

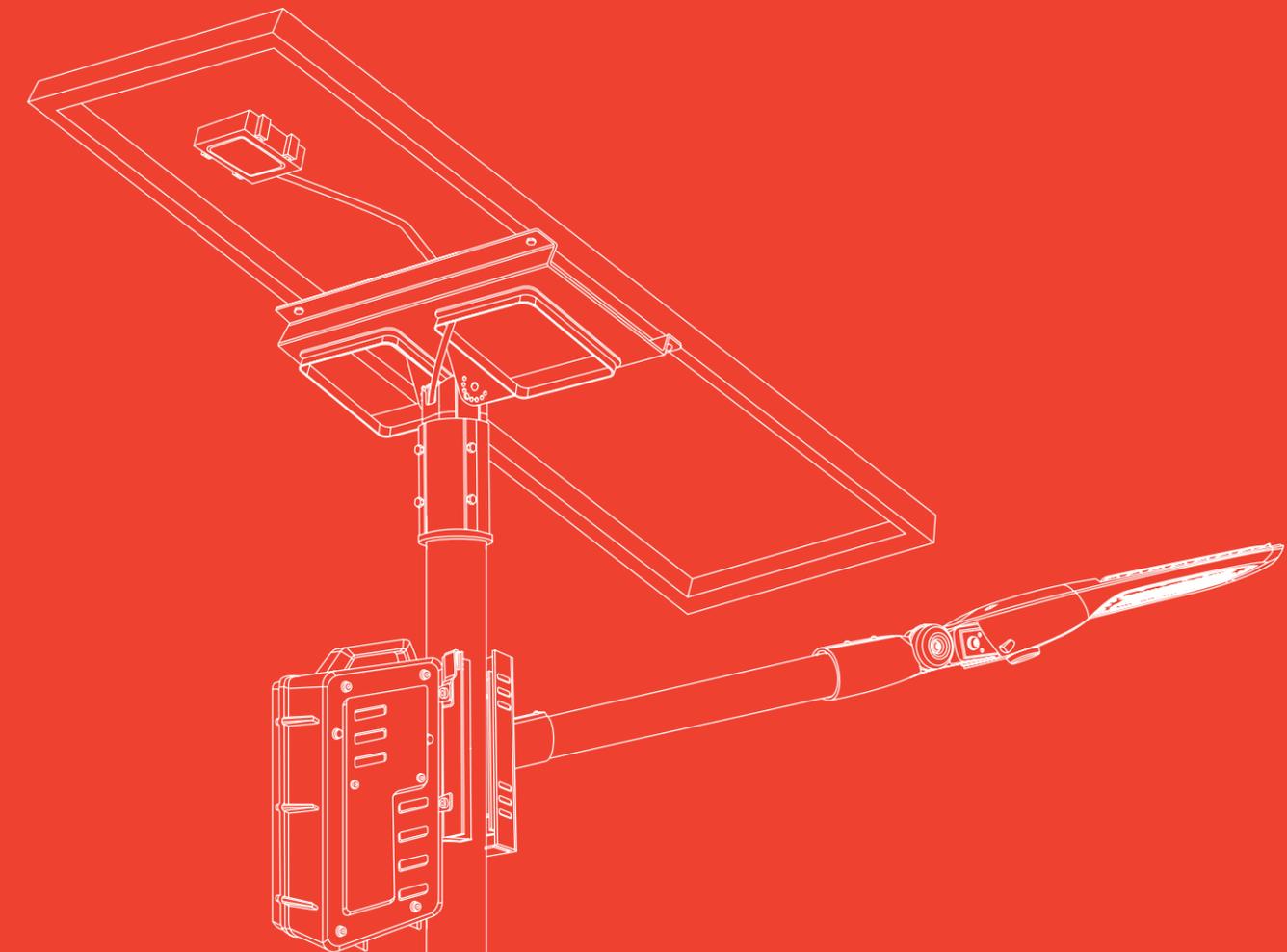


SATELIS

THERMO 50W
Installation Manual

SOLTECH Provides Advanced LED
Technology Powered With Eco-friendly,
Clean, Solar Energy.





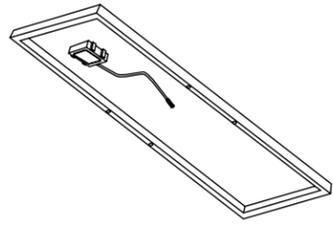
SATELIS
THERMO 50W

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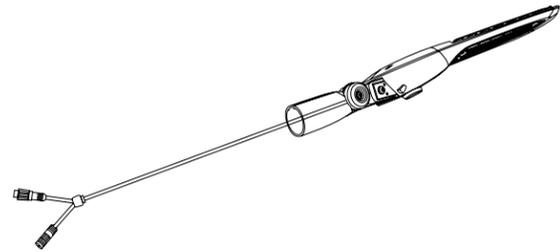
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01 Check List

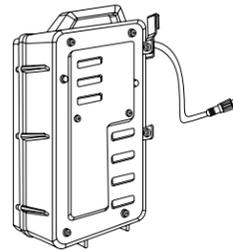
SATELIS THERMO 50W



Solar Panel



Luminaire



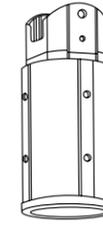
Battery Pack



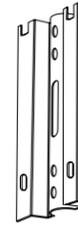
Component Kit D



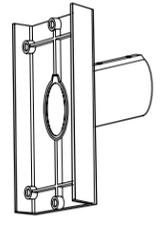
Component Kit E



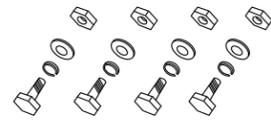
Component F



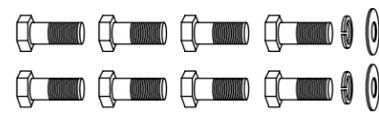
Component G



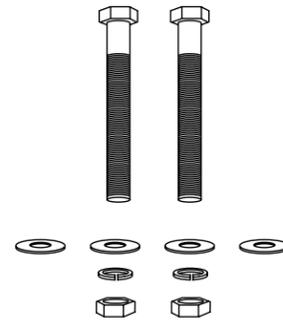
Component H



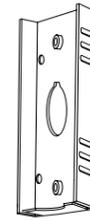
Component Kit A



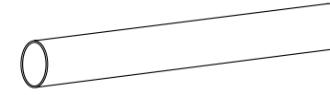
Component Kit B



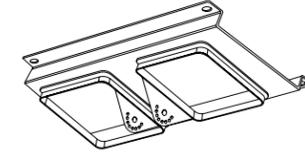
Component Kit C



Component I



Component J



Component K



Wire M

02 Introduction

Thank you for purchasing SATELIS THERMO Urban Lighting Products.

Introduction

The high-performance SATELIS THERMO series is a municipal-grade solar outdoor lighting system that provides bright off-grid light. This heavy-duty commercial dedicated series is ideal for highways, city streets, large parking lots, and area lighting. It comes in a wide choice of configurations, lighting outputs, and recommended pole heights. The SATELIS THERMO series is optimized to provide years of bright, reliable light. Industry-leading efficiency, dense batteries, and advanced controls to guarantee the highest possible off-grid autonomy.

Important

In order to avoid deep discharge of the battery during storage, please fully recharge your battery every 4 months. Please make sure that the light is installed in an area with sufficient sunlight irradiance. A strict minimum of 3.5 hours/day of sunshine on average is recommended. Select the right operating mode according to the local legislation needs and the local sunshine conditions. Keep it away from shadows. Self-cleaning available when the light fixture have minimum angle of 15 degrees.

Please save these instructions. Read all of the instructions carefully before attempting to carry out any installation or wiring. Do not open or attempt to repair the product on your own, as it may cause serious damage and would void the product warranty. Contact your local distributor for any questions concerning the installation.

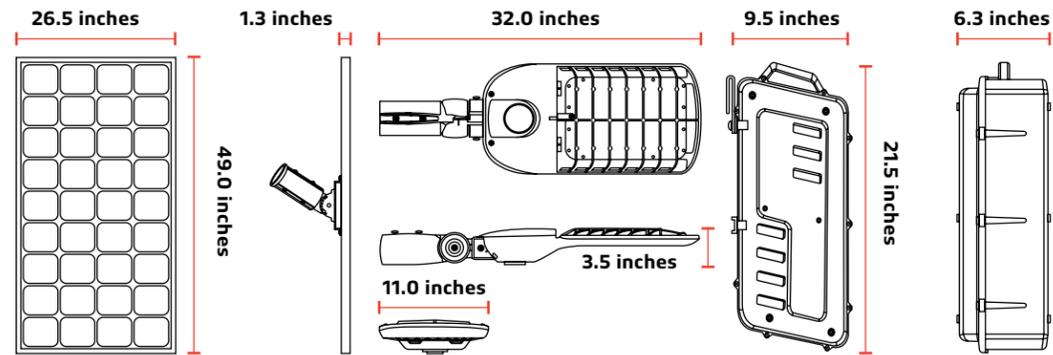
Range of the light module on the lighting fixture is 20–26 feet (6–8 meters). The ideal installation spacing is >16 feet (5 meters). When installing two or more lighting fixtures on one pole, select desired operating mode before installation. Interference can cause delay or malfunction when using the remote control to change operating modes after installation.

Precautions when working with solar panels

When the solar panel is exposed to sunlight, a voltage appears at the output terminals of the solar panel turning it into a source of electricity. To avoid a shock hazard, make sure the solar panel is covered with an opaque (dark) later such as paper or cloth during the installation. Do not make contact with the terminals when the panel is exposed to sunlight or any other light source.

SATELIS THERMO 50W

12.8V 54AH
SOLAR PANEL: 21.1 Lbs
SOLAR LAMP: 13.5 Lbs
BATTERY ASSEMBLY: 35.2 Lbs
MOUNTING FASTNER: 22 Lbs



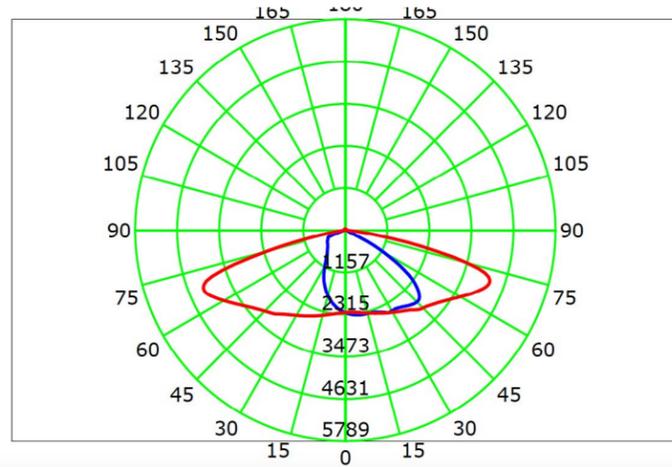
03 Specifications

Specifications	SATELIS THERMO 50W
LED Nominal Power	50W
Solar Panel	18V 145W
LiFePO ₄ Battery	691WH 12.8V 54AH
Weight	91.8Lbs
Lumen Output@5000K	10,000
CRI	> 70 (> 80 Optional)
LED Chip	Lumileds 5050 (215lm-CR>70)
EPA	11.3 ft ²
Waterproof Rate	IP65
Casting	Aluminum
Efficiency@5000K	200lm/W
* Charging Time	8hrs
Operation Mode	Remote control and One-key Setting
Installation Height	15–20 ft
Operating Temperature	-4 to 122°F
Charging Temperature	5 °F to 145 °F
Maximum Autonomy@Full Power	
Motion Sensor Mode	40%–100% 30hrs 20%–80% 65hrs
Time Control Mode	Night Owl 33hrs Early Bird 29hrs
Constant Mode	100% 13hrs 70% 18hrs 40% 32hrs

* The solar charge time data is base on 77 degree F ambient temperature with the panel pointed directly at the solar radiation. The standard radiation value is 1000W/m².

04 Luminous Distribution

SATELIS THERMO 50W Type III



05 Battery Notes

1. The LiFePO₄-battery-powered SATELIS THERMO lights are visibly brighter than other outdoor solar lights, and their performance overall is more reliable.
2. To charge the battery fully may take up 6 to 12 hours.
3. Output will be reduced to 40% when the battery is below 40% of its capacity.
4. Battery will stop charging when the ambient temperature is below 5°F or above 145°F.

Battery Status is indicated by the red/green indicator on the lighting fixture as follows:

- > Slow red light flashing (Every 2.5s) = Working
- > Slow red flashing (Every 5s) = Open circuit
- > Red light continuously on = Non-working
- > Quick red flashing (Every 0.5s) = Charge fault
- > Quick red flashing (Every 0.1s) = Over current or Short circuit

Storage

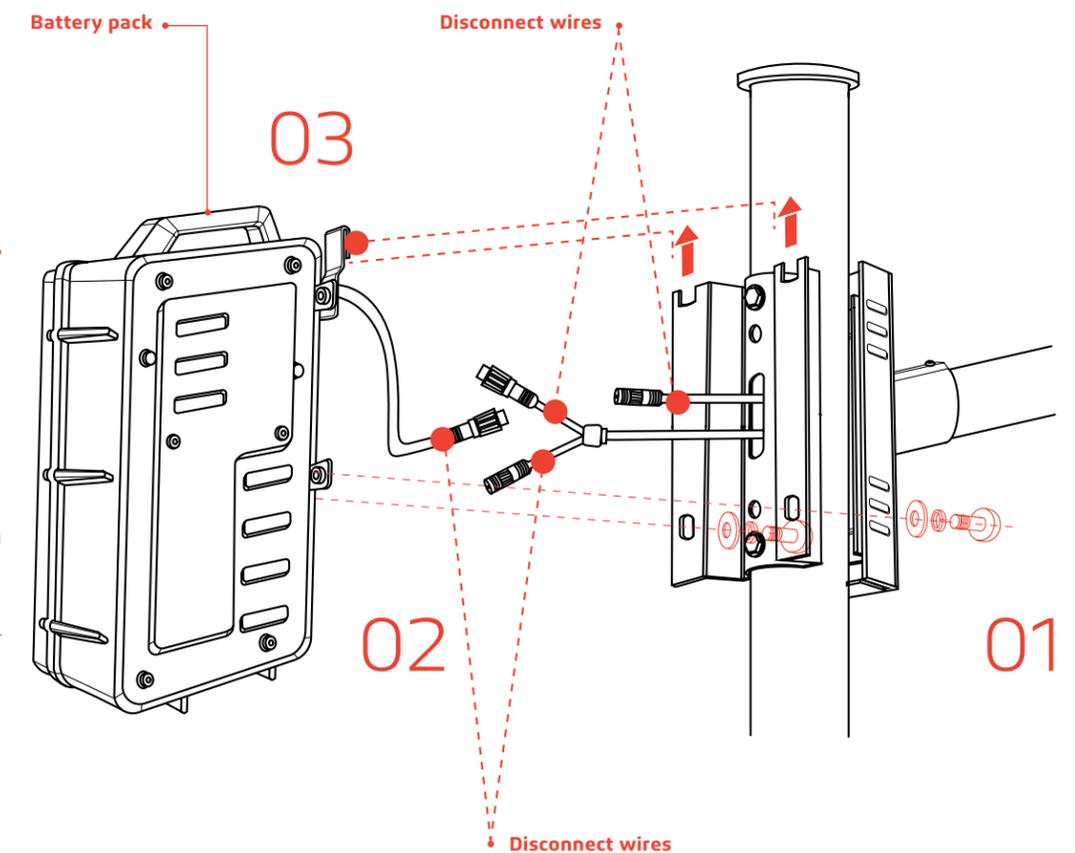
To avoid over discharge of the battery during storage, please recharge the lighting fixture every 4 months. Use the dedicated charger to charge, reset the switch when done.

Battery Replacement

1. Loosen the screws of the battery pack.
2. Disconnect the wire connectors.
3. Take out the battery pack.
4. Replace with a new one, connect the wire connectors.
5. Tighten the screws.

(IAP) Intelligent Adaptive Program Battery Control Technology

In order to extend the off-grid autonomy of the SATELIS THERMO 50W under shady trees, heavy rain, and thick clouds, our controllers now integrate an adaptive smart control feature to actively track battery capacity and adjust light output accordingly. Before integrating this feature, selecting a light output percentage on the remote would yield an accurate percentage of max LED brightness. Now with (IAP), the controller actively monitors the battery and regulates the electrical current to the LEDs. The controller makes light output of the selected percentage on the remote relative to battery capacity rather than max LED output. This smart-control feature can increase our off-grid performance by up to 40%.



06 Installation and Wiring Compliance

1. Installation and wiring must comply with the State and National Electrical Codes.
2. The SATELIS THERMO 50W models are intended for outdoor use only and should not be installed in an unventilated area, and shall be installed in an environment within the operational temperatures defined for the product.
3. The average sunshine in the installation area should be above 3.5 hours/day in order to ensure full function of the lighting fixture. Avoid areas with shades.
4. Before installation, if applicable, please ensure the light pole and its foundation are solid enough to withstand the lighting fixture(s).
5. Before installation, please ensure that the battery is fully charged. Install during sunny days if possible.
6. Before installation, please press the  ON/OFF key in the remote control and check whether it shows a red light on the indicator. Please cover the panel and check if the light module turns on normally within 1 minute.

After Installation

The lighting fixture will automatically turn on at night and turn off during daylight.

Important

Always orient the solar panel facing the equator (e.g. facing south if in northern hemisphere).
Always have a tilt angle of at least 15° to avoid dust accumulation (0°=horizontal plane).

07 Ordering Information Chart

Series	Wattage	Color Temperature	Mounting Options	Finish
STLSTDTH= SATELIS THERMO	50=50W 10000 Lumens	3=3000K 4=4000K 5=5000K 6=5700K	SF=Slip Fitter	GY=Gray BZ=Bronze

- - - -

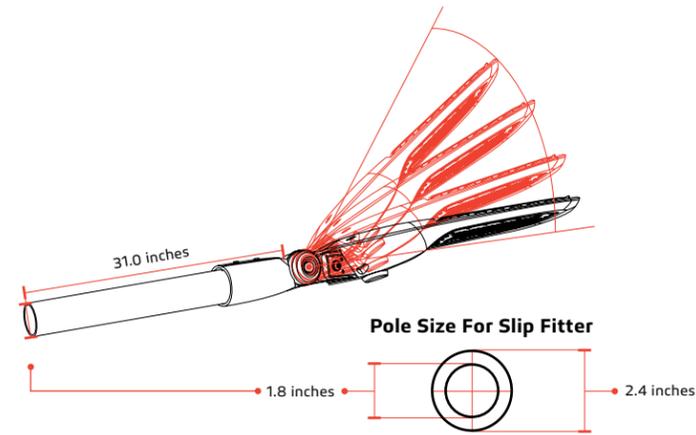
For example: STLSTDTH5035FGY

This means the customer wants a SATELIS THERMO 50 watt, 3000K CCT, Slip Fitter installation, with a gray finish.

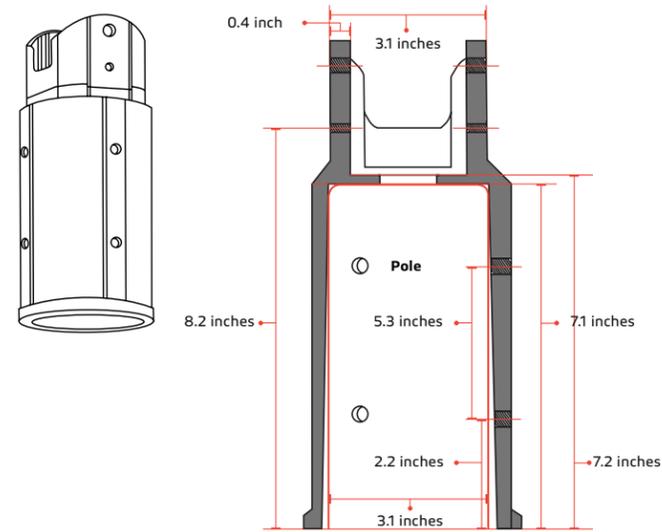
DO NOT send the sample number directly to our sales. Use the information in the chart above to create a model number with the correct series, wattage, temperature, mounting option, and finish for the product that you want.

08 Mounting Accessories

SLIP FITTER

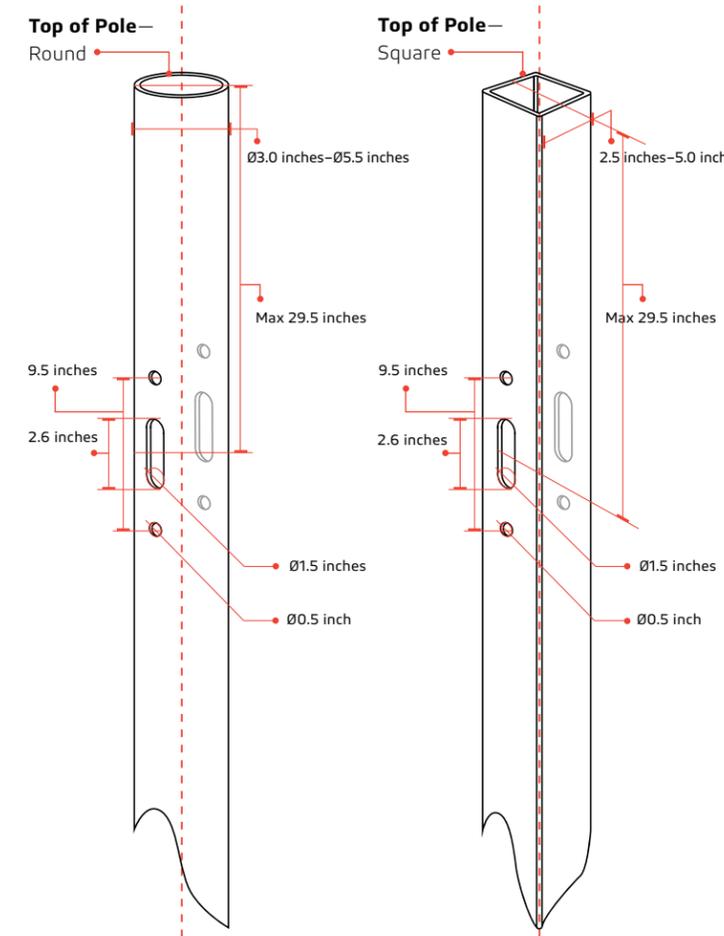


SOLAR PANEL SUPPORT BASE—CUTAWAY



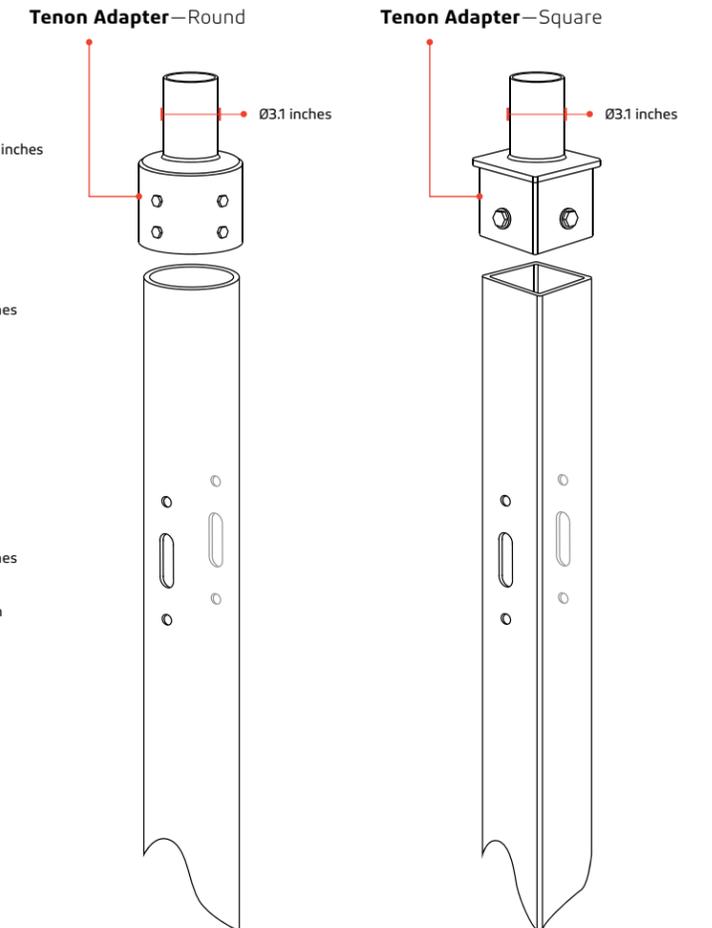
POLE ASSEMBLY

Create 2 holes (diameter 0.5 inch) in the middle of pole, create 1 hole (diameter 1.5 inch, 2.6 inch long) between the 2 holes.



TENON ADAPTER

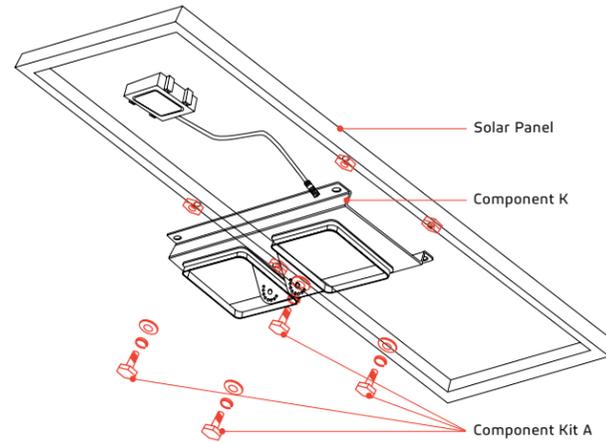
If your round pole size is over 3.1 inches, or you need a square pole, please contact the pole manufacturer for the tenon adapter.



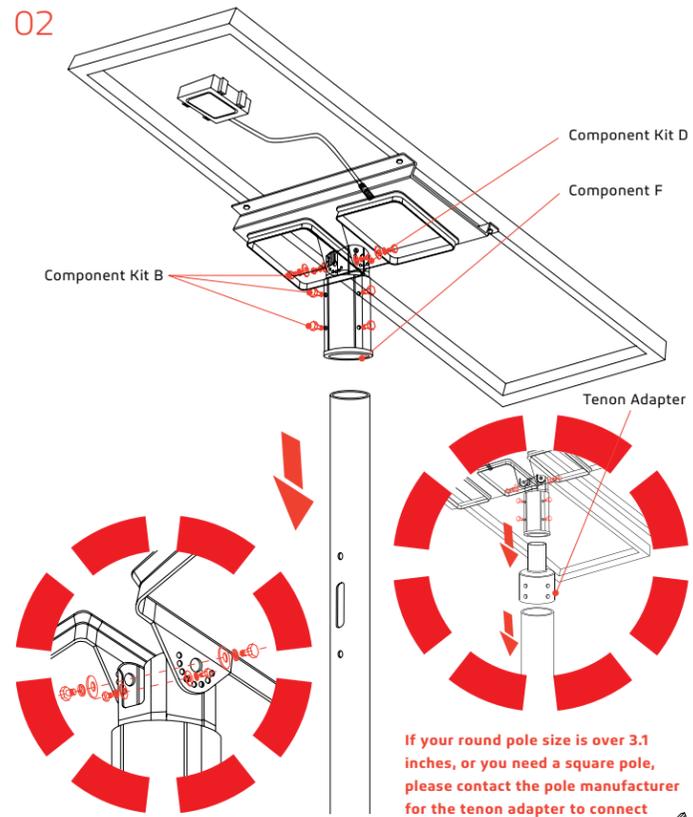
09 Installation

SATELIS THERMO 50W

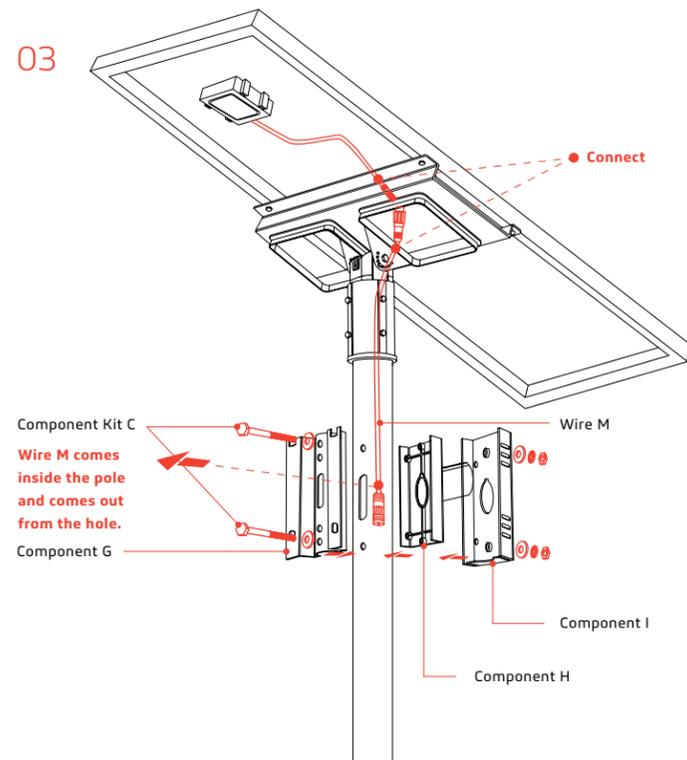
01



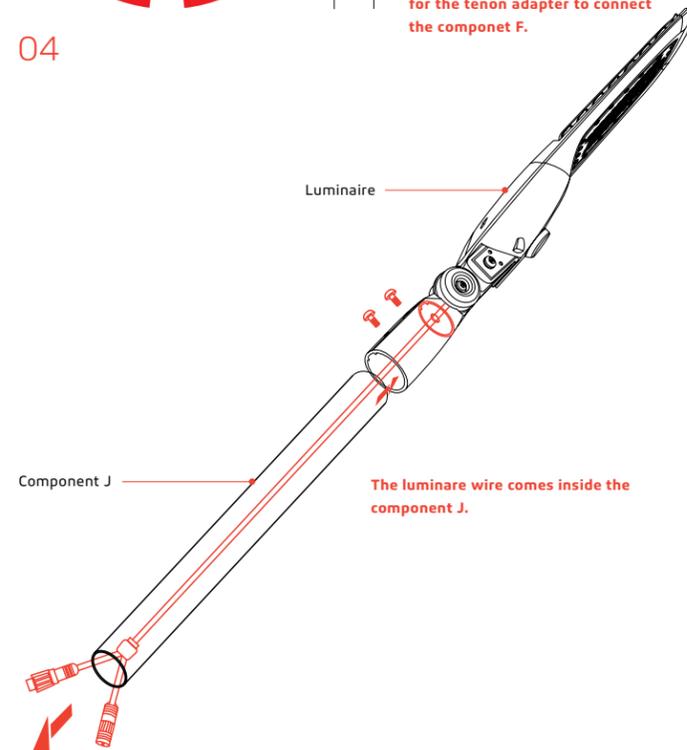
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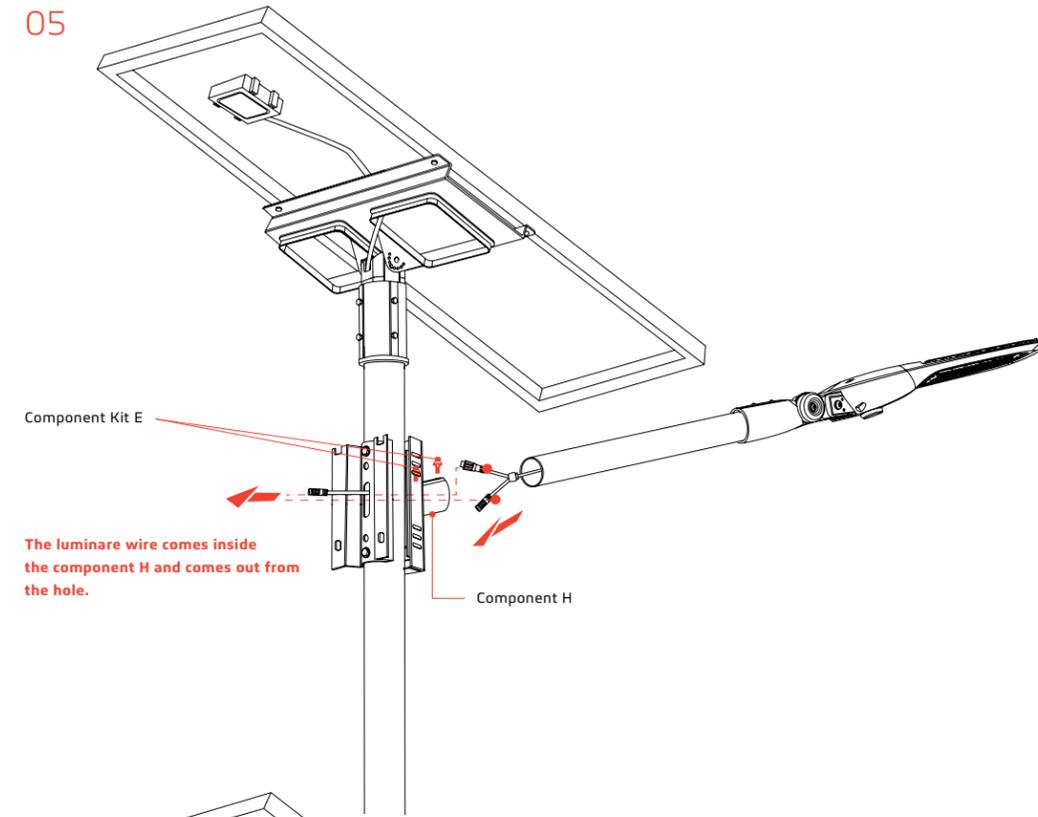
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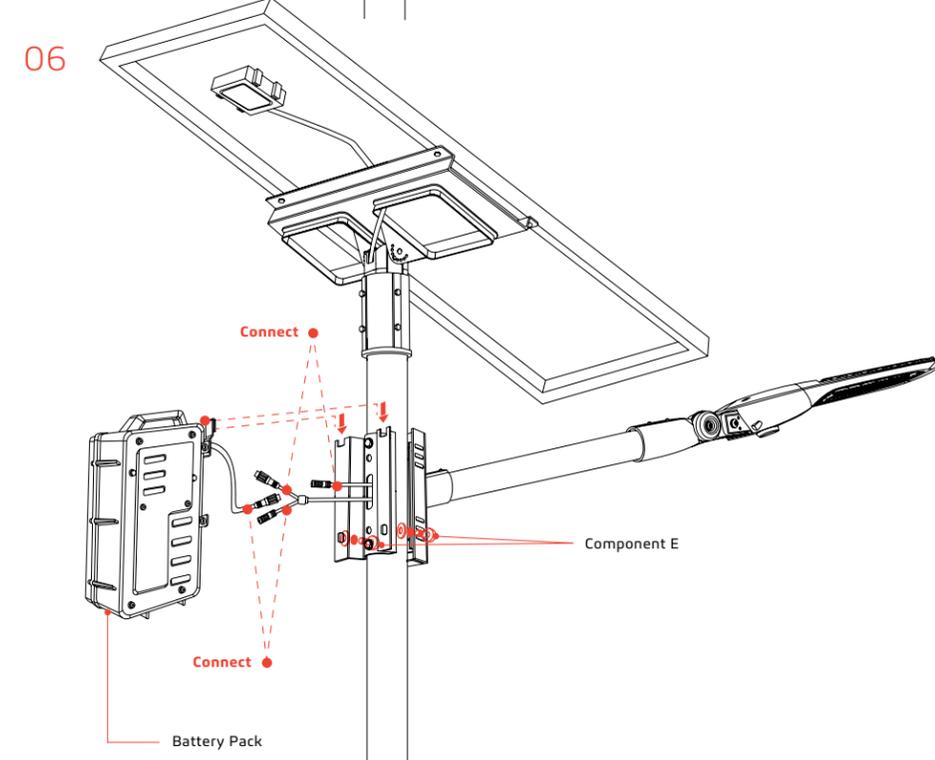
04



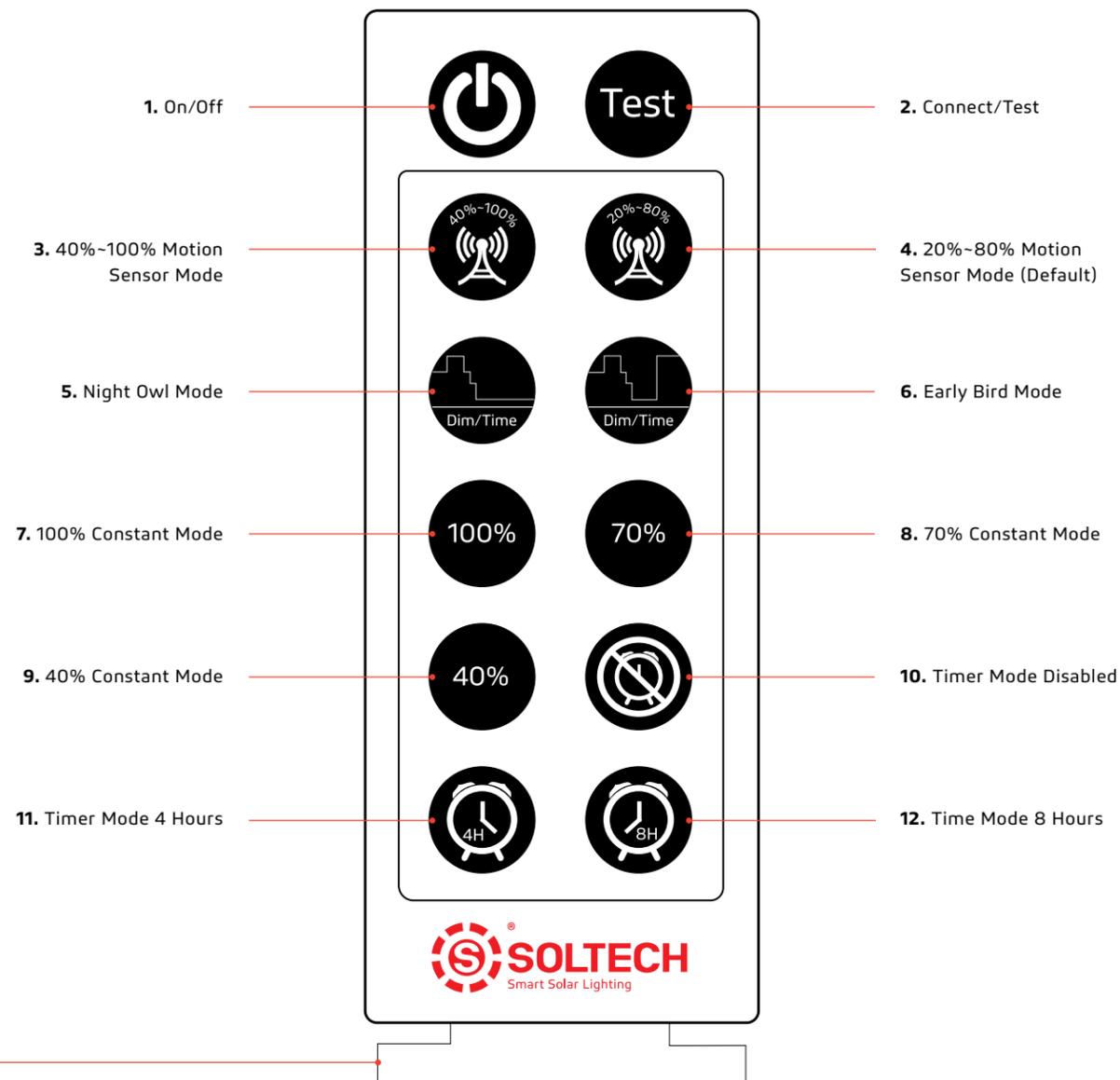
05



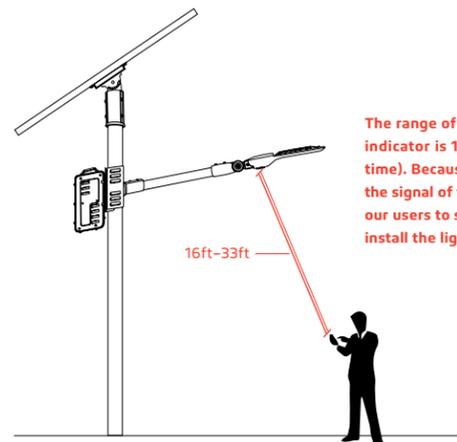
06



11 Remote Control Guide



When using the remote for the first time, please remove the plastic piece at the bottom to make the remote turn on.

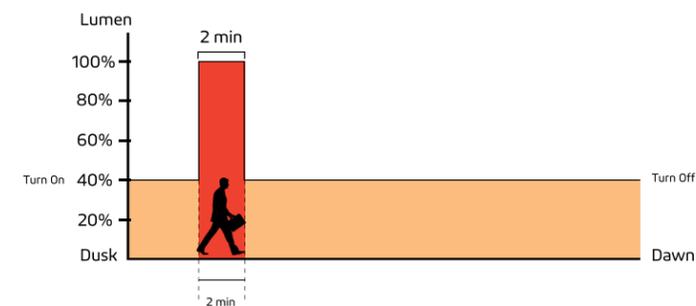


The range of the remote control to the indicator is 16ft (Day time) to 33ft (Night time). Because the sunlight will impact the signal of the remote control, we suggest our users to setup the mode before they install the light.

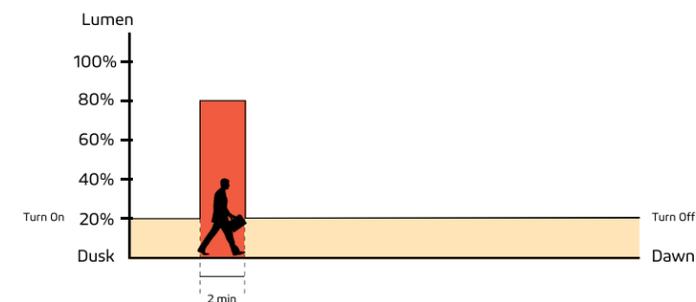


- 1. On/Off**
When off is selected, the light will stop working. The solar panel will not charge the battery and the battery will not supply electricity to the light.
- 2. Connect/Test**
Remote control device can be connected with any lighting fixture. When all cables are connected and solar panel detects sunlight, the fixture will automatically turn on. To test, press the "Test" button once, the LED light will turn on to indicate the fixture has been turned on. During the day time, the indicator will slowly flashing red. That means the battery is charging.

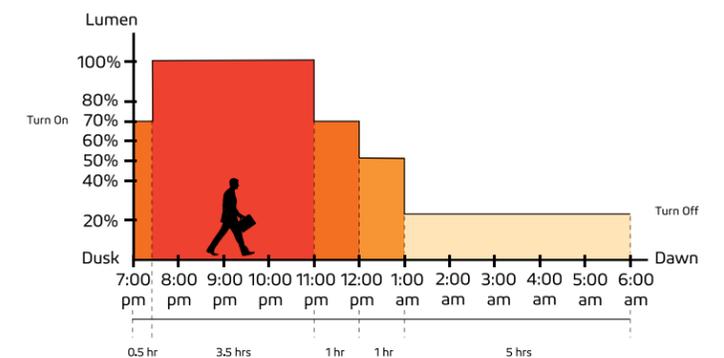
3. 40%-100% Motion Sensor Mode
Constant 40% brightness (turns on at dusk, turns off at dawn); 100% brightness turns on for 2 minutes when motion is detected.



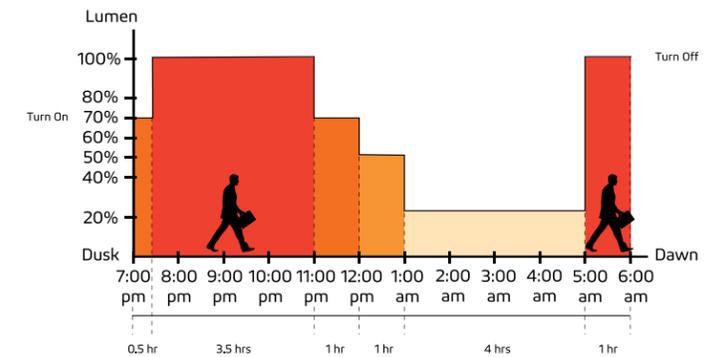
4. 20%-80% Motion Sensor Mode (Default)
Constant 20% brightness (turn on at dusk, turn off at dawn); 80% brightness turns on for 2 minutes when motion detected.



5. Night Owl Mode
Changes as natural light decreases/increases (turns on at dusk); 70% brightness for 0.5 hour, 100% brightness for 3.5 hours, 70% brightness for 1 hour, 50% brightness for 1 hour, 20% brightness for 5 hours (turns off at Dawn).



6. Early Bird Mode
Changes as natural light decreases/increases with increased brightness near dawn for early risers (turns on at dusk); 70% brightness for 0.5 hour, 100% brightness for 3.5 hours, 70% brightness for 1 hour, 50% brightness for 1 hour, 20% brightness for 4 hours, 100% brightness for 1 hour (turns off at Dawn).



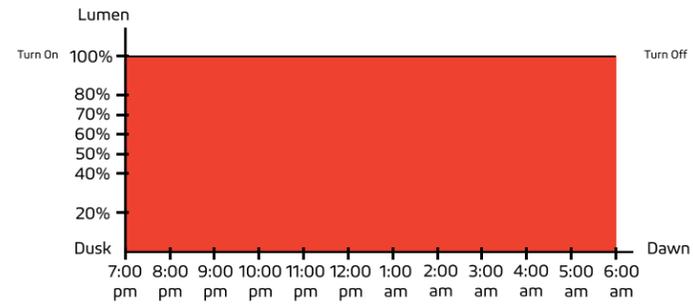
(IAP) Intelligent Adaptive Program Battery Control Technology
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Important
Dust and dawn time can vary for different locations and seasons. The sensors in our products will monitor the light levels where it is installed. The time period shown in the chart above is just an example to help you understand the different lighting modes.

11 Remote Control Guide

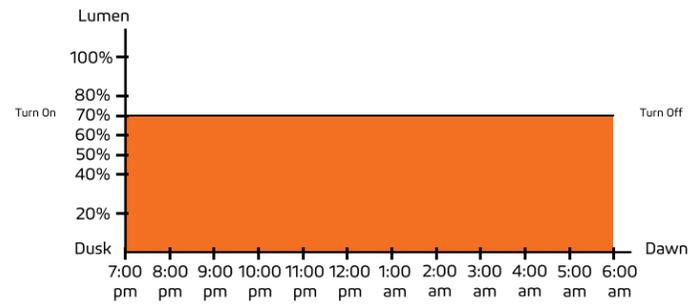
7. 100% Constant Mode

100% brightness from dusk to dawn.



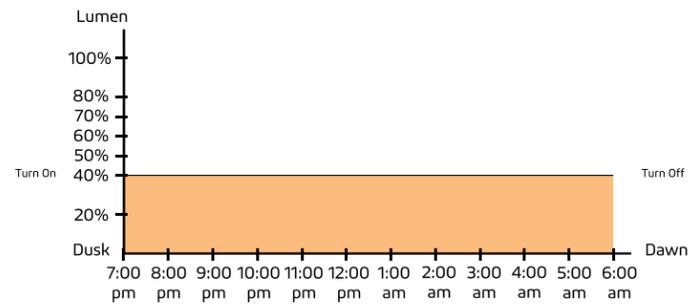
8. 70% Constant Mode

70% brightness from dusk to dawn.



9. 40% Constant Mode

40% brightness from dusk to dawn.

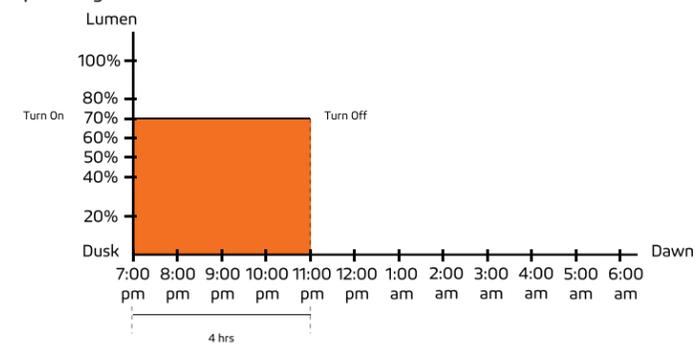


10. Timer Mode Disabled

Press this button to turn off Timer Mode; settings revert back to before Timer Mode was last activated.

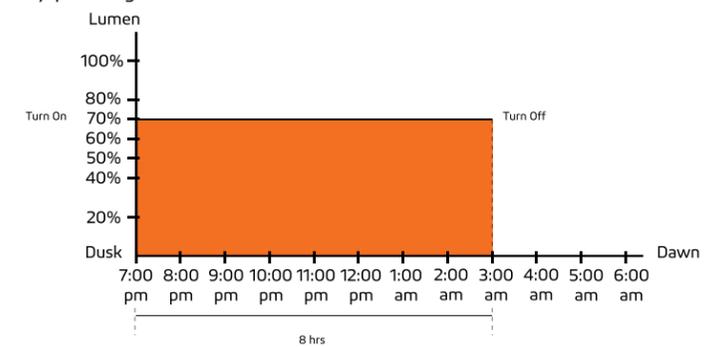
11. Timer Mode 4 Hours

This is an additional mode which can work with any other modes. For example: press this button at any time after you turn on 70% Constant Mode. If the light turns on at 7pm at dusk, it will turn off at 11pm. It will repeat the same schedule hereafter until it is canceled by pressing Timer Mode Disabled.



12. Time Mode 8 Hours

This is an additional mode which can work with any other modes. For example: press this button at any time after you turn on 70% Constant Mode. If the light turns on at 7pm at dusk, it will turn off at 3am. It will repeat the same schedule hereafter until it is canceled by pressing Timer Mode Disabled.



Important

Dust and dawn time can vary for different locations and seasons. The sensors in our products will monitor the light levels where it is installed. The time period shown in the chart above is just an example to help you understand the different lighting modes.

SATELIS THERMO products are covered by a 5 year limited warranty. SATELIS THERMO urban light warrants to the original purchaser that this product is free from defects in materials and workmanship for the period of 5 years from date of purchase. To obtain warranty service please contact your local distributor or sales rep for further instruction.



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