

200+ Patent Certificates
\$1,000,000+ Annual Energy Saving
20,000+ Projects Successfully Installed



SD All in One Solar Street Light

Power: 20W-120W



Innovative & Tailored
Lighting Solutions for **Success**
www.aokledlight.com

Discover **SD** Series



For other certificates please request



3
★★★★★

5
★★★★★

● **WARRANTY**

3 Year Limited Warranty,
5 Year Preferred Warranty.

Please consult with our sales for detailed agreement.

- Power range: from 20W to 120W;
- One-sided monocrystalline solar panel, suitable for remote areas without electricity access, with optional bifacial panel.
- Uses LiFePO4 batteries, enduring over 2000 charge/discharge cycles for safety, compactness, and longer lifespan.
- Operates for 2-3 rainy days in intelligent mode.
- MPPT controller offers energy-saving mode with adjustable levels, extending lighting duration and auto brightness adjustment.
- Crafted from die-cast aluminum with anti-corrosion C5-grade coating.
- Highly efficient 210lm/W option, outperforming standard solar lights with lower energy consumption.
- Precision optics for efficient road lighting in various conditions, no light wastage, and ULR = 0% to prevent up-light pollution.
- The optical systems maintains an IP65 rating for durability.

Advantages of SD All in One Solar Street Light



**Streamlined Design &
Wind Resistance**



**Adjustable &
Reinforced Bracket**



**Monocrystalline
Silicon Solar Panel**



**Bifacial Solar Panel
Optional**



**Customizable
Battery Box**



**Long Lifespan
Li-ion Battery & MPPT**



**Intelligent Lighting
Control**



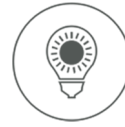
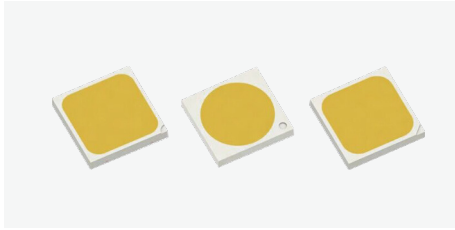
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AOK[®]
Quality, Honesty, Service and Innovation

Energy-efficient Lighting Systems

Single lumen efficiency **>210lm/W**
achieve higher illumination



High Efficiency



Long Lifespan



Less Calorific Value

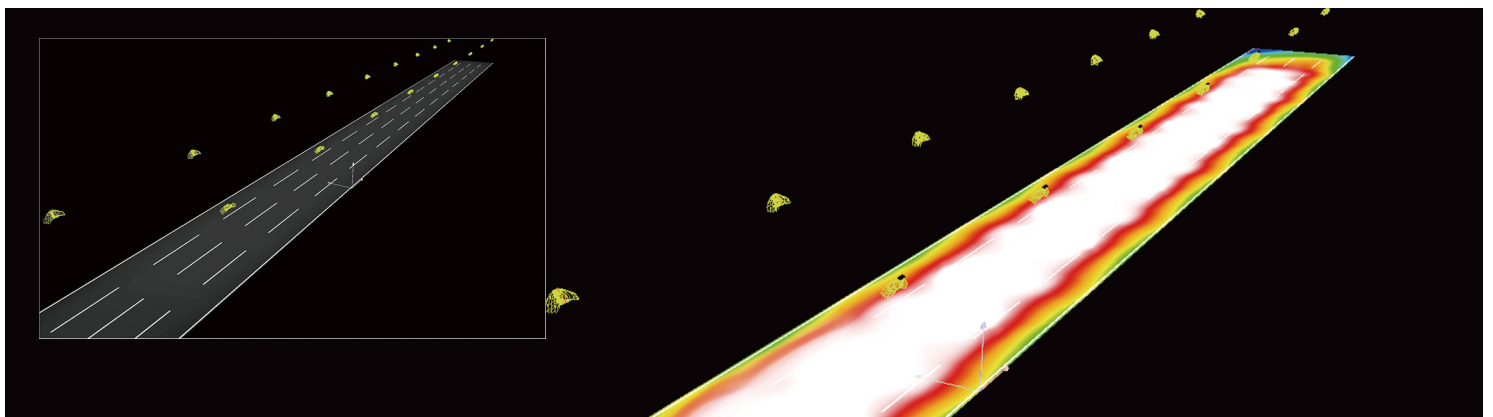
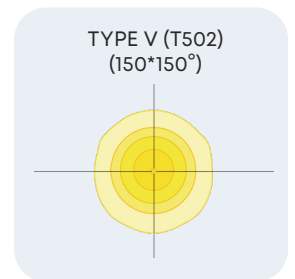
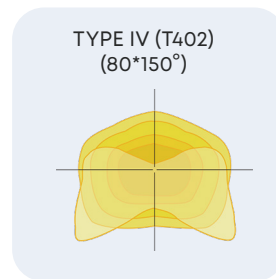
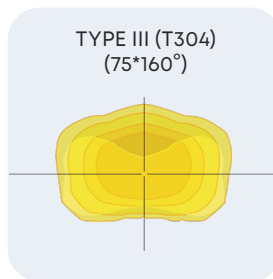
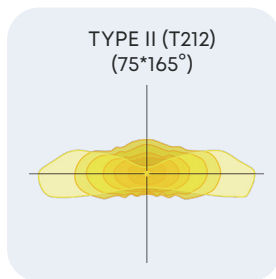
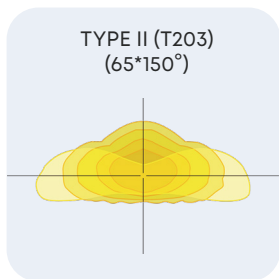


Low Light Decay

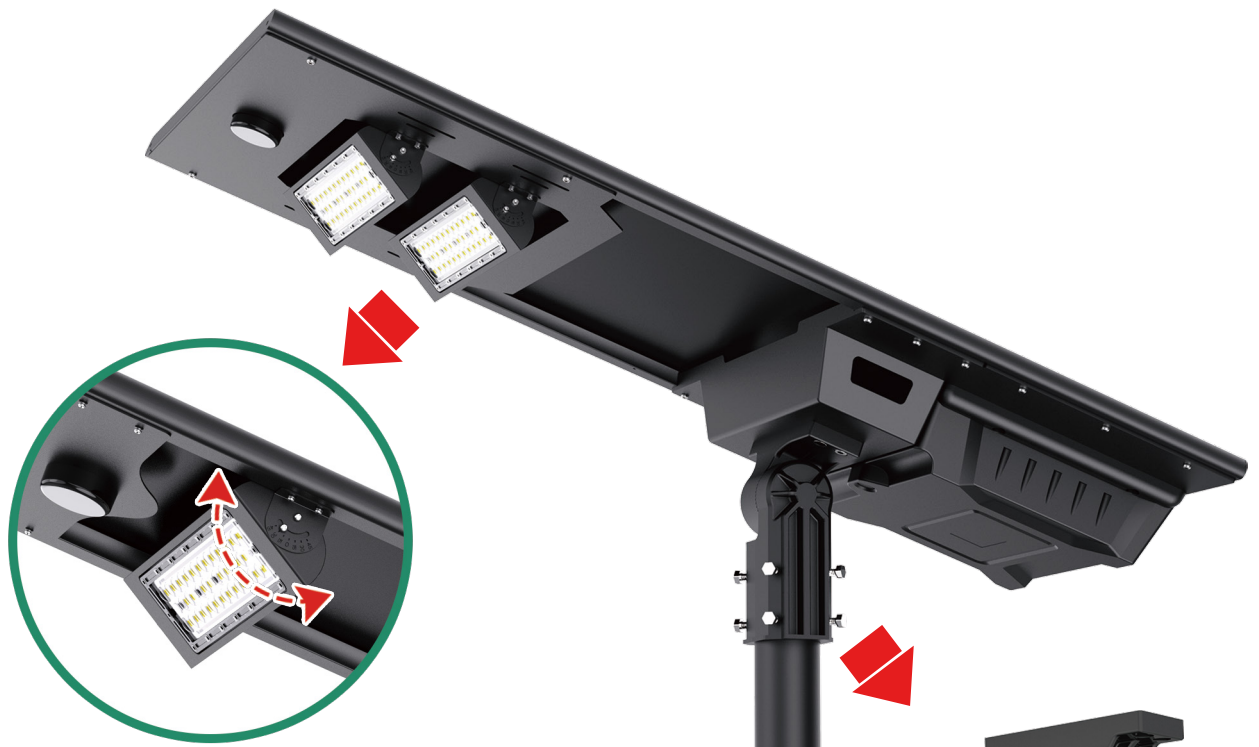
- The light engine utilizes the latest high-efficiency LEDs and specialized optics for professional use.
- When paired with 5050 LED chips, it offers lighting solutions ranging from premium specialty lighting to cost-effective yet high-quality fixtures.

Multiple Distribution Options

General solution, accurate light distribution design, flexible to match the project requirements:



* Due to working temperature and CCT/CRI adjustments, actual photometric values may vary slightly. Please consult the measured IES file for accurate data. The above information is for reference purposes only.



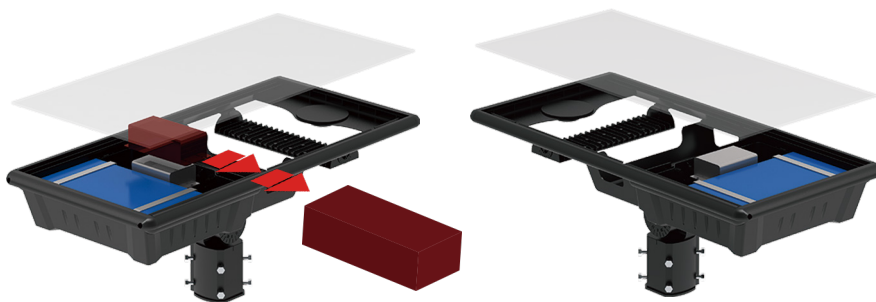
Rotatable
module ($\pm 45^\circ$)



Adjustable
reinforced bracket
3G vibration test passed

Hybrid Grid Power Solution Optional

For Standard Configuration Version Diagram



External power supply

The Standard configuration for 20W to 80W, with the driver inside the battery box.
The Standard configuration for 100W to 120W, with the driver placed outside the battery box.

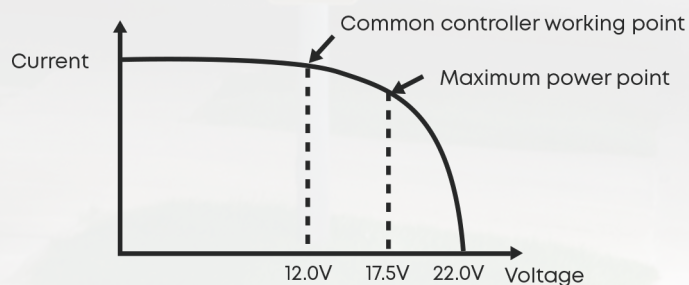
The Hybrid Grid Power Solution offers a replaceable internal power supply, seamlessly switching between mains and battery power based on voltage thresholds. The standard setup does not include the Hybrid power feature.

Application Reference

- Road & street lighting
- Residential area lighting
- Garden, parks & perimeter lighting
- Parking lot lighting
- Industrial and commercial park lighting
- Railway & station side lighting
- Riverside & jogging track lighting



Advantages of Controller



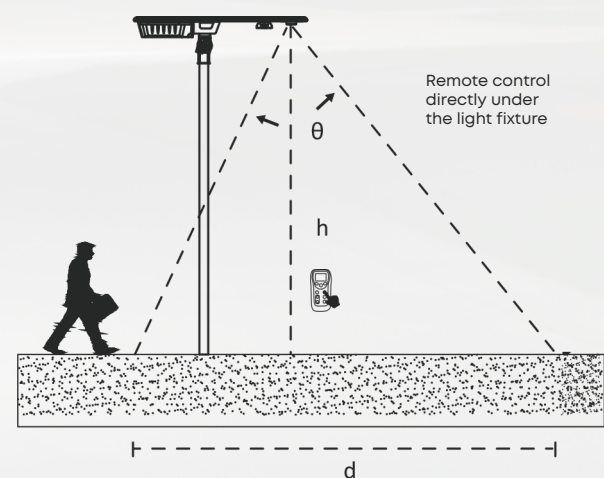
(take 12V battery system as an example)

- 1) Moving Track MPPT maximum power tracking technology is adopted to improve the tracking efficiency and speed by more than 20%;
- 2) UltraGreen power control technology with extremely low static power consumption and sleep current;
- 3) 10 time-periods programmable load power/time control;
- 4) Multiple intelligent power modes can be selected, and the load power can be automatically adjusted according to the battery power;
- 5) Multiple protection functions such as battery /PV reverse connection protection, LED short circuit/open circuit/power limit protection;
- 6) Aluminum metal housing, IP67 waterproof rating, can be used in a variety of harsh environments
- 7) Extensible IoT remote communication monitoring function;

Customizable Housing Color



Detection distance



*Remote control is optional

Remote control distance 5-8 meters, installation height and environment and other factors will affect the controller sensitivity, please refer to the actual field.
Note: Please do not place 2 or more lights within 12 meters at the same time while using the remote controller, receiving or sending may fail.

Inductive Type (alternative)	θ -Angle (X-axis rotation: 360°)	h (Height of lamp rod)	d (Inductive width)
IR (Infrared)	60°	6-8m	6-10m
WB (Microwave)	65°	6-10m	7-10m

Smart Control Ready For Efficient Management

Application of **Typical Networking** of Smart Street Light (optional)



Single lamp control

Control street light switch, brightness adjustment, current acquisition. Voltage acquisition, power calculation and power factor functions.



Wireless network

From the device to the cloud, NB-IoT, GPRS, LTE and other cellular networks are used, without cabling.



Fault management

The street light can automatically report fault information, troubleshoot faults through the platform, and query historical faults.



Energy management

Supports online monitoring and storage of energy consumption and configuring energy saving policies.



Intelligent monitoring

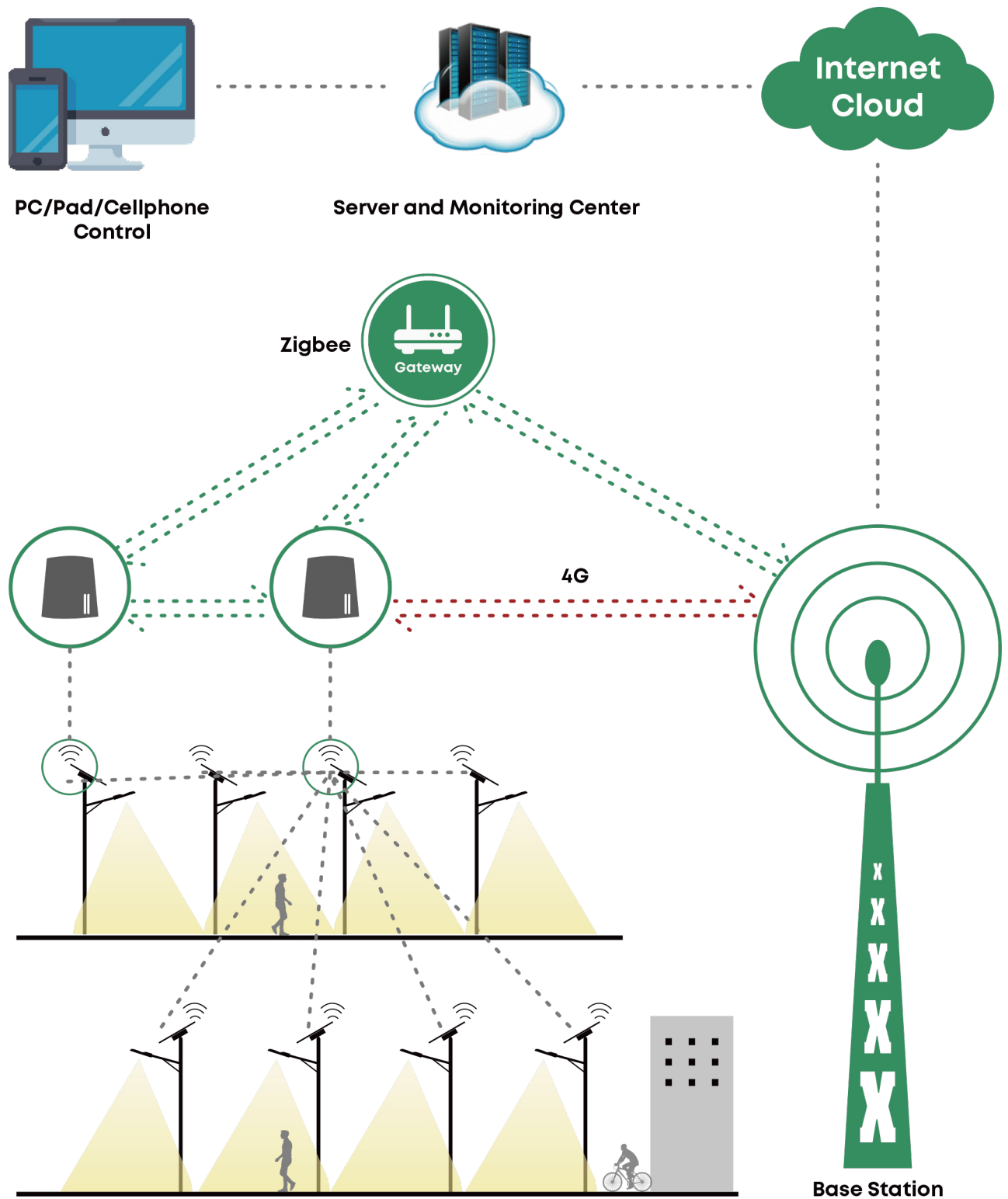
Support remote monitoring and remote control through PC web and mobile APP.



Big data analysis

Based on the massive data of the platform, street light fault analysis and energy consumption analysis can be carried out to provide a basis for the maintenance of street light equipment to save energy and reduce consumption.

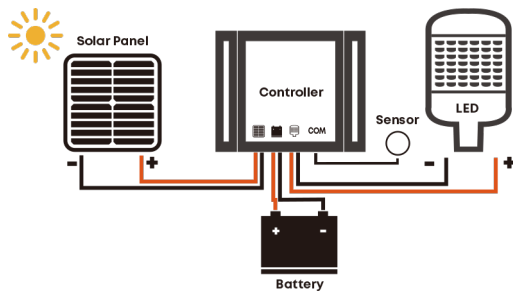
Application of Typical IOT networking



Parameter Table

Electrical Data									
Model		AOK-SD20	AOK-SD30	AOK-SD40	AOK-SD50	AOK-SD60	AOK-SD80	AOK-SD100	AOK-SD120
Power		20W	30W	40W	50W	60W	80W	100W	120W
Control Option	Photocell sensor, Timing, dimming, intelligent power saving, microwave sensor or PIR sensor.								
Grid Hybrid Power Solution(optional) Driver	Inventronics/MOSO								
Work Mode	2H-100%; 4H-Detected: 60%, None: 20%; 6H-Detected: 40%, None: 10%								
Photometric Data									
LED Model		5050, custom on request							
Lens	Polycarbonate								
Efficacy (lm/W, Std. Dev. ±5%)@CCT=5700K, CRI>70Ra	5050	210lm/W	210lm/W	200lm/W	210lm/W	210lm/W	200lm/W	210lm/W	200lm/W
Luminous Flux (lm, Std. Dev. ±5%)@CCT=5700K, CRI>70Ra	5050	4200lm	6300lm	8000lm	10500lm	12600lm	16000lm	21000lm	24000lm
ULOR	= 0%, @ Luminaire inclination 0°								
CCT	3000K, 4000K, 5000K, 5700K, 6500K								
CRI	70Ra/80Ra optional								
Beam Angle	T203(65°150°) / T212(75°165°) / T304(75°160°) / T402(80°150°) / T502(150°150°)								
Mechanical Data									
SCx (EPA) Fixed Module	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: 0.077m² (0.83ft²) 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)	Top View: 0.690m²(7.43ft²) Side View: 0.082m²(0.88ft²) Front View: 0.062m²(0.67ft²)	Top View: 0.750m²(8.07ft²) Side View: 0.084m²(0.90ft²) Front View: 0.062m²(0.67ft²)	Top View: 0.910m²(9.80ft²) Side View: 0.091m²(0.98ft²) Front View: 0.062m²(0.67ft²)	
IP Rating	IP65, according to standard EN 60529								
Housing	Heavy-duty die-cast aluminum (EN AC-46100)+PA66								
Surface Treatment	Anti-UV thermosetting polyester / 80 micron epoxy primer + Anti-UV thermosetting polyester (for extremely corrosive environments).								
Painting	Black, custom color on request, C5-grade painting.								
Mounting	Post Top								
Configuration Data									
Photovoltaic Panel	Single side monocrystalline solar panel								
Solar Panel Voltage(W)	19V 45W	19V 55W	19V 70W	17V 80W	19V 90W	18V 100W	36V 120W	36V 150W	
Battery Voltage(AH)	12.8V 12AH	12.8V 15AH	12.8V 30AH	12.8V 30AH	12.8V 45AH	12.8V 45AH	25.6V 30AH	25.6V 36AH	
Li-ion Battery(WH)	153.6WH	192WH	384WH	384WH	576WH	576WH	768WH	921.6WH	
Charing Time	3.6Hrs	3.7Hrs	5.8Hrs	5.1Hrs	6.7Hrs	6.1Hrs	6.7Hrs	6.5Hrs	
Run Time(@full power)	6.9hrs	5.7hrs	8.6hrs	6.9hrs	8.6hrs	6.5Hrs	6.9hrs	6.9hrs	
Battery Lifespan	>2000 times cycle								
Ambient Temperature	-10°C to 50°C (14°F to 122°F)								
Storage Temperature	-20°C to 45°C (-4°F to 113°F)								
Control System	MPPT/PWM optional, custom IOT or remote control on request								
Maximum Autonomy	Operate 2~3 rainy days under intelligent model.								
Others									
Lifespan	L90B10 - 100000 hrs, @Tq 25°C								
Warranty	3 years as standard (Warranty extension to 5 years on request)								
Certification	CE/FCC/RoHs,For other certificates please request								
Product Size	750*366*106 mm / 29.5*14.4*4.2 inches	910*366*106 mm / 35.8*14.4*4.2 inches	1080*366*106 mm / 42.5*14.4*4.2 inches	1210*366*106 mm / 47.6*14.4*4.2 inches	1345*366*106 mm / 53.0*14.4*4.2 inches	1060*550*110 mm / 41.7*21.7*4.3 inches	1145*550*110 mm / 45.1*21.7*4.3 inches	1390*550*110 mm / 54.7*21.7*4.3 inches	
Net Weight	10kg / 22.0 lbs	11.5kg / 25.3 lbs	13kg / 28.7 lbs	14.5kg / 32 lbs	16kg / 35.3 lbs	24kg / 53 lbs	28kg / 61.7 lbs	31kg / 68.3 lbs	
Carton Size	1025*440*195 mm / 40.4*17.3*7.7 inches	1025*440*195 mm / 40.4*17.3*7.7 inches	1195*440*195 mm / 47.1*17.3*7.7 inches	1325*440*195 mm / 52.2*17.3*7.7 inches	1460*440*195 mm / 57.5*17.3*7.7 inches	1180*640*240mm / 46.5*25.2*9.5 inches	1265*640*240mm / 49.8*25.2*9.5 inches	1510*640*240mm / 59.5*25.2*9.5 inches	
Gross Weight	12kg / 26.5 lbs	13.5kg / 29.8 lbs	15kg / 33.1 lbs	16.5kg / 36.4 lbs	18kg / 39.7 lbs	26kg / 57.3 lbs	30kg / 66.1 lbs	33kg / 72.8 lbs	
Recommend Installation Height	3-5m	4-7m	5-7m	5-7m	6-8m	7-9m	8-10m	8-12m	
Application Field	Road & street, residential area, garden, parks, parking lot, industrial and commercial parks, railway & station side, riverside & jogging track								
Storage Instruction	For long-term storage, it is advisable to first fully charge the battery, then discharge it for 2 to 3 hours. This should be done every 3 months to prevent battery damage.								
Important Note!	The provided information is solely for reference; the official measurement report holds higher authority.								

Working Way



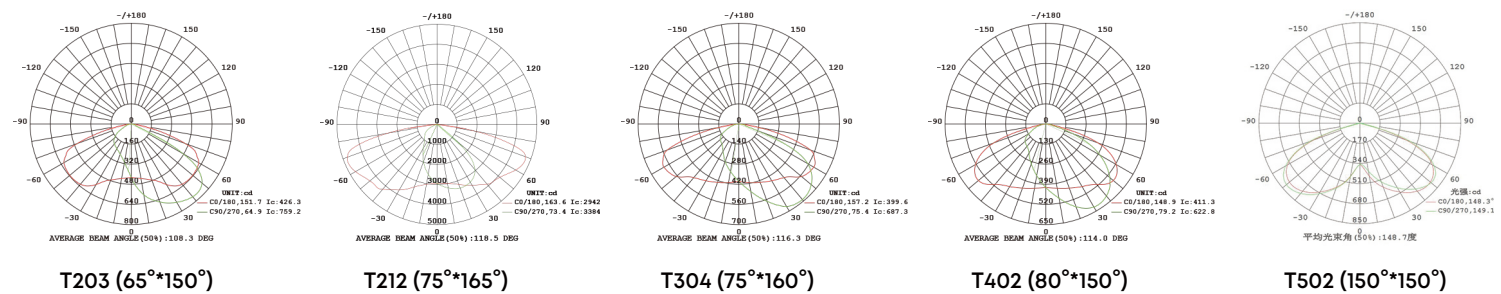
Solar panels receive sunlight during the day to generate electricity, which is charged by a controller to a battery; When the solar panel voltage is lower than the set value (rated 5V), the controller will stop charging and drive the LED to emit light.

When the battery voltage is lower than the set value, the power supply will switch to mains power, and when the voltage is higher than the set value, it will switch to battery power. The standard configuration does not include mains complementary function.

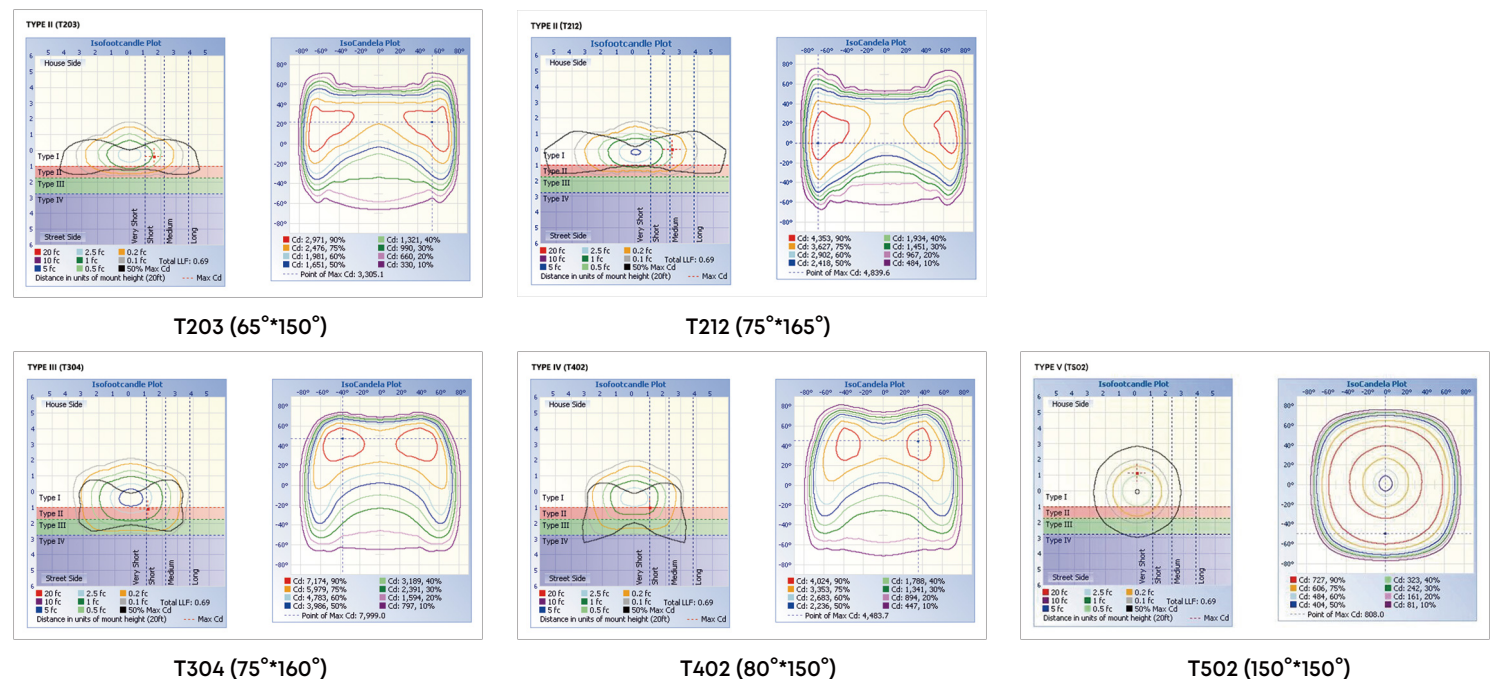
Ordering Information

AOK								
MODEL	VOLTAGE	LED CHIPS	TYPE OF SENSOR	CCT&CRI	DISTRIBUTION	MOUNT	HOUSING	MODULE
20WSD	DC=Solar	A5=5050	00=Without Sensor	3070=3000K 70CRI	T203 (65°*150°)	A=Post Top	BK=Black	Adjustable
30WSD	HB=Hybrid		PIR=PIR Sensor	4070=4000K 70CRI	T212 (75°*165°)		Custom request	
40WSD			MS=Microwave Sensor	5070=5000K 70CRI	T304 (75°*160°)			
50WSD				5770=5700K 70CRI	T402 (80°*150°)			
60WSD				6570=6500K 70CRI	T502 (150°*150°)			
80WSD				3080=3000K 80CRI				
100WSD				4080=4000K 80CRI				
120WSD				5080=5000K 80CRI				
				5780=5700K 80CRI				
				6580=6500K 80CRI				

Photometry

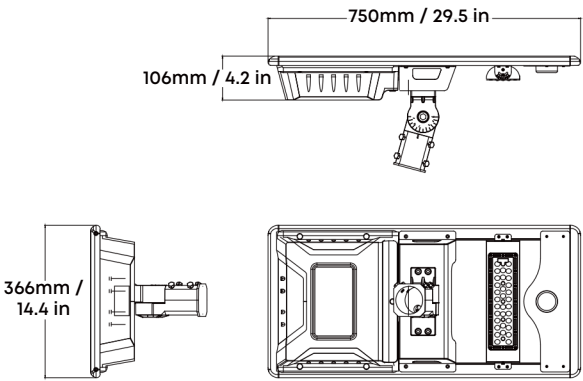


Illuminance Diagram

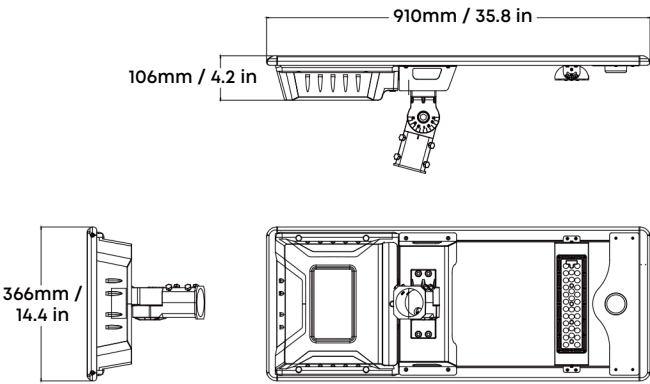


Dimensions

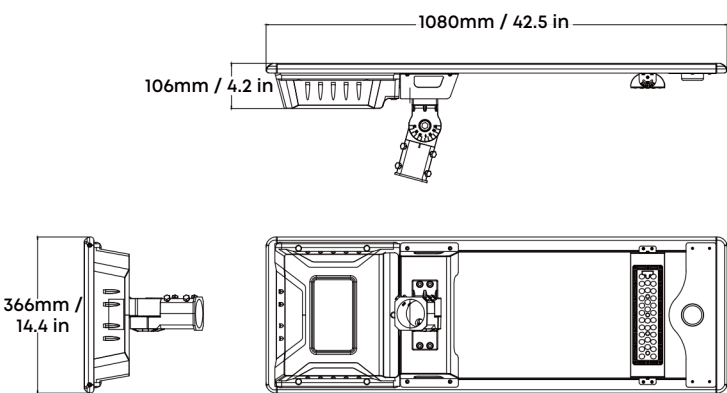
SD20-20W (LED model: 5050 ; Distribution: T2/T3/T5)



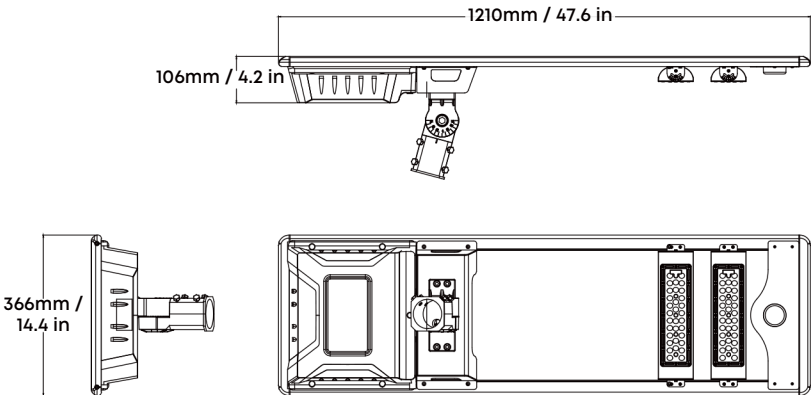
SD30-30W (LED model: 5050 ; Distribution: T2/T3/T5)



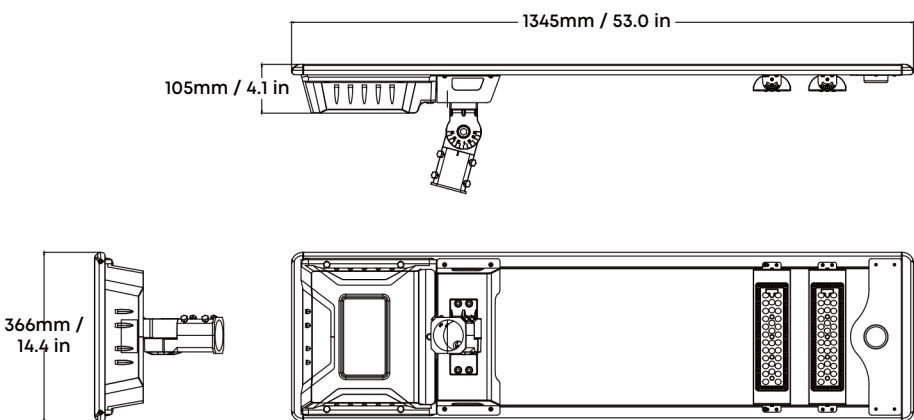
SD40-40W (LED model: 5050 ; Distribution: T2/T3/T5)



SD50-50W (LED model: 5050 ; Distribution: T2/T3/T5)

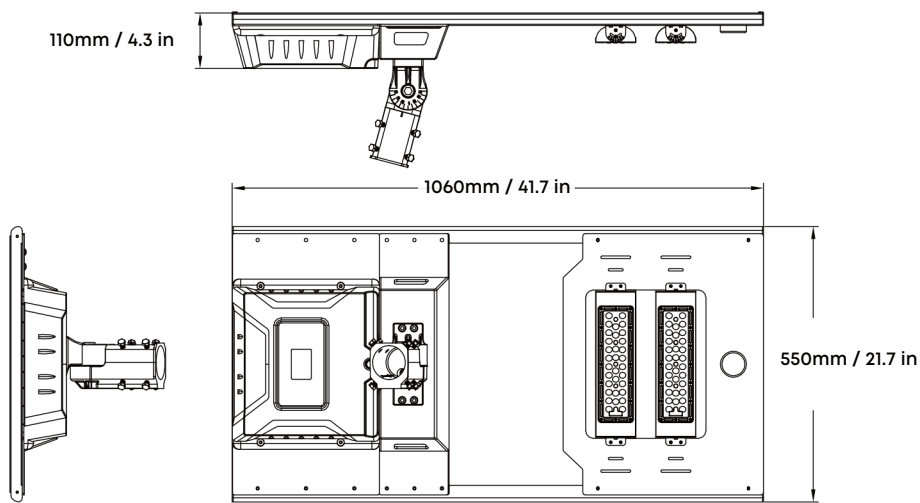


SD60-60W (LED model: 5050 ; Distribution: T2/T3/T5)

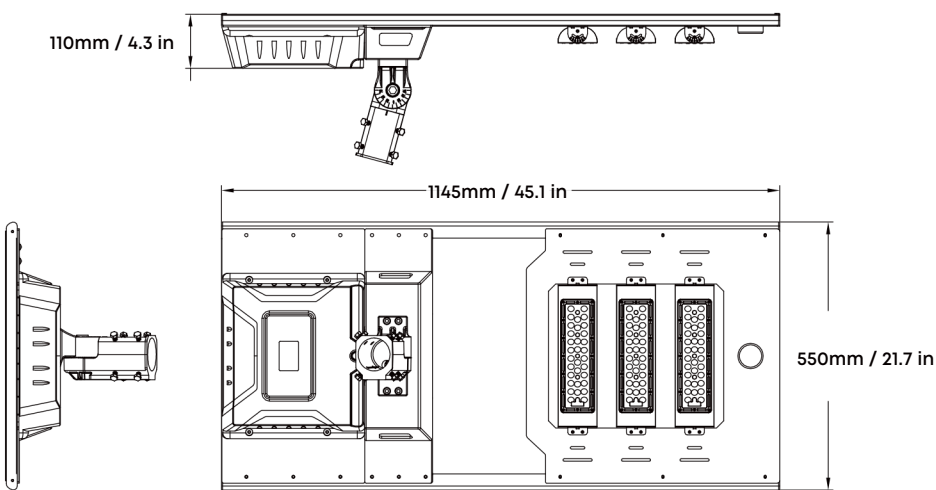


Dimensions

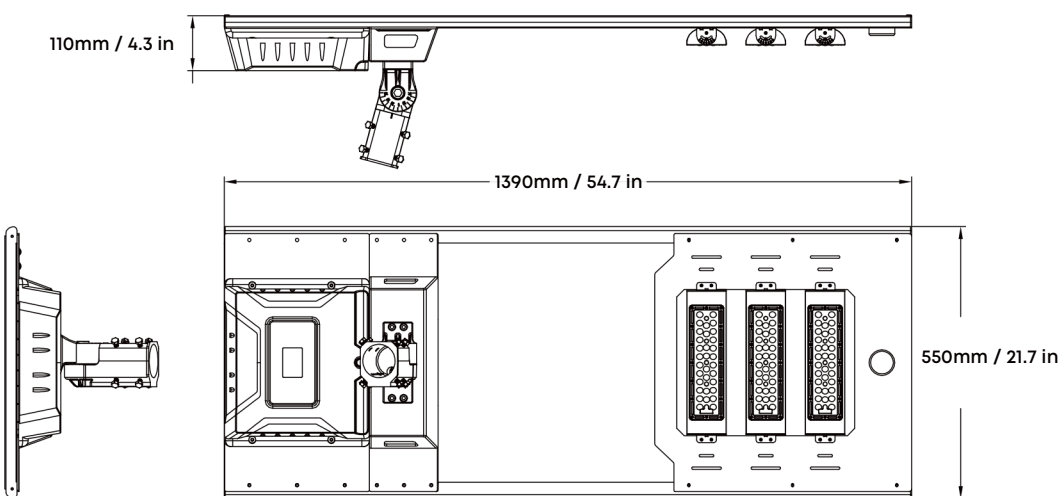
SD80-80W (LED model: 5050 ; Distribution: T2/T3/T5)



SD100-100W (LED model: 5050 ; Distribution: T2/T3/T5)



SD120-120W (LED model: 5050 ; Distribution: T2/T3/T5)





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5 Year Preferred Warranty.
Please consult with our sales for detailed agreement.

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