

RC-SERIES



SMART ENERGY
SOLAR AND LIGHTING



CE CB

RoHS
Compliant

FC



LM-79
LM-80

IP66
IK08

7 YEAR
WARRANTY

LED STREET LIGHTS



➤ Deep Grey



➤ Light Grey



Photocell available
Lamp will Auto turn on and off according to lux difference.

LED power supply



+ NON-DIMMABLE
High-end MeanWell HLG Series LED driver, optimal stability, performance and lifespan.

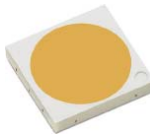


+ DIMMABLE
High-end programmable Inventronics LED driver, integrate dimming function and 6KV /10KV surge protection. Provide excellent performance and lifespan.

High-efficacy LED light source



Philips Lumileds 3030 2D
Greater than 150lm/W high efficacy, illumination grade LED light source.



Philips Lumileds 5050
Greater than 185lm/W high efficacy, illumination grade LED light source.



Power turn off protector
When the lamp maintenance, Open lamp flash, Internal power lamp, Protect the safety of personnel.



Surge protection device(10KV)
To provide more reliable guarantee for LED drive power, extend the life of the product.



Connect base
Disassemble easily which reduces maintenance costs.



Imported breather
Lamp breather ensures air balance inside and outside of the lamp, which improves lamp service life.

Electrical & Photometric

★ 3030 Version

Series	Model	LED Qty/ Current	Power	Luminaire efficacy (+/- 5%)	Lumen Output (+/- 5%)	Input Voltage	LED Brand	Driver Brand	Light Distributions	CCT (K)	Surge Protection Device	Lifetime (h)
KS	RC-LD25KS	48units/ 83mA	25W	125 lm /w	3125 lm	100-240V /277V AC 50 /60Hz	Philips Lumileds 3030 2D	MeanWell Inventronics	Type I, Medium Type II, Medium Type III, Medium	3000* 4000 5000 5700	10KV	>100,000 (L70)
	RC-LD35KS	72units/ 78mA	35W	125 lm /w	4375 lm							
	RC-LD55KS	96units/ 88mA	55W	125 lm /w	6875 lm							
KM	RC-LD60KM	96units/ 93mA	60W	130 lm /w	7800 lm							
	RC-LD90KM	144units/ 93mA	90W	130 lm /w	11700 lm							
	RC-LD120KM	192units/ 93mA	120W	130 lm /w	15600 lm							
KL	RC-LD120KL	192units/ 93mA	120W	130 lm /w	15600 lm							
	RC-LD150KL	240units/ 93mA	150W	130 lm /w	19500 lm							
	RC-LD180KL	288units/ 93mA	180W	130 lm /w	23400 lm							
	RC-LD200KL	336units/ 93mA	200W	130 lm /w	26000 lm							

*Luminous Efficacy of 3000K is 5% lower than other CCTs.

★ 5050 Version

Series	Model	LED Qty/ Current	Power	Luminaire efficacy (+/- 5%)	Lumen Output (+/- 5%)	Input Voltage	LED Brand	Driver Brand	Light Distributions	CCT (K)	Surge Protection Device	Lifetime (h)
KS	RC-LD25KS	24units/ 89mA	25W	145 lm /w	3625 lm	100-240V /277V AC 50 /60Hz	Philips Lumileds 5050	MeanWell Inventronics	Type II, Medium Type III, Medium	3000* 4000 5000 5700	10KV	>85,000 (L70)
	RC-LD35KS	36units/ 89mA	35W	145 lm /w	5075 lm							
	RC-LD55KS	48units/ 90mA	55W	145 lm /w	7975 lm							
KM	RC-LD60KM	48units/ 91mA	60W	150 lm /w	9000 lm							
	RC-LD90KM	72units/ 91mA	90W	150 lm /w	13500 lm							
	RC-LD120KM	96units/ 91mA	120W	150 lm /w	18000 lm							
KL	RC-LD120KL	96units/ 91mA	120W	150 lm /w	18000 lm							
	RC-LD150KL	120units/ 91mA	150W	150 lm /w	22500 lm							
	RC-LD180KL	144units/ 91mA	180W	150 lm /w	27000 lm							
	RC-LD200KL	168units/ 91mA	200W	150 lm /w	30000 lm							

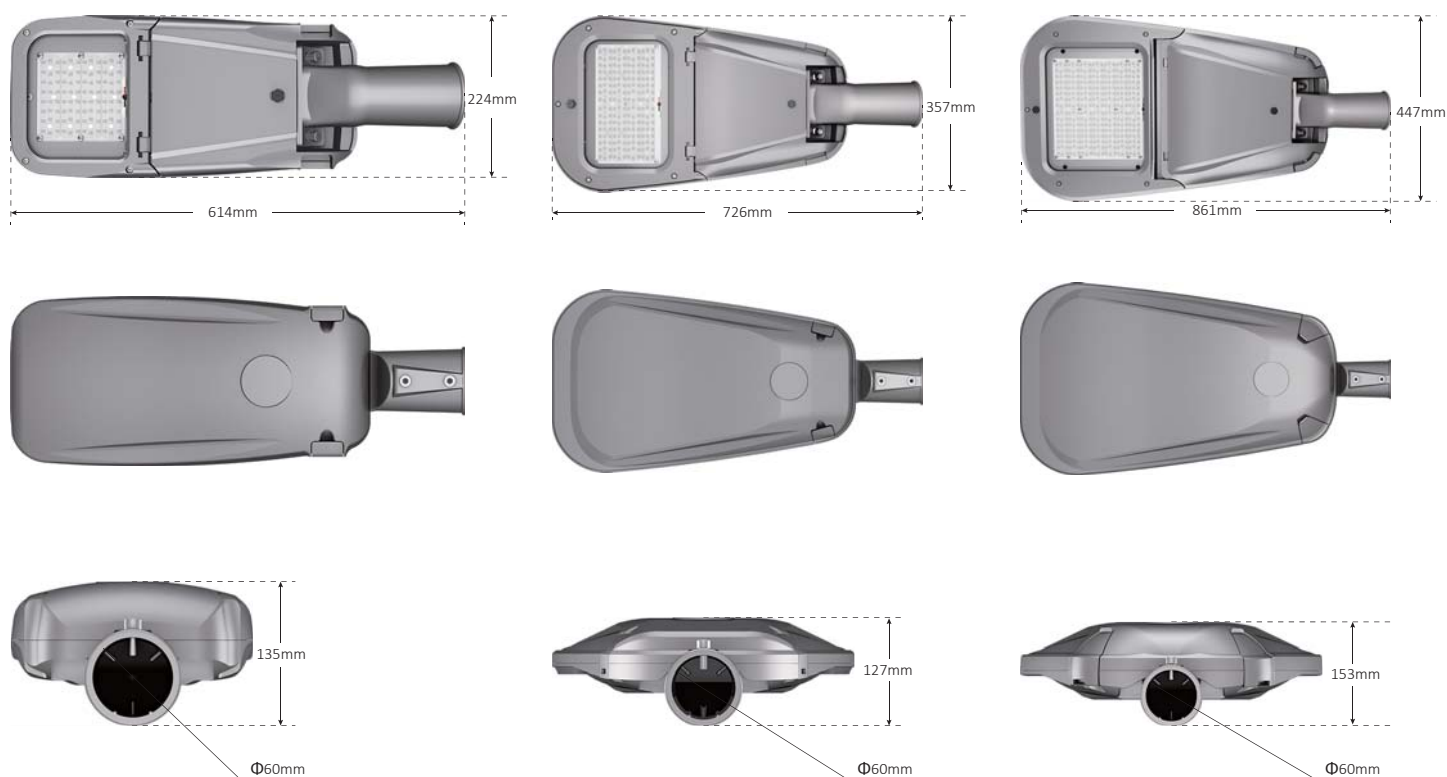
*Luminous Efficacy of 3000K is 5% lower than other CCTs.

Certification

Manufacturer
ISO9001, ISO14001
RC Series [RC-LD25KS, RC-LD35KS, RC-LD55KS, RC-LD60KM, RC-LD90KM, RC-LD120KM, RC-LD120KL, RC-LD150KL, RC-LD180KL, RC-LD200KL,
CE, ROHS, CB, FCC, LM79, LM80, ENEC

Design

★ External Design

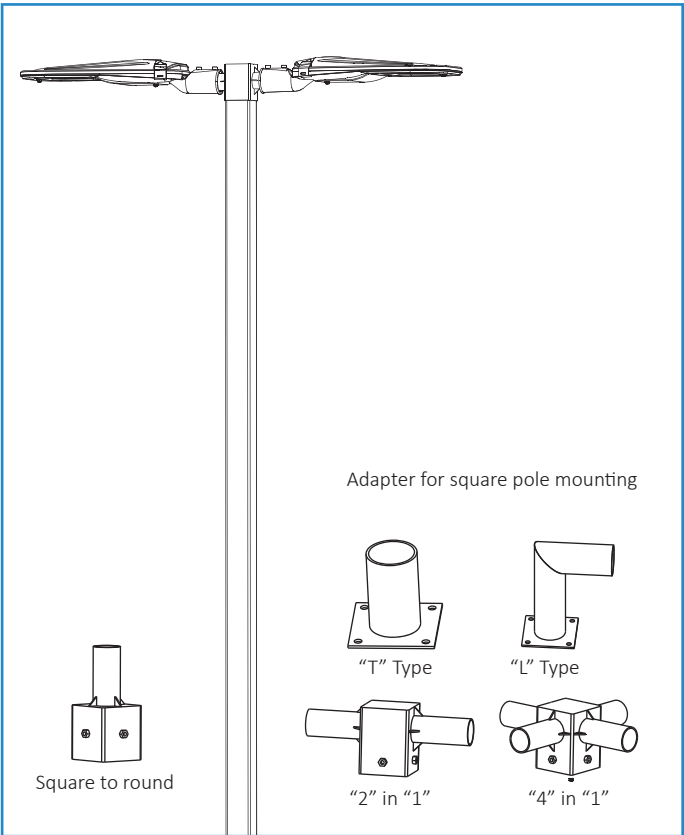
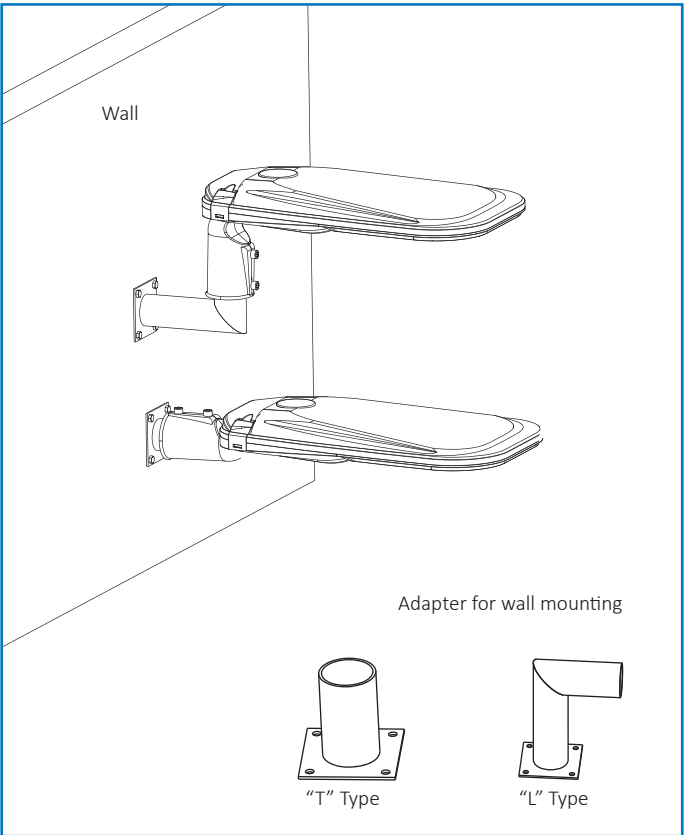
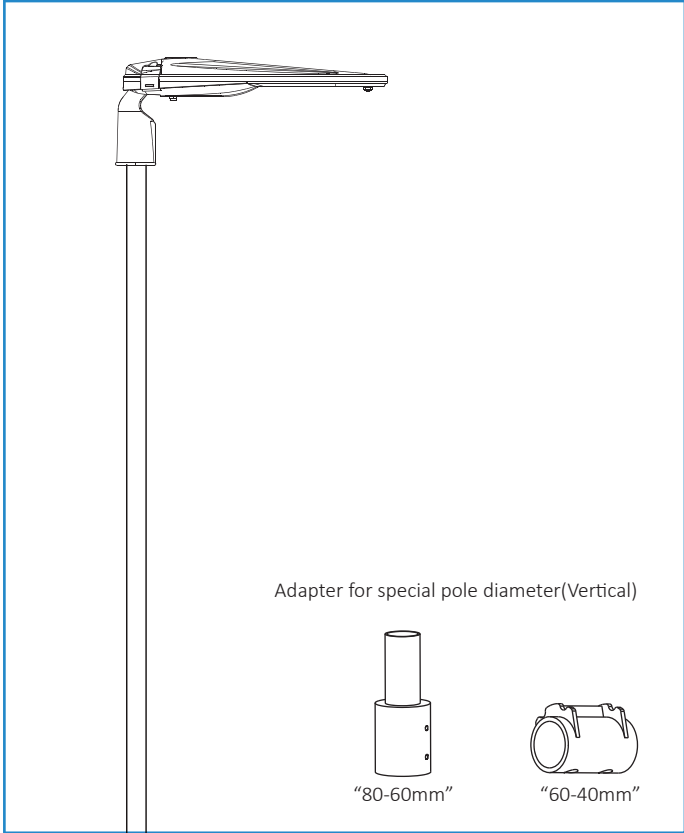
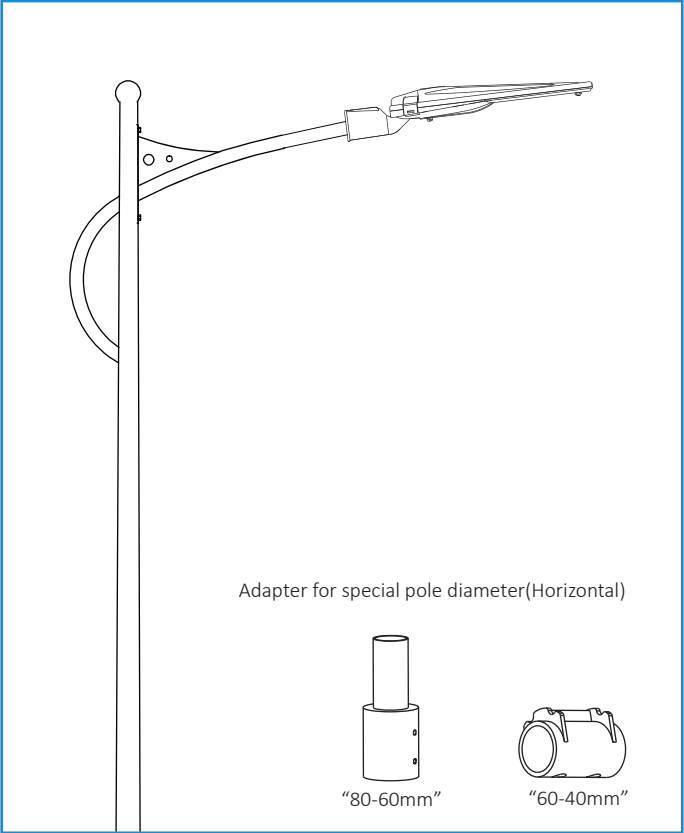


Working Environment & Packing

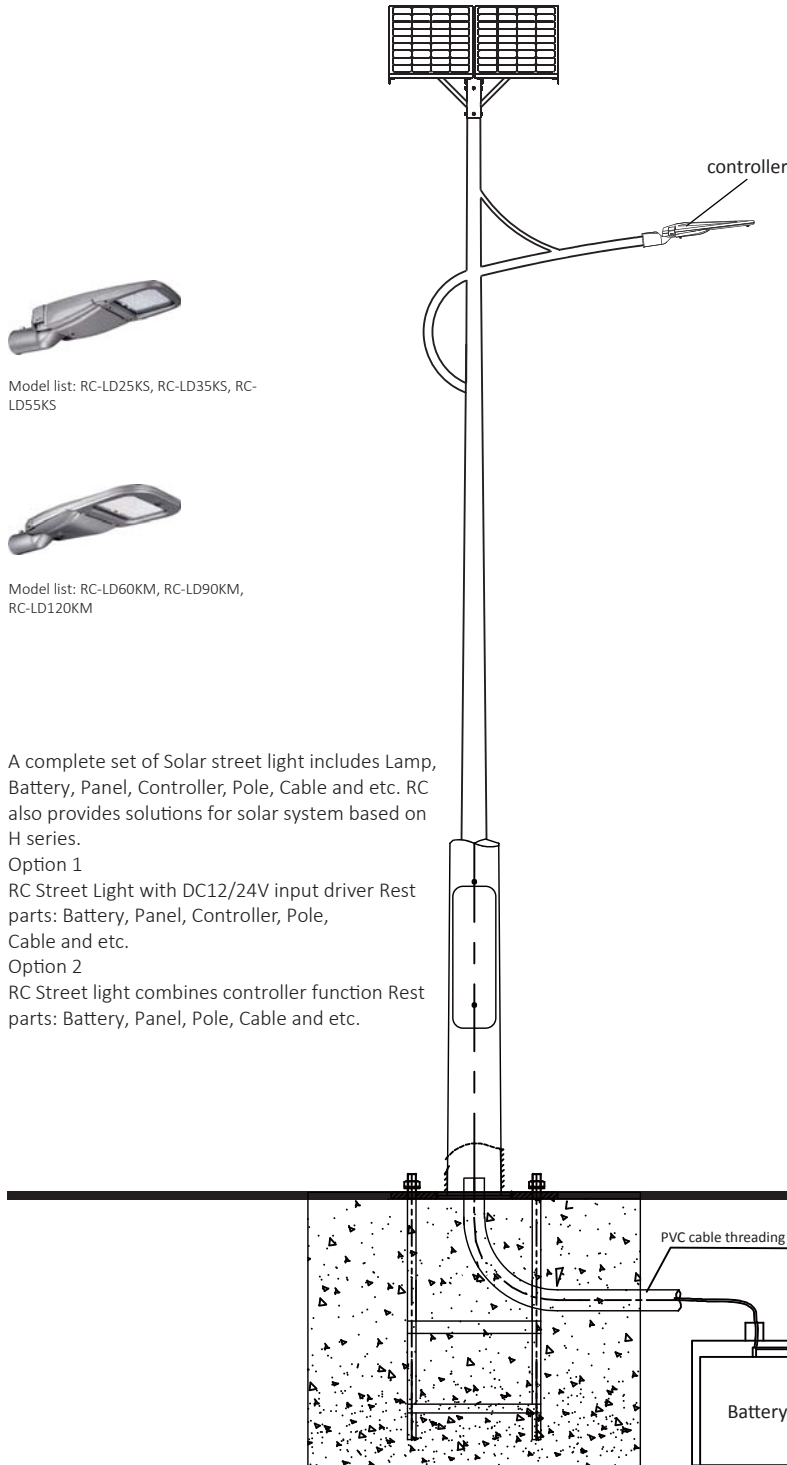
Model	Working Environment	Storage Temperature	Rating	CRI	Power Factor	Power Efficiency	Material	Pole Diameter (mm)	Product Dimensions (mm)	Carton Size (mm)	N.W (kg)	G.W (kg)
RC-LD25KS	-40 °C ~ +50 °C 10% ~ 90%RH	-40 °C ~ +50 °C	Class I IP66 IK08	>70	>0.95	>90%	Housing: Die-cast aluminum Lens: Tempered glass and PC	60	614*224*135	675*290*220	5.8	7.3
RC-LD35KS									614*224*135	675*290*220	5.9	7.4
RC-LD55KS									614*224*135	675*290*220	6.0	7.5
RC-LD60KM									726*357*127	785*415*200	7.8	9.8
RC-LD90KM									726*357*127	785*415*200	8.1	10.1
RC-LD120KM									726*357*127	785*415*200	8.2	10.2
RC-LD120KL									861*447*153	915*495*225	12.0	14.5
RC-LD150KL									861*447*153	915*495*225	12.0	14.5
RC-LD180KL									861*447*153	915*495*225	12.1	14.6
RC-LD200KL									861*447*153	915*495*225	12.2	14.7

Note: Above data of weight are all typical values.

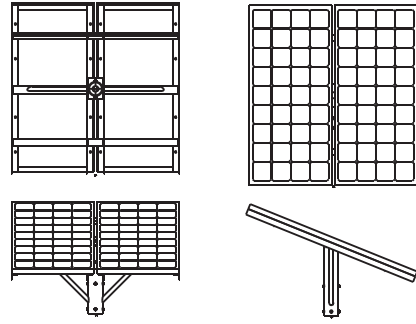
Various Installation Methods With Different Adapters



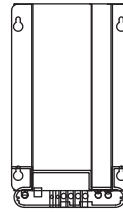
Solar Street Light System



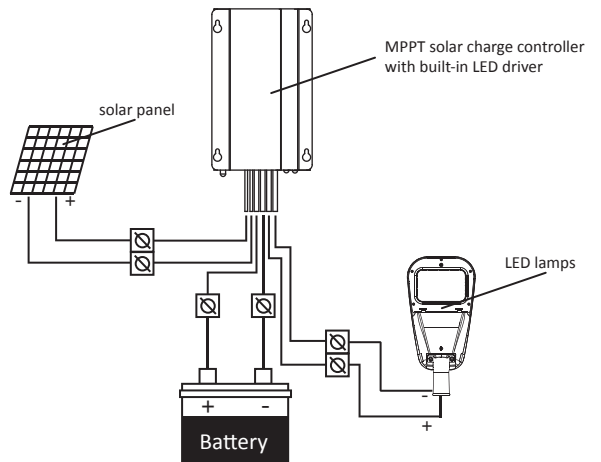
SOLAR PANEL



CONTROLLER



PARTS CONNECTION DIAGRAM



GROUND

Customized service

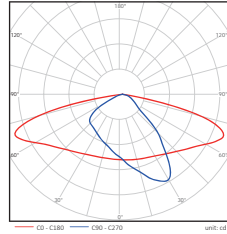
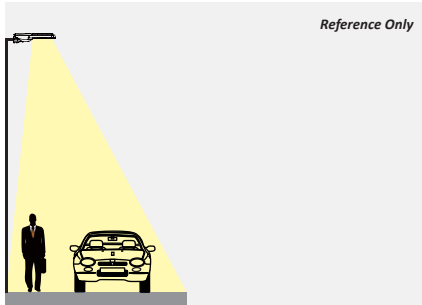
Due to each city has its own sunshine condition, and customers have different working hours and rainy days on request.

If you want to know more exact configuration, please contact us for below questions:

1. What is the geographical location your solar LED street lighting system will be installed?
2. How many hours per night the LED street light works?
3. How many days to backup in case of continuous rainy days?
4. Do you need dimming the LED street light (during the off-peak hours)?
5. Do you have any other requirements?

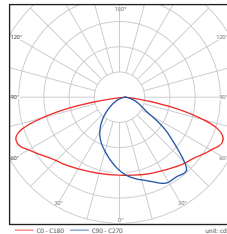
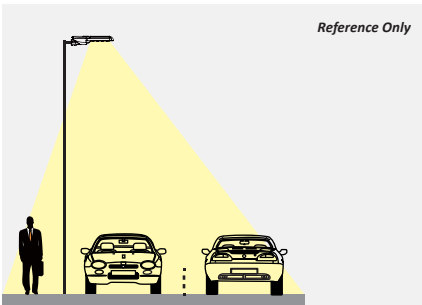
Multiple Light Distribution Options

Street light should fit with a wide range of applications, such as highway, express way, roadway, avenue, walking path or parking lot lightings. Considering this, Smart Unit provides different light distribution lens for the K Series street light to achieve best lighting effect in different applications. Smart follows the North American IESNA standard in providing the optional lens width, Type I, Type II and Type III. Type I is suitable for walking path with 1 lane, Type II is for 2 lanes and Type III is for even more wider road. Unit selects the most suitable lens for its customers according to the detailed parameters project by project.



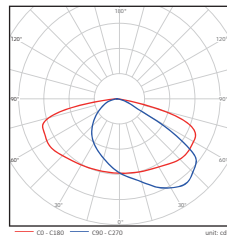
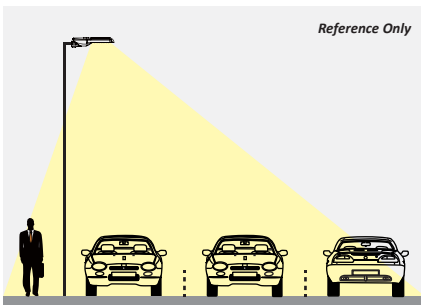
TYPE I

The Type I lens of Smart Unit RC series street light has beam angle of 50°*160 degrees. In the IESNA Standard, The Type I distribution is great for lighting walkways, paths and sidewalks. It is generally applicable to where the mounting height is approximately equal to the roadway width.



TYPE II

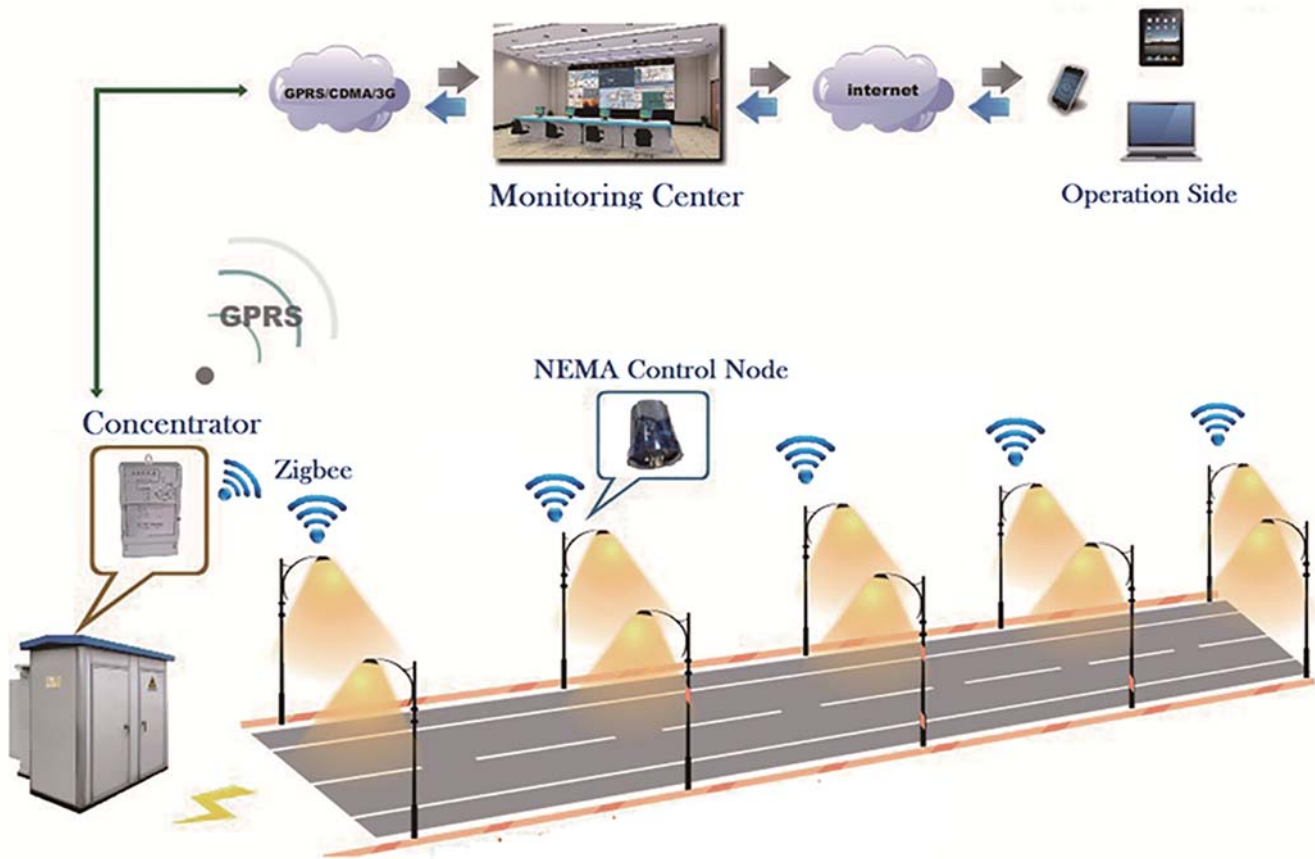
The Type II lens of Smart Unit RC series street light has beam angle of 65°*155 degrees. In the IESNA Standard, the Type II distribution is used for wide walkways, on ramps and entrance roadways, as well as other long, narrow lighting. It is generally applicable to where the width of the roadway does not exceed 1.75 times the designed mounting height.



TYPE III

The Type III lens of Smart K series street light has beam angle of 80°*160 degrees. In the IESNA Standard, the Type III distribution is meant for roadway lighting, general parking areas and other areas where a larger area of lighting is required. This distribution is intended for luminaires mounted at or near the side of medium width roadways or areas, where the width of the roadway or area does not exceed 2.75 times the mounting height.

Intelligence Street Lighting System

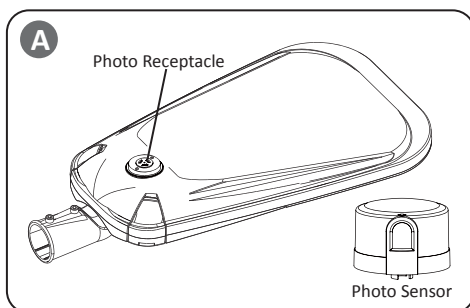


Smart Unit provides a total solution for intelligence street lighting system.

RC street light intelligence system is made up by software, concentrator, terminal controller. The concentrator controller is installed in the distribution cabinet, the terminal controller is installed in the lighting terminal. It proceeds with communication via GPRS/CDMA/WCDMA wireless network or cable network & monitor center and proceeds with communication via ZIGBEE/PLC. Concentrator controller can control each terminal controller via receiving, executing, forwarding PC management software, which can control each lamp's switching on /off or dimming, then save electric energy. It can also monitor the lamps' electric energy to achieve failure lamps function. Concentrator controller can built-in DO to achieve street light loop control, it can connect with other equipment to collect local illumination, temperature and other information, feedback to PC management software and achieve to monitor the current information.

Optical Control

Optical control function is supported by optional



If the fixture with PHOTO CONTROL function, the Photo Receptacle will be installed on the cover of fixture. See **A**. Fit the pins of Photo Sensor to Photo Receptacle, firmly insert and rotate Photo Sensor to proper position.

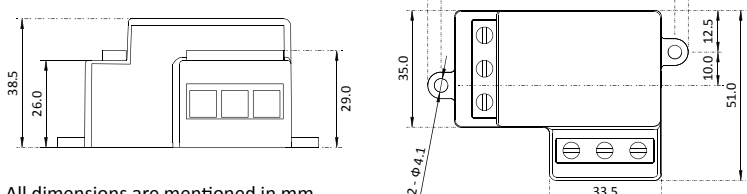
<Verifying>

Make sure all the connections done and photo control is well installed on the fixture, switch on the power supply and cover the window of photo sensor, wait 5 seconds, the fixture will be turned on.


Surge Protection Device

Type	Nominal input voltage (V)	Protection level Up (L-N) (kV)	Protection level Up (LN-GND) (kV)	Open circuit voltage U_{oc} (kV)	Nominal surge current I_n (kA)	Min. number of surges, nominal current
A - Class I	277	≤ 1.6	$\leq 2 - 4$	10	5	100 strikes at 3kA 50 strikes at 5kA 1 strike at 10kA
Type	Maximum surge current I_{MAX} (kA)	Number of surges, maximum current	Insulation classification	Open Circuit Voltage U (kV)	Lifetime @ Tc life, 90% survivals (hours)	Application
A - Class I	10	1 strike	Class I	10	100,000	built-in use only

General product characteristics
T ambient (°C): -40 to +70 °C
Tcase life (°C): +80 °C



All dimensions are mentioned in mm



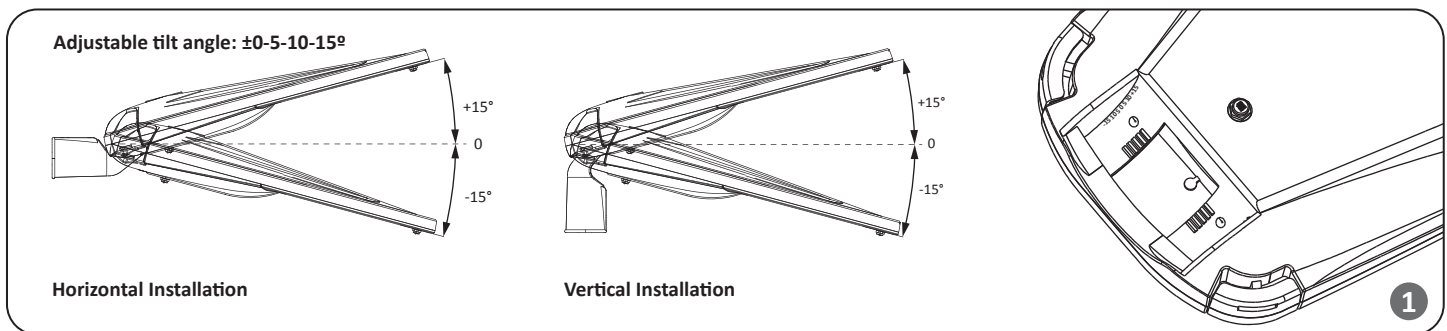
CLASS I

Dimming Optional

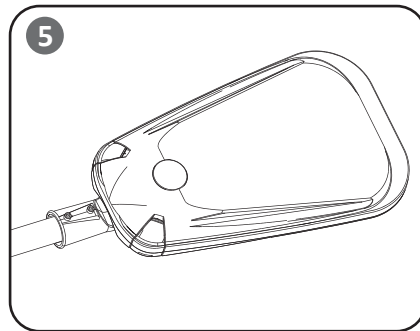
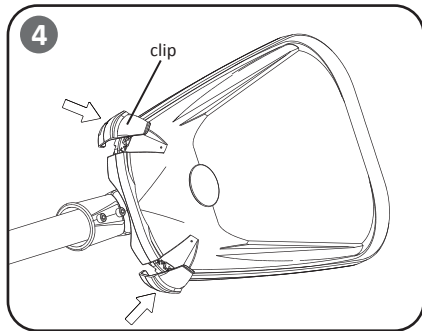
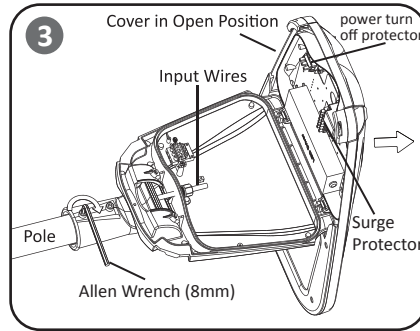
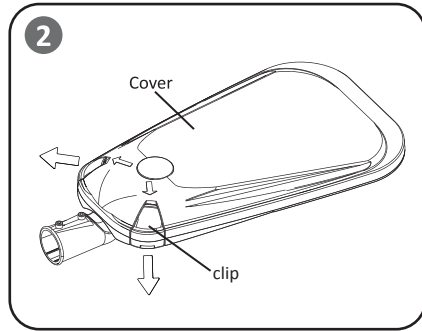
Inventronics driver will be used if dimming request.
Multiple dimming functions are integrated (0-5V DC or 0-10V DC or PWM Signal or Timer).

- ★ 0-5V Dimming [All the models over 55W are available]
- ★ 0(1)-10V Dimming [All the models are available except 25W]
- ★ PWM Dimming [All the models over 55W are available]
- ★ Timer Dimming [All the models over 55W are available]

Flexible Fitter

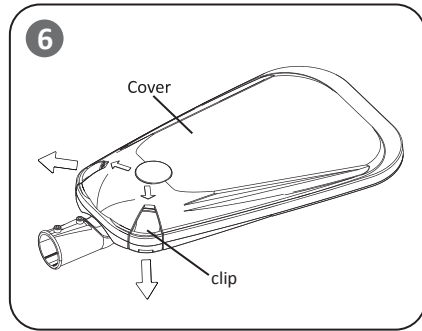


Installation

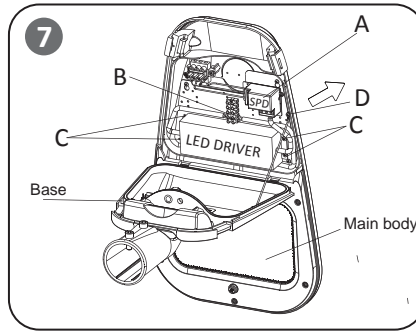


Maintenance

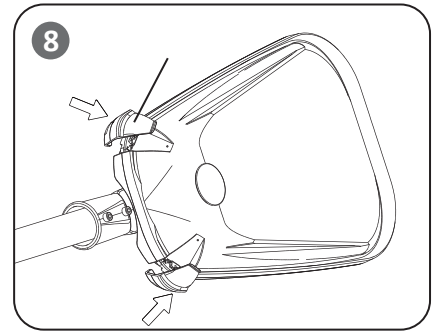
★ Driver replacement



STEP 1:
Open the left and right clips on the back of the luminaire. See 6.

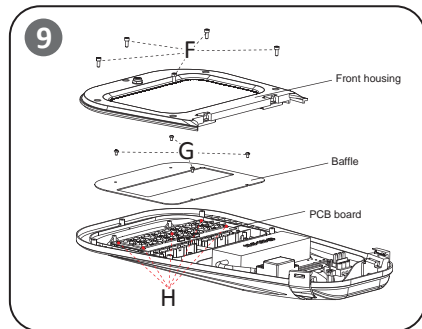


STEP 2:
Keep the cover in open position, unscrew the four M4X8 screws(see 7) and pull out the input of driver from surge protector device(see 4) by cross screwdriver, disconnect the driver from the connection terminal(see 8), take off the failed driver and replace by a new one.

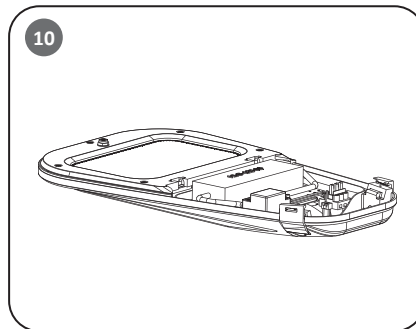


STEP 3:
Connect and tighten up each part back step by step. Close the cover and clips. Maintenance finished.

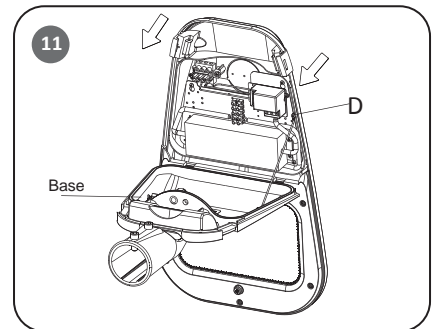
★ LED components replacement



STEP 1:
Same process with driver replacement STEP1 and then unscrew the M4X8 screw by cross screwdriver (see 7 in 7) and take down the main body from base. Unscrew the five M5x10 screws (see 9) by allen wrench and remove the front housing, unscrew the four M4x6 (see 9) by cross screwdriver and remove the Baffle, unscrew the five M4x6 (see 9) by cross screwdriver and remove the old PCB board with failed LEDs by new one, the lens on the old PCB board will be left for new one.



STEP 2:
Connect and tighten up each part back step by step.



STEP 3:
Fit the main body back to the base and tighten up the M4X8 screw (see 7). Close the cover and clips. Maintenance finished.

STANDARD MOUNTING

STEP 1:
Open the left and right clips on the back of the luminaire. See 2.

STEP 2:
Insert the pole and external power cord into the luminaire cavity. Thread the power cord through the M16 wiring harness retainer. Reserve the related length of wire for connection. Keep the base in horizontal level. Fix the luminaire and pole by allen wrench. See 3.

STEP 3:
Connect the external power cord to the power turn off protector plug and complete the electrical connections.

STEP 4:
Close the cover and clips. See 4 5.