A Smart Renewable Energy Solution

20W All-in-One Integrated Solar LED Street Light

Specifications

HT-SWD-4020

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Brief Introduction:

All-in-one integrated solar led street light is a new kind of solar led street light for the road and/or area lighting.It is an green and clean renewable energy product. It integrates the high efficient solar panel, super high-output LED lamp, powerful LiFePO4 lithium battery and a smart power management controller system into a slim compact body. In addition, there is a light sensor on the lamp. At daytime, the solar panel can absorb the solar energy for battery charging, while at dusk, the LED lamp will be on automatically and the battery will supply the energy to the lamp for area illumination. What's more, the lamp can be customized with motion sensor or time control mode. Its brightness standard can be adjusted by movement or time schedule. The system continuously monitors the remaining battery charge and regulates light output automatically to extend operating time.It is extremely versatile,robust and prefect suit for those areas where there is sufficient sunlight.It is 100% powered by solar. It has solved the problem of complex installation and expensive transportation compared with traditional solar LED street light. No external cables, then it is very easy for the installation.It is extremely suit for those places where grid power is not available or wiring is not economical or convenient.

Key Features:

- Solar panel,LED lamp,battery,controller all-in-one integrated compact design;
- No external wires or cables needed; Friendly easy installation;
- Using high brightness Bridgelux/Cree chips(LM80) from USA, efficiency upto 200LM/W;LED lamp upto 140LM/W~180LM/W
- Professional optical lens design adopts light transmittance over 95%,light utilization over 60%;
- IP65 modular LED lamp with fast assembly connector;
- High quality monocrystalline PV adopt over 20% conversion efficiency(IPCE);
- MSDS passed high quality lithium Iron phosphate(LiFePO4) battery adopt lifetime over 2000cycles(5~8 years);
- 100% solar powered green renewable energy;
- Auto turn on at dusk and turn off at dawn;
- PIR motion sensor optional, help to save more power;
- Unique elegant swing-like anti-storm profile design adopts corrosion protection;
- Drawer function design battery holder

Benefits:

- Small volume helps to save freight cost and storage cost;
- No need trenching or wiring job ,reduce labor cost and materials cost;
- Renewable energy ,no electronic bills any more;
- Professional light distribution design eliminate the light waste;
- High quality durable components ensure 5 to 8 years no maintenance;
- User friendly. Plug & Play design. Fast installation. No need training;
- Green light reduce fossil fuel consumption, eliminating pollution;
- Battery backup for cloudy and rainy days;
- IP65 design suitable for any place where is sufficient sunshine;
- Drawer design easier the possible maintenance of battery and controller;

Applications:

Street,residential road, parking lot, pathway, ramp, farm & ranch lighting, wildlife area, dock& pier, military ,personal garden, plaza, highways……any exterior area wherever there is sufficient sunlight.

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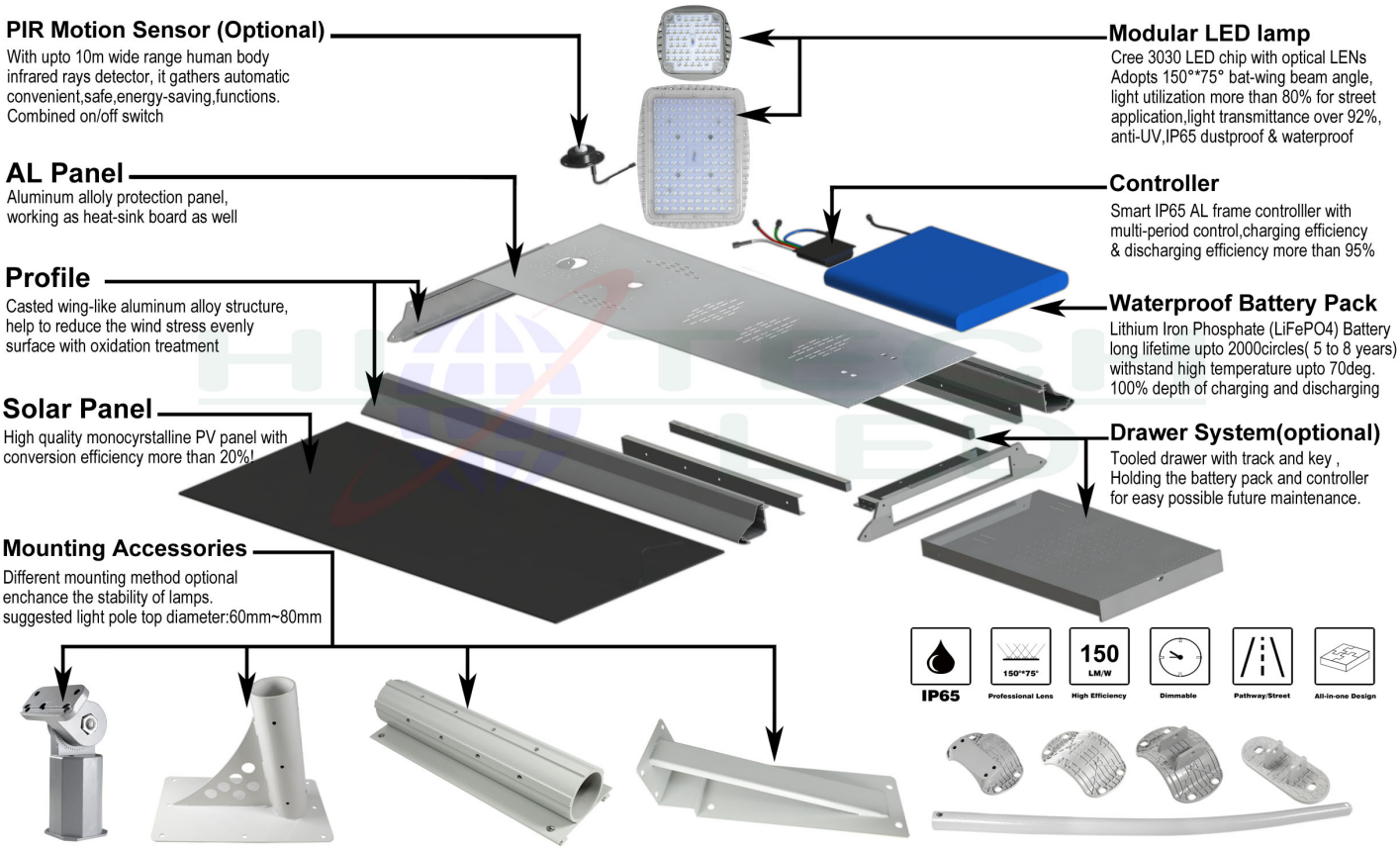
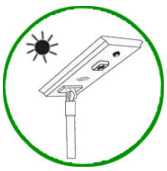
Product Structure Diagram:



Working Process Introduction:

1st Step: Press the “on/off” button to wake up the system. With the latest combined sensor, when face the solar panel to the sunshine, it would auto wake up the system.



2nd Step: The solar lamp will be off at daytime and start charging when the solar voltage more than 5v.

3rd Step: With the light sensor function, the LED lamp will auto turn on at dusk. It is 30% brightness when standby (if with motion sensor).

4th Step: When movement detected, it will switch to 100% brightness for 30s.

5th Step: If there is no continue movement detected within the sensor area after 30s, it will be standby mode again to save power. The delay time and brightness can be customized.

6th Step: It can be programed to be time control by time schedule as well. Then during different time phase, it is with different brightness.

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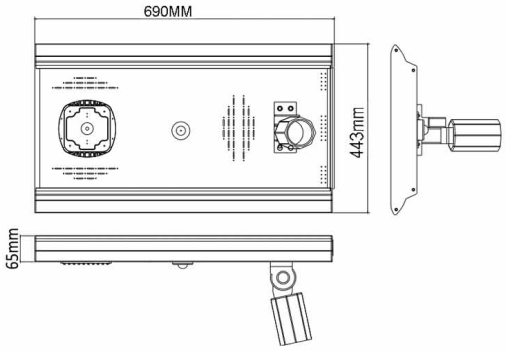
HT-SWD-4020 All-in-one Solar LED Light Specifications:

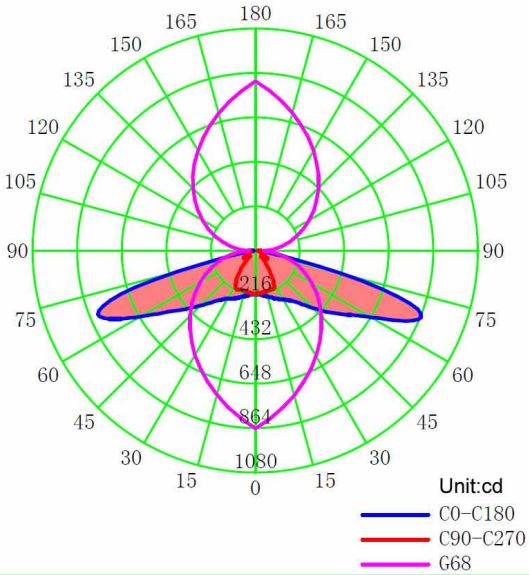
Parameter		Value
Solar panel (Monocrystalline)	Max power	40W
	Life time	25 years
Battery	Type	231WH $LiFePO_4$ battery (adjustable)
	Life time	>2,000 Circles (more than 5 years)
LED Lamp	Max power	40W(drive to be 20w)
	LED chip	Cree 3030 (40pcs)
	Lumen (LM)	2,000-3,000lm
	Life time	50,000hours
	Viewing Angle	150°/75°
Charging time	by sun(strong)	6~7hours
Discharging time	Full power	>10hours
	Dimming mode	2 to 3 days
Working temperature	Range(℃)	-20℃~+65℃
Color temperature	Range(k)	6000k~6500k(optional)
Mounting height	Range (m)	5-6m(suggested) PIR sensor/Time control<8m; Time control>8m;
Space between light	Range (m)	15-20m(suggested)
Housing material	Aluminum alloy	
Certificate	*CE / ROHS / IP65*	
Packing & Weight	Product size	690*443*65mm
	NW.for one unit	13kgs
	Carton size	880*540*160 mm
	Q'ty/ctn	1sets/ctn
	GW.for carton	15kgs
Container load	20GP	288pcs
	40GP	576pcs

Lamp Size Chart



Physical Pictures

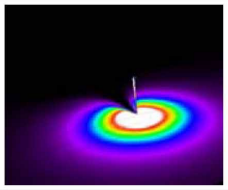
Intensity Distribution Diagram

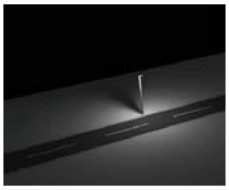


Comparasion:

* Contents are subject to change without prior notice.

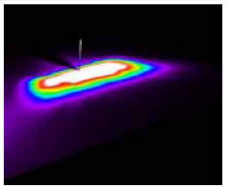
Tradtional Light Distribution

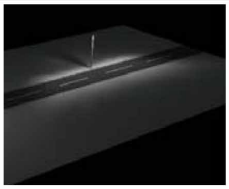




Light Utilization <28%

Hitechled All-in-one Solar LED Light Distribution





Light Utilization >60%

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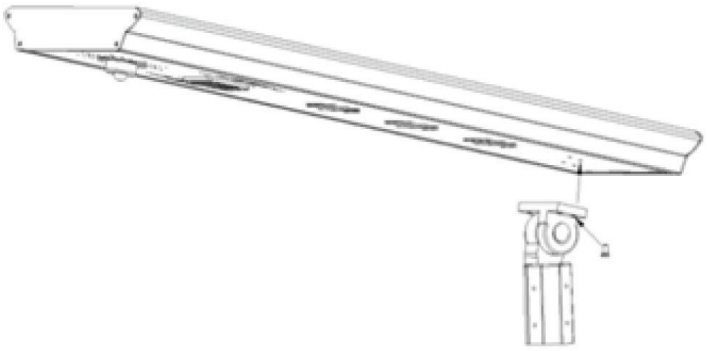
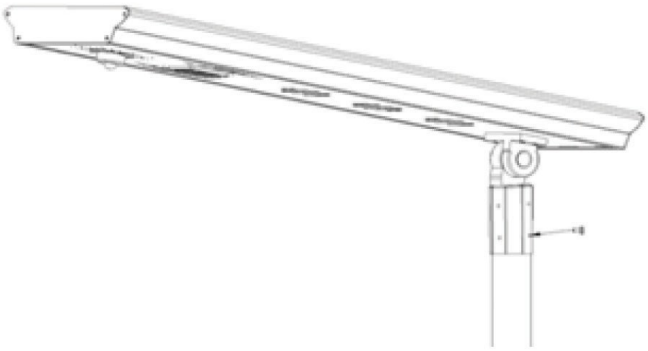
Installation Guide:





Use 4 screws to fix the fitting support on the lamp and fix the lamp on the pole with screws.

Operation Method:

When you press on the switch bottom for 5 seconds(on the sensor), the lamp will start to work. That is all. It is easy to operate without any other operation. Actually, it can auto wakeup when you face the solar panel to the sunlight.

Causions:

- Integrated solar led street light cannot work without sunshine charging, please select the suitable product model according to the local sunshine radiation and the annual total radiation.
- Integrated solar led street light adopts the long life Lithium battery for storing energy, charging temperature at day time is between: 0°C～+65°C, when temperature goes lower than 0°C, the control system will stop automatically to protect the battery, and it will revive to charge the battery while temperature goes higher than 0°C. Discharging temperature at night is between: -20°C～+65°C, any ambient beyond will bring damage to the battery. Please confirm your local extreme temperature is suitable for above while selecting the street light.
- Battery of the "integrated solar led street light" can be stored for 6 months long after full charged, and please examine, charge it periodically after long time transportation to prevent damage.
- While installed in Northern Hemisphere, please make sure the surface of the solar panel to be facing the South to collect maximum sunshine radiation, while installed in Southern Hemisphere, please make sure the surface of the solar panel to be facing the North to collect maximum sunshine radiation. At the same tie please keep it away from any shadow of house, trees etc.
- Keep cleaning the surface of the integrated solar led street light with normal detergent to get maximum power generation, clean the dust or tree leaves or any grease.
- Please avoid installing under the shadow of trees, building and other blocks.

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