HANSEN ENERGY
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Solar LED Street Light - FB Series

40W/50W/60W/80W/100W/120W

IP66 IK09

FB Series integrated solar street lamp use imported high-efficiency monocrystalline silicon solar panel , smart MPPT controller, deep cycle lithium battery, high-efficiency led chip, all in one box Integrated design, easy to install and use and maintenance for seprated battery box

WARRANYT 5 YEARS

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Application

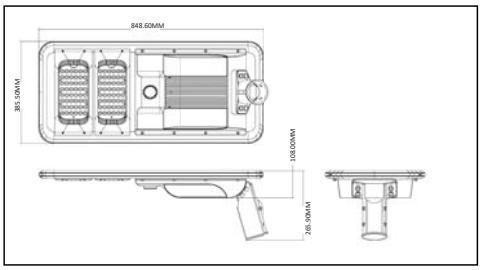
1. Street Lighting, Road Lighting, Roadway Lighting
2. Outdoor Area Lighting, High Mast Lighting
3. Park, schools, square, Parking lots

Features

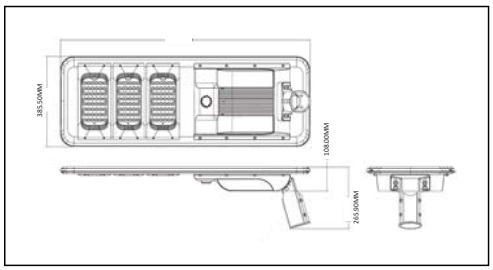
1. Designed by a professional industrial design team, integrating solar panels, led sources, controller, battery, human body induction, and housing.
2. Adjustable angle mounting bracket, suitable for a variety of modeling lamp pole installation methods.
3. Intelligent power adjustment, automatic weather judgment, reasonable planning of discharge rules
4. Intelligent charging and discharging management, soft and hard double protection of charging and discharging and intelligent equalization technology, battery cycles more than 2000 times.
5. Smart remote control, equipped with drone remote control, ultra-long remote control distance of 30 meters, can pass through obstacles, and can set four lighting modes at will.
6. High-efficiency Bridgelux brand LED chips can reach 220LM/W, which is more than twice the average brightness of ordinary LED light sources, with luminous angle of 140 degrees, and a wider irradiation area.
7. The whole lamp adopts modular minimalist design, easy disassembly, installation, and transportation.

Installation Height

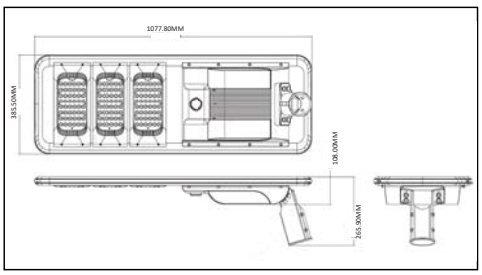
Dimmension(mm)



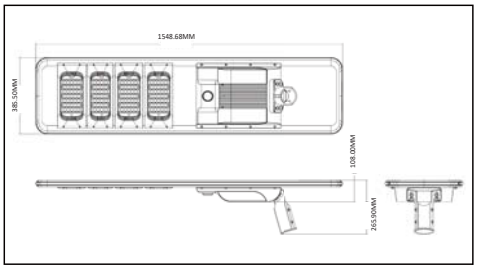
FB-40W



FB-50W

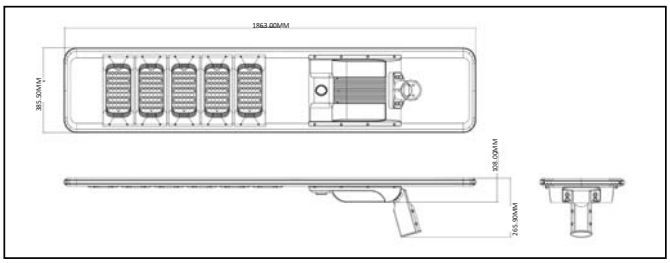


FB-60W

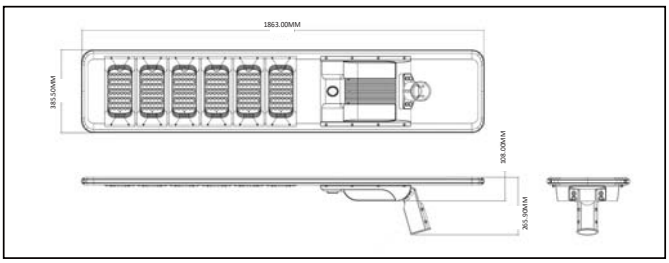


FB-80W

Dimmension(mm)



FB-100W



FB-120W

Technical Specification

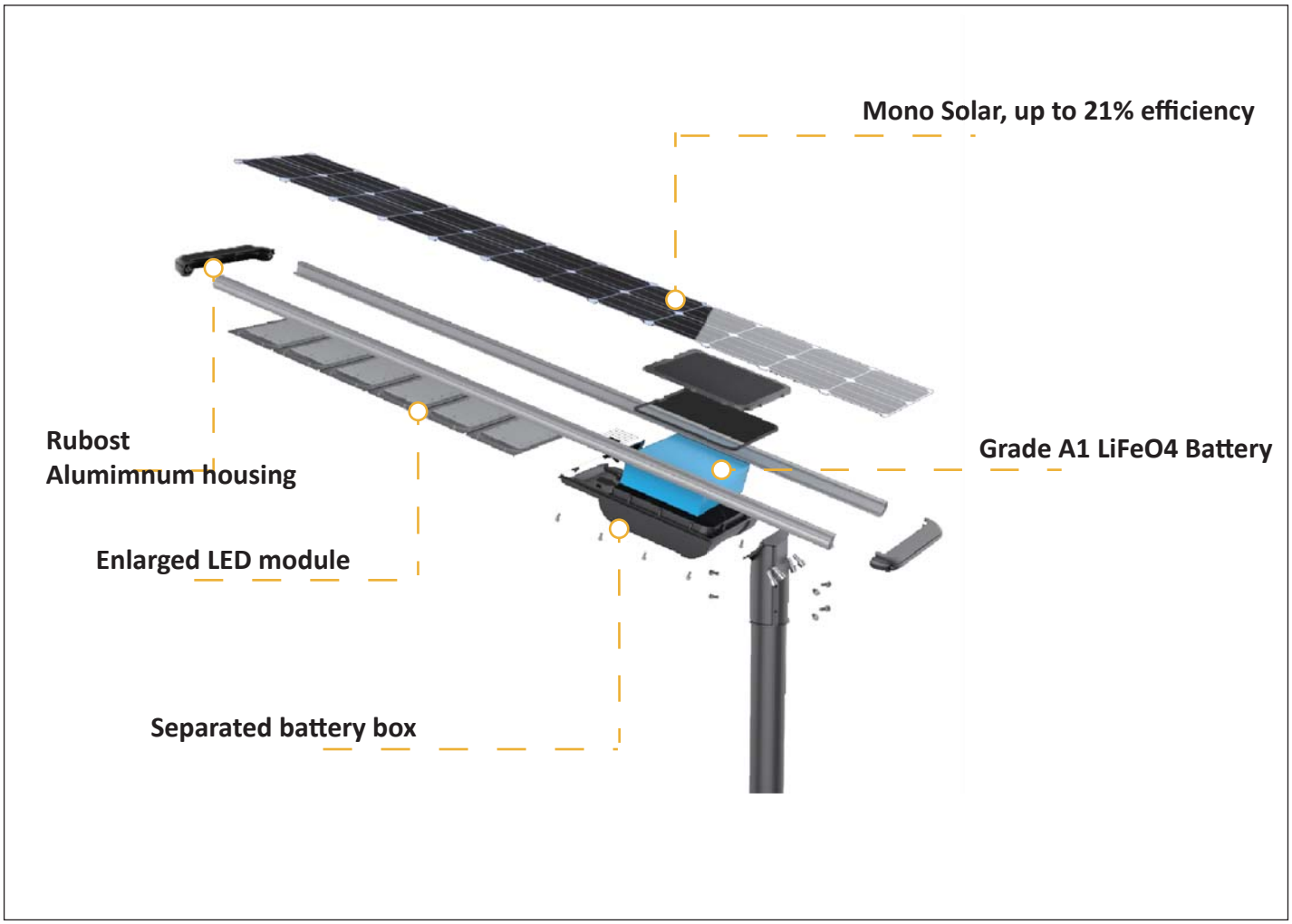
A: Technical Parameter

Model	HE-FB-40W	HE-FB-50W	HE-FB-60W	HE-FB-80W	HE-FB-100W	HE-FB-120W
LPW(lm/w)	180lm/w	180lm/w	180lm/w	180lm/w	180lm/w	180lm/w
Solar Panel	65W	70W	80W	100W	130W	140W
Mount Height	5-7m	6-7m	6-8m	7-9m	9-12m	9-12m
Mount Space	17-23m	20-23m	20-27m	23-30m	30-40m	30-40m
LiFeO4(WH)	345.6WH	460.8WH	537.6WH	729.6WH	806.4WH	921.6WH
Dimension(Lamp)	849*386*108mm	1078*386*108mm	1078*386*108mm	1549*386*108mm	1863*386*108mm	1863*386*108mm
LED Source(Bridgelux)	96	144	144	192	240	288
Cloudy/Rainy days	3-5Cloudy/Rainy days					
Solar Charging Time	6-10 hours by bright sunlight					
Motion sensor	Yes					
Beam Angle	140° x 70°					
IP Rating	IP66					
CCT	2700~6500K(Customized)					
Install Pole diameter	Φ70-Φ76mm					
Lighting Mode	Dusk to dawn + Time controll + motion sensor (Bright lighting 30secs when people move through the light) + Remote Controller					
Material	High Class Aluminum					

B: Environmental

Temperature Range Operating	-20℃ to 50℃
Humidity Range Operating	10% to 80%
Temperature Range Storage	-40℃to 65℃
Humidity Range Storage	10% to 80%

Components Features



0° - 90° angle
adjustable bracket

Separated battery box
easy for maintenance

Latest Bridgelux LED Chip
Up to 220lm/w

Solar Charger Controller functions

The Controller of FB series adopts extremely simplified design, integrated controller, microwave induction, and magnetic switch in one, which makes the operation simple, the maintenance simple, and the stability is higher, what'more, there is a **stand-by circuit** inside, even one circuit failed,the other can still keep solar lights working well.

1. Magnet Power Switch

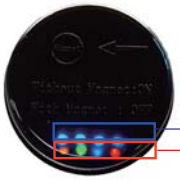
Before mounted on the pole,
take away magnet iron chip.

2. Battery Power Indicator

The 4 blue LEDs in the upper row represent battery power, and 1 indicator led represents 25% power.

1 indicator on: 25% power
2 indicators on:25%-50% power
3 indicators on:50%-75% power
4 indicators on:75%-100% power

3. Status Indicators LEDs



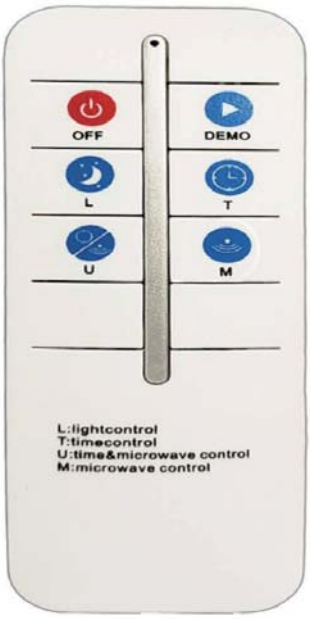
Sensor Indicators status		
Indicator light	Status	Indicator Light description
Yellow(Motion Sensor)	On	Movement Detected
	Off	No Movement Detected
Green(LED)	On	LED wiht output: Light on
	Off	LED without output: Light off
	Flicker	LED short circuit
Blue(Battery)	On	Battery power enought for working
	Off	battery without output
	Flicker	battery undervoltage
Blue(solar panel)	On	battery charged fully
	Off	solar panel without output(in night)
	Flicker	solar panel is charging battery
Red & Green & Blue	Cycle light on in sequence	battery cable plugged in backwards, poor battery connection contact, faulty battery, no battery conntected.

Remote Control & Motion Sensor

Hi-Tech Remote Control: Equipped with a 433 remote control, which uses a drone remote control solution. The remote control distance can reach 30 meters, which can directly penetrate obstacles. At the same time, it can control multiple lamps.

Four lighting modes are available: The mode can be selected according to the seasonal sun. The most suitable mode can be selected according to the seasonal sunshine.

Motion Sensor control: When people come, the brightness will be changed to 100% brightness, after 30seconds after people go away, 25% brightness for stand-by.



OFF — No matter day or night,light "OFF"

DEMO — No matter day or night,light "on" for 1 minute.

L — At night,12hrs full power.

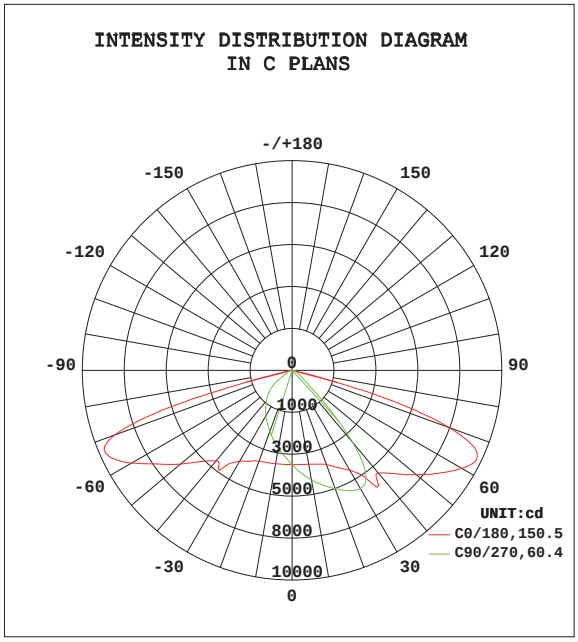
T — At night,4hrs full power+8hrs 30%

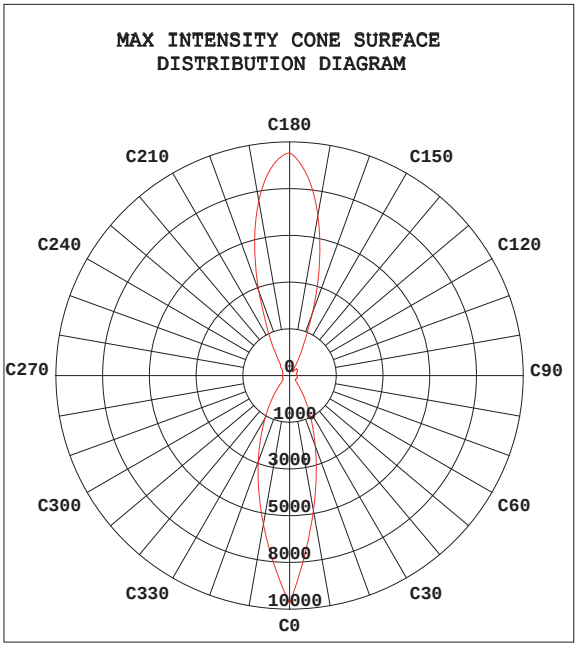
U — At night,4hrs full power+8hrs motion sensor control.

M — At night,12hrs motion sensor control.

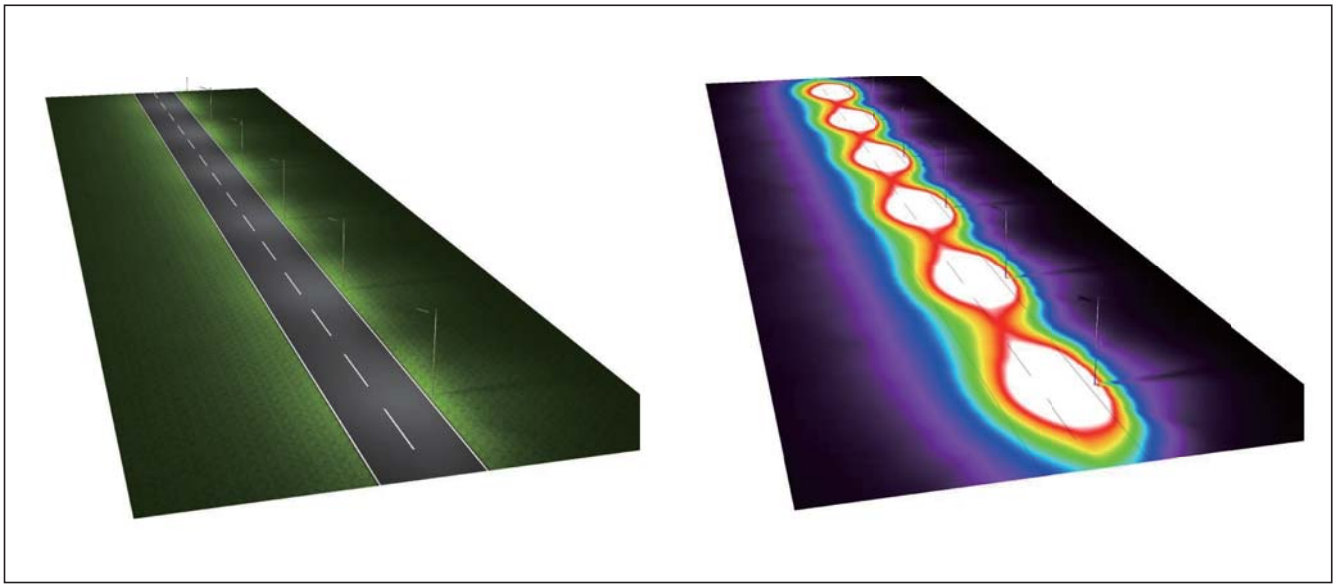
Light Distribution Curve & Lighting Simulation Support

Lighting Disctribution Curve



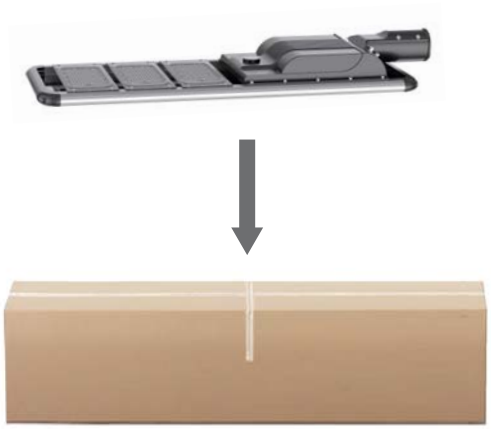


Dialux Lighting Simulation Suport

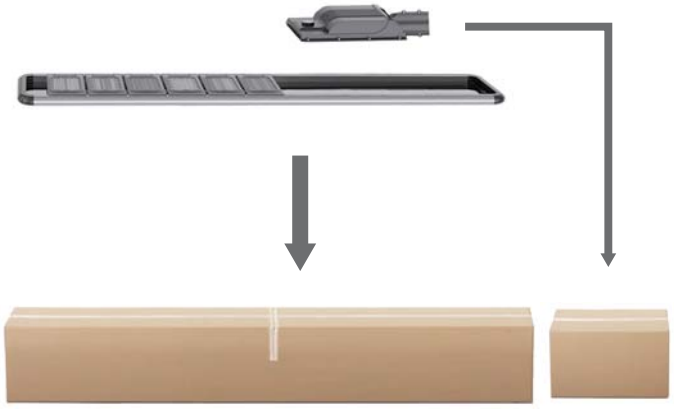


Packing

FB-40W/FB-50W/FB-60W Package
1 package: 1pc lamp per carton



FB-80W/FB-100W/FB-120W Package
2 packages: 1pc lamp per carton +
1pc battery pack per carton



Item	HE-FB-40W	HE-FB-50W	HE-FB-60W
Carton Size(Lamp)/ 1PC	920*160*450mm	1140*170*450mm	1140*170*450mm
G.W.(Lamp) / 1PC	11.5kg	14g	14.6kg

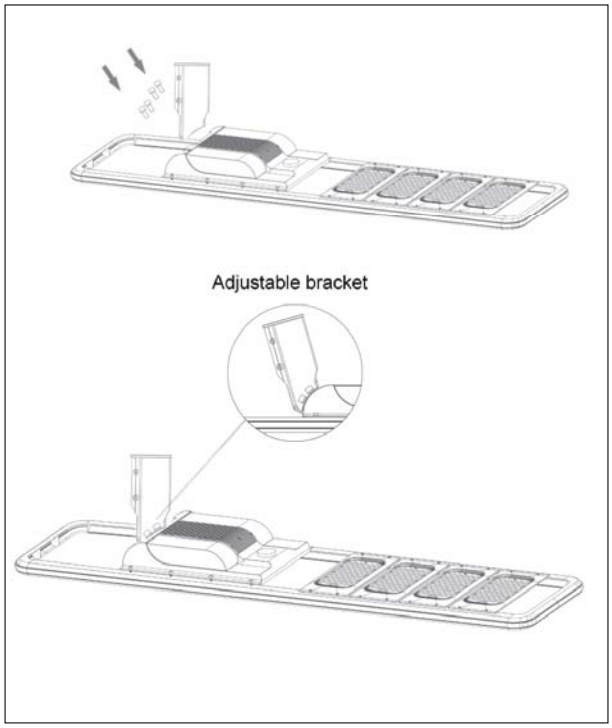
Item	HE-FB-80W	HE-FB-100W	HE-FB-120W
Carton Size(Lamp)/ 1PC	1630*10*450mm	1940*100*450mm	1940*100*450mm
G.W.(Lamp) / 1PC	8.5kg	12.4kg	13kg
Carton Size(bracket) / PC	630*380*150mm	630*380*150mm	630*380*150mm
G.W.(Solar Panel) / 1PC	8.8kg	9.7kg	10.5kg

Insatllation (More Steps in User Manual)

Post Top Installation

Side Entry Installation

1. Use the supplied screws to fix the bracket on the lamp.



2. Use the supplied screws to fix the lamp on the post.

Compliance and Standards

1. Insulation Resistance
   The IR shall be at least 50MΩ when apply 500Vdc between primary and secondary

2. Dielectric Strength（Hi –pot）
   Input To Output 3750Vac 60Hz 1minute ≤3MA
   When AC voltage of 3.75KV is applied, and the voltage applied to the insulation under test is gradually raised from zero to the prescribed voltage in 1s, and held at that value for 60s between the inputs. and output and between the input and housing, the current sensitivity shall be less than 5mA. After this test, the adapter shall exhibit no electrical and mec hanical abnormalities.

3. Leakage Current
   The leakage current shall be less than 0.25m A for class II when power supply is operated maximum input voltage and maximum load.

4. Safety Standard
   34A-1501NP IEC:60598-1:2008 IEC61347-1/A1:2010 IEC61347-2-13:2006 IEC62031:2008 IEC62471:2006 IEC62471-2:2009: Passed
   EN60598-1/A11:2009 EN61347-2-13:2006 EN61347-1/A1:2011 EN62031:2008 EN62471 EN61195:1999 EN62493:2010: Passed

5. EMI/EMS Standard
   EN55015:Passed
   EN61000-3-2:Passed
   EN61000-4-2:Passed