



**ISD** ALL IN ONE  
SOLAR STREET LIGHT

OVER YEARS   
**10 EXPERIENCE**  
[www.aokledlight.com](http://www.aokledlight.com)

## > Features of SD Series

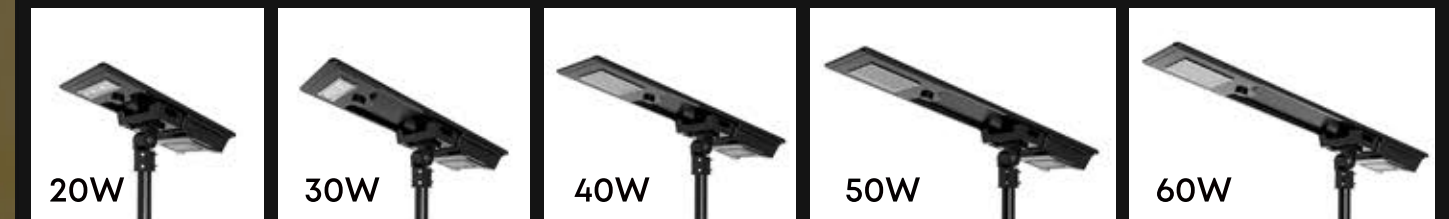
Outdoor solar lighting systems use solar cells which convert sunlight into electricity. Electricity is stored in batteries for use at night. SD series LED solar lights are easy to install and virtually maintenance free. Using them won't increase your electric bill.

- SD Solar LED Street Light features all in one design function, low profile design, with Photocell sensor, Timing, dimming, intelligent power saving, microwave sensor or PIR sensor optional.
- **Power range: from 20W to 60W;**
- Single side monocrystalline solar panel. Suitable for remote region, no-electric supply zone;
- Deep cycle battery, charge and discharge over 2000 times;
- Continuously work 2-3 rainy days in intelligent mode;
- **MPPT intelligent controller;**
- Die-casting aluminium housing, anti-corrosion coating;
- Easy battery replacement design;
- Ultra-high light efficiency, 10 watts equivalent to 20 watts of others at least;
- Accurate optical road lighting designs, adapt to various conditions with no waste of light. **ULOR=0%**, no up-lightpollution;
- Optical systems maintain an IP65 rating.

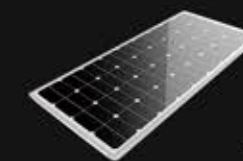
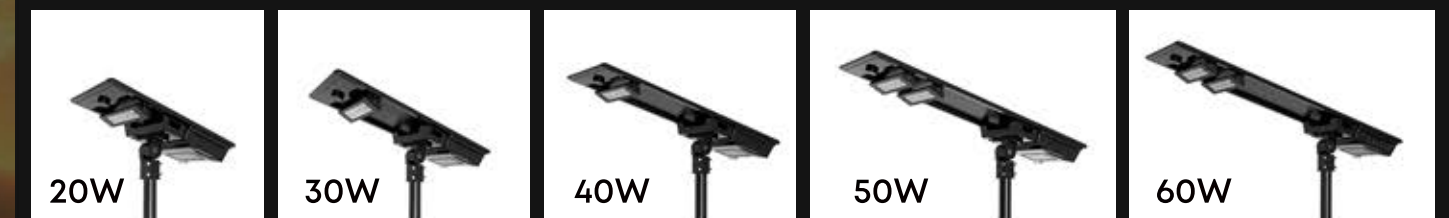
<b>UP TO</b> <b>180</b> LM/W	<b>L90B10</b> 52000hrs @ 25°C	<b>ULR</b> =0	3000K 4000K 5000K 5700K 6500K	<b>CRI</b> 70/80
<b>IP65</b>	<b>DIM</b>	Working Temperature Environment -10°C~60°C (14°F~140°F)	<b>Smart Sensor</b>	<b>IoT-4G Zigbee</b>



### Non-Adjustable module



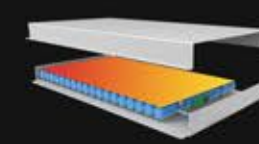
### Adjustable module



Integral Monocrystalline Silicon Solar Panel

Conversion Rate up to 30%

25 Years Lifespan



High quality LI-ion battery  
Lifespan cycle more than 2000 times  
Intelligent temperature control

**3** **5** **WARRANTY**  
3 Year Limited Warranty,  
5 Year Preferred Warranty.  
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# > Photometrics Design

Lumen efficiency >180LM/W  
achieve higher illumination



High Efficiency



Long Lifespan



Less Calorific Value

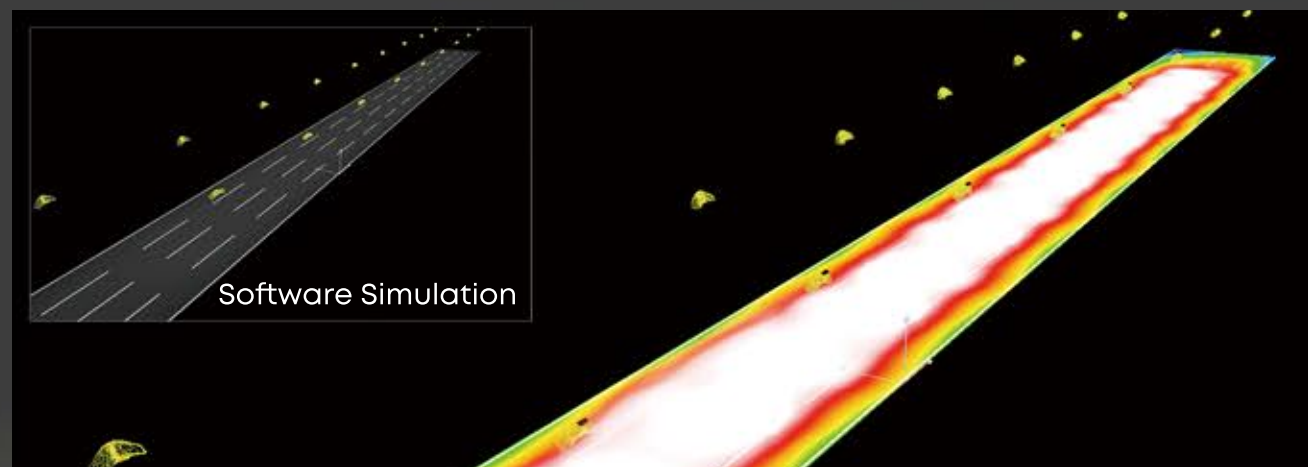


Low Light Decay

Fixed or Rotatable  
Moduel Optional

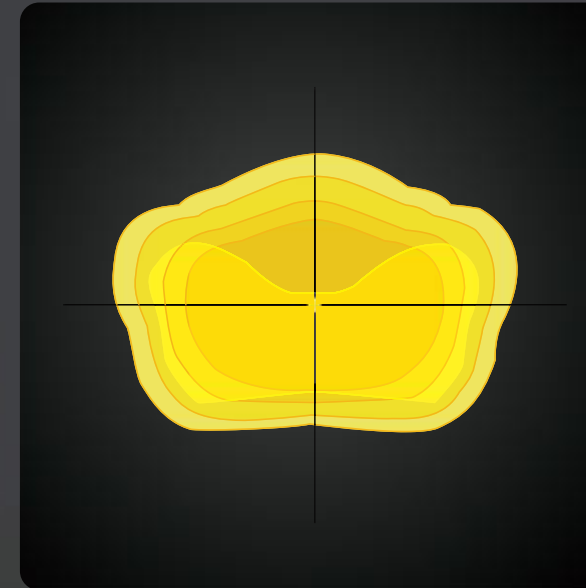


- The light engine takes advantage of the latest generation of high efficiency LEDs and dedicated optics for professional applications.
- Combined with 2835/3030 LED chips provide lighting solutions from high-level special lights to very cost-effective but excellent quality luminaires.

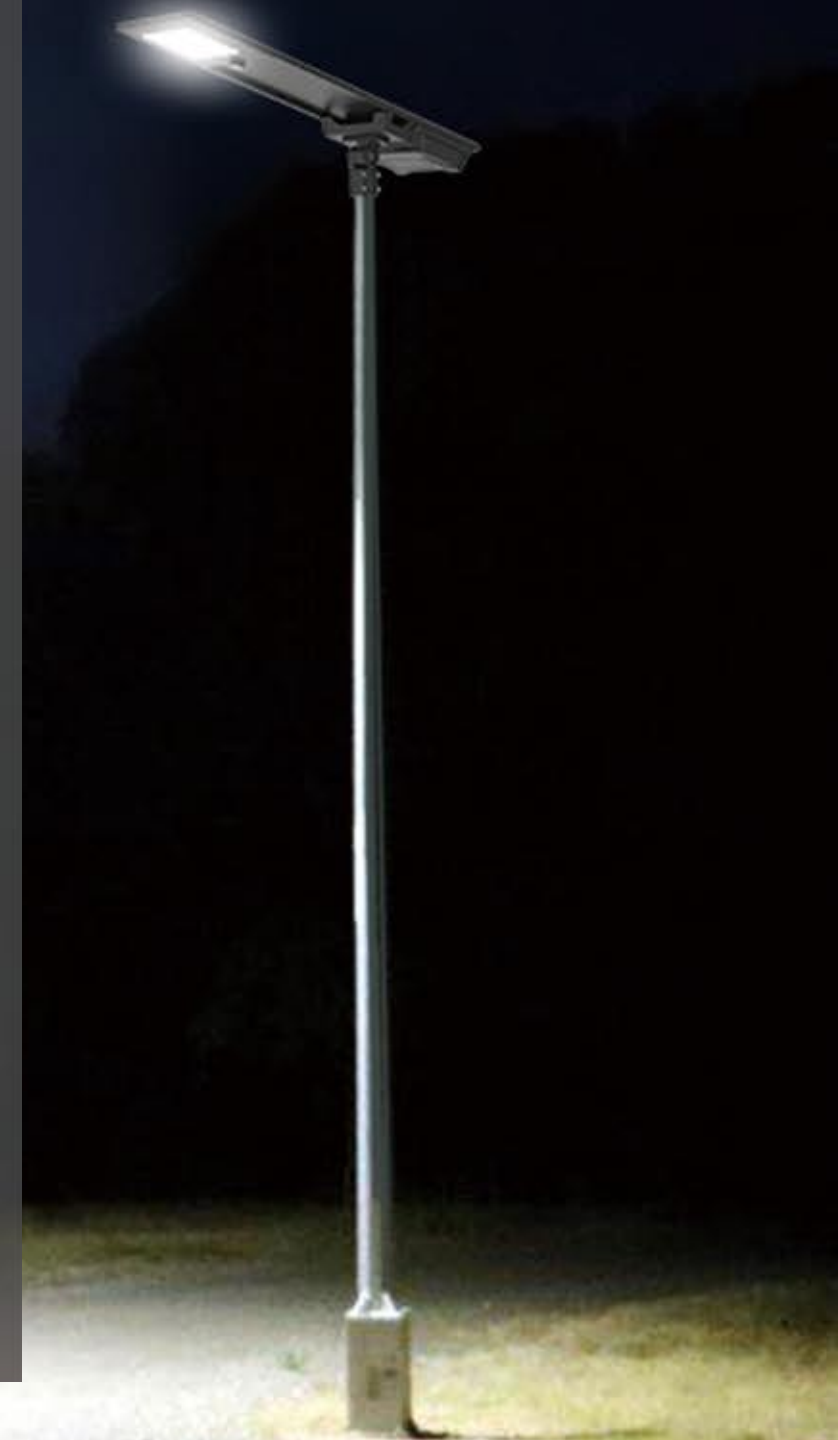
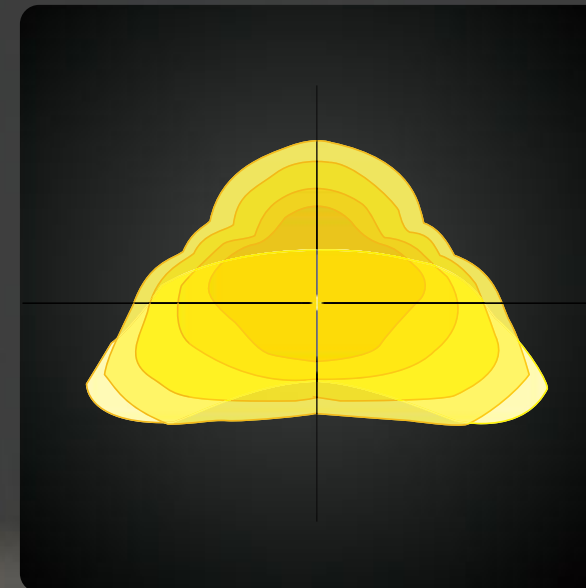


Distribution

TYPE III



TYPE IV



## > Application Reference

- Road lighting
- Area lighting
- Perimeter lighting



## > Application of Typical Networking of Smart Street Light

### Strategy Control

By installing the node of the street light controller on the ambient light sensor, electric energy metering unit to collect to the street light power (voltage, current, power), and the ambient light conditions, according to the administrator deployment strategy to mobilize installed on the street light controller of the automatic control system to control the street light switch, adjust brightness, color temperature adjustment, etc.;

### Gateway Control

The Lora Light wireless system with strong anti-interference ability is adopted in the wireless transmission unit of the street light controller to realize the communication between nodes and gateways. The data of various sensors on the node street lamp controller is sent back to the gateway, and the control command of the gateway is also sent to the node street light controller.

### Cloud Platform

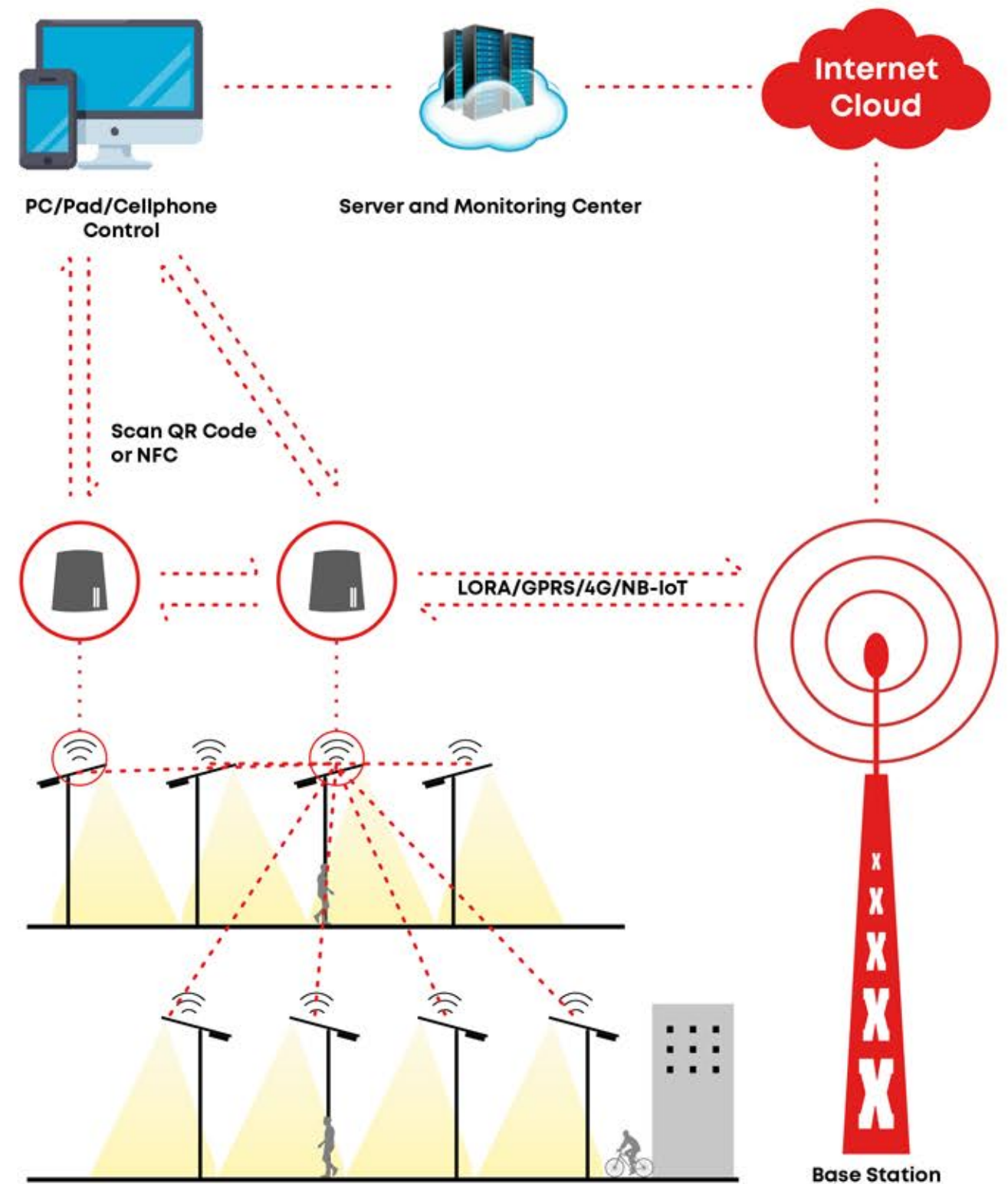
The gateway controller transmits the street light control information of all nodes under the gateway to the cloud platform through GPRS/3G/4G/NB-IOT (optional) wireless mode, and at the same time sends the instructions of the cloud platform to the street light controller of each node.

### Controller IoT-4G/Zigbee



- Built-in IoT module (4G/Zigbee)
- 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.

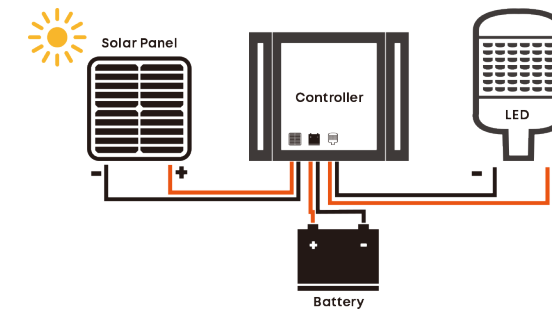
### APPLICATION OF TYPICAL IOT NETWORKING



# Parameter Table

Electrical Data					
Model	AOK-SD20	AOK-SD30	AOK-SD40	AOK-SD50	AOK-SD60
Power	20W	30W	40W	50W	60W
Control Option	Photocell sensor, Timing, dimming, intelligent power saving, microwave sensor or PIR sensor.				
Work Mode	2H-100%; 4H-Detected: 60%, None: 20%; 6H-Detected: 40%, None: 10%				
Photometric Data					
LED Manufacturer	AOK				
Lens	Polycarbonate				
Efficacy(LM/W,Std Dev ±3%)	180	180	180	180	180
Luminous flux (LM,Std Dev ±3%)	3600	5400	7200	9000	10800
ULOR	= 0%, @ Luminaire inclination 0°				
CCT	3000K, 4000K, 5000K, 5700K, 6500K				
CRI	70Ra/80Ra				
Beam angle	T3(75°*160°)/T4(78°*153°)				
Mechanical Data					
IP Rating	IP65, according to standard EN 60529				
Housing	Heavy-duty die-cast aluminum (EN AC-46100)				
Surface treatment	Anti-UV thermosetting polyester / 80 micron epoxy primer + Anti-UV thermosetting polyester (for extremely corrosive environments).				
Painting	Black, Custom request				
Mounting	Post Top				
Solar Panel Data					
Photovoltaic panel	Single side monocrystalline solar panel				
Solar Panel	40W	50W	60W	70W	80W
Li-ion Battery	160WH	256WH	320WH	384WH	460.8WH
Charing Time	4.3Hrs	5.4Hrs	5.7Hrs	5.7Hrs	6Hrs
Run Time(@full power)	7.6hrs	8.1hrs	7.6hrs	7.2hrs	7.2hrs
Working Temperature	-10°C to 60°C (14°F to 140°F)				
Control system	MPPT/PWM optional				
Maximum Autonomy	Operate 2~3 rainy days under intelligent model.				
Others					
Lifespan	L90B10 > 52000h, @Ta 25°C				
Warranty	3 years (Warranty extension up to 5 years on request)				
Certification	CE/FCC/RoHs				
Product Size	750*366*105mm	910*366*105mm	1080*366*105mm	1210*366*105mm	1345*366*105mm
Net Weight	10kg	12kg	14kg	16kg	18kg
Carton Size	870*180*440mm	1030*180*440mm	1200*180*440mm	1330*180*440mm	1465*180*440mm
Gross Weight	12kg	14kg	16kg	18kg	20kg
Recommend installation height	3-5m	4-7m	5-7m	5-7m	6-8m
Application field	Urban and rural street				
SCx (EPA)	Top View: 0.340m² (3.65ft²) Side View: 0.067m² (0.72ft²) Front View: 0.052m² (0.56ft²)	Top View: 0.400m² (4.31ft²) Side View: 0.072m² (0.78ft²) Front View: 0.052m² (0.56ft²)	Top View: 0.470m² (5.06ft²) Side View: 0.080m² (0.86ft²) Front View: 0.052m² (0.56ft²)	Top View: 0.530m² (5.70ft²) Side View: 0.082m² (0.88ft²) Front View: 0.052m² (0.56ft²)	Top View: 0.590m² (6.35ft²) Side View: 0.085m² (0.91ft²) Front View: 0.052m² (0.56ft²)

# Working Way



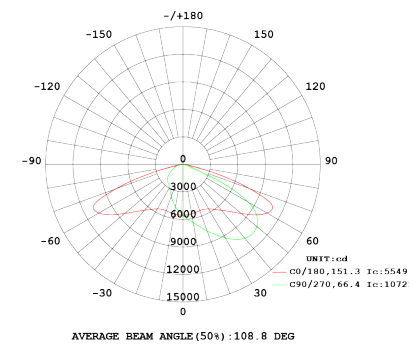
The solar panel receives solar radiation energy and converts it into electricity, which is stored in the battery by the photovoltaic controller. At night, when the illumination gradually decreases to about 10LUX and the solar panel voltage is 5V, the charge and discharge controller detects this voltage value, and controls the battery to discharge for the LEDs to complete the process of daytime charging and evening discharge.

# Ordering Information

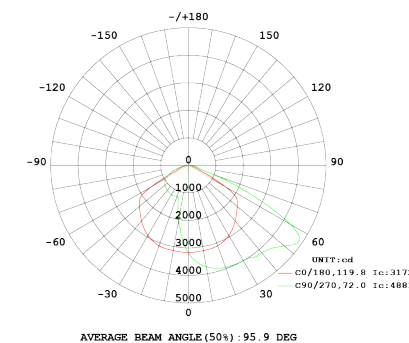
AOK	VOLTAGE	LED CHIPS	TYPE OF SENSOR	CCT&CRI	DISTRIBUTION	MOUNT	HOUSING
MODEL	NV=12V DC	L2=AOK 2835 L3=AOK 3030	00=Without Sensor PIR=PIR Sensor MS=Microwave Sensor	3070=3000K 70CRI 4070=4000K 70CRI 5070=5000K 70CRI 5770=5700K 70CRI 6570=6500K 80CRI 3080=3000K 80CRI 4080=4000K 80CRI 5080=5000K 80CRI 5780=5700K 80CRI 6580=6500K 80CRI	T3=TYPE III T4=TYPE IV	A=Post Top	BK=Black Custom

# Photometry

Type III

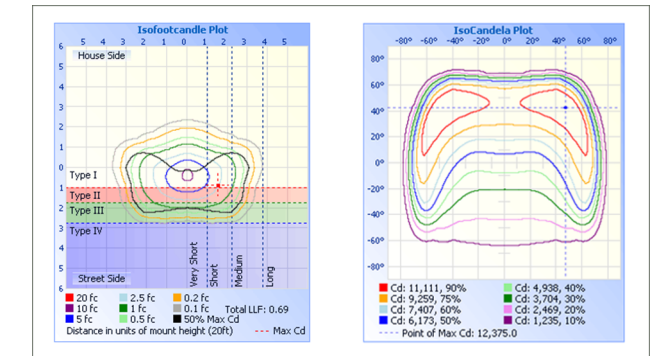


Type IV

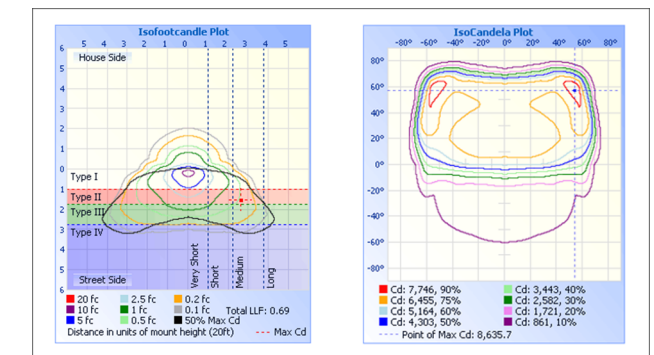


# Illuminance Diagram

Type III



Type IV



# SD Series Specification Sheet

\*Due to the constant improvements in product development, individual parameters might change. Please refer to our sales or R&D team for most up-to-date content as specifications are subject to change without notice.

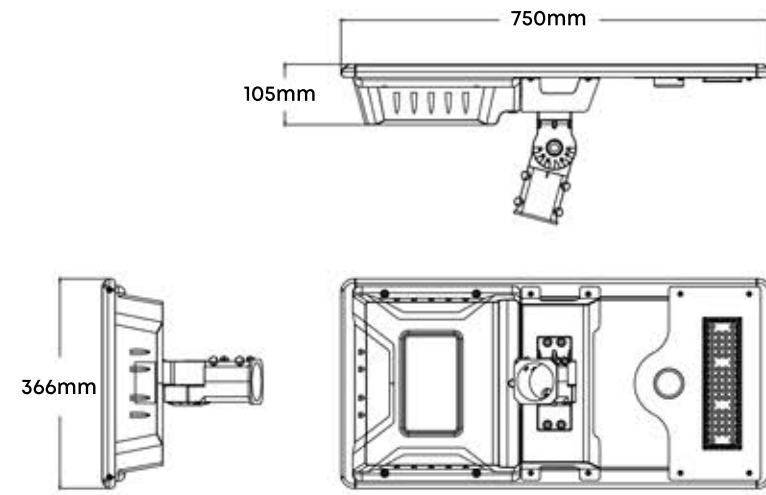
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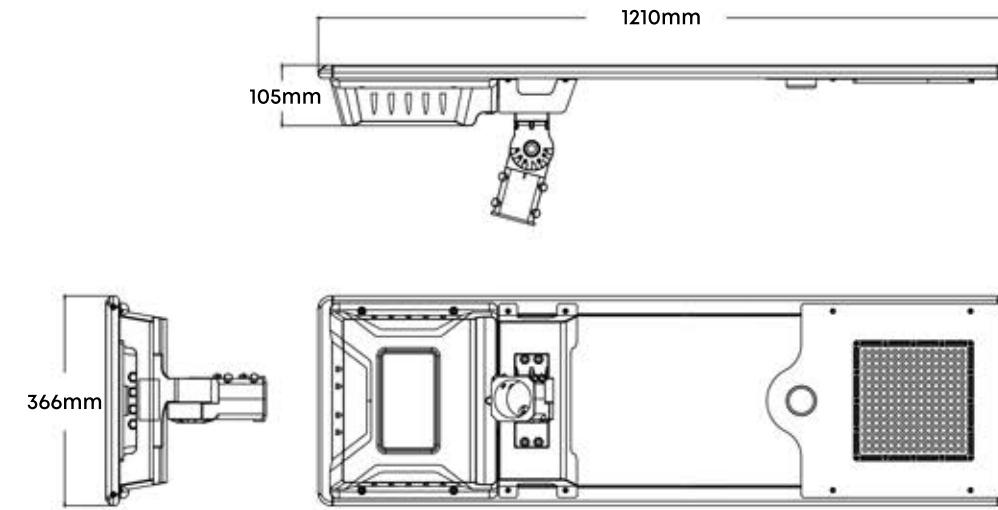


## Dimensions (Non-Adjustable module)

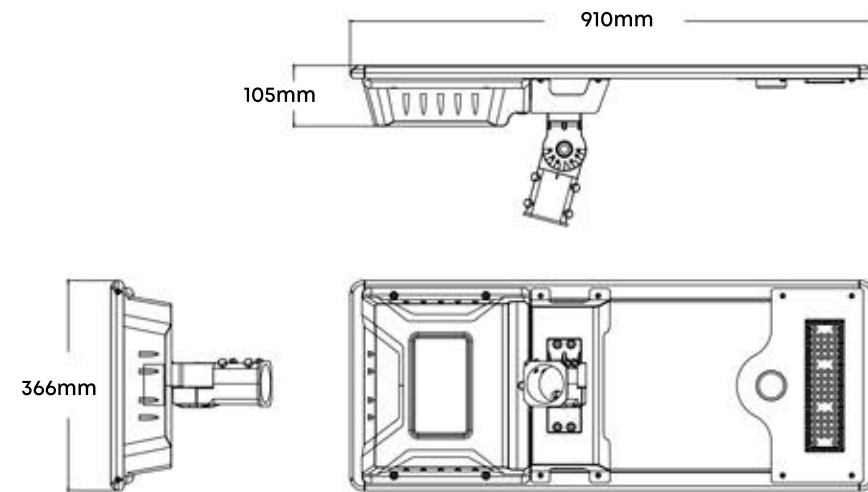
### SD20-20W



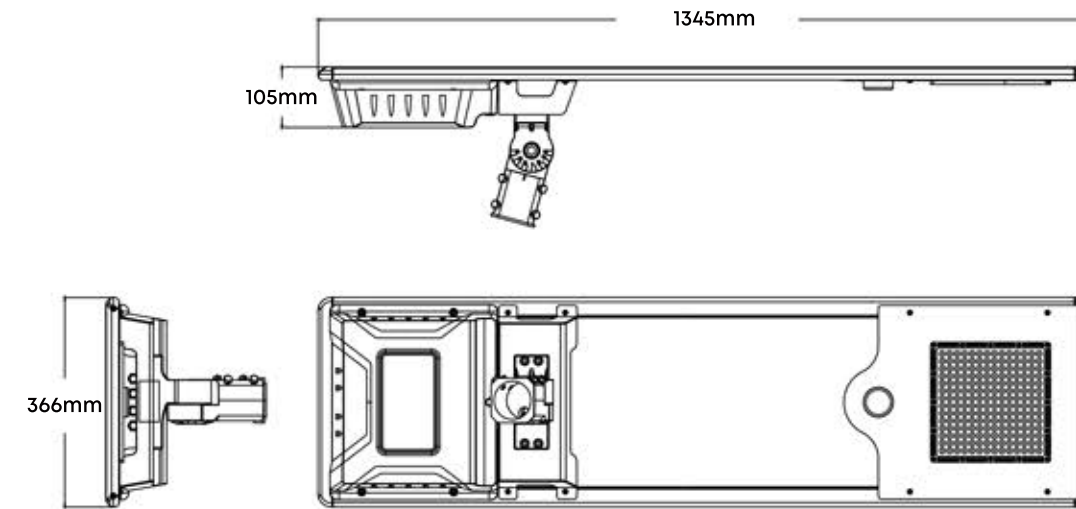
### SD50-50W



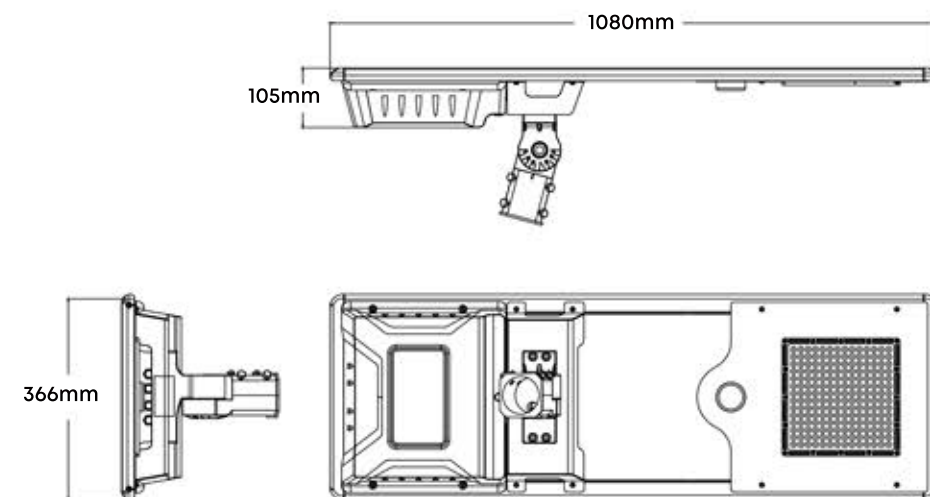
### SD30-30W



### SD60-60W



### SD40-40W



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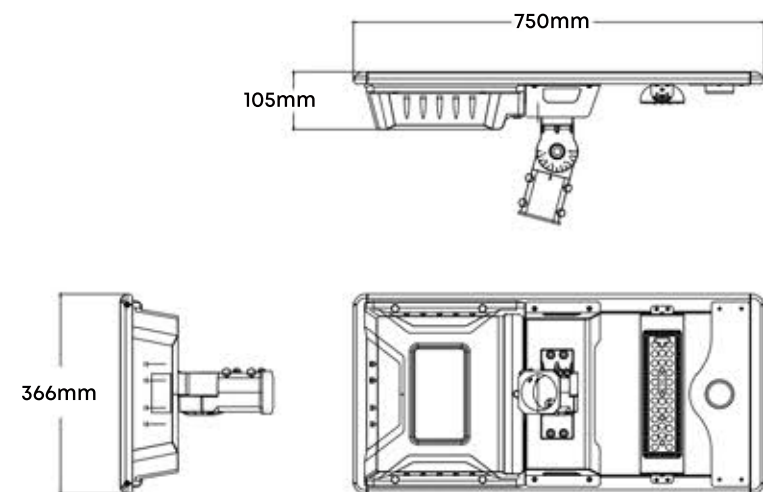
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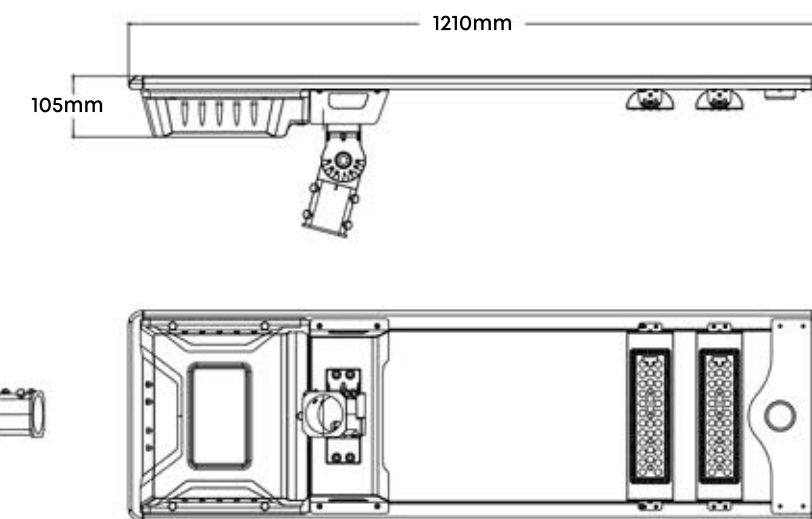


## Dimensions (Adjustable module)

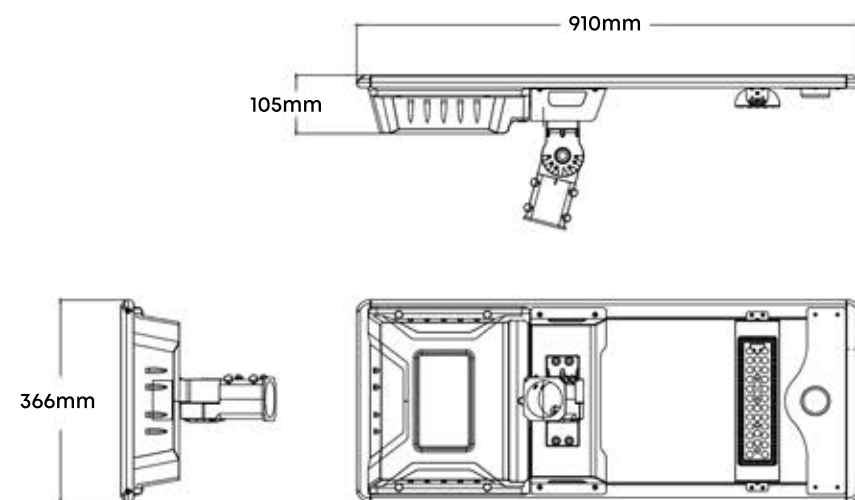
### SD20-20W



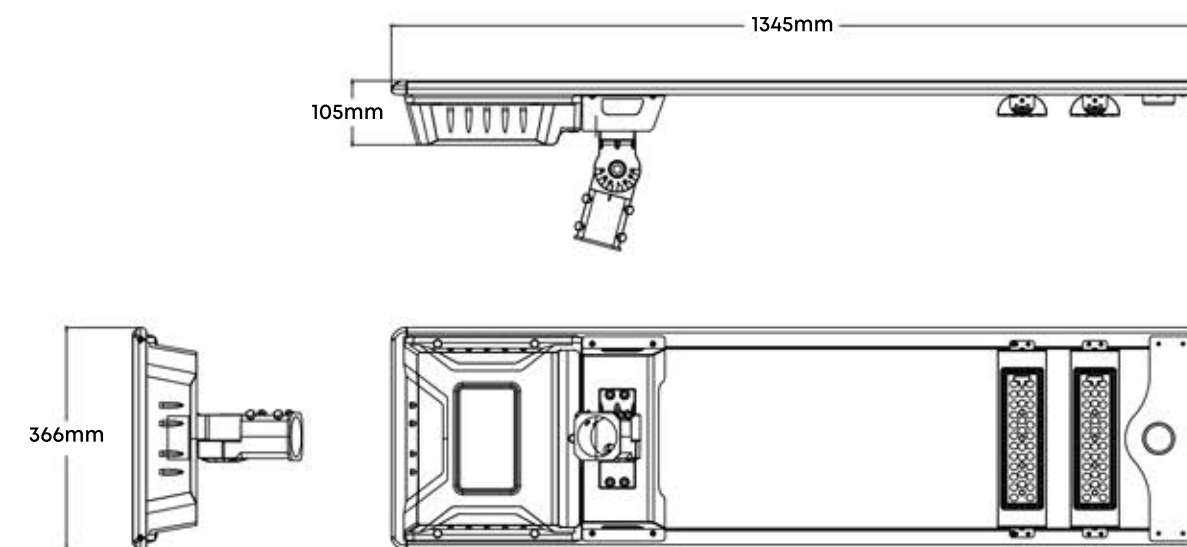
### SD50-50W



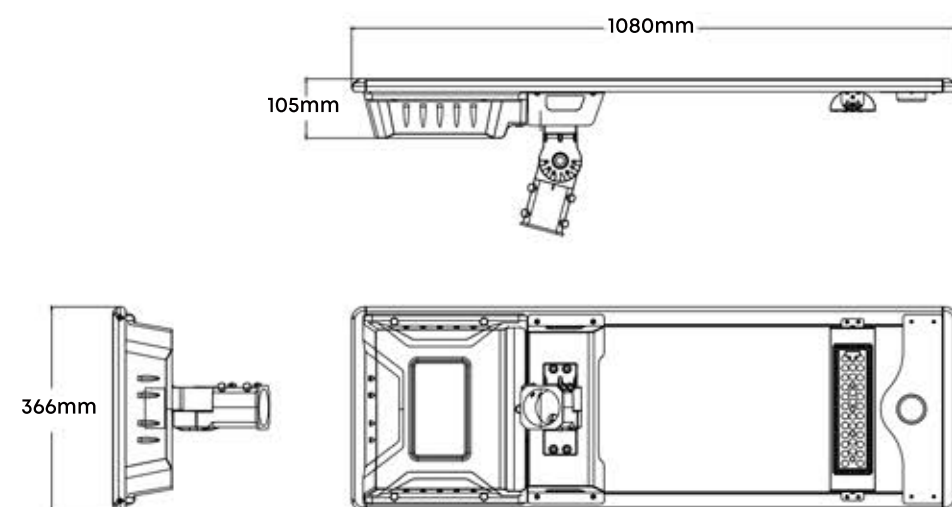
### SD30-30W



### SD60-60W



### SD40-40W



## SD Series Specification Sheet

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