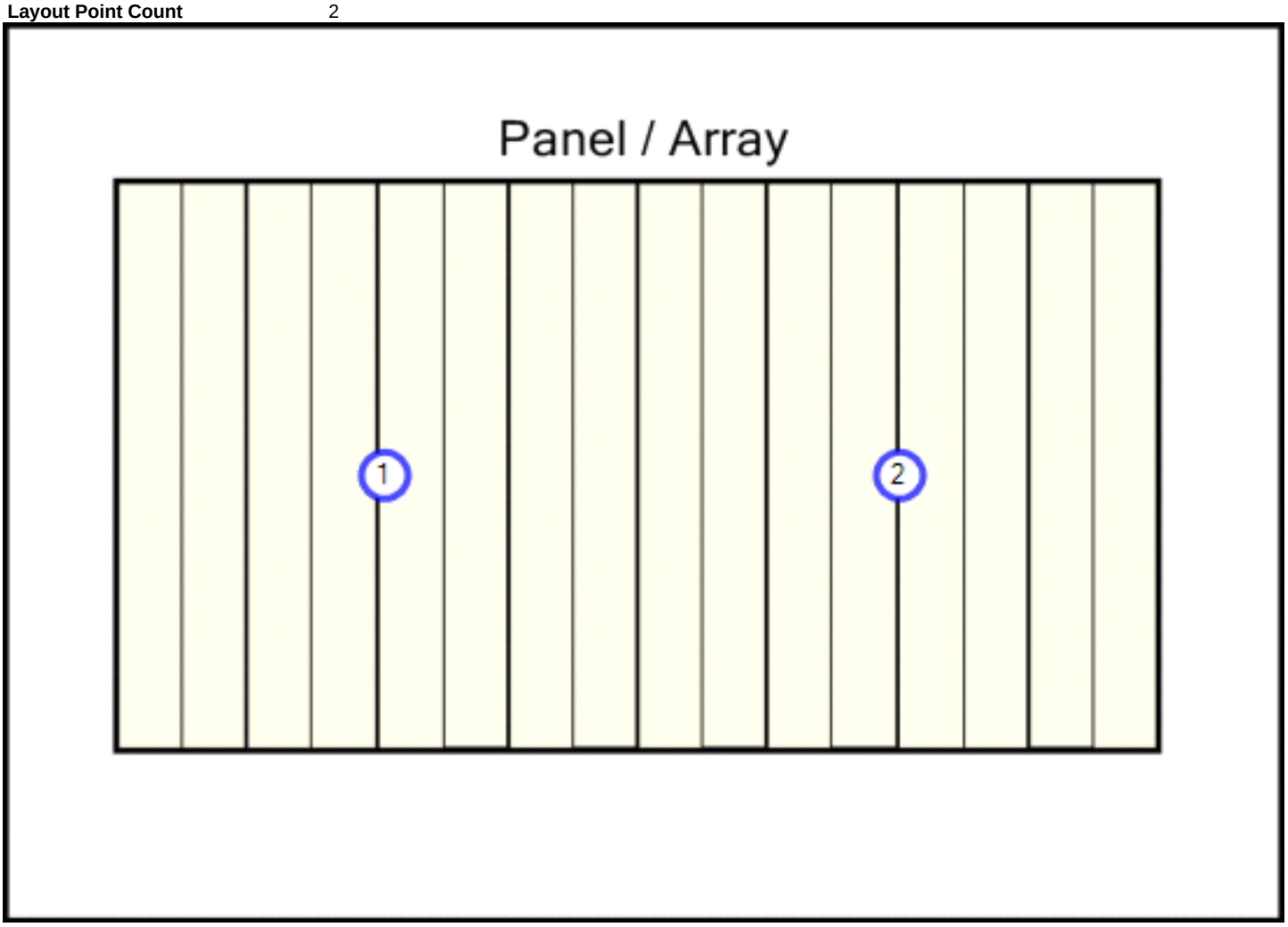
Site Report

Report Name	Gortner Ave Awning
Report Date	1/20/2016 10:25:41 AM
Declination	10d 31m
Location	Lat/Long specified
Lat/Long	44.98 / -93.18
Weather Station	St Paul-Downtown AP, MN, Elevation: 722 Feet, (44.933/-93.050)
Site Distance	7 Miles
Report Type	Ecological
Array Type	Fixed Angle
Tilt Angle	40.00 deg
Ideal Tilt Angle	44.98 deg
Azimuth	180.00 deg
Ideal Azimuth	180.00 deg
Layout Configuration	Custom
Layout Point Count	2

Notes: Proposed awning mount on south wall of Gortner Ave Ramp. System tilt proposed at 40 degrees, actual tilt subject to final racking design. System azimuth 180 degrees, due South, Pathfinder Compass reading incorrect due to large inductance field from nearby electrical equipment.

System Picture Layout

Layout Type	Custom
Layout Point Count	2



Summary Report

Solar Obstruction Data

Month	Unshaded % of Ideal Site Azimuth=180 Tilt=44.98	Actual Shaded Solar Radiation Azimuth=180.0 Tilt=40.0 kWh/m²
January	86.86 %	2.21
February	94.72 %	4.63
March	100.00 %	3.27
April	99.96 %	5.44
May	100.00 %	4.86
June	100.00 %	4.88
July	100.00 %	5.12
August	100.00 %	6.05
September	99.93 %	5.53
October	98.67 %	3.31
November	92.65 %	2.19
December	82.18 %	1.51
Totals	**96.25%**	**48.98**
	Unweighted	**Effect: 98.18%**
	Yearly Avg	**Sun Hrs: 4.08**

Deciduous Calculation Data

Transparency: 40 %

Months with no leaves: October through April

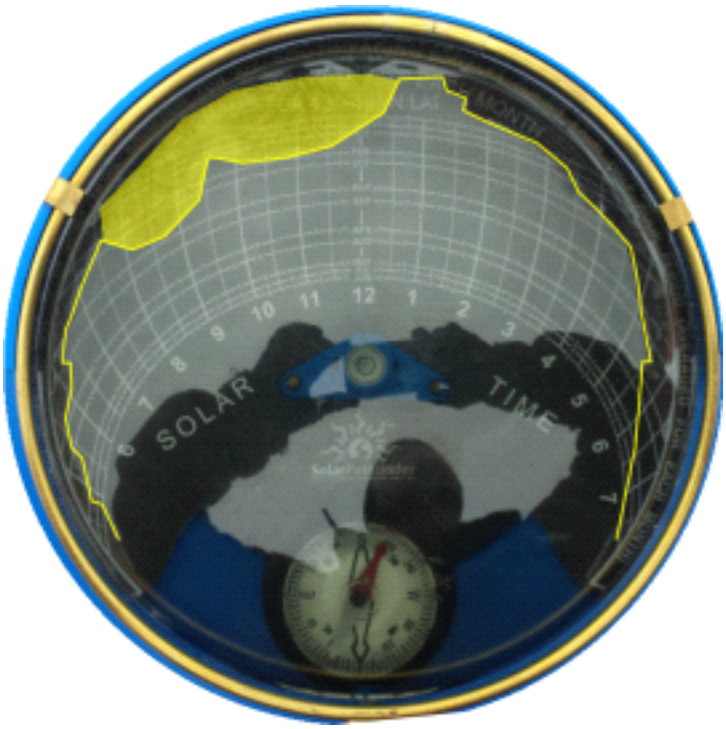
Notes: Proposed awning mount on south wall of Gortner Ave Ramp. System tilt proposed at 40 degrees, actual tilt subject to final racking design. System azimuth 180 degrees, due South, Pathfinder Compass reading incorrect due to large inductance field from nearby electrical equipment.

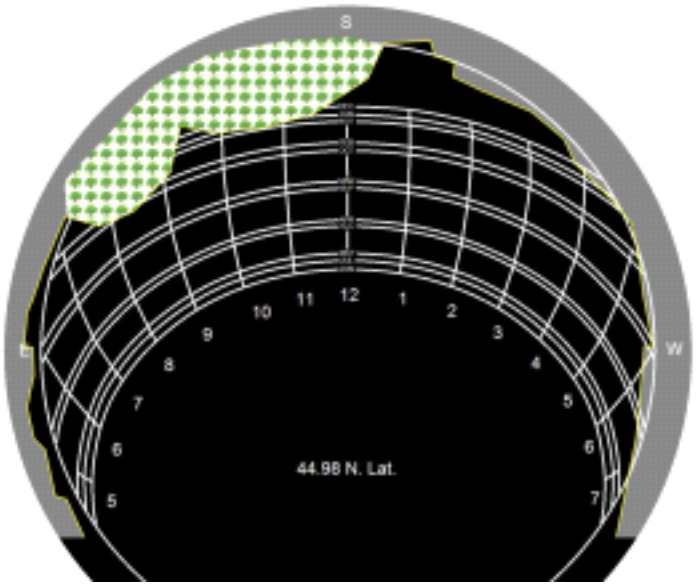
Solar Site Analysis Report

Image File: "20160115_121602.jpg"
Layout Point: 2

Solar Obstruction Data

Month	Unshaded % of Ideal Site Azimuth=180 Tilt=44.98	Actual Shaded Solar Radiation Azimuth=180.0 Tilt=40.0 kWh/m²
January	84.75%	2.16
February	96.32%	4.72
March	100.00%	3.27
April	99.91%	5.43
May	100.00%	4.86
June	100.00%	4.88
July	100.00%	5.12
August	100.00%	6.05
September	99.86%	5.53
October	97.99%	3.28
November	94.39%	2.22
December	77.49%	1.42
Totals	**95.89%**	**48.93**
	Unweighted	**Effect: 98.08%**
	Yearly Avg	**Sun Hrs: 4.08**





Solar Site Analysis Report

Image File: "20160115_121023.jpg"
Layout Point: 1

Solar Obstruction Data

Month	Unshaded % of Ideal Site Azimuth=180 Tilt=44.98	Actual Shaded Solar Radiation Azimuth=180.0 Tilt=40.0 kWh/m²
January	88.97%	2.26
February	93.12%	4.54
March	100.00%	3.27
April	100.00%	5.44
May	100.00%	4.86
June	100.00%	4.88
July	100.00%	5.12
August	100.00%	6.05
September	100.00%	5.53
October	99.34%	3.34
November	90.92%	2.16
December	86.87%	1.60
Totals	**96.60%**	**49.03**
	Unweighted	**Effect: 98.28%**
	Yearly Avg	**Sun Hrs: 4.09**