AOK®

Quality, Honesty, Service and Innovation

ISL SOLAR STREET LIGHT 20W-100W

Better Performance
Starts From Better Lighting

www.aokledlight.com

> Features of SL Series

Outdoor solar lighting systems employ solar cells that transform sunlight into electricity, which is subsequently stored in batteries for nocturnal usage. Their utilization doesn't lead to an escalation in your electricity costs.

• The SL Solar LED Street Light embodies a conventional street light design, powered by solar energy, characterized by a discreet profile. It includes dimming capabilities and offers intelligent IOT control functionality.

• Deep cycle battery, charge and discharge over 2000 times.

• Continuously work 2-3 rainy days in intelligent mode.

• Die-cast aluminum fixture housing ;

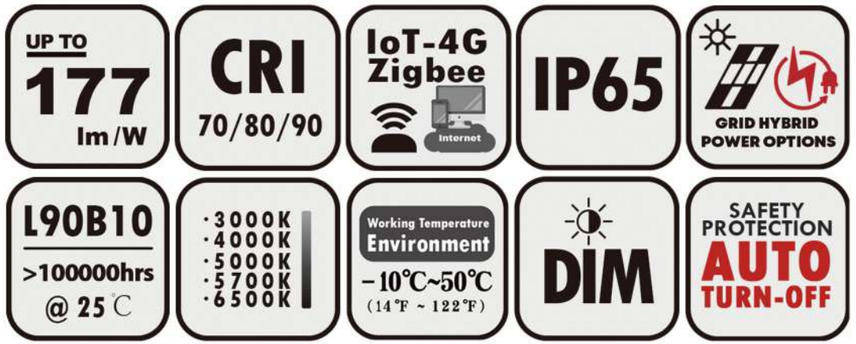
• UV stabilized polyester powder paint finish for durability and corrosion resistance;

• Mounting options: side entry installation;

• Streamlined design to reduce wind resistance;

• Reserved sensor location for ZigBee;

• Powdering / PC + Tempered glass cover.



KEY ADVANTAGES

- **Monocrystalline Silicon Solar Panel**
  25 years lifespan ensures durability
- **Solar Panel Integrated with Battery Box**
  Combining design for seamless integration, facilitating straightforward maintenance.
- **High Lumen Output**
  High-performance LEDs efficacy >177lm/W
- **Adjustable & Reinforced Bracket**
  Robust shock resistance and the flexibility for panel alignment with sunlight through free adjustments.
- **Long Lifespan Li-ion Battery & MPPT**
  Intelligent temperature control guarantees prolonged operation and safeguards battery lifespan
- **Grid Hybrid Solution Optional**
  Grid Hybrid Power optional, increased adaptability to fulfill project demands
- **Intelligent Lighting Control**
  Smart time-based lighting control, aligning with lighting requirements flexibly.

3 5 WARRANTY
3 Year Limited Warranty,
5 Year Preferred Warranty.
Please consult with our sales for detailed agreement.

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> Photometrics Design

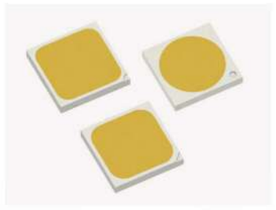
Lumen efficiency >177lm/W achieve higher illumination

High Efficiency

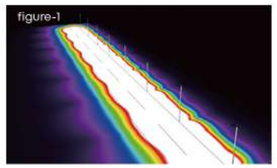
Long Lifespan

Less Calorific Value

Low Light Decay



Lumileds 3030/5050 LED chip creates a first-class light source. By choosing it, single lumen efficacy >177lm/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.



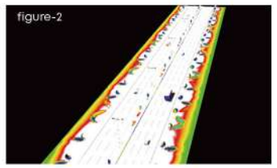
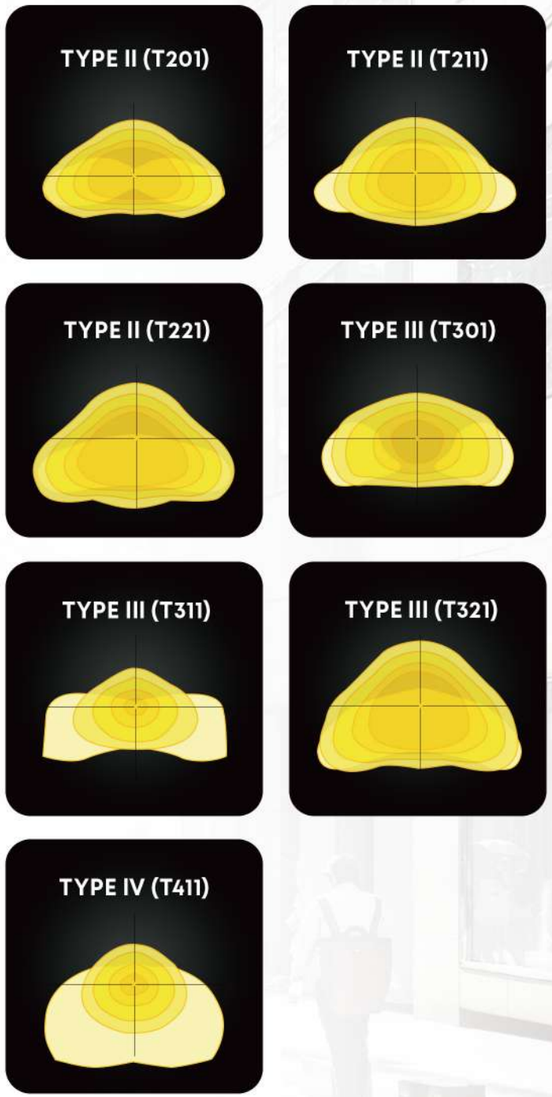


Figure-1: Example of rural branch road
Figure-2: Example of mian road or avenue

Planning and analysis of street lights can be done by using lighting simulation & design software, which allows the lighting effect a more intuitive display. It uses rendering, the process of generating an image from a model, by means of computer programs resulting in different tools for measuring the simulated light levels.

Distribution



*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.

> Application Reference

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

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> 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.

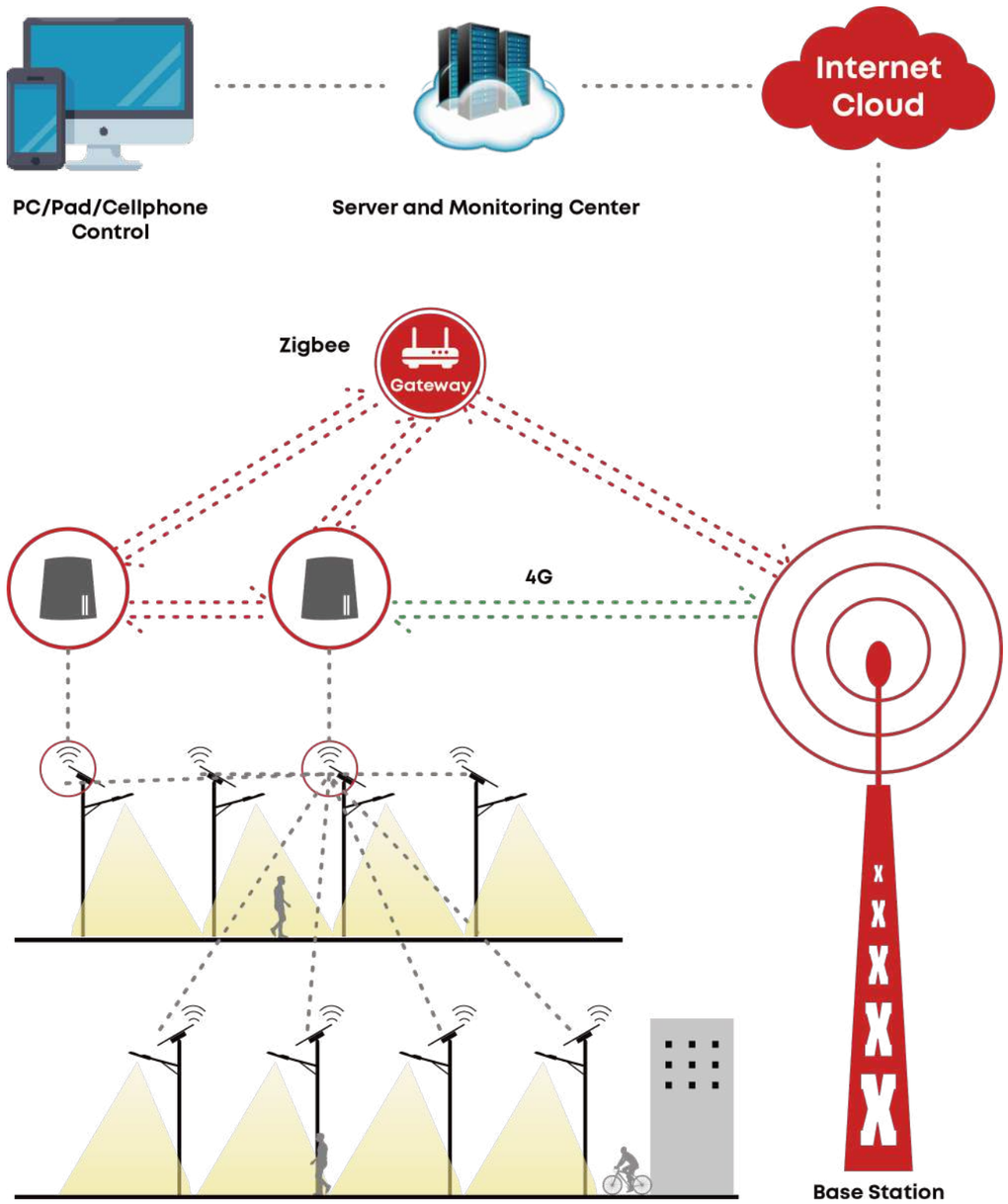
Intelligent monitoring

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



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Parameter Table

Electrical Data

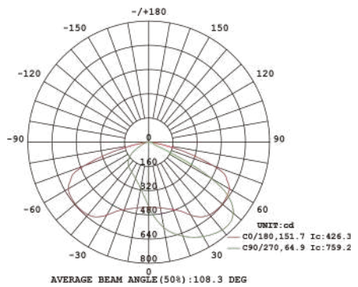
Model		AOK-20WsL	AOK-40WsL	AOK-60WsL	AOK-80WsL	AOK-100WsL
Power		20W	40W	60W	80W	100W
Input voltage		12-24V DC				
THD		<20%				
PF		>0.95				
Control Option		Dimming, Zigbee/4G				
Photometric Data						
LED Manufacturer		LUMILEDS				
LED model		Lumileds 3030/Lumileds 5050				
Lens		Polycarbonate				
Luminous flux(lm, Std. Dev. ±5%)	3030	3520lm	6640lm	10020lm	13360m	16700lm
	5050	3540lm	6680lm	10080lm	13440lm	16800lm
Efficacy(lm/W, Std. Dev. ±5%)	3030	176lm/W	166lm/W	167lm/W	167lm/W	167lm/W
	5050	177lm/W	167lm/W	168lm/W	168lm/W	168lm/W
ULOR		=0%, @ Luminaire inclination 0°				
CCT		3000K, 4000K, 5000K, 5700K, 6500K				
CRI		70Ra, 80Ra, 90Ra optional				
Beam angle		Type II/Type III/Type IV/Type V				
Mechanical Data						
IP Rating		IP65, according to standard EN 60529				
SCx(Fixture)		Front: 0.014 m²; Side: 0.0214 m²			Front: 0.0219 m²; Side: 0.035 m²	
SCx (Solar Panel)		Front：0.45m²; Front-side: 0.32m²; Side: 0.08m²;	Front：0.71m²; Front-side: 0.47m²; Side: 0.09m²;	Front：1.14m²; Front-side: 0.73m²; Side: 0.09m²;	Front：1.59m²; Front-side: 0.99m²; Side: 0.12m²;	Front：1.59m²; Front-side: 0.99m²; Side: 0.12m²;
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		Silver gray, Customized Color				
Mounting		Side entry (fixture) Post top(Solar panel)				
Configuration Data						
Photovoltaic panel		Single crystal photovoltaic panel				
Solar Panel		18V/72W	18V/130W	36V/200W	36V/280W	36V/280W
Li-on Battery		691.2WH	1305.6WH	1996.8WH	2611.2WH	2611.2WH
		12.8V 54AH	12.8V 102AH	25.6V 78AH	25.6V 102AH	25.6V 102AH
Charing Time		8hrs				
Battery lifespan		>2000 times cycle				
Run Time(@full power)		30hrs				
Ambient Temperature		-10°C to 50°C (-14°F to 122°F)				
Storage Temperature		-20°C to 45°C (-4°F to 113°F)				
Charing Temperature		-0°C to 45°C (32°F to 113°F)				
Control system		MPPT intelligent controller				
Maximum Autonomy		Operate under 3-5 rainy days				
Motion Sensor Mode		30%-100% 102hrs (Max), 20%-80% 155hrs (Max)				
Constant Mode(Full Charge)		100% 30hrs, 70% 45hrs, 40% 78hrs				
Others						
Lifespan		L90B10 - 100000hrs, @Tq 25°C				
Warranty		3 years in standard, 5 years optional				
Certification		CE RoHS (The company is ISO 9001 and ISO 14001 certified.)				
Product Size (Solar panel)		818*493*468mm / 32.2*19.4*18.4 inches	1003*653*508mm / 39.5*25.7*20 inches	1613*653*508mm / 63.5*25.7*20 inches	1500*990*593mm / 59.1*39.0*23.3 inches	1500*990*593mm / 59.1*39.0*23.3 inches
Net Weight		25.5kg / 56.22 lbs	35.5kg / 78.26 lbs	45.5kg / 100.31 lbs	73kg / 160.94 lbs	73kg / 160.94 lbs
Carton Size		Fixture: 520*270*135mm / 20.1*10.6*5.3 inches Box: 402*400*290mm / 15.8*15.7*11.4 inches Panel: 898*573*125mm / 35.4*25.6*4.9 inches	Fixture: 520*270*135mm / 20.1*10.6*5.3 inches Box: 620*400*290mm / 24.4*15.7*5.3 inches Panel: 1083*733*125mm / 42.6*28.9*4.9 inches	Fixture: 520*270*135mm / 20.1*10.6*5.3 inches Box: 691*400*290mm / 27.2*15.7*5.3 inches Panel: 1693*733*125mm / 66.7*28.9*4.9 inches	Fixture: 825*360*200mm / 32.5*14.2*7.9 inches Box: 1186*400*290mm / 46.7*15.7*11.4 inches Panel: 1560*1050*125mm / 61.4*41.3*4.9 inches	Fixture: 825*360*200mm / 32.5*14.2*7.9 inches Box: 1186*400*290mm / 46.7*15.7*11.4 inches Panel: 1560*1050*125mm / 61.4*41.3*4.9 inches
Gross Weight		Fixture: 3kg / 6.61 lbs Box: 19kg / 41.89 lbs Panel: 8kg / 17.64 lbs	Fixture: 3kg / 6.61 lbs Box: 25kg / 55.12 lbs Panel: 12kg / 26.46 lbs	Fixture: 3kg / 6.61 lbs Box: 38kg / 83.78 lbs Panel: 16kg / 35.27 lbs	Fixture: 8.1kg / 17.86 lbs Box: 46kg / 101.41 lbs Panel: 25kg / 55.12 lbs	Fixture: 8.1kg / 17.86 lbs Box: 46kg / 101.41 lbs Panel: 25kg / 55.12 lbs
Recommend installation height		3-4M(10-13ft)	5-6M(16-19ft)	7-8M(22-26ft)	9-10M(29-32ft)	11-12M(36-39ft)
Application field		Road & street, residential area, garden, parks, parking lot, industrial and commercial parks, railway & station side, riverside & jogging track				
Important note!		**The provided information is solely for reference; the official measurement report holds higher authority.**				

Ordering Information

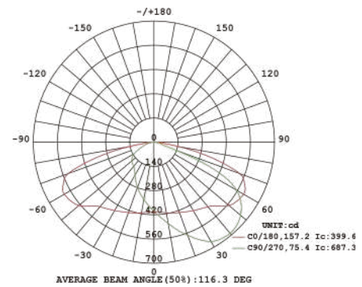
AOK						
WATTS	**VOLTAGE**	**LED CHIPS**	**CCT&CRI**	**DISTRIBUTION**	**MOUNT**	**OPTION**
20WsL	NV1=12.8V DC	L3=LUMILEDS 3030	3070=3000K 70CRI	T2=TYPE II	A=Top Post	Intelligent Control
40WsL	NV2=25.6V DC	L5=LUMILEDS 5050	4070=4000K 70CRI	T3=TYPE III		
60WsL			5070=5000K 70CRI	T4=TYPE IV		
80WsL			5770=5700K 70CRI	T5=TYPE V		
100WsL			6570=6500K 70CRI			
			3080=3000K 80CRI			
			4080=4000K 80CRI			
			5080=5000K 80CRI			
			5780=5700K 80CRI			
			6580=6500K 80CRI			

Photometry

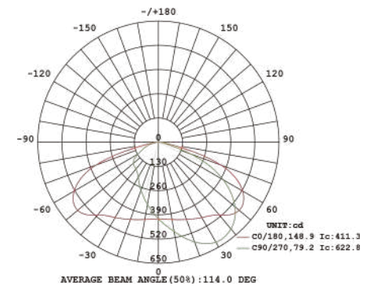
Type II



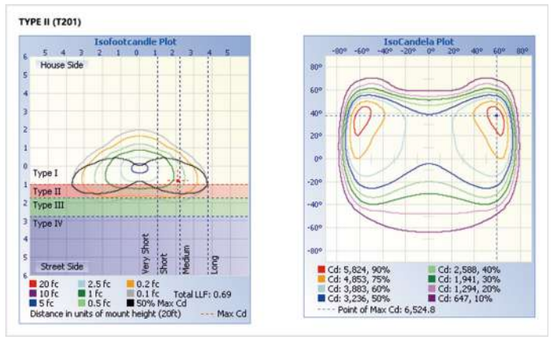
Type III

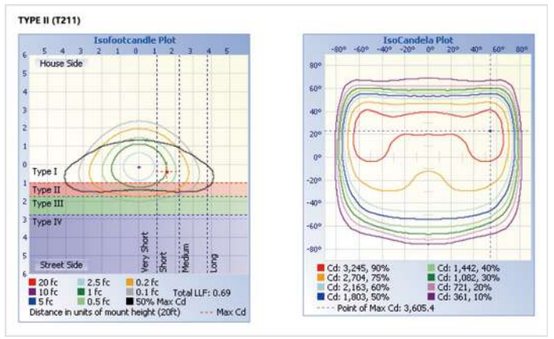


Type IV



Illuminance Diagram





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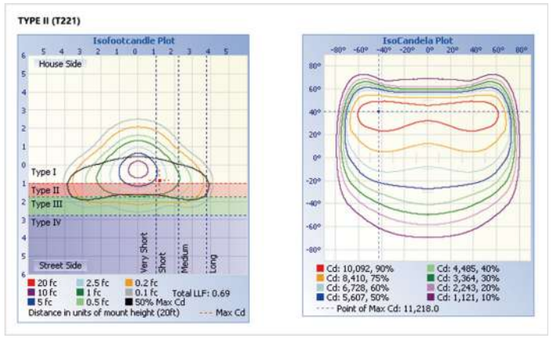
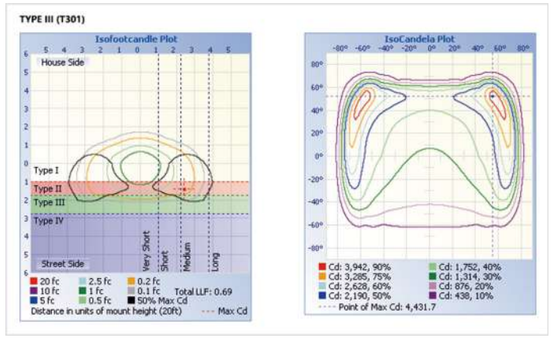
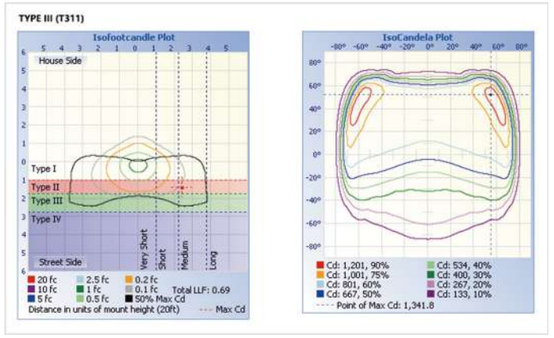
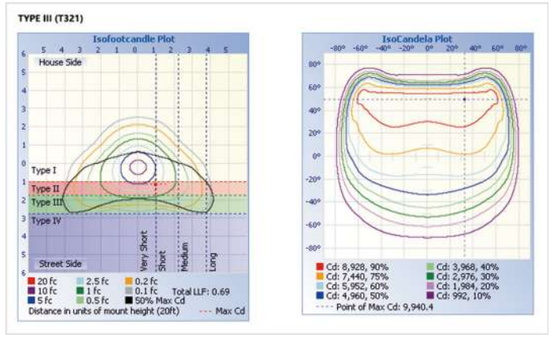
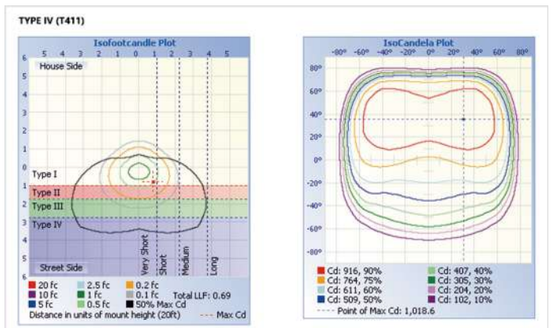




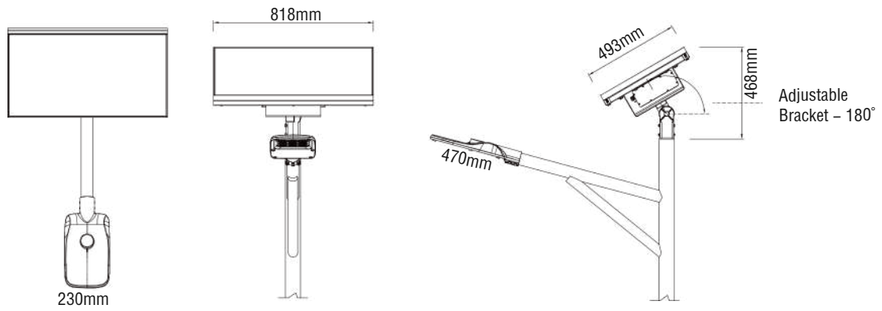




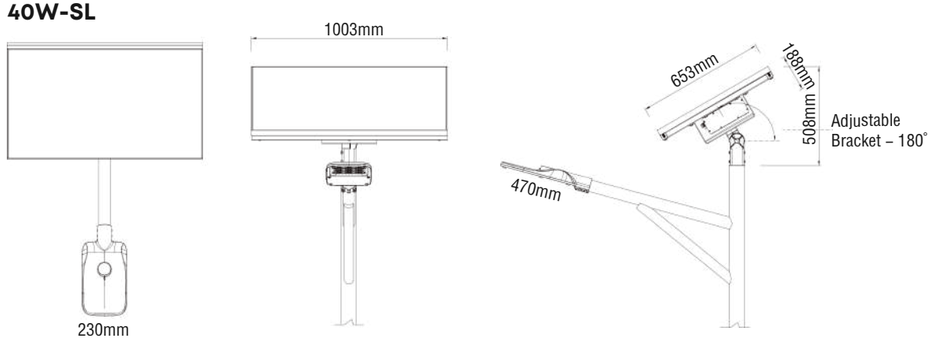


Dimensions

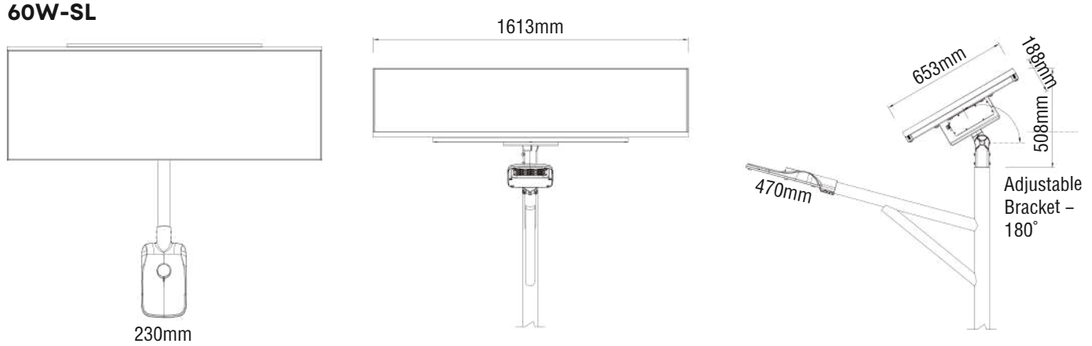
20W-SL



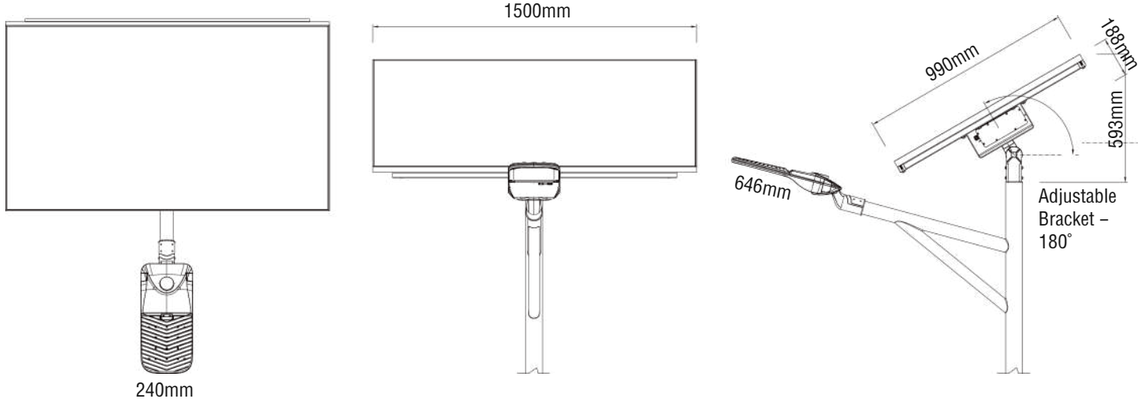
40W-SL



60W-SL



80W-100W-SL



Accessories

MPPT
4G/Zigbee-IoT

Programable
Remote Control
(optional)

Caution:
Accessories need to be ordered separately.
As the products are upgraded, the accessories may differ from those described in the pictures.
Please consult with our sales team for updated details and order separately.

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