

All-in-one solar led garden light with dark sky



- Led chip: Philips super bright led chip, 240lm/W, 3000-6500K
- High efficiency mono solar wafer, 23% conversion efficiency and less than 0.6% per year of average attenuation speed
- Lithium iron phosphate battery: ≥ 3000 cycle lifespan(≥ 8 years)
- PWM solar control with more than 90% conversion efficiency
- PIR sensor for energy saving
- Continuous rainy days: 2-3 days
- Die-casting aluminum housing
- Meet the requirement of dark sky

Product features and descriptions:

Super brightness Philips 3030 led chip

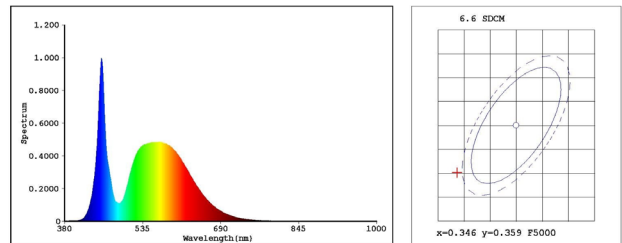
- luminous efficiency of led chip: 240 lm/W
- light efficacy of luminaire: 185 lm/W
- meet the requirement of dark sky
- The thermal resistance is only 3°C which the heat output is 20% of the rated value and its average service life is up to 100000 hours.
- It can reduce and save more than 30% power of luminaire to reach the same luminance and illumination effect.
- no blue light hazard



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Test report
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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: $\lambda_d=558.0nm$ Purity=5.2%
 Ratio: $R=14.0\%$ $G=82.2\%$ $B=3.8\%$ Peak WL: $\lambda_p=453.1nm$ 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 $P_e = 153.5 mW$

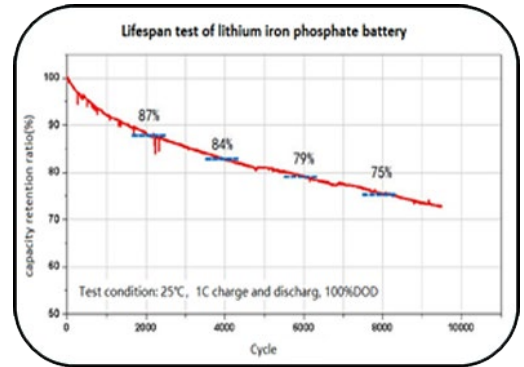
Electrical parameters:

$V_F = 5.294 V$ $I_F = 39.90 mA$ $P = 211.2 mW$ Ch1
 LEVEL:**[OUT] WHITE:ANSI_5700K

Status: $T=201.00ms$ $I_p=26653 (41\%)$ [HAA51200_V1_USB] V2.00.288

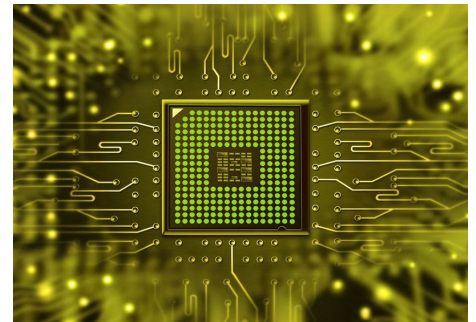
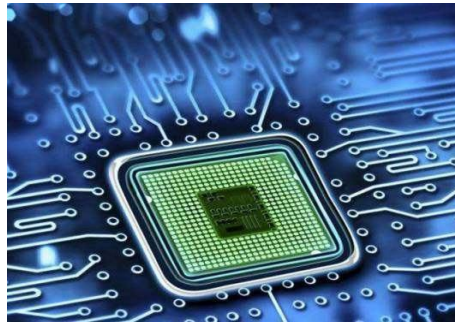
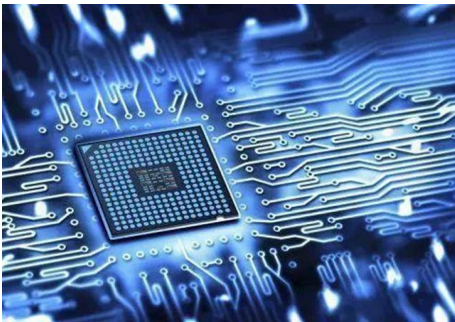
Low temperature powerful lithium iron phosphate battery

- Adopt low temperature powerful lithium iron phosphate battery which can discharge at -25°C reliably.
- Cycle life: ≥ 3000 cycles for more than 8 years' lifespan
- Cell capacity: 6000mAh with model of 32700
- Less than $3\text{m}\Omega$ internal resistance can reduce internal energy loss and offer higher current discharge.
- High temperature discharge efficiency: $\geq 95\%$
- Low temperature discharge efficiency: $\geq 70\%$
- free of cobalt and other heavy metals
- no fire, no explosion, absolutely safe and reliable



PWM intelligent solar controller

- Maximum conversion efficiency: $\geq 90\%$
- Temperature control: the upper and lower temperature limits for charging and discharging lithium batteries can be set
- Dual seasons management: automatic power conversion in summer and winter
- 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 pack to ensure 365 days' lighting every day.
- Protection function: With protection against overvoltage, overheating, overpower, open circuit, short circuit, reverse connection, etc
- Control mode: light control, time control, induction control
- 2.4G remoter optional



Intelligent power technology:

According to the weather conditions of the next 7 days and the remaining energy of the battery, the power of the light can be adjusted to the optimal value through automatic calculation and scientific evaluation under the premise of ensuring the illumination to meet lighting for 365 days and extend cycle life of battery.

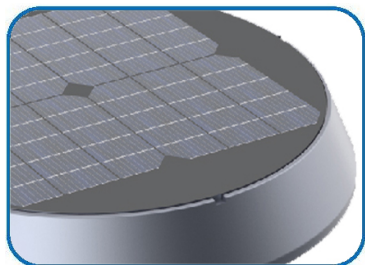
Single Monitoring and balanced charging Technology :

Through monitoring the voltage and current of the single cell in real time and optimizing the calculation, solar controller outputs the optimal charging voltage and current to reach the balanced charging for each cell which will prolong lifespan of battery.

Automatic alarm technology:

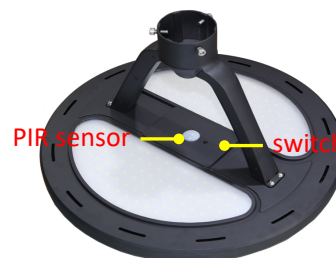
Collecting the output voltage and current of solar panel, the voltage and current of battery and led modular in real time by intelligent chip, the working state of each part is detected and judged, and the fault alarm occurs automatically. Through different indicator lights, it is convenient for maintenance personnel to judge the problem intuitively and quickly.

High efficiency monocrystalline silicon solar panel:



- high efficiency mono solar wafers
- solar conversion efficiency: 23%
- lifespan: ≥25 years
- Average attenuation speed per year: 0.6%
- 25 years maximum output power attenuation: 15%
- IP66

Product pictures and details:



Main technical parameters:

Items	SZG576-30W	SZG576-40W
Brand of led chip	Philips	Philips
Light efficacy for luminaire	185 lm/W	185 lm/W
Output lumen for luminaire	3000 lm	4000 lm
Correlated color temperature	3000-6500K	3000-6500K
Color rendering index	75Ra	75Ra
Lifespan of led chip	100000 hrs	100000 hrs
Type of solar battery	Lithium iron phosphate	Lithium iron phosphate
Capacity of battery	130Wh	160Wh
Lifespan of battery	≥3000 cycle	≥3000 cycle
Mono solar panel	27 Wp	33 Wp
Dark sky	yes	yes
Continuous rainy day	2-3 days	2-3 days
Motion sensor	PIR sensor	PIR sensor
Material of shell	Die-casting aluminum	Die-casting aluminum
Discharge temperature	-25~+60°C	-25~+60°C
Charging temperature	-10~+55°C	-10~+55°C
IP protection	IP65	IP65
Dimensions	φ540*340 mm	φ540*340 mm
Weight	5.5 Kg	6.0 Kg
Installation pipe diameter	φ76 mm	φ76 mm
Recommend mounting height	4-5 m	5-6 m