



SE02 -SERIES SOLAR STREET LIGHT

UP TO **180LM/W**

- SUPPORT 12HOURS UNDER 2-3 RAINY DAYS
- POWER: 60W/80W/100W



Bifacial Solar Panel
Efficiency Increased 30%



Rotatable LED Module
Easy Installaton

**EXPERTS WITH
PROFESSIONAL SOLUTION**

INTRODUCTION

Outdoor solar lighting systems use solar cells which convert sunlight into electricity. Electricity is stored in batteries for use at night. SE series solar lights are easy to install and virtually maintenance free. Using them won't increase your electric bill.

- **SE02 Solar LED Street Light** features all in one design function, low profile design, with photocell sensor, timing, dimming, intelligent power saving, morning light, microwave sensor available.
- **Bifacial Solar Panel** design. Suitable for remote region, no-electric supply zone.
- Deep cycle battery, charge and discharge over **2000 times**.

FEATURES



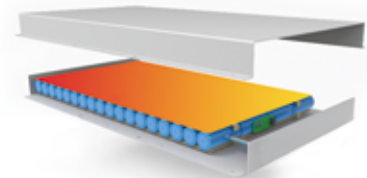
25 YEARS LIFESPAN



CONVERSION RATE UP TO 30%



INTEGRAL MONOCRYSTALLINE SILICON SOLAR PANEL



LIFESPAN CYCLE MORE THAN 2000 TIMES INTELLIGENT TEMPERATURE CONTROL

- Die-casting aluminium housing, anti-corrosion coating.
- Easy battery replacement design, can be renewed for every 7 years.
- Ultra-high light efficiency, 10 watts equivalent to 20 watts of others at least.
- Bilateral solar panels, the overall conversion **efficiency is increased by 30%**.
- Rotatable LED module, worry-free installation, best solar panel angle adapt to the sun.
- Accurate optical road lighting designs, adapt to various conditions with no waste of light.

LED CHIP



LUXEON 5050

Philips Lumileds Luxeon 3030/5050 chip creates a first-class light source. By choosing Luxeon LED chips, single lumen value >180lm/w, with the aluminum lamp base and sealed lens, with its excellent heat dissipation, it is as if the LED chip has been placed in a sealed unit. Thus it maintains high brightness levels with very little fading. The sealed lenses are made of strong UV protected PC and are aging and shock resistant; The well optimized light distribution, makes for a more uniform and wider lighting area.

HIGH-LUMEN EFFICIENCY LED MODULE

Lumen efficiency > 180lm/w, achieve higher illumination



Angle of Light Source: -60°/+60°



High luminous efficiency



Long lifespan

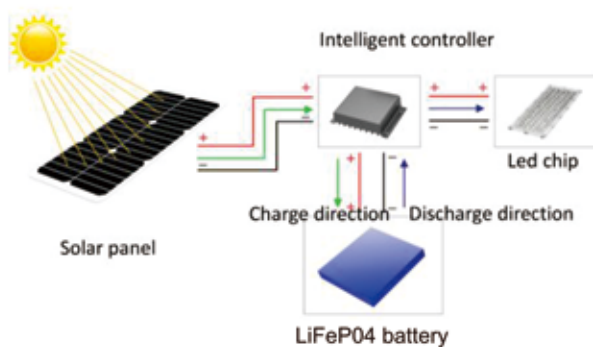


Less heat



Low light decay

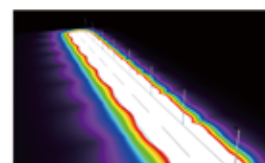
WORKING WAY



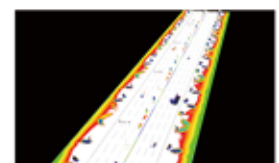
Where there is light radiation, photovoltaic modules are converted to electric energy by solar radiation, and intelligent controller is used to charge electric energy into lithium iron phosphate battery. At the same time, the intelligent controller protects the overcharge and over discharge of the battery. The lighting switches and adjust lighting intelligent control, without manual operation.

PHOTOMETRICS DESIGN

Planning and analyzing of street lights can be done by using lighting design software, which allows lighting simulations. It uses rendering, the process of generating an image from a model, by means of computer programs resulting in different tools for measuring the simulate light levels.



Example of urban branch road



Example of mian road and parking lot

TECHNICAL SPECIFICATIONS

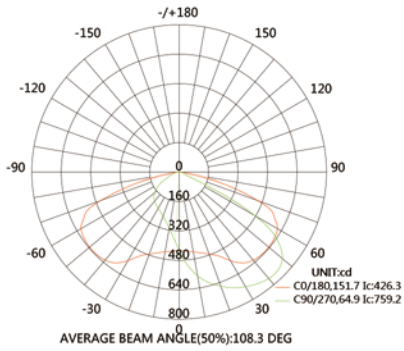
	AOK-60sE02		AOK-80WsE02		AOK-100WsE02	
Wattage	60W		80W		100W	
LED Chips	3030	5050	3030	5050	3030	5050
Lumen Output	9000lm	10800lm	12000lm	14400lm	15000lm	18000lm
Efficacy	150lm/w	180lm/w	150lm/w	180lm/w	150lm/w	180lm/w
Optional Beam Angle	T2/T3/T4/T5					
CCT	3000K~6500K					
Input Voltage	12-24V DC					
LED Driver	Meanwell OR Others					
IP Rating	IP65					
Photovoltaic panel	Double crystal photovoltaic panel					
Solar Panel	18V/100W		36V/130W		36V/160W	
Li-on Battery	538WH		768WH		922WH	
	12.8V 42AH		25.6V 30AH		25.6V 36AH	
Charing Time	6hrs		6hrs		6hrs	
Run Time(@full power)	8hrs		8hrs		8hrs	
Installation Height	8-9M(26-29ft)		10-11M(32-36ft)		12-13M(39-42ft)	
Working Temperature	-10°C to 50°C (-14°F to 122°F)					
Charing Temperature	-0°C to 45°C (32°F to 113°F)					
Control system	MPPT intelligent controller					
Maximum Autonomy	Operate under 2-3 rainy days					
Motion Sensor Mode	30%-100% 28hrs (Max) 20%-80% 40hrs (Max)		30%-100% 28hrs (Max) 20%-80% 40hrs (Max)		30%-100% 28hrs (Max) 20%-80% 40hrs (Max)	
Constant Mode (Full Charge)	100% 8hrs 70% 12hrs 40% 20hrs		100% 8hrs 70% 12hrs 40% 20hrs		100% 8hrs 70% 12hrs 40% 20hrs	
Control Options	Photocell sensor, timing, dimming, intelligent power saving, microwave sensor available					
Certification	UL/ CUL FCC DLC SAA RCM CE RoHS					

ORDERING INFORMATION

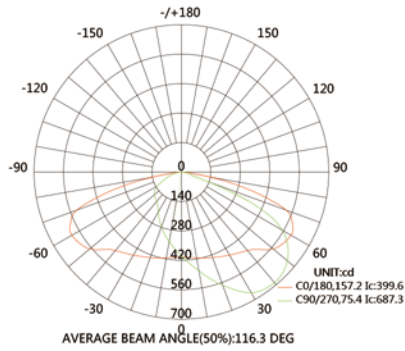
AOK							
WATTS	VOLTAGE	LED CHIPS	TYPE OF SENSOR	CCT&CRI	DISTRIBUTION	MOUNT	OPTION
60WSE02	NV=12-24V DC	L3=LUMILED 3030	00=Without Sensor	3070=3000K 70CRI	T2=TYPE II	A=Post Top	4KV SPD
80WSE02		L5=LUMILED 5050	SN=Motion Sensor	4070=4000K 70CRI	T3=TYPE III		Intelligent Control
100WSE02			PH=Photocell	5070=5000K 70CRI	T4=TYPE IV		
			DV=Dimmable	5770=5700K 70CRI	T5=TYPE V		
				6570=6500K 70CRI			
				3080=3000K 80CRI			
				4080=4000K 80CRI			
				5080=5000K 80CRI			
				5780=5700K 80CRI			
				6580=6500K 80CRI			

PHOTOMETRY

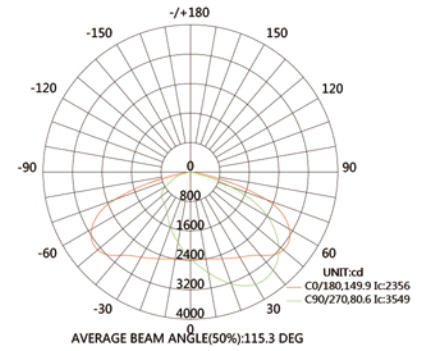
TYPE II



TYPE III



TYPE IV



DIMENSION

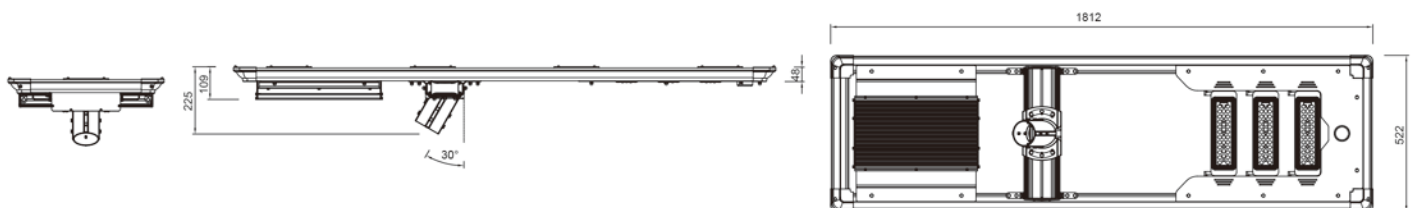
AOK-60W SE02



AOK-80W SE02



AOK-100W SE02



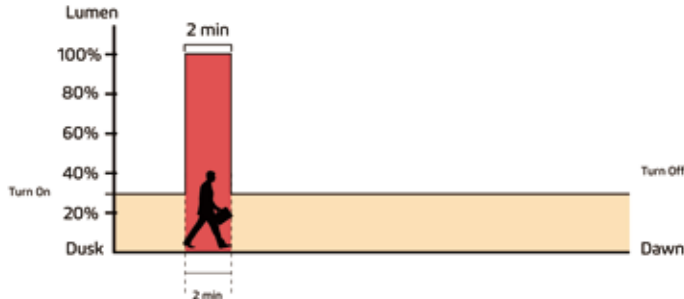
WARRANTY

3-year standard warranty, 5-year warranty optional. Please consult with AOK sales for detailed agreement.

AUTONOMY CONTROL GUIDE

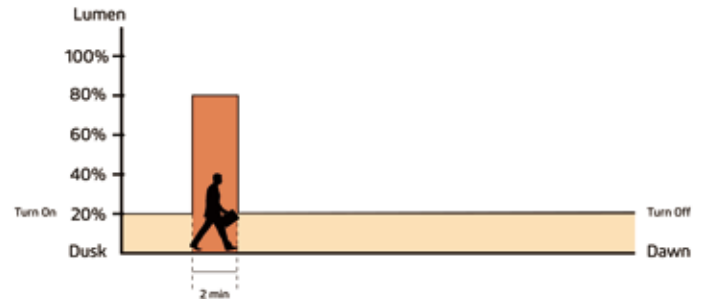
30%~100% MOTION SENSOR MODE

Constant 30% brightness (turns on at dusk, turns off at dawn);
100% brightness turns on for 2 minutes when motion is detected.



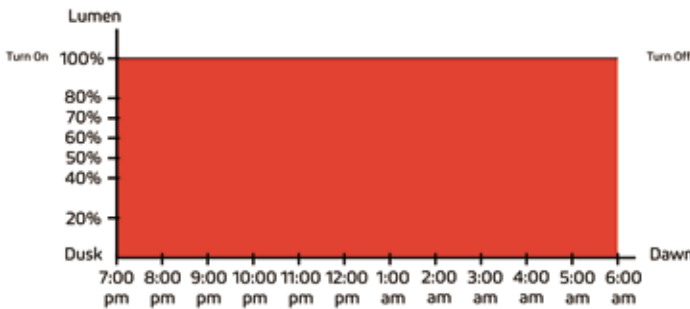
20%~80% MOTION SENSOR MODE

Constant 20% brightness (turns on at dusk, turns off at dawn);
80% brightness turns on for 2 minutes when motion is detected.



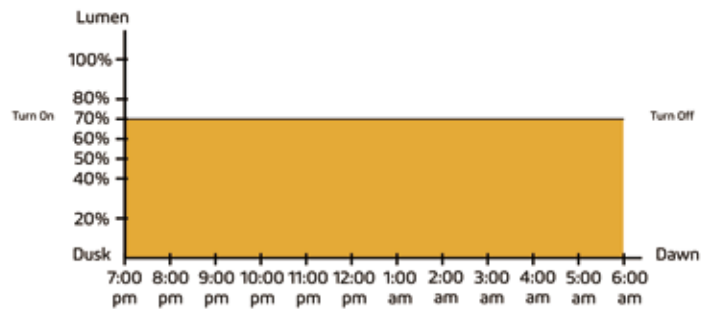
100% CONSTANT MODE

100% brightness from dusk to dawn.



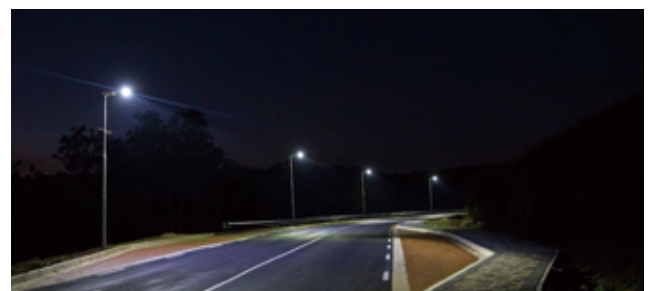
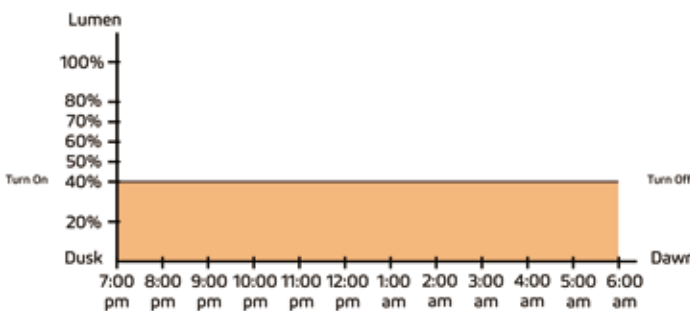
70% CONSTANT MODE

70% brightness from dusk to dawn.



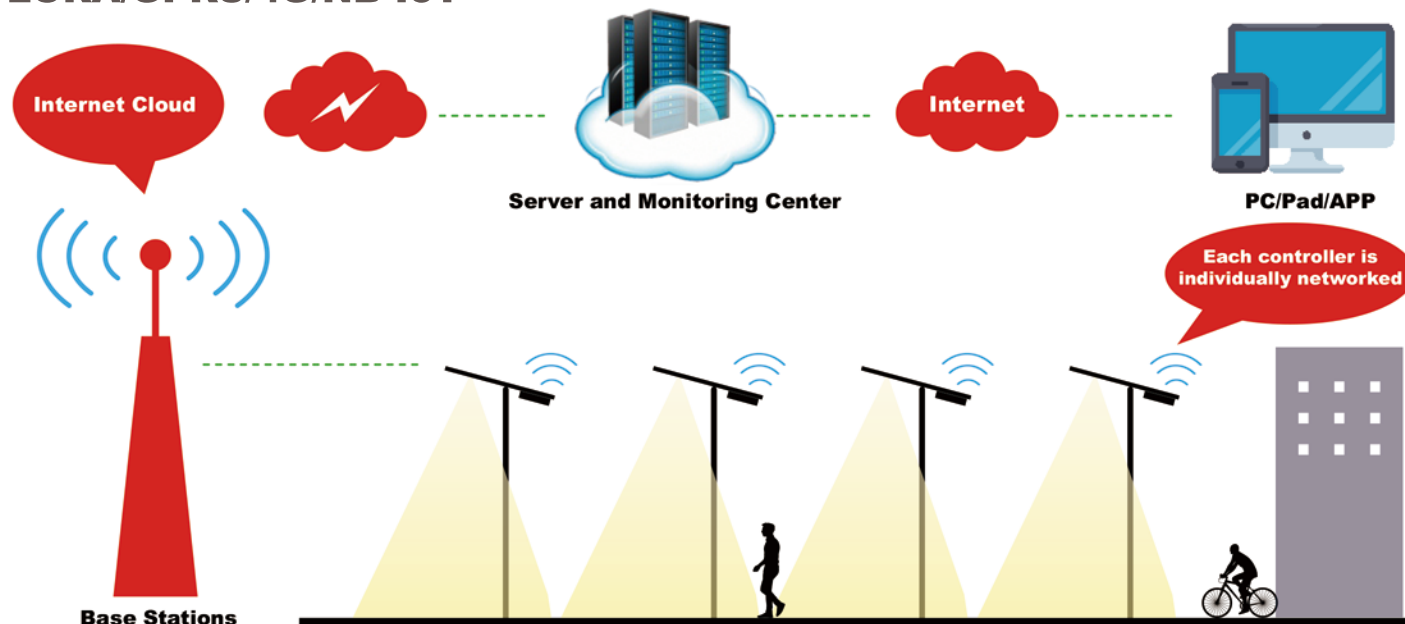
40% CONSTANT MODE

40% brightness from dusk to dawn.



INTELLIGENT CONTROL SOLUTIONS

LORA/GPRS/4G/NB-IoT



IoT perfectly combines traditional solar street lighting fixture, internet of things + wireless communication technology, achieve monitoring and management of remote background data, real-time understand the normal working status of each component of solar energy (street lights, photovoltaic panels, batteries, controllers), allow you to know the product usage on the client terminal that is thousands of miles away without leaving home or to manage the opening and closing of street lights and the adjustment of bright spot power on time.

**Controller
GPRS/NB-IoT Inside**



- Built-in IoT module (GPRS/ NB-IOT)
- Adopt Moving Track MPPT maximum power tracking technology, with higher tracking efficiency and faster speed;
- Lead-acid battery and lithium battery are universal. Operating parameters can be set by remote controller;
- ultra Green power control technology with extremely low static power consumption and dormant current;
- Lead acid battery multi-stage temperature compensated constant voltage charging;
- 10 Programmable load power/time control setting;
- Battery charging and discharging high and low temperature protection function, working temperature can be set;
- A variety of intelligent modes can be selected, automatically adjust the load power according to the battery power;
- High precision digital booster constant-current control algorithm, high efficiency and high constant-current precision;
- 2.4G wireless communication, can set read parameters, read status, etc;
- Battery/PV reverse connection protection, LED short circuit/open circuit/limited power protection and other multiple protection functions.

SMART LIGHTING CONTROL SYSTEM

The interface includes a sidebar menu with options like SysInfo, ProjectManagement, GISMap, Alarm, ReportManagement, UserManagement, and SystemConfig. The main area shows a map with light locations and a 'Light List' table with columns for Number, Status, Brightness, and Alarm. Below the map is a detailed data table:

PN	Signal status	Update time	street lamp brightness	Battery voltage(V)	Battery power(W)	Solar panel power(W)	Street Lamp Power(W)	F info	Operation
GA520200357797	📶	2020-08-05 00:05:57	70	23.8	0	0	17		Edit History Parameter
GA520201497859	📶	2020-08-05 00:06:00	70	23.8	0	0	17		Edit History Parameter
GA520200753578	📶	2020-08-05 00:06:27	70	23.8	0	0	17		Edit History Parameter
GA520200777420	📶	2020-08-05 00:04:23	70	23.8	0	0	17		Edit History Parameter
GA520200192064	📶	2020-08-05 00:08:35	70	23.9	0	0	17		Edit History Parameter
GA520200346577	📶	2020-08-05 00:04:23	70	23.7	0	0	17		Edit History Parameter
GA520200619501	📶	2020-08-05 00:05:34	70	23.7	0	0	17		Edit History Parameter

DATA & PROJECT MANAGEMENT

The interface shows 'Project settings' and a 'Lamp status' table:

Lamp status	Network status	Update time	Brightness(%)	Wireless module address	Lamp power(W)	Charging stage	Operation
📶	📶	2020-05-14 09:03:03	40%	00002020	8.43	There is no charge	View Detail Refresh Add
📶	📶	2020-05-14 03:09:28	40%	00002070	8.51	There is no charge	View Detail Refresh Add
📶	📶	2020-05-14 05:04:28	40%	00002023	5.34	There is no charge	View Detail Refresh Add
📶	📶	2020-11-28 09:12:17	0%	00002028	0	There is no charge	View Detail Refresh Add

Below the table is a bar chart titled 'Estimated Power Generation/Power Consumption Report' showing data from 2020-01 to 2020-12.

- The Internet of Things solar street light management system can pre-set one or more lighting modes according to the different time of day and traffic flow, automatically turn on or off any light, and adjust the switching time and illumination according to environmental requirements to achieve the purpose of energy-saving and consumption reduction.
- The integrated system is mainly composed of a street light component a centralized controller, a single light controller, and a smart cloud platform. The centralized controller and the single light controller aggregate the data collected by the single light via the GPRS/NB-IoT wireless communication network. The centralized controller uploads data to the system cloud platform through GPRS data flow, providing data dependence for mobile phone and computer terminal access.

APP CONTROL



Remote monitoring real time monitoring

With wireless communication function, through the intelligent management system of solar street lamp and wireless module, have remote monitoring and real-time monitoring.



Automatic fault alarm

Real time monitoring of solar panel voltage, current, power, battery charging and discharging current, voltage, load working state, controller working state data and fault automatic alarm.



Remote control

Support remote switch on and off dimmer and battery, load parameter modification.



Fault tracking and precise positioning

Multi peak PWM technology, suitable for partial shading or partial damage of photovoltaic cells, and the tracking efficiency is more than 99%.



Map location

Using GPS maps, with geographic display capabilities.

