

H EVO -SERIES



ISO9001
ISO14001

LM-79
LM-80

IP66
IK10



CE CB

RoHS
Compliant

FC



7 YEAR
WARRANTY

LED STREET LIGHTS



Overview

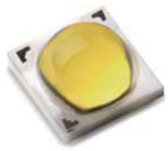
The KULON® H EVO-Series LED street lights are using PHILIPS LUMILEDS® luminous source, providing excellent lumen output, long-lasting stability and splendid sight.

The KULON H EVO-Series LED street lights have a high luminous efficiency and better service life. Provide 7 years warranty on luminaire.

Color Options

▬ Silver Gray ▬ Black

HIGH-EFFICACY LED LIGHT SOURCE



Philips Lumileds Luxeon TX
Greater than 135lm/W high efficacy, illumination grade 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.

HIGH-END LED DRIVER (Two options)

+ NON-DIMMABLE



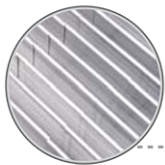
High-end Mean Well HLG Series LED driver, optimal stability, performance and lifespan.

+ DIMMABLE

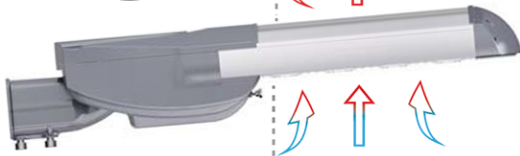


High-end Inventronics programmable LED driver, integrate dimming function and 6KV /10KV surge protection. Provide excellent performance and lifespan.

AIR CONVECTION EFFECT

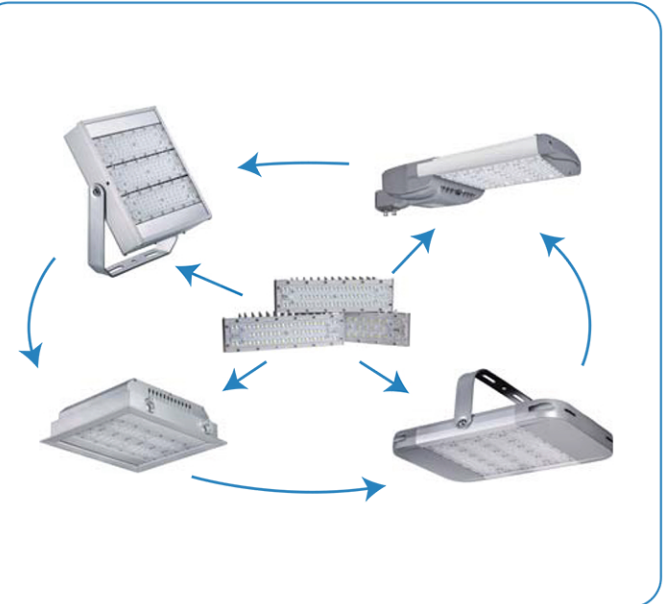


Reasonable heat sink design, not only keep ventilation but also avoid laceration.



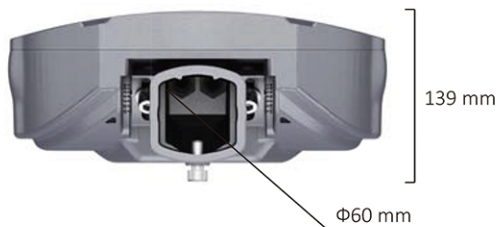
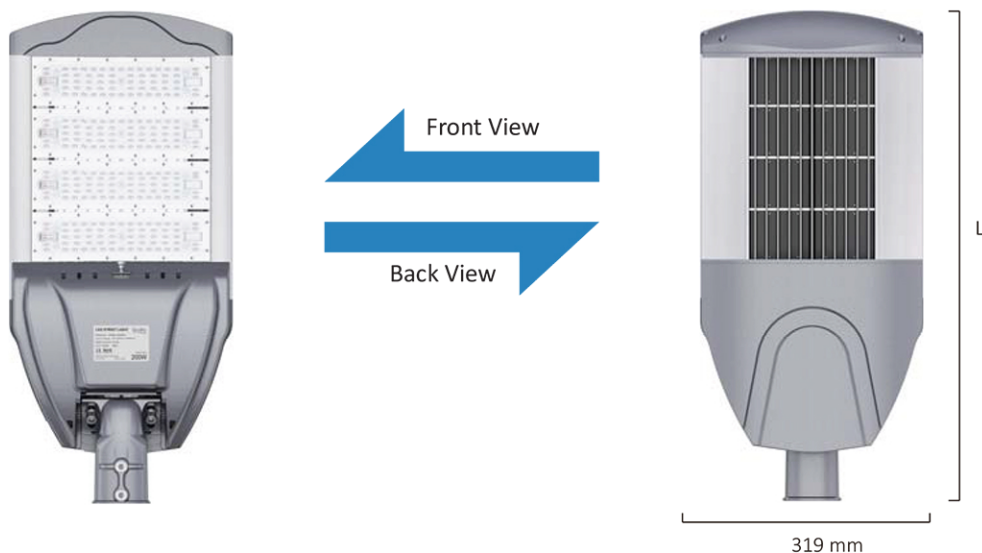
Gaps between each module increase heat dissipation speed and solve the problem of dust deposition.

FLEXIBLE COMBINATIONS OF MODULES



Design

★ External Design



| Number of Modules | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
|-------------------|---------|---------|---------|---------|---------|----------|----------|
| "L" Length | 478 mm | 551 mm | 624 mm | 697 mm | 770 mm | 843 mm | 916 mm |
| Weight | 5.75 kg | 6.55 kg | 7.75 kg | 8.65 kg | 9.45 kg | 10.35 kg | 11.25 kg |

★ Design Features



Professional lens design, suitable for various applications.



Luminaire body is fixed by two M8x16 fortified stainless steel screws.



Rational clamshell design for wiring compartment, sturdy and durable.



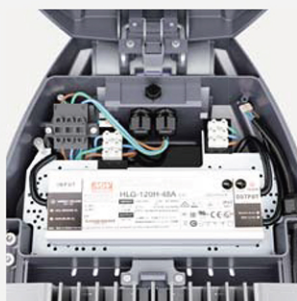
Use stainless steel screws for whole luminaire, no corrosion worries.



Use German **WAGO** connectors for internal wiring, safe, convenient & fast.



Innovative pluggable connector, clean & efficient.



Neat inner cavity structure, ensure the thermal convection of LED driver.



Full aluminum made, sufficient heat dissipation area.

DETAILED FEATURES



Photocell (optional)

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



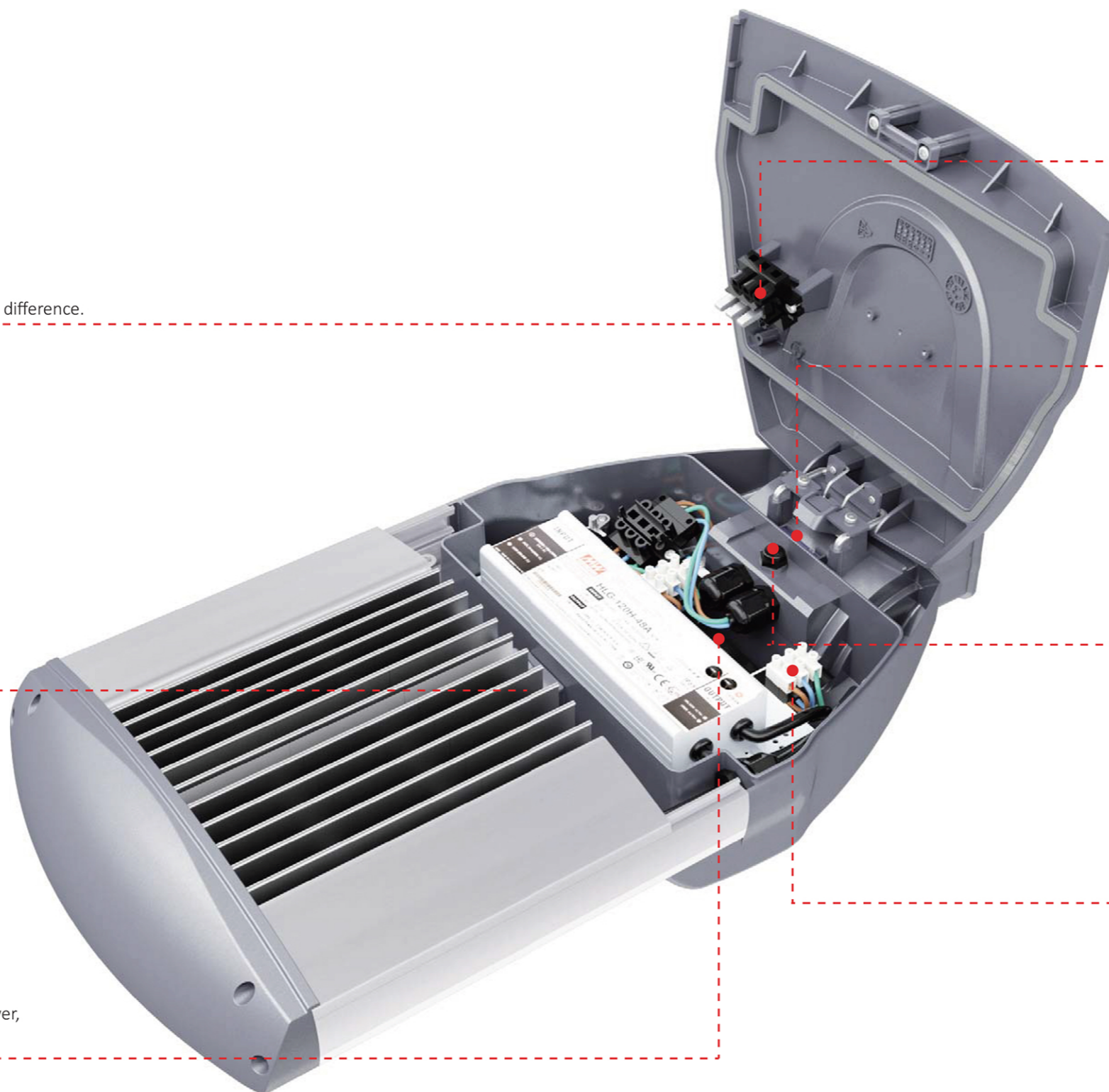
Easy Maintenance

Tool-less to open the cover of driver box



Surge protection device(10KV)

To provide more reliable guarantee for LED driver, extend the life of the product.



Power off protector (optional)

When open the cover of driver box to make the maintenance, the power supply will be cut off immediately to protect personal safety.



Level bubble

Easy for the installer to adjust the position of the lamp



Imported breather

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



Connect base

Disassemble easily which reduces maintenance costs.

Electrical & Photometric

★ 3030 Version

| Number of Modules | Model | LED Working Current | Power | Luminaire Efficacy (+/- 5%) | Lumen Output (+/- 5%) | Input Voltage | LED Brand | Driver Brand | Light Distributions | CCT (K) | Surge Protection Device | Lifetime (h) |
|-------------------|-------------|---------------------|-------|-----------------------------|-----------------------|-------------------------------|-----------------------------|--------------------------|---|-------------------------------|-------------------------|-------------------|
| 1 | K-LD40WH4+ | 95mA | 40W | 140 lm /w | 5600 lm | 100-240V /277V AC 50 /60Hz | Philips Lumileds 3030 2D | MeanWell Inventronics | TypeI, Medium TypeII, Medium TypeIII, Medium TypeV, Short TYPEII, BLS | 3000* 4000 5000 5700 | 10KV | >100,000 (L70) |
| | K-LD50WH5+ | 115mA | 50W | 130 lm /w | 6500 lm | | | | | | | |
| | K-LD60WH6+ | 145mA | 60W | 125 lm /w | 7500 lm | | | | | | | |
| 2 | K-LD80WH4+ | 100mA | 80W | 140 lm /w | 11200 lm | | | | | | | |
| | K-LD100WH5+ | 120mA | 100W | 130 lm /w | 13000 lm | | | | | | | |
| | K-LD120WH6+ | 145mA | 120W | 125 lm /w | 15000 lm | | | | | | | |
| 3 | K-LD120WH4+ | 100mA | 120W | 140 lm /w | 16800 lm | | | | | | | |
| | K-LD150WH5+ | 120mA | 150W | 130 lm /w | 19500 lm | | | | | | | |
| | K-LD180WH6+ | 145mA | 180W | 125 lm /w | 22500 lm | | | | | | | |
| 4 | K-LD160WH4+ | 100mA | 160W | 140 lm /w | 22400 lm | | | | | | | |
| | K-LD200WH5+ | 120mA | 200W | 130 lm /w | 26000 lm | | | | | | | |
| | K-LD240WH6+ | 145mA | 240W | 125 lm /w | 30000 lm | | | | | | | |
| 5 | K-LD200WH4+ | 100mA | 200W | 140 lm /w | 28000 lm | | | | | | | |
| | K-LD240WH5+ | 120mA | 240W | 130 lm /w | 31200 lm | | | | | | | |

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

★ 3535 Version

| Number of Modules | Model | LED Working Current | Power | Luminaire Efficacy (+/- 5%) | Lumen Output (+/- 5%) | Input Voltage | LED Brand | Driver Brand | Light Distributions | CCT (K) | Surge Protection Device | Lifetime (h) |
|-------------------|-------------|---------------------|-------|-----------------------------|-----------------------|-------------------------------|-------------------------------|--------------------------|--|-------------------------------|-------------------------|-------------------|
| 1 | K-LD35WH+ | 750mA | 35W | 110 lm /w | 3850 lm | 100-240V /277V AC 50 /60Hz | Philips Lumileds Luxeon TX | MeanWell Inventronics | TypeI, Medium TypeII, Medium TypeIII, Medium TypeV, Short | 3000* 4000 5000 5700 | 10KV | >100,000 (L70) |
| | K-LD40WH2+ | 860mA | 40W | 110 lm /w | 4400 lm | | | | | | | |
| 2 | K-LD65WH+ | 750mA | 65W | 110 lm /w | 7150 lm | | | | | | | |
| | K-LD80WH2+ | 900mA | 80W | 110 lm /w | 8800 lm | | | | | | | |
| 3 | K-LD100WH+ | 750mA | 100W | 110 lm /w | 11000 lm | | | | | | | |
| | K-LD120WH2+ | 900mA | 120W | 110 lm /w | 13200 lm | | | | | | | |
| 4 | K-LD135WH+ | 750mA | 135W | 110 lm /w | 14850 lm | | | | | | | |
| | K-LD160WH2+ | 900mA | 160W | 110 lm /w | 17600 lm | | | | | | | |
| 5 | K-LD165WH+ | 750mA | 165W | 110 lm /w | 18150 lm | | | | | | | |
| | K-LD200WH2+ | 900mA | 200W | 110 lm /w | 22000 lm | | | | | | | |
| 6 | K-LD200WH+ | 750mA | 200W | 110 lm /w | 22000 lm | | | | | | | |
| | K-LD240WH2+ | 900mA | 240W | 110 lm /w | 26400 lm | | | | | | | |
| 7 | K-LD230WH+ | 750mA | 230W | 110 lm /w | 25300 lm | | | | | | | |
| | K-LD280WH2+ | 900mA | 280W | 110 lm /w | 30800 lm | | | | | | | |

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



★ 5050 Version

| Number of Modules | Model | LED Working Current | Power | Luminaire Efficacy (+/- 5%) | Lumen Output (+/- 5%) | Input Voltage | LED Brand | Driver Brand | Light Distributions | CCT (K) | Surge Protection Device | Lifetime (h) |
|-------------------|-------------|---------------------|-------|-----------------------------|-----------------------|-------------------------------|--------------------------|--------------------------|--|-------------------------------|-------------------------|-------------------|
| 1 | K-LD40WH4+ | 48mA | 40W | 165 lm /w | 6600 lm | 100-240V /277V AC 50 /60Hz | Philips Lumileds 5050 | MeanWell Inventronics | Typell, Medium Typell, Medium TypeV, Short | 3000* 4000 5000 5700 | 10KV | >100,000 (L70) |
| | K-LD50WH5+ | 59mA | 50W | 160 lm /w | 8000 lm | | | | | | | |
| | K-LD60WH6+ | 75mA | 60W | 155 lm /w | 9300 lm | | | | | | | |
| 2 | K-LD80WH4+ | 50mA | 80W | 165 lm /w | 13200 lm | | | | | | | |
| | K-LD100WH5+ | 61mA | 100W | 160 lm /w | 16000 lm | | | | | | | |
| | K-LD120WH6+ | 75mA | 120W | 155 lm /w | 18600 lm | | | | | | | |
| 3 | K-LD120WH4+ | 50mA | 120W | 165 lm /w | 19800 lm | | | | | | | |
| | K-LD150WH5+ | 58mA | 150W | 160 lm /w | 24000 lm | | | | | | | |
| | K-LD180WH6+ | 75mA | 180W | 155 lm /w | 27900 lm | | | | | | | |
| 4 | K-LD160WH4+ | 50mA | 160W | 165 lm /w | 26400 lm | | | | | | | |
| | K-LD200WH5+ | 58mA | 200W | 160 lm /w | 32000 lm | | | | | | | |
| | K-LD240WH6+ | 75mA | 240W | 155 lm /w | 37200 lm | | | | | | | |
| 5 | K-LD200WH4+ | 50mA | 200W | 165 lm /w | 33000 lm | | | | | | | |
| | K-LD240WH5+ | 61mA | 240W | 160 lm /w | 38400 lm | | | | | | | |

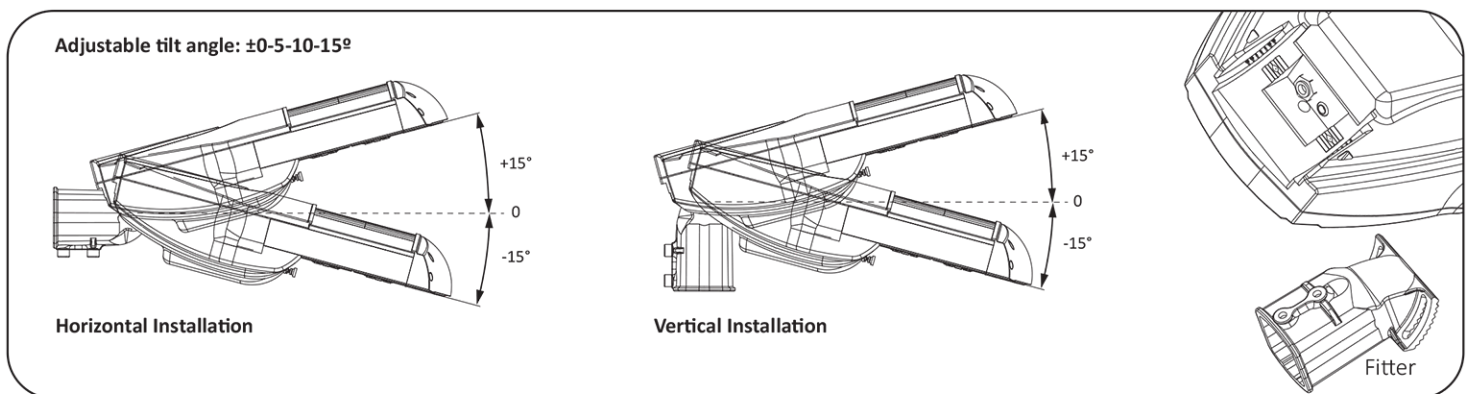
*Luminous Efficacy of 3000K is 5% lower than other CCTs.

Working Environment & Packing

| Number of Modules | 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) |
|-------------------|--------------------------------|---------------------|-------------------------|-----|--------------|------------------|---|--------------------|-------------------------|------------------|----------|----------|
| 1 | -40 °C ~ +50 °C 10% ~ 90%RH | -40 °C ~ +50 °C | Class I IP66 IK10 | >70 | >0.95 | >90% | Housing: Die-cast aluminum; Heat sink: Stretched Aluminium Alloy; Lens: PC | 60 | 478*316*139 | 520*370*200 | 5.75 | 7.05 |
| 2 | | | | | | | | | 551*316*139 | 595*370*200 | 6.55 | 8.05 |
| 3 | | | | | | | | | 624*316*139 | 670*370*200 | 7.75 | 9.35 |
| 4 | | | | | | | | | 697*316*139 | 745*370*200 | 8.65 | 10.35 |
| 5 | | | | | | | | | 770*316*139 | 820*370*200 | 9.45 | 11.35 |
| 6 | | | | | | | | | 843*316*139 | 895*370*200 | 10.35 | 12.35 |
| 7 | | | | | | | | | 916*316*139 | 970*370*200 | 11.25 | 13.35 |

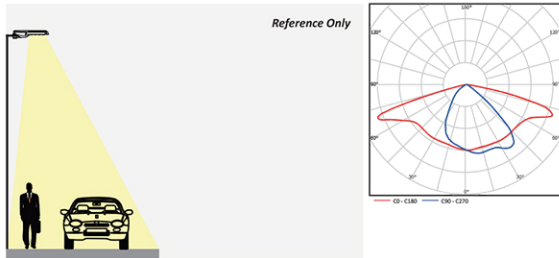
Note: Above data of weight are all typical values.

Flexible Fitter



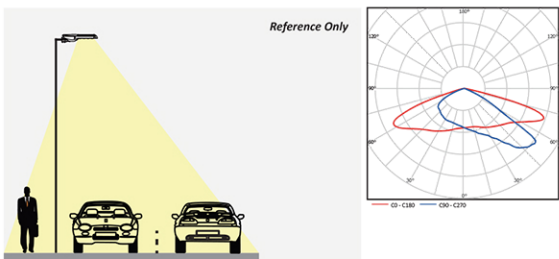
Multiple Light Distribution Options

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, KULON provides different light distribution lens for the H EVO Series street light to achieve best lighting effect in different applications. KULON follows the North American IESNA standard in providing the optional lens width ,Type I ,Type II ,Type III and Type V. 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, Type V is for parking lot. KULON selects the most suitable lens for its customers according to the detailed parameters project by project.



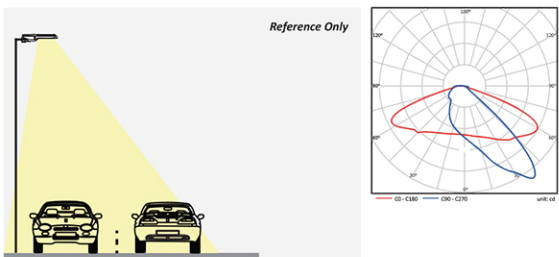
TYPE I

The Type I lens of KULON H EVO 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.



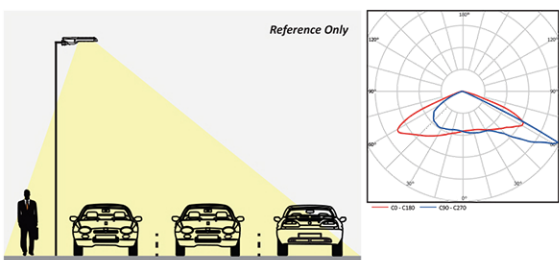
TYPE II

The Type II lens of KULON H EVO 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.



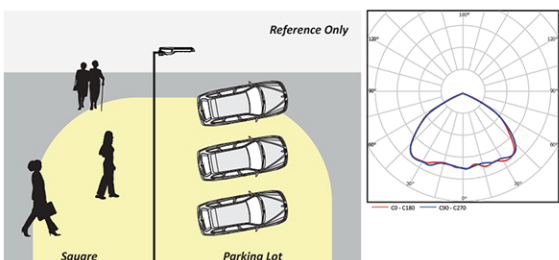
TYPE II BLS

The Type II BLS is a new light distribution developed based on Type II. BLS means back light shield. The light on the back of pole be reduced and the light in front of the pole be increased accordingly. It is generally applicable to where no need or need less light on the back of pole, such as residential area, highway, bridge and etc.



TYPE III

The Type III lens of KULON H EVO 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.

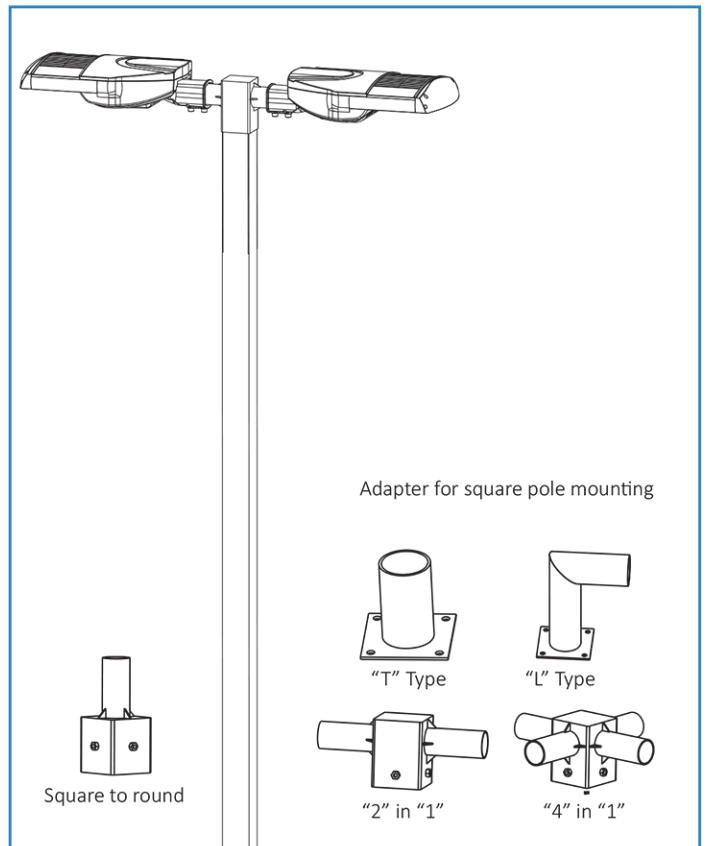
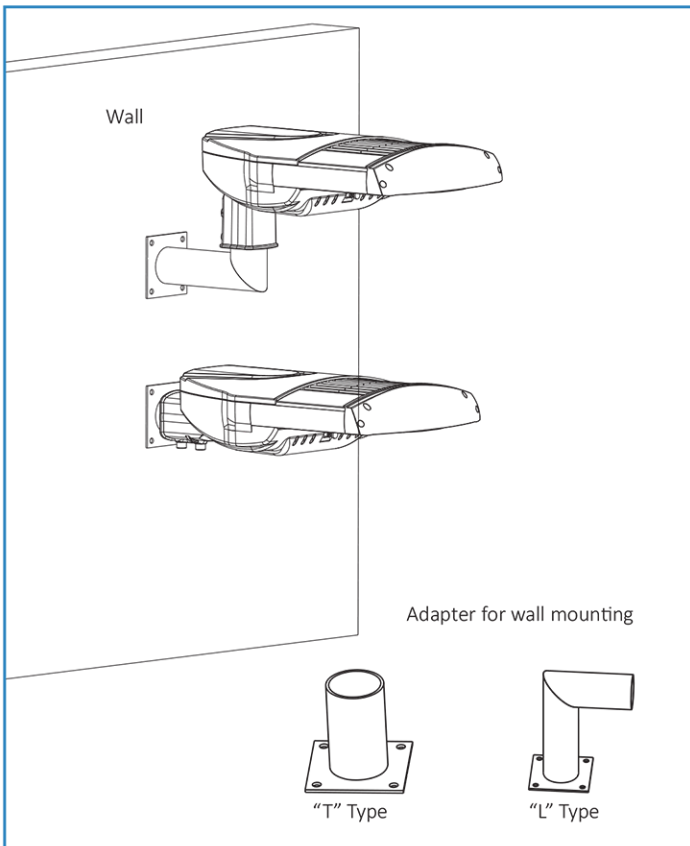
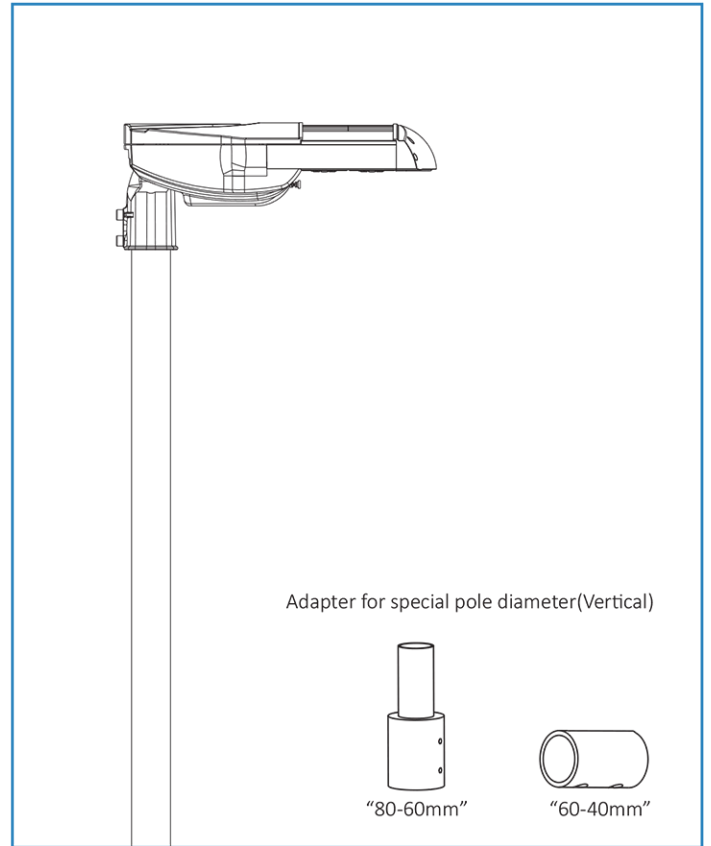
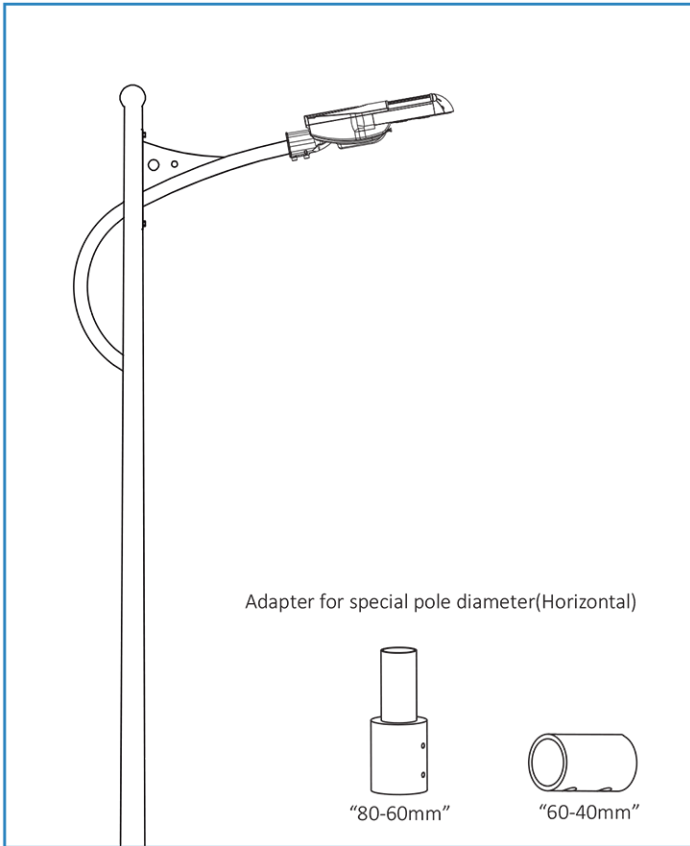


TYPE V

The Type V lens of KULON H EVO series street light has beam angle of 110*110 degrees. In the IESNA Standard, It is intended for luminaire mounting at or near center of roadways, center islands of parkway, and intersections. It is also meant for large, commercial parking lot lighting as well as areas where sufficient, evenly distributed light is necessary.



Various Installation Methods With Different Adapters



Solar Street Light System



Model list: KULON-LD35H+, KULON-LD40H2+, KULON-LD40H4+, KULON-LD50H5+, KULON-LD60H6+



Model list: KULON-LD65H+, KULON-LD80H2+, KULON-LD80H4+, KULON-LD100H5+, KULON-LD120H5+



Model list: KULON-LD100H+, KULON-LD120H2+, KULON-LD120H4+

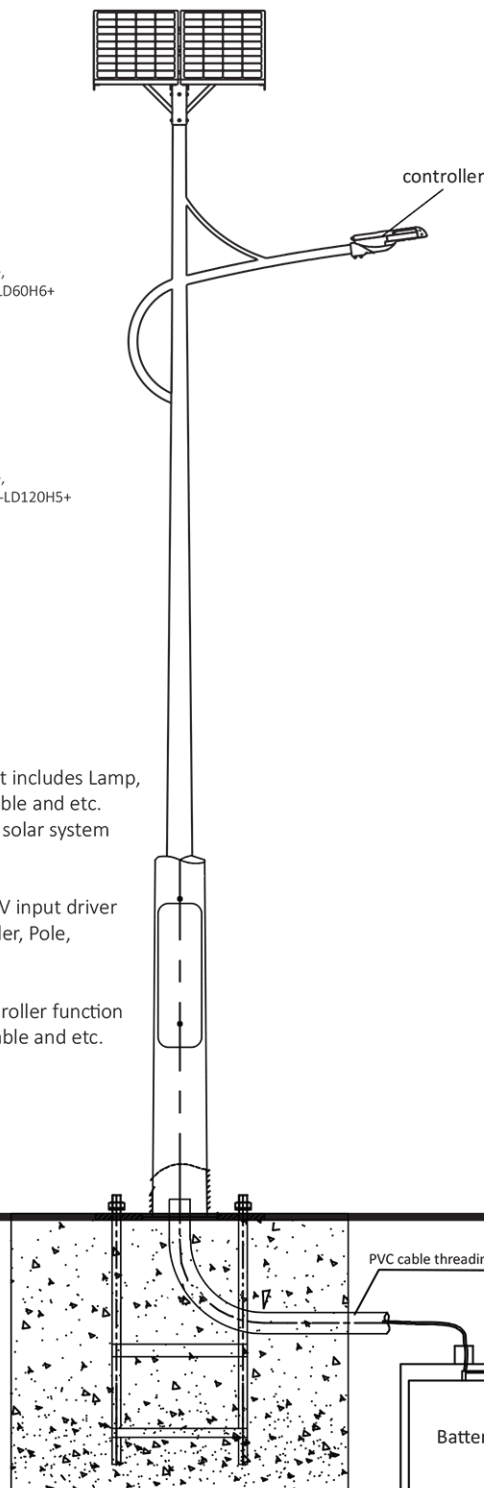
A complete set of Solar street light includes Lamp, Battery, Panel, Controller, Pole, Cable and etc. KULON also provides solutions for solar system based on H EVO series.

Option 1

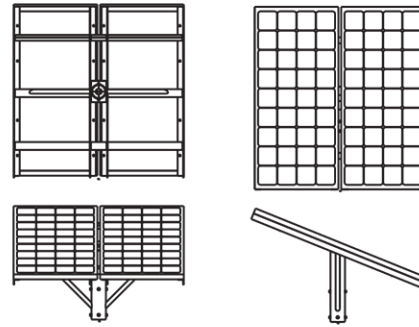
KULON Street Light with DC12/24V input driver
Rest parts: Battery, Panel, Controller, Pole, Cable and etc.

Option 2

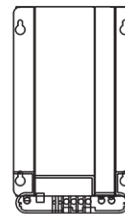
KULON Street light combines controller function
Rest parts: Battery, Panel, Pole, Cable and etc.



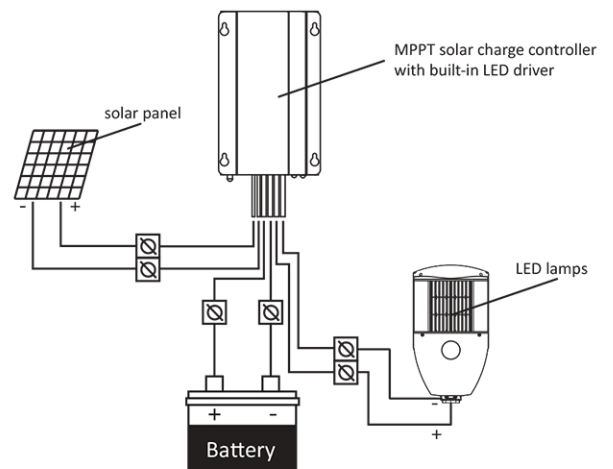
SOLAR PANEL



CONTROLLER



PARTS CONNECTION DIAGRAM



GROUND

Customized service

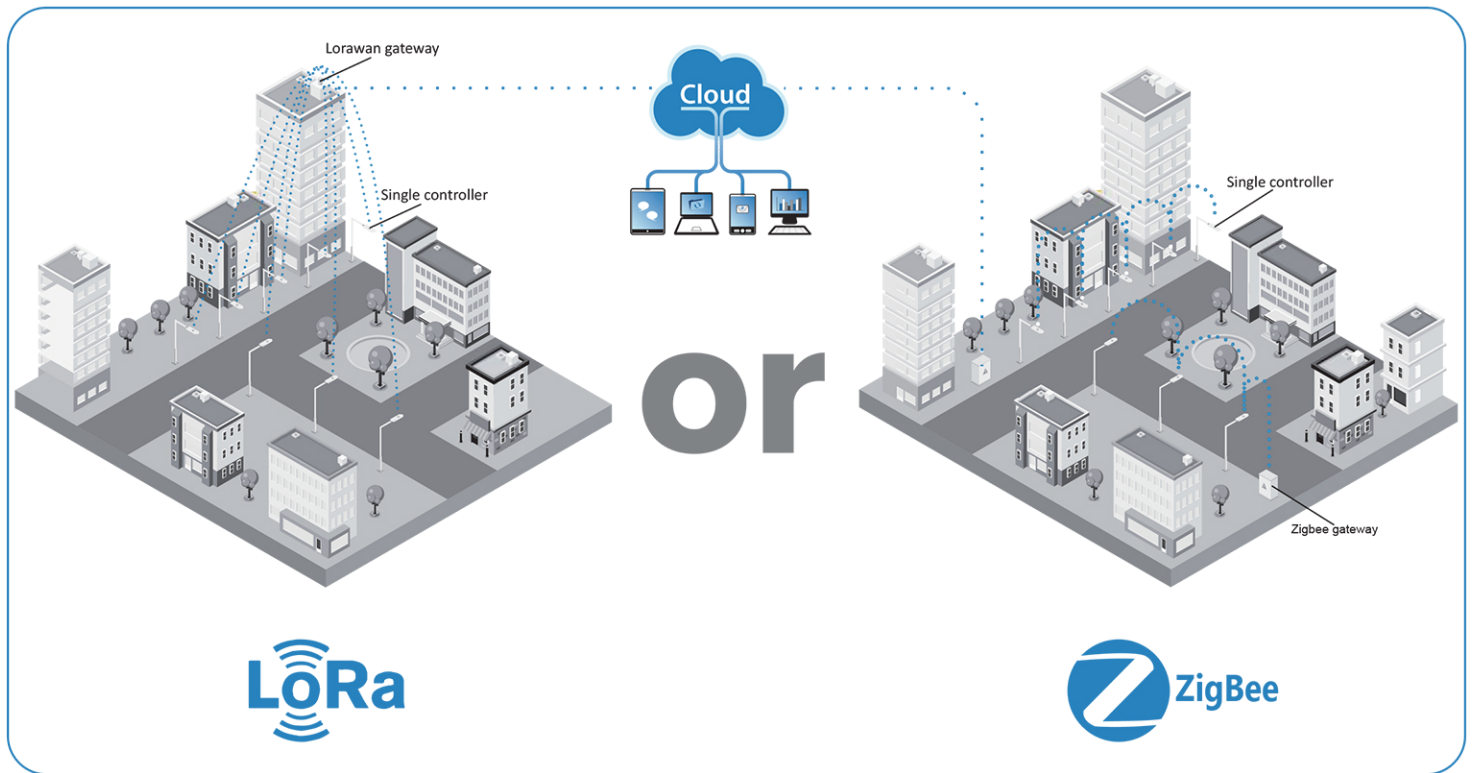
Due to each city has its own sunshine condition, and customers have different working hours and rainy days on request.

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?



Intelligence Street Lighting System



KULON provides a total solution for intelligence street lighting system.

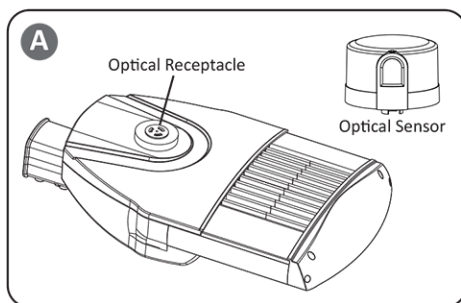
KULON street light intelligence system is made up by software, gateway, single light controller. The gateway is installed in the distribution cabinet, the single light controller is installed in the lighting terminal. It proceeds with communication via GPRS/ CDMA/ WCDMA wireless network or cable network & monitor center and proceeds with communication via ZIGBEE/ PLC/ LORA.

Gateway can control each single light 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. Gateway 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.

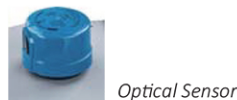
At present, all our series of LED street lights can be combined with the intelligence street lighting system... If you want to know more, please contact KULON Team.

Optical Control

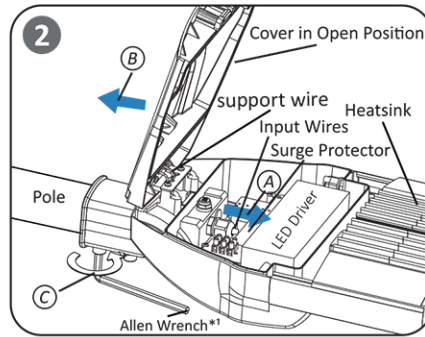
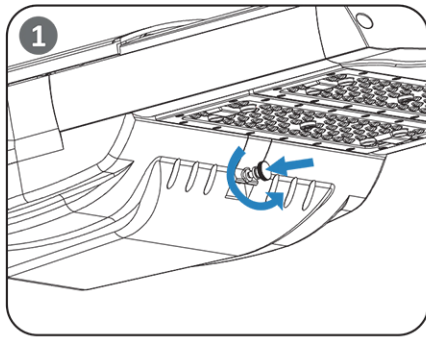
Optical control function is supported by optional



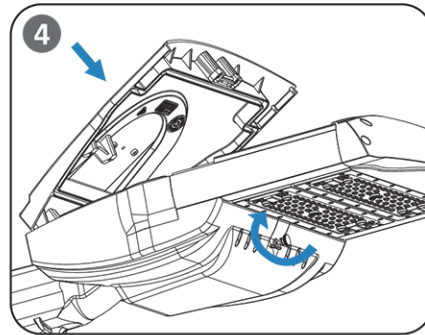
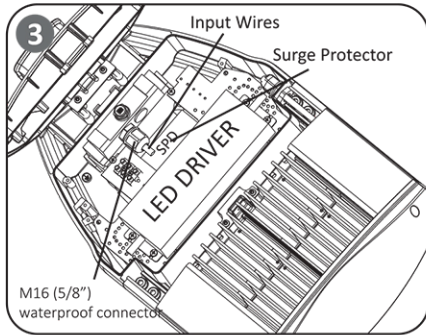
If the fixture with OPTICAL CONTROL function, the Optical Receptacle will be installed on the cover of fixture. See **A**. Fit the pins of Optical Sensor to Optical Receptacle, firmly insert and rotate Optical Sensor to proper position.



Installation



*1Allen Wrench: 6mm(7/32")
*2Inner Hexagon Screw: M8(5/16")



STEP 1:

Loosen the limit screw counterclockwise, press the screw to open the cover of driver box, make sure the support wire falls in the limit groove.

STEP 2:

Keep the cover in open position(make sure the support wire falls in the limit groove), lead the **Input Wires** in through the M16 (5/8") water-proof connector (see ④). Do not tighten. Slide fixture onto pole (see ②) and adjust to level position. Once desired position is achieved, tighten (2) mounting bolts (see ③). Recommended torque: 17Nm ± 1Nm.

STEP 3:

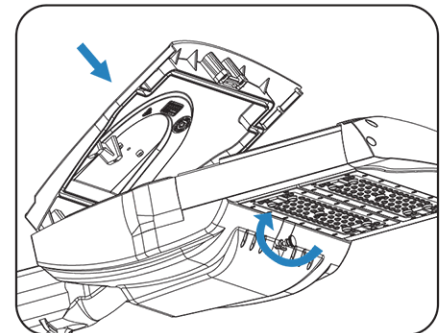
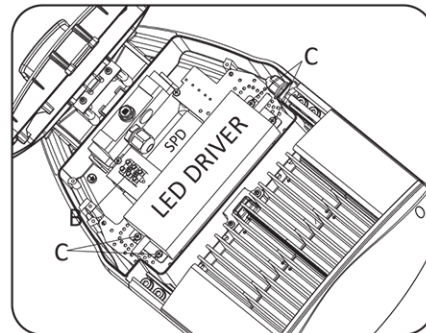
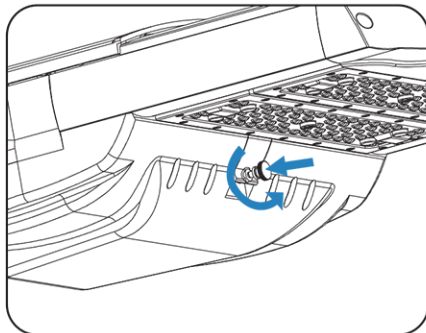
Connect the **Input Wires** into **Terminal Block**, Reference "Electrical Connections" section for completing electrical connections. **Tighten the M16 water-proof connector, Make sure the input wires do not move.**

STEP 4:

Close the cover, tighten the limit screw clockwise.

Maintenance

★ Driver replacement



STEP 1:

Loosen the limit screw counterclockwise, press the screw to open the cover of driver box, make sure the support wire falls in the limit groove.

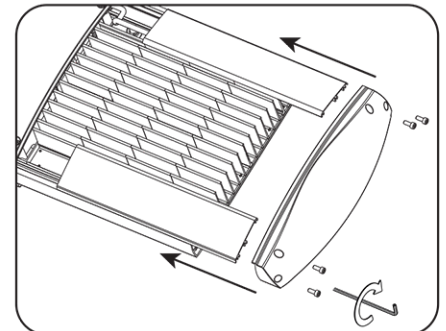
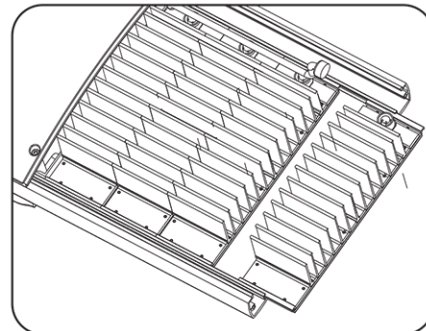
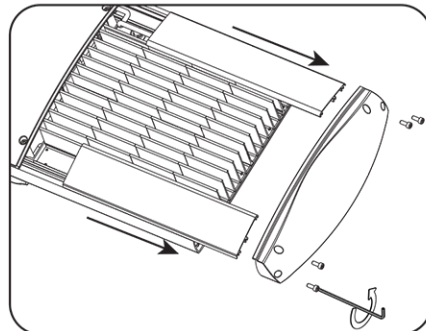
STEP 2:

Keep the cover in open position, unscrew the four M4X6 screws(see ③) and pull out the input of driver from Terminal Block(see ④) by cross screwdriver, disconnect the driver from the WAGO connect, take off the failed driver and replace by a new one.

STEP 3:

Connect and tighten up each part back step by step. Maintenance finished.

★ Module replacement



STEP 1:

Unscrew the four M5x12 screws by 4mm (5/32") allen wrench and pull out the lamp head. then Pull out the cover both sides by hand.

STEP 2:

Disconnect the failed module from connector and replace a new one.

STEP 3:

Connect and tighten up each part back step by step. Maintenance finished.



- for Road, China



- for Squares, UAE



- with Solar Power, France



- for Parking Lots, United Kingdom



- for Outdoor Warehouses, Austria



- for Wall Mounting, Sweden



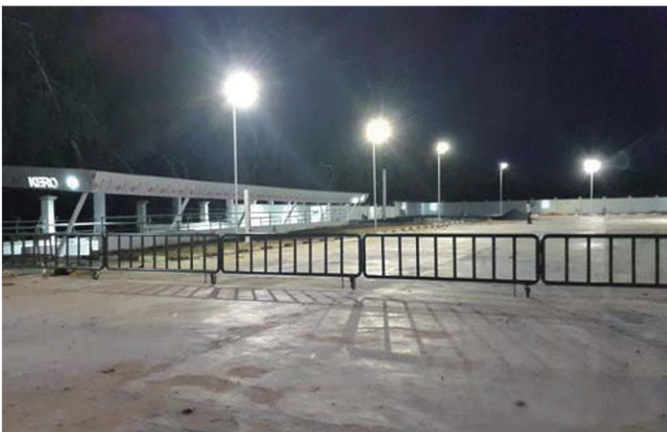
- for Amusement Park, Mexico



- for Road, China



- for Parking Lots, USA



- for Gas Station, Nigeria



- for Road, Iraq