

# SZG559 all-in-one 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:

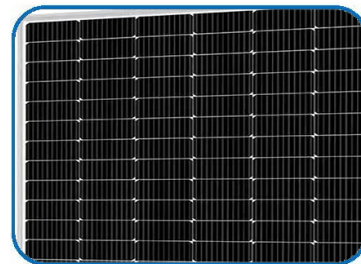
### ❖ Super brightness Philips led chip

- led chip luminous efficiency: **210 lm/W @120mA**
- light efficiency of luminaire: **175 lm/W**
- The thermal resistance is only 9°C and 25% lower
- The illuminance is 40% higher
- average service life: ≥100,000 hours



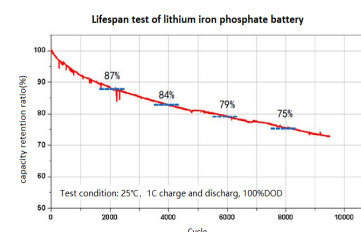
### ❖ High efficiency mono solar panel

- 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%



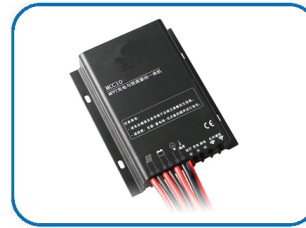
### ❖ Low temperature powerful lithium iron phosphate battery

- 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

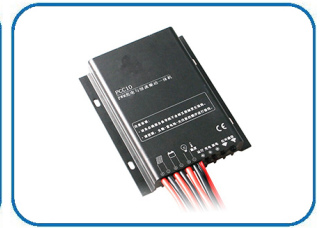


### ❖ Intelligent solar controller

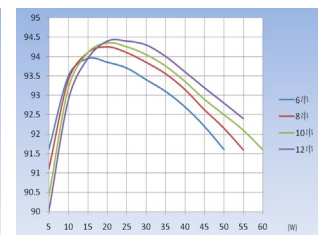
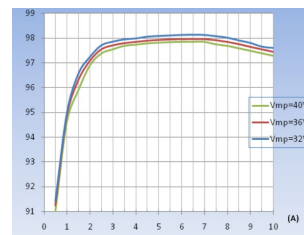
- adopting MPPT technology to track the maximum power of solar panel
- MPPT efficiency:  $\geq 99.9\%$
- charge conversion efficiency:  $\geq 98.5\%$  (MPPT)  
 $\geq 94.5\%$  (PWM)
- constant current drive efficiency:  $\geq 96\%$  (MPPT)  
 $\geq 95\%$  (PWM)
- IPT(intelligent power technology) can 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
- bluetooth+APP: optional



MPPT controller



PWM controller



## Test report of luminous efficiency for led chip:

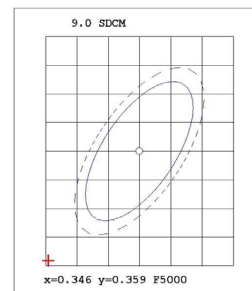
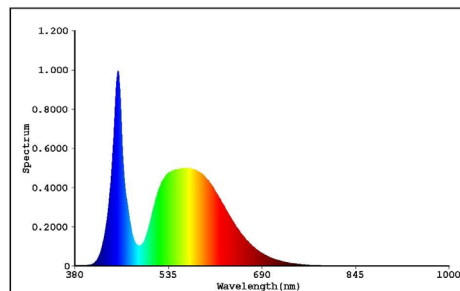


Test report

EVERFINE LEDspec Test Report

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### Spectrum Test Report



#### Color Parameters:

Chromaticity Coordinate(2Deg): $x=0.3314$   $y=0.3399$ / $u'=0.2066$   $v'=0.4768$   $duv=-1.324e-004$   
 $Tc=5545K$  Dominant WL:Ld=536.9nm Purity=1.5%  
 Ratio:R=14.1% G=82.3% B=3.7% Peak WL:Lp=451.4nm HWL:19.7nm  
 Render Index:Ra=75.7  
 R1 =74.64 R2 =79.78 R3 =80.99 R4 =76.68 R5 =74.83  
 R6 =71.19 R7 =83.59 R8 =63.76 R9 =-11.12 R10=49.49  
 R11=73.52 R12=44.41 R13=75.32 R14=89.03 R15=71.15  
 TM30 Parameters: Rf = 72.8, Rg:94.9

#### Photo Parameters:

Flux = 143.7 lm Eff. : 208.44 lm/W Fe = 440.0 mW

#### Electrical parameters:

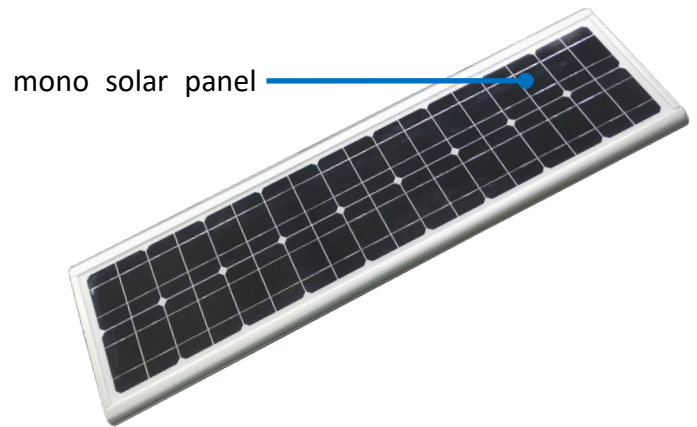
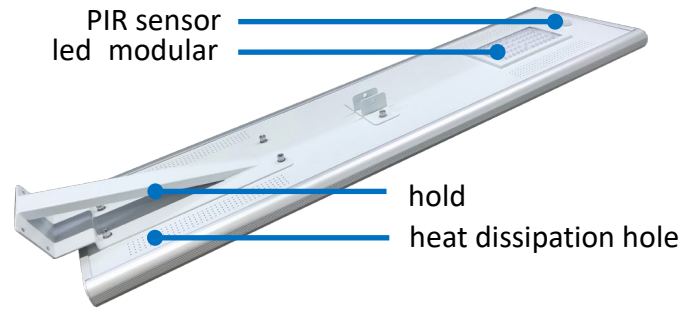
VF = 5.750 V IF = 119.9 mA P = 689.4 mW Ch1  
 LEVEL:\*\*[OUT] WHITE:ANSI\_5700K

Status: T=140.00ms Ip=47130 (72%) [ HAAS1200\_V1\_USB ] V2.00.288

## Technical parameters:

| Parameter items                     | 60W                            |
|-------------------------------------|--------------------------------|
| Brand of led chip                   | Philips                        |
| Luminous efficiency for led chip    | 210 lm/W                       |
| Total luminous flux of led chip     | 12600±5% lm                    |
| Beam angle                          | 140°*70°                       |
| Correlated color temperature (K)    | 3000-6500K                     |
| Color rendering index (Ra)          | ≥75Ra                          |
| LED lifespan (h)                    | 100000 hrs                     |
| Type of battery                     | lithium iron phosphate battery |
| Capacity of battery                 | 480Wh                          |
| Lifespan of battery                 | ≥3000 cycle                    |
| Charging time (h)                   | 6-7 hrs                        |
| Continuous rainy days               | 3 days                         |
| PIR sensor                          | Yes                            |
| Bluetooth/APP                       | /                              |
| Monocrystalline silicon solar panel | 70W                            |
| Material of shell                   | aluminum alloy                 |
| Material of cover for led           | PC                             |
| Discharge temperature               | -25~+60℃                       |
| Charging temperature                | -10~+55℃                       |
| IP protection                       | IP65                           |
| Dimensions                          | 1210*340*45 mm                 |
| Weight                              | 19 Kg                          |
| Recommended mounting height         | 6-7 m                          |
| Warranty                            | 5 years                        |

**Product details:**



**Light distribution curve:**

