

SZG578 auto-cleaning solar led street light



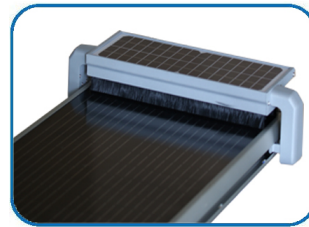
Applications:

- urban main roads, secondary roads
- county, township, town, village road
- economic development zone and high-tech park road
- industrial and mining plant road
- tourist attractions
- resort road
- park, parking roads
- villas and high-end residential roads

Description of performances:

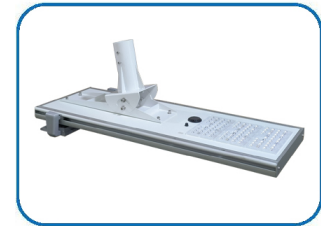
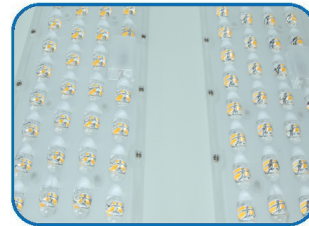
❖ Auto-cleaning function for solar panel

- A solar powered auto-cleaning device controlled by bidirectional synchronous motors.
- Powered by independent solar panels and built-in lithium ion battery with high reliability.
- Automatically clean the dust, snow, dirt, etc. on the solar panel three times per day to ensure that the surface of the solar panel is clean and maintain high sunlight absorption.



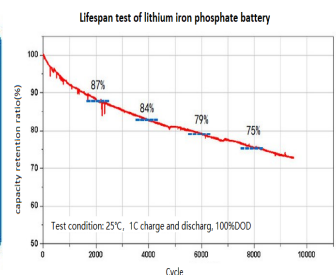
❖ Super brightness Philips led chip

- led chip luminous efficiency: **240 lm/W @40mA**
- light efficiency of luminaire: **200 lm/W**
- The thermal resistance is only 3°C and 75% lower
- The illuminance is 50% higher
- average service life: ≥100,000 hours



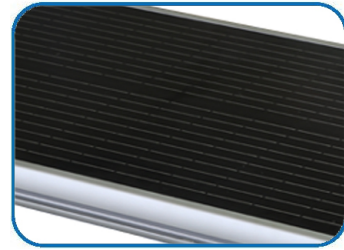
❖ Low temperature powerful lithium iron phosphate battery

- Adopt low temperature powerful lithium iron phosphate battery which can discharge at -25°C reliably.
- cycle life: ≥3000 cycles for more than 8 years' use
- cell capacity: 6000mAh
- Less than 3mΩ internal resistance can reduce internal energy loss and offer high current discharge.
- High temperature discharge efficiency is over 95%.
- Low temperature discharge efficiency is about 70%.
- free of cobalt and other heavy metals
- no fire, no explosion, absolutely safe and reliable
- warranty: 5 years



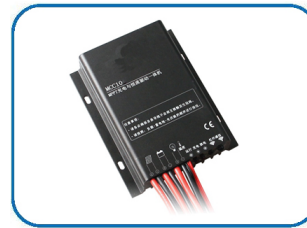
❖ High efficiency mono solar panel

- high efficiency mono solar wafers
- solar conversion efficiency: 23%~24%
- wafer specification: 182*182 mm
- lifespan: ≥25 years
- Average attenuation speed: 0.6%
- 25 years maximum output power attenuation: 15%

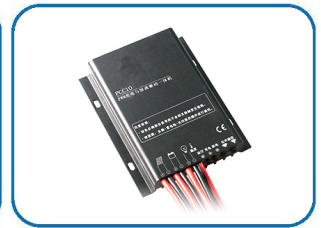


❖ Intelligent solar controller

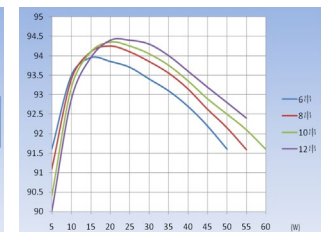
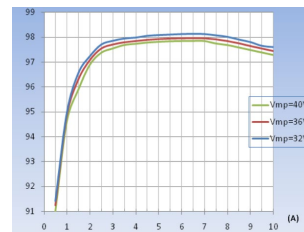
- adopting MPPT technology to track the maximum power of solar panel
- MPPT efficiency: ≥99.9%
- charge conversion efficiency: ≥98.5% (MPPT)
≥94.5% (PWM)
- constant current drive efficiency: ≥96% (MPPT)
≥95% (PWM)
- IPT(intelligent power technology) can adjust the optimal power according to the weather conditions of the next 7 days and the remaining energy of the battery to ensure 365 days' lighting every day
- control mode: light control, time control, induction control



MPPT controller



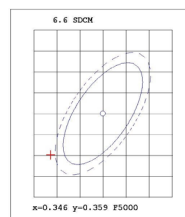
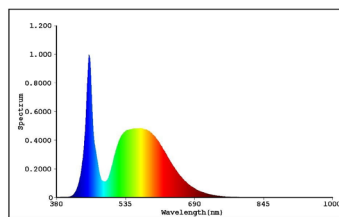
PWM controller



Test report of luminous efficiency for led chip:

EVERFINE 远方 Test report
EVERFINE LEDspec Test Report 4 Of 4

Spectrum Test Report



Color Parameters:

Chromaticity Coordinate(2Deg):x=0.3347 y=0.3492/u'=0.2053 v'=0.4819 duv=3.134e-003
Tc=5410K Dominant WL:Ld=558.0nm Purity=5.2%
Ratio:R=14.0% G=82.2% B=3.8% Peak WL:Lp=453.1nm HWL:17.2nm
Render Index:Ra=75.9
R1 =73.76 R2 =81.05 R3 =84.21 R4 =75.46 R5 =73.73
R6 =72.76 R7 =84.81 R8 =61.67 R9 =-15.45 R10=52.76
R11=71.59 R12=42.32 R13=75.35 R14=90.99 R15=69.42
TM30 Parameters: Rf = 74.3, Rg:93.3

Photo Parameters:

Flux = 50.96 lm Eff. : 241.29 lm/W Fe = 153.5 mW

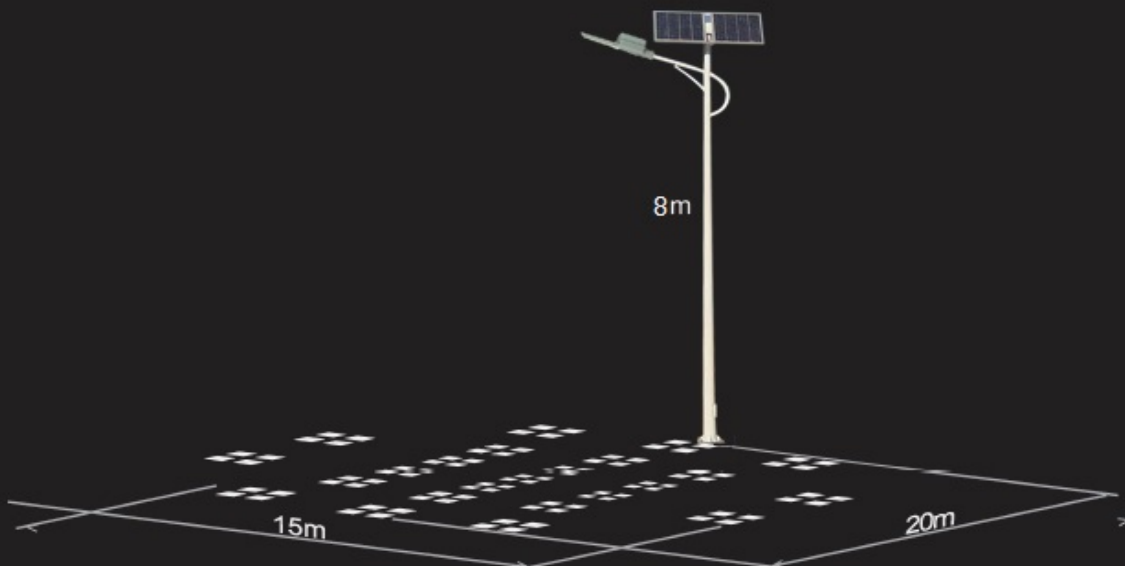
Electrical parameters:

Vf = 5.294 V If = 39.90 mA P = 211.2 mW Ch1
LEVEL:**[OUT] WHITE:ANSI_5700K

Status: T=201.00ms Ip=26653 (41%) [HAAS1200_V1_USB] V2.00.288

Microwave sensor

Microwave sensors *detect* the human body motion by emitting high-frequency radio waves. When human motion is detected, the microwave sensor is triggered and the lamp becomes 100% brightness. When the human body has left the lamp, the microwave sensor closes the trigger and the lamp becomes weak light, which can extend the lighting time.



Technical parameters:

Model & power	SZG578-50W	SZG578-65W	SZG578-80W	SZG578-100W
Brand of led chip	Philips	Philips	Philips	Philips
Luminous efficiency for led chip	240 lm/W	240 lm/W	240 lm/W	240 lm/W
Total luminous flux of led chip	12000±5% lm	15500±5% lm	19000±5% lm	24000±5% lm
Light efficacy for luminaire	200 lm/W	200 lm/W	200 lm/W	200 lm/W
Beam angle	150°*80°	150°*80°	150°*80°	150°*80°
Correlated color temperature (K)	3000-6500K	3000-6500K	3000-6500K	3000-6500K
Color rendering index (Ra)	≥75Ra	≥75Ra	≥75Ra	≥75Ra
LED lifespan (h)	100000 hrs	100000 hrs	100000 hrs	100000 hrs
Type of battery	LFP battery	LFP battery	LFP battery	LFP battery
Capacity of battery	380Wh	510Wh	670Wh	800Wh
Lifespan of battery	≥3000 cycle	≥3000 cycle	≥3000 cycle	≥3000 cycle
Charging time (h)	6-7 hrs	6-7 hrs	6-7 hrs	6-7 hrs
Microwave sensor	Yes	Yes	Yes	Yes
Lighting mode	30% (normal) /100% (activated)	30% (normal) /100% (activated)	30% (normal) /100% (activated)	30% (normal) /100% (activated)
Mono solar panel	55Wp	70Wp	90W	110W
Dark sky requirement	optional	optional	optional	optional
Material of shell	aluminum	aluminum	aluminum	aluminum
Lighting time per day	12 hrs	12 hrs	12 hrs	12 hrs
Continuous rainy day	2-3 days	2-3 days	2-3 days	2-3 days
Discharging temperature	-25~+55℃	-25~+55℃	-25~+55℃	-25~+55℃
IP protection	IP66	IP66	IP66	IP66
Dimension	963*450*273 mm	1153*450*273 mm	1388*450*273 mm	1688*450*273 mm
Weight	20 Kg	24 Kg	28 Kg	34 Kg
Diameter of mounting pipe	Φ76 mm	Φ76 mm	Φ76 mm	Φ76 mm
Recommended mounting height	6-7 m	7-8 m	8-9 m	9-10 m
Warranty	5 years	5 years	5 years	5 years

Note: Selecting the power of lamp refers to the recommended installation height in the table.