0
OP: OP 39	0	0
OP: OP 40	0	0
OP: OP 41	0	0
OP: OP 42	0	0
OP: OP 43	0	0
OP: OP 44	0	0
OP: OP 45	0	0
OP: OP 46	0	0
OP: OP 47	0	0
OP: OP 48	0	0
OP: OP 49	0	0
OP: OP 50	0	0
OP: OP 51	0	0
OP: OP 52	0	0
OP: OP 53	0	0
OP: OP 54	0	0
OP: OP 55	0	0
OP: OP 56	0	0
OP: OP 57	0	0
OP: OP 58	0	0
OP: OP 59	0	0
OP: OP 60	0	0

No glare found

PV array 13 no glare found

Component	Green glare (min)	Yellow glare (min)
OP: OP 1	0	0

OP: OP 2	0	0
OP: OP 3	0	0
OP: OP 4	0	0
OP: OP 5	0	0
OP: OP 6	0	0
OP: OP 7	0	0
OP: OP 8	0	0
OP: OP 9	0	0
OP: OP 10	0	0
OP: OP 11	0	0
OP: OP 12	0	0
OP: OP 13	0	0
OP: OP 14	0	0
OP: OP 15	0	0
OP: OP 16	0	0
OP: OP 17	0	0
OP: OP 18	0	0
OP: OP 19	0	0
OP: OP 20	0	0
OP: OP 21	0	0
OP: OP 22	0	0
OP: OP 23	0	0
OP: OP 24	0	0
OP: OP 25	0	0
OP: OP 26	0	0
OP: OP 27	0	0
OP: OP 28	0	0
OP: OP 29	0	0
OP: OP 30	0	0
OP: OP 31	0	0
OP: OP 32	0	0
OP: OP 33	0	0
OP: OP 34	0	0
OP: OP 35	0	0
OP: OP 36	0	0
OP: OP 37	0	0
OP: OP 38	0	0
OP: OP 39	0	0
OP: OP 40	0	0
OP: OP 41	0	0
OP: OP 42	0	0
OP: OP 43	0	0
OP: OP 44	0	0
OP: OP 45	0	0
OP: OP 46	0	0
OP: OP 47	0	0
OP: OP 48	0	0
OP: OP 49	0	0
OP: OP 50	0	0
OP: OP 51	0	0
OP: OP 52	0	0
OP: OP 53	0	0
OP: OP 54	0	0
OP: OP 55	0	0
OP: OP 56	0	0

OP: OP 57	0	0
OP: OP 58	0	0
OP: OP 59	0	0
OP: OP 60	0	0

No glare found

PV array 14 no glare found

Component	Green glare (min)	Yellow glare (min)
OP: OP 1	0	0
OP: OP 2	0	0
OP: OP 3	0	0
OP: OP 4	0	0
OP: OP 5	0	0
OP: OP 6	0	0
OP: OP 7	0	0
OP: OP 8	0	0
OP: OP 9	0	0
OP: OP 10	0	0
OP: OP 11	0	0
OP: OP 12	0	0
OP: OP 13	0	0
OP: OP 14	0	0
OP: OP 15	0	0
OP: OP 16	0	0
OP: OP 17	0	0
OP: OP 18	0	0
OP: OP 19	0	0
OP: OP 20	0	0
OP: OP 21	0	0
OP: OP 22	0	0
OP: OP 23	0	0
OP: OP 24	0	0
OP: OP 25	0	0
OP: OP 26	0	0
OP: OP 27	0	0
OP: OP 28	0	0
OP: OP 29	0	0
OP: OP 30	0	0
OP: OP 31	0	0
OP: OP 32	0	0
OP: OP 33	0	0
OP: OP 34	0	0
OP: OP 35	0	0
OP: OP 36	0	0
OP: OP 37	0	0
OP: OP 38	0	0
OP: OP 39	0	0
OP: OP 40	0	0
OP: OP 41	0	0
OP: OP 42	0	0
OP: OP 43	0	0

OP: OP 44	0	0
OP: OP 45	0	0
OP: OP 46	0	0
OP: OP 47	0	0
OP: OP 48	0	0
OP: OP 49	0	0
OP: OP 50	0	0
OP: OP 51	0	0
OP: OP 52	0	0
OP: OP 53	0	0
OP: OP 54	0	0
OP: OP 55	0	0
OP: OP 56	0	0
OP: OP 57	0	0
OP: OP 58	0	0
OP: OP 59	0	0
OP: OP 60	0	0

No glare found

PV array 15 no glare found

Component	Green glare (min)	Yellow glare (min)
OP: OP 1	0	0
OP: OP 2	0	0
OP: OP 3	0	0
OP: OP 4	0	0
OP: OP 5	0	0
OP: OP 6	0	0
OP: OP 7	0	0
OP: OP 8	0	0
OP: OP 9	0	0
OP: OP 10	0	0
OP: OP 11	0	0
OP: OP 12	0	0
OP: OP 13	0	0
OP: OP 14	0	0
OP: OP 15	0	0
OP: OP 16	0	0
OP: OP 17	0	0
OP: OP 18	0	0
OP: OP 19	0	0
OP: OP 20	0	0
OP: OP 21	0	0
OP: OP 22	0	0
OP: OP 23	0	0
OP: OP 24	0	0
OP: OP 25	0	0
OP: OP 26	0	0
OP: OP 27	0	0
OP: OP 28	0	0
OP: OP 29	0	0
OP: OP 30	0	0

OP: OP 31	0	0
OP: OP 32	0	0
OP: OP 33	0	0
OP: OP 34	0	0
OP: OP 35	0	0
OP: OP 36	0	0
OP: OP 37	0	0
OP: OP 38	0	0
OP: OP 39	0	0
OP: OP 40	0	0
OP: OP 41	0	0
OP: OP 42	0	0
OP: OP 43	0	0
OP: OP 44	0	0
OP: OP 45	0	0
OP: OP 46	0	0
OP: OP 47	0	0
OP: OP 48	0	0
OP: OP 49	0	0
OP: OP 50	0	0
OP: OP 51	0	0
OP: OP 52	0	0
OP: OP 53	0	0
OP: OP 54	0	0
OP: OP 55	0	0
OP: OP 56	0	0
OP: OP 57	0	0
OP: OP 58	0	0
OP: OP 59	0	0
OP: OP 60	0	0

No glare found

PV array 16 no glare found

Component	Green glare (min)	Yellow glare (min)
OP: OP 1	0	0
OP: OP 2	0	0
OP: OP 3	0	0
OP: OP 4	0	0
OP: OP 5	0	0
OP: OP 6	0	0
OP: OP 7	0	0
OP: OP 8	0	0
OP: OP 9	0	0
OP: OP 10	0	0
OP: OP 11	0	0
OP: OP 12	0	0
OP: OP 13	0	0
OP: OP 14	0	0
OP: OP 15	0	0
OP: OP 16	0	0
OP: OP 17	0	0

OP: OP 18	0	0
OP: OP 19	0	0
OP: OP 20	0	0
OP: OP 21	0	0
OP: OP 22	0	0
OP: OP 23	0	0
OP: OP 24	0	0
OP: OP 25	0	0
OP: OP 26	0	0
OP: OP 27	0	0
OP: OP 28	0	0
OP: OP 29	0	0
OP: OP 30	0	0
OP: OP 31	0	0
OP: OP 32	0	0
OP: OP 33	0	0
OP: OP 34	0	0
OP: OP 35	0	0
OP: OP 36	0	0
OP: OP 37	0	0
OP: OP 38	0	0
OP: OP 39	0	0
OP: OP 40	0	0
OP: OP 41	0	0
OP: OP 42	0	0
OP: OP 43	0	0
OP: OP 44	0	0
OP: OP 45	0	0
OP: OP 46	0	0
OP: OP 47	0	0
OP: OP 48	0	0
OP: OP 49	0	0
OP: OP 50	0	0
OP: OP 51	0	0
OP: OP 52	0	0
OP: OP 53	0	0
OP: OP 54	0	0
OP: OP 55	0	0
OP: OP 56	0	0
OP: OP 57	0	0
OP: OP 58	0	0
OP: OP 59	0	0
OP: OP 60	0	0

No glare found

PV array 17 no glare found

Component	Green glare (min)	Yellow glare (min)
OP: OP 1	0	0
OP: OP 2	0	0
OP: OP 3	0	0
OP: OP 4	0	0

OP: OP 5	0	0
OP: OP 6	0	0
OP: OP 7	0	0
OP: OP 8	0	0
OP: OP 9	0	0
OP: OP 10	0	0
OP: OP 11	0	0
OP: OP 12	0	0
OP: OP 13	0	0
OP: OP 14	0	0
OP: OP 15	0	0
OP: OP 16	0	0
OP: OP 17	0	0
OP: OP 18	0	0
OP: OP 19	0	0
OP: OP 20	0	0
OP: OP 21	0	0
OP: OP 22	0	0
OP: OP 23	0	0
OP: OP 24	0	0
OP: OP 25	0	0
OP: OP 26	0	0
OP: OP 27	0	0
OP: OP 28	0	0
OP: OP 29	0	0
OP: OP 30	0	0
OP: OP 31	0	0
OP: OP 32	0	0
OP: OP 33	0	0
OP: OP 34	0	0
OP: OP 35	0	0
OP: OP 36	0	0
OP: OP 37	0	0
OP: OP 38	0	0
OP: OP 39	0	0
OP: OP 40	0	0
OP: OP 41	0	0
OP: OP 42	0	0
OP: OP 43	0	0
OP: OP 44	0	0
OP: OP 45	0	0
OP: OP 46	0	0
OP: OP 47	0	0
OP: OP 48	0	0
OP: OP 49	0	0
OP: OP 50	0	0
OP: OP 51	0	0
OP: OP 52	0	0
OP: OP 53	0	0
OP: OP 54	0	0
OP: OP 55	0	0
OP: OP 56	0	0
OP: OP 57	0	0
OP: OP 58	0	0
OP: OP 59	0	0

OP: OP 60	0	0

No glare found

PV array 18 no glare found

Component	Green glare (min)	Yellow glare (min)
OP: OP 1	0	0
OP: OP 2	0	0
OP: OP 3	0	0
OP: OP 4	0	0
OP: OP 5	0	0
OP: OP 6	0	0
OP: OP 7	0	0
OP: OP 8	0	0
OP: OP 9	0	0
OP: OP 10	0	0
OP: OP 11	0	0
OP: OP 12	0	0
OP: OP 13	0	0
OP: OP 14	0	0
OP: OP 15	0	0
OP: OP 16	0	0
OP: OP 17	0	0
OP: OP 18	0	0
OP: OP 19	0	0
OP: OP 20	0	0
OP: OP 21	0	0
OP: OP 22	0	0
OP: OP 23	0	0
OP: OP 24	0	0
OP: OP 25	0	0
OP: OP 26	0	0
OP: OP 27	0	0
OP: OP 28	0	0
OP: OP 29	0	0
OP: OP 30	0	0
OP: OP 31	0	0
OP: OP 32	0	0
OP: OP 33	0	0
OP: OP 34	0	0
OP: OP 35	0	0
OP: OP 36	0	0
OP: OP 37	0	0
OP: OP 38	0	0
OP: OP 39	0	0
OP: OP 40	0	0
OP: OP 41	0	0
OP: OP 42	0	0
OP: OP 43	0	0
OP: OP 44	0	0
OP: OP 45	0	0
OP: OP 46	0	0

OP: OP 47	0	0
OP: OP 48	0	0
OP: OP 49	0	0
OP: OP 50	0	0
OP: OP 51	0	0
OP: OP 52	0	0
OP: OP 53	0	0
OP: OP 54	0	0
OP: OP 55	0	0
OP: OP 56	0	0
OP: OP 57	0	0
OP: OP 58	0	0
OP: OP 59	0	0
OP: OP 60	0	0

No glare found

PV array 2 no glare found

Component	Green glare (min)	Yellow glare (min)
OP: OP 1	0	0
OP: OP 2	0	0
OP: OP 3	0	0
OP: OP 4	0	0
OP: OP 5	0	0
OP: OP 6	0	0
OP: OP 7	0	0
OP: OP 8	0	0
OP: OP 9	0	0
OP: OP 10	0	0
OP: OP 11	0	0
OP: OP 12	0	0
OP: OP 13	0	0
OP: OP 14	0	0
OP: OP 15	0	0
OP: OP 16	0	0
OP: OP 17	0	0
OP: OP 18	0	0
OP: OP 19	0	0
OP: OP 20	0	0
OP: OP 21	0	0
OP: OP 22	0	0
OP: OP 23	0	0
OP: OP 24	0	0
OP: OP 25	0	0
OP: OP 26	0	0
OP: OP 27	0	0
OP: OP 28	0	0
OP: OP 29	0	0
OP: OP 30	0	0
OP: OP 31	0	0
OP: OP 32	0	0
OP: OP 33	0	0

OP: OP 34	0	0
OP: OP 35	0	0
OP: OP 36	0	0
OP: OP 37	0	0
OP: OP 38	0	0
OP: OP 39	0	0
OP: OP 40	0	0
OP: OP 41	0	0
OP: OP 42	0	0
OP: OP 43	0	0
OP: OP 44	0	0
OP: OP 45	0	0
OP: OP 46	0	0
OP: OP 47	0	0
OP: OP 48	0	0
OP: OP 49	0	0
OP: OP 50	0	0
OP: OP 51	0	0
OP: OP 52	0	0
OP: OP 53	0	0
OP: OP 54	0	0
OP: OP 55	0	0
OP: OP 56	0	0
OP: OP 57	0	0
OP: OP 58	0	0
OP: OP 59	0	0
OP: OP 60	0	0

No glare found

PV array 3 no glare found

Component	Green glare (min)	Yellow glare (min)
OP: OP 1	0	0
OP: OP 2	0	0
OP: OP 3	0	0
OP: OP 4	0	0
OP: OP 5	0	0
OP: OP 6	0	0
OP: OP 7	0	0
OP: OP 8	0	0
OP: OP 9	0	0
OP: OP 10	0	0
OP: OP 11	0	0
OP: OP 12	0	0
OP: OP 13	0	0
OP: OP 14	0	0
OP: OP 15	0	0
OP: OP 16	0	0
OP: OP 17	0	0
OP: OP 18	0	0
OP: OP 19	0	0
OP: OP 20	0	0

OP: OP 21	0	0
OP: OP 22	0	0
OP: OP 23	0	0
OP: OP 24	0	0
OP: OP 25	0	0
OP: OP 26	0	0
OP: OP 27	0	0
OP: OP 28	0	0
OP: OP 29	0	0
OP: OP 30	0	0
OP: OP 31	0	0
OP: OP 32	0	0
OP: OP 33	0	0
OP: OP 34	0	0
OP: OP 35	0	0
OP: OP 36	0	0
OP: OP 37	0	0
OP: OP 38	0	0
OP: OP 39	0	0
OP: OP 40	0	0
OP: OP 41	0	0
OP: OP 42	0	0
OP: OP 43	0	0
OP: OP 44	0	0
OP: OP 45	0	0
OP: OP 46	0	0
OP: OP 47	0	0
OP: OP 48	0	0
OP: OP 49	0	0
OP: OP 50	0	0
OP: OP 51	0	0
OP: OP 52	0	0
OP: OP 53	0	0
OP: OP 54	0	0
OP: OP 55	0	0
OP: OP 56	0	0
OP: OP 57	0	0
OP: OP 58	0	0
OP: OP 59	0	0
OP: OP 60	0	0

No glare found

PV array 4 no glare found

Component	Green glare (min)	Yellow glare (min)
OP: OP 1	0	0
OP: OP 2	0	0
OP: OP 3	0	0
OP: OP 4	0	0
OP: OP 5	0	0
OP: OP 6	0	0
OP: OP 7	0	0

OP: OP 8	0	0
OP: OP 9	0	0
OP: OP 10	0	0
OP: OP 11	0	0
OP: OP 12	0	0
OP: OP 13	0	0
OP: OP 14	0	0
OP: OP 15	0	0
OP: OP 16	0	0
OP: OP 17	0	0
OP: OP 18	0	0
OP: OP 19	0	0
OP: OP 20	0	0
OP: OP 21	0	0
OP: OP 22	0	0
OP: OP 23	0	0
OP: OP 24	0	0
OP: OP 25	0	0
OP: OP 26	0	0
OP: OP 27	0	0
OP: OP 28	0	0
OP: OP 29	0	0
OP: OP 30	0	0
OP: OP 31	0	0
OP: OP 32	0	0
OP: OP 33	0	0
OP: OP 34	0	0
OP: OP 35	0	0
OP: OP 36	0	0
OP: OP 37	0	0
OP: OP 38	0	0
OP: OP 39	0	0
OP: OP 40	0	0
OP: OP 41	0	0
OP: OP 42	0	0
OP: OP 43	0	0
OP: OP 44	0	0
OP: OP 45	0	0
OP: OP 46	0	0
OP: OP 47	0	0
OP: OP 48	0	0
OP: OP 49	0	0
OP: OP 50	0	0
OP: OP 51	0	0
OP: OP 52	0	0
OP: OP 53	0	0
OP: OP 54	0	0
OP: OP 55	0	0
OP: OP 56	0	0
OP: OP 57	0	0
OP: OP 58	0	0
OP: OP 59	0	0
OP: OP 60	0	0

No glare found

PV array 5 no glare found

Component	Green glare (min)	Yellow glare (min)
OP: OP 1	0	0
OP: OP 2	0	0
OP: OP 3	0	0
OP: OP 4	0	0
OP: OP 5	0	0
OP: OP 6	0	0
OP: OP 7	0	0
OP: OP 8	0	0
OP: OP 9	0	0
OP: OP 10	0	0
OP: OP 11	0	0
OP: OP 12	0	0
OP: OP 13	0	0
OP: OP 14	0	0
OP: OP 15	0	0
OP: OP 16	0	0
OP: OP 17	0	0
OP: OP 18	0	0
OP: OP 19	0	0
OP: OP 20	0	0
OP: OP 21	0	0
OP: OP 22	0	0
OP: OP 23	0	0
OP: OP 24	0	0
OP: OP 25	0	0
OP: OP 26	0	0
OP: OP 27	0	0
OP: OP 28	0	0
OP: OP 29	0	0
OP: OP 30	0	0
OP: OP 31	0	0
OP: OP 32	0	0
OP: OP 33	0	0
OP: OP 34	0	0
OP: OP 35	0	0
OP: OP 36	0	0
OP: OP 37	0	0
OP: OP 38	0	0
OP: OP 39	0	0
OP: OP 40	0	0
OP: OP 41	0	0
OP: OP 42	0	0
OP: OP 43	0	0
OP: OP 44	0	0
OP: OP 45	0	0
OP: OP 46	0	0
OP: OP 47	0	0
OP: OP 48	0	0
OP: OP 49	0	0
OP: OP 50	0	0
OP: OP 51	0	0
OP: OP 52	0	0
OP: OP 53	0	0

OP: OP 54	0	0
OP: OP 55	0	0
OP: OP 56	0	0
OP: OP 57	0	0
OP: OP 58	0	0
OP: OP 59	0	0
OP: OP 60	0	0

No glare found

PV array 6 no glare found

Component	Green glare (min)	Yellow glare (min)
OP: OP 1	0	0
OP: OP 2	0	0
OP: OP 3	0	0
OP: OP 4	0	0
OP: OP 5	0	0
OP: OP 6	0	0
OP: OP 7	0	0
OP: OP 8	0	0
OP: OP 9	0	0
OP: OP 10	0	0
OP: OP 11	0	0
OP: OP 12	0	0
OP: OP 13	0	0
OP: OP 14	0	0
OP: OP 15	0	0
OP: OP 16	0	0
OP: OP 17	0	0
OP: OP 18	0	0
OP: OP 19	0	0
OP: OP 20	0	0
OP: OP 21	0	0
OP: OP 22	0	0
OP: OP 23	0	0
OP: OP 24	0	0
OP: OP 25	0	0
OP: OP 26	0	0
OP: OP 27	0	0
OP: OP 28	0	0
OP: OP 29	0	0
OP: OP 30	0	0
OP: OP 31	0	0
OP: OP 32	0	0
OP: OP 33	0	0
OP: OP 34	0	0
OP: OP 35	0	0
OP: OP 36	0	0
OP: OP 37	0	0
OP: OP 38	0	0
OP: OP 39	0	0
OP: OP 40	0	0

OP: OP 41	0	0
OP: OP 42	0	0
OP: OP 43	0	0
OP: OP 44	0	0
OP: OP 45	0	0
OP: OP 46	0	0
OP: OP 47	0	0
OP: OP 48	0	0
OP: OP 49	0	0
OP: OP 50	0	0
OP: OP 51	0	0
OP: OP 52	0	0
OP: OP 53	0	0
OP: OP 54	0	0
OP: OP 55	0	0
OP: OP 56	0	0
OP: OP 57	0	0
OP: OP 58	0	0
OP: OP 59	0	0
OP: OP 60	0	0

No glare found

PV array 7 no glare found

Component	Green glare (min)	Yellow glare (min)
OP: OP 1	0	0
OP: OP 2	0	0
OP: OP 3	0	0
OP: OP 4	0	0
OP: OP 5	0	0
OP: OP 6	0	0
OP: OP 7	0	0
OP: OP 8	0	0
OP: OP 9	0	0
OP: OP 10	0	0
OP: OP 11	0	0
OP: OP 12	0	0
OP: OP 13	0	0
OP: OP 14	0	0
OP: OP 15	0	0
OP: OP 16	0	0
OP: OP 17	0	0
OP: OP 18	0	0
OP: OP 19	0	0
OP: OP 20	0	0
OP: OP 21	0	0
OP: OP 22	0	0
OP: OP 23	0	0
OP: OP 24	0	0
OP: OP 25	0	0
OP: OP 26	0	0
OP: OP 27	0	0

OP: OP 28	0	0
OP: OP 29	0	0
OP: OP 30	0	0
OP: OP 31	0	0
OP: OP 32	0	0
OP: OP 33	0	0
OP: OP 34	0	0
OP: OP 35	0	0
OP: OP 36	0	0
OP: OP 37	0	0
OP: OP 38	0	0
OP: OP 39	0	0
OP: OP 40	0	0
OP: OP 41	0	0
OP: OP 42	0	0
OP: OP 43	0	0
OP: OP 44	0	0
OP: OP 45	0	0
OP: OP 46	0	0
OP: OP 47	0	0
OP: OP 48	0	0
OP: OP 49	0	0
OP: OP 50	0	0
OP: OP 51	0	0
OP: OP 52	0	0
OP: OP 53	0	0
OP: OP 54	0	0
OP: OP 55	0	0
OP: OP 56	0	0
OP: OP 57	0	0
OP: OP 58	0	0
OP: OP 59	0	0
OP: OP 60	0	0

No glare found

PV array 8 no glare found

Component	Green glare (min)	Yellow glare (min)
OP: OP 1	0	0
OP: OP 2	0	0
OP: OP 3	0	0
OP: OP 4	0	0
OP: OP 5	0	0
OP: OP 6	0	0
OP: OP 7	0	0
OP: OP 8	0	0
OP: OP 9	0	0
OP: OP 10	0	0
OP: OP 11	0	0
OP: OP 12	0	0
OP: OP 13	0	0
OP: OP 14	0	0

OP: OP 15	0	0
OP: OP 16	0	0
OP: OP 17	0	0
OP: OP 18	0	0
OP: OP 19	0	0
OP: OP 20	0	0
OP: OP 21	0	0
OP: OP 22	0	0
OP: OP 23	0	0
OP: OP 24	0	0
OP: OP 25	0	0
OP: OP 26	0	0
OP: OP 27	0	0
OP: OP 28	0	0
OP: OP 29	0	0
OP: OP 30	0	0
OP: OP 31	0	0
OP: OP 32	0	0
OP: OP 33	0	0
OP: OP 34	0	0
OP: OP 35	0	0
OP: OP 36	0	0
OP: OP 37	0	0
OP: OP 38	0	0
OP: OP 39	0	0
OP: OP 40	0	0
OP: OP 41	0	0
OP: OP 42	0	0
OP: OP 43	0	0
OP: OP 44	0	0
OP: OP 45	0	0
OP: OP 46	0	0
OP: OP 47	0	0
OP: OP 48	0	0
OP: OP 49	0	0
OP: OP 50	0	0
OP: OP 51	0	0
OP: OP 52	0	0
OP: OP 53	0	0
OP: OP 54	0	0
OP: OP 55	0	0
OP: OP 56	0	0
OP: OP 57	0	0
OP: OP 58	0	0
OP: OP 59	0	0
OP: OP 60	0	0

No glare found

PV array 9 no glare found

Component	Green glare (min)	Yellow glare (min)
OP: OP 1	0	0

OP: OP 2	0	0
OP: OP 3	0	0
OP: OP 4	0	0
OP: OP 5	0	0
OP: OP 6	0	0
OP: OP 7	0	0
OP: OP 8	0	0
OP: OP 9	0	0
OP: OP 10	0	0
OP: OP 11	0	0
OP: OP 12	0	0
OP: OP 13	0	0
OP: OP 14	0	0
OP: OP 15	0	0
OP: OP 16	0	0
OP: OP 17	0	0
OP: OP 18	0	0
OP: OP 19	0	0
OP: OP 20	0	0
OP: OP 21	0	0
OP: OP 22	0	0
OP: OP 23	0	0
OP: OP 24	0	0
OP: OP 25	0	0
OP: OP 26	0	0
OP: OP 27	0	0
OP: OP 28	0	0
OP: OP 29	0	0
OP: OP 30	0	0
OP: OP 31	0	0
OP: OP 32	0	0
OP: OP 33	0	0
OP: OP 34	0	0
OP: OP 35	0	0
OP: OP 36	0	0
OP: OP 37	0	0
OP: OP 38	0	0
OP: OP 39	0	0
OP: OP 40	0	0
OP: OP 41	0	0
OP: OP 42	0	0
OP: OP 43	0	0
OP: OP 44	0	0
OP: OP 45	0	0
OP: OP 46	0	0
OP: OP 47	0	0
OP: OP 48	0	0
OP: OP 49	0	0
OP: OP 50	0	0
OP: OP 51	0	0
OP: OP 52	0	0
OP: OP 53	0	0
OP: OP 54	0	0
OP: OP 55	0	0
OP: OP 56	0	0

OP: OP 57	0	0
OP: OP 58	0	0
OP: OP 59	0	0
OP: OP 60	0	0

No glare found

Assumptions

- Times associated with glare are denoted in Standard time. For Daylight Savings, add one hour.
- Glare analyses do not automatically account for physical obstructions between reflectors and receptors. This includes buildings, tree cover and geographic obstructions.
- Detailed system geometry is not rigorously simulated.
- The glare hazard determination relies on several approximations including observer eye characteristics, angle of view, and typical blink response time. Actual values and results may vary.
- The system output calculation is a DNI-based approximation that assumes clear, sunny skies year-round. It should not be used in place of more rigorous modeling methods.
- Several V1 calculations utilize the PV array centroid, rather than the actual glare spot location, due to algorithm limitations. This may affect results for large PV footprints. Additional analyses of array sub-sections can provide additional information on expected glare.
- The subtended source angle (glare spot size) is constrained by the PV array footprint size. Partitioning large arrays into smaller sections will reduce the maximum potential subtended angle, potentially impacting results if actual glare spots are larger than the sub-array size. Additional analyses of the combined area of adjacent sub-arrays can provide more information on potential glare hazards. (See previous point on related limitations.)
- Hazard zone boundaries shown in the Glare Hazard plot are an approximation and visual aid. Actual ocular impact outcomes encompass a continuous, not discrete, spectrum.
- Glare locations displayed on receptor plots are approximate. Actual glare-spot locations may differ.
- Refer to the **Help page** for detailed assumptions and limitations not listed here.

ANNEX F: ROAD RECEPTOR GLARE RESULTS (61 – 120)

ForgeSolar

East Yorkshire Solar Farm

East Yorkshire Solar Farm Road 61 - 120

Created Aug 25, 2023
Updated Sep 20, 2023
Time-step 1 minute
Timezone offset UTC0
Minimum sun altitude 0.0 deg
Site ID 98749.16938

Project type Advanced
Project status: active
Category 100 MW to 1 GW

Misc. Analysis Settings

DNI: **varies (1,000.0 W/m^2 peak)**
Ocular transmission coefficient: **0.5**
Pupil diameter: **0.002 m**
Eye focal length: **0.017 m**
Sun subtended angle: **9.3 mrad**

PV Analysis Methodology: **Version 2**
Enhanced subtended angle calculation: **On**

Summary of Results No glare predicted!

PV Name	Tilt	Orientation	"Green" Glare	"Yellow" Glare	Energy Produced
	deg	deg	min	min	kWh
PV array 1	SA tracking	SA tracking	0	0	-
PV array 10	SA tracking	SA tracking	0	0	-
PV array 11	SA tracking	SA tracking	0	0	-
PV array 12	SA tracking	SA tracking	0	0	-
PV array 13	SA tracking	SA tracking	0	0	-
PV array 14	SA tracking	SA tracking	0	0	-
PV array 15	SA tracking	SA tracking	0	0	-
PV array 16	SA tracking	SA tracking	0	0	-
PV array 17	SA tracking	SA tracking	0	0	-
PV array 18	SA tracking	SA tracking	0	0	-
PV array 2	SA tracking	SA tracking	0	0	-
PV array 3	SA tracking	SA tracking	0	0	-
PV array 4	SA tracking	SA tracking	0	0	-
PV array 5	SA tracking	SA tracking	0	0	-
PV array 6	SA tracking	SA tracking	0	0	-
PV array 7	SA tracking	SA tracking	0	0	-
PV array 8	SA tracking	SA tracking	0	0	-
PV array 9	SA tracking	SA tracking	0	0	-

Component Data

PV Array(s)

Total PV footprint area: 8,103,479 m^2

Name: PV array 1
Footprint area: 509,399 m^2
Axis tracking: Single-axis rotation
Backtracking: None
Tracking axis orientation: 180.0 deg
Tracking axis tilt: 0.0 deg
Tracking axis panel offset: 0.0 deg
Maximum tracking angle: 60.0 deg

Rated power: -
Panel material: Light textured glass with AR coating
Vary reflectivity with sun position? Yes
Correlate slope error with surface type? Yes
Slope error: 9.16 mrad

Vertex	Latitude	Longitude	Ground elevation	Height above ground	Total elevation
	deg	deg	m	m	m
1	53.818886	-0.886729	6.34	3.50	9.84
2	53.814883	-0.884283	5.95	3.50	9.45
3	53.814346	-0.888924	7.41	3.50	10.91
4	53.812293	-0.882272	6.90	3.50	10.40
5	53.812699	-0.879482	7.20	3.50	10.70
6	53.813763	-0.878324	7.19	3.50	10.69
7	53.814194	-0.878796	7.39	3.50	10.89
8	53.814523	-0.874633	6.96	3.50	10.46
9	53.816145	-0.874247	6.11	3.50	9.61
10	53.816271	-0.873302	6.84	3.50	10.34
11	53.819464	-0.872702	6.50	3.50	10.00
12	53.818704	-0.878967	6.05	3.50	9.55
13	53.819109	-0.879010	5.90	3.50	9.40

Name: PV array 10
Footprint area: 860,067 m^2
Axis tracking: Single-axis rotation
Backtracking: None
Tracking axis orientation: 180.0 deg
Tracking axis tilt: 0.0 deg
Tracking axis panel offset: 0.0 deg
Maximum tracking angle: 60.0 deg

Rated power: -
Panel material: Light textured glass with AR coating
Vary reflectivity with sun position? Yes
Correlate slope error with surface type? Yes
Slope error: 9.16 mrad

Vertex	Latitude	Longitude	Ground elevation	Height above ground	Total elevation
	deg	deg	m	m	m
1	53.778810	-0.820903	5.07	3.50	8.57
2	53.775868	-0.819959	5.15	3.50	8.65
3	53.775209	-0.825366	5.97	3.50	9.47
4	53.768057	-0.847639	4.41	3.50	7.91
5	53.769858	-0.848455	5.00	3.50	8.50
6	53.769680	-0.850472	4.68	3.50	8.18
7	53.770745	-0.850686	4.00	3.50	7.50
8	53.770999	-0.849098	4.12	3.50	7.62
9	53.773408	-0.849570	5.00	3.50	8.50

Name: PV array 11
Footprint area: 205,559 m^2
Axis tracking: Single-axis rotation
Backtracking: None
Tracking axis orientation: 180.0 deg
Tracking axis tilt: 0.0 deg
Tracking axis panel offset: 0.0 deg
Maximum tracking angle: 60.0 deg

Rated power: -
Panel material: Light textured glass with AR coating
Vary reflectivity with sun position? Yes
Correlate slope error with surface type? Yes
Slope error: 9.16 mrad

Vertex	Latitude	Longitude	Ground elevation	Height above ground	Total elevation
	deg	deg	m	m	m
1	53.776817	-0.861222	5.00	3.50	8.50
2	53.776284	-0.862552	5.00	3.50	8.50
3	53.782826	-0.874268	5.15	3.50	8.65
4	53.784120	-0.871951	4.99	3.50	8.49
5	53.782674	-0.870578	5.10	3.50	8.60
6	53.780646	-0.865299	5.86	3.50	9.36
7	53.780772	-0.863840	6.00	3.50	9.50
8	53.779378	-0.862209	5.00	3.50	8.50
9	53.778972	-0.864012	5.00	3.50	8.50

Name: PV array 12
Footprint area: 153,870 m^2
Axis tracking: Single-axis rotation
Backtracking: None
Tracking axis orientation: 180.0 deg
Tracking axis tilt: 0.0 deg
Tracking axis panel offset: 0.0 deg
Maximum tracking angle: 60.0 deg

Rated power: -
Panel material: Light textured glass with AR coating
Vary reflectivity with sun position? Yes
Correlate slope error with surface type? Yes
Slope error: 9.16 mrad

Vertex	Latitude	Longitude	Ground elevation	Height above ground	Total elevation
	deg	deg	m	m	m
1	53.788227	-0.880191	5.89	3.50	9.39
2	53.788328	-0.881607	4.53	3.50	8.03
3	53.785920	-0.884311	5.06	3.50	8.56
4	53.782902	-0.880234	5.96	3.50	9.46
5	53.783359	-0.878388	5.63	3.50	9.13
6	53.783993	-0.877401	5.39	3.50	8.89
7	53.786021	-0.878388	5.24	3.50	8.74
8	53.786909	-0.879461	5.93	3.50	9.43

Name: PV array 13
Footprint area: 227,092 m^2
Axis tracking: Single-axis rotation
Backtracking: None
Tracking axis orientation: 180.0 deg
Tracking axis tilt: 0.0 deg
Tracking axis panel offset: 0.0 deg
Maximum tracking angle: 60.0 deg

Rated power: -
Panel material: Light textured glass with AR coating
Vary reflectivity with sun position? Yes
Correlate slope error with surface type? Yes
Slope error: 9.16 mrad

Vertex	Latitude	Longitude	Ground elevation	Height above ground	Total elevation
	deg	deg	m	m	m
1	53.782598	-0.896155	6.23	3.50	9.73
2	53.779048	-0.902335	5.55	3.50	9.05
3	53.778414	-0.901820	6.07	3.50	9.57
4	53.778262	-0.899503	6.30	3.50	9.80
5	53.776411	-0.897228	4.61	3.50	8.11
6	53.778287	-0.894610	4.73	3.50	8.23
7	53.780722	-0.891907	5.00	3.50	8.50

Name: PV array 14
Footprint area: 679,077 m^2
Axis tracking: Single-axis rotation
Backtracking: None
Tracking axis orientation: 180.0 deg
Tracking axis tilt: 0.0 deg
Tracking axis panel offset: 0.0 deg
Maximum tracking angle: 60.0 deg

Rated power: -
Panel material: Light textured glass with AR coating
Vary reflectivity with sun position? Yes
Correlate slope error with surface type? Yes
Slope error: 9.16 mrad

Vertex	Latitude	Longitude	Ground elevation	Height above ground	Total elevation
	deg	deg	m	m	m
1	53.776512	-0.895597	5.00	3.50	8.50
2	53.773976	-0.894396	5.00	3.50	8.50
3	53.773722	-0.894524	5.00	3.50	8.50
4	53.773190	-0.891563	5.00	3.50	8.50
5	53.773900	-0.890190	5.00	3.50	8.50
6	53.775193	-0.888774	5.00	3.50	8.50
7	53.773722	-0.884053	5.51	3.50	9.01
8	53.771719	-0.885555	5.49	3.50	8.99
9	53.771313	-0.881950	5.00	3.50	8.50
10	53.768675	-0.879332	5.00	3.50	8.50
11	53.767787	-0.880877	5.86	3.50	9.36
12	53.770273	-0.900919	5.27	3.50	8.77
13	53.772201	-0.899073	6.03	3.50	9.53
14	53.775067	-0.898344	5.81	3.50	9.31

Name: PV array 15
Footprint area: 277,556 m^2
Axis tracking: Single-axis rotation
Backtracking: None
Tracking axis orientation: 180.0 deg
Tracking axis tilt: 0.0 deg
Tracking axis panel offset: 0.0 deg
Maximum tracking angle: 60.0 deg

Rated power: -
Panel material: Light textured glass with AR coating
Vary reflectivity with sun position? Yes
Correlate slope error with surface type? Yes
Slope error: 9.16 mrad

Vertex	Latitude	Longitude	Ground elevation	Height above ground	Total elevation
	deg	deg	m	m	m
1	53.768980	-0.895254	5.00	3.50	8.50
2	53.765454	-0.897528	3.99	3.50	7.49
3	53.764363	-0.894138	4.98	3.50	8.48
4	53.764845	-0.892808	4.28	3.50	7.78
5	53.766062	-0.891520	4.50	3.50	8.00
6	53.765454	-0.887701	5.39	3.50	8.89
7	53.766773	-0.881392	5.53	3.50	9.03
8	53.767128	-0.881221	6.00	3.50	9.50

Name: PV array 16
Footprint area: 251,811 m^2
Axis tracking: Single-axis rotation
Backtracking: None
Tracking axis orientation: 180.0 deg
Tracking axis tilt: 0.0 deg
Tracking axis panel offset: 0.0 deg
Maximum tracking angle: 60.0 deg

Rated power: -
Panel material: Light textured glass with AR coating
Vary reflectivity with sun position? Yes
Correlate slope error with surface type? Yes
Slope error: 9.16 mrad

Vertex	Latitude	Longitude	Ground elevation	Height above ground	Total elevation
	deg	deg	m	m	m
1	53.765961	-0.871693	5.00	3.50	8.50
2	53.764769	-0.872766	5.00	3.50	8.50
3	53.765251	-0.879075	4.32	3.50	7.82
4	53.766671	-0.879676	4.39	3.50	7.89
5	53.766646	-0.880234	4.36	3.50	7.86
6	53.766139	-0.880362	4.41	3.50	7.91
7	53.763145	-0.889975	5.30	3.50	8.80
8	53.764617	-0.890362	4.92	3.50	8.42
9	53.764534	-0.890844	4.73	3.50	8.23
10	53.763044	-0.890619	6.20	3.50	9.70
11	53.761446	-0.894911	9.27	3.50	12.77
12	53.759593	-0.899846	7.65	3.50	11.15
13	53.758782	-0.900318	7.20	3.50	10.70
14	53.758934	-0.900747	7.16	3.50	10.66
15	53.759898	-0.900704	7.56	3.50	11.06
16	53.762029	-0.895469	9.27	3.50	12.77
17	53.762689	-0.896413	8.78	3.50	12.28
18	53.764591	-0.892336	4.64	3.50	8.14
19	53.764667	-0.890319	4.90	3.50	8.40
20	53.765581	-0.890362	4.32	3.50	7.82
21	53.765327	-0.888731	5.39	3.50	8.89
22	53.764211	-0.888688	6.95	3.50	10.45
23	53.764287	-0.887358	6.37	3.50	9.87
24	53.765149	-0.887014	5.83	3.50	9.33
25	53.766595	-0.880834	5.09	3.50	8.59
26	53.766925	-0.879375	4.83	3.50	8.33

Name: PV array 17
Footprint area: 259,874 m^2
Axis tracking: Single-axis rotation
Backtracking: None
Tracking axis orientation: 180.0 deg
Tracking axis tilt: 0.0 deg
Tracking axis panel offset: 0.0 deg
Maximum tracking angle: 60.0 deg

Rated power: -
Panel material: Light textured glass with AR coating
Vary reflectivity with sun position? Yes
Correlate slope error with surface type? Yes
Slope error: 9.16 mrad

Vertex	Latitude	Longitude	Ground elevation	Height above ground	Total elevation
	deg	deg	m	m	m
1	53.800000	-0.898244	8.11	3.50	11.61
2	53.799316	-0.898158	5.69	3.50	9.19
3	53.796553	-0.900947	5.33	3.50	8.83
4	53.795792	-0.901205	5.86	3.50	9.36
5	53.795032	-0.896699	5.54	3.50	9.04
6	53.794246	-0.893437	5.00	3.50	8.50
7	53.795083	-0.892579	5.13	3.50	8.63
8	53.798150	-0.892794	5.38	3.50	8.88
9	53.800076	-0.893394	5.88	3.50	9.38
10	53.800228	-0.897471	6.28	3.50	9.78

Name: PV array 18
Footprint area: 191,697 m^2
Axis tracking: Single-axis rotation
Backtracking: None
Tracking axis orientation: 180.0 deg
Tracking axis tilt: 0.0 deg
Tracking axis panel offset: 0.0 deg
Maximum tracking angle: 60.0 deg

Rated power: -
Panel material: Light textured glass with AR coating
Vary reflectivity with sun position? Yes
Correlate slope error with surface type? Yes
Slope error: 9.16 mrad

Vertex	Latitude	Longitude	Ground elevation	Height above ground	Total elevation
	deg	deg	m	m	m
1	53.792776	-0.893609	4.96	3.50	8.46
2	53.791736	-0.894982	5.48	3.50	8.98
3	53.790697	-0.896012	4.98	3.50	8.48
4	53.788998	-0.897042	4.27	3.50	7.77
5	53.789100	-0.897986	4.86	3.50	8.36
6	53.788973	-0.899360	5.24	3.50	8.74
7	53.788821	-0.900046	4.94	3.50	8.44
8	53.789227	-0.902020	4.84	3.50	8.34
9	53.789531	-0.902063	6.31	3.50	9.81
10	53.789556	-0.900990	5.15	3.50	8.65
11	53.792472	-0.900347	5.64	3.50	9.14
12	53.792903	-0.901849	6.09	3.50	9.59
13	53.794322	-0.900390	6.18	3.50	9.68

Name: PV array 2
Footprint area: 632,085 m^2
Axis tracking: Single-axis rotation
Backtracking: None
Tracking axis orientation: 180.0 deg
Tracking axis tilt: 0.0 deg
Tracking axis panel offset: 0.0 deg
Maximum tracking angle: 60.0 deg

Rated power: -
Panel material: Light textured glass with AR coating
Vary reflectivity with sun position? Yes
Correlate slope error with surface type? Yes
Slope error: 9.16 mrad

Vertex	Latitude	Longitude	Ground elevation	Height above ground	Total elevation
	deg	deg	m	m	m
1	53.813872	-0.874438	6.25	3.50	9.75
2	53.811034	-0.872979	7.20	3.50	10.70
3	53.811516	-0.871090	7.04	3.50	10.54
4	53.808804	-0.868730	6.72	3.50	10.22
5	53.809108	-0.867485	6.99	3.50	10.49
6	53.808323	-0.867687	6.25	3.50	9.75
7	53.806878	-0.867000	6.02	3.50	9.52
8	53.807183	-0.865970	6.43	3.50	9.93
9	53.805325	-0.864511	6.24	3.50	9.74
10	53.805173	-0.865283	6.58	3.50	10.08
11	53.804083	-0.864425	7.27	3.50	10.77
12	53.802993	-0.867987	6.40	3.50	9.90
13	53.802537	-0.867343	6.48	3.50	9.98
14	53.802283	-0.866228	6.35	3.50	9.85
15	53.800991	-0.864854	6.93	3.50	10.43
16	53.803094	-0.859876	6.29	3.50	9.79
17	53.803551	-0.859790	6.05	3.50	9.55
18	53.804210	-0.857087	6.54	3.50	10.04
19	53.807758	-0.858374	6.00	3.50	9.50
20	53.807859	-0.862666	5.93	3.50	9.43
21	53.810140	-0.863524	5.70	3.50	9.20
22	53.813897	-0.865584	6.85	3.50	10.35
23	53.813517	-0.868545	5.83	3.50	9.33
24	53.813618	-0.870433	5.69	3.50	9.19
25	53.814100	-0.871678	6.48	3.50	9.98

Name: PV array 3
Footprint area: 155,482 m^2
Axis tracking: Single-axis rotation
Backtracking: None
Tracking axis orientation: 180.0 deg
Tracking axis tilt: 0.0 deg
Tracking axis panel offset: 0.0 deg
Maximum tracking angle: 60.0 deg

Rated power: -
Panel material: Light textured glass with AR coating
Vary reflectivity with sun position? Yes
Correlate slope error with surface type? Yes
Slope error: 9.16 mrad

Vertex	Latitude	Longitude	Ground elevation	Height above ground	Total elevation
	deg	deg	m	m	m
1	53.813884	-0.865326	6.57	3.50	10.07
2	53.810185	-0.863052	6.00	3.50	9.50
3	53.808158	-0.862236	5.93	3.50	9.43
4	53.808132	-0.858760	6.07	3.50	9.57
5	53.810172	-0.859726	6.68	3.50	10.18
6	53.810844	-0.860477	5.85	3.50	9.35
7	53.811807	-0.860799	5.51	3.50	9.01
8	53.812909	-0.860777	5.73	3.50	9.23
9	53.813175	-0.860649	5.42	3.50	8.92
10	53.813922	-0.860949	5.47	3.50	8.97
11	53.814416	-0.860691	6.67	3.50	10.17

Name: PV array 4
Footprint area: 640,744 m^2
Axis tracking: Single-axis rotation
Backtracking: None
Tracking axis orientation: 180.0 deg
Tracking axis tilt: 0.0 deg
Tracking axis panel offset: 0.0 deg
Maximum tracking angle: 60.0 deg

Rated power: -
Panel material: Light textured glass with AR coating
Vary reflectivity with sun position? Yes
Correlate slope error with surface type? Yes
Slope error: 9.16 mrad

Vertex	Latitude	Longitude	Ground elevation	Height above ground	Total elevation
	deg	deg	m	m	m
1	53.814581	-0.855301	5.71	3.50	9.21
2	53.814100	-0.855130	5.26	3.50	8.76
3	53.813454	-0.854701	5.23	3.50	8.73
4	53.811148	-0.860065	5.60	3.50	9.10
5	53.810261	-0.859271	5.85	3.50	9.35
6	53.805383	-0.856782	5.66	3.50	9.16
7	53.805649	-0.855001	5.25	3.50	8.75
8	53.804901	-0.853842	5.22	3.50	8.72
9	53.805636	-0.849186	5.28	3.50	8.78
10	53.804496	-0.847255	5.46	3.50	8.96
11	53.804166	-0.847276	5.90	3.50	9.40
12	53.803748	-0.853327	6.05	3.50	9.55
13	53.798337	-0.850667	6.07	3.50	9.57
14	53.799972	-0.847148	5.62	3.50	9.12
15	53.800263	-0.845581	5.93	3.50	9.43
16	53.804103	-0.847276	5.53	3.50	9.03
17	53.804597	-0.847233	4.75	3.50	8.25
18	53.807681	-0.847384	5.70	3.50	9.20
19	53.808454	-0.848607	5.76	3.50	9.26
20	53.807238	-0.851632	5.81	3.50	9.31
21	53.808568	-0.853714	5.85	3.50	9.35
22	53.808366	-0.854658	5.82	3.50	9.32
23	53.809671	-0.855108	4.90	3.50	8.40
24	53.810000	-0.853907	5.43	3.50	8.93
25	53.809709	-0.853628	5.37	3.50	8.87
26	53.811558	-0.850538	5.71	3.50	9.21
27	53.813269	-0.852190	5.07	3.50	8.57
28	53.814244	-0.852684	5.73	3.50	9.23

Name: PV array 5
Footprint area: 1,762,515 m^2
Axis tracking: Single-axis rotation
Backtracking: None
Tracking axis orientation: 180.0 deg
Tracking axis tilt: 0.0 deg
Tracking axis panel offset: 0.0 deg
Maximum tracking angle: 60.0 deg

Rated power: -
Panel material: Light textured glass with AR coating
Vary reflectivity with sun position? Yes
Correlate slope error with surface type? Yes
Slope error: 9.16 mrad

Vertex	Latitude	Longitude	Ground elevation	Height above ground	Total elevation
	deg	deg	m	m	m
1	53.807708	-0.847197	5.51	3.50	9.01
2	53.804096	-0.847004	5.39	3.50	8.89
3	53.797342	-0.843764	5.19	3.50	8.69
4	53.797874	-0.841661	5.30	3.50	8.80
5	53.799610	-0.837906	5.60	3.50	9.10
6	53.801258	-0.834001	5.60	3.50	9.10
7	53.803577	-0.827735	5.05	3.50	8.55
8	53.802145	-0.825933	5.34	3.50	8.84
9	53.799851	-0.832398	6.04	3.50	9.54
10	53.797215	-0.829265	5.09	3.50	8.59
11	53.795048	-0.834844	5.24	3.50	8.74
12	53.792817	-0.833686	5.73	3.50	9.23
13	53.792944	-0.831368	5.17	3.50	8.67
14	53.794439	-0.826390	5.04	3.50	8.54
15	53.795301	-0.827248	5.36	3.50	8.86
16	53.795707	-0.826991	6.45	3.50	9.95
17	53.797253	-0.828793	5.75	3.50	9.25
18	53.797861	-0.826647	5.38	3.50	8.88
19	53.796214	-0.825274	5.21	3.50	8.71
20	53.796290	-0.824502	4.27	3.50	7.77
21	53.795200	-0.823558	4.11	3.50	7.61
22	53.795986	-0.819695	4.60	3.50	8.10
23	53.799027	-0.821626	4.56	3.50	8.06
24	53.801638	-0.823944	4.37	3.50	7.87
25	53.803944	-0.826519	4.96	3.50	8.46
26	53.804172	-0.825918	4.35	3.50	7.85
27	53.802018	-0.823558	5.21	3.50	8.71
28	53.802094	-0.822656	4.99	3.50	8.49
29	53.801511	-0.822442	5.47	3.50	8.97
30	53.801283	-0.822871	4.64	3.50	8.14
31	53.799103	-0.820940	4.71	3.50	8.21
32	53.800244	-0.816047	4.44	3.50	7.94
33	53.798368	-0.814846	4.75	3.50	8.25
34	53.797481	-0.814846	4.42	3.50	7.92
35	53.799737	-0.810683	4.71	3.50	8.21
36	53.802753	-0.814331	2.81	3.50	6.31
37	53.802221	-0.816477	4.38	3.50	7.88
38	53.802145	-0.818408	3.53	3.50	7.03
39	53.802981	-0.821240	5.10	3.50	8.60
40	53.803843	-0.822141	4.77	3.50	8.27
41	53.808202	-0.827077	4.72	3.50	8.22
42	53.807087	-0.832012	5.04	3.50	8.54
43	53.804451	-0.840724	5.00	3.50	8.50
44	53.806872	-0.843073	5.31	3.50	8.81
45	53.807125	-0.842815	4.94	3.50	8.44
46	53.807911	-0.843545	5.00	3.50	8.50
47	53.808443	-0.844746	4.87	3.50	8.37

Name: PV array 6
Footprint area: 53,769 m^2
Axis tracking: Single-axis rotation
Backtracking: None
Tracking axis orientation: 180.0 deg
Tracking axis tilt: 0.0 deg
Tracking axis panel offset: 0.0 deg
Maximum tracking angle: 60.0 deg

Rated power: -
Panel material: Light textured glass with AR coating
Vary reflectivity with sun position? Yes
Correlate slope error with surface type? Yes
Slope error: 9.16 mrad

Vertex	Latitude	Longitude	Ground elevation	Height above ground	Total elevation
	deg	deg	m	m	m
1	53.800588	-0.865277	6.65	3.50	10.15
2	53.801779	-0.862166	6.43	3.50	9.93
3	53.800132	-0.860192	6.45	3.50	9.95
4	53.799054	-0.863110	6.98	3.50	10.48
5	53.799802	-0.864419	7.68	3.50	11.18

Name: PV array 7
Footprint area: 283,999 m^2
Axis tracking: Single-axis rotation
Backtracking: None
Tracking axis orientation: 180.0 deg
Tracking axis tilt: 0.0 deg
Tracking axis panel offset: 0.0 deg
Maximum tracking angle: 60.0 deg

Rated power: -
Panel material: Light textured glass with AR coating
Vary reflectivity with sun position? Yes
Correlate slope error with surface type? Yes
Slope error: 9.16 mrad

Vertex	Latitude	Longitude	Ground elevation	Height above ground	Total elevation
	deg	deg	m	m	m
1	53.797257	-0.867135	6.45	3.50	9.95
2	53.794393	-0.864903	6.01	3.50	9.51
3	53.792770	-0.869624	6.00	3.50	9.50
4	53.791553	-0.868208	5.96	3.50	9.46
5	53.789018	-0.874988	6.33	3.50	9.83
6	53.790007	-0.876319	7.32	3.50	10.82
7	53.790311	-0.875374	5.97	3.50	9.47
8	53.790666	-0.875675	6.59	3.50	10.09
9	53.791199	-0.874130	6.37	3.50	9.87
10	53.791477	-0.874044	5.65	3.50	9.15
11	53.791731	-0.873486	5.89	3.50	9.39
12	53.792872	-0.873143	5.95	3.50	9.45
13	53.793201	-0.873100	5.86	3.50	9.36
14	53.793810	-0.871684	5.84	3.50	9.34
15	53.795457	-0.872800	5.36	3.50	8.86
16	53.796269	-0.871684	5.24	3.50	8.74
17	53.797232	-0.869409	5.79	3.50	9.29
18	53.796750	-0.868808	6.03	3.50	9.53

Name: PV array 8
Footprint area: 513,457 m^2
Axis tracking: Single-axis rotation
Backtracking: None
Tracking axis orientation: 180.0 deg
Tracking axis tilt: 0.0 deg
Tracking axis panel offset: 0.0 deg
Maximum tracking angle: 60.0 deg

Rated power: -
Panel material: Light textured glass with AR coating
Vary reflectivity with sun position? Yes
Correlate slope error with surface type? Yes
Slope error: 9.16 mrad

Vertex	Latitude	Longitude	Ground elevation	Height above ground	Total elevation
	deg	deg	m	m	m
1	53.790717	-0.857736	6.07	3.50	9.57
2	53.787725	-0.853702	5.77	3.50	9.27
3	53.787041	-0.856191	5.84	3.50	9.34
4	53.786458	-0.856277	5.48	3.50	8.98
5	53.786103	-0.857565	5.78	3.50	9.28
6	53.785291	-0.856792	5.63	3.50	9.13
7	53.785215	-0.852071	5.00	3.50	8.50
8	53.784328	-0.851900	4.64	3.50	8.14
9	53.784531	-0.849883	5.48	3.50	8.98
10	53.785038	-0.847179	5.34	3.50	8.84
11	53.783035	-0.846020	4.21	3.50	7.71
12	53.783694	-0.842587	5.00	3.50	8.50
13	53.785722	-0.843059	4.65	3.50	8.15
14	53.786736	-0.843789	4.23	3.50	7.73
15	53.789044	-0.845591	5.87	3.50	9.37
16	53.789756	-0.846235	5.45	3.50	8.95
17	53.788780	-0.849668	5.37	3.50	8.87
18	53.790301	-0.851406	6.41	3.50	9.91
19	53.792443	-0.853187	7.67	3.50	11.17

Name: PV array 9
Footprint area: 445,425 m^2
Axis tracking: Single-axis rotation
Backtracking: None
Tracking axis orientation: 180.0 deg
Tracking axis tilt: 0.0 deg
Tracking axis panel offset: 0.0 deg
Maximum tracking angle: 60.0 deg

Rated power: -
Panel material: Light textured glass with AR coating
Vary reflectivity with sun position? Yes
Correlate slope error with surface type? Yes
Slope error: 9.16 mrad

Vertex	Latitude	Longitude	Ground elevation	Height above ground	Total elevation
	deg	deg	m	m	m
1	53.783172	-0.836739	5.76	3.50	9.26
2	53.780154	-0.833434	5.23	3.50	8.73
3	53.779672	-0.835022	5.35	3.50	8.85
4	53.777263	-0.832447	5.19	3.50	8.69
5	53.775361	-0.841459	5.51	3.50	9.01
6	53.781245	-0.845408	5.09	3.50	8.59

Discrete Observation Receptors

Number	Latitude	Longitude	Ground elevation	Height above ground	Total Elevation
	deg	deg	m	m	m
OP 1	53.796120	-0.859984	6.61	1.50	8.11
OP 2	53.795487	-0.856958	6.39	1.50	7.89
OP 3	53.795613	-0.854877	6.76	1.50	8.26
OP 4	53.796082	-0.852366	6.34	1.50	7.84
OP 5	53.794473	-0.850178	7.17	1.50	8.67
OP 6	53.792774	-0.849083	6.93	1.50	8.43
OP 7	53.791050	-0.847281	6.49	1.50	7.99
OP 8	53.789770	-0.845929	5.65	1.50	7.15
OP 9	53.788338	-0.844642	5.98	1.50	7.48
OP 10	53.786880	-0.843676	4.26	1.50	5.76
OP 11	53.784889	-0.842689	5.08	1.50	6.58
OP 12	53.782493	-0.841831	5.00	1.50	6.50
OP 13	53.801754	-0.862677	6.85	1.50	8.35
OP 14	53.802698	-0.860113	7.12	1.50	8.62
OP 15	53.803490	-0.859233	6.48	1.50	7.98
OP 16	53.804174	-0.856819	6.49	1.50	7.99
OP 17	53.806094	-0.857473	5.79	1.50	7.29
OP 18	53.807975	-0.858332	5.74	1.50	7.24
OP 19	53.810034	-0.859437	6.57	1.50	8.07
OP 20	53.811314	-0.860477	5.75	1.50	7.25
OP 21	53.813056	-0.860413	6.44	1.50	7.94
OP 22	53.814513	-0.860574	7.06	1.50	8.56
OP 23	53.816717	-0.861046	7.25	1.50	8.75
OP 24	53.818446	-0.859072	8.19	1.50	9.69
OP 25	53.819966	-0.857098	7.97	1.50	9.47
OP 26	53.821689	-0.856519	7.58	1.50	9.08
OP 27	53.823500	-0.855821	7.44	1.50	8.94
OP 28	53.771556	-0.915785	6.37	1.50	7.87
OP 29	53.772571	-0.913972	6.26	1.50	7.76
OP 30	53.773091	-0.911075	6.04	1.50	7.54
OP 31	53.773040	-0.908082	6.19	1.50	7.69
OP 32	53.772989	-0.905561	6.33	1.50	7.83
OP 33	53.773091	-0.902192	6.76	1.50	8.26
OP 34	53.777149	-0.895690	4.35	1.50	5.85
OP 35	53.778848	-0.893630	5.00	1.50	6.50
OP 36	53.780432	-0.891913	5.00	1.50	6.50
OP 37	53.781852	-0.890197	5.04	1.50	6.54
OP 38	53.783260	-0.888437	5.36	1.50	6.86
OP 39	53.784895	-0.886892	6.39	1.50	7.89
OP 40	53.785922	-0.884768	5.42	1.50	6.92
OP 41	53.787431	-0.882923	4.40	1.50	5.90
OP 42	53.788825	-0.881056	5.38	1.50	6.88
OP 43	53.790334	-0.879447	5.81	1.50	7.31
OP 44	53.791715	-0.877687	5.52	1.50	7.02
OP 45	53.793274	-0.875863	5.82	1.50	7.32
OP 46	53.794810	-0.873800	5.45	1.50	6.95
OP 47	53.796356	-0.872062	7.08	1.50	8.58
OP 48	53.797649	-0.870882	6.57	1.50	8.07
OP 49	53.799043	-0.869401	6.22	1.50	7.72
OP 50	53.799993	-0.866998	6.75	1.50	8.25
OP 51	53.775661	-0.916672	6.13	1.50	7.63
OP 52	53.776197	-0.914351	6.48	1.50	7.98
OP 53	53.776698	-0.911573	6.75	1.50	8.25
OP 54	53.777440	-0.908515	6.57	1.50	8.07
OP 55	53.778194	-0.904910	6.30	1.50	7.80
OP 56	53.778461	-0.902356	14.20	1.50	15.70
OP 57	53.777954	-0.899900	6.52	1.50	8.02
OP 58	53.776369	-0.897496	4.59	1.50	6.09
OP 59	53.775360	-0.898580	5.92	1.50	7.42
OP 60	53.773160	-0.899256	6.26	1.50	7.76

Summary of PV Glare Analysis

PV configuration and total predicted glare

PV Name	Tilt	Orientation	"Green" Glare	"Yellow" Glare	Energy Produced	Data File
	deg	deg	min	min	kWh	
PV array 1	SA tracking	SA tracking	0	0	-	-
PV array 10	SA tracking	SA tracking	0	0	-	-
PV array 11	SA tracking	SA tracking	0	0	-	-
PV array 12	SA tracking	SA tracking	0	0	-	-
PV array 13	SA tracking	SA tracking	0	0	-	-
PV array 14	SA tracking	SA tracking	0	0	-	-
PV array 15	SA tracking	SA tracking	0	0	-	-
PV array 16	SA tracking	SA tracking	0	0	-	-
PV array 17	SA tracking	SA tracking	0	0	-	-
PV array 18	SA tracking	SA tracking	0	0	-	-
PV array 2	SA tracking	SA tracking	0	0	-	-
PV array 3	SA tracking	SA tracking	0	0	-	-
PV array 4	SA tracking	SA tracking	0	0	-	-
PV array 5	SA tracking	SA tracking	0	0	-	-
PV array 6	SA tracking	SA tracking	0	0	-	-
PV array 7	SA tracking	SA tracking	0	0	-	-
PV array 8	SA tracking	SA tracking	0	0	-	-
PV array 9	SA tracking	SA tracking	0	0	-	-

PV & Receptor Analysis Results

Results for each PV array and receptor

PV array 1 no glare found

Component	Green glare (min)	Yellow glare (min)
OP: OP 1	0	0
OP: OP 2	0	0
OP: OP 3	0	0
OP: OP 4	0	0
OP: OP 5	0	0
OP: OP 6	0	0
OP: OP 7	0	0
OP: OP 8	0	0
OP: OP 9	0	0
OP: OP 10	0	0
OP: OP 11	0	0
OP: OP 12	0	0
OP: OP 13	0	0
OP: OP 14	0	0
OP: OP 15	0	0
OP: OP 16	0	0
OP: OP 17	0	0
OP: OP 18	0	0
OP: OP 19	0	0
OP: OP 20	0	0
OP: OP 21	0	0
OP: OP 22	0	0
OP: OP 23	0	0
OP: OP 24	0	0
OP: OP 25	0	0
OP: OP 26	0	0
OP: OP 27	0	0
OP: OP 28	0	0
OP: OP 29	0	0
OP: OP 30	0	0
OP: OP 31	0	0
OP: OP 32	0	0
OP: OP 33	0	0
OP: OP 34	0	0
OP: OP 35	0	0
OP: OP 36	0	0
OP: OP 37	0	0
OP: OP 38	0	0
OP: OP 39	0	0
OP: OP 40	0	0
OP: OP 41	0	0
OP: OP 42	0	0
OP: OP 43	0	0
OP: OP 44	0	0
OP: OP 45	0	0
OP: OP 46	0	0
OP: OP 47	0	0
OP: OP 48	0	0
OP: OP 49	0	0
OP: OP 50	0	0
OP: OP 51	0	0
OP: OP 52	0	0
OP: OP 53	0	0

OP: OP 54	0	0
OP: OP 55	0	0
OP: OP 56	0	0
OP: OP 57	0	0
OP: OP 58	0	0
OP: OP 59	0	0
OP: OP 60	0	0

No glare found

PV array 10 no glare found

Component	Green glare (min)	Yellow glare (min)
OP: OP 1	0	0
OP: OP 2	0	0
OP: OP 3	0	0
OP: OP 4	0	0
OP: OP 5	0	0
OP: OP 6	0	0
OP: OP 7	0	0
OP: OP 8	0	0
OP: OP 9	0	0
OP: OP 10	0	0
OP: OP 11	0	0
OP: OP 12	0	0
OP: OP 13	0	0
OP: OP 14	0	0
OP: OP 15	0	0
OP: OP 16	0	0
OP: OP 17	0	0
OP: OP 18	0	0
OP: OP 19	0	0
OP: OP 20	0	0
OP: OP 21	0	0
OP: OP 22	0	0
OP: OP 23	0	0
OP: OP 24	0	0
OP: OP 25	0	0
OP: OP 26	0	0
OP: OP 27	0	0
OP: OP 28	0	0
OP: OP 29	0	0
OP: OP 30	0	0
OP: OP 31	0	0
OP: OP 32	0	0
OP: OP 33	0	0
OP: OP 34	0	0
OP: OP 35	0	0
OP: OP 36	0	0
OP: OP 37	0	0
OP: OP 38	0	0
OP: OP 39	0	0
OP: OP 40	0	0

OP: OP 41	0	0
OP: OP 42	0	0
OP: OP 43	0	0
OP: OP 44	0	0
OP: OP 45	0	0
OP: OP 46	0	0
OP: OP 47	0	0
OP: OP 48	0	0
OP: OP 49	0	0
OP: OP 50	0	0
OP: OP 51	0	0
OP: OP 52	0	0
OP: OP 53	0	0
OP: OP 54	0	0
OP: OP 55	0	0
OP: OP 56	0	0
OP: OP 57	0	0
OP: OP 58	0	0
OP: OP 59	0	0
OP: OP 60	0	0

No glare found

PV array 11 no glare found

Component	Green glare (min)	Yellow glare (min)
OP: OP 1	0	0
OP: OP 2	0	0
OP: OP 3	0	0
OP: OP 4	0	0
OP: OP 5	0	0
OP: OP 6	0	0
OP: OP 7	0	0
OP: OP 8	0	0
OP: OP 9	0	0
OP: OP 10	0	0
OP: OP 11	0	0
OP: OP 12	0	0
OP: OP 13	0	0
OP: OP 14	0	0
OP: OP 15	0	0
OP: OP 16	0	0
OP: OP 17	0	0
OP: OP 18	0	0
OP: OP 19	0	0
OP: OP 20	0	0
OP: OP 21	0	0
OP: OP 22	0	0
OP: OP 23	0	0
OP: OP 24	0	0
OP: OP 25	0	0
OP: OP 26	0	0
OP: OP 27	0	0

OP: OP 28	0	0
OP: OP 29	0	0
OP: OP 30	0	0
OP: OP 31	0	0
OP: OP 32	0	0
OP: OP 33	0	0
OP: OP 34	0	0
OP: OP 35	0	0
OP: OP 36	0	0
OP: OP 37	0	0
OP: OP 38	0	0
OP: OP 39	0	0
OP: OP 40	0	0
OP: OP 41	0	0
OP: OP 42	0	0
OP: OP 43	0	0
OP: OP 44	0	0
OP: OP 45	0	0
OP: OP 46	0	0
OP: OP 47	0	0
OP: OP 48	0	0
OP: OP 49	0	0
OP: OP 50	0	0
OP: OP 51	0	0
OP: OP 52	0	0
OP: OP 53	0	0
OP: OP 54	0	0
OP: OP 55	0	0
OP: OP 56	0	0
OP: OP 57	0	0
OP: OP 58	0	0
OP: OP 59	0	0
OP: OP 60	0	0

No glare found

PV array 12 no glare found

Component	Green glare (min)	Yellow glare (min)
OP: OP 1	0	0
OP: OP 2	0	0
OP: OP 3	0	0
OP: OP 4	0	0
OP: OP 5	0	0
OP: OP 6	0	0
OP: OP 7	0	0
OP: OP 8	0	0
OP: OP 9	0	0
OP: OP 10	0	0
OP: OP 11	0	0
OP: OP 12	0	0
OP: OP 13	0	0
OP: OP 14	0	0

OP: OP 15	0	0
OP: OP 16	0	0
OP: OP 17	0	0
OP: OP 18	0	0
OP: OP 19	0	0
OP: OP 20	0	0
OP: OP 21	0	0
OP: OP 22	0	0
OP: OP 23	0	0
OP: OP 24	0	0
OP: OP 25	0	0
OP: OP 26	0	0
OP: OP 27	0	0
OP: OP 28	0	0
OP: OP 29	0	0
OP: OP 30	0	0
OP: OP 31	0	0
OP: OP 32	0	0
OP: OP 33	0	0
OP: OP 34	0	0
OP: OP 35	0	0
OP: OP 36	0	0
OP: OP 37	0	0
OP: OP 38	0	0
OP: OP 39	0	0
OP: OP 40	0	0
OP: OP 41	0	0
OP: OP 42	0	0
OP: OP 43	0	0
OP: OP 44	0	0
OP: OP 45	0	0
OP: OP 46	0	0
OP: OP 47	0	0
OP: OP 48	0	0
OP: OP 49	0	0
OP: OP 50	0	0
OP: OP 51	0	0
OP: OP 52	0	0
OP: OP 53	0	0
OP: OP 54	0	0
OP: OP 55	0	0
OP: OP 56	0	0
OP: OP 57	0	0
OP: OP 58	0	0
OP: OP 59	0	0
OP: OP 60	0	0

No glare found

PV array 13 no glare found

Component	Green glare (min)	Yellow glare (min)
OP: OP 1	0	0

OP: OP 2	0	0
OP: OP 3	0	0
OP: OP 4	0	0
OP: OP 5	0	0
OP: OP 6	0	0
OP: OP 7	0	0
OP: OP 8	0	0
OP: OP 9	0	0
OP: OP 10	0	0
OP: OP 11	0	0
OP: OP 12	0	0
OP: OP 13	0	0
OP: OP 14	0	0
OP: OP 15	0	0
OP: OP 16	0	0
OP: OP 17	0	0
OP: OP 18	0	0
OP: OP 19	0	0
OP: OP 20	0	0
OP: OP 21	0	0
OP: OP 22	0	0
OP: OP 23	0	0
OP: OP 24	0	0
OP: OP 25	0	0
OP: OP 26	0	0
OP: OP 27	0	0
OP: OP 28	0	0
OP: OP 29	0	0
OP: OP 30	0	0
OP: OP 31	0	0
OP: OP 32	0	0
OP: OP 33	0	0
OP: OP 34	0	0
OP: OP 35	0	0
OP: OP 36	0	0
OP: OP 37	0	0
OP: OP 38	0	0
OP: OP 39	0	0
OP: OP 40	0	0
OP: OP 41	0	0
OP: OP 42	0	0
OP: OP 43	0	0
OP: OP 44	0	0
OP: OP 45	0	0
OP: OP 46	0	0
OP: OP 47	0	0
OP: OP 48	0	0
OP: OP 49	0	0
OP: OP 50	0	0
OP: OP 51	0	0
OP: OP 52	0	0
OP: OP 53	0	0
OP: OP 54	0	0
OP: OP 55	0	0
OP: OP 56	0	0

OP: OP 57	0	0
OP: OP 58	0	0
OP: OP 59	0	0
OP: OP 60	0	0

No glare found

PV array 14 no glare found

Component	Green glare (min)	Yellow glare (min)
OP: OP 1	0	0
OP: OP 2	0	0
OP: OP 3	0	0
OP: OP 4	0	0
OP: OP 5	0	0
OP: OP 6	0	0
OP: OP 7	0	0
OP: OP 8	0	0
OP: OP 9	0	0
OP: OP 10	0	0
OP: OP 11	0	0
OP: OP 12	0	0
OP: OP 13	0	0
OP: OP 14	0	0
OP: OP 15	0	0
OP: OP 16	0	0
OP: OP 17	0	0
OP: OP 18	0	0
OP: OP 19	0	0
OP: OP 20	0	0
OP: OP 21	0	0
OP: OP 22	0	0
OP: OP 23	0	0
OP: OP 24	0	0
OP: OP 25	0	0
OP: OP 26	0	0
OP: OP 27	0	0
OP: OP 28	0	0
OP: OP 29	0	0
OP: OP 30	0	0
OP: OP 31	0	0
OP: OP 32	0	0
OP: OP 33	0	0
OP: OP 34	0	0
OP: OP 35	0	0
OP: OP 36	0	0
OP: OP 37	0	0
OP: OP 38	0	0
OP: OP 39	0	0
OP: OP 40	0	0
OP: OP 41	0	0
OP: OP 42	0	0
OP: OP 43	0	0

OP: OP 44	0	0
OP: OP 45	0	0
OP: OP 46	0	0
OP: OP 47	0	0
OP: OP 48	0	0
OP: OP 49	0	0
OP: OP 50	0	0
OP: OP 51	0	0
OP: OP 52	0	0
OP: OP 53	0	0
OP: OP 54	0	0
OP: OP 55	0	0
OP: OP 56	0	0
OP: OP 57	0	0
OP: OP 58	0	0
OP: OP 59	0	0
OP: OP 60	0	0

No glare found

PV array 15 no glare found

Component	Green glare (min)	Yellow glare (min)
OP: OP 1	0	0
OP: OP 2	0	0
OP: OP 3	0	0
OP: OP 4	0	0
OP: OP 5	0	0
OP: OP 6	0	0
OP: OP 7	0	0
OP: OP 8	0	0
OP: OP 9	0	0
OP: OP 10	0	0
OP: OP 11	0	0
OP: OP 12	0	0
OP: OP 13	0	0
OP: OP 14	0	0
OP: OP 15	0	0
OP: OP 16	0	0
OP: OP 17	0	0
OP: OP 18	0	0
OP: OP 19	0	0
OP: OP 20	0	0
OP: OP 21	0	0
OP: OP 22	0	0
OP: OP 23	0	0
OP: OP 24	0	0
OP: OP 25	0	0
OP: OP 26	0	0
OP: OP 27	0	0
OP: OP 28	0	0
OP: OP 29	0	0
OP: OP 30	0	0

OP: OP 31	0	0
OP: OP 32	0	0
OP: OP 33	0	0
OP: OP 34	0	0
OP: OP 35	0	0
OP: OP 36	0	0
OP: OP 37	0	0
OP: OP 38	0	0
OP: OP 39	0	0
OP: OP 40	0	0
OP: OP 41	0	0
OP: OP 42	0	0
OP: OP 43	0	0
OP: OP 44	0	0
OP: OP 45	0	0
OP: OP 46	0	0
OP: OP 47	0	0
OP: OP 48	0	0
OP: OP 49	0	0
OP: OP 50	0	0
OP: OP 51	0	0
OP: OP 52	0	0
OP: OP 53	0	0
OP: OP 54	0	0
OP: OP 55	0	0
OP: OP 56	0	0
OP: OP 57	0	0
OP: OP 58	0	0
OP: OP 59	0	0
OP: OP 60	0	0

No glare found

PV array 16 no glare found

Component	Green glare (min)	Yellow glare (min)
OP: OP 1	0	0
OP: OP 2	0	0
OP: OP 3	0	0
OP: OP 4	0	0
OP: OP 5	0	0
OP: OP 6	0	0
OP: OP 7	0	0
OP: OP 8	0	0
OP: OP 9	0	0
OP: OP 10	0	0
OP: OP 11	0	0
OP: OP 12	0	0
OP: OP 13	0	0
OP: OP 14	0	0
OP: OP 15	0	0
OP: OP 16	0	0
OP: OP 17	0	0

OP: OP 18	0	0
OP: OP 19	0	0
OP: OP 20	0	0
OP: OP 21	0	0
OP: OP 22	0	0
OP: OP 23	0	0
OP: OP 24	0	0
OP: OP 25	0	0
OP: OP 26	0	0
OP: OP 27	0	0
OP: OP 28	0	0
OP: OP 29	0	0
OP: OP 30	0	0
OP: OP 31	0	0
OP: OP 32	0	0
OP: OP 33	0	0
OP: OP 34	0	0
OP: OP 35	0	0
OP: OP 36	0	0
OP: OP 37	0	0
OP: OP 38	0	0
OP: OP 39	0	0
OP: OP 40	0	0
OP: OP 41	0	0
OP: OP 42	0	0
OP: OP 43	0	0
OP: OP 44	0	0
OP: OP 45	0	0
OP: OP 46	0	0
OP: OP 47	0	0
OP: OP 48	0	0
OP: OP 49	0	0
OP: OP 50	0	0
OP: OP 51	0	0
OP: OP 52	0	0
OP: OP 53	0	0
OP: OP 54	0	0
OP: OP 55	0	0
OP: OP 56	0	0
OP: OP 57	0	0
OP: OP 58	0	0
OP: OP 59	0	0
OP: OP 60	0	0

No glare found

PV array 17 no glare found

Component	Green glare (min)	Yellow glare (min)
OP: OP 1	0	0
OP: OP 2	0	0
OP: OP 3	0	0
OP: OP 4	0	0

OP: OP 5	0	0
OP: OP 6	0	0
OP: OP 7	0	0
OP: OP 8	0	0
OP: OP 9	0	0
OP: OP 10	0	0
OP: OP 11	0	0
OP: OP 12	0	0
OP: OP 13	0	0
OP: OP 14	0	0
OP: OP 15	0	0
OP: OP 16	0	0
OP: OP 17	0	0
OP: OP 18	0	0
OP: OP 19	0	0
OP: OP 20	0	0
OP: OP 21	0	0
OP: OP 22	0	0
OP: OP 23	0	0
OP: OP 24	0	0
OP: OP 25	0	0
OP: OP 26	0	0
OP: OP 27	0	0
OP: OP 28	0	0
OP: OP 29	0	0
OP: OP 30	0	0
OP: OP 31	0	0
OP: OP 32	0	0
OP: OP 33	0	0
OP: OP 34	0	0
OP: OP 35	0	0
OP: OP 36	0	0
OP: OP 37	0	0
OP: OP 38	0	0
OP: OP 39	0	0
OP: OP 40	0	0
OP: OP 41	0	0
OP: OP 42	0	0
OP: OP 43	0	0
OP: OP 44	0	0
OP: OP 45	0	0
OP: OP 46	0	0
OP: OP 47	0	0
OP: OP 48	0	0
OP: OP 49	0	0
OP: OP 50	0	0
OP: OP 51	0	0
OP: OP 52	0	0
OP: OP 53	0	0
OP: OP 54	0	0
OP: OP 55	0	0
OP: OP 56	0	0
OP: OP 57	0	0
OP: OP 58	0	0
OP: OP 59	0	0

OP: OP 60	0	0

No glare found

PV array 18 no glare found

Component	Green glare (min)	Yellow glare (min)
OP: OP 1	0	0
OP: OP 2	0	0
OP: OP 3	0	0
OP: OP 4	0	0
OP: OP 5	0	0
OP: OP 6	0	0
OP: OP 7	0	0
OP: OP 8	0	0
OP: OP 9	0	0
OP: OP 10	0	0
OP: OP 11	0	0
OP: OP 12	0	0
OP: OP 13	0	0
OP: OP 14	0	0
OP: OP 15	0	0
OP: OP 16	0	0
OP: OP 17	0	0
OP: OP 18	0	0
OP: OP 19	0	0
OP: OP 20	0	0
OP: OP 21	0	0
OP: OP 22	0	0
OP: OP 23	0	0
OP: OP 24	0	0
OP: OP 25	0	0
OP: OP 26	0	0
OP: OP 27	0	0
OP: OP 28	0	0
OP: OP 29	0	0
OP: OP 30	0	0
OP: OP 31	0	0
OP: OP 32	0	0
OP: OP 33	0	0
OP: OP 34	0	0
OP: OP 35	0	0
OP: OP 36	0	0
OP: OP 37	0	0
OP: OP 38	0	0
OP: OP 39	0	0
OP: OP 40	0	0
OP: OP 41	0	0
OP: OP 42	0	0
OP: OP 43	0	0
OP: OP 44	0	0
OP: OP 45	0	0
OP: OP 46	0	0

OP: OP 47	0	0
OP: OP 48	0	0
OP: OP 49	0	0
OP: OP 50	0	0
OP: OP 51	0	0
OP: OP 52	0	0
OP: OP 53	0	0
OP: OP 54	0	0
OP: OP 55	0	0
OP: OP 56	0	0
OP: OP 57	0	0
OP: OP 58	0	0
OP: OP 59	0	0
OP: OP 60	0	0

No glare found

PV array 2 no glare found

Component	Green glare (min)	Yellow glare (min)
OP: OP 1	0	0
OP: OP 2	0	0
OP: OP 3	0	0
OP: OP 4	0	0
OP: OP 5	0	0
OP: OP 6	0	0
OP: OP 7	0	0
OP: OP 8	0	0
OP: OP 9	0	0
OP: OP 10	0	0
OP: OP 11	0	0
OP: OP 12	0	0
OP: OP 13	0	0
OP: OP 14	0	0
OP: OP 15	0	0
OP: OP 16	0	0
OP: OP 17	0	0
OP: OP 18	0	0
OP: OP 19	0	0
OP: OP 20	0	0
OP: OP 21	0	0
OP: OP 22	0	0
OP: OP 23	0	0
OP: OP 24	0	0
OP: OP 25	0	0
OP: OP 26	0	0
OP: OP 27	0	0
OP: OP 28	0	0
OP: OP 29	0	0
OP: OP 30	0	0
OP: OP 31	0	0
OP: OP 32	0	0
OP: OP 33	0	0

OP: OP 34	0	0
OP: OP 35	0	0
OP: OP 36	0	0
OP: OP 37	0	0
OP: OP 38	0	0
OP: OP 39	0	0
OP: OP 40	0	0
OP: OP 41	0	0
OP: OP 42	0	0
OP: OP 43	0	0
OP: OP 44	0	0
OP: OP 45	0	0
OP: OP 46	0	0
OP: OP 47	0	0
OP: OP 48	0	0
OP: OP 49	0	0
OP: OP 50	0	0
OP: OP 51	0	0
OP: OP 52	0	0
OP: OP 53	0	0
OP: OP 54	0	0
OP: OP 55	0	0
OP: OP 56	0	0
OP: OP 57	0	0
OP: OP 58	0	0
OP: OP 59	0	0
OP: OP 60	0	0

No glare found

PV array 3 no glare found

Component	Green glare (min)	Yellow glare (min)
OP: OP 1	0	0
OP: OP 2	0	0
OP: OP 3	0	0
OP: OP 4	0	0
OP: OP 5	0	0
OP: OP 6	0	0
OP: OP 7	0	0
OP: OP 8	0	0
OP: OP 9	0	0
OP: OP 10	0	0
OP: OP 11	0	0
OP: OP 12	0	0
OP: OP 13	0	0
OP: OP 14	0	0
OP: OP 15	0	0
OP: OP 16	0	0
OP: OP 17	0	0
OP: OP 18	0	0
OP: OP 19	0	0
OP: OP 20	0	0

OP: OP 21	0	0
OP: OP 22	0	0
OP: OP 23	0	0
OP: OP 24	0	0
OP: OP 25	0	0
OP: OP 26	0	0
OP: OP 27	0	0
OP: OP 28	0	0
OP: OP 29	0	0
OP: OP 30	0	0
OP: OP 31	0	0
OP: OP 32	0	0
OP: OP 33	0	0
OP: OP 34	0	0
OP: OP 35	0	0
OP: OP 36	0	0
OP: OP 37	0	0
OP: OP 38	0	0
OP: OP 39	0	0
OP: OP 40	0	0
OP: OP 41	0	0
OP: OP 42	0	0
OP: OP 43	0	0
OP: OP 44	0	0
OP: OP 45	0	0
OP: OP 46	0	0
OP: OP 47	0	0
OP: OP 48	0	0
OP: OP 49	0	0
OP: OP 50	0	0
OP: OP 51	0	0
OP: OP 52	0	0
OP: OP 53	0	0
OP: OP 54	0	0
OP: OP 55	0	0
OP: OP 56	0	0
OP: OP 57	0	0
OP: OP 58	0	0
OP: OP 59	0	0
OP: OP 60	0	0

No glare found

PV array 4 no glare found

Component	Green glare (min)	Yellow glare (min)
OP: OP 1	0	0
OP: OP 2	0	0
OP: OP 3	0	0
OP: OP 4	0	0
OP: OP 5	0	0
OP: OP 6	0	0
OP: OP 7	0	0

OP: OP 8	0	0
OP: OP 9	0	0
OP: OP 10	0	0
OP: OP 11	0	0
OP: OP 12	0	0
OP: OP 13	0	0
OP: OP 14	0	0
OP: OP 15	0	0
OP: OP 16	0	0
OP: OP 17	0	0
OP: OP 18	0	0
OP: OP 19	0	0
OP: OP 20	0	0
OP: OP 21	0	0
OP: OP 22	0	0
OP: OP 23	0	0
OP: OP 24	0	0
OP: OP 25	0	0
OP: OP 26	0	0
OP: OP 27	0	0
OP: OP 28	0	0
OP: OP 29	0	0
OP: OP 30	0	0
OP: OP 31	0	0
OP: OP 32	0	0
OP: OP 33	0	0
OP: OP 34	0	0
OP: OP 35	0	0
OP: OP 36	0	0
OP: OP 37	0	0
OP: OP 38	0	0
OP: OP 39	0	0
OP: OP 40	0	0
OP: OP 41	0	0
OP: OP 42	0	0
OP: OP 43	0	0
OP: OP 44	0	0
OP: OP 45	0	0
OP: OP 46	0	0
OP: OP 47	0	0
OP: OP 48	0	0
OP: OP 49	0	0
OP: OP 50	0	0
OP: OP 51	0	0
OP: OP 52	0	0
OP: OP 53	0	0
OP: OP 54	0	0
OP: OP 55	0	0
OP: OP 56	0	0
OP: OP 57	0	0
OP: OP 58	0	0
OP: OP 59	0	0
OP: OP 60	0	0

No glare found

PV array 5 no glare found

Component	Green glare (min)	Yellow glare (min)
OP: OP 1	0	0
OP: OP 2	0	0
OP: OP 3	0	0
OP: OP 4	0	0
OP: OP 5	0	0
OP: OP 6	0	0
OP: OP 7	0	0
OP: OP 8	0	0
OP: OP 9	0	0
OP: OP 10	0	0
OP: OP 11	0	0
OP: OP 12	0	0
OP: OP 13	0	0
OP: OP 14	0	0
OP: OP 15	0	0
OP: OP 16	0	0
OP: OP 17	0	0
OP: OP 18	0	0
OP: OP 19	0	0
OP: OP 20	0	0
OP: OP 21	0	0
OP: OP 22	0	0
OP: OP 23	0	0
OP: OP 24	0	0
OP: OP 25	0	0
OP: OP 26	0	0
OP: OP 27	0	0
OP: OP 28	0	0
OP: OP 29	0	0
OP: OP 30	0	0
OP: OP 31	0	0
OP: OP 32	0	0
OP: OP 33	0	0
OP: OP 34	0	0
OP: OP 35	0	0
OP: OP 36	0	0
OP: OP 37	0	0
OP: OP 38	0	0
OP: OP 39	0	0
OP: OP 40	0	0
OP: OP 41	0	0
OP: OP 42	0	0
OP: OP 43	0	0
OP: OP 44	0	0
OP: OP 45	0	0
OP: OP 46	0	0
OP: OP 47	0	0
OP: OP 48	0	0
OP: OP 49	0	0
OP: OP 50	0	0
OP: OP 51	0	0
OP: OP 52	0	0
OP: OP 53	0	0

OP: OP 54	0	0
OP: OP 55	0	0
OP: OP 56	0	0
OP: OP 57	0	0
OP: OP 58	0	0
OP: OP 59	0	0
OP: OP 60	0	0

No glare found

PV array 6 no glare found

Component	Green glare (min)	Yellow glare (min)
OP: OP 1	0	0
OP: OP 2	0	0
OP: OP 3	0	0
OP: OP 4	0	0
OP: OP 5	0	0
OP: OP 6	0	0
OP: OP 7	0	0
OP: OP 8	0	0
OP: OP 9	0	0
OP: OP 10	0	0
OP: OP 11	0	0
OP: OP 12	0	0
OP: OP 13	0	0
OP: OP 14	0	0
OP: OP 15	0	0
OP: OP 16	0	0
OP: OP 17	0	0
OP: OP 18	0	0
OP: OP 19	0	0
OP: OP 20	0	0
OP: OP 21	0	0
OP: OP 22	0	0
OP: OP 23	0	0
OP: OP 24	0	0
OP: OP 25	0	0
OP: OP 26	0	0
OP: OP 27	0	0
OP: OP 28	0	0
OP: OP 29	0	0
OP: OP 30	0	0
OP: OP 31	0	0
OP: OP 32	0	0
OP: OP 33	0	0
OP: OP 34	0	0
OP: OP 35	0	0
OP: OP 36	0	0
OP: OP 37	0	0
OP: OP 38	0	0
OP: OP 39	0	0
OP: OP 40	0	0

OP: OP 41	0	0
OP: OP 42	0	0
OP: OP 43	0	0
OP: OP 44	0	0
OP: OP 45	0	0
OP: OP 46	0	0
OP: OP 47	0	0
OP: OP 48	0	0
OP: OP 49	0	0
OP: OP 50	0	0
OP: OP 51	0	0
OP: OP 52	0	0
OP: OP 53	0	0
OP: OP 54	0	0
OP: OP 55	0	0
OP: OP 56	0	0
OP: OP 57	0	0
OP: OP 58	0	0
OP: OP 59	0	0
OP: OP 60	0	0

No glare found

PV array 7 no glare found

Component	Green glare (min)	Yellow glare (min)
OP: OP 1	0	0
OP: OP 2	0	0
OP: OP 3	0	0
OP: OP 4	0	0
OP: OP 5	0	0
OP: OP 6	0	0
OP: OP 7	0	0
OP: OP 8	0	0
OP: OP 9	0	0
OP: OP 10	0	0
OP: OP 11	0	0
OP: OP 12	0	0
OP: OP 13	0	0
OP: OP 14	0	0
OP: OP 15	0	0
OP: OP 16	0	0
OP: OP 17	0	0
OP: OP 18	0	0
OP: OP 19	0	0
OP: OP 20	0	0
OP: OP 21	0	0
OP: OP 22	0	0
OP: OP 23	0	0
OP: OP 24	0	0
OP: OP 25	0	0
OP: OP 26	0	0
OP: OP 27	0	0

OP: OP 28	0	0
OP: OP 29	0	0
OP: OP 30	0	0
OP: OP 31	0	0
OP: OP 32	0	0
OP: OP 33	0	0
OP: OP 34	0	0
OP: OP 35	0	0
OP: OP 36	0	0
OP: OP 37	0	0
OP: OP 38	0	0
OP: OP 39	0	0
OP: OP 40	0	0
OP: OP 41	0	0
OP: OP 42	0	0
OP: OP 43	0	0
OP: OP 44	0	0
OP: OP 45	0	0
OP: OP 46	0	0
OP: OP 47	0	0
OP: OP 48	0	0
OP: OP 49	0	0
OP: OP 50	0	0
OP: OP 51	0	0
OP: OP 52	0	0
OP: OP 53	0	0
OP: OP 54	0	0
OP: OP 55	0	0
OP: OP 56	0	0
OP: OP 57	0	0
OP: OP 58	0	0
OP: OP 59	0	0
OP: OP 60	0	0

No glare found

PV array 8 no glare found

Component	Green glare (min)	Yellow glare (min)
OP: OP 1	0	0
OP: OP 2	0	0
OP: OP 3	0	0
OP: OP 4	0	0
OP: OP 5	0	0
OP: OP 6	0	0
OP: OP 7	0	0
OP: OP 8	0	0
OP: OP 9	0	0
OP: OP 10	0	0
OP: OP 11	0	0
OP: OP 12	0	0
OP: OP 13	0	0
OP: OP 14	0	0

OP: OP 15	0	0
OP: OP 16	0	0
OP: OP 17	0	0
OP: OP 18	0	0
OP: OP 19	0	0
OP: OP 20	0	0
OP: OP 21	0	0
OP: OP 22	0	0
OP: OP 23	0	0
OP: OP 24	0	0
OP: OP 25	0	0
OP: OP 26	0	0
OP: OP 27	0	0
OP: OP 28	0	0
OP: OP 29	0	0
OP: OP 30	0	0
OP: OP 31	0	0
OP: OP 32	0	0
OP: OP 33	0	0
OP: OP 34	0	0
OP: OP 35	0	0
OP: OP 36	0	0
OP: OP 37	0	0
OP: OP 38	0	0
OP: OP 39	0	0
OP: OP 40	0	0
OP: OP 41	0	0
OP: OP 42	0	0
OP: OP 43	0	0
OP: OP 44	0	0
OP: OP 45	0	0
OP: OP 46	0	0
OP: OP 47	0	0
OP: OP 48	0	0
OP: OP 49	0	0
OP: OP 50	0	0
OP: OP 51	0	0
OP: OP 52	0	0
OP: OP 53	0	0
OP: OP 54	0	0
OP: OP 55	0	0
OP: OP 56	0	0
OP: OP 57	0	0
OP: OP 58	0	0
OP: OP 59	0	0
OP: OP 60	0	0

No glare found

PV array 9 no glare found

Component	Green glare (min)	Yellow glare (min)
OP: OP 1	0	0

OP: OP 2	0	0
OP: OP 3	0	0
OP: OP 4	0	0
OP: OP 5	0	0
OP: OP 6	0	0
OP: OP 7	0	0
OP: OP 8	0	0
OP: OP 9	0	0
OP: OP 10	0	0
OP: OP 11	0	0
OP: OP 12	0	0
OP: OP 13	0	0
OP: OP 14	0	0
OP: OP 15	0	0
OP: OP 16	0	0
OP: OP 17	0	0
OP: OP 18	0	0
OP: OP 19	0	0
OP: OP 20	0	0
OP: OP 21	0	0
OP: OP 22	0	0
OP: OP 23	0	0
OP: OP 24	0	0
OP: OP 25	0	0
OP: OP 26	0	0
OP: OP 27	0	0
OP: OP 28	0	0
OP: OP 29	0	0
OP: OP 30	0	0
OP: OP 31	0	0
OP: OP 32	0	0
OP: OP 33	0	0
OP: OP 34	0	0
OP: OP 35	0	0
OP: OP 36	0	0
OP: OP 37	0	0
OP: OP 38	0	0
OP: OP 39	0	0
OP: OP 40	0	0
OP: OP 41	0	0
OP: OP 42	0	0
OP: OP 43	0	0
OP: OP 44	0	0
OP: OP 45	0	0
OP: OP 46	0	0
OP: OP 47	0	0
OP: OP 48	0	0
OP: OP 49	0	0
OP: OP 50	0	0
OP: OP 51	0	0
OP: OP 52	0	0
OP: OP 53	0	0
OP: OP 54	0	0
OP: OP 55	0	0
OP: OP 56	0	0

OP: OP 57	0	0
OP: OP 58	0	0
OP: OP 59	0	0
OP: OP 60	0	0

No glare found

Assumptions

- Times associated with glare are denoted in Standard time. For Daylight Savings, add one hour.
- Glare analyses do not automatically account for physical obstructions between reflectors and receptors. This includes buildings, tree cover and geographic obstructions.
- Detailed system geometry is not rigorously simulated.
- The glare hazard determination relies on several approximations including observer eye characteristics, angle of view, and typical blink response time. Actual values and results may vary.
- The system output calculation is a DNI-based approximation that assumes clear, sunny skies year-round. It should not be used in place of more rigorous modeling methods.
- Several V1 calculations utilize the PV array centroid, rather than the actual glare spot location, due to algorithm limitations. This may affect results for large PV footprints. Additional analyses of array sub-sections can provide additional information on expected glare.
- The subtended source angle (glare spot size) is constrained by the PV array footprint size. Partitioning large arrays into smaller sections will reduce the maximum potential subtended angle, potentially impacting results if actual glare spots are larger than the sub-array size. Additional analyses of the combined area of adjacent sub-arrays can provide more information on potential glare hazards. (See previous point on related limitations.)
- Hazard zone boundaries shown in the Glare Hazard plot are an approximation and visual aid. Actual ocular impact outcomes encompass a continuous, not discrete, spectrum.
- Glare locations displayed on receptor plots are approximate. Actual glare-spot locations may differ.
- Refer to the **Help page** for detailed assumptions and limitations not listed here.

ANNEX G: ROAD RECEPTOR GLARE RESULTS (121 – 185)

ForgeSolar

East Yorkshire Solar Farm

East Yorkshire Solar Farm Road 121 - 185-temp-0

Created Sep 20, 2023
Updated Sep 20, 2023
Time-step 1 minute
Timezone offset UTC0
Minimum sun altitude 0.0 deg
Site ID 100993.16938

Project type Advanced
Project status: active
Category 100 MW to 1 GW

Misc. Analysis Settings

DNI: **varies (1,000.0 W/m^2 peak)**
Ocular transmission coefficient: **0.5**
Pupil diameter: **0.002 m**
Eye focal length: **0.017 m**
Sun subtended angle: **9.3 mrad**

PV Analysis Methodology: **Version 2**
Enhanced subtended angle calculation: **On**

Summary of Results No glare predicted!

PV Name	Tilt	Orientation	"Green" Glare	"Yellow" Glare	Energy Produced
	deg	deg	min	min	kWh
PV array 1	SA tracking	SA tracking	0	0	-
PV array 10	SA tracking	SA tracking	0	0	-
PV array 11	SA tracking	SA tracking	0	0	-
PV array 12	SA tracking	SA tracking	0	0	-
PV array 13	SA tracking	SA tracking	0	0	-
PV array 14	SA tracking	SA tracking	0	0	-
PV array 15	SA tracking	SA tracking	0	0	-
PV array 16	SA tracking	SA tracking	0	0	-
PV array 17	SA tracking	SA tracking	0	0	-
PV array 18	SA tracking	SA tracking	0	0	-
PV array 2	SA tracking	SA tracking	0	0	-
PV array 3	SA tracking	SA tracking	0	0	-
PV array 4	SA tracking	SA tracking	0	0	-
PV array 5	SA tracking	SA tracking	0	0	-
PV array 6	SA tracking	SA tracking	0	0	-
PV array 7	SA tracking	SA tracking	0	0	-
PV array 8	SA tracking	SA tracking	0	0	-
PV array 9	SA tracking	SA tracking	0	0	-

Component Data

PV Array(s)

Total PV footprint area: 8,103,479 m^2

Name: PV array 1
Footprint area: 509,399 m^2
Axis tracking: Single-axis rotation
Backtracking: None
Tracking axis orientation: 180.0 deg
Tracking axis tilt: 0.0 deg
Tracking axis panel offset: 0.0 deg
Maximum tracking angle: 60.0 deg

Rated power: -
Panel material: Light textured glass with AR coating
Vary reflectivity with sun position? Yes
Correlate slope error with surface type? Yes
Slope error: 9.16 mrad

Vertex	Latitude	Longitude	Ground elevation	Height above ground	Total elevation
	deg	deg	m	m	m
1	53.818886	-0.886729	6.34	3.50	9.84
2	53.814883	-0.884283	5.95	3.50	9.45
3	53.814346	-0.888924	7.41	3.50	10.91
4	53.812293	-0.882272	6.90	3.50	10.40
5	53.812699	-0.879482	7.20	3.50	10.70
6	53.813763	-0.878324	7.19	3.50	10.69
7	53.814194	-0.878796	7.39	3.50	10.89
8	53.814523	-0.874633	6.96	3.50	10.46
9	53.816145	-0.874247	6.11	3.50	9.61
10	53.816271	-0.873302	6.84	3.50	10.34
11	53.819464	-0.872702	6.50	3.50	10.00
12	53.818704	-0.878967	6.05	3.50	9.55
13	53.819109	-0.879010	5.90	3.50	9.40

Name: PV array 10
Footprint area: 860,067 m^2
Axis tracking: Single-axis rotation
Backtracking: None
Tracking axis orientation: 180.0 deg
Tracking axis tilt: 0.0 deg
Tracking axis panel offset: 0.0 deg
Maximum tracking angle: 60.0 deg

Rated power: -
Panel material: Light textured glass with AR coating
Vary reflectivity with sun position? Yes
Correlate slope error with surface type? Yes
Slope error: 9.16 mrad

Vertex	Latitude	Longitude	Ground elevation	Height above ground	Total elevation
	deg	deg	m	m	m
1	53.778810	-0.820903	5.07	3.50	8.57
2	53.775868	-0.819959	5.15	3.50	8.65
3	53.775209	-0.825366	5.97	3.50	9.47
4	53.768057	-0.847639	4.41	3.50	7.91
5	53.769858	-0.848455	5.00	3.50	8.50
6	53.769680	-0.850472	4.68	3.50	8.18
7	53.770745	-0.850686	4.00	3.50	7.50
8	53.770999	-0.849098	4.12	3.50	7.62
9	53.773408	-0.849570	5.00	3.50	8.50

Name: PV array 11
Footprint area: 205,559 m^2
Axis tracking: Single-axis rotation
Backtracking: None
Tracking axis orientation: 180.0 deg
Tracking axis tilt: 0.0 deg
Tracking axis panel offset: 0.0 deg
Maximum tracking angle: 60.0 deg

Rated power: -
Panel material: Light textured glass with AR coating
Vary reflectivity with sun position? Yes
Correlate slope error with surface type? Yes
Slope error: 9.16 mrad

Vertex	Latitude	Longitude	Ground elevation	Height above ground	Total elevation
	deg	deg	m	m	m
1	53.776817	-0.861222	5.00	3.50	8.50
2	53.776284	-0.862552	5.00	3.50	8.50
3	53.782826	-0.874268	5.15	3.50	8.65
4	53.784120	-0.871951	4.99	3.50	8.49
5	53.782674	-0.870578	5.10	3.50	8.60
6	53.780646	-0.865299	5.86	3.50	9.36
7	53.780772	-0.863840	6.00	3.50	9.50
8	53.779378	-0.862209	5.00	3.50	8.50
9	53.778972	-0.864012	5.00	3.50	8.50

Name: PV array 12
Footprint area: 153,870 m^2
Axis tracking: Single-axis rotation
Backtracking: None
Tracking axis orientation: 180.0 deg
Tracking axis tilt: 0.0 deg
Tracking axis panel offset: 0.0 deg
Maximum tracking angle: 60.0 deg

Rated power: -
Panel material: Light textured glass with AR coating
Vary reflectivity with sun position? Yes
Correlate slope error with surface type? Yes
Slope error: 9.16 mrad

Vertex	Latitude	Longitude	Ground elevation	Height above ground	Total elevation
	deg	deg	m	m	m
1	53.788227	-0.880191	5.89	3.50	9.39
2	53.788328	-0.881607	4.53	3.50	8.03
3	53.785920	-0.884311	5.06	3.50	8.56
4	53.782902	-0.880234	5.96	3.50	9.46
5	53.783359	-0.878388	5.63	3.50	9.13
6	53.783993	-0.877401	5.39	3.50	8.89
7	53.786021	-0.878388	5.24	3.50	8.74
8	53.786909	-0.879461	5.93	3.50	9.43

Name: PV array 13
Footprint area: 227,092 m^2
Axis tracking: Single-axis rotation
Backtracking: None
Tracking axis orientation: 180.0 deg
Tracking axis tilt: 0.0 deg
Tracking axis panel offset: 0.0 deg
Maximum tracking angle: 60.0 deg

Rated power: -
Panel material: Light textured glass with AR coating
Vary reflectivity with sun position? Yes
Correlate slope error with surface type? Yes
Slope error: 9.16 mrad

Vertex	Latitude	Longitude	Ground elevation	Height above ground	Total elevation
	deg	deg	m	m	m
1	53.782598	-0.896155	6.23	3.50	9.73
2	53.779048	-0.902335	5.55	3.50	9.05
3	53.778414	-0.901820	6.07	3.50	9.57
4	53.778262	-0.899503	6.30	3.50	9.80
5	53.776411	-0.897228	4.61	3.50	8.11
6	53.778287	-0.894610	4.73	3.50	8.23
7	53.780722	-0.891907	5.00	3.50	8.50

Name: PV array 14
Footprint area: 679,077 m^2
Axis tracking: Single-axis rotation
Backtracking: None
Tracking axis orientation: 180.0 deg
Tracking axis tilt: 0.0 deg
Tracking axis panel offset: 0.0 deg
Maximum tracking angle: 60.0 deg

Rated power: -
Panel material: Light textured glass with AR coating
Vary reflectivity with sun position? Yes
Correlate slope error with surface type? Yes
Slope error: 9.16 mrad

Vertex	Latitude	Longitude	Ground elevation	Height above ground	Total elevation
	deg	deg	m	m	m
1	53.776512	-0.895597	5.00	3.50	8.50
2	53.773976	-0.894396	5.00	3.50	8.50
3	53.773722	-0.894524	5.00	3.50	8.50
4	53.773190	-0.891563	5.00	3.50	8.50
5	53.773900	-0.890190	5.00	3.50	8.50
6	53.775193	-0.888774	5.00	3.50	8.50
7	53.773722	-0.884053	5.51	3.50	9.01
8	53.771719	-0.885555	5.49	3.50	8.99
9	53.771313	-0.881950	5.00	3.50	8.50
10	53.768675	-0.879332	5.00	3.50	8.50
11	53.767787	-0.880877	5.86	3.50	9.36
12	53.770273	-0.900919	5.27	3.50	8.77
13	53.772201	-0.899073	6.03	3.50	9.53
14	53.775067	-0.898344	5.81	3.50	9.31

Name: PV array 15
Footprint area: 277,556 m^2
Axis tracking: Single-axis rotation
Backtracking: None
Tracking axis orientation: 180.0 deg
Tracking axis tilt: 0.0 deg
Tracking axis panel offset: 0.0 deg
Maximum tracking angle: 60.0 deg

Rated power: -
Panel material: Light textured glass with AR coating
Vary reflectivity with sun position? Yes
Correlate slope error with surface type? Yes
Slope error: 9.16 mrad

Vertex	Latitude	Longitude	Ground elevation	Height above ground	Total elevation
	deg	deg	m	m	m
1	53.768980	-0.895254	5.00	3.50	8.50
2	53.765454	-0.897528	3.99	3.50	7.49
3	53.764363	-0.894138	4.98	3.50	8.48
4	53.764845	-0.892808	4.28	3.50	7.78
5	53.766062	-0.891520	4.50	3.50	8.00
6	53.765454	-0.887701	5.39	3.50	8.89
7	53.766773	-0.881392	5.53	3.50	9.03
8	53.767128	-0.881221	6.00	3.50	9.50

Name: PV array 16
Footprint area: 251,811 m^2
Axis tracking: Single-axis rotation
Backtracking: None
Tracking axis orientation: 180.0 deg
Tracking axis tilt: 0.0 deg
Tracking axis panel offset: 0.0 deg
Maximum tracking angle: 60.0 deg

Rated power: -
Panel material: Light textured glass with AR coating
Vary reflectivity with sun position? Yes
Correlate slope error with surface type? Yes
Slope error: 9.16 mrad

Vertex	Latitude	Longitude	Ground elevation	Height above ground	Total elevation
	deg	deg	m	m	m
1	53.765961	-0.871693	5.00	3.50	8.50
2	53.764769	-0.872766	5.00	3.50	8.50
3	53.765251	-0.879075	4.32	3.50	7.82
4	53.766671	-0.879676	4.39	3.50	7.89
5	53.766646	-0.880234	4.36	3.50	7.86
6	53.766139	-0.880362	4.41	3.50	7.91
7	53.763145	-0.889975	5.30	3.50	8.80
8	53.764617	-0.890362	4.92	3.50	8.42
9	53.764534	-0.890844	4.73	3.50	8.23
10	53.763044	-0.890619	6.20	3.50	9.70
11	53.761446	-0.894911	9.27	3.50	12.77
12	53.759593	-0.899846	7.65	3.50	11.15
13	53.758782	-0.900318	7.20	3.50	10.70
14	53.758934	-0.900747	7.16	3.50	10.66
15	53.759898	-0.900704	7.56	3.50	11.06
16	53.762029	-0.895469	9.27	3.50	12.77
17	53.762689	-0.896413	8.78	3.50	12.28
18	53.764591	-0.892336	4.64	3.50	8.14
19	53.764667	-0.890319	4.90	3.50	8.40
20	53.765581	-0.890362	4.32	3.50	7.82
21	53.765327	-0.888731	5.39	3.50	8.89
22	53.764211	-0.888688	6.95	3.50	10.45
23	53.764287	-0.887358	6.37	3.50	9.87
24	53.765149	-0.887014	5.83	3.50	9.33
25	53.766595	-0.880834	5.09	3.50	8.59
26	53.766925	-0.879375	4.83	3.50	8.33

Name: PV array 17
Footprint area: 259,874 m^2
Axis tracking: Single-axis rotation
Backtracking: None
Tracking axis orientation: 180.0 deg
Tracking axis tilt: 0.0 deg
Tracking axis panel offset: 0.0 deg
Maximum tracking angle: 60.0 deg

Rated power: -
Panel material: Light textured glass with AR coating
Vary reflectivity with sun position? Yes
Correlate slope error with surface type? Yes
Slope error: 9.16 mrad

Vertex	Latitude	Longitude	Ground elevation	Height above ground	Total elevation
	deg	deg	m	m	m
1	53.800000	-0.898244	8.11	3.50	11.61
2	53.799316	-0.898158	5.69	3.50	9.19
3	53.796553	-0.900947	5.33	3.50	8.83
4	53.795792	-0.901205	5.86	3.50	9.36
5	53.795032	-0.896699	5.54	3.50	9.04
6	53.794246	-0.893437	5.00	3.50	8.50
7	53.795083	-0.892579	5.13	3.50	8.63
8	53.798150	-0.892794	5.38	3.50	8.88
9	53.800076	-0.893394	5.88	3.50	9.38
10	53.800228	-0.897471	6.28	3.50	9.78

Name: PV array 18
Footprint area: 191,697 m^2
Axis tracking: Single-axis rotation
Backtracking: None
Tracking axis orientation: 180.0 deg
Tracking axis tilt: 0.0 deg
Tracking axis panel offset: 0.0 deg
Maximum tracking angle: 60.0 deg

Rated power: -
Panel material: Light textured glass with AR coating
Vary reflectivity with sun position? Yes
Correlate slope error with surface type? Yes
Slope error: 9.16 mrad

Vertex	Latitude	Longitude	Ground elevation	Height above ground	Total elevation
	deg	deg	m	m	m
1	53.792776	-0.893609	4.96	3.50	8.46
2	53.791736	-0.894982	5.48	3.50	8.98
3	53.790697	-0.896012	4.98	3.50	8.48
4	53.788998	-0.897042	4.27	3.50	7.77
5	53.789100	-0.897986	4.86	3.50	8.36
6	53.788973	-0.899360	5.24	3.50	8.74
7	53.788821	-0.900046	4.94	3.50	8.44
8	53.789227	-0.902020	4.84	3.50	8.34
9	53.789531	-0.902063	6.31	3.50	9.81
10	53.789556	-0.900990	5.15	3.50	8.65
11	53.792472	-0.900347	5.64	3.50	9.14
12	53.792903	-0.901849	6.09	3.50	9.59
13	53.794322	-0.900390	6.18	3.50	9.68

Name: PV array 2
Footprint area: 632,085 m^2
Axis tracking: Single-axis rotation
Backtracking: None
Tracking axis orientation: 180.0 deg
Tracking axis tilt: 0.0 deg
Tracking axis panel offset: 0.0 deg
Maximum tracking angle: 60.0 deg

Rated power: -
Panel material: Light textured glass with AR coating
Vary reflectivity with sun position? Yes
Correlate slope error with surface type? Yes
Slope error: 9.16 mrad

Vertex	Latitude	Longitude	Ground elevation	Height above ground	Total elevation
	deg	deg	m	m	m
1	53.813872	-0.874438	6.25	3.50	9.75
2	53.811034	-0.872979	7.20	3.50	10.70
3	53.811516	-0.871090	7.04	3.50	10.54
4	53.808804	-0.868730	6.72	3.50	10.22
5	53.809108	-0.867485	6.99	3.50	10.49
6	53.808323	-0.867687	6.25	3.50	9.75
7	53.806878	-0.867000	6.02	3.50	9.52
8	53.807183	-0.865970	6.43	3.50	9.93
9	53.805325	-0.864511	6.24	3.50	9.74
10	53.805173	-0.865283	6.58	3.50	10.08
11	53.804083	-0.864425	7.27	3.50	10.77
12	53.802993	-0.867987	6.40	3.50	9.90
13	53.802537	-0.867343	6.48	3.50	9.98
14	53.802283	-0.866228	6.35	3.50	9.85
15	53.800991	-0.864854	6.93	3.50	10.43
16	53.803094	-0.859876	6.29	3.50	9.79
17	53.803551	-0.859790	6.05	3.50	9.55
18	53.804210	-0.857087	6.54	3.50	10.04
19	53.807758	-0.858374	6.00	3.50	9.50
20	53.807859	-0.862666	5.93	3.50	9.43
21	53.810140	-0.863524	5.70	3.50	9.20
22	53.813897	-0.865584	6.85	3.50	10.35
23	53.813517	-0.868545	5.83	3.50	9.33
24	53.813618	-0.870433	5.69	3.50	9.19
25	53.814100	-0.871678	6.48	3.50	9.98

Name: PV array 3
Footprint area: 155,482 m^2
Axis tracking: Single-axis rotation
Backtracking: None
Tracking axis orientation: 180.0 deg
Tracking axis tilt: 0.0 deg
Tracking axis panel offset: 0.0 deg
Maximum tracking angle: 60.0 deg

Rated power: -
Panel material: Light textured glass with AR coating
Vary reflectivity with sun position? Yes
Correlate slope error with surface type? Yes
Slope error: 9.16 mrad

Vertex	Latitude	Longitude	Ground elevation	Height above ground	Total elevation
	deg	deg	m	m	m
1	53.813884	-0.865326	6.57	3.50	10.07
2	53.810185	-0.863052	6.00	3.50	9.50
3	53.808158	-0.862236	5.93	3.50	9.43
4	53.808132	-0.858760	6.07	3.50	9.57
5	53.810172	-0.859726	6.68	3.50	10.18
6	53.810844	-0.860477	5.85	3.50	9.35
7	53.811807	-0.860799	5.51	3.50	9.01
8	53.812909	-0.860777	5.73	3.50	9.23
9	53.813175	-0.860649	5.42	3.50	8.92
10	53.813922	-0.860949	5.47	3.50	8.97
11	53.814416	-0.860691	6.67	3.50	10.17

Name: PV array 4
Footprint area: 640,744 m^2
Axis tracking: Single-axis rotation
Backtracking: None
Tracking axis orientation: 180.0 deg
Tracking axis tilt: 0.0 deg
Tracking axis panel offset: 0.0 deg
Maximum tracking angle: 60.0 deg

Rated power: -
Panel material: Light textured glass with AR coating
Vary reflectivity with sun position? Yes
Correlate slope error with surface type? Yes
Slope error: 9.16 mrad

Vertex	Latitude	Longitude	Ground elevation	Height above ground	Total elevation
	deg	deg	m	m	m
1	53.814581	-0.855301	5.71	3.50	9.21
2	53.814100	-0.855130	5.26	3.50	8.76
3	53.813454	-0.854701	5.23	3.50	8.73
4	53.811148	-0.860065	5.60	3.50	9.10
5	53.810261	-0.859271	5.85	3.50	9.35
6	53.805383	-0.856782	5.66	3.50	9.16
7	53.805649	-0.855001	5.25	3.50	8.75
8	53.804901	-0.853842	5.22	3.50	8.72
9	53.805636	-0.849186	5.28	3.50	8.78
10	53.804496	-0.847255	5.46	3.50	8.96
11	53.804166	-0.847276	5.90	3.50	9.40
12	53.803748	-0.853327	6.05	3.50	9.55
13	53.798337	-0.850667	6.07	3.50	9.57
14	53.799972	-0.847148	5.62	3.50	9.12
15	53.800263	-0.845581	5.93	3.50	9.43
16	53.804103	-0.847276	5.53	3.50	9.03
17	53.804597	-0.847233	4.75	3.50	8.25
18	53.807681	-0.847384	5.70	3.50	9.20
19	53.808454	-0.848607	5.76	3.50	9.26
20	53.807238	-0.851632	5.81	3.50	9.31
21	53.808568	-0.853714	5.85	3.50	9.35
22	53.808366	-0.854658	5.82	3.50	9.32
23	53.809671	-0.855108	4.90	3.50	8.40
24	53.810000	-0.853907	5.43	3.50	8.93
25	53.809709	-0.853628	5.37	3.50	8.87
26	53.811558	-0.850538	5.71	3.50	9.21
27	53.813269	-0.852190	5.07	3.50	8.57
28	53.814244	-0.852684	5.73	3.50	9.23

Name: PV array 5
Footprint area: 1,762,515 m^2
Axis tracking: Single-axis rotation
Backtracking: None
Tracking axis orientation: 180.0 deg
Tracking axis tilt: 0.0 deg
Tracking axis panel offset: 0.0 deg
Maximum tracking angle: 60.0 deg

Rated power: -
Panel material: Light textured glass with AR coating
Vary reflectivity with sun position? Yes
Correlate slope error with surface type? Yes
Slope error: 9.16 mrad

Vertex	Latitude	Longitude	Ground elevation	Height above ground	Total elevation
	deg	deg	m	m	m
1	53.807708	-0.847197	5.51	3.50	9.01
2	53.804096	-0.847004	5.39	3.50	8.89
3	53.797342	-0.843764	5.19	3.50	8.69
4	53.797874	-0.841661	5.30	3.50	8.80
5	53.799610	-0.837906	5.60	3.50	9.10
6	53.801258	-0.834001	5.60	3.50	9.10
7	53.803577	-0.827735	5.05	3.50	8.55
8	53.802145	-0.825933	5.34	3.50	8.84
9	53.799851	-0.832398	6.04	3.50	9.54
10	53.797215	-0.829265	5.09	3.50	8.59
11	53.795048	-0.834844	5.24	3.50	8.74
12	53.792817	-0.833686	5.73	3.50	9.23
13	53.792944	-0.831368	5.17	3.50	8.67
14	53.794439	-0.826390	5.04	3.50	8.54
15	53.795301	-0.827248	5.36	3.50	8.86
16	53.795707	-0.826991	6.45	3.50	9.95
17	53.797253	-0.828793	5.75	3.50	9.25
18	53.797861	-0.826647	5.38	3.50	8.88
19	53.796214	-0.825274	5.21	3.50	8.71
20	53.796290	-0.824502	4.27	3.50	7.77
21	53.795200	-0.823558	4.11	3.50	7.61
22	53.795986	-0.819695	4.60	3.50	8.10
23	53.799027	-0.821626	4.56	3.50	8.06
24	53.801638	-0.823944	4.37	3.50	7.87
25	53.803944	-0.826519	4.96	3.50	8.46
26	53.804172	-0.825918	4.35	3.50	7.85
27	53.802018	-0.823558	5.21	3.50	8.71
28	53.802094	-0.822656	4.99	3.50	8.49
29	53.801511	-0.822442	5.47	3.50	8.97
30	53.801283	-0.822871	4.64	3.50	8.14
31	53.799103	-0.820940	4.71	3.50	8.21
32	53.800244	-0.816047	4.44	3.50	7.94
33	53.798368	-0.814846	4.75	3.50	8.25
34	53.797481	-0.814846	4.42	3.50	7.92
35	53.799737	-0.810683	4.71	3.50	8.21
36	53.802753	-0.814331	2.81	3.50	6.31
37	53.802221	-0.816477	4.38	3.50	7.88
38	53.802145	-0.818408	3.53	3.50	7.03
39	53.802981	-0.821240	5.10	3.50	8.60
40	53.803843	-0.822141	4.77	3.50	8.27
41	53.808202	-0.827077	4.72	3.50	8.22
42	53.807087	-0.832012	5.04	3.50	8.54
43	53.804451	-0.840724	5.00	3.50	8.50
44	53.806872	-0.843073	5.31	3.50	8.81
45	53.807125	-0.842815	4.94	3.50	8.44
46	53.807911	-0.843545	5.00	3.50	8.50
47	53.808443	-0.844746	4.87	3.50	8.37

Name: PV array 6
Footprint area: 53,769 m^2
Axis tracking: Single-axis rotation
Backtracking: None
Tracking axis orientation: 180.0 deg
Tracking axis tilt: 0.0 deg
Tracking axis panel offset: 0.0 deg
Maximum tracking angle: 60.0 deg

Rated power: -
Panel material: Light textured glass with AR coating
Vary reflectivity with sun position? Yes
Correlate slope error with surface type? Yes
Slope error: 9.16 mrad

Vertex	Latitude	Longitude	Ground elevation	Height above ground	Total elevation
	deg	deg	m	m	m
1	53.800588	-0.865277	6.65	3.50	10.15
2	53.801779	-0.862166	6.43	3.50	9.93
3	53.800132	-0.860192	6.45	3.50	9.95
4	53.799054	-0.863110	6.98	3.50	10.48
5	53.799802	-0.864419	7.68	3.50	11.18

Name: PV array 7
Footprint area: 283,999 m^2
Axis tracking: Single-axis rotation
Backtracking: None
Tracking axis orientation: 180.0 deg
Tracking axis tilt: 0.0 deg
Tracking axis panel offset: 0.0 deg
Maximum tracking angle: 60.0 deg

Rated power: -
Panel material: Light textured glass with AR coating
Vary reflectivity with sun position? Yes
Correlate slope error with surface type? Yes
Slope error: 9.16 mrad

Vertex	Latitude	Longitude	Ground elevation	Height above ground	Total elevation
	deg	deg	m	m	m
1	53.797257	-0.867135	6.45	3.50	9.95
2	53.794393	-0.864903	6.01	3.50	9.51
3	53.792770	-0.869624	6.00	3.50	9.50
4	53.791553	-0.868208	5.96	3.50	9.46
5	53.789018	-0.874988	6.33	3.50	9.83
6	53.790007	-0.876319	7.32	3.50	10.82
7	53.790311	-0.875374	5.97	3.50	9.47
8	53.790666	-0.875675	6.59	3.50	10.09
9	53.791199	-0.874130	6.37	3.50	9.87
10	53.791477	-0.874044	5.65	3.50	9.15
11	53.791731	-0.873486	5.89	3.50	9.39
12	53.792872	-0.873143	5.95	3.50	9.45
13	53.793201	-0.873100	5.86	3.50	9.36
14	53.793810	-0.871684	5.84	3.50	9.34
15	53.795457	-0.872800	5.36	3.50	8.86
16	53.796269	-0.871684	5.24	3.50	8.74
17	53.797232	-0.869409	5.79	3.50	9.29
18	53.796750	-0.868808	6.03	3.50	9.53

Name: PV array 8
Footprint area: 513,457 m^2
Axis tracking: Single-axis rotation
Backtracking: None
Tracking axis orientation: 180.0 deg
Tracking axis tilt: 0.0 deg
Tracking axis panel offset: 0.0 deg
Maximum tracking angle: 60.0 deg

Rated power: -
Panel material: Light textured glass with AR coating
Vary reflectivity with sun position? Yes
Correlate slope error with surface type? Yes
Slope error: 9.16 mrad

Vertex	Latitude	Longitude	Ground elevation	Height above ground	Total elevation
	deg	deg	m	m	m
1	53.790717	-0.857736	6.07	3.50	9.57
2	53.787725	-0.853702	5.77	3.50	9.27
3	53.787041	-0.856191	5.84	3.50	9.34
4	53.786458	-0.856277	5.48	3.50	8.98
5	53.786103	-0.857565	5.78	3.50	9.28
6	53.785291	-0.856792	5.63	3.50	9.13
7	53.785215	-0.852071	5.00	3.50	8.50
8	53.784328	-0.851900	4.64	3.50	8.14
9	53.784531	-0.849883	5.48	3.50	8.98
10	53.785038	-0.847179	5.34	3.50	8.84
11	53.783035	-0.846020	4.21	3.50	7.71
12	53.783694	-0.842587	5.00	3.50	8.50
13	53.785722	-0.843059	4.65	3.50	8.15
14	53.786736	-0.843789	4.23	3.50	7.73
15	53.789044	-0.845591	5.87	3.50	9.37
16	53.789756	-0.846235	5.45	3.50	8.95
17	53.788780	-0.849668	5.37	3.50	8.87
18	53.790301	-0.851406	6.41	3.50	9.91
19	53.792443	-0.853187	7.67	3.50	11.17

Name: PV array 9
Footprint area: 445,425 m^2
Axis tracking: Single-axis rotation
Backtracking: None
Tracking axis orientation: 180.0 deg
Tracking axis tilt: 0.0 deg
Tracking axis panel offset: 0.0 deg
Maximum tracking angle: 60.0 deg

Rated power: -
Panel material: Light textured glass with AR coating
Vary reflectivity with sun position? Yes
Correlate slope error with surface type? Yes
Slope error: 9.16 mrad

Vertex	Latitude	Longitude	Ground elevation	Height above ground	Total elevation
	deg	deg	m	m	m
1	53.783172	-0.836739	5.76	3.50	9.26
2	53.780154	-0.833434	5.23	3.50	8.73
3	53.779672	-0.835022	5.35	3.50	8.85
4	53.777263	-0.832447	5.19	3.50	8.69
5	53.775361	-0.841459	5.51	3.50	9.01
6	53.781245	-0.845408	5.09	3.50	8.59

Discrete Observation Receptors

Number	Latitude	Longitude	Ground elevation	Height above ground	Total Elevation
	deg	deg	m	m	m
OP 1	53.772004	-0.899853	6.43	1.50	7.93
OP 2	53.770127	-0.901827	7.50	1.50	9.00
OP 3	53.768440	-0.903286	8.15	1.50	9.65
OP 4	53.767172	-0.904617	7.47	1.50	8.97
OP 5	53.765371	-0.906827	7.38	1.50	8.88
OP 6	53.764026	-0.908543	5.26	1.50	6.76
OP 7	53.762491	-0.910518	7.25	1.50	8.75
OP 8	53.760754	-0.909809	5.71	1.50	7.21
OP 9	53.759154	-0.910546	7.04	1.50	8.54
OP 10	53.772427	-0.860965	6.00	1.50	7.50
OP 11	53.771590	-0.863196	6.39	1.50	7.89
OP 12	53.770652	-0.865943	5.00	1.50	6.50
OP 13	53.770043	-0.868732	6.28	1.50	7.78
OP 14	53.770119	-0.871908	5.00	1.50	6.50
OP 15	53.769675	-0.875127	4.34	1.50	5.84
OP 16	53.769219	-0.877745	4.90	1.50	6.40
OP 17	53.769599	-0.879955	5.00	1.50	6.50
OP 18	53.771273	-0.881435	5.00	1.50	6.50
OP 19	53.773049	-0.882787	5.68	1.50	7.18
OP 20	53.774051	-0.884590	5.00	1.50	6.50
OP 21	53.775105	-0.887765	6.00	1.50	7.50
OP 22	53.775853	-0.889825	5.00	1.50	6.50
OP 23	53.776804	-0.892100	6.64	1.50	8.14
OP 24	53.759645	-0.915249	6.98	1.50	8.48
OP 25	53.759163	-0.912974	7.32	1.50	8.82
OP 26	53.758224	-0.910850	7.13	1.50	8.63
OP 27	53.757184	-0.908297	7.04	1.50	8.54
OP 28	53.756207	-0.906258	6.59	1.50	8.09
OP 29	53.762097	-0.836140	7.27	1.50	8.77
OP 30	53.763632	-0.834767	5.96	1.50	7.46
OP 31	53.764799	-0.833115	6.30	1.50	7.80
OP 32	53.766144	-0.833372	6.00	1.50	7.50
OP 33	53.767615	-0.831183	6.00	1.50	7.50
OP 34	53.768832	-0.828287	5.53	1.50	7.03
OP 35	53.769149	-0.824875	5.00	1.50	6.50
OP 36	53.770456	-0.822085	5.00	1.50	6.50
OP 37	53.772016	-0.820219	5.08	1.50	6.58
OP 38	53.773499	-0.818566	4.71	1.50	6.21
OP 39	53.774590	-0.817043	4.10	1.50	5.60
OP 40	53.775820	-0.815198	5.00	1.50	6.50
OP 41	53.777100	-0.813417	4.58	1.50	6.08
OP 42	53.778280	-0.811657	5.00	1.50	6.50
OP 43	53.779560	-0.809983	5.32	1.50	6.82
OP 44	53.780968	-0.807988	5.29	1.50	6.79
OP 45	53.771932	-0.817343	5.00	1.50	6.50
OP 46	53.771945	-0.814532	4.00	1.50	5.50
OP 47	53.772046	-0.811593	5.78	1.50	7.28
OP 48	53.770423	-0.810606	4.46	1.50	5.96
OP 49	53.769472	-0.809211	5.47	1.50	6.97
OP 50	53.776713	-0.861020	5.05	1.50	6.55
OP 51	53.777936	-0.858166	6.00	1.50	7.50
OP 52	53.778913	-0.855731	6.00	1.50	7.50
OP 53	53.779654	-0.852630	5.29	1.50	6.79
OP 54	53.780358	-0.849680	6.38	1.50	7.88
OP 55	53.781151	-0.846483	5.52	1.50	7.02
OP 56	53.781727	-0.844155	5.00	1.50	6.50
OP 57	53.783033	-0.838415	6.00	1.50	7.50
OP 58	53.783667	-0.835443	5.70	1.50	7.20
OP 59	53.784181	-0.832922	5.81	1.50	7.31
OP 60	53.784574	-0.830229	5.51	1.50	7.01
OP 61	53.784903	-0.826699	5.08	1.50	6.58
OP 62	53.785182	-0.823641	4.96	1.50	6.46
OP 63	53.785398	-0.821431	4.23	1.50	5.73
OP 64	53.785734	-0.818094	4.49	1.50	5.99

OP 65	53.786038	-0.815155	4.68	1.50	6.18

Summary of PV Glare Analysis

PV configuration and total predicted glare

PV Name	Tilt	Orientation	"Green" Glare	"Yellow" Glare	Energy Produced	Data File
	deg	deg	min	min	kWh	
PV array 1	SA tracking	SA tracking	0	0	-	-
PV array 10	SA tracking	SA tracking	0	0	-	-
PV array 11	SA tracking	SA tracking	0	0	-	-
PV array 12	SA tracking	SA tracking	0	0	-	-
PV array 13	SA tracking	SA tracking	0	0	-	-
PV array 14	SA tracking	SA tracking	0	0	-	-
PV array 15	SA tracking	SA tracking	0	0	-	-
PV array 16	SA tracking	SA tracking	0	0	-	-
PV array 17	SA tracking	SA tracking	0	0	-	-
PV array 18	SA tracking	SA tracking	0	0	-	-
PV array 2	SA tracking	SA tracking	0	0	-	-
PV array 3	SA tracking	SA tracking	0	0	-	-
PV array 4	SA tracking	SA tracking	0	0	-	-
PV array 5	SA tracking	SA tracking	0	0	-	-
PV array 6	SA tracking	SA tracking	0	0	-	-
PV array 7	SA tracking	SA tracking	0	0	-	-
PV array 8	SA tracking	SA tracking	0	0	-	-
PV array 9	SA tracking	SA tracking	0	0	-	-

PV & Receptor Analysis Results

Results for each PV array and receptor

PV array 1 no glare found

Component	Green glare (min)	Yellow glare (min)
OP: OP 1	0	0
OP: OP 2	0	0
OP: OP 3	0	0
OP: OP 4	0	0
OP: OP 5	0	0
OP: OP 6	0	0
OP: OP 7	0	0
OP: OP 8	0	0
OP: OP 9	0	0
OP: OP 10	0	0
OP: OP 11	0	0
OP: OP 12	0	0
OP: OP 13	0	0
OP: OP 14	0	0
OP: OP 15	0	0
OP: OP 16	0	0
OP: OP 17	0	0
OP: OP 18	0	0
OP: OP 19	0	0
OP: OP 20	0	0
OP: OP 21	0	0
OP: OP 22	0	0
OP: OP 23	0	0
OP: OP 24	0	0
OP: OP 25	0	0
OP: OP 26	0	0
OP: OP 27	0	0
OP: OP 28	0	0
OP: OP 29	0	0
OP: OP 30	0	0
OP: OP 31	0	0
OP: OP 32	0	0
OP: OP 33	0	0
OP: OP 34	0	0
OP: OP 35	0	0
OP: OP 36	0	0
OP: OP 37	0	0
OP: OP 38	0	0
OP: OP 39	0	0
OP: OP 40	0	0
OP: OP 41	0	0
OP: OP 42	0	0
OP: OP 43	0	0
OP: OP 44	0	0
OP: OP 45	0	0
OP: OP 46	0	0
OP: OP 47	0	0
OP: OP 48	0	0
OP: OP 49	0	0
OP: OP 50	0	0
OP: OP 51	0	0
OP: OP 52	0	0
OP: OP 53	0	0

OP: OP 54	0	0
OP: OP 55	0	0
OP: OP 56	0	0
OP: OP 57	0	0
OP: OP 58	0	0
OP: OP 59	0	0
OP: OP 60	0	0
OP: OP 61	0	0
OP: OP 62	0	0
OP: OP 63	0	0
OP: OP 64	0	0
OP: OP 65	0	0

No glare found

PV array 10 no glare found

Component	Green glare (min)	Yellow glare (min)
OP: OP 1	0	0
OP: OP 2	0	0
OP: OP 3	0	0
OP: OP 4	0	0
OP: OP 5	0	0
OP: OP 6	0	0
OP: OP 7	0	0
OP: OP 8	0	0
OP: OP 9	0	0
OP: OP 10	0	0
OP: OP 11	0	0
OP: OP 12	0	0
OP: OP 13	0	0
OP: OP 14	0	0
OP: OP 15	0	0
OP: OP 16	0	0
OP: OP 17	0	0
OP: OP 18	0	0
OP: OP 19	0	0
OP: OP 20	0	0
OP: OP 21	0	0
OP: OP 22	0	0
OP: OP 23	0	0
OP: OP 24	0	0
OP: OP 25	0	0
OP: OP 26	0	0
OP: OP 27	0	0
OP: OP 28	0	0
OP: OP 29	0	0
OP: OP 30	0	0
OP: OP 31	0	0
OP: OP 32	0	0
OP: OP 33	0	0
OP: OP 34	0	0
OP: OP 35	0	0

OP: OP 36	0	0
OP: OP 37	0	0
OP: OP 38	0	0
OP: OP 39	0	0
OP: OP 40	0	0
OP: OP 41	0	0
OP: OP 42	0	0
OP: OP 43	0	0
OP: OP 44	0	0
OP: OP 45	0	0
OP: OP 46	0	0
OP: OP 47	0	0
OP: OP 48	0	0
OP: OP 49	0	0
OP: OP 50	0	0
OP: OP 51	0	0
OP: OP 52	0	0
OP: OP 53	0	0
OP: OP 54	0	0
OP: OP 55	0	0
OP: OP 56	0	0
OP: OP 57	0	0
OP: OP 58	0	0
OP: OP 59	0	0
OP: OP 60	0	0
OP: OP 61	0	0
OP: OP 62	0	0
OP: OP 63	0	0
OP: OP 64	0	0
OP: OP 65	0	0

No glare found

PV array 11 no glare found

Component	Green glare (min)	Yellow glare (min)
OP: OP 1	0	0
OP: OP 2	0	0
OP: OP 3	0	0
OP: OP 4	0	0
OP: OP 5	0	0
OP: OP 6	0	0
OP: OP 7	0	0
OP: OP 8	0	0
OP: OP 9	0	0
OP: OP 10	0	0
OP: OP 11	0	0
OP: OP 12	0	0
OP: OP 13	0	0
OP: OP 14	0	0
OP: OP 15	0	0
OP: OP 16	0	0
OP: OP 17	0	0

OP: OP 18	0	0
OP: OP 19	0	0
OP: OP 20	0	0
OP: OP 21	0	0
OP: OP 22	0	0
OP: OP 23	0	0
OP: OP 24	0	0
OP: OP 25	0	0
OP: OP 26	0	0
OP: OP 27	0	0
OP: OP 28	0	0
OP: OP 29	0	0
OP: OP 30	0	0
OP: OP 31	0	0
OP: OP 32	0	0
OP: OP 33	0	0
OP: OP 34	0	0
OP: OP 35	0	0
OP: OP 36	0	0
OP: OP 37	0	0
OP: OP 38	0	0
OP: OP 39	0	0
OP: OP 40	0	0
OP: OP 41	0	0
OP: OP 42	0	0
OP: OP 43	0	0
OP: OP 44	0	0
OP: OP 45	0	0
OP: OP 46	0	0
OP: OP 47	0	0
OP: OP 48	0	0
OP: OP 49	0	0
OP: OP 50	0	0
OP: OP 51	0	0
OP: OP 52	0	0
OP: OP 53	0	0
OP: OP 54	0	0
OP: OP 55	0	0
OP: OP 56	0	0
OP: OP 57	0	0
OP: OP 58	0	0
OP: OP 59	0	0
OP: OP 60	0	0
OP: OP 61	0	0
OP: OP 62	0	0
OP: OP 63	0	0
OP: OP 64	0	0
OP: OP 65	0	0

No glare found

PV array 12 no glare found

Component	Green glare (min)	Yellow glare (min)
OP: OP 1	0	0
OP: OP 2	0	0
OP: OP 3	0	0
OP: OP 4	0	0
OP: OP 5	0	0
OP: OP 6	0	0
OP: OP 7	0	0
OP: OP 8	0	0
OP: OP 9	0	0
OP: OP 10	0	0
OP: OP 11	0	0
OP: OP 12	0	0
OP: OP 13	0	0
OP: OP 14	0	0
OP: OP 15	0	0
OP: OP 16	0	0
OP: OP 17	0	0
OP: OP 18	0	0
OP: OP 19	0	0
OP: OP 20	0	0
OP: OP 21	0	0
OP: OP 22	0	0
OP: OP 23	0	0
OP: OP 24	0	0
OP: OP 25	0	0
OP: OP 26	0	0
OP: OP 27	0	0
OP: OP 28	0	0
OP: OP 29	0	0
OP: OP 30	0	0
OP: OP 31	0	0
OP: OP 32	0	0
OP: OP 33	0	0
OP: OP 34	0	0
OP: OP 35	0	0
OP: OP 36	0	0
OP: OP 37	0	0
OP: OP 38	0	0
OP: OP 39	0	0
OP: OP 40	0	0
OP: OP 41	0	0
OP: OP 42	0	0
OP: OP 43	0	0
OP: OP 44	0	0
OP: OP 45	0	0
OP: OP 46	0	0
OP: OP 47	0	0
OP: OP 48	0	0
OP: OP 49	0	0
OP: OP 50	0	0
OP: OP 51	0	0
OP: OP 52	0	0
OP: OP 53	0	0

OP: OP 54	0	0
OP: OP 55	0	0
OP: OP 56	0	0
OP: OP 57	0	0
OP: OP 58	0	0
OP: OP 59	0	0
OP: OP 60	0	0
OP: OP 61	0	0
OP: OP 62	0	0
OP: OP 63	0	0
OP: OP 64	0	0
OP: OP 65	0	0

No glare found

PV array 13 no glare found

Component	Green glare (min)	Yellow glare (min)
OP: OP 1	0	0
OP: OP 2	0	0
OP: OP 3	0	0
OP: OP 4	0	0
OP: OP 5	0	0
OP: OP 6	0	0
OP: OP 7	0	0
OP: OP 8	0	0
OP: OP 9	0	0
OP: OP 10	0	0
OP: OP 11	0	0
OP: OP 12	0	0
OP: OP 13	0	0
OP: OP 14	0	0
OP: OP 15	0	0
OP: OP 16	0	0
OP: OP 17	0	0
OP: OP 18	0	0
OP: OP 19	0	0
OP: OP 20	0	0
OP: OP 21	0	0
OP: OP 22	0	0
OP: OP 23	0	0
OP: OP 24	0	0
OP: OP 25	0	0
OP: OP 26	0	0
OP: OP 27	0	0
OP: OP 28	0	0
OP: OP 29	0	0
OP: OP 30	0	0
OP: OP 31	0	0
OP: OP 32	0	0
OP: OP 33	0	0
OP: OP 34	0	0
OP: OP 35	0	0

OP: OP 36	0	0
OP: OP 37	0	0
OP: OP 38	0	0
OP: OP 39	0	0
OP: OP 40	0	0
OP: OP 41	0	0
OP: OP 42	0	0
OP: OP 43	0	0
OP: OP 44	0	0
OP: OP 45	0	0
OP: OP 46	0	0
OP: OP 47	0	0
OP: OP 48	0	0
OP: OP 49	0	0
OP: OP 50	0	0
OP: OP 51	0	0
OP: OP 52	0	0
OP: OP 53	0	0
OP: OP 54	0	0
OP: OP 55	0	0
OP: OP 56	0	0
OP: OP 57	0	0
OP: OP 58	0	0
OP: OP 59	0	0
OP: OP 60	0	0
OP: OP 61	0	0
OP: OP 62	0	0
OP: OP 63	0	0
OP: OP 64	0	0
OP: OP 65	0	0

No glare found

PV array 14 no glare found

Component	Green glare (min)	Yellow glare (min)
OP: OP 1	0	0
OP: OP 2	0	0
OP: OP 3	0	0
OP: OP 4	0	0
OP: OP 5	0	0
OP: OP 6	0	0
OP: OP 7	0	0
OP: OP 8	0	0
OP: OP 9	0	0
OP: OP 10	0	0
OP: OP 11	0	0
OP: OP 12	0	0
OP: OP 13	0	0
OP: OP 14	0	0
OP: OP 15	0	0
OP: OP 16	0	0
OP: OP 17	0	0

OP: OP 18	0	0
OP: OP 19	0	0
OP: OP 20	0	0
OP: OP 21	0	0
OP: OP 22	0	0
OP: OP 23	0	0
OP: OP 24	0	0
OP: OP 25	0	0
OP: OP 26	0	0
OP: OP 27	0	0
OP: OP 28	0	0
OP: OP 29	0	0
OP: OP 30	0	0
OP: OP 31	0	0
OP: OP 32	0	0
OP: OP 33	0	0
OP: OP 34	0	0
OP: OP 35	0	0
OP: OP 36	0	0
OP: OP 37	0	0
OP: OP 38	0	0
OP: OP 39	0	0
OP: OP 40	0	0
OP: OP 41	0	0
OP: OP 42	0	0
OP: OP 43	0	0
OP: OP 44	0	0
OP: OP 45	0	0
OP: OP 46	0	0
OP: OP 47	0	0
OP: OP 48	0	0
OP: OP 49	0	0
OP: OP 50	0	0
OP: OP 51	0	0
OP: OP 52	0	0
OP: OP 53	0	0
OP: OP 54	0	0
OP: OP 55	0	0
OP: OP 56	0	0
OP: OP 57	0	0
OP: OP 58	0	0
OP: OP 59	0	0
OP: OP 60	0	0
OP: OP 61	0	0
OP: OP 62	0	0
OP: OP 63	0	0
OP: OP 64	0	0
OP: OP 65	0	0

No glare found

PV array 15 no glare found

Component	Green glare (min)	Yellow glare (min)
OP: OP 1	0	0
OP: OP 2	0	0
OP: OP 3	0	0
OP: OP 4	0	0
OP: OP 5	0	0
OP: OP 6	0	0
OP: OP 7	0	0
OP: OP 8	0	0
OP: OP 9	0	0
OP: OP 10	0	0
OP: OP 11	0	0
OP: OP 12	0	0
OP: OP 13	0	0
OP: OP 14	0	0
OP: OP 15	0	0
OP: OP 16	0	0
OP: OP 17	0	0
OP: OP 18	0	0
OP: OP 19	0	0
OP: OP 20	0	0
OP: OP 21	0	0
OP: OP 22	0	0
OP: OP 23	0	0
OP: OP 24	0	0
OP: OP 25	0	0
OP: OP 26	0	0
OP: OP 27	0	0
OP: OP 28	0	0
OP: OP 29	0	0
OP: OP 30	0	0
OP: OP 31	0	0
OP: OP 32	0	0
OP: OP 33	0	0
OP: OP 34	0	0
OP: OP 35	0	0
OP: OP 36	0	0
OP: OP 37	0	0
OP: OP 38	0	0
OP: OP 39	0	0
OP: OP 40	0	0
OP: OP 41	0	0
OP: OP 42	0	0
OP: OP 43	0	0
OP: OP 44	0	0
OP: OP 45	0	0
OP: OP 46	0	0
OP: OP 47	0	0
OP: OP 48	0	0
OP: OP 49	0	0
OP: OP 50	0	0
OP: OP 51	0	0
OP: OP 52	0	0
OP: OP 53	0	0

OP: OP 54	0	0
OP: OP 55	0	0
OP: OP 56	0	0
OP: OP 57	0	0
OP: OP 58	0	0
OP: OP 59	0	0
OP: OP 60	0	0
OP: OP 61	0	0
OP: OP 62	0	0
OP: OP 63	0	0
OP: OP 64	0	0
OP: OP 65	0	0

No glare found

PV array 16 no glare found

Component	Green glare (min)	Yellow glare (min)
OP: OP 1	0	0
OP: OP 2	0	0
OP: OP 3	0	0
OP: OP 4	0	0
OP: OP 5	0	0
OP: OP 6	0	0
OP: OP 7	0	0
OP: OP 8	0	0
OP: OP 9	0	0
OP: OP 10	0	0
OP: OP 11	0	0
OP: OP 12	0	0
OP: OP 13	0	0
OP: OP 14	0	0
OP: OP 15	0	0
OP: OP 16	0	0
OP: OP 17	0	0
OP: OP 18	0	0
OP: OP 19	0	0
OP: OP 20	0	0
OP: OP 21	0	0
OP: OP 22	0	0
OP: OP 23	0	0
OP: OP 24	0	0
OP: OP 25	0	0
OP: OP 26	0	0
OP: OP 27	0	0
OP: OP 28	0	0
OP: OP 29	0	0
OP: OP 30	0	0
OP: OP 31	0	0
OP: OP 32	0	0
OP: OP 33	0	0
OP: OP 34	0	0
OP: OP 35	0	0

OP: OP 36	0	0
OP: OP 37	0	0
OP: OP 38	0	0
OP: OP 39	0	0
OP: OP 40	0	0
OP: OP 41	0	0
OP: OP 42	0	0
OP: OP 43	0	0
OP: OP 44	0	0
OP: OP 45	0	0
OP: OP 46	0	0
OP: OP 47	0	0
OP: OP 48	0	0
OP: OP 49	0	0
OP: OP 50	0	0
OP: OP 51	0	0
OP: OP 52	0	0
OP: OP 53	0	0
OP: OP 54	0	0
OP: OP 55	0	0
OP: OP 56	0	0
OP: OP 57	0	0
OP: OP 58	0	0
OP: OP 59	0	0
OP: OP 60	0	0
OP: OP 61	0	0
OP: OP 62	0	0
OP: OP 63	0	0
OP: OP 64	0	0
OP: OP 65	0	0

No glare found

PV array 17 no glare found

Component	Green glare (min)	Yellow glare (min)
OP: OP 1	0	0
OP: OP 2	0	0
OP: OP 3	0	0
OP: OP 4	0	0
OP: OP 5	0	0
OP: OP 6	0	0
OP: OP 7	0	0
OP: OP 8	0	0
OP: OP 9	0	0
OP: OP 10	0	0
OP: OP 11	0	0
OP: OP 12	0	0
OP: OP 13	0	0
OP: OP 14	0	0
OP: OP 15	0	0
OP: OP 16	0	0
OP: OP 17	0	0

OP: OP 18	0	0
OP: OP 19	0	0
OP: OP 20	0	0
OP: OP 21	0	0
OP: OP 22	0	0
OP: OP 23	0	0
OP: OP 24	0	0
OP: OP 25	0	0
OP: OP 26	0	0
OP: OP 27	0	0
OP: OP 28	0	0
OP: OP 29	0	0
OP: OP 30	0	0
OP: OP 31	0	0
OP: OP 32	0	0
OP: OP 33	0	0
OP: OP 34	0	0
OP: OP 35	0	0
OP: OP 36	0	0
OP: OP 37	0	0
OP: OP 38	0	0
OP: OP 39	0	0
OP: OP 40	0	0
OP: OP 41	0	0
OP: OP 42	0	0
OP: OP 43	0	0
OP: OP 44	0	0
OP: OP 45	0	0
OP: OP 46	0	0
OP: OP 47	0	0
OP: OP 48	0	0
OP: OP 49	0	0
OP: OP 50	0	0
OP: OP 51	0	0
OP: OP 52	0	0
OP: OP 53	0	0
OP: OP 54	0	0
OP: OP 55	0	0
OP: OP 56	0	0
OP: OP 57	0	0
OP: OP 58	0	0
OP: OP 59	0	0
OP: OP 60	0	0
OP: OP 61	0	0
OP: OP 62	0	0
OP: OP 63	0	0
OP: OP 64	0	0
OP: OP 65	0	0

No glare found

PV array 18 no glare found

Component	Green glare (min)	Yellow glare (min)
OP: OP 1	0	0
OP: OP 2	0	0
OP: OP 3	0	0
OP: OP 4	0	0
OP: OP 5	0	0
OP: OP 6	0	0
OP: OP 7	0	0
OP: OP 8	0	0
OP: OP 9	0	0
OP: OP 10	0	0
OP: OP 11	0	0
OP: OP 12	0	0
OP: OP 13	0	0
OP: OP 14	0	0
OP: OP 15	0	0
OP: OP 16	0	0
OP: OP 17	0	0
OP: OP 18	0	0
OP: OP 19	0	0
OP: OP 20	0	0
OP: OP 21	0	0
OP: OP 22	0	0
OP: OP 23	0	0
OP: OP 24	0	0
OP: OP 25	0	0
OP: OP 26	0	0
OP: OP 27	0	0
OP: OP 28	0	0
OP: OP 29	0	0
OP: OP 30	0	0
OP: OP 31	0	0
OP: OP 32	0	0
OP: OP 33	0	0
OP: OP 34	0	0
OP: OP 35	0	0
OP: OP 36	0	0
OP: OP 37	0	0
OP: OP 38	0	0
OP: OP 39	0	0
OP: OP 40	0	0
OP: OP 41	0	0
OP: OP 42	0	0
OP: OP 43	0	0
OP: OP 44	0	0
OP: OP 45	0	0
OP: OP 46	0	0
OP: OP 47	0	0
OP: OP 48	0	0
OP: OP 49	0	0
OP: OP 50	0	0
OP: OP 51	0	0
OP: OP 52	0	0
OP: OP 53	0	0

OP: OP 54	0	0
OP: OP 55	0	0
OP: OP 56	0	0
OP: OP 57	0	0
OP: OP 58	0	0
OP: OP 59	0	0
OP: OP 60	0	0
OP: OP 61	0	0
OP: OP 62	0	0
OP: OP 63	0	0
OP: OP 64	0	0
OP: OP 65	0	0

No glare found

PV array 2 no glare found

Component	Green glare (min)	Yellow glare (min)
OP: OP 1	0	0
OP: OP 2	0	0
OP: OP 3	0	0
OP: OP 4	0	0
OP: OP 5	0	0
OP: OP 6	0	0
OP: OP 7	0	0
OP: OP 8	0	0
OP: OP 9	0	0
OP: OP 10	0	0
OP: OP 11	0	0
OP: OP 12	0	0
OP: OP 13	0	0
OP: OP 14	0	0
OP: OP 15	0	0
OP: OP 16	0	0
OP: OP 17	0	0
OP: OP 18	0	0
OP: OP 19	0	0
OP: OP 20	0	0
OP: OP 21	0	0
OP: OP 22	0	0
OP: OP 23	0	0
OP: OP 24	0	0
OP: OP 25	0	0
OP: OP 26	0	0
OP: OP 27	0	0
OP: OP 28	0	0
OP: OP 29	0	0
OP: OP 30	0	0
OP: OP 31	0	0
OP: OP 32	0	0
OP: OP 33	0	0
OP: OP 34	0	0
OP: OP 35	0	0

OP: OP 36	0	0
OP: OP 37	0	0
OP: OP 38	0	0
OP: OP 39	0	0
OP: OP 40	0	0
OP: OP 41	0	0
OP: OP 42	0	0
OP: OP 43	0	0
OP: OP 44	0	0
OP: OP 45	0	0
OP: OP 46	0	0
OP: OP 47	0	0
OP: OP 48	0	0
OP: OP 49	0	0
OP: OP 50	0	0
OP: OP 51	0	0
OP: OP 52	0	0
OP: OP 53	0	0
OP: OP 54	0	0
OP: OP 55	0	0
OP: OP 56	0	0
OP: OP 57	0	0
OP: OP 58	0	0
OP: OP 59	0	0
OP: OP 60	0	0
OP: OP 61	0	0
OP: OP 62	0	0
OP: OP 63	0	0
OP: OP 64	0	0
OP: OP 65	0	0

No glare found

PV array 3 no glare found

Component	Green glare (min)	Yellow glare (min)
OP: OP 1	0	0
OP: OP 2	0	0
OP: OP 3	0	0
OP: OP 4	0	0
OP: OP 5	0	0
OP: OP 6	0	0
OP: OP 7	0	0
OP: OP 8	0	0
OP: OP 9	0	0
OP: OP 10	0	0
OP: OP 11	0	0
OP: OP 12	0	0
OP: OP 13	0	0
OP: OP 14	0	0
OP: OP 15	0	0
OP: OP 16	0	0
OP: OP 17	0	0

OP: OP 18	0	0
OP: OP 19	0	0
OP: OP 20	0	0
OP: OP 21	0	0
OP: OP 22	0	0
OP: OP 23	0	0
OP: OP 24	0	0
OP: OP 25	0	0
OP: OP 26	0	0
OP: OP 27	0	0
OP: OP 28	0	0
OP: OP 29	0	0
OP: OP 30	0	0
OP: OP 31	0	0
OP: OP 32	0	0
OP: OP 33	0	0
OP: OP 34	0	0
OP: OP 35	0	0
OP: OP 36	0	0
OP: OP 37	0	0
OP: OP 38	0	0
OP: OP 39	0	0
OP: OP 40	0	0
OP: OP 41	0	0
OP: OP 42	0	0
OP: OP 43	0	0
OP: OP 44	0	0
OP: OP 45	0	0
OP: OP 46	0	0
OP: OP 47	0	0
OP: OP 48	0	0
OP: OP 49	0	0
OP: OP 50	0	0
OP: OP 51	0	0
OP: OP 52	0	0
OP: OP 53	0	0
OP: OP 54	0	0
OP: OP 55	0	0
OP: OP 56	0	0
OP: OP 57	0	0
OP: OP 58	0	0
OP: OP 59	0	0
OP: OP 60	0	0
OP: OP 61	0	0
OP: OP 62	0	0
OP: OP 63	0	0
OP: OP 64	0	0
OP: OP 65	0	0

No glare found

PV array 4 no glare found

Component	Green glare (min)	Yellow glare (min)
OP: OP 1	0	0
OP: OP 2	0	0
OP: OP 3	0	0
OP: OP 4	0	0
OP: OP 5	0	0
OP: OP 6	0	0
OP: OP 7	0	0
OP: OP 8	0	0
OP: OP 9	0	0
OP: OP 10	0	0
OP: OP 11	0	0
OP: OP 12	0	0
OP: OP 13	0	0
OP: OP 14	0	0
OP: OP 15	0	0
OP: OP 16	0	0
OP: OP 17	0	0
OP: OP 18	0	0
OP: OP 19	0	0
OP: OP 20	0	0
OP: OP 21	0	0
OP: OP 22	0	0
OP: OP 23	0	0
OP: OP 24	0	0
OP: OP 25	0	0
OP: OP 26	0	0
OP: OP 27	0	0
OP: OP 28	0	0
OP: OP 29	0	0
OP: OP 30	0	0
OP: OP 31	0	0
OP: OP 32	0	0
OP: OP 33	0	0
OP: OP 34	0	0
OP: OP 35	0	0
OP: OP 36	0	0
OP: OP 37	0	0
OP: OP 38	0	0
OP: OP 39	0	0
OP: OP 40	0	0
OP: OP 41	0	0
OP: OP 42	0	0
OP: OP 43	0	0
OP: OP 44	0	0
OP: OP 45	0	0
OP: OP 46	0	0
OP: OP 47	0	0
OP: OP 48	0	0
OP: OP 49	0	0
OP: OP 50	0	0
OP: OP 51	0	0
OP: OP 52	0	0
OP: OP 53	0	0

OP: OP 54	0	0
OP: OP 55	0	0
OP: OP 56	0	0
OP: OP 57	0	0
OP: OP 58	0	0
OP: OP 59	0	0
OP: OP 60	0	0
OP: OP 61	0	0
OP: OP 62	0	0
OP: OP 63	0	0
OP: OP 64	0	0
OP: OP 65	0	0

No glare found

PV array 5 no glare found

Component	Green glare (min)	Yellow glare (min)
OP: OP 1	0	0
OP: OP 2	0	0
OP: OP 3	0	0
OP: OP 4	0	0
OP: OP 5	0	0
OP: OP 6	0	0
OP: OP 7	0	0
OP: OP 8	0	0
OP: OP 9	0	0
OP: OP 10	0	0
OP: OP 11	0	0
OP: OP 12	0	0
OP: OP 13	0	0
OP: OP 14	0	0
OP: OP 15	0	0
OP: OP 16	0	0
OP: OP 17	0	0
OP: OP 18	0	0
OP: OP 19	0	0
OP: OP 20	0	0
OP: OP 21	0	0
OP: OP 22	0	0
OP: OP 23	0	0
OP: OP 24	0	0
OP: OP 25	0	0
OP: OP 26	0	0
OP: OP 27	0	0
OP: OP 28	0	0
OP: OP 29	0	0
OP: OP 30	0	0
OP: OP 31	0	0
OP: OP 32	0	0
OP: OP 33	0	0
OP: OP 34	0	0
OP: OP 35	0	0

OP: OP 36	0	0
OP: OP 37	0	0
OP: OP 38	0	0
OP: OP 39	0	0
OP: OP 40	0	0
OP: OP 41	0	0
OP: OP 42	0	0
OP: OP 43	0	0
OP: OP 44	0	0
OP: OP 45	0	0
OP: OP 46	0	0
OP: OP 47	0	0
OP: OP 48	0	0
OP: OP 49	0	0
OP: OP 50	0	0
OP: OP 51	0	0
OP: OP 52	0	0
OP: OP 53	0	0
OP: OP 54	0	0
OP: OP 55	0	0
OP: OP 56	0	0
OP: OP 57	0	0
OP: OP 58	0	0
OP: OP 59	0	0
OP: OP 60	0	0
OP: OP 61	0	0
OP: OP 62	0	0
OP: OP 63	0	0
OP: OP 64	0	0
OP: OP 65	0	0

No glare found

PV array 6 no glare found

Component	Green glare (min)	Yellow glare (min)
OP: OP 1	0	0
OP: OP 2	0	0
OP: OP 3	0	0
OP: OP 4	0	0
OP: OP 5	0	0
OP: OP 6	0	0
OP: OP 7	0	0
OP: OP 8	0	0
OP: OP 9	0	0
OP: OP 10	0	0
OP: OP 11	0	0
OP: OP 12	0	0
OP: OP 13	0	0
OP: OP 14	0	0
OP: OP 15	0	0
OP: OP 16	0	0
OP: OP 17	0	0

OP: OP 18	0	0
OP: OP 19	0	0
OP: OP 20	0	0
OP: OP 21	0	0
OP: OP 22	0	0
OP: OP 23	0	0
OP: OP 24	0	0
OP: OP 25	0	0
OP: OP 26	0	0
OP: OP 27	0	0
OP: OP 28	0	0
OP: OP 29	0	0
OP: OP 30	0	0
OP: OP 31	0	0
OP: OP 32	0	0
OP: OP 33	0	0
OP: OP 34	0	0
OP: OP 35	0	0
OP: OP 36	0	0
OP: OP 37	0	0
OP: OP 38	0	0
OP: OP 39	0	0
OP: OP 40	0	0
OP: OP 41	0	0
OP: OP 42	0	0
OP: OP 43	0	0
OP: OP 44	0	0
OP: OP 45	0	0
OP: OP 46	0	0
OP: OP 47	0	0
OP: OP 48	0	0
OP: OP 49	0	0
OP: OP 50	0	0
OP: OP 51	0	0
OP: OP 52	0	0
OP: OP 53	0	0
OP: OP 54	0	0
OP: OP 55	0	0
OP: OP 56	0	0
OP: OP 57	0	0
OP: OP 58	0	0
OP: OP 59	0	0
OP: OP 60	0	0
OP: OP 61	0	0
OP: OP 62	0	0
OP: OP 63	0	0
OP: OP 64	0	0
OP: OP 65	0	0

No glare found

PV array 7 no glare found

Component	Green glare (min)	Yellow glare (min)
OP: OP 1	0	0
OP: OP 2	0	0
OP: OP 3	0	0
OP: OP 4	0	0
OP: OP 5	0	0
OP: OP 6	0	0
OP: OP 7	0	0
OP: OP 8	0	0
OP: OP 9	0	0
OP: OP 10	0	0
OP: OP 11	0	0
OP: OP 12	0	0
OP: OP 13	0	0
OP: OP 14	0	0
OP: OP 15	0	0
OP: OP 16	0	0
OP: OP 17	0	0
OP: OP 18	0	0
OP: OP 19	0	0
OP: OP 20	0	0
OP: OP 21	0	0
OP: OP 22	0	0
OP: OP 23	0	0
OP: OP 24	0	0
OP: OP 25	0	0
OP: OP 26	0	0
OP: OP 27	0	0
OP: OP 28	0	0
OP: OP 29	0	0
OP: OP 30	0	0
OP: OP 31	0	0
OP: OP 32	0	0
OP: OP 33	0	0
OP: OP 34	0	0
OP: OP 35	0	0
OP: OP 36	0	0
OP: OP 37	0	0
OP: OP 38	0	0
OP: OP 39	0	0
OP: OP 40	0	0
OP: OP 41	0	0
OP: OP 42	0	0
OP: OP 43	0	0
OP: OP 44	0	0
OP: OP 45	0	0
OP: OP 46	0	0
OP: OP 47	0	0
OP: OP 48	0	0
OP: OP 49	0	0
OP: OP 50	0	0
OP: OP 51	0	0
OP: OP 52	0	0
OP: OP 53	0	0

OP: OP 54	0	0
OP: OP 55	0	0
OP: OP 56	0	0
OP: OP 57	0	0
OP: OP 58	0	0
OP: OP 59	0	0
OP: OP 60	0	0
OP: OP 61	0	0
OP: OP 62	0	0
OP: OP 63	0	0
OP: OP 64	0	0
OP: OP 65	0	0

No glare found

PV array 8 no glare found

Component	Green glare (min)	Yellow glare (min)
OP: OP 1	0	0
OP: OP 2	0	0
OP: OP 3	0	0
OP: OP 4	0	0
OP: OP 5	0	0
OP: OP 6	0	0
OP: OP 7	0	0
OP: OP 8	0	0
OP: OP 9	0	0
OP: OP 10	0	0
OP: OP 11	0	0
OP: OP 12	0	0
OP: OP 13	0	0
OP: OP 14	0	0
OP: OP 15	0	0
OP: OP 16	0	0
OP: OP 17	0	0
OP: OP 18	0	0
OP: OP 19	0	0
OP: OP 20	0	0
OP: OP 21	0	0
OP: OP 22	0	0
OP: OP 23	0	0
OP: OP 24	0	0
OP: OP 25	0	0
OP: OP 26	0	0
OP: OP 27	0	0
OP: OP 28	0	0
OP: OP 29	0	0
OP: OP 30	0	0
OP: OP 31	0	0
OP: OP 32	0	0
OP: OP 33	0	0
OP: OP 34	0	0
OP: OP 35	0	0

OP: OP 36	0	0
OP: OP 37	0	0
OP: OP 38	0	0
OP: OP 39	0	0
OP: OP 40	0	0
OP: OP 41	0	0
OP: OP 42	0	0
OP: OP 43	0	0
OP: OP 44	0	0
OP: OP 45	0	0
OP: OP 46	0	0
OP: OP 47	0	0
OP: OP 48	0	0
OP: OP 49	0	0
OP: OP 50	0	0
OP: OP 51	0	0
OP: OP 52	0	0
OP: OP 53	0	0
OP: OP 54	0	0
OP: OP 55	0	0
OP: OP 56	0	0
OP: OP 57	0	0
OP: OP 58	0	0
OP: OP 59	0	0
OP: OP 60	0	0
OP: OP 61	0	0
OP: OP 62	0	0
OP: OP 63	0	0
OP: OP 64	0	0
OP: OP 65	0	0

No glare found

PV array 9 no glare found

Component	Green glare (min)	Yellow glare (min)
OP: OP 1	0	0
OP: OP 2	0	0
OP: OP 3	0	0
OP: OP 4	0	0
OP: OP 5	0	0
OP: OP 6	0	0
OP: OP 7	0	0
OP: OP 8	0	0
OP: OP 9	0	0
OP: OP 10	0	0
OP: OP 11	0	0
OP: OP 12	0	0
OP: OP 13	0	0
OP: OP 14	0	0
OP: OP 15	0	0
OP: OP 16	0	0
OP: OP 17	0	0

OP: OP 18	0	0
OP: OP 19	0	0
OP: OP 20	0	0
OP: OP 21	0	0
OP: OP 22	0	0
OP: OP 23	0	0
OP: OP 24	0	0
OP: OP 25	0	0
OP: OP 26	0	0
OP: OP 27	0	0
OP: OP 28	0	0
OP: OP 29	0	0
OP: OP 30	0	0
OP: OP 31	0	0
OP: OP 32	0	0
OP: OP 33	0	0
OP: OP 34	0	0
OP: OP 35	0	0
OP: OP 36	0	0
OP: OP 37	0	0
OP: OP 38	0	0
OP: OP 39	0	0
OP: OP 40	0	0
OP: OP 41	0	0
OP: OP 42	0	0
OP: OP 43	0	0
OP: OP 44	0	0
OP: OP 45	0	0
OP: OP 46	0	0
OP: OP 47	0	0
OP: OP 48	0	0
OP: OP 49	0	0
OP: OP 50	0	0
OP: OP 51	0	0
OP: OP 52	0	0
OP: OP 53	0	0
OP: OP 54	0	0
OP: OP 55	0	0
OP: OP 56	0	0
OP: OP 57	0	0
OP: OP 58	0	0
OP: OP 59	0	0
OP: OP 60	0	0
OP: OP 61	0	0
OP: OP 62	0	0
OP: OP 63	0	0
OP: OP 64	0	0
OP: OP 65	0	0

No glare found

Assumptions

- Times associated with glare are denoted in Standard time. For Daylight Savings, add one hour.
- Glare analyses do not automatically account for physical obstructions between reflectors and receptors. This includes buildings, tree cover and geographic obstructions.
- Detailed system geometry is not rigorously simulated.
- The glare hazard determination relies on several approximations including observer eye characteristics, angle of view, and typical blink response time. Actual values and results may vary.
- The system output calculation is a DNI-based approximation that assumes clear, sunny skies year-round. It should not be used in place of more rigorous modeling methods.
- Several V1 calculations utilize the PV array centroid, rather than the actual glare spot location, due to algorithm limitations. This may affect results for large PV footprints. Additional analyses of array sub-sections can provide additional information on expected glare.
- The subtended source angle (glare spot size) is constrained by the PV array footprint size. Partitioning large arrays into smaller sections will reduce the maximum potential subtended angle, potentially impacting results if actual glare spots are larger than the sub-array size. Additional analyses of the combined area of adjacent sub-arrays can provide more information on potential glare hazards. (See previous point on related limitations.)
- Hazard zone boundaries shown in the Glare Hazard plot are an approximation and visual aid. Actual ocular impact outcomes encompass a continuous, not discrete, spectrum.
- Glare locations displayed on receptor plots are approximate. Actual glare-spot locations may differ.
- Refer to the **Help page** for detailed assumptions and limitations not listed here.

ANNEX H: RAIL RECEPTOR GLARE RESULTS

ForgeSolar

East Yorkshire Solar Farm

East Yorkshire Solar Farm Rail

Created Aug 03, 2023
Updated Sep 20, 2023
Time-step 1 minute
Timezone offset UTC0
Minimum sun altitude 0.0 deg
Site ID 96770.16938

Project type Advanced
Project status: active
Category 100 MW to 1 GW

Misc. Analysis Settings

DNI: **varies (1,000.0 W/m^2 peak)**
Ocular transmission coefficient: **0.5**
Pupil diameter: **0.002 m**
Eye focal length: **0.017 m**
Sun subtended angle: **9.3 mrad**

PV Analysis Methodology: **Version 2**
Enhanced subtended angle calculation: **On**

Summary of Results No glare predicted!

PV Name	Tilt	Orientation	"Green" Glare	"Yellow" Glare	Energy Produced
	deg	deg	min	min	kWh
PV array 1	SA tracking	SA tracking	0	0	-
PV array 10	SA tracking	SA tracking	0	0	-
PV array 11	SA tracking	SA tracking	0	0	-
PV array 12	SA tracking	SA tracking	0	0	-
PV array 13	SA tracking	SA tracking	0	0	-
PV array 14	SA tracking	SA tracking	0	0	-
PV array 15	SA tracking	SA tracking	0	0	-
PV array 16	SA tracking	SA tracking	0	0	-
PV array 17	SA tracking	SA tracking	0	0	-
PV array 18	SA tracking	SA tracking	0	0	-
PV array 2	SA tracking	SA tracking	0	0	-
PV array 3	SA tracking	SA tracking	0	0	-
PV array 4	SA tracking	SA tracking	0	0	-
PV array 5	SA tracking	SA tracking	0	0	-
PV array 6	SA tracking	SA tracking	0	0	-
PV array 7	SA tracking	SA tracking	0	0	-
PV array 8	SA tracking	SA tracking	0	0	-
PV array 9	SA tracking	SA tracking	0	0	-

Component Data

PV Array(s)

Total PV footprint area: 8,104,150 m^2

Name: PV array 1
Footprint area: 509,399 m^2
Axis tracking: Single-axis rotation
Backtracking: None
Tracking axis orientation: 180.0 deg
Tracking axis tilt: 0.0 deg
Tracking axis panel offset: 0.0 deg
Maximum tracking angle: 60.0 deg

Rated power: -
Panel material: Light textured glass with AR coating
Vary reflectivity with sun position? Yes
Correlate slope error with surface type? Yes
Slope error: 9.16 mrad

Vertex	Latitude	Longitude	Ground elevation	Height above ground	Total elevation
	deg	deg	m	m	m
1	53.818886	-0.886729	6.34	3.50	9.84
2	53.814883	-0.884283	5.95	3.50	9.45
3	53.814346	-0.888924	7.41	3.50	10.91
4	53.812293	-0.882272	6.90	3.50	10.40
5	53.812699	-0.879482	7.20	3.50	10.70
6	53.813763	-0.878324	7.19	3.50	10.69
7	53.814194	-0.878796	7.39	3.50	10.89
8	53.814523	-0.874633	6.96	3.50	10.46
9	53.816145	-0.874247	6.11	3.50	9.61
10	53.816271	-0.873302	6.84	3.50	10.34
11	53.819464	-0.872702	6.50	3.50	10.00
12	53.818704	-0.878967	6.05	3.50	9.55
13	53.819109	-0.879010	5.90	3.50	9.40

Name: PV array 10
Footprint area: 860,067 m^2
Axis tracking: Single-axis rotation
Backtracking: None
Tracking axis orientation: 180.0 deg
Tracking axis tilt: 0.0 deg
Tracking axis panel offset: 0.0 deg
Maximum tracking angle: 60.0 deg

Rated power: -
Panel material: Light textured glass with AR coating
Vary reflectivity with sun position? Yes
Correlate slope error with surface type? Yes
Slope error: 9.16 mrad

Vertex	Latitude	Longitude	Ground elevation	Height above ground	Total elevation
	deg	deg	m	m	m
1	53.778810	-0.820903	5.07	3.50	8.57
2	53.775868	-0.819959	5.15	3.50	8.65
3	53.775209	-0.825366	5.97	3.50	9.47
4	53.768057	-0.847639	4.41	3.50	7.91
5	53.769858	-0.848455	5.00	3.50	8.50
6	53.769680	-0.850472	4.68	3.50	8.18
7	53.770745	-0.850686	4.00	3.50	7.50
8	53.770999	-0.849098	4.12	3.50	7.62
9	53.773408	-0.849570	5.00	3.50	8.50

Name: PV array 11
Footprint area: 205,559 m^2
Axis tracking: Single-axis rotation
Backtracking: None
Tracking axis orientation: 180.0 deg
Tracking axis tilt: 0.0 deg
Tracking axis panel offset: 0.0 deg
Maximum tracking angle: 60.0 deg

Rated power: -
Panel material: Light textured glass with AR coating
Vary reflectivity with sun position? Yes
Correlate slope error with surface type? Yes
Slope error: 9.16 mrad

Vertex	Latitude	Longitude	Ground elevation	Height above ground	Total elevation
	deg	deg	m	m	m
1	53.776817	-0.861222	5.00	3.50	8.50
2	53.776284	-0.862552	5.00	3.50	8.50
3	53.782826	-0.874268	5.15	3.50	8.65
4	53.784120	-0.871951	4.99	3.50	8.49
5	53.782674	-0.870578	5.10	3.50	8.60
6	53.780646	-0.865299	5.86	3.50	9.36
7	53.780772	-0.863840	6.00	3.50	9.50
8	53.779378	-0.862209	5.00	3.50	8.50
9	53.778972	-0.864012	5.00	3.50	8.50

Name: PV array 12
Footprint area: 153,870 m^2
Axis tracking: Single-axis rotation
Backtracking: None
Tracking axis orientation: 180.0 deg
Tracking axis tilt: 0.0 deg
Tracking axis panel offset: 0.0 deg
Maximum tracking angle: 60.0 deg

Rated power: -
Panel material: Light textured glass with AR coating
Vary reflectivity with sun position? Yes
Correlate slope error with surface type? Yes
Slope error: 9.16 mrad

Vertex	Latitude	Longitude	Ground elevation	Height above ground	Total elevation
	deg	deg	m	m	m
1	53.788227	-0.880191	5.89	3.50	9.39
2	53.788328	-0.881607	4.53	3.50	8.03
3	53.785920	-0.884311	5.06	3.50	8.56
4	53.782902	-0.880234	5.96	3.50	9.46
5	53.783359	-0.878388	5.63	3.50	9.13
6	53.783993	-0.877401	5.39	3.50	8.89
7	53.786021	-0.878388	5.24	3.50	8.74
8	53.786909	-0.879461	5.93	3.50	9.43

Name: PV array 13
Footprint area: 227,092 m^2
Axis tracking: Single-axis rotation
Backtracking: None
Tracking axis orientation: 180.0 deg
Tracking axis tilt: 0.0 deg
Tracking axis panel offset: 0.0 deg
Maximum tracking angle: 60.0 deg

Rated power: -
Panel material: Light textured glass with AR coating
Vary reflectivity with sun position? Yes
Correlate slope error with surface type? Yes
Slope error: 9.16 mrad

Vertex	Latitude	Longitude	Ground elevation	Height above ground	Total elevation
	deg	deg	m	m	m
1	53.782598	-0.896155	6.23	3.50	9.73
2	53.779048	-0.902335	5.55	3.50	9.05
3	53.778414	-0.901820	6.07	3.50	9.57
4	53.778262	-0.899503	6.30	3.50	9.80
5	53.776411	-0.897228	4.61	3.50	8.11
6	53.778287	-0.894610	4.73	3.50	8.23
7	53.780722	-0.891907	5.00	3.50	8.50

Name: PV array 14
Footprint area: 679,077 m^2
Axis tracking: Single-axis rotation
Backtracking: None
Tracking axis orientation: 180.0 deg
Tracking axis tilt: 0.0 deg
Tracking axis panel offset: 0.0 deg
Maximum tracking angle: 60.0 deg

Rated power: -
Panel material: Light textured glass with AR coating
Vary reflectivity with sun position? Yes
Correlate slope error with surface type? Yes
Slope error: 9.16 mrad

Vertex	Latitude	Longitude	Ground elevation	Height above ground	Total elevation
	deg	deg	m	m	m
1	53.776512	-0.895597	5.00	3.50	8.50
2	53.773976	-0.894396	5.00	3.50	8.50
3	53.773722	-0.894524	5.00	3.50	8.50
4	53.773190	-0.891563	5.00	3.50	8.50
5	53.773900	-0.890190	5.00	3.50	8.50
6	53.775193	-0.888774	5.00	3.50	8.50
7	53.773722	-0.884053	5.51	3.50	9.01
8	53.771719	-0.885555	5.49	3.50	8.99
9	53.771313	-0.881950	5.00	3.50	8.50
10	53.768675	-0.879332	5.00	3.50	8.50
11	53.767787	-0.880877	5.86	3.50	9.36
12	53.770273	-0.900919	5.27	3.50	8.77
13	53.772201	-0.899073	6.03	3.50	9.53
14	53.775067	-0.898344	5.81	3.50	9.31

Name: PV array 15
Footprint area: 277,556 m^2
Axis tracking: Single-axis rotation
Backtracking: None
Tracking axis orientation: 180.0 deg
Tracking axis tilt: 0.0 deg
Tracking axis panel offset: 0.0 deg
Maximum tracking angle: 60.0 deg

Rated power: -
Panel material: Light textured glass with AR coating
Vary reflectivity with sun position? Yes
Correlate slope error with surface type? Yes
Slope error: 9.16 mrad

Vertex	Latitude	Longitude	Ground elevation	Height above ground	Total elevation
	deg	deg	m	m	m
1	53.768980	-0.895254	5.00	3.50	8.50
2	53.765454	-0.897528	3.99	3.50	7.49
3	53.764363	-0.894138	4.98	3.50	8.48
4	53.764845	-0.892808	4.28	3.50	7.78
5	53.766062	-0.891520	4.50	3.50	8.00
6	53.765454	-0.887701	5.39	3.50	8.89
7	53.766773	-0.881392	5.53	3.50	9.03
8	53.767128	-0.881221	6.00	3.50	9.50

Name: PV array 16
Footprint area: 251,608 m^2
Axis tracking: Single-axis rotation
Backtracking: None
Tracking axis orientation: 180.0 deg
Tracking axis tilt: 0.0 deg
Tracking axis panel offset: 0.0 deg
Maximum tracking angle: 60.0 deg

Rated power: -
Panel material: Light textured glass with AR coating
Vary reflectivity with sun position? Yes
Correlate slope error with surface type? Yes
Slope error: 9.16 mrad

Vertex	Latitude	Longitude	Ground elevation	Height above ground	Total elevation
	deg	deg	m	m	m
1	53.765961	-0.871693	5.00	3.50	8.50
2	53.764769	-0.872766	5.00	3.50	8.50
3	53.765251	-0.879075	4.32	3.50	7.82
4	53.766671	-0.879676	4.39	3.50	7.89
5	53.766646	-0.880234	4.36	3.50	7.86
6	53.766139	-0.880362	4.41	3.50	7.91
7	53.763145	-0.889975	5.30	3.50	8.80
8	53.764617	-0.890362	4.92	3.50	8.42
9	53.764620	-0.890852	4.60	3.50	8.10
10	53.763044	-0.890619	6.20	3.50	9.70
11	53.761446	-0.894911	9.27	3.50	12.77
12	53.759593	-0.899846	7.65	3.50	11.15
13	53.758782	-0.900318	7.20	3.50	10.70
14	53.758934	-0.900747	7.16	3.50	10.66
15	53.759898	-0.900704	7.56	3.50	11.06
16	53.762029	-0.895469	9.27	3.50	12.77
17	53.762689	-0.896413	8.78	3.50	12.28
18	53.764591	-0.892336	4.64	3.50	8.14
19	53.764667	-0.890319	4.90	3.50	8.40
20	53.765581	-0.890362	4.32	3.50	7.82
21	53.765327	-0.888731	5.39	3.50	8.89
22	53.764211	-0.888688	6.95	3.50	10.45
23	53.764287	-0.887358	6.37	3.50	9.87
24	53.765149	-0.887014	5.83	3.50	9.33
25	53.766595	-0.880834	5.09	3.50	8.59
26	53.766925	-0.879375	4.83	3.50	8.33

Name: PV array 17
Footprint area: 259,874 m^2
Axis tracking: Single-axis rotation
Backtracking: None
Tracking axis orientation: 180.0 deg
Tracking axis tilt: 0.0 deg
Tracking axis panel offset: 0.0 deg
Maximum tracking angle: 60.0 deg

Rated power: -
Panel material: Light textured glass with AR coating
Vary reflectivity with sun position? Yes
Correlate slope error with surface type? Yes
Slope error: 9.16 mrad

Vertex	Latitude	Longitude	Ground elevation	Height above ground	Total elevation
	deg	deg	m	m	m
1	53.800000	-0.898244	8.11	3.50	11.61
2	53.799316	-0.898158	5.69	3.50	9.19
3	53.796553	-0.900947	5.33	3.50	8.83
4	53.795792	-0.901205	5.86	3.50	9.36
5	53.795032	-0.896699	5.54	3.50	9.04
6	53.794246	-0.893437	5.00	3.50	8.50
7	53.795083	-0.892579	5.13	3.50	8.63
8	53.798150	-0.892794	5.38	3.50	8.88
9	53.800076	-0.893394	5.88	3.50	9.38
10	53.800228	-0.897471	6.28	3.50	9.78

Name: PV array 18
Footprint area: 191,697 m^2
Axis tracking: Single-axis rotation
Backtracking: None
Tracking axis orientation: 180.0 deg
Tracking axis tilt: 0.0 deg
Tracking axis panel offset: 0.0 deg
Maximum tracking angle: 60.0 deg

Rated power: -
Panel material: Light textured glass with AR coating
Vary reflectivity with sun position? Yes
Correlate slope error with surface type? Yes
Slope error: 9.16 mrad

Vertex	Latitude	Longitude	Ground elevation	Height above ground	Total elevation
	deg	deg	m	m	m
1	53.792776	-0.893609	4.96	3.50	8.46
2	53.791736	-0.894982	5.48	3.50	8.98
3	53.790697	-0.896012	4.98	3.50	8.48
4	53.788998	-0.897042	4.27	3.50	7.77
5	53.789100	-0.897986	4.86	3.50	8.36
6	53.788973	-0.899360	5.24	3.50	8.74
7	53.788821	-0.900046	4.94	3.50	8.44
8	53.789227	-0.902020	4.84	3.50	8.34
9	53.789531	-0.902063	6.31	3.50	9.81
10	53.789556	-0.900990	5.15	3.50	8.65
11	53.792472	-0.900347	5.64	3.50	9.14
12	53.792903	-0.901849	6.09	3.50	9.59
13	53.794322	-0.900390	6.18	3.50	9.68

Name: PV array 2
Footprint area: 632,085 m^2
Axis tracking: Single-axis rotation
Backtracking: None
Tracking axis orientation: 180.0 deg
Tracking axis tilt: 0.0 deg
Tracking axis panel offset: 0.0 deg
Maximum tracking angle: 60.0 deg

Rated power: -
Panel material: Light textured glass with AR coating
Vary reflectivity with sun position? Yes
Correlate slope error with surface type? Yes
Slope error: 9.16 mrad

Vertex	Latitude	Longitude	Ground elevation	Height above ground	Total elevation
	deg	deg	m	m	m
1	53.813872	-0.874438	6.25	3.50	9.75
2	53.811034	-0.872979	7.20	3.50	10.70
3	53.811516	-0.871090	7.04	3.50	10.54
4	53.808804	-0.868730	6.72	3.50	10.22
5	53.809108	-0.867485	6.99	3.50	10.49
6	53.808323	-0.867687	6.25	3.50	9.75
7	53.806878	-0.867000	6.02	3.50	9.52
8	53.807183	-0.865970	6.43	3.50	9.93
9	53.805325	-0.864511	6.24	3.50	9.74
10	53.805173	-0.865283	6.58	3.50	10.08
11	53.804083	-0.864425	7.27	3.50	10.77
12	53.802993	-0.867987	6.40	3.50	9.90
13	53.802537	-0.867343	6.48	3.50	9.98
14	53.802283	-0.866228	6.35	3.50	9.85
15	53.800991	-0.864854	6.93	3.50	10.43
16	53.803094	-0.859876	6.29	3.50	9.79
17	53.803551	-0.859790	6.05	3.50	9.55
18	53.804210	-0.857087	6.54	3.50	10.04
19	53.807758	-0.858374	6.00	3.50	9.50
20	53.807859	-0.862666	5.93	3.50	9.43
21	53.810140	-0.863524	5.70	3.50	9.20
22	53.813897	-0.865584	6.85	3.50	10.35
23	53.813517	-0.868545	5.83	3.50	9.33
24	53.813618	-0.870433	5.69	3.50	9.19
25	53.814100	-0.871678	6.48	3.50	9.98

Name: PV array 3
Footprint area: 155,482 m^2
Axis tracking: Single-axis rotation
Backtracking: None
Tracking axis orientation: 180.0 deg
Tracking axis tilt: 0.0 deg
Tracking axis panel offset: 0.0 deg
Maximum tracking angle: 60.0 deg

Rated power: -
Panel material: Light textured glass with AR coating
Vary reflectivity with sun position? Yes
Correlate slope error with surface type? Yes
Slope error: 9.16 mrad

Vertex	Latitude	Longitude	Ground elevation	Height above ground	Total elevation
	deg	deg	m	m	m
1	53.813884	-0.865326	6.57	3.00	9.57
2	53.810185	-0.863052	6.00	3.00	9.00
3	53.808158	-0.862236	5.93	3.00	8.93
4	53.808132	-0.858760	6.07	3.00	9.07
5	53.810172	-0.859726	6.68	3.00	9.68
6	53.810844	-0.860477	5.85	3.00	8.85
7	53.811807	-0.860799	5.51	3.00	8.51
8	53.812909	-0.860777	5.73	3.00	8.73
9	53.813175	-0.860649	5.42	3.00	8.42
10	53.813922	-0.860949	5.47	3.00	8.47
11	53.814416	-0.860691	6.67	3.00	9.67

Name: PV array 4
Footprint area: 641,618 m^2
Axis tracking: Single-axis rotation
Backtracking: None
Tracking axis orientation: 180.0 deg
Tracking axis tilt: 0.0 deg
Tracking axis panel offset: 0.0 deg
Maximum tracking angle: 60.0 deg

Rated power: -
Panel material: Light textured glass with AR coating
Vary reflectivity with sun position? Yes
Correlate slope error with surface type? Yes
Slope error: 9.16 mrad

Vertex	Latitude	Longitude	Ground elevation	Height above ground	Total elevation
	deg	deg	m	m	m
1	53.814581	-0.855301	5.71	3.50	9.21
2	53.814100	-0.855130	5.26	3.50	8.76
3	53.813454	-0.854701	5.23	3.50	8.73
4	53.811148	-0.860065	5.60	3.50	9.10
5	53.810261	-0.859271	5.85	3.50	9.35
6	53.805383	-0.856782	5.66	3.50	9.16
7	53.805649	-0.855001	5.25	3.50	8.75
8	53.804901	-0.853842	5.22	3.50	8.72
9	53.805636	-0.849186	5.28	3.50	8.78
10	53.804496	-0.847255	5.46	3.50	8.96
11	53.804166	-0.847276	5.90	3.50	9.40
12	53.803748	-0.853327	6.05	3.50	9.55
13	53.798337	-0.850667	6.07	3.50	9.57
14	53.799972	-0.847148	5.62	3.50	9.12
15	53.800263	-0.845581	5.93	3.50	9.43
16	53.804103	-0.847276	5.53	3.50	9.03
17	53.804561	-0.847172	5.10	3.50	8.60
18	53.807681	-0.847384	5.70	3.50	9.20
19	53.808454	-0.848607	5.76	3.50	9.26
20	53.807238	-0.851632	5.81	3.50	9.31
21	53.808568	-0.853714	5.85	3.50	9.35
22	53.808366	-0.854658	5.82	3.50	9.32
23	53.809671	-0.855108	4.90	3.50	8.40
24	53.810000	-0.853907	5.43	3.50	8.93
25	53.809709	-0.853628	5.37	3.50	8.87
26	53.811558	-0.850538	5.71	3.50	9.21
27	53.813269	-0.852190	5.07	3.50	8.57
28	53.814244	-0.852684	5.73	3.50	9.23

Name: PV array 5
Footprint area: 1,762,515 m^2
Axis tracking: Single-axis rotation
Backtracking: None
Tracking axis orientation: 180.0 deg
Tracking axis tilt: 0.0 deg
Tracking axis panel offset: 0.0 deg
Maximum tracking angle: 60.0 deg

Rated power: -
Panel material: Light textured glass with AR coating
Vary reflectivity with sun position? Yes
Correlate slope error with surface type? Yes
Slope error: 9.16 mrad

Vertex	Latitude	Longitude	Ground elevation	Height above ground	Total elevation
	deg	deg	m	m	m
1	53.807708	-0.847197	5.51	3.50	9.01
2	53.804096	-0.847004	5.39	3.50	8.89
3	53.797342	-0.843764	5.19	3.50	8.69
4	53.797874	-0.841661	5.30	3.50	8.80
5	53.799610	-0.837906	5.60	3.50	9.10
6	53.801258	-0.834001	5.60	3.50	9.10
7	53.803577	-0.827735	5.05	3.50	8.55
8	53.802145	-0.825933	5.34	3.50	8.84
9	53.799851	-0.832398	6.04	3.50	9.54
10	53.797215	-0.829265	5.09	3.50	8.59
11	53.795048	-0.834844	5.24	3.50	8.74
12	53.792817	-0.833686	5.73	3.50	9.23
13	53.792944	-0.831368	5.17	3.50	8.67
14	53.794439	-0.826390	5.04	3.50	8.54
15	53.795301	-0.827248	5.36	3.50	8.86
16	53.795707	-0.826991	6.45	3.50	9.95
17	53.797253	-0.828793	5.75	3.50	9.25
18	53.797861	-0.826647	5.38	3.50	8.88
19	53.796214	-0.825274	5.21	3.50	8.71
20	53.796290	-0.824502	4.27	3.50	7.77
21	53.795200	-0.823558	4.11	3.50	7.61
22	53.795986	-0.819695	4.60	3.50	8.10
23	53.799027	-0.821626	4.56	3.50	8.06
24	53.801638	-0.823944	4.37	3.50	7.87
25	53.803944	-0.826519	4.96	3.50	8.46
26	53.804172	-0.825918	4.35	3.50	7.85
27	53.802018	-0.823558	5.21	3.50	8.71
28	53.802094	-0.822656	4.99	3.50	8.49
29	53.801511	-0.822442	5.47	3.50	8.97
30	53.801283	-0.822871	4.64	3.50	8.14
31	53.799103	-0.820940	4.71	3.50	8.21
32	53.800244	-0.816047	4.44	3.50	7.94
33	53.798368	-0.814846	4.75	3.50	8.25
34	53.797481	-0.814846	4.42	3.50	7.92
35	53.799737	-0.810683	4.71	3.50	8.21
36	53.802753	-0.814331	2.81	3.50	6.31
37	53.802221	-0.816477	4.38	3.50	7.88
38	53.802145	-0.818408	3.53	3.50	7.03
39	53.802981	-0.821240	5.10	3.50	8.60
40	53.803843	-0.822141	4.77	3.50	8.27
41	53.808202	-0.827077	4.72	3.50	8.22
42	53.807087	-0.832012	5.04	3.50	8.54
43	53.804451	-0.840724	5.00	3.50	8.50
44	53.806872	-0.843073	5.31	3.50	8.81
45	53.807125	-0.842815	4.94	3.50	8.44
46	53.807911	-0.843545	5.00	3.50	8.50
47	53.808443	-0.844746	4.87	3.50	8.37

Name: PV array 6
Footprint area: 53,769 m^2
Axis tracking: Single-axis rotation
Backtracking: None
Tracking axis orientation: 180.0 deg
Tracking axis tilt: 0.0 deg
Tracking axis panel offset: 0.0 deg
Maximum tracking angle: 60.0 deg

Rated power: -
Panel material: Light textured glass with AR coating
Vary reflectivity with sun position? Yes
Correlate slope error with surface type? Yes
Slope error: 9.16 mrad

Vertex	Latitude	Longitude	Ground elevation	Height above ground	Total elevation
	deg	deg	m	m	m
1	53.800588	-0.865277	6.65	3.50	10.15
2	53.801779	-0.862166	6.43	3.50	9.93
3	53.800132	-0.860192	6.45	3.50	9.95
4	53.799054	-0.863110	6.98	3.50	10.48
5	53.799802	-0.864419	7.68	3.50	11.18

Name: PV array 7
Footprint area: 283,999 m^2
Axis tracking: Single-axis rotation
Backtracking: None
Tracking axis orientation: 180.0 deg
Tracking axis tilt: 0.0 deg
Tracking axis panel offset: 0.0 deg
Maximum tracking angle: 60.0 deg

Rated power: -
Panel material: Light textured glass with AR coating
Vary reflectivity with sun position? Yes
Correlate slope error with surface type? Yes
Slope error: 9.16 mrad

Vertex	Latitude	Longitude	Ground elevation	Height above ground	Total elevation
	deg	deg	m	m	m
1	53.797257	-0.867135	6.45	3.50	9.95
2	53.794393	-0.864903	6.01	3.50	9.51
3	53.792770	-0.869624	6.00	3.50	9.50
4	53.791553	-0.868208	5.96	3.50	9.46
5	53.789018	-0.874988	6.33	3.50	9.83
6	53.790007	-0.876319	7.32	3.50	10.82
7	53.790311	-0.875374	5.97	3.50	9.47
8	53.790666	-0.875675	6.59	3.50	10.09
9	53.791199	-0.874130	6.37	3.50	9.87
10	53.791477	-0.874044	5.65	3.50	9.15
11	53.791731	-0.873486	5.89	3.50	9.39
12	53.792872	-0.873143	5.95	3.50	9.45
13	53.793201	-0.873100	5.86	3.50	9.36
14	53.793810	-0.871684	5.84	3.50	9.34
15	53.795457	-0.872800	5.36	3.50	8.86
16	53.796269	-0.871684	5.24	3.50	8.74
17	53.797232	-0.869409	5.79	3.50	9.29
18	53.796750	-0.868808	6.03	3.50	9.53

Name: PV array 8
Footprint area: 513,457 m^2
Axis tracking: Single-axis rotation
Backtracking: None
Tracking axis orientation: 180.0 deg
Tracking axis tilt: 0.0 deg
Tracking axis panel offset: 0.0 deg
Maximum tracking angle: 60.0 deg

Rated power: -
Panel material: Light textured glass with AR coating
Vary reflectivity with sun position? Yes
Correlate slope error with surface type? Yes
Slope error: 9.16 mrad

Vertex	Latitude	Longitude	Ground elevation	Height above ground	Total elevation
	deg	deg	m	m	m
1	53.790717	-0.857736	6.07	3.50	9.57
2	53.787725	-0.853702	5.77	3.50	9.27
3	53.787041	-0.856191	5.84	3.50	9.34
4	53.786458	-0.856277	5.48	3.50	8.98
5	53.786103	-0.857565	5.78	3.50	9.28
6	53.785291	-0.856792	5.63	3.50	9.13
7	53.785215	-0.852071	5.00	3.50	8.50
8	53.784328	-0.851900	4.64	3.50	8.14
9	53.784531	-0.849883	5.48	3.50	8.98
10	53.785038	-0.847179	5.34	3.50	8.84
11	53.783035	-0.846020	4.21	3.50	7.71
12	53.783694	-0.842587	5.00	3.50	8.50
13	53.785722	-0.843059	4.65	3.50	8.15
14	53.786736	-0.843789	4.23	3.50	7.73
15	53.789044	-0.845591	5.87	3.50	9.37
16	53.789756	-0.846235	5.45	3.50	8.95
17	53.788780	-0.849668	5.37	3.50	8.87
18	53.790301	-0.851406	6.41	3.50	9.91
19	53.792443	-0.853187	7.67	3.50	11.17

Name: PV array 9
Footprint area: 445,425 m^2
Axis tracking: Single-axis rotation
Backtracking: None
Tracking axis orientation: 180.0 deg
Tracking axis tilt: 0.0 deg
Tracking axis panel offset: 0.0 deg
Maximum tracking angle: 60.0 deg

Rated power: -
Panel material: Light textured glass with AR coating
Vary reflectivity with sun position? Yes
Correlate slope error with surface type? Yes
Slope error: 9.16 mrad

Vertex	Latitude	Longitude	Ground elevation	Height above ground	Total elevation
	deg	deg	m	m	m
1	53.783172	-0.836739	5.76	3.50	9.26
2	53.780154	-0.833434	5.23	3.50	8.73
3	53.779672	-0.835022	5.35	3.50	8.85
4	53.777263	-0.832447	5.19	3.50	8.69
5	53.775361	-0.841459	5.51	3.50	9.01
6	53.781245	-0.845408	5.09	3.50	8.59

Discrete Observation Receptors

Number	Latitude	Longitude	Ground elevation	Height above ground	Total Elevation
	deg	deg	m	m	m
OP 1	53.771768	-0.915195	6.89	2.75	9.64
OP 2	53.771413	-0.912706	7.42	2.75	10.17
OP 3	53.771007	-0.909273	7.21	2.75	9.96
OP 4	53.770639	-0.906505	7.12	2.75	9.87
OP 5	53.770322	-0.903780	7.18	2.75	9.93
OP 6	53.769904	-0.900540	7.82	2.75	10.57
OP 7	53.769498	-0.897664	6.34	2.75	9.09
OP 8	53.769206	-0.894875	5.00	2.75	7.75
OP 9	53.768787	-0.892085	6.28	2.75	9.03
OP 10	53.768382	-0.888695	5.23	2.75	7.98
OP 11	53.767976	-0.885777	5.30	2.75	8.05
OP 12	53.767633	-0.882923	5.00	2.75	7.75
OP 13	53.767266	-0.880241	5.00	2.75	7.75
OP 14	53.766974	-0.877687	5.00	2.75	7.75
OP 15	53.766543	-0.874555	4.80	2.75	7.55
OP 16	53.766137	-0.871357	5.00	2.75	7.75
OP 17	53.765718	-0.868031	4.00	2.75	6.75
OP 18	53.765350	-0.865499	3.47	2.75	6.22
OP 19	53.765008	-0.862474	5.00	2.75	7.75
OP 20	53.764678	-0.859942	6.49	2.75	9.24
OP 21	53.764272	-0.856723	4.89	2.75	7.64
OP 22	53.763841	-0.853633	4.05	2.75	6.80
OP 23	53.763397	-0.850243	4.00	2.75	6.75
OP 24	53.763105	-0.847561	4.00	2.75	6.75
OP 25	53.762750	-0.844922	4.00	2.75	6.75
OP 26	53.762319	-0.841596	5.95	2.75	8.70
OP 27	53.761888	-0.838484	5.95	2.75	8.70

Summary of PV Glare Analysis

PV configuration and total predicted glare

PV Name	Tilt	Orientation	"Green" Glare	"Yellow" Glare	Energy Produced	Data File
	deg	deg	min	min	kWh	
PV array 1	SA tracking	SA tracking	0	0	-	-
PV array 10	SA tracking	SA tracking	0	0	-	-
PV array 11	SA tracking	SA tracking	0	0	-	-
PV array 12	SA tracking	SA tracking	0	0	-	-
PV array 13	SA tracking	SA tracking	0	0	-	-
PV array 14	SA tracking	SA tracking	0	0	-	-
PV array 15	SA tracking	SA tracking	0	0	-	-
PV array 16	SA tracking	SA tracking	0	0	-	-
PV array 17	SA tracking	SA tracking	0	0	-	-
PV array 18	SA tracking	SA tracking	0	0	-	-
PV array 2	SA tracking	SA tracking	0	0	-	-
PV array 3	SA tracking	SA tracking	0	0	-	-
PV array 4	SA tracking	SA tracking	0	0	-	-
PV array 5	SA tracking	SA tracking	0	0	-	-
PV array 6	SA tracking	SA tracking	0	0	-	-
PV array 7	SA tracking	SA tracking	0	0	-	-
PV array 8	SA tracking	SA tracking	0	0	-	-
PV array 9	SA tracking	SA tracking	0	0	-	-

PV & Receptor Analysis Results

Results for each PV array and receptor

PV array 1 no glare found

Component	Green glare (min)	Yellow glare (min)
OP: OP 1	0	0
OP: OP 2	0	0
OP: OP 3	0	0
OP: OP 4	0	0
OP: OP 5	0	0
OP: OP 6	0	0
OP: OP 7	0	0
OP: OP 8	0	0
OP: OP 9	0	0
OP: OP 10	0	0
OP: OP 11	0	0
OP: OP 12	0	0
OP: OP 13	0	0
OP: OP 14	0	0
OP: OP 15	0	0
OP: OP 16	0	0
OP: OP 17	0	0
OP: OP 18	0	0
OP: OP 19	0	0
OP: OP 20	0	0
OP: OP 21	0	0
OP: OP 22	0	0
OP: OP 23	0	0
OP: OP 24	0	0
OP: OP 25	0	0
OP: OP 26	0	0
OP: OP 27	0	0

No glare found

PV array 10 no glare found

Component	Green glare (min)	Yellow glare (min)
OP: OP 1	0	0
OP: OP 2	0	0
OP: OP 3	0	0
OP: OP 4	0	0
OP: OP 5	0	0
OP: OP 6	0	0
OP: OP 7	0	0
OP: OP 8	0	0
OP: OP 9	0	0
OP: OP 10	0	0
OP: OP 11	0	0
OP: OP 12	0	0
OP: OP 13	0	0
OP: OP 14	0	0
OP: OP 15	0	0
OP: OP 16	0	0
OP: OP 17	0	0
OP: OP 18	0	0
OP: OP 19	0	0
OP: OP 20	0	0
OP: OP 21	0	0
OP: OP 22	0	0
OP: OP 23	0	0
OP: OP 24	0	0
OP: OP 25	0	0
OP: OP 26	0	0
OP: OP 27	0	0

No glare found

PV array 11 no glare found

Component	Green glare (min)	Yellow glare (min)
OP: OP 1	0	0
OP: OP 2	0	0
OP: OP 3	0	0
OP: OP 4	0	0
OP: OP 5	0	0
OP: OP 6	0	0
OP: OP 7	0	0
OP: OP 8	0	0
OP: OP 9	0	0
OP: OP 10	0	0
OP: OP 11	0	0
OP: OP 12	0	0
OP: OP 13	0	0
OP: OP 14	0	0
OP: OP 15	0	0
OP: OP 16	0	0
OP: OP 17	0	0
OP: OP 18	0	0
OP: OP 19	0	0
OP: OP 20	0	0
OP: OP 21	0	0
OP: OP 22	0	0
OP: OP 23	0	0
OP: OP 24	0	0
OP: OP 25	0	0
OP: OP 26	0	0
OP: OP 27	0	0

No glare found

PV array 12 no glare found

Component	Green glare (min)	Yellow glare (min)
OP: OP 1	0	0
OP: OP 2	0	0
OP: OP 3	0	0
OP: OP 4	0	0
OP: OP 5	0	0
OP: OP 6	0	0
OP: OP 7	0	0
OP: OP 8	0	0
OP: OP 9	0	0
OP: OP 10	0	0
OP: OP 11	0	0
OP: OP 12	0	0
OP: OP 13	0	0
OP: OP 14	0	0
OP: OP 15	0	0
OP: OP 16	0	0
OP: OP 17	0	0
OP: OP 18	0	0
OP: OP 19	0	0
OP: OP 20	0	0
OP: OP 21	0	0
OP: OP 22	0	0
OP: OP 23	0	0
OP: OP 24	0	0
OP: OP 25	0	0
OP: OP 26	0	0
OP: OP 27	0	0

No glare found

PV array 13 no glare found

Component	Green glare (min)	Yellow glare (min)
OP: OP 1	0	0
OP: OP 2	0	0
OP: OP 3	0	0
OP: OP 4	0	0
OP: OP 5	0	0
OP: OP 6	0	0
OP: OP 7	0	0
OP: OP 8	0	0
OP: OP 9	0	0
OP: OP 10	0	0
OP: OP 11	0	0
OP: OP 12	0	0
OP: OP 13	0	0
OP: OP 14	0	0
OP: OP 15	0	0
OP: OP 16	0	0
OP: OP 17	0	0
OP: OP 18	0	0
OP: OP 19	0	0
OP: OP 20	0	0
OP: OP 21	0	0
OP: OP 22	0	0
OP: OP 23	0	0
OP: OP 24	0	0
OP: OP 25	0	0
OP: OP 26	0	0
OP: OP 27	0	0

No glare found

PV array 14 no glare found

Component	Green glare (min)	Yellow glare (min)
OP: OP 1	0	0
OP: OP 2	0	0
OP: OP 3	0	0
OP: OP 4	0	0
OP: OP 5	0	0
OP: OP 6	0	0
OP: OP 7	0	0
OP: OP 8	0	0
OP: OP 9	0	0
OP: OP 10	0	0
OP: OP 11	0	0
OP: OP 12	0	0
OP: OP 13	0	0
OP: OP 14	0	0
OP: OP 15	0	0
OP: OP 16	0	0
OP: OP 17	0	0
OP: OP 18	0	0
OP: OP 19	0	0
OP: OP 20	0	0
OP: OP 21	0	0
OP: OP 22	0	0
OP: OP 23	0	0
OP: OP 24	0	0
OP: OP 25	0	0
OP: OP 26	0	0
OP: OP 27	0	0

No glare found

PV array 15 no glare found

Component	Green glare (min)	Yellow glare (min)
OP: OP 1	0	0
OP: OP 2	0	0
OP: OP 3	0	0
OP: OP 4	0	0
OP: OP 5	0	0
OP: OP 6	0	0
OP: OP 7	0	0
OP: OP 8	0	0
OP: OP 9	0	0
OP: OP 10	0	0
OP: OP 11	0	0
OP: OP 12	0	0
OP: OP 13	0	0
OP: OP 14	0	0
OP: OP 15	0	0
OP: OP 16	0	0
OP: OP 17	0	0
OP: OP 18	0	0
OP: OP 19	0	0
OP: OP 20	0	0
OP: OP 21	0	0
OP: OP 22	0	0
OP: OP 23	0	0
OP: OP 24	0	0
OP: OP 25	0	0
OP: OP 26	0	0
OP: OP 27	0	0

No glare found

PV array 16 no glare found

Component	Green glare (min)	Yellow glare (min)
OP: OP 1	0	0
OP: OP 2	0	0
OP: OP 3	0	0
OP: OP 4	0	0
OP: OP 5	0	0
OP: OP 6	0	0
OP: OP 7	0	0
OP: OP 8	0	0
OP: OP 9	0	0
OP: OP 10	0	0
OP: OP 11	0	0
OP: OP 12	0	0
OP: OP 13	0	0
OP: OP 14	0	0
OP: OP 15	0	0
OP: OP 16	0	0
OP: OP 17	0	0
OP: OP 18	0	0
OP: OP 19	0	0
OP: OP 20	0	0
OP: OP 21	0	0
OP: OP 22	0	0
OP: OP 23	0	0
OP: OP 24	0	0
OP: OP 25	0	0
OP: OP 26	0	0
OP: OP 27	0	0

No glare found

PV array 17 no glare found

Component	Green glare (min)	Yellow glare (min)
OP: OP 1	0	0
OP: OP 2	0	0
OP: OP 3	0	0
OP: OP 4	0	0
OP: OP 5	0	0
OP: OP 6	0	0
OP: OP 7	0	0
OP: OP 8	0	0
OP: OP 9	0	0
OP: OP 10	0	0
OP: OP 11	0	0
OP: OP 12	0	0
OP: OP 13	0	0
OP: OP 14	0	0
OP: OP 15	0	0
OP: OP 16	0	0
OP: OP 17	0	0
OP: OP 18	0	0
OP: OP 19	0	0
OP: OP 20	0	0
OP: OP 21	0	0
OP: OP 22	0	0
OP: OP 23	0	0
OP: OP 24	0	0
OP: OP 25	0	0
OP: OP 26	0	0
OP: OP 27	0	0

No glare found

PV array 18 no glare found

Component	Green glare (min)	Yellow glare (min)
OP: OP 1	0	0
OP: OP 2	0	0
OP: OP 3	0	0
OP: OP 4	0	0
OP: OP 5	0	0
OP: OP 6	0	0
OP: OP 7	0	0
OP: OP 8	0	0
OP: OP 9	0	0
OP: OP 10	0	0
OP: OP 11	0	0
OP: OP 12	0	0
OP: OP 13	0	0
OP: OP 14	0	0
OP: OP 15	0	0
OP: OP 16	0	0
OP: OP 17	0	0
OP: OP 18	0	0
OP: OP 19	0	0
OP: OP 20	0	0
OP: OP 21	0	0
OP: OP 22	0	0
OP: OP 23	0	0
OP: OP 24	0	0
OP: OP 25	0	0
OP: OP 26	0	0
OP: OP 27	0	0

No glare found

PV array 2 no glare found

Component	Green glare (min)	Yellow glare (min)
OP: OP 1	0	0
OP: OP 2	0	0
OP: OP 3	0	0
OP: OP 4	0	0
OP: OP 5	0	0
OP: OP 6	0	0
OP: OP 7	0	0
OP: OP 8	0	0
OP: OP 9	0	0
OP: OP 10	0	0
OP: OP 11	0	0
OP: OP 12	0	0
OP: OP 13	0	0
OP: OP 14	0	0
OP: OP 15	0	0
OP: OP 16	0	0
OP: OP 17	0	0
OP: OP 18	0	0
OP: OP 19	0	0
OP: OP 20	0	0
OP: OP 21	0	0
OP: OP 22	0	0
OP: OP 23	0	0
OP: OP 24	0	0
OP: OP 25	0	0
OP: OP 26	0	0
OP: OP 27	0	0

No glare found

PV array 3 no glare found

Component	Green glare (min)	Yellow glare (min)
OP: OP 1	0	0
OP: OP 2	0	0
OP: OP 3	0	0
OP: OP 4	0	0
OP: OP 5	0	0
OP: OP 6	0	0
OP: OP 7	0	0
OP: OP 8	0	0
OP: OP 9	0	0
OP: OP 10	0	0
OP: OP 11	0	0
OP: OP 12	0	0
OP: OP 13	0	0
OP: OP 14	0	0
OP: OP 15	0	0
OP: OP 16	0	0
OP: OP 17	0	0
OP: OP 18	0	0
OP: OP 19	0	0
OP: OP 20	0	0
OP: OP 21	0	0
OP: OP 22	0	0
OP: OP 23	0	0
OP: OP 24	0	0
OP: OP 25	0	0
OP: OP 26	0	0
OP: OP 27	0	0

No glare found

PV array 4 no glare found

Component	Green glare (min)	Yellow glare (min)
OP: OP 1	0	0
OP: OP 2	0	0
OP: OP 3	0	0
OP: OP 4	0	0
OP: OP 5	0	0
OP: OP 6	0	0
OP: OP 7	0	0
OP: OP 8	0	0
OP: OP 9	0	0
OP: OP 10	0	0
OP: OP 11	0	0
OP: OP 12	0	0
OP: OP 13	0	0
OP: OP 14	0	0
OP: OP 15	0	0
OP: OP 16	0	0
OP: OP 17	0	0
OP: OP 18	0	0
OP: OP 19	0	0
OP: OP 20	0	0
OP: OP 21	0	0
OP: OP 22	0	0
OP: OP 23	0	0
OP: OP 24	0	0
OP: OP 25	0	0
OP: OP 26	0	0
OP: OP 27	0	0

No glare found

PV array 5 no glare found

Component	Green glare (min)	Yellow glare (min)
OP: OP 1	0	0
OP: OP 2	0	0
OP: OP 3	0	0
OP: OP 4	0	0
OP: OP 5	0	0
OP: OP 6	0	0
OP: OP 7	0	0
OP: OP 8	0	0
OP: OP 9	0	0
OP: OP 10	0	0
OP: OP 11	0	0
OP: OP 12	0	0
OP: OP 13	0	0
OP: OP 14	0	0
OP: OP 15	0	0
OP: OP 16	0	0
OP: OP 17	0	0
OP: OP 18	0	0
OP: OP 19	0	0
OP: OP 20	0	0
OP: OP 21	0	0
OP: OP 22	0	0
OP: OP 23	0	0
OP: OP 24	0	0
OP: OP 25	0	0
OP: OP 26	0	0
OP: OP 27	0	0

No glare found

PV array 6 no glare found

Component	Green glare (min)	Yellow glare (min)
OP: OP 1	0	0
OP: OP 2	0	0
OP: OP 3	0	0
OP: OP 4	0	0
OP: OP 5	0	0
OP: OP 6	0	0
OP: OP 7	0	0
OP: OP 8	0	0
OP: OP 9	0	0
OP: OP 10	0	0
OP: OP 11	0	0
OP: OP 12	0	0
OP: OP 13	0	0
OP: OP 14	0	0
OP: OP 15	0	0
OP: OP 16	0	0
OP: OP 17	0	0
OP: OP 18	0	0
OP: OP 19	0	0
OP: OP 20	0	0
OP: OP 21	0	0
OP: OP 22	0	0
OP: OP 23	0	0
OP: OP 24	0	0
OP: OP 25	0	0
OP: OP 26	0	0
OP: OP 27	0	0

No glare found

PV array 7 no glare found

Component	Green glare (min)	Yellow glare (min)
OP: OP 1	0	0
OP: OP 2	0	0
OP: OP 3	0	0
OP: OP 4	0	0
OP: OP 5	0	0
OP: OP 6	0	0
OP: OP 7	0	0
OP: OP 8	0	0
OP: OP 9	0	0
OP: OP 10	0	0
OP: OP 11	0	0
OP: OP 12	0	0
OP: OP 13	0	0
OP: OP 14	0	0
OP: OP 15	0	0
OP: OP 16	0	0
OP: OP 17	0	0
OP: OP 18	0	0
OP: OP 19	0	0
OP: OP 20	0	0
OP: OP 21	0	0
OP: OP 22	0	0
OP: OP 23	0	0
OP: OP 24	0	0
OP: OP 25	0	0
OP: OP 26	0	0
OP: OP 27	0	0

No glare found

PV array 8 no glare found

Component	Green glare (min)	Yellow glare (min)
OP: OP 1	0	0
OP: OP 2	0	0
OP: OP 3	0	0
OP: OP 4	0	0
OP: OP 5	0	0
OP: OP 6	0	0
OP: OP 7	0	0
OP: OP 8	0	0
OP: OP 9	0	0
OP: OP 10	0	0
OP: OP 11	0	0
OP: OP 12	0	0
OP: OP 13	0	0
OP: OP 14	0	0
OP: OP 15	0	0
OP: OP 16	0	0
OP: OP 17	0	0
OP: OP 18	0	0
OP: OP 19	0	0
OP: OP 20	0	0
OP: OP 21	0	0
OP: OP 22	0	0
OP: OP 23	0	0
OP: OP 24	0	0
OP: OP 25	0	0
OP: OP 26	0	0
OP: OP 27	0	0

No glare found

PV array 9 no glare found

Component	Green glare (min)	Yellow glare (min)
OP: OP 1	0	0
OP: OP 2	0	0
OP: OP 3	0	0
OP: OP 4	0	0
OP: OP 5	0	0
OP: OP 6	0	0
OP: OP 7	0	0
OP: OP 8	0	0
OP: OP 9	0	0
OP: OP 10	0	0
OP: OP 11	0	0
OP: OP 12	0	0
OP: OP 13	0	0
OP: OP 14	0	0
OP: OP 15	0	0
OP: OP 16	0	0
OP: OP 17	0	0
OP: OP 18	0	0
OP: OP 19	0	0
OP: OP 20	0	0
OP: OP 21	0	0
OP: OP 22	0	0
OP: OP 23	0	0
OP: OP 24	0	0
OP: OP 25	0	0
OP: OP 26	0	0
OP: OP 27	0	0

No glare found

Assumptions

- Times associated with glare are denoted in Standard time. For Daylight Savings, add one hour.
- Glare analyses do not automatically account for physical obstructions between reflectors and receptors. This includes buildings, tree cover and geographic obstructions.
- Detailed system geometry is not rigorously simulated.
- The glare hazard determination relies on several approximations including observer eye characteristics, angle of view, and typical blink response time. Actual values and results may vary.
- The system output calculation is a DNI-based approximation that assumes clear, sunny skies year-round. It should not be used in place of more rigorous modeling methods.
- Several V1 calculations utilize the PV array centroid, rather than the actual glare spot location, due to algorithm limitations. This may affect results for large PV footprints. Additional analyses of array sub-sections can provide additional information on expected glare.
- The subtended source angle (glare spot size) is constrained by the PV array footprint size. Partitioning large arrays into smaller sections will reduce the maximum potential subtended angle, potentially impacting results if actual glare spots are larger than the sub-array size. Additional analyses of the combined area of adjacent sub-arrays can provide more information on potential glare hazards. (See previous point on related limitations.)
- Hazard zone boundaries shown in the Glare Hazard plot are an approximation and visual aid. Actual ocular impact outcomes encompass a continuous, not discrete, spectrum.
- Glare locations displayed on receptor plots are approximate. Actual glare-spot locations may differ.
- Refer to the **Help page** for detailed assumptions and limitations not listed here.

ANNEX I: PROW RECEPTOR GLARE RESULTS (1 – 80)

ForgeSolar

East Yorkshire Solar Farm

East Yorkshire Solar Farm PROW 1 - 80

Created Aug 03, 2023
Updated Sep 20, 2023
Time-step 1 minute
Timezone offset UTC0
Minimum sun altitude 0.0 deg
Site ID 96778.16938

Project type Advanced
Project status: active
Category 100 MW to 1 GW

Misc. Analysis Settings

DNI: **varies (1,000.0 W/m^2 peak)**
Ocular transmission coefficient: **0.5**
Pupil diameter: **0.002 m**
Eye focal length: **0.017 m**
Sun subtended angle: **9.3 mrad**

PV Analysis Methodology: **Version 2**
Enhanced subtended angle calculation: **On**

Summary of Results No glare predicted!

PV Name	Tilt	Orientation	"Green" Glare	"Yellow" Glare	Energy Produced
	deg	deg	min	min	kWh
PV array 1	SA tracking	SA tracking	0	0	-
PV array 10	SA tracking	SA tracking	0	0	-
PV array 11	SA tracking	SA tracking	0	0	-
PV array 12	SA tracking	SA tracking	0	0	-
PV array 13	SA tracking	SA tracking	0	0	-
PV array 14	SA tracking	SA tracking	0	0	-
PV array 15	SA tracking	SA tracking	0	0	-
PV array 16	SA tracking	SA tracking	0	0	-
PV array 17	SA tracking	SA tracking	0	0	-
PV array 18	SA tracking	SA tracking	0	0	-
PV array 2	SA tracking	SA tracking	0	0	-
PV array 3	SA tracking	SA tracking	0	0	-
PV array 4	SA tracking	SA tracking	0	0	-
PV array 5	SA tracking	SA tracking	0	0	-
PV array 6	SA tracking	SA tracking	0	0	-
PV array 7	SA tracking	SA tracking	0	0	-
PV array 8	SA tracking	SA tracking	0	0	-
PV array 9	SA tracking	SA tracking	0	0	-

Component Data

PV Array(s)

Total PV footprint area: 8,092,803 m^2

Name: PV array 1
Footprint area: 509,399 m^2
Axis tracking: Single-axis rotation
Backtracking: None
Tracking axis orientation: 180.0 deg
Tracking axis tilt: 0.0 deg
Tracking axis panel offset: 0.0 deg
Maximum tracking angle: 60.0 deg

Rated power: -
Panel material: Light textured glass with AR coating
Vary reflectivity with sun position? Yes
Correlate slope error with surface type? Yes
Slope error: 9.16 mrad

Vertex	Latitude	Longitude	Ground elevation	Height above ground	Total elevation
	deg	deg	m	m	m
1	53.818886	-0.886729	6.34	3.50	9.84
2	53.814883	-0.884283	5.95	3.50	9.45
3	53.814346	-0.888924	7.41	3.50	10.91
4	53.812293	-0.882272	6.90	3.50	10.40
5	53.812699	-0.879482	7.20	3.50	10.70
6	53.813763	-0.878324	7.19	3.50	10.69
7	53.814194	-0.878796	7.39	3.50	10.89
8	53.814523	-0.874633	6.96	3.50	10.46
9	53.816145	-0.874247	6.11	3.50	9.61
10	53.816271	-0.873302	6.84	3.50	10.34
11	53.819464	-0.872702	6.50	3.50	10.00
12	53.818704	-0.878967	6.05	3.50	9.55
13	53.819109	-0.879010	5.90	3.50	9.40

Name: PV array 10
Footprint area: 860,067 m^2
Axis tracking: Single-axis rotation
Backtracking: None
Tracking axis orientation: 180.0 deg
Tracking axis tilt: 0.0 deg
Tracking axis panel offset: 0.0 deg
Maximum tracking angle: 60.0 deg

Rated power: -
Panel material: Light textured glass with AR coating
Vary reflectivity with sun position? Yes
Correlate slope error with surface type? Yes
Slope error: 9.16 mrad

Vertex	Latitude	Longitude	Ground elevation	Height above ground	Total elevation
	deg	deg	m	m	m
1	53.778810	-0.820903	5.07	3.50	8.57
2	53.775868	-0.819959	5.15	3.50	8.65
3	53.775209	-0.825366	5.97	3.50	9.47
4	53.768057	-0.847639	4.41	3.50	7.91
5	53.769858	-0.848455	5.00	3.50	8.50
6	53.769680	-0.850472	4.68	3.50	8.18
7	53.770745	-0.850686	4.00	3.50	7.50
8	53.770999	-0.849098	4.12	3.50	7.62
9	53.773408	-0.849570	5.00	3.50	8.50

Name: PV array 11
Footprint area: 205,559 m^2
Axis tracking: Single-axis rotation
Backtracking: None
Tracking axis orientation: 180.0 deg
Tracking axis tilt: 0.0 deg
Tracking axis panel offset: 0.0 deg
Maximum tracking angle: 60.0 deg

Rated power: -
Panel material: Light textured glass with AR coating
Vary reflectivity with sun position? Yes
Correlate slope error with surface type? Yes
Slope error: 9.16 mrad

Vertex	Latitude	Longitude	Ground elevation	Height above ground	Total elevation
	deg	deg	m	m	m
1	53.776817	-0.861222	5.00	3.50	8.50
2	53.776284	-0.862552	5.00	3.50	8.50
3	53.782826	-0.874268	5.15	3.50	8.65
4	53.784120	-0.871951	4.99	3.50	8.49
5	53.782674	-0.870578	5.10	3.50	8.60
6	53.780646	-0.865299	5.86	3.50	9.36
7	53.780772	-0.863840	6.00	3.50	9.50
8	53.779378	-0.862209	5.00	3.50	8.50
9	53.778972	-0.864012	5.00	3.50	8.50

Name: PV array 12
Footprint area: 153,870 m^2
Axis tracking: Single-axis rotation
Backtracking: None
Tracking axis orientation: 180.0 deg
Tracking axis tilt: 0.0 deg
Tracking axis panel offset: 0.0 deg
Maximum tracking angle: 60.0 deg

Rated power: -
Panel material: Light textured glass with AR coating
Vary reflectivity with sun position? Yes
Correlate slope error with surface type? Yes
Slope error: 9.16 mrad

Vertex	Latitude	Longitude	Ground elevation	Height above ground	Total elevation
	deg	deg	m	m	m
1	53.788227	-0.880191	5.89	3.50	9.39
2	53.788328	-0.881607	4.53	3.50	8.03
3	53.785920	-0.884311	5.06	3.50	8.56
4	53.782902	-0.880234	5.96	3.50	9.46
5	53.783359	-0.878388	5.63	3.50	9.13
6	53.783993	-0.877401	5.39	3.50	8.89
7	53.786021	-0.878388	5.24	3.50	8.74
8	53.786909	-0.879461	5.93	3.50	9.43

Name: PV array 13
Footprint area: 227,092 m^2
Axis tracking: Single-axis rotation
Backtracking: None
Tracking axis orientation: 180.0 deg
Tracking axis tilt: 0.0 deg
Tracking axis panel offset: 0.0 deg
Maximum tracking angle: 60.0 deg

Rated power: -
Panel material: Light textured glass with AR coating
Vary reflectivity with sun position? Yes
Correlate slope error with surface type? Yes
Slope error: 9.16 mrad

Vertex	Latitude	Longitude	Ground elevation	Height above ground	Total elevation
	deg	deg	m	m	m
1	53.782598	-0.896155	6.23	3.50	9.73
2	53.779048	-0.902335	5.55	3.50	9.05
3	53.778414	-0.901820	6.07	3.50	9.57
4	53.778262	-0.899503	6.30	3.50	9.80
5	53.776411	-0.897228	4.61	3.50	8.11
6	53.778287	-0.894610	4.73	3.50	8.23
7	53.780722	-0.891907	5.00	3.50	8.50

Name: PV array 14
Footprint area: 679,077 m^2
Axis tracking: Single-axis rotation
Backtracking: None
Tracking axis orientation: 180.0 deg
Tracking axis tilt: 0.0 deg
Tracking axis panel offset: 0.0 deg
Maximum tracking angle: 60.0 deg

Rated power: -
Panel material: Light textured glass with AR coating
Vary reflectivity with sun position? Yes
Correlate slope error with surface type? Yes
Slope error: 9.16 mrad

Vertex	Latitude	Longitude	Ground elevation	Height above ground	Total elevation
	deg	deg	m	m	m
1	53.776512	-0.895597	5.00	3.50	8.50
2	53.773976	-0.894396	5.00	3.50	8.50
3	53.773722	-0.894524	5.00	3.50	8.50
4	53.773190	-0.891563	5.00	3.50	8.50
5	53.773900	-0.890190	5.00	3.50	8.50
6	53.775193	-0.888774	5.00	3.50	8.50
7	53.773722	-0.884053	5.51	3.50	9.01
8	53.771719	-0.885555	5.49	3.50	8.99
9	53.771313	-0.881950	5.00	3.50	8.50
10	53.768675	-0.879332	5.00	3.50	8.50
11	53.767787	-0.880877	5.86	3.50	9.36
12	53.770273	-0.900919	5.27	3.50	8.77
13	53.772201	-0.899073	6.03	3.50	9.53
14	53.775067	-0.898344	5.81	3.50	9.31

Name: PV array 15
Footprint area: 277,556 m^2
Axis tracking: Single-axis rotation
Backtracking: None
Tracking axis orientation: 180.0 deg
Tracking axis tilt: 0.0 deg
Tracking axis panel offset: 0.0 deg
Maximum tracking angle: 60.0 deg

Rated power: -
Panel material: Light textured glass with AR coating
Vary reflectivity with sun position? Yes
Correlate slope error with surface type? Yes
Slope error: 9.16 mrad

Vertex	Latitude	Longitude	Ground elevation	Height above ground	Total elevation
	deg	deg	m	m	m
1	53.768980	-0.895254	5.00	3.50	8.50
2	53.765454	-0.897528	3.99	3.50	7.49
3	53.764363	-0.894138	4.98	3.50	8.48
4	53.764845	-0.892808	4.28	3.50	7.78
5	53.766062	-0.891520	4.50	3.50	8.00
6	53.765454	-0.887701	5.39	3.50	8.89
7	53.766773	-0.881392	5.53	3.50	9.03
8	53.767128	-0.881221	6.00	3.50	9.50

Name: PV array 16
Footprint area: 251,642 m^2
Axis tracking: Single-axis rotation
Backtracking: None
Tracking axis orientation: 180.0 deg
Tracking axis tilt: 0.0 deg
Tracking axis panel offset: 0.0 deg
Maximum tracking angle: 60.0 deg

Rated power: -
Panel material: Light textured glass with AR coating
Vary reflectivity with sun position? Yes
Correlate slope error with surface type? Yes
Slope error: 9.16 mrad

Vertex	Latitude	Longitude	Ground elevation	Height above ground	Total elevation
	deg	deg	m	m	m
1	53.765961	-0.871693	5.00	3.50	8.50
2	53.764769	-0.872766	5.00	3.50	8.50
3	53.765251	-0.879075	4.32	3.50	7.82
4	53.766671	-0.879676	4.39	3.50	7.89
5	53.766646	-0.880234	4.36	3.50	7.86
6	53.766139	-0.880362	4.41	3.50	7.91
7	53.763145	-0.889975	5.30	3.50	8.80
8	53.764617	-0.890362	4.92	3.50	8.42
9	53.764547	-0.890866	4.70	3.50	8.20
10	53.763044	-0.890619	6.20	3.50	9.70
11	53.761446	-0.894911	9.27	3.50	12.77
12	53.759593	-0.899846	7.65	3.50	11.15
13	53.758782	-0.900318	7.20	3.50	10.70
14	53.758934	-0.900747	7.16	3.50	10.66
15	53.759898	-0.900704	7.56	3.50	11.06
16	53.762029	-0.895469	9.27	3.50	12.77
17	53.762689	-0.896413	8.78	3.50	12.28
18	53.764591	-0.892336	4.64	3.50	8.14
19	53.764667	-0.890319	4.90	3.50	8.40
20	53.765581	-0.890362	4.32	3.50	7.82
21	53.765327	-0.888731	5.39	3.50	8.89
22	53.764211	-0.888688	6.95	3.50	10.45
23	53.764287	-0.887358	6.37	3.50	9.87
24	53.765149	-0.887014	5.83	3.50	9.33
25	53.766595	-0.880834	5.09	3.50	8.59
26	53.766925	-0.879375	4.83	3.50	8.33

Name: PV array 17
Footprint area: 259,874 m^2
Axis tracking: Single-axis rotation
Backtracking: None
Tracking axis orientation: 180.0 deg
Tracking axis tilt: 0.0 deg
Tracking axis panel offset: 0.0 deg
Maximum tracking angle: 60.0 deg

Rated power: -
Panel material: Light textured glass with AR coating
Vary reflectivity with sun position? Yes
Correlate slope error with surface type? Yes
Slope error: 9.16 mrad

Vertex	Latitude	Longitude	Ground elevation	Height above ground	Total elevation
	deg	deg	m	m	m
1	53.800000	-0.898244	8.11	3.50	11.61
2	53.799316	-0.898158	5.69	3.50	9.19
3	53.796553	-0.900947	5.33	3.50	8.83
4	53.795792	-0.901205	5.86	3.50	9.36
5	53.795032	-0.896699	5.54	3.50	9.04
6	53.794246	-0.893437	5.00	3.50	8.50
7	53.795083	-0.892579	5.13	3.50	8.63
8	53.798150	-0.892794	5.38	3.50	8.88
9	53.800076	-0.893394	5.88	3.50	9.38
10	53.800228	-0.897471	6.28	3.50	9.78

Name: PV array 18
Footprint area: 191,697 m^2
Axis tracking: Single-axis rotation
Backtracking: None
Tracking axis orientation: 180.0 deg
Tracking axis tilt: 0.0 deg
Tracking axis panel offset: 0.0 deg
Maximum tracking angle: 60.0 deg

Rated power: -
Panel material: Light textured glass with AR coating
Vary reflectivity with sun position? Yes
Correlate slope error with surface type? Yes
Slope error: 9.16 mrad

Vertex	Latitude	Longitude	Ground elevation	Height above ground	Total elevation
	deg	deg	m	m	m
1	53.792776	-0.893609	4.96	3.50	8.46
2	53.791736	-0.894982	5.48	3.50	8.98
3	53.790697	-0.896012	4.98	3.50	8.48
4	53.788998	-0.897042	4.27	3.50	7.77
5	53.789100	-0.897986	4.86	3.50	8.36
6	53.788973	-0.899360	5.24	3.50	8.74
7	53.788821	-0.900046	4.94	3.50	8.44
8	53.789227	-0.902020	4.84	3.50	8.34
9	53.789531	-0.902063	6.31	3.50	9.81
10	53.789556	-0.900990	5.15	3.50	8.65
11	53.792472	-0.900347	5.64	3.50	9.14
12	53.792903	-0.901849	6.09	3.50	9.59
13	53.794322	-0.900390	6.18	3.50	9.68

Name: PV array 2
Footprint area: 632,085 m^2
Axis tracking: Single-axis rotation
Backtracking: None
Tracking axis orientation: 180.0 deg
Tracking axis tilt: 0.0 deg
Tracking axis panel offset: 0.0 deg
Maximum tracking angle: 60.0 deg

Rated power: -
Panel material: Light textured glass with AR coating
Vary reflectivity with sun position? Yes
Correlate slope error with surface type? Yes
Slope error: 9.16 mrad

Vertex	Latitude	Longitude	Ground elevation	Height above ground	Total elevation
	deg	deg	m	m	m
1	53.813872	-0.874438	6.25	3.50	9.75
2	53.811034	-0.872979	7.20	3.50	10.70
3	53.811516	-0.871090	7.04	3.50	10.54
4	53.808804	-0.868730	6.72	3.50	10.22
5	53.809108	-0.867485	6.99	3.50	10.49
6	53.808323	-0.867687	6.25	3.50	9.75
7	53.806878	-0.867000	6.02	3.50	9.52
8	53.807183	-0.865970	6.43	3.50	9.93
9	53.805325	-0.864511	6.24	3.50	9.74
10	53.805173	-0.865283	6.58	3.50	10.08
11	53.804083	-0.864425	7.27	3.50	10.77
12	53.802993	-0.867987	6.40	3.50	9.90
13	53.802537	-0.867343	6.48	3.50	9.98
14	53.802283	-0.866228	6.35	3.50	9.85
15	53.800991	-0.864854	6.93	3.50	10.43
16	53.803094	-0.859876	6.29	3.50	9.79
17	53.803551	-0.859790	6.05	3.50	9.55
18	53.804210	-0.857087	6.54	3.50	10.04
19	53.807758	-0.858374	6.00	3.50	9.50
20	53.807859	-0.862666	5.93	3.50	9.43
21	53.810140	-0.863524	5.70	3.50	9.20
22	53.813897	-0.865584	6.85	3.50	10.35
23	53.813517	-0.868545	5.83	3.50	9.33
24	53.813618	-0.870433	5.69	3.50	9.19
25	53.814100	-0.871678	6.48	3.50	9.98

Name: PV array 3
Footprint area: 155,482 m^2
Axis tracking: Single-axis rotation
Backtracking: None
Tracking axis orientation: 180.0 deg
Tracking axis tilt: 0.0 deg
Tracking axis panel offset: 0.0 deg
Maximum tracking angle: 60.0 deg

Rated power: -
Panel material: Light textured glass with AR coating
Vary reflectivity with sun position? Yes
Correlate slope error with surface type? Yes
Slope error: 9.16 mrad

Vertex	Latitude	Longitude	Ground elevation	Height above ground	Total elevation
	deg	deg	m	m	m
1	53.813884	-0.865326	6.57	3.50	10.07
2	53.810185	-0.863052	6.00	3.50	9.50
3	53.808158	-0.862236	5.93	3.50	9.43
4	53.808132	-0.858760	6.07	3.50	9.57
5	53.810172	-0.859726	6.68	3.50	10.18
6	53.810844	-0.860477	5.85	3.50	9.35
7	53.811807	-0.860799	5.51	3.50	9.01
8	53.812909	-0.860777	5.73	3.50	9.23
9	53.813175	-0.860649	5.42	3.50	8.92
10	53.813922	-0.860949	5.47	3.50	8.97
11	53.814416	-0.860691	6.67	3.50	10.17

Name: PV array 4
Footprint area: 630,236 m^2
Axis tracking: Single-axis rotation
Backtracking: None
Tracking axis orientation: 180.0 deg
Tracking axis tilt: 0.0 deg
Tracking axis panel offset: 0.0 deg
Maximum tracking angle: 60.0 deg

Rated power: -
Panel material: Light textured glass with AR coating
Vary reflectivity with sun position? Yes
Correlate slope error with surface type? Yes
Slope error: 9.16 mrad

Vertex	Latitude	Longitude	Ground elevation	Height above ground	Total elevation
	deg	deg	m	m	m
1	53.814581	-0.855301	5.71	3.50	9.21
2	53.814100	-0.855130	5.26	3.50	8.76
3	53.813454	-0.854701	5.23	3.50	8.73
4	53.811148	-0.860065	5.60	3.50	9.10
5	53.810261	-0.859271	5.85	3.50	9.35
6	53.805383	-0.856782	5.66	3.50	9.16
7	53.805649	-0.855001	5.25	3.50	8.75
8	53.804901	-0.853842	5.22	3.50	8.72
9	53.805636	-0.849186	5.28	3.50	8.78
10	53.804496	-0.847255	5.46	3.50	8.96
11	53.804166	-0.847276	5.90	3.50	9.40
12	53.803748	-0.853327	6.05	3.50	9.55
13	53.798337	-0.850667	6.07	3.50	9.57
14	53.799248	-0.848757	5.83	3.50	9.33
15	53.799248	-0.848757	5.83	3.50	9.33
16	53.799248	-0.848757	5.83	3.50	9.33
17	53.799248	-0.848757	5.83	3.50	9.33
18	53.799248	-0.848757	5.83	3.50	9.33
19	53.799248	-0.848757	5.83	3.50	9.33
20	53.799248	-0.848757	5.83	3.50	9.33
21	53.801580	-0.849851	5.75	3.50	9.25
22	53.801580	-0.849851	5.75	3.50	9.25
23	53.801580	-0.849851	5.75	3.50	9.25
24	53.801580	-0.849851	5.75	3.50	9.25
25	53.801580	-0.849851	5.75	3.50	9.25
26	53.801580	-0.849851	5.75	3.50	9.25
27	53.801580	-0.849851	5.75	3.50	9.25
28	53.801679	-0.849207	5.31	3.50	8.81
29	53.801679	-0.849207	5.31	3.50	8.81
30	53.801679	-0.849207	5.31	3.50	8.81
31	53.801679	-0.849207	5.31	3.50	8.81
32	53.801679	-0.849207	5.31	3.50	8.81
33	53.801679	-0.849207	5.31	3.50	8.81
34	53.801679	-0.849207	5.31	3.50	8.81
35	53.799547	-0.848306	5.75	3.50	9.25
36	53.799547	-0.848306	5.75	3.50	9.25
37	53.799547	-0.848306	5.75	3.50	9.25
38	53.799547	-0.848306	5.75	3.50	9.25
39	53.799547	-0.848306	5.75	3.50	9.25
40	53.799547	-0.848306	5.75	3.50	9.25
41	53.799547	-0.848306	5.75	3.50	9.25
42	53.799972	-0.847148	5.62	3.50	9.12
43	53.800263	-0.845581	5.93	3.50	9.43
44	53.804103	-0.847276	5.53	3.50	9.03
45	53.804597	-0.847233	4.75	3.50	8.25
46	53.807681	-0.847384	5.70	3.50	9.20
47	53.808454	-0.848607	5.76	3.50	9.26
48	53.807238	-0.851632	5.81	3.50	9.31
49	53.808568	-0.853714	5.85	3.50	9.35
50	53.808366	-0.854658	5.82	3.50	9.32
51	53.809671	-0.855108	4.90	3.50	8.40
52	53.810000	-0.853907	5.43	3.50	8.93
53	53.809709	-0.853628	5.37	3.50	8.87
54	53.811558	-0.850538	5.71	3.50	9.21
55	53.813269	-0.852190	5.07	3.50	8.57
56	53.814244	-0.852684	5.73	3.50	9.23

Name: PV array 5
Footprint area: 1,762,515 m^2
Axis tracking: Single-axis rotation
Backtracking: None
Tracking axis orientation: 180.0 deg
Tracking axis tilt: 0.0 deg
Tracking axis panel offset: 0.0 deg
Maximum tracking angle: 60.0 deg

Rated power: -
Panel material: Light textured glass with AR coating
Vary reflectivity with sun position? Yes
Correlate slope error with surface type? Yes
Slope error: 9.16 mrad

Vertex	Latitude	Longitude	Ground elevation	Height above ground	Total elevation
	deg	deg	m	m	m
1	53.807708	-0.847197	5.51	3.50	9.01
2	53.804096	-0.847004	5.39	3.50	8.89
3	53.797342	-0.843764	5.19	3.50	8.69
4	53.797874	-0.841661	5.30	3.50	8.80
5	53.799610	-0.837906	5.60	3.50	9.10
6	53.801258	-0.834001	5.60	3.50	9.10
7	53.803577	-0.827735	5.05	3.50	8.55
8	53.802145	-0.825933	5.34	3.50	8.84
9	53.799851	-0.832398	6.04	3.50	9.54
10	53.797215	-0.829265	5.09	3.50	8.59
11	53.795048	-0.834844	5.24	3.50	8.74
12	53.792817	-0.833686	5.73	3.50	9.23
13	53.792944	-0.831368	5.17	3.50	8.67
14	53.794439	-0.826390	5.04	3.50	8.54
15	53.795301	-0.827248	5.36	3.50	8.86
16	53.795707	-0.826991	6.45	3.50	9.95
17	53.797253	-0.828793	5.75	3.50	9.25
18	53.797861	-0.826647	5.38	3.50	8.88
19	53.796214	-0.825274	5.21	3.50	8.71
20	53.796290	-0.824502	4.27	3.50	7.77
21	53.795200	-0.823558	4.11	3.50	7.61
22	53.795986	-0.819695	4.60	3.50	8.10
23	53.799027	-0.821626	4.56	3.50	8.06
24	53.801638	-0.823944	4.37	3.50	7.87
25	53.803944	-0.826519	4.96	3.50	8.46
26	53.804172	-0.825918	4.35	3.50	7.85
27	53.802018	-0.823558	5.21	3.50	8.71
28	53.802094	-0.822656	4.99	3.50	8.49
29	53.801511	-0.822442	5.47	3.50	8.97
30	53.801283	-0.822871	4.64	3.50	8.14
31	53.799103	-0.820940	4.71	3.50	8.21
32	53.800244	-0.816047	4.44	3.50	7.94
33	53.798368	-0.814846	4.75	3.50	8.25
34	53.797481	-0.814846	4.42	3.50	7.92
35	53.799737	-0.810683	4.71	3.50	8.21
36	53.802753	-0.814331	2.81	3.50	6.31
37	53.802221	-0.816477	4.38	3.50	7.88
38	53.802145	-0.818408	3.53	3.50	7.03
39	53.802981	-0.821240	5.10	3.50	8.60
40	53.803843	-0.822141	4.77	3.50	8.27
41	53.808202	-0.827077	4.72	3.50	8.22
42	53.807087	-0.832012	5.04	3.50	8.54
43	53.804451	-0.840724	5.00	3.50	8.50
44	53.806872	-0.843073	5.31	3.50	8.81
45	53.807125	-0.842815	4.94	3.50	8.44
46	53.807911	-0.843545	5.00	3.50	8.50
47	53.808443	-0.844746	4.87	3.50	8.37

Name: PV array 6
Footprint area: 53,769 m^2
Axis tracking: Single-axis rotation
Backtracking: None
Tracking axis orientation: 180.0 deg
Tracking axis tilt: 0.0 deg
Tracking axis panel offset: 0.0 deg
Maximum tracking angle: 60.0 deg

Rated power: -
Panel material: Light textured glass with AR coating
Vary reflectivity with sun position? Yes
Correlate slope error with surface type? Yes
Slope error: 9.16 mrad

Vertex	Latitude	Longitude	Ground elevation	Height above ground	Total elevation
	deg	deg	m	m	m
1	53.800588	-0.865277	6.65	3.50	10.15
2	53.801779	-0.862166	6.43	3.50	9.93
3	53.800132	-0.860192	6.45	3.50	9.95
4	53.799054	-0.863110	6.98	3.50	10.48
5	53.799802	-0.864419	7.68	3.50	11.18

Name: PV array 7
Footprint area: 283,999 m^2
Axis tracking: Single-axis rotation
Backtracking: None
Tracking axis orientation: 180.0 deg
Tracking axis tilt: 0.0 deg
Tracking axis panel offset: 0.0 deg
Maximum tracking angle: 60.0 deg

Rated power: -
Panel material: Light textured glass with AR coating
Vary reflectivity with sun position? Yes
Correlate slope error with surface type? Yes
Slope error: 9.16 mrad

Vertex	Latitude	Longitude	Ground elevation	Height above ground	Total elevation
	deg	deg	m	m	m
1	53.797257	-0.867135	6.45	3.50	9.95
2	53.794393	-0.864903	6.01	3.50	9.51
3	53.792770	-0.869624	6.00	3.50	9.50
4	53.791553	-0.868208	5.96	3.50	9.46
5	53.789018	-0.874988	6.33	3.50	9.83
6	53.790007	-0.876319	7.32	3.50	10.82
7	53.790311	-0.875374	5.97	3.50	9.47
8	53.790666	-0.875675	6.59	3.50	10.09
9	53.791199	-0.874130	6.37	3.50	9.87
10	53.791477	-0.874044	5.65	3.50	9.15
11	53.791731	-0.873486	5.89	3.50	9.39
12	53.792872	-0.873143	5.95	3.50	9.45
13	53.793201	-0.873100	5.86	3.50	9.36
14	53.793810	-0.871684	5.84	3.50	9.34
15	53.795457	-0.872800	5.36	3.50	8.86
16	53.796269	-0.871684	5.24	3.50	8.74
17	53.797232	-0.869409	5.79	3.50	9.29
18	53.796750	-0.868808	6.03	3.50	9.53

Name: PV array 8
Footprint area: 513,457 m^2
Axis tracking: Single-axis rotation
Backtracking: None
Tracking axis orientation: 180.0 deg
Tracking axis tilt: 0.0 deg
Tracking axis panel offset: 0.0 deg
Maximum tracking angle: 60.0 deg

Rated power: -
Panel material: Light textured glass with AR coating
Vary reflectivity with sun position? Yes
Correlate slope error with surface type? Yes
Slope error: 9.16 mrad

Vertex	Latitude	Longitude	Ground elevation	Height above ground	Total elevation
	deg	deg	m	m	m
1	53.790717	-0.857736	6.07	3.50	9.57
2	53.787725	-0.853702	5.77	3.50	9.27
3	53.787041	-0.856191	5.84	3.50	9.34
4	53.786458	-0.856277	5.48	3.50	8.98
5	53.786103	-0.857565	5.78	3.50	9.28
6	53.785291	-0.856792	5.63	3.50	9.13
7	53.785215	-0.852071	5.00	3.50	8.50
8	53.784328	-0.851900	4.64	3.50	8.14
9	53.784531	-0.849883	5.48	3.50	8.98
10	53.785038	-0.847179	5.34	3.50	8.84
11	53.783035	-0.846020	4.21	3.50	7.71
12	53.783694	-0.842587	5.00	3.50	8.50
13	53.785722	-0.843059	4.65	3.50	8.15
14	53.786736	-0.843789	4.23	3.50	7.73
15	53.789044	-0.845591	5.87	3.50	9.37
16	53.789756	-0.846235	5.45	3.50	8.95
17	53.788780	-0.849668	5.37	3.50	8.87
18	53.790301	-0.851406	6.41	3.50	9.91
19	53.792443	-0.853187	7.67	3.50	11.17

Name: PV array 9
Footprint area: 445,425 m^2
Axis tracking: Single-axis rotation
Backtracking: None
Tracking axis orientation: 180.0 deg
Tracking axis tilt: 0.0 deg
Tracking axis panel offset: 0.0 deg
Maximum tracking angle: 60.0 deg

Rated power: -
Panel material: Light textured glass with AR coating
Vary reflectivity with sun position? Yes
Correlate slope error with surface type? Yes
Slope error: 9.16 mrad

Vertex	Latitude	Longitude	Ground elevation	Height above ground	Total elevation
	deg	deg	m	m	m
1	53.783172	-0.836739	5.76	3.50	9.26
2	53.780154	-0.833434	5.23	3.50	8.73
3	53.779672	-0.835022	5.35	3.50	8.85
4	53.777263	-0.832447	5.19	3.50	8.69
5	53.775361	-0.841459	5.51	3.50	9.01
6	53.781245	-0.845408	5.09	3.50	8.59

Discrete Observation Receptors

Number	Latitude	Longitude	Ground elevation	Height above ground	Total Elevation
	deg	deg	m	m	m
OP 1	53.816155	-0.902762	7.83	2.50	10.33
OP 2	53.816713	-0.900294	8.15	2.50	10.65
OP 3	53.817258	-0.897591	9.12	2.50	11.62
OP 4	53.817904	-0.894522	7.90	2.50	10.40
OP 5	53.818524	-0.891625	8.41	2.50	10.91
OP 6	53.819196	-0.888771	7.50	2.50	10.00
OP 7	53.819829	-0.885724	6.68	2.50	9.18
OP 8	53.820437	-0.882956	8.15	2.50	10.65
OP 9	53.821070	-0.880038	7.49	2.50	9.99
OP 10	53.819310	-0.872292	6.93	2.50	9.43
OP 11	53.817574	-0.872571	5.80	2.50	8.30
OP 12	53.815129	-0.873290	7.84	2.50	10.34
OP 13	53.814167	-0.871970	6.11	2.50	8.61
OP 14	53.813653	-0.869878	6.35	2.50	8.85
OP 15	53.813843	-0.866842	6.93	2.50	9.43
OP 16	53.812925	-0.864932	5.95	2.50	8.45
OP 17	53.810739	-0.863655	5.81	2.50	8.31
OP 18	53.808852	-0.862797	5.87	2.50	8.37
OP 19	53.807958	-0.861767	5.83	2.50	8.33
OP 20	53.807952	-0.858430	5.78	2.50	8.28
OP 21	53.820963	-0.855877	7.79	2.50	10.29
OP 22	53.820006	-0.853731	6.42	2.50	8.92
OP 23	53.818911	-0.851242	6.01	2.50	8.51
OP 24	53.817821	-0.848570	5.03	2.50	7.53
OP 25	53.817182	-0.847551	5.70	2.50	8.20
OP 26	53.822426	-0.846747	6.02	2.50	8.52
OP 27	53.820570	-0.846307	6.60	2.50	9.10
OP 28	53.818676	-0.846747	5.11	2.50	7.61
OP 29	53.815535	-0.847551	6.43	2.50	8.93
OP 30	53.813894	-0.847476	4.71	2.50	7.21
OP 31	53.812202	-0.847426	5.49	2.50	7.99
OP 32	53.811151	-0.846788	6.07	2.50	8.57
OP 33	53.819759	-0.843354	5.08	2.50	7.58
OP 34	53.820189	-0.841091	7.83	2.50	10.33
OP 35	53.811239	-0.845007	4.95	2.50	7.45
OP 36	53.812874	-0.846466	5.18	2.50	7.68
OP 37	53.809789	-0.849899	6.17	2.50	8.67
OP 38	53.808496	-0.848558	5.68	2.50	8.18
OP 39	53.806475	-0.847228	5.15	2.50	7.65
OP 40	53.804758	-0.847142	5.15	2.50	7.65
OP 41	53.802934	-0.846595	5.01	2.50	7.51
OP 42	53.801692	-0.846058	5.02	2.50	7.52
OP 43	53.800120	-0.845264	5.39	2.50	7.89
OP 44	53.797991	-0.844299	5.48	2.50	7.98
OP 45	53.796597	-0.843827	5.22	2.50	7.72
OP 46	53.794785	-0.842603	6.41	2.50	8.91
OP 47	53.793669	-0.841702	6.90	2.50	9.40
OP 48	53.809218	-0.878867	6.79	2.50	9.29
OP 49	53.807698	-0.872215	5.95	2.50	8.45
OP 50	53.806874	-0.875798	7.15	2.50	9.65
OP 51	53.805785	-0.874447	7.58	2.50	10.08
OP 52	53.804213	-0.875434	7.28	2.50	9.78
OP 53	53.802731	-0.875541	6.68	2.50	9.18
OP 54	53.800982	-0.873975	5.87	2.50	8.37
OP 55	53.799449	-0.872494	5.87	2.50	8.37
OP 56	53.797776	-0.871249	5.57	2.50	8.07
OP 57	53.803288	-0.856283	7.43	2.50	9.93
OP 58	53.801375	-0.855607	6.73	2.50	9.23
OP 59	53.799778	-0.855381	7.17	2.50	9.67
OP 60	53.797624	-0.854180	6.73	2.50	9.23
OP 61	53.796229	-0.853193	6.69	2.50	9.19
OP 62	53.796610	-0.846219	5.84	2.50	8.34
OP 63	53.798105	-0.847507	5.21	2.50	7.71
OP 64	53.799550	-0.848665	5.57	2.50	8.07

OP 65	53.801489	-0.849481	5.72	2.50	8.22
OP 66	53.787331	-0.873170	6.07	2.50	8.57
OP 67	53.788244	-0.870788	6.30	2.50	8.80
OP 68	53.789182	-0.868299	5.98	2.50	8.48
OP 69	53.789740	-0.865681	5.97	2.50	8.47
OP 70	53.789271	-0.862248	6.53	2.50	9.03
OP 71	53.790145	-0.859673	5.87	2.50	8.37
OP 72	53.791185	-0.856969	5.94	2.50	8.44
OP 73	53.792097	-0.854459	5.59	2.50	8.09
OP 74	53.792795	-0.852292	6.05	2.50	8.55
OP 75	53.791781	-0.839213	6.17	2.50	8.67
OP 76	53.790348	-0.837733	5.57	2.50	8.07
OP 77	53.790855	-0.835329	5.15	2.50	7.65
OP 78	53.788865	-0.834643	5.06	2.50	7.56
OP 79	53.787559	-0.832905	4.99	2.50	7.49
OP 80	53.787794	-0.829804	4.29	2.50	6.79

Summary of PV Glare Analysis

PV configuration and total predicted glare

PV Name	Tilt	Orientation	"Green" Glare	"Yellow" Glare	Energy Produced	Data File
	deg	deg	min	min	kWh	
PV array 1	SA tracking	SA tracking	0	0	-	-
PV array 10	SA tracking	SA tracking	0	0	-	-
PV array 11	SA tracking	SA tracking	0	0	-	-
PV array 12	SA tracking	SA tracking	0	0	-	-
PV array 13	SA tracking	SA tracking	0	0	-	-
PV array 14	SA tracking	SA tracking	0	0	-	-
PV array 15	SA tracking	SA tracking	0	0	-	-
PV array 16	SA tracking	SA tracking	0	0	-	-
PV array 17	SA tracking	SA tracking	0	0	-	-
PV array 18	SA tracking	SA tracking	0	0	-	-
PV array 2	SA tracking	SA tracking	0	0	-	-
PV array 3	SA tracking	SA tracking	0	0	-	-
PV array 4	SA tracking	SA tracking	0	0	-	-
PV array 5	SA tracking	SA tracking	0	0	-	-
PV array 6	SA tracking	SA tracking	0	0	-	-
PV array 7	SA tracking	SA tracking	0	0	-	-
PV array 8	SA tracking	SA tracking	0	0	-	-
PV array 9	SA tracking	SA tracking	0	0	-	-

PV & Receptor Analysis Results

Results for each PV array and receptor

PV array 1 no glare found

Component	Green glare (min)	Yellow glare (min)
OP: OP 1	0	0
OP: OP 2	0	0
OP: OP 3	0	0
OP: OP 4	0	0
OP: OP 5	0	0
OP: OP 6	0	0
OP: OP 7	0	0
OP: OP 8	0	0
OP: OP 9	0	0
OP: OP 10	0	0
OP: OP 11	0	0
OP: OP 12	0	0
OP: OP 13	0	0
OP: OP 14	0	0
OP: OP 15	0	0
OP: OP 16	0	0
OP: OP 17	0	0
OP: OP 18	0	0
OP: OP 19	0	0
OP: OP 20	0	0
OP: OP 21	0	0
OP: OP 22	0	0
OP: OP 23	0	0
OP: OP 24	0	0
OP: OP 25	0	0
OP: OP 26	0	0
OP: OP 27	0	0
OP: OP 28	0	0
OP: OP 29	0	0
OP: OP 30	0	0
OP: OP 31	0	0
OP: OP 32	0	0
OP: OP 33	0	0
OP: OP 34	0	0
OP: OP 35	0	0
OP: OP 36	0	0
OP: OP 37	0	0
OP: OP 38	0	0
OP: OP 39	0	0
OP: OP 40	0	0
OP: OP 41	0	0
OP: OP 42	0	0
OP: OP 43	0	0
OP: OP 44	0	0
OP: OP 45	0	0
OP: OP 46	0	0
OP: OP 47	0	0
OP: OP 48	0	0
OP: OP 49	0	0
OP: OP 50	0	0
OP: OP 51	0	0
OP: OP 52	0	0
OP: OP 53	0	0

OP: OP 54	0	0
OP: OP 55	0	0
OP: OP 56	0	0
OP: OP 57	0	0
OP: OP 58	0	0
OP: OP 59	0	0
OP: OP 60	0	0
OP: OP 61	0	0
OP: OP 62	0	0
OP: OP 63	0	0
OP: OP 64	0	0
OP: OP 65	0	0
OP: OP 66	0	0
OP: OP 67	0	0
OP: OP 68	0	0
OP: OP 69	0	0
OP: OP 70	0	0
OP: OP 71	0	0
OP: OP 72	0	0
OP: OP 73	0	0
OP: OP 74	0	0
OP: OP 75	0	0
OP: OP 76	0	0
OP: OP 77	0	0
OP: OP 78	0	0
OP: OP 79	0	0
OP: OP 80	0	0

No glare found

PV array 10 no glare found

Component	Green glare (min)	Yellow glare (min)
OP: OP 1	0	0
OP: OP 2	0	0
OP: OP 3	0	0
OP: OP 4	0	0
OP: OP 5	0	0
OP: OP 6	0	0
OP: OP 7	0	0
OP: OP 8	0	0
OP: OP 9	0	0
OP: OP 10	0	0
OP: OP 11	0	0
OP: OP 12	0	0
OP: OP 13	0	0
OP: OP 14	0	0
OP: OP 15	0	0
OP: OP 16	0	0
OP: OP 17	0	0
OP: OP 18	0	0
OP: OP 19	0	0
OP: OP 20	0	0

OP: OP 21	0	0
OP: OP 22	0	0
OP: OP 23	0	0
OP: OP 24	0	0
OP: OP 25	0	0
OP: OP 26	0	0
OP: OP 27	0	0
OP: OP 28	0	0
OP: OP 29	0	0
OP: OP 30	0	0
OP: OP 31	0	0
OP: OP 32	0	0
OP: OP 33	0	0
OP: OP 34	0	0
OP: OP 35	0	0
OP: OP 36	0	0
OP: OP 37	0	0
OP: OP 38	0	0
OP: OP 39	0	0
OP: OP 40	0	0
OP: OP 41	0	0
OP: OP 42	0	0
OP: OP 43	0	0
OP: OP 44	0	0
OP: OP 45	0	0
OP: OP 46	0	0
OP: OP 47	0	0
OP: OP 48	0	0
OP: OP 49	0	0
OP: OP 50	0	0
OP: OP 51	0	0
OP: OP 52	0	0
OP: OP 53	0	0
OP: OP 54	0	0
OP: OP 55	0	0
OP: OP 56	0	0
OP: OP 57	0	0
OP: OP 58	0	0
OP: OP 59	0	0
OP: OP 60	0	0
OP: OP 61	0	0
OP: OP 62	0	0
OP: OP 63	0	0
OP: OP 64	0	0
OP: OP 65	0	0
OP: OP 66	0	0
OP: OP 67	0	0
OP: OP 68	0	0
OP: OP 69	0	0
OP: OP 70	0	0
OP: OP 71	0	0
OP: OP 72	0	0
OP: OP 73	0	0
OP: OP 74	0	0
OP: OP 75	0	0

OP: OP 76	0	0
OP: OP 77	0	0
OP: OP 78	0	0
OP: OP 79	0	0
OP: OP 80	0	0

No glare found

PV array 11 no glare found

Component	Green glare (min)	Yellow glare (min)
OP: OP 1	0	0
OP: OP 2	0	0
OP: OP 3	0	0
OP: OP 4	0	0
OP: OP 5	0	0
OP: OP 6	0	0
OP: OP 7	0	0
OP: OP 8	0	0
OP: OP 9	0	0
OP: OP 10	0	0
OP: OP 11	0	0
OP: OP 12	0	0
OP: OP 13	0	0
OP: OP 14	0	0
OP: OP 15	0	0
OP: OP 16	0	0
OP: OP 17	0	0
OP: OP 18	0	0
OP: OP 19	0	0
OP: OP 20	0	0
OP: OP 21	0	0
OP: OP 22	0	0
OP: OP 23	0	0
OP: OP 24	0	0
OP: OP 25	0	0
OP: OP 26	0	0
OP: OP 27	0	0
OP: OP 28	0	0
OP: OP 29	0	0
OP: OP 30	0	0
OP: OP 31	0	0
OP: OP 32	0	0
OP: OP 33	0	0
OP: OP 34	0	0
OP: OP 35	0	0
OP: OP 36	0	0
OP: OP 37	0	0
OP: OP 38	0	0
OP: OP 39	0	0
OP: OP 40	0	0
OP: OP 41	0	0
OP: OP 42	0	0

OP: OP 43	0	0
OP: OP 44	0	0
OP: OP 45	0	0
OP: OP 46	0	0
OP: OP 47	0	0
OP: OP 48	0	0
OP: OP 49	0	0
OP: OP 50	0	0
OP: OP 51	0	0
OP: OP 52	0	0
OP: OP 53	0	0
OP: OP 54	0	0
OP: OP 55	0	0
OP: OP 56	0	0
OP: OP 57	0	0
OP: OP 58	0	0
OP: OP 59	0	0
OP: OP 60	0	0
OP: OP 61	0	0
OP: OP 62	0	0
OP: OP 63	0	0
OP: OP 64	0	0
OP: OP 65	0	0
OP: OP 66	0	0
OP: OP 67	0	0
OP: OP 68	0	0
OP: OP 69	0	0
OP: OP 70	0	0
OP: OP 71	0	0
OP: OP 72	0	0
OP: OP 73	0	0
OP: OP 74	0	0
OP: OP 75	0	0
OP: OP 76	0	0
OP: OP 77	0	0
OP: OP 78	0	0
OP: OP 79	0	0
OP: OP 80	0	0

No glare found

PV array 12 no glare found

Component	Green glare (min)	Yellow glare (min)
OP: OP 1	0	0
OP: OP 2	0	0
OP: OP 3	0	0
OP: OP 4	0	0
OP: OP 5	0	0
OP: OP 6	0	0
OP: OP 7	0	0
OP: OP 8	0	0
OP: OP 9	0	0

OP: OP 10	0	0
OP: OP 11	0	0
OP: OP 12	0	0
OP: OP 13	0	0
OP: OP 14	0	0
OP: OP 15	0	0
OP: OP 16	0	0
OP: OP 17	0	0
OP: OP 18	0	0
OP: OP 19	0	0
OP: OP 20	0	0
OP: OP 21	0	0
OP: OP 22	0	0
OP: OP 23	0	0
OP: OP 24	0	0
OP: OP 25	0	0
OP: OP 26	0	0
OP: OP 27	0	0
OP: OP 28	0	0
OP: OP 29	0	0
OP: OP 30	0	0
OP: OP 31	0	0
OP: OP 32	0	0
OP: OP 33	0	0
OP: OP 34	0	0
OP: OP 35	0	0
OP: OP 36	0	0
OP: OP 37	0	0
OP: OP 38	0	0
OP: OP 39	0	0
OP: OP 40	0	0
OP: OP 41	0	0
OP: OP 42	0	0
OP: OP 43	0	0
OP: OP 44	0	0
OP: OP 45	0	0
OP: OP 46	0	0
OP: OP 47	0	0
OP: OP 48	0	0
OP: OP 49	0	0
OP: OP 50	0	0
OP: OP 51	0	0
OP: OP 52	0	0
OP: OP 53	0	0
OP: OP 54	0	0
OP: OP 55	0	0
OP: OP 56	0	0
OP: OP 57	0	0
OP: OP 58	0	0
OP: OP 59	0	0
OP: OP 60	0	0
OP: OP 61	0	0
OP: OP 62	0	0
OP: OP 63	0	0
OP: OP 64	0	0

OP: OP 65	0	0
OP: OP 66	0	0
OP: OP 67	0	0
OP: OP 68	0	0
OP: OP 69	0	0
OP: OP 70	0	0
OP: OP 71	0	0
OP: OP 72	0	0
OP: OP 73	0	0
OP: OP 74	0	0
OP: OP 75	0	0
OP: OP 76	0	0
OP: OP 77	0	0
OP: OP 78	0	0
OP: OP 79	0	0
OP: OP 80	0	0

No glare found

PV array 13 no glare found

Component	Green glare (min)	Yellow glare (min)
OP: OP 1	0	0
OP: OP 2	0	0
OP: OP 3	0	0
OP: OP 4	0	0
OP: OP 5	0	0
OP: OP 6	0	0
OP: OP 7	0	0
OP: OP 8	0	0
OP: OP 9	0	0
OP: OP 10	0	0
OP: OP 11	0	0
OP: OP 12	0	0
OP: OP 13	0	0
OP: OP 14	0	0
OP: OP 15	0	0
OP: OP 16	0	0
OP: OP 17	0	0
OP: OP 18	0	0
OP: OP 19	0	0
OP: OP 20	0	0
OP: OP 21	0	0
OP: OP 22	0	0
OP: OP 23	0	0
OP: OP 24	0	0
OP: OP 25	0	0
OP: OP 26	0	0
OP: OP 27	0	0
OP: OP 28	0	0
OP: OP 29	0	0
OP: OP 30	0	0
OP: OP 31	0	0

OP: OP 32	0	0
OP: OP 33	0	0
OP: OP 34	0	0
OP: OP 35	0	0
OP: OP 36	0	0
OP: OP 37	0	0
OP: OP 38	0	0
OP: OP 39	0	0
OP: OP 40	0	0
OP: OP 41	0	0
OP: OP 42	0	0
OP: OP 43	0	0
OP: OP 44	0	0
OP: OP 45	0	0
OP: OP 46	0	0
OP: OP 47	0	0
OP: OP 48	0	0
OP: OP 49	0	0
OP: OP 50	0	0
OP: OP 51	0	0
OP: OP 52	0	0
OP: OP 53	0	0
OP: OP 54	0	0
OP: OP 55	0	0
OP: OP 56	0	0
OP: OP 57	0	0
OP: OP 58	0	0
OP: OP 59	0	0
OP: OP 60	0	0
OP: OP 61	0	0
OP: OP 62	0	0
OP: OP 63	0	0
OP: OP 64	0	0
OP: OP 65	0	0
OP: OP 66	0	0
OP: OP 67	0	0
OP: OP 68	0	0
OP: OP 69	0	0
OP: OP 70	0	0
OP: OP 71	0	0
OP: OP 72	0	0
OP: OP 73	0	0
OP: OP 74	0	0
OP: OP 75	0	0
OP: OP 76	0	0
OP: OP 77	0	0
OP: OP 78	0	0
OP: OP 79	0	0
OP: OP 80	0	0

No glare found

PV array 14 no glare found

Component	Green glare (min)	Yellow glare (min)
OP: OP 1	0	0
OP: OP 2	0	0
OP: OP 3	0	0
OP: OP 4	0	0
OP: OP 5	0	0
OP: OP 6	0	0
OP: OP 7	0	0
OP: OP 8	0	0
OP: OP 9	0	0
OP: OP 10	0	0
OP: OP 11	0	0
OP: OP 12	0	0
OP: OP 13	0	0
OP: OP 14	0	0
OP: OP 15	0	0
OP: OP 16	0	0
OP: OP 17	0	0
OP: OP 18	0	0
OP: OP 19	0	0
OP: OP 20	0	0
OP: OP 21	0	0
OP: OP 22	0	0
OP: OP 23	0	0
OP: OP 24	0	0
OP: OP 25	0	0
OP: OP 26	0	0
OP: OP 27	0	0
OP: OP 28	0	0
OP: OP 29	0	0
OP: OP 30	0	0
OP: OP 31	0	0
OP: OP 32	0	0
OP: OP 33	0	0
OP: OP 34	0	0
OP: OP 35	0	0
OP: OP 36	0	0
OP: OP 37	0	0
OP: OP 38	0	0
OP: OP 39	0	0
OP: OP 40	0	0
OP: OP 41	0	0
OP: OP 42	0	0
OP: OP 43	0	0
OP: OP 44	0	0
OP: OP 45	0	0
OP: OP 46	0	0
OP: OP 47	0	0
OP: OP 48	0	0
OP: OP 49	0	0
OP: OP 50	0	0
OP: OP 51	0	0
OP: OP 52	0	0
OP: OP 53	0	0

OP: OP 54	0	0
OP: OP 55	0	0
OP: OP 56	0	0
OP: OP 57	0	0
OP: OP 58	0	0
OP: OP 59	0	0
OP: OP 60	0	0
OP: OP 61	0	0
OP: OP 62	0	0
OP: OP 63	0	0
OP: OP 64	0	0
OP: OP 65	0	0
OP: OP 66	0	0
OP: OP 67	0	0
OP: OP 68	0	0
OP: OP 69	0	0
OP: OP 70	0	0
OP: OP 71	0	0
OP: OP 72	0	0
OP: OP 73	0	0
OP: OP 74	0	0
OP: OP 75	0	0
OP: OP 76	0	0
OP: OP 77	0	0
OP: OP 78	0	0
OP: OP 79	0	0
OP: OP 80	0	0

No glare found

PV array 15 no glare found

Component	Green glare (min)	Yellow glare (min)
OP: OP 1	0	0
OP: OP 2	0	0
OP: OP 3	0	0
OP: OP 4	0	0
OP: OP 5	0	0
OP: OP 6	0	0
OP: OP 7	0	0
OP: OP 8	0	0
OP: OP 9	0	0
OP: OP 10	0	0
OP: OP 11	0	0
OP: OP 12	0	0
OP: OP 13	0	0
OP: OP 14	0	0
OP: OP 15	0	0
OP: OP 16	0	0
OP: OP 17	0	0
OP: OP 18	0	0
OP: OP 19	0	0
OP: OP 20	0	0

OP: OP 21	0	0
OP: OP 22	0	0
OP: OP 23	0	0
OP: OP 24	0	0
OP: OP 25	0	0
OP: OP 26	0	0
OP: OP 27	0	0
OP: OP 28	0	0
OP: OP 29	0	0
OP: OP 30	0	0
OP: OP 31	0	0
OP: OP 32	0	0
OP: OP 33	0	0
OP: OP 34	0	0
OP: OP 35	0	0
OP: OP 36	0	0
OP: OP 37	0	0
OP: OP 38	0	0
OP: OP 39	0	0
OP: OP 40	0	0
OP: OP 41	0	0
OP: OP 42	0	0
OP: OP 43	0	0
OP: OP 44	0	0
OP: OP 45	0	0
OP: OP 46	0	0
OP: OP 47	0	0
OP: OP 48	0	0
OP: OP 49	0	0
OP: OP 50	0	0
OP: OP 51	0	0
OP: OP 52	0	0
OP: OP 53	0	0
OP: OP 54	0	0
OP: OP 55	0	0
OP: OP 56	0	0
OP: OP 57	0	0
OP: OP 58	0	0
OP: OP 59	0	0
OP: OP 60	0	0
OP: OP 61	0	0
OP: OP 62	0	0
OP: OP 63	0	0
OP: OP 64	0	0
OP: OP 65	0	0
OP: OP 66	0	0
OP: OP 67	0	0
OP: OP 68	0	0
OP: OP 69	0	0
OP: OP 70	0	0
OP: OP 71	0	0
OP: OP 72	0	0
OP: OP 73	0	0
OP: OP 74	0	0
OP: OP 75	0	0

OP: OP 76	0	0
OP: OP 77	0	0
OP: OP 78	0	0
OP: OP 79	0	0
OP: OP 80	0	0

No glare found

PV array 16 no glare found

Component	Green glare (min)	Yellow glare (min)
OP: OP 1	0	0
OP: OP 2	0	0
OP: OP 3	0	0
OP: OP 4	0	0
OP: OP 5	0	0
OP: OP 6	0	0
OP: OP 7	0	0
OP: OP 8	0	0
OP: OP 9	0	0
OP: OP 10	0	0
OP: OP 11	0	0
OP: OP 12	0	0
OP: OP 13	0	0
OP: OP 14	0	0
OP: OP 15	0	0
OP: OP 16	0	0
OP: OP 17	0	0
OP: OP 18	0	0
OP: OP 19	0	0
OP: OP 20	0	0
OP: OP 21	0	0
OP: OP 22	0	0
OP: OP 23	0	0
OP: OP 24	0	0
OP: OP 25	0	0
OP: OP 26	0	0
OP: OP 27	0	0
OP: OP 28	0	0
OP: OP 29	0	0
OP: OP 30	0	0
OP: OP 31	0	0
OP: OP 32	0	0
OP: OP 33	0	0
OP: OP 34	0	0
OP: OP 35	0	0
OP: OP 36	0	0
OP: OP 37	0	0
OP: OP 38	0	0
OP: OP 39	0	0
OP: OP 40	0	0
OP: OP 41	0	0
OP: OP 42	0	0

OP: OP 43	0	0
OP: OP 44	0	0
OP: OP 45	0	0
OP: OP 46	0	0
OP: OP 47	0	0
OP: OP 48	0	0
OP: OP 49	0	0
OP: OP 50	0	0
OP: OP 51	0	0
OP: OP 52	0	0
OP: OP 53	0	0
OP: OP 54	0	0
OP: OP 55	0	0
OP: OP 56	0	0
OP: OP 57	0	0
OP: OP 58	0	0
OP: OP 59	0	0
OP: OP 60	0	0
OP: OP 61	0	0
OP: OP 62	0	0
OP: OP 63	0	0
OP: OP 64	0	0
OP: OP 65	0	0
OP: OP 66	0	0
OP: OP 67	0	0
OP: OP 68	0	0
OP: OP 69	0	0
OP: OP 70	0	0
OP: OP 71	0	0
OP: OP 72	0	0
OP: OP 73	0	0
OP: OP 74	0	0
OP: OP 75	0	0
OP: OP 76	0	0
OP: OP 77	0	0
OP: OP 78	0	0
OP: OP 79	0	0
OP: OP 80	0	0

No glare found

PV array 17 no glare found

Component	Green glare (min)	Yellow glare (min)
OP: OP 1	0	0
OP: OP 2	0	0
OP: OP 3	0	0
OP: OP 4	0	0
OP: OP 5	0	0
OP: OP 6	0	0
OP: OP 7	0	0
OP: OP 8	0	0
OP: OP 9	0	0

OP: OP 10	0	0
OP: OP 11	0	0
OP: OP 12	0	0
OP: OP 13	0	0
OP: OP 14	0	0
OP: OP 15	0	0
OP: OP 16	0	0
OP: OP 17	0	0
OP: OP 18	0	0
OP: OP 19	0	0
OP: OP 20	0	0
OP: OP 21	0	0
OP: OP 22	0	0
OP: OP 23	0	0
OP: OP 24	0	0
OP: OP 25	0	0
OP: OP 26	0	0
OP: OP 27	0	0
OP: OP 28	0	0
OP: OP 29	0	0
OP: OP 30	0	0
OP: OP 31	0	0
OP: OP 32	0	0
OP: OP 33	0	0
OP: OP 34	0	0
OP: OP 35	0	0
OP: OP 36	0	0
OP: OP 37	0	0
OP: OP 38	0	0
OP: OP 39	0	0
OP: OP 40	0	0
OP: OP 41	0	0
OP: OP 42	0	0
OP: OP 43	0	0
OP: OP 44	0	0
OP: OP 45	0	0
OP: OP 46	0	0
OP: OP 47	0	0
OP: OP 48	0	0
OP: OP 49	0	0
OP: OP 50	0	0
OP: OP 51	0	0
OP: OP 52	0	0
OP: OP 53	0	0
OP: OP 54	0	0
OP: OP 55	0	0
OP: OP 56	0	0
OP: OP 57	0	0
OP: OP 58	0	0
OP: OP 59	0	0
OP: OP 60	0	0
OP: OP 61	0	0
OP: OP 62	0	0
OP: OP 63	0	0
OP: OP 64	0	0

OP: OP 65	0	0
OP: OP 66	0	0
OP: OP 67	0	0
OP: OP 68	0	0
OP: OP 69	0	0
OP: OP 70	0	0
OP: OP 71	0	0
OP: OP 72	0	0
OP: OP 73	0	0
OP: OP 74	0	0
OP: OP 75	0	0
OP: OP 76	0	0
OP: OP 77	0	0
OP: OP 78	0	0
OP: OP 79	0	0
OP: OP 80	0	0

No glare found

PV array 18 no glare found

Component	Green glare (min)	Yellow glare (min)
OP: OP 1	0	0
OP: OP 2	0	0
OP: OP 3	0	0
OP: OP 4	0	0
OP: OP 5	0	0
OP: OP 6	0	0
OP: OP 7	0	0
OP: OP 8	0	0
OP: OP 9	0	0
OP: OP 10	0	0
OP: OP 11	0	0
OP: OP 12	0	0
OP: OP 13	0	0
OP: OP 14	0	0
OP: OP 15	0	0
OP: OP 16	0	0
OP: OP 17	0	0
OP: OP 18	0	0
OP: OP 19	0	0
OP: OP 20	0	0
OP: OP 21	0	0
OP: OP 22	0	0
OP: OP 23	0	0
OP: OP 24	0	0
OP: OP 25	0	0
OP: OP 26	0	0
OP: OP 27	0	0
OP: OP 28	0	0
OP: OP 29	0	0
OP: OP 30	0	0
OP: OP 31	0	0

OP: OP 32	0	0
OP: OP 33	0	0
OP: OP 34	0	0
OP: OP 35	0	0
OP: OP 36	0	0
OP: OP 37	0	0
OP: OP 38	0	0
OP: OP 39	0	0
OP: OP 40	0	0
OP: OP 41	0	0
OP: OP 42	0	0
OP: OP 43	0	0
OP: OP 44	0	0
OP: OP 45	0	0
OP: OP 46	0	0
OP: OP 47	0	0
OP: OP 48	0	0
OP: OP 49	0	0
OP: OP 50	0	0
OP: OP 51	0	0
OP: OP 52	0	0
OP: OP 53	0	0
OP: OP 54	0	0
OP: OP 55	0	0
OP: OP 56	0	0
OP: OP 57	0	0
OP: OP 58	0	0
OP: OP 59	0	0
OP: OP 60	0	0
OP: OP 61	0	0
OP: OP 62	0	0
OP: OP 63	0	0
OP: OP 64	0	0
OP: OP 65	0	0
OP: OP 66	0	0
OP: OP 67	0	0
OP: OP 68	0	0
OP: OP 69	0	0
OP: OP 70	0	0
OP: OP 71	0	0
OP: OP 72	0	0
OP: OP 73	0	0
OP: OP 74	0	0
OP: OP 75	0	0
OP: OP 76	0	0
OP: OP 77	0	0
OP: OP 78	0	0
OP: OP 79	0	0
OP: OP 80	0	0

No glare found

PV array 2 no glare found

Component	Green glare (min)	Yellow glare (min)
OP: OP 1	0	0
OP: OP 2	0	0
OP: OP 3	0	0
OP: OP 4	0	0
OP: OP 5	0	0
OP: OP 6	0	0
OP: OP 7	0	0
OP: OP 8	0	0
OP: OP 9	0	0
OP: OP 10	0	0
OP: OP 11	0	0
OP: OP 12	0	0
OP: OP 13	0	0
OP: OP 14	0	0
OP: OP 15	0	0
OP: OP 16	0	0
OP: OP 17	0	0
OP: OP 18	0	0
OP: OP 19	0	0
OP: OP 20	0	0
OP: OP 21	0	0
OP: OP 22	0	0
OP: OP 23	0	0
OP: OP 24	0	0
OP: OP 25	0	0
OP: OP 26	0	0
OP: OP 27	0	0
OP: OP 28	0	0
OP: OP 29	0	0
OP: OP 30	0	0
OP: OP 31	0	0
OP: OP 32	0	0
OP: OP 33	0	0
OP: OP 34	0	0
OP: OP 35	0	0
OP: OP 36	0	0
OP: OP 37	0	0
OP: OP 38	0	0
OP: OP 39	0	0
OP: OP 40	0	0
OP: OP 41	0	0
OP: OP 42	0	0
OP: OP 43	0	0
OP: OP 44	0	0
OP: OP 45	0	0
OP: OP 46	0	0
OP: OP 47	0	0
OP: OP 48	0	0
OP: OP 49	0	0
OP: OP 50	0	0
OP: OP 51	0	0
OP: OP 52	0	0
OP: OP 53	0	0

OP: OP 54	0	0
OP: OP 55	0	0
OP: OP 56	0	0
OP: OP 57	0	0
OP: OP 58	0	0
OP: OP 59	0	0
OP: OP 60	0	0
OP: OP 61	0	0
OP: OP 62	0	0
OP: OP 63	0	0
OP: OP 64	0	0
OP: OP 65	0	0
OP: OP 66	0	0
OP: OP 67	0	0
OP: OP 68	0	0
OP: OP 69	0	0
OP: OP 70	0	0
OP: OP 71	0	0
OP: OP 72	0	0
OP: OP 73	0	0
OP: OP 74	0	0
OP: OP 75	0	0
OP: OP 76	0	0
OP: OP 77	0	0
OP: OP 78	0	0
OP: OP 79	0	0
OP: OP 80	0	0

No glare found

PV array 3 no glare found

Component	Green glare (min)	Yellow glare (min)
OP: OP 1	0	0
OP: OP 2	0	0
OP: OP 3	0	0
OP: OP 4	0	0
OP: OP 5	0	0
OP: OP 6	0	0
OP: OP 7	0	0
OP: OP 8	0	0
OP: OP 9	0	0
OP: OP 10	0	0
OP: OP 11	0	0
OP: OP 12	0	0
OP: OP 13	0	0
OP: OP 14	0	0
OP: OP 15	0	0
OP: OP 16	0	0
OP: OP 17	0	0
OP: OP 18	0	0
OP: OP 19	0	0
OP: OP 20	0	0

OP: OP 21	0	0
OP: OP 22	0	0
OP: OP 23	0	0
OP: OP 24	0	0
OP: OP 25	0	0
OP: OP 26	0	0
OP: OP 27	0	0
OP: OP 28	0	0
OP: OP 29	0	0
OP: OP 30	0	0
OP: OP 31	0	0
OP: OP 32	0	0
OP: OP 33	0	0
OP: OP 34	0	0
OP: OP 35	0	0
OP: OP 36	0	0
OP: OP 37	0	0
OP: OP 38	0	0
OP: OP 39	0	0
OP: OP 40	0	0
OP: OP 41	0	0
OP: OP 42	0	0
OP: OP 43	0	0
OP: OP 44	0	0
OP: OP 45	0	0
OP: OP 46	0	0
OP: OP 47	0	0
OP: OP 48	0	0
OP: OP 49	0	0
OP: OP 50	0	0
OP: OP 51	0	0
OP: OP 52	0	0
OP: OP 53	0	0
OP: OP 54	0	0
OP: OP 55	0	0
OP: OP 56	0	0
OP: OP 57	0	0
OP: OP 58	0	0
OP: OP 59	0	0
OP: OP 60	0	0
OP: OP 61	0	0
OP: OP 62	0	0
OP: OP 63	0	0
OP: OP 64	0	0
OP: OP 65	0	0
OP: OP 66	0	0
OP: OP 67	0	0
OP: OP 68	0	0
OP: OP 69	0	0
OP: OP 70	0	0
OP: OP 71	0	0
OP: OP 72	0	0
OP: OP 73	0	0
OP: OP 74	0	0
OP: OP 75	0	0

OP: OP 76	0	0
OP: OP 77	0	0
OP: OP 78	0	0
OP: OP 79	0	0
OP: OP 80	0	0

No glare found

PV array 4 no glare found

Component	Green glare (min)	Yellow glare (min)
OP: OP 1	0	0
OP: OP 2	0	0
OP: OP 3	0	0
OP: OP 4	0	0
OP: OP 5	0	0
OP: OP 6	0	0
OP: OP 7	0	0
OP: OP 8	0	0
OP: OP 9	0	0
OP: OP 10	0	0
OP: OP 11	0	0
OP: OP 12	0	0
OP: OP 13	0	0
OP: OP 14	0	0
OP: OP 15	0	0
OP: OP 16	0	0
OP: OP 17	0	0
OP: OP 18	0	0
OP: OP 19	0	0
OP: OP 20	0	0
OP: OP 21	0	0
OP: OP 22	0	0
OP: OP 23	0	0
OP: OP 24	0	0
OP: OP 25	0	0
OP: OP 26	0	0
OP: OP 27	0	0
OP: OP 28	0	0
OP: OP 29	0	0
OP: OP 30	0	0
OP: OP 31	0	0
OP: OP 32	0	0
OP: OP 33	0	0
OP: OP 34	0	0
OP: OP 35	0	0
OP: OP 36	0	0
OP: OP 37	0	0
OP: OP 38	0	0
OP: OP 39	0	0
OP: OP 40	0	0
OP: OP 41	0	0
OP: OP 42	0	0

OP: OP 43	0	0
OP: OP 44	0	0
OP: OP 45	0	0
OP: OP 46	0	0
OP: OP 47	0	0
OP: OP 48	0	0
OP: OP 49	0	0
OP: OP 50	0	0
OP: OP 51	0	0
OP: OP 52	0	0
OP: OP 53	0	0
OP: OP 54	0	0
OP: OP 55	0	0
OP: OP 56	0	0
OP: OP 57	0	0
OP: OP 58	0	0
OP: OP 59	0	0
OP: OP 60	0	0
OP: OP 61	0	0
OP: OP 62	0	0
OP: OP 63	0	0
OP: OP 64	0	0
OP: OP 65	0	0
OP: OP 66	0	0
OP: OP 67	0	0
OP: OP 68	0	0
OP: OP 69	0	0
OP: OP 70	0	0
OP: OP 71	0	0
OP: OP 72	0	0
OP: OP 73	0	0
OP: OP 74	0	0
OP: OP 75	0	0
OP: OP 76	0	0
OP: OP 77	0	0
OP: OP 78	0	0
OP: OP 79	0	0
OP: OP 80	0	0

No glare found

PV array 5 no glare found

Component	Green glare (min)	Yellow glare (min)
OP: OP 1	0	0
OP: OP 2	0	0
OP: OP 3	0	0
OP: OP 4	0	0
OP: OP 5	0	0
OP: OP 6	0	0
OP: OP 7	0	0
OP: OP 8	0	0
OP: OP 9	0	0

OP: OP 10	0	0
OP: OP 11	0	0
OP: OP 12	0	0
OP: OP 13	0	0
OP: OP 14	0	0
OP: OP 15	0	0
OP: OP 16	0	0
OP: OP 17	0	0
OP: OP 18	0	0
OP: OP 19	0	0
OP: OP 20	0	0
OP: OP 21	0	0
OP: OP 22	0	0
OP: OP 23	0	0
OP: OP 24	0	0
OP: OP 25	0	0
OP: OP 26	0	0
OP: OP 27	0	0
OP: OP 28	0	0
OP: OP 29	0	0
OP: OP 30	0	0
OP: OP 31	0	0
OP: OP 32	0	0
OP: OP 33	0	0
OP: OP 34	0	0
OP: OP 35	0	0
OP: OP 36	0	0
OP: OP 37	0	0
OP: OP 38	0	0
OP: OP 39	0	0
OP: OP 40	0	0
OP: OP 41	0	0
OP: OP 42	0	0
OP: OP 43	0	0
OP: OP 44	0	0
OP: OP 45	0	0
OP: OP 46	0	0
OP: OP 47	0	0
OP: OP 48	0	0
OP: OP 49	0	0
OP: OP 50	0	0
OP: OP 51	0	0
OP: OP 52	0	0
OP: OP 53	0	0
OP: OP 54	0	0
OP: OP 55	0	0
OP: OP 56	0	0
OP: OP 57	0	0
OP: OP 58	0	0
OP: OP 59	0	0
OP: OP 60	0	0
OP: OP 61	0	0
OP: OP 62	0	0
OP: OP 63	0	0
OP: OP 64	0	0

OP: OP 65	0	0
OP: OP 66	0	0
OP: OP 67	0	0
OP: OP 68	0	0
OP: OP 69	0	0
OP: OP 70	0	0
OP: OP 71	0	0
OP: OP 72	0	0
OP: OP 73	0	0
OP: OP 74	0	0
OP: OP 75	0	0
OP: OP 76	0	0
OP: OP 77	0	0
OP: OP 78	0	0
OP: OP 79	0	0
OP: OP 80	0	0

No glare found

PV array 6 no glare found

Component	Green glare (min)	Yellow glare (min)
OP: OP 1	0	0
OP: OP 2	0	0
OP: OP 3	0	0
OP: OP 4	0	0
OP: OP 5	0	0
OP: OP 6	0	0
OP: OP 7	0	0
OP: OP 8	0	0
OP: OP 9	0	0
OP: OP 10	0	0
OP: OP 11	0	0
OP: OP 12	0	0
OP: OP 13	0	0
OP: OP 14	0	0
OP: OP 15	0	0
OP: OP 16	0	0
OP: OP 17	0	0
OP: OP 18	0	0
OP: OP 19	0	0
OP: OP 20	0	0
OP: OP 21	0	0
OP: OP 22	0	0
OP: OP 23	0	0
OP: OP 24	0	0
OP: OP 25	0	0
OP: OP 26	0	0
OP: OP 27	0	0
OP: OP 28	0	0
OP: OP 29	0	0
OP: OP 30	0	0
OP: OP 31	0	0

OP: OP 32	0	0
OP: OP 33	0	0
OP: OP 34	0	0
OP: OP 35	0	0
OP: OP 36	0	0
OP: OP 37	0	0
OP: OP 38	0	0
OP: OP 39	0	0
OP: OP 40	0	0
OP: OP 41	0	0
OP: OP 42	0	0
OP: OP 43	0	0
OP: OP 44	0	0
OP: OP 45	0	0
OP: OP 46	0	0
OP: OP 47	0	0
OP: OP 48	0	0
OP: OP 49	0	0
OP: OP 50	0	0
OP: OP 51	0	0
OP: OP 52	0	0
OP: OP 53	0	0
OP: OP 54	0	0
OP: OP 55	0	0
OP: OP 56	0	0
OP: OP 57	0	0
OP: OP 58	0	0
OP: OP 59	0	0
OP: OP 60	0	0
OP: OP 61	0	0
OP: OP 62	0	0
OP: OP 63	0	0
OP: OP 64	0	0
OP: OP 65	0	0
OP: OP 66	0	0
OP: OP 67	0	0
OP: OP 68	0	0
OP: OP 69	0	0
OP: OP 70	0	0
OP: OP 71	0	0
OP: OP 72	0	0
OP: OP 73	0	0
OP: OP 74	0	0
OP: OP 75	0	0
OP: OP 76	0	0
OP: OP 77	0	0
OP: OP 78	0	0
OP: OP 79	0	0
OP: OP 80	0	0

No glare found

PV array 7 no glare found

Component	Green glare (min)	Yellow glare (min)
OP: OP 1	0	0
OP: OP 2	0	0
OP: OP 3	0	0
OP: OP 4	0	0
OP: OP 5	0	0
OP: OP 6	0	0
OP: OP 7	0	0
OP: OP 8	0	0
OP: OP 9	0	0
OP: OP 10	0	0
OP: OP 11	0	0
OP: OP 12	0	0
OP: OP 13	0	0
OP: OP 14	0	0
OP: OP 15	0	0
OP: OP 16	0	0
OP: OP 17	0	0
OP: OP 18	0	0
OP: OP 19	0	0
OP: OP 20	0	0
OP: OP 21	0	0
OP: OP 22	0	0
OP: OP 23	0	0
OP: OP 24	0	0
OP: OP 25	0	0
OP: OP 26	0	0
OP: OP 27	0	0
OP: OP 28	0	0
OP: OP 29	0	0
OP: OP 30	0	0
OP: OP 31	0	0
OP: OP 32	0	0
OP: OP 33	0	0
OP: OP 34	0	0
OP: OP 35	0	0
OP: OP 36	0	0
OP: OP 37	0	0
OP: OP 38	0	0
OP: OP 39	0	0
OP: OP 40	0	0
OP: OP 41	0	0
OP: OP 42	0	0
OP: OP 43	0	0
OP: OP 44	0	0
OP: OP 45	0	0
OP: OP 46	0	0
OP: OP 47	0	0
OP: OP 48	0	0
OP: OP 49	0	0
OP: OP 50	0	0
OP: OP 51	0	0
OP: OP 52	0	0
OP: OP 53	0	0

OP: OP 54	0	0
OP: OP 55	0	0
OP: OP 56	0	0
OP: OP 57	0	0
OP: OP 58	0	0
OP: OP 59	0	0
OP: OP 60	0	0
OP: OP 61	0	0
OP: OP 62	0	0
OP: OP 63	0	0
OP: OP 64	0	0
OP: OP 65	0	0
OP: OP 66	0	0
OP: OP 67	0	0
OP: OP 68	0	0
OP: OP 69	0	0
OP: OP 70	0	0
OP: OP 71	0	0
OP: OP 72	0	0
OP: OP 73	0	0
OP: OP 74	0	0
OP: OP 75	0	0
OP: OP 76	0	0
OP: OP 77	0	0
OP: OP 78	0	0
OP: OP 79	0	0
OP: OP 80	0	0

No glare found

PV array 8 no glare found

Component	Green glare (min)	Yellow glare (min)
OP: OP 1	0	0
OP: OP 2	0	0
OP: OP 3	0	0
OP: OP 4	0	0
OP: OP 5	0	0
OP: OP 6	0	0
OP: OP 7	0	0
OP: OP 8	0	0
OP: OP 9	0	0
OP: OP 10	0	0
OP: OP 11	0	0
OP: OP 12	0	0
OP: OP 13	0	0
OP: OP 14	0	0
OP: OP 15	0	0
OP: OP 16	0	0
OP: OP 17	0	0
OP: OP 18	0	0
OP: OP 19	0	0
OP: OP 20	0	0

OP: OP 21	0	0
OP: OP 22	0	0
OP: OP 23	0	0
OP: OP 24	0	0
OP: OP 25	0	0
OP: OP 26	0	0
OP: OP 27	0	0
OP: OP 28	0	0
OP: OP 29	0	0
OP: OP 30	0	0
OP: OP 31	0	0
OP: OP 32	0	0
OP: OP 33	0	0
OP: OP 34	0	0
OP: OP 35	0	0
OP: OP 36	0	0
OP: OP 37	0	0
OP: OP 38	0	0
OP: OP 39	0	0
OP: OP 40	0	0
OP: OP 41	0	0
OP: OP 42	0	0
OP: OP 43	0	0
OP: OP 44	0	0
OP: OP 45	0	0
OP: OP 46	0	0
OP: OP 47	0	0
OP: OP 48	0	0
OP: OP 49	0	0
OP: OP 50	0	0
OP: OP 51	0	0
OP: OP 52	0	0
OP: OP 53	0	0
OP: OP 54	0	0
OP: OP 55	0	0
OP: OP 56	0	0
OP: OP 57	0	0
OP: OP 58	0	0
OP: OP 59	0	0
OP: OP 60	0	0
OP: OP 61	0	0
OP: OP 62	0	0
OP: OP 63	0	0
OP: OP 64	0	0
OP: OP 65	0	0
OP: OP 66	0	0
OP: OP 67	0	0
OP: OP 68	0	0
OP: OP 69	0	0
OP: OP 70	0	0
OP: OP 71	0	0
OP: OP 72	0	0
OP: OP 73	0	0
OP: OP 74	0	0
OP: OP 75	0	0

OP: OP 76	0	0
OP: OP 77	0	0
OP: OP 78	0	0
OP: OP 79	0	0
OP: OP 80	0	0

No glare found

PV array 9 no glare found

Component	Green glare (min)	Yellow glare (min)
OP: OP 1	0	0
OP: OP 2	0	0
OP: OP 3	0	0
OP: OP 4	0	0
OP: OP 5	0	0
OP: OP 6	0	0
OP: OP 7	0	0
OP: OP 8	0	0
OP: OP 9	0	0
OP: OP 10	0	0
OP: OP 11	0	0
OP: OP 12	0	0
OP: OP 13	0	0
OP: OP 14	0	0
OP: OP 15	0	0
OP: OP 16	0	0
OP: OP 17	0	0
OP: OP 18	0	0
OP: OP 19	0	0
OP: OP 20	0	0
OP: OP 21	0	0
OP: OP 22	0	0
OP: OP 23	0	0
OP: OP 24	0	0
OP: OP 25	0	0
OP: OP 26	0	0
OP: OP 27	0	0
OP: OP 28	0	0
OP: OP 29	0	0
OP: OP 30	0	0
OP: OP 31	0	0
OP: OP 32	0	0
OP: OP 33	0	0
OP: OP 34	0	0
OP: OP 35	0	0
OP: OP 36	0	0
OP: OP 37	0	0
OP: OP 38	0	0
OP: OP 39	0	0
OP: OP 40	0	0
OP: OP 41	0	0
OP: OP 42	0	0

OP: OP 43	0	0
OP: OP 44	0	0
OP: OP 45	0	0
OP: OP 46	0	0
OP: OP 47	0	0
OP: OP 48	0	0
OP: OP 49	0	0
OP: OP 50	0	0
OP: OP 51	0	0
OP: OP 52	0	0
OP: OP 53	0	0
OP: OP 54	0	0
OP: OP 55	0	0
OP: OP 56	0	0
OP: OP 57	0	0
OP: OP 58	0	0
OP: OP 59	0	0
OP: OP 60	0	0
OP: OP 61	0	0
OP: OP 62	0	0
OP: OP 63	0	0
OP: OP 64	0	0
OP: OP 65	0	0
OP: OP 66	0	0
OP: OP 67	0	0
OP: OP 68	0	0
OP: OP 69	0	0
OP: OP 70	0	0
OP: OP 71	0	0
OP: OP 72	0	0
OP: OP 73	0	0
OP: OP 74	0	0
OP: OP 75	0	0
OP: OP 76	0	0
OP: OP 77	0	0
OP: OP 78	0	0
OP: OP 79	0	0
OP: OP 80	0	0

No glare found

Assumptions

- Times associated with glare are denoted in Standard time. For Daylight Savings, add one hour.
- Glare analyses do not automatically account for physical obstructions between reflectors and receptors. This includes buildings, tree cover and geographic obstructions.
- Detailed system geometry is not rigorously simulated.
- The glare hazard determination relies on several approximations including observer eye characteristics, angle of view, and typical blink response time. Actual values and results may vary.
- The system output calculation is a DNI-based approximation that assumes clear, sunny skies year-round. It should not be used in place of more rigorous modeling methods.
- Several V1 calculations utilize the PV array centroid, rather than the actual glare spot location, due to algorithm limitations. This may affect results for large PV footprints. Additional analyses of array sub-sections can provide additional information on expected glare.
- The subtended source angle (glare spot size) is constrained by the PV array footprint size. Partitioning large arrays into smaller sections will reduce the maximum potential subtended angle, potentially impacting results if actual glare spots are larger than the sub-array size. Additional analyses of the combined area of adjacent sub-arrays can provide more information on potential glare hazards. (See previous point on related limitations.)
- Hazard zone boundaries shown in the Glare Hazard plot are an approximation and visual aid. Actual ocular impact outcomes encompass a continuous, not discrete, spectrum.

- Glare locations displayed on receptor plots are approximate. Actual glare-spot locations may differ.
- Refer to the **Help page** for detailed assumptions and limitations not listed here.

ANNEX J: PROW RECEPTOR GLARE RESULTS (81 – 160)

ForgeSolar

East Yorkshire Solar Farm

East Yorkshire Solar Farm PROW 81 - 160

Created Aug 25, 2023
Updated Sep 20, 2023
Time-step 1 minute
Timezone offset UTC0
Minimum sun altitude 0.0 deg
Site ID 98792.16938

Project type Advanced
Project status: active
Category 100 MW to 1 GW

Misc. Analysis Settings

DNI: **varies (1,000.0 W/m^2 peak)**
Ocular transmission coefficient: **0.5**
Pupil diameter: **0.002 m**
Eye focal length: **0.017 m**
Sun subtended angle: **9.3 mrad**

PV Analysis Methodology: **Version 2**
Enhanced subtended angle calculation: **On**

Summary of Results No glare predicted!

PV Name	Tilt	Orientation	"Green" Glare	"Yellow" Glare	Energy Produced
	deg	deg	min	min	kWh
PV array 1	SA tracking	SA tracking	0	0	-
PV array 10	SA tracking	SA tracking	0	0	-
PV array 11	SA tracking	SA tracking	0	0	-
PV array 12	SA tracking	SA tracking	0	0	-
PV array 13	SA tracking	SA tracking	0	0	-
PV array 14	SA tracking	SA tracking	0	0	-
PV array 15	SA tracking	SA tracking	0	0	-
PV array 16	SA tracking	SA tracking	0	0	-
PV array 17	SA tracking	SA tracking	0	0	-
PV array 18	SA tracking	SA tracking	0	0	-
PV array 2	SA tracking	SA tracking	0	0	-
PV array 3	SA tracking	SA tracking	0	0	-
PV array 4	SA tracking	SA tracking	0	0	-
PV array 5	SA tracking	SA tracking	0	0	-
PV array 6	SA tracking	SA tracking	0	0	-
PV array 7	SA tracking	SA tracking	0	0	-
PV array 8	SA tracking	SA tracking	0	0	-
PV array 9	SA tracking	SA tracking	0	0	-

Component Data

PV Array(s)

Total PV footprint area: 8,094,425 m^2

Name: PV array 1
Footprint area: 509,399 m^2
Axis tracking: Single-axis rotation
Backtracking: None
Tracking axis orientation: 180.0 deg
Tracking axis tilt: 0.0 deg
Tracking axis panel offset: 0.0 deg
Maximum tracking angle: 60.0 deg

Rated power: -
Panel material: Light textured glass with AR coating
Vary reflectivity with sun position? Yes
Correlate slope error with surface type? Yes
Slope error: 9.16 mrad

Vertex	Latitude	Longitude	Ground elevation	Height above ground	Total elevation
	deg	deg	m	m	m
1	53.818886	-0.886729	6.34	3.50	9.84
2	53.814883	-0.884283	5.95	3.50	9.45
3	53.814346	-0.888924	7.41	3.50	10.91
4	53.812293	-0.882272	6.90	3.50	10.40
5	53.812699	-0.879482	7.20	3.50	10.70
6	53.813763	-0.878324	7.19	3.50	10.69
7	53.814194	-0.878796	7.39	3.50	10.89
8	53.814523	-0.874633	6.96	3.50	10.46
9	53.816145	-0.874247	6.11	3.50	9.61
10	53.816271	-0.873302	6.84	3.50	10.34
11	53.819464	-0.872702	6.50	3.50	10.00
12	53.818704	-0.878967	6.05	3.50	9.55
13	53.819109	-0.879010	5.90	3.50	9.40

Name: PV array 10
Footprint area: 851,217 m^2
Axis tracking: Single-axis rotation
Backtracking: None
Tracking axis orientation: 180.0 deg
Tracking axis tilt: 0.0 deg
Tracking axis panel offset: 0.0 deg
Maximum tracking angle: 60.0 deg

Rated power: -
Panel material: Light textured glass with AR coating
Vary reflectivity with sun position? Yes
Correlate slope error with surface type? Yes
Slope error: 9.16 mrad

Vertex	Latitude	Longitude	Ground elevation	Height above ground	Total elevation
	deg	deg	m	m	m
1	53.778810	-0.820903	5.07	3.50	8.57
2	53.775868	-0.819959	5.15	3.50	8.65
3	53.775209	-0.825366	5.97	3.50	9.47
4	53.768057	-0.847639	4.41	3.50	7.91
5	53.769858	-0.848455	5.00	3.50	8.50
6	53.769680	-0.850472	4.68	3.50	8.18
7	53.770745	-0.850686	4.00	3.50	7.50
8	53.770999	-0.849098	4.12	3.50	7.62
9	53.773408	-0.849570	5.00	3.50	8.50
10	53.774233	-0.844742	5.40	3.50	8.90
11	53.774233	-0.844742	5.40	3.50	8.90
12	53.774233	-0.844742	5.40	3.50	8.90
13	53.774233	-0.844742	5.40	3.50	8.90

Name: PV array 11
Footprint area: 205,559 m^2
Axis tracking: Single-axis rotation
Backtracking: None
Tracking axis orientation: 180.0 deg
Tracking axis tilt: 0.0 deg
Tracking axis panel offset: 0.0 deg
Maximum tracking angle: 60.0 deg

Rated power: -
Panel material: Light textured glass with AR coating
Vary reflectivity with sun position? Yes
Correlate slope error with surface type? Yes
Slope error: 9.16 mrad

Vertex	Latitude	Longitude	Ground elevation	Height above ground	Total elevation
	deg	deg	m	m	m
1	53.776817	-0.861222	5.00	3.50	8.50
2	53.776284	-0.862552	5.00	3.50	8.50
3	53.782826	-0.874268	5.15	3.50	8.65
4	53.784120	-0.871951	4.99	3.50	8.49
5	53.782674	-0.870578	5.10	3.50	8.60
6	53.780646	-0.865299	5.86	3.50	9.36
7	53.780772	-0.863840	6.00	3.50	9.50
8	53.779378	-0.862209	5.00	3.50	8.50
9	53.778972	-0.864012	5.00	3.50	8.50

Name: PV array 12
Footprint area: 153,870 m^2
Axis tracking: Single-axis rotation
Backtracking: None
Tracking axis orientation: 180.0 deg
Tracking axis tilt: 0.0 deg
Tracking axis panel offset: 0.0 deg
Maximum tracking angle: 60.0 deg

Rated power: -
Panel material: Light textured glass with AR coating
Vary reflectivity with sun position? Yes
Correlate slope error with surface type? Yes
Slope error: 9.16 mrad

Vertex	Latitude	Longitude	Ground elevation	Height above ground	Total elevation
	deg	deg	m	m	m
1	53.788227	-0.880191	5.89	3.50	9.39
2	53.788328	-0.881607	4.53	3.50	8.03
3	53.785920	-0.884311	5.06	3.50	8.56
4	53.782902	-0.880234	5.96	3.50	9.46
5	53.783359	-0.878388	5.63	3.50	9.13
6	53.783993	-0.877401	5.39	3.50	8.89
7	53.786021	-0.878388	5.24	3.50	8.74
8	53.786909	-0.879461	5.93	3.50	9.43

Name: PV array 13
Footprint area: 227,092 m^2
Axis tracking: Single-axis rotation
Backtracking: None
Tracking axis orientation: 180.0 deg
Tracking axis tilt: 0.0 deg
Tracking axis panel offset: 0.0 deg
Maximum tracking angle: 60.0 deg

Rated power: -
Panel material: Light textured glass with AR coating
Vary reflectivity with sun position? Yes
Correlate slope error with surface type? Yes
Slope error: 9.16 mrad

Vertex	Latitude	Longitude	Ground elevation	Height above ground	Total elevation
	deg	deg	m	m	m
1	53.782598	-0.896155	6.23	3.50	9.73
2	53.779048	-0.902335	5.55	3.50	9.05
3	53.778414	-0.901820	6.07	3.50	9.57
4	53.778262	-0.899503	6.30	3.50	9.80
5	53.776411	-0.897228	4.61	3.50	8.11
6	53.778287	-0.894610	4.73	3.50	8.23
7	53.780722	-0.891907	5.00	3.50	8.50

Name: PV array 14
Footprint area: 679,077 m^2
Axis tracking: Single-axis rotation
Backtracking: None
Tracking axis orientation: 180.0 deg
Tracking axis tilt: 0.0 deg
Tracking axis panel offset: 0.0 deg
Maximum tracking angle: 60.0 deg

Rated power: -
Panel material: Light textured glass with AR coating
Vary reflectivity with sun position? Yes
Correlate slope error with surface type? Yes
Slope error: 9.16 mrad

Vertex	Latitude	Longitude	Ground elevation	Height above ground	Total elevation
	deg	deg	m	m	m
1	53.776512	-0.895597	5.00	3.50	8.50
2	53.773976	-0.894396	5.00	3.50	8.50
3	53.773722	-0.894524	5.00	3.50	8.50
4	53.773190	-0.891563	5.00	3.50	8.50
5	53.773900	-0.890190	5.00	3.50	8.50
6	53.775193	-0.888774	5.00	3.50	8.50
7	53.773722	-0.884053	5.51	3.50	9.01
8	53.771719	-0.885555	5.49	3.50	8.99
9	53.771313	-0.881950	5.00	3.50	8.50
10	53.768675	-0.879332	5.00	3.50	8.50
11	53.767787	-0.880877	5.86	3.50	9.36
12	53.770273	-0.900919	5.27	3.50	8.77
13	53.772201	-0.899073	6.03	3.50	9.53
14	53.775067	-0.898344	5.81	3.50	9.31

Name: PV array 15
Footprint area: 277,556 m^2
Axis tracking: Single-axis rotation
Backtracking: None
Tracking axis orientation: 180.0 deg
Tracking axis tilt: 0.0 deg
Tracking axis panel offset: 0.0 deg
Maximum tracking angle: 60.0 deg

Rated power: -
Panel material: Light textured glass with AR coating
Vary reflectivity with sun position? Yes
Correlate slope error with surface type? Yes
Slope error: 9.16 mrad

Vertex	Latitude	Longitude	Ground elevation	Height above ground	Total elevation
	deg	deg	m	m	m
1	53.768980	-0.895254	5.00	3.50	8.50
2	53.765454	-0.897528	3.99	3.50	7.49
3	53.764363	-0.894138	4.98	3.50	8.48
4	53.764845	-0.892808	4.28	3.50	7.78
5	53.766062	-0.891520	4.50	3.50	8.00
6	53.765454	-0.887701	5.39	3.50	8.89
7	53.766773	-0.881392	5.53	3.50	9.03
8	53.767128	-0.881221	6.00	3.50	9.50

Name: PV array 16
Footprint area: 251,607 m^2
Axis tracking: Single-axis rotation
Backtracking: None
Tracking axis orientation: 180.0 deg
Tracking axis tilt: 0.0 deg
Tracking axis panel offset: 0.0 deg
Maximum tracking angle: 60.0 deg

Rated power: -
Panel material: Light textured glass with AR coating
Vary reflectivity with sun position? Yes
Correlate slope error with surface type? Yes
Slope error: 9.16 mrad

Vertex	Latitude	Longitude	Ground elevation	Height above ground	Total elevation
	deg	deg	m	m	m
1	53.765961	-0.871693	5.00	3.50	8.50
2	53.764769	-0.872766	5.00	3.50	8.50
3	53.765251	-0.879075	4.32	3.50	7.82
4	53.766671	-0.879676	4.39	3.50	7.89
5	53.766646	-0.880234	4.36	3.50	7.86
6	53.766139	-0.880362	4.41	3.50	7.91
7	53.763145	-0.889975	5.30	3.50	8.80
8	53.764617	-0.890362	4.92	3.50	8.42
9	53.764578	-0.890844	4.66	3.50	8.16
10	53.763044	-0.890619	6.20	3.50	9.70
11	53.761446	-0.894911	9.27	3.50	12.77
12	53.759593	-0.899846	7.65	3.50	11.15
13	53.758782	-0.900318	7.20	3.50	10.70
14	53.758934	-0.900747	7.16	3.50	10.66
15	53.759898	-0.900704	7.56	3.50	11.06
16	53.762029	-0.895469	9.27	3.50	12.77
17	53.762689	-0.896413	8.78	3.50	12.28
18	53.764591	-0.892336	4.64	3.50	8.14
19	53.764667	-0.890319	4.90	3.50	8.40
20	53.765581	-0.890362	4.32	3.50	7.82
21	53.765327	-0.888731	5.39	3.50	8.89
22	53.764211	-0.888688	6.95	3.50	10.45
23	53.764287	-0.887358	6.37	3.50	9.87
24	53.765149	-0.887014	5.83	3.50	9.33
25	53.766595	-0.880834	5.09	3.50	8.59
26	53.766925	-0.879375	4.83	3.50	8.33

Name: PV array 17
Footprint area: 259,874 m^2
Axis tracking: Single-axis rotation
Backtracking: None
Tracking axis orientation: 180.0 deg
Tracking axis tilt: 0.0 deg
Tracking axis panel offset: 0.0 deg
Maximum tracking angle: 60.0 deg

Rated power: -
Panel material: Light textured glass with AR coating
Vary reflectivity with sun position? Yes
Correlate slope error with surface type? Yes
Slope error: 9.16 mrad

Vertex	Latitude	Longitude	Ground elevation	Height above ground	Total elevation
	deg	deg	m	m	m
1	53.800000	-0.898244	8.11	3.50	11.61
2	53.799316	-0.898158	5.69	3.50	9.19
3	53.796553	-0.900947	5.33	3.50	8.83
4	53.795792	-0.901205	5.86	3.50	9.36
5	53.795032	-0.896699	5.54	3.50	9.04
6	53.794246	-0.893437	5.00	3.50	8.50
7	53.795083	-0.892579	5.13	3.50	8.63
8	53.798150	-0.892794	5.38	3.50	8.88
9	53.800076	-0.893394	5.88	3.50	9.38
10	53.800228	-0.897471	6.28	3.50	9.78

Name: PV array 18
Footprint area: 191,697 m^2
Axis tracking: Single-axis rotation
Backtracking: None
Tracking axis orientation: 180.0 deg
Tracking axis tilt: 0.0 deg
Tracking axis panel offset: 0.0 deg
Maximum tracking angle: 60.0 deg

Rated power: -
Panel material: Light textured glass with AR coating
Vary reflectivity with sun position? Yes
Correlate slope error with surface type? Yes
Slope error: 9.16 mrad

Vertex	Latitude	Longitude	Ground elevation	Height above ground	Total elevation
	deg	deg	m	m	m
1	53.792776	-0.893609	4.96	3.50	8.46
2	53.791736	-0.894982	5.48	3.50	8.98
3	53.790697	-0.896012	4.98	3.50	8.48
4	53.788998	-0.897042	4.27	3.50	7.77
5	53.789100	-0.897986	4.86	3.50	8.36
6	53.788973	-0.899360	5.24	3.50	8.74
7	53.788821	-0.900046	4.94	3.50	8.44
8	53.789227	-0.902020	4.84	3.50	8.34
9	53.789531	-0.902063	6.31	3.50	9.81
10	53.789556	-0.900990	5.15	3.50	8.65
11	53.792472	-0.900347	5.64	3.50	9.14
12	53.792903	-0.901849	6.09	3.50	9.59
13	53.794322	-0.900390	6.18	3.50	9.68

Name: PV array 2
Footprint area: 632,085 m^2
Axis tracking: Single-axis rotation
Backtracking: None
Tracking axis orientation: 180.0 deg
Tracking axis tilt: 0.0 deg
Tracking axis panel offset: 0.0 deg
Maximum tracking angle: 60.0 deg

Rated power: -
Panel material: Light textured glass with AR coating
Vary reflectivity with sun position? Yes
Correlate slope error with surface type? Yes
Slope error: 9.16 mrad

Vertex	Latitude	Longitude	Ground elevation	Height above ground	Total elevation
	deg	deg	m	m	m
1	53.813872	-0.874438	6.25	3.50	9.75
2	53.811034	-0.872979	7.20	3.50	10.70
3	53.811516	-0.871090	7.04	3.50	10.54
4	53.808804	-0.868730	6.72	3.50	10.22
5	53.809108	-0.867485	6.99	3.50	10.49
6	53.808323	-0.867687	6.25	3.50	9.75
7	53.806878	-0.867000	6.02	3.50	9.52
8	53.807183	-0.865970	6.43	3.50	9.93
9	53.805325	-0.864511	6.24	3.50	9.74
10	53.805173	-0.865283	6.58	3.50	10.08
11	53.804083	-0.864425	7.27	3.50	10.77
12	53.802993	-0.867987	6.40	3.50	9.90
13	53.802537	-0.867343	6.48	3.50	9.98
14	53.802283	-0.866228	6.35	3.50	9.85
15	53.800991	-0.864854	6.93	3.50	10.43
16	53.803094	-0.859876	6.29	3.50	9.79
17	53.803551	-0.859790	6.05	3.50	9.55
18	53.804210	-0.857087	6.54	3.50	10.04
19	53.807758	-0.858374	6.00	3.50	9.50
20	53.807859	-0.862666	5.93	3.50	9.43
21	53.810140	-0.863524	5.70	3.50	9.20
22	53.813897	-0.865584	6.85	3.50	10.35
23	53.813517	-0.868545	5.83	3.50	9.33
24	53.813618	-0.870433	5.69	3.50	9.19
25	53.814100	-0.871678	6.48	3.50	9.98

Name: PV array 3
Footprint area: 155,482 m^2
Axis tracking: Single-axis rotation
Backtracking: None
Tracking axis orientation: 180.0 deg
Tracking axis tilt: 0.0 deg
Tracking axis panel offset: 0.0 deg
Maximum tracking angle: 60.0 deg

Rated power: -
Panel material: Light textured glass with AR coating
Vary reflectivity with sun position? Yes
Correlate slope error with surface type? Yes
Slope error: 9.16 mrad

Vertex	Latitude	Longitude	Ground elevation	Height above ground	Total elevation
	deg	deg	m	m	m
1	53.813884	-0.865326	6.57	3.50	10.07
2	53.810185	-0.863052	6.00	3.50	9.50
3	53.808158	-0.862236	5.93	3.50	9.43
4	53.808132	-0.858760	6.07	3.50	9.57
5	53.810172	-0.859726	6.68	3.50	10.18
6	53.810844	-0.860477	5.85	3.50	9.35
7	53.811807	-0.860799	5.51	3.50	9.01
8	53.812909	-0.860777	5.73	3.50	9.23
9	53.813175	-0.860649	5.42	3.50	8.92
10	53.813922	-0.860949	5.47	3.50	8.97
11	53.814416	-0.860691	6.67	3.50	10.17

Name: PV array 4
Footprint area: 640,744 m^2
Axis tracking: Single-axis rotation
Backtracking: None
Tracking axis orientation: 180.0 deg
Tracking axis tilt: 0.0 deg
Tracking axis panel offset: 0.0 deg
Maximum tracking angle: 60.0 deg

Rated power: -
Panel material: Light textured glass with AR coating
Vary reflectivity with sun position? Yes
Correlate slope error with surface type? Yes
Slope error: 9.16 mrad

Vertex	Latitude	Longitude	Ground elevation	Height above ground	Total elevation
	deg	deg	m	m	m
1	53.814581	-0.855301	5.71	3.50	9.21
2	53.814100	-0.855130	5.26	3.50	8.76
3	53.813454	-0.854701	5.23	3.50	8.73
4	53.811148	-0.860065	5.60	3.50	9.10
5	53.810261	-0.859271	5.85	3.50	9.35
6	53.805383	-0.856782	5.66	3.50	9.16
7	53.805649	-0.855001	5.25	3.50	8.75
8	53.804901	-0.853842	5.22	3.50	8.72
9	53.805636	-0.849186	5.28	3.50	8.78
10	53.804496	-0.847255	5.46	3.50	8.96
11	53.804166	-0.847276	5.90	3.50	9.40
12	53.803748	-0.853327	6.05	3.50	9.55
13	53.798337	-0.850667	6.07	3.50	9.57
14	53.799972	-0.847148	5.62	3.50	9.12
15	53.800263	-0.845581	5.93	3.50	9.43
16	53.804103	-0.847276	5.53	3.50	9.03
17	53.804597	-0.847233	4.75	3.50	8.25
18	53.807681	-0.847384	5.70	3.50	9.20
19	53.808454	-0.848607	5.76	3.50	9.26
20	53.807238	-0.851632	5.81	3.50	9.31
21	53.808568	-0.853714	5.85	3.50	9.35
22	53.808366	-0.854658	5.82	3.50	9.32
23	53.809671	-0.855108	4.90	3.50	8.40
24	53.810000	-0.853907	5.43	3.50	8.93
25	53.809709	-0.853628	5.37	3.50	8.87
26	53.811558	-0.850538	5.71	3.50	9.21
27	53.813269	-0.852190	5.07	3.50	8.57
28	53.814244	-0.852684	5.73	3.50	9.23

Name: PV array 5
Footprint area: 1,762,515 m^2
Axis tracking: Single-axis rotation
Backtracking: None
Tracking axis orientation: 180.0 deg
Tracking axis tilt: 0.0 deg
Tracking axis panel offset: 0.0 deg
Maximum tracking angle: 60.0 deg

Rated power: -
Panel material: Light textured glass with AR coating
Vary reflectivity with sun position? Yes
Correlate slope error with surface type? Yes
Slope error: 9.16 mrad

Vertex	Latitude	Longitude	Ground elevation	Height above ground	Total elevation
	deg	deg	m	m	m
1	53.807708	-0.847197	5.51	3.50	9.01
2	53.804096	-0.847004	5.39	3.50	8.89
3	53.797342	-0.843764	5.19	3.50	8.69
4	53.797874	-0.841661	5.30	3.50	8.80
5	53.799610	-0.837906	5.60	3.50	9.10
6	53.801258	-0.834001	5.60	3.50	9.10
7	53.803577	-0.827735	5.05	3.50	8.55
8	53.802145	-0.825933	5.34	3.50	8.84
9	53.799851	-0.832398	6.04	3.50	9.54
10	53.797215	-0.829265	5.09	3.50	8.59
11	53.795048	-0.834844	5.24	3.50	8.74
12	53.792817	-0.833686	5.73	3.50	9.23
13	53.792944	-0.831368	5.17	3.50	8.67
14	53.794439	-0.826390	5.04	3.50	8.54
15	53.795301	-0.827248	5.36	3.50	8.86
16	53.795707	-0.826991	6.45	3.50	9.95
17	53.797253	-0.828793	5.75	3.50	9.25
18	53.797861	-0.826647	5.38	3.50	8.88
19	53.796214	-0.825274	5.21	3.50	8.71
20	53.796290	-0.824502	4.27	3.50	7.77
21	53.795200	-0.823558	4.11	3.50	7.61
22	53.795986	-0.819695	4.60	3.50	8.10
23	53.799027	-0.821626	4.56	3.50	8.06
24	53.801638	-0.823944	4.37	3.50	7.87
25	53.803944	-0.826519	4.96	3.50	8.46
26	53.804172	-0.825918	4.35	3.50	7.85
27	53.802018	-0.823558	5.21	3.50	8.71
28	53.802094	-0.822656	4.99	3.50	8.49
29	53.801511	-0.822442	5.47	3.50	8.97
30	53.801283	-0.822871	4.64	3.50	8.14
31	53.799103	-0.820940	4.71	3.50	8.21
32	53.800244	-0.816047	4.44	3.50	7.94
33	53.798368	-0.814846	4.75	3.50	8.25
34	53.797481	-0.814846	4.42	3.50	7.92
35	53.799737	-0.810683	4.71	3.50	8.21
36	53.802753	-0.814331	2.81	3.50	6.31
37	53.802221	-0.816477	4.38	3.50	7.88
38	53.802145	-0.818408	3.53	3.50	7.03
39	53.802981	-0.821240	5.10	3.50	8.60
40	53.803843	-0.822141	4.77	3.50	8.27
41	53.808202	-0.827077	4.72	3.50	8.22
42	53.807087	-0.832012	5.04	3.50	8.54
43	53.804451	-0.840724	5.00	3.50	8.50
44	53.806872	-0.843073	5.31	3.50	8.81
45	53.807125	-0.842815	4.94	3.50	8.44
46	53.807911	-0.843545	5.00	3.50	8.50
47	53.808443	-0.844746	4.87	3.50	8.37

Name: PV array 6
Footprint area: 53,769 m^2
Axis tracking: Single-axis rotation
Backtracking: None
Tracking axis orientation: 180.0 deg
Tracking axis tilt: 0.0 deg
Tracking axis panel offset: 0.0 deg
Maximum tracking angle: 60.0 deg

Rated power: -
Panel material: Light textured glass with AR coating
Vary reflectivity with sun position? Yes
Correlate slope error with surface type? Yes
Slope error: 9.16 mrad

Vertex	Latitude	Longitude	Ground elevation	Height above ground	Total elevation
	deg	deg	m	m	m
1	53.800588	-0.865277	6.65	3.50	10.15
2	53.801779	-0.862166	6.43	3.50	9.93
3	53.800132	-0.860192	6.45	3.50	9.95
4	53.799054	-0.863110	6.98	3.50	10.48
5	53.799802	-0.864419	7.68	3.50	11.18

Name: PV array 7
Footprint area: 283,999 m^2
Axis tracking: Single-axis rotation
Backtracking: None
Tracking axis orientation: 180.0 deg
Tracking axis tilt: 0.0 deg
Tracking axis panel offset: 0.0 deg
Maximum tracking angle: 60.0 deg

Rated power: -
Panel material: Light textured glass with AR coating
Vary reflectivity with sun position? Yes
Correlate slope error with surface type? Yes
Slope error: 9.16 mrad

Vertex	Latitude	Longitude	Ground elevation	Height above ground	Total elevation
	deg	deg	m	m	m
1	53.797257	-0.867135	6.45	3.50	9.95
2	53.794393	-0.864903	6.01	3.50	9.51
3	53.792770	-0.869624	6.00	3.50	9.50
4	53.791553	-0.868208	5.96	3.50	9.46
5	53.789018	-0.874988	6.33	3.50	9.83
6	53.790007	-0.876319	7.32	3.50	10.82
7	53.790311	-0.875374	5.97	3.50	9.47
8	53.790666	-0.875675	6.59	3.50	10.09
9	53.791199	-0.874130	6.37	3.50	9.87
10	53.791477	-0.874044	5.65	3.50	9.15
11	53.791731	-0.873486	5.89	3.50	9.39
12	53.792872	-0.873143	5.95	3.50	9.45
13	53.793201	-0.873100	5.86	3.50	9.36
14	53.793810	-0.871684	5.84	3.50	9.34
15	53.795457	-0.872800	5.36	3.50	8.86
16	53.796269	-0.871684	5.24	3.50	8.74
17	53.797232	-0.869409	5.79	3.50	9.29
18	53.796750	-0.868808	6.03	3.50	9.53

Name: PV array 8
Footprint area: 513,457 m^2
Axis tracking: Single-axis rotation
Backtracking: None
Tracking axis orientation: 180.0 deg
Tracking axis tilt: 0.0 deg
Tracking axis panel offset: 0.0 deg
Maximum tracking angle: 60.0 deg

Rated power: -
Panel material: Light textured glass with AR coating
Vary reflectivity with sun position? Yes
Correlate slope error with surface type? Yes
Slope error: 9.16 mrad

Vertex	Latitude	Longitude	Ground elevation	Height above ground	Total elevation
	deg	deg	m	m	m
1	53.790717	-0.857736	6.07	3.50	9.57
2	53.787725	-0.853702	5.77	3.50	9.27
3	53.787041	-0.856191	5.84	3.50	9.34
4	53.786458	-0.856277	5.48	3.50	8.98
5	53.786103	-0.857565	5.78	3.50	9.28
6	53.785291	-0.856792	5.63	3.50	9.13
7	53.785215	-0.852071	5.00	3.50	8.50
8	53.784328	-0.851900	4.64	3.50	8.14
9	53.784531	-0.849883	5.48	3.50	8.98
10	53.785038	-0.847179	5.34	3.50	8.84
11	53.783035	-0.846020	4.21	3.50	7.71
12	53.783694	-0.842587	5.00	3.50	8.50
13	53.785722	-0.843059	4.65	3.50	8.15
14	53.786736	-0.843789	4.23	3.50	7.73
15	53.789044	-0.845591	5.87	3.50	9.37
16	53.789756	-0.846235	5.45	3.50	8.95
17	53.788780	-0.849668	5.37	3.50	8.87
18	53.790301	-0.851406	6.41	3.50	9.91
19	53.792443	-0.853187	7.67	3.50	11.17

Name: PV array 9
Footprint area: 445,425 m^2
Axis tracking: Single-axis rotation
Backtracking: None
Tracking axis orientation: 180.0 deg
Tracking axis tilt: 0.0 deg
Tracking axis panel offset: 0.0 deg
Maximum tracking angle: 60.0 deg

Rated power: -
Panel material: Light textured glass with AR coating
Vary reflectivity with sun position? Yes
Correlate slope error with surface type? Yes
Slope error: 9.16 mrad

Vertex	Latitude	Longitude	Ground elevation	Height above ground	Total elevation
	deg	deg	m	m	m
1	53.783172	-0.836739	5.76	3.50	9.26
2	53.780154	-0.833434	5.23	3.50	8.73
3	53.779672	-0.835022	5.35	3.50	8.85
4	53.777263	-0.832447	5.19	3.50	8.69
5	53.775361	-0.841459	5.51	3.50	9.01
6	53.781245	-0.845408	5.09	3.50	8.59

Discrete Observation Receptors

Number	Latitude	Longitude	Ground elevation	Height above ground	Total Elevation
	deg	deg	m	m	m
OP 1	53.788293	-0.827426	4.51	2.50	7.01
OP 2	53.788674	-0.824057	4.72	2.50	7.22
OP 3	53.789244	-0.821268	4.52	2.50	7.02
OP 4	53.789903	-0.818453	4.88	2.50	7.38
OP 5	53.790550	-0.815750	5.10	2.50	7.60
OP 6	53.786458	-0.843140	5.60	2.50	8.10
OP 7	53.786829	-0.840024	5.61	2.50	8.11
OP 8	53.787273	-0.836987	5.30	2.50	7.80
OP 9	53.801427	-0.823405	5.22	2.50	7.72
OP 10	53.799836	-0.821957	4.98	2.50	7.48
OP 11	53.797790	-0.820412	4.98	2.50	7.48
OP 12	53.796231	-0.819500	3.99	2.50	6.49
OP 13	53.795090	-0.819103	4.28	2.50	6.78
OP 14	53.797235	-0.828582	6.27	2.50	8.77
OP 15	53.795572	-0.826742	5.83	2.50	8.33
OP 16	53.795591	-0.824494	4.97	2.50	7.47
OP 17	53.794919	-0.823759	5.06	2.50	7.56
OP 18	53.787738	-0.812936	7.13	2.50	9.63
OP 19	53.789380	-0.813784	7.38	2.50	9.88
OP 20	53.791209	-0.815104	6.56	2.50	9.06
OP 21	53.792806	-0.816209	4.13	2.50	6.63
OP 22	53.793287	-0.818290	4.37	2.50	6.87
OP 23	53.794080	-0.820790	4.55	2.50	7.05
OP 24	53.795043	-0.820447	4.64	2.50	7.14
OP 25	53.794922	-0.817088	4.27	2.50	6.77
OP 26	53.794663	-0.814524	3.86	2.50	6.36
OP 27	53.794789	-0.811424	4.68	2.50	7.18
OP 28	53.794910	-0.808419	4.61	2.50	7.11
OP 29	53.795474	-0.805587	5.37	2.50	7.87
OP 30	53.795677	-0.802551	4.90	2.50	7.40
OP 31	53.789180	-0.808366	4.56	2.50	7.06
OP 32	53.790492	-0.809986	4.46	2.50	6.96
OP 33	53.791215	-0.813054	5.04	2.50	7.54
OP 34	53.792831	-0.811756	4.61	2.50	7.11
OP 35	53.794333	-0.810823	4.13	2.50	6.63
OP 36	53.784936	-0.826929	5.11	2.50	7.61
OP 37	53.786622	-0.827766	2.44	2.50	4.94
OP 38	53.781293	-0.845666	5.19	2.50	7.69
OP 39	53.779689	-0.844647	6.00	2.50	8.50
OP 40	53.777737	-0.843338	5.00	2.50	7.50
OP 41	53.776025	-0.842222	4.99	2.50	7.49
OP 42	53.785242	-0.822181	4.75	2.50	7.25
OP 43	53.783049	-0.820614	5.76	2.50	8.26
OP 44	53.781509	-0.819552	5.00	2.50	7.50
OP 45	53.780127	-0.818513	5.99	2.50	8.49
OP 46	53.772652	-0.857448	5.90	2.50	8.40
OP 47	53.773102	-0.854444	5.25	2.50	7.75
OP 48	53.773520	-0.851032	5.36	2.50	7.86
OP 49	53.773853	-0.848511	5.23	2.50	7.73
OP 50	53.774341	-0.845920	5.02	2.50	7.52
OP 51	53.774833	-0.842975	5.00	2.50	7.50
OP 52	53.775492	-0.839413	5.00	2.50	7.50
OP 53	53.776031	-0.836891	5.00	2.50	7.50
OP 54	53.776551	-0.833973	5.78	2.50	8.28
OP 55	53.777166	-0.830754	5.37	2.50	7.87
OP 56	53.777730	-0.828029	6.90	2.50	9.40
OP 57	53.778364	-0.824778	4.59	2.50	7.09
OP 58	53.778859	-0.822332	5.14	2.50	7.64
OP 59	53.779480	-0.820487	5.93	2.50	8.43
OP 60	53.779917	-0.817172	5.69	2.50	8.19
OP 61	53.780285	-0.814146	5.00	2.50	7.50
OP 62	53.781128	-0.811485	5.11	2.50	7.61
OP 63	53.781027	-0.809071	6.18	2.50	8.68
OP 64	53.780932	-0.808095	5.57	2.50	8.07

OP 65	53.764816	-0.855602	3.61	2.50	6.11
OP 66	53.765102	-0.852609	4.83	2.50	7.33
OP 67	53.765019	-0.849401	5.00	2.50	7.50
OP 68	53.764575	-0.846075	4.00	2.50	6.50
OP 69	53.764049	-0.843254	5.00	2.50	7.50
OP 70	53.763554	-0.840518	5.00	2.50	7.50
OP 71	53.763021	-0.837653	5.08	2.50	7.58
OP 72	53.763770	-0.834349	6.17	2.50	8.67
OP 73	53.769915	-0.901804	7.74	2.50	10.24
OP 74	53.769541	-0.898929	6.47	2.50	8.97
OP 75	53.769116	-0.895528	5.20	2.50	7.70
OP 76	53.768699	-0.892463	5.61	2.50	8.11
OP 77	53.768261	-0.889084	5.58	2.50	8.08
OP 78	53.767925	-0.886541	5.18	2.50	7.68
OP 79	53.767557	-0.883462	5.00	2.50	7.50
OP 80	53.767158	-0.880769	5.71	2.50	8.21

Summary of PV Glare Analysis

PV configuration and total predicted glare

PV Name	Tilt	Orientation	"Green" Glare	"Yellow" Glare	Energy Produced	Data File
	deg	deg	min	min	kWh	
PV array 1	SA tracking	SA tracking	0	0	-	-
PV array 10	SA tracking	SA tracking	0	0	-	-
PV array 11	SA tracking	SA tracking	0	0	-	-
PV array 12	SA tracking	SA tracking	0	0	-	-
PV array 13	SA tracking	SA tracking	0	0	-	-
PV array 14	SA tracking	SA tracking	0	0	-	-
PV array 15	SA tracking	SA tracking	0	0	-	-
PV array 16	SA tracking	SA tracking	0	0	-	-
PV array 17	SA tracking	SA tracking	0	0	-	-
PV array 18	SA tracking	SA tracking	0	0	-	-
PV array 2	SA tracking	SA tracking	0	0	-	-
PV array 3	SA tracking	SA tracking	0	0	-	-
PV array 4	SA tracking	SA tracking	0	0	-	-
PV array 5	SA tracking	SA tracking	0	0	-	-
PV array 6	SA tracking	SA tracking	0	0	-	-
PV array 7	SA tracking	SA tracking	0	0	-	-
PV array 8	SA tracking	SA tracking	0	0	-	-
PV array 9	SA tracking	SA tracking	0	0	-	-

PV & Receptor Analysis Results

Results for each PV array and receptor

PV array 1 no glare found

Component	Green glare (min)	Yellow glare (min)
OP: OP 1	0	0
OP: OP 2	0	0
OP: OP 3	0	0
OP: OP 4	0	0
OP: OP 5	0	0
OP: OP 6	0	0
OP: OP 7	0	0
OP: OP 8	0	0
OP: OP 9	0	0
OP: OP 10	0	0
OP: OP 11	0	0
OP: OP 12	0	0
OP: OP 13	0	0
OP: OP 14	0	0
OP: OP 15	0	0
OP: OP 16	0	0
OP: OP 17	0	0
OP: OP 18	0	0
OP: OP 19	0	0
OP: OP 20	0	0
OP: OP 21	0	0
OP: OP 22	0	0
OP: OP 23	0	0
OP: OP 24	0	0
OP: OP 25	0	0
OP: OP 26	0	0
OP: OP 27	0	0
OP: OP 28	0	0
OP: OP 29	0	0
OP: OP 30	0	0
OP: OP 31	0	0
OP: OP 32	0	0
OP: OP 33	0	0
OP: OP 34	0	0
OP: OP 35	0	0
OP: OP 36	0	0
OP: OP 37	0	0
OP: OP 38	0	0
OP: OP 39	0	0
OP: OP 40	0	0
OP: OP 41	0	0
OP: OP 42	0	0
OP: OP 43	0	0
OP: OP 44	0	0
OP: OP 45	0	0
OP: OP 46	0	0
OP: OP 47	0	0
OP: OP 48	0	0
OP: OP 49	0	0
OP: OP 50	0	0
OP: OP 51	0	0
OP: OP 52	0	0
OP: OP 53	0	0

OP: OP 54	0	0
OP: OP 55	0	0
OP: OP 56	0	0
OP: OP 57	0	0
OP: OP 58	0	0
OP: OP 59	0	0
OP: OP 60	0	0
OP: OP 61	0	0
OP: OP 62	0	0
OP: OP 63	0	0
OP: OP 64	0	0
OP: OP 65	0	0
OP: OP 66	0	0
OP: OP 67	0	0
OP: OP 68	0	0
OP: OP 69	0	0
OP: OP 70	0	0
OP: OP 71	0	0
OP: OP 72	0	0
OP: OP 73	0	0
OP: OP 74	0	0
OP: OP 75	0	0
OP: OP 76	0	0
OP: OP 77	0	0
OP: OP 78	0	0
OP: OP 79	0	0
OP: OP 80	0	0

No glare found

PV array 10 no glare found

Component	Green glare (min)	Yellow glare (min)
OP: OP 1	0	0
OP: OP 2	0	0
OP: OP 3	0	0
OP: OP 4	0	0
OP: OP 5	0	0
OP: OP 6	0	0
OP: OP 7	0	0
OP: OP 8	0	0
OP: OP 9	0	0
OP: OP 10	0	0
OP: OP 11	0	0
OP: OP 12	0	0
OP: OP 13	0	0
OP: OP 14	0	0
OP: OP 15	0	0
OP: OP 16	0	0
OP: OP 17	0	0
OP: OP 18	0	0
OP: OP 19	0	0
OP: OP 20	0	0

OP: OP 21	0	0
OP: OP 22	0	0
OP: OP 23	0	0
OP: OP 24	0	0
OP: OP 25	0	0
OP: OP 26	0	0
OP: OP 27	0	0
OP: OP 28	0	0
OP: OP 29	0	0
OP: OP 30	0	0
OP: OP 31	0	0
OP: OP 32	0	0
OP: OP 33	0	0
OP: OP 34	0	0
OP: OP 35	0	0
OP: OP 36	0	0
OP: OP 37	0	0
OP: OP 38	0	0
OP: OP 39	0	0
OP: OP 40	0	0
OP: OP 41	0	0
OP: OP 42	0	0
OP: OP 43	0	0
OP: OP 44	0	0
OP: OP 45	0	0
OP: OP 46	0	0
OP: OP 47	0	0
OP: OP 48	0	0
OP: OP 49	0	0
OP: OP 50	0	0
OP: OP 51	0	0
OP: OP 52	0	0
OP: OP 53	0	0
OP: OP 54	0	0
OP: OP 55	0	0
OP: OP 56	0	0
OP: OP 57	0	0
OP: OP 58	0	0
OP: OP 59	0	0
OP: OP 60	0	0
OP: OP 61	0	0
OP: OP 62	0	0
OP: OP 63	0	0
OP: OP 64	0	0
OP: OP 65	0	0
OP: OP 66	0	0
OP: OP 67	0	0
OP: OP 68	0	0
OP: OP 69	0	0
OP: OP 70	0	0
OP: OP 71	0	0
OP: OP 72	0	0
OP: OP 73	0	0
OP: OP 74	0	0
OP: OP 75	0	0

OP: OP 76	0	0
OP: OP 77	0	0
OP: OP 78	0	0
OP: OP 79	0	0
OP: OP 80	0	0

No glare found

PV array 11 no glare found

Component	Green glare (min)	Yellow glare (min)
OP: OP 1	0	0
OP: OP 2	0	0
OP: OP 3	0	0
OP: OP 4	0	0
OP: OP 5	0	0
OP: OP 6	0	0
OP: OP 7	0	0
OP: OP 8	0	0
OP: OP 9	0	0
OP: OP 10	0	0
OP: OP 11	0	0
OP: OP 12	0	0
OP: OP 13	0	0
OP: OP 14	0	0
OP: OP 15	0	0
OP: OP 16	0	0
OP: OP 17	0	0
OP: OP 18	0	0
OP: OP 19	0	0
OP: OP 20	0	0
OP: OP 21	0	0
OP: OP 22	0	0
OP: OP 23	0	0
OP: OP 24	0	0
OP: OP 25	0	0
OP: OP 26	0	0
OP: OP 27	0	0
OP: OP 28	0	0
OP: OP 29	0	0
OP: OP 30	0	0
OP: OP 31	0	0
OP: OP 32	0	0
OP: OP 33	0	0
OP: OP 34	0	0
OP: OP 35	0	0
OP: OP 36	0	0
OP: OP 37	0	0
OP: OP 38	0	0
OP: OP 39	0	0
OP: OP 40	0	0
OP: OP 41	0	0
OP: OP 42	0	0

OP: OP 43	0	0
OP: OP 44	0	0
OP: OP 45	0	0
OP: OP 46	0	0
OP: OP 47	0	0
OP: OP 48	0	0
OP: OP 49	0	0
OP: OP 50	0	0
OP: OP 51	0	0
OP: OP 52	0	0
OP: OP 53	0	0
OP: OP 54	0	0
OP: OP 55	0	0
OP: OP 56	0	0
OP: OP 57	0	0
OP: OP 58	0	0
OP: OP 59	0	0
OP: OP 60	0	0
OP: OP 61	0	0
OP: OP 62	0	0
OP: OP 63	0	0
OP: OP 64	0	0
OP: OP 65	0	0
OP: OP 66	0	0
OP: OP 67	0	0
OP: OP 68	0	0
OP: OP 69	0	0
OP: OP 70	0	0
OP: OP 71	0	0
OP: OP 72	0	0
OP: OP 73	0	0
OP: OP 74	0	0
OP: OP 75	0	0
OP: OP 76	0	0
OP: OP 77	0	0
OP: OP 78	0	0
OP: OP 79	0	0
OP: OP 80	0	0

No glare found

PV array 12 no glare found

Component	Green glare (min)	Yellow glare (min)
OP: OP 1	0	0
OP: OP 2	0	0
OP: OP 3	0	0
OP: OP 4	0	0
OP: OP 5	0	0
OP: OP 6	0	0
OP: OP 7	0	0
OP: OP 8	0	0
OP: OP 9	0	0

OP: OP 10	0	0
OP: OP 11	0	0
OP: OP 12	0	0
OP: OP 13	0	0
OP: OP 14	0	0
OP: OP 15	0	0
OP: OP 16	0	0
OP: OP 17	0	0
OP: OP 18	0	0
OP: OP 19	0	0
OP: OP 20	0	0
OP: OP 21	0	0
OP: OP 22	0	0
OP: OP 23	0	0
OP: OP 24	0	0
OP: OP 25	0	0
OP: OP 26	0	0
OP: OP 27	0	0
OP: OP 28	0	0
OP: OP 29	0	0
OP: OP 30	0	0
OP: OP 31	0	0
OP: OP 32	0	0
OP: OP 33	0	0
OP: OP 34	0	0
OP: OP 35	0	0
OP: OP 36	0	0
OP: OP 37	0	0
OP: OP 38	0	0
OP: OP 39	0	0
OP: OP 40	0	0
OP: OP 41	0	0
OP: OP 42	0	0
OP: OP 43	0	0
OP: OP 44	0	0
OP: OP 45	0	0
OP: OP 46	0	0
OP: OP 47	0	0
OP: OP 48	0	0
OP: OP 49	0	0
OP: OP 50	0	0
OP: OP 51	0	0
OP: OP 52	0	0
OP: OP 53	0	0
OP: OP 54	0	0
OP: OP 55	0	0
OP: OP 56	0	0
OP: OP 57	0	0
OP: OP 58	0	0
OP: OP 59	0	0
OP: OP 60	0	0
OP: OP 61	0	0
OP: OP 62	0	0
OP: OP 63	0	0
OP: OP 64	0	0

OP: OP 65	0	0
OP: OP 66	0	0
OP: OP 67	0	0
OP: OP 68	0	0
OP: OP 69	0	0
OP: OP 70	0	0
OP: OP 71	0	0
OP: OP 72	0	0
OP: OP 73	0	0
OP: OP 74	0	0
OP: OP 75	0	0
OP: OP 76	0	0
OP: OP 77	0	0
OP: OP 78	0	0
OP: OP 79	0	0
OP: OP 80	0	0

No glare found

PV array 13 no glare found

Component	Green glare (min)	Yellow glare (min)
OP: OP 1	0	0
OP: OP 2	0	0
OP: OP 3	0	0
OP: OP 4	0	0
OP: OP 5	0	0
OP: OP 6	0	0
OP: OP 7	0	0
OP: OP 8	0	0
OP: OP 9	0	0
OP: OP 10	0	0
OP: OP 11	0	0
OP: OP 12	0	0
OP: OP 13	0	0
OP: OP 14	0	0
OP: OP 15	0	0
OP: OP 16	0	0
OP: OP 17	0	0
OP: OP 18	0	0
OP: OP 19	0	0
OP: OP 20	0	0
OP: OP 21	0	0
OP: OP 22	0	0
OP: OP 23	0	0
OP: OP 24	0	0
OP: OP 25	0	0
OP: OP 26	0	0
OP: OP 27	0	0
OP: OP 28	0	0
OP: OP 29	0	0
OP: OP 30	0	0
OP: OP 31	0	0

OP: OP 32	0	0
OP: OP 33	0	0
OP: OP 34	0	0
OP: OP 35	0	0
OP: OP 36	0	0
OP: OP 37	0	0
OP: OP 38	0	0
OP: OP 39	0	0
OP: OP 40	0	0
OP: OP 41	0	0
OP: OP 42	0	0
OP: OP 43	0	0
OP: OP 44	0	0
OP: OP 45	0	0
OP: OP 46	0	0
OP: OP 47	0	0
OP: OP 48	0	0
OP: OP 49	0	0
OP: OP 50	0	0
OP: OP 51	0	0
OP: OP 52	0	0
OP: OP 53	0	0
OP: OP 54	0	0
OP: OP 55	0	0
OP: OP 56	0	0
OP: OP 57	0	0
OP: OP 58	0	0
OP: OP 59	0	0
OP: OP 60	0	0
OP: OP 61	0	0
OP: OP 62	0	0
OP: OP 63	0	0
OP: OP 64	0	0
OP: OP 65	0	0
OP: OP 66	0	0
OP: OP 67	0	0
OP: OP 68	0	0
OP: OP 69	0	0
OP: OP 70	0	0
OP: OP 71	0	0
OP: OP 72	0	0
OP: OP 73	0	0
OP: OP 74	0	0
OP: OP 75	0	0
OP: OP 76	0	0
OP: OP 77	0	0
OP: OP 78	0	0
OP: OP 79	0	0
OP: OP 80	0	0

No glare found

PV array 14 no glare found

Component	Green glare (min)	Yellow glare (min)
OP: OP 1	0	0
OP: OP 2	0	0
OP: OP 3	0	0
OP: OP 4	0	0
OP: OP 5	0	0
OP: OP 6	0	0
OP: OP 7	0	0
OP: OP 8	0	0
OP: OP 9	0	0
OP: OP 10	0	0
OP: OP 11	0	0
OP: OP 12	0	0
OP: OP 13	0	0
OP: OP 14	0	0
OP: OP 15	0	0
OP: OP 16	0	0
OP: OP 17	0	0
OP: OP 18	0	0
OP: OP 19	0	0
OP: OP 20	0	0
OP: OP 21	0	0
OP: OP 22	0	0
OP: OP 23	0	0
OP: OP 24	0	0
OP: OP 25	0	0
OP: OP 26	0	0
OP: OP 27	0	0
OP: OP 28	0	0
OP: OP 29	0	0
OP: OP 30	0	0
OP: OP 31	0	0
OP: OP 32	0	0
OP: OP 33	0	0
OP: OP 34	0	0
OP: OP 35	0	0
OP: OP 36	0	0
OP: OP 37	0	0
OP: OP 38	0	0
OP: OP 39	0	0
OP: OP 40	0	0
OP: OP 41	0	0
OP: OP 42	0	0
OP: OP 43	0	0
OP: OP 44	0	0
OP: OP 45	0	0
OP: OP 46	0	0
OP: OP 47	0	0
OP: OP 48	0	0
OP: OP 49	0	0
OP: OP 50	0	0
OP: OP 51	0	0
OP: OP 52	0	0
OP: OP 53	0	0

OP: OP 54	0	0
OP: OP 55	0	0
OP: OP 56	0	0
OP: OP 57	0	0
OP: OP 58	0	0
OP: OP 59	0	0
OP: OP 60	0	0
OP: OP 61	0	0
OP: OP 62	0	0
OP: OP 63	0	0
OP: OP 64	0	0
OP: OP 65	0	0
OP: OP 66	0	0
OP: OP 67	0	0
OP: OP 68	0	0
OP: OP 69	0	0
OP: OP 70	0	0
OP: OP 71	0	0
OP: OP 72	0	0
OP: OP 73	0	0
OP: OP 74	0	0
OP: OP 75	0	0
OP: OP 76	0	0
OP: OP 77	0	0
OP: OP 78	0	0
OP: OP 79	0	0
OP: OP 80	0	0

No glare found

PV array 15 no glare found

Component	Green glare (min)	Yellow glare (min)
OP: OP 1	0	0
OP: OP 2	0	0
OP: OP 3	0	0
OP: OP 4	0	0
OP: OP 5	0	0
OP: OP 6	0	0
OP: OP 7	0	0
OP: OP 8	0	0
OP: OP 9	0	0
OP: OP 10	0	0
OP: OP 11	0	0
OP: OP 12	0	0
OP: OP 13	0	0
OP: OP 14	0	0
OP: OP 15	0	0
OP: OP 16	0	0
OP: OP 17	0	0
OP: OP 18	0	0
OP: OP 19	0	0
OP: OP 20	0	0

OP: OP 21	0	0
OP: OP 22	0	0
OP: OP 23	0	0
OP: OP 24	0	0
OP: OP 25	0	0
OP: OP 26	0	0
OP: OP 27	0	0
OP: OP 28	0	0
OP: OP 29	0	0
OP: OP 30	0	0
OP: OP 31	0	0
OP: OP 32	0	0
OP: OP 33	0	0
OP: OP 34	0	0
OP: OP 35	0	0
OP: OP 36	0	0
OP: OP 37	0	0
OP: OP 38	0	0
OP: OP 39	0	0
OP: OP 40	0	0
OP: OP 41	0	0
OP: OP 42	0	0
OP: OP 43	0	0
OP: OP 44	0	0
OP: OP 45	0	0
OP: OP 46	0	0
OP: OP 47	0	0
OP: OP 48	0	0
OP: OP 49	0	0
OP: OP 50	0	0
OP: OP 51	0	0
OP: OP 52	0	0
OP: OP 53	0	0
OP: OP 54	0	0
OP: OP 55	0	0
OP: OP 56	0	0
OP: OP 57	0	0
OP: OP 58	0	0
OP: OP 59	0	0
OP: OP 60	0	0
OP: OP 61	0	0
OP: OP 62	0	0
OP: OP 63	0	0
OP: OP 64	0	0
OP: OP 65	0	0
OP: OP 66	0	0
OP: OP 67	0	0
OP: OP 68	0	0
OP: OP 69	0	0
OP: OP 70	0	0
OP: OP 71	0	0
OP: OP 72	0	0
OP: OP 73	0	0
OP: OP 74	0	0
OP: OP 75	0	0

OP: OP 76	0	0
OP: OP 77	0	0
OP: OP 78	0	0
OP: OP 79	0	0
OP: OP 80	0	0

No glare found

PV array 16 no glare found

Component	Green glare (min)	Yellow glare (min)
OP: OP 1	0	0
OP: OP 2	0	0
OP: OP 3	0	0
OP: OP 4	0	0
OP: OP 5	0	0
OP: OP 6	0	0
OP: OP 7	0	0
OP: OP 8	0	0
OP: OP 9	0	0
OP: OP 10	0	0
OP: OP 11	0	0
OP: OP 12	0	0
OP: OP 13	0	0
OP: OP 14	0	0
OP: OP 15	0	0
OP: OP 16	0	0
OP: OP 17	0	0
OP: OP 18	0	0
OP: OP 19	0	0
OP: OP 20	0	0
OP: OP 21	0	0
OP: OP 22	0	0
OP: OP 23	0	0
OP: OP 24	0	0
OP: OP 25	0	0
OP: OP 26	0	0
OP: OP 27	0	0
OP: OP 28	0	0
OP: OP 29	0	0
OP: OP 30	0	0
OP: OP 31	0	0
OP: OP 32	0	0
OP: OP 33	0	0
OP: OP 34	0	0
OP: OP 35	0	0
OP: OP 36	0	0
OP: OP 37	0	0
OP: OP 38	0	0
OP: OP 39	0	0
OP: OP 40	0	0
OP: OP 41	0	0
OP: OP 42	0	0

OP: OP 43	0	0
OP: OP 44	0	0
OP: OP 45	0	0
OP: OP 46	0	0
OP: OP 47	0	0
OP: OP 48	0	0
OP: OP 49	0	0
OP: OP 50	0	0
OP: OP 51	0	0
OP: OP 52	0	0
OP: OP 53	0	0
OP: OP 54	0	0
OP: OP 55	0	0
OP: OP 56	0	0
OP: OP 57	0	0
OP: OP 58	0	0
OP: OP 59	0	0
OP: OP 60	0	0
OP: OP 61	0	0
OP: OP 62	0	0
OP: OP 63	0	0
OP: OP 64	0	0
OP: OP 65	0	0
OP: OP 66	0	0
OP: OP 67	0	0
OP: OP 68	0	0
OP: OP 69	0	0
OP: OP 70	0	0
OP: OP 71	0	0
OP: OP 72	0	0
OP: OP 73	0	0
OP: OP 74	0	0
OP: OP 75	0	0
OP: OP 76	0	0
OP: OP 77	0	0
OP: OP 78	0	0
OP: OP 79	0	0
OP: OP 80	0	0

No glare found

PV array 17 no glare found

Component	Green glare (min)	Yellow glare (min)
OP: OP 1	0	0
OP: OP 2	0	0
OP: OP 3	0	0
OP: OP 4	0	0
OP: OP 5	0	0
OP: OP 6	0	0
OP: OP 7	0	0
OP: OP 8	0	0
OP: OP 9	0	0

OP: OP 10	0	0
OP: OP 11	0	0
OP: OP 12	0	0
OP: OP 13	0	0
OP: OP 14	0	0
OP: OP 15	0	0
OP: OP 16	0	0
OP: OP 17	0	0
OP: OP 18	0	0
OP: OP 19	0	0
OP: OP 20	0	0
OP: OP 21	0	0
OP: OP 22	0	0
OP: OP 23	0	0
OP: OP 24	0	0
OP: OP 25	0	0
OP: OP 26	0	0
OP: OP 27	0	0
OP: OP 28	0	0
OP: OP 29	0	0
OP: OP 30	0	0
OP: OP 31	0	0
OP: OP 32	0	0
OP: OP 33	0	0
OP: OP 34	0	0
OP: OP 35	0	0
OP: OP 36	0	0
OP: OP 37	0	0
OP: OP 38	0	0
OP: OP 39	0	0
OP: OP 40	0	0
OP: OP 41	0	0
OP: OP 42	0	0
OP: OP 43	0	0
OP: OP 44	0	0
OP: OP 45	0	0
OP: OP 46	0	0
OP: OP 47	0	0
OP: OP 48	0	0
OP: OP 49	0	0
OP: OP 50	0	0
OP: OP 51	0	0
OP: OP 52	0	0
OP: OP 53	0	0
OP: OP 54	0	0
OP: OP 55	0	0
OP: OP 56	0	0
OP: OP 57	0	0
OP: OP 58	0	0
OP: OP 59	0	0
OP: OP 60	0	0
OP: OP 61	0	0
OP: OP 62	0	0
OP: OP 63	0	0
OP: OP 64	0	0

OP: OP 65	0	0
OP: OP 66	0	0
OP: OP 67	0	0
OP: OP 68	0	0
OP: OP 69	0	0
OP: OP 70	0	0
OP: OP 71	0	0
OP: OP 72	0	0
OP: OP 73	0	0
OP: OP 74	0	0
OP: OP 75	0	0
OP: OP 76	0	0
OP: OP 77	0	0
OP: OP 78	0	0
OP: OP 79	0	0
OP: OP 80	0	0

No glare found

PV array 18 no glare found

Component	Green glare (min)	Yellow glare (min)
OP: OP 1	0	0
OP: OP 2	0	0
OP: OP 3	0	0
OP: OP 4	0	0
OP: OP 5	0	0
OP: OP 6	0	0
OP: OP 7	0	0
OP: OP 8	0	0
OP: OP 9	0	0
OP: OP 10	0	0
OP: OP 11	0	0
OP: OP 12	0	0
OP: OP 13	0	0
OP: OP 14	0	0
OP: OP 15	0	0
OP: OP 16	0	0
OP: OP 17	0	0
OP: OP 18	0	0
OP: OP 19	0	0
OP: OP 20	0	0
OP: OP 21	0	0
OP: OP 22	0	0
OP: OP 23	0	0
OP: OP 24	0	0
OP: OP 25	0	0
OP: OP 26	0	0
OP: OP 27	0	0
OP: OP 28	0	0
OP: OP 29	0	0
OP: OP 30	0	0
OP: OP 31	0	0

OP: OP 32	0	0
OP: OP 33	0	0
OP: OP 34	0	0
OP: OP 35	0	0
OP: OP 36	0	0
OP: OP 37	0	0
OP: OP 38	0	0
OP: OP 39	0	0
OP: OP 40	0	0
OP: OP 41	0	0
OP: OP 42	0	0
OP: OP 43	0	0
OP: OP 44	0	0
OP: OP 45	0	0
OP: OP 46	0	0
OP: OP 47	0	0
OP: OP 48	0	0
OP: OP 49	0	0
OP: OP 50	0	0
OP: OP 51	0	0
OP: OP 52	0	0
OP: OP 53	0	0
OP: OP 54	0	0
OP: OP 55	0	0
OP: OP 56	0	0
OP: OP 57	0	0
OP: OP 58	0	0
OP: OP 59	0	0
OP: OP 60	0	0
OP: OP 61	0	0
OP: OP 62	0	0
OP: OP 63	0	0
OP: OP 64	0	0
OP: OP 65	0	0
OP: OP 66	0	0
OP: OP 67	0	0
OP: OP 68	0	0
OP: OP 69	0	0
OP: OP 70	0	0
OP: OP 71	0	0
OP: OP 72	0	0
OP: OP 73	0	0
OP: OP 74	0	0
OP: OP 75	0	0
OP: OP 76	0	0
OP: OP 77	0	0
OP: OP 78	0	0
OP: OP 79	0	0
OP: OP 80	0	0

No glare found

PV array 2 no glare found

Component	Green glare (min)	Yellow glare (min)
OP: OP 1	0	0
OP: OP 2	0	0
OP: OP 3	0	0
OP: OP 4	0	0
OP: OP 5	0	0
OP: OP 6	0	0
OP: OP 7	0	0
OP: OP 8	0	0
OP: OP 9	0	0
OP: OP 10	0	0
OP: OP 11	0	0
OP: OP 12	0	0
OP: OP 13	0	0
OP: OP 14	0	0
OP: OP 15	0	0
OP: OP 16	0	0
OP: OP 17	0	0
OP: OP 18	0	0
OP: OP 19	0	0
OP: OP 20	0	0
OP: OP 21	0	0
OP: OP 22	0	0
OP: OP 23	0	0
OP: OP 24	0	0
OP: OP 25	0	0
OP: OP 26	0	0
OP: OP 27	0	0
OP: OP 28	0	0
OP: OP 29	0	0
OP: OP 30	0	0
OP: OP 31	0	0
OP: OP 32	0	0
OP: OP 33	0	0
OP: OP 34	0	0
OP: OP 35	0	0
OP: OP 36	0	0
OP: OP 37	0	0
OP: OP 38	0	0
OP: OP 39	0	0
OP: OP 40	0	0
OP: OP 41	0	0
OP: OP 42	0	0
OP: OP 43	0	0
OP: OP 44	0	0
OP: OP 45	0	0
OP: OP 46	0	0
OP: OP 47	0	0
OP: OP 48	0	0
OP: OP 49	0	0
OP: OP 50	0	0
OP: OP 51	0	0
OP: OP 52	0	0
OP: OP 53	0	0

OP: OP 54	0	0
OP: OP 55	0	0
OP: OP 56	0	0
OP: OP 57	0	0
OP: OP 58	0	0
OP: OP 59	0	0
OP: OP 60	0	0
OP: OP 61	0	0
OP: OP 62	0	0
OP: OP 63	0	0
OP: OP 64	0	0
OP: OP 65	0	0
OP: OP 66	0	0
OP: OP 67	0	0
OP: OP 68	0	0
OP: OP 69	0	0
OP: OP 70	0	0
OP: OP 71	0	0
OP: OP 72	0	0
OP: OP 73	0	0
OP: OP 74	0	0
OP: OP 75	0	0
OP: OP 76	0	0
OP: OP 77	0	0
OP: OP 78	0	0
OP: OP 79	0	0
OP: OP 80	0	0

No glare found

PV array 3 no glare found

Component	Green glare (min)	Yellow glare (min)
OP: OP 1	0	0
OP: OP 2	0	0
OP: OP 3	0	0
OP: OP 4	0	0
OP: OP 5	0	0
OP: OP 6	0	0
OP: OP 7	0	0
OP: OP 8	0	0
OP: OP 9	0	0
OP: OP 10	0	0
OP: OP 11	0	0
OP: OP 12	0	0
OP: OP 13	0	0
OP: OP 14	0	0
OP: OP 15	0	0
OP: OP 16	0	0
OP: OP 17	0	0
OP: OP 18	0	0
OP: OP 19	0	0
OP: OP 20	0	0

OP: OP 21	0	0
OP: OP 22	0	0
OP: OP 23	0	0
OP: OP 24	0	0
OP: OP 25	0	0
OP: OP 26	0	0
OP: OP 27	0	0
OP: OP 28	0	0
OP: OP 29	0	0
OP: OP 30	0	0
OP: OP 31	0	0
OP: OP 32	0	0
OP: OP 33	0	0
OP: OP 34	0	0
OP: OP 35	0	0
OP: OP 36	0	0
OP: OP 37	0	0
OP: OP 38	0	0
OP: OP 39	0	0
OP: OP 40	0	0
OP: OP 41	0	0
OP: OP 42	0	0
OP: OP 43	0	0
OP: OP 44	0	0
OP: OP 45	0	0
OP: OP 46	0	0
OP: OP 47	0	0
OP: OP 48	0	0
OP: OP 49	0	0
OP: OP 50	0	0
OP: OP 51	0	0
OP: OP 52	0	0
OP: OP 53	0	0
OP: OP 54	0	0
OP: OP 55	0	0
OP: OP 56	0	0
OP: OP 57	0	0
OP: OP 58	0	0
OP: OP 59	0	0
OP: OP 60	0	0
OP: OP 61	0	0
OP: OP 62	0	0
OP: OP 63	0	0
OP: OP 64	0	0
OP: OP 65	0	0
OP: OP 66	0	0
OP: OP 67	0	0
OP: OP 68	0	0
OP: OP 69	0	0
OP: OP 70	0	0
OP: OP 71	0	0
OP: OP 72	0	0
OP: OP 73	0	0
OP: OP 74	0	0
OP: OP 75	0	0

OP: OP 76	0	0
OP: OP 77	0	0
OP: OP 78	0	0
OP: OP 79	0	0
OP: OP 80	0	0

No glare found

PV array 4 no glare found

Component	Green glare (min)	Yellow glare (min)
OP: OP 1	0	0
OP: OP 2	0	0
OP: OP 3	0	0
OP: OP 4	0	0
OP: OP 5	0	0
OP: OP 6	0	0
OP: OP 7	0	0
OP: OP 8	0	0
OP: OP 9	0	0
OP: OP 10	0	0
OP: OP 11	0	0
OP: OP 12	0	0
OP: OP 13	0	0
OP: OP 14	0	0
OP: OP 15	0	0
OP: OP 16	0	0
OP: OP 17	0	0
OP: OP 18	0	0
OP: OP 19	0	0
OP: OP 20	0	0
OP: OP 21	0	0
OP: OP 22	0	0
OP: OP 23	0	0
OP: OP 24	0	0
OP: OP 25	0	0
OP: OP 26	0	0
OP: OP 27	0	0
OP: OP 28	0	0
OP: OP 29	0	0
OP: OP 30	0	0
OP: OP 31	0	0
OP: OP 32	0	0
OP: OP 33	0	0
OP: OP 34	0	0
OP: OP 35	0	0
OP: OP 36	0	0
OP: OP 37	0	0
OP: OP 38	0	0
OP: OP 39	0	0
OP: OP 40	0	0
OP: OP 41	0	0
OP: OP 42	0	0

OP: OP 43	0	0
OP: OP 44	0	0
OP: OP 45	0	0
OP: OP 46	0	0
OP: OP 47	0	0
OP: OP 48	0	0
OP: OP 49	0	0
OP: OP 50	0	0
OP: OP 51	0	0
OP: OP 52	0	0
OP: OP 53	0	0
OP: OP 54	0	0
OP: OP 55	0	0
OP: OP 56	0	0
OP: OP 57	0	0
OP: OP 58	0	0
OP: OP 59	0	0
OP: OP 60	0	0
OP: OP 61	0	0
OP: OP 62	0	0
OP: OP 63	0	0
OP: OP 64	0	0
OP: OP 65	0	0
OP: OP 66	0	0
OP: OP 67	0	0
OP: OP 68	0	0
OP: OP 69	0	0
OP: OP 70	0	0
OP: OP 71	0	0
OP: OP 72	0	0
OP: OP 73	0	0
OP: OP 74	0	0
OP: OP 75	0	0
OP: OP 76	0	0
OP: OP 77	0	0
OP: OP 78	0	0
OP: OP 79	0	0
OP: OP 80	0	0

No glare found

PV array 5 no glare found

Component	Green glare (min)	Yellow glare (min)
OP: OP 1	0	0
OP: OP 2	0	0
OP: OP 3	0	0
OP: OP 4	0	0
OP: OP 5	0	0
OP: OP 6	0	0
OP: OP 7	0	0
OP: OP 8	0	0
OP: OP 9	0	0

OP: OP 10	0	0
OP: OP 11	0	0
OP: OP 12	0	0
OP: OP 13	0	0
OP: OP 14	0	0
OP: OP 15	0	0
OP: OP 16	0	0
OP: OP 17	0	0
OP: OP 18	0	0
OP: OP 19	0	0
OP: OP 20	0	0
OP: OP 21	0	0
OP: OP 22	0	0
OP: OP 23	0	0
OP: OP 24	0	0
OP: OP 25	0	0
OP: OP 26	0	0
OP: OP 27	0	0
OP: OP 28	0	0
OP: OP 29	0	0
OP: OP 30	0	0
OP: OP 31	0	0
OP: OP 32	0	0
OP: OP 33	0	0
OP: OP 34	0	0
OP: OP 35	0	0
OP: OP 36	0	0
OP: OP 37	0	0
OP: OP 38	0	0
OP: OP 39	0	0
OP: OP 40	0	0
OP: OP 41	0	0
OP: OP 42	0	0
OP: OP 43	0	0
OP: OP 44	0	0
OP: OP 45	0	0
OP: OP 46	0	0
OP: OP 47	0	0
OP: OP 48	0	0
OP: OP 49	0	0
OP: OP 50	0	0
OP: OP 51	0	0
OP: OP 52	0	0
OP: OP 53	0	0
OP: OP 54	0	0
OP: OP 55	0	0
OP: OP 56	0	0
OP: OP 57	0	0
OP: OP 58	0	0
OP: OP 59	0	0
OP: OP 60	0	0
OP: OP 61	0	0
OP: OP 62	0	0
OP: OP 63	0	0
OP: OP 64	0	0

OP: OP 65	0	0
OP: OP 66	0	0
OP: OP 67	0	0
OP: OP 68	0	0
OP: OP 69	0	0
OP: OP 70	0	0
OP: OP 71	0	0
OP: OP 72	0	0
OP: OP 73	0	0
OP: OP 74	0	0
OP: OP 75	0	0
OP: OP 76	0	0
OP: OP 77	0	0
OP: OP 78	0	0
OP: OP 79	0	0
OP: OP 80	0	0

No glare found

PV array 6 no glare found

Component	Green glare (min)	Yellow glare (min)
OP: OP 1	0	0
OP: OP 2	0	0
OP: OP 3	0	0
OP: OP 4	0	0
OP: OP 5	0	0
OP: OP 6	0	0
OP: OP 7	0	0
OP: OP 8	0	0
OP: OP 9	0	0
OP: OP 10	0	0
OP: OP 11	0	0
OP: OP 12	0	0
OP: OP 13	0	0
OP: OP 14	0	0
OP: OP 15	0	0
OP: OP 16	0	0
OP: OP 17	0	0
OP: OP 18	0	0
OP: OP 19	0	0
OP: OP 20	0	0
OP: OP 21	0	0
OP: OP 22	0	0
OP: OP 23	0	0
OP: OP 24	0	0
OP: OP 25	0	0
OP: OP 26	0	0
OP: OP 27	0	0
OP: OP 28	0	0
OP: OP 29	0	0
OP: OP 30	0	0
OP: OP 31	0	0

OP: OP 32	0	0
OP: OP 33	0	0
OP: OP 34	0	0
OP: OP 35	0	0
OP: OP 36	0	0
OP: OP 37	0	0
OP: OP 38	0	0
OP: OP 39	0	0
OP: OP 40	0	0
OP: OP 41	0	0
OP: OP 42	0	0
OP: OP 43	0	0
OP: OP 44	0	0
OP: OP 45	0	0
OP: OP 46	0	0
OP: OP 47	0	0
OP: OP 48	0	0
OP: OP 49	0	0
OP: OP 50	0	0
OP: OP 51	0	0
OP: OP 52	0	0
OP: OP 53	0	0
OP: OP 54	0	0
OP: OP 55	0	0
OP: OP 56	0	0
OP: OP 57	0	0
OP: OP 58	0	0
OP: OP 59	0	0
OP: OP 60	0	0
OP: OP 61	0	0
OP: OP 62	0	0
OP: OP 63	0	0
OP: OP 64	0	0
OP: OP 65	0	0
OP: OP 66	0	0
OP: OP 67	0	0
OP: OP 68	0	0
OP: OP 69	0	0
OP: OP 70	0	0
OP: OP 71	0	0
OP: OP 72	0	0
OP: OP 73	0	0
OP: OP 74	0	0
OP: OP 75	0	0
OP: OP 76	0	0
OP: OP 77	0	0
OP: OP 78	0	0
OP: OP 79	0	0
OP: OP 80	0	0

No glare found

PV array 7 no glare found

Component	Green glare (min)	Yellow glare (min)
OP: OP 1	0	0
OP: OP 2	0	0
OP: OP 3	0	0
OP: OP 4	0	0
OP: OP 5	0	0
OP: OP 6	0	0
OP: OP 7	0	0
OP: OP 8	0	0
OP: OP 9	0	0
OP: OP 10	0	0
OP: OP 11	0	0
OP: OP 12	0	0
OP: OP 13	0	0
OP: OP 14	0	0
OP: OP 15	0	0
OP: OP 16	0	0
OP: OP 17	0	0
OP: OP 18	0	0
OP: OP 19	0	0
OP: OP 20	0	0
OP: OP 21	0	0
OP: OP 22	0	0
OP: OP 23	0	0
OP: OP 24	0	0
OP: OP 25	0	0
OP: OP 26	0	0
OP: OP 27	0	0
OP: OP 28	0	0
OP: OP 29	0	0
OP: OP 30	0	0
OP: OP 31	0	0
OP: OP 32	0	0
OP: OP 33	0	0
OP: OP 34	0	0
OP: OP 35	0	0
OP: OP 36	0	0
OP: OP 37	0	0
OP: OP 38	0	0
OP: OP 39	0	0
OP: OP 40	0	0
OP: OP 41	0	0
OP: OP 42	0	0
OP: OP 43	0	0
OP: OP 44	0	0
OP: OP 45	0	0
OP: OP 46	0	0
OP: OP 47	0	0
OP: OP 48	0	0
OP: OP 49	0	0
OP: OP 50	0	0
OP: OP 51	0	0
OP: OP 52	0	0
OP: OP 53	0	0

OP: OP 54	0	0
OP: OP 55	0	0
OP: OP 56	0	0
OP: OP 57	0	0
OP: OP 58	0	0
OP: OP 59	0	0
OP: OP 60	0	0
OP: OP 61	0	0
OP: OP 62	0	0
OP: OP 63	0	0
OP: OP 64	0	0
OP: OP 65	0	0
OP: OP 66	0	0
OP: OP 67	0	0
OP: OP 68	0	0
OP: OP 69	0	0
OP: OP 70	0	0
OP: OP 71	0	0
OP: OP 72	0	0
OP: OP 73	0	0
OP: OP 74	0	0
OP: OP 75	0	0
OP: OP 76	0	0
OP: OP 77	0	0
OP: OP 78	0	0
OP: OP 79	0	0
OP: OP 80	0	0

No glare found

PV array 8 no glare found

Component	Green glare (min)	Yellow glare (min)
OP: OP 1	0	0
OP: OP 2	0	0
OP: OP 3	0	0
OP: OP 4	0	0
OP: OP 5	0	0
OP: OP 6	0	0
OP: OP 7	0	0
OP: OP 8	0	0
OP: OP 9	0	0
OP: OP 10	0	0
OP: OP 11	0	0
OP: OP 12	0	0
OP: OP 13	0	0
OP: OP 14	0	0
OP: OP 15	0	0
OP: OP 16	0	0
OP: OP 17	0	0
OP: OP 18	0	0
OP: OP 19	0	0
OP: OP 20	0	0

OP: OP 21	0	0
OP: OP 22	0	0
OP: OP 23	0	0
OP: OP 24	0	0
OP: OP 25	0	0
OP: OP 26	0	0
OP: OP 27	0	0
OP: OP 28	0	0
OP: OP 29	0	0
OP: OP 30	0	0
OP: OP 31	0	0
OP: OP 32	0	0
OP: OP 33	0	0
OP: OP 34	0	0
OP: OP 35	0	0
OP: OP 36	0	0
OP: OP 37	0	0
OP: OP 38	0	0
OP: OP 39	0	0
OP: OP 40	0	0
OP: OP 41	0	0
OP: OP 42	0	0
OP: OP 43	0	0
OP: OP 44	0	0
OP: OP 45	0	0
OP: OP 46	0	0
OP: OP 47	0	0
OP: OP 48	0	0
OP: OP 49	0	0
OP: OP 50	0	0
OP: OP 51	0	0
OP: OP 52	0	0
OP: OP 53	0	0
OP: OP 54	0	0
OP: OP 55	0	0
OP: OP 56	0	0
OP: OP 57	0	0
OP: OP 58	0	0
OP: OP 59	0	0
OP: OP 60	0	0
OP: OP 61	0	0
OP: OP 62	0	0
OP: OP 63	0	0
OP: OP 64	0	0
OP: OP 65	0	0
OP: OP 66	0	0
OP: OP 67	0	0
OP: OP 68	0	0
OP: OP 69	0	0
OP: OP 70	0	0
OP: OP 71	0	0
OP: OP 72	0	0
OP: OP 73	0	0
OP: OP 74	0	0
OP: OP 75	0	0

OP: OP 76	0	0
OP: OP 77	0	0
OP: OP 78	0	0
OP: OP 79	0	0
OP: OP 80	0	0

No glare found

PV array 9 no glare found

Component	Green glare (min)	Yellow glare (min)
OP: OP 1	0	0
OP: OP 2	0	0
OP: OP 3	0	0
OP: OP 4	0	0
OP: OP 5	0	0
OP: OP 6	0	0
OP: OP 7	0	0
OP: OP 8	0	0
OP: OP 9	0	0
OP: OP 10	0	0
OP: OP 11	0	0
OP: OP 12	0	0
OP: OP 13	0	0
OP: OP 14	0	0
OP: OP 15	0	0
OP: OP 16	0	0
OP: OP 17	0	0
OP: OP 18	0	0
OP: OP 19	0	0
OP: OP 20	0	0
OP: OP 21	0	0
OP: OP 22	0	0
OP: OP 23	0	0
OP: OP 24	0	0
OP: OP 25	0	0
OP: OP 26	0	0
OP: OP 27	0	0
OP: OP 28	0	0
OP: OP 29	0	0
OP: OP 30	0	0
OP: OP 31	0	0
OP: OP 32	0	0
OP: OP 33	0	0
OP: OP 34	0	0
OP: OP 35	0	0
OP: OP 36	0	0
OP: OP 37	0	0
OP: OP 38	0	0
OP: OP 39	0	0
OP: OP 40	0	0
OP: OP 41	0	0
OP: OP 42	0	0

OP: OP 43	0	0
OP: OP 44	0	0
OP: OP 45	0	0
OP: OP 46	0	0
OP: OP 47	0	0
OP: OP 48	0	0
OP: OP 49	0	0
OP: OP 50	0	0
OP: OP 51	0	0
OP: OP 52	0	0
OP: OP 53	0	0
OP: OP 54	0	0
OP: OP 55	0	0
OP: OP 56	0	0
OP: OP 57	0	0
OP: OP 58	0	0
OP: OP 59	0	0
OP: OP 60	0	0
OP: OP 61	0	0
OP: OP 62	0	0
OP: OP 63	0	0
OP: OP 64	0	0
OP: OP 65	0	0
OP: OP 66	0	0
OP: OP 67	0	0
OP: OP 68	0	0
OP: OP 69	0	0
OP: OP 70	0	0
OP: OP 71	0	0
OP: OP 72	0	0
OP: OP 73	0	0
OP: OP 74	0	0
OP: OP 75	0	0
OP: OP 76	0	0
OP: OP 77	0	0
OP: OP 78	0	0
OP: OP 79	0	0
OP: OP 80	0	0

No glare found

Assumptions

- Times associated with glare are denoted in Standard time. For Daylight Savings, add one hour.
- Glare analyses do not automatically account for physical obstructions between reflectors and receptors. This includes buildings, tree cover and geographic obstructions.
- Detailed system geometry is not rigorously simulated.
- The glare hazard determination relies on several approximations including observer eye characteristics, angle of view, and typical blink response time. Actual values and results may vary.
- The system output calculation is a DNI-based approximation that assumes clear, sunny skies year-round. It should not be used in place of more rigorous modeling methods.
- Several V1 calculations utilize the PV array centroid, rather than the actual glare spot location, due to algorithm limitations. This may affect results for large PV footprints. Additional analyses of array sub-sections can provide additional information on expected glare.
- The subtended source angle (glare spot size) is constrained by the PV array footprint size. Partitioning large arrays into smaller sections will reduce the maximum potential subtended angle, potentially impacting results if actual glare spots are larger than the sub-array size. Additional analyses of the combined area of adjacent sub-arrays can provide more information on potential glare hazards. (See previous point on related limitations.)
- Hazard zone boundaries shown in the Glare Hazard plot are an approximation and visual aid. Actual ocular impact outcomes encompass a continuous, not discrete, spectrum.

- Glare locations displayed on receptor plots are approximate. Actual glare-spot locations may differ.
- Refer to the **Help page** for detailed assumptions and limitations not listed here.

ANNEX K: PROW RECEPTOR GLARE RESULTS (161 – 229)

ForgeSolar

East Yorkshire Solar Farm

East Yorkshire Solar Farm PROW 161 - 229

Created Aug 25, 2023
Updated Sep 20, 2023
Time-step 1 minute
Timezone offset UTC0
Minimum sun altitude 0.0 deg
Site ID 98793.16938

Project type Advanced
Project status: active
Category 100 MW to 1 GW

Misc. Analysis Settings

DNI: **varies (1,000.0 W/m^2 peak)**
Ocular transmission coefficient: **0.5**
Pupil diameter: **0.002 m**
Eye focal length: **0.017 m**
Sun subtended angle: **9.3 mrad**

PV Analysis Methodology: **Version 2**
Enhanced subtended angle calculation: **On**

Summary of Results No glare predicted!

PV Name	Tilt	Orientation	"Green" Glare	"Yellow" Glare	Energy Produced
	deg	deg	min	min	kWh
PV array 1	SA tracking	SA tracking	0	0	-
PV array 10	SA tracking	SA tracking	0	0	-
PV array 11	SA tracking	SA tracking	0	0	-
PV array 12	SA tracking	SA tracking	0	0	-
PV array 13	SA tracking	SA tracking	0	0	-
PV array 14	SA tracking	SA tracking	0	0	-
PV array 15	SA tracking	SA tracking	0	0	-
PV array 16	SA tracking	SA tracking	0	0	-
PV array 17	SA tracking	SA tracking	0	0	-
PV array 18	SA tracking	SA tracking	0	0	-
PV array 2	SA tracking	SA tracking	0	0	-
PV array 3	SA tracking	SA tracking	0	0	-
PV array 4	SA tracking	SA tracking	0	0	-
PV array 5	SA tracking	SA tracking	0	0	-
PV array 6	SA tracking	SA tracking	0	0	-
PV array 7	SA tracking	SA tracking	0	0	-
PV array 8	SA tracking	SA tracking	0	0	-
PV array 9	SA tracking	SA tracking	0	0	-

Component Data

PV Array(s)

Total PV footprint area: 8,103,345 m^2

Name: PV array 1
Footprint area: 509,399 m^2
Axis tracking: Single-axis rotation
Backtracking: None
Tracking axis orientation: 180.0 deg
Tracking axis tilt: 0.0 deg
Tracking axis panel offset: 0.0 deg
Maximum tracking angle: 60.0 deg

Rated power: -
Panel material: Light textured glass with AR coating
Vary reflectivity with sun position? Yes
Correlate slope error with surface type? Yes
Slope error: 9.16 mrad

Vertex	Latitude	Longitude	Ground elevation	Height above ground	Total elevation
	deg	deg	m	m	m
1	53.818886	-0.886729	6.34	3.50	9.84
2	53.814883	-0.884283	5.95	3.50	9.45
3	53.814346	-0.888924	7.41	3.50	10.91
4	53.812293	-0.882272	6.90	3.50	10.40
5	53.812699	-0.879482	7.20	3.50	10.70
6	53.813763	-0.878324	7.19	3.50	10.69
7	53.814194	-0.878796	7.39	3.50	10.89
8	53.814523	-0.874633	6.96	3.50	10.46
9	53.816145	-0.874247	6.11	3.50	9.61
10	53.816271	-0.873302	6.84	3.50	10.34
11	53.819464	-0.872702	6.50	3.50	10.00
12	53.818704	-0.878967	6.05	3.50	9.55
13	53.819109	-0.879010	5.90	3.50	9.40

Name: PV array 10
Footprint area: 860,067 m^2
Axis tracking: Single-axis rotation
Backtracking: None
Tracking axis orientation: 180.0 deg
Tracking axis tilt: 0.0 deg
Tracking axis panel offset: 0.0 deg
Maximum tracking angle: 60.0 deg

Rated power: -
Panel material: Light textured glass with AR coating
Vary reflectivity with sun position? Yes
Correlate slope error with surface type? Yes
Slope error: 9.16 mrad

Vertex	Latitude	Longitude	Ground elevation	Height above ground	Total elevation
	deg	deg	m	m	m
1	53.778810	-0.820903	5.07	3.50	8.57
2	53.775868	-0.819959	5.15	3.50	8.65
3	53.775209	-0.825366	5.97	3.50	9.47
4	53.768057	-0.847639	4.41	3.50	7.91
5	53.769858	-0.848455	5.00	3.50	8.50
6	53.769680	-0.850472	4.68	3.50	8.18
7	53.770745	-0.850686	4.00	3.50	7.50
8	53.770999	-0.849098	4.12	3.50	7.62
9	53.773408	-0.849570	5.00	3.50	8.50

Name: PV array 11
Footprint area: 205,559 m^2
Axis tracking: Single-axis rotation
Backtracking: None
Tracking axis orientation: 180.0 deg
Tracking axis tilt: 0.0 deg
Tracking axis panel offset: 0.0 deg
Maximum tracking angle: 60.0 deg

Rated power: -
Panel material: Light textured glass with AR coating
Vary reflectivity with sun position? Yes
Correlate slope error with surface type? Yes
Slope error: 9.16 mrad

Vertex	Latitude	Longitude	Ground elevation	Height above ground	Total elevation
	deg	deg	m	m	m
1	53.776817	-0.861222	5.00	3.50	8.50
2	53.776284	-0.862552	5.00	3.50	8.50
3	53.782826	-0.874268	5.15	3.50	8.65
4	53.784120	-0.871951	4.99	3.50	8.49
5	53.782674	-0.870578	5.10	3.50	8.60
6	53.780646	-0.865299	5.86	3.50	9.36
7	53.780772	-0.863840	6.00	3.50	9.50
8	53.779378	-0.862209	5.00	3.50	8.50
9	53.778972	-0.864012	5.00	3.50	8.50

Name: PV array 12
Footprint area: 153,870 m^2
Axis tracking: Single-axis rotation
Backtracking: None
Tracking axis orientation: 180.0 deg
Tracking axis tilt: 0.0 deg
Tracking axis panel offset: 0.0 deg
Maximum tracking angle: 60.0 deg

Rated power: -
Panel material: Light textured glass with AR coating
Vary reflectivity with sun position? Yes
Correlate slope error with surface type? Yes
Slope error: 9.16 mrad

Vertex	Latitude	Longitude	Ground elevation	Height above ground	Total elevation
	deg	deg	m	m	m
1	53.788227	-0.880191	5.89	3.50	9.39
2	53.788328	-0.881607	4.53	3.50	8.03
3	53.785920	-0.884311	5.06	3.50	8.56
4	53.782902	-0.880234	5.96	3.50	9.46
5	53.783359	-0.878388	5.63	3.50	9.13
6	53.783993	-0.877401	5.39	3.50	8.89
7	53.786021	-0.878388	5.24	3.50	8.74
8	53.786909	-0.879461	5.93	3.50	9.43

Name: PV array 13
Footprint area: 227,092 m^2
Axis tracking: Single-axis rotation
Backtracking: None
Tracking axis orientation: 180.0 deg
Tracking axis tilt: 0.0 deg
Tracking axis panel offset: 0.0 deg
Maximum tracking angle: 60.0 deg

Rated power: -
Panel material: Light textured glass with AR coating
Vary reflectivity with sun position? Yes
Correlate slope error with surface type? Yes
Slope error: 9.16 mrad

Vertex	Latitude	Longitude	Ground elevation	Height above ground	Total elevation
	deg	deg	m	m	m
1	53.782598	-0.896155	6.23	3.50	9.73
2	53.779048	-0.902335	5.55	3.50	9.05
3	53.778414	-0.901820	6.07	3.50	9.57
4	53.778262	-0.899503	6.30	3.50	9.80
5	53.776411	-0.897228	4.61	3.50	8.11
6	53.778287	-0.894610	4.73	3.50	8.23
7	53.780722	-0.891907	5.00	3.50	8.50

Name: PV array 14
Footprint area: 679,077 m^2
Axis tracking: Single-axis rotation
Backtracking: None
Tracking axis orientation: 180.0 deg
Tracking axis tilt: 0.0 deg
Tracking axis panel offset: 0.0 deg
Maximum tracking angle: 60.0 deg

Rated power: -
Panel material: Light textured glass with AR coating
Vary reflectivity with sun position? Yes
Correlate slope error with surface type? Yes
Slope error: 9.16 mrad

Vertex	Latitude	Longitude	Ground elevation	Height above ground	Total elevation
	deg	deg	m	m	m
1	53.776512	-0.895597	5.00	3.50	8.50
2	53.773976	-0.894396	5.00	3.50	8.50
3	53.773722	-0.894524	5.00	3.50	8.50
4	53.773190	-0.891563	5.00	3.50	8.50
5	53.773900	-0.890190	5.00	3.50	8.50
6	53.775193	-0.888774	5.00	3.50	8.50
7	53.773722	-0.884053	5.51	3.50	9.01
8	53.771719	-0.885555	5.49	3.50	8.99
9	53.771313	-0.881950	5.00	3.50	8.50
10	53.768675	-0.879332	5.00	3.50	8.50
11	53.767787	-0.880877	5.86	3.50	9.36
12	53.770273	-0.900919	5.27	3.50	8.77
13	53.772201	-0.899073	6.03	3.50	9.53
14	53.775067	-0.898344	5.81	3.50	9.31

Name: PV array 15
Footprint area: 277,556 m^2
Axis tracking: Single-axis rotation
Backtracking: None
Tracking axis orientation: 180.0 deg
Tracking axis tilt: 0.0 deg
Tracking axis panel offset: 0.0 deg
Maximum tracking angle: 60.0 deg

Rated power: -
Panel material: Light textured glass with AR coating
Vary reflectivity with sun position? Yes
Correlate slope error with surface type? Yes
Slope error: 9.16 mrad

Vertex	Latitude	Longitude	Ground elevation	Height above ground	Total elevation
	deg	deg	m	m	m
1	53.768980	-0.895254	5.00	3.50	8.50
2	53.765454	-0.897528	3.99	3.50	7.49
3	53.764363	-0.894138	4.98	3.50	8.48
4	53.764845	-0.892808	4.28	3.50	7.78
5	53.766062	-0.891520	4.50	3.50	8.00
6	53.765454	-0.887701	5.39	3.50	8.89
7	53.766773	-0.881392	5.53	3.50	9.03
8	53.767128	-0.881221	6.00	3.50	9.50

Name: PV array 16
Footprint area: 251,677 m^2
Axis tracking: Single-axis rotation
Backtracking: None
Tracking axis orientation: 180.0 deg
Tracking axis tilt: 0.0 deg
Tracking axis panel offset: 0.0 deg
Maximum tracking angle: 60.0 deg

Rated power: -
Panel material: Light textured glass with AR coating
Vary reflectivity with sun position? Yes
Correlate slope error with surface type? Yes
Slope error: 9.16 mrad

Vertex	Latitude	Longitude	Ground elevation	Height above ground	Total elevation
	deg	deg	m	m	m
1	53.765961	-0.871693	5.00	3.50	8.50
2	53.764769	-0.872766	5.00	3.50	8.50
3	53.765251	-0.879075	4.32	3.50	7.82
4	53.766671	-0.879676	4.39	3.50	7.89
5	53.766646	-0.880234	4.36	3.50	7.86
6	53.766139	-0.880362	4.41	3.50	7.91
7	53.763145	-0.889975	5.30	3.50	8.80
8	53.764617	-0.890362	4.92	3.50	8.42
9	53.764540	-0.890855	4.71	3.50	8.21
10	53.763044	-0.890619	6.20	3.50	9.70
11	53.761446	-0.894911	9.27	3.50	12.77
12	53.759593	-0.899846	7.65	3.50	11.15
13	53.758782	-0.900318	7.20	3.50	10.70
14	53.758934	-0.900747	7.16	3.50	10.66
15	53.759898	-0.900704	7.56	3.50	11.06
16	53.762029	-0.895469	9.27	3.50	12.77
17	53.762689	-0.896413	8.78	3.50	12.28
18	53.764591	-0.892336	4.64	3.50	8.14
19	53.764667	-0.890319	4.90	3.50	8.40
20	53.765581	-0.890362	4.32	3.50	7.82
21	53.765327	-0.888731	5.39	3.50	8.89
22	53.764211	-0.888688	6.95	3.50	10.45
23	53.764287	-0.887358	6.37	3.50	9.87
24	53.765149	-0.887014	5.83	3.50	9.33
25	53.766595	-0.880834	5.09	3.50	8.59
26	53.766925	-0.879375	4.83	3.50	8.33

Name: PV array 17
Footprint area: 259,874 m^2
Axis tracking: Single-axis rotation
Backtracking: None
Tracking axis orientation: 180.0 deg
Tracking axis tilt: 0.0 deg
Tracking axis panel offset: 0.0 deg
Maximum tracking angle: 60.0 deg

Rated power: -
Panel material: Light textured glass with AR coating
Vary reflectivity with sun position? Yes
Correlate slope error with surface type? Yes
Slope error: 9.16 mrad

Vertex	Latitude	Longitude	Ground elevation	Height above ground	Total elevation
	deg	deg	m	m	m
1	53.800000	-0.898244	8.11	3.50	11.61
2	53.799316	-0.898158	5.69	3.50	9.19
3	53.796553	-0.900947	5.33	3.50	8.83
4	53.795792	-0.901205	5.86	3.50	9.36
5	53.795032	-0.896699	5.54	3.50	9.04
6	53.794246	-0.893437	5.00	3.50	8.50
7	53.795083	-0.892579	5.13	3.50	8.63
8	53.798150	-0.892794	5.38	3.50	8.88
9	53.800076	-0.893394	5.88	3.50	9.38
10	53.800228	-0.897471	6.28	3.50	9.78

Name: PV array 18
Footprint area: 191,697 m^2
Axis tracking: Single-axis rotation
Backtracking: None
Tracking axis orientation: 180.0 deg
Tracking axis tilt: 0.0 deg
Tracking axis panel offset: 0.0 deg
Maximum tracking angle: 60.0 deg

Rated power: -
Panel material: Light textured glass with AR coating
Vary reflectivity with sun position? Yes
Correlate slope error with surface type? Yes
Slope error: 9.16 mrad

Vertex	Latitude	Longitude	Ground elevation	Height above ground	Total elevation
	deg	deg	m	m	m
1	53.792776	-0.893609	4.96	3.50	8.46
2	53.791736	-0.894982	5.48	3.50	8.98
3	53.790697	-0.896012	4.98	3.50	8.48
4	53.788998	-0.897042	4.27	3.50	7.77
5	53.789100	-0.897986	4.86	3.50	8.36
6	53.788973	-0.899360	5.24	3.50	8.74
7	53.788821	-0.900046	4.94	3.50	8.44
8	53.789227	-0.902020	4.84	3.50	8.34
9	53.789531	-0.902063	6.31	3.50	9.81
10	53.789556	-0.900990	5.15	3.50	8.65
11	53.792472	-0.900347	5.64	3.50	9.14
12	53.792903	-0.901849	6.09	3.50	9.59
13	53.794322	-0.900390	6.18	3.50	9.68

Name: PV array 2
Footprint area: 632,085 m^2
Axis tracking: Single-axis rotation
Backtracking: None
Tracking axis orientation: 180.0 deg
Tracking axis tilt: 0.0 deg
Tracking axis panel offset: 0.0 deg
Maximum tracking angle: 60.0 deg

Rated power: -
Panel material: Light textured glass with AR coating
Vary reflectivity with sun position? Yes
Correlate slope error with surface type? Yes
Slope error: 9.16 mrad

Vertex	Latitude	Longitude	Ground elevation	Height above ground	Total elevation
	deg	deg	m	m	m
1	53.813872	-0.874438	6.25	3.50	9.75
2	53.811034	-0.872979	7.20	3.50	10.70
3	53.811516	-0.871090	7.04	3.50	10.54
4	53.808804	-0.868730	6.72	3.50	10.22
5	53.809108	-0.867485	6.99	3.50	10.49
6	53.808323	-0.867687	6.25	3.50	9.75
7	53.806878	-0.867000	6.02	3.50	9.52
8	53.807183	-0.865970	6.43	3.50	9.93
9	53.805325	-0.864511	6.24	3.50	9.74
10	53.805173	-0.865283	6.58	3.50	10.08
11	53.804083	-0.864425	7.27	3.50	10.77
12	53.802993	-0.867987	6.40	3.50	9.90
13	53.802537	-0.867343	6.48	3.50	9.98
14	53.802283	-0.866228	6.35	3.50	9.85
15	53.800991	-0.864854	6.93	3.50	10.43
16	53.803094	-0.859876	6.29	3.50	9.79
17	53.803551	-0.859790	6.05	3.50	9.55
18	53.804210	-0.857087	6.54	3.50	10.04
19	53.807758	-0.858374	6.00	3.50	9.50
20	53.807859	-0.862666	5.93	3.50	9.43
21	53.810140	-0.863524	5.70	3.50	9.20
22	53.813897	-0.865584	6.85	3.50	10.35
23	53.813517	-0.868545	5.83	3.50	9.33
24	53.813618	-0.870433	5.69	3.50	9.19
25	53.814100	-0.871678	6.48	3.50	9.98

Name: PV array 3
Footprint area: 155,482 m^2
Axis tracking: Single-axis rotation
Backtracking: None
Tracking axis orientation: 180.0 deg
Tracking axis tilt: 0.0 deg
Tracking axis panel offset: 0.0 deg
Maximum tracking angle: 60.0 deg

Rated power: -
Panel material: Light textured glass with AR coating
Vary reflectivity with sun position? Yes
Correlate slope error with surface type? Yes
Slope error: 9.16 mrad

Vertex	Latitude	Longitude	Ground elevation	Height above ground	Total elevation
	deg	deg	m	m	m
1	53.813884	-0.865326	6.57	3.50	10.07
2	53.810185	-0.863052	6.00	3.50	9.50
3	53.808158	-0.862236	5.93	3.50	9.43
4	53.808132	-0.858760	6.07	3.50	9.57
5	53.810172	-0.859726	6.68	3.50	10.18
6	53.810844	-0.860477	5.85	3.50	9.35
7	53.811807	-0.860799	5.51	3.50	9.01
8	53.812909	-0.860777	5.73	3.50	9.23
9	53.813175	-0.860649	5.42	3.50	8.92
10	53.813922	-0.860949	5.47	3.50	8.97
11	53.814416	-0.860691	6.67	3.50	10.17

Name: PV array 4
Footprint area: 640,744 m^2
Axis tracking: Single-axis rotation
Backtracking: None
Tracking axis orientation: 180.0 deg
Tracking axis tilt: 0.0 deg
Tracking axis panel offset: 0.0 deg
Maximum tracking angle: 60.0 deg

Rated power: -
Panel material: Light textured glass with AR coating
Vary reflectivity with sun position? Yes
Correlate slope error with surface type? Yes
Slope error: 9.16 mrad

Vertex	Latitude	Longitude	Ground elevation	Height above ground	Total elevation
	deg	deg	m	m	m
1	53.814581	-0.855301	5.71	3.50	9.21
2	53.814100	-0.855130	5.26	3.50	8.76
3	53.813454	-0.854701	5.23	3.50	8.73
4	53.811148	-0.860065	5.60	3.50	9.10
5	53.810261	-0.859271	5.85	3.50	9.35
6	53.805383	-0.856782	5.66	3.50	9.16
7	53.805649	-0.855001	5.25	3.50	8.75
8	53.804901	-0.853842	5.22	3.50	8.72
9	53.805636	-0.849186	5.28	3.50	8.78
10	53.804496	-0.847255	5.46	3.50	8.96
11	53.804166	-0.847276	5.90	3.50	9.40
12	53.803748	-0.853327	6.05	3.50	9.55
13	53.798337	-0.850667	6.07	3.50	9.57
14	53.799972	-0.847148	5.62	3.50	9.12
15	53.800263	-0.845581	5.93	3.50	9.43
16	53.804103	-0.847276	5.53	3.50	9.03
17	53.804597	-0.847233	4.75	3.50	8.25
18	53.807681	-0.847384	5.70	3.50	9.20
19	53.808454	-0.848607	5.76	3.50	9.26
20	53.807238	-0.851632	5.81	3.50	9.31
21	53.808568	-0.853714	5.85	3.50	9.35
22	53.808366	-0.854658	5.82	3.50	9.32
23	53.809671	-0.855108	4.90	3.50	8.40
24	53.810000	-0.853907	5.43	3.50	8.93
25	53.809709	-0.853628	5.37	3.50	8.87
26	53.811558	-0.850538	5.71	3.50	9.21
27	53.813269	-0.852190	5.07	3.50	8.57
28	53.814244	-0.852684	5.73	3.50	9.23

Name: PV array 5
Footprint area: 1,762,515 m^2
Axis tracking: Single-axis rotation
Backtracking: None
Tracking axis orientation: 180.0 deg
Tracking axis tilt: 0.0 deg
Tracking axis panel offset: 0.0 deg
Maximum tracking angle: 60.0 deg

Rated power: -
Panel material: Light textured glass with AR coating
Vary reflectivity with sun position? Yes
Correlate slope error with surface type? Yes
Slope error: 9.16 mrad

Vertex	Latitude	Longitude	Ground elevation	Height above ground	Total elevation
	deg	deg	m	m	m
1	53.807708	-0.847197	5.51	3.50	9.01
2	53.804096	-0.847004	5.39	3.50	8.89
3	53.797342	-0.843764	5.19	3.50	8.69
4	53.797874	-0.841661	5.30	3.50	8.80
5	53.799610	-0.837906	5.60	3.50	9.10
6	53.801258	-0.834001	5.60	3.50	9.10
7	53.803577	-0.827735	5.05	3.50	8.55
8	53.802145	-0.825933	5.34	3.50	8.84
9	53.799851	-0.832398	6.04	3.50	9.54
10	53.797215	-0.829265	5.09	3.50	8.59
11	53.795048	-0.834844	5.24	3.50	8.74
12	53.792817	-0.833686	5.73	3.50	9.23
13	53.792944	-0.831368	5.17	3.50	8.67
14	53.794439	-0.826390	5.04	3.50	8.54
15	53.795301	-0.827248	5.36	3.50	8.86
16	53.795707	-0.826991	6.45	3.50	9.95
17	53.797253	-0.828793	5.75	3.50	9.25
18	53.797861	-0.826647	5.38	3.50	8.88
19	53.796214	-0.825274	5.21	3.50	8.71
20	53.796290	-0.824502	4.27	3.50	7.77
21	53.795200	-0.823558	4.11	3.50	7.61
22	53.795986	-0.819695	4.60	3.50	8.10
23	53.799027	-0.821626	4.56	3.50	8.06
24	53.801638	-0.823944	4.37	3.50	7.87
25	53.803944	-0.826519	4.96	3.50	8.46
26	53.804172	-0.825918	4.35	3.50	7.85
27	53.802018	-0.823558	5.21	3.50	8.71
28	53.802094	-0.822656	4.99	3.50	8.49
29	53.801511	-0.822442	5.47	3.50	8.97
30	53.801283	-0.822871	4.64	3.50	8.14
31	53.799103	-0.820940	4.71	3.50	8.21
32	53.800244	-0.816047	4.44	3.50	7.94
33	53.798368	-0.814846	4.75	3.50	8.25
34	53.797481	-0.814846	4.42	3.50	7.92
35	53.799737	-0.810683	4.71	3.50	8.21
36	53.802753	-0.814331	2.81	3.50	6.31
37	53.802221	-0.816477	4.38	3.50	7.88
38	53.802145	-0.818408	3.53	3.50	7.03
39	53.802981	-0.821240	5.10	3.50	8.60
40	53.803843	-0.822141	4.77	3.50	8.27
41	53.808202	-0.827077	4.72	3.50	8.22
42	53.807087	-0.832012	5.04	3.50	8.54
43	53.804451	-0.840724	5.00	3.50	8.50
44	53.806872	-0.843073	5.31	3.50	8.81
45	53.807125	-0.842815	4.94	3.50	8.44
46	53.807911	-0.843545	5.00	3.50	8.50
47	53.808443	-0.844746	4.87	3.50	8.37

Name: PV array 6
Footprint area: 53,769 m^2
Axis tracking: Single-axis rotation
Backtracking: None
Tracking axis orientation: 180.0 deg
Tracking axis tilt: 0.0 deg
Tracking axis panel offset: 0.0 deg
Maximum tracking angle: 60.0 deg

Rated power: -
Panel material: Light textured glass with AR coating
Vary reflectivity with sun position? Yes
Correlate slope error with surface type? Yes
Slope error: 9.16 mrad

Vertex	Latitude	Longitude	Ground elevation	Height above ground	Total elevation
	deg	deg	m	m	m
1	53.800588	-0.865277	6.65	3.50	10.15
2	53.801779	-0.862166	6.43	3.50	9.93
3	53.800132	-0.860192	6.45	3.50	9.95
4	53.799054	-0.863110	6.98	3.50	10.48
5	53.799802	-0.864419	7.68	3.50	11.18

Name: PV array 7
Footprint area: 283,999 m^2
Axis tracking: Single-axis rotation
Backtracking: None
Tracking axis orientation: 180.0 deg
Tracking axis tilt: 0.0 deg
Tracking axis panel offset: 0.0 deg
Maximum tracking angle: 60.0 deg

Rated power: -
Panel material: Light textured glass with AR coating
Vary reflectivity with sun position? Yes
Correlate slope error with surface type? Yes
Slope error: 9.16 mrad

Vertex	Latitude	Longitude	Ground elevation	Height above ground	Total elevation
	deg	deg	m	m	m
1	53.797257	-0.867135	6.45	3.50	9.95
2	53.794393	-0.864903	6.01	3.50	9.51
3	53.792770	-0.869624	6.00	3.50	9.50
4	53.791553	-0.868208	5.96	3.50	9.46
5	53.789018	-0.874988	6.33	3.50	9.83
6	53.790007	-0.876319	7.32	3.50	10.82
7	53.790311	-0.875374	5.97	3.50	9.47
8	53.790666	-0.875675	6.59	3.50	10.09
9	53.791199	-0.874130	6.37	3.50	9.87
10	53.791477	-0.874044	5.65	3.50	9.15
11	53.791731	-0.873486	5.89	3.50	9.39
12	53.792872	-0.873143	5.95	3.50	9.45
13	53.793201	-0.873100	5.86	3.50	9.36
14	53.793810	-0.871684	5.84	3.50	9.34
15	53.795457	-0.872800	5.36	3.50	8.86
16	53.796269	-0.871684	5.24	3.50	8.74
17	53.797232	-0.869409	5.79	3.50	9.29
18	53.796750	-0.868808	6.03	3.50	9.53

Name: PV array 8
Footprint area: 513,457 m^2
Axis tracking: Single-axis rotation
Backtracking: None
Tracking axis orientation: 180.0 deg
Tracking axis tilt: 0.0 deg
Tracking axis panel offset: 0.0 deg
Maximum tracking angle: 60.0 deg

Rated power: -
Panel material: Light textured glass with AR coating
Vary reflectivity with sun position? Yes
Correlate slope error with surface type? Yes
Slope error: 9.16 mrad

Vertex	Latitude	Longitude	Ground elevation	Height above ground	Total elevation
	deg	deg	m	m	m
1	53.790717	-0.857736	6.07	3.50	9.57
2	53.787725	-0.853702	5.77	3.50	9.27
3	53.787041	-0.856191	5.84	3.50	9.34
4	53.786458	-0.856277	5.48	3.50	8.98
5	53.786103	-0.857565	5.78	3.50	9.28
6	53.785291	-0.856792	5.63	3.50	9.13
7	53.785215	-0.852071	5.00	3.50	8.50
8	53.784328	-0.851900	4.64	3.50	8.14
9	53.784531	-0.849883	5.48	3.50	8.98
10	53.785038	-0.847179	5.34	3.50	8.84
11	53.783035	-0.846020	4.21	3.50	7.71
12	53.783694	-0.842587	5.00	3.50	8.50
13	53.785722	-0.843059	4.65	3.50	8.15
14	53.786736	-0.843789	4.23	3.50	7.73
15	53.789044	-0.845591	5.87	3.50	9.37
16	53.789756	-0.846235	5.45	3.50	8.95
17	53.788780	-0.849668	5.37	3.50	8.87
18	53.790301	-0.851406	6.41	3.50	9.91
19	53.792443	-0.853187	7.67	3.50	11.17

Name: PV array 9
Footprint area: 445,425 m^2
Axis tracking: Single-axis rotation
Backtracking: None
Tracking axis orientation: 180.0 deg
Tracking axis tilt: 0.0 deg
Tracking axis panel offset: 0.0 deg
Maximum tracking angle: 60.0 deg

Rated power: -
Panel material: Light textured glass with AR coating
Vary reflectivity with sun position? Yes
Correlate slope error with surface type? Yes
Slope error: 9.16 mrad

Vertex	Latitude	Longitude	Ground elevation	Height above ground	Total elevation
	deg	deg	m	m	m
1	53.783172	-0.836739	5.76	3.50	9.26
2	53.780154	-0.833434	5.23	3.50	8.73
3	53.779672	-0.835022	5.35	3.50	8.85
4	53.777263	-0.832447	5.19	3.50	8.69
5	53.775361	-0.841459	5.51	3.50	9.01
6	53.781245	-0.845408	5.09	3.50	8.59

Discrete Observation Receptors

Number	Latitude	Longitude	Ground elevation	Height above ground	Total Elevation
	deg	deg	m	m	m
OP 1	53.766280	-0.879765	4.18	2.50	6.68
OP 2	53.763965	-0.879379	4.00	2.50	6.50
OP 3	53.762145	-0.879507	4.00	2.50	6.50
OP 4	53.760584	-0.879722	5.39	2.50	7.89
OP 5	53.758758	-0.879336	4.87	2.50	7.37
OP 6	53.757159	-0.877383	3.76	2.50	6.26
OP 7	53.755751	-0.875388	4.00	2.50	6.50
OP 8	53.754153	-0.884443	5.65	2.50	8.15
OP 9	53.755700	-0.883584	5.35	2.50	7.85
OP 10	53.757641	-0.882490	5.06	2.50	7.56
OP 11	53.761295	-0.882426	4.89	2.50	7.39
OP 12	53.760381	-0.885108	5.04	2.50	7.54
OP 13	53.758923	-0.886438	5.17	2.50	7.67
OP 14	53.758770	-0.887790	6.44	2.50	8.94
OP 15	53.760217	-0.889249	5.75	2.50	8.25
OP 16	53.762266	-0.890206	5.97	2.50	8.47
OP 17	53.763991	-0.890507	5.56	2.50	8.06
OP 18	53.765754	-0.890635	4.05	2.50	6.55
OP 19	53.765260	-0.888168	5.66	2.50	8.16
OP 20	53.765780	-0.885013	5.91	2.50	8.41
OP 21	53.766452	-0.882202	5.01	2.50	7.51
OP 22	53.759717	-0.892073	6.80	2.50	9.30
OP 23	53.760503	-0.894412	5.89	2.50	8.39
OP 24	53.762000	-0.896021	5.64	2.50	8.14
OP 25	53.763408	-0.895764	4.89	2.50	7.39
OP 26	53.764588	-0.893060	4.64	2.50	7.14
OP 27	53.761074	-0.898274	6.56	2.50	9.06
OP 28	53.759970	-0.901042	4.48	2.50	6.98
OP 29	53.758860	-0.902864	5.15	2.50	7.65
OP 30	53.758568	-0.905846	6.10	2.50	8.60
OP 31	53.758026	-0.910572	7.61	2.50	10.11
OP 32	53.756610	-0.910256	4.24	2.50	6.74
OP 33	53.755169	-0.909355	4.90	2.50	7.40
OP 34	53.754744	-0.911737	4.02	2.50	6.52
OP 35	53.790797	-0.914140	5.79	2.50	8.29
OP 36	53.790024	-0.911329	4.89	2.50	7.39
OP 37	53.789136	-0.908046	5.37	2.50	7.87
OP 38	53.788211	-0.908325	4.73	2.50	7.23
OP 39	53.787247	-0.906544	6.64	2.50	9.14
OP 40	53.785853	-0.904356	5.77	2.50	8.27
OP 41	53.784750	-0.906544	5.94	2.50	8.44
OP 42	53.783875	-0.909205	5.65	2.50	8.15
OP 43	53.782975	-0.912123	5.46	2.50	7.96
OP 44	53.781810	-0.913819	5.83	2.50	8.33
OP 45	53.780428	-0.915493	5.76	2.50	8.26
OP 46	53.795260	-0.903283	12.30	2.50	14.80
OP 47	53.794284	-0.905579	10.70	2.50	13.20
OP 48	53.793663	-0.907972	6.15	2.50	8.65
OP 49	53.794240	-0.911222	6.01	2.50	8.51
OP 50	53.792427	-0.912896	6.86	2.50	9.36
OP 51	53.793099	-0.916340	5.92	2.50	8.42
OP 52	53.792661	-0.890248	5.77	2.50	8.27
OP 53	53.792934	-0.893434	6.77	2.50	9.27
OP 54	53.794037	-0.896181	6.00	2.50	8.50
OP 55	53.795139	-0.899077	5.47	2.50	7.97
OP 56	53.795589	-0.901379	8.40	2.50	10.90
OP 57	53.796046	-0.904769	6.65	2.50	9.15
OP 58	53.796142	-0.907647	6.19	2.50	8.69
OP 59	53.796263	-0.910694	5.80	2.50	8.30
OP 60	53.795876	-0.913794	6.54	2.50	9.04
OP 61	53.795870	-0.916927	6.12	2.50	8.62
OP 62	53.805247	-0.823562	2.69	2.50	5.19
OP 63	53.803904	-0.826180	4.09	2.50	6.59
OP 64	53.802814	-0.829162	5.55	2.50	8.05

OP 65	53.801952	-0.831823	5.90	2.50	8.40
OP 66	53.800964	-0.834334	6.21	2.50	8.71
OP 67	53.800064	-0.836308	5.87	2.50	8.37
OP 68	53.798822	-0.839247	5.99	2.50	8.49
OP 69	53.802649	-0.824656	4.53	2.50	7.03

Summary of PV Glare Analysis

PV configuration and total predicted glare

PV Name	Tilt	Orientation	"Green" Glare	"Yellow" Glare	Energy Produced	Data File
	deg	deg	min	min	kWh	
PV array 1	SA tracking	SA tracking	0	0	-	-
PV array 10	SA tracking	SA tracking	0	0	-	-
PV array 11	SA tracking	SA tracking	0	0	-	-
PV array 12	SA tracking	SA tracking	0	0	-	-
PV array 13	SA tracking	SA tracking	0	0	-	-
PV array 14	SA tracking	SA tracking	0	0	-	-
PV array 15	SA tracking	SA tracking	0	0	-	-
PV array 16	SA tracking	SA tracking	0	0	-	-
PV array 17	SA tracking	SA tracking	0	0	-	-
PV array 18	SA tracking	SA tracking	0	0	-	-
PV array 2	SA tracking	SA tracking	0	0	-	-
PV array 3	SA tracking	SA tracking	0	0	-	-
PV array 4	SA tracking	SA tracking	0	0	-	-
PV array 5	SA tracking	SA tracking	0	0	-	-
PV array 6	SA tracking	SA tracking	0	0	-	-
PV array 7	SA tracking	SA tracking	0	0	-	-
PV array 8	SA tracking	SA tracking	0	0	-	-
PV array 9	SA tracking	SA tracking	0	0	-	-

PV & Receptor Analysis Results

Results for each PV array and receptor

PV array 1 no glare found

Component	Green glare (min)	Yellow glare (min)
OP: OP 1	0	0
OP: OP 2	0	0
OP: OP 3	0	0
OP: OP 4	0	0
OP: OP 5	0	0
OP: OP 6	0	0
OP: OP 7	0	0
OP: OP 8	0	0
OP: OP 9	0	0
OP: OP 10	0	0
OP: OP 11	0	0
OP: OP 12	0	0
OP: OP 13	0	0
OP: OP 14	0	0
OP: OP 15	0	0
OP: OP 16	0	0
OP: OP 17	0	0
OP: OP 18	0	0
OP: OP 19	0	0
OP: OP 20	0	0
OP: OP 21	0	0
OP: OP 22	0	0
OP: OP 23	0	0
OP: OP 24	0	0
OP: OP 25	0	0
OP: OP 26	0	0
OP: OP 27	0	0
OP: OP 28	0	0
OP: OP 29	0	0
OP: OP 30	0	0
OP: OP 31	0	0
OP: OP 32	0	0
OP: OP 33	0	0
OP: OP 34	0	0
OP: OP 35	0	0
OP: OP 36	0	0
OP: OP 37	0	0
OP: OP 38	0	0
OP: OP 39	0	0
OP: OP 40	0	0
OP: OP 41	0	0
OP: OP 42	0	0
OP: OP 43	0	0
OP: OP 44	0	0
OP: OP 45	0	0
OP: OP 46	0	0
OP: OP 47	0	0
OP: OP 48	0	0
OP: OP 49	0	0
OP: OP 50	0	0
OP: OP 51	0	0
OP: OP 52	0	0
OP: OP 53	0	0

OP: OP 54	0	0
OP: OP 55	0	0
OP: OP 56	0	0
OP: OP 57	0	0
OP: OP 58	0	0
OP: OP 59	0	0
OP: OP 60	0	0
OP: OP 61	0	0
OP: OP 62	0	0
OP: OP 63	0	0
OP: OP 64	0	0
OP: OP 65	0	0
OP: OP 66	0	0
OP: OP 67	0	0
OP: OP 68	0	0
OP: OP 69	0	0

No glare found

PV array 10 no glare found

Component	Green glare (min)	Yellow glare (min)
OP: OP 1	0	0
OP: OP 2	0	0
OP: OP 3	0	0
OP: OP 4	0	0
OP: OP 5	0	0
OP: OP 6	0	0
OP: OP 7	0	0
OP: OP 8	0	0
OP: OP 9	0	0
OP: OP 10	0	0
OP: OP 11	0	0
OP: OP 12	0	0
OP: OP 13	0	0
OP: OP 14	0	0
OP: OP 15	0	0
OP: OP 16	0	0
OP: OP 17	0	0
OP: OP 18	0	0
OP: OP 19	0	0
OP: OP 20	0	0
OP: OP 21	0	0
OP: OP 22	0	0
OP: OP 23	0	0
OP: OP 24	0	0
OP: OP 25	0	0
OP: OP 26	0	0
OP: OP 27	0	0
OP: OP 28	0	0
OP: OP 29	0	0
OP: OP 30	0	0
OP: OP 31	0	0

OP: OP 32	0	0
OP: OP 33	0	0
OP: OP 34	0	0
OP: OP 35	0	0
OP: OP 36	0	0
OP: OP 37	0	0
OP: OP 38	0	0
OP: OP 39	0	0
OP: OP 40	0	0
OP: OP 41	0	0
OP: OP 42	0	0
OP: OP 43	0	0
OP: OP 44	0	0
OP: OP 45	0	0
OP: OP 46	0	0
OP: OP 47	0	0
OP: OP 48	0	0
OP: OP 49	0	0
OP: OP 50	0	0
OP: OP 51	0	0
OP: OP 52	0	0
OP: OP 53	0	0
OP: OP 54	0	0
OP: OP 55	0	0
OP: OP 56	0	0
OP: OP 57	0	0
OP: OP 58	0	0
OP: OP 59	0	0
OP: OP 60	0	0
OP: OP 61	0	0
OP: OP 62	0	0
OP: OP 63	0	0
OP: OP 64	0	0
OP: OP 65	0	0
OP: OP 66	0	0
OP: OP 67	0	0
OP: OP 68	0	0
OP: OP 69	0	0

No glare found

PV array 11 no glare found

Component	Green glare (min)	Yellow glare (min)
OP: OP 1	0	0
OP: OP 2	0	0
OP: OP 3	0	0
OP: OP 4	0	0
OP: OP 5	0	0
OP: OP 6	0	0
OP: OP 7	0	0
OP: OP 8	0	0
OP: OP 9	0	0

OP: OP 10	0	0
OP: OP 11	0	0
OP: OP 12	0	0
OP: OP 13	0	0
OP: OP 14	0	0
OP: OP 15	0	0
OP: OP 16	0	0
OP: OP 17	0	0
OP: OP 18	0	0
OP: OP 19	0	0
OP: OP 20	0	0
OP: OP 21	0	0
OP: OP 22	0	0
OP: OP 23	0	0
OP: OP 24	0	0
OP: OP 25	0	0
OP: OP 26	0	0
OP: OP 27	0	0
OP: OP 28	0	0
OP: OP 29	0	0
OP: OP 30	0	0
OP: OP 31	0	0
OP: OP 32	0	0
OP: OP 33	0	0
OP: OP 34	0	0
OP: OP 35	0	0
OP: OP 36	0	0
OP: OP 37	0	0
OP: OP 38	0	0
OP: OP 39	0	0
OP: OP 40	0	0
OP: OP 41	0	0
OP: OP 42	0	0
OP: OP 43	0	0
OP: OP 44	0	0
OP: OP 45	0	0
OP: OP 46	0	0
OP: OP 47	0	0
OP: OP 48	0	0
OP: OP 49	0	0
OP: OP 50	0	0
OP: OP 51	0	0
OP: OP 52	0	0
OP: OP 53	0	0
OP: OP 54	0	0
OP: OP 55	0	0
OP: OP 56	0	0
OP: OP 57	0	0
OP: OP 58	0	0
OP: OP 59	0	0
OP: OP 60	0	0
OP: OP 61	0	0
OP: OP 62	0	0
OP: OP 63	0	0
OP: OP 64	0	0

OP: OP 65	0	0
OP: OP 66	0	0
OP: OP 67	0	0
OP: OP 68	0	0
OP: OP 69	0	0

No glare found

PV array 12 no glare found

Component	Green glare (min)	Yellow glare (min)
OP: OP 1	0	0
OP: OP 2	0	0
OP: OP 3	0	0
OP: OP 4	0	0
OP: OP 5	0	0
OP: OP 6	0	0
OP: OP 7	0	0
OP: OP 8	0	0
OP: OP 9	0	0
OP: OP 10	0	0
OP: OP 11	0	0
OP: OP 12	0	0
OP: OP 13	0	0
OP: OP 14	0	0
OP: OP 15	0	0
OP: OP 16	0	0
OP: OP 17	0	0
OP: OP 18	0	0
OP: OP 19	0	0
OP: OP 20	0	0
OP: OP 21	0	0
OP: OP 22	0	0
OP: OP 23	0	0
OP: OP 24	0	0
OP: OP 25	0	0
OP: OP 26	0	0
OP: OP 27	0	0
OP: OP 28	0	0
OP: OP 29	0	0
OP: OP 30	0	0
OP: OP 31	0	0
OP: OP 32	0	0
OP: OP 33	0	0
OP: OP 34	0	0
OP: OP 35	0	0
OP: OP 36	0	0
OP: OP 37	0	0
OP: OP 38	0	0
OP: OP 39	0	0
OP: OP 40	0	0
OP: OP 41	0	0
OP: OP 42	0	0

OP: OP 43	0	0
OP: OP 44	0	0
OP: OP 45	0	0
OP: OP 46	0	0
OP: OP 47	0	0
OP: OP 48	0	0
OP: OP 49	0	0
OP: OP 50	0	0
OP: OP 51	0	0
OP: OP 52	0	0
OP: OP 53	0	0
OP: OP 54	0	0
OP: OP 55	0	0
OP: OP 56	0	0
OP: OP 57	0	0
OP: OP 58	0	0
OP: OP 59	0	0
OP: OP 60	0	0
OP: OP 61	0	0
OP: OP 62	0	0
OP: OP 63	0	0
OP: OP 64	0	0
OP: OP 65	0	0
OP: OP 66	0	0
OP: OP 67	0	0
OP: OP 68	0	0
OP: OP 69	0	0

No glare found

PV array 13 no glare found

Component	Green glare (min)	Yellow glare (min)
OP: OP 1	0	0
OP: OP 2	0	0
OP: OP 3	0	0
OP: OP 4	0	0
OP: OP 5	0	0
OP: OP 6	0	0
OP: OP 7	0	0
OP: OP 8	0	0
OP: OP 9	0	0
OP: OP 10	0	0
OP: OP 11	0	0
OP: OP 12	0	0
OP: OP 13	0	0
OP: OP 14	0	0
OP: OP 15	0	0
OP: OP 16	0	0
OP: OP 17	0	0
OP: OP 18	0	0
OP: OP 19	0	0
OP: OP 20	0	0

OP: OP 21	0	0
OP: OP 22	0	0
OP: OP 23	0	0
OP: OP 24	0	0
OP: OP 25	0	0
OP: OP 26	0	0
OP: OP 27	0	0
OP: OP 28	0	0
OP: OP 29	0	0
OP: OP 30	0	0
OP: OP 31	0	0
OP: OP 32	0	0
OP: OP 33	0	0
OP: OP 34	0	0
OP: OP 35	0	0
OP: OP 36	0	0
OP: OP 37	0	0
OP: OP 38	0	0
OP: OP 39	0	0
OP: OP 40	0	0
OP: OP 41	0	0
OP: OP 42	0	0
OP: OP 43	0	0
OP: OP 44	0	0
OP: OP 45	0	0
OP: OP 46	0	0
OP: OP 47	0	0
OP: OP 48	0	0
OP: OP 49	0	0
OP: OP 50	0	0
OP: OP 51	0	0
OP: OP 52	0	0
OP: OP 53	0	0
OP: OP 54	0	0
OP: OP 55	0	0
OP: OP 56	0	0
OP: OP 57	0	0
OP: OP 58	0	0
OP: OP 59	0	0
OP: OP 60	0	0
OP: OP 61	0	0
OP: OP 62	0	0
OP: OP 63	0	0
OP: OP 64	0	0
OP: OP 65	0	0
OP: OP 66	0	0
OP: OP 67	0	0
OP: OP 68	0	0
OP: OP 69	0	0

No glare found

PV array 14 no glare found

Component	Green glare (min)	Yellow glare (min)
OP: OP 1	0	0
OP: OP 2	0	0
OP: OP 3	0	0
OP: OP 4	0	0
OP: OP 5	0	0
OP: OP 6	0	0
OP: OP 7	0	0
OP: OP 8	0	0
OP: OP 9	0	0
OP: OP 10	0	0
OP: OP 11	0	0
OP: OP 12	0	0
OP: OP 13	0	0
OP: OP 14	0	0
OP: OP 15	0	0
OP: OP 16	0	0
OP: OP 17	0	0
OP: OP 18	0	0
OP: OP 19	0	0
OP: OP 20	0	0
OP: OP 21	0	0
OP: OP 22	0	0
OP: OP 23	0	0
OP: OP 24	0	0
OP: OP 25	0	0
OP: OP 26	0	0
OP: OP 27	0	0
OP: OP 28	0	0
OP: OP 29	0	0
OP: OP 30	0	0
OP: OP 31	0	0
OP: OP 32	0	0
OP: OP 33	0	0
OP: OP 34	0	0
OP: OP 35	0	0
OP: OP 36	0	0
OP: OP 37	0	0
OP: OP 38	0	0
OP: OP 39	0	0
OP: OP 40	0	0
OP: OP 41	0	0
OP: OP 42	0	0
OP: OP 43	0	0
OP: OP 44	0	0
OP: OP 45	0	0
OP: OP 46	0	0
OP: OP 47	0	0
OP: OP 48	0	0
OP: OP 49	0	0
OP: OP 50	0	0
OP: OP 51	0	0
OP: OP 52	0	0
OP: OP 53	0	0

OP: OP 54	0	0
OP: OP 55	0	0
OP: OP 56	0	0
OP: OP 57	0	0
OP: OP 58	0	0
OP: OP 59	0	0
OP: OP 60	0	0
OP: OP 61	0	0
OP: OP 62	0	0
OP: OP 63	0	0
OP: OP 64	0	0
OP: OP 65	0	0
OP: OP 66	0	0
OP: OP 67	0	0
OP: OP 68	0	0
OP: OP 69	0	0

No glare found

PV array 15 no glare found

Component	Green glare (min)	Yellow glare (min)
OP: OP 1	0	0
OP: OP 2	0	0
OP: OP 3	0	0
OP: OP 4	0	0
OP: OP 5	0	0
OP: OP 6	0	0
OP: OP 7	0	0
OP: OP 8	0	0
OP: OP 9	0	0
OP: OP 10	0	0
OP: OP 11	0	0
OP: OP 12	0	0
OP: OP 13	0	0
OP: OP 14	0	0
OP: OP 15	0	0
OP: OP 16	0	0
OP: OP 17	0	0
OP: OP 18	0	0
OP: OP 19	0	0
OP: OP 20	0	0
OP: OP 21	0	0
OP: OP 22	0	0
OP: OP 23	0	0
OP: OP 24	0	0
OP: OP 25	0	0
OP: OP 26	0	0
OP: OP 27	0	0
OP: OP 28	0	0
OP: OP 29	0	0
OP: OP 30	0	0
OP: OP 31	0	0

OP: OP 32	0	0
OP: OP 33	0	0
OP: OP 34	0	0
OP: OP 35	0	0
OP: OP 36	0	0
OP: OP 37	0	0
OP: OP 38	0	0
OP: OP 39	0	0
OP: OP 40	0	0
OP: OP 41	0	0
OP: OP 42	0	0
OP: OP 43	0	0
OP: OP 44	0	0
OP: OP 45	0	0
OP: OP 46	0	0
OP: OP 47	0	0
OP: OP 48	0	0
OP: OP 49	0	0
OP: OP 50	0	0
OP: OP 51	0	0
OP: OP 52	0	0
OP: OP 53	0	0
OP: OP 54	0	0
OP: OP 55	0	0
OP: OP 56	0	0
OP: OP 57	0	0
OP: OP 58	0	0
OP: OP 59	0	0
OP: OP 60	0	0
OP: OP 61	0	0
OP: OP 62	0	0
OP: OP 63	0	0
OP: OP 64	0	0
OP: OP 65	0	0
OP: OP 66	0	0
OP: OP 67	0	0
OP: OP 68	0	0
OP: OP 69	0	0

No glare found

PV array 16 no glare found

Component	Green glare (min)	Yellow glare (min)
OP: OP 1	0	0
OP: OP 2	0	0
OP: OP 3	0	0
OP: OP 4	0	0
OP: OP 5	0	0
OP: OP 6	0	0
OP: OP 7	0	0
OP: OP 8	0	0
OP: OP 9	0	0

OP: OP 10	0	0
OP: OP 11	0	0
OP: OP 12	0	0
OP: OP 13	0	0
OP: OP 14	0	0
OP: OP 15	0	0
OP: OP 16	0	0
OP: OP 17	0	0
OP: OP 18	0	0
OP: OP 19	0	0
OP: OP 20	0	0
OP: OP 21	0	0
OP: OP 22	0	0
OP: OP 23	0	0
OP: OP 24	0	0
OP: OP 25	0	0
OP: OP 26	0	0
OP: OP 27	0	0
OP: OP 28	0	0
OP: OP 29	0	0
OP: OP 30	0	0
OP: OP 31	0	0
OP: OP 32	0	0
OP: OP 33	0	0
OP: OP 34	0	0
OP: OP 35	0	0
OP: OP 36	0	0
OP: OP 37	0	0
OP: OP 38	0	0
OP: OP 39	0	0
OP: OP 40	0	0
OP: OP 41	0	0
OP: OP 42	0	0
OP: OP 43	0	0
OP: OP 44	0	0
OP: OP 45	0	0
OP: OP 46	0	0
OP: OP 47	0	0
OP: OP 48	0	0
OP: OP 49	0	0
OP: OP 50	0	0
OP: OP 51	0	0
OP: OP 52	0	0
OP: OP 53	0	0
OP: OP 54	0	0
OP: OP 55	0	0
OP: OP 56	0	0
OP: OP 57	0	0
OP: OP 58	0	0
OP: OP 59	0	0
OP: OP 60	0	0
OP: OP 61	0	0
OP: OP 62	0	0
OP: OP 63	0	0
OP: OP 64	0	0

OP: OP 65	0	0
OP: OP 66	0	0
OP: OP 67	0	0
OP: OP 68	0	0
OP: OP 69	0	0

No glare found

PV array 17 no glare found

Component	Green glare (min)	Yellow glare (min)
OP: OP 1	0	0
OP: OP 2	0	0
OP: OP 3	0	0
OP: OP 4	0	0
OP: OP 5	0	0
OP: OP 6	0	0
OP: OP 7	0	0
OP: OP 8	0	0
OP: OP 9	0	0
OP: OP 10	0	0
OP: OP 11	0	0
OP: OP 12	0	0
OP: OP 13	0	0
OP: OP 14	0	0
OP: OP 15	0	0
OP: OP 16	0	0
OP: OP 17	0	0
OP: OP 18	0	0
OP: OP 19	0	0
OP: OP 20	0	0
OP: OP 21	0	0
OP: OP 22	0	0
OP: OP 23	0	0
OP: OP 24	0	0
OP: OP 25	0	0
OP: OP 26	0	0
OP: OP 27	0	0
OP: OP 28	0	0
OP: OP 29	0	0
OP: OP 30	0	0
OP: OP 31	0	0
OP: OP 32	0	0
OP: OP 33	0	0
OP: OP 34	0	0
OP: OP 35	0	0
OP: OP 36	0	0
OP: OP 37	0	0
OP: OP 38	0	0
OP: OP 39	0	0
OP: OP 40	0	0
OP: OP 41	0	0
OP: OP 42	0	0

OP: OP 43	0	0
OP: OP 44	0	0
OP: OP 45	0	0
OP: OP 46	0	0
OP: OP 47	0	0
OP: OP 48	0	0
OP: OP 49	0	0
OP: OP 50	0	0
OP: OP 51	0	0
OP: OP 52	0	0
OP: OP 53	0	0
OP: OP 54	0	0
OP: OP 55	0	0
OP: OP 56	0	0
OP: OP 57	0	0
OP: OP 58	0	0
OP: OP 59	0	0
OP: OP 60	0	0
OP: OP 61	0	0
OP: OP 62	0	0
OP: OP 63	0	0
OP: OP 64	0	0
OP: OP 65	0	0
OP: OP 66	0	0
OP: OP 67	0	0
OP: OP 68	0	0
OP: OP 69	0	0

No glare found

PV array 18 no glare found

Component	Green glare (min)	Yellow glare (min)
OP: OP 1	0	0
OP: OP 2	0	0
OP: OP 3	0	0
OP: OP 4	0	0
OP: OP 5	0	0
OP: OP 6	0	0
OP: OP 7	0	0
OP: OP 8	0	0
OP: OP 9	0	0
OP: OP 10	0	0
OP: OP 11	0	0
OP: OP 12	0	0
OP: OP 13	0	0
OP: OP 14	0	0
OP: OP 15	0	0
OP: OP 16	0	0
OP: OP 17	0	0
OP: OP 18	0	0
OP: OP 19	0	0
OP: OP 20	0	0

OP: OP 21	0	0
OP: OP 22	0	0
OP: OP 23	0	0
OP: OP 24	0	0
OP: OP 25	0	0
OP: OP 26	0	0
OP: OP 27	0	0
OP: OP 28	0	0
OP: OP 29	0	0
OP: OP 30	0	0
OP: OP 31	0	0
OP: OP 32	0	0
OP: OP 33	0	0
OP: OP 34	0	0
OP: OP 35	0	0
OP: OP 36	0	0
OP: OP 37	0	0
OP: OP 38	0	0
OP: OP 39	0	0
OP: OP 40	0	0
OP: OP 41	0	0
OP: OP 42	0	0
OP: OP 43	0	0
OP: OP 44	0	0
OP: OP 45	0	0
OP: OP 46	0	0
OP: OP 47	0	0
OP: OP 48	0	0
OP: OP 49	0	0
OP: OP 50	0	0
OP: OP 51	0	0
OP: OP 52	0	0
OP: OP 53	0	0
OP: OP 54	0	0
OP: OP 55	0	0
OP: OP 56	0	0
OP: OP 57	0	0
OP: OP 58	0	0
OP: OP 59	0	0
OP: OP 60	0	0
OP: OP 61	0	0
OP: OP 62	0	0
OP: OP 63	0	0
OP: OP 64	0	0
OP: OP 65	0	0
OP: OP 66	0	0
OP: OP 67	0	0
OP: OP 68	0	0
OP: OP 69	0	0

No glare found

PV array 2 no glare found

Component	Green glare (min)	Yellow glare (min)
OP: OP 1	0	0
OP: OP 2	0	0
OP: OP 3	0	0
OP: OP 4	0	0
OP: OP 5	0	0
OP: OP 6	0	0
OP: OP 7	0	0
OP: OP 8	0	0
OP: OP 9	0	0
OP: OP 10	0	0
OP: OP 11	0	0
OP: OP 12	0	0
OP: OP 13	0	0
OP: OP 14	0	0
OP: OP 15	0	0
OP: OP 16	0	0
OP: OP 17	0	0
OP: OP 18	0	0
OP: OP 19	0	0
OP: OP 20	0	0
OP: OP 21	0	0
OP: OP 22	0	0
OP: OP 23	0	0
OP: OP 24	0	0
OP: OP 25	0	0
OP: OP 26	0	0
OP: OP 27	0	0
OP: OP 28	0	0
OP: OP 29	0	0
OP: OP 30	0	0
OP: OP 31	0	0
OP: OP 32	0	0
OP: OP 33	0	0
OP: OP 34	0	0
OP: OP 35	0	0
OP: OP 36	0	0
OP: OP 37	0	0
OP: OP 38	0	0
OP: OP 39	0	0
OP: OP 40	0	0
OP: OP 41	0	0
OP: OP 42	0	0
OP: OP 43	0	0
OP: OP 44	0	0
OP: OP 45	0	0
OP: OP 46	0	0
OP: OP 47	0	0
OP: OP 48	0	0
OP: OP 49	0	0
OP: OP 50	0	0
OP: OP 51	0	0
OP: OP 52	0	0
OP: OP 53	0	0

OP: OP 54	0	0
OP: OP 55	0	0
OP: OP 56	0	0
OP: OP 57	0	0
OP: OP 58	0	0
OP: OP 59	0	0
OP: OP 60	0	0
OP: OP 61	0	0
OP: OP 62	0	0
OP: OP 63	0	0
OP: OP 64	0	0
OP: OP 65	0	0
OP: OP 66	0	0
OP: OP 67	0	0
OP: OP 68	0	0
OP: OP 69	0	0

No glare found

PV array 3 no glare found

Component	Green glare (min)	Yellow glare (min)
OP: OP 1	0	0
OP: OP 2	0	0
OP: OP 3	0	0
OP: OP 4	0	0
OP: OP 5	0	0
OP: OP 6	0	0
OP: OP 7	0	0
OP: OP 8	0	0
OP: OP 9	0	0
OP: OP 10	0	0
OP: OP 11	0	0
OP: OP 12	0	0
OP: OP 13	0	0
OP: OP 14	0	0
OP: OP 15	0	0
OP: OP 16	0	0
OP: OP 17	0	0
OP: OP 18	0	0
OP: OP 19	0	0
OP: OP 20	0	0
OP: OP 21	0	0
OP: OP 22	0	0
OP: OP 23	0	0
OP: OP 24	0	0
OP: OP 25	0	0
OP: OP 26	0	0
OP: OP 27	0	0
OP: OP 28	0	0
OP: OP 29	0	0
OP: OP 30	0	0
OP: OP 31	0	0

OP: OP 32	0	0
OP: OP 33	0	0
OP: OP 34	0	0
OP: OP 35	0	0
OP: OP 36	0	0
OP: OP 37	0	0
OP: OP 38	0	0
OP: OP 39	0	0
OP: OP 40	0	0
OP: OP 41	0	0
OP: OP 42	0	0
OP: OP 43	0	0
OP: OP 44	0	0
OP: OP 45	0	0
OP: OP 46	0	0
OP: OP 47	0	0
OP: OP 48	0	0
OP: OP 49	0	0
OP: OP 50	0	0
OP: OP 51	0	0
OP: OP 52	0	0
OP: OP 53	0	0
OP: OP 54	0	0
OP: OP 55	0	0
OP: OP 56	0	0
OP: OP 57	0	0
OP: OP 58	0	0
OP: OP 59	0	0
OP: OP 60	0	0
OP: OP 61	0	0
OP: OP 62	0	0
OP: OP 63	0	0
OP: OP 64	0	0
OP: OP 65	0	0
OP: OP 66	0	0
OP: OP 67	0	0
OP: OP 68	0	0
OP: OP 69	0	0

No glare found

PV array 4 no glare found

Component	Green glare (min)	Yellow glare (min)
OP: OP 1	0	0
OP: OP 2	0	0
OP: OP 3	0	0
OP: OP 4	0	0
OP: OP 5	0	0
OP: OP 6	0	0
OP: OP 7	0	0
OP: OP 8	0	0
OP: OP 9	0	0

OP: OP 10	0	0
OP: OP 11	0	0
OP: OP 12	0	0
OP: OP 13	0	0
OP: OP 14	0	0
OP: OP 15	0	0
OP: OP 16	0	0
OP: OP 17	0	0
OP: OP 18	0	0
OP: OP 19	0	0
OP: OP 20	0	0
OP: OP 21	0	0
OP: OP 22	0	0
OP: OP 23	0	0
OP: OP 24	0	0
OP: OP 25	0	0
OP: OP 26	0	0
OP: OP 27	0	0
OP: OP 28	0	0
OP: OP 29	0	0
OP: OP 30	0	0
OP: OP 31	0	0
OP: OP 32	0	0
OP: OP 33	0	0
OP: OP 34	0	0
OP: OP 35	0	0
OP: OP 36	0	0
OP: OP 37	0	0
OP: OP 38	0	0
OP: OP 39	0	0
OP: OP 40	0	0
OP: OP 41	0	0
OP: OP 42	0	0
OP: OP 43	0	0
OP: OP 44	0	0
OP: OP 45	0	0
OP: OP 46	0	0
OP: OP 47	0	0
OP: OP 48	0	0
OP: OP 49	0	0
OP: OP 50	0	0
OP: OP 51	0	0
OP: OP 52	0	0
OP: OP 53	0	0
OP: OP 54	0	0
OP: OP 55	0	0
OP: OP 56	0	0
OP: OP 57	0	0
OP: OP 58	0	0
OP: OP 59	0	0
OP: OP 60	0	0
OP: OP 61	0	0
OP: OP 62	0	0
OP: OP 63	0	0
OP: OP 64	0	0

OP: OP 65	0	0
OP: OP 66	0	0
OP: OP 67	0	0
OP: OP 68	0	0
OP: OP 69	0	0

No glare found

PV array 5 no glare found

Component	Green glare (min)	Yellow glare (min)
OP: OP 1	0	0
OP: OP 2	0	0
OP: OP 3	0	0
OP: OP 4	0	0
OP: OP 5	0	0
OP: OP 6	0	0
OP: OP 7	0	0
OP: OP 8	0	0
OP: OP 9	0	0
OP: OP 10	0	0
OP: OP 11	0	0
OP: OP 12	0	0
OP: OP 13	0	0
OP: OP 14	0	0
OP: OP 15	0	0
OP: OP 16	0	0
OP: OP 17	0	0
OP: OP 18	0	0
OP: OP 19	0	0
OP: OP 20	0	0
OP: OP 21	0	0
OP: OP 22	0	0
OP: OP 23	0	0
OP: OP 24	0	0
OP: OP 25	0	0
OP: OP 26	0	0
OP: OP 27	0	0
OP: OP 28	0	0
OP: OP 29	0	0
OP: OP 30	0	0
OP: OP 31	0	0
OP: OP 32	0	0
OP: OP 33	0	0
OP: OP 34	0	0
OP: OP 35	0	0
OP: OP 36	0	0
OP: OP 37	0	0
OP: OP 38	0	0
OP: OP 39	0	0
OP: OP 40	0	0
OP: OP 41	0	0
OP: OP 42	0	0

OP: OP 43	0	0
OP: OP 44	0	0
OP: OP 45	0	0
OP: OP 46	0	0
OP: OP 47	0	0
OP: OP 48	0	0
OP: OP 49	0	0
OP: OP 50	0	0
OP: OP 51	0	0
OP: OP 52	0	0
OP: OP 53	0	0
OP: OP 54	0	0
OP: OP 55	0	0
OP: OP 56	0	0
OP: OP 57	0	0
OP: OP 58	0	0
OP: OP 59	0	0
OP: OP 60	0	0
OP: OP 61	0	0
OP: OP 62	0	0
OP: OP 63	0	0
OP: OP 64	0	0
OP: OP 65	0	0
OP: OP 66	0	0
OP: OP 67	0	0
OP: OP 68	0	0
OP: OP 69	0	0

No glare found

PV array 6 no glare found

Component	Green glare (min)	Yellow glare (min)
OP: OP 1	0	0
OP: OP 2	0	0
OP: OP 3	0	0
OP: OP 4	0	0
OP: OP 5	0	0
OP: OP 6	0	0
OP: OP 7	0	0
OP: OP 8	0	0
OP: OP 9	0	0
OP: OP 10	0	0
OP: OP 11	0	0
OP: OP 12	0	0
OP: OP 13	0	0
OP: OP 14	0	0
OP: OP 15	0	0
OP: OP 16	0	0
OP: OP 17	0	0
OP: OP 18	0	0
OP: OP 19	0	0
OP: OP 20	0	0

OP: OP 21	0	0
OP: OP 22	0	0
OP: OP 23	0	0
OP: OP 24	0	0
OP: OP 25	0	0
OP: OP 26	0	0
OP: OP 27	0	0
OP: OP 28	0	0
OP: OP 29	0	0
OP: OP 30	0	0
OP: OP 31	0	0
OP: OP 32	0	0
OP: OP 33	0	0
OP: OP 34	0	0
OP: OP 35	0	0
OP: OP 36	0	0
OP: OP 37	0	0
OP: OP 38	0	0
OP: OP 39	0	0
OP: OP 40	0	0
OP: OP 41	0	0
OP: OP 42	0	0
OP: OP 43	0	0
OP: OP 44	0	0
OP: OP 45	0	0
OP: OP 46	0	0
OP: OP 47	0	0
OP: OP 48	0	0
OP: OP 49	0	0
OP: OP 50	0	0
OP: OP 51	0	0
OP: OP 52	0	0
OP: OP 53	0	0
OP: OP 54	0	0
OP: OP 55	0	0
OP: OP 56	0	0
OP: OP 57	0	0
OP: OP 58	0	0
OP: OP 59	0	0
OP: OP 60	0	0
OP: OP 61	0	0
OP: OP 62	0	0
OP: OP 63	0	0
OP: OP 64	0	0
OP: OP 65	0	0
OP: OP 66	0	0
OP: OP 67	0	0
OP: OP 68	0	0
OP: OP 69	0	0

No glare found

PV array 7 no glare found

Component	Green glare (min)	Yellow glare (min)
OP: OP 1	0	0
OP: OP 2	0	0
OP: OP 3	0	0
OP: OP 4	0	0
OP: OP 5	0	0
OP: OP 6	0	0
OP: OP 7	0	0
OP: OP 8	0	0
OP: OP 9	0	0
OP: OP 10	0	0
OP: OP 11	0	0
OP: OP 12	0	0
OP: OP 13	0	0
OP: OP 14	0	0
OP: OP 15	0	0
OP: OP 16	0	0
OP: OP 17	0	0
OP: OP 18	0	0
OP: OP 19	0	0
OP: OP 20	0	0
OP: OP 21	0	0
OP: OP 22	0	0
OP: OP 23	0	0
OP: OP 24	0	0
OP: OP 25	0	0
OP: OP 26	0	0
OP: OP 27	0	0
OP: OP 28	0	0
OP: OP 29	0	0
OP: OP 30	0	0
OP: OP 31	0	0
OP: OP 32	0	0
OP: OP 33	0	0
OP: OP 34	0	0
OP: OP 35	0	0
OP: OP 36	0	0
OP: OP 37	0	0
OP: OP 38	0	0
OP: OP 39	0	0
OP: OP 40	0	0
OP: OP 41	0	0
OP: OP 42	0	0
OP: OP 43	0	0
OP: OP 44	0	0
OP: OP 45	0	0
OP: OP 46	0	0
OP: OP 47	0	0
OP: OP 48	0	0
OP: OP 49	0	0
OP: OP 50	0	0
OP: OP 51	0	0
OP: OP 52	0	0
OP: OP 53	0	0

OP: OP 54	0	0
OP: OP 55	0	0
OP: OP 56	0	0
OP: OP 57	0	0
OP: OP 58	0	0
OP: OP 59	0	0
OP: OP 60	0	0
OP: OP 61	0	0
OP: OP 62	0	0
OP: OP 63	0	0
OP: OP 64	0	0
OP: OP 65	0	0
OP: OP 66	0	0
OP: OP 67	0	0
OP: OP 68	0	0
OP: OP 69	0	0

No glare found

PV array 8 no glare found

Component	Green glare (min)	Yellow glare (min)
OP: OP 1	0	0
OP: OP 2	0	0
OP: OP 3	0	0
OP: OP 4	0	0
OP: OP 5	0	0
OP: OP 6	0	0
OP: OP 7	0	0
OP: OP 8	0	0
OP: OP 9	0	0
OP: OP 10	0	0
OP: OP 11	0	0
OP: OP 12	0	0
OP: OP 13	0	0
OP: OP 14	0	0
OP: OP 15	0	0
OP: OP 16	0	0
OP: OP 17	0	0
OP: OP 18	0	0
OP: OP 19	0	0
OP: OP 20	0	0
OP: OP 21	0	0
OP: OP 22	0	0
OP: OP 23	0	0
OP: OP 24	0	0
OP: OP 25	0	0
OP: OP 26	0	0
OP: OP 27	0	0
OP: OP 28	0	0
OP: OP 29	0	0
OP: OP 30	0	0
OP: OP 31	0	0

OP: OP 32	0	0
OP: OP 33	0	0
OP: OP 34	0	0
OP: OP 35	0	0
OP: OP 36	0	0
OP: OP 37	0	0
OP: OP 38	0	0
OP: OP 39	0	0
OP: OP 40	0	0
OP: OP 41	0	0
OP: OP 42	0	0
OP: OP 43	0	0
OP: OP 44	0	0
OP: OP 45	0	0
OP: OP 46	0	0
OP: OP 47	0	0
OP: OP 48	0	0
OP: OP 49	0	0
OP: OP 50	0	0
OP: OP 51	0	0
OP: OP 52	0	0
OP: OP 53	0	0
OP: OP 54	0	0
OP: OP 55	0	0
OP: OP 56	0	0
OP: OP 57	0	0
OP: OP 58	0	0
OP: OP 59	0	0
OP: OP 60	0	0
OP: OP 61	0	0
OP: OP 62	0	0
OP: OP 63	0	0
OP: OP 64	0	0
OP: OP 65	0	0
OP: OP 66	0	0
OP: OP 67	0	0
OP: OP 68	0	0
OP: OP 69	0	0

No glare found

PV array 9 no glare found

Component	Green glare (min)	Yellow glare (min)
OP: OP 1	0	0
OP: OP 2	0	0
OP: OP 3	0	0
OP: OP 4	0	0
OP: OP 5	0	0
OP: OP 6	0	0
OP: OP 7	0	0
OP: OP 8	0	0
OP: OP 9	0	0

OP: OP 10	0	0
OP: OP 11	0	0
OP: OP 12	0	0
OP: OP 13	0	0
OP: OP 14	0	0
OP: OP 15	0	0
OP: OP 16	0	0
OP: OP 17	0	0
OP: OP 18	0	0
OP: OP 19	0	0
OP: OP 20	0	0
OP: OP 21	0	0
OP: OP 22	0	0
OP: OP 23	0	0
OP: OP 24	0	0
OP: OP 25	0	0
OP: OP 26	0	0
OP: OP 27	0	0
OP: OP 28	0	0
OP: OP 29	0	0
OP: OP 30	0	0
OP: OP 31	0	0
OP: OP 32	0	0
OP: OP 33	0	0
OP: OP 34	0	0
OP: OP 35	0	0
OP: OP 36	0	0
OP: OP 37	0	0
OP: OP 38	0	0
OP: OP 39	0	0
OP: OP 40	0	0
OP: OP 41	0	0
OP: OP 42	0	0
OP: OP 43	0	0
OP: OP 44	0	0
OP: OP 45	0	0
OP: OP 46	0	0
OP: OP 47	0	0
OP: OP 48	0	0
OP: OP 49	0	0
OP: OP 50	0	0
OP: OP 51	0	0
OP: OP 52	0	0
OP: OP 53	0	0
OP: OP 54	0	0
OP: OP 55	0	0
OP: OP 56	0	0
OP: OP 57	0	0
OP: OP 58	0	0
OP: OP 59	0	0
OP: OP 60	0	0
OP: OP 61	0	0
OP: OP 62	0	0
OP: OP 63	0	0
OP: OP 64	0	0

OP: OP 65	0	0
OP: OP 66	0	0
OP: OP 67	0	0
OP: OP 68	0	0
OP: OP 69	0	0

No glare found

Assumptions

- Times associated with glare are denoted in Standard time. For Daylight Savings, add one hour.
- Glare analyses do not automatically account for physical obstructions between reflectors and receptors. This includes buildings, tree cover and geographic obstructions.
- Detailed system geometry is not rigorously simulated.
- The glare hazard determination relies on several approximations including observer eye characteristics, angle of view, and typical blink response time. Actual values and results may vary.
- The system output calculation is a DNI-based approximation that assumes clear, sunny skies year-round. It should not be used in place of more rigorous modeling methods.
- Several V1 calculations utilize the PV array centroid, rather than the actual glare spot location, due to algorithm limitations. This may affect results for large PV footprints. Additional analyses of array sub-sections can provide additional information on expected glare.
- The subtended source angle (glare spot size) is constrained by the PV array footprint size. Partitioning large arrays into smaller sections will reduce the maximum potential subtended angle, potentially impacting results if actual glare spots are larger than the sub-array size. Additional analyses of the combined area of adjacent sub-arrays can provide more information on potential glare hazards. (See previous point on related limitations.)
- Hazard zone boundaries shown in the Glare Hazard plot are an approximation and visual aid. Actual ocular impact outcomes encompass a continuous, not discrete, spectrum.
- Glare locations displayed on receptor plots are approximate. Actual glare-spot locations may differ.
- Refer to the **Help page** for detailed assumptions and limitations not listed here.

ANNEX L: AVIATION RECEPTOR GLARE RESULTS

ForgeSolar

East Yorkshire Solar Farm

East Yorkshire Solar Farm Aviation

Created Aug 03, 2023
Updated Sep 20, 2023
Time-step 1 minute
Timezone offset UTC0
Minimum sun altitude 0.0 deg
Site ID 96779.16938

Project type Advanced
Project status: active
Category 100 MW to 1 GW

Misc. Analysis Settings

DNI: **varies (1,000.0 W/m^2 peak)**
Ocular transmission coefficient: **0.5**
Pupil diameter: **0.002 m**
Eye focal length: **0.017 m**
Sun subtended angle: **9.3 mrad**

PV Analysis Methodology: **Version 2**
Enhanced subtended angle calculation: **On**

Summary of Results Glare with low potential for temporary after-image predicted

PV Name	Tilt	Orientation	"Green" Glare	"Yellow" Glare	Energy Produced
	deg	deg	min	min	kWh
PV array 1	SA tracking	SA tracking	0	0	-
PV array 10	SA tracking	SA tracking	0	0	-
PV array 11	SA tracking	SA tracking	0	0	-
PV array 12	SA tracking	SA tracking	0	0	-
PV array 13	SA tracking	SA tracking	0	0	-
PV array 14	SA tracking	SA tracking	0	0	-
PV array 15	SA tracking	SA tracking	0	0	-
PV array 16	SA tracking	SA tracking	0	0	-
PV array 17	SA tracking	SA tracking	17,926	0	-
PV array 18	SA tracking	SA tracking	0	0	-
PV array 2	SA tracking	SA tracking	0	0	-
PV array 3	SA tracking	SA tracking	0	0	-
PV array 4	SA tracking	SA tracking	0	0	-
PV array 5	SA tracking	SA tracking	0	0	-
PV array 6	SA tracking	SA tracking	0	0	-
PV array 7	SA tracking	SA tracking	18,449	0	-
PV array 8	SA tracking	SA tracking	0	0	-
PV array 9	SA tracking	SA tracking	0	0	-

Component Data

PV Array(s)

Total PV footprint area: 8,104,661 m^2

Name: PV array 1
Footprint area: 509,399 m^2
Axis tracking: Single-axis rotation
Backtracking: None
Tracking axis orientation: 180.0 deg
Tracking axis tilt: 0.0 deg
Tracking axis panel offset: 0.0 deg
Maximum tracking angle: 60.0 deg

Rated power: -
Panel material: Light textured glass with AR coating
Vary reflectivity with sun position? Yes
Correlate slope error with surface type? Yes
Slope error: 9.16 mrad

Vertex	Latitude	Longitude	Ground elevation	Height above ground	Total elevation
	deg	deg	m	m	m
1	53.818886	-0.886729	6.34	3.50	9.84
2	53.814883	-0.884283	5.95	3.50	9.45
3	53.814346	-0.888924	7.41	3.50	10.91
4	53.812293	-0.882272	6.90	3.50	10.40
5	53.812699	-0.879482	7.20	3.50	10.70
6	53.813763	-0.878324	7.19	3.50	10.69
7	53.814194	-0.878796	7.39	3.50	10.89
8	53.814523	-0.874633	6.96	3.50	10.46
9	53.816145	-0.874247	6.11	3.50	9.61
10	53.816271	-0.873302	6.84	3.50	10.34
11	53.819464	-0.872702	6.50	3.50	10.00
12	53.818704	-0.878967	6.05	3.50	9.55
13	53.819109	-0.879010	5.90	3.50	9.40

Name: PV array 10
Footprint area: 860,067 m^2
Axis tracking: Single-axis rotation
Backtracking: None
Tracking axis orientation: 180.0 deg
Tracking axis tilt: 0.0 deg
Tracking axis panel offset: 0.0 deg
Maximum tracking angle: 60.0 deg

Rated power: -
Panel material: Light textured glass with AR coating
Vary reflectivity with sun position? Yes
Correlate slope error with surface type? Yes
Slope error: 9.16 mrad

Vertex	Latitude	Longitude	Ground elevation	Height above ground	Total elevation
	deg	deg	m	m	m
1	53.778810	-0.820903	5.07	3.50	8.57
2	53.775868	-0.819959	5.15	3.50	8.65
3	53.775209	-0.825366	5.97	3.50	9.47
4	53.768057	-0.847639	4.41	3.50	7.91
5	53.769858	-0.848455	5.00	3.50	8.50
6	53.769680	-0.850472	4.68	3.50	8.18
7	53.770745	-0.850686	4.00	3.50	7.50
8	53.770999	-0.849098	4.12	3.50	7.62
9	53.773408	-0.849570	5.00	3.50	8.50

Name: PV array 11
Footprint area: 205,559 m^2
Axis tracking: Single-axis rotation
Backtracking: None
Tracking axis orientation: 180.0 deg
Tracking axis tilt: 0.0 deg
Tracking axis panel offset: 0.0 deg
Maximum tracking angle: 60.0 deg

Rated power: -
Panel material: Light textured glass with AR coating
Vary reflectivity with sun position? Yes
Correlate slope error with surface type? Yes
Slope error: 9.16 mrad

Vertex	Latitude	Longitude	Ground elevation	Height above ground	Total elevation
	deg	deg	m	m	m
1	53.776817	-0.861222	5.00	3.50	8.50
2	53.776284	-0.862552	5.00	3.50	8.50
3	53.782826	-0.874268	5.15	3.50	8.65
4	53.784120	-0.871951	4.99	3.50	8.49
5	53.782674	-0.870578	5.10	3.50	8.60
6	53.780646	-0.865299	5.86	3.50	9.36
7	53.780772	-0.863840	6.00	3.50	9.50
8	53.779378	-0.862209	5.00	3.50	8.50
9	53.778972	-0.864012	5.00	3.50	8.50

Name: PV array 12
Footprint area: 153,870 m^2
Axis tracking: Single-axis rotation
Backtracking: None
Tracking axis orientation: 180.0 deg
Tracking axis tilt: 0.0 deg
Tracking axis panel offset: 0.0 deg
Maximum tracking angle: 60.0 deg

Rated power: -
Panel material: Light textured glass with AR coating
Vary reflectivity with sun position? Yes
Correlate slope error with surface type? Yes
Slope error: 9.16 mrad

Vertex	Latitude	Longitude	Ground elevation	Height above ground	Total elevation
	deg	deg	m	m	m
1	53.788227	-0.880191	5.89	3.50	9.39
2	53.788328	-0.881607	4.53	3.50	8.03
3	53.785920	-0.884311	5.06	3.50	8.56
4	53.782902	-0.880234	5.96	3.50	9.46
5	53.783359	-0.878388	5.63	3.50	9.13
6	53.783993	-0.877401	5.39	3.50	8.89
7	53.786021	-0.878388	5.24	3.50	8.74
8	53.786909	-0.879461	5.93	3.50	9.43

Name: PV array 13
Footprint area: 227,092 m^2
Axis tracking: Single-axis rotation
Backtracking: None
Tracking axis orientation: 180.0 deg
Tracking axis tilt: 0.0 deg
Tracking axis panel offset: 0.0 deg
Maximum tracking angle: 60.0 deg

Rated power: -
Panel material: Light textured glass with AR coating
Vary reflectivity with sun position? Yes
Correlate slope error with surface type? Yes
Slope error: 9.16 mrad

Vertex	Latitude	Longitude	Ground elevation	Height above ground	Total elevation
	deg	deg	m	m	m
1	53.782598	-0.896155	6.23	3.50	9.73
2	53.779048	-0.902335	5.55	3.50	9.05
3	53.778414	-0.901820	6.07	3.50	9.57
4	53.778262	-0.899503	6.30	3.50	9.80
5	53.776411	-0.897228	4.61	3.50	8.11
6	53.778287	-0.894610	4.73	3.50	8.23
7	53.780722	-0.891907	5.00	3.50	8.50

Name: PV array 14
Footprint area: 679,077 m^2
Axis tracking: Single-axis rotation
Backtracking: None
Tracking axis orientation: 180.0 deg
Tracking axis tilt: 0.0 deg
Tracking axis panel offset: 0.0 deg
Maximum tracking angle: 60.0 deg

Rated power: -
Panel material: Light textured glass with AR coating
Vary reflectivity with sun position? Yes
Correlate slope error with surface type? Yes
Slope error: 9.16 mrad

Vertex	Latitude	Longitude	Ground elevation	Height above ground	Total elevation
	deg	deg	m	m	m
1	53.776512	-0.895597	5.00	3.50	8.50
2	53.773976	-0.894396	5.00	3.50	8.50
3	53.773722	-0.894524	5.00	3.50	8.50
4	53.773190	-0.891563	5.00	3.50	8.50
5	53.773900	-0.890190	5.00	3.50	8.50
6	53.775193	-0.888774	5.00	3.50	8.50
7	53.773722	-0.884053	5.51	3.50	9.01
8	53.771719	-0.885555	5.49	3.50	8.99
9	53.771313	-0.881950	5.00	3.50	8.50
10	53.768675	-0.879332	5.00	3.50	8.50
11	53.767787	-0.880877	5.86	3.50	9.36
12	53.770273	-0.900919	5.27	3.50	8.77
13	53.772201	-0.899073	6.03	3.50	9.53
14	53.775067	-0.898344	5.81	3.50	9.31

Name: PV array 15
Footprint area: 277,556 m^2
Axis tracking: Single-axis rotation
Backtracking: None
Tracking axis orientation: 180.0 deg
Tracking axis tilt: 0.0 deg
Tracking axis panel offset: 0.0 deg
Maximum tracking angle: 60.0 deg

Rated power: -
Panel material: Light textured glass with AR coating
Vary reflectivity with sun position? Yes
Correlate slope error with surface type? Yes
Slope error: 9.16 mrad

Vertex	Latitude	Longitude	Ground elevation	Height above ground	Total elevation
	deg	deg	m	m	m
1	53.768980	-0.895254	5.00	3.50	8.50
2	53.765454	-0.897528	3.99	3.50	7.49
3	53.764363	-0.894138	4.98	3.50	8.48
4	53.764845	-0.892808	4.28	3.50	7.78
5	53.766062	-0.891520	4.50	3.50	8.00
6	53.765454	-0.887701	5.39	3.50	8.89
7	53.766773	-0.881392	5.53	3.50	9.03
8	53.767128	-0.881221	6.00	3.50	9.50

Name: PV array 16
Footprint area: 251,579 m^2
Axis tracking: Single-axis rotation
Backtracking: None
Tracking axis orientation: 180.0 deg
Tracking axis tilt: 0.0 deg
Tracking axis panel offset: 0.0 deg
Maximum tracking angle: 60.0 deg

Rated power: -
Panel material: Light textured glass with AR coating
Vary reflectivity with sun position? Yes
Correlate slope error with surface type? Yes
Slope error: 9.16 mrad

Vertex	Latitude	Longitude	Ground elevation	Height above ground	Total elevation
	deg	deg	m	m	m
1	53.765961	-0.871693	5.00	3.50	8.50
2	53.764769	-0.872766	5.00	3.50	8.50
3	53.765251	-0.879075	4.32	3.50	7.82
4	53.766671	-0.879676	4.39	3.50	7.89
5	53.766646	-0.880234	4.36	3.50	7.86
6	53.766139	-0.880362	4.41	3.50	7.91
7	53.763145	-0.889975	5.30	3.50	8.80
8	53.764617	-0.890362	4.92	3.50	8.42
9	53.764594	-0.890844	4.64	3.50	8.14
10	53.763044	-0.890619	6.20	3.50	9.70
11	53.761446	-0.894911	9.27	3.50	12.77
12	53.759593	-0.899846	7.65	3.50	11.15
13	53.758782	-0.900318	7.20	3.50	10.70
14	53.758934	-0.900747	7.16	3.50	10.66
15	53.759898	-0.900704	7.56	3.50	11.06
16	53.762029	-0.895469	9.27	3.50	12.77
17	53.762689	-0.896413	8.78	3.50	12.28
18	53.764591	-0.892336	4.64	3.50	8.14
19	53.764667	-0.890319	4.90	3.50	8.40
20	53.765581	-0.890362	4.32	3.50	7.82
21	53.765327	-0.888731	5.39	3.50	8.89
22	53.764211	-0.888688	6.95	3.50	10.45
23	53.764287	-0.887358	6.37	3.50	9.87
24	53.765149	-0.887014	5.83	3.50	9.33
25	53.766595	-0.880834	5.09	3.50	8.59
26	53.766925	-0.879375	4.83	3.50	8.33

Name: PV array 17
Footprint area: 259,874 m^2
Axis tracking: Single-axis rotation
Backtracking: None
Tracking axis orientation: 180.0 deg
Tracking axis tilt: 0.0 deg
Tracking axis panel offset: 0.0 deg
Maximum tracking angle: 60.0 deg

Rated power: -
Panel material: Light textured glass with AR coating
Vary reflectivity with sun position? Yes
Correlate slope error with surface type? Yes
Slope error: 9.16 mrad

Vertex	Latitude	Longitude	Ground elevation	Height above ground	Total elevation
	deg	deg	m	m	m
1	53.800000	-0.898244	8.11	3.50	11.61
2	53.799316	-0.898158	5.69	3.50	9.19
3	53.796553	-0.900947	5.33	3.50	8.83
4	53.795792	-0.901205	5.86	3.50	9.36
5	53.795032	-0.896699	5.54	3.50	9.04
6	53.794246	-0.893437	5.00	3.50	8.50
7	53.795083	-0.892579	5.13	3.50	8.63
8	53.798150	-0.892794	5.38	3.50	8.88
9	53.800076	-0.893394	5.88	3.50	9.38
10	53.800228	-0.897471	6.28	3.50	9.78

Name: PV array 18
Footprint area: 191,697 m^2
Axis tracking: Single-axis rotation
Backtracking: None
Tracking axis orientation: 180.0 deg
Tracking axis tilt: 0.0 deg
Tracking axis panel offset: 0.0 deg
Maximum tracking angle: 60.0 deg

Rated power: -
Panel material: Light textured glass with AR coating
Vary reflectivity with sun position? Yes
Correlate slope error with surface type? Yes
Slope error: 9.16 mrad

Vertex	Latitude	Longitude	Ground elevation	Height above ground	Total elevation
	deg	deg	m	m	m
1	53.792776	-0.893609	4.96	3.50	8.46
2	53.791736	-0.894982	5.48	3.50	8.98
3	53.790697	-0.896012	4.98	3.50	8.48
4	53.788998	-0.897042	4.27	3.50	7.77
5	53.789100	-0.897986	4.86	3.50	8.36
6	53.788973	-0.899360	5.24	3.50	8.74
7	53.788821	-0.900046	4.94	3.50	8.44
8	53.789227	-0.902020	4.84	3.50	8.34
9	53.789531	-0.902063	6.31	3.50	9.81
10	53.789556	-0.900990	5.15	3.50	8.65
11	53.792472	-0.900347	5.64	3.50	9.14
12	53.792903	-0.901849	6.09	3.50	9.59
13	53.794322	-0.900390	6.18	3.50	9.68

Name: PV array 2
Footprint area: 632,085 m^2
Axis tracking: Single-axis rotation
Backtracking: None
Tracking axis orientation: 180.0 deg
Tracking axis tilt: 0.0 deg
Tracking axis panel offset: 0.0 deg
Maximum tracking angle: 60.0 deg

Rated power: -
Panel material: Light textured glass with AR coating
Vary reflectivity with sun position? Yes
Correlate slope error with surface type? Yes
Slope error: 9.16 mrad

Vertex	Latitude	Longitude	Ground elevation	Height above ground	Total elevation
	deg	deg	m	m	m
1	53.813872	-0.874438	6.25	3.50	9.75
2	53.811034	-0.872979	7.20	3.50	10.70
3	53.811516	-0.871090	7.04	3.50	10.54
4	53.808804	-0.868730	6.72	3.50	10.22
5	53.809108	-0.867485	6.99	3.50	10.49
6	53.808323	-0.867687	6.25	3.50	9.75
7	53.806878	-0.867000	6.02	3.50	9.52
8	53.807183	-0.865970	6.43	3.50	9.93
9	53.805325	-0.864511	6.24	3.50	9.74
10	53.805173	-0.865283	6.58	3.50	10.08
11	53.804083	-0.864425	7.27	3.50	10.77
12	53.802993	-0.867987	6.40	3.50	9.90
13	53.802537	-0.867343	6.48	3.50	9.98
14	53.802283	-0.866228	6.35	3.50	9.85
15	53.800991	-0.864854	6.93	3.50	10.43
16	53.803094	-0.859876	6.29	3.50	9.79
17	53.803551	-0.859790	6.05	3.50	9.55
18	53.804210	-0.857087	6.54	3.50	10.04
19	53.807758	-0.858374	6.00	3.50	9.50
20	53.807859	-0.862666	5.93	3.50	9.43
21	53.810140	-0.863524	5.70	3.50	9.20
22	53.813897	-0.865584	6.85	3.50	10.35
23	53.813517	-0.868545	5.83	3.50	9.33
24	53.813618	-0.870433	5.69	3.50	9.19
25	53.814100	-0.871678	6.48	3.50	9.98

Name: PV array 3
Footprint area: 155,482 m^2
Axis tracking: Single-axis rotation
Backtracking: None
Tracking axis orientation: 180.0 deg
Tracking axis tilt: 0.0 deg
Tracking axis panel offset: 0.0 deg
Maximum tracking angle: 60.0 deg

Rated power: -
Panel material: Light textured glass with AR coating
Vary reflectivity with sun position? Yes
Correlate slope error with surface type? Yes
Slope error: 9.16 mrad

Vertex	Latitude	Longitude	Ground elevation	Height above ground	Total elevation
	deg	deg	m	m	m
1	53.813884	-0.865326	6.57	3.50	10.07
2	53.810185	-0.863052	6.00	3.50	9.50
3	53.808158	-0.862236	5.93	3.50	9.43
4	53.808132	-0.858760	6.07	3.50	9.57
5	53.810172	-0.859726	6.68	3.50	10.18
6	53.810844	-0.860477	5.85	3.50	9.35
7	53.811807	-0.860799	5.51	3.50	9.01
8	53.812909	-0.860777	5.73	3.50	9.23
9	53.813175	-0.860649	5.42	3.50	8.92
10	53.813922	-0.860949	5.47	3.50	8.97
11	53.814416	-0.860691	6.67	3.50	10.17

Name: PV array 4
Footprint area: 642,157 m^2
Axis tracking: Single-axis rotation
Backtracking: None
Tracking axis orientation: 180.0 deg
Tracking axis tilt: 0.0 deg
Tracking axis panel offset: 0.0 deg
Maximum tracking angle: 60.0 deg

Rated power: -
Panel material: Light textured glass with AR coating
Vary reflectivity with sun position? Yes
Correlate slope error with surface type? Yes
Slope error: 9.16 mrad

Vertex	Latitude	Longitude	Ground elevation	Height above ground	Total elevation
	deg	deg	m	m	m
1	53.814581	-0.855301	5.71	3.50	9.21
2	53.814100	-0.855130	5.26	3.50	8.76
3	53.813454	-0.854701	5.23	3.50	8.73
4	53.811148	-0.860065	5.60	3.50	9.10
5	53.810261	-0.859271	5.85	3.50	9.35
6	53.805383	-0.856782	5.66	3.50	9.16
7	53.805649	-0.855001	5.25	3.50	8.75
8	53.804901	-0.853842	5.22	3.50	8.72
9	53.805636	-0.849186	5.28	3.50	8.78
10	53.804496	-0.847255	5.46	3.50	8.96
11	53.804166	-0.847276	5.90	3.50	9.40
12	53.803748	-0.853327	6.05	3.50	9.55
13	53.798337	-0.850667	6.07	3.50	9.57
14	53.799972	-0.847148	5.62	3.50	9.12
15	53.800263	-0.845581	5.93	3.50	9.43
16	53.804103	-0.847276	5.53	3.50	9.03
17	53.804594	-0.847142	5.04	3.50	8.54
18	53.807681	-0.847384	5.70	3.50	9.20
19	53.808454	-0.848607	5.76	3.50	9.26
20	53.807238	-0.851632	5.81	3.50	9.31
21	53.808568	-0.853714	5.85	3.50	9.35
22	53.808366	-0.854658	5.82	3.50	9.32
23	53.809671	-0.855108	4.90	3.50	8.40
24	53.810000	-0.853907	5.43	3.50	8.93
25	53.809709	-0.853628	5.37	3.50	8.87
26	53.811558	-0.850538	5.71	3.50	9.21
27	53.813269	-0.852190	5.07	3.50	8.57
28	53.814244	-0.852684	5.73	3.50	9.23

Name: PV array 5
Footprint area: 1,762,515 m^2
Axis tracking: Single-axis rotation
Backtracking: None
Tracking axis orientation: 180.0 deg
Tracking axis tilt: 0.0 deg
Tracking axis panel offset: 0.0 deg
Maximum tracking angle: 60.0 deg

Rated power: -
Panel material: Light textured glass with AR coating
Vary reflectivity with sun position? Yes
Correlate slope error with surface type? Yes
Slope error: 9.16 mrad

Vertex	Latitude	Longitude	Ground elevation	Height above ground	Total elevation
	deg	deg	m	m	m
1	53.807708	-0.847197	5.51	3.50	9.01
2	53.804096	-0.847004	5.39	3.50	8.89
3	53.797342	-0.843764	5.19	3.50	8.69
4	53.797874	-0.841661	5.30	3.50	8.80
5	53.799610	-0.837906	5.60	3.50	9.10
6	53.801258	-0.834001	5.60	3.50	9.10
7	53.803577	-0.827735	5.05	3.50	8.55
8	53.802145	-0.825933	5.34	3.50	8.84
9	53.799851	-0.832398	6.04	3.50	9.54
10	53.797215	-0.829265	5.09	3.50	8.59
11	53.795048	-0.834844	5.24	3.50	8.74
12	53.792817	-0.833686	5.73	3.50	9.23
13	53.792944	-0.831368	5.17	3.50	8.67
14	53.794439	-0.826390	5.04	3.50	8.54
15	53.795301	-0.827248	5.36	3.50	8.86
16	53.795707	-0.826991	6.45	3.50	9.95
17	53.797253	-0.828793	5.75	3.50	9.25
18	53.797861	-0.826647	5.38	3.50	8.88
19	53.796214	-0.825274	5.21	3.50	8.71
20	53.796290	-0.824502	4.27	3.50	7.77
21	53.795200	-0.823558	4.11	3.50	7.61
22	53.795986	-0.819695	4.60	3.50	8.10
23	53.799027	-0.821626	4.56	3.50	8.06
24	53.801638	-0.823944	4.37	3.50	7.87
25	53.803944	-0.826519	4.96	3.50	8.46
26	53.804172	-0.825918	4.35	3.50	7.85
27	53.802018	-0.823558	5.21	3.50	8.71
28	53.802094	-0.822656	4.99	3.50	8.49
29	53.801511	-0.822442	5.47	3.50	8.97
30	53.801283	-0.822871	4.64	3.50	8.14
31	53.799103	-0.820940	4.71	3.50	8.21
32	53.800244	-0.816047	4.44	3.50	7.94
33	53.798368	-0.814846	4.75	3.50	8.25
34	53.797481	-0.814846	4.42	3.50	7.92
35	53.799737	-0.810683	4.71	3.50	8.21
36	53.802753	-0.814331	2.81	3.50	6.31
37	53.802221	-0.816477	4.38	3.50	7.88
38	53.802145	-0.818408	3.53	3.50	7.03
39	53.802981	-0.821240	5.10	3.50	8.60
40	53.803843	-0.822141	4.77	3.50	8.27
41	53.808202	-0.827077	4.72	3.50	8.22
42	53.807087	-0.832012	5.04	3.50	8.54
43	53.804451	-0.840724	5.00	3.50	8.50
44	53.806872	-0.843073	5.31	3.50	8.81
45	53.807125	-0.842815	4.94	3.50	8.44
46	53.807911	-0.843545	5.00	3.50	8.50
47	53.808443	-0.844746	4.87	3.50	8.37

Name: PV array 6
Footprint area: 53,769 m^2
Axis tracking: Single-axis rotation
Backtracking: None
Tracking axis orientation: 180.0 deg
Tracking axis tilt: 0.0 deg
Tracking axis panel offset: 0.0 deg
Maximum tracking angle: 60.0 deg

Rated power: -
Panel material: Light textured glass with AR coating
Vary reflectivity with sun position? Yes
Correlate slope error with surface type? Yes
Slope error: 9.16 mrad

Vertex	Latitude	Longitude	Ground elevation	Height above ground	Total elevation
	deg	deg	m	m	m
1	53.800588	-0.865277	6.65	3.50	10.15
2	53.801779	-0.862166	6.43	3.50	9.93
3	53.800132	-0.860192	6.45	3.50	9.95
4	53.799054	-0.863110	6.98	3.50	10.48
5	53.799802	-0.864419	7.68	3.50	11.18

Name: PV array 7
Footprint area: 283,999 m^2
Axis tracking: Single-axis rotation
Backtracking: None
Tracking axis orientation: 180.0 deg
Tracking axis tilt: 0.0 deg
Tracking axis panel offset: 0.0 deg
Maximum tracking angle: 60.0 deg

Rated power: -
Panel material: Light textured glass with AR coating
Vary reflectivity with sun position? Yes
Correlate slope error with surface type? Yes
Slope error: 9.16 mrad

Vertex	Latitude	Longitude	Ground elevation	Height above ground	Total elevation
	deg	deg	m	m	m
1	53.797257	-0.867135	6.45	3.50	9.95
2	53.794393	-0.864903	6.01	3.50	9.51
3	53.792770	-0.869624	6.00	3.50	9.50
4	53.791553	-0.868208	5.96	3.50	9.46
5	53.789018	-0.874988	6.33	3.50	9.83
6	53.790007	-0.876319	7.32	3.50	10.82
7	53.790311	-0.875374	5.97	3.50	9.47
8	53.790666	-0.875675	6.59	3.50	10.09
9	53.791199	-0.874130	6.37	3.50	9.87
10	53.791477	-0.874044	5.65	3.50	9.15
11	53.791731	-0.873486	5.89	3.50	9.39
12	53.792872	-0.873143	5.95	3.50	9.45
13	53.793201	-0.873100	5.86	3.50	9.36
14	53.793810	-0.871684	5.84	3.50	9.34
15	53.795457	-0.872800	5.36	3.50	8.86
16	53.796269	-0.871684	5.24	3.50	8.74
17	53.797232	-0.869409	5.79	3.50	9.29
18	53.796750	-0.868808	6.03	3.50	9.53

Name: PV array 8
Footprint area: 513,457 m^2
Axis tracking: Single-axis rotation
Backtracking: None
Tracking axis orientation: 180.0 deg
Tracking axis tilt: 0.0 deg
Tracking axis panel offset: 0.0 deg
Maximum tracking angle: 60.0 deg

Rated power: -
Panel material: Light textured glass with AR coating
Vary reflectivity with sun position? Yes
Correlate slope error with surface type? Yes
Slope error: 9.16 mrad

Vertex	Latitude	Longitude	Ground elevation	Height above ground	Total elevation
	deg	deg	m	m	m
1	53.790717	-0.857736	6.07	3.50	9.57
2	53.787725	-0.853702	5.77	3.50	9.27
3	53.787041	-0.856191	5.84	3.50	9.34
4	53.786458	-0.856277	5.48	3.50	8.98
5	53.786103	-0.857565	5.78	3.50	9.28
6	53.785291	-0.856792	5.63	3.50	9.13
7	53.785215	-0.852071	5.00	3.50	8.50
8	53.784328	-0.851900	4.64	3.50	8.14
9	53.784531	-0.849883	5.48	3.50	8.98
10	53.785038	-0.847179	5.34	3.50	8.84
11	53.783035	-0.846020	4.21	3.50	7.71
12	53.783694	-0.842587	5.00	3.50	8.50
13	53.785722	-0.843059	4.65	3.50	8.15
14	53.786736	-0.843789	4.23	3.50	7.73
15	53.789044	-0.845591	5.87	3.50	9.37
16	53.789756	-0.846235	5.45	3.50	8.95
17	53.788780	-0.849668	5.37	3.50	8.87
18	53.790301	-0.851406	6.41	3.50	9.91
19	53.792443	-0.853187	7.67	3.50	11.17

Name: PV array 9
Footprint area: 445,425 m^2
Axis tracking: Single-axis rotation
Backtracking: None
Tracking axis orientation: 180.0 deg
Tracking axis tilt: 0.0 deg
Tracking axis panel offset: 0.0 deg
Maximum tracking angle: 60.0 deg

Rated power: -
Panel material: Light textured glass with AR coating
Vary reflectivity with sun position? Yes
Correlate slope error with surface type? Yes
Slope error: 9.16 mrad

Vertex	Latitude	Longitude	Ground elevation	Height above ground	Total elevation
	deg	deg	m	m	m
1	53.783172	-0.836739	5.76	3.50	9.26
2	53.780154	-0.833434	5.23	3.50	8.73
3	53.779672	-0.835022	5.35	3.50	8.85
4	53.777263	-0.832447	5.19	3.50	8.69
5	53.775361	-0.841459	5.51	3.50	9.01
6	53.781245	-0.845408	5.09	3.50	8.59

2-Mile Flight Path Receptor(s)

Name: Breighton - Runway 10
Description:
Threshold height : 15 m
Direction: 100.0 deg
Glide slope: 3.0 deg
Pilot view restricted? Yes
Vertical view restriction: 30.0 deg
Azimuthal view restriction: 50.0 deg

Point	Latitude	Longitude	Ground elevation	Height above ground	Total elevation
	deg	deg	m	m	m
Threshold	53.803401	-0.921900	7.73	15.24	22.97
2-mile point	53.808422	-0.970171	8.02	183.63	191.65

Name: Breighton - Runway 28
Description:
Threshold height : 15 m
Direction: 280.0 deg
Glide slope: 3.0 deg
Pilot view restricted? Yes
Vertical view restriction: 30.0 deg
Azimuthal view restriction: 50.0 deg

Point	Latitude	Longitude	Ground elevation	Height above ground	Total elevation
	deg	deg	m	m	m
Threshold	53.802200	-0.911700	6.75	15.24	21.99
2-mile point	53.797179	-0.863431	6.29	184.39	190.68

Name: Leeds East Airport - Runway 06
Description:
Threshold height : 15 m
Direction: 54.7 deg
Glide slope: 3.0 deg
Pilot view restricted? Yes
Vertical view restriction: 30.0 deg
Azimuthal view restriction: 50.0 deg

Point	Latitude	Longitude	Ground elevation	Height above ground	Total elevation
	deg	deg	m	m	m
Threshold	53.830513	-1.204921	8.92	15.24	24.16
2-mile point	53.813806	-1.244951	8.03	184.82	192.85

Name: Leeds East Airport - Runway 24
Description:
Threshold height : 15 m
Direction: 234.7 deg
Glide slope: 3.0 deg
Pilot view restricted? Yes
Vertical view restriction: 30.0 deg
Azimuthal view restriction: 50.0 deg

Point	Latitude	Longitude	Ground elevation	Height above ground	Total elevation
	deg	deg	m	m	m
Threshold	53.839192	-1.184218	9.00	15.24	24.24
2-mile point	53.855899	-1.144181	13.03	179.89	192.92

Discrete Observation Receptors

Number	Latitude	Longitude	Ground elevation	Height above ground	Total Elevation
	deg	deg	m	m	m
1-ATCT	53.835405	-1.199189	8.85	5.00	13.85

1-ATCT map image

Summary of PV Glare Analysis

PV configuration and total predicted glare

PV Name	Tilt	Orientation	"Green" Glare	"Yellow" Glare	Energy Produced	Data File
	deg	deg	min	min	kWh	
PV array 1	SA tracking	SA tracking	0	0	-	-
PV array 10	SA tracking	SA tracking	0	0	-	-
PV array 11	SA tracking	SA tracking	0	0	-	-
PV array 12	SA tracking	SA tracking	0	0	-	-
PV array 13	SA tracking	SA tracking	0	0	-	-
PV array 14	SA tracking	SA tracking	0	0	-	-
PV array 15	SA tracking	SA tracking	0	0	-	-
PV array 16	SA tracking	SA tracking	0	0	-	-
PV array 17	SA tracking	SA tracking	17,926	0	-	-
PV array 18	SA tracking	SA tracking	0	0	-	-
PV array 2	SA tracking	SA tracking	0	0	-	-
PV array 3	SA tracking	SA tracking	0	0	-	-
PV array 4	SA tracking	SA tracking	0	0	-	-
PV array 5	SA tracking	SA tracking	0	0	-	-
PV array 6	SA tracking	SA tracking	0	0	-	-
PV array 7	SA tracking	SA tracking	18,449	0	-	-
PV array 8	SA tracking	SA tracking	0	0	-	-
PV array 9	SA tracking	SA tracking	0	0	-	-

Distinct glare per month

Excludes overlapping glare from PV array for multiple receptors at matching time(s)

PV	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
pv-array-17 (green)	0	6	1824	3105	2662	1947	2397	3087	2533	365	0	0
pv-array-17 (yellow)	0	0	0	0	0	0	0	0	0	0	0	0
pv-array-7 (green)	0	6	1824	3105	2773	2118	2637	3087	2533	366	0	0
pv-array-7 (yellow)	0	0	0	0	0	0	0	0	0	0	0	0

PV & Receptor Analysis Results

Results for each PV array and receptor

PV array 1 no glare found

Component	Green glare (min)	Yellow glare (min)
FP: Breighton - Runway 10	0	0
FP: Breighton - Runway 28	0	0
FP: Leeds East Airport - Runway 06	0	0
FP: Leeds East Airport - Runway 24	0	0
OP: 1-ATCT	0	0

No glare found

PV array 10 no glare found

Component	Green glare (min)	Yellow glare (min)
FP: Breighton - Runway 10	0	0
FP: Breighton - Runway 28	0	0
FP: Leeds East Airport - Runway 06	0	0
FP: Leeds East Airport - Runway 24	0	0
OP: 1-ATCT	0	0

No glare found

PV array 11 no glare found

Component	Green glare (min)	Yellow glare (min)
FP: Breighton - Runway 10	0	0
FP: Breighton - Runway 28	0	0
FP: Leeds East Airport - Runway 06	0	0
FP: Leeds East Airport - Runway 24	0	0
OP: 1-ATCT	0	0

No glare found

PV array 12 no glare found

Component	Green glare (min)	Yellow glare (min)
FP: Breighton - Runway 10	0	0
FP: Breighton - Runway 28	0	0
FP: Leeds East Airport - Runway 06	0	0
FP: Leeds East Airport - Runway 24	0	0
OP: 1-ATCT	0	0

No glare found

PV array 13 no glare found

Component	Green glare (min)	Yellow glare (min)
FP: Breighton - Runway 10	0	0
FP: Breighton - Runway 28	0	0
FP: Leeds East Airport - Runway 06	0	0
FP: Leeds East Airport - Runway 24	0	0
OP: 1-ATCT	0	0

No glare found

PV array 14 no glare found

Component	Green glare (min)	Yellow glare (min)
FP: Breighton - Runway 10	0	0
FP: Breighton - Runway 28	0	0
FP: Leeds East Airport - Runway 06	0	0
FP: Leeds East Airport - Runway 24	0	0
OP: 1-ATCT	0	0

No glare found

PV array 15 no glare found

Component	Green glare (min)	Yellow glare (min)
FP: Breighton - Runway 10	0	0
FP: Breighton - Runway 28	0	0
FP: Leeds East Airport - Runway 06	0	0
FP: Leeds East Airport - Runway 24	0	0
OP: 1-ATCT	0	0

No glare found

PV array 16 no glare found

Component	Green glare (min)	Yellow glare (min)
FP: Breighton - Runway 10	0	0
FP: Breighton - Runway 28	0	0
FP: Leeds East Airport - Runway 06	0	0
FP: Leeds East Airport - Runway 24	0	0
OP: 1-ATCT	0	0

No glare found

PV array 17 low potential for temporary after-image

Component	Green glare (min)	Yellow glare (min)
FP: Breighton - Runway 10	0	0
FP: Breighton - Runway 28	17926	0
FP: Leeds East Airport - Runway 06	0	0
FP: Leeds East Airport - Runway 24	0	0
OP: 1-ATCT	0	0

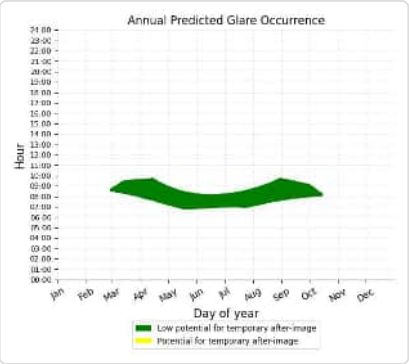
PV array 17: Breighton - Runway 10

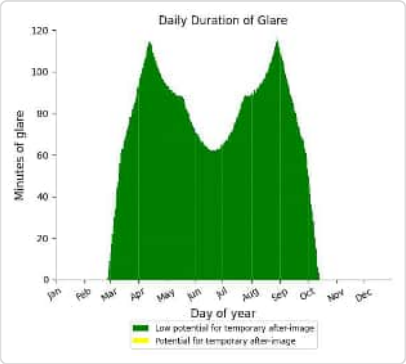
No glare found

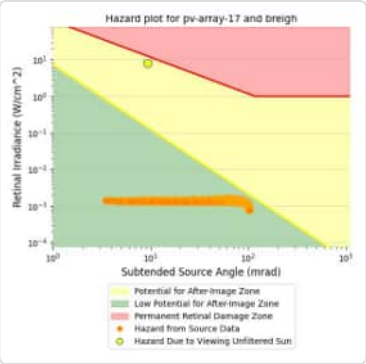
PV array 17: Breighton - Runway 28

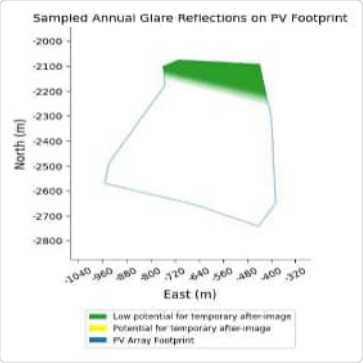
PV array is expected to produce the following glare for this receptor:

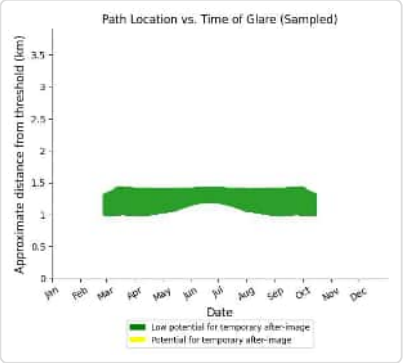
- 17,926 minutes of "green" glare with low potential to cause temporary after-image.
- 0 minutes of "yellow" glare with potential to cause temporary after-image.

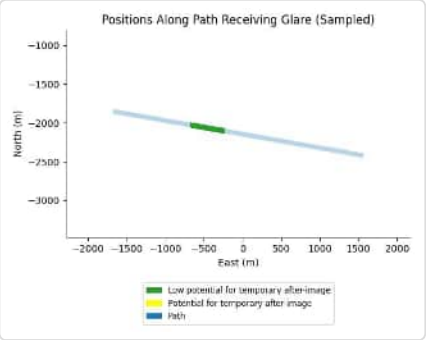












PV array 17: Leeds East Airport - Runway 06

No glare found

PV array 17: Leeds East Airport - Runway 24

No glare found

PV array 17: 1-ATCT

No glare found

PV array 18 no glare found

Component	Green glare (min)	Yellow glare (min)
FP: Breighton - Runway 10	0	0
FP: Breighton - Runway 28	0	0
FP: Leeds East Airport - Runway 06	0	0
FP: Leeds East Airport - Runway 24	0	0
OP: 1-ATCT	0	0

No glare found

PV array 2 no glare found

Component	Green glare (min)	Yellow glare (min)
FP: Breighton - Runway 10	0	0
FP: Breighton - Runway 28	0	0
FP: Leeds East Airport - Runway 06	0	0
FP: Leeds East Airport - Runway 24	0	0
OP: 1-ATCT	0	0

No glare found

PV array 3 no glare found

Component	Green glare (min)	Yellow glare (min)
FP: Breighton - Runway 10	0	0
FP: Breighton - Runway 28	0	0
FP: Leeds East Airport - Runway 06	0	0
FP: Leeds East Airport - Runway 24	0	0
OP: 1-ATCT	0	0

No glare found

PV array 4 no glare found

Component	Green glare (min)	Yellow glare (min)
FP: Breighton - Runway 10	0	0
FP: Breighton - Runway 28	0	0
FP: Leeds East Airport - Runway 06	0	0
FP: Leeds East Airport - Runway 24	0	0
OP: 1-ATCT	0	0

No glare found

PV array 5 no glare found

Component	Green glare (min)	Yellow glare (min)
FP: Breighton - Runway 10	0	0
FP: Breighton - Runway 28	0	0
FP: Leeds East Airport - Runway 06	0	0
FP: Leeds East Airport - Runway 24	0	0
OP: 1-ATCT	0	0

No glare found

PV array 6 no glare found

Component	Green glare (min)	Yellow glare (min)
FP: Breighton - Runway 10	0	0
FP: Breighton - Runway 28	0	0
FP: Leeds East Airport - Runway 06	0	0
FP: Leeds East Airport - Runway 24	0	0
OP: 1-ATCT	0	0

No glare found

PV array 7 low potential for temporary after-image

Component	Green glare (min)	Yellow glare (min)
FP: Breighton - Runway 10	0	0
FP: Breighton - Runway 28	18449	0
FP: Leeds East Airport - Runway 06	0	0
FP: Leeds East Airport - Runway 24	0	0
OP: 1-ATCT	0	0

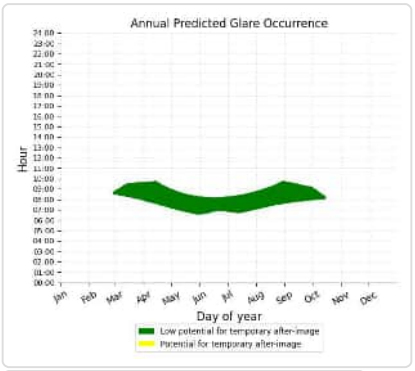
PV array 7: Breighton - Runway 10

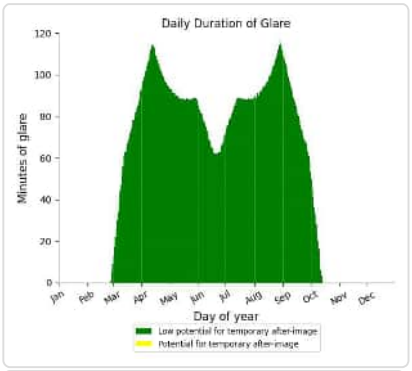
No glare found

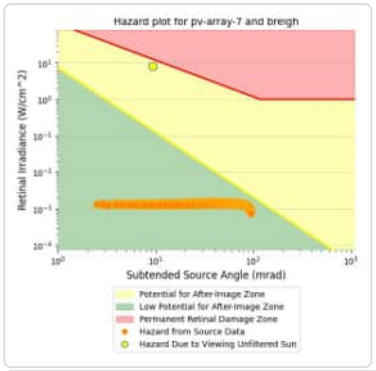
PV array 7: Breighton - Runway 28

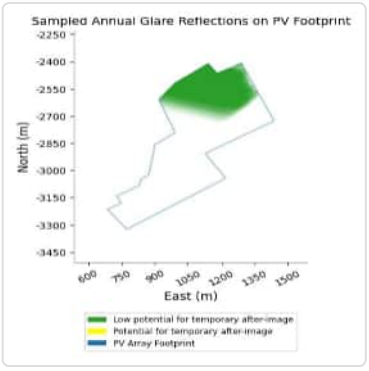
PV array is expected to produce the following glare for this receptor:

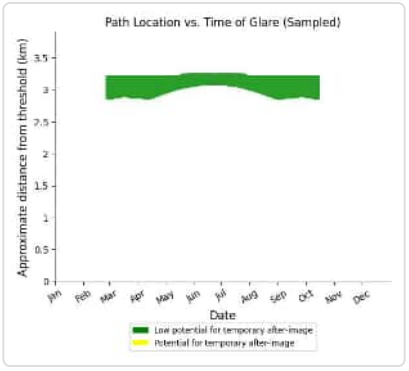
- 18,449 minutes of "green" glare with low potential to cause temporary after-image.
- 0 minutes of "yellow" glare with potential to cause temporary after-image.

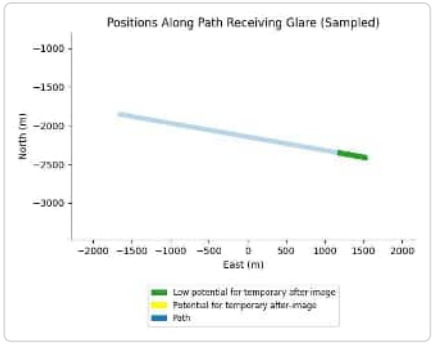












PV array 7: Leeds East Airport - Runway 06

No glare found

PV array 7: Leeds East Airport - Runway 24

No glare found

PV array 7: 1-ATCT

No glare found

PV array 8 no glare found

Component	Green glare (min)	Yellow glare (min)
FP: Breighton - Runway 10	0	0
FP: Breighton - Runway 28	0	0
FP: Leeds East Airport - Runway 06	0	0
FP: Leeds East Airport - Runway 24	0	0
OP: 1-ATCT	0	0

No glare found

PV array 9 no glare found

Component	Green glare (min)	Yellow glare (min)
FP: Breighton - Runway 10	0	0
FP: Breighton - Runway 28	0	0
FP: Leeds East Airport - Runway 06	0	0
FP: Leeds East Airport - Runway 24	0	0
OP: 1-ATCT	0	0

No glare found

Assumptions

- Times associated with glare are denoted in Standard time. For Daylight Savings, add one hour.
- Glare analyses do not automatically account for physical obstructions between reflectors and receptors. This includes buildings, tree cover and geographic obstructions.
- Detailed system geometry is not rigorously simulated.
- The glare hazard determination relies on several approximations including observer eye characteristics, angle of view, and typical blink response time. Actual values and results may vary.
- The system output calculation is a DNI-based approximation that assumes clear, sunny skies year-round. It should not be used in place of more rigorous modeling methods.
- Several V1 calculations utilize the PV array centroid, rather than the actual glare spot location, due to algorithm limitations. This may affect results for large PV footprints. Additional analyses of array sub-sections can provide additional information on expected glare.
- The subtended source angle (glare spot size) is constrained by the PV array footprint size. Partitioning large arrays into smaller sections will reduce the maximum potential subtended angle, potentially impacting results if actual glare spots are larger than the sub-array size. Additional analyses of the combined area of adjacent sub-arrays can provide more information on potential glare hazards. (See previous point on related limitations.)
- Hazard zone boundaries shown in the Glare Hazard plot are an approximation and visual aid. Actual ocular impact outcomes encompass a continuous, not discrete, spectrum.
- Glare locations displayed on receptor plots are approximate. Actual glare-spot locations may differ.
- Refer to the **Help page** for detailed assumptions and limitations not listed here.

ANNEX M: SOLAR MODULE GLARE AND REFLECTANCE TECHNICAL MEMO

Annex M

Solar Module Glare and Reflectance Technical Memo

SUNPOWER

Technical Notification

TITLE: SunPower Solar Module Glare and Reflectance
AUTHORS: Technical Support
APPLICATION: Residential/ Commercial
SCOPE: SunPower Modules

SUMMARY:

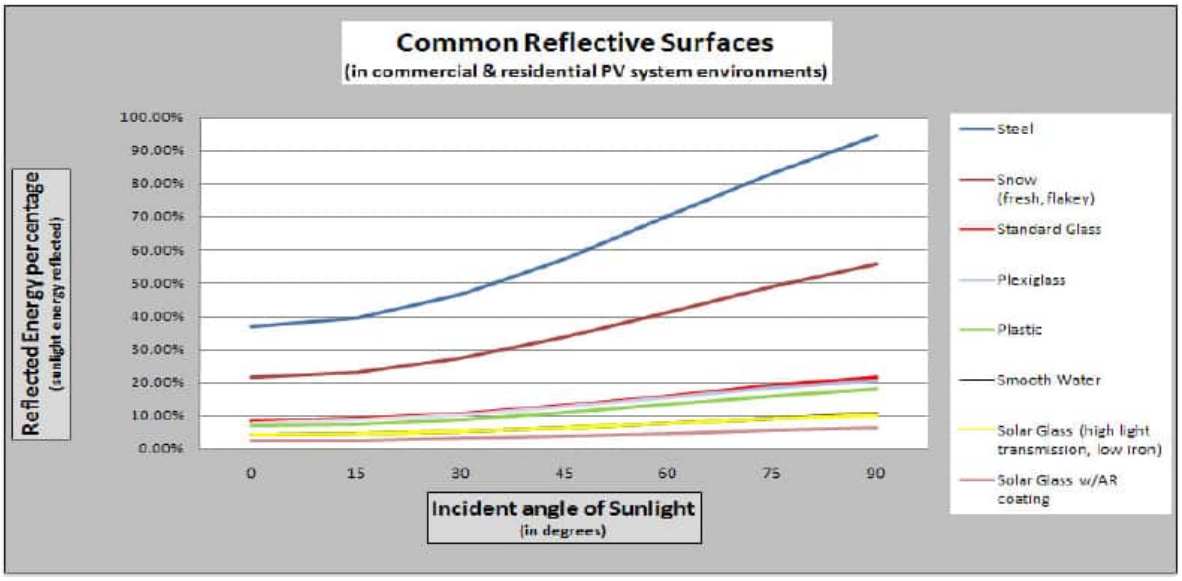
The objective of this document is to increase awareness concerning the possible glare and reflectance impact of PV Systems on their surrounding environment.

The glare and reflectance levels from a given PV system are decisively lower than the glare and reflectance generated by the standard glass and other common reflective surfaces in the environments surrounding the given PV system. Concerning random glare and reflectance observed from the air: SunPower has several large projects installed near airports or on air force bases. Each of these large projects has passed FAA or Air Force standards and all projects have been determined as "No Hazard to Air Navigation". Although the possible glare and reflectance from PV systems are at safe levels and are usually decisively lower than other standard residential and commercial reflective surfaces, SunPower suggests that customers and installers discuss any possible concerns with the neighbors/cohabitants near the planned PV system installation.

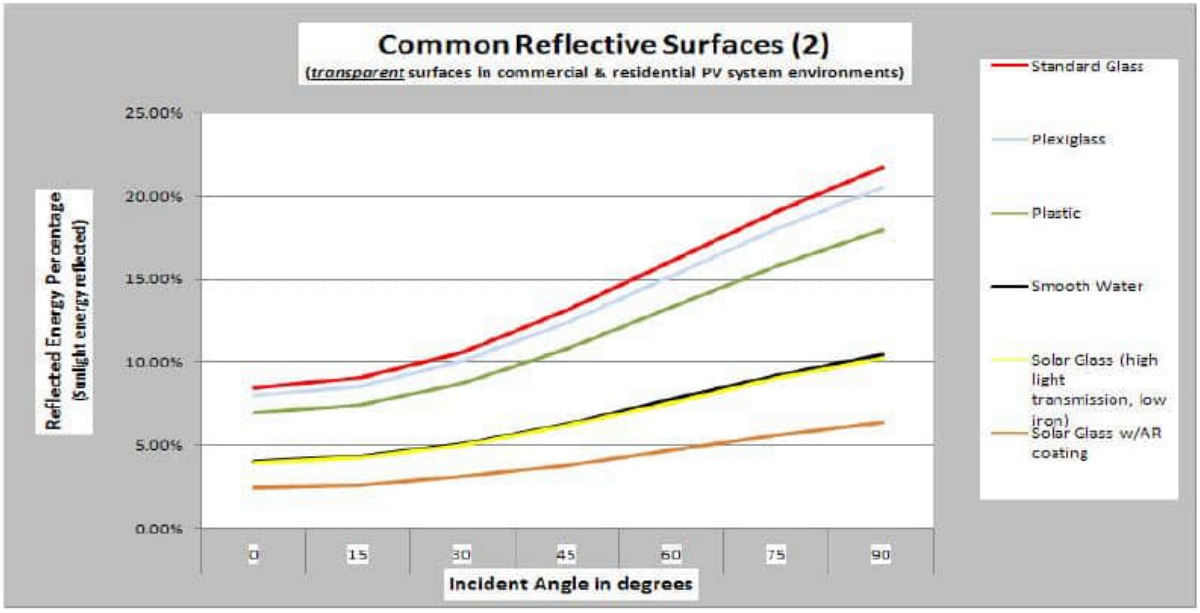
DETAILED EXPLANATION:

In general, since the whole concept of efficient solar power is to absorb as much light as possible while reflecting as little light as possible, standard solar module produces less glare and reflectance than standard window glass. This is pointed out very well in US Patent #6359212 which explains the differences in the refraction and reflection of solar module glass versus standard window glass. Solar modules use "high-transmission, low iron glass" which absorbs more light, producing small amounts of glare and reflectance than normal glass.

In the graph below, we show the reflected energy percentages of sunlight, of some common residential and commercial surfaces. The legend and the graph lists the items from top to bottom in order of the highest percentage of reflected energy.



It should be noted that the reflected energy percentage of Solar Glass is far below that of a standard glass and more on the level of smooth water. Also, below are the ratios of the common reflective surfaces:



Light beam physics resolves that the least amount of light is reflected when the beam is the normal, in other words, least light energy is reflected when the beam is at 0 degrees to the normal. The chart below is a result of light beam physics calculations:

Common Reflective Surfaces (in surrounding environments for PV systems)		Incident angle in degrees						
		0	15	30	45	60	75	90
Material Reflectivity (percent of incident light reflected)	Steel	36.73%	39.22%	46.34%	57.11%	70.02%	83.15%	94.40%
	Snow (fresh, flakey)	21.63%	23.09%	27.29%	33.63%	41.23%	48.96%	55.59%
	Standard Glass	8.44%	9.01%	10.65%	13.12%	16.09%	19.10%	21.69%
	Plexiglass	8.00%	8.54%	10.09%	12.44%	15.25%	18.11%	20.56%
	Plastic	6.99%	7.46%	8.82%	10.87%	13.33%	15.83%	17.97%
	Smooth Water	4.07%	4.35%	5.14%	6.33%	7.76%	9.22%	10.47%
	Solar Glass (high light transmission, low iron)	3.99%	4.26%	5.03%	6.20%	7.61%	9.03%	10.26%
	Solar Glass w/AR coating	2.47%	2.64%	3.12%	3.84%	4.71%	5.59%	6.35%

(Note: Index of refraction values may vary slightly depending on suppliers and reference documentation. The values for the above calculations are averages or single values obtained from the list of references for this document).

Important reference – "Stipples glass": In addition to the superior refractive/reflective properties of solar glass versus standard glass, SunPower uses stippled solar glass for our modules. Stippled glass is used with high powered telescopes and powerful beacons and lights. The basic concept behind stippling is for the surfaces of the glass to be textured with small types of indentations. As a result, stippling allows more light energy to be channeled/ transmitted through the glass while diffusing the reflected light energy. This concept is why the reflection of off a SunPower solar module will look hazy and less-defined than the reflection from standard glass, this occurs because the stippled SunPower glass is transmitting a larger percentage of light to the solar cell while breaking up the intensity of the reflected light energy.

SUMMARY / ACTION REQUIRED:

The studies, data and light beam physics behind the charts and graphs prove beyond a reasonable doubt that solar glass has less glare and reflectance than standard glass. The figures also make it clear that the difference is very decisive between solar glass and other common residential/commercial glasses. In addition, not to be lost in the standard light/glass equations and calculations, the SunPower solar glass is stippled and has a very photon-absorbent solar cell attached to the back side, contributing two additional factors which results in even less light energy being reflected.

REGIONAL CONTACTS:

****

EU Toll Free number: SunPower Technical Support, **00800–SUNPOWER (00800–78676937)**

- **For inquiries by e-mail, please use**:
  - Spain: SunPower – Soporte Técnico España: soportetecnico@sunpowercorp.com
  - Germany: SunPower – Technischer Support: technischersupport@sunpowercorp.com
  - Italy: SunPower – Servizio Tecnico Italia: serviziotecnico@sunpowercorp.com
  - France: SunPower – Support Technique France: supporttechnique@sunpowercorp.com

USA Toll Free number: SunPower Technical Support, **1-800–SUNPOWER (786-76937)**

- **For inquiries by e-mail, please use:** Technicalsupport@Sunpowercorp.com

Australia (Sunpower Corporation Australia PTY LTD) contact number: +**61-8-9477-5888**.

Korea – SPK (SunPower Korea) contact number: (02) 3453-0941

REFERENCES:

- Center for Sustainable Building Research. College of Dean – University of Minnesota. All rights Reserved. JDP activity by the University of Minnesota and Lawrence Berkeley National Laboratory
- H.K Pulker, Coatings on Glass, (1999), 2ed, Elsevier, Amsterdam
- C.G Granqvist, Materials Science for Solar Energy Conversion Systems, (1991), Pergamon, G.B
- D. Chen, anti-reflection (AR) coatings made by sol-gel processes: A review, Solar energy Materials and Solar Cells, 68, (2000), 313-336
- P. Nostell, A. Roos, B. Karlsson, Antireflection of glazings for solar energy applications, Solar Energy Materials and Solar Cells, 54, (1998), 23-233
- M. Fukawa, T. Ikeda, T. Yonedaans K. Sato, Antireflective coatings y single layer with refractive index of 1.3, Proceedings of the 3rd International Conference on Coatings on Glass (ICGG), (2000), 257-264
- J. Karlsson and A. Roos, Modeling the angular behavior of the solar energy transmittance of windows, Solar Energy, 69, 4, (2000)
- J. Karlsson, B. Karlsson and A. Roos, A Simple model for assessing the energy efficiency of windows, In Press, Energy and Buildings