

# SZG565 all-in-one solar led street light



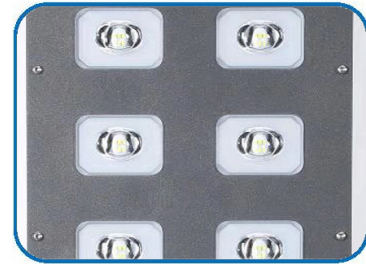
## Applications:

- 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:

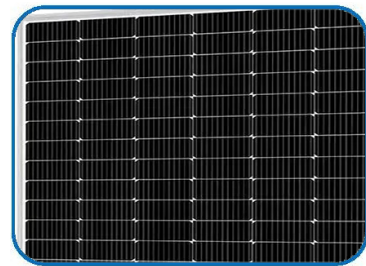
### ❖ Super brightness Philips led chip

- led chip luminous efficiency: **210 lm/W@120mA**
- light efficiency of luminaire: **175 lm/W**
- The thermal resistance is only 6°C and 50% lower
- The illuminance is 40% higher
- average service life: ≥100,000 hours



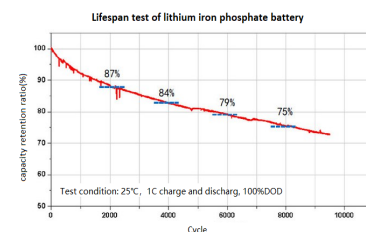
### ❖ High efficiency mono solar panel

- 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%



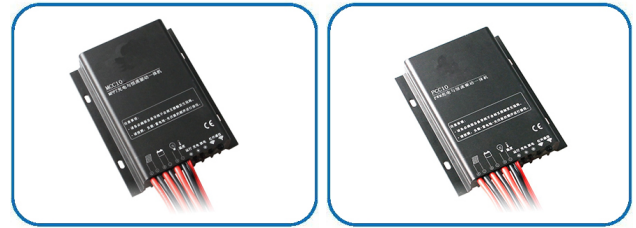
### ❖ Low temperature powerful lithium iron phosphate battery

- 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



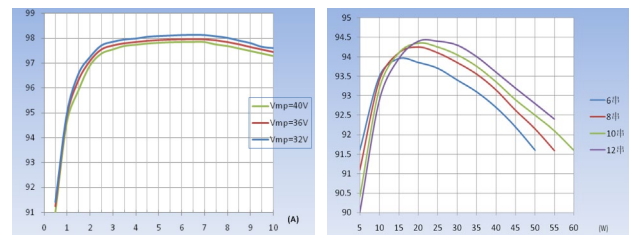
### ❖ Intelligent solar controller

- 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



MPPT controller

PWM controller



## Technical parameters:

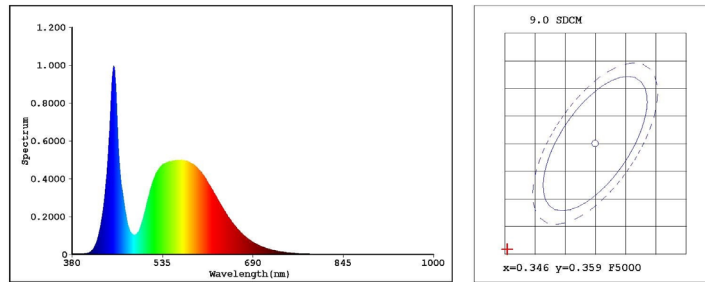
Model & power	SZG565-50W	SZG565-60W	SZG565-80W	SZG565-100W
Luminous efficiency for led chip	210 lm/W	210 lm/W	210 lm/W	210 lm/W
Total luminous flux of led chip	10500±5% lm	12600±5% lm	16800±5% lm	21000±5% lm
Light efficacy for luminaire	175 lm/W	175 lm/W	175 lm/W	175 lm/W
Beam angle	140°*70°	140°*70°	140°*70°	140°*70°
Correlated color temperature (K)	3000-6500K	3000-6500K	3000-6500K	3000-6500K
Color rendering index (Ra)	$\geq 75Ra$	$\geq 75Ra$	$\geq 75Ra$	$\geq 75Ra$
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	290Wh	350Wh	460Wh	570Wh
Lifespan of battery	$\geq 3000$ cycle	$\geq 3000$ cycle	$\geq 3000$ cycle	$\geq 3000$ cycle
Charging time (h)	6-7 hrs	6-7 hrs	6-7 hrs	6-7 hrs
Microwave sensor	Yes	Yes	Yes	Yes
Lighting mode	25% (normal) / 100% (activated)	25% (normal) / 100% (activated)	25% (normal) / 100% (activated)	25% (normal) / 100% (activated)
Mono solar panel	50Wp	70W	80W	100W
Material of shell	aluminum	aluminum	aluminum	aluminum
Lighting time per day	12 hrs	12 hrs	12 hrs	12 hrs
Continuous rainy day	3 days	3 days	3 days	3 days
Discharging temperature	-25~+55℃	-25~+55℃	-25~+55℃	-25~+55℃
IP protection	IP66	IP66	IP66	IP66
Dimension	900*385*43 mm	1210*385*43 mm	1290*385*43 mm	1690*385*43 mm
Weight	15 Kg	18 Kg	22.5 Kg	26.5 Kg
Diameter of mounting pipe	Φ60 mm	Φ60 mm	Φ60 mm	Φ60 mm
Recommended mounting height	5-6 m	6-7 m	7-8 m	8-9 m
Warranty	5 years	5 years	5 years	5 years

## Test report of luminous efficiency for led chip:

**EVERFINE** 远方

Test report  
 EVERFINE LEDspec Test Report 2 Of 4

### 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

Model:120MA	Number:3
Tester:D.U.01.0151 24V	Date:2021-06-05 16-40
Temperature:25.3Deg	Humidity:65.0%
Manufacturer:EVERFINE	Remarks:---
Assessor:damin	
System:WY + HAAS1200_V1_USB	