HELIOCOLUMN

OMNILUCE
SOLAR LIGHTING

UNIVERSAL APPLICATION

HELIOCOLUMN comes with HelioWrap vertical panel fits with any type of pole and mast for overall uses. Carefully engineered featuring ultimate simplicity and aesthetically pleasing.



360° FULL DAY CHARGING

Half of the round solar tube is constantly exposed to sunlight, ensuring continuous charging throughout the day and maximizing power generation.

FIT MULTIPLE POLE SHAPES & SIZES

HelioWrap vertical cylinder PV panel is specially designed to cater to different sizes and different shapes of poles and masts.

MODULAR INSTALLATION

based on modular concept, this solar module is designed to be quick mounting and effortless maintenance

CYCLONE RESISTANT

With a smaller frontal area and high strength mounting system, the HELIOCOLUMN enjoys a superhigh wind resistance up to 180KM/H

On/ Off-Grid
On Demand

Battery Ware
Builit-in

Grid Balancing
Power Storage

Smart City
Ready

EV
Charging

IP66
Waterproof

HELIOCOLUMN

Overview and Features



Employing SUNPOWER cells manufactured in the U.S.A., the SolarWrap boasts remarkable power generation efficiency up to 24%, 110W per full cylinder

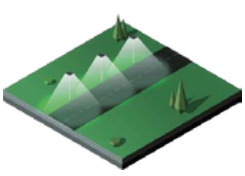
Featuring a modular design, the vertical solar cylinder is easily installable and adaptable to diverse pole shapes such as round, hexagonal, octagonal or conical within specified diameter limits

HELIOCOLUMN is carefully engineered with LiFePo4 battery. The battery pack comes with specially designed BMS module to avoid blackout in the consective rainy days.

The HELIOCOLUMN solar streetlight can be monitored and managed through remote control via cloud-based IoT smart solutions, consisting of 4G/5G network and wireless mesh transfer.

The motion senor detects movement within several meters of the unit and turns the LED module from 'dim mode' to 'full-brightness' mode.

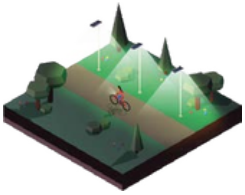
The voltage of solar panel will change according to the daylight, this is used as a photosensor to control the light work automatically.



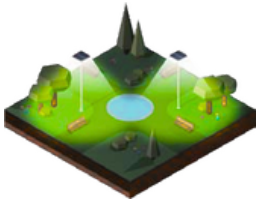
Roadways & Streets



Parking & Commercial Areas



CCTV & Security



Parks & Gardens

COMPLIANCE

IEC / TUV / EMC / LM-79- 08 and LM-80 standards / IK10 / IP65 / CE

Specially designed and Carefully engineered, the HELIOCOLUMN vertical solar cylinder offers a sleek solution for pole-mounted applications.

Unlike traditional panels, it enhances standard poles with an elegant, unobtrusive design, ideal for solar light poles, camera poles, and other solar-powered uses.



LED Street & Garden Lighting
Dark Sky Compliant

Smart City Ready
Built in occupancy sensors & IoT cloud-based smart solutions

Sunpower Solar Cell 24%
Unique cylindrical solar panels with high-efficiency mono solar cells

Steel, aluminium or wooden construction
Multiple pole shapes and sizes: cylindrical, hexagonal, octagonal, square, conical

Customizable Finishes
High quality powder coating for outdoor uses, marine grade coating customizable

LIFEPO4 BATTERY
The Battery Pack, combined with a BMS module, ensures 7+ days of autonomy in all weather conditions.



LIFEPO4 BATTERY 10+ YEARS LIFETIME

The **HELIOCOLUMN** Series features an Iron Phosphate Lithium (**LiFePo4**) battery pack equipped with an embedded **BMS** module, ensuring comprehensive protection and offering 7+ days of autonomy in all weather conditions.

With a cycle life exceeding **5,000 cycles** @70% DOD, this battery boasts a lifespan of more than 10 years.

ALUMINUM ALLOY WATERTIGHT HOUSING & ROBUST DESIGN

High temperatures negatively affect the battery's lifespan. This is why our batteries are **encapsulated in an aluminum waterproof enclosure** for a perfect heat dissipation.

the battery pack is specially designed and watertightly sealed to be shockproof, anti-blackout and cyclone resistant.

EXTREME TEMPERATURE
- 10 °C TO 70 °C (- 40 °C OPTIONAL)

Standard Lithium LiFePo4 batteries operate between -10°C and 70°C, while Omniluce offers an optional Special LIFEPO4 battery with an extended range of -40°C - 70°C.

Easy and direct access to the battery casing for maintenance. The fixation are made with anti theft screws, which request special tooling to unscrew.

BMS ELECTRONIC PROTECTION BATTERY MANAGEMENT SYSTEM

Our batteries are equipped with **electronic circuit boards for a higher protection,** ensuring battery functioning optimization no matter the situation.

The BMS protects against:

- OVER/UNDER CURRENT
- OVERLOAD
- OVER/UNDER VOLTAGE
- OVER/UNDER CHARGE
- TEMPERATURE MANAGEMENT

SPECIFICATIONS

Model of HelioWrap	OHW-110W
Pmax	2*55W
Vmp	22V
Imp	5A
Dimension	D175*1060mm
Pole diameter	140mm max
N.W	9.50kg
Solar cell brand	SUNPOWER®
Cell efficiency	23.5%
Cable & Connector	2.5mm2 with MC4 plugs
Materials	tempered glass + aluminium alloy profile
Lifetime	>20 years lifetime
Operating temp.	-20℃ ~ +70℃



The **HELIOCOLUMN** cylindrical solar module employs a modular installation approach, utilizing installation brackets with six screws. It can be effortlessly mounted on poles of various shapes, such as **square, hexagonal, octagonal, or conical**, as long as the pole diameter is smaller than the maximum installation diameter of the solar panel.

There's no need to customize specific sizes to accommodate the HelioWrap, as this enhances installation flexibility and offers more options. To meet the requirements of different applications, multiple HelioWrap units can be installed in parallel on the same pole, enabling higher power output.


12.0m
11.0m
10.0m
9.0m
8.0m
7.0m
6.0m
5.0m
4.0m
3.0m
2.0m
1.0m



2025

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*** Omniluec offers a 5 Years Limited Warranty** *for the HELIODUO-Series solar lights to ensure they're free from defects in material and workmanship for up to five (5) years from the date of shipment. This limited warranty covers all components when installed and operated according to Omniluce's instructions. Fixture suitable for ambient temperature from -10° to 50°. PV Panels - 20 year performance warranty Controller 10 years, Batteries 5 years or 4000 cycles.*

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