

EverGen-L Hybrid

MULTI-SOURCE LIGHTING

SOLAR & GRID



MADE IN FRANCE

EverGen-L Hybrid is an intelligent solar lighting solution, combining solar energy and mains power to guarantee continuity of service in all circumstances, even in the most constrained environments. Available in three solar panel formats (200, 300, or 400 Wp) and four battery capacities (512, 1,024, 1,536, or 2,048 Wh), the hybrid system enables customized energy sizing. Thanks to its **native local supervision** functionality via the SunnAPP Bluetooth application, it requires no communicating nodes.

General

Structure material	Galvanized steel
Effective Projected Area	200 Wp: 0.42 m ² (4.52ft ²); 25° / 0.70 m ² (7.53 ft ²); 45° 300 Wp: 0.58 m ² (6.24 ft ²); 25° / 0.98 m ² (10.55 ft ²); 45° 400 Wp: 0.77 m ² (8.29); 25° / 1.29 m ² (13.88 ft ²); 45°
Recommended pole*	Galvanized steel; Top mounting: Ø89 mm (3.5 in)
Weight (excluding pole)	Between 47.6 kg (103.6 lbs) and 68.5 kg (149.9 lbs) (depending on PV and battery power)
Options	Remote supervision / Motion sensor (individual and group) / Hybrid mode (solar/grid) / External device power supply
Carbon footprint	94.13 kg CO2 eq.
System warranty	6 years included (can be extended to 10 years)
Certificates	CE, FCC, IP65, IK08 (in the process of certification)

* Included depending on project

Solar panel

Technology	Photovoltaic module (monocrystalline N-Type TOPCon cells)
Power	200 Wp, 300 Wp, 400 Wp
Electrical characteristics (per panel)	200 Wp: Voc = 47.26 V / Vmp = 41.65 V / Isc = 5.17 A / Imp = 4.95A / Cells number = 66 300 Wp: Voc = 47.26 V / Vmp = 41.65 V / Isc = 7.76 A / Imp = 7.42 A / Cells number = 66 400 Wp: Voc = 47.26 V / Vmp = 41.65 V / Isc = 10.34 A / Imp = 9.89 A / Cells number = 66
Tilt angle	25°, 45°
Structure	Anodized aluminum alloy
Lifespan	> 30 years at 82% of initial power
Recyclability rate	Up to 96%

Battery

Technology	LiFePO4
Voltage	25.6 V
Capacity	512 Wh, 1,024 Wh, 1,536 Wh, 2,048 Wh
Operating temperature range	-20°C to +60°C (-4°F / +140°F)
Lifespan	> 10 years
Recyclability rate	Up to 65%

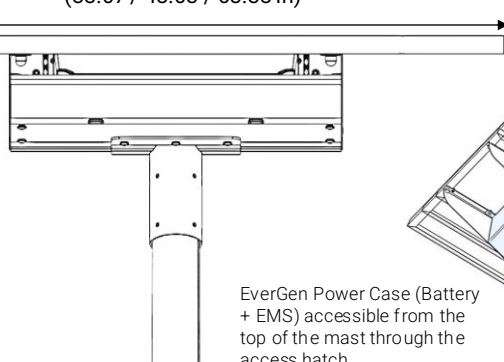
SunnaCore EMS

LED output power	20 at 150 W (or 2 x 80 W)
LED output voltage range	32-50 V (or 50-120 V optional SunnaCore EMS Max)
Operating T° range	-40°C to +70°C (-40°F / +158°F)
Charging technology	Integrated MPPT
Lifespan	> 10 years
Recyclability rate	100% for precious and base metals

Dimensions

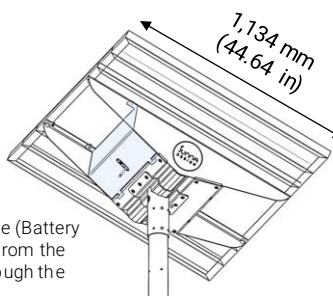
840 / 1,220 / 1,610 mm*
(33.07 / 48.03 / 63.38 in)

35 mm
(1.38 in)



* Dimensions vary according to solar panel size.

EverGen Power Case (Battery + EMS) accessible from the top of the mast through the access hatch.



Colors



RAL 9005
Black



Other RAL
On request

Hybrid mode



Combining solar and grid power for uncompromising lighting.

Take advantage of solar energy for autonomous lighting on a daily basis. And when that's not enough, EverGen automatically switches over to mains power to guarantee continuity of service.

An intelligent hybrid solution designed to provide reliable, long-lasting, uninterrupted lighting, even in low sunlight or when the need is greatest.

- Lighting 365 nights a year.
- Guaranteed energy savings.
- Reduced network consumption.
- Continuous service, even in difficult conditions.
- Less risk of breakdown.
- Optimized battery life.

General

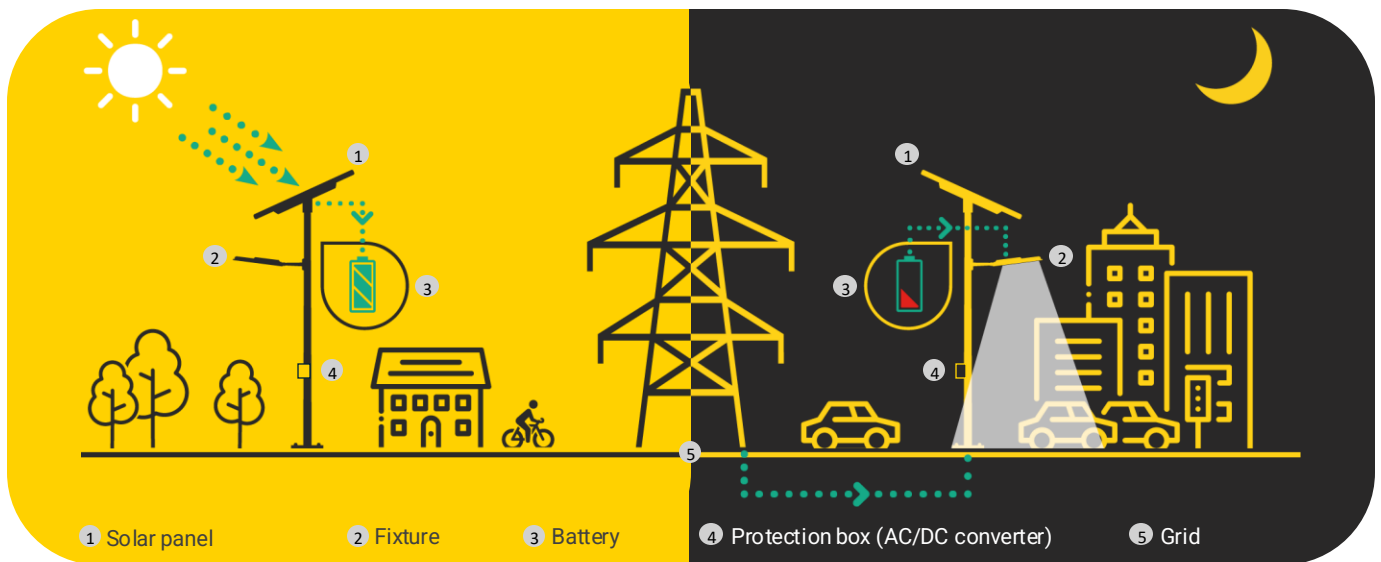
Min. supply voltage	25 Vdc
Max. supply voltage	39 Vdc
Max LED output power (W)	LED output power +15%
Compatibility with SELV power supplies	AC/DC converter not supplied Recommended manufacturer: MEAN WELL Ordering information: ELG-200-36-3Y
Max. supply current	8.64 Adc
Pole-mounted box	Not included

Function

Hybrid mode is activated according to **battery charge level** at dusk

✓ During the day, the battery is recharged by photovoltaic panels that capture solar energy.

✓ At night, the energy stored in the battery is used for lighting (charge $\geq 22\%$). If the energy reserve is too low ($\leq 20\%$), the lantern is fed directly from the grid to provide all-night lighting.



Recommended applications



Parking lot



Shaded site



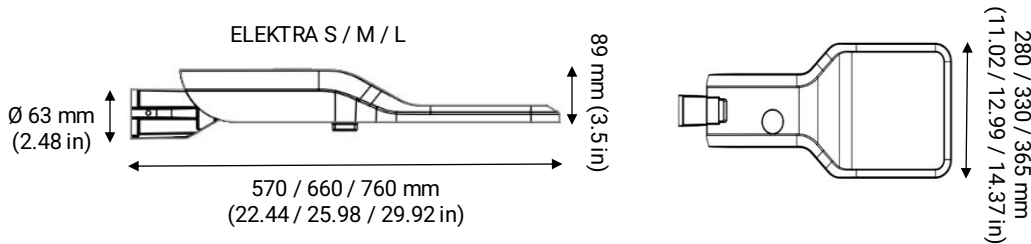
Low sun exposure



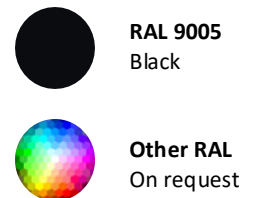
Lighting

LED module	High-efficiency LEDs - Geometry according to Zhaga (Book 15)
Luminous flux	4,200 to 29,600 lm
Power	60 W, 80 W, 150 W
Lighting efficacy	Up to 210 lm/W after optical losses
Color temperatures	Amber (< 2% blue light), 2200 K, 2700 K, 3000 K, 4000 K
Options	Backlight shield
Material	Cast aluminum luminaire with tempered protective glass
Weight	Elektra S: 4.8 kg (10.58 lbs) / Elektra M: 7.9 kg (15.43 lbs) / Elektra L: 9.2 kg (19.84 lbs)
Lifespan	Over 100,000 hours (L80B50)
Mechanical resistance	IK10, IP66, corrosion resistance 1,500 hours according to ISO 9227
Recyclability rate	Up to 95%
Certificates	EN 60598, ENEC, ENEC+, Dark Sky, CEE

Dimensions



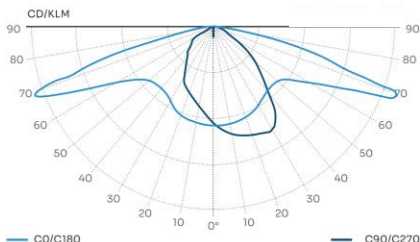
Colors



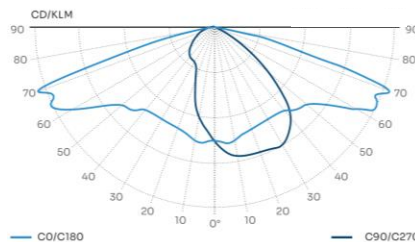
Photometry

0% light emitted upwards with all optics (ULOR = 0).
Optional backlight shield available. IES / LDT files available on request.

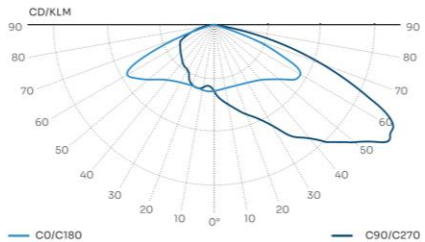
NR-T2SH (asymmetrical narrow lighting)



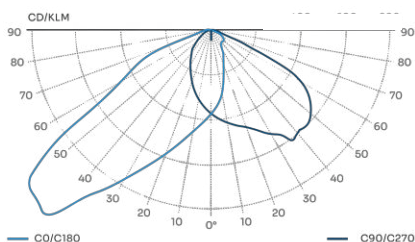
MR-T2ME (asymmetrical medium lighting)



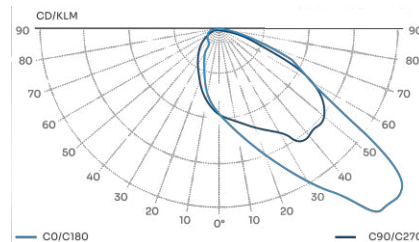
AWR-T4ME (asymmetrical wide lighting)



CL (crosswalk on the left)



CR (crosswalk on the right)



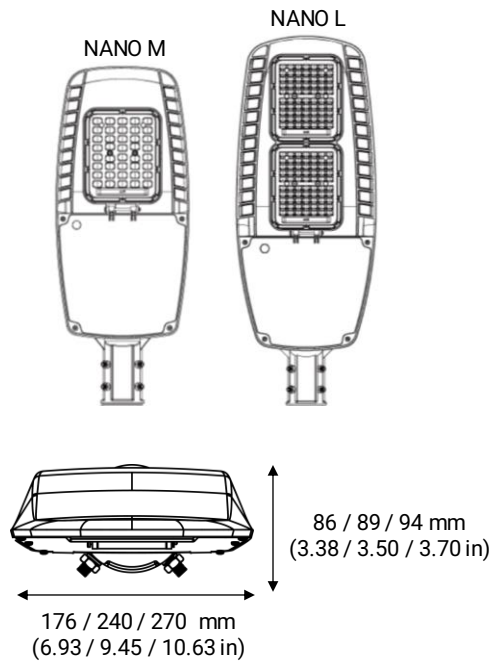
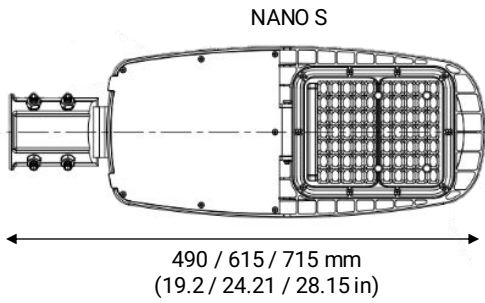
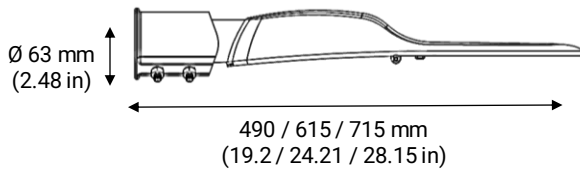
Nano



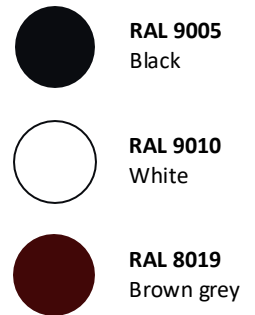
Lighting

LED module	High efficiency LED - Multichip Technology (IP66)
Luminous flux	3,320 to 26,560 lm
Power	40 W, 80 W, 150 W
Lighting efficacy	Up to 165 lm/W after optical losses
Color temperatures	2200 K, 2700 K, 3000 K, 4000 K
Options	Backlight shield; Motion sensor (individual or grouped)
Material	Aluminum
Weight	Nano S: 1.5 kg (2.20 lbs) / Nano M: 2.8 kg (4.41 lbs) / Nano L: 5 kg (11.02 lbs)
Lifespan	Over 100,000 hours (L80B10)
Mechanical resistance	IK10, IP66
Recyclability rate	Up to 95%
Certificates	EN 60598, CEE, ENEC

Dimensions



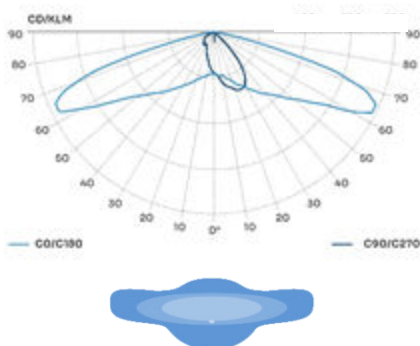
Colors



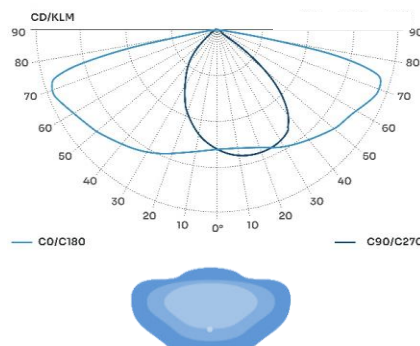
Photometry

Optional backlight shield available. IES / LDT files available on request.

NR-T2SH (asymmetrical narrow lighting)



MR-T2ME (asymmetrical medium lighting)



AWR-T4ME (asymmetrical wide lighting)

