



# Solar Flyhorse Light

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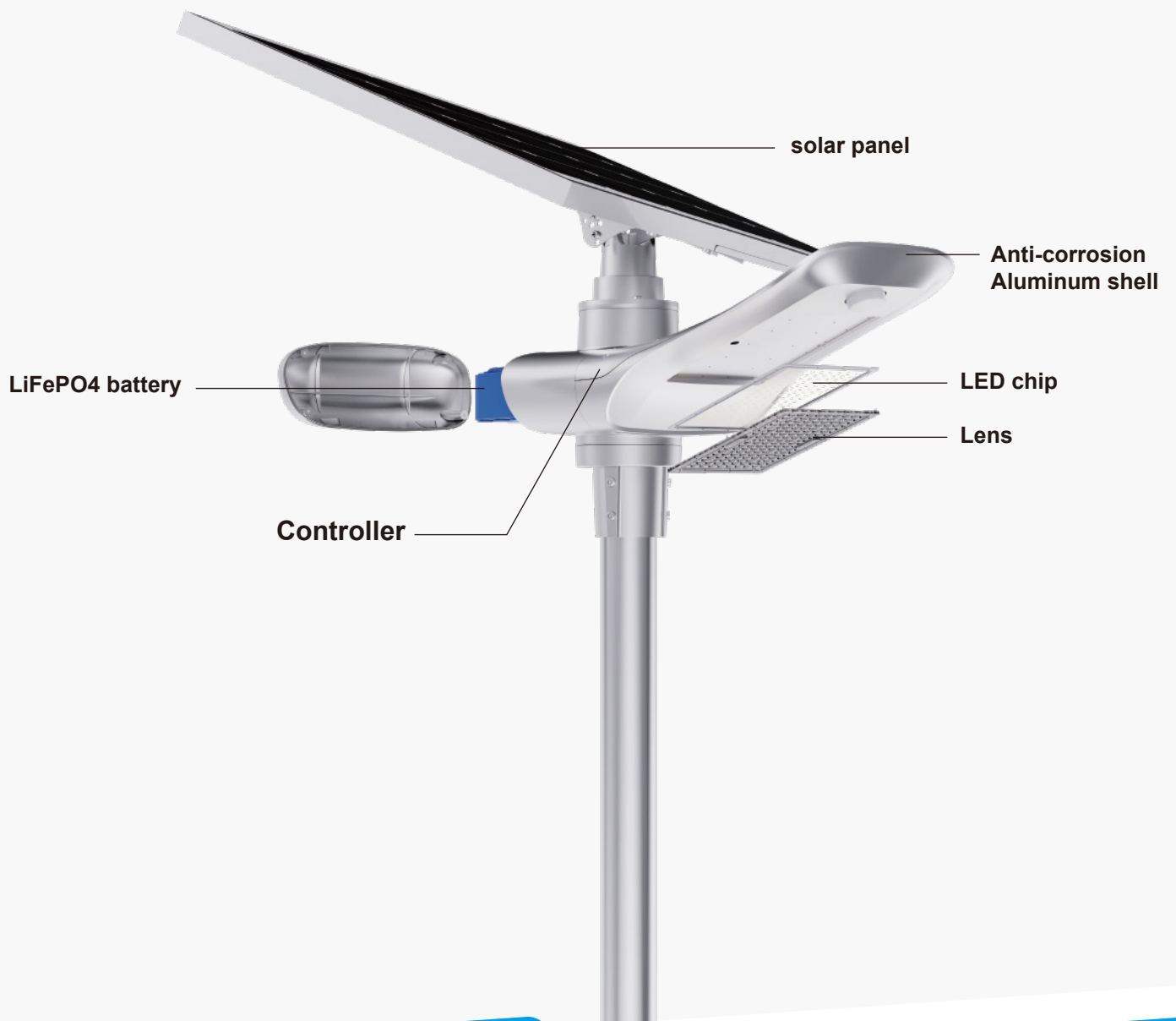
RS-FH100

RS-FH120

RS-FH150



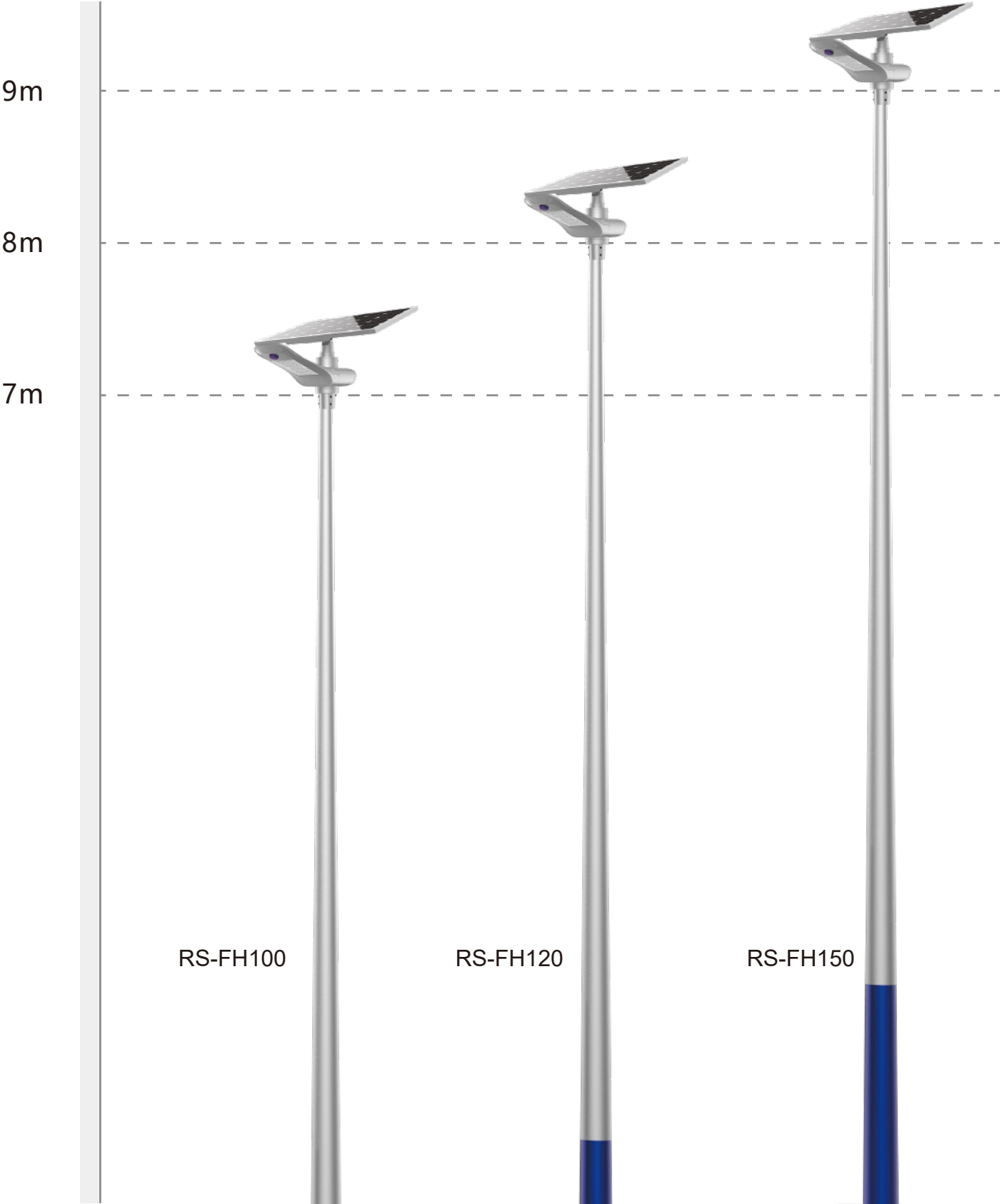
CE FC



Unique Structure Design

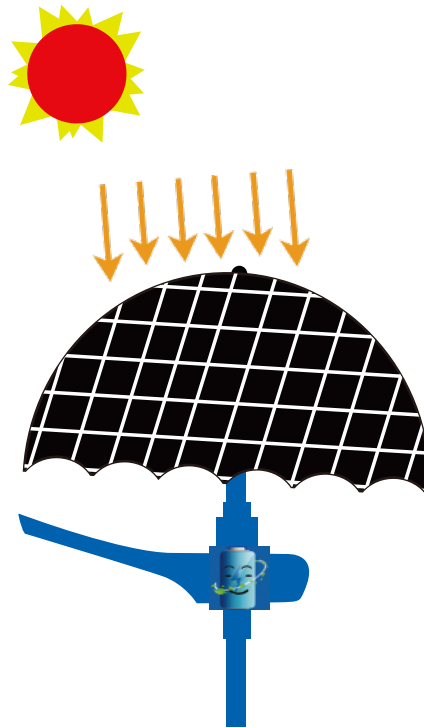


Lamp post installation height recommendation diagram

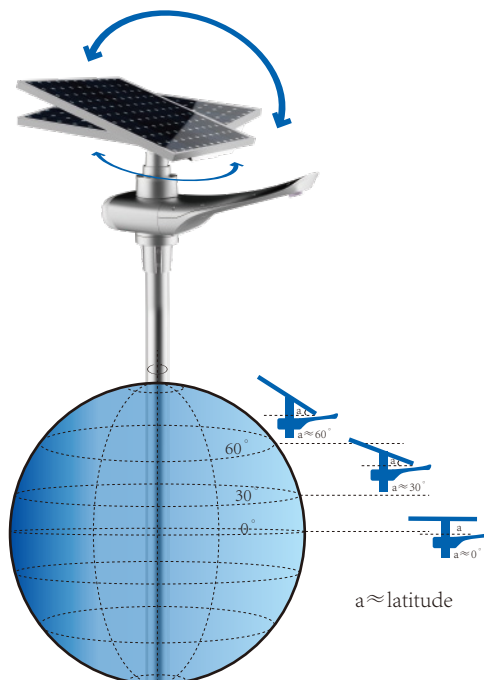


## Unique Structure Design

Solar panel looks like an umbrella to protect battery from high temperature and extend the lifetime. Perfectly solve heat dissipation.



Solar panel can be adjustable manually in vertical and horizontal direction, ensure the maximum efficiency of solar energy.



# Core Technologies



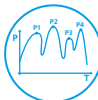
## Unique Integration Design

Easy to transport, install and maintain



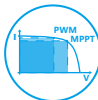
## High Efficiency LED Chips

Using high efficiency 140pcs of 5050 LED chips, optimized brightness, single lumen value >190lm/w, with the aluminum chip base makes excellent heat dissipation.



## Multi-Peak MPPT

Road Smart new patent solar controller adopts multi-peak MPPT technology, which can timely track the maximum power point and improve the conversion efficiency of solar panels.



## MPPT Technology

MPPT is an advanced charge mode whose full name is Maximum Power Point Tracking function which can increase the energy utilization rate by 15% to 20% than the PWM controller.



## ITC Technology (Intelligent Temperature Control)

Automatically Switch off function by software at temperature limit to protect battery from long time high temperature working. Heating up function to protect battery at Low temperature atmosphere. Extend longer lifetime of the whole system.



## IPC 5.0 Technology

Through 10years' experience, Road Smart upgraded highly precise 5.0 version IPC technology (intelligent power control 5.0). It will intelligently detect recent weather conditions, reasonably plan the discharge power to achieve more rainy days.



## ICD Technology (Intelligent Charge and Discharge)

Using Grade A LiFePO4 battery with excellent safety performance. Road Smart's unique current equalization and dual protection (software and hardware) enable the battery's capacity remains at 90% after 2000 cycles. Lifetime is 4 times longer than that of lead-acid batteries.



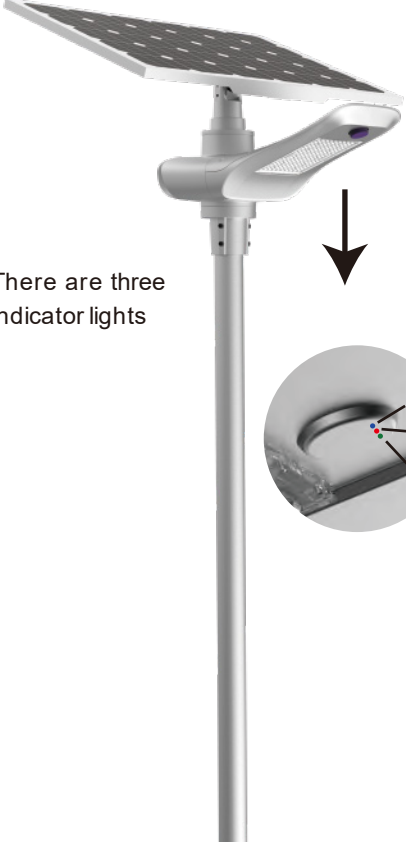
## Patent Bat-wing Lens

Lighting area much wider, the maximum of using the lighting all light the road, increase the installation distance to 50m.

# Remote Control

## Indicator light status instructions

There are three indicator lights

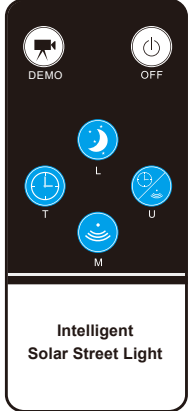


| LED light | Indications                                                                                              | Status         | Functions                         |
|-----------|----------------------------------------------------------------------------------------------------------|----------------|-----------------------------------|
| ● Blue    | <br>Charging indication | Long-term On   | Be charging                       |
|           |                                                                                                          | Long-term Off  | Battery full charged              |
| ● RED     | <br>Battery indication  | Long-term On   | Battery works normally            |
|           |                                                                                                          | Long-term Off  | Battery is not connected/No power |
|           |                                                                                                          | Fast twinkling | Battery is over discharged        |
|           |                                                                                                          | Slow twinkling | Battery full charged              |
| ● Green   | <br>Load indication     | Long-term On   | Load is on                        |
|           |                                                                                                          | Long-term Off  | Load is off                       |

**System faults include:**

1. Over discharging of battery.
2. System overvoltage.
3. LED load in short circuit.
4. LED load in open circuit.

## 6 working modes



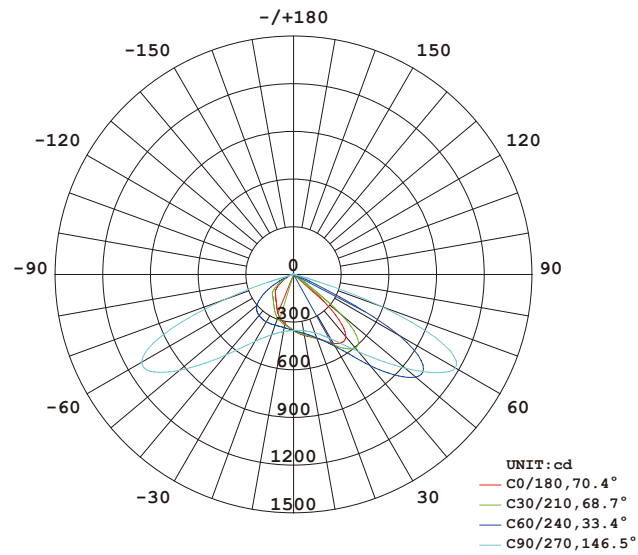
**Intelligent Solar Street Light**

-  **DEMO:** No matter day or night, light "on" for 1 minute. Only for test use.
-  **OFF:** Light "off", no matter day or night.
-  **L:** At night, 100%-2hr, 70%-2hrs, 30%-dawn.
-  **T:** At night, 100%-1hr, 70%-2hrs, 40%-3hrs.
-  **M:** At night, 50%-1hr, 100%-3hrs, 30%-dawn.
-  **U:** At night, 100%-1hr, 70%-3hrs, then sensor working, 50% if people come, 20% stand-by.

**Note:** Default is L mode, once a certain mode was set successfully, it will be reserved until you change other modes with remote control.

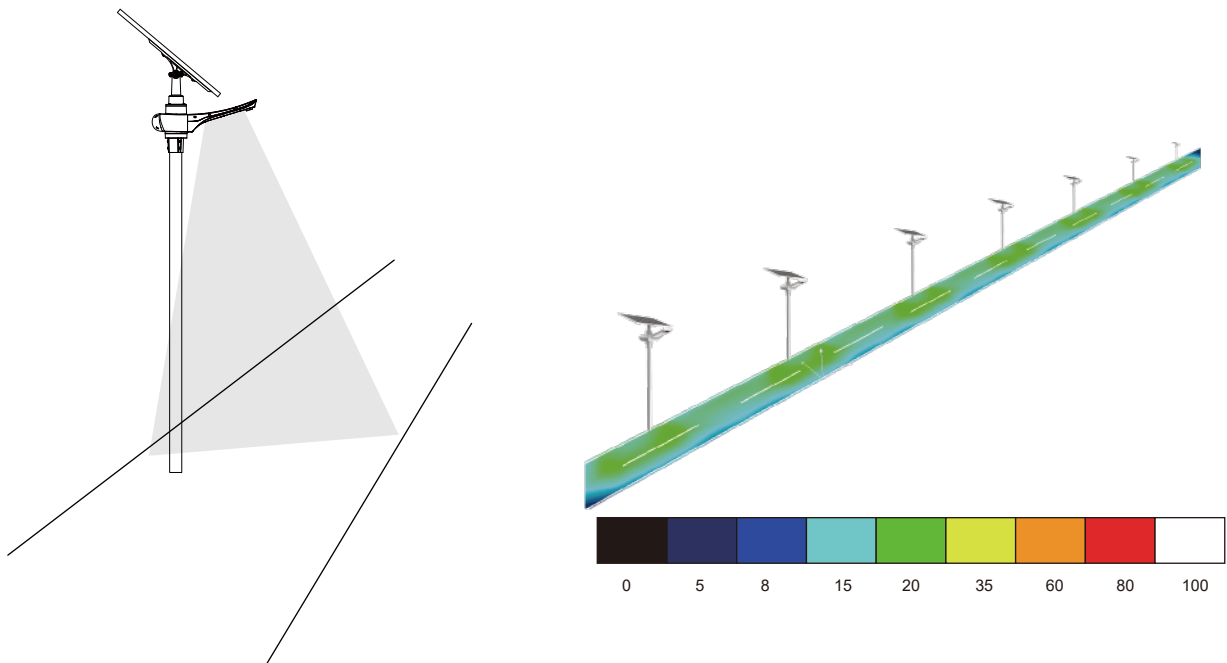
# Light Distribution

## Luminous intensity distribution curves



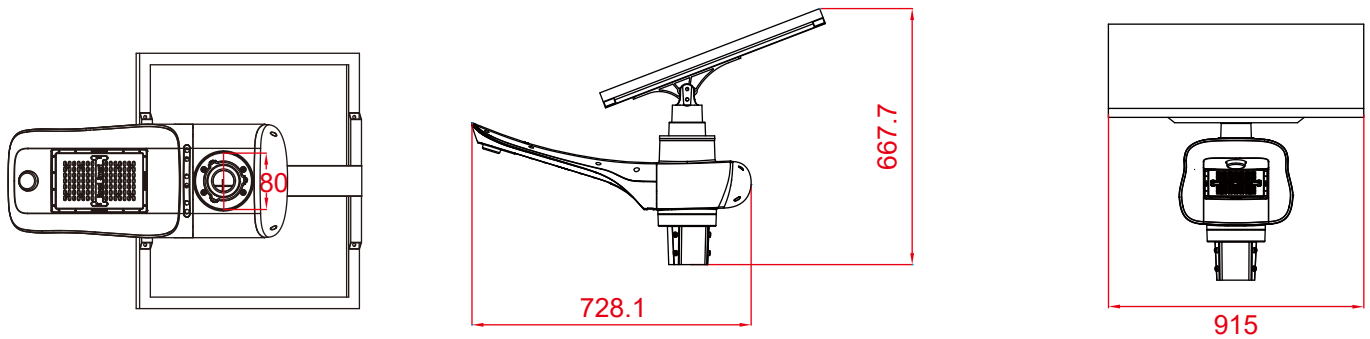
Beam Angle: X-axis: 158° Y-axis: 62°

## Bat wing lens with polarized light

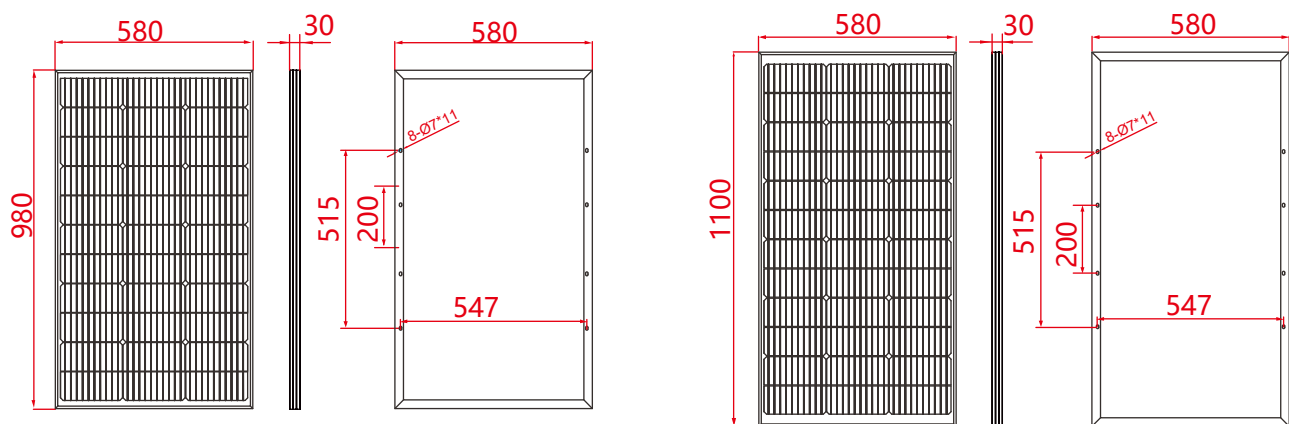


## Dimension

### Lamp holder

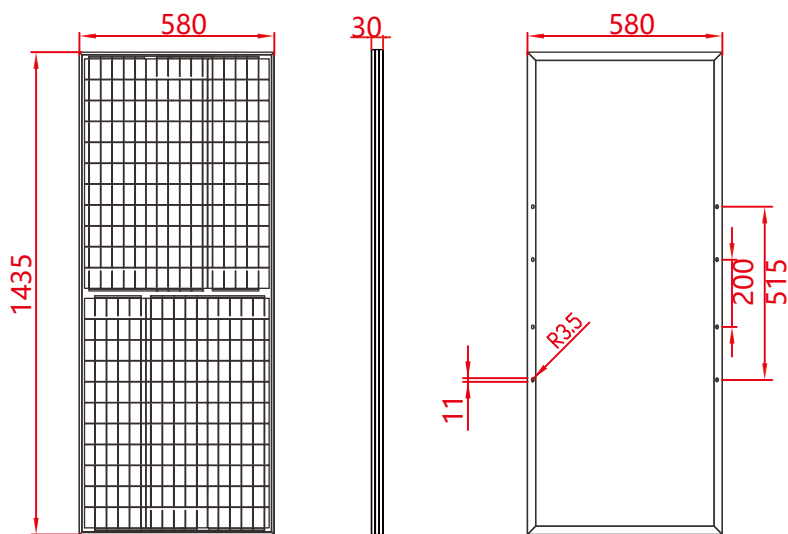


### Solar panels



100W

120W



150W

# Parameter

## Technical parameter

|                 | Type                        | RS-FH100                          | RS-FH120                 | RS-FH150                 |
|-----------------|-----------------------------|-----------------------------------|--------------------------|--------------------------|
| Panel           | Power                       | 100W/18V                          | 120W/18V                 | 150W/18V                 |
|                 | Material                    | Mono crystalline silicon          | Mono crystalline silicon | Mono crystalline silicon |
|                 | Solar cell efficiency       | 19-20%                            | 19-20%                   | 19-20%                   |
| Lithium battery | Capacity                    | 380WH                             | 460WH                    | 610WH                    |
|                 | Charge cycle times          | 2000 times                        | 2000 times               | 2000 times               |
| Lamp head       | Luminous flux               | 5800-6100lm                       | 7500-7700m               | 9100-9300lm              |
|                 | Light output                | 30W                               | 40W                      | 50W                      |
|                 | LED qty                     | 150pcs                            |                          |                          |
|                 | LED chip                    | Bridgelux                         |                          |                          |
|                 | Color temperature           | 3000-6000K                        |                          |                          |
|                 | CRI                         | ≥70Ra                             |                          |                          |
|                 | Material of lamp head       | Aluminum alloy                    |                          |                          |
|                 | Elevation angle             | 17° (attention to Dialux use)     |                          |                          |
|                 | Lifespan                    | 50000hrs                          |                          |                          |
| System          | Light control voltage       | 5V                                |                          |                          |
|                 | Light distribution          | Batwing lens with polarized light |                          |                          |
|                 | Beam angle                  | X-axis: 155° Y-axis: 50°          |                          |                          |
|                 | Lighting time(full charged) | 5-7 rainy days                    |                          |                          |
|                 | Operation temperature       | -20°C~60°C                        |                          |                          |
| Installation    | Top diameter of pole        | 76mm                              |                          |                          |
|                 | Mounting height             | 7-8m                              | 7-8m                     | 8-10m                    |
|                 | Installation spacing        | 20-40m                            |                          |                          |

# Application



Highway



Pathway



Village road



School



Parking lots



Factory



Resort

