



Shenzhen Trismart Lighting Technology Co., Ltd. is a research and development, design, production and sales of private high-tech enterprises. Company's management and technical team has 20 years' experience in the development and design of industrial lightings, professional lightings and lighting engineering systems. Trismart Lighting is a cooperative supplier of European Union led street lamps, a network supplier of Royal Shell (shell) and a network supplier of large enterprises such as Sinopec, PetroChina, State Grid, Datang Electric Power and Huadian Group.

Trismart Lighting provides customers with the most reliable products as the basis of management and provides customers with intelligent and high-efficiency products to help customers reduce operating costs and management costs as a source of power for enterprise development, focusing on R & D, production and sales of smart, intelligent, high efficient, environmentally friendly led industrial lights, led high bay lights, led floodlights, explosionproof led floodlight, led street lights and solar led street lights, and wireless remote lighting control systems based on the latest Internet of things technology, video surveillance and safety management systems.

# SZG554 all-in-two solar led street light



## Applications:

- urban 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:

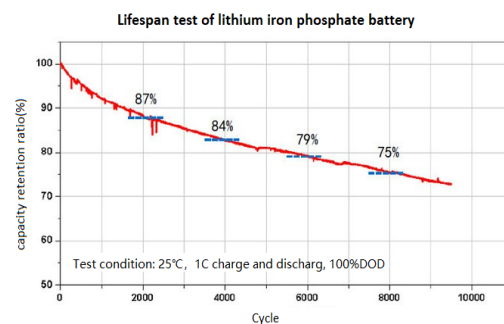
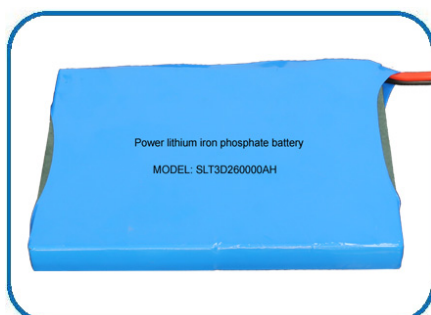
### ❖ Super brightness Philips led chip

- led chip luminous efficiency: **220 lm/W @80mA**
- light efficiency of luminaire: **175 lm/W**
- average service life: 100,000 hours
- The thermal resistance is only 6°C and 55% lower
- The illuminance is 40% higher
- no blue light hazard



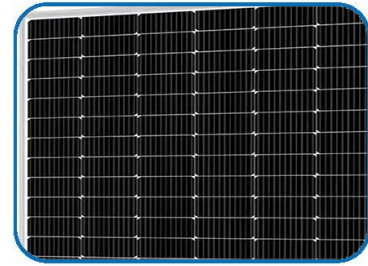
### ❖ Low temperature powerful lithium iron phosphate battery

- Adopt low temperature powerful lithium iron phosphate battery which can discharge at -25°C reliably.
- cycle life:  $\geq 3000$  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



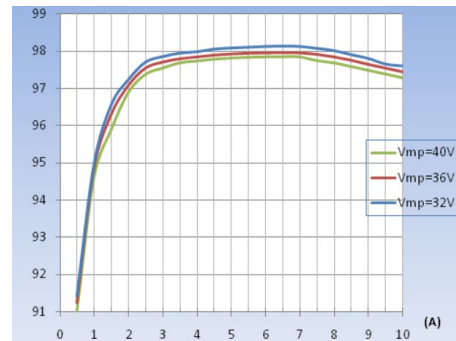
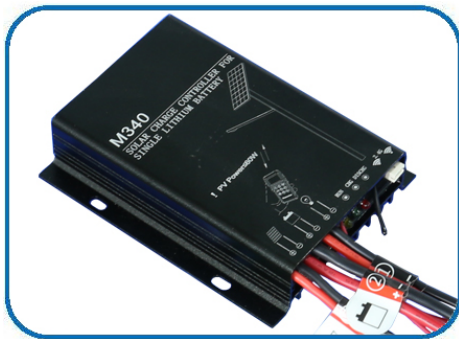
❖ **High efficiency mono solar panel**

- 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%



❖ **MPPT intelligent solar controller**

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



❖ **Adjustable angle of solar panel in the horizontal and vertical direction**



adjustable bracket in horizontal direction for solar panel



adjustable bracket in vertical direction for solar panel

## Components of product:



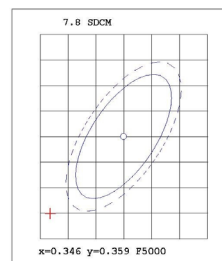
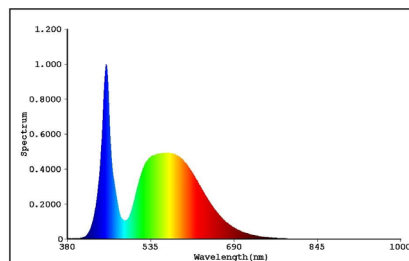
- ① Poly crystalline solar panel
- ② Microwave sensor (optional)
- ③ Led modular with Philips led chips
- ④ Built-in MPPT intelligent solar controller
- ⑤ Built-in power lithium iron phosphate battery
- ⑥ Angle adjustable of solar panel in horizontal direction
- ⑦ Angle adjustable of solar panel in vertical direction

## Test report of luminous efficiency for led chip:

EVERFINE 远方

Test report  
EVERFINE LEDspec Test Report 3 Of 4

### Spectrum Test Report



#### Color Parameters:

Chromaticity Coordinate(2Deg): $x=0.3328$   $y=0.3439$ / $u'=0.2060$   $v'=0.4791$   $duv=1.302e-003$   
 $Tc=5484K$  Dominant WL:Ld=552.1nm Purity=3.1%  
 Ratio:R=14.0% G=82.3% B=3.7% Peak WL:Lp=452.8nm HWL:18.5nm  
 Render Index:Ra=75.7  
 R1 =74.13 R2 =80.20 R3 =82.28 R4 =76.12 R5 =74.24  
 R6 =71.69 R7 =84.13 R8 =62.77 R9 =-13.42 R10=50.62  
 R11=72.60 R12=43.24 R13=75.20 R14=89.82 R15=70.27  
 TM30 Parameters: Rf = 73.3, Rg:94.2

#### Photo Parameters:

Flux = 99.64 lm Eff. : 225.37 lm/W Fe = 296.6 mW

#### Electrical parameters:

VF = 5.534 V IF = 79.89 mA P = 442.1 mW Ch1  
 LEVEL:\*\*[OUT] WHITE:ANSI\_5700K

Status: T=140.00ms Ip=33646 (51%) [ HAAS1200\_V1\_USB ] V2.00.288

## Technical parameters:

Parameter items	45W	60W	90W	120W
Brand of led chip	Philips	Philips	Philips	Philips
Luminous efficiency for led chip	220 lm/W	220 lm/W	220 lm/W	220 lm/W
luminous 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	3000-6500K	3000-6500K	3000-6500K	3000-6500K
Color rendering index	≥75Ra	≥75Ra	≥75Ra	≥75Ra
Led lifespan	100000 hrs	100000 hrs	100000 hrs	100000 hrs
Type of battery	LiFePO4 battery	LiFePO4 battery	LiFePO4 battery	LiFePO4 battery
Capacity of battery	115Wh	150Wh	230Wh	280Wh
Lifespan of battery	≥3000 cycle	≥3000 cycle	≥3000 cycle	≥3000 cycle
Charging time	6-7 hrs	6-7 hrs	6-7 hrs	6-7 hrs
Continuous rainy days	3 days	3 days	3 days	3 days
Microwave sensor	custom-made	custom-made	custom-made	custom-made
Power of poly solar panel	30Wp	40Wp	60Wp	70Wp
Tilt angle of solar panel	adjustable	Adjustable	Adjustable	adjustable
Shell material	ADC12 die-cast aluminum	ADC12 die-cast aluminum	ADC12 die-cast aluminum	ADC12 die-cast aluminum
Lens material	PC	PC	PC	PC
Discharging temperature	-25~+60℃	-25~+60℃	-25~+60℃	-25~+60℃
Charging temperature	-10~+55℃	-10~+55℃	-10~+55℃	-10~+55℃
IP protection	IP65	IP65	IP65	IP65
Dimension	lamp: 480*170*245 mm /solar pane: 635*350*17mm	lamp: 650*355*270 mm /solar pane: 520*535*25 mm	lamp: 650*355*270 mm /solar panel: 610*670*30 mm	lamp: 650*355*270 mm /solar panel: 610*670*30 mm
Weight	lamp: 6.0 Kg /solar panel: 3.2 Kg	lamp: 7.8 Kg /solar panel: 4.5 Kg	lamp: 8.0 Kg /solar panel: 5.8 Kg	lamp: 8.0 Kg /solar panel: 5.8 Kg
Diameter of mounting pipe	Φ76 mm	Φ76 mm	Φ76 mm	Φ76 mm
Recommended mounting height	4-5 m	5-6 m	6-7 m	7-8 m

