All In Two LED Solar Street Light

SMART LEAF

More Power,Less Expense

SMART SOLAR LIGHTING

All-In-Two Models

All-In-Two SMART solar lighting solution combines four emerging technologies (solar photo-voltaic (PV), LED light, lithium battery and adaptive lighting controls) into one compact, durable and easy to install system.

5 YEARS UNLIMITED WARRANTY

Quick and easy 10min installation without any wiring

Monocrystalline solar module >20% Efficiency

QEDGE web-based wireless controls, monitoring & management system

Dual Lithium LiFePO4 patented battery management system with 10+ year performance

Advanced LED lighting including PIR Motion Sensor

Modular design with fully integrated components

CE | IP65 | IK10

Technical Specification

30W

SYSTEM DATA	
Colors	Aluminum/silver (natural finish), black, bronze. Custom RAL colors available upon request.
Material	Grade A corrosion resistant aluminum for panel mounts and battery enclosure.
Security	Batteries integrated under the solar panel reduce theft.
Backup	3-5 days
Pole	3-4m base on requirement
Lighting Time	10-14 hours/Night

LED LIGHT	
LED	30W, Philips/Bridgelux LEP chip,life span>100,000hrs
Light Distribution	Type II, Type III, Type IV (optional)
Color Temperature	3000K- 6500K
Efficacy Range	>180lm/watt (6000K, via LM-79 testing)
Color Rendering Index	≥70Ra
Mounting	Pole installation and Wall Installation

SOLAR MIODULE	
Solar Cell	TopCon N-type highest efficiency
Rated Max. Power at STC (Pmax)	80Wp
Max. Power Voltage (Vmp)	17.4V
Max. Power current (Imp)	4. 03
Open Circuit Voltage (Voc)	21.3V
Short Circuit Current (Isc)	4.09
Module Efficiency	>22.8%
Size	1115*515*2mm

BATTERY	
Type	12.8V24AH, Iron phosphate lithium(LiFePO4)
Life cycle	>3000 times
Self-discharge Rate	< 2% Monthly
Operation Tem.	Working: -20 to +65°C; Storage: 0 to +45°C

SOLAR CONTROLLER	
Monitoring	APP remote monitoring or wireless remoter control (optional)
Charging Type	MPPT
LED driver	high-efficiency driver built-in
Operating Profile Options	Dusk-to-dawn with dim energy saving mode (montion sensor optional)
Day/Night Transition	Via solar panel

*Specifications updated without notice

Technical Specification

40W

SYSTEM DATA	
Colors	Aluminum/silver (natural finish), black, bronze. Custom RAL colors available upon request.
Material	Grade A corrosion resistant aluminum for panel mounts and battery enclosure.
Security	Batteries integrated under the solar panel reduce theft.
Backup	3-5 days
Pole	3-4m base on requirement
Lighting Time	10-14 hours/Night

LED LIGHT	
LED	40W, Philips/Bridgelux LEP chip,life span>100,000hrs
Light Distribution	Type II, Type III, Type IV (optional)
Color Temperature	3000K- 6500K
Efficacy Range	>180lm/watt (6000K, via LM-79 testing)
Color Rendering Index	≥70Ra
Mounting	Pole installation and Wall Installation

SOLAR MIODULE	
Solar Cell	TopCon N-type highest efficiency
Rated Max. Power at STC (Pmax)	100Wp
Max. Power Voltage (Vmp)	18V
Max. Power current (Imp)	5.5A
Open Circuit Voltage (Voc)	19.8V
Short Circuit Current (Isc)	5.05A
Module Efficiency	>22.8%
Size	1115*515*2mm

BATTERY	
Type	12.8V30AH, Iron phosphate lithium(LiFePO4)
Life cycle	>3000 times
Self-discharge Rate	< 2% Monthly
Operation Tem.	Working: -20 to +65°C; Storage: 0 to +45°C

SOLAR CONTROLLER	
Monitoring	APP remote monitoring or wireless remoter control (optional)
Charging Type	MPPT
LED driver	high-efficiency driver built-in
Operating Profile Options	Dusk-to-dawn with dim energy saving mode (montion sensor optional)
Day/Night Transition	Via solar panel

*Specifications updated without notice

Technical Specification

50W

SYSTEM DATA	
Colors	Aluminum/silver (natural finish), black, bronze. Custom RAL colors available upon request.
Material	Grade A corrosion resistant aluminum for panel mounts and battery enclosure.
Security	Batteries integrated under the solar panel reduce theft.
Backup	3-5 days
Pole	3-4m base on requirement
Lighting Time	10-14 hours/Night

LED LIGHT	
LED	50W, Philips/Bridgelux LEP chip,life span>100,000hrs
Light Distribution	Type II, Type III, Type IV (optional)
Color Temperature	3000K- 6500K
Efficacy Range	>180lm/watt (6000K, via LM-79 testing)
Color Rendering Index	≥70Ra
Mounting	Pole installation and Wall Installation

SOLAR MIODULE	
Solar Cell	TopCon N-type highest efficiency
Rated Max. Power at STC (Pmax)	150Wp
Max. Power Voltage (Vmp)	18.9V
Max. Power current (Imp)	7.94A
Open Circuit Voltage (Voc)	23.7V
Short Circuit Current (Isc)	8.16A
Module Efficiency	>23.6%
Size	1025*680*2mm

BATTERY	
Type	12.8V36AH, Iron phosphate lithium(LiFePO4)
Life cycle	>3000 times
Self-discharge Rate	< 2% Monthly
Operation Tem.	Working: -20 to +65°C; Storage: 0 to +45°C

SOLAR CONTROLLER	
Monitoring	APP remote monitoring or wireless remoter control (optional)
Charging Type	MPPT
LED driver	high-efficiency driver built-in
Operating Profile Options	Dusk-to-dawn with dim energy saving mode (montion sensor optional)
Day/Night Transition	Via solar panel

*Specifications updated without notice

Technical Specification

60W

SYSTEM DATA	
Colors	Aluminum/silver (natural finish), black, bronze. Custom RAL colors available upon request.
Material	Grade A corrosion resistant aluminum for panel mounts and battery enclosure.
Security	Batteries integrated under the solar panel reduce theft.
Backup	3-5 days
Pole	3-4m base on requirement
Lighting Time	10-14 hours/Night

LED LIGHT	
LED	60W, Philips/Bridgelux LEP chip,life span>100,000hrs
Light Distribution	Type II, Type III, Type IV (optional)
Color Temperature	3000K- 6500K
Efficacy Range	>180lm/watt (6000K, via LM-79 testing)
Color Rendering Index	≥70Ra
Mounting	Pole installation and Wall Installation

SOLAR MIODULE	
Solar Cell	TopCon N-type highest efficiency
Rated Max. Power at STC (Pmax)	160Wp
Max. Power Voltage (Vmp)	32.18V
Max. Power current (Imp)	5.16A
Open Circuit Voltage (Voc)	37.46V
Short Circuit Current (Isc)	5.52A
Module Efficiency	>23.8%
Size	1000*900*3mm

BATTERY	
Type	12.8V30AH, Iron phosphate lithium(LiFePO4)
Life cycle	>3000 times
Self-discharge Rate	< 2% Monthly
Operation Tem.	Working: -20 to +65°C; Storage: 0 to +45°C

SOLAR CONTROLLER	
Monitoring	APP remote monitoring or wireless remoter control (optional)
Charging Type	MPPT
LED driver	high-efficiency driver built-in
Operating Profile Options	Dusk-to-dawn with dim energy saving mode (montion sensor optional)
Day/Night Transition	Via solar panel

*Specifications updated without notice

Technical Specification

80W

SYSTEM DATA	
Colors	Aluminum/silver (natural finish), black, bronze. Custom RAL colors available upon request.
Material	Grade A corrosion resistant aluminum for panel mounts and battery enclosure.
Security	Batteries integrated under the solar panel reduce theft.
Backup	3-5 days
Pole	3-4m base on requirement
Lighting Time	10-14 hours/Night

LED LIGHT	
LED	80W, Philips/Bridgelux LEP chip,life span>100,000hrs
Light Distribution	Type II, Type III, Type IV (optional)
Color Temperature	3000K- 6500K
Efficacy Range	>180lm/watt (6000K, via LM-79 testing)
Color Rendering Index	≥70Ra
Mounting	Pole installation and Wall Installation

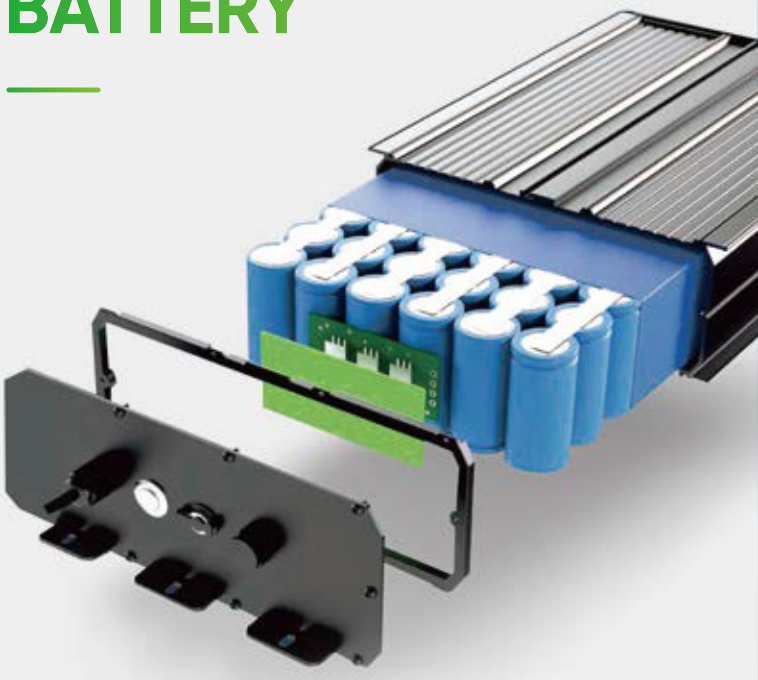
SOLAR MIODULE	
Solar Cell	TopCon N-type highest efficiency
Rated Max. Power at STC (Pmax)	210Wp
Max. Power Voltage (Vmp)	37.45V
Max. Power current (Imp)	5.15A
Open Circuit Voltage (Voc)	42.12V
Short Circuit Current (Isc)	5.52A
Module Efficiency	>23.9%
Size	1100*1040*3mm

BATTERY	
Type	25.6V30AH, Iron phosphate lithium(LiFePO4)
Life cycle	>3000 times
Self-discharge Rate	< 2% Monthly
Operation Tem.	Working: -20 to +65°C; Storage: 0 to +45°C

SOLAR CONTROLLER	
Monitoring	APP remote monitoring or wireless remoter control (optional)
Charging Type	MPPT
LED driver	high-efficiency driver built-in
Operating Profile Options	Dusk-to-dawn with dim energy saving mode (montion sensor optional)
Day/Night Transition	Via solar panel

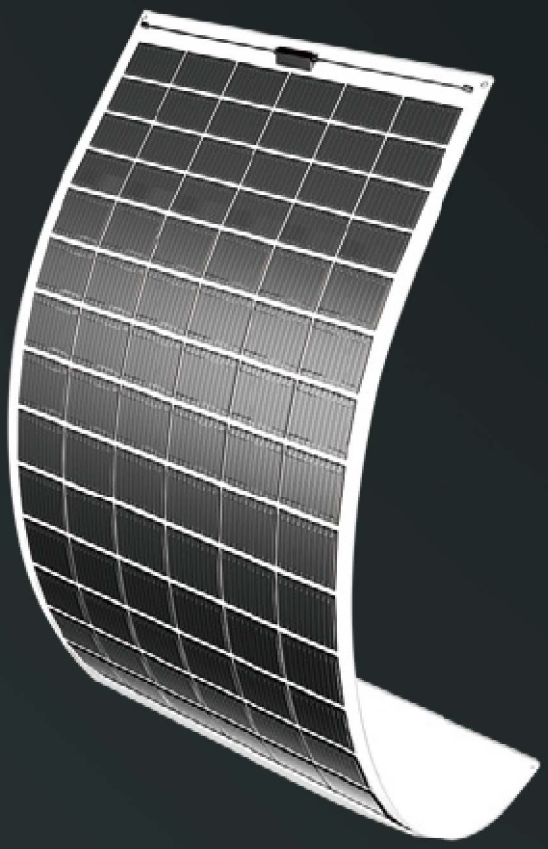
*Specifications updated without notice

HIGH PERFORMANCE BATTERY



LiFePO4 Battery

2000-5000 Cycles	5-10 Years life
2.5~12.8kg	Environmentally friendly



MONO SOLAR PANEL

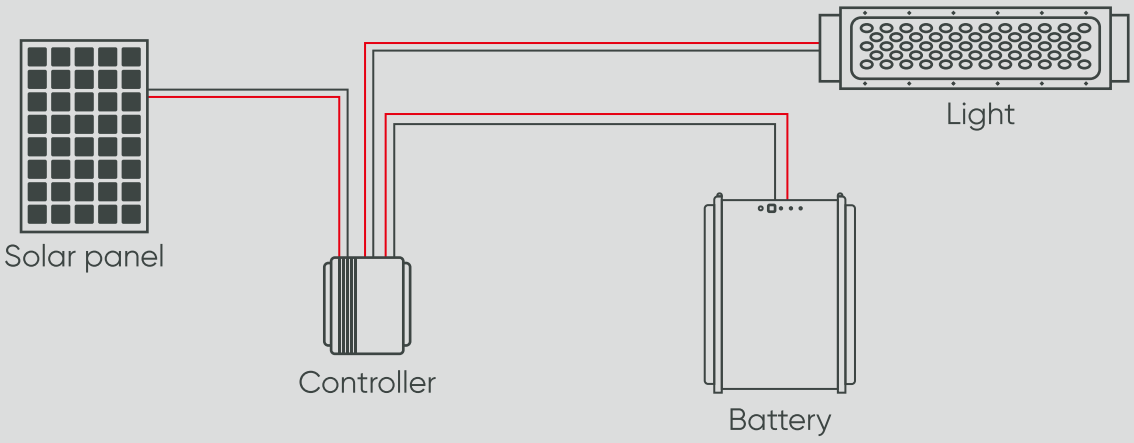
Higher Durability
The multi-busbar design can decrease the risk of the cell micro- cracks and fingers broken.

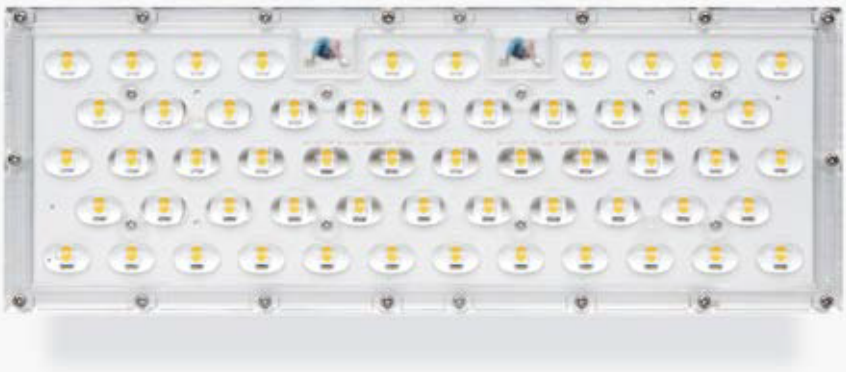
Bigger Cells with better performance
A slight increase of the size of our cells, Boosts the performance of the newest modules by six percent on average.

PID Resistant
Tested in accordance to the standard IEC62804, our PV modules have demonstrated resistancea gainst PID (Potential Induced Degradation), which translates to security for your investment.

High Power Density
High conversion efficiency 23% and more power output persquare meter, by lower series resistance and improved light harvesting.

Product display





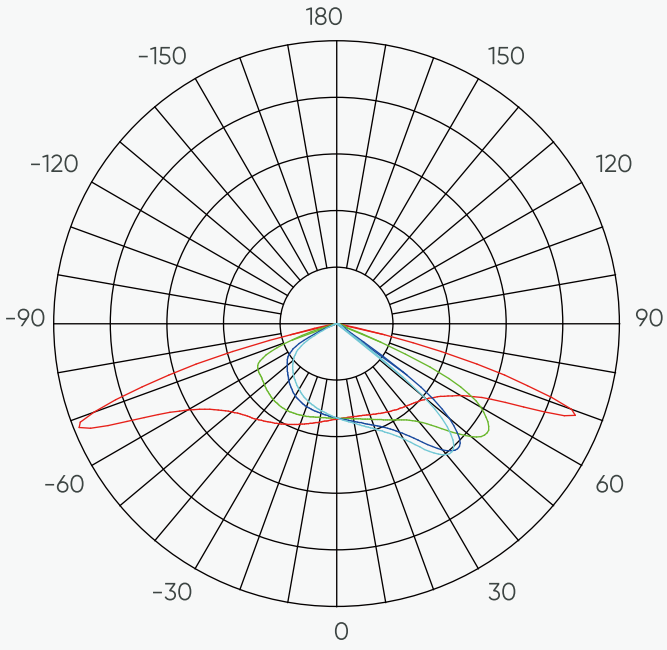
High Efficient LED

Using high-efficiency LED, luminous efficiency is up to 210lm/W . The lights sealing lens is made of strong anti-ultraviolet PC, which has anti-aging and anti-impact performance, enabling long term usage.

With the patented design of the optic lens, allows us to eliminate the lighting pollution to the environment.

Bat Wing Light Distribution

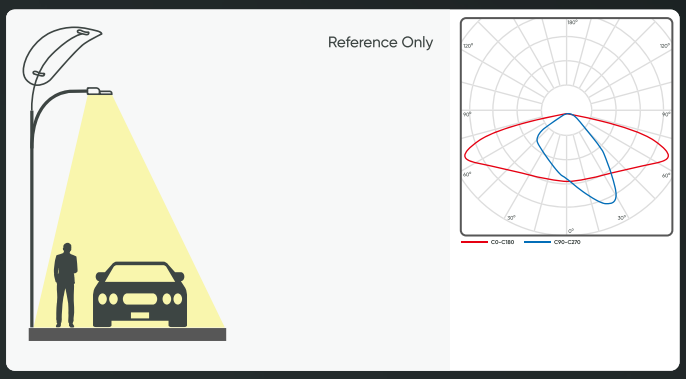
The new lens design improves the lighting effect and lighting uniformity, while also increasing light coverage.



Multiple Light Distribution Options

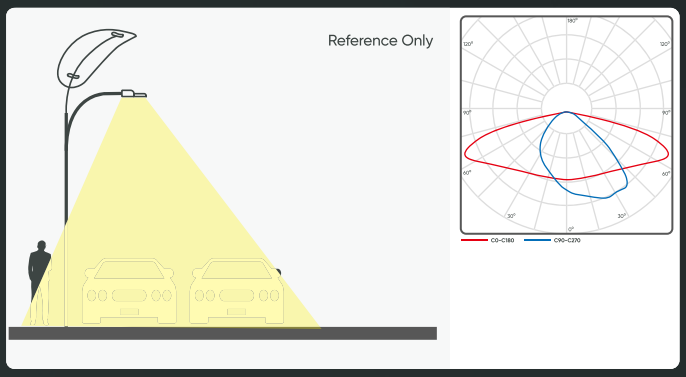
Street lights fit with a wide range of applications: highway, roadway, avenue, walking path or parking lot.

follows the North American IESNA standard in providing the optional lens width Type I, Type II and Type III. Type I is suitable for walking path with 1 lane,Type II is for 2 lanes and Type III is for even more wider road. SunMaster selects the most suitable lens for its customers according to the detailed parameters project by project.



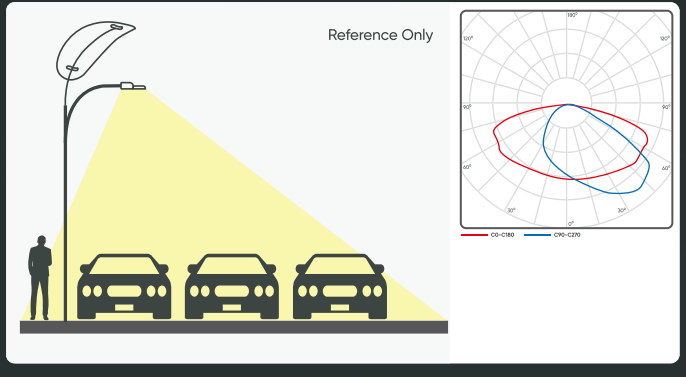
TYPE I

The Type I lens of have beam angle of 50*160 degrees.In the IESNA Standard, The Type I distribution is great for lighting walkways, paths and sidewalks. It is generally applicable to where the mounting height is approximately equal to the roadway width.



TYPE II

The Type II lens have beam angle of 65*155 degrees.In the IESNA Standard, the Type II distribution is used for wide walkways, on ramps and entrance roadways, as well as other long, narrow lighting. It is generally applicable to where the width of the roadway does not exceed 1.75



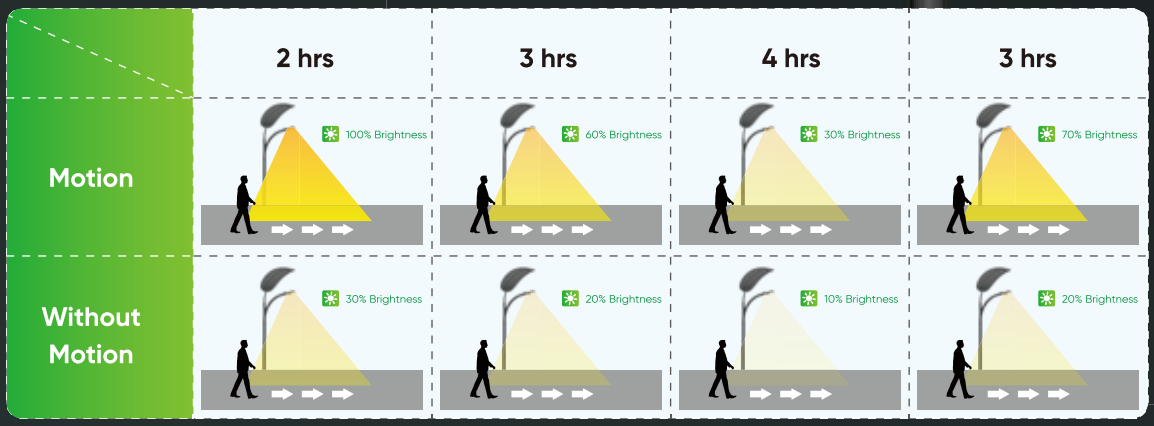
TYPE III

The Type III lens have beam angle of 80*160 degrees.In the IESNA Standard, the Type III distribution is meant for roadway lighting, general parking areas and other areas where a larger area of lighting is required. This distribution is intended for luminaires mounted at or near the side of medium width roadways or areas, where the width of the roadway or area does not exceed 2.75 times the mounting height.

Solar Controller

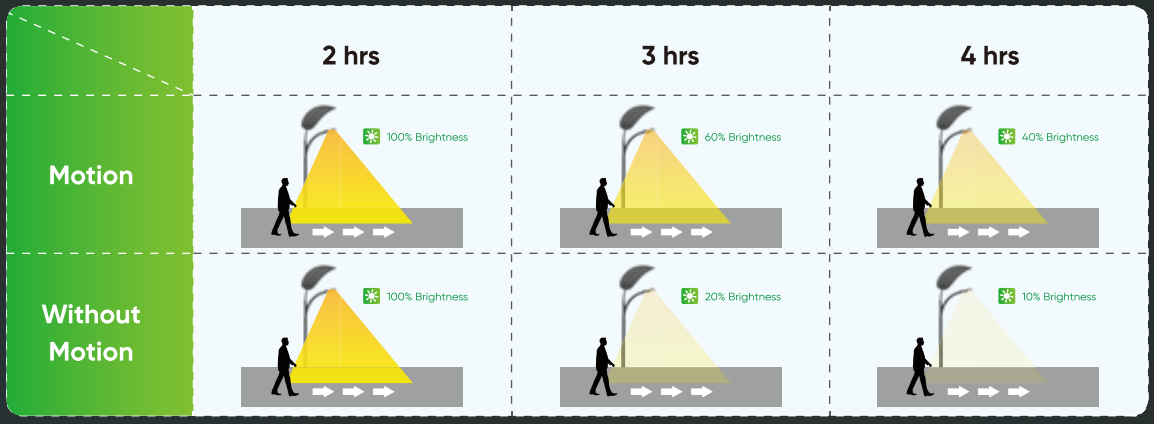
1 » T1 Mode

Motion: 2 hrs-100%; 3 hrs-60%; 4 hrs-30%; 3 hrs-70%;
Without Motion: 2 hrs-30%; 3 hrs-20%; 4 hrs-10%; 3 hrs-20%;



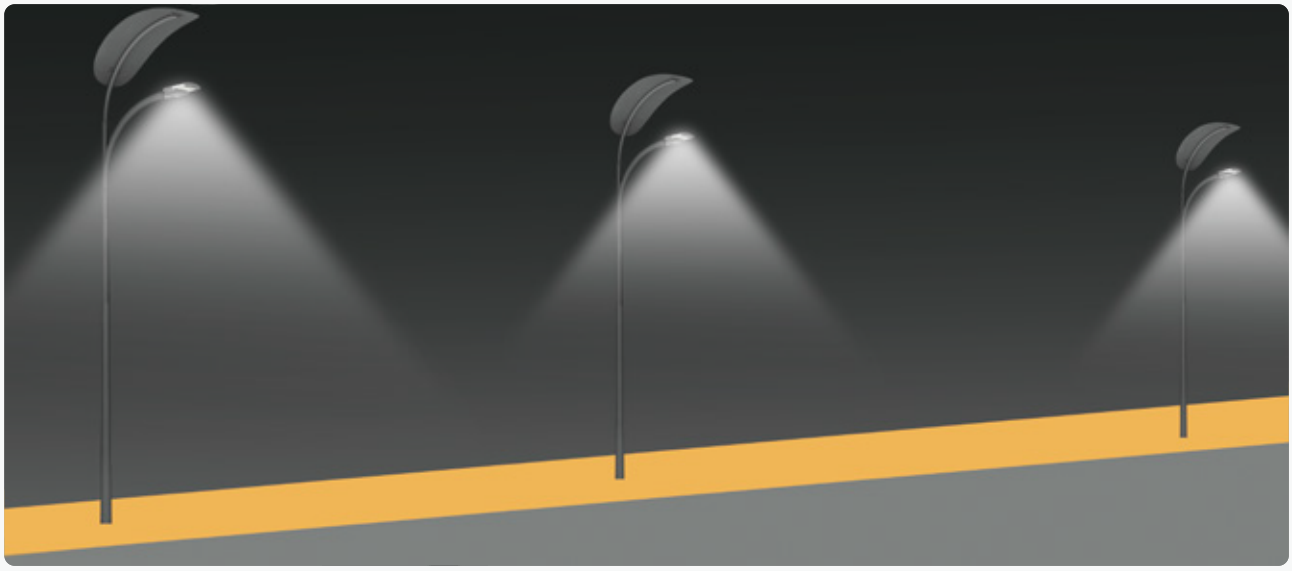
2 » T2 Mode

Motion: 2 hrs-100%; 4 hrs-60%; 6 hrs-40%;
Without Motion: 2 hrs-100%; 4 hrs-20%; 6 hrs-10%;



Motion Sensor (Option)

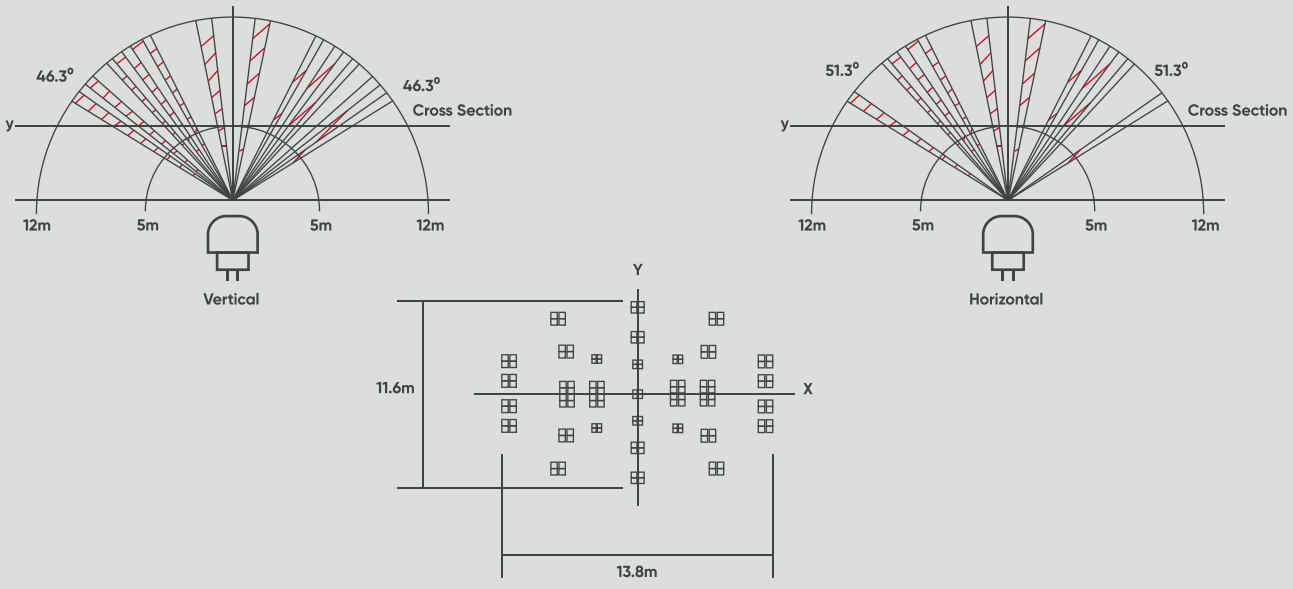
Built-in passive infrared motion sensor that automatically regulates the LED light output from full brightness to a lower level depending upon the detection of movement around the light.



All in one series has a built - in motion detection security feature that automatically regulates the LED light output from full brightness to a lower level depending upon the detection of movement around the light.

This fluctuation of lighting intensity preserves battery power and also serves to increase community security by deterring unsociable activity late at night and early in the morning where these lights are installed.

PIR Detection Area



Cloud-based Remote Monitoring System (Option)

Smart controlling perfectly combines the solar street lighting fixture, internet of things with wireless communication technology, achieve monitoring and management of remote background data, realtime understand the normal working status of each component of solar energy (street lights, photovoltaic panels, batteries, controllers), allow you to know the product usage on the client terminal that is thousands of miles away without leaving home or to manage the opening and closing of street lights and the adjustment of bright spot power on me.

· The solar street light management system can pre-set one or more lighting modes according to the different time of day and traffic flow, automatically turn on or off any light, and adjust the switching time and illumination according to environmental requirements to achieve the purpose of energy-saving and consumption reducing.

· The integrated system is mainly composed of a street light component a centralized controller, a single light controller, and a smart cloud platform. The centralized controller and the single light controller aggregate the data collected by the single light via the RF wireless communication network. The centralized controller uploads data to the system cloud planform through GPRS data flow, providing data dependence for mobile phone and computer terminal access.

Flexible light on/off, dimming profiles, motion detection that can be done from the cloud allows changes to the lights as needed without a site visit.

Smart Solar Street Light Remote Management System 4G+5G+Zigbee/Lora Network

REMOTELY CONTROL THE SWITCH AND LIGHTING ADJUSTMENT

Control and configure the lights remotely from any where based on your seasonal requirement.

CLOUD OPERATION MONITORING

Manage the voltage, power, energy consumption or any failures anywhere, everywhere all through the cloud management system.

FREE SWITCH ON WORKING MODE

Remote free switch on the working mode to save energy consumption and prolong working time of the light according to specific project requirements.

BIG DATA ANALYSIS

Remote monitoring information, real time inquiries and historical data inquiries, can be generated to a statement or graphical representation for easy data analysis.

FAILURE WARNING

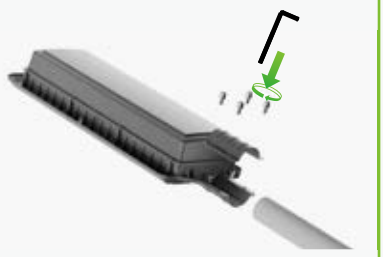
Immediate warning and alarm system to the client if any detection of malfunctions occurs.

AUTHORITY MANAGEMENT

Unified login password through system permission settings prevents unauthorized person to operate and keeps the system safer and reliable.

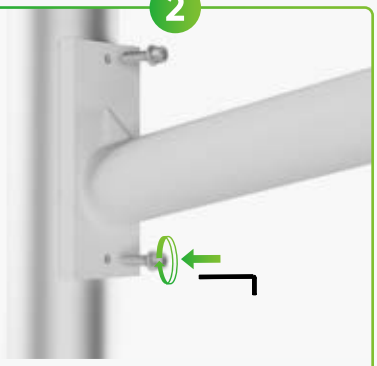
Installation

1



Attach the bracket to the lamp holder with screws

2



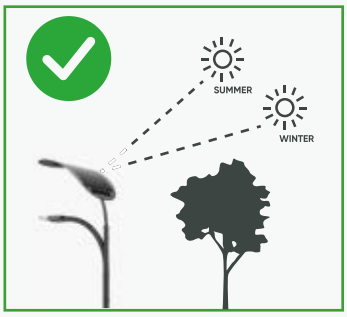
Screw the bracket to the light pole

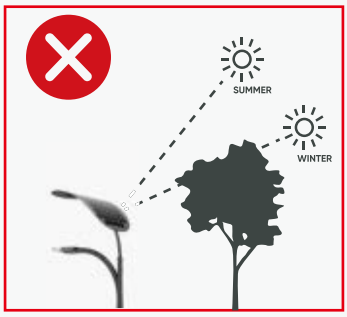
3

Attach the solar panels to the light poles with screws

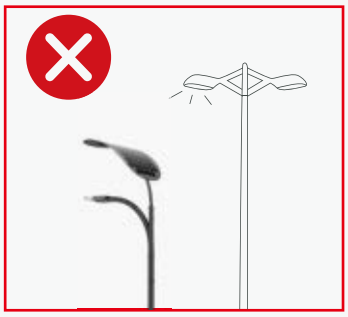
Non-contractual visuals, lanterns may differ depending on chosen options.

•Shading

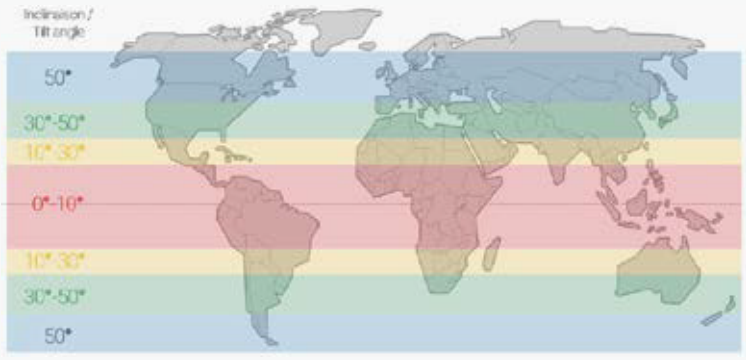




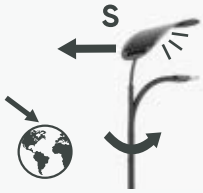
•Light Pollution



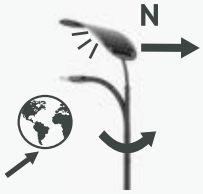
•Angle



Point solar panels towards the South in the Northern hemisphere



Point solar panels towards the North in the Southern hemisphere



APPLICATIONS

- Street Lighting
- Roadway Lighting
- Pathway Lighting
- Ramp Lighting
- Sidewalk Lighting
- Private Road Lighting
- Farm Lighting
- Wildlife Area Lighting
- Perimeter Security
- Lighting
- Park Lighting
- Railway Yard Lighting
- Fence Lighting
- Campus Lighting
- Ship Dock Lighting
- Remote Ara Lighting
- Military Base Lighting
- Gate Lighting
- Jogging Path Lighting





Yemen UNOPS project


Bahrain solar street light project


Malaysia solar street light project