

November 29, 2023

Bluffton Highway Corridor Architectural Review Board
C/O Katie Peterson, AICP
Senior Planner, Town of Bluffton
20 Bridge Street
Bluffton, SC 29910



Project: Compass Commons at New Riverside Village – Buildings A & B

Thank you for considering our planned restaurant buildings proposed at 395 East Parkside Commons at the New Riverside Village. Per our discussions, we have been working with the manufacturer of Solar Ray Lighting on their sustainable “Solar Photon” model “SOPH” solar LED Area Light about field modifications that will allow the fixture meet section 5.12.3.B of the Unified Development Ordinance. The manufacturer has instructed us that the LED luminaire head is adjustable down 15° to reduce visibility from streets and roadways. For some fixtures, where this modification will not be quite enough to reduce visibility of the light source, they have advised us to specify the adjustable angle module, which provides even more adjustment and further provides a mounting location for a field added metal cut-off shield (color matched to the pole and luminaire finish).

We believe this will meet the intents of the Unified Design Ordinance and are happy to answer any questions you may have about this fixture.

Sincerely,

A handwritten signature in blue ink that reads 'Steven G. Stowers'. The signature is stylized with a large 'S' and 'G'.

Steven G. Stowers, AIA, LEED AP

SOPH Series


SOLAS RAY™ LIGHTING

5935 West 84th St. | Indianapolis, IN 46278 | 1-800-840-5635 | www.SolasRay.com

The SOLAR PHOTON™

Solar Powered LED Area Lighting


**SOLAR
POWERED**

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 3/8" 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 (Std) / Bronze / Black (powder coated)
Lens	Polycarbonate
Lifetime	101,000 hrs L70
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 - - - - - -

Series <input checked="" type="checkbox"/> SOPH	Watts <input checked="" type="checkbox"/> 040 - 40w <input type="checkbox"/> 050 - 50w <input type="checkbox"/> 060 - 60w	Kelvin <input checked="" type="checkbox"/> 30 - 3000K <input type="checkbox"/> 40 - 4000K (Std) <input type="checkbox"/> 50 - 5000K	Distribution Pattern <input checked="" type="checkbox"/> II - Type II Medium (Std) <input type="checkbox"/> III - Type III Short <input type="checkbox"/> V - Type V Short	Color <input type="checkbox"/> SI - Silver (Std) <input checked="" type="checkbox"/> BR - Bronze <input type="checkbox"/> BL - Black	Mounting Options <input type="checkbox"/> LP - L-Shape Pole Mount Adaptor <input checked="" type="checkbox"/> LS - L-Shape Square Pole Mount Adaptor <input type="checkbox"/> TP - T-Shape Pole Mount Adaptor <input type="checkbox"/> TS - T-Shape Square Pole Mount Adaptor	Other Options <input type="checkbox"/> AAM - Adjustable Angle Module (Allows led panels to tilt +/- 30°) <input type="checkbox"/> HYB - Hybrid Dual-Powered <input type="checkbox"/> BS - Bird Spikes
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☐ Include 1 SOPH-REM Remote Control

WHERE
REQUIRED

↓



SOPH Series

The SOLAR PHOTON™

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 3/8" tenon.



Pole top configuration



Side entry configuration

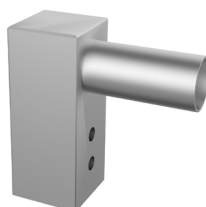


#LP - L-Shape Pole Mount



Fits 3 1/2" pole top or tenon

#LS - L-Shape Square Pole Mount



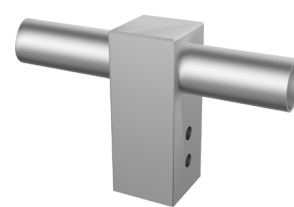
Fits 4" square pole

#TP - T-Shape Pole Mount



Fits 2 3/8" 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.



RETROFIT +/- 30°

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

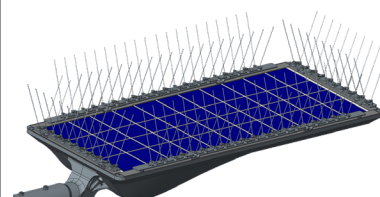
Remote Control
Required to change intelligent control from default settings. For all non-hybrid models.



Must be ordered separately.

P/N: SOPH-REM

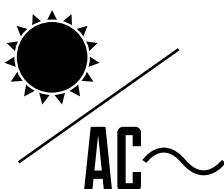
#BS - Bird Spikes



Prevents birds from landing or nesting on the solar pannel.

#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



SOPH Series

The SOLAR PHOTON™

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:

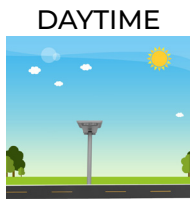
Zone 1 - Not recommended for use in this zone.

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.



The light continuously charges during daylight hours.



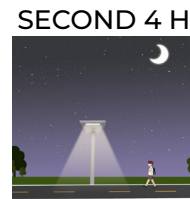
100% brightness is maintained for the first 30min of night.



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



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



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



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



10% brightness for the remainder of the night.

Use optional remote to change settings (purchased separately).

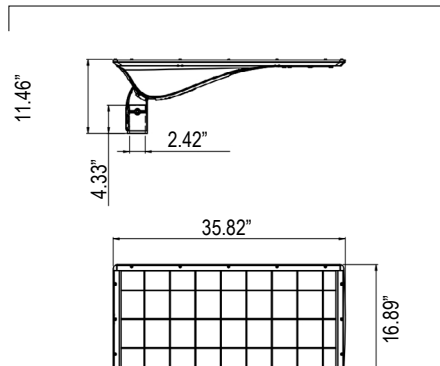


WEIGHTS, EPA, BUG RATINGS AND DIMENSIONS

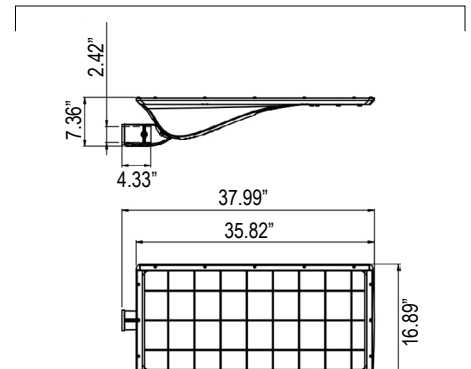
WEIGHTS / EPA / BUG

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

POLE TOP CONFIGURATION



SIDE ENTRY CONFIGURATION



Revisions	
DATE	
11-04-2023 R1- SITE CAL. UPDATE	
XXX	
XXX	
XXX	
XXX	
Submittal	
SITE LIGHTING APPROVAL	
Drawn By	Checked By
RMV	RMV
Date	
08-28-2023	
Scale	
AS SHOWN	
Project Number	
2393-MS-E1	
Sheet	
E100	



STATISTICS						
DESCRIPTION	SYMBOL	AVG	MAX	MIN	MAX/MIN	AVG/MIN
FRONT PARKING	+	2.1 fc	4.8 fc	0.7 fc	6.9:1	3.0:1
PARKING RIGHT	+	2.8 fc	4.3 fc	0.7 fc	6.1:1	4.0:1
REAR PARKING	+	2.2 fc	5.5 fc	0.4 fc	13.8:1	5.5:1
REAR ROADWAY	+	0.3 fc	1.3 fc	0.0 fc	N/A	N/A