SOPH Series

The SOLAR PHOTON™

Solar Powered LED Area Lighting

SOLAS RAY™ LIGHTING

5935 West 84th St. | Indianapolis, IN 46278 | 1-888-391-4822 | www.SolasRay.com

Cat. #	Type
Notes	

KEY FEATURES AND BENEFITS

- Convenient LED light, solar panel, and battery integrated into a single unit.
- Adjustable angle.
- Up to 12,000 lumens, 40, 50 and 60 watt versions available.
- High conversion efficiency mono-crystalline photovoltaic solar panel.
- Long life and high temperature resistance LiFePO4 battery.
- 8 hour charge can power light up to 3 days in intelligent control mode, optional remote control available for intelligent control reprogramming.
- PIR motion sensor.
- Hybrid dual-powered option available - AC power takes over if battery is low.

Includes pole/side mount. Allows for up to 15° tilt up or down. Fits 2 ⅜" tenon.

Optional remote control available for adjusting intelligent controls. See p2.

SPECIFICATIONS

Wattage	40w / 50w / 60w
Color Temp	3000 / 4000 (Std) / 5000 Kelvin
Housing	Aluminum Alloy
Color	Silver
Lens	Polycarbonate
Lifetime	101,000 hrs L_{70}
Distribution Pattern	Type II med (Std) / Type III short / Type V short
Working Mode	Intelligent control
Control	Timer dimming / PIR sensor
Ambient Temperature	0°C (32°F) to 50°C (122°F) recommended, for colder temps - see Application Guide
Protection	IP65
Warranty	3 Year Limited Warranty

LUMENS

Model	40w	50w	60w
Lumens	8,000	10,000	12,000

BATTERY (Built-In)

With their high temperature resistance, large current discharge and long life cycle rating, LiFePO4 batteries are preferable for use in solar powered lights.

Type	LiFePO4 (Lithium Iron Phosphate)
Run Time	Up to 3 days (intelligent control) on full charge Up to 8 hours at 100% brightness
Life Cycle	>2000 cycles
Capacity	24Ah (40w) / 30Ah (50w) / 36Ah (60w)
Charge Time	>6 hrs (40w) / >7 hrs (50w) / >9hrs (60w)

SOLAR PANEL (Built-In)

Mono-crystalline is the preferred type of panel for solar powered lights due to their superior efficiency and lifespan. Features a 21% conversion rate, which is 30% higher compared to traditional solar panels.

Type	High efficiency mono-crystalline
Charge Controller	MPPT (Maximum Power Point Tracking - DC to DC converter that optimizes the match between the battery and solar panel)

PRODUCT ORDERING SELECTION

SOPH – [ ] – [ ] – [ ] – **SI** – [ ] – [ ]

Series
☑ SOPH

Watts
☐ 040 - 40w
☐ 050 - 50w
☐ 060 - 60w

Kelvin
☐ 30 - 3000K
☐ 40 - 4000K (Std)
☐ 50 - 5000K

Distribution Pattern
☐ II - Type II Medium (Std)
☐ III - Type III Short
☐ V - Type V Short

Color
☑ SI - Silver

Mounting Options
☐ LP - L-Shape Pole Mount Adaptor
☐ LS - L-Shape Square Pole Mount Adaptor
☐ TP - T-Shape Pole Mount Adaptor
☐ TS - T-Shape Square Pole Mount Adaptor

Other Options
☐ AAM - Adjustable Angle Module (Allows led panels to tilt +/- 30°)
☐ HYB - Hybrid Dual-Powered
☐ BS - Bird Spikes

☐ Include 1 SOPH-REM Remote Control

Specifications and data are subject to change without notice.

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MOUNTING OPTIONS

Included Pole/Side Mount (Tenon Slipfitter)

Included mount allows for pole top mounting or side entry mounting. Allows for upward or downward tilt up to 15°. For 2 ⅜" tenon.

Pole top configuration

Side entry configuration

#LP - L-Shape Pole Mount

Fits 3 ½" pole top or tenon

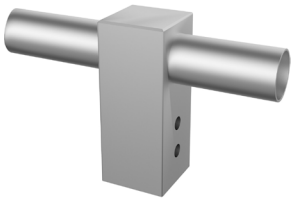
#LS - L-Shape Square Pole Mount

Fits 4" square pole

#TP - T-Shape Pole Mount

Fits 2 ⅜" tenon

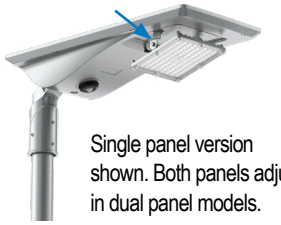
#TS - T-Shape Square Pole Mount



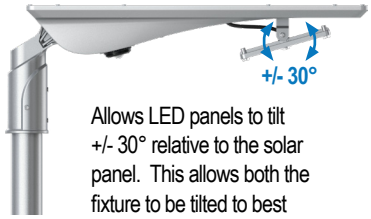
Fits 4" square pole

OTHER OPTIONS AND ACCESSORIES

#AAM - Adjustable Angle Module



Single panel version shown. Both panels adjust in dual panel models.



Allows LED panels to tilt +/- 30° relative to the solar panel. This allows both the fixture to be tilted to best absorb sunlight and the light to be directed where needed most.

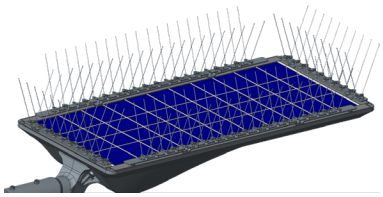
#SOPH-REM - Remote Control

Remote Control
Required to change intelligent control from default settings. For all non-hybrid models.

Must be ordered separately.

P/N: SOPH-REM

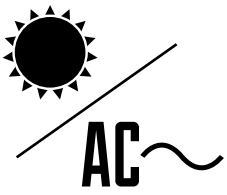
#BS - Bird Spikes



Prevents birds from landing or nesting on the solar panel.

#HYB - Hybrid Dual-Power

HYBRID



Never run out of battery power
When the battery storage is depleted (the battery voltage is lower than 9.6V), the Solar Photon™ will automatically switch to AC supplied power. When the solar power supply sufficiently recharges the battery, the system will automatically switch back to battery power.

Specifications
Input Voltage: 100-277 VAC, 50/60 Hz
Power Factor: >0.9
Surge Protection: 6kV line-earth / 4kV line-line

Features
- Constant current LED driver added
- Hybrid controller

Note: Hybrid models require a different remote control than standard models.

☐ Include 1 SOPH-HYR Remote Control

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APPLICATION GUIDE

TEMPERATURE ZONE MAP

Temperature affects battery performance reducing the total output of a fully charged battery as it gets colder. Recommended use of the Solar Photon™ for the above temperature zones are as follows:

Zone 1 - Not recommended for use in this zone.

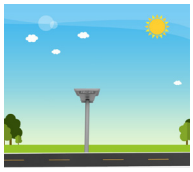
Zone 2 - May be used in this zone. We recommend reducing intelligent control settings to 1/2 brightness of factory default settings.

Zone 3 - Recommended for this zone.

INTELLIGENT CONTROL MODE

Factory default settings of intelligent control mode. Total run time = 11.5 hours.

DAYTIME



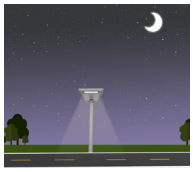
The light continuously charges during daylight hours.

DUSK: 1/2 HR

100% brightness is maintained for the first 30min of night.

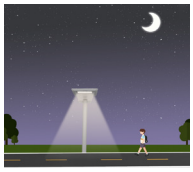
FIRST 4 HRS OF NIGHT

50% brightness when presence is detected in first 4 hours.

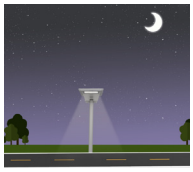


10% brightness when no presence is detected in first 4 hours.

SECOND 4 HRS OF NIGHT

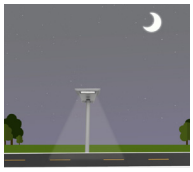


20% brightness when presence is detected in second 4 hours.



10% brightness when no presence is detected in second 4 hours.

NEXT 3 HRS



10% brightness for the remainder of the night.

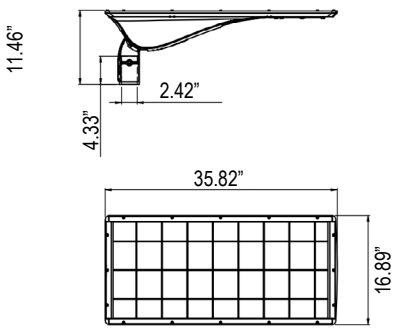
Use optional remote to change settings (purchased separately).

WEIGHTS, EPA, BUG RATINGS AND DIMENSIONS

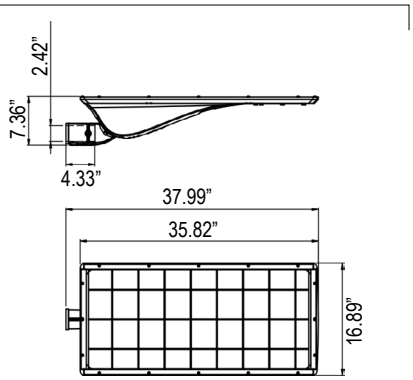
WEIGHTS / EPA / BUG

Model	40w	50w	60w
Weight	30.65 lb	31.75 lb	33.10 lb
EPA	4.95 ft²		
B (Back)	1	2	2
U (Up)	0	0	0
G (Glare)	1	1	2

POLE TOP CONFIGURATION



SIDE ENTRY CONFIGURATION



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