GlareGauge Glare Analysis Results

Site Configuration: Untitled

Project site configuration details and results.
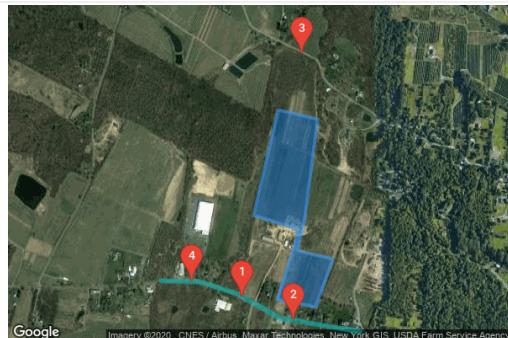
Created **Jan. 22, 2020 1:15 p.m.**
Updated **Jan. 22, 2020 1:16 p.m.**
DNI **varies** and peaks at **1,000.0 W/m^2**
Analyze every **1** minute(s)
0.5 ocular transmission coefficient
0.002 m pupil diameter
0.017 m eye focal length
9.3 mrad sun subtended angle
Timezone **UTC-5**
Site Configuration ID: 34921.6437

Summary of Results No glare predicted!

PV name	Tilt	Orientation	"Green" Glare	"Yellow" Glare	Energy Produced
	deg	deg	min	min	kWh
Independent Array	SA tracking	SA tracking	0	0	-

Component Data

PV Array(s)

Name: Independent Array
Axis tracking: Single-axis rotation
Tracking axis orientation: 180.0 deg
Tracking axis tilt: 5.0 deg
Tracking axis panel offset: 0.0 deg
Maximum tracking angle: 60.0 deg
Resting angle: 60.0 deg
Rated power: -
Panel material: Smooth glass without AR coating
Vary reflectivity with sun position? Yes
Correlate slope error with surface type? Yes
Slope error: 6.55 mrad

Vertex	Latitude	Longitude	Ground elevation	Height above ground	Total elevation
	deg	deg	ft	ft	ft
1	41.673549	-73.976608	450.00	0.00	450.00
2	41.673196	-73.974591	418.12	0.00	418.12
3	41.669253	-73.975277	383.00	0.00	383.00
4	41.668195	-73.975663	384.77	0.00	384.77
5	41.667874	-73.973818	356.54	0.00	356.54
6	41.666047	-73.974676	401.99	0.00	401.99
7	41.666336	-73.976650	428.43	0.00	428.43
8	41.668131	-73.975878	388.65	0.00	388.65
9	41.668997	-73.975535	384.12	0.00	384.12
10	41.669541	-73.977852	405.71	0.00	405.71

Route Receptor(s)

Name: Route 1
Route type Two-way
View angle: 50.0 deg

Vertex	Latitude	Longitude	Ground elevation	Height above ground	Total elevation
	deg	deg	ft	ft	ft
1	41.665123	-73.972438	388.22	0.00	388.22
2	41.665620	-73.976494	438.66	0.00	438.66
3	41.666550	-73.978704	418.58	0.00	418.58
4	41.667015	-73.980614	411.71	0.00	411.71
5	41.667047	-73.982588	424.77	0.00	424.77

Discrete Observation Receptors

Number	Latitude	Longitude	Ground elevation	Height above ground	Total Elevation
	deg	deg	ft	ft	ft
OP 1	41.666442	-73.978446	419.27	6.00	425.28
OP 2	41.665560	-73.975807	438.13	6.00	444.13
OP 3	41.675706	-73.975378	372.83	6.00	378.83
OP 4	41.667031	-73.981021	410.25	6.00	416.25

PV Array Results

Independent Array

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
Route: Route 1	0	0

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.
- Several calculations utilize the PV array centroid, rather than the actual glare spot location, due to algorithm limitations. This may affect results for large PV footprints. Additional analyses of array sub-sections can provide additional information on expected glare.
- The subtended source angle (glare spot size) is constrained by the PV array footprint size. Partitioning large arrays into smaller sections will reduce the maximum potential subtended angle, potentially impacting results if actual glare spots are larger than the sub-array size. Additional analyses of the combined area of adjacent sub-arrays can provide more information on potential glare hazards. (See previous point on related limitations.)
- Hazard zone boundaries shown in the Glare Hazard plot are an approximation and visual aid. Actual ocular impact outcomes encompass a continuous, not discrete, spectrum.
- Glare locations displayed on receptor plots are approximate. Actual glare-spot locations may differ.
- Glare vector plots are simplified representations of analysis data. Actual glare emanations and results may differ.
- Refer to the **Help page** for assumptions and limitations not listed here.