GlareGauge Glare Analysis Results

Site Configuration: Site 1

Project site configuration details and results.

Created **Aug. 22, 2017 10:58 a.m.**
DNI **varies** and peaks at **1,000.0 W/m^2**
Analyze every **1** minute(s)
0.5 ocular transmission coefficient
0.002 ft pupil diameter
0.017 ft eye focal length
9.3 mrad sun subtended angle
Site Configuration ID: 9859.1692

Summary of Results

Glare with low potential for temporary after-image predicted

PV name	Tilt	Orientation	"Green" Glare	"Yellow" Glare	Energy Produced
	deg	deg	min	min	kWh
PV array 1	25.0	180.0	598	0	-

Component Data

PV Array(s)

Name: PV array 1
Axis tracking: Fixed (no rotation)
Tilt: 25.0 deg
Orientation: 180.0 deg
Rated power: -
Panel material: Smooth glass with AR coating
Vary reflectivity with sun position? Yes
Correlate slope error with surface type? Yes
Slope error: 8.43 mrad

Vertex	Latitude	Longitude	Ground elevation	Height above ground	Total elevation
	deg	deg	ft	ft	ft
1	45.234163	-93.480778	885.40	0.00	885.40
2	45.235825	-93.485649	875.23	0.00	875.23
3	45.233936	-93.485541	868.51	0.00	868.51
4	45.233860	-93.480713	884.62	0.00	884.62

Discrete Observation Receptors

Number	Latitude	Longitude	Ground elevation	Height above ground	Total Elevation
	deg	deg	ft	ft	ft
1	45.239919	-93.488910	883.91	0.00	883.91
2	45.238680	-93.485155	881.20	0.00	881.20
3	45.237698	-93.482108	874.43	0.00	874.43
4	45.236973	-93.479533	877.22	0.00	877.22
5	45.235734	-93.475842	879.92	0.00	879.92
6	45.233679	-93.473461	873.86	0.00	873.86

PV Array Results

PV array 1 low potential for temporary after-image

Component	Green glare (min)	Yellow glare (min)
OP: 1	0	0
OP: 2	0	0
OP: 3	0	0
OP: 4	0	0
OP: 5	13	0
OP: 6	585	0

PV array 1 - OP Receptor (1)

No glare found

PV array 1 - OP Receptor (2)

No glare found

PV array 1 - OP Receptor (3)

No glare found

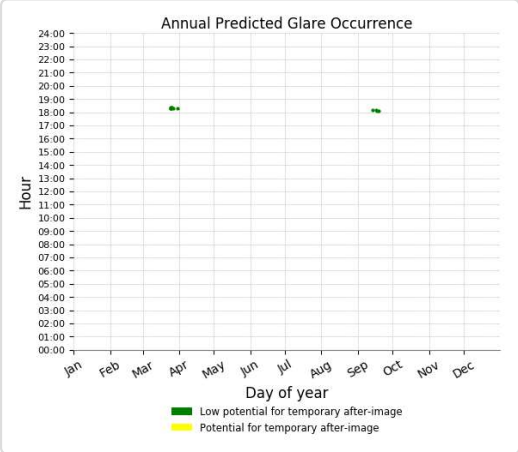
PV array 1 - OP Receptor (4)

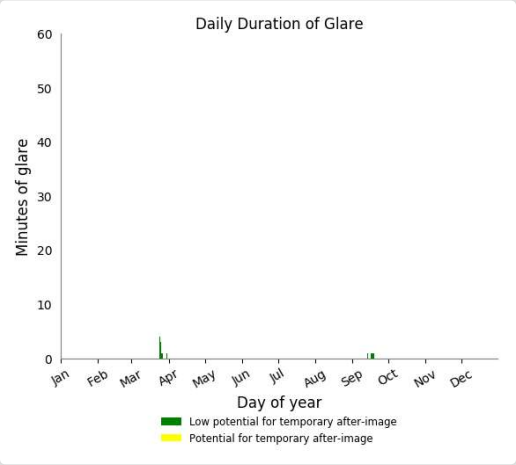
No glare found

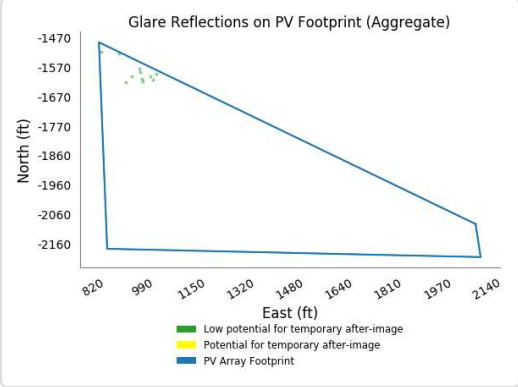
PV array 1 - OP Receptor (5)

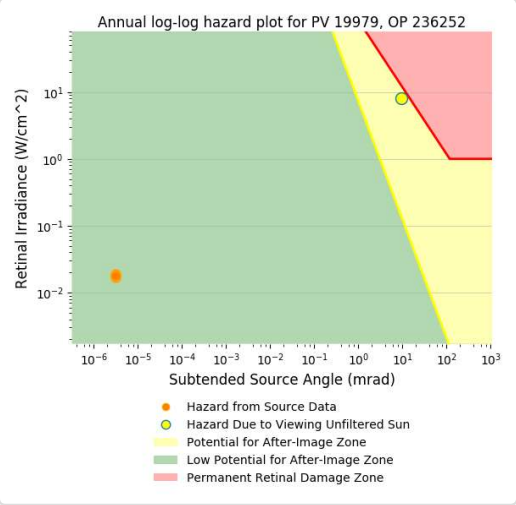
PV array is expected to produce the following glare for receptors at this location:

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





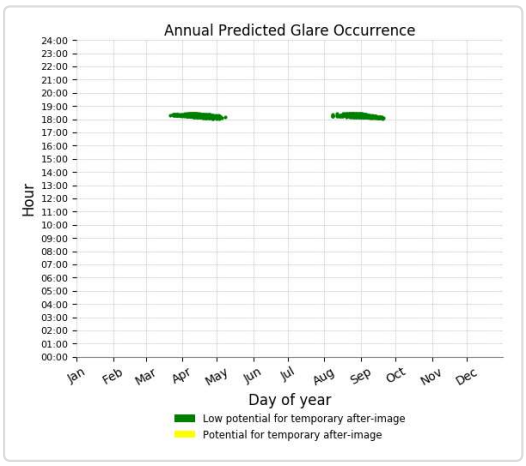


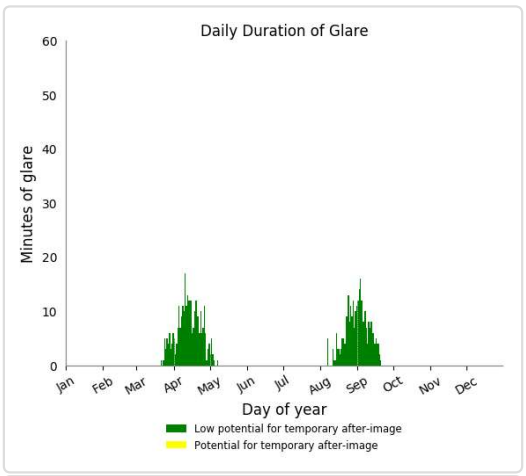


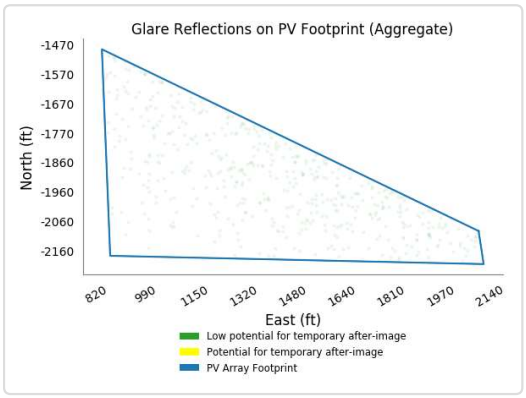
PV array 1 - OP Receptor (6)

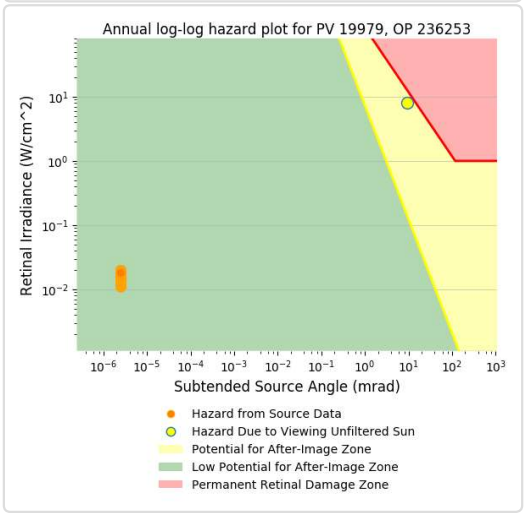
PV array is expected to produce the following glare for receptors at this location:

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









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.
- The glare hazard determination relies on several approximations including observer eye characteristics, angle of view, and typical blink response time. Actual values may differ.
- 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.