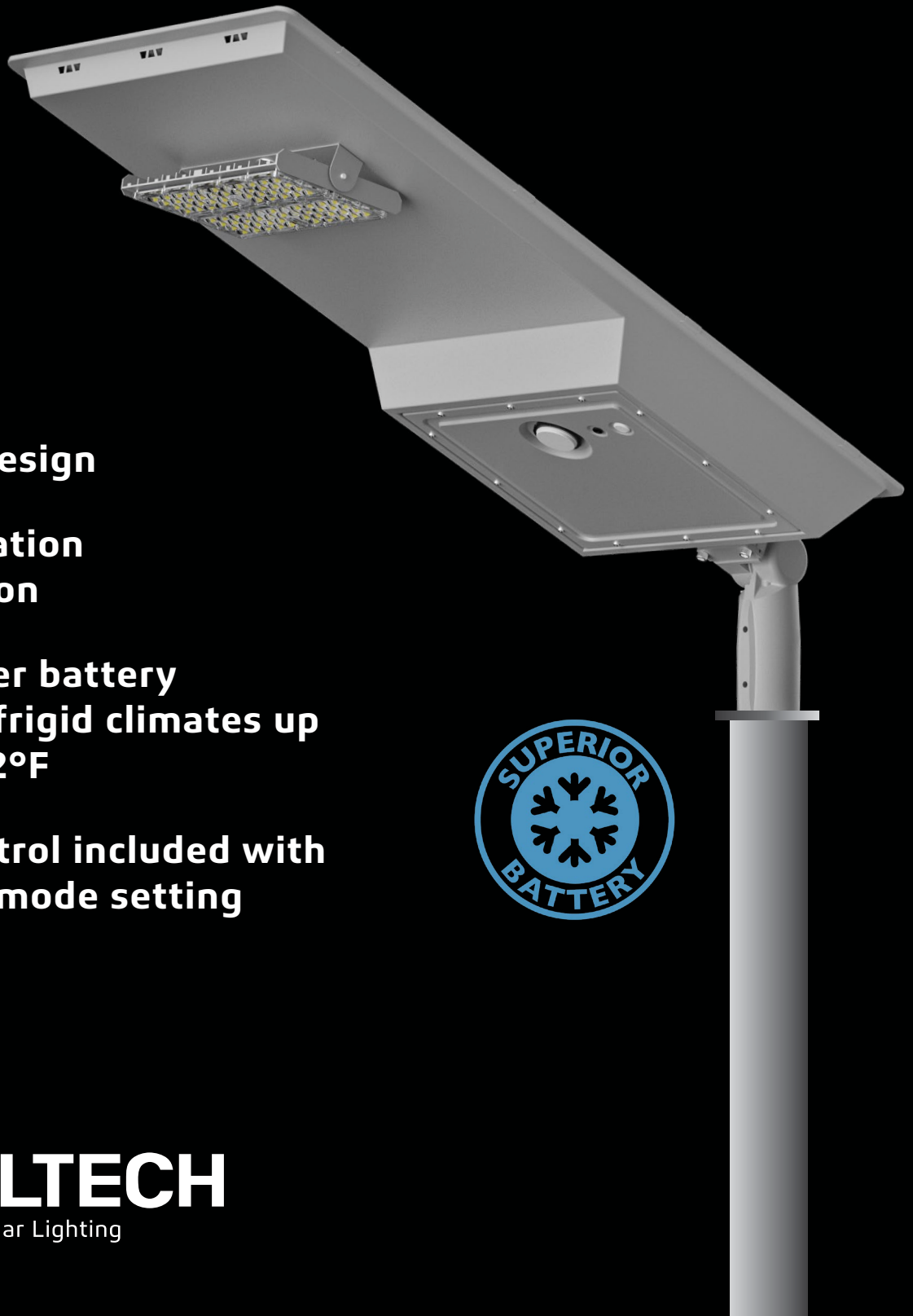# HYBRID 45W | 65W
LED SOLAR AREA LIGHT

COMPARES TO 250W | 400W HID

- **All-in-one design**

- **Easy installation and operation**

- **Cold-weather battery withstands frigid climates up to -30°C/-22°F**

- **Remote control included with one-button mode setting**

SUPERIOR BATTERY

S SOLTECH®
Smart Solar Lighting

SOLTECH
Smart Solar Lighting

SUPERIOR BATTERY

HYBRID 45W I 65W
LED SOLAR AREA LIGHT
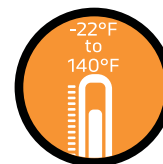COMPARES TO 250W I 400W HID

INTRODUCING SOLTECH HYBRID: a revolutionary product that integrates the benefits of solar-powered lighting and conventional lighting. Hybrid's smart control system adopts an intelligent voltage sensor that detects low voltage in the built-in battery and switches from solar power to grid power. Ensuring reliable LED lighting throughout the night, SOLTECH HYBRID guarantees stable performance–even in cloudy, rainy, or cold conditions. HYBRID's cold-weather battery withstands frigid climates up to -30°C/-22°F. Featuring an all-in-one design, easy installation, and superior battery capacity, SOLTECH HYBRID delivers industry-leading performance.

- Hybrid Solar LED light switches from solar power to grid power only when it detects low voltage in the battery.

- All-in-one design

- Easy installation and operation

- Cold-weather battery withstands frigid climates up to -30°C/-22°F

- Remote control included with one-button mode setting

- 3 different mounting options designed for round pole, square pole, and wall pack applications.

- >190lm/W—high efficiency in the industry

- Built-in MPPT controller with microwave motion sensor

- Adjustable angle for the solar panel allows maximum solar collection

C **UL** US LISTED

APPLICATIONS

HYBRID is an economical, easily-installed, grid-Interactive solar lighting solution for areas such as pathways, parking lots, landscaping, parks, schools, trails, or any remote locations.

HIGH LUMEN | **IP65** | **WET LOCATION** | M S D S | **UN 38.3** | -22°F to 140°F | **Motion Sensor**

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HYBRID 45W I 65W
LED SOLAR AREA LIGHT
COMPARES TO 250W I 400W HID

LIGHT FIXTURES	
LED Nominal Power	45W I 65W
Lumen	8600LM I 12,500LM
Color Temperature	3,000K I 4,000K I 5,000K I 5,700K
Optic Type	Type II I Type III
Efficiency@5,000K	190LM/W
Material	Die-Cast Aluminum

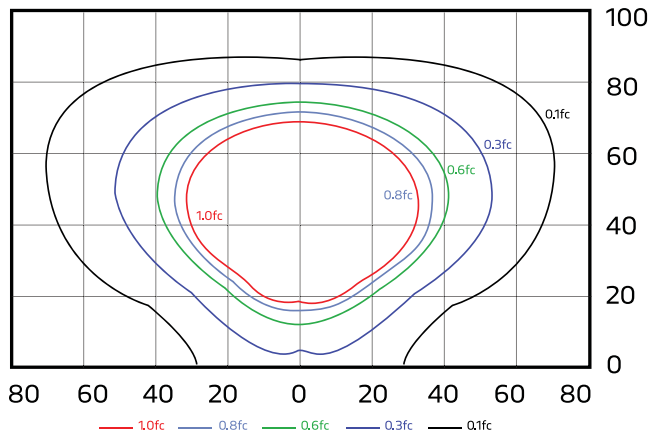| BATTERY	
Operating Temperature	-30°C/-22°F to 140°F
Charging Temperature	-30°C/-22°F to 140°F
Capacity	492WH I 737WH
Operating Voltage	12.8V I 19.2V

SOLAR PANEL	
Rating Power	94W I 112W
Size	43.0" X 19.0" I 46.0" X 19.0"
EPA	7.1 I 7.6

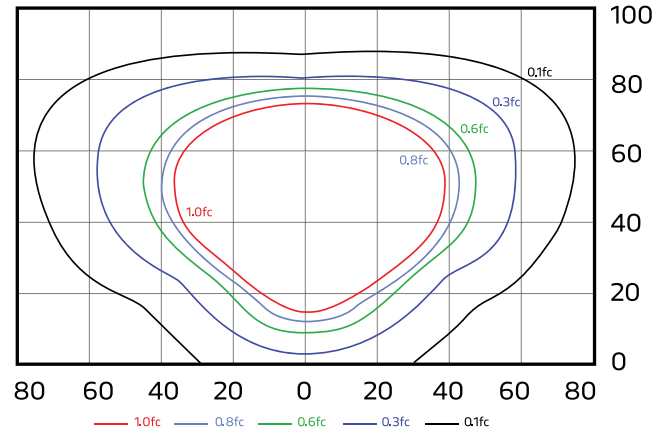| MAXIMUM AUTONOMY	
Motion Sensor Mode (Without grid power)	40%–100% 25hrs 20%–80% 50hrs
Time Control Mode (Without grid power)	Night Owl 18hrs Early Bird 16hrs
Constant Mode (Without grid power)	100% 12hrs 70% 16hrs 40% 28hrs

SUPERIOR BATTERY

HYBRID 45W I 65W
LED SOLAR AREA LIGHT
COMPARES TO 250W I 400W HID

IES/ BEAM

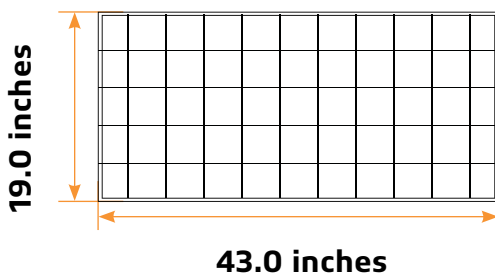**HYBRID 45W TYPE III** [MOUNTING HETGHT 20FT]

[UNIT: FT]

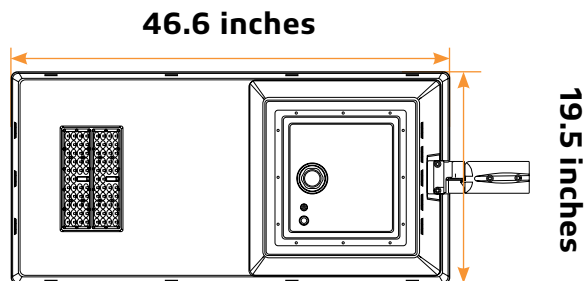**HYBRID 65W TYPE III** [MOUNTING HETGHT 20FT]

[UNIT: FT]

HYBRID 45W

43.5 inches

19.5 inches

4.4 inches

19.0 inches

43.0 inches

HYBRID 65W

46.6 inches

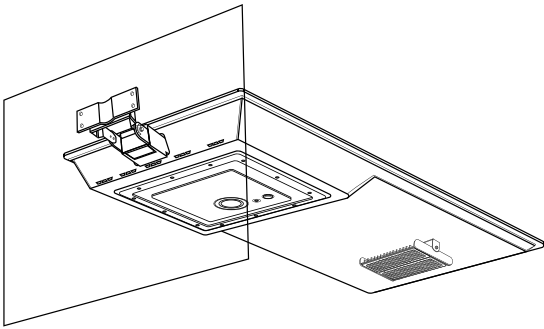19.5 inches
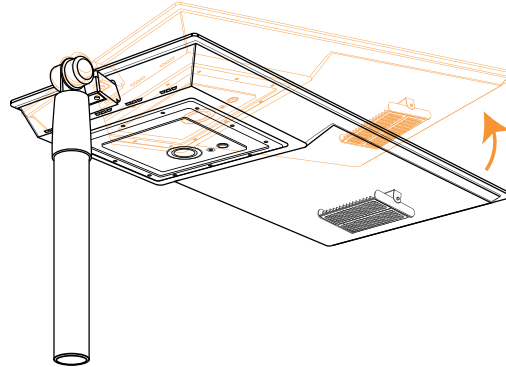
5.2 inches

19.0 inches

46.0 inches
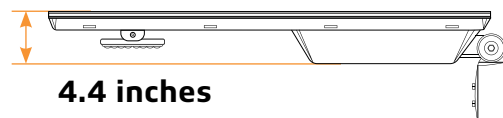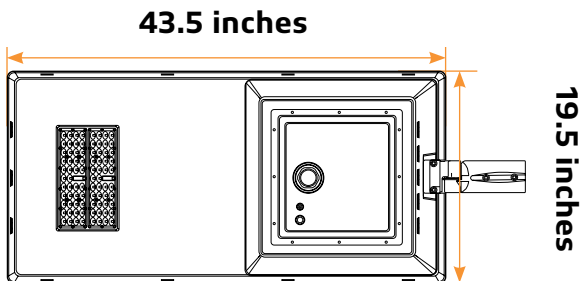
INSTALLATION ACCESSORIES
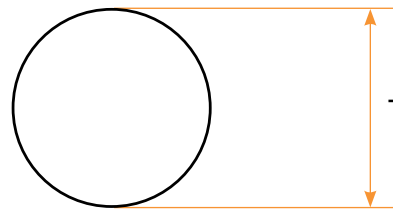
A. TRUNNION—Wall Mount

A-a. STLHYB-WM

B. SLIP FITTER
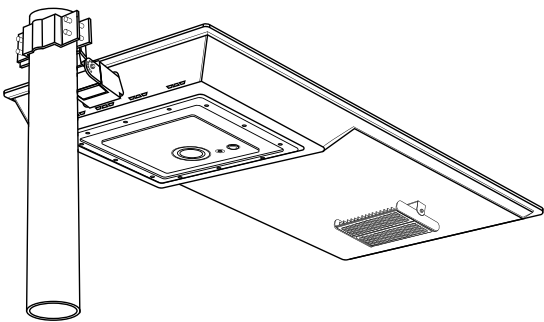
B-b. STLHYB-SF

Tenon Diameter 2 3/8"

C. TRUNNION—Round

Round Pole Diameter

2.5 inches

5.0 inches
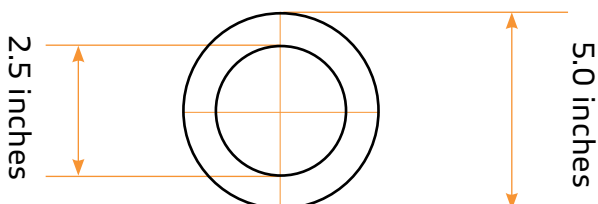
C-c. STLHYB-TRR

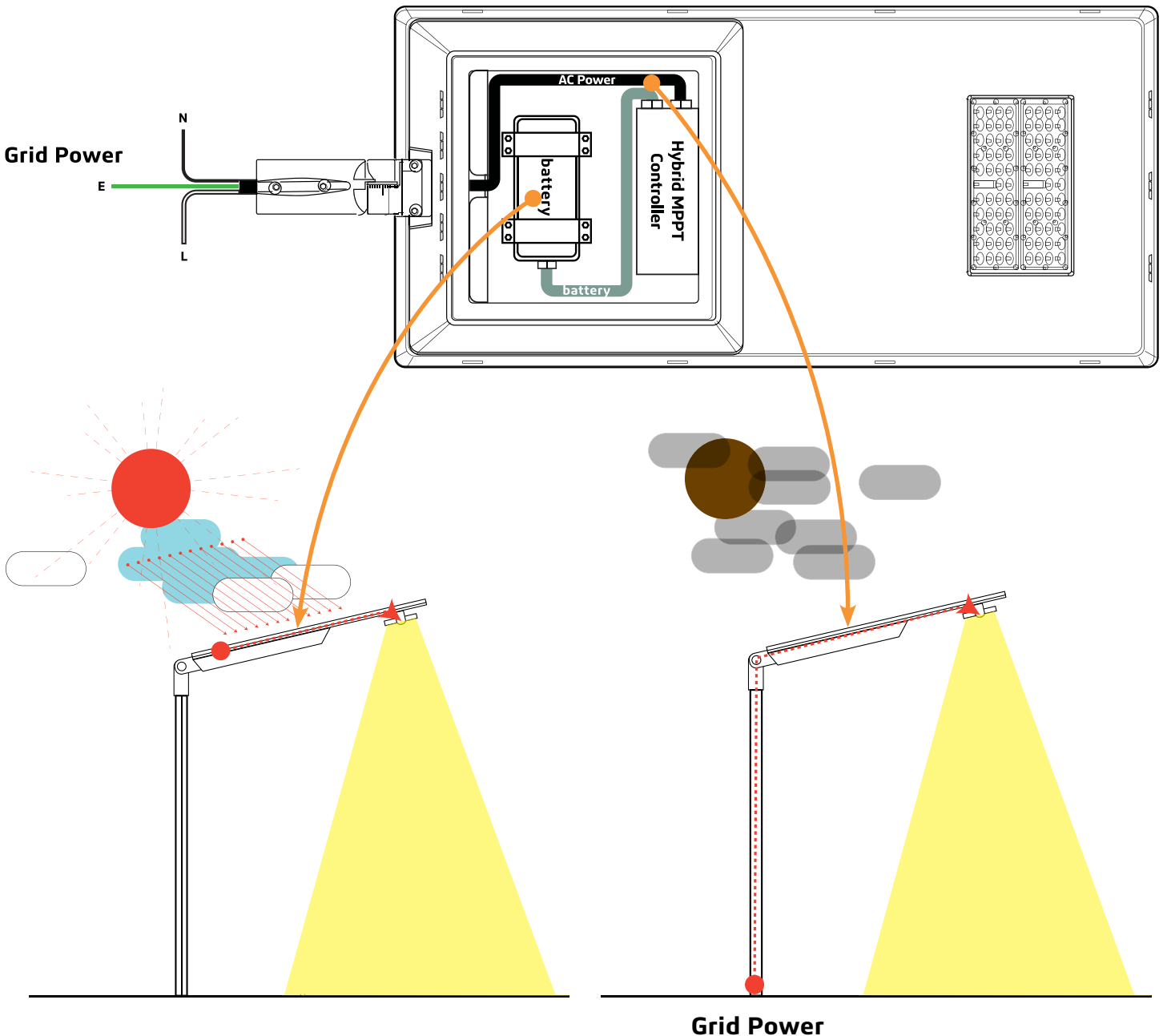**D.** TRUNNION—Square
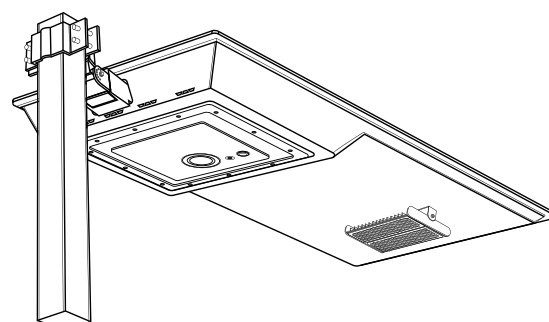
Square Pole Dimension

2.5 inches

5.0 inches
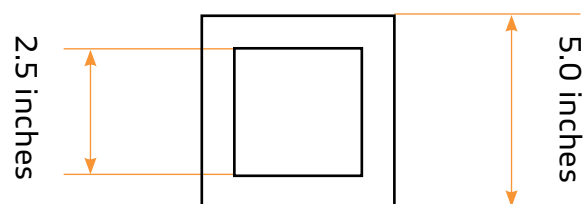
D-d. STLHYB-TRS

HOW DOES HYBRID SOLAR FIXTURE WORK?

When sufficiently charged, the light will be powered by its battery; when the battery is depleted, the light will switch to grid power.

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HYBRID 45W I 65W
LED SOLAR AREA LIGHT
COMPARES TO 250W I 400W HID

SUPERIOR BATTERY

DETECTION ZONE

MOTION SENSOR

Up to 15m/49'   Up to 15m/49'
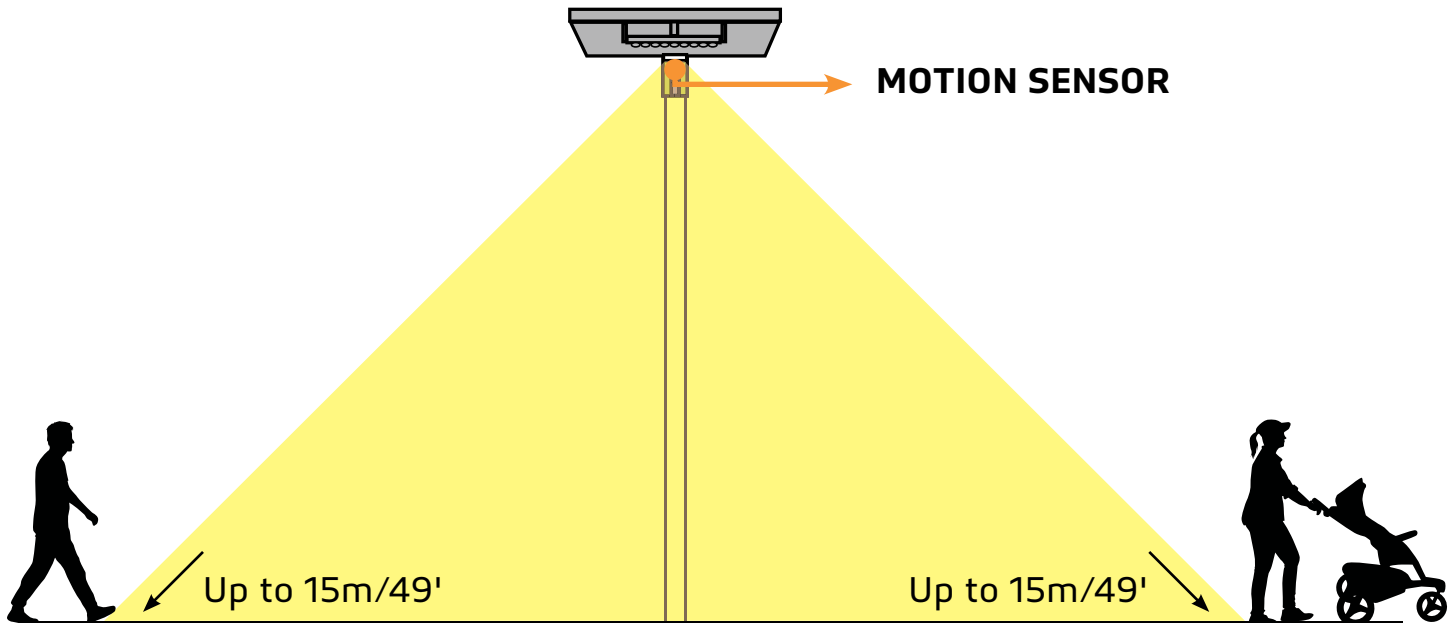
BEST FACING DIRECTION OF SOLAR PANEL

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.

Work

W   N   E

S

Good   Good

Best
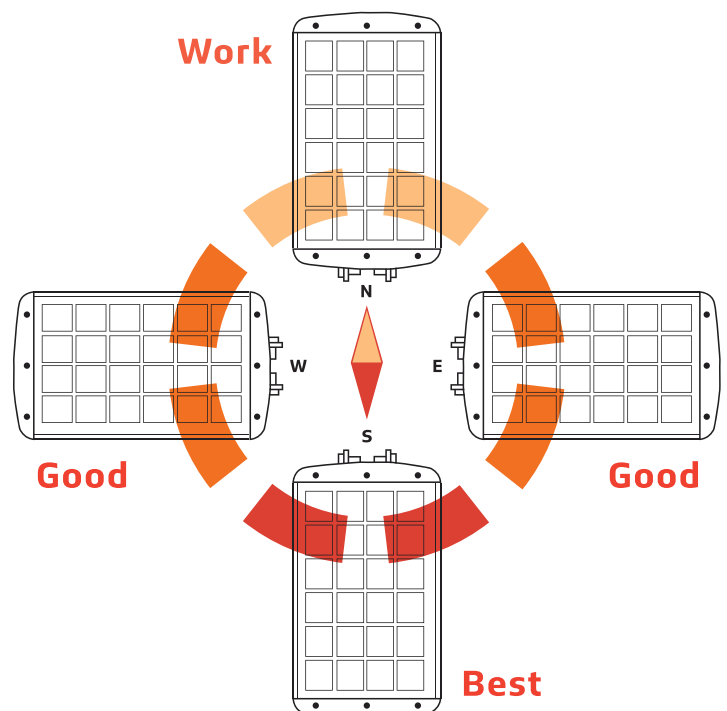
SOLAR YIELD VS. COST SAVINGS

SOLTECH HYBRID integrates the benefits of cost-free solar-powered lighting and conventional lighting. Our exclusive HYBRID MPPT intelligent controller maximizes the use of solar power, only switching to grid power when the battery is depleted.

See the following potential annual energy savings with SOLTECH HYBRID.

HYBRID 45W VS. HID 250W

Estimated Annual Energy Cost Savings with SOLTECH HYBRID						
	HYBRID 45W Annual Cost	HID 250W Annual Cost	Spring Savings	Summer Savings	Fall Savings	Winter Savings
SEATTLE, WA	$5.85	$148.03	$38.87	$27.09	$34.90	$41.32
SALT LAKE CITY, UT	$3.18	$136.42	$36.50	$28.06	$29.81	$38.87
CHICAGO, IL	$5.14	$187.43	$50.40	$38.23	$41.59	$52.07
BOSTON, MA	$8.74	$315.38	$87.39	$63.05	$67.38	$88.82
MIAMI, FL	$1.93	$149.63	$41.70	$32.62	$32.62	$40.76
PHOENIX, AZ	$1.93	$151.88	$40.77	$33.74	$33.74	$41.70
HOUSTON, TX	$2.64	$150.12	$40.03	$31.31	$34.34	$41.80
ATLANTA, GA	$2.35	$154.13	$42.62	$32.61	$34.85	$41.70
ST.LOUIS, MO	$2.01	$132.60	$36.14	$27.30	$30.21	$36.94
LOS ANGELES, CA	$4.40	$265.20	$72.27	$56.53	$56.53	$75.47

HYBRID 65W VS. HID 400W

Estimated Annual Energy Cost Savings with SOLTECH HYBRID						
	HYBRID 65W Annual Cost	HID 400W Annual Cost	Spring Savings	Summer Savings	Fall Savings	Winter Savings
SEATTLE, WA	$10.55	$236.84	$61.73	$43.34	$55.69	$65.53
SALT LAKE CITY, UT	$5.64	$218.27	$58.18	$44.89	$47.82	$61.74
CHICAGO, IL	$9.31	$299.88	$80.10	$61.20	$66.67	$82.60
BOSTON, MA	$16.11	$504.60	$138.78	$100.92	$107.88	$140.91
MIAMI, FL	$2.31	$239.40	$67.05	$52.20	$52.20	$65.64
PHOENIX, AZ	$2.50	$243.00	$65.45	$54.74	$54.00	$67.05
HOUSTON, TX	$4.11	$240.19	$64.37	$50.11	$55.11	$66.49
ATLANTA, GA	$3.39	$246.60	$68.16	$52.20	$55.80	$67.05
ST.LOUIS, MO	$3.21	$212.16	$57.84	$43.68	$48.36	$59.07
LOS ANGELES, CA	$7.08	$424.32	$115.68	$90.48	$90.48	$120.60

*Assumes **100% constant brightness** for the whole night from dusk to dawn. SOLTECH HYBRID is fully programable to adjust settings.

Sources for Calculations: sunlight data comes from https://www.gaisma.com based on each city in the U.S.. The data shows 2024 yearly daytime of each city.

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SUPERIOR BATTERY

ORDERING INFORMATION

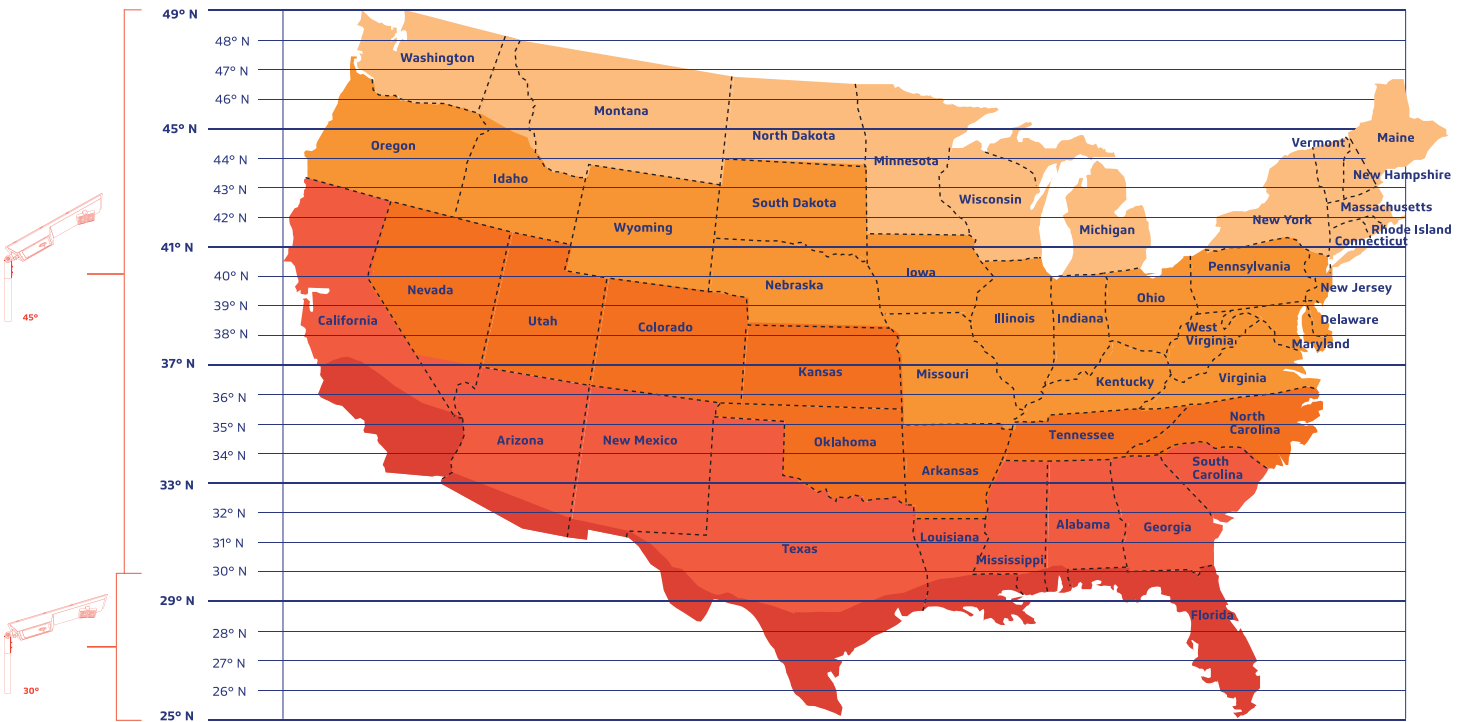| SERIES	WATTAGE	OPTIC TYPE	COLOR TEMPERATURE	MOUNTING OPTIONS	FINISH
STLHYB= HYBRID	**45**=45W 8,600 LUMENS **65**=65W 12,500 LUMENS	**T2**=TYPE II **T3**=TYPE III	**3**=3000K **4**=4000K **5**=5000K **6**=5700K	**WM**=WALL MOUNT **TR**=TRUNNION **SF**=SLIP FITTER	**GY**=GRAY (RAL 7038) **BR**=BRONZE (RAL 8019) **BK**=BLACK (RAL 9004)

[ ] - [ ] - [ ] - [ ] - [ ] - [ ]

WARRANTY

HYBRID 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.
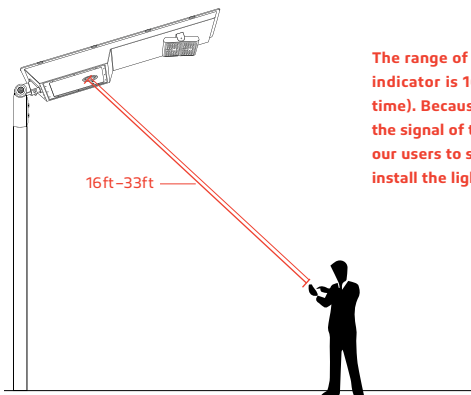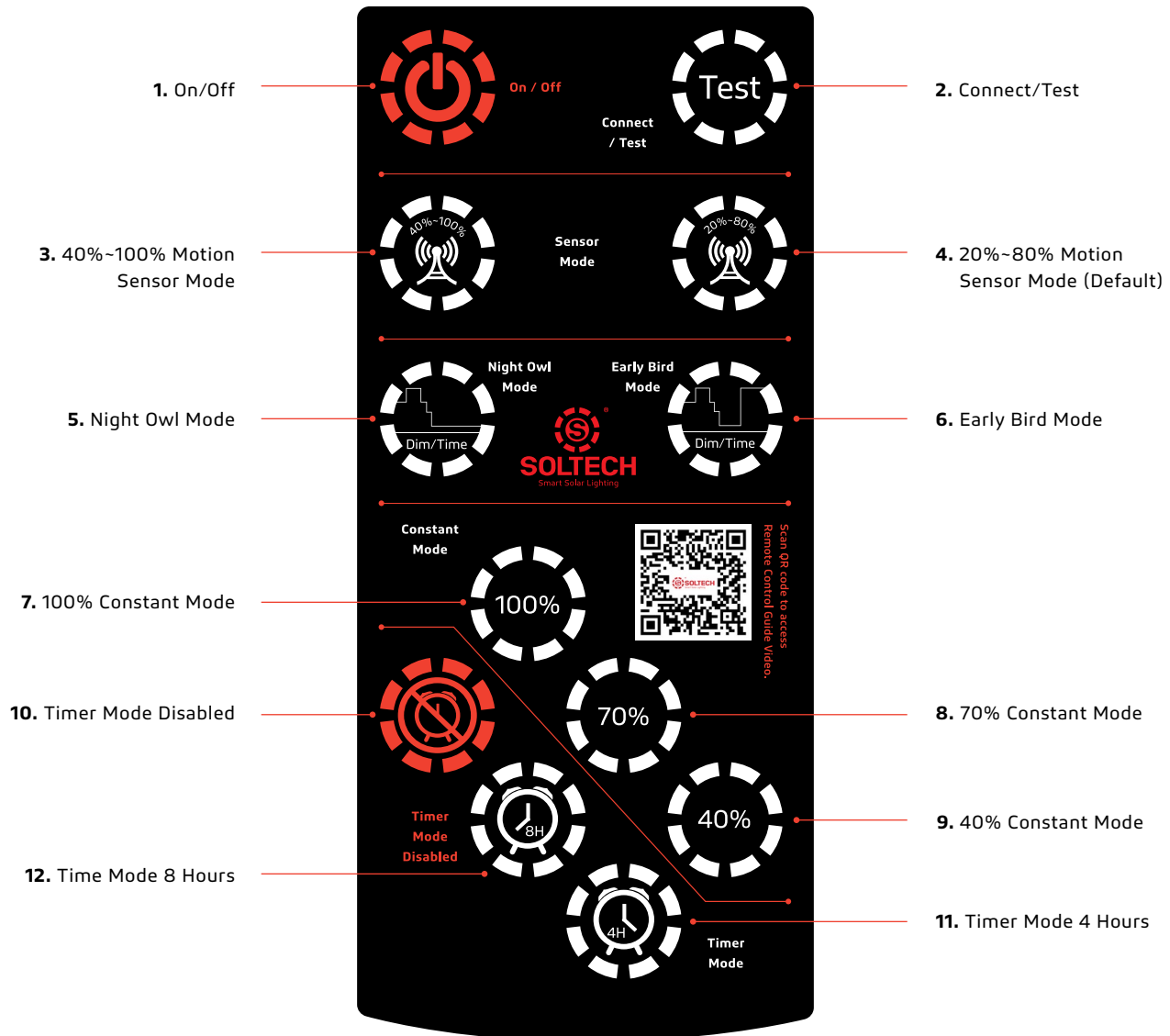
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HYBRID 45W | 65W
LED SOLAR AREA LIGHT
COMPARES TO 250W | 400W HID

SUPERIOR BATTERY

PANEL ANGLE GUIDE

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.

Key

Strong sunlight   Nromal sunlight   Less sunlight

REMOTE CONTROLS

1. On/Off

2. Connect/Test

3. 40%~100% Motion Sensor Mode

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

5. Night Owl Mode

6. Early Bird Mode

7. 100% Constant Mode

8. 70% Constant Mode

10. Timer Mode Disabled

9. 40% Constant Mode

12. Time Mode 8 Hours

11. Timer Mode 4 Hours

On / Off — Connect / Test — Test — Sensor Mode — 40%~100% — 20%~80% — Night Owl Mode — Early Bird Mode — Dim/Time — Constant Mode — Scan QR code to access Remote Control Guide Video. — 100% — 70% — Timer Mode Disabled — 40% — 8H — 4H — Timer Mode — SOLTECH Smart Solar Lighting

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.

16ft~33ft

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.
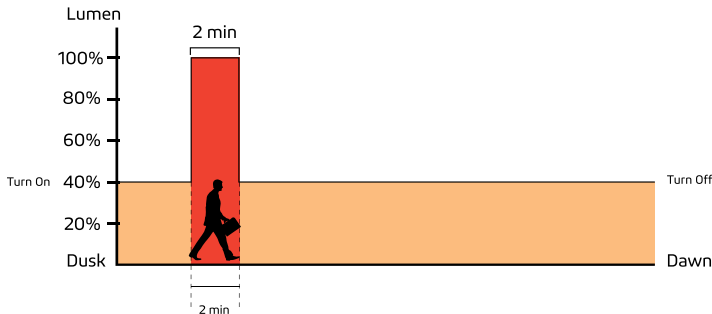
2. Connect/Test
Remote control device can be connected with any lighting fixture, one at a time. To connect, press the button once. It also functions as a test button. To test, press the "Test" button once, the red light will indicate the fixture is charging, green light indicates that the fixture is operating. Testing lasts for 10 seconds, and then it goes back to the mode previously in use.

I soltechlighting.com I hello@soltechlighting.com I (510) 891-1056 I 1460 Park Avenue. Emeryville, CA 94608 I

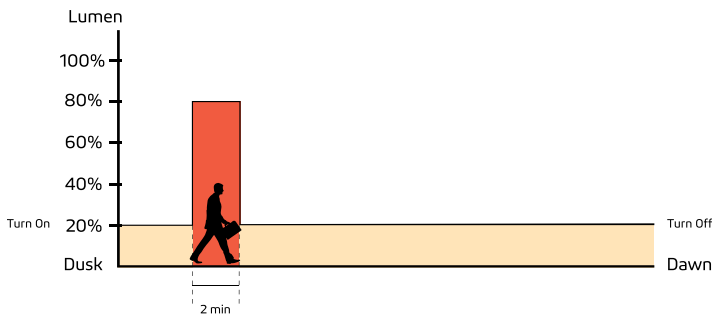**SUPERIOR BATTERY**

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.

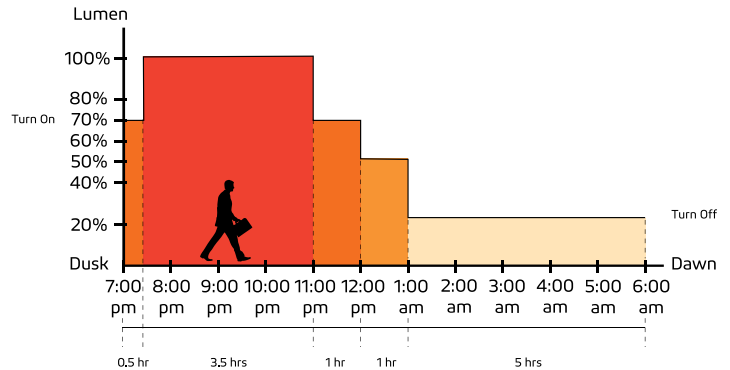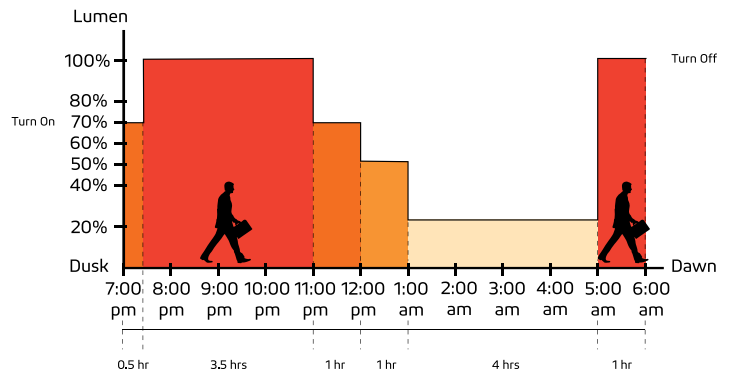### 5. Night Owl Mode
Changes as natural light decreases/increases (turns on at dusk); 70% brightness for 0.5 hour, 100% brightness for 3.5 hours, 70% brightness for 1 hour, 50% brightness for 1 hour, 20% brightness for 5 hours (turns off at Dawn).

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.

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 HYBRID 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.
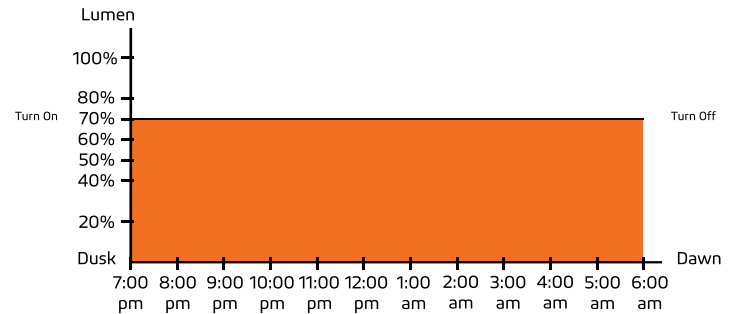
REMOTE CONTROLS

7. 100% Constant Mode
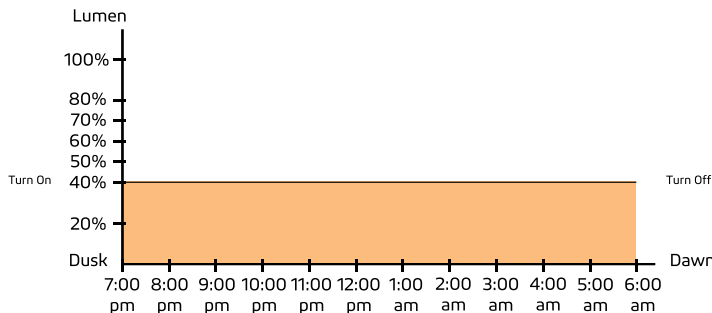100% brightness from dusk to dawn.
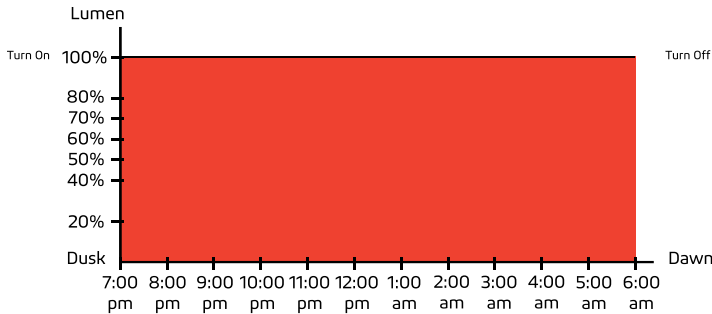
8. 70% Constant Mode
70% brightness from dusk to dawn.

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.

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.
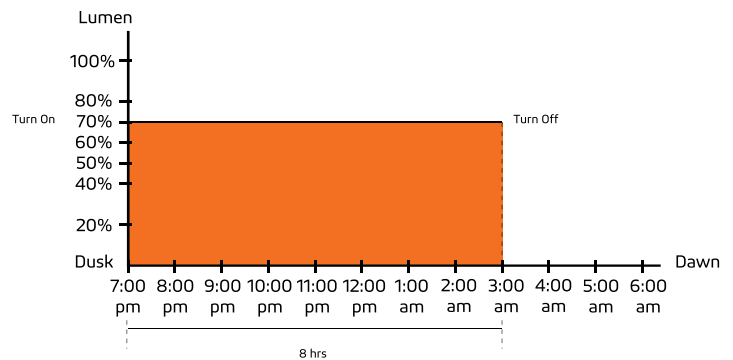
11. Timer Mode 4 Hours
This is an additional mode which can work with any other modes. For example: press this button at any time after you turn on 70% Constant Mode. If the light turns on at 7pm at dusk, it will turn off at 11pm. It will repeat the same schedule hereafter until it is canceled by pressing Timer Mode Disabled.
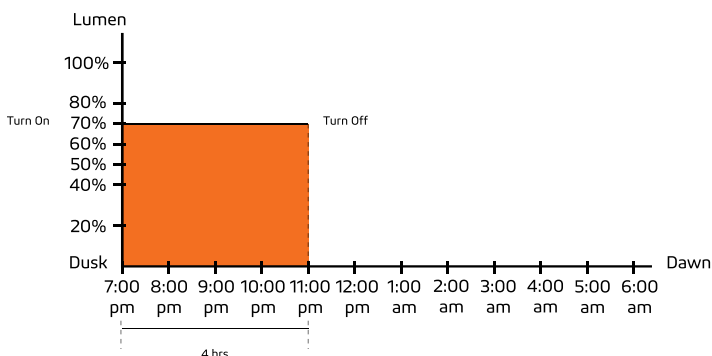
Important
Dusk and dawn time can vary for different locations and seasons. The sensors in our products will monitor the light levels where it is installed. The time period shown in the chart above is just an example to help you understand the different lighting modes.

SOLTECH LLC reserves the right to update all product data sheets at any time. Consult SOLTECH marketing specialists for publication updates at hello@soltechlighting.com