



OCTAGONAL POST SERIES

# Solar Post Street Light

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More Power, Less Expense

## SMART SOLAR LIGHTING

# FOUR-SIDED LINE SERIES

All-In-One 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.



### Universal Application

Can be used on any type of aluminium or steel pole, easy to assemble and locked into place. Poles can be sourced separately if needed and the modular design with adjustable spacing brackets ensures easy assembly into any type of pole configuration.



### Modular Installation

This Vertical PV module is based on modular design concept for easy installation and disassembly. It can be quickly and easily mounted onto any suitable pole.



### 360° Full Day Charging

360° round solar panel ensures 50% of solar panel will face to sunshine at any time of the day. No onsite orientation is needed.



### Patented Design

The Vertical solar PV module is designed based on advanced concepts and manufactured to high standards PCT .



### Easy to Clean

Less dust will fall on surface than on a regular solar panel. Maintenance workers can clean it easily standing on ground with a extending low-pressure hose brush or sprayclean. Resulting in higher work efficiency and reduced maintenance cost.



### Strong Wind Resistance

The Vertical design reduces the wind load area, and each module is directly fastened to the pole by 12 screws for better wind resistance. Ideal for very windy regions.



### Design Aesthetics

The module system is the real answer to design aesthetics providing a compact and fully integrated green energy solution to the pole.

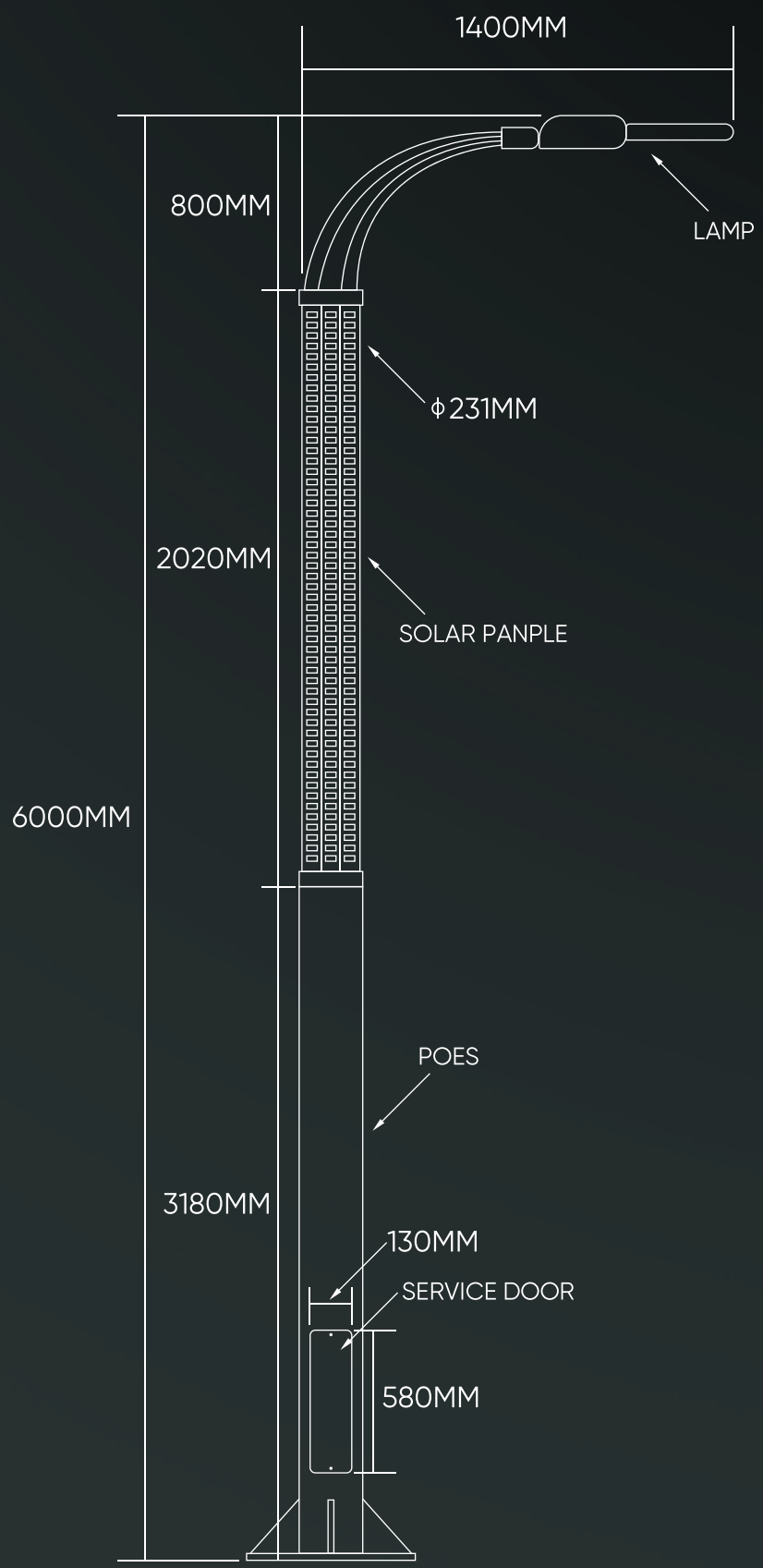


### Anti Snow Covering

The cylinder solar PV modules are mounted vertically. Preventing build up of snow and dirt. Ensuring enough power can be generated even in very snowy climates.

CE | IP65 | IK10







# 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	The battery is built into the lamppost.
Backup	3-5 days
Pole	5-8m base on requirement
Lighting Time	10-14 hours/Night

## LED LIGHT

LED	50W/24V,5050 LED module
Light Distribution	Type III
Color Temperature	3000K- 6500K
Efficacy Range	≥180lm/watt
Color Rendering Index	≥70Ra
Mounting	Pole installation and Wall Installation

## SOLAR MODULE

Solar Cell	TopCon N-type highest efficiency
Rated Max. Power at STC (Pmax)	240Wp
Max. Power Voltage (Vmp)	43.4V
Max. Power current (Imp)	1.66A
Open Circuit Voltage (Voc)	50.9V
Short Circuit Current (Isc)	1.75A
Module Efficiency	>24.8%

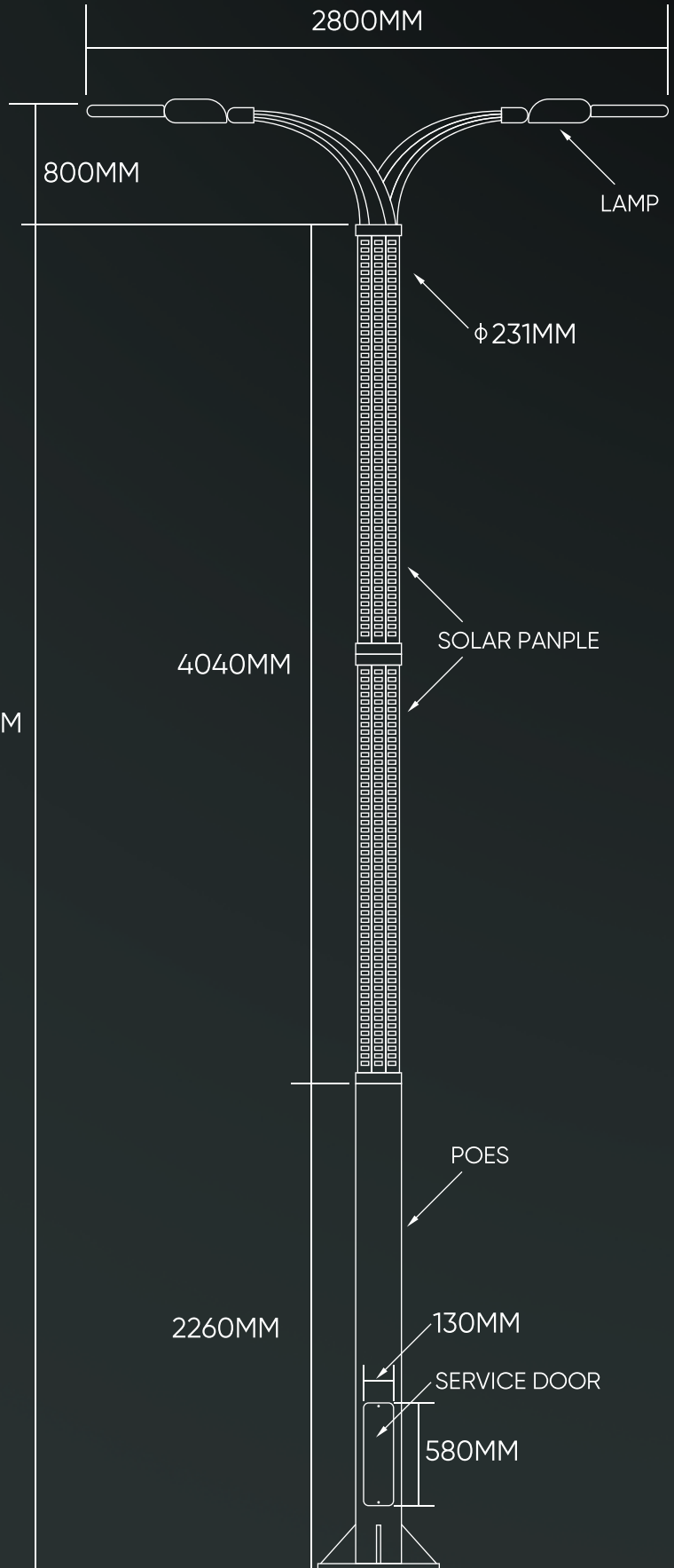
## BATTERY

Type	40Ah/25.6V
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

## 50Wx2

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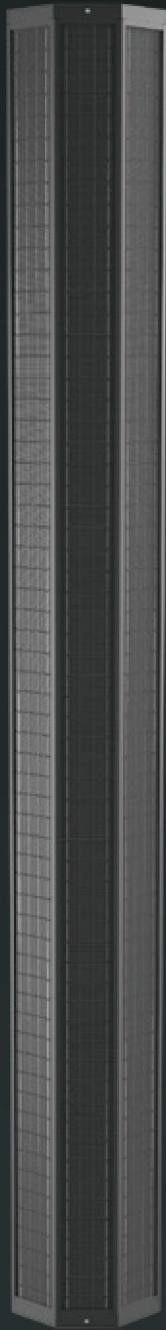
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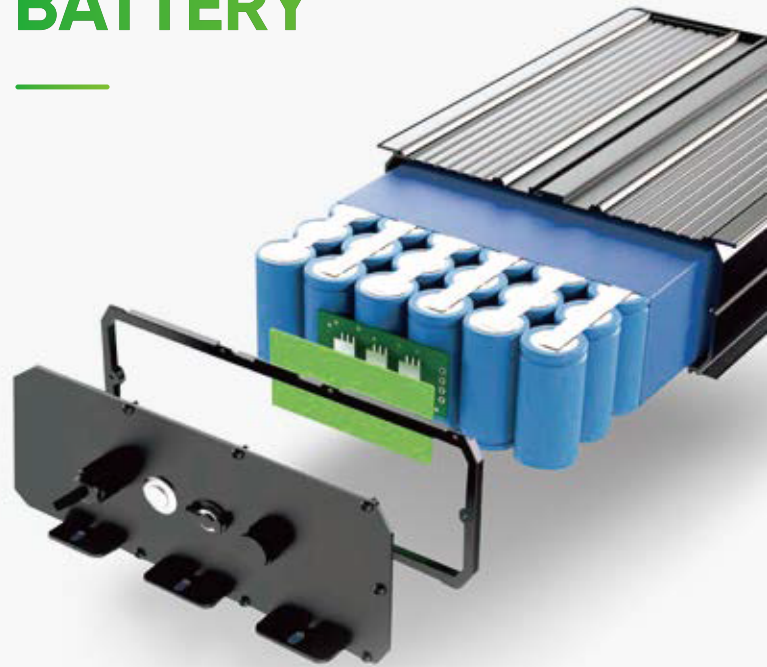
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Monitoring	APP remote monitoring or wireless remoter control (optional)
Charging Type	MPPT
LED driver	high-efficiency driver built-in
Operating Profile Options	Dusk-to-dawn with dim energy saving mode (motion sensor optional)
Day/Night Transition	Via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

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# 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.



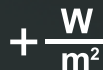
### Bigger Cells with better performance

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 resistance against PID (Potential Induced Degradation), which translates to security for your investment.



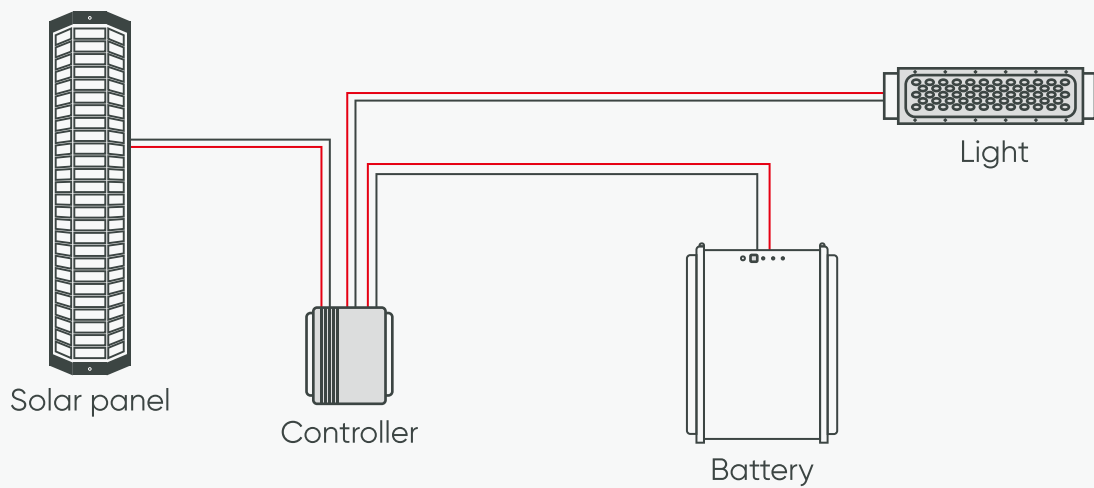
### High Power Density

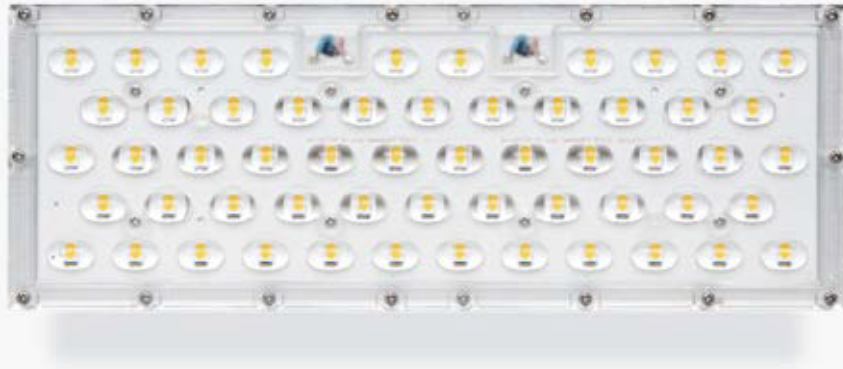
High conversion efficiency 23% and more power output persquare meter, by lower series resistance and improved light harvesting.





## Product display





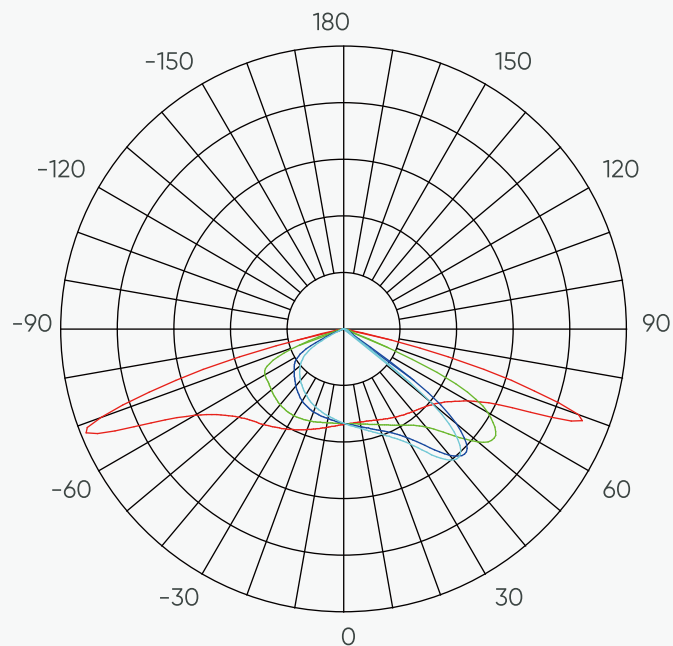
## High Efficient LED

Using high-efficiency LED, luminous efficiency is up to 210lm/W . The lights sealing lens is made of strong anti-ultraviolet PMMA, 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

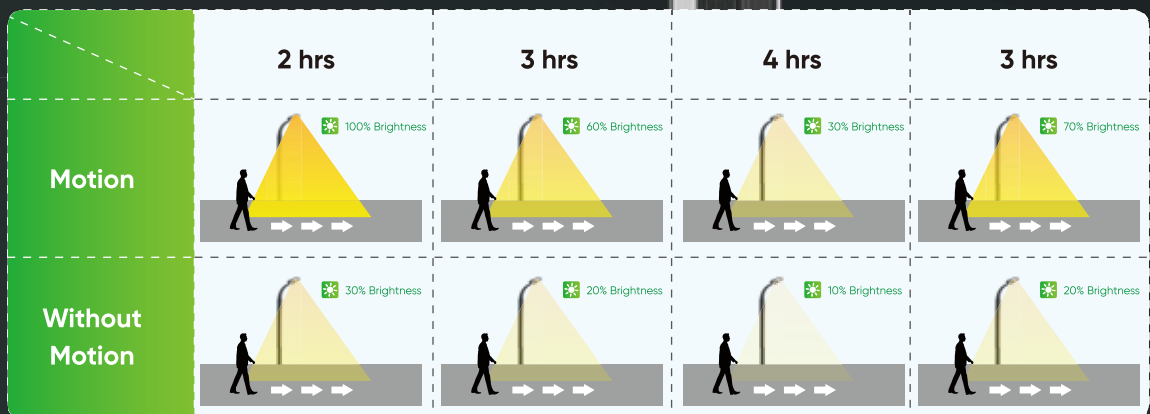
The new lens design improves the lighting effect and lighting uniformity, while also increasing light coverage.



# Solar Controller

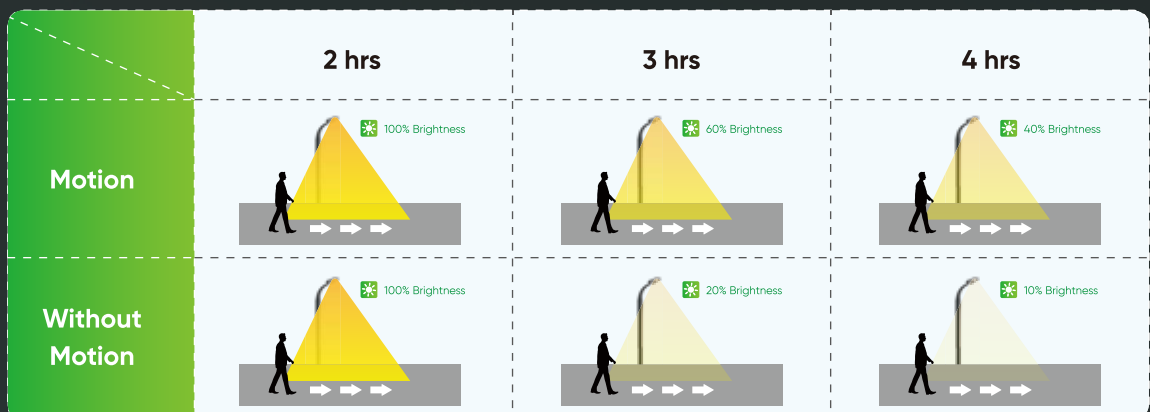
## > T1 Mode

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%;



## > T2 Mode

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



# Cloud-based Remote Monitoring System (Option)

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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 platform 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.

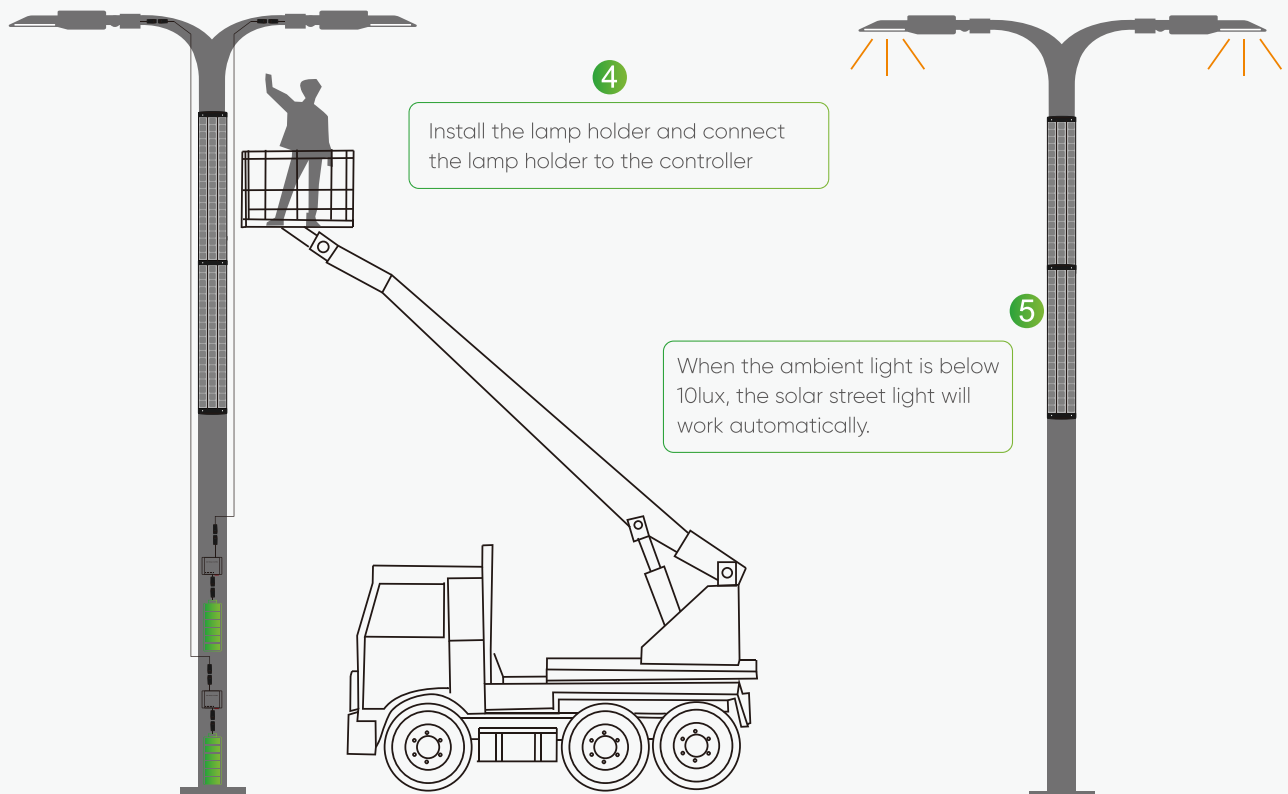
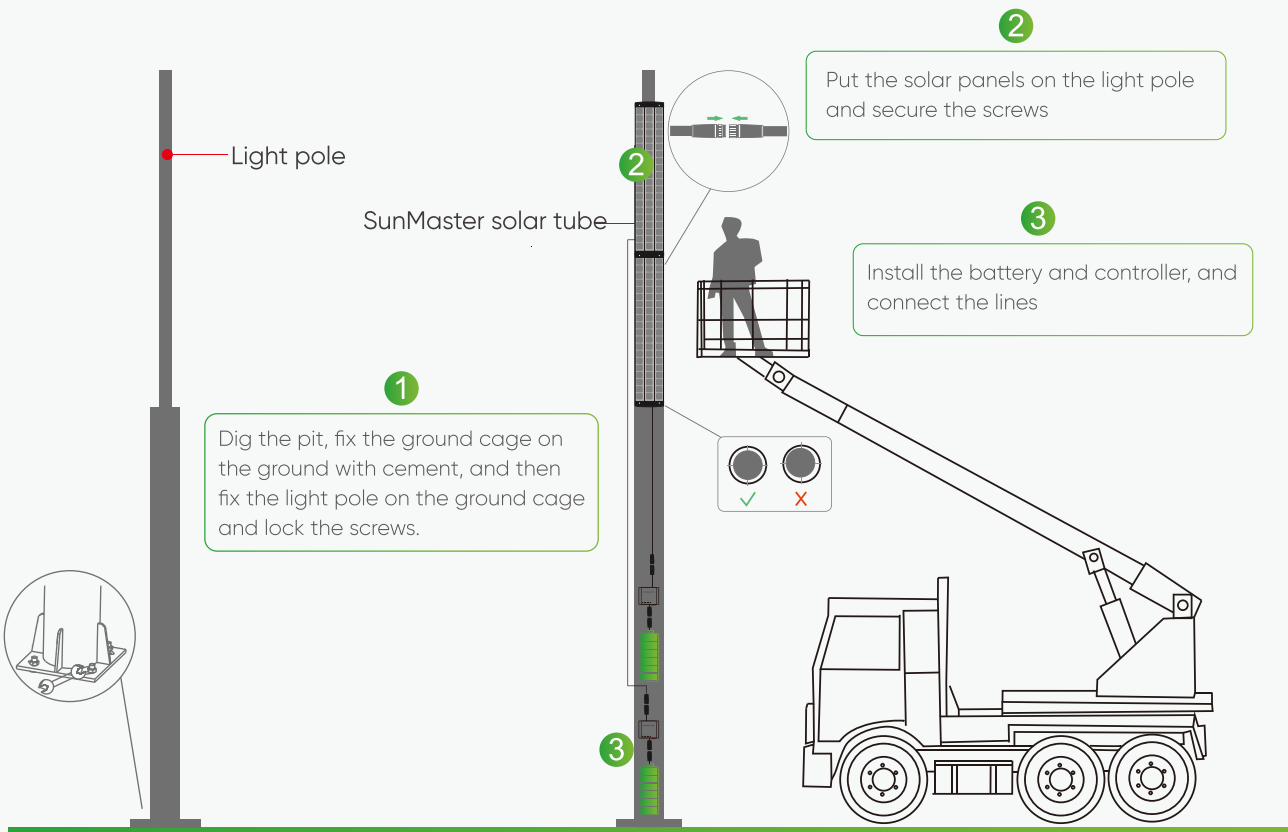


### AUTHORITY MANAGEMENT

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



# Installation





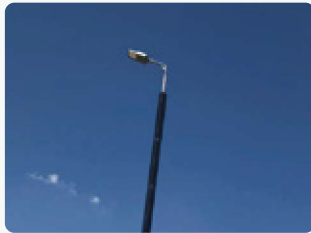




# APPLICATIONS

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- 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 Area Lighting
  - Military Base Lighting
  - Gate Lighting
  - Jogging Path Lighting
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Yemen UNOPS project



Malaysia solar street light project



Saudi Arabia solar street light project

