



259 Broadway, Arlington MA Solar Assessment

15.4kW Solar Array Comprised of 35 Silfab 440W solar panels

1. The 35 panel ballasted solar array would generate an estimated 17,380kWh annually.
2. The ballasted racking manufacturer and NFPA requirements result in a 3' setback from all roof edges.
3. The array utilizes the available solar ready space on the roof excepting the area where the roof access hatch, elevator over-travel projection, make up air unit and plumbing vents are located.

Addendum A – Solar Layout and Roof Percentage Calculations

Addendum B – Shade Study of Proposed Array

Addendum C – Ballasted Racking Specification Sheet

Addendum D – Proposed Solar Panel Specification Sheet

Shade Report - Mike Bouboulis

Customer	Designer	Organization
—	Derek Brain	ReVision Energy
Address	Coordinates	Date
259 Broadway, Arlington, MA 02474, USA	42.4132966, -71.1471818	Nov 21, 2025

Annual irradiance



Summary

Array ID	Panel count	Azimuth	Pitch	Annual TOF	Annual solar access	Annual TSRF
1	35	224°	10°	88%	97%	86%
Weighted average by panel count:					97%	86%

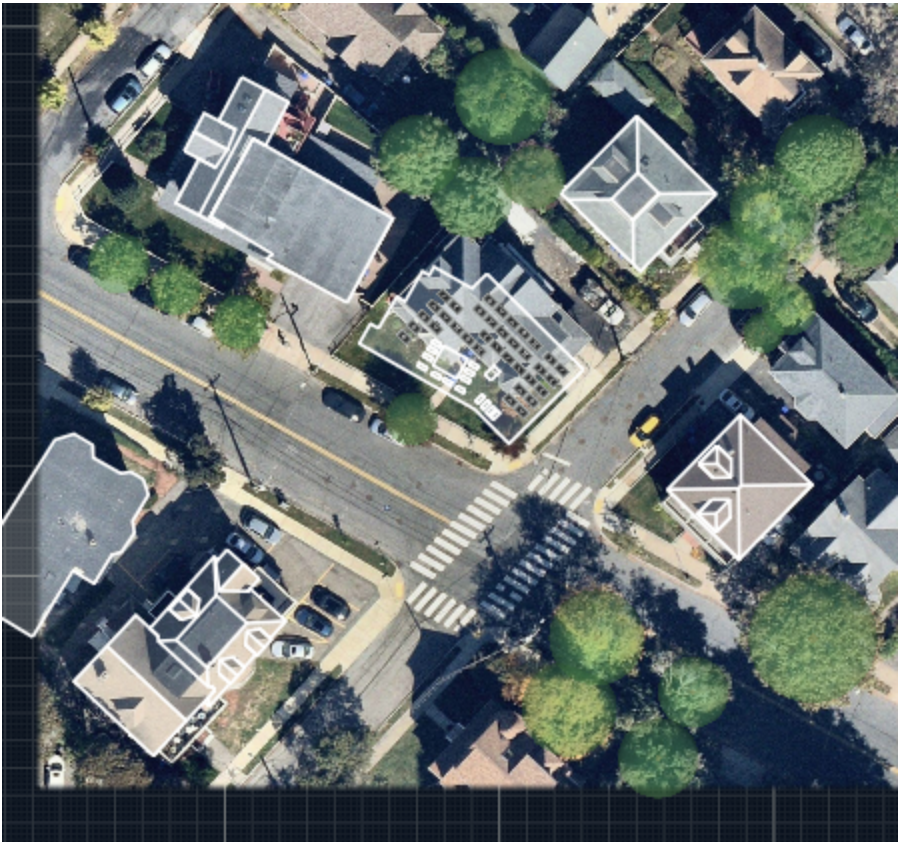
Monthly solar access % across arrays

Array ID	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1	93	95	97	99	99	99	99	99	98	96	93	90

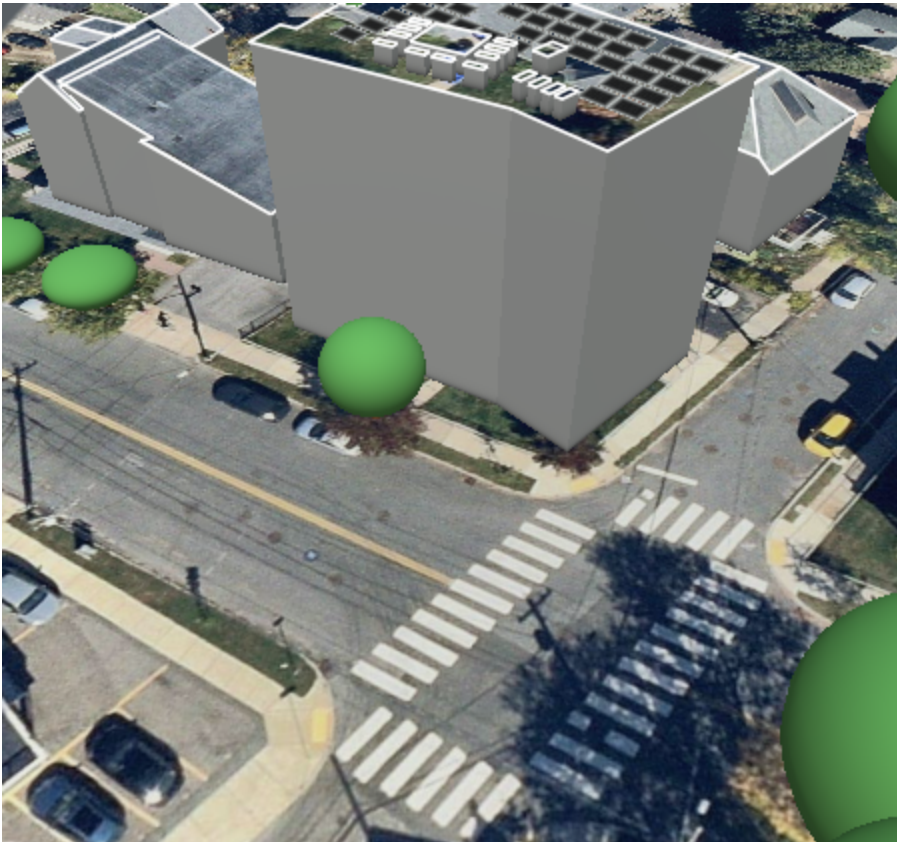
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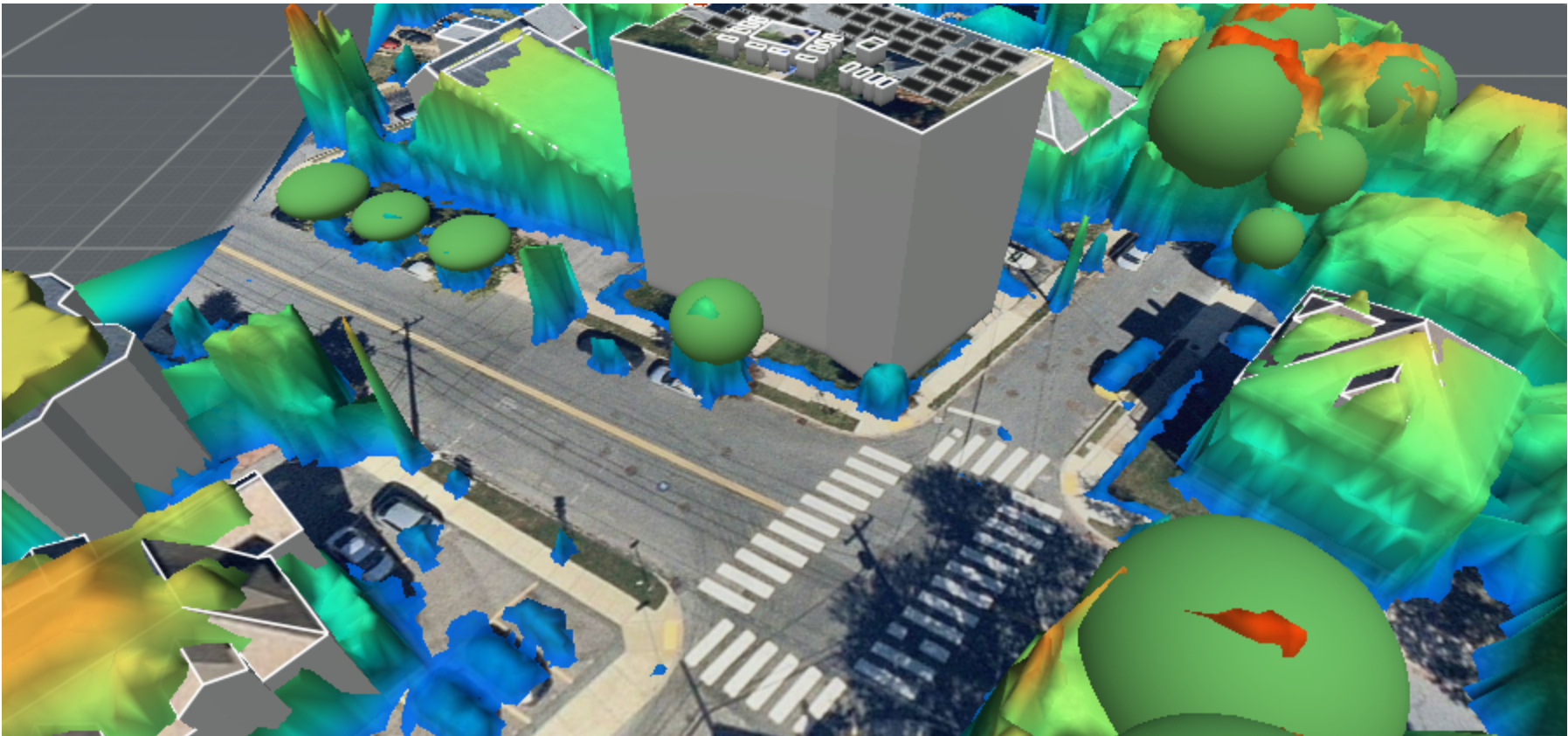
Zoomed out satellite view



3D model



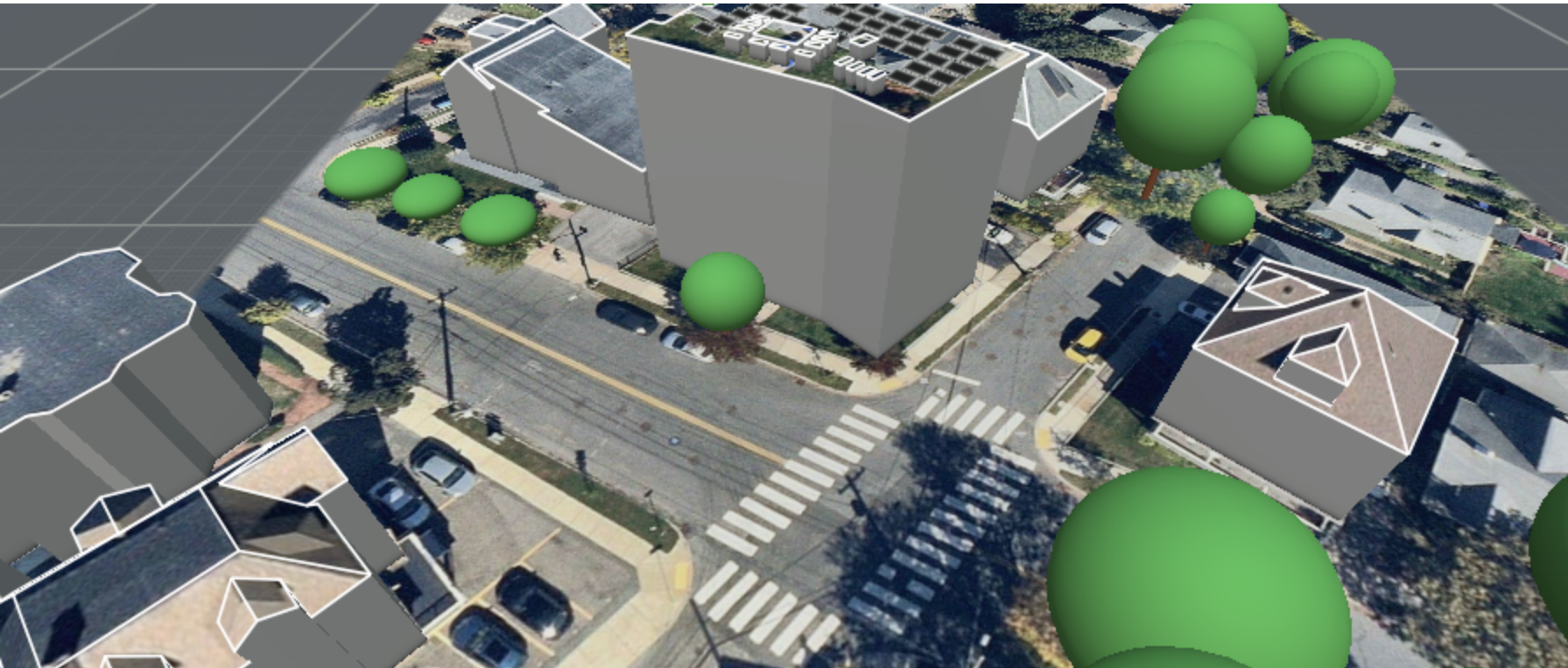
3D model with LIDAR overlay



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Street view with corresponding 3D model



I, **Derek Brain**, certify that I have generated this shading report to the best of my abilities, and I believe its contents to be accurate.

MASTER THE MOST CHALLENGING ROOFTOPS

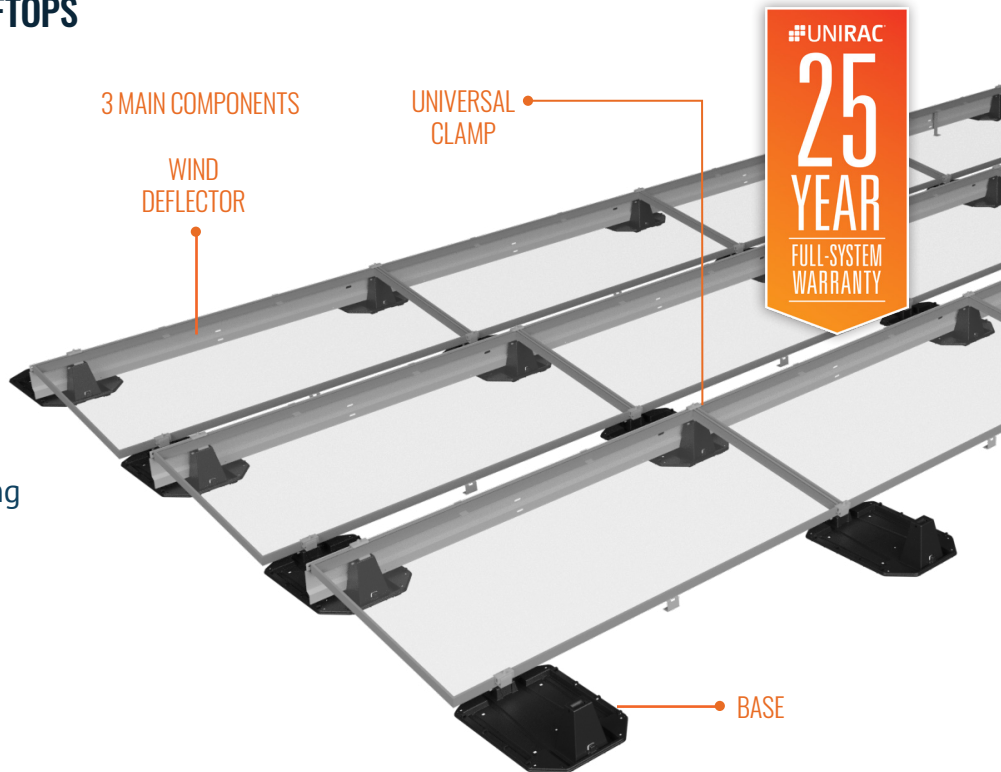
- Low part count
- Preassembled universal clamp
- Increased design flexibility
- More ballast capacity
- Simplified logistics
- Ship up to 50kW per pallet
- Rapid system deployment

TESTED, CERTIFIED AND VALIDATED

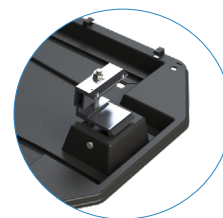
- Grounding and Bonding
- 3rd party verified wind tunnel testing
- SEAOC seismic compliant
- CFD and structurally tested
- DNV GL rated at 13.5 panels per installer-hour

THREE MAIN COMPONENTS

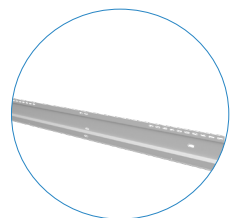
- UL-Listed ASA based resin is a durable material commonly used for automotive and construction products
- Preassembled universal clamp is ready to go right out of the box. Fits 30-50mm module frames with a single component
- Corrosion-resistant wind deflectors help to minimize uplift and reduce ballast requirements



BASE



UNIVERSAL CLAMP



WIND DEFLECTOR

WHY ECOFOOT 2+?

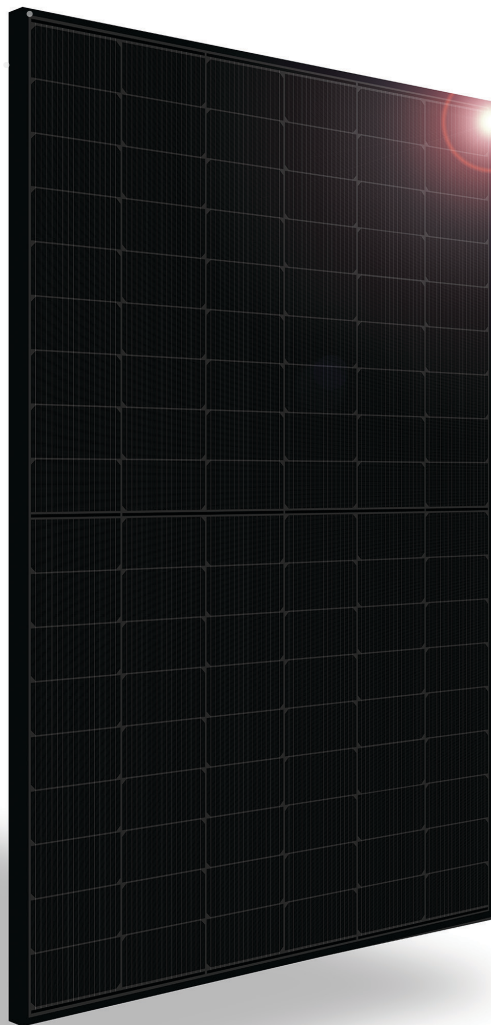
Installers prefer EcoFoot2+ because it's fast, simple, and durable. The line-up is unbeatable:

- Ready-to-go, preassembled components and simple installation
- No PV panel prep required: bases self-align
- Low-effort roof layout, just two chalk lines required
- No training required, 5-minute learning curve

SILFAB
PRIME **NTC**

SIL-440 QD

SILFAB
SOLAR®



NEXT-GENERATION N-TYPE CELL TECHNOLOGY

- Improved Shade Tolerance
- Improved Low-Light Performance
- Increased Performance in High Temperatures
- Enhanced Durability
- Reduced Degradation Rate
- 25-Year Product Warranty/
30-Year Performance Warranty



SILFABSOLAR.COM



ELECTRICAL SPECIFICATIONS		440	
Test Conditions		STC	NOCT
Module Power (Pmax)	Wp	440	328.0
Maximum power voltage (Vpmax)	V	33.41	31.17
Maximum power current (Ipmax)	A	13.17	10.52
Open circuit voltage (Voc)	V	38.97	36.64
Short circuit current (Isc)	A	14.22	11.44
Module efficiency	%	22.6%	
Maximum system voltage (VDC)	V	1000	
Series fuse rating	A	25	
Power Tolerance	Wp	0 to +10	

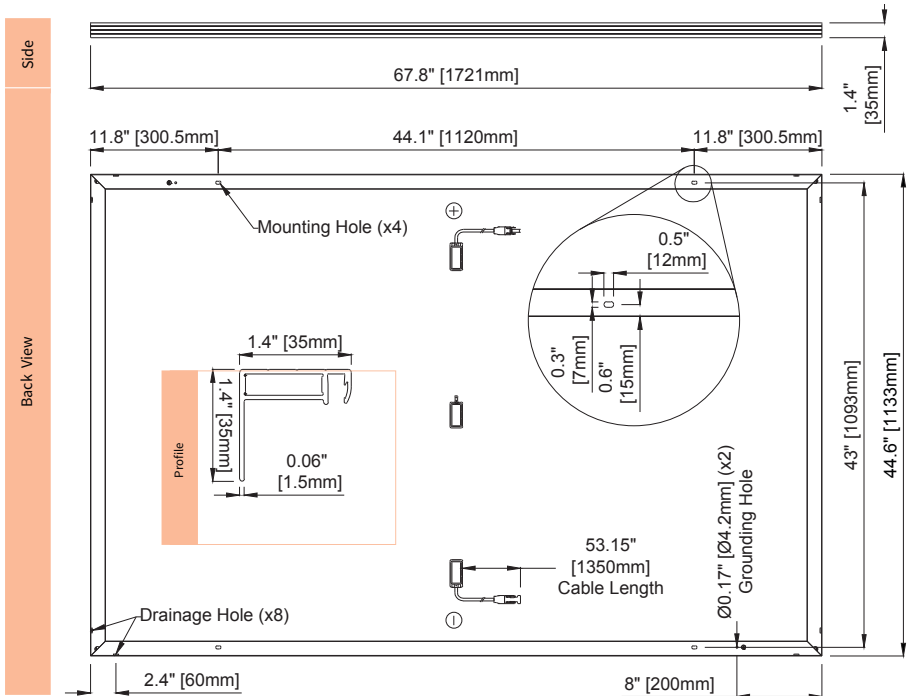
Measurement conditions: STC 1000 W/m² • AM 1.5 • Temperature 25 °C • NOCT 800 W/m² • AM 1.5 • Measurement uncertainty ≤ 3%
Sun simulator calibration reference modules from Fraunhofer Institute. Electrical characteristics may vary by ±5% and power by 0 to +10 W.

MECHANICAL PROPERTIES / COMPONENTS	METRIC	IMPERIAL
Module weight	21 kg ± 0.2 kg	46.3 lbs ± 0.4 lbs
Dimensions (H x L x D)	1721 mm x 1133 mm x 35 mm	67.8 in x 44.6 in x 1.37 in
Maximum surface load (wind/snow)*	4000 Pa rear load / 5400 Pa front load	83.5 lb/ft² rear load / 112.8 lb/ft² front load
Hail impact resistance	ø 25 mm at 83 km/h	ø 1 in at 51.6 mph
Cells	108 Half cells - N-Type Silicon solar cell 182 mm x 91 mm	108 Half cells - N-Type Silicon solar cell 7.16 in x 3.58 in
Glass	3.2 mm high transmittance, tempered, antireflective coating	0.126 in high transmittance, tempered, antireflective coating
Cables and connectors (refer to installation manual)	1350 mm, ø 5.7 mm, MC4 from Staubli	53.1 in, ø 0.22 in (12 AWG), MC4 from Staubli
Backsheet	High durability, superior hydrolysis and UV resistance, multi-layer dielectric film, fluorine-free PV backsheet	
Frame	Anodized aluminum (Black)	
Junction Box	UL 3730 Certified, IEC 62790 Certified, IP68 rated, 3 diodes	

TEMPERATURE RATINGS		WARRANTIES	
Temperature Coefficient Isc	0.04 %/°C	Module product workmanship warranty	25 years**
Temperature Coefficient Voc	-0.24 %/°C	Linear power performance guarantee	30 years
Temperature Coefficient Pmax	-0.29 %/°C		≥ 98% end 1st yr
NOCT (± 2 °C)	45 °C		≥ 94.7% end 12th yr
Operating temperature	-40/+85 °C		≥ 90.8% end 25th yr ≥ 89.3% end 30th yr

CERTIFICATIONS		SHIPPING SPECS	
Product	UL 61215, UL 61730, CSA C22.2#61730, IEC 61215, IEC 61730, IEC 61701 (Salt Mist Corrosion), IEC 62716 (Ammonia Corrosion), CEC Listed, UL Fire Rating: Type 2	Modules Per Pallet:	26 or 26 (California)
		Pallets Per Truck	32 or 30 (California)
Factory	ISO9001:2015	Modules Per Truck	832 or 780 (California)

* ⚠ Warning. Read the Safety and Installation Manual for mounting specifications and before handling, installing and operating modules.
** 12 year extendable to 25 years subject to registration and conditions outlined under "Warranty" at silfabsolar.com.
PAN files generated from 3rd party performance data are available for download at: silfabsolar.com/downloads.



SILFAB SOLAR INC.

1770 Port Drive
Burlington WA 98233 USA
T +1 360.569.4733
info@silfabsolar.com
SILFABSOLAR.COM

7149 Logistics Lane
Fort Mill SC 29715 USA
T +1 839.400.4338

240 Courtneypark Drive East
Mississauga ON L5T 2Y3 Canada
T +1 905.255.2501
F +1 905.696.0267

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