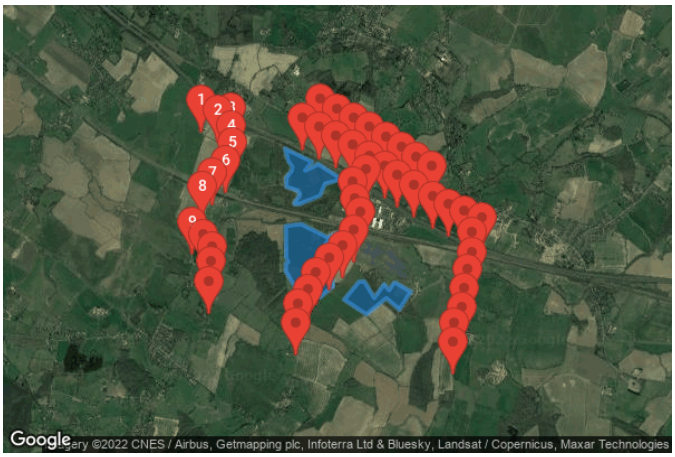
ForgeSolar

# East Stour Solar Farm

## East Stour Solar Farrm Road Receptors

**Created** Feb. 11, 2022
**Updated** Feb. 11, 2022
**Time-step** 1 minute
**Timezone offset** UTC0
**Site ID** 64771.11471

**Project type** Advanced
**Project status:** active
**Category** 10 MW to 100 MW




### 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**

Analysis Methodologies:
- Observation point: **Version 2**
- 2-Mile Flight Path: **Version 2**
- Route: **Version 2**

## Summary of Results Glare with potential for temporary after-image predicted

| PV Name | Tilt | Orientation | "Green" Glare | "Yellow" Glare | Energy Produced |
|---|---|---|---|---|---|
| | deg | deg | min | min | kWh |
| East Array | 20.0 | 180.0 | 819 | 17,193 | - |
| North Array | 20.0 | 180.0 | 170 | 50,403 | - |
| South Array | 20.0 | 180.0 | 232 | 54,978 | - |

## Component Data

## PV Array(s)

**Total PV footprint area:** 641,237 m^2

**Name**: East Array
**Footprint area**: 128,857 m^2
**Axis tracking**: Fixed (no rotation)
**Tilt**: 20.0 deg
**Orientation**: 180.0 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 | 51.099830 | 0.973250 | 55.58 | 3.00 | 58.58 |
| 2 | 51.099810 | 0.972427 | 55.74 | 3.00 | 58.74 |
| 3 | 51.098060 | 0.970130 | 65.93 | 3.00 | 68.93 |
| 4 | 51.096650 | 0.973570 | 59.44 | 3.00 | 62.44 |
| 5 | 51.098200 | 0.976640 | 59.09 | 3.00 | 62.09 |
| 6 | 51.097120 | 0.978630 | 69.31 | 3.00 | 72.31 |
| 7 | 51.098840 | 0.980410 | 59.51 | 3.00 | 62.51 |
| 8 | 51.099680 | 0.978090 | 59.46 | 3.00 | 62.46 |
| 9 | 51.099660 | 0.977750 | 58.81 | 3.00 | 61.81 |
| 10 | 51.098980 | 0.977040 | 57.64 | 3.00 | 60.64 |
| 11 | 51.099570 | 0.976310 | 56.98 | 3.00 | 59.98 |
| 12 | 51.098240 | 0.974790 | 59.01 | 3.00 | 62.01 |

**Name**: North Array
**Footprint area**: 166,744 m^2
**Axis tracking**: Fixed (no rotation)
**Tilt**: 20.0 deg
**Orientation**: 180.0 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 | 51.112610 | 0.961030 | 65.41 | 3.00 | 68.41 |
| 2 | 51.111440 | 0.961520 | 62.39 | 3.00 | 65.39 |
| 3 | 51.110830 | 0.962170 | 62.47 | 3.00 | 65.47 |
| 4 | 51.110430 | 0.962040 | 61.36 | 3.00 | 64.36 |
| 5 | 51.109800 | 0.961220 | 53.45 | 3.00 | 56.45 |
| 6 | 51.108930 | 0.961269 | 50.73 | 3.00 | 53.73 |
| 7 | 51.108580 | 0.962900 | 50.54 | 3.00 | 53.54 |
| 8 | 51.108250 | 0.963330 | 50.62 | 3.00 | 53.62 |
| 9 | 51.107780 | 0.962940 | 51.12 | 3.00 | 54.12 |
| 10 | 51.107440 | 0.962530 | 50.74 | 3.00 | 53.74 |
| 11 | 51.107250 | 0.962510 | 50.18 | 3.00 | 53.18 |
| 12 | 51.107250 | 0.963220 | 50.99 | 3.00 | 53.99 |
| 13 | 51.108090 | 0.966440 | 50.72 | 3.00 | 53.72 |
| 14 | 51.109220 | 0.967210 | 52.69 | 3.00 | 55.69 |
| 15 | 51.109650 | 0.969780 | 50.80 | 3.00 | 53.80 |
| 16 | 51.111120 | 0.966160 | 59.75 | 3.00 | 62.75 |
| 17 | 51.110500 | 0.964140 | 61.64 | 3.00 | 64.64 |
| 18 | 51.111330 | 0.965170 | 60.88 | 3.00 | 63.88 |

**Name**: South Array
**Footprint area**: 345,635 m^2
**Axis tracking**: Fixed (no rotation)
**Tilt**: 20.0 deg
**Orientation**: 180.0 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 | 51.105160 | 0.961160 | 50.98 | 3.00 | 53.98 |
| 2 | 51.102160 | 0.961200 | 64.02 | 3.00 | 67.02 |
| 3 | 51.101690 | 0.961520 | 65.71 | 3.00 | 68.71 |
| 4 | 51.101550 | 0.961160 | 63.97 | 3.00 | 66.97 |
| 5 | 51.100770 | 0.961160 | 64.17 | 3.00 | 67.17 |
| 6 | 51.098650 | 0.963180 | 60.40 | 3.00 | 63.40 |
| 7 | 51.098290 | 0.966420 | 67.36 | 3.00 | 70.36 |
| 8 | 51.099340 | 0.968430 | 67.83 | 3.00 | 70.83 |
| 9 | 51.102930 | 0.967720 | 57.50 | 3.00 | 60.50 |
| 10 | 51.103410 | 0.967250 | 54.53 | 3.00 | 57.53 |
| 11 | 51.103650 | 0.967620 | 51.96 | 3.00 | 54.96 |
| 12 | 51.103210 | 0.968970 | 54.01 | 3.00 | 57.01 |
| 13 | 51.103100 | 0.972270 | 52.86 | 3.00 | 55.86 |
| 14 | 51.103750 | 0.972620 | 51.80 | 3.00 | 54.80 |
| 15 | 51.104020 | 0.972040 | 50.90 | 3.00 | 53.90 |
| 16 | 51.104080 | 0.970080 | 51.65 | 3.00 | 54.65 |
| 17 | 51.103830 | 0.969980 | 51.92 | 3.00 | 54.92 |
| 18 | 51.103830 | 0.969360 | 51.96 | 3.00 | 54.96 |
| 19 | 51.104210 | 0.969270 | 51.21 | 3.00 | 54.21 |
| 20 | 51.104410 | 0.969420 | 50.39 | 3.00 | 53.39 |
| 21 | 51.104520 | 0.969250 | 49.90 | 3.00 | 52.90 |
| 22 | 51.104080 | 0.967550 | 50.48 | 3.00 | 53.48 |
| 23 | 51.105350 | 0.963520 | 51.03 | 3.00 | 54.03 |

## Discrete Observation Receptors

| Number | Latitude | Longitude | Ground elevation | Height above ground | Total Elevation |
|---|---|---|---|---|---|
| | deg | deg | m | m | m |
| OP 1 | 51.114049 | 0.948245 | 73.95 | 1.50 | 75.45 |
| OP 2 | 51.113066 | 0.950734 | 74.01 | 1.50 | 75.51 |
| OP 3 | 51.113321 | 0.952772 | 74.02 | 1.50 | 75.52 |
| OP 4 | 51.111584 | 0.952879 | 69.76 | 1.50 | 71.26 |
| OP 5 | 51.109954 | 0.952901 | 69.08 | 1.50 | 70.58 |
| OP 6 | 51.108216 | 0.951871 | 58.61 | 1.50 | 60.11 |
| OP 7 | 51.107098 | 0.949930 | 58.00 | 1.50 | 59.50 |
| OP 8 | 51.105744 | 0.948385 | 48.49 | 1.50 | 49.99 |
| OP 9 | 51.102328 | 0.946797 | 46.27 | 1.50 | 47.77 |
| OP 10 | 51.101156 | 0.948599 | 46.85 | 1.50 | 48.35 |
| OP 11 | 51.099970 | 0.949865 | 49.95 | 1.50 | 51.45 |
| OP 12 | 51.098596 | 0.949715 | 54.52 | 1.50 | 56.02 |
| OP 13 | 51.096601 | 0.949415 | 59.43 | 1.50 | 60.93 |
| OP 14 | 51.090820 | 0.986901 | 90.11 | 1.50 | 91.61 |
| OP 15 | 51.092585 | 0.987180 | 87.47 | 1.50 | 88.97 |
| OP 16 | 51.094189 | 0.988339 | 83.78 | 1.50 | 85.28 |
| OP 17 | 51.095968 | 0.988661 | 77.96 | 1.50 | 79.46 |
| OP 18 | 51.097828 | 0.989154 | 62.75 | 1.50 | 64.25 |
| OP 19 | 51.099391 | 0.989884 | 55.80 | 1.50 | 57.30 |
| OP 20 | 51.101345 | 0.989927 | 60.41 | 1.50 | 61.91 |
| OP 21 | 51.102786 | 0.991472 | 62.90 | 1.50 | 64.40 |
| OP 22 | 51.103406 | 0.988768 | 61.90 | 1.50 | 63.40 |
| OP 23 | 51.104080 | 0.986344 | 61.06 | 1.50 | 62.56 |
| OP 24 | 51.104834 | 0.983897 | 60.62 | 1.50 | 62.12 |
| OP 25 | 51.105858 | 0.980893 | 59.87 | 1.50 | 61.37 |
| OP 26 | 51.106882 | 0.978426 | 58.96 | 1.50 | 60.46 |
| OP 27 | 51.107744 | 0.976473 | 55.73 | 1.50 | 57.23 |
| OP 28 | 51.108674 | 0.974134 | 57.89 | 1.50 | 59.39 |
| OP 29 | 51.109738 | 0.971495 | 58.27 | 1.50 | 59.77 |
| OP 30 | 51.110668 | 0.968941 | 58.05 | 1.50 | 59.55 |
| OP 31 | 51.111516 | 0.966409 | 59.56 | 1.50 | 61.06 |
| OP 32 | 51.112325 | 0.963856 | 61.28 | 1.50 | 62.78 |
| OP 33 | 51.114157 | 0.966474 | 65.30 | 1.50 | 66.80 |
| OP 34 | 51.113227 | 0.969134 | 62.65 | 1.50 | 64.15 |
| OP 35 | 51.112311 | 0.971688 | 57.61 | 1.50 | 59.11 |
| OP 36 | 51.111463 | 0.974091 | 54.23 | 1.50 | 55.73 |
| OP 37 | 51.110560 | 0.976645 | 54.90 | 1.50 | 56.40 |
| OP 38 | 51.109562 | 0.979029 | 61.52 | 1.50 | 63.02 |
| OP 39 | 51.108605 | 0.981218 | 62.96 | 1.50 | 64.46 |
| OP 40 | 51.107770 | 0.983772 | 60.39 | 1.50 | 61.89 |
| OP 41 | 51.107379 | 0.973558 | 51.97 | 1.50 | 53.47 |
| OP 42 | 51.106248 | 0.971476 | 52.63 | 1.50 | 54.13 |
| OP 43 | 51.104577 | 0.971884 | 51.17 | 1.50 | 52.67 |
| OP 44 | 51.103310 | 0.972657 | 53.05 | 1.50 | 54.55 |
| OP 45 | 51.101545 | 0.971734 | 55.25 | 1.50 | 56.75 |
| OP 46 | 51.100023 | 0.970039 | 57.18 | 1.50 | 58.68 |
| OP 47 | 51.098850 | 0.967893 | 71.42 | 1.50 | 72.92 |
| OP 48 | 51.097503 | 0.965812 | 59.58 | 1.50 | 61.08 |
| OP 49 | 51.095899 | 0.964610 | 53.73 | 1.50 | 55.23 |
| OP 50 | 51.094498 | 0.963065 | 51.67 | 1.50 | 53.17 |
| OP 51 | 51.092638 | 0.962829 | 56.52 | 1.50 | 58.02 |

# 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 | |
| East Array | 20.0 | 180.0 | 819 | 17,193 | - | - |
| North Array | 20.0 | 180.0 | 170 | 50,403 | - | - |
| South Array | 20.0 | 180.0 | 232 | 54,978 | - | - |

## 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 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| east-array (green) | 0 | 0 | 10 | 14 | 0 | 0 | 0 | 5 | 24 | 0 | 0 | 0 |
| east-array (yellow) | 0 | 0 | 528 | 1848 | 1883 | 1091 | 1521 | 2104 | 1018 | 34 | 0 | 0 |
| north-array (green) | 0 | 0 | 9 | 0 | 0 | 0 | 0 | 0 | 7 | 0 | 0 | 0 |
| north-array (yellow) | 0 | 0 | 449 | 1331 | 1547 | 1284 | 1471 | 1522 | 863 | 1 | 0 | 0 |
| south-array (green) | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| south-array (yellow) | 0 | 36 | 1334 | 2845 | 3727 | 3770 | 3817 | 3362 | 1879 | 318 | 0 | 0 |

# PV & Receptor Analysis Results

*Results for each PV array and receptor*

## East Array potential temporary after-image

| 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 | 3 | 0 |
| OP: OP 11 | 128 | 0 |
| OP: OP 12 | 331 | 130 |
| OP: OP 13 | 261 | 446 |
| OP: OP 14 | 0 | 0 |
| OP: OP 15 | 0 | 166 |
| OP: OP 16 | 0 | 1356 |
| OP: OP 17 | 2 | 2196 |
| OP: OP 18 | 46 | 985 |
| OP: OP 19 | 44 | 49 |
| 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 | 29 |
| OP: OP 47 | 0 | 3857 |
| OP: OP 48 | 0 | 1873 |
| OP: OP 49 | 3 | 2772 |
| OP: OP 50 | 1 | 2314 |
| OP: OP 51 | 0 | 1020 |

### East Array - OP Receptor (OP 1)

*No glare found*

### East Array - OP Receptor (OP 2)

*No glare found*

### East Array - OP Receptor (OP 3)

*No glare found*

### East Array - OP Receptor (OP 4)

*No glare found*

### East Array - OP Receptor (OP 5)

*No glare found*

### East Array - OP Receptor (OP 6)

*No glare found*

### East Array - OP Receptor (OP 7)

*No glare found*

### East Array - OP Receptor (OP 8)

*No glare found*

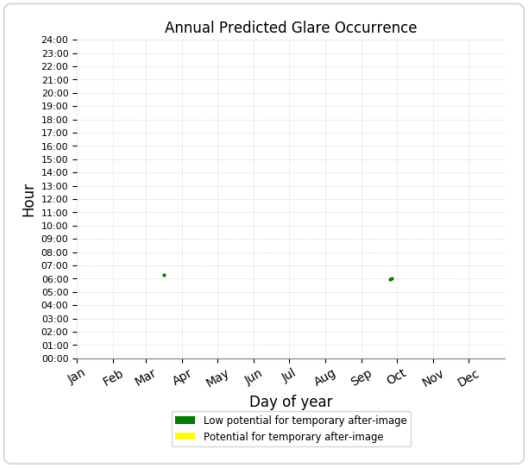
### East Array - OP Receptor (OP 9)

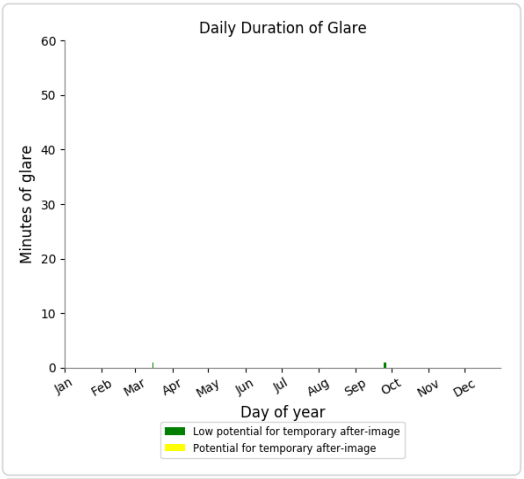
*No glare found*

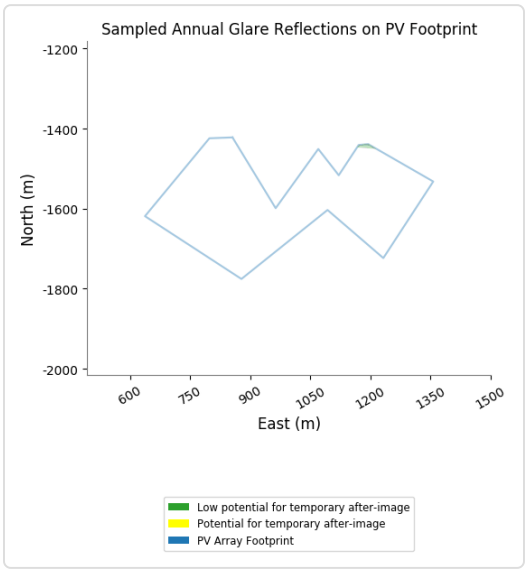
## East Array - OP Receptor (OP 10)

PV array is expected to produce the following glare for receptors at this location:

- 3 minutes of "green" glare with low potential to cause temporary after-image.
- 0 minutes of "yellow" glare with potential to cause temporary after-image.



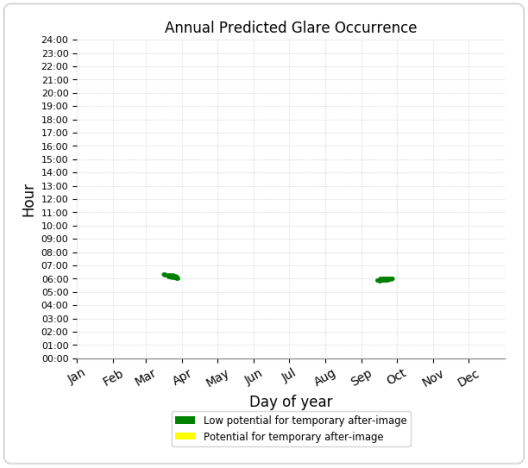



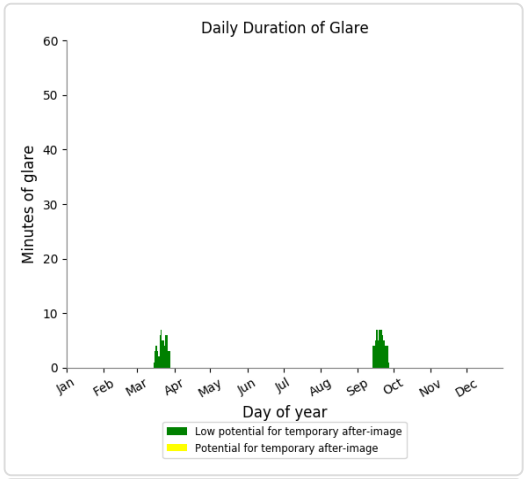



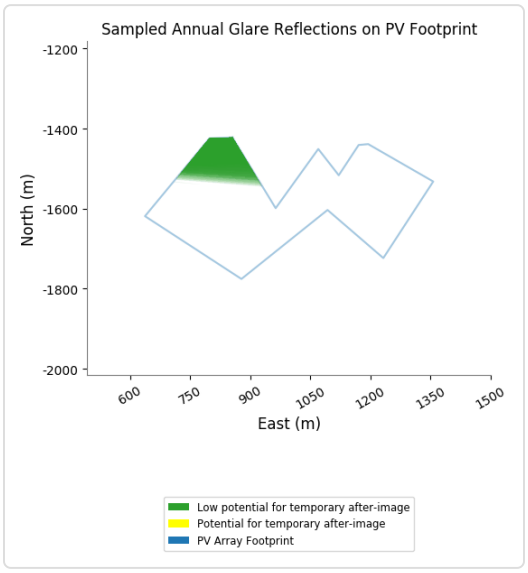

## East Array - OP Receptor (OP 11)

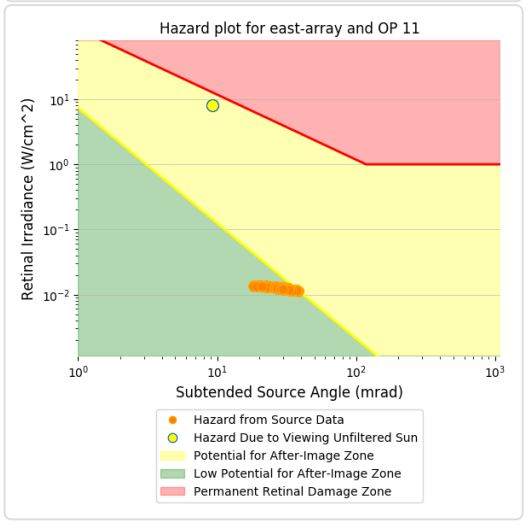
PV array is expected to produce the following glare for receptors at this location:

- 128 minutes of "green" glare with low potential to cause temporary after-image.
- 0 minutes of "yellow" glare with potential to cause temporary after-image.



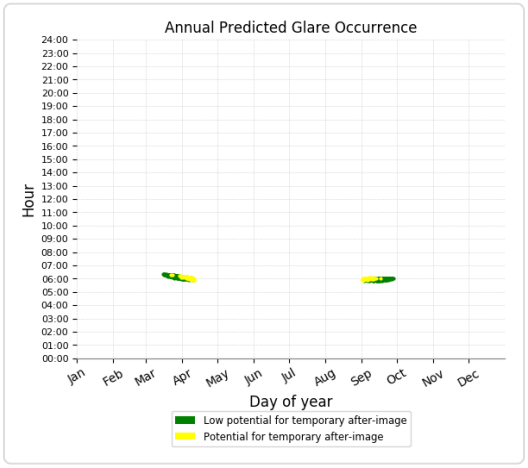



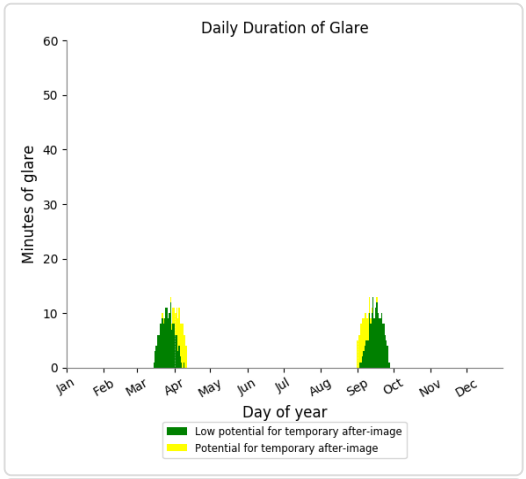



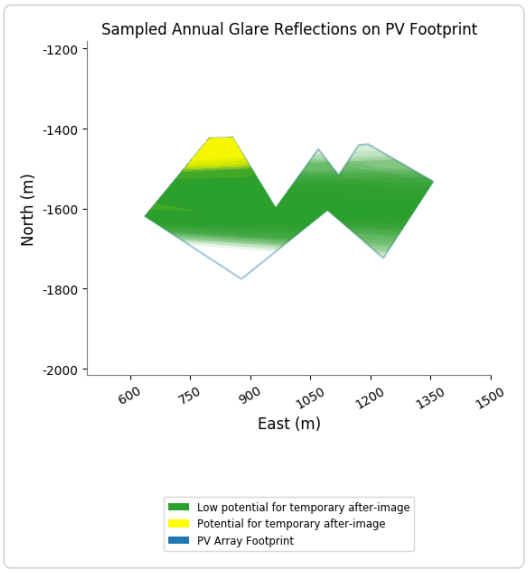
## East Array - OP Receptor (OP 12)

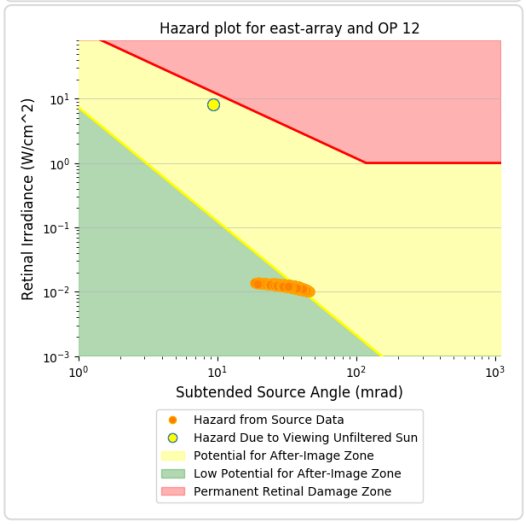
PV array is expected to produce the following glare for receptors at this location:

- 331 minutes of "green" glare with low potential to cause temporary after-image.
- 130 minutes of "yellow" glare with potential to cause temporary after-image.



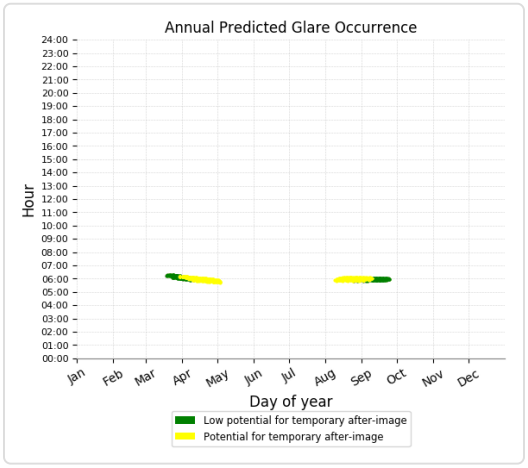



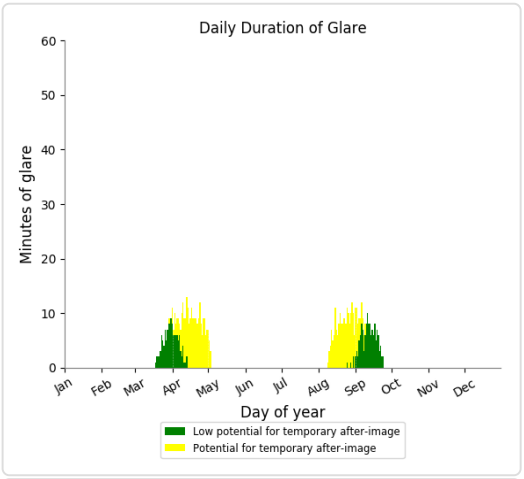



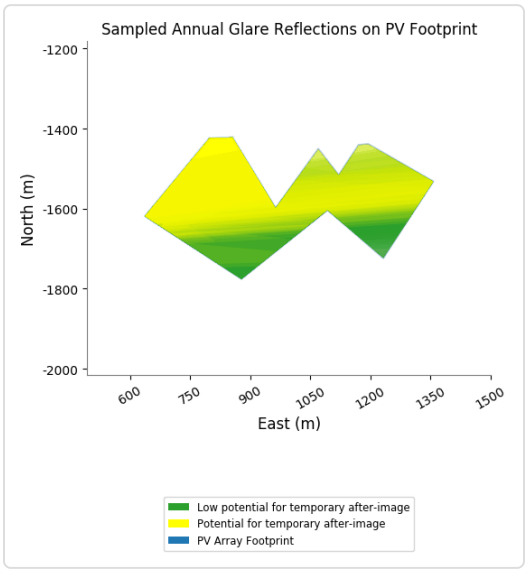
## East Array - OP Receptor (OP 13)

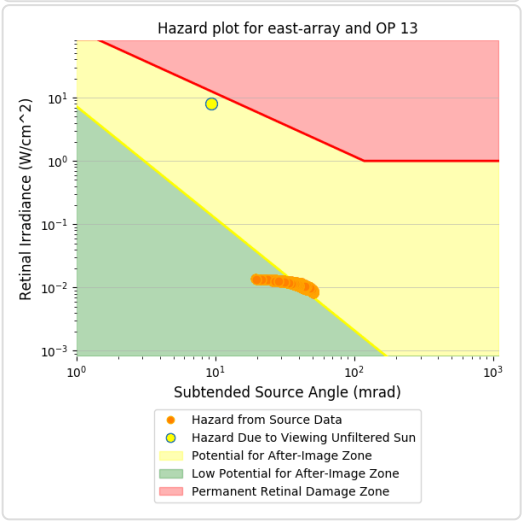
PV array is expected to produce the following glare for receptors at this location:

- 261 minutes of "green" glare with low potential to cause temporary after-image.
- 446 minutes of "yellow" glare with potential to cause temporary after-image.



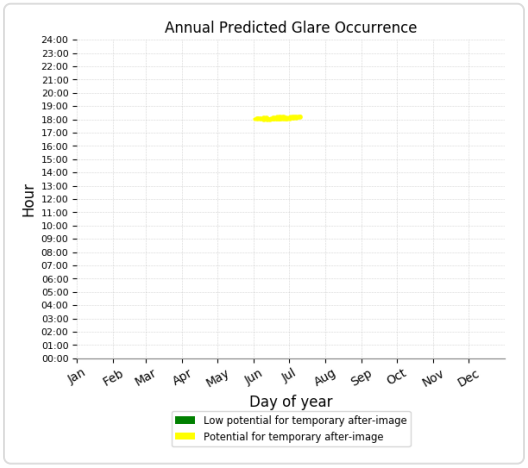

## East Array - OP Receptor (OP 14)

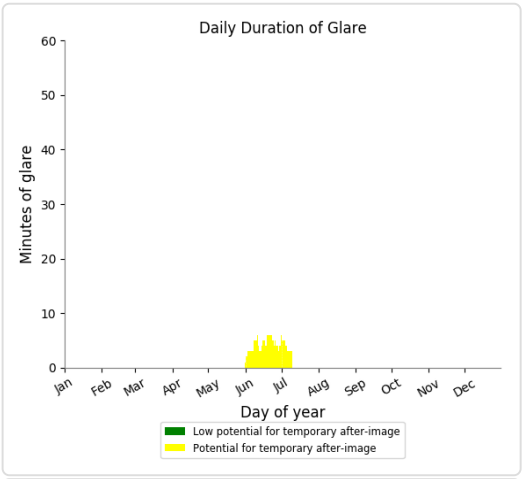
*No glare found*

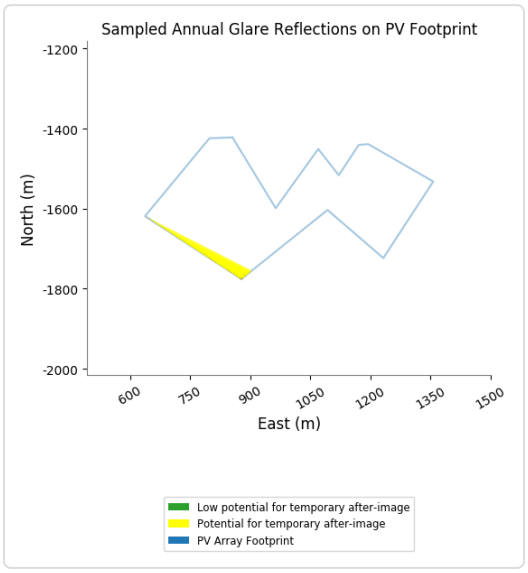
## East Array - OP Receptor (OP 15)

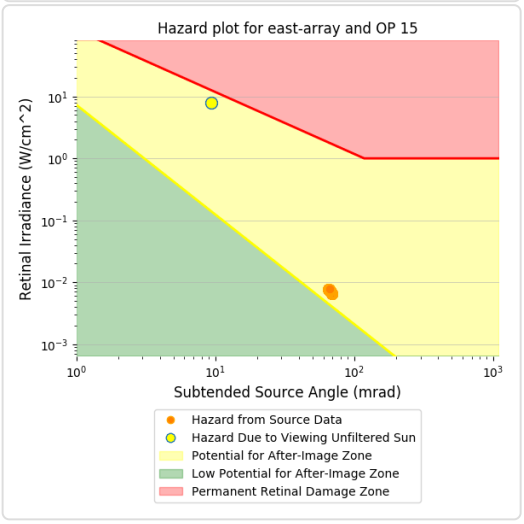
PV array is expected to produce the following glare for receptors at this location:

- 0 minutes of "green" glare with low potential to cause temporary after-image.
- 166 minutes of "yellow" glare with potential to cause temporary after-image.



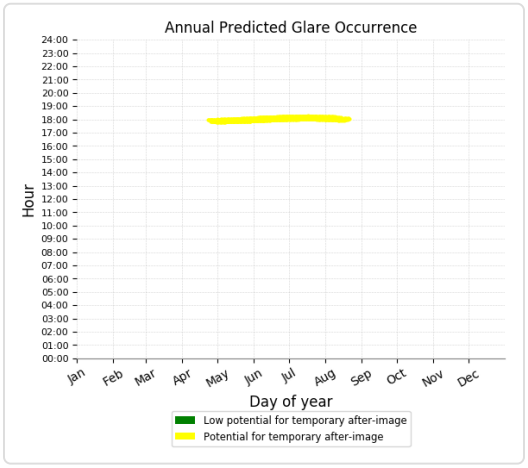



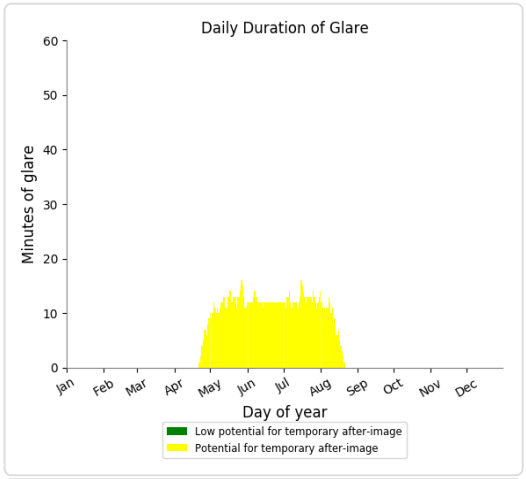



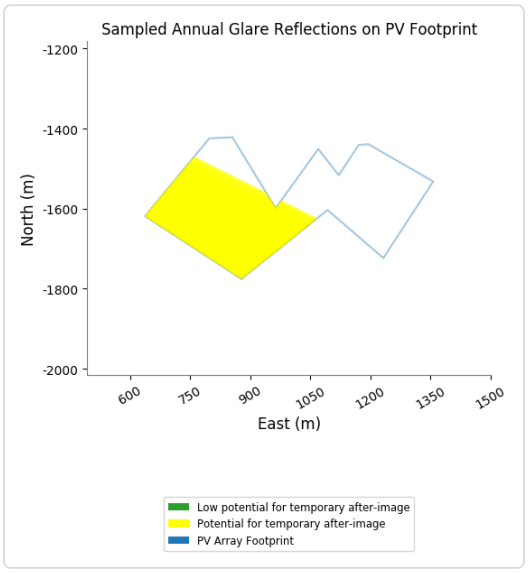
## East Array - OP Receptor (OP 16)

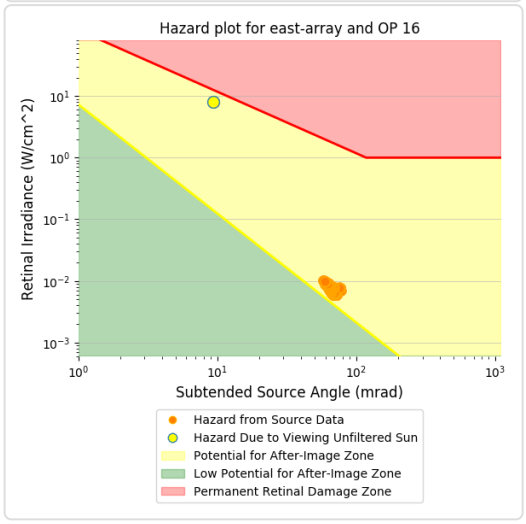
PV array is expected to produce the following glare for receptors at this location:

- 0 minutes of "green" glare with low potential to cause temporary after-image.
- 1,356 minutes of "yellow" glare with potential to cause temporary after-image.



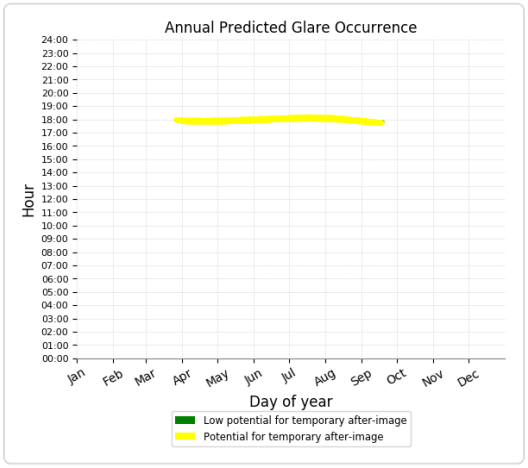



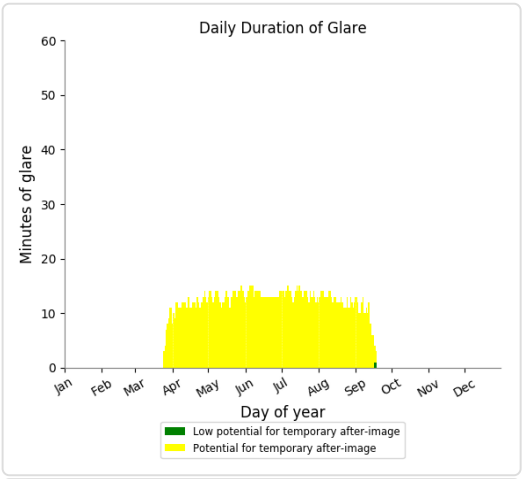



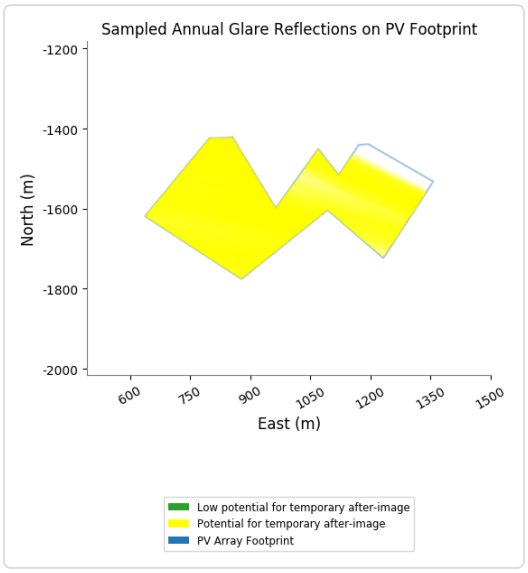
## East Array - OP Receptor (OP 17)

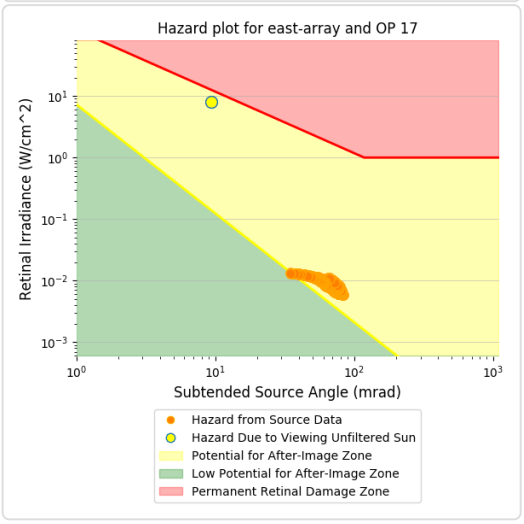
PV array is expected to produce the following glare for receptors at this location:

- 2 minutes of "green" glare with low potential to cause temporary after-image.
- 2,196 minutes of "yellow" glare with potential to cause temporary after-image.



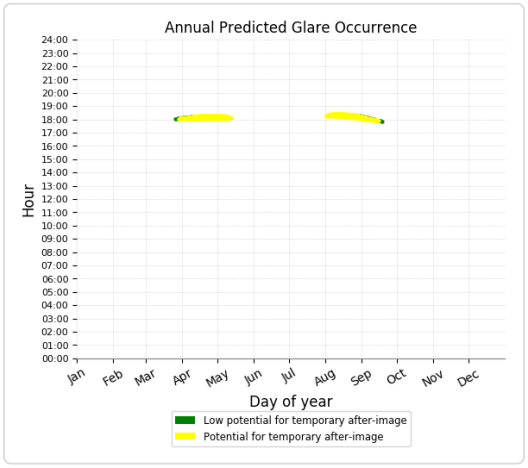



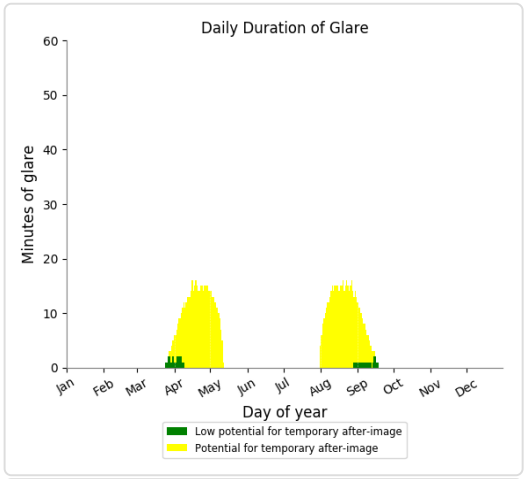



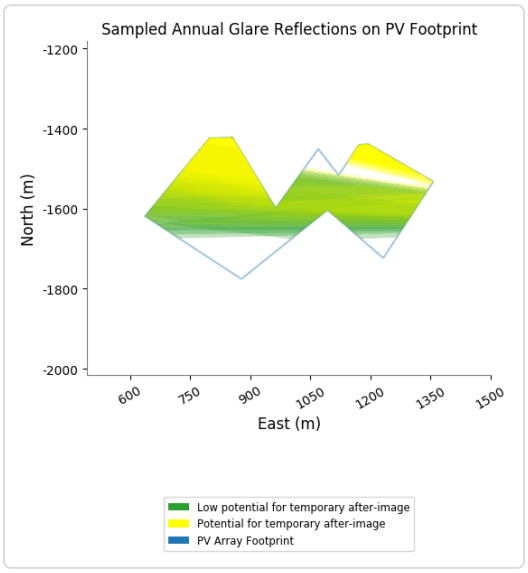
## East Array - OP Receptor (OP 18)

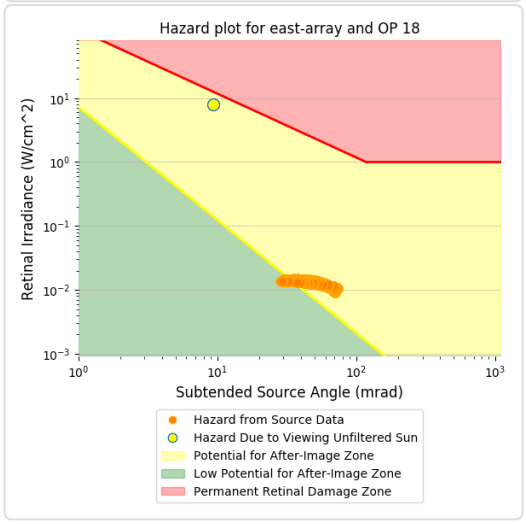
PV array is expected to produce the following glare for receptors at this location:

- 46 minutes of "green" glare with low potential to cause temporary after-image.
- 985 minutes of "yellow" glare with potential to cause temporary after-image.



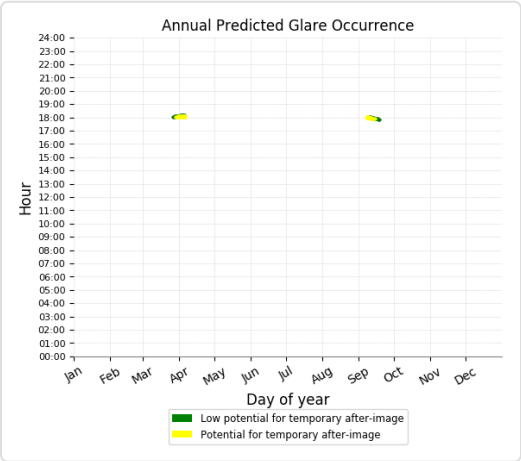



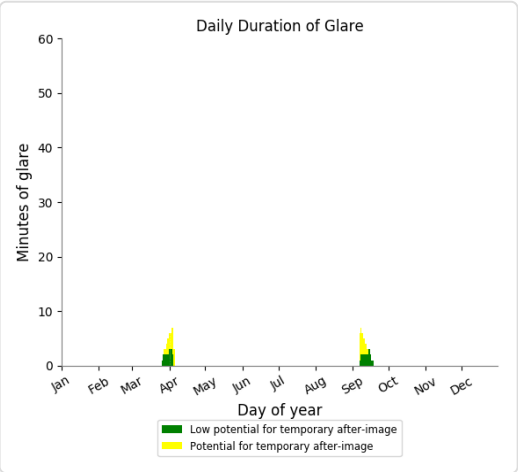



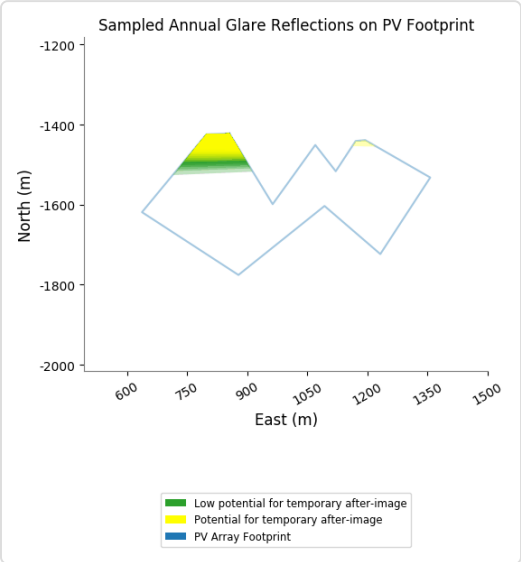
## East Array - OP Receptor (OP 19)

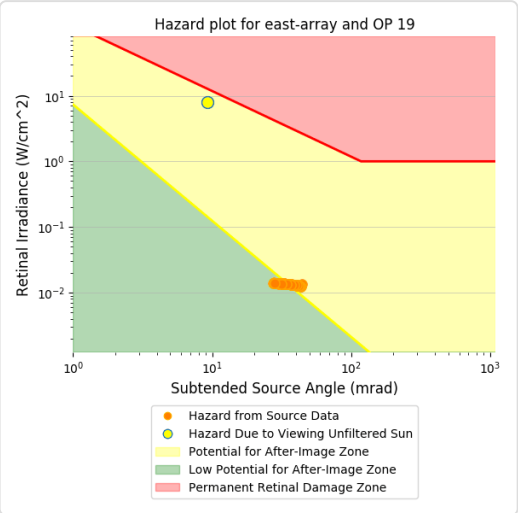
PV array is expected to produce the following glare for receptors at this location:

- 44 minutes of "green" glare with low potential to cause temporary after-image.
- 49 minutes of "yellow" glare with potential to cause temporary after-image.




## East Array - OP Receptor (OP 20)

*No glare found*

## East Array - OP Receptor (OP 21)

*No glare found*

## East Array - OP Receptor (OP 22)

*No glare found*

## East Array - OP Receptor (OP 23)

*No glare found*

## East Array - OP Receptor (OP 24)

*No glare found*

## East Array - OP Receptor (OP 25)

*No glare found*

## East Array - OP Receptor (OP 26)

*No glare found*

## East Array - OP Receptor (OP 27)

*No glare found*

### East Array - OP Receptor (OP 28)
*No glare found*

### East Array - OP Receptor (OP 29)
*No glare found*

### East Array - OP Receptor (OP 30)
*No glare found*

### East Array - OP Receptor (OP 31)
*No glare found*

### East Array - OP Receptor (OP 32)
*No glare found*

### East Array - OP Receptor (OP 33)
*No glare found*

### East Array - OP Receptor (OP 34)
*No glare found*

### East Array - OP Receptor (OP 35)
*No glare found*

### East Array - OP Receptor (OP 36)
*No glare found*

### East Array - OP Receptor (OP 37)
*No glare found*

### East Array - OP Receptor (OP 38)
*No glare found*

### East Array - OP Receptor (OP 39)
*No glare found*

### East Array - OP Receptor (OP 40)
*No glare found*

### East Array - OP Receptor (OP 41)
*No glare found*

### East Array - OP Receptor (OP 42)
*No glare found*

### East Array - OP Receptor (OP 43)
*No glare found*

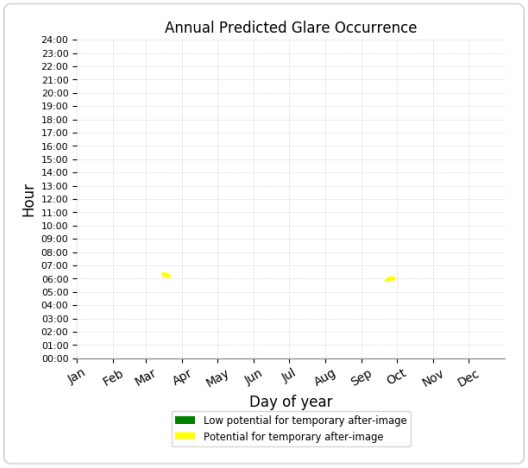
### East Array - OP Receptor (OP 44)
*No glare found*

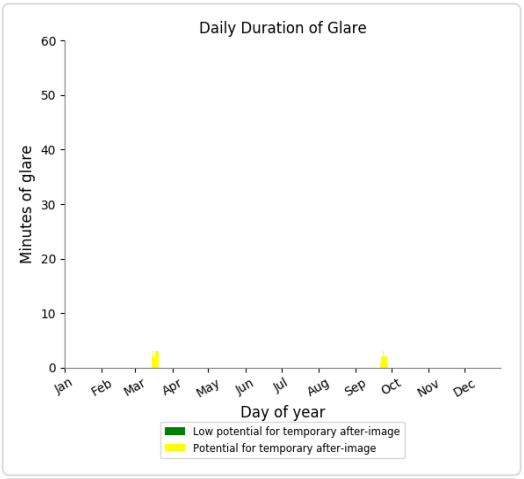
### East Array - OP Receptor (OP 45)
*No glare found*

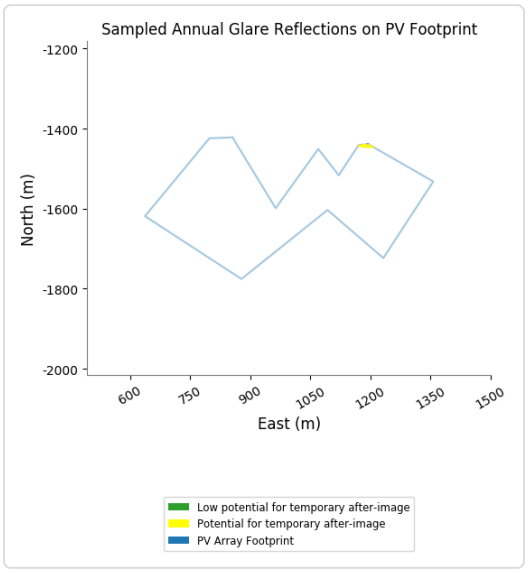
## East Array - OP Receptor (OP 46)

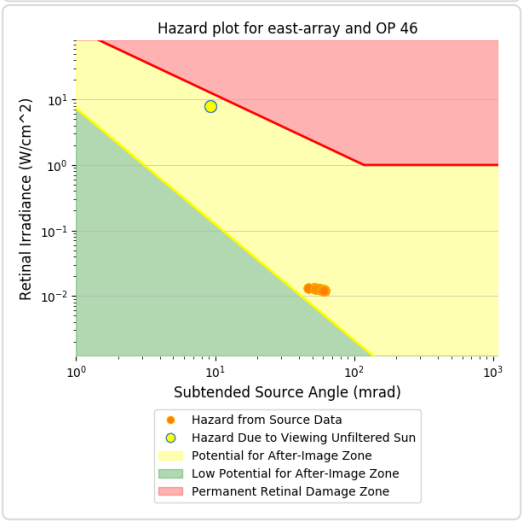
PV array is expected to produce the following glare for receptors at this location:

- 0 minutes of "green" glare with low potential to cause temporary after-image.
- 29 minutes of "yellow" glare with potential to cause temporary after-image.



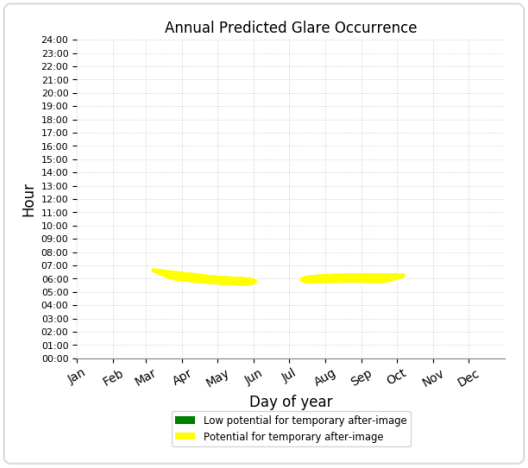



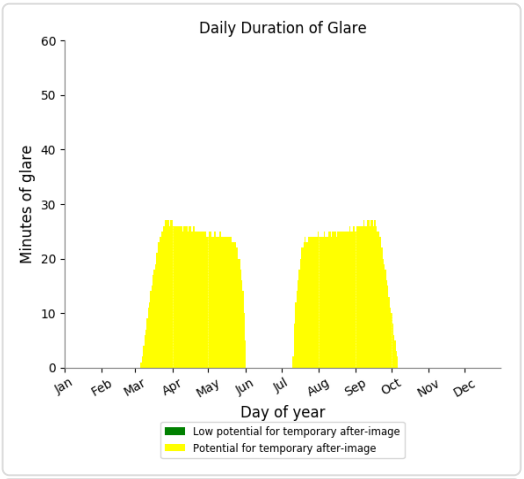



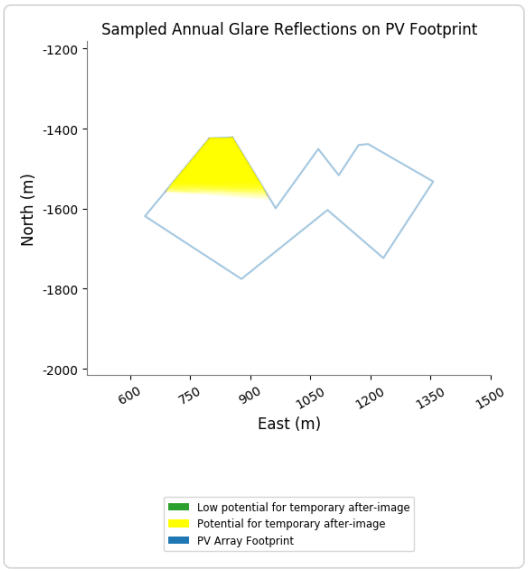
## East Array - OP Receptor (OP 47)

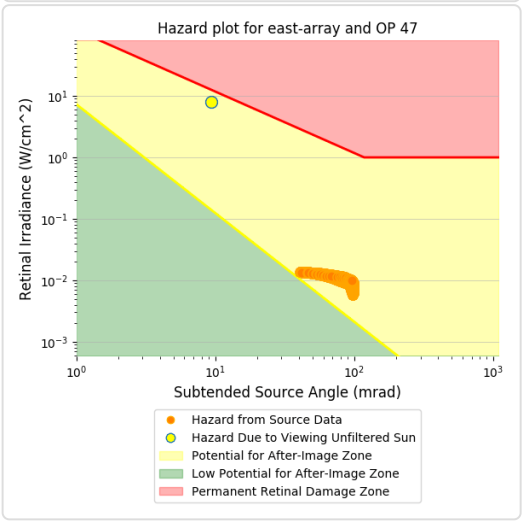
PV array is expected to produce the following glare for receptors at this location:

- 0 minutes of "green" glare with low potential to cause temporary after-image.
- 3,857 minutes of "yellow" glare with potential to cause temporary after-image.



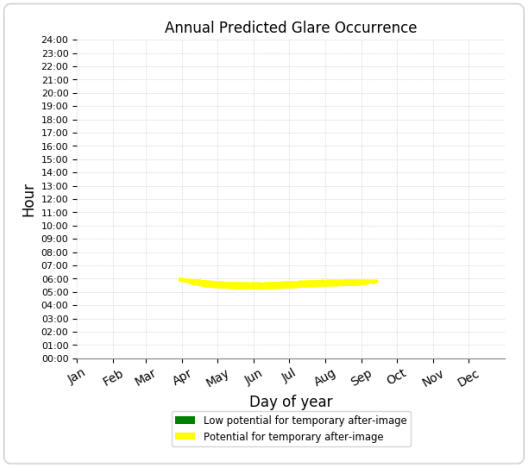



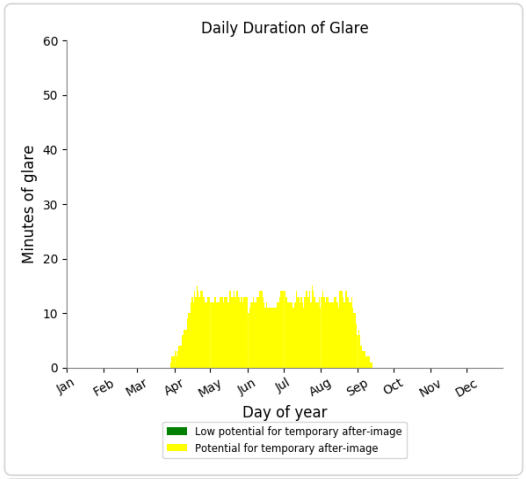



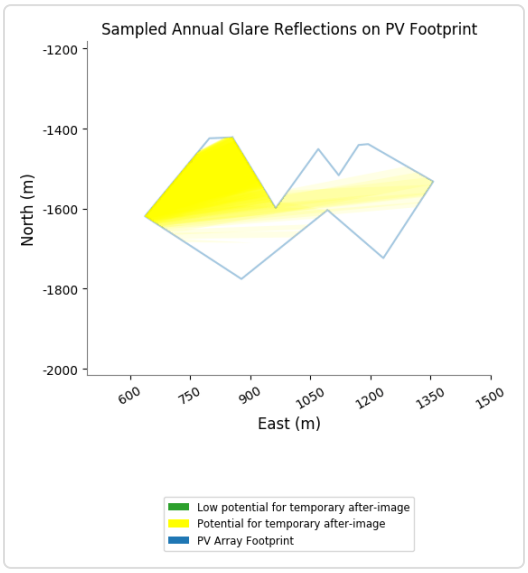
## East Array - OP Receptor (OP 48)

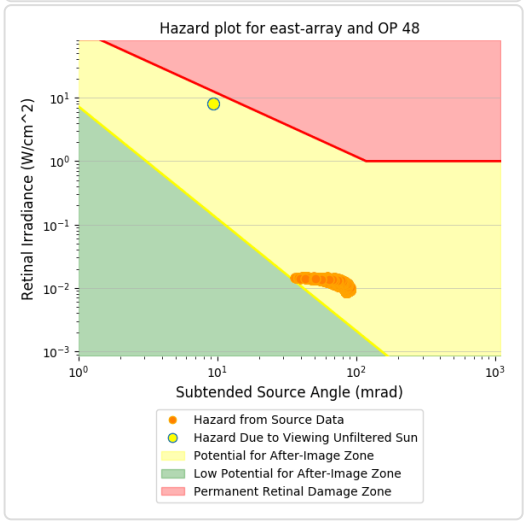
PV array is expected to produce the following glare for receptors at this location:

- 0 minutes of "green" glare with low potential to cause temporary after-image.
- 1,873 minutes of "yellow" glare with potential to cause temporary after-image.



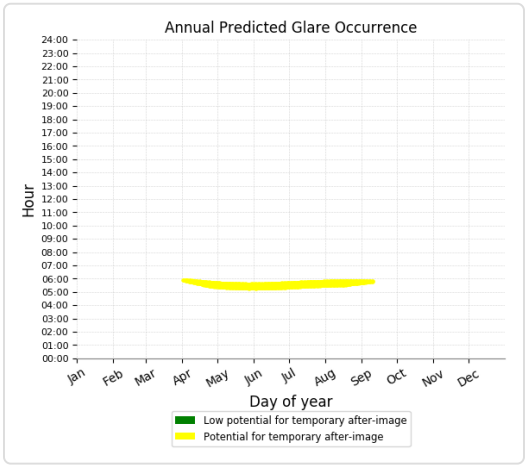



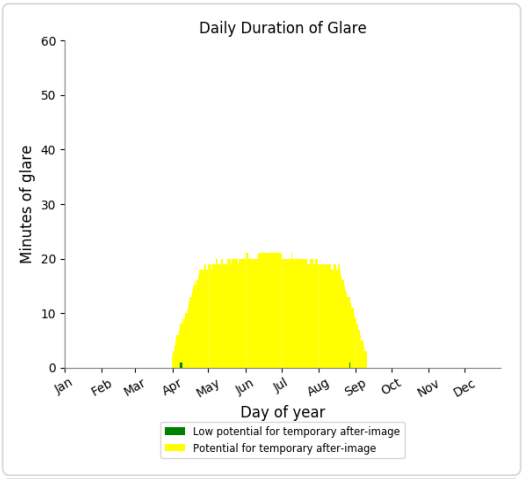



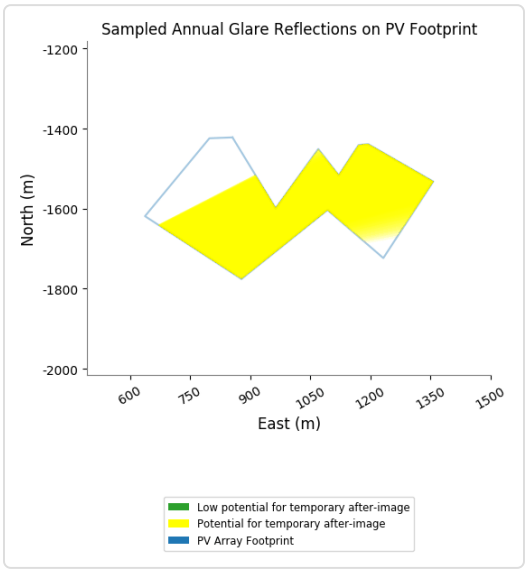
## East Array - OP Receptor (OP 49)

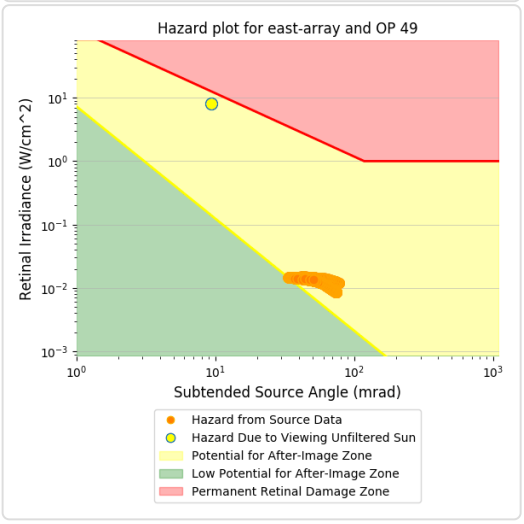
PV array is expected to produce the following glare for receptors at this location:

- 3 minutes of "green" glare with low potential to cause temporary after-image.
- 2,772 minutes of "yellow" glare with potential to cause temporary after-image.



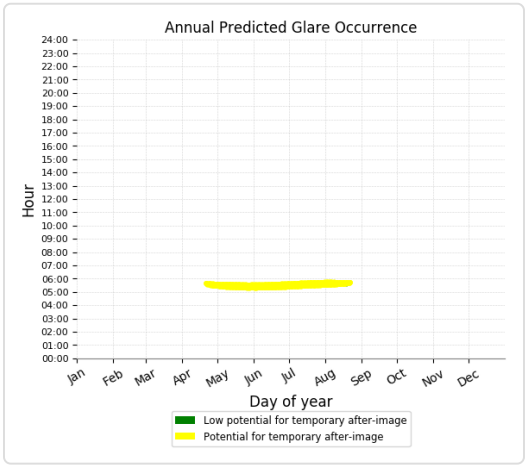



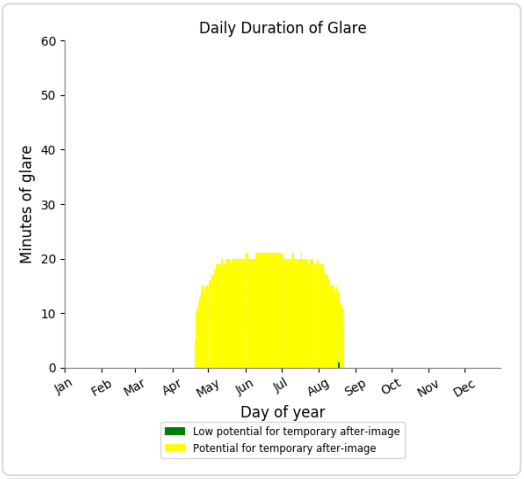



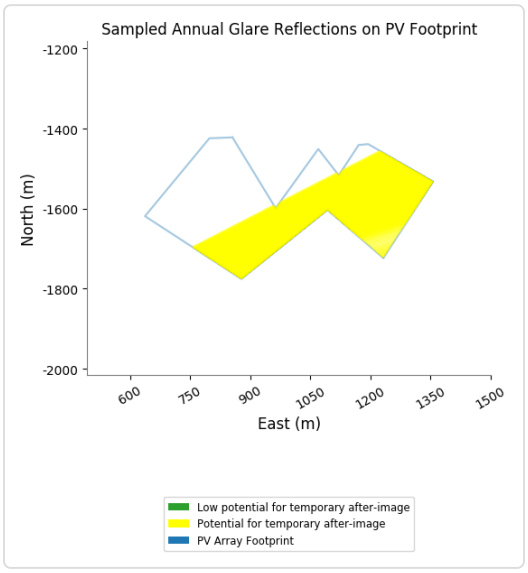
## East Array - OP Receptor (OP 50)

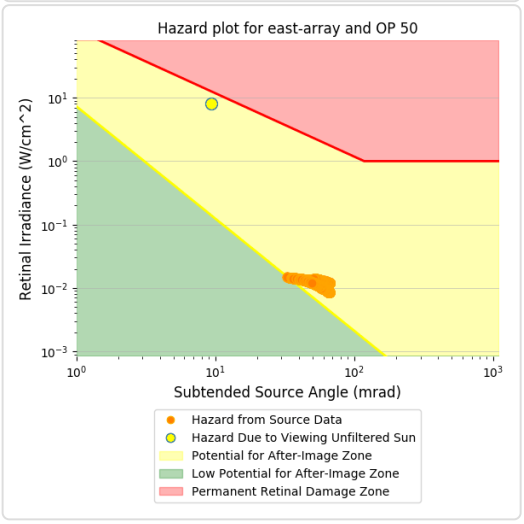
PV array is expected to produce the following glare for receptors at this location:

- 1 minutes of "green" glare with low potential to cause temporary after-image.
- 2,314 minutes of "yellow" glare with potential to cause temporary after-image.



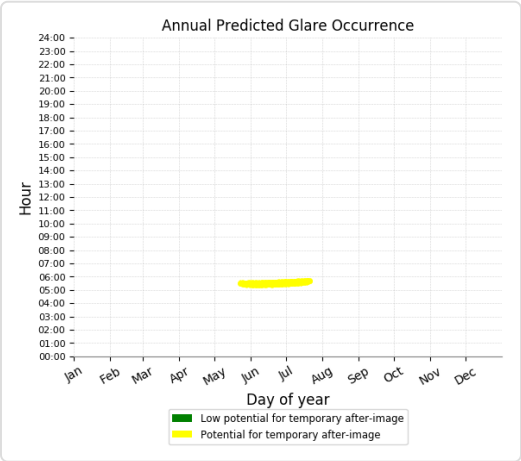



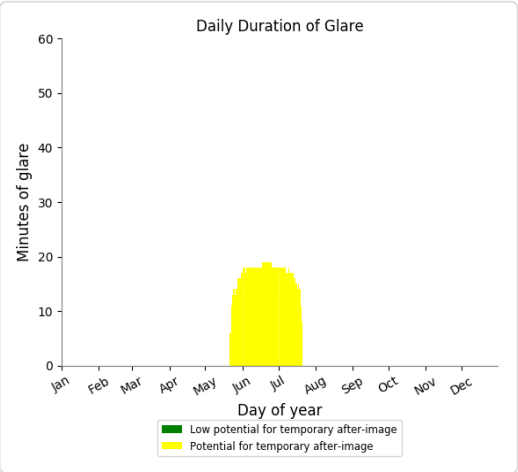



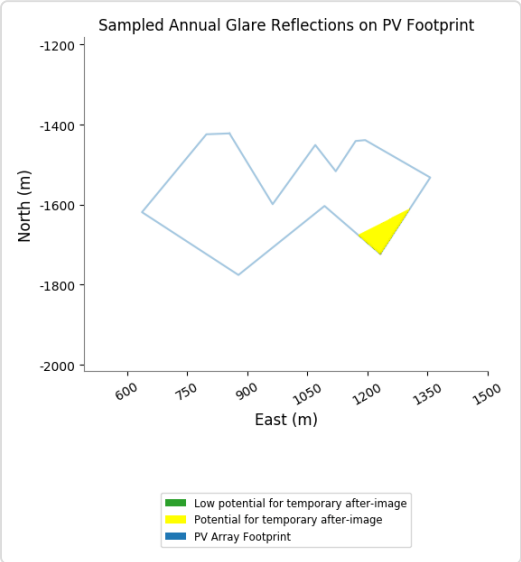
## East Array - OP Receptor (OP 51)

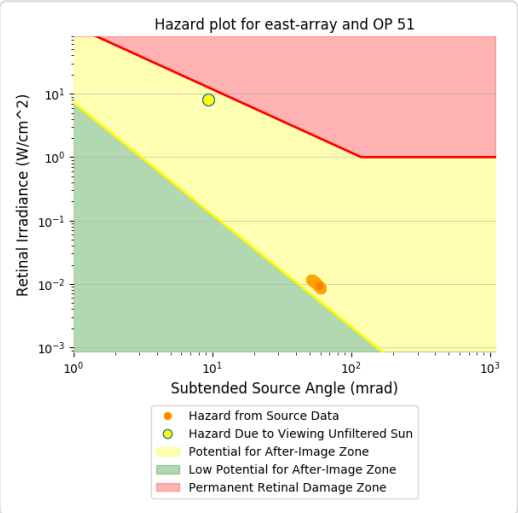
PV array is expected to produce the following glare for receptors at this location:

- 0 minutes of "green" glare with low potential to cause temporary after-image.
- 1,020 minutes of "yellow" glare with potential to cause temporary after-image.




## North Array potential temporary after-image

| Component | Green glare (min) | Yellow glare (min) |
|---|---|---|
| OP: OP 1 | 0 | 0 |
| OP: OP 2 | 0 | 71 |
| OP: OP 3 | 0 | 0 |
| OP: OP 4 | 0 | 1281 |
| OP: OP 5 | 0 | 3357 |
| OP: OP 6 | 0 | 2659 |
| OP: OP 7 | 1 | 2786 |
| OP: OP 8 | 0 | 0 |
| OP: OP 9 | 0 | 297 |
| 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 | 774 |
| OP: OP 20 | 0 | 1682 |
| OP: OP 21 | 6 | 2189 |
| OP: OP 22 | 0 | 2247 |
| OP: OP 23 | 0 | 2316 |
| OP: OP 24 | 0 | 2502 |
| OP: OP 25 | 0 | 2749 |
| OP: OP 26 | 19 | 3048 |
| OP: OP 27 | 1 | 2846 |
| OP: OP 28 | 0 | 3046 |
| OP: OP 29 | 0 | 2109 |
| OP: OP 30 | 0 | 1801 |
| OP: OP 31 | 0 | 1224 |
| OP: OP 32 | 0 | 361 |
| OP: OP 33 | 0 | 0 |
| OP: OP 34 | 0 | 0 |
| OP: OP 35 | 0 | 24 |
| OP: OP 36 | 0 | 261 |
| OP: OP 37 | 18 | 472 |
| OP: OP 38 | 4 | 1459 |
| OP: OP 39 | 33 | 1904 |
| OP: OP 40 | 88 | 1910 |
| OP: OP 41 | 0 | 1927 |
| OP: OP 42 | 0 | 2333 |
| OP: OP 43 | 0 | 768 |
| 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 |

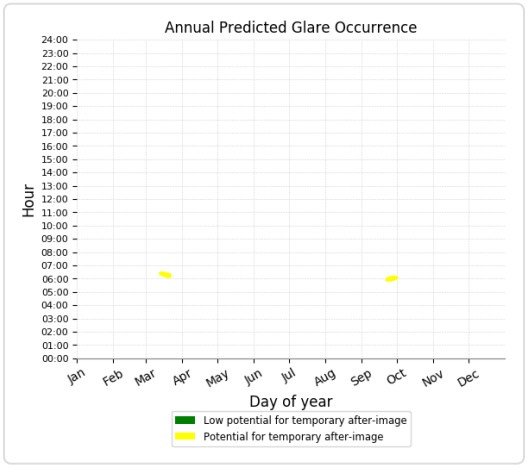
## North Array - OP Receptor (OP 1)

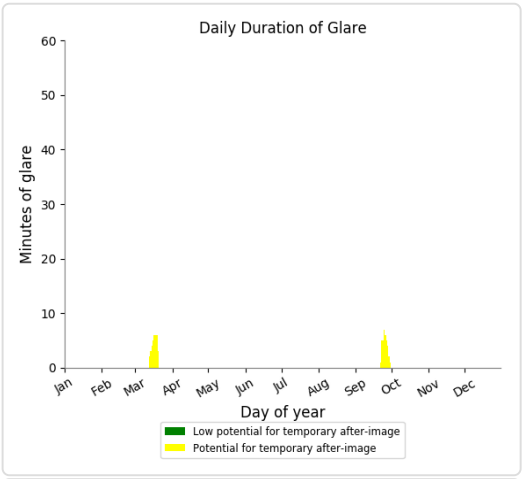
*No glare found*

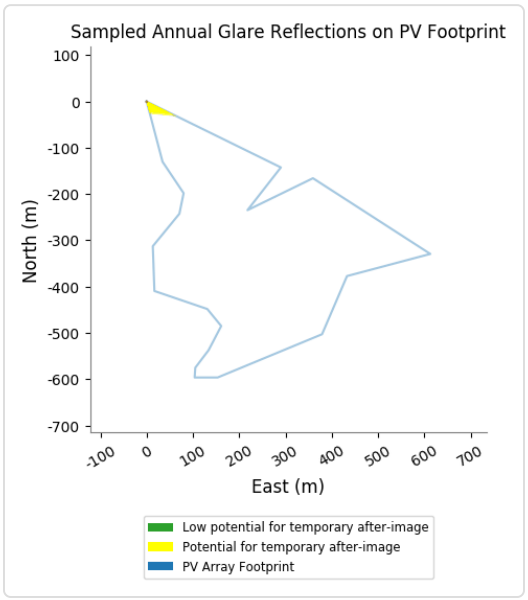
## North Array - OP Receptor (OP 2)

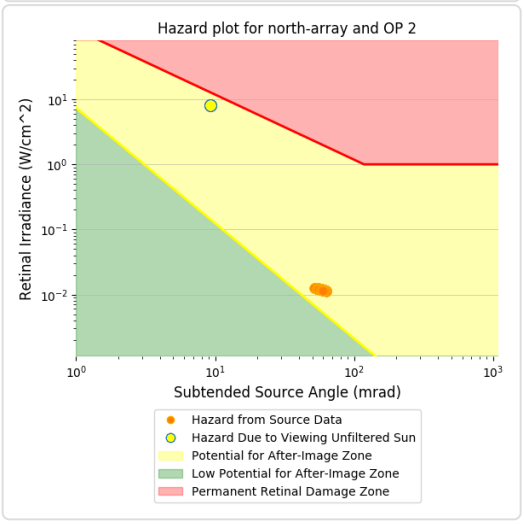
PV array is expected to produce the following glare for receptors at this location:

- 0 minutes of "green" glare with low potential to cause temporary after-image.
- 71 minutes of "yellow" glare with potential to cause temporary after-image.



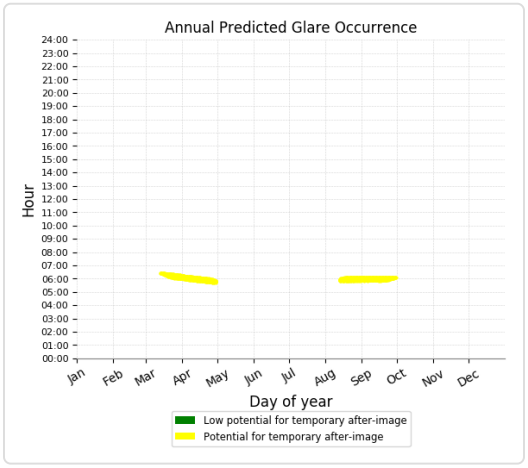

## North Array - OP Receptor (OP 3)

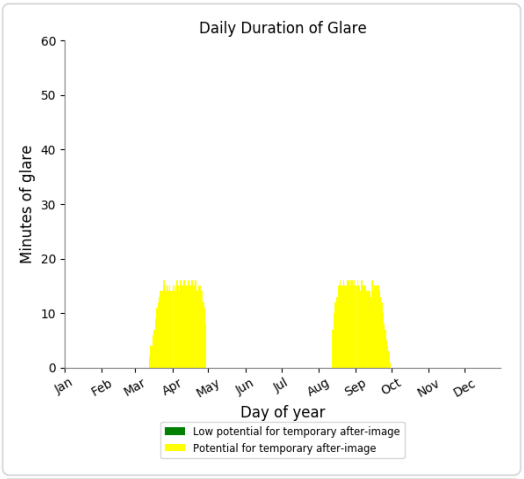
*No glare found*

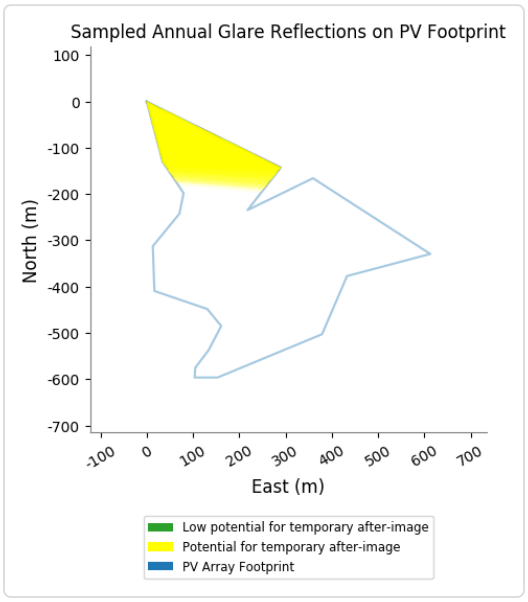
## North Array - OP Receptor (OP 4)

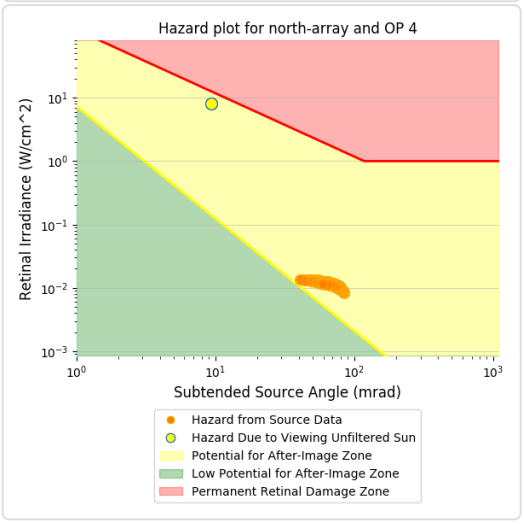
PV array is expected to produce the following glare for receptors at this location:

- 0 minutes of "green" glare with low potential to cause temporary after-image.
- 1,281 minutes of "yellow" glare with potential to cause temporary after-image.



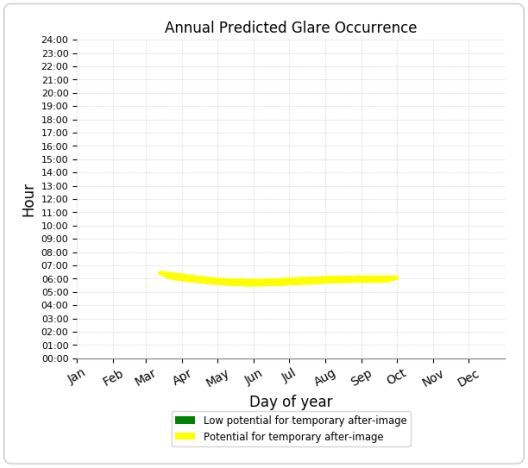



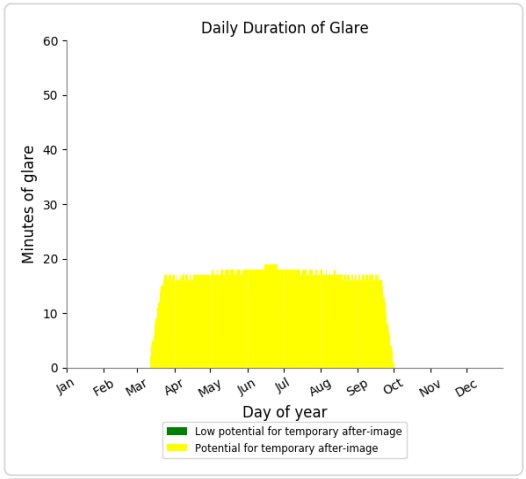



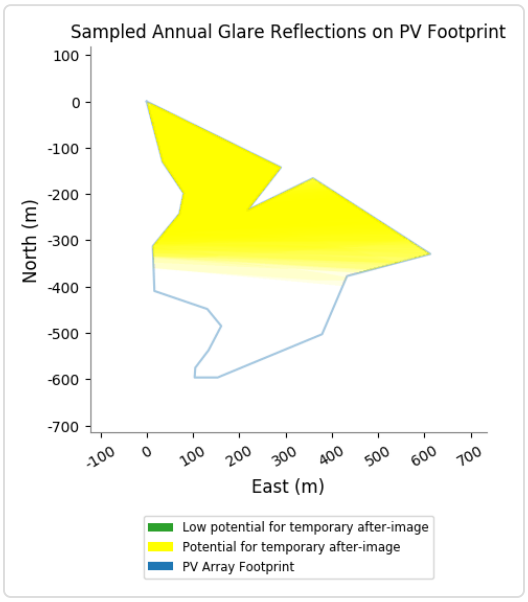
## North Array - OP Receptor (OP 5)

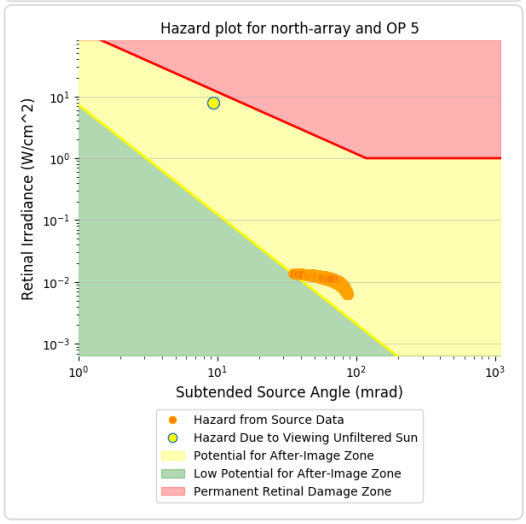
PV array is expected to produce the following glare for receptors at this location:

- 0 minutes of "green" glare with low potential to cause temporary after-image.
- 3,357 minutes of "yellow" glare with potential to cause temporary after-image.



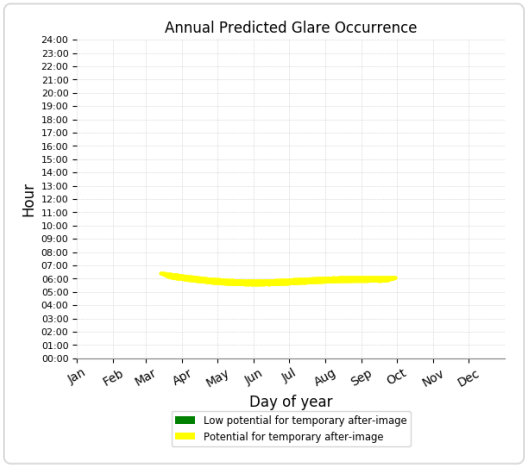



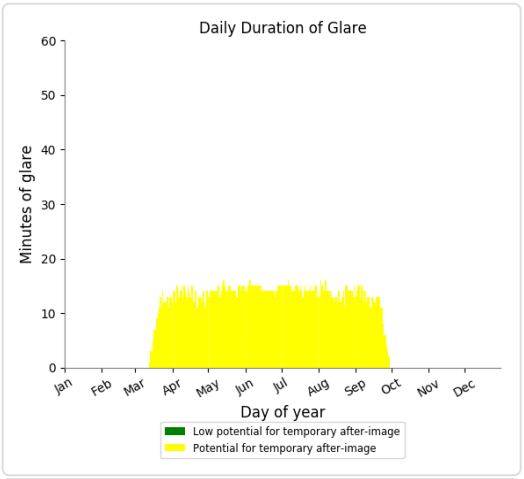



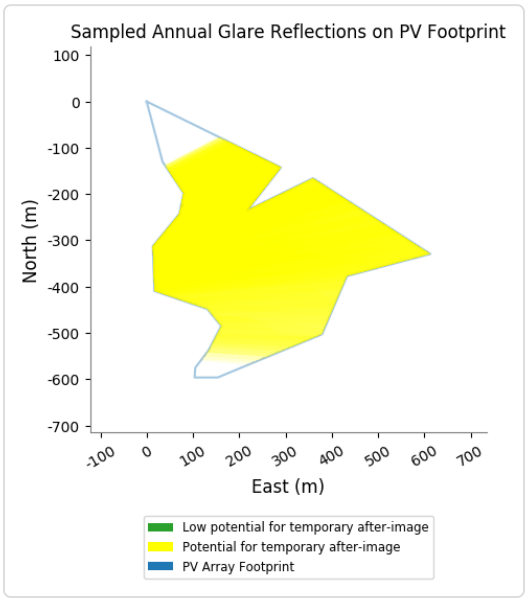
## North Array - OP Receptor (OP 6)

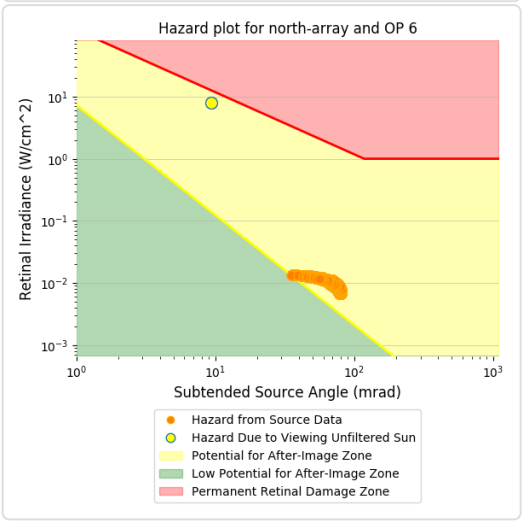
PV array is expected to produce the following glare for receptors at this location:

- 0 minutes of "green" glare with low potential to cause temporary after-image.
- 2,659 minutes of "yellow" glare with potential to cause temporary after-image.



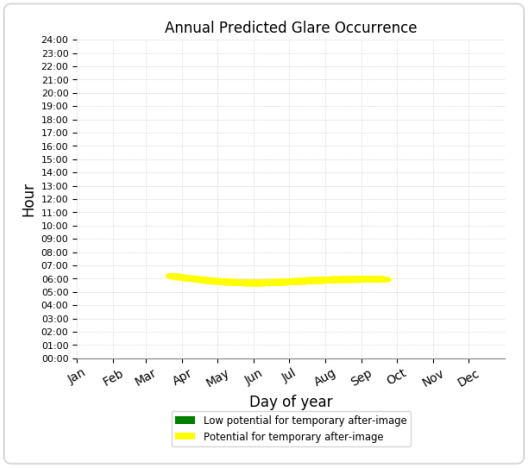



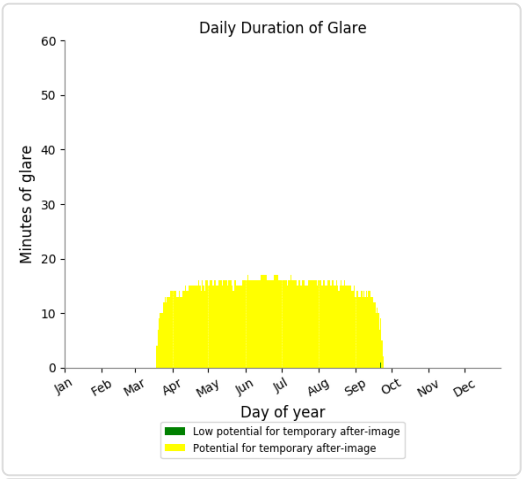



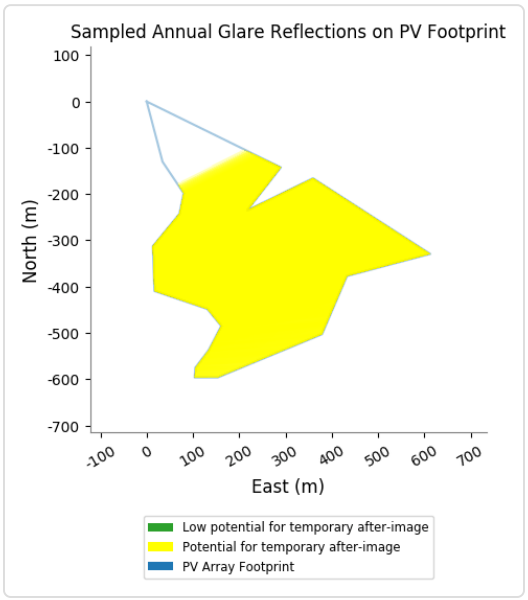
## North Array - OP Receptor (OP 7)

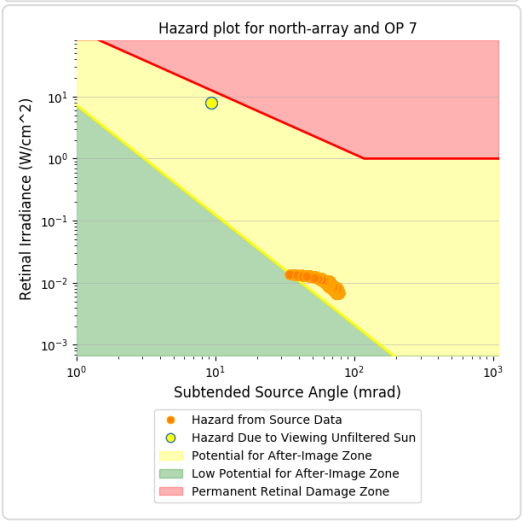
PV array is expected to produce the following glare for receptors at this location:

- 1 minutes of "green" glare with low potential to cause temporary after-image.
- 2,786 minutes of "yellow" glare with potential to cause temporary after-image.



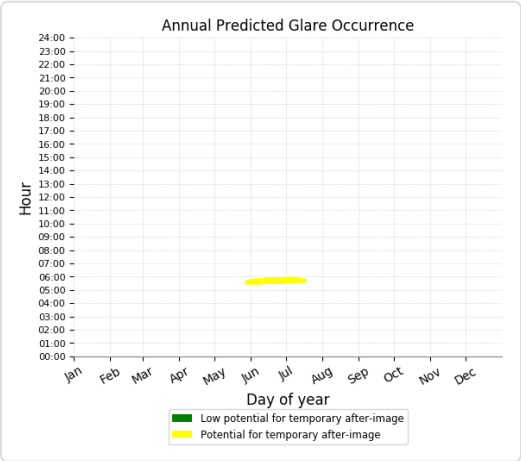

## North Array - OP Receptor (OP 8)

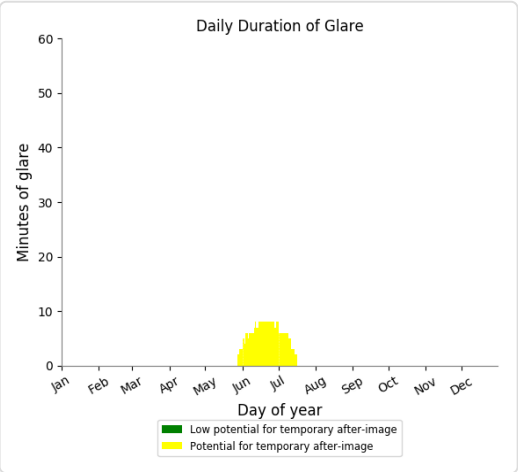
*No glare found*

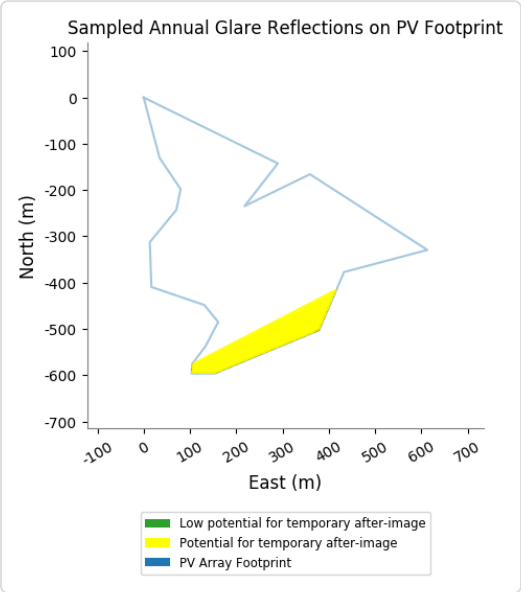
## North Array - OP Receptor (OP 9)

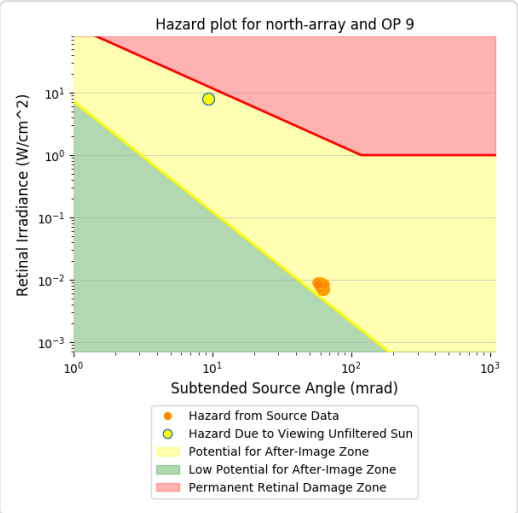
PV array is expected to produce the following glare for receptors at this location:

- 0 minutes of "green" glare with low potential to cause temporary after-image.
- 297 minutes of "yellow" glare with potential to cause temporary after-image.




## North Array - OP Receptor (OP 10)

*No glare found*

## North Array - OP Receptor (OP 11)

*No glare found*

## North Array - OP Receptor (OP 12)

*No glare found*

## North Array - OP Receptor (OP 13)

*No glare found*

## North Array - OP Receptor (OP 14)

*No glare found*

## North Array - OP Receptor (OP 15)

*No glare found*

## North Array - OP Receptor (OP 16)

*No glare found*

## North Array - OP Receptor (OP 17)

*No glare found*

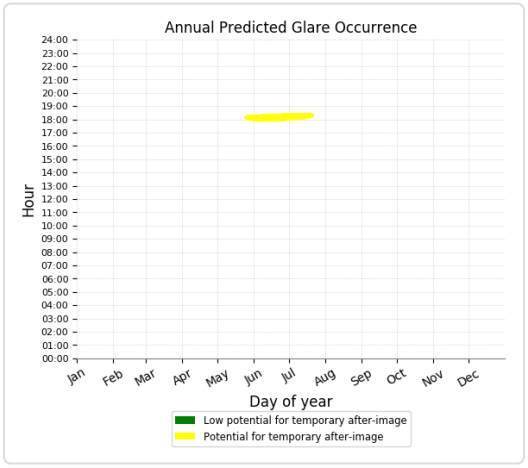
## North Array - OP Receptor (OP 18)

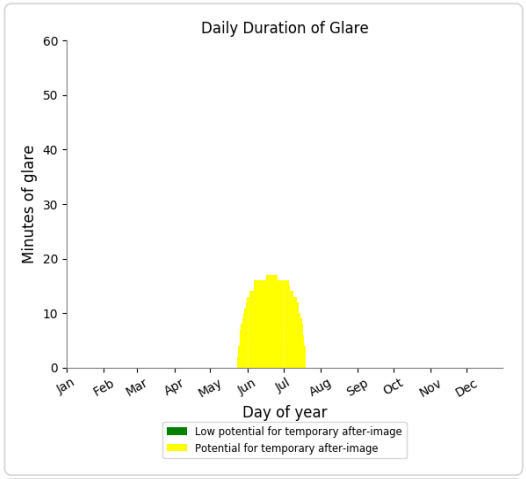
*No glare found*

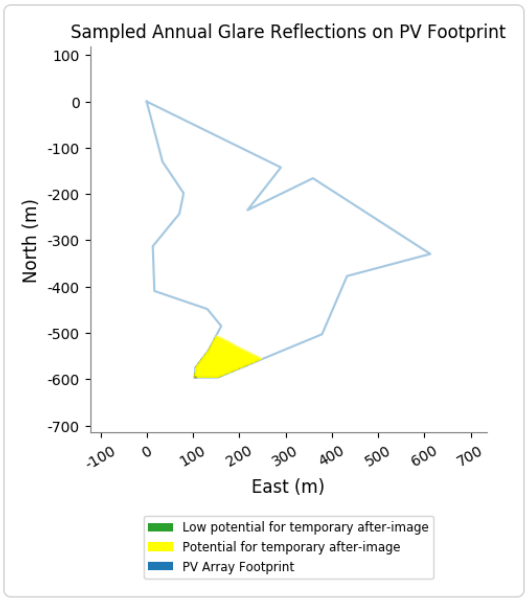
## North Array - OP Receptor (OP 19)

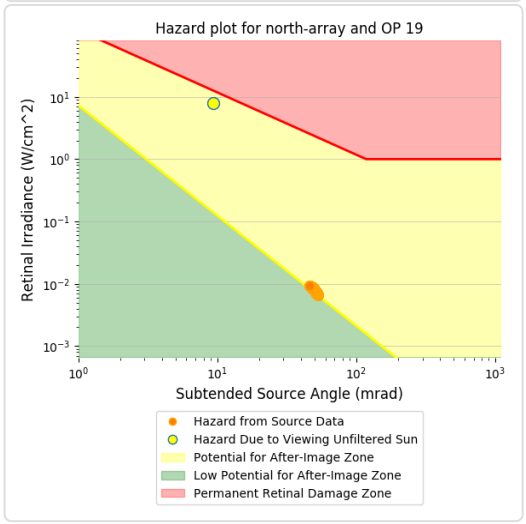
PV array is expected to produce the following glare for receptors at this location:

- 0 minutes of "green" glare with low potential to cause temporary after-image.
- 774 minutes of "yellow" glare with potential to cause temporary after-image.



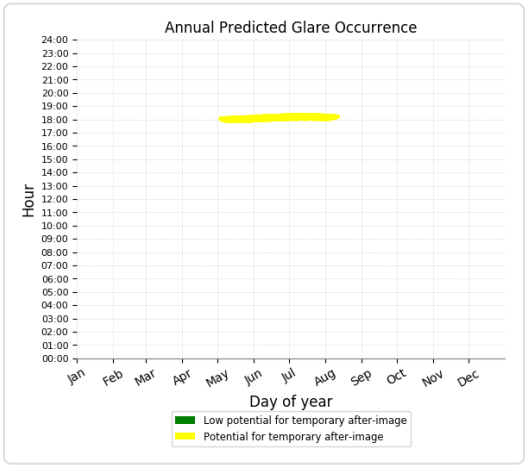



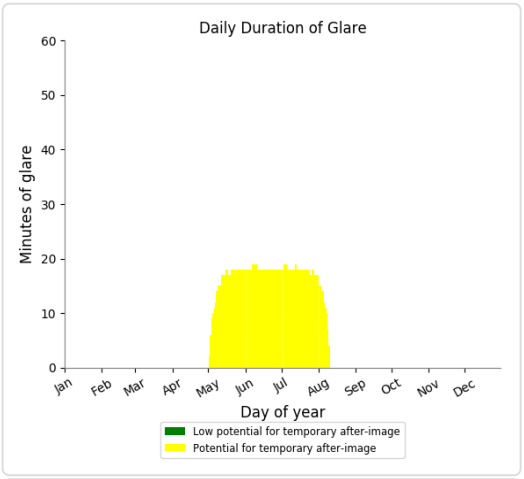



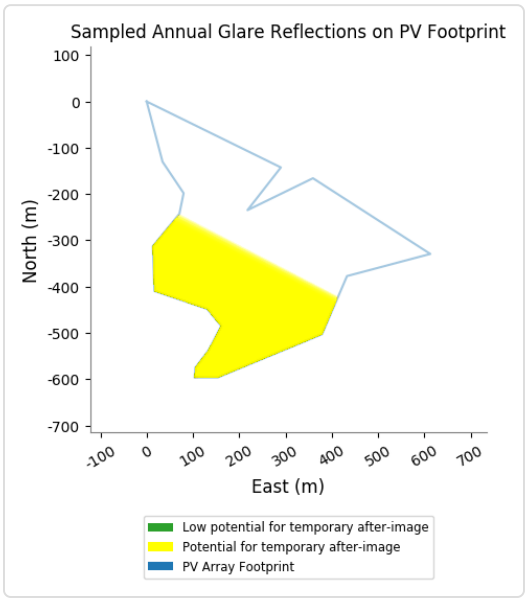
## North Array - OP Receptor (OP 20)

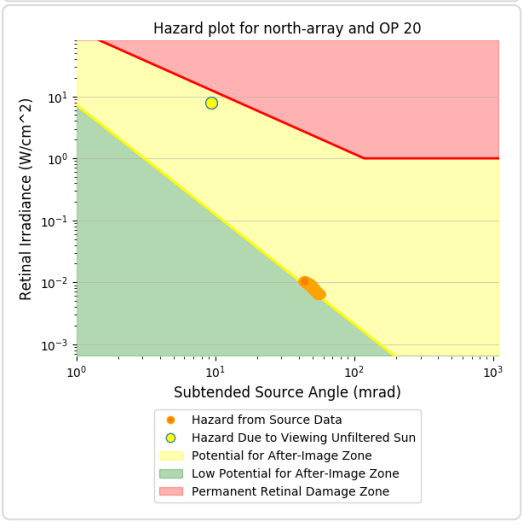
PV array is expected to produce the following glare for receptors at this location:

- 0 minutes of "green" glare with low potential to cause temporary after-image.
- 1,682 minutes of "yellow" glare with potential to cause temporary after-image.



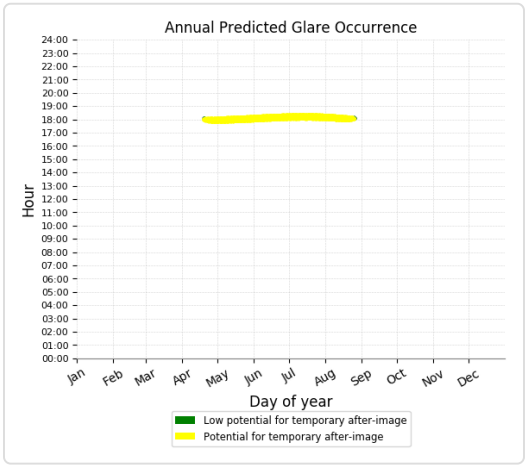



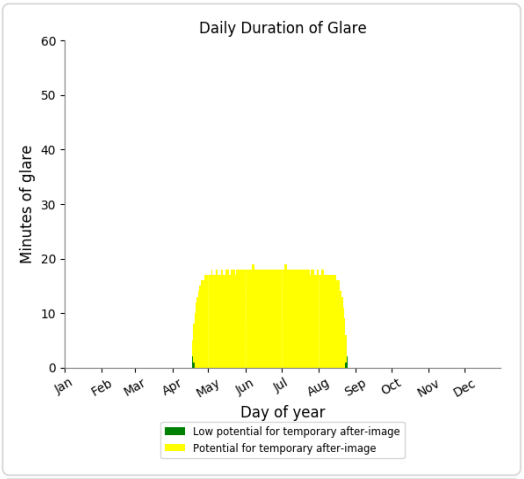



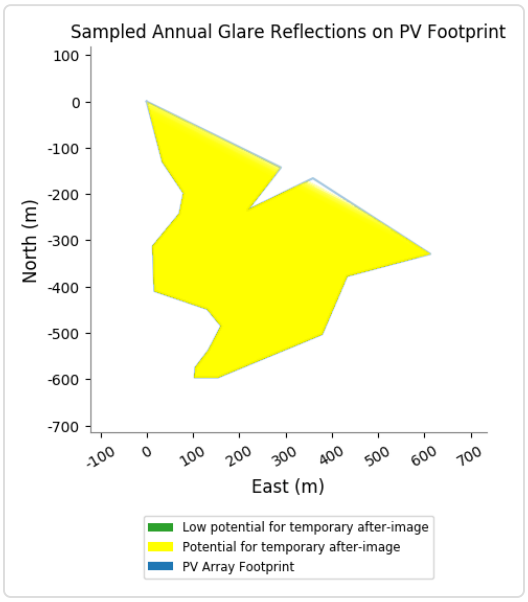
## North Array - OP Receptor (OP 21)

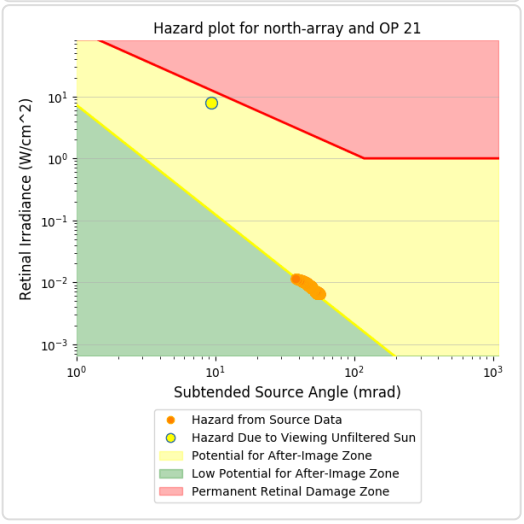
PV array is expected to produce the following glare for receptors at this location:

- 6 minutes of "green" glare with low potential to cause temporary after-image.
- 2,189 minutes of "yellow" glare with potential to cause temporary after-image.



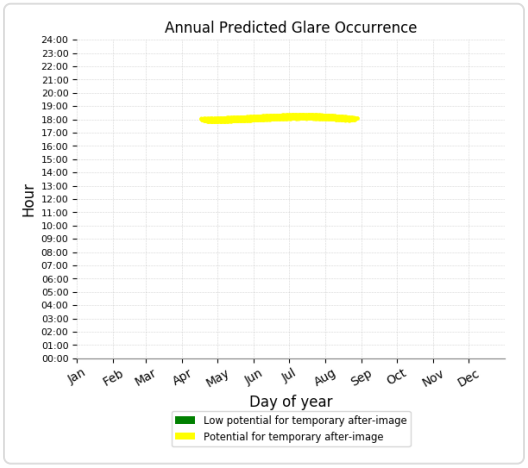



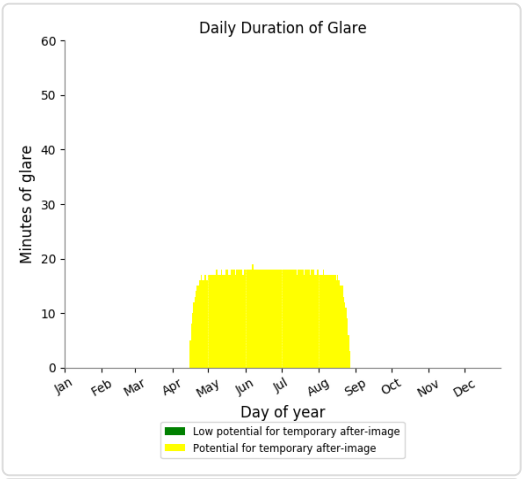



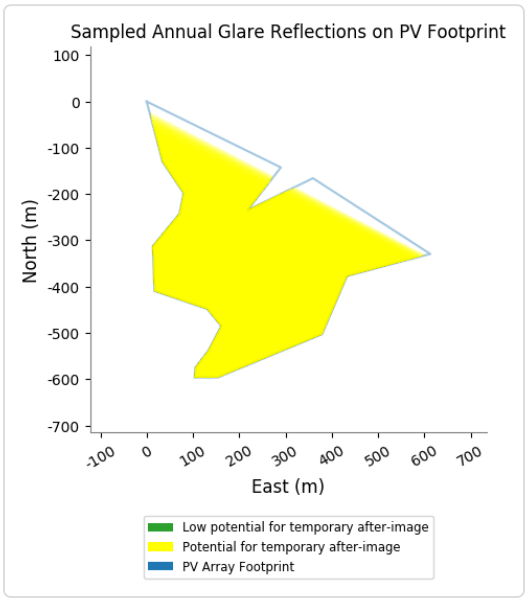
## North Array - OP Receptor (OP 22)

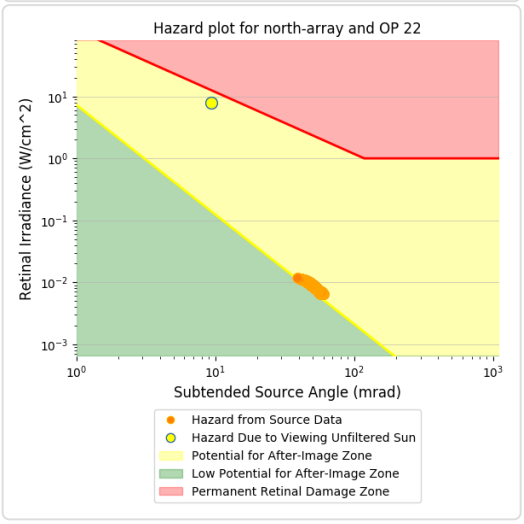
PV array is expected to produce the following glare for receptors at this location:

- 0 minutes of "green" glare with low potential to cause temporary after-image.
- 2,247 minutes of "yellow" glare with potential to cause temporary after-image.



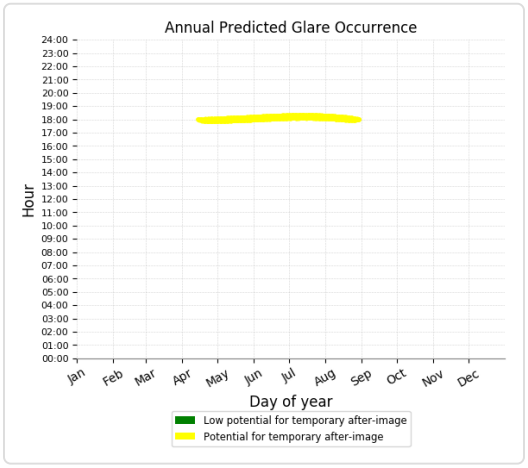



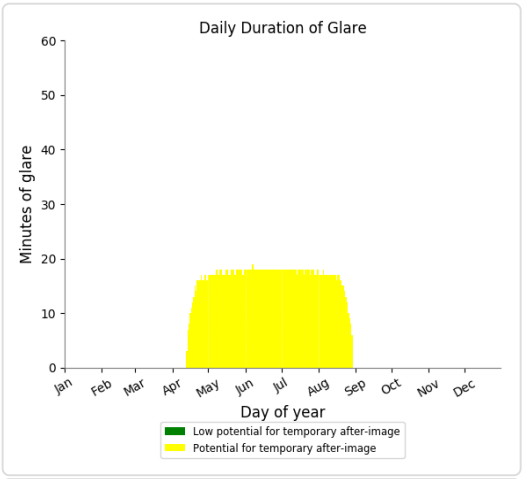



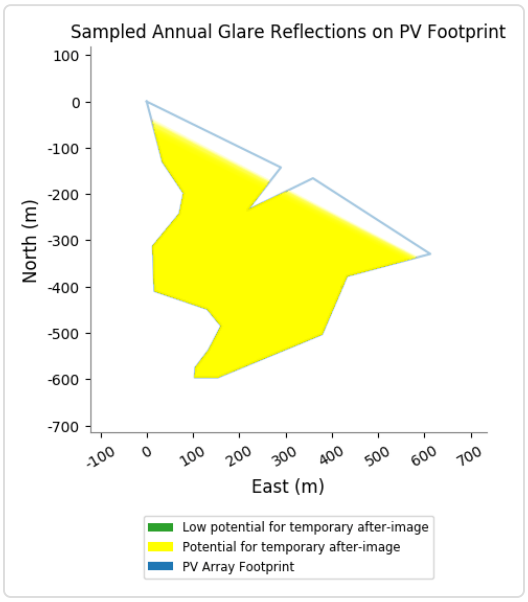
## North Array - OP Receptor (OP 23)

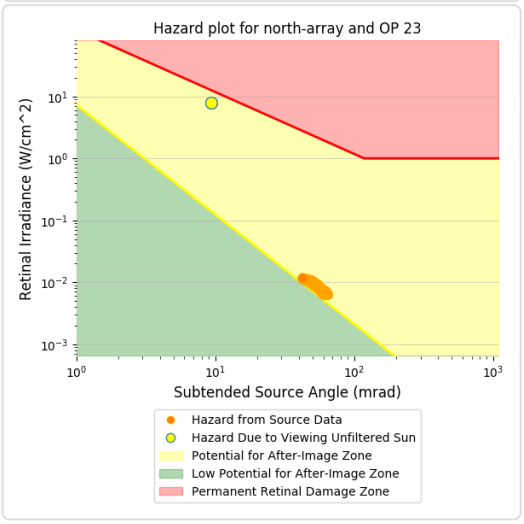
PV array is expected to produce the following glare for receptors at this location:

- 0 minutes of "green" glare with low potential to cause temporary after-image.
- 2,316 minutes of "yellow" glare with potential to cause temporary after-image.



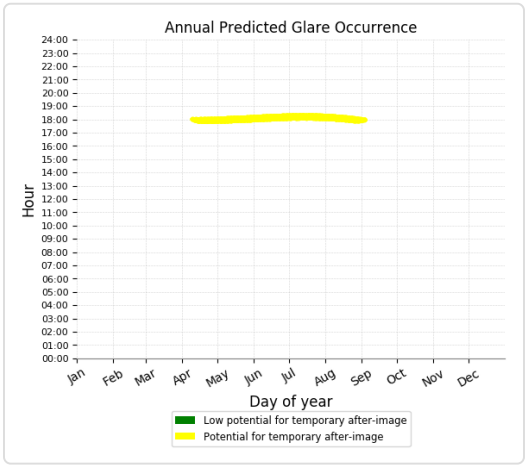



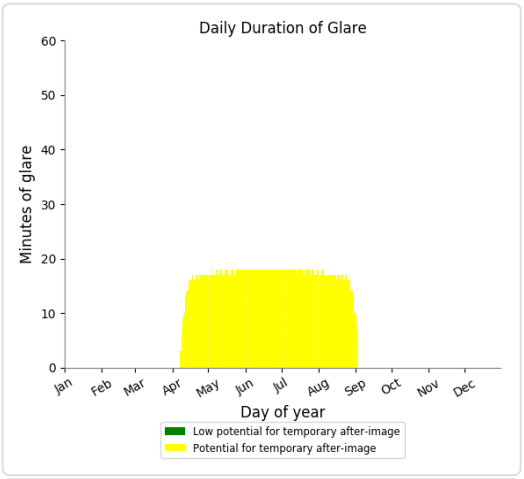



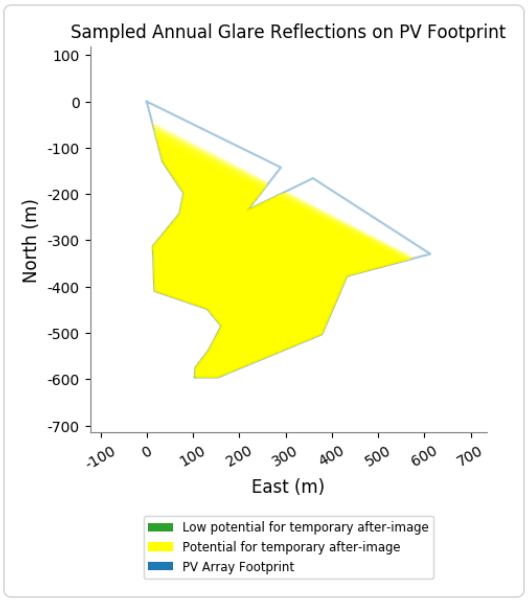
## North Array - OP Receptor (OP 24)

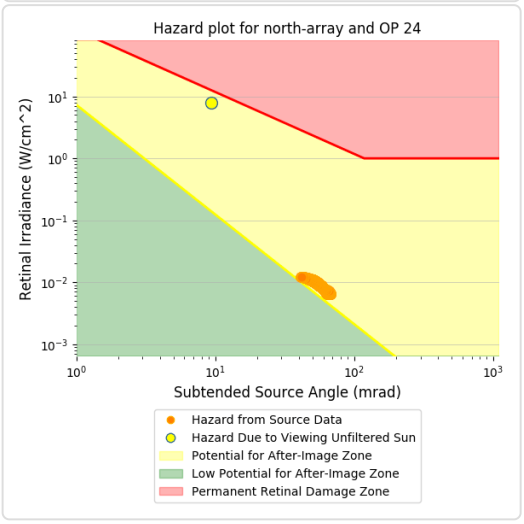
PV array is expected to produce the following glare for receptors at this location:

- 0 minutes of "green" glare with low potential to cause temporary after-image.
- 2,502 minutes of "yellow" glare with potential to cause temporary after-image.



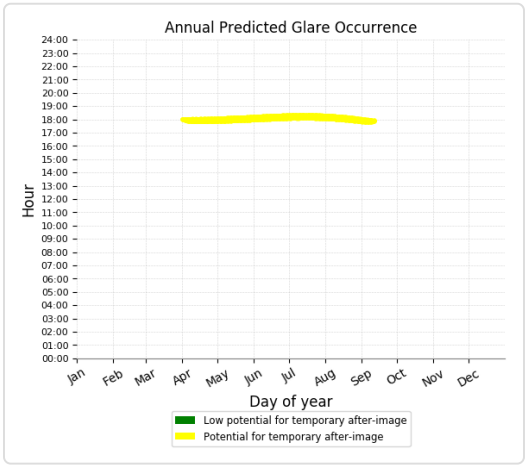



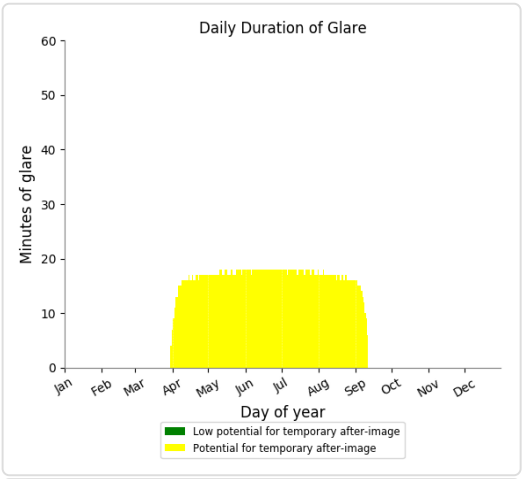



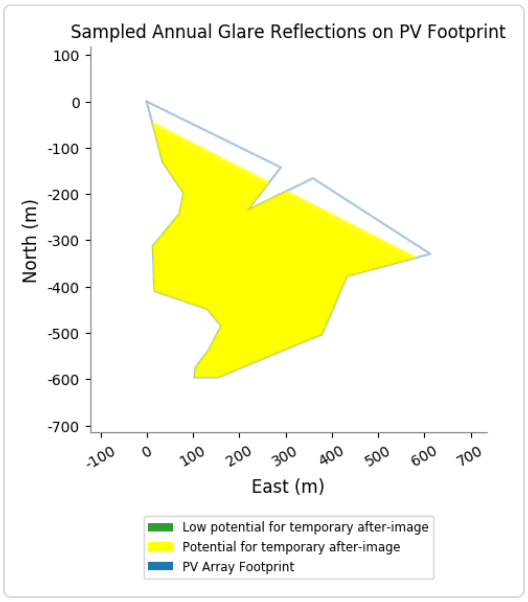
## North Array - OP Receptor (OP 25)

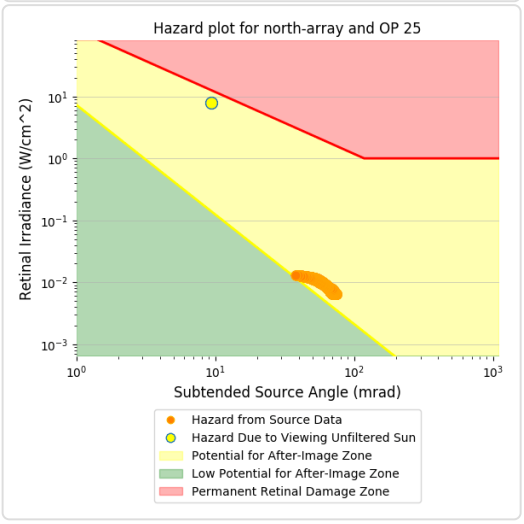
PV array is expected to produce the following glare for receptors at this location:

- 0 minutes of "green" glare with low potential to cause temporary after-image.
- 2,749 minutes of "yellow" glare with potential to cause temporary after-image.



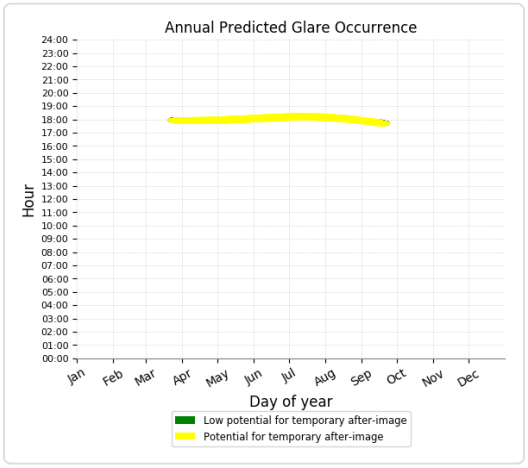



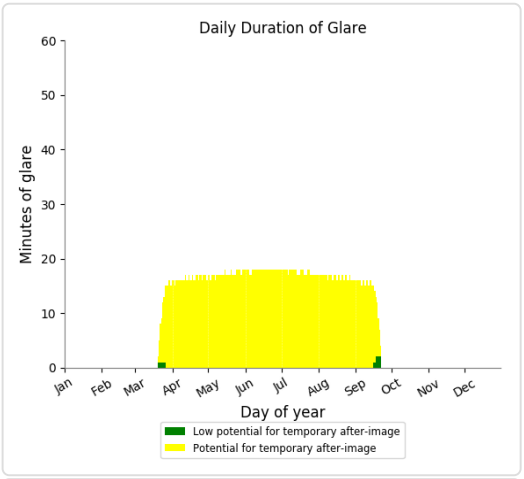



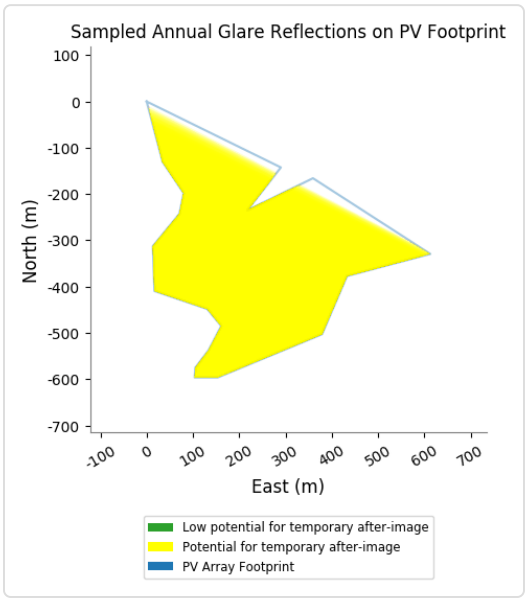
## North Array - OP Receptor (OP 26)

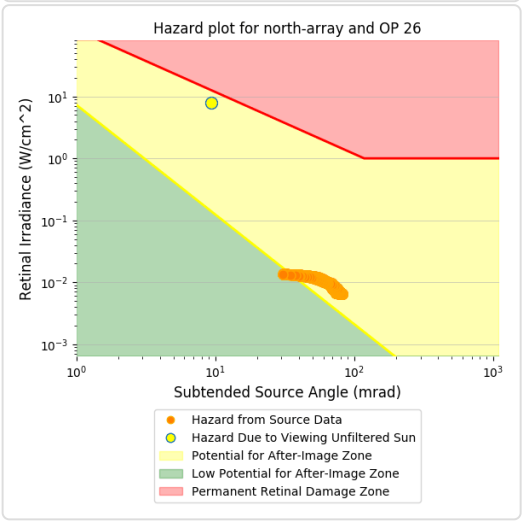
PV array is expected to produce the following glare for receptors at this location:

- 19 minutes of "green" glare with low potential to cause temporary after-image.
- 3,048 minutes of "yellow" glare with potential to cause temporary after-image.



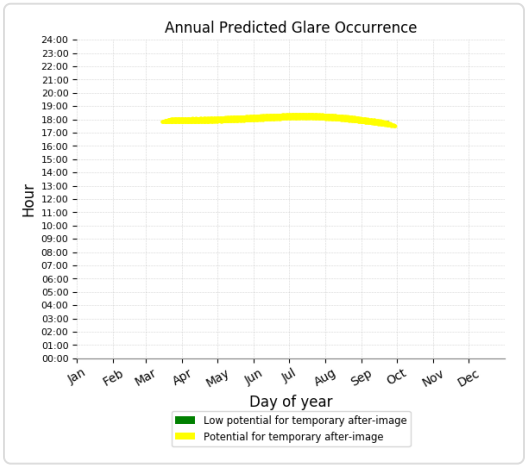



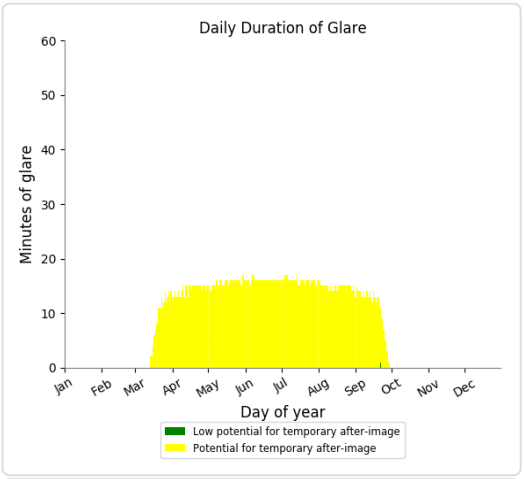



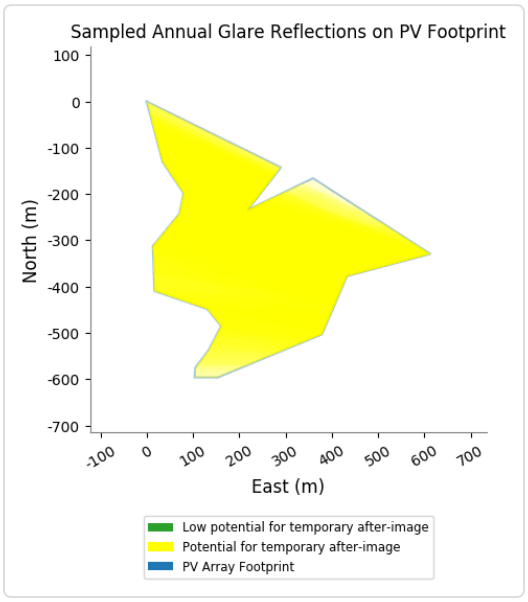
## North Array - OP Receptor (OP 27)

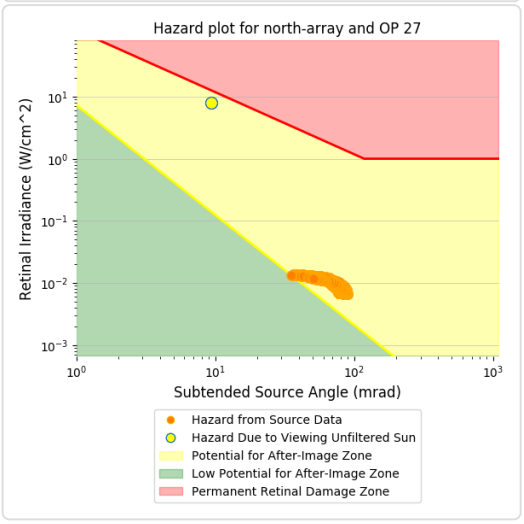
PV array is expected to produce the following glare for receptors at this location:

- 1 minutes of "green" glare with low potential to cause temporary after-image.
- 2,846 minutes of "yellow" glare with potential to cause temporary after-image.



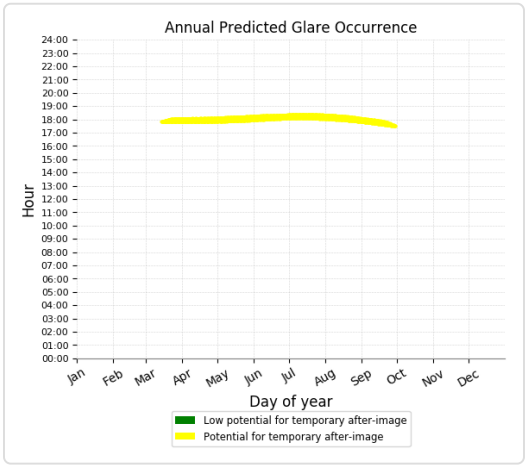



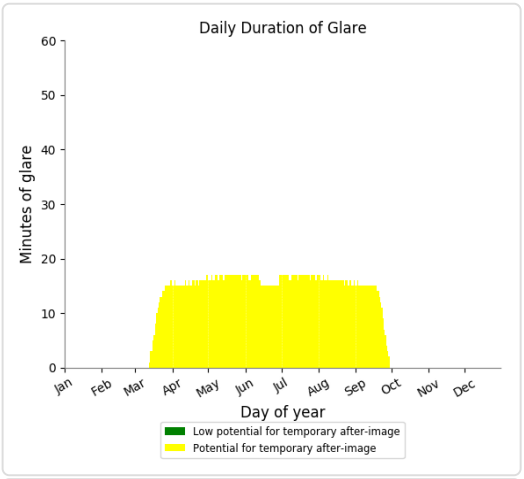



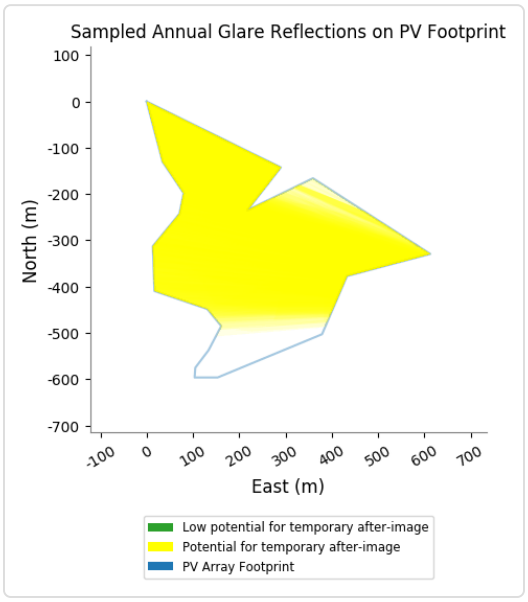
## North Array - OP Receptor (OP 28)

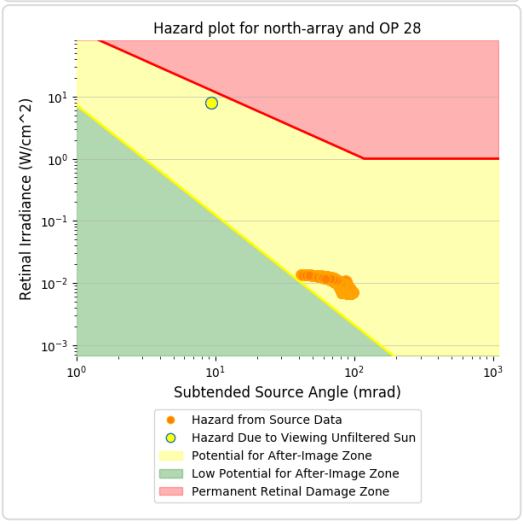
PV array is expected to produce the following glare for receptors at this location:

- 0 minutes of "green" glare with low potential to cause temporary after-image.
- 3,046 minutes of "yellow" glare with potential to cause temporary after-image.



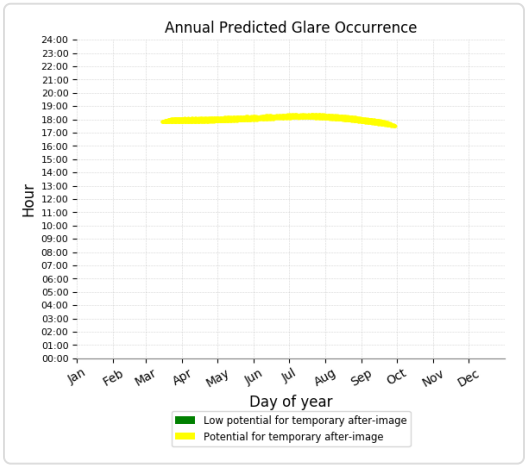



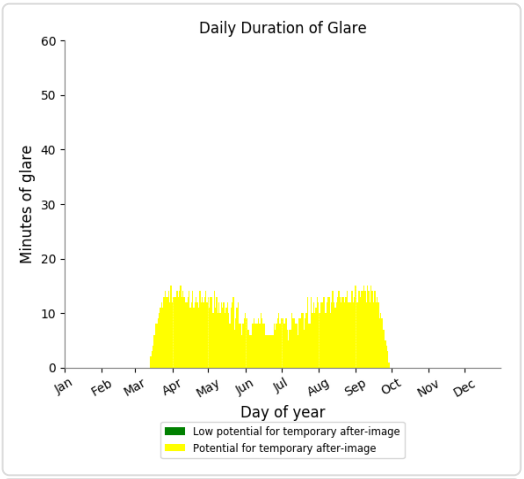



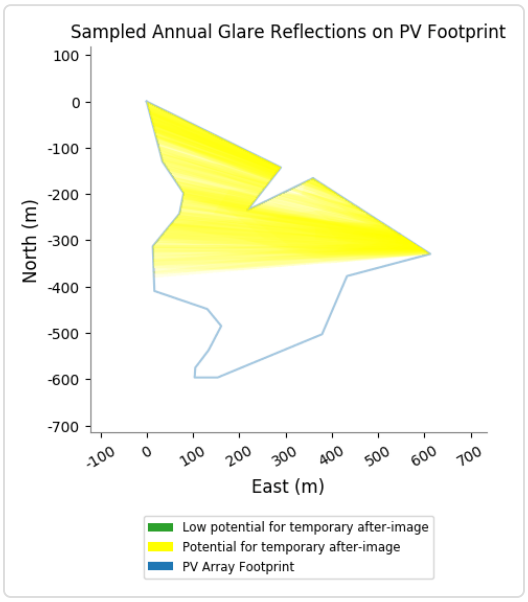
## North Array - OP Receptor (OP 29)

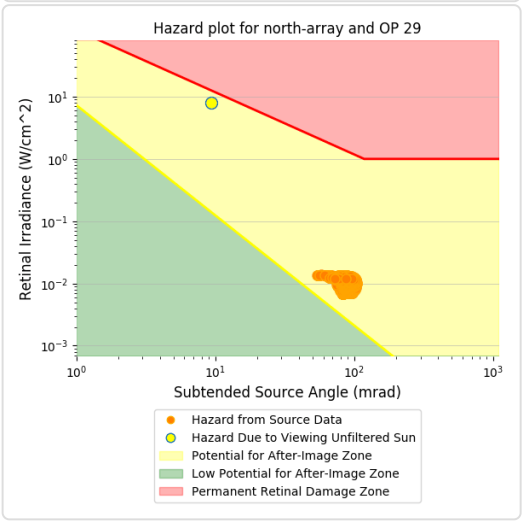
PV array is expected to produce the following glare for receptors at this location:

- 0 minutes of "green" glare with low potential to cause temporary after-image.
- 2,109 minutes of "yellow" glare with potential to cause temporary after-image.



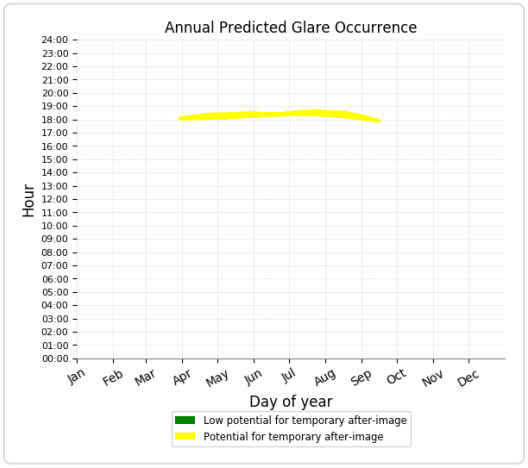



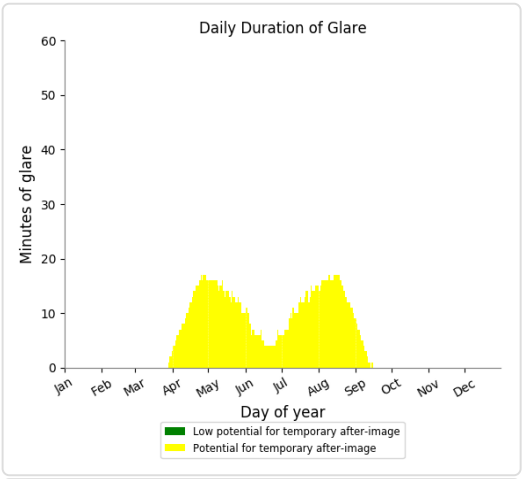



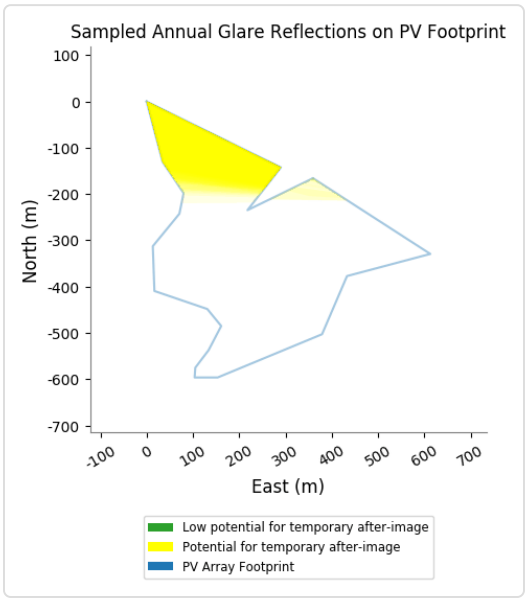
## North Array - OP Receptor (OP 30)

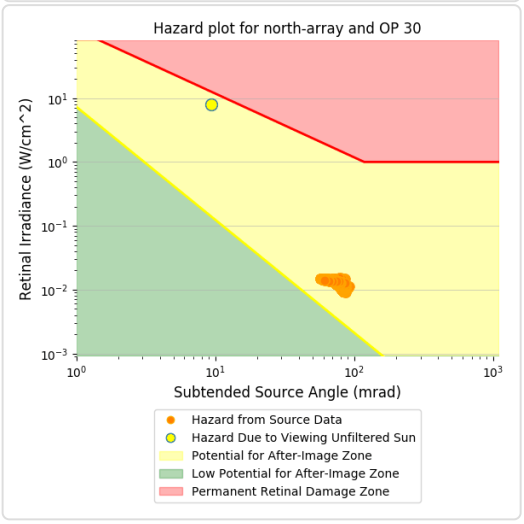
PV array is expected to produce the following glare for receptors at this location:

- 0 minutes of "green" glare with low potential to cause temporary after-image.
- 1,801 minutes of "yellow" glare with potential to cause temporary after-image.



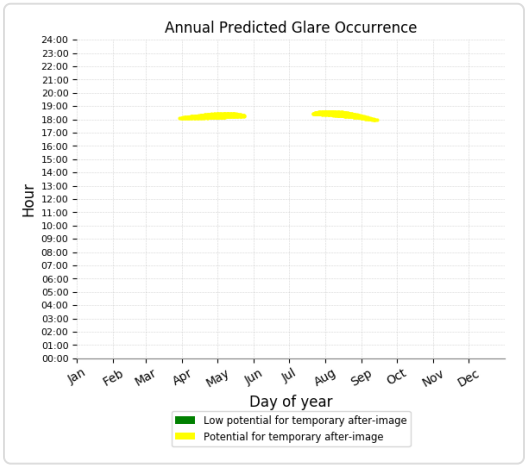



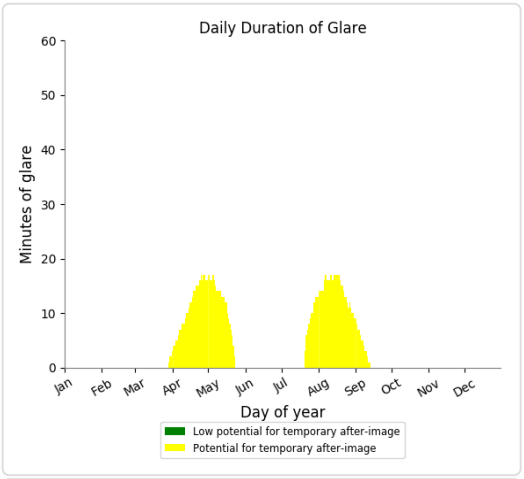



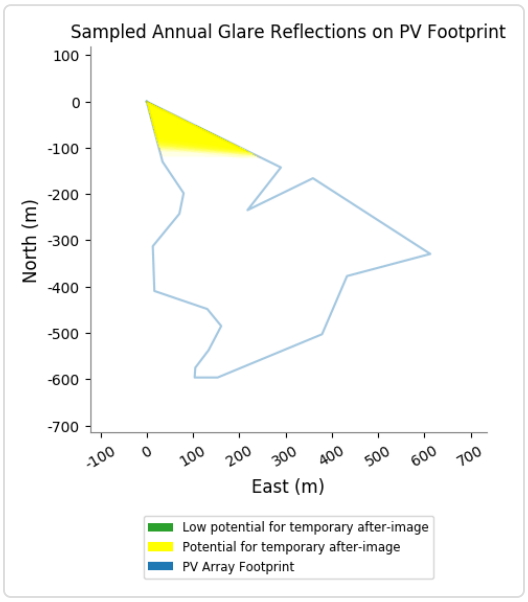
## North Array - OP Receptor (OP 31)

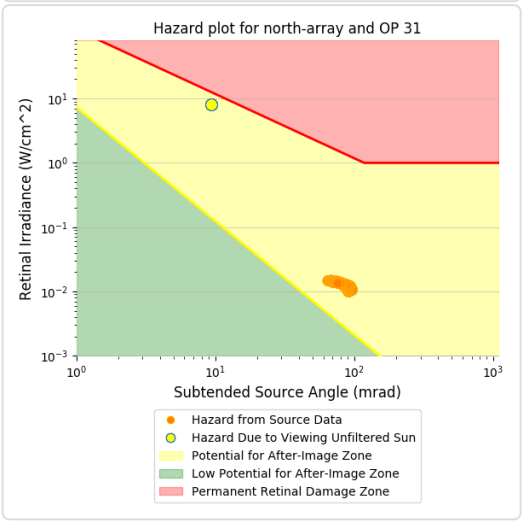
PV array is expected to produce the following glare for receptors at this location:

- 0 minutes of "green" glare with low potential to cause temporary after-image.
- 1,224 minutes of "yellow" glare with potential to cause temporary after-image.



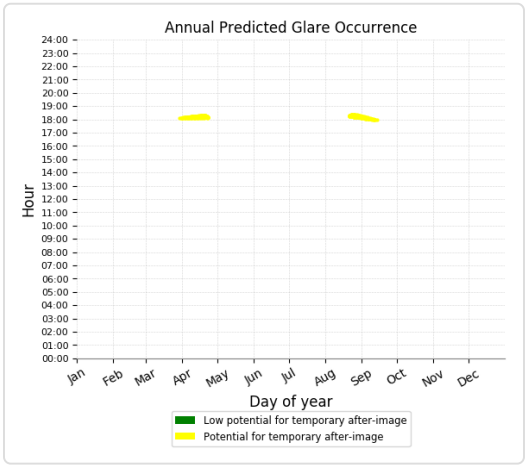



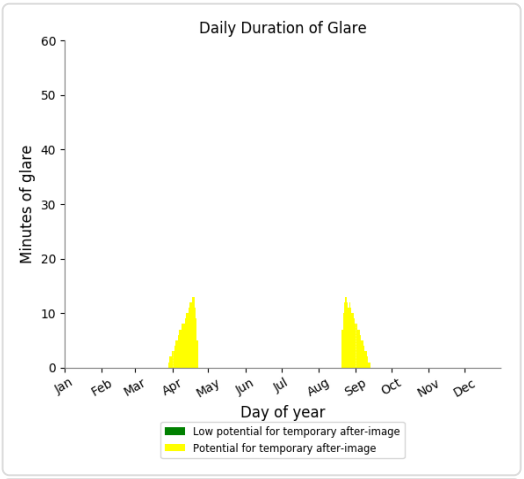



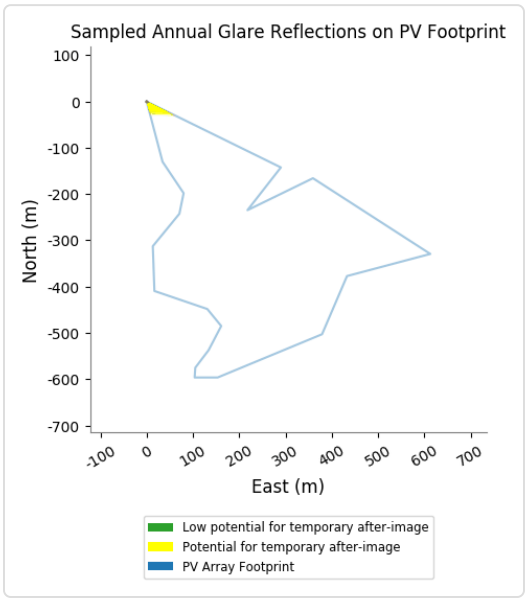
## North Array - OP Receptor (OP 32)

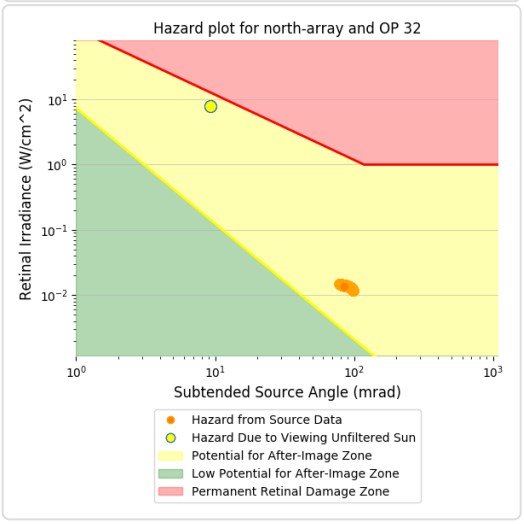
PV array is expected to produce the following glare for receptors at this location:

- 0 minutes of "green" glare with low potential to cause temporary after-image.
- 361 minutes of "yellow" glare with potential to cause temporary after-image.




## North Array - OP Receptor (OP 33)

*No glare found*

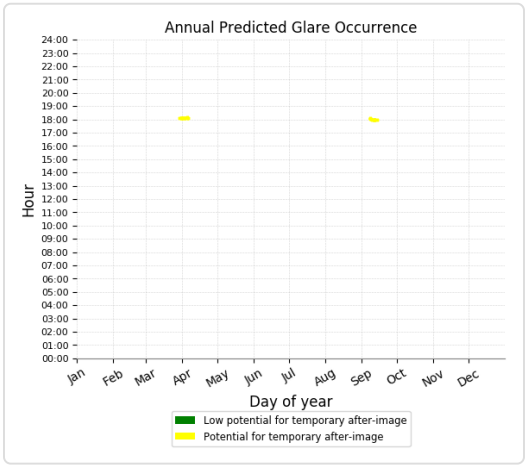
## North Array - OP Receptor (OP 34)

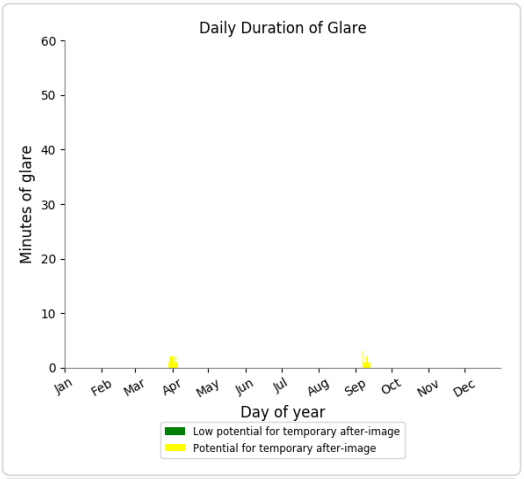
*No glare found*

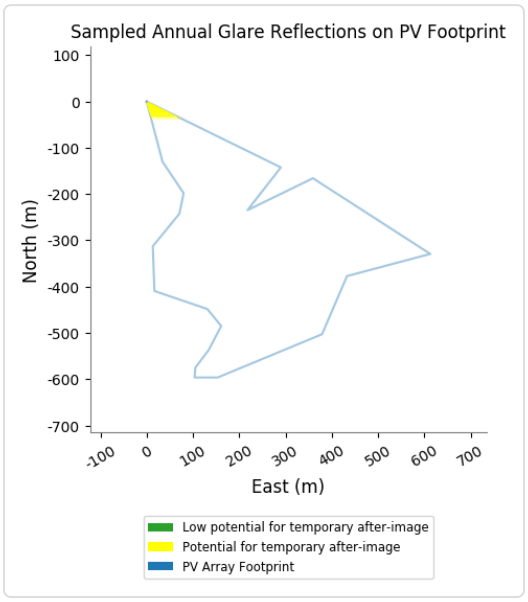
## North Array - OP Receptor (OP 35)

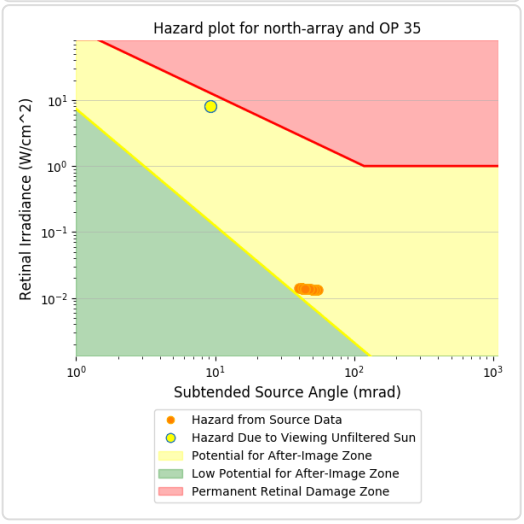
PV array is expected to produce the following glare for receptors at this location:

- 0 minutes of "green" glare with low potential to cause temporary after-image.
- 24 minutes of "yellow" glare with potential to cause temporary after-image.



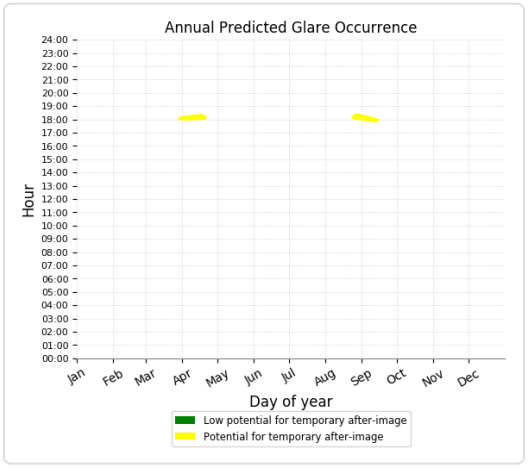



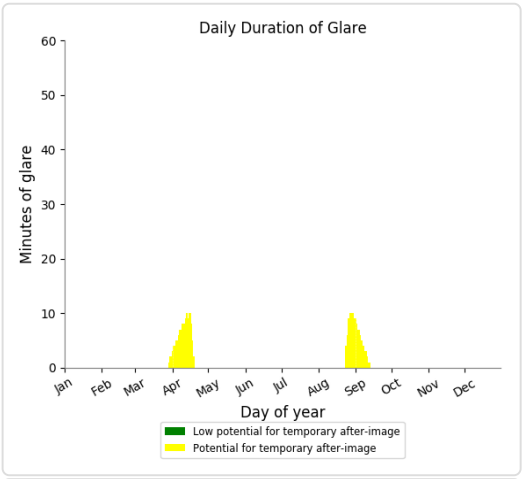



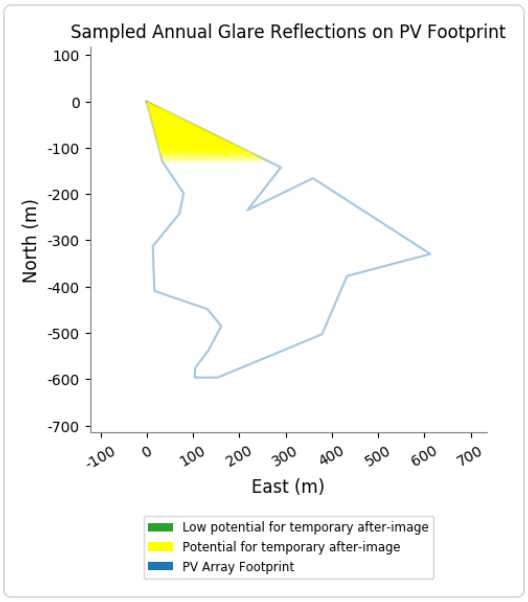
## North Array - OP Receptor (OP 36)

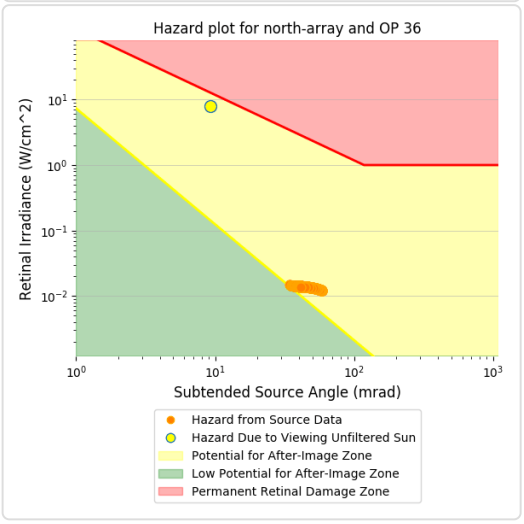
PV array is expected to produce the following glare for receptors at this location:

- 0 minutes of "green" glare with low potential to cause temporary after-image.
- 261 minutes of "yellow" glare with potential to cause temporary after-image.



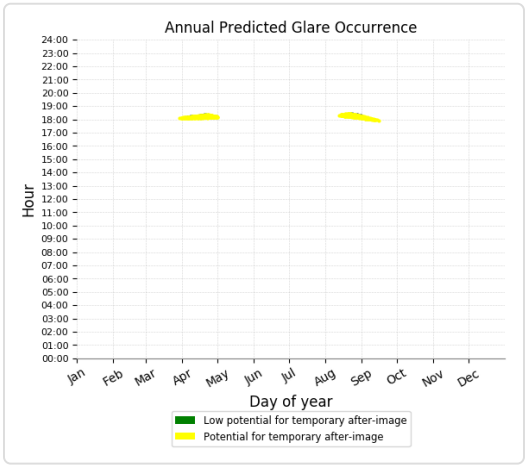



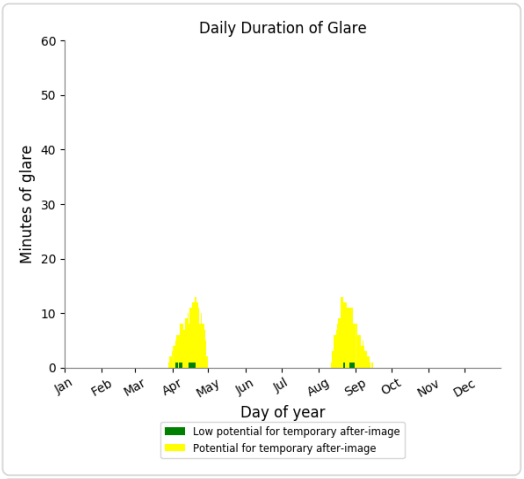



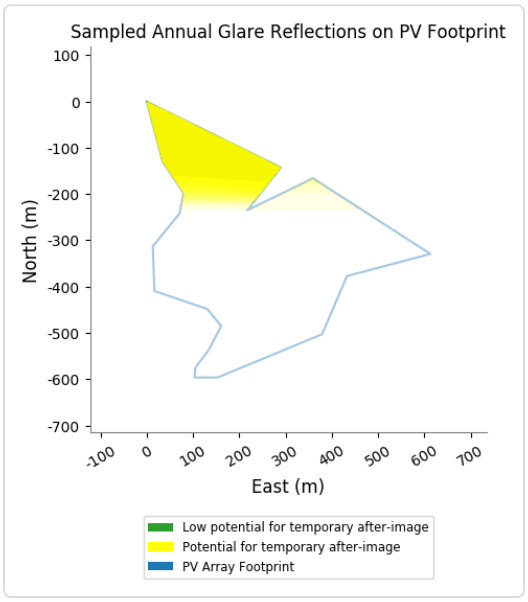
## North Array - OP Receptor (OP 37)

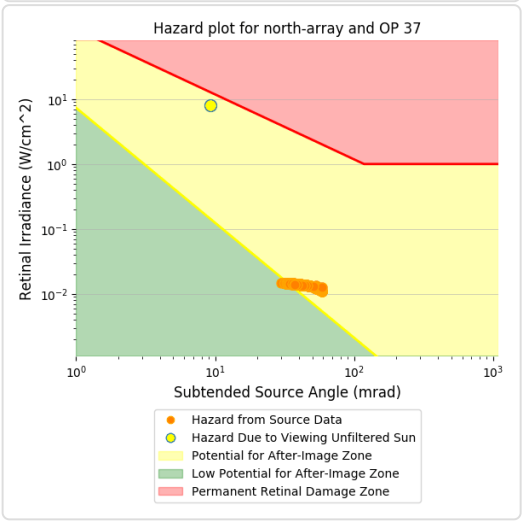
PV array is expected to produce the following glare for receptors at this location:

- 18 minutes of "green" glare with low potential to cause temporary after-image.
- 472 minutes of "yellow" glare with potential to cause temporary after-image.



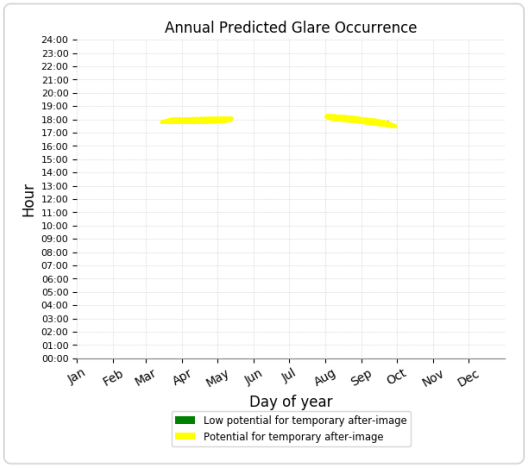



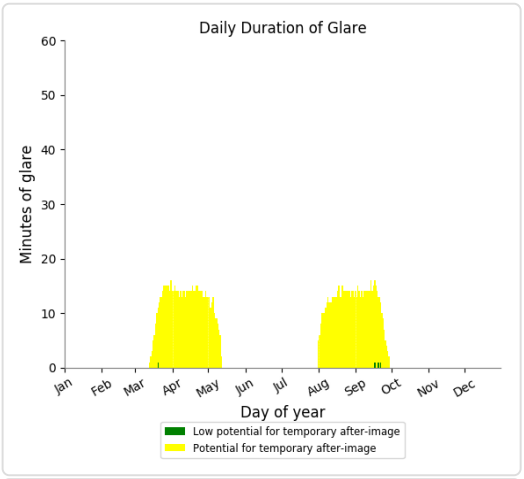



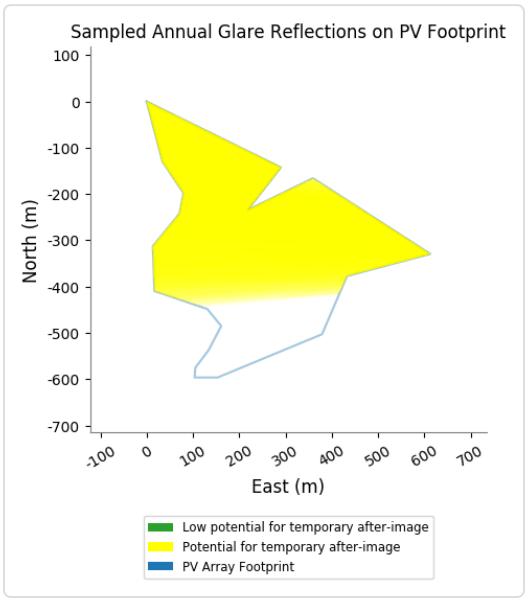
## North Array - OP Receptor (OP 38)

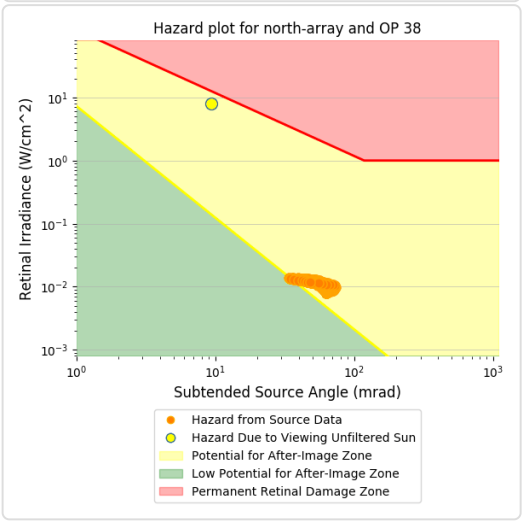
PV array is expected to produce the following glare for receptors at this location:

- 4 minutes of "green" glare with low potential to cause temporary after-image.
- 1,459 minutes of "yellow" glare with potential to cause temporary after-image.



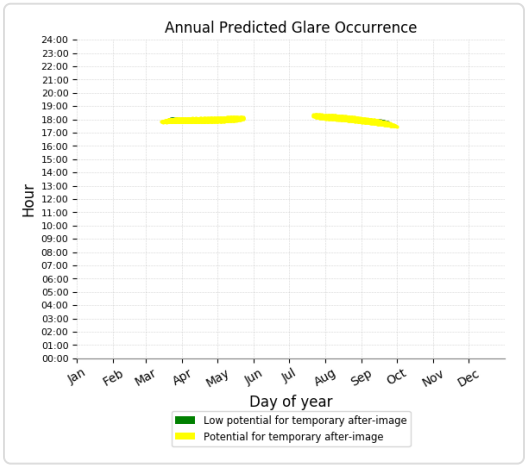



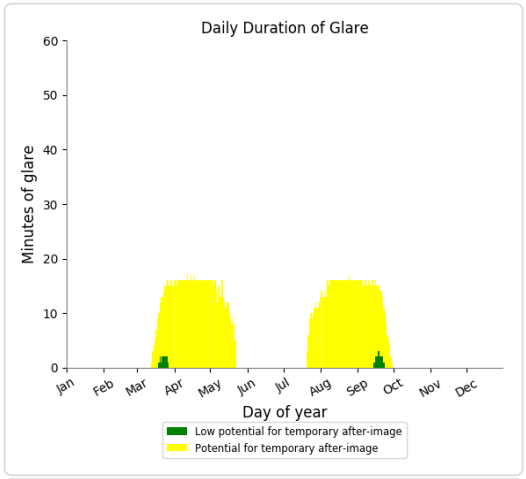



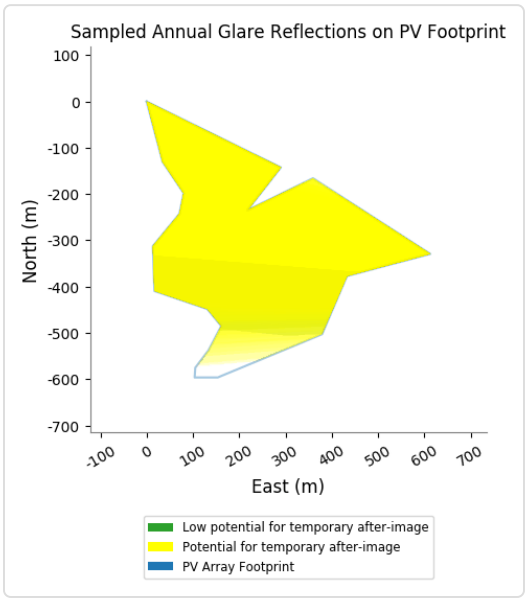
## North Array - OP Receptor (OP 39)

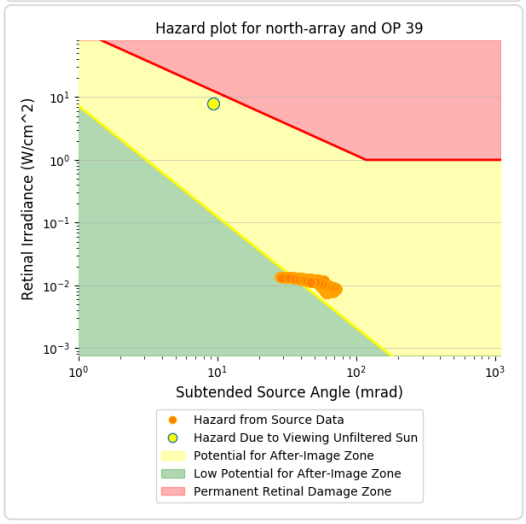
PV array is expected to produce the following glare for receptors at this location:

- 33 minutes of "green" glare with low potential to cause temporary after-image.
- 1,904 minutes of "yellow" glare with potential to cause temporary after-image.



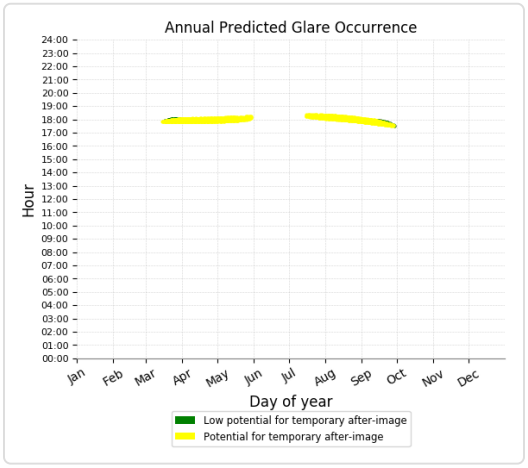



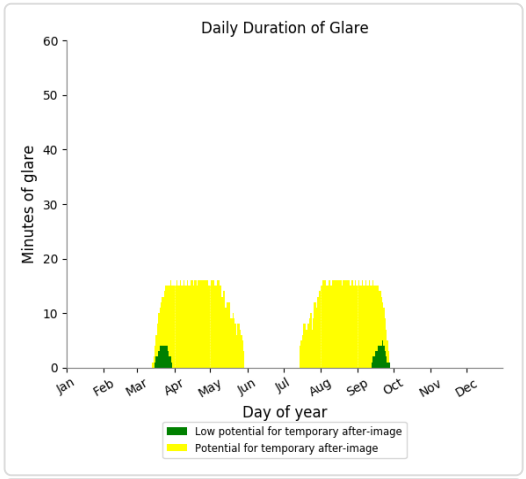



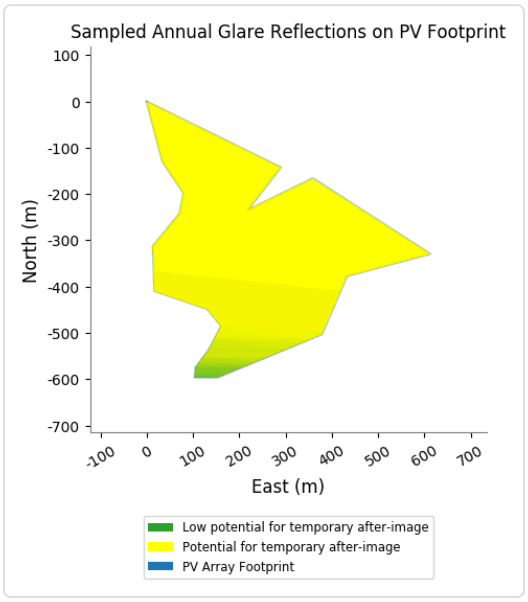
## North Array - OP Receptor (OP 40)

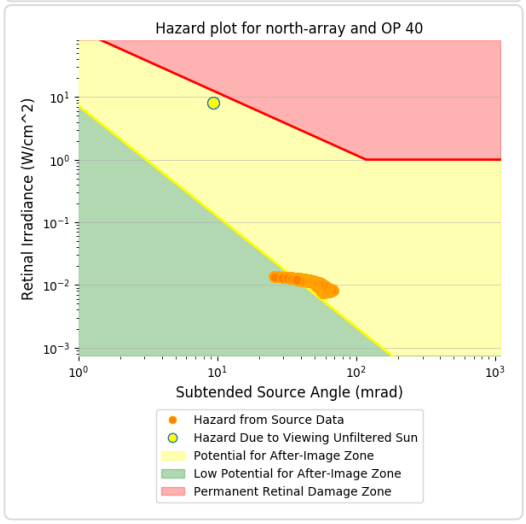
PV array is expected to produce the following glare for receptors at this location:

- 88 minutes of "green" glare with low potential to cause temporary after-image.
- 1,910 minutes of "yellow" glare with potential to cause temporary after-image.



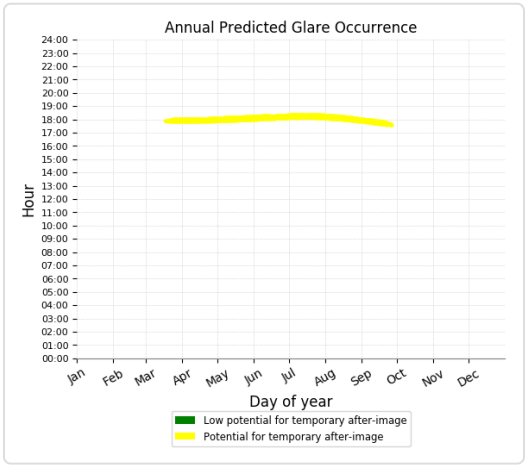



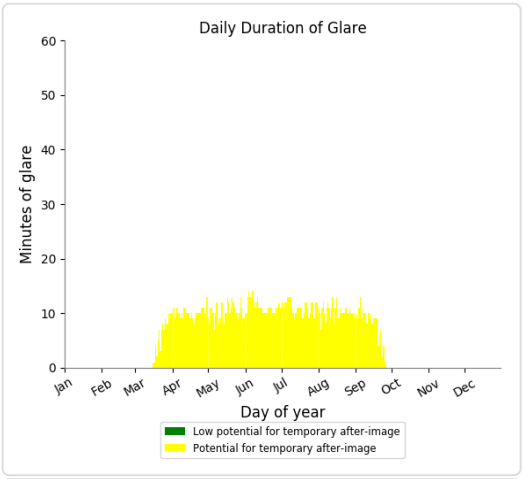



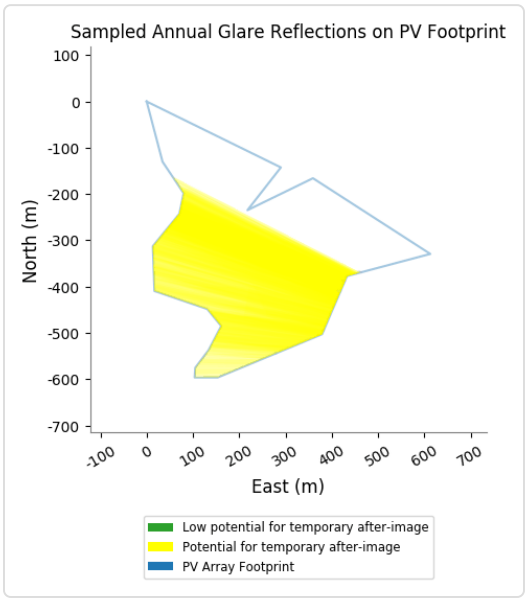
## North Array - OP Receptor (OP 41)

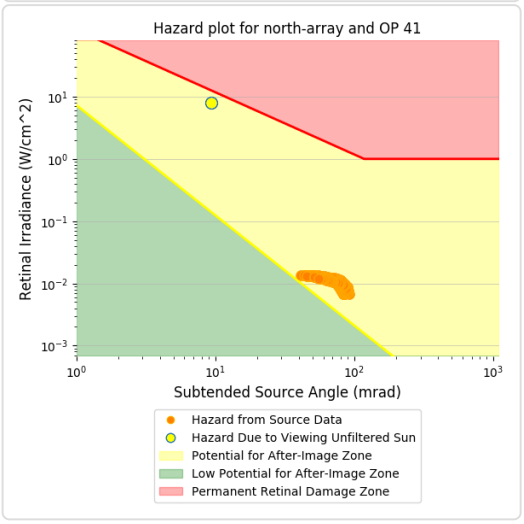
PV array is expected to produce the following glare for receptors at this location:

- 0 minutes of "green" glare with low potential to cause temporary after-image.
- 1,927 minutes of "yellow" glare with potential to cause temporary after-image.



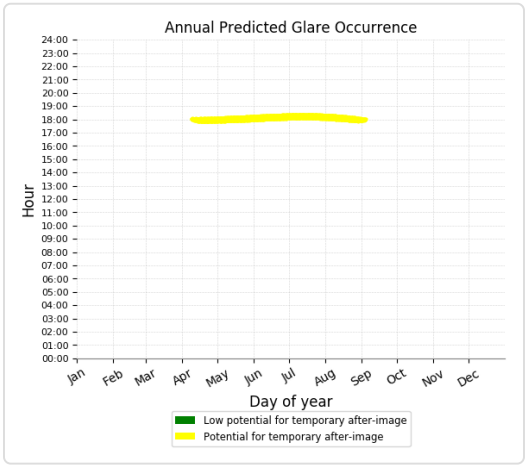



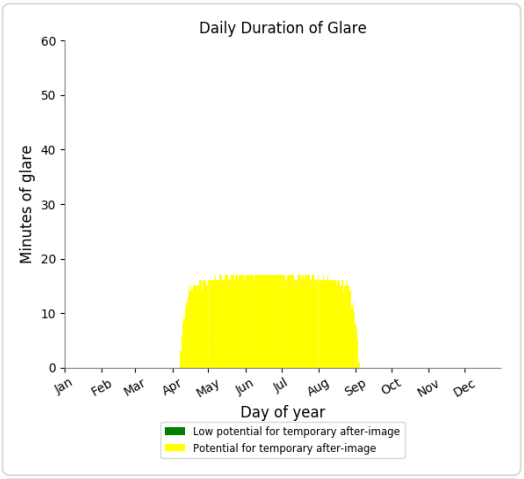



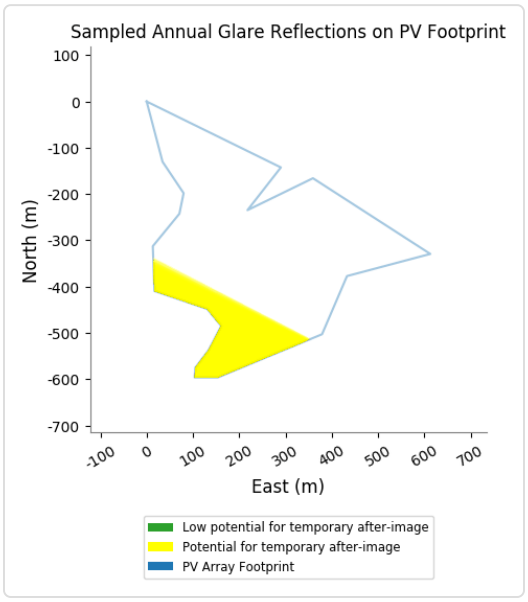
## North Array - OP Receptor (OP 42)

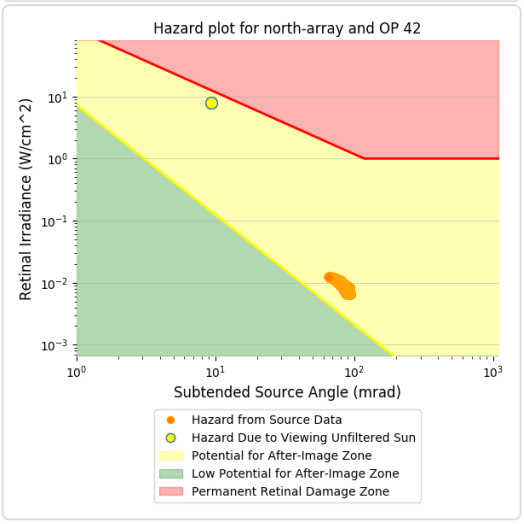
PV array is expected to produce the following glare for receptors at this location:

- 0 minutes of "green" glare with low potential to cause temporary after-image.
- 2,333 minutes of "yellow" glare with potential to cause temporary after-image.



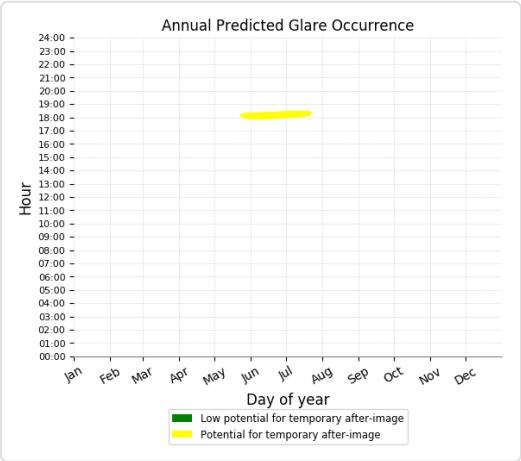



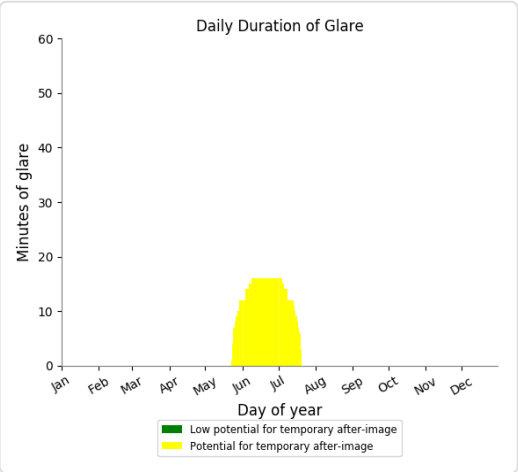



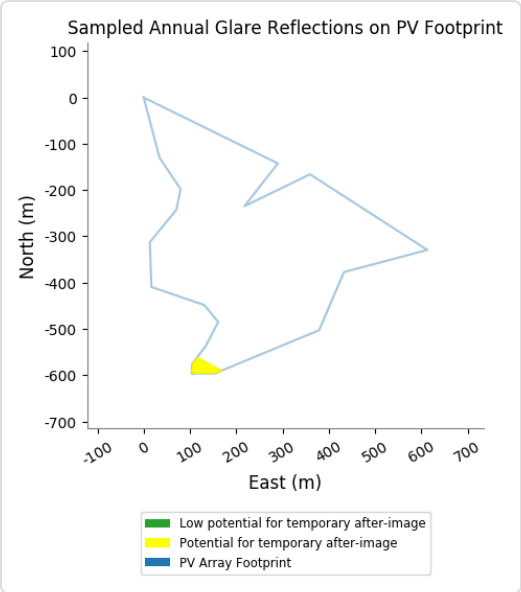
## North Array - OP Receptor (OP 43)

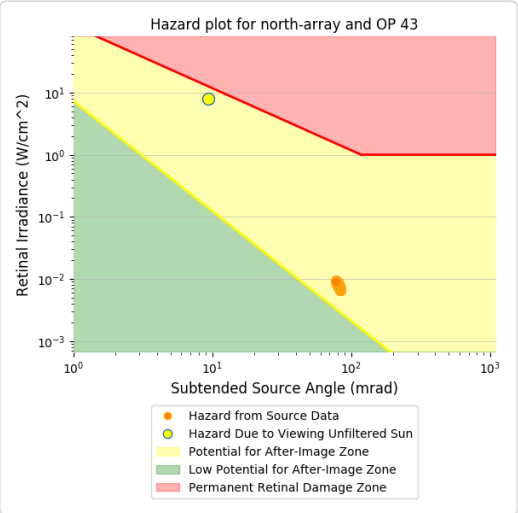
PV array is expected to produce the following glare for receptors at this location:

- 0 minutes of "green" glare with low potential to cause temporary after-image.
- 768 minutes of "yellow" glare with potential to cause temporary after-image.




## North Array - OP Receptor (OP 44)

*No glare found*

## North Array - OP Receptor (OP 45)

*No glare found*

## North Array - OP Receptor (OP 46)

*No glare found*

## North Array - OP Receptor (OP 47)

*No glare found*

## North Array - OP Receptor (OP 48)

*No glare found*

## North Array - OP Receptor (OP 49)

*No glare found*

## North Array - OP Receptor (OP 50)

*No glare found*

## North Array - OP Receptor (OP 51)

*No glare found*

## South Array potential temporary after-image

| 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 | 1 |
| OP: OP 9 | 11 | 1546 |
| OP: OP 10 | 0 | 2974 |
| OP: OP 11 | 0 | 3031 |
| OP: OP 12 | 0 | 2994 |
| OP: OP 13 | 0 | 2832 |
| OP: OP 14 | 0 | 0 |
| OP: OP 15 | 0 | 914 |
| OP: OP 16 | 0 | 1871 |
| OP: OP 17 | 0 | 2415 |
| OP: OP 18 | 8 | 2030 |
| OP: OP 19 | 33 | 1723 |
| OP: OP 20 | 55 | 1426 |
| OP: OP 21 | 64 | 984 |
| OP: OP 22 | 32 | 917 |
| OP: OP 23 | 15 | 785 |
| OP: OP 24 | 14 | 553 |
| OP: OP 25 | 0 | 172 |
| 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 | 824 |
| OP: OP 44 | 0 | 6865 |
| OP: OP 45 | 0 | 2145 |
| OP: OP 46 | 0 | 2947 |
| OP: OP 47 | 0 | 15029 |
| OP: OP 48 | 0 | 0 |
| OP: OP 49 | 0 | 0 |
| OP: OP 50 | 0 | 0 |

| | | |
|---|---|---|
| OP: OP 51 | 0 | 0 |

## South Array - OP Receptor (OP 1)

*No glare found*

## South Array - OP Receptor (OP 2)

*No glare found*

## South Array - OP Receptor (OP 3)

*No glare found*

## South Array - OP Receptor (OP 4)

*No glare found*

## South Array - OP Receptor (OP 5)

*No glare found*

## South Array - OP Receptor (OP 6)

*No glare found*

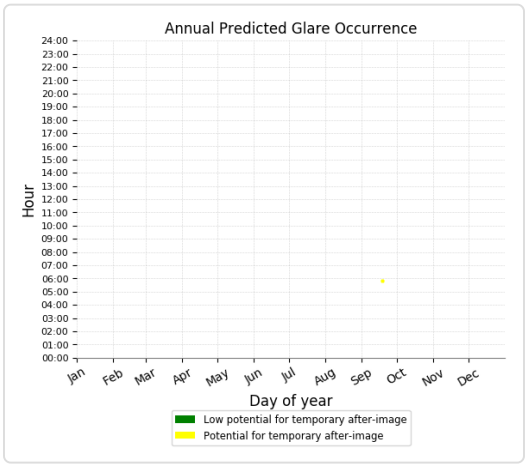
## South Array - OP Receptor (OP 7)

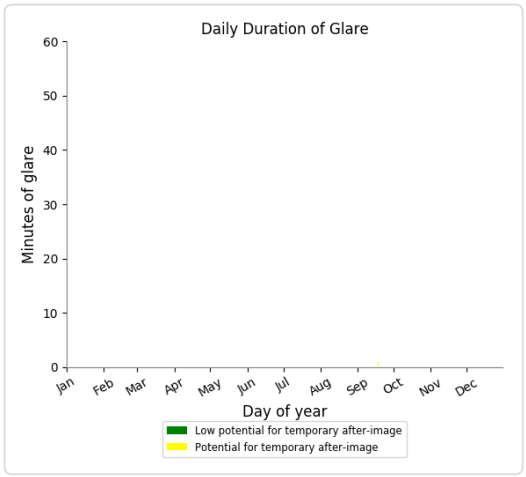
*No glare found*

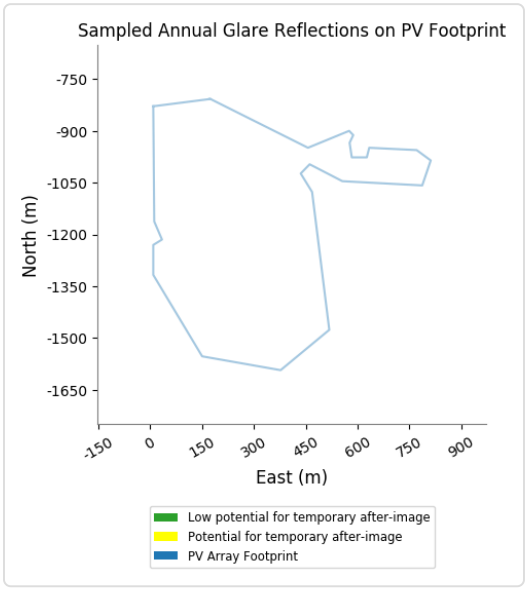
## South Array - OP Receptor (OP 8)

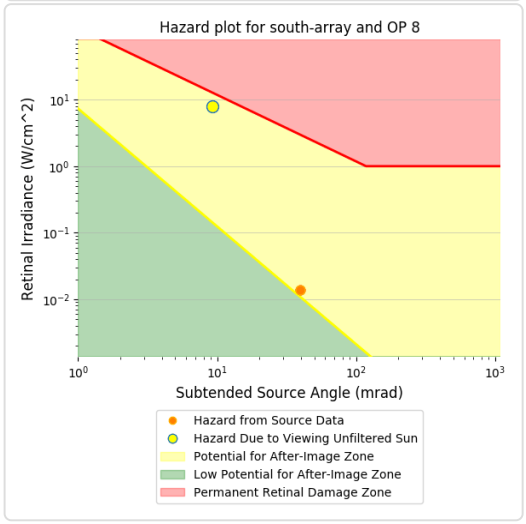
PV array is expected to produce the following glare for receptors at this location:

- 0 minutes of "green" glare with low potential to cause temporary after-image.
- 1 minutes of "yellow" glare with potential to cause temporary after-image.



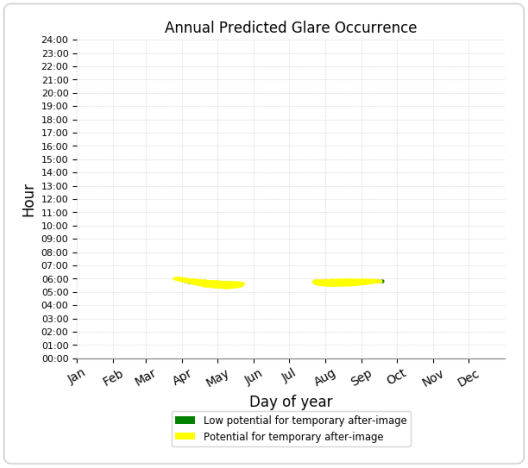



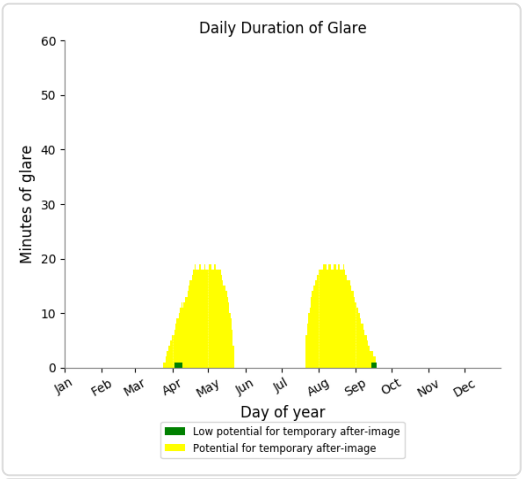



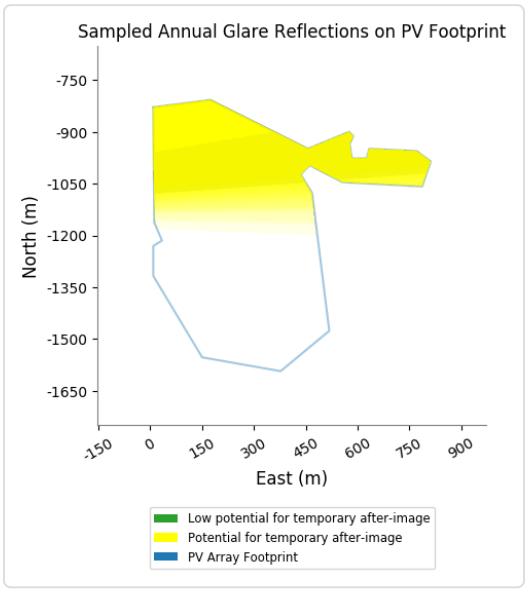
## South Array - OP Receptor (OP 9)

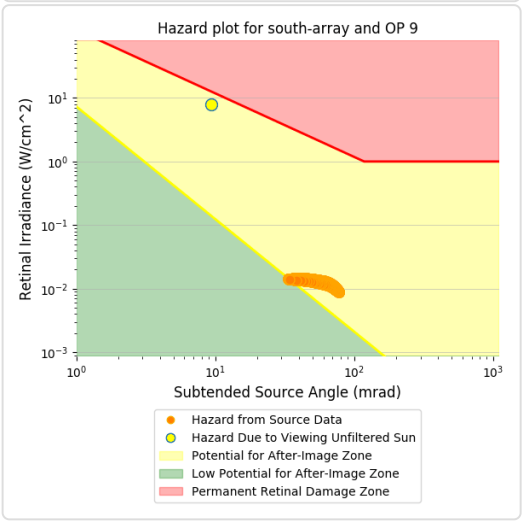
PV array is expected to produce the following glare for receptors at this location:

- 11 minutes of "green" glare with low potential to cause temporary after-image.
- 1,546 minutes of "yellow" glare with potential to cause temporary after-image.



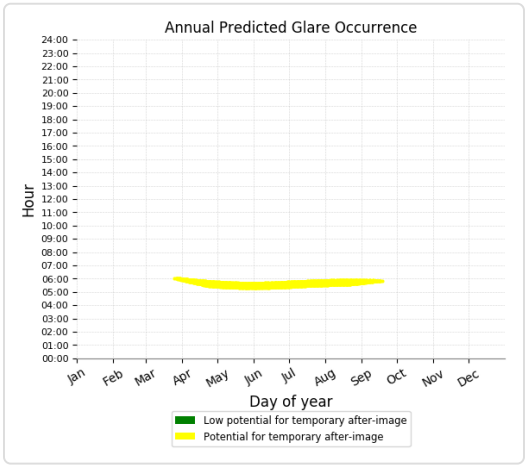



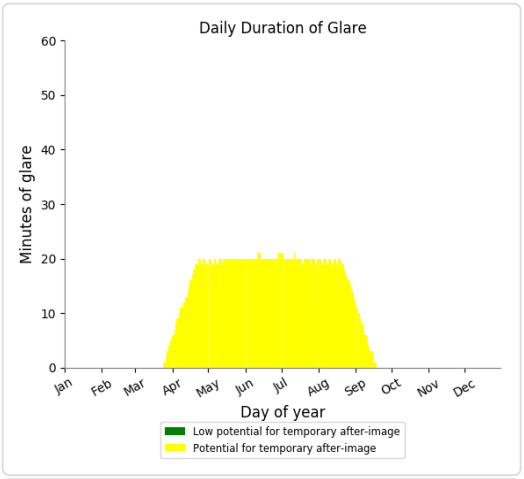



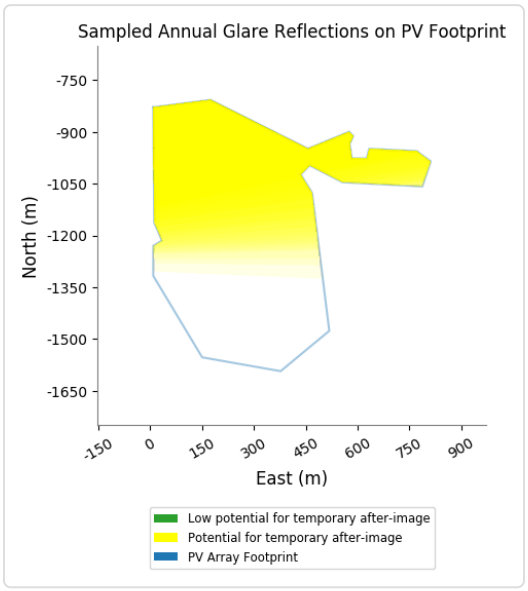
## South Array - OP Receptor (OP 10)

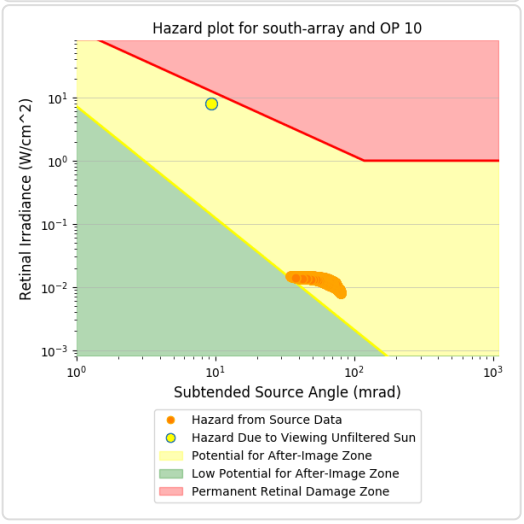
PV array is expected to produce the following glare for receptors at this location:

- 0 minutes of "green" glare with low potential to cause temporary after-image.
- 2,974 minutes of "yellow" glare with potential to cause temporary after-image.



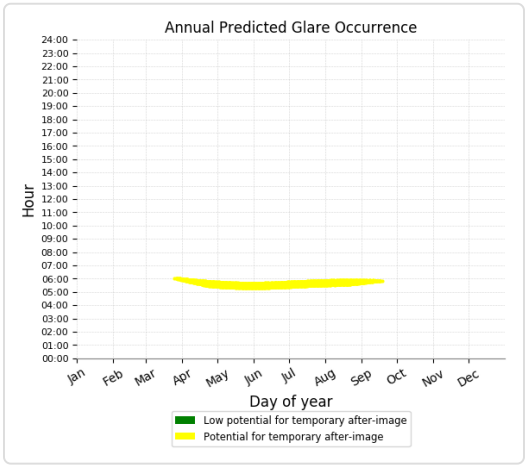



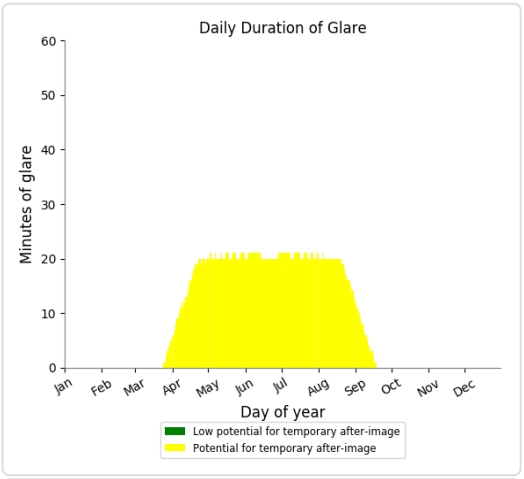



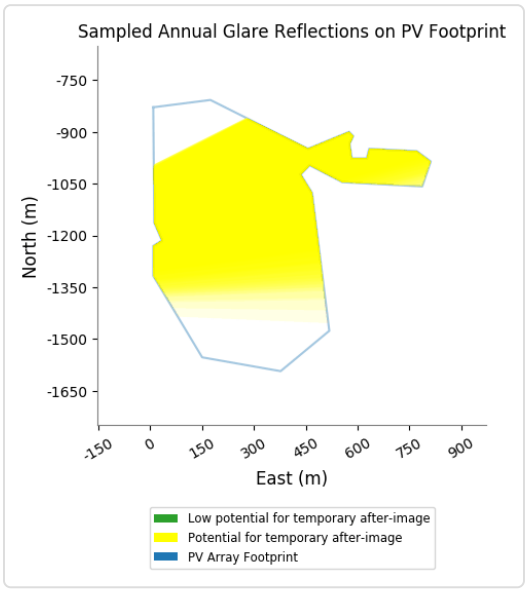
## South Array - OP Receptor (OP 11)

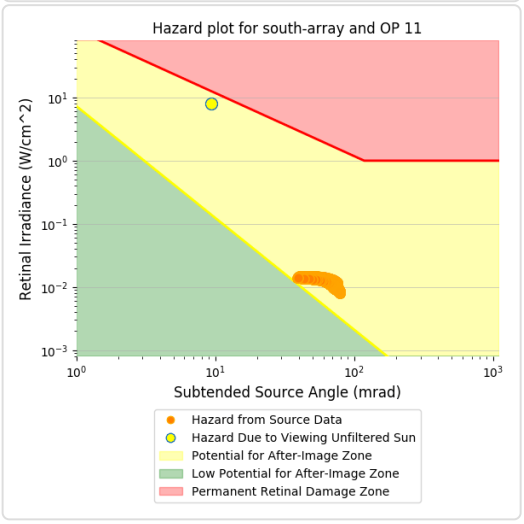
PV array is expected to produce the following glare for receptors at this location:

- 0 minutes of "green" glare with low potential to cause temporary after-image.
- 3,031 minutes of "yellow" glare with potential to cause temporary after-image.



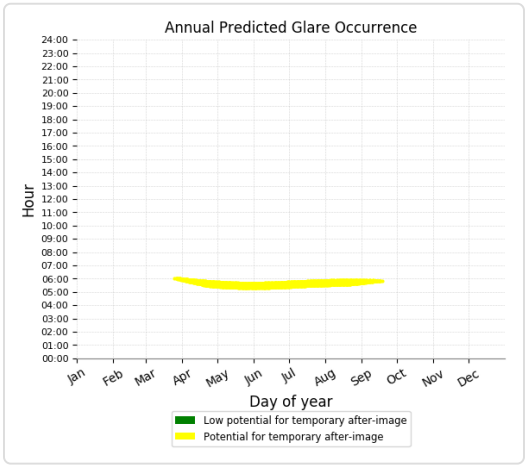



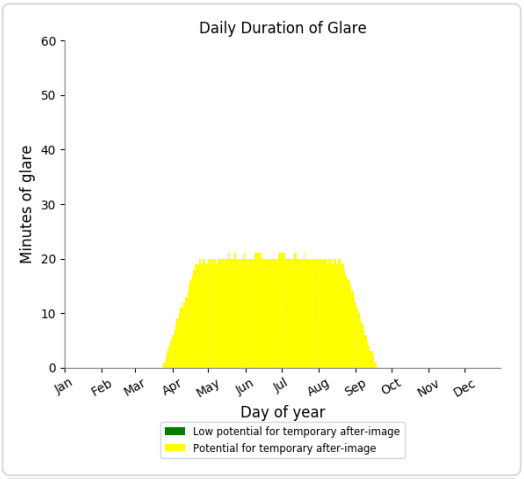



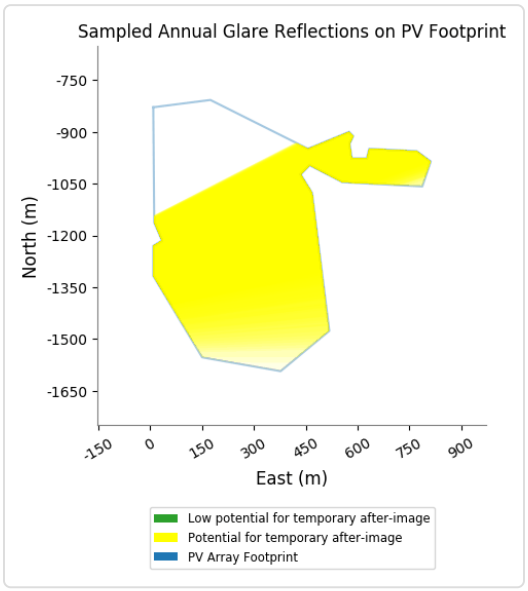
## South Array - OP Receptor (OP 12)

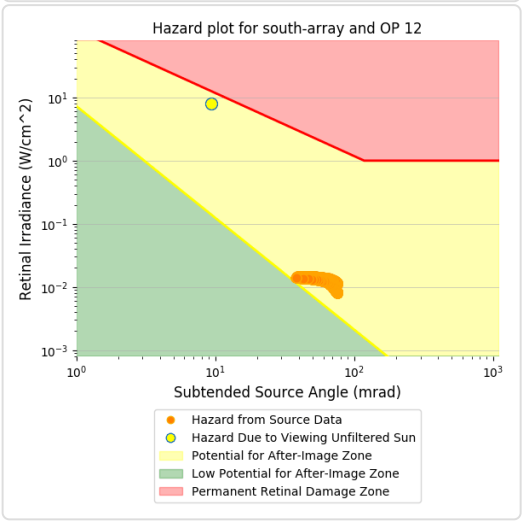
PV array is expected to produce the following glare for receptors at this location:

- 0 minutes of "green" glare with low potential to cause temporary after-image.
- 2,994 minutes of "yellow" glare with potential to cause temporary after-image.



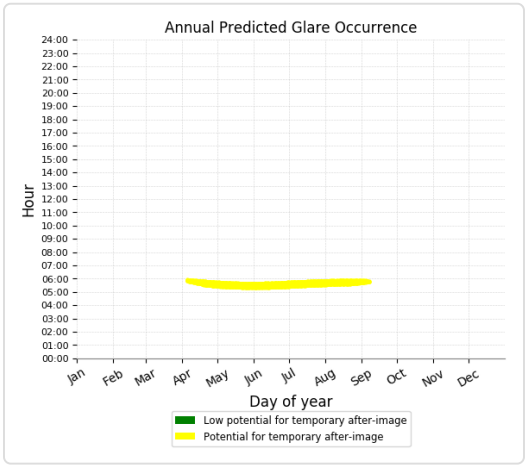



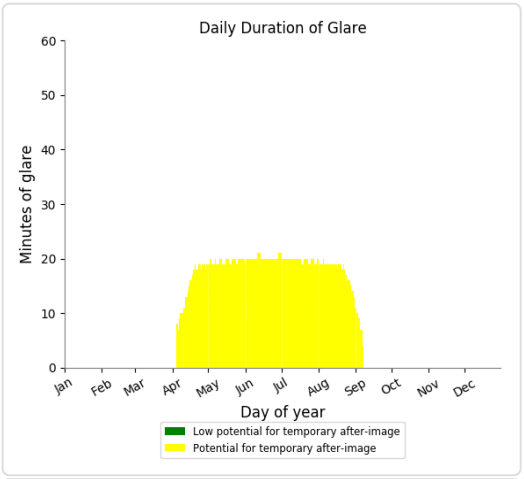



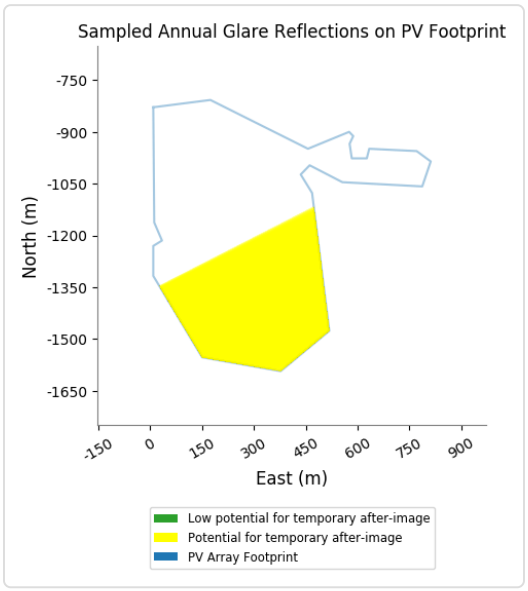
## South Array - OP Receptor (OP 13)

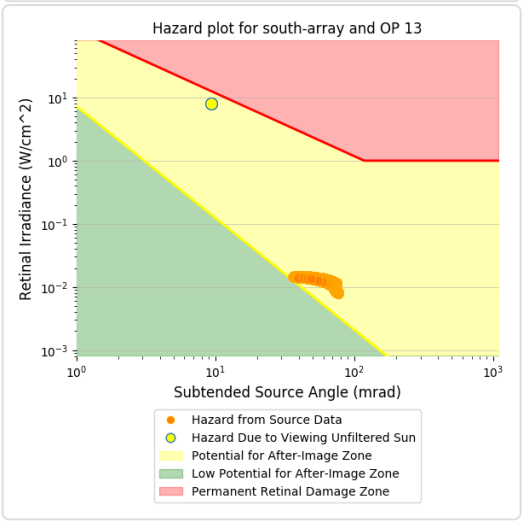
PV array is expected to produce the following glare for receptors at this location:

- 0 minutes of "green" glare with low potential to cause temporary after-image.
- 2,832 minutes of "yellow" glare with potential to cause temporary after-image.



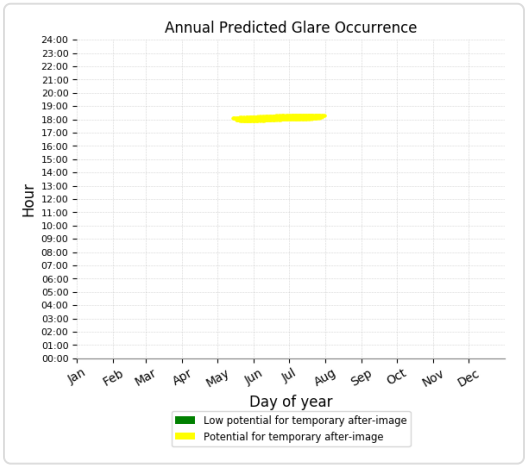

## South Array - OP Receptor (OP 14)

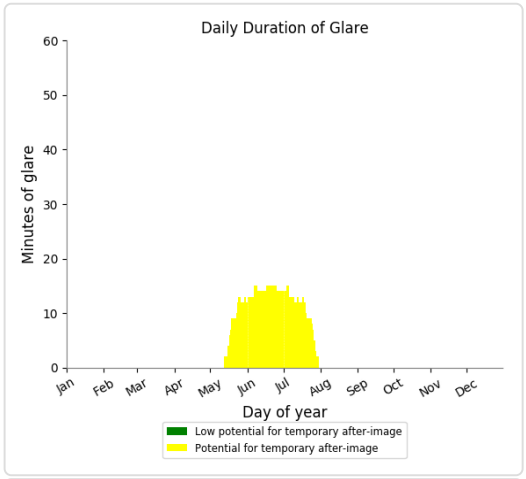
*No glare found*

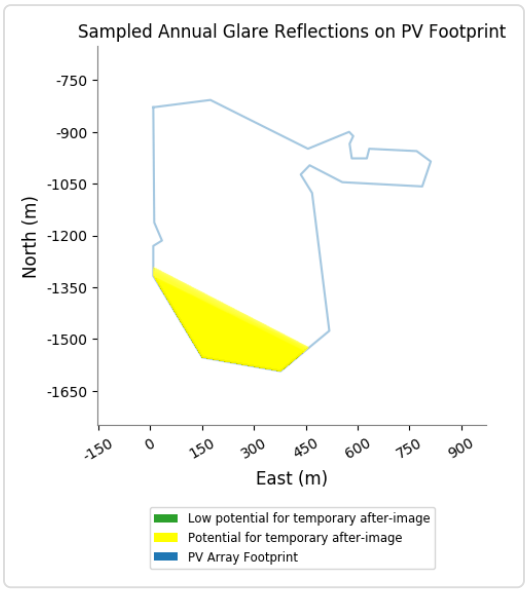
## South Array - OP Receptor (OP 15)

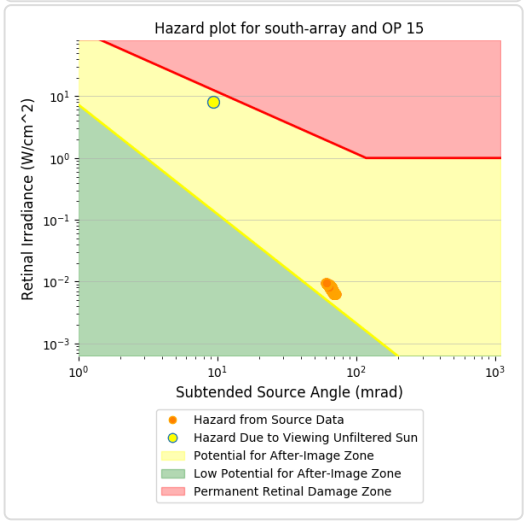
PV array is expected to produce the following glare for receptors at this location:

- 0 minutes of "green" glare with low potential to cause temporary after-image.
- 914 minutes of "yellow" glare with potential to cause temporary after-image.



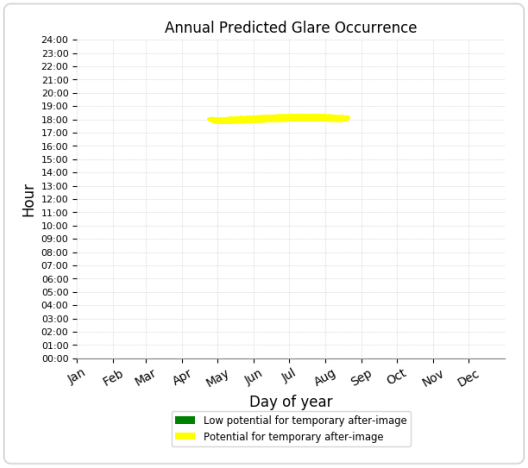



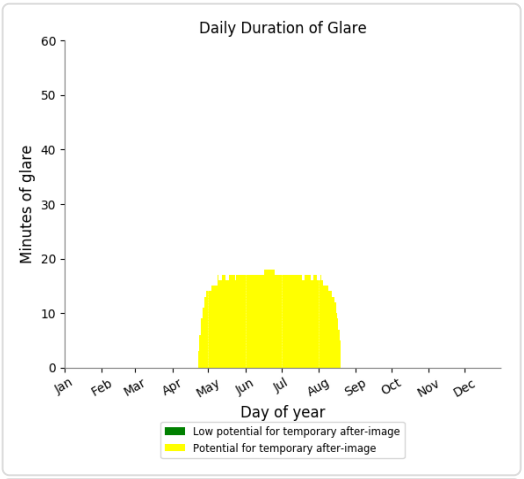



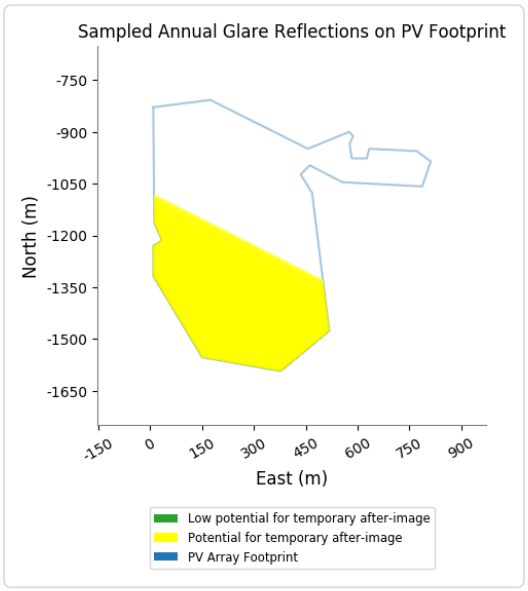
## South Array - OP Receptor (OP 16)

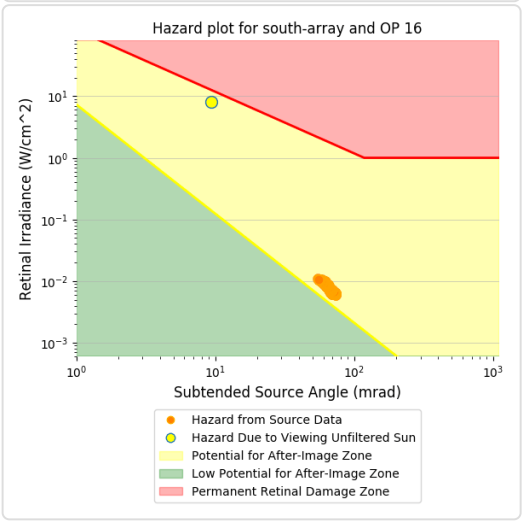
PV array is expected to produce the following glare for receptors at this location:

- 0 minutes of "green" glare with low potential to cause temporary after-image.
- 1,871 minutes of "yellow" glare with potential to cause temporary after-image.



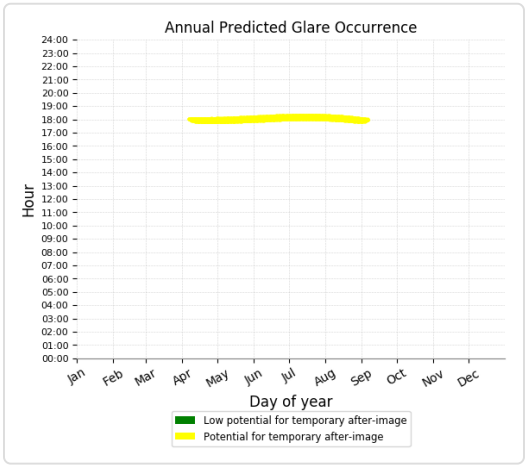



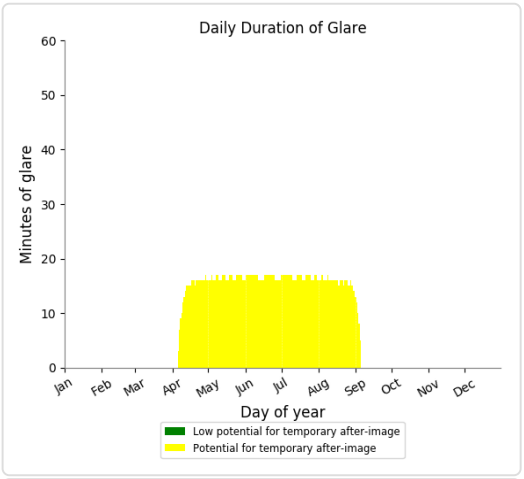



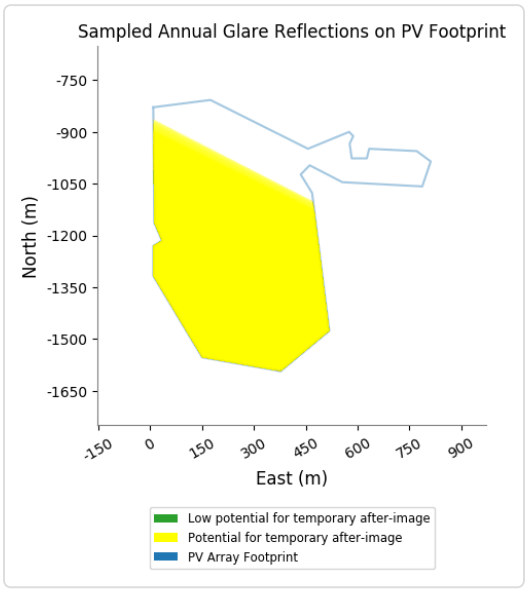
## South Array - OP Receptor (OP 17)

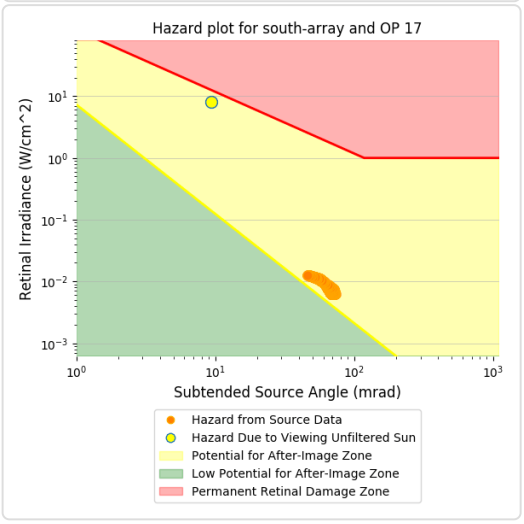
PV array is expected to produce the following glare for receptors at this location:

- 0 minutes of "green" glare with low potential to cause temporary after-image.
- 2,415 minutes of "yellow" glare with potential to cause temporary after-image.



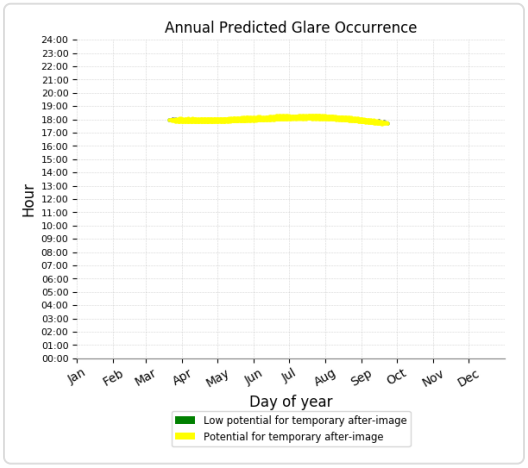



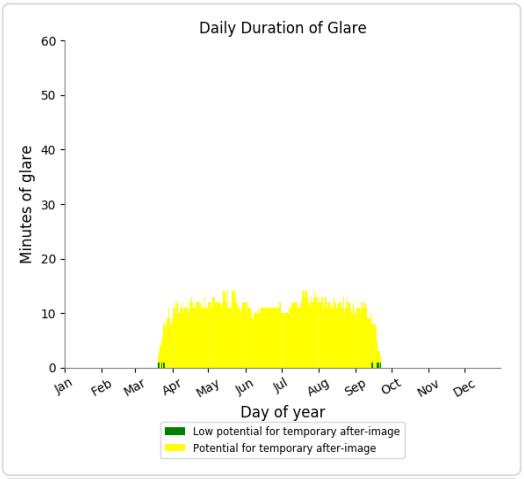



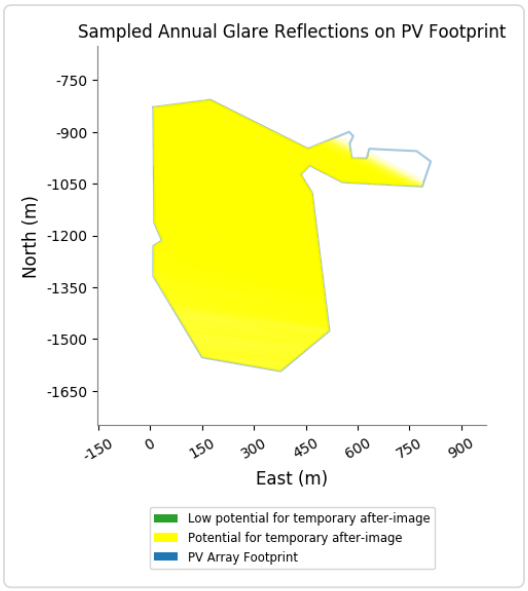
## South Array - OP Receptor (OP 18)

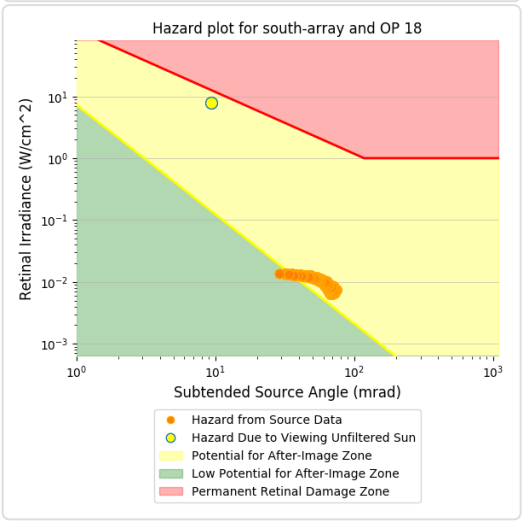
PV array is expected to produce the following glare for receptors at this location:

- 8 minutes of "green" glare with low potential to cause temporary after-image.
- 2,030 minutes of "yellow" glare with potential to cause temporary after-image.



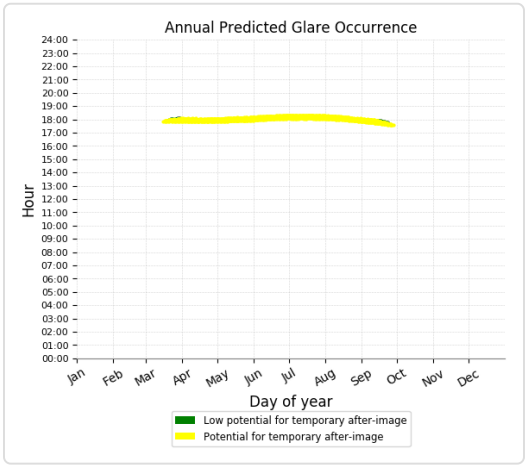



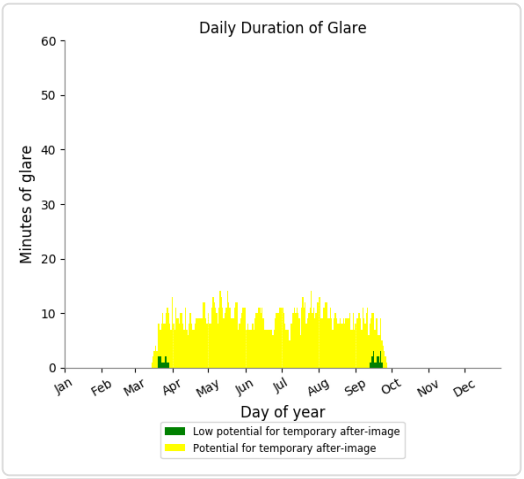



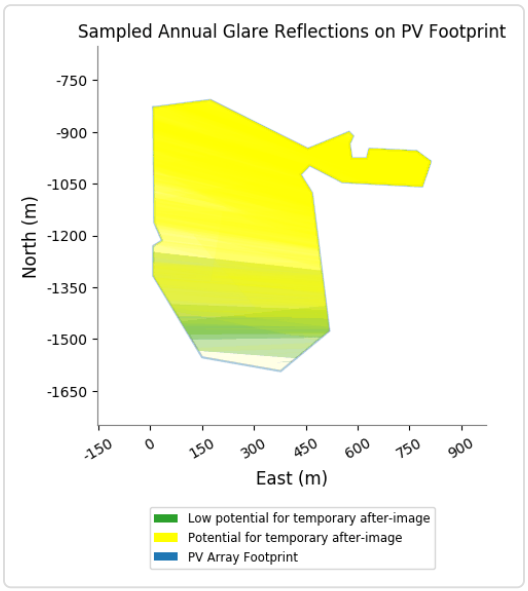
## South Array - OP Receptor (OP 19)

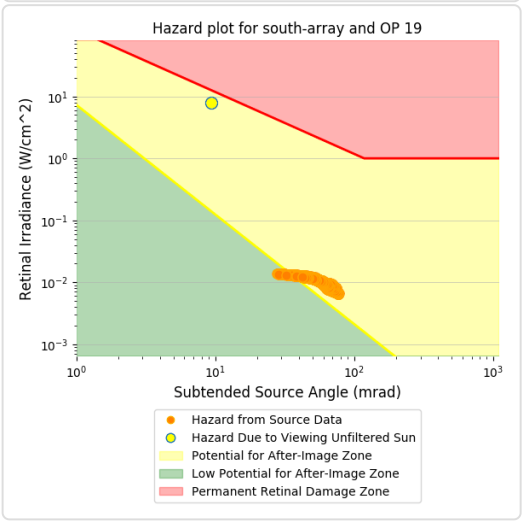
PV array is expected to produce the following glare for receptors at this location:

- 33 minutes of "green" glare with low potential to cause temporary after-image.
- 1,723 minutes of "yellow" glare with potential to cause temporary after-image.



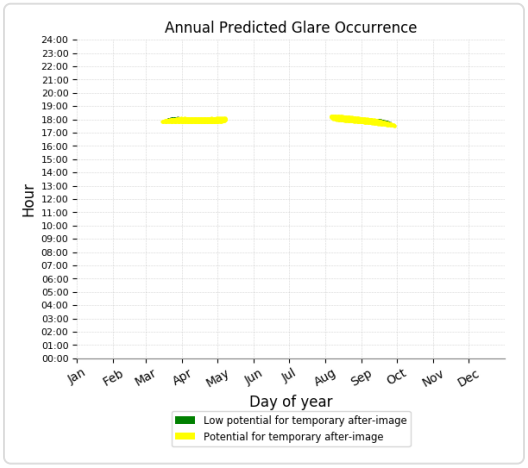



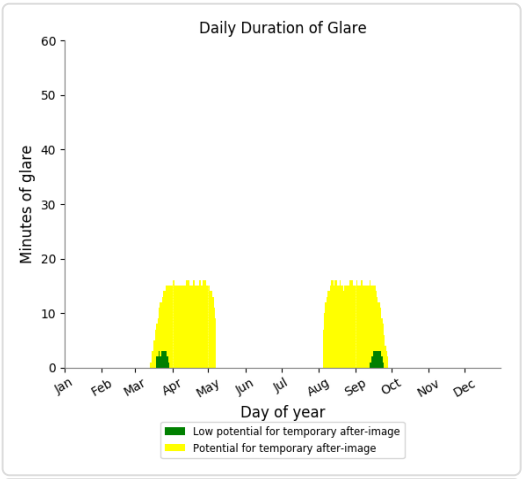



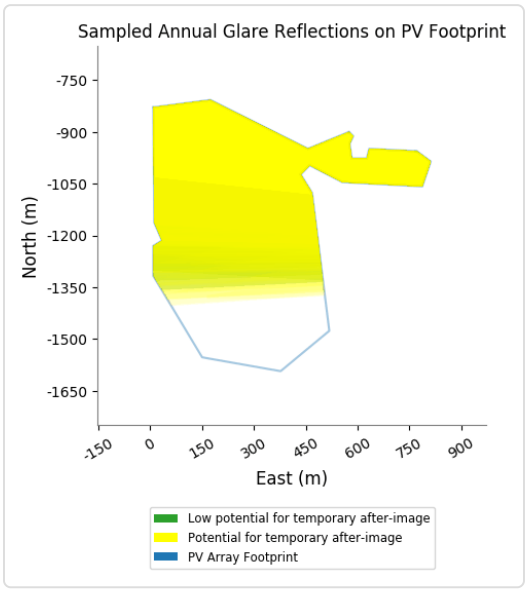
## South Array - OP Receptor (OP 20)

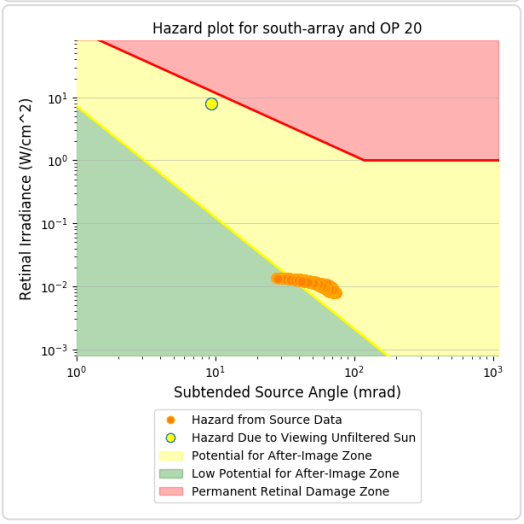
PV array is expected to produce the following glare for receptors at this location:

- 55 minutes of "green" glare with low potential to cause temporary after-image.
- 1,426 minutes of "yellow" glare with potential to cause temporary after-image.



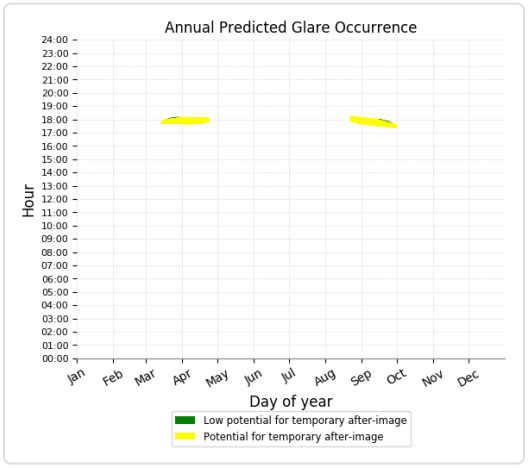



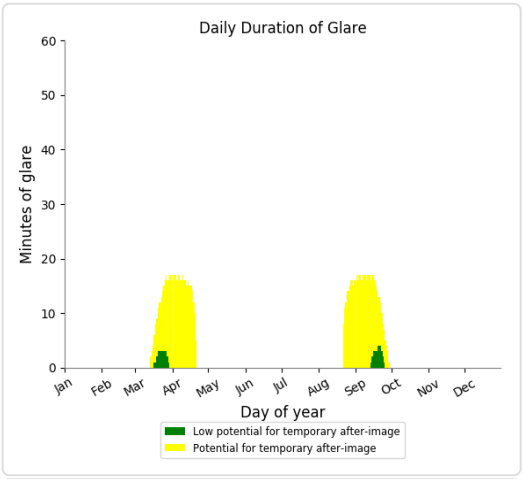



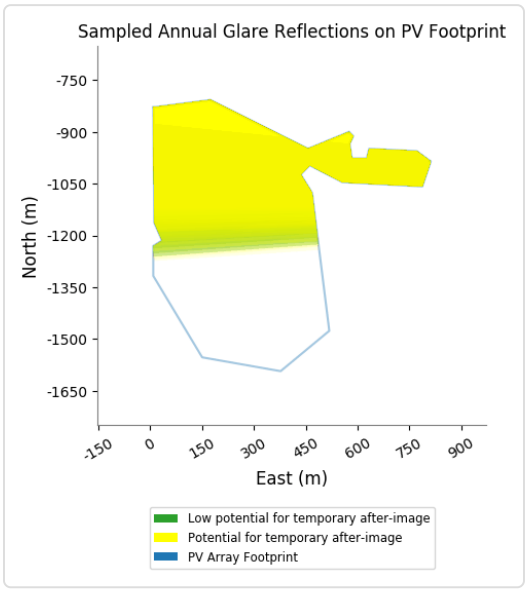
## South Array - OP Receptor (OP 21)

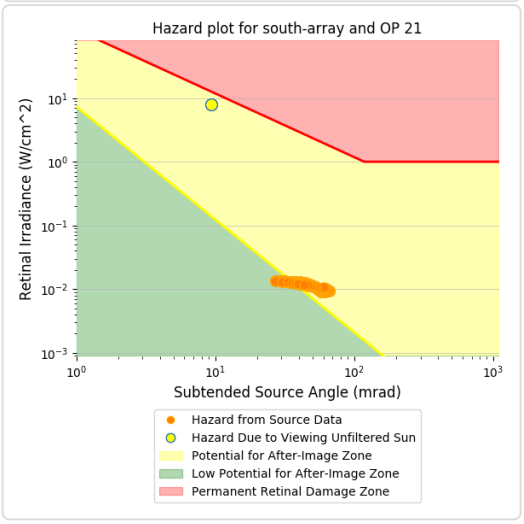
PV array is expected to produce the following glare for receptors at this location:

- 64 minutes of "green" glare with low potential to cause temporary after-image.
- 984 minutes of "yellow" glare with potential to cause temporary after-image.



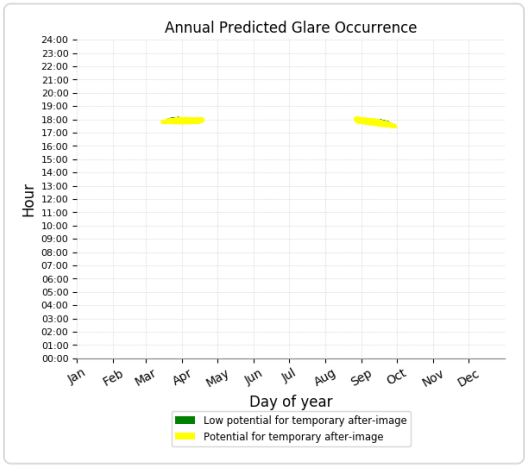



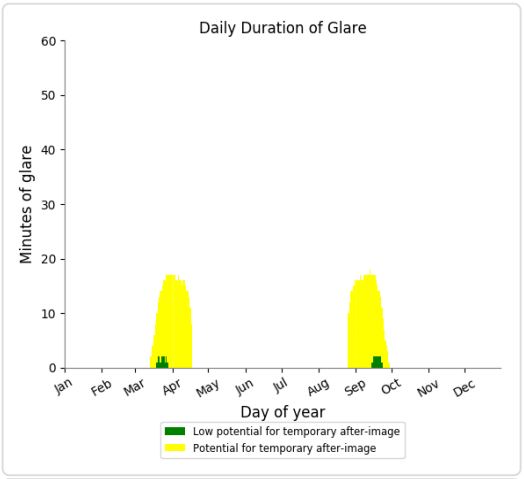



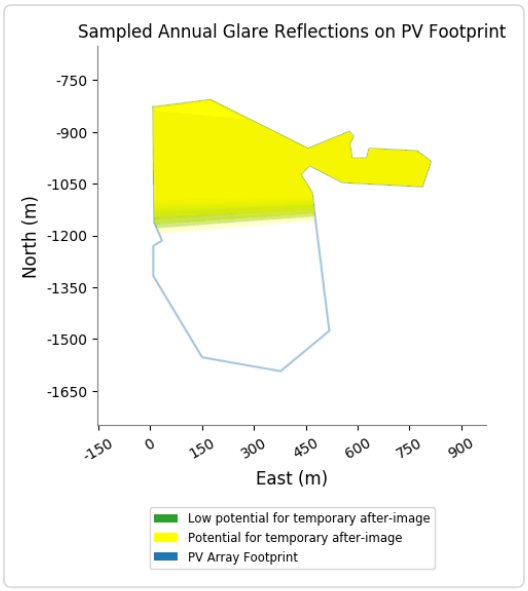
## South Array - OP Receptor (OP 22)

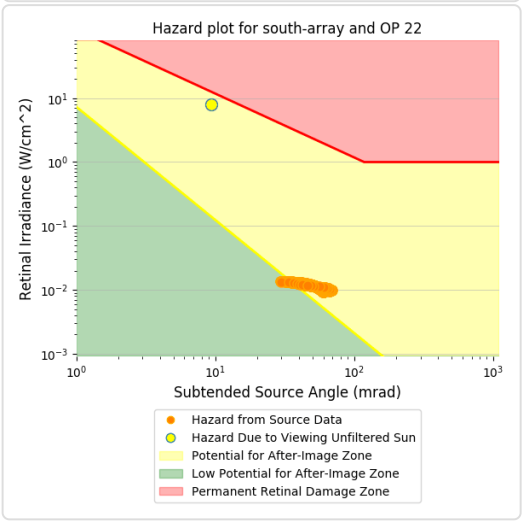
PV array is expected to produce the following glare for receptors at this location:

- 32 minutes of "green" glare with low potential to cause temporary after-image.
- 917 minutes of "yellow" glare with potential to cause temporary after-image.



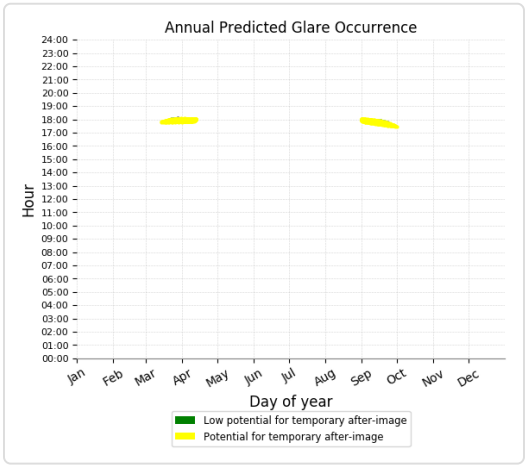



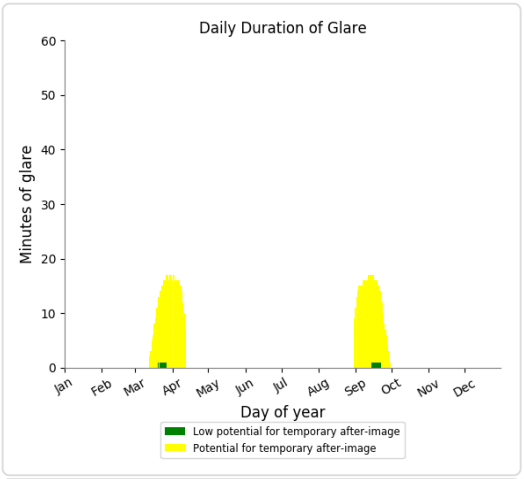



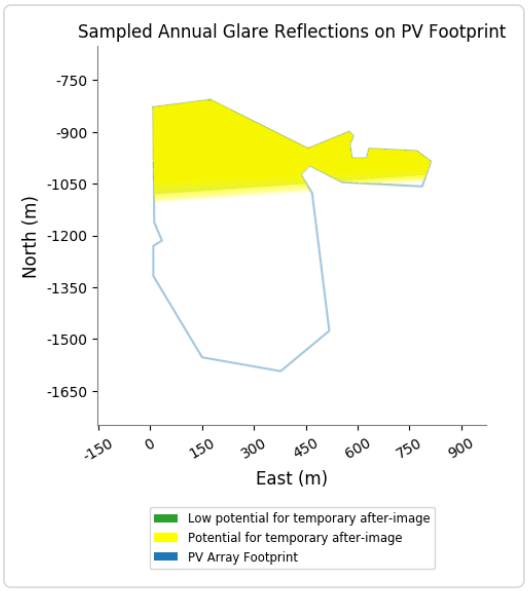
## South Array - OP Receptor (OP 23)

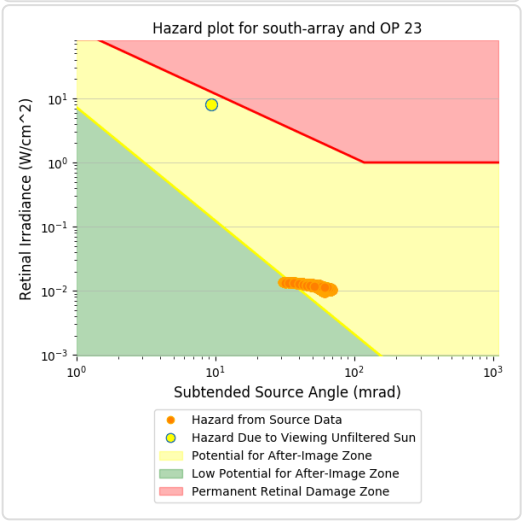
PV array is expected to produce the following glare for receptors at this location:

- 15 minutes of "green" glare with low potential to cause temporary after-image.
- 785 minutes of "yellow" glare with potential to cause temporary after-image.



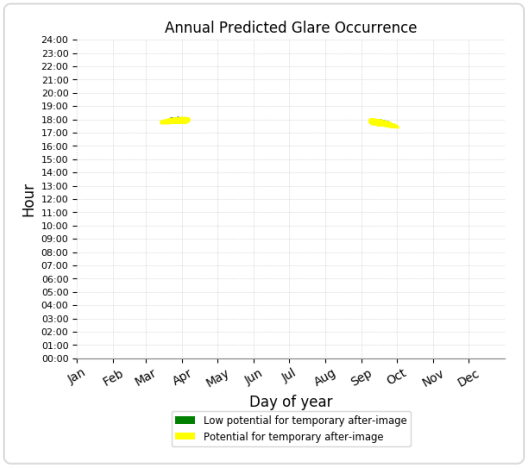



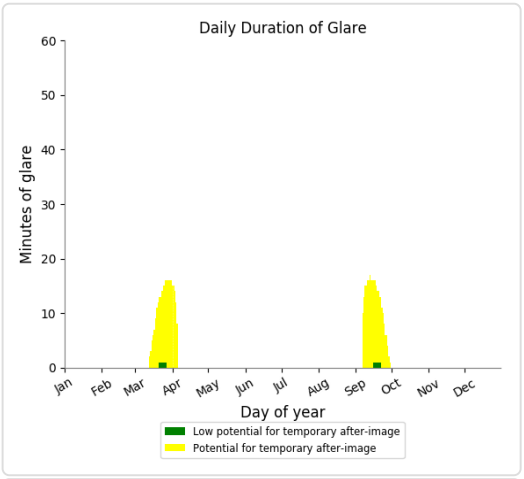



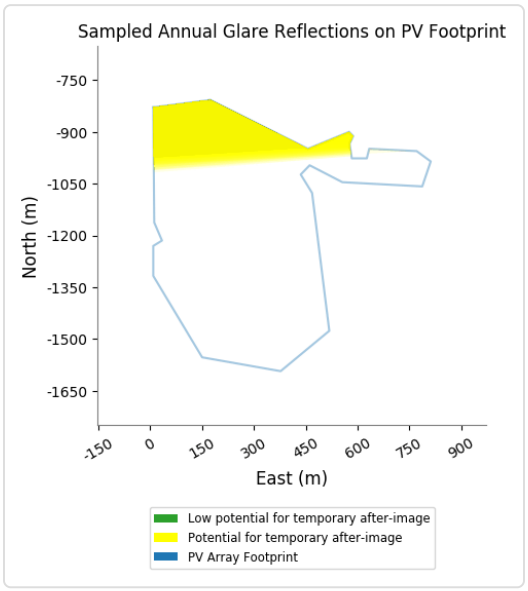
## South Array - OP Receptor (OP 24)

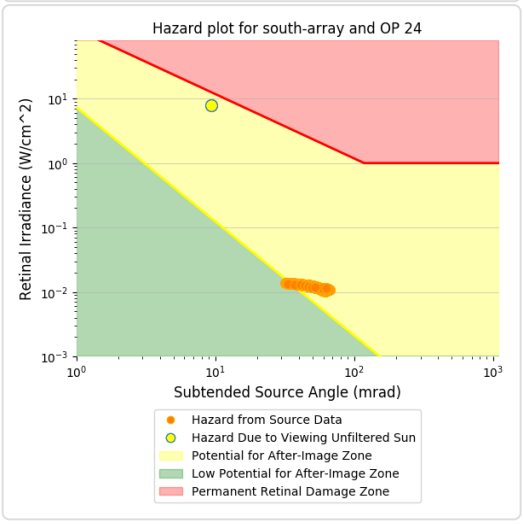
PV array is expected to produce the following glare for receptors at this location:

- 14 minutes of "green" glare with low potential to cause temporary after-image.
- 553 minutes of "yellow" glare with potential to cause temporary after-image.



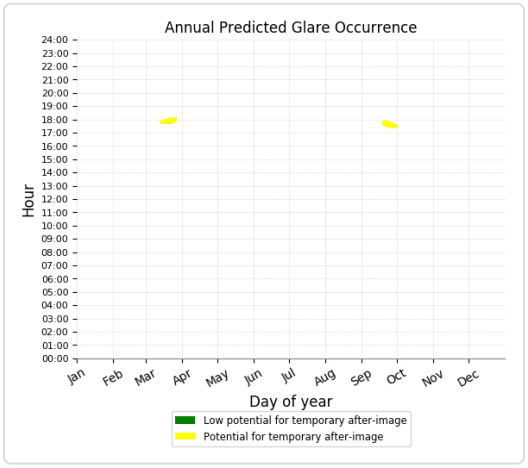



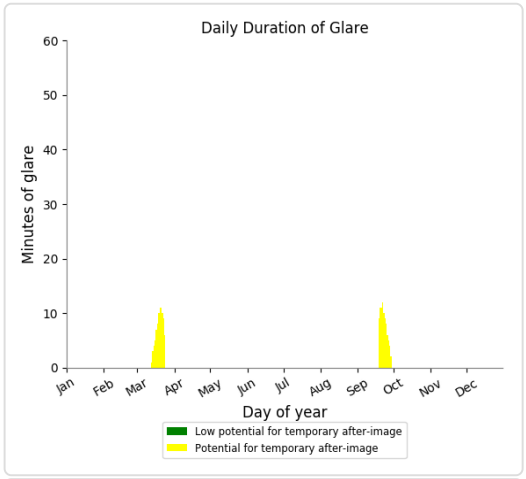



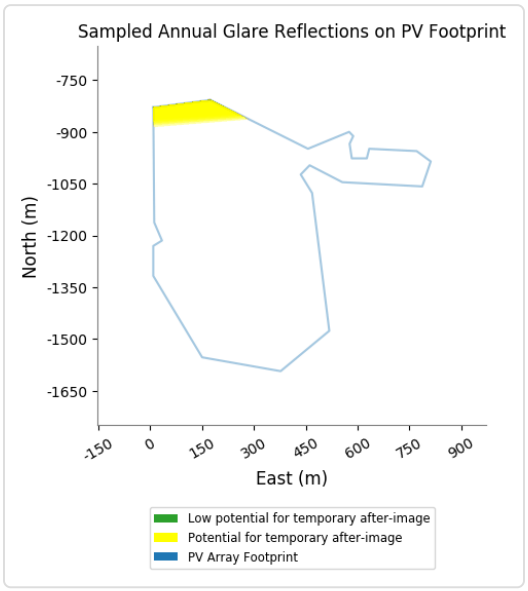
## South Array - OP Receptor (OP 25)

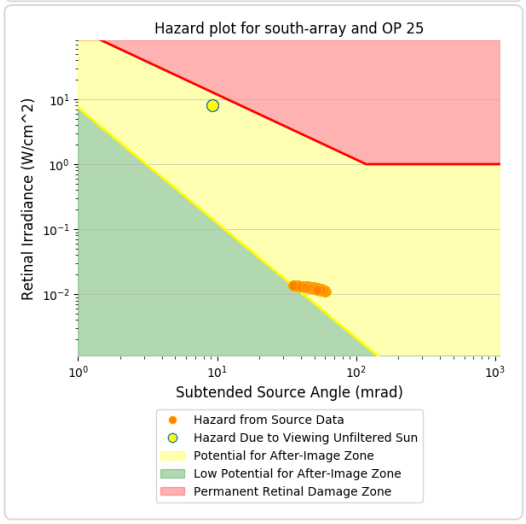
PV array is expected to produce the following glare for receptors at this location:

- 0 minutes of "green" glare with low potential to cause temporary after-image.
- 172 minutes of "yellow" glare with potential to cause temporary after-image.




## South Array - OP Receptor (OP 26)

*No glare found*

## South Array - OP Receptor (OP 27)

*No glare found*

## South Array - OP Receptor (OP 28)

*No glare found*

## South Array - OP Receptor (OP 29)

*No glare found*

## South Array - OP Receptor (OP 30)

*No glare found*

## South Array - OP Receptor (OP 31)

*No glare found*

## South Array - OP Receptor (OP 32)

*No glare found*

## South Array - OP Receptor (OP 33)

*No glare found*

### South Array - OP Receptor (OP 34)
*No glare found*

### South Array - OP Receptor (OP 35)
*No glare found*

### South Array - OP Receptor (OP 36)
*No glare found*

### South Array - OP Receptor (OP 37)
*No glare found*

### South Array - OP Receptor (OP 38)
*No glare found*

### South Array - OP Receptor (OP 39)
*No glare found*

### South Array - OP Receptor (OP 40)
*No glare found*

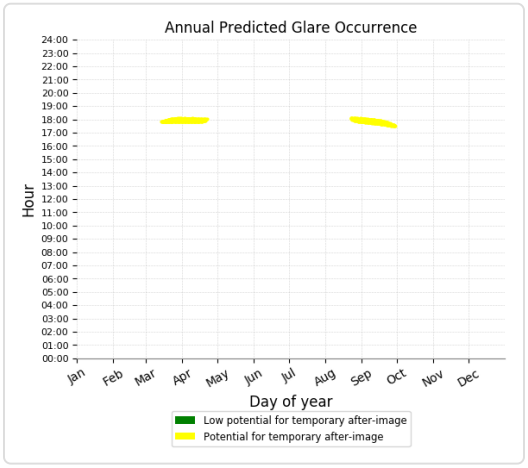
### South Array - OP Receptor (OP 41)
*No glare found*

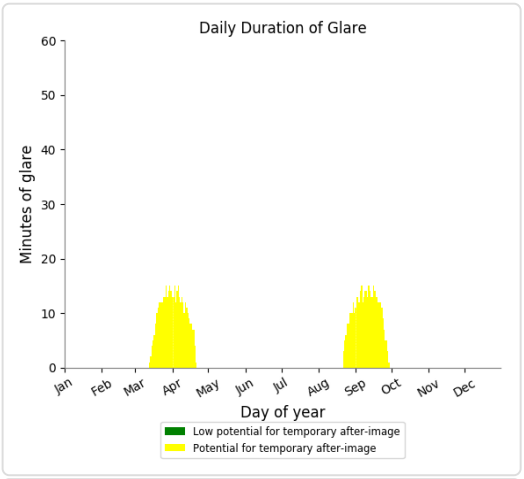
### South Array - OP Receptor (OP 42)
*No glare found*

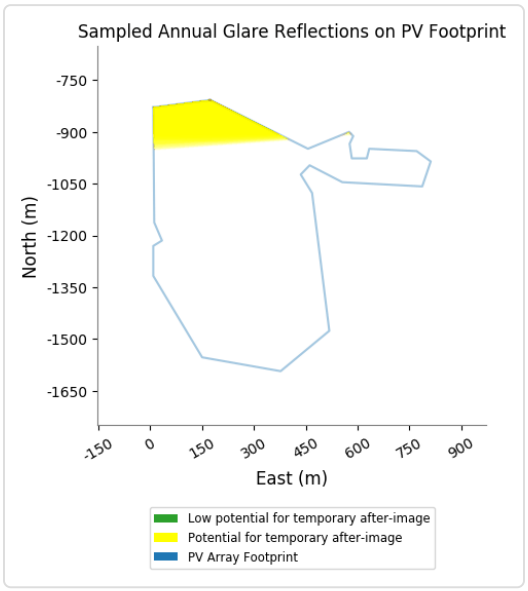
## South Array - OP Receptor (OP 43)

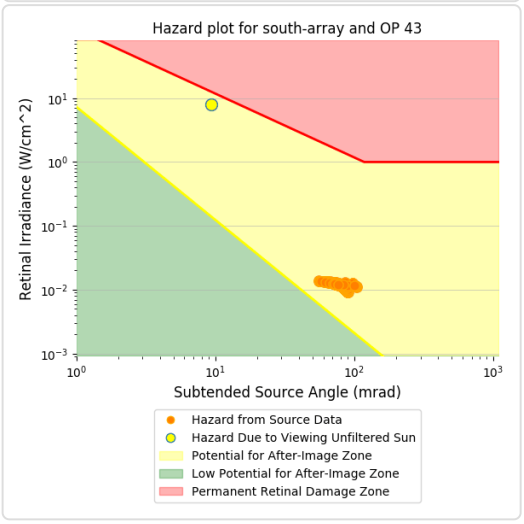
PV array is expected to produce the following glare for receptors at this location:

- 0 minutes of "green" glare with low potential to cause temporary after-image.
- 824 minutes of "yellow" glare with potential to cause temporary after-image.



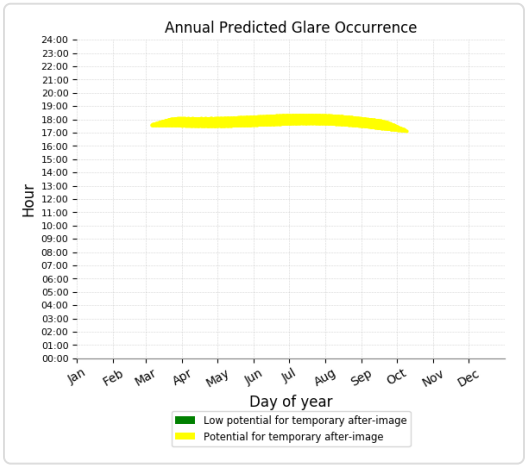



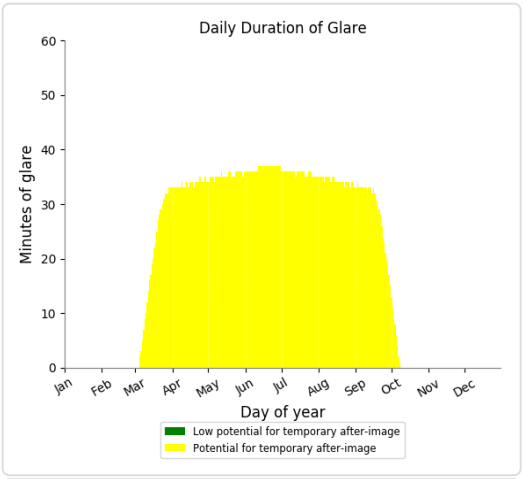



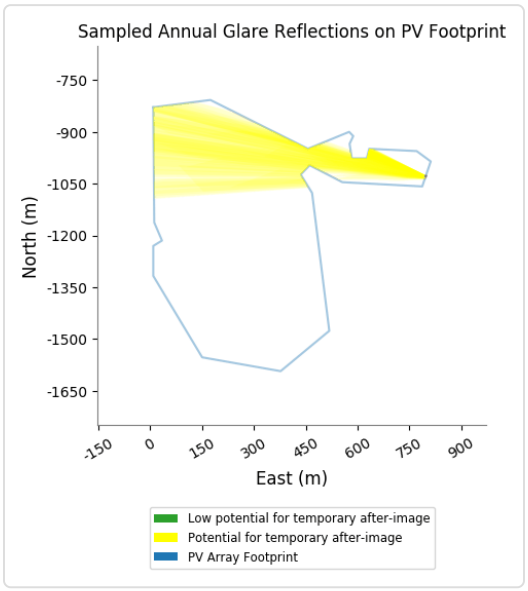
## South Array - OP Receptor (OP 44)

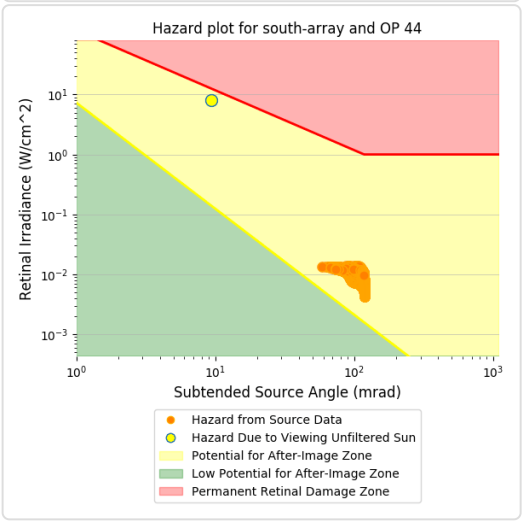
PV array is expected to produce the following glare for receptors at this location:

- 0 minutes of "green" glare with low potential to cause temporary after-image.
- 6,865 minutes of "yellow" glare with potential to cause temporary after-image.



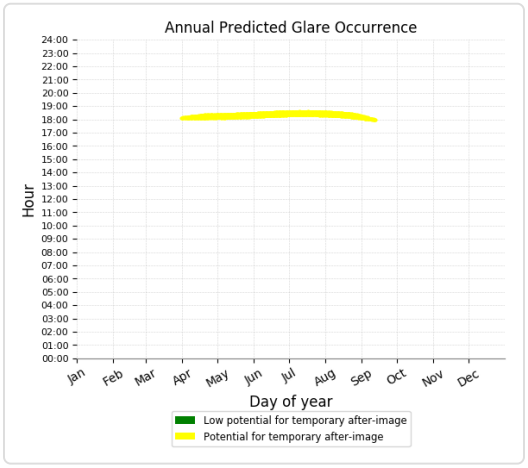



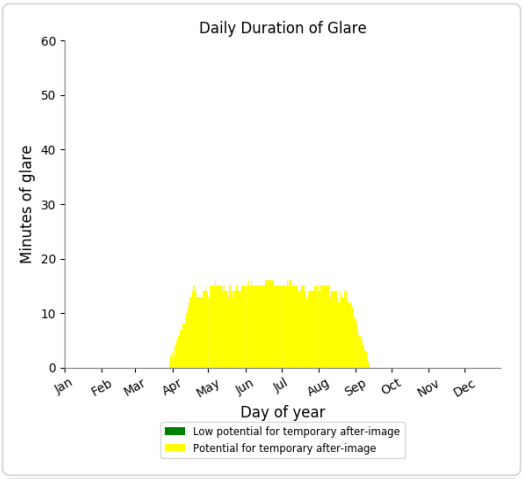



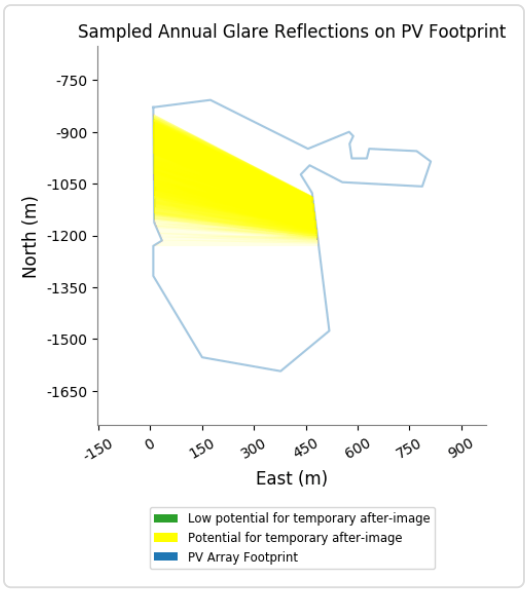
## South Array - OP Receptor (OP 45)

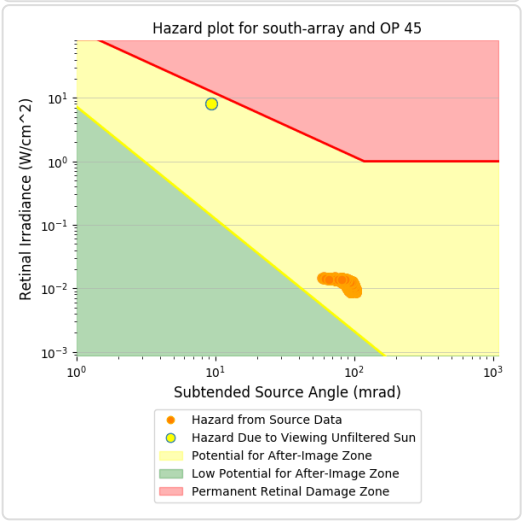
PV array is expected to produce the following glare for receptors at this location:

- 0 minutes of "green" glare with low potential to cause temporary after-image.
- 2,145 minutes of "yellow" glare with potential to cause temporary after-image.



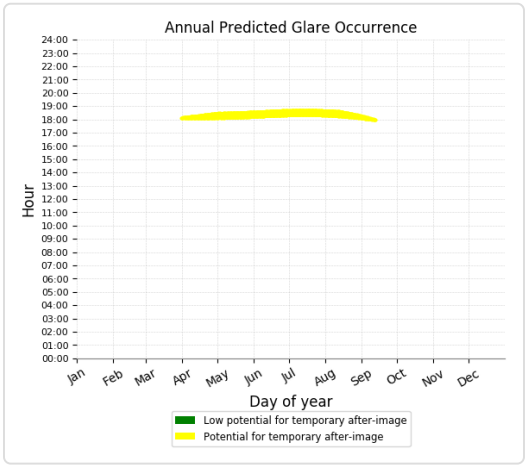



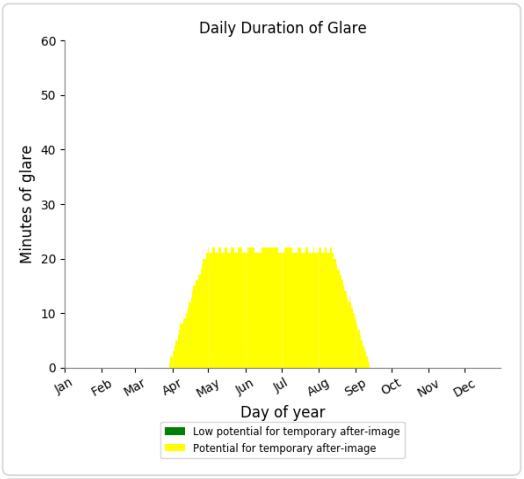



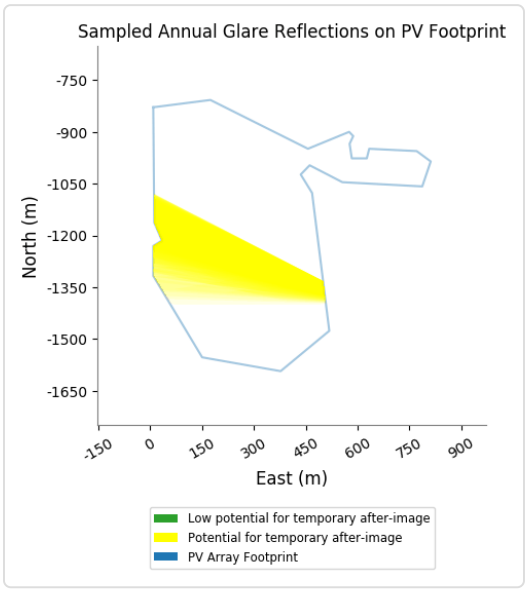
## South Array - OP Receptor (OP 46)

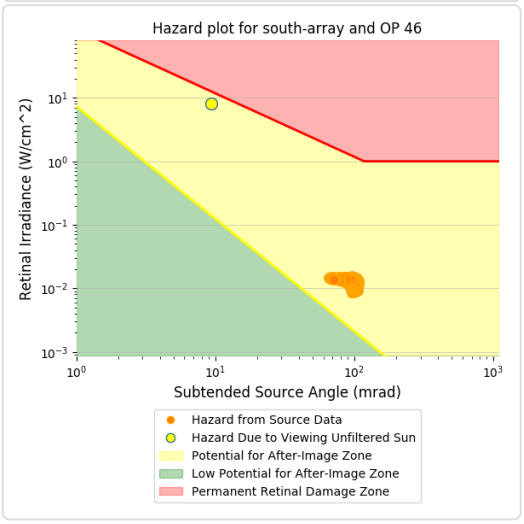
PV array is expected to produce the following glare for receptors at this location:

- 0 minutes of "green" glare with low potential to cause temporary after-image.
- 2,947 minutes of "yellow" glare with potential to cause temporary after-image.



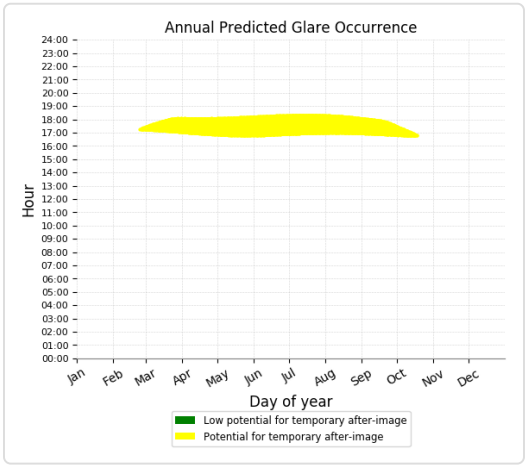



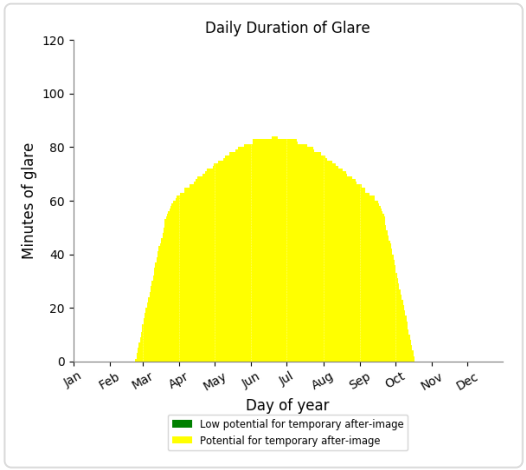



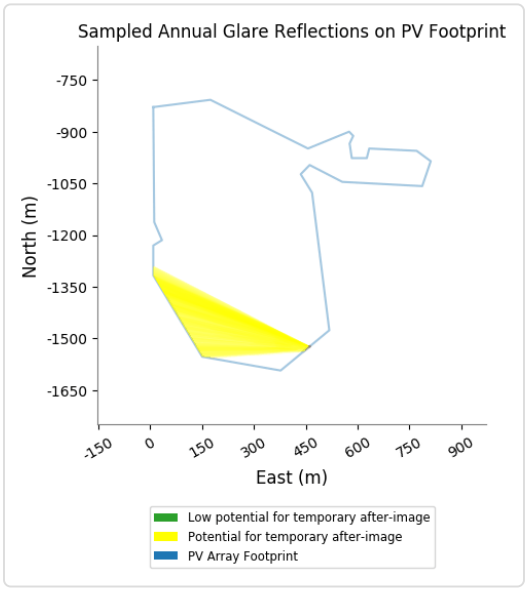
## South Array - OP Receptor (OP 47)

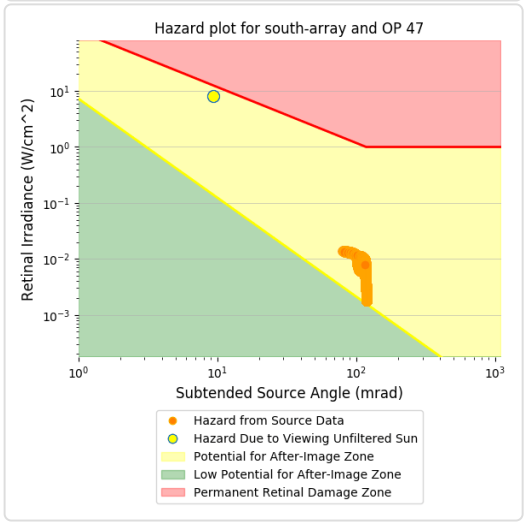
PV array is expected to produce the following glare for receptors at this location:

- 0 minutes of "green" glare with low potential to cause temporary after-image.
- 15,029 minutes of "yellow" glare with potential to cause temporary after-image.




## South Array - OP Receptor (OP 48)

*No glare found*

## South Array - OP Receptor (OP 49)

*No glare found*

## South Array - OP Receptor (OP 50)

*No glare found*

## South Array - OP Receptor (OP 51)

*No glare found*

# Assumptions

- Times associated with glare are denoted in Standard time. For Daylight Savings, add one hour.
- Glare analyses do not 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 fo 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.
- Glare vector plots are simplified representations of analysis data. Actual glare emanations and results may differ.
- Refer to the **Help page** for detailed assumptions and limitations not listed here.