SOLTECH
Smart Solar Lighting

SATELIS PRO 50W

CATALOG		COMMENTS
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APPLICATIONS

SATELIS PRO meets the lighting requirements for major roads and highways in cold areas. Equipped with more powerful solar panels and higher-capacity lithium battery packs to ensure battery run time, SATELIS PRO is the spec-grade LED solar lighting solution for most commercial applications. We adopt the super cold-tolerant battery technology in the SATELIS PRO 50W, which provides excellent low-temperature charge and discharge performance.

DESCRIPTION

SATELIS PRO meets the lighting requirements for major roads and highways. It is equipped with more robust solar panels and a super cold-tolerant battery pack to ensure the battery functions through harsh cold weather. SATELIS PRO solar panels turn sunlight into electricity; when sunlight hits the photovoltaic cells, electrons in the silicon go into motion. The solar panels create energy Electricity produced from the sun's light is then stored in the superior capacitor battery to ensure cold weather operation for the LED fixture.

CERTIFICATION DATA

ORDERING INFORMATION

SERIES	WATTAGE	OPTIC TYPE	COLOR TEMPERATURE	MOUNTING OPTIONS	FINISH
STLSTDPRO=SATELIS PRO	**50**=50W 10,000 Lumens	**T2**=TYPE II **T3**=TYPE III **T4**=TYPE IV	**3**=3000K **4**=4000K **5**=5000K **6**=5700K	**SF**=Slip Fitter	**GY**=Gray **BR**=Bronze

	-		-		-		-		-	

MPPT Controller

- Maximum Power Point Tracking (MPPT) is a technique for tracking and regulating the output energy from the solar panel to the battery.
- Measures the solar panel output voltage and current in real-time and continuously tracks the maximum power.
- Regulates the output voltage so that the system can always charge the battery with the maximum power.
- Significantly improves the solar system energy utilization rate, with a conversion efficiency up to 97%.
- Increases the solar system's charging efficiency by at least 20% compared to Pulse Width Modulation (PWM).

(IAP) Intelligent Adaptive Program Battery Control Technology

In order to extend the off-grid autonomy of the SATELIS PRO 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. This feature out-performs utilizing a constant percentage of max LED brightness. With (IAP), the controller actively monitors the battery and optimizes the electrical current to the LEDs. The IAP controller applies the selected percentage output from the remote, to the battery capacity, rather than the max LED output. This smart-control feature can increase SATELIS PRO's off-grid performance by up to 40%.

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SPECIFICATION FEATURES

50+ Hours Max Autonomy
- Up to 600 WH battery capacity
- One-key smart programming

High Brightness, Smart Power Consumption
- >200lm/W—the highest efficiency in the industry
- PIR motion sensor and one-key automatic dimming
- Automatically switches to 40% energy saving mode during low battery levels

Modular & Customizable Concept
- Modular battery box with fast hooking design and IP65 waterproof rating
- Top mounting or under mounting panel options
- Reduce the construction time for building projects
- TYPE III distribution comes standard. TYPE II and TYPE IV are also available.

Longer Life & Heavy Duty
- Grade A Superior Battery Pack up to 12V*50AH, 2000+full Charging Cycles
- LEVEL 12 Wind Test

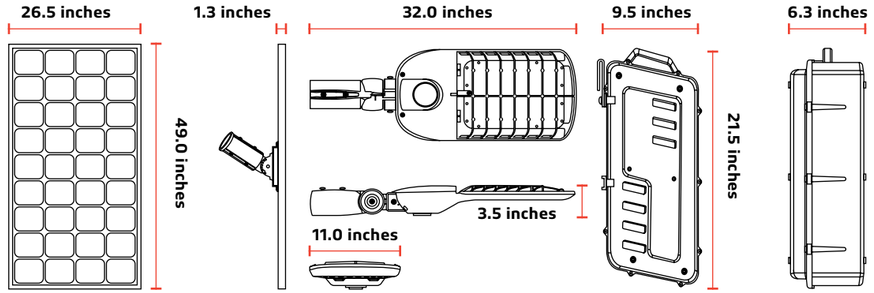
Greater Energy Production
- Up to 145W Mono-Crystalline Solar Panel
- Adjustable angle for the fixture head allows maximum solar collection and self-cleaning of the solar panel surface

Low Maintenance Design
- Field-replaceable battery functionality via quick connections
- Die cast A380 aluminum fixture housing is rust-free
- 10+ year warranty options for municipal utility projects

PRODUCT SIZE

SATELIS PRO 50W

SOLAR PANEL: 21.1 Lbs
SOLAR LAMP: 13.5 Lbs
BATTERY ASSEMBLY: 35.2 Lbs
MOUNTING FASTNER: 22 Lbs



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SPECIFICATIONS

Specification	SATELIS PRO 50W
LED Nominal Power	50W
Solar Panel	18V 145W
Superior Battery	600WH 12V 50AH
Weight	91.8Lbs
Lumen Output@5000K	10,000
CRI	> 70 (> 80 Optional)
LED Chip	Lumileds 5050 (215lm-CR>70)
EPA@45°	12.4 ft^2
Waterproof Rate	IP65
Casting	Aluminum
Efficiency@5000K	200lm/W
*Charging Time	11hrs
Operation Mode	Remote control and One-key Setting
Installation Height	15–20 ft
*Operating Temperature	-40 to 140˚F
*Charging Temperature	-58 ˚F to 140 ˚F
Maximum Autonomy@Full Power	
Motion Sensor Mode	**40%–100%** 63hrs **20%–80%** 105hrs
Time Control Mode	**Night Owl** 38hrs **Early Bird** 34hrs
Constant Mode	**100%** 15hrs **70%** 21hrs **40%** 37hrs

* The temperature can impact the battery's charging and normal operation.

* 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/m^2.

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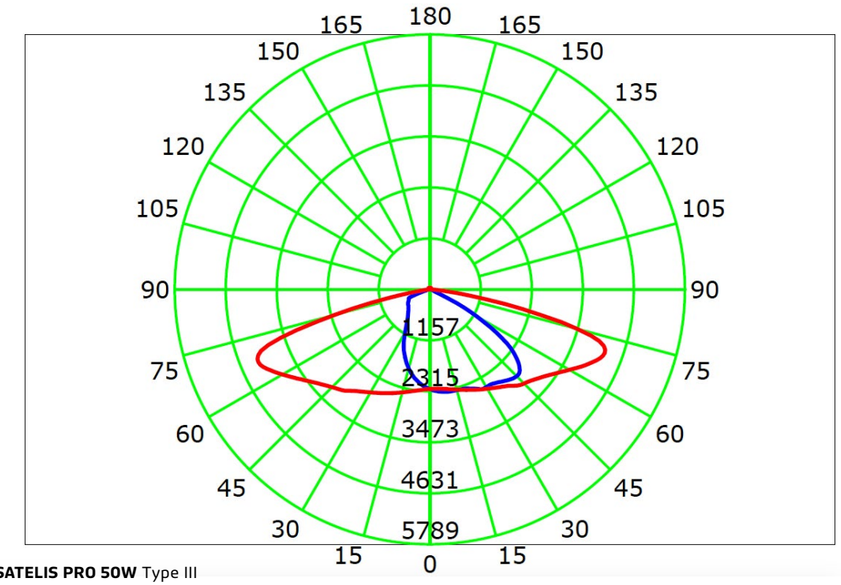
IES / BEAM



SATELIS PRO 50W Type III

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SATELIS PRO 50W

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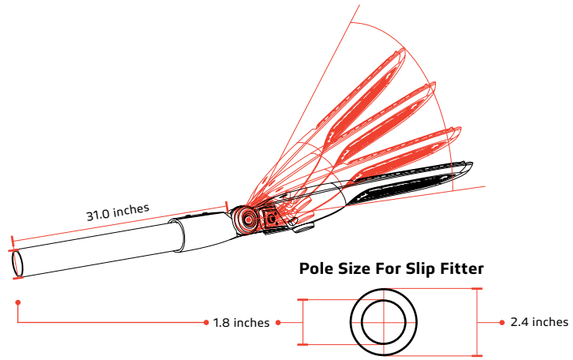
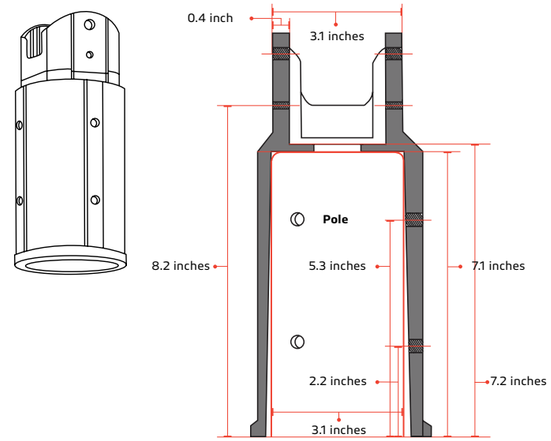
INSTALLATION ACCESSORIES

SLIP FITTER



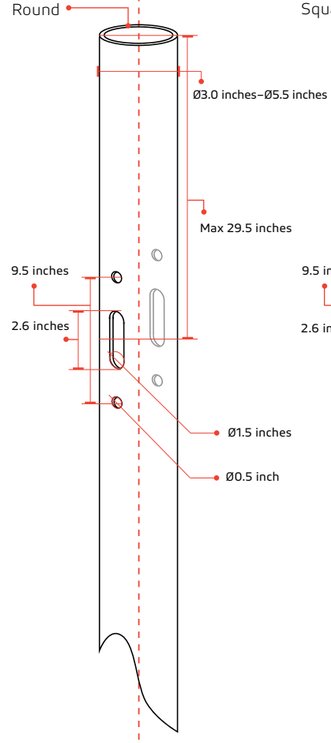
SOLAR PANEL SUPPORT BASE—CUTAWAY



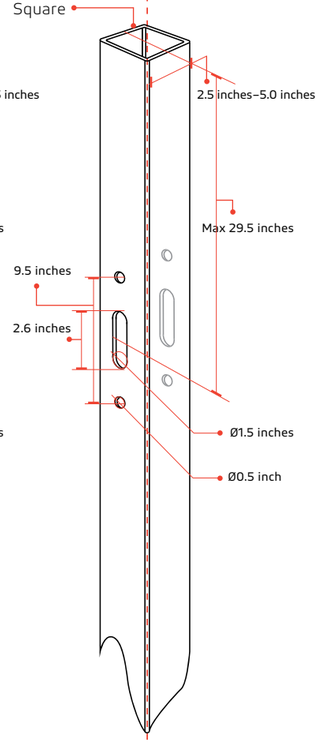
POLE ASSEMBLY

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.

Top of Pole—Round



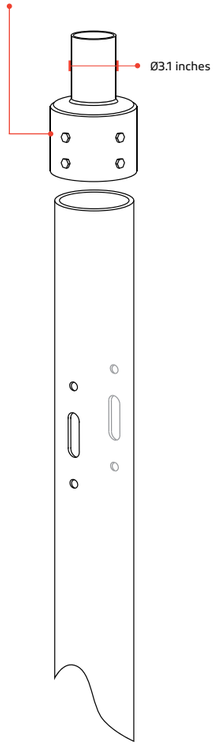
Top of Pole—Square



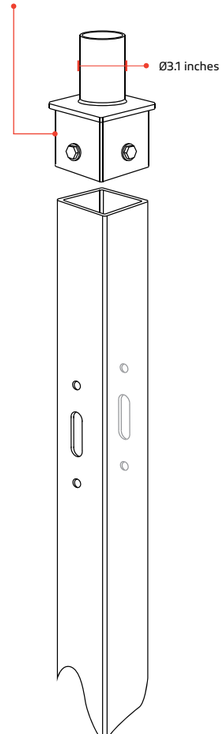
TENON ADAPTER

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.

Tenon Adapter—Round



Tenon Adapter—Square



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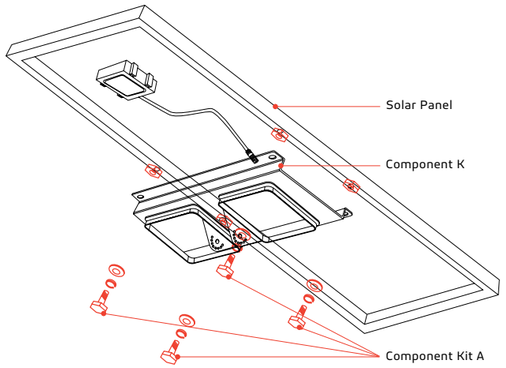
SATELIS 50W

01



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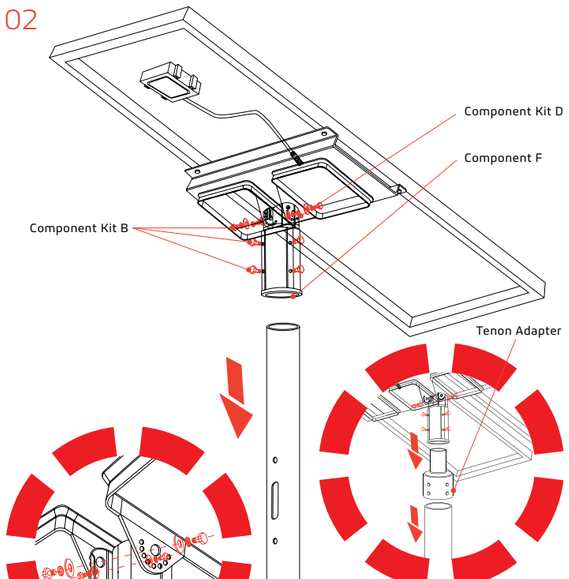
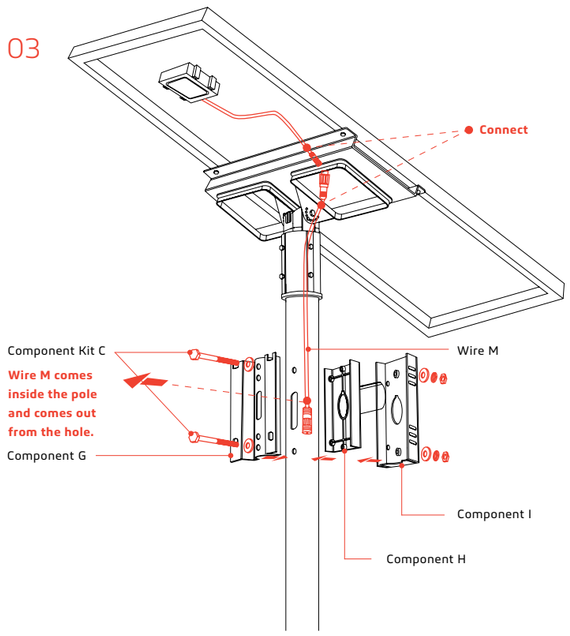


If your round pole size is over 3.1 inches, or you need a square pole, please contact the pole manufacturer for the tenon adapter to connect the componet F.

03



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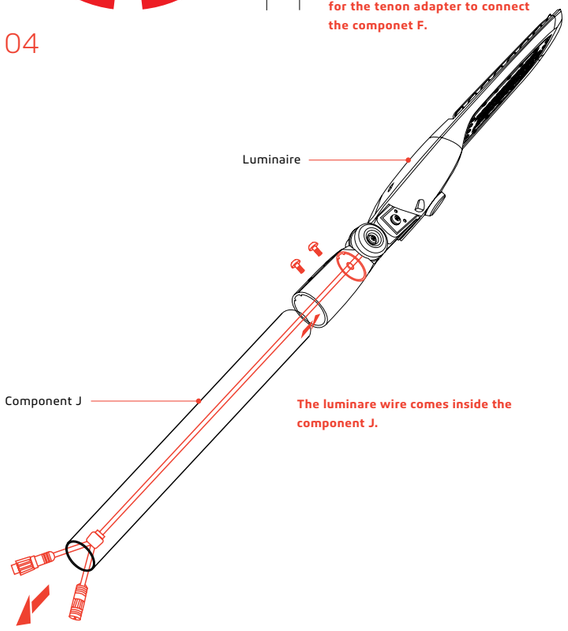

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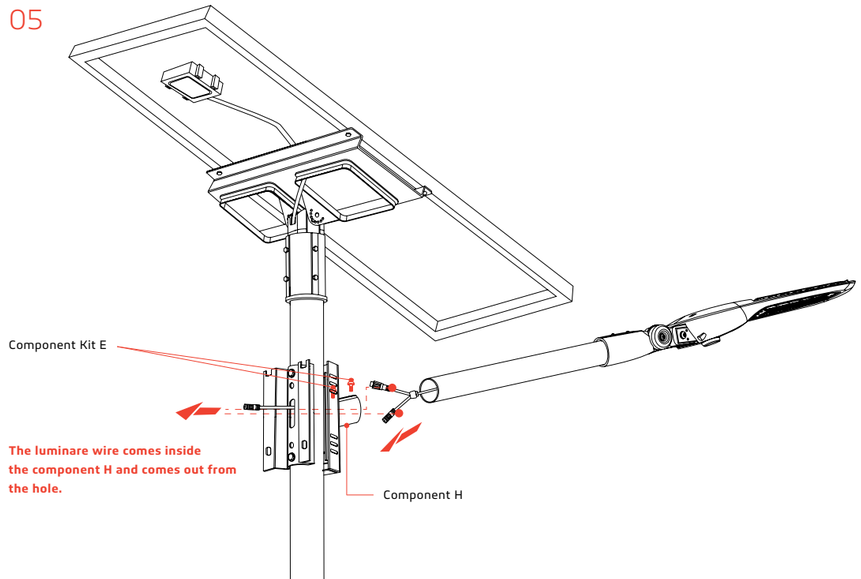
SATELIS 50W

05



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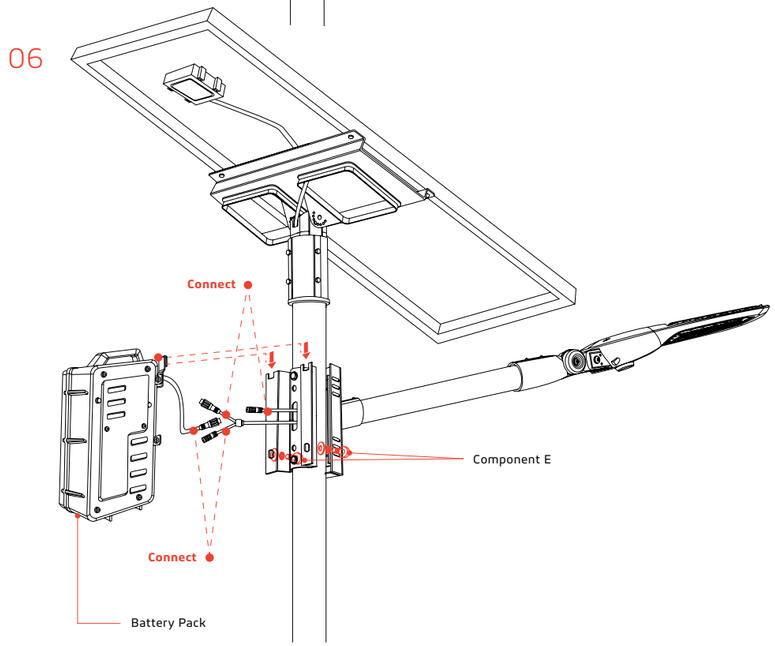

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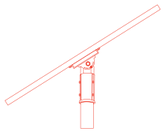
The solar charge in a battery pack won't last forever. The off-grid system relies on stored solar energy for autonomy. Angling your solar panels properly can boost the power intake of your solar lighting system. You want to angle your solar panels at a tilt based on the area's latitude.

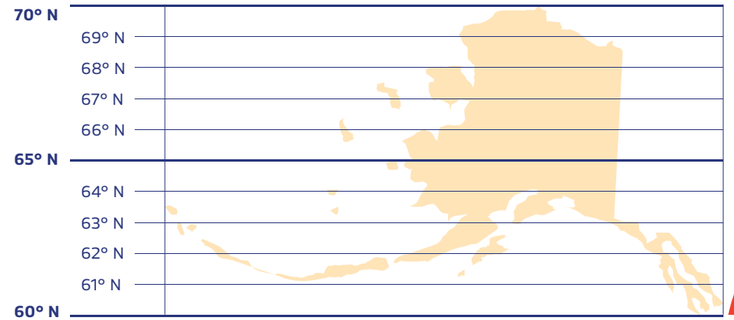
Tip

You can increase the tilt 15° in the winter or decrease 15° in the summer.
In this way you can get the maximum sunlight to recharge the battrey.

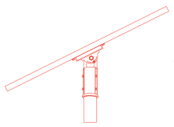
Key

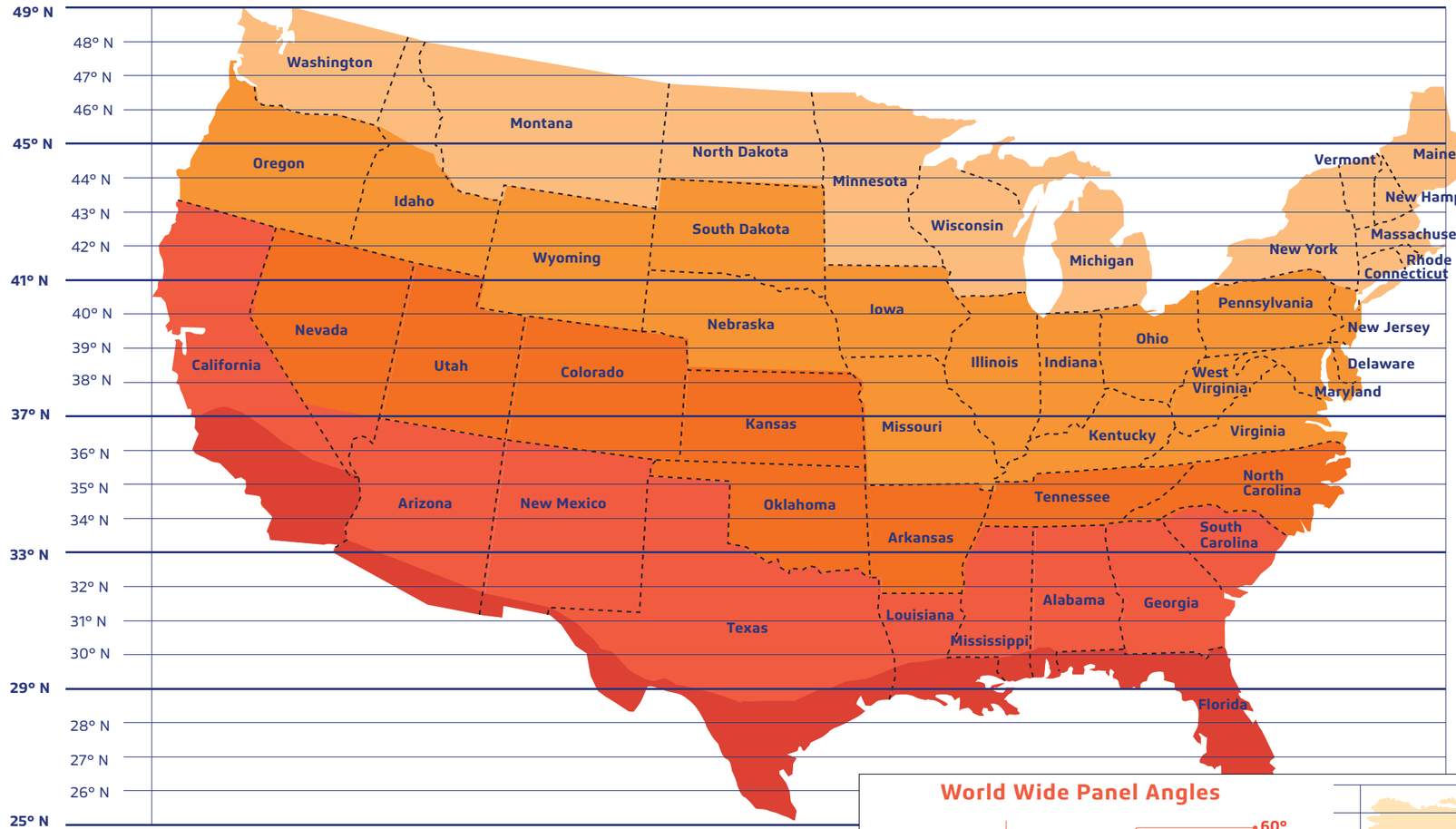
Strong sunlight — Nromal sunlight — Less sunlight

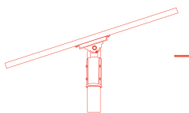


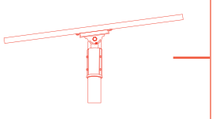


Alaska





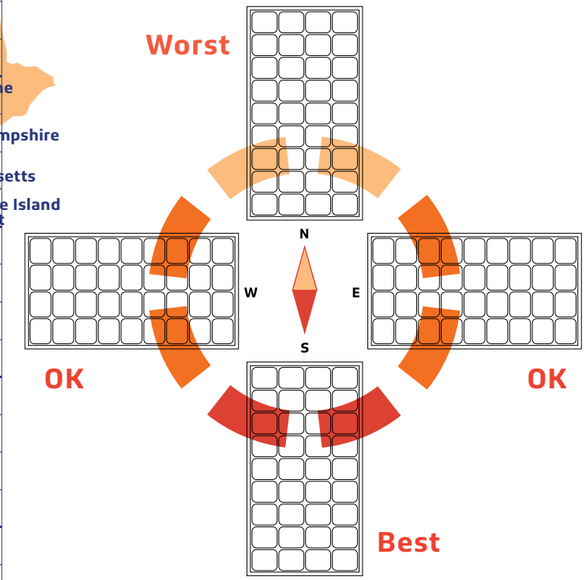




08

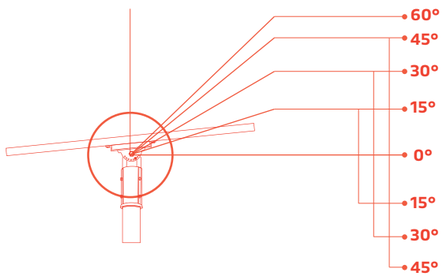
Hawaii

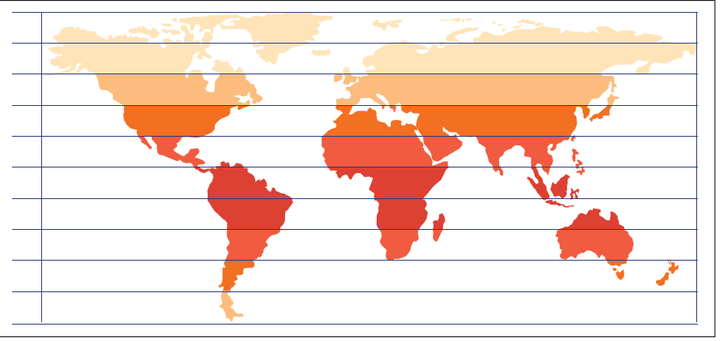
Best Facing Direction of Solar Panel



The area will dictate the installation of the fixtures and will sometimes prevent the lights from facing south. But that's okay! Panels facing West & East won't get as much light as Southern facing panels, but will still collect a good amount of sunlight. A North facing panel also works, but it will take longer to charge than any other direction. This would mean that the solar charge will be less optimal if installations are facing North.

World Wide Panel Angles





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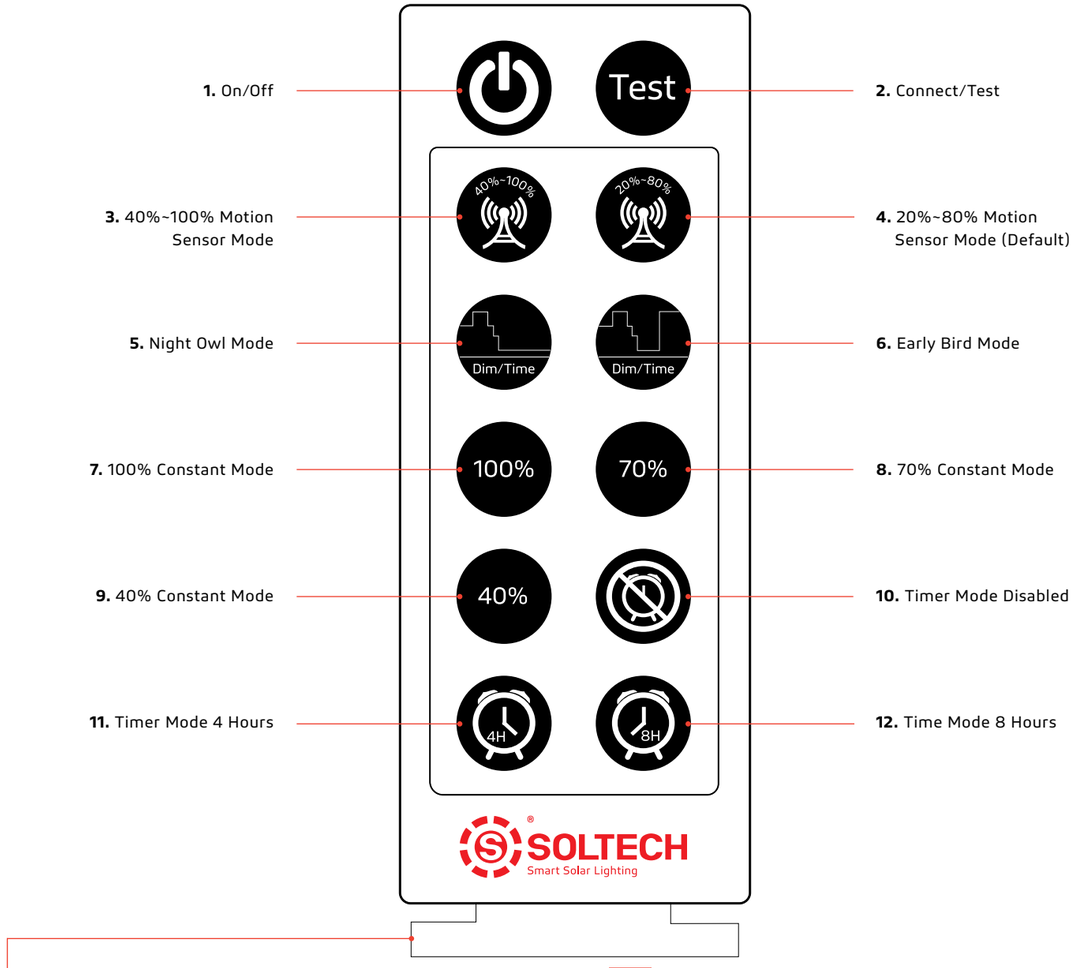
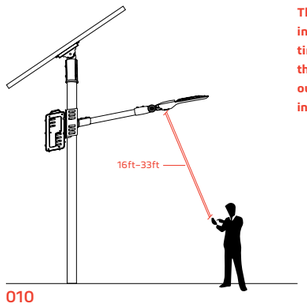
REMOTE CONTROLS



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, one at a time. To connect, press the button once. It also functions as a test button. To test, press the “Test” button once, the red light will indicate the fixture is charging, green light indicates that the fixture is operating. Testing lasts for 10 seconds, and then it goes back to the mode previously in use.

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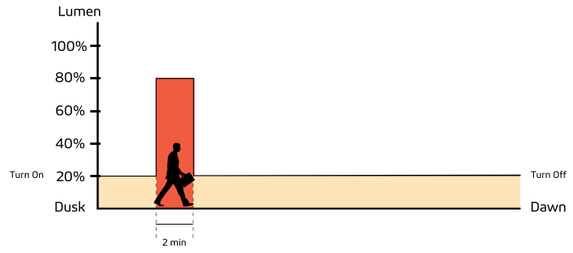
REMOTE CONTROLS

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.

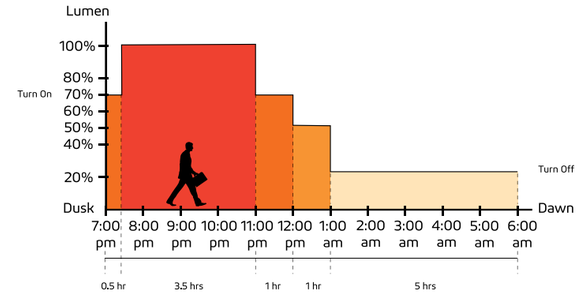
4. 20%~80% Motion Sensor Mode (Default)

Constant 20% brightness (turns on at dusk, turns off at dawn); 80% brightness turns on for 2 minutes when motionis detected.



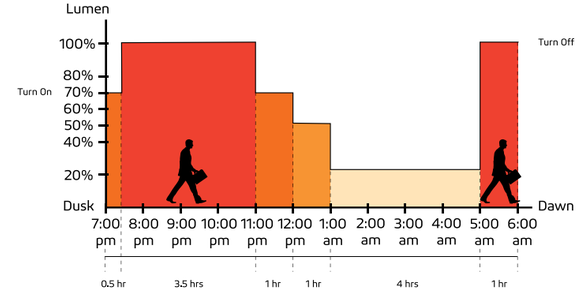
5. Night Owl Mode

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

In order to extend the off-grid autonomy of the SATELIS PRO 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%.

Important

Dusk and dawn time may be diffrent in other locations and seasons. The sensors of our products will follow the light patterns of where it is installed. The time period shown in the chart above is just an example to help you understand the different lighting modes only.

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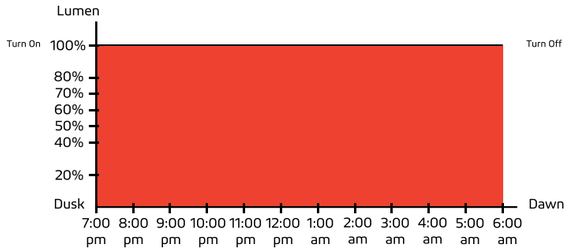
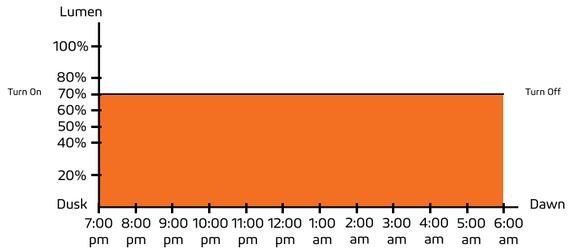
REMOTE CONTROLS

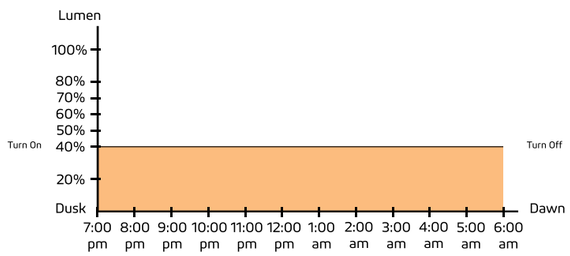
7. 100% Constant Mode
100% brightness from dusk to dawn.



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.

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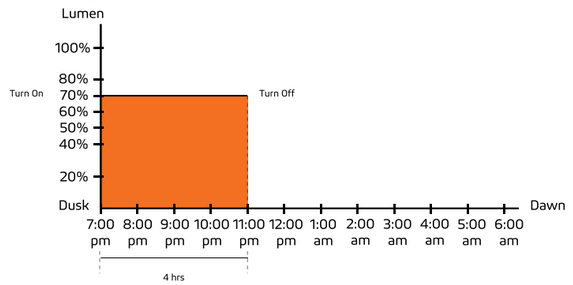
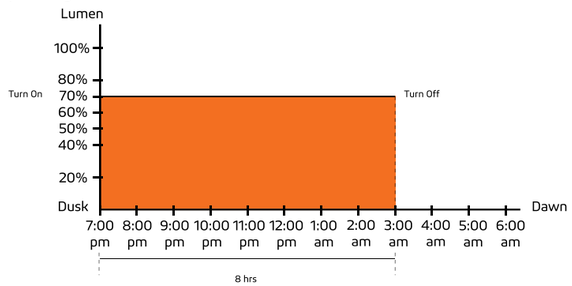
REMOTE CONTROLS

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
Dusk 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.

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WARRANTY

SATELIS PRO products are covered by a 5 year limited warranty. SOLTECH 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.

SOLTECH
Smart Solar Lighting

1460 Park Avenue.
Emeryville, CA 94608 USA

www.soltechlighting.com