FLEXIBLE MONOCRYSTALLINE
Silicon Solar Panel

HIGH CONVERSION EFFICIENCY

没有电极挡光，更高转换效率
NO ELECTRODE TO BLOCK SUNLIGHT
CONVERTS MORE ENERGY

反射镜将光再次反射，让硅片吸收更多光线
BACKSIDE MIRRORS
REFLECTS MORE LIGHTS

强金属背接，输出更多的电流
STRONG METAL CONTACTS
CONDUCTS MORE CURRENT OUTPUT

比普通太阳能板高达50%的效率
UP TO 50% MORE EFFICIENCY THAN ORDINARY
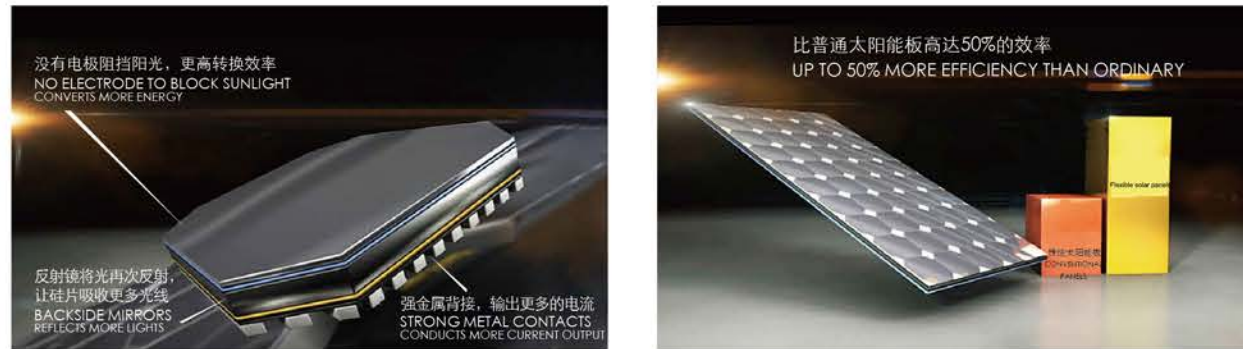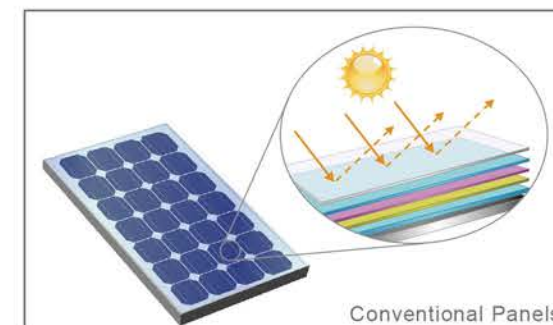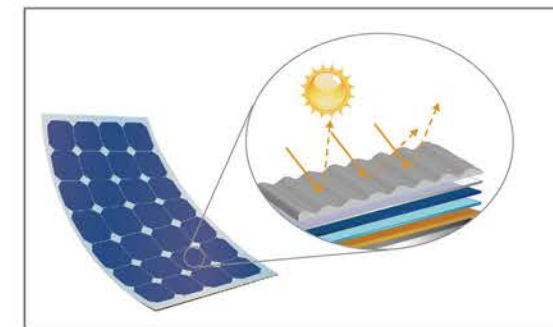
Adopt unique back contact technology and remove electrodes on the solar cell surface that block the sunshine to increase the solar panel conversion efficiency grately.

Advantages

Flexible

Lightweight

Thin Thickness

Without Glass

High Efficiency

High Waterproof Grade

Encapsulation
Technology

Conventional Panels

OWN PATENT SOLAR CELL ENCAPSULATION TECHNOLOGY

Solve the problem such as monocrystalline silicon organic encapsulation technology and bonding strength, to make the product service life for up to 15 ~ 20 years.

Pressed by concave and convex structure, to avoid the problem of surface mirror, can more fully absorb sunlight, improve the capacity.enhanced the surface in the process of laminating adhesive strength, avoid bubbles, between EVA and avoid fold, suppression of concave and convex point after the angle of the solar panels can be wider scope for installation, avoid the error caused by the installation angle reflection loss;

Solving the combination problem of solar cells and fabric. The weight of our solar panel is only one fifth compared with the same watt glass encapsulated one.

SOLAR LED LIGHTS

With Flexible Monocrystalline
Silicon Solar Panel

International Brand LED Light Source

Light Source Module

Intergrated Drive Controller

Optically Controlled Automatically

Smart Handheld Remote Controller

Remote Intelligent Control Systerm(Optional)

Humanized Installation And Maintenance

FLEXIBLE SOLAR

Panel Lights

Our Solar Lights   Ordinary Solar Lights

ADVANTAGES OF

Our Flexible Solar Panel Lights

No glass encapsulation and super light ultrathin model of flexible monocrystalline silicon solar panels, realize the integration design of lamps ,ensure that the aesthetic effect of lamps and lanterns.

High-efficiency solar panels in combination with the all-round angle design of the light,ensure the light's power generation efficiency in different sections and locations.

No glass encapsulation makes the solar panels tougher, more durable and with longer lifespan.

Intelligent advantage
Advanced intelligent lighting control chip, auto lights, dark dawn automatically turn off, late-night can be automatically converted into half power work, not only to save electricity, but also to reduce light pollution, and thus more humanized.

Status in the first 4 hours

Status after 4 hours till to next dawn

100% Illuminance

50% Illuminance

Lamp running states are set up by remote controller according to site condition.

Optically controlled , full power working before midnight, then half power working till to dawn to save energy, and increase the humanized design.

DEDICATED CONTROLLER

Being based on MCU and specialized software, we have developed our own intelligent controller to update our products and cater the needs of our market. And it has passed the CE certificate.
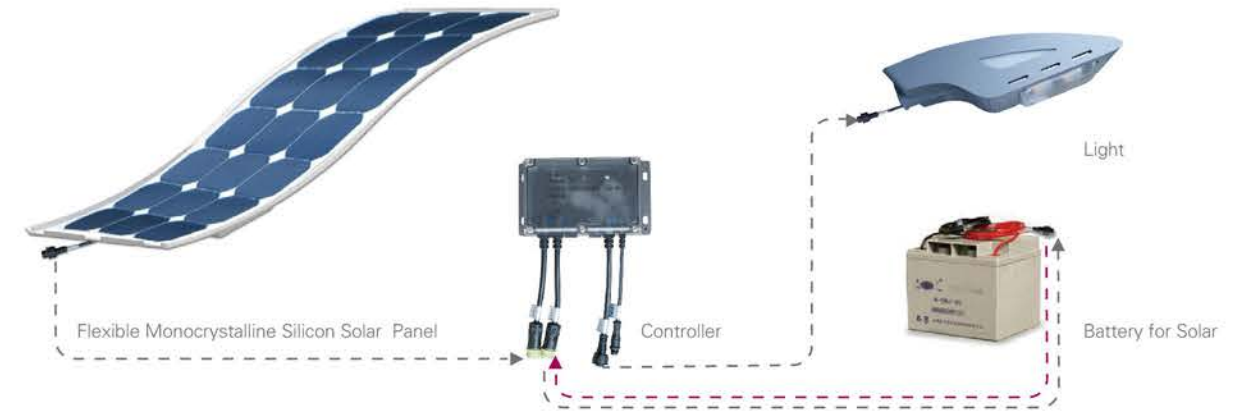
THE REMOTE CENTRALIZED
Monitoring System

Internet

GPRS

GPRS/RF

Centralized Control

Visiting server by computer or mobile phone → sending orders to intelligent controller through internet or GPRS network→ intelligent controller receives the orders and send to controlled light by wireless signal→getting the status of controlled light.

Remarks: Referral fees of visiting the remote centralized control monitoring will be paid from the Mobile SIM card.

MODULAR
Management Mode

Light

Flexible Monocrystalline Silicon Solar Panel

Controller

Battery for Solar

EASY
Installation

Nut

Spring pad

Flat pad

Whole pole

Foundation

Anchor Cage

Cement

Earth Wire

Each solar lamp is an independent power system, the installation is easy and convenient just like planting trees. No need to bury cable with outer fill–in and special distribution equipment to install, which saves a large amount of manpower, and material resources.

Solar LED
Garden Light

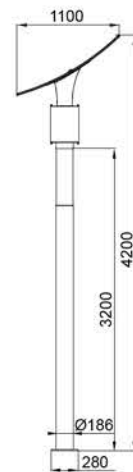Widely used in gardens, squares, residential areas, etc.

Combining the classic elements with modern simple lines, we design this garden light series. The flow line on the top perfectly combines with flexible solar panels, and the LED creates a delicate, Visual perception of at atmosphere.

Solar garden light with flexible solar panel Tracking system

2FSG120B

Solar Tracking
Aluminum Alloy Pole
PMMA Lampshade
High Regidity Polymer Materials
Light Source Module
Intergrated Drive Controller

1100
4200
3200
Ø186
280

Flexible Solar Panel   Li-ion Battery   LED Light Source   Optically Control   Lng&Lat Control Switch   Intelligent Control   Remote Intelligent Control (Optional)

Light Distribution Curve   Solar Tracking

-/+180
-150   150
-120   120
-90   90
-60   60
-30   30

光照：cd
C0/180,119.1°
C30/210,108.7°
C60/240,85.0°
C90/270,74.4°

平均光束角(50%):95度

Item No.	2FSG120B
Solar Power	54W ± 15%
Battery Capacity	14.8V/41.6Ah
Battery Type	Li-ion Battery
Total Power of Light	15W
Color Temperature	4000K
Working Temperature	-20℃~55℃
Height	4.2m
Distance Between Light	12m~18m
Road Width	4m~6m
Wind Resistance	27m/s
Rainy / Cloudy Days	2~3 Days

The Application

Advantages

Controller: Dedicated controller, remote control, optically control, time control, anti-overdischarge and short-circuit resistance.
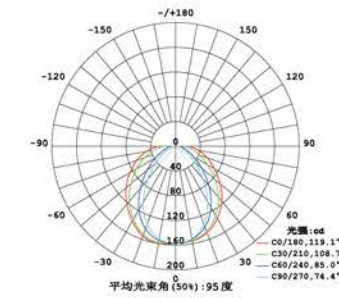
Materials: Aluminum alloy pole powder-coated with electrostatic spray for anti-salted, anti-acid, rust resistant. Adopt PMMA lampshade material, nanometer anti-glare process. Solar panel mounting rack made by high regidity polymer materials.

Work Time: Optically controlled automatically turn on & off the lights. Maximum brightness work for four hours, and then turns to half of the brightness until dawn.
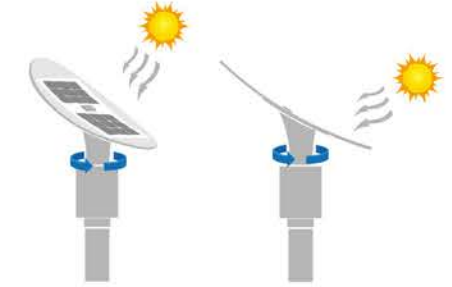
Smart Tracking: Automatic tracking function with high accuracy and reliability. Solar efficiency is increased by 20%~40%.
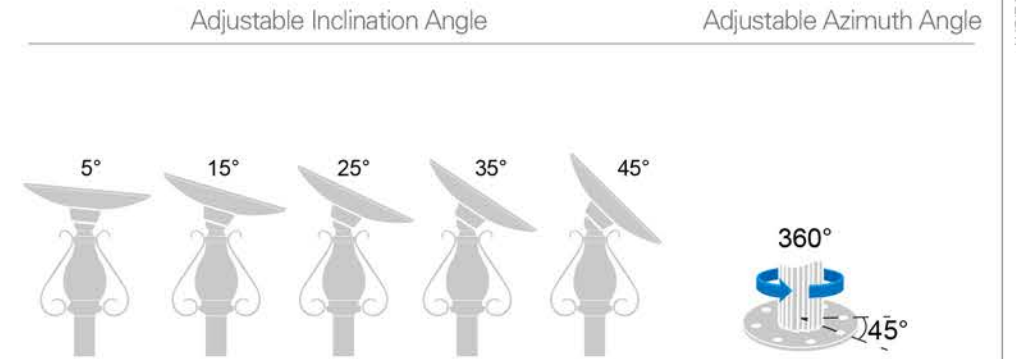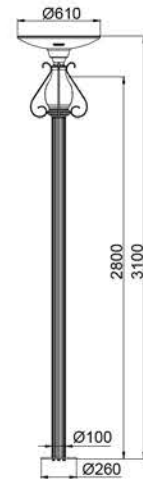
Solar garden light with flexible solar panel adjustable

2FSG119B

Adjustable Solar Angle
Aluminum Alloy Pole
PMMA Lampshade
High Regidity Polymer Materials
Light Source Module
Intergrated Drive Controller

Ø610

2800
3100

Ø100
Ø260

Flexible Solar Panel   Lithium Battery   LED Light Source   Optically Control   Lng&Lat Control Switch   Intelligent Control   Remote Intelligent Control (Optional)

Adjustable Inclination Angle

5°   15°   25°   35°   45°

Adjustable Azimuth Angle

360°
45°

Item No.	2FSG119B
Solar Power	27W ± 15%
Battery Capacity	14.8V/20.8Ah
Battery Type	Lithium Battery
Total Power of Light	7W
Color Temperature	4000K
Working Temperature	−20℃~55℃
Height	3.1m
Luminous Flux	1300 lm
Distance Between Light	12m~18m
Road Width	4m~6m
Wind Resistance	27m/s
Rainy / Cloudy Days	3~5 Days

The Application

Advantages

Controller: Dedicated controller, remote control, optically control, time control, anti−overdischarge and short−circuit resistance.

Materials: Aluminum alloy pole powder−coated with electrostatic spray for anti−salted, anti−acid, rust resistant. Adopt PMMA lampshade material, nanometer anti−glare process. Solar panel mounting rack made by high regidity polymer materials.

Work Time: Optically controlled automatically turn on & off the lights. Maximum brightness work for four hours, and then turns to half of the brightness until dawn.
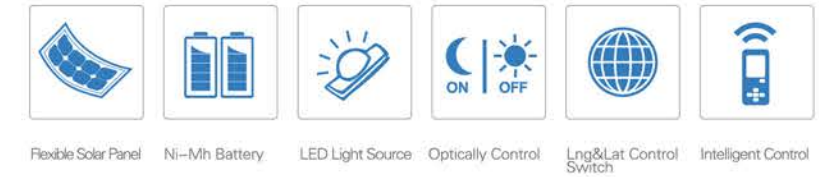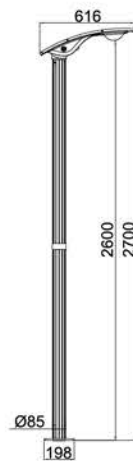
Solar All in one light with motion sensor（Lithium Battery）
Model: 2FSG143
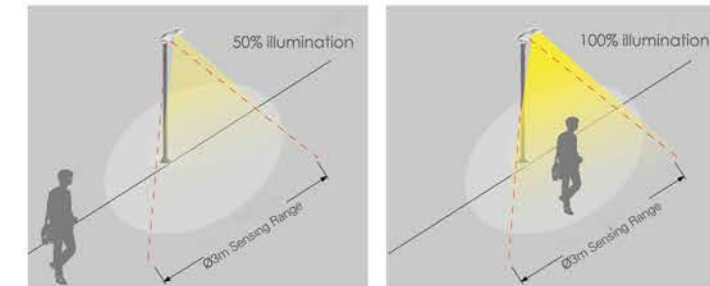
Flexible Solar Panel   Ni~Mh Battery   LED Light Source   Optically Control   Lng&Lat Control Switch   Intelligent Control

Infrared Sensor
Aluminum Alloy Pole
PMMA Lampshade
High Regidity Polymer Materials
Light Source Module
Intergrated Drive Controller

18W ± 15%

7.4/18.2AH

5W

−20℃~55℃

2.7m

616
2600
2700
Ø85
198

Infrared Sensor

50% illumination   100% illumination

Ø3m Sensing Range   Ø3m Sensing Range

Lighting status with nobody passing through   Lighting status when people are passing

Item No.	2FSG143
Solar Power	18W ± 15%
Battery Capacity	7.4/18.2AH
Battery Type	Lithium Battery
Total Power of Light	5W
Color Temperature	5000K
Working Temperature	−20℃~55℃
Height	2.7m
Wind Resistance	27m/s
Rainy / Cloudy Days	2~3 Days

The Application

Advantages

Controller: Dedicated controller, remote control, optically control, time control, anti−overdischarge and short−circuit resistance.

Materials: Aluminum alloy pole powder−coated with electrostatic spray for anti−salted, anti−acid, rust resistant. Adopt PMMA lampshade material, nanometer anti−glare process. Solar panel mounting rack made by high regidity polymer materials.

Work Time: Light control automatically. Main LED light turns on with half brightness when dark at first 4 hours,and then turns to 1/4 brightness until dawn automatically. The light will turn and keep full brightness for 1 minute when people pass by use of infrared sensor.
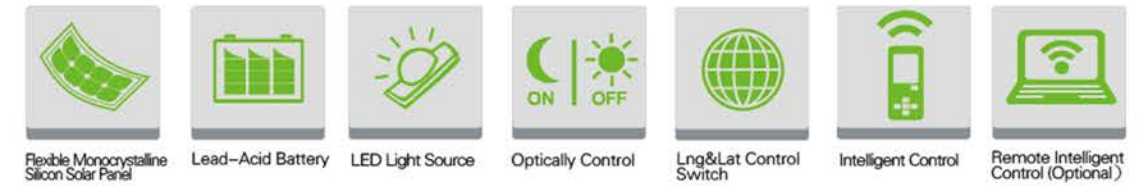
2FSG087A Solar LED Garden Light

Flexible Monocrystalline Silicon Solar Panel	Lead–Acid Battery	LED Light Source	Optically Control	Lng&Lat Control Switch	Intelligent Control	Remote Intelligent Control (Optional)

Light Distribution Curve

光源:cd
C0/180,119.1°
C30/210,108.3°
C60/240,85.0°
C90/270,74.4°

平均光束角(50%):95度

Item No.	2FSG087A
Solar Power	65W ± 15%
Battery Capacity	12V/20Ah * 2
Total Power of Light	16W
Power of the Main Lamp	15W
Power of the Auxiliary Lamp	1W
Color Temperature	3000K~6000K
Working Temperature	−20℃~55℃
Height	4m
Luminous Flux	1300 lm
Distance Between Light	12m~18m
Road Width	4m~6m
Wind Resistance	27m/s
Rainy / Cloudy Days	5~7 Days

Remarks:Solar panel power, LED power,color temperature and battery capacity can be adjusted according to the customer 's requirements.

The Application

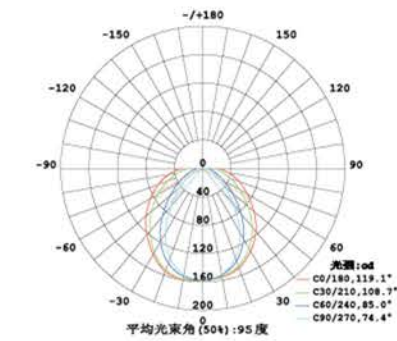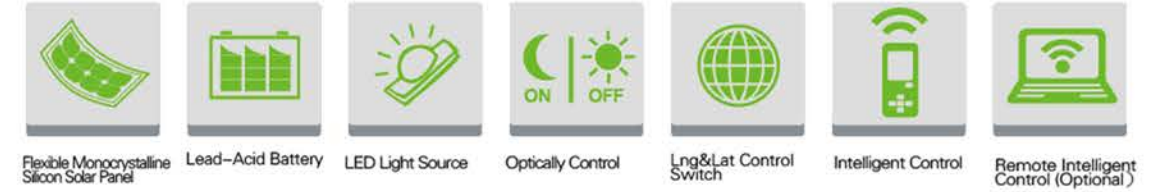900
3800
4000
Ø140
200

Advantages

Controller: Dedicated controller, optically control, time control, anti–overdischarge and short–circuit resistance.

Pole: Aluminum alloy pole powder–coated with electrostatic spray for anti–salted, anti–acid and rust resistant.

Work Time: Optically controlled automatically open to turn off the lights. Maximum brightness work for 4 hours, 4 hours after work to half of the brightness before dawn. The Auxiliary lights work in full brightness firstly and 4 hours later, they turn off automatically.

2FSG068A Solar LED Garden Light

Flexible Monocrystalline Silicon Solar Panel | **Lead-Acid Battery** | **LED Light Source** | **Optically Control** | **Lng&Lat Control Switch** | **Intelligent Control** | **Remote Intelligent Control (Optional.)**

Light Distribution Curve

光强:cd
C0/180,115.3°
C30/210,115.4°
C60/240,115.6°
C90/270,115.8°
平均光束角(50%):115 度

Item No.	2FSG068A
Solar Power	48W ± 15%
Battery Capacity	12V/80Ah
Total Power of Light	21W
Power of the Main Lamp	10W * 2pcs
Power of the Auxiliary Lamp	0.5W * 2pcs
Color Temperature	3000K~6000K
Working Temperature	−20℃~55℃
Height	4.3m
Luminous Flux	1000 lm
Distance Between Light	12m~18m
Road Width	4m~6m
Wind Resistance	27m/s
Rainy / Cloudy Days	5~7 Days

Remarks:Solar panel power, LED power,color temperature and battery capacity can be adjusted according to the customer 's requirements.
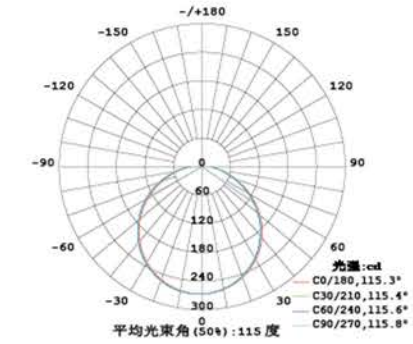
The Application

Advantages

Controller: Dedicated controller, optically control, time control, anti-overdischarge and short-circuit resistance.

Pole: Aluminum alloy pole powder-coated with electrostatic spray for anti-salted, anti-acid and rust resistant.

Work Time: Optically controlled automatically open to turn off the lights. Maximum brightness work for 4 hours, 4 hours after work to half of the brightness before dawn. The Auxiliary lights work in full brightness firstly and 4 hours later, then turn off automatically.

2FSG155

LED Solar Garden Light With Semi-flexible Monocrystalline Silicon Solar Panel

Application

It has been widely used in gardens, squares, residential areas and urban & rural roads, etc.

605

3000

Ø150

200

Specifications

Power of the Solar	27W
Battery Capability	14.8V/20.8Ah
Battery Type	Li-ion Battery
Power of the Light	2W x 3pcs
Color Temperature	4000K
Total Height	3.0m
Wind Resistance	27m/s
Protection Degree	IP65
Last for Rainy/Cloudy Days	3~5 Days

Advantages

- **Flexible Monocrystalline Silicon Solar Panel :** The lifes- pan is longer than 15 years.
- **Light Source:** LED is characterized by high luminous efficacy, high brightness, low depreciation, long life, etc. direct lighting type.
- **Controller:** Dedicated controller, optically control, time control,anti-overdischarge and short-circuit resistance.
- **Materials:** Superb carbon steel pole coated with hot-dip zinc and electrostatic powder coating spray, anti-salted, anti-acid, and rust resistant. solar panel mounting rack made by high rigidity polymer materials.
- **Intelligent Controller:** Remote Centralized Control Monitoring (Option) and Smart Handheld Remote Controller that reads and sets up the work time, work style, brightness of main&decorating light to control the run of light on the spot. Moreover, it shows the voltage and current of solar panel and battery.
- **Work time:** Optically controlled automatically turn on & off the lights. Maximum brightness work for 4 hours, and then turns to half of the brightness until dawn.

2FSG040K Solar LED Landscape Lamp

Ø950

370

3700

Ø186

250

Flexible Monocrystalline Silicon Solar Panel

Lead–Acid Battery

White LED Main Lamp

RGB–LED Color Auxiliary Lights

Optically Control

ON OFF

Lng&Lat Control Switch

Intelligent Control

RGB–LED Colored Light

The decoration colors of Reb,Green and Blue are cyclic–transformation day by day.

Item No.	2FSG040K
Solar Power	50W ± 15%
Battery Capacity	12V/33Ah
Total Power of Light	11W
Power of Main Lamp	10W
Power of Auxiliary Lamp	1W
Color Temperature of Main Lamp	3000K~6000K
Working Temperature	−20℃~55℃
Height	3.7m
Wind Resistance	27m/s
Rainy/Cloudy Days	5~7 Days

Remarks:Solar panel power, LED power,color temperature and battery capacity can be adjusted according to the customer 's requirements.

The Application

Advantages

Controller: Dedicated controller, Optically control, time control, anti–overdischarge and short–circuit resistance.

Pole: Aluminum alloy pole powder–coated with electrostatic spray for anti–salted, anti–acid, weather and rust resistant.

Work Time: Optically controlled automatically open to turn off the lights. Maximum brightness work for 4 hours, 4 hours after work to half of the

brightness before dawn. Auxiliary Lamp colorful gradient closed after 4 hours.
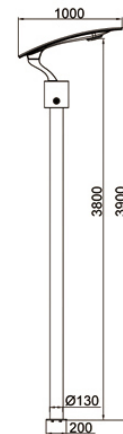
2FSG154A（Use Li-ion battery)

LED Solar Garden Light With Semi-flexible Monocrystalline Silicon Solar Panel

Application

It has been widely used in gardens, squares, residential areas and urban & rural roads, etc.
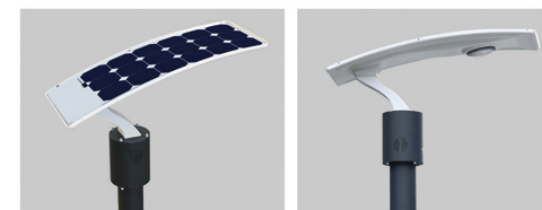
Li-ion Battery

```
1000
3900
3800
Ø130
200
```

Advantages

- **Flexible Monocrystalline Silicon Solar Panel :** The lifes-pan is longer than 15 years.
- **Light Source:** LED is characterized by high luminous efficacy, high brightness, low depreciation, long life, etc. direct lighting type.
- **Controller:** Dedicated controller, optically control, time control,anti-overdischarge and short-circuit resistance.
- **Materials:** Aluminum alloy with LED decorating lights powder-coated with electrostatic spray for anti-salted, anti-acid, weather and rust resistant. Solar panel mounting rack made by high regidity polymer materials.
- **Intelligent Controller:** Remote Centralized Control Monitoring (Option) and Smart Handheld Remote Controller that reads and sets up the work time, work style, brightness of main&decorating light to control the run of light on the spot. Moreover, it shows the voltage and current of solar panel and battery.

- **Work time:** Optically controlled automatically turn on & off the lights. Maximum brightness work for 4 hours, and then turns to half of the brightness until dawn.

Specifications

Power of the Solar	65W±15%
Battery Capability	14.8V/26Ah
Battery Type	Li-ion Battery
Power of the Light	15W
Color Temperature	4000K~5000K
Total Height	3.9m
Wind Resistance	27m/s
Protection Degree	IP65
Last for Rainy/Cloudy Days	2~3 Days

2FSG152A（Use Li-ion battery)

LED Solar Garden Light With Semi-flexible Monocrystalline Silicon Solar Panel

Application

It has been widely used in gardens, squares, residential areas and urban & rural roads, etc.

970

3650
3700

Ø130
200

Specifications

Power of the Solar	65W±15%
Battery Capability	14.8V/26Ah
Battery Type	Li-ion Battery
Power of the Light	15W
Color Temperature	4000K
Total Height	3.7m
Wind Resistance	27m/s
Protection Degree	IP65
Last for Rainy/Cloudy Days	2~3 Days

Advantages

■ Flexible Monocrystalline Silicon Solar Panel : The lifes-pan is longer than 15 years.

■ Light Source: LED is characterized by high luminous efficacy, high brightness, low depreciation, long life, etc. direct lighting type.

■ Controller: Dedicated controller, optically control, time control,anti-overdischarge and short-circuit resistance.

■ Materials: Aluminum alloy with LED decorating lights powder-coated with electrostatic spray for anti-salted, anti-acid, weather and rust resistant. Solar panel mounting rack made by high regidity polymer materials.

■ Intelligent Controller: Remote Centralized Control Monitoring (Option) and Smart Handheld Remote Controller that reads and sets up the work time, work style, brightness of main&decorating light to control the run of light on the spot. Moreover, it shows the voltage and current of solar panel and battery.

■ Work time: Optically controlled automatically turn on & off the lights. Maximum brightness work for 4 hours, and then turns to half of the brightness until dawn.

10W LED ALL IN ONE Solar Pathway Light With Flexible Solar Panel

2FSG156

LED Solar Pathway Light With Monocrystalline Silicon Solar Panel

Application

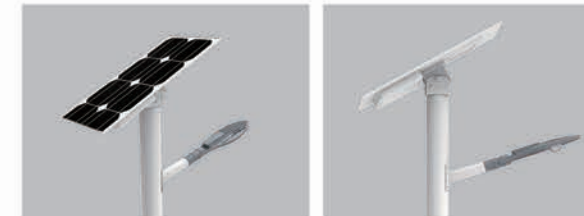It has been widely used in gardens, squares, residential areas and urban & rural roads, etc.

Advantages

- **Monocrystalline Silicon Solar Panel :** The lifespan is longer than 20 years.
- **Light Source:** LED is characterized by high luminous efficacy, high brightness, etc. direct lighting type.
- **Controller:** Dedicated controller, optically control, time control,anti-overdischarge and short-circuit resistance.
- **Materials:** Aluminum alloy with LED decorating lights powder-coated with electrostatic spray for anti-salted, anti-acid, weather and rust resistant. Solar panel mounting rack made by high regidity polymer materials.
  superb carbon steel pole coated with dip zine and electrostatic powder coating spray.
- **Intelligent Controller:** Remote Centralized Control Monitoring (Option) and Smart Handheld Remote Controller that reads and sets up the work time, work style, light brightness to control working condition of light on the spot. Moreover, it shows the voltage and current of solar panel and battery.
- **Work time:** Optically controlled automatically turn on & off the lights. Maximum brightness work for 4 hours, and then turns to half of the brightness until dawn.

Specifications

Solar Panel Power	34W ± 5%
Battery Capacity	14.4V/13Ah
Battery Type	Ni-Mh Battery
Power of the Light	10W
Color Temperature	4000K
Total Height	4.5m
Wind Resistance	27m/s
Protection Degree	IP65
Last for Rainy/Cloudy Days	2Days

2FWT004/005 (Lithim Battery)+Flexible solar panel

Solar Energy HD Wireless Monitoring System

Solar Energy HD Wireless Monitoring System

Application

• Wireless video monitoring(monitoring for public security cover traffic / city / community / oil and gas field pipelin / forest ,etc.)
• Wireless video /data transfer for railway、traffic、electricity industry with wireless coverage.
• Carrier wireless main network build.
• Wi-Fi coverage of wireless.
• Wireless network coverage for countryside information-based build .

**Wireless Monitor
(2FWT004)**

Specifications

Solar Panel:	85W±15%
Battery Capacity:	14.8V / 80Ah
Battery Type:	Lithium Battery
Wireless Gateway:	Rate:300Mbps（Max)
	Interface:2x10/100M Base-Tx
	Transfer Distance:0~3.5km
	HR:40°, Elevation Angle:15°
Camera:	Pixel: 200 Million
	Focal Length: 4~12mm
	IR Distance: 50m
Rainy/Cloudy Days:	5~7 Days

**Wireless Gate Bridge
(2FWT005)**

Specifications

| Solar Panel:	85W±15%
Battery Capacity:	14.8V / 80Ah
Battery Type:	Lithium Battery
Wireless Gateway:	Rate:300Mbps（Max)
	Interface:2x10/100M Base-Tx
	Transfer Distance:0~3.5km
	HR:40°, Elevation Angle:15°
Rainy/Cloudy Days:	5~7 Days

System Introduction

Solar energy wireless video monitoring system combine PV and WIFI technology, build the video monitoring system without burying mains and network cables, easy installation and can be built quickly.

1、Adopt long life span ,flexible solar panel with high covert efficiency and lithium battery to storage energy, energy saving and environment friendly, independent power supply without mains construction.

2、Adopt high technology product with WIFI connect and transfer function. Transfer distance range from 0-5km,, reach max transfer rate for 300Mbps, anti-interference. It supports the telecommunication for far distance site to multi-sites, can transfer Multi –channel HD video. It can be used as site to site& site to multi-sites remote access wireless network bridge.
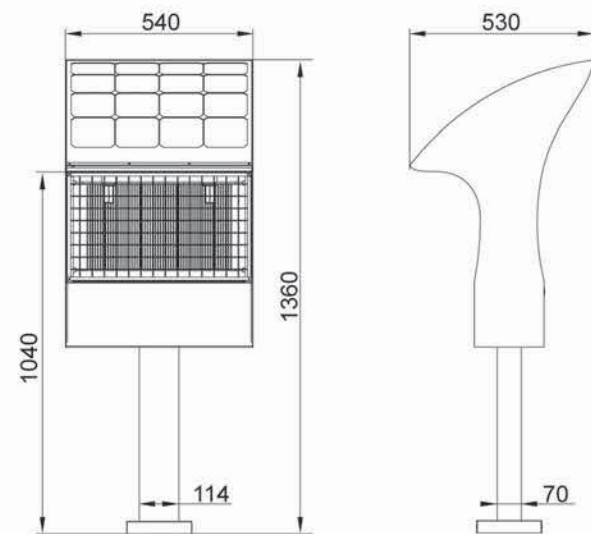
Connect and Use Method Schematic

2FSA001A
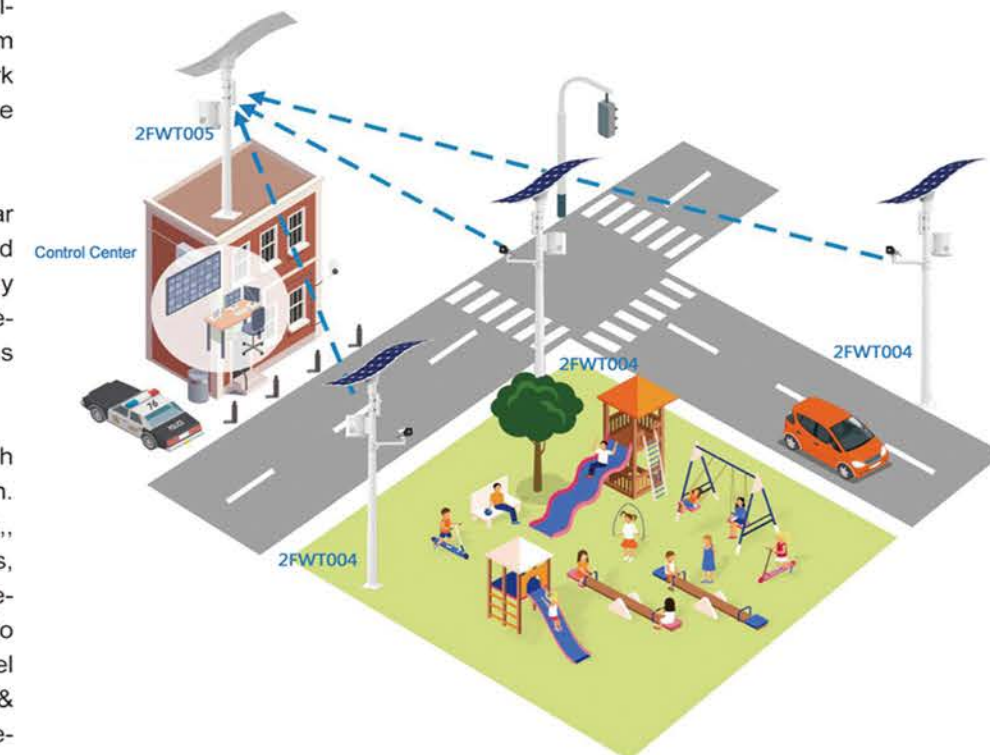
Insect-killer Solar Lamp with Semi-flexible Monocrystalline Silicon Solar Panel

Product Scope

It has been widely used in gardens, courtyards, farms, orchard, etc for anti-mosquito.

540   **530**

1360   **1040**

114   **70**

Descriptions & Advantages

- Solar power, energy-saving. No pre-buried cable, easy installation.
- High efficiency, make outdoor pest die out.
- Semi-flexible Monocrystalline Silicon Solar Panel : The lifespan is longer than 15 years.
- Battery: Special for Solar Battery
- Pole: Superb carbon steel pole coated with hot-dip zinc and static apray treatment, anti-salted, anti-acid, weather and rust resistant.
- Work time: Light Control Automatically. The LED light turns on at dark in full brightness 6 hours then turns off. It works 3~4 cloudy and rainny days.
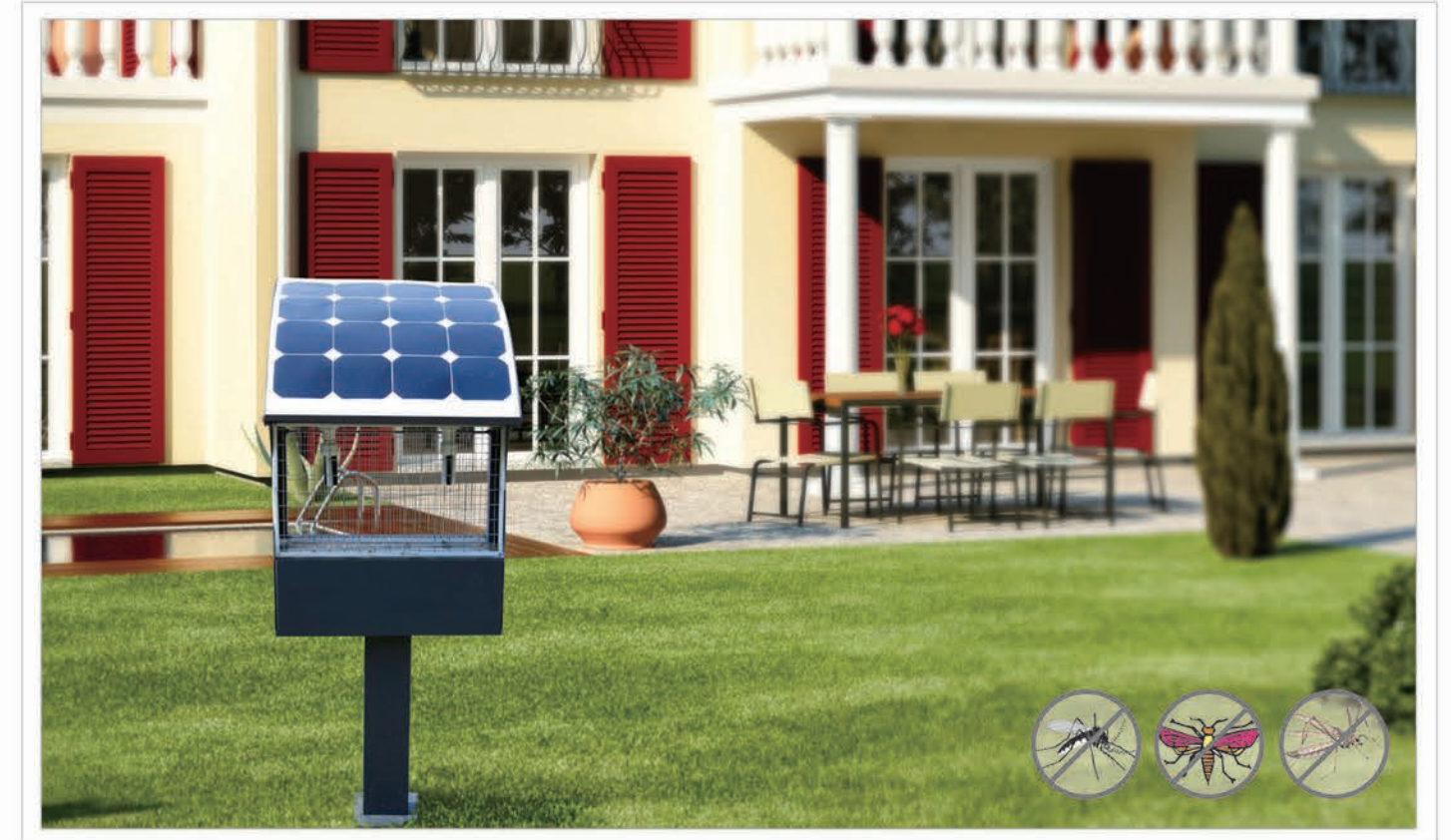
Specifications

Power of the Solar	48W±15%
Battery Capability	12V/40Ah
Working Temperature	-20℃~45℃
Total Height	1.36m
Wind Resistance	27m/s
Last for Rainy/Cloudy Days	3~4 Days

Insect-killer Lamp

Input Voltage	DC12V
Output Voltage	3000V ±10%
Load Power	≤20W
Output Current	< 10mA
Temperature Rise	< 50 ℃
Power of the lamp	9w * 2pcs
Voltage of the lamp	DC12V
The length of light wave	300mm~450mm
Effective range	20 Acres

LED Solar Garden Light with Flexible Solar Panels

PROJECTS

SOLAR LED LIGHTS

Solar LED
Street Light

Widely used in gardens, squares, residential, industrial, urban and rural roads, etc.
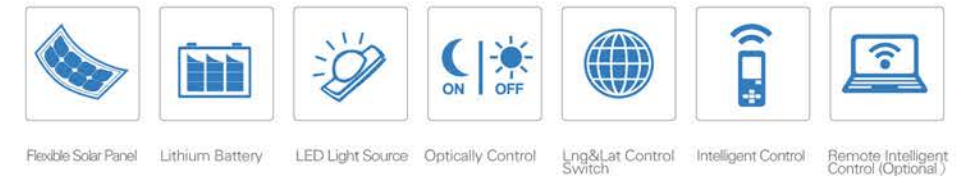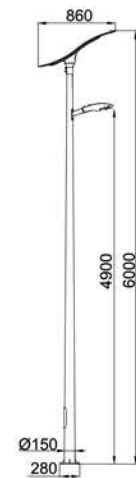
The design concept of flying shape on solar panel uses flowing curve line which makes the light more dynamic. It highlights the lightness, thickness and flexibility of solar panel. With self–developed controller, energy saving LED light and reliable battery, it makes the system greener and more stable.

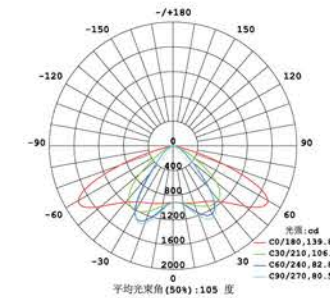# 20W Solar street light with flexible solar panels

2FSG142B

Superb Carbon Steel Pole Coated
COB Light Source
High Regidity Polymer Materials
Intergrated Drive Controller

860

4900
6000

Ø150
280

Advantages

Controller: Dedicated controller, remote control, optically control, time control, anti–overdischarge and short–circuit resistance.

Pole: Superb carbon steel pole coated with hot–dip zinc and electrostatic powder coating spray, anti–salted, anti–acid, and rust resistant.Solar panel mounting rack made by high regidity polymer materials.

Work Time: Optically controlled automatically turn on & off the lights. Maximum brightness work for 4 hours, and then turns to half of the brightness until dawn.

Flexible Solar Panel | Lithium Battery | LED Light Source | Optically Control | Lng&Lat Control Switch | Intelligent Control | Remote Intelligent Control (Optional)

Light Distribution Curve

C0/180,139.8°
C30/210,106.9°
C60/240,82.8°
C90/270,80.5°
光强:cd
平均光束角(50%):105 度

Item No.	2FSG142B
Solar Power	65W ± 15%
Battery Capacity	12V/65Ah
Battery Type	Lead–Acid Battery
Total Power of Light	20W
Color Temperature	4000K
Working Temperature	−20℃~55℃
Height	6m
Distance Between Light	12m~18m
Road Width	4m~6m
Wind Resistance	27m/s
Rainy / Cloudy Days	3~5 Days

Option Battery：12V/45Ah，Lithium Battery

Note: engineer will give the best configurations according to different place with diffrent solar radiaton
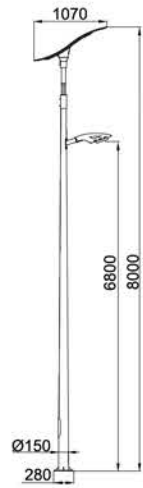
The Application

60W Solar street light with flexible solar panels

2FSG151A

Superb Carbon Steel Pole Coated

COB Light Source

High Regidity Polymer Materials

Intergrated Drive Controller

1070

6800

8000

Ø150

280

	Flexible Solar Panel	Lead–Acid Battery	LED Light Source	Optically Control	Lng&Lat Control Switch	Intelligent Control	Remote Intelligent Control (Optional)

Light Distribution Curve

光强:cd
C0/180,157.7°
C30/210,142.5°
C60/240,63.2°
C90/270,64.9°

平均光束角(50%):110度

Item No.	2FSG151A
Solar Power	170W ± 15%
Battery Capacity	12V/120Ah x2
Battery Type	Lead–Acid Battery
Total Power of Light	60W
Color Temperature	4000K
Working Temperature	–20℃~55℃
Height	8m
Distance Between Light	25m~30m
Road Width	8m~10m
Wind Resistance	27m/s
Rainy / Cloudy Days	5~7 Days

Note: engineer will give the best configurations according to different place with diffrent solar radiaton

The Application

Advantages

Controller: Dedicated controller, remote control, optically control, time control, anti–overdischarge and short–circuit resistance.

Pole: Superb carbon steel pole coated with hot–dip zinc and electrostatic powder coating spray, anti–salted, anti–acid, and rust resistant.Solar panel mounting rack made by high regidity polymer materials.

Work Time: Optically controlled automatically turn on & off the lights. Maximum brightness work for 4 hours, and then turns to half of the brightness until dawn.
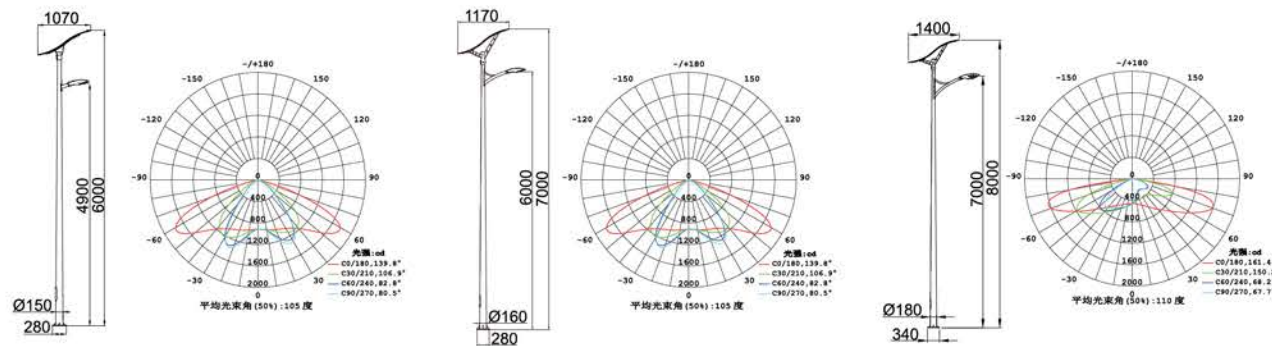
Solar street light with flexible solar panels

30W(2FSG145)

40W(2FSG146)

50W(2FSG147)

Item No.	2FSG145	2FSG146	2FSG147
Solar Power	85W ± 15%	120W ± 15%	150W ± 15%
Battery Capacity	12V/100Ah	12V/150Ah	12V/100Ah x2
Battery Type	Lead–Acid Battery	Lead–Acid Battery	Lead–Acid Battery
Total Power of Light	30W	40W	50W
Color Temperature	4000K	4000K	4000K
Working Temperature	−20℃~55℃	−20℃~55℃	−20℃~55℃
Height	6m	7m	8m
Distance Between Light	12m~18m	18m~25m	18m~25m
Road Width	4m~6m	6m~8m	6m~8m
Wind Resistance	27m/s	27m/s	27m/s
Rainy / Cloudy Days	5~7	5~7	5~7

Option Battery: 12V/70Ah, Lithium Battery

Note: engineer will give the best configurations according to different place with diffrent solar radiaton

# Solar street light with flexible solar panels

80W(2FSG148)

100W(2FSG149)

80W+20W(2FSG150)

Item No.	2FSG148	2FSG149	2FSG150
Solar Power	240W ± 15%	300W ± 15%	300W ± 15%
Battery Capacity	12V/150Ah x2	12V/200Ah x2	12V/200Ah x2
Battery Type	Lead–Acid Battery	Lead–Acid Battery	Lead–Acid Battery
Power of Main Light	80W	100W	80W
Power of Auxiliary Light	/	/	20W
Color Temperature	4000K	4000K	4000K
Working Temperature	−20℃~55℃	−20℃~55℃	−20℃~55℃
Height	9m	10m	10m
Distance Between Light	25m~30m	30m~35m	25m~30m
Road Width	8m~10m	10m~15m	8m~10m
Wind Resistance	27m/s	27m/s	27m/s
Rainy / Cloudy Days	5~7 Days	5~7 Days	5~7 Days
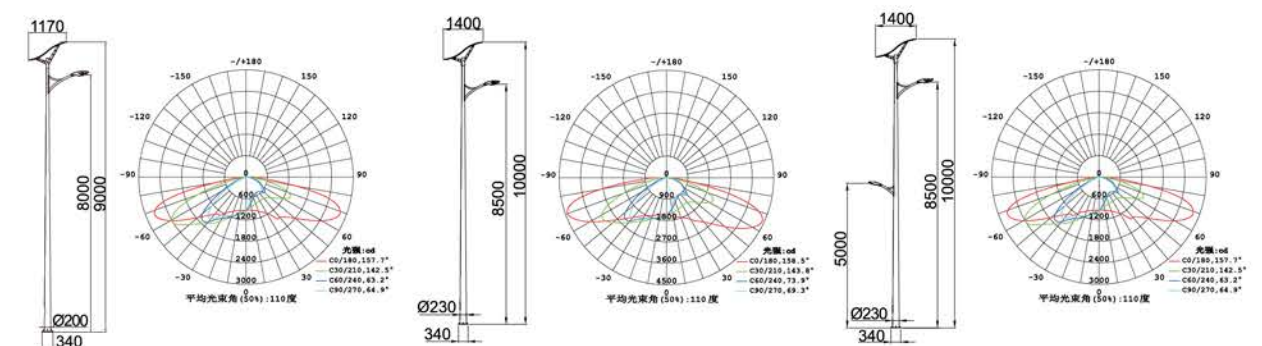
Note: engineer will give the best configurations according to different place with diffrent solar radiaton

Buried Installation
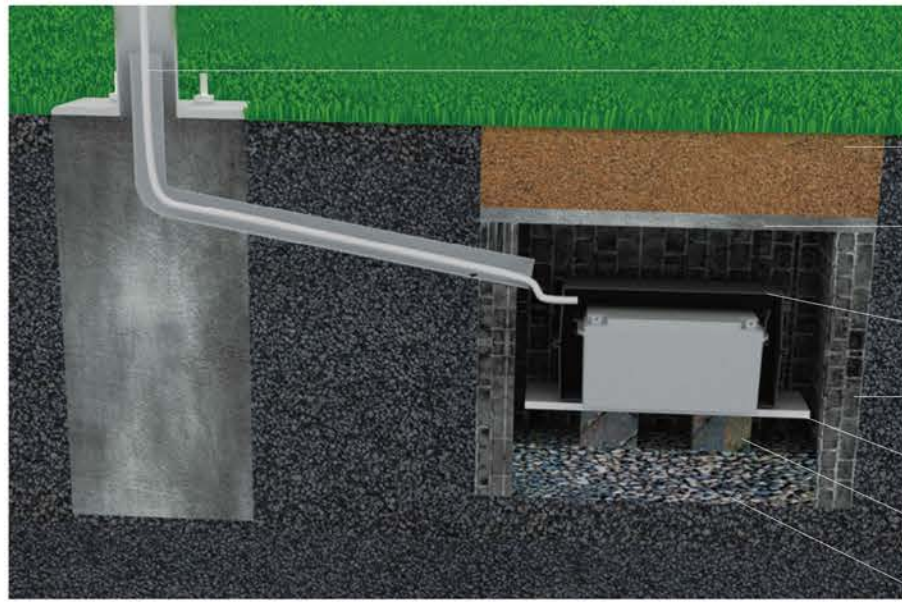
Wire Pipe

Backfill soil

Cement

Battery box

wall

Cement

Brick support

Sandstone

PROJECTS

PROJECTS

SOLAR CHARGING POST

Applications
Widely used in park, square and scenic spot, etc. Charging for mobile phones, cameras and digital products, etc.

With the development of electronic products, outdoor charging demand, our company launched solar charging tree, it can use high conversion efficency of solar panels, stable and good battery performance, with charging, lighting. Air monitoring/WIFI/SOS/Public broadcasting optional.

2FSA003 Solar Multi–Function Charging Post

Flexible Monocrystalline Silicon Solar Panel

LiFePO₄ Battery

LED Main Lamp RGB–LED Color Auxiliary Lights

Optically Control

Lng&Lat Control Switch

Intelligent Control

Remote Intelligent Control (Optional)

RGB–LED Colored Light

Colored Auxiliary lights are changing the color one by one.

Item No.	2FSA003
Solar Power	54W ± 15%
Battery Capacity	12V / 50Ah
Power of the Main Lamp	2W*2
Power of the Auxiliary Lamp	0.5W
CCT of the Main Light	5000K
Height	2.9m
DC Output	5V / 2A
Rainy / Cloudy Days	3 Days
Working Temperature	−20℃~55℃

Mobile Phones

Pad

Power Bank

Digital Camera

The Application

Advantages

Controller: Dedicated controller, optically Control, Time Control, Anti–overdischarge and Short–circuit Resistance.

The Materials: The body is made of aluminium alloy, anti–salted, anti–acid.The solar panel support and table are made of FRP.

Work Time: Light control automatically. Optically controlled automatically. Maximum brightness work for 4 hours, 4 hours after work to half brightness before dawn. The decorating light changing color in 4 hours firstly and then turn off automatically. USB charging is available for 24 hours a day (a whole day).

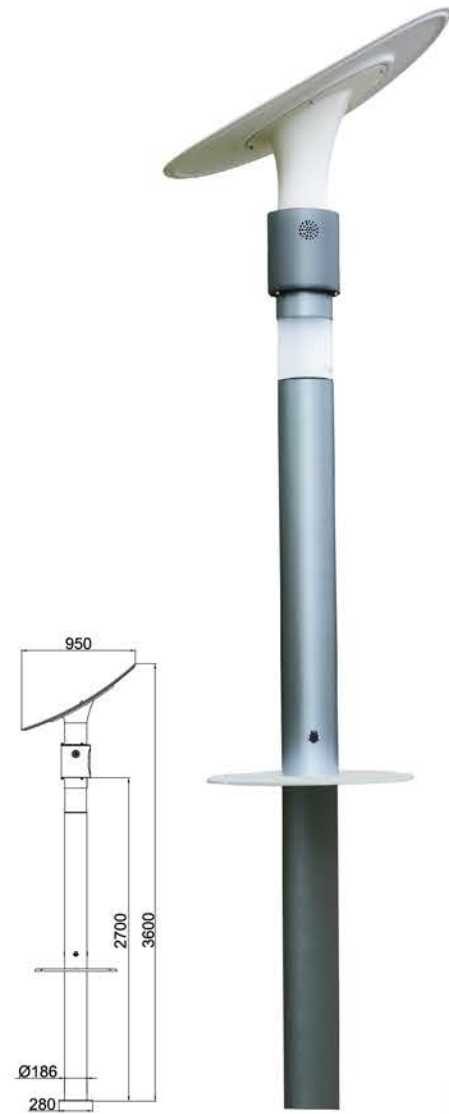**Function:** Four USB outputs , WIFI / Air Quality testing / SOS / Public Broadcasting Optional.

Solar charging post with smart solar tracking panel

2FSA006

Solar Tracking
USB Output
Aluminum Alloy Pole
PMMA Lampshade
High Regidity Polymer Materials
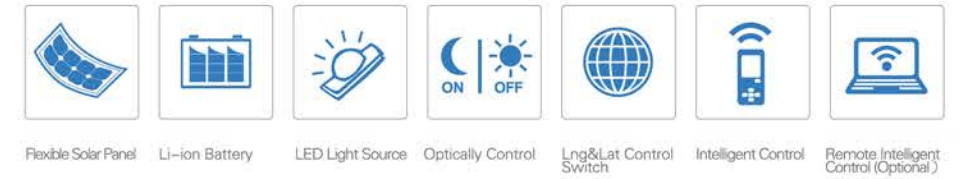Light Source Module
Intergrated Drive Controller

950

2700
3600

Ø186
280

Flexible Solar Panel   Li–ion Battery   LED Light Source   Optically Control   Lng&Lat Control Switch   Intelligent Control   Remote Intelligent Control (Optional.)

Solar Tracking

Item No.	2FSA006
Solar Power	54W ± 15%
Battery Capacity	14.8V/41.6Ah
Battery Type	Li–ion Battery
Power of the Main Lamp	10W
Power of the Auxiliary Lamp	4500K
CCT of the Main Light	−20℃~55℃
Height	3.6m
DC Output	5V / 1A ,3pcs
Rainy / Cloudy Days	3 Days
Working Temperature	−20℃~55℃

Mobile Phones   Pad   Power Bank   Digital Camera

The Application

Advantages

Controller: Dedicated controller, remote control, optically Control, Time Control, Anti–overdischarge and Short–circuit Resistance.

The Materials: Aluminum alloy pole powder–coated with electrostatic spray for anti–salted, anti–acid, rust resistant. Adopt PMMA lampshade material, nanometer anti–glare process. Solar panel mounting rack made by high regidity polymer materials.
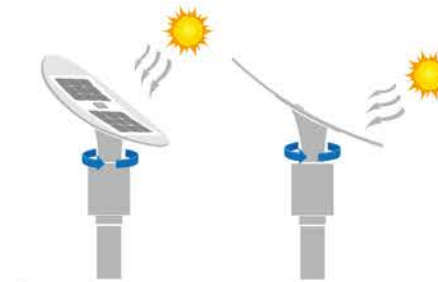
Work Time: Optically controlled automatically open to turn off the lights. Maximum brightness work for four hours, and then turns to half of the brightness until dawn. USB charging is available for 24 hours a day (a whole day).

Function: Three USB outputs , WIFI / Air Quality testing / SOS / Public Broadcasting Optional.

Smart Tracking: Automatic tracking function with high accuracy and reliability. Solar efficiency is increased by 20%~40%.

2FPS035A Sunflower Solar Charging Pole
(Flexible solars panel with tracking system)

1.Application

This product is a sunflower bionic design of solar power supply system. It gathers solar power generation, energy storage, inverter, tracking control in one which can be used to supply long-term power for small and medium-sized electrical equipments in scenic sites, park, villages, barracks, outposts, communications base stations and other places.

2.Product features

In addition to the traditional distributed solar power station of safe, reliable, long life, no energy consumption, no pollution, etc., they also has the following characteristics:

1. novel and beautiful modeling. Using sunflower bionic design, combined with color matching, and the use of new manufacturing process, so that product is completely different from the traditional photovoltaic power plant of blunt, monotonous image, make it easy for the photovoltaic power station to join the public life .

2. High power generation efficiency. Using a flexible monocrystalline silicon solar panel, the conversion rate is up to 19%, with smart tracking function, the power generation efficiency is 40% higher than the traditional glass encapsulation solar photovoltaic System .

3. Small occupancy. As a result of the tree structure, the entire product covers an area of less than 1 square meters, circular solar leaves provide shadow for the public to rest.

4. easy installation. As the main rod integrate cabinet, battery cabinet, solar bracket , the number of product components are greatly reduced, the entire product only need an installation base, greatly reducing the installation workload.

5. On-grid expansion.If needed, it can be designed to be on-grid power generation and directly join to the grid, to achieve a larger power supply applications, you can also include the remote monitoring function,to achieve intelligent operational management network.

3.Specifications

Solar Panel	
Solar Panel Type:	Monocrystalline Silicon Solar Panel
Total Solar Power:	2KW
monolithic Solar Panel:	216W / 40V / 5.4A
Panel Combination:	3 groups in series and 3 groups in parallel

Solar Tracking	
Tracking/Control Type:	Vertical single axis, Learning Type Time Control
Azimuth range:	± 90° (Automotive)
Pitch Angle Range:	0° ~45° (four levels upon installation)
Tracking Power Consumption:	≤10 Wh/day

Power Output	
Inverter Output:	3000 VA，AC 230V / 50Hz
DC Output:	DC5V / 1A（4A max）

Battery	
Battery Capacity:	48V/ 200Ah
Battery Type:	Gel Battery
Battery Specification:	12V/200Ah，4pcs

Dimension/Weight	
Total Weight:	1130Kg
Total Height:	4.8m（45° inclination）
Disc Diameter:	4.6m

Environmental Adaptability	
Working Temperature:	−40℃~55℃
Protection Degree:	IP24
Anti-salt spray :	Can withstand salt erosion in coastal areas

Remark: Above solar charging time are subject to standard test conditions(25℃，AM1.5，1000W/㎡ irradiance）
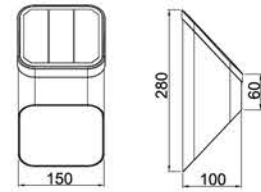
Solar LED Bollard Light

太阳能三极灯/立杆灯

Widely used in Parks, Squares, Gardens, etc.

Select the high quality crystal silicon solar panel, intelligent controller, reliable of battery, long lifespan, and high efficiency LED light source. Concise appearance, easy installation.

LED Solar Bollard Light

2FSL031

280
160
150
100

880
645

2FSL033

Flexible Solar Panel   Ni-Mh Battery   LED Light Source   Optically Control   Magnetic Dimmer Switch
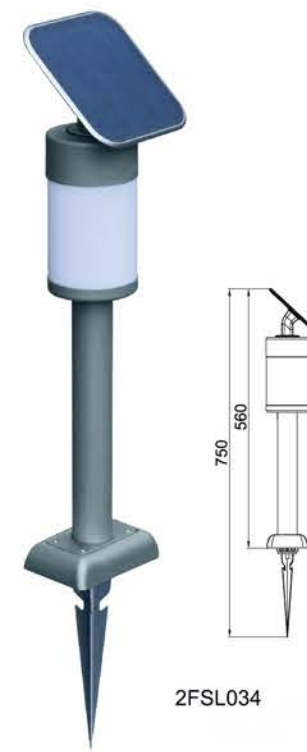
Advantages

Controller: Solar LED wall lamp dedicated control, optically control, time control, anti-overdischarge and short-circuit resistance.
Pole: Aluminum alloy coated with electrostatic spraying, anti-salted, anti-acid and rust resistant.
Lamp Shade: PMMA material, nanometer anti-glare process.
Work Time: Maximum brightness work for 4 hours, 4 hours after work to a half of the brightness and then turns off automorically. The brightness of light can be adjusted by magnet.
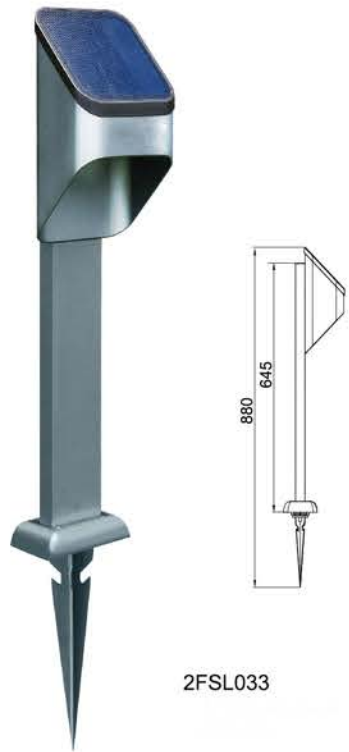
Item No.	2FSL031	2FSL033
Solar Power	3W	3W
Battery Capacity	1.2V/4Ah	1.2V/4Ah
Battery Type	Ni-Mh Battery	Ni-Mh Battery
Power of Lamp	0.2W	0.2W
Height	280mm	880mm
Rainy / Cloudy Days	2~4 Days	2~4Days
Working Temperature	-20℃~55℃	-20℃~55℃

The Application

LED Solar Bollard Light

2FSL032
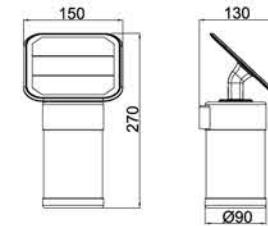
150
130
270
Ø90

750
560

2FSL034

Flexible Solar Panel   Ni-Mh Battery   LED Light Source   Optically Control   Magnetic Dimmer Switch

Advantages

Controller: Solar LED wall lamp dedicated control, optically control, time control, anti-overdischarge and short-circuit resistance.
Pole: Aluminum alloy coated with electrostatic spraying, anti-salted, anti-acid and rust resistant.
Lamp Shade: PMMA material, nanometer anti-glare process.
Work Time: Maximum brightness work for 4 hours, 4 hours after work to a half of the brightness and then turns off automorically. The brightness of light can be adjusted by magnet.

Item No.	2FSL032	2FSL034
Solar Power	3W	3W
Battery Capacity	1.2V/4Ah	1.2V/4Ah
Battery Type	Ni-Mh Battery	Ni-Mh Battery
Power of Lamp	0.2W	0.2W
Height	270mm	750mm
Rainy / Cloudy Days	2~4 Days	2~4 Days
Working Temperature	-20℃~55℃	-20℃~55℃

The Application

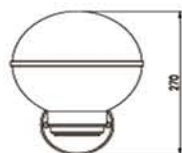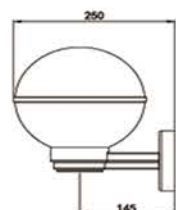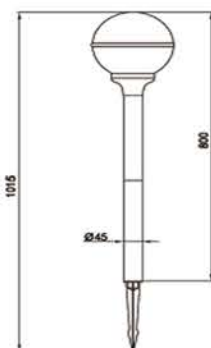# Starshine

LED Solar Bollard Light

2FSL037

2FSL039

Monocrystalline Silicon Solar Panel	Ni—Mh Battery	LED Light Source	Optically Control	Magnetic Dimmer Switch

Advantages

Controller: Solar LED wall lamp dedicated control, optically control, time control, anti—overdischarge and short—circuit resistance.
Pole: Aluminum alloy coated with electrostatic spraying, anti—salted, anti—acid and rust resistant.
Lamp Shade: PMMA material, nanometer anti—glare process.
Work Time: Maximum brightness work for 4 hours, 4 hours after work to a half of the brightness and then turns off automorically. The brightness of light can be adjusted by magnet.

| Item No.	2FSL037	2FSL039
Solar Power	3W	3W
Battery Capacity	1.2V/4Ah	1.2V/4Ah
Battery Type	Ni—Mh Battery	Ni—Mh Battery
Power of Lamp	0.5W(max)	0.5W(max)
Height	270mm	1015mm
Rainy / Cloudy Days	2~4 days	2~4 days
Working Temperature	−20℃~55℃	−20℃~55℃

The Application

2FSL035

Solar LED Wall Lamp With Sensor

Product Scopes

It has been widely used in villa, Home Communities, Gardens, and etc.

60°
max 5m
8 Hrs

280
150
100
60
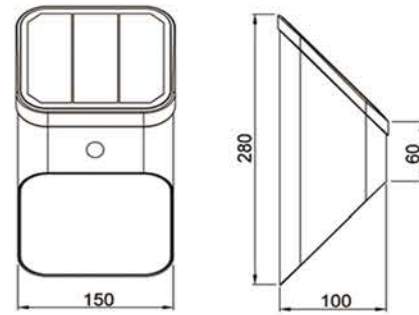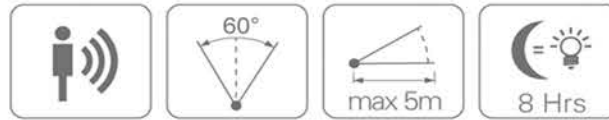
Specifications

Power of the Solar	3W
Battery Capability	1.2V/4Ah
Battery Type	Ni-Mh Battery
Mormal Power of Light	0.2W
Maximum Power of Light	1W
Total Height	280mm
Working Temperature	-20℃~55℃
Last for Rainy/Cloudy Days	2~4 Days

Descriptions & Advantages

■ Flexible Monocrystalline Silicon Solar Panel : The lifespan is longer than 15 years.

■ Light Source: LED (Pure colar and Warn color for option)

■ Controller: Optically Control, Time Control, Anti-overdischarge and Short-circuit Resistance.

■ Pole: Aluminum Alloy coated with electrostatic spraying, anti-salted, anti-acid, and rust resistant.

■ Work Time: Magnetic Control. Optically control. 20% Brightness to start working,when sensoring someone padding by, it will turn to maximum brightness.
it works 8 hours then turnn off.

Infrared Sensor

20% illumination
100% illumination

60° max 5m
60° max 5m
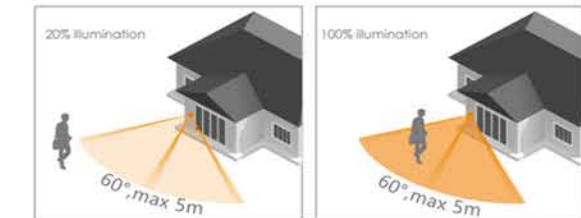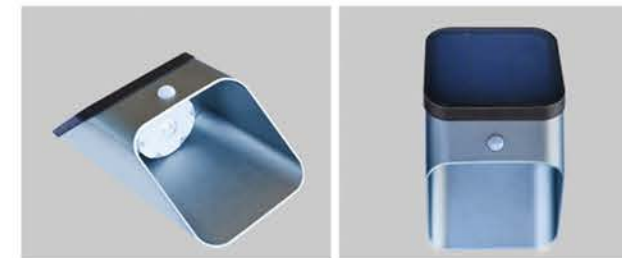
Lighting status with nobody passing through

Lighting status when people are passing

LED Solar Bollard Ligh

2FSL018

800

186

Ø250

Monocrystalline Silicon Solar Panel | Ni-Mh Battery | LED Light Source | Optically Control | Magnetic Dimmer Switch

Advantages

Controller: Solar LED wall lamp dedicated control, optically control, time control, anti-overdischarge and short-circuit resistance.
Pole: Aluminum alloy coated with electrostatic spraying, anti-salted, anti-acid and rust resistant.
Lamp Shade: PMMA material, nanometer anti-glare process.
Work Time: Maximum brightness work for 3 hours, 3 hours after work to a half of the brightness and then turns off automorically. The brightness of light can be adjusted by magnet.

Solar panels | Cold White | Warm White

Item No.	2FSL018
Solar Power	2.5W
Battery Capacity	4.8V/4Ah
Battery Type	Ni-Mh Battery
Power of Lamp	1.2W
Height	800mm
Rainy / Cloudy Days	3~5 Days
Working Temperature	-20℃~55℃

The Application

LED Solar Bollard Ligh

2FSL020

800

168

220

Flexible Solar Panel | Ni-Mh Battery | LED Light Source | Optically Control | Magnetic Dimmer Switch

Advantages

Controller: Solar LED wall lamp dedicated control, optically control, time control, anti-overdischarge and short-circuit resistance.
Pole: Aluminum alloy coated with electrostatic spraying, anti-salted, anti-acid and rust resistant.
Lamp Shade: PMMA material, nanometer anti-glare process.
Work Time: Maximum brightness work for 3 hours, 3 hours after work to a half of the brightness and then turns off automorically. The brightness of light can be adjusted by magnet.

Solar panels | Cold White | Warm White

Item No.	2FSL020
Solar Power	2.5W
Battery Capacity	4.8V/4Ah
Battery Type	Ni-Mh Battery
Power of Lamp	1.2W
Height	800mm
Rainy / Cloudy Days	3~5 Days
Working Temperature	-20℃~55℃

The Application

PROJECTS

2FMC362

Mobile Solar Power Bank

Descriptions

Standard : Mobile Solar Power Bank / Cable
Options: 7# Rechargeable Ni-MH Battery

Solar Charging   USB Output   Emergency Lighting

Applications

It can be widely used in business, travel, camping and other outdoor activities , charging power for the mobile, power bank etc. At 5V input of the digital products.

Advantages

• Thin solar panel, light weight and high efficiency.
• Multi applications.
• USB Output, Micro USB input, Power indicator light.
• Battery is optional and replaceable.
• Mobile power bank whole brightness can be adjusted based on needs.
• Emergency lamp maximum working time when full charged for 4.5 hours.

Specifications

Solar Panel	Flexible Monocrystalline Silicon Solar Panel
The Power of Solar Panel	2W
Battery Capacity	1.2V / 1250mAh*4pcs (Options)
Battery Type	7# Rechargeable Ni-Mh Battery (Options)
The Power of Lamp	0.1W / 0.6W / 1.0W (3 Levels Available)
The Signal Model of Lamp	Rapid Flashing Model / SOS Model
USB Output	DC 5V / 1A
Charging Input	DC 5V / 1A
Dimension	115*115*14(mm)
Weight	120g (No Include Battery)
Solar Charging Time	About 3.5 hours
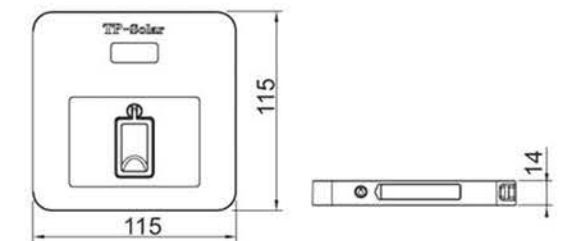
Remarks： Above charging time are subject to the standard test conditions（25℃, AM1.5, STC light degree 1000W/㎡.）