K-SERIES

ZGSM

SAVE TODAY'S ENERGY FOR TOMORROW

UKAS QUALITY MANAGEMENT

ISO9001
ISO14001

LUMILEDS
The Brighter Choice

POWERED BY
INVENTRONICS

POWERED BY
MEAN WELL

CE CB RoHS Compliant ENEC LM-79 LM-80 IP66 IK08

5 YEAR WARRANTY

LED STREET LIGHTS

Deep Grey

Light Grey

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SERIES-K
LED STREET LIGHTS

PRODUCT CATALOG

SERIES-K
LED STREET LIGHTS

PRODUCT CATALOG

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.
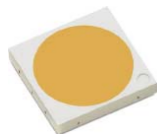
POWERED BY
INVENTRONICS

+ 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
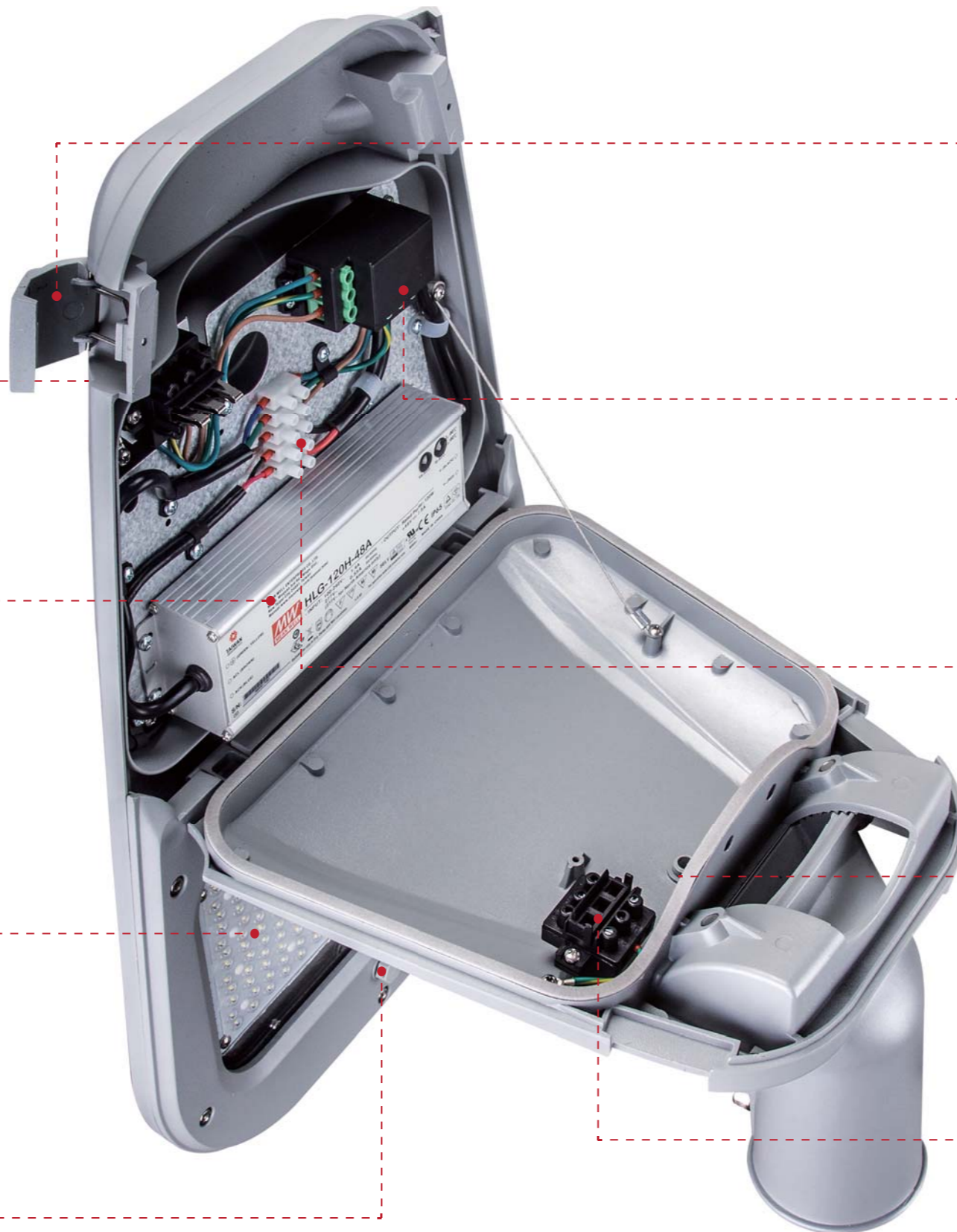Greater than 150lm/W high efficacy, illumination grade LED light source.

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

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

Easy Maintenance
Tool-less to open the cover of driver box

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.

Level bubble
Easy for the installer to adjust the position of the lamp

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

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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	ZGSM-LD25KS	48units/ 83mA	25W	125 lm /w	3125 lm	100-240V /277V AC 50 /60Hz	Philips Lumileds 3030 2D	MeanWell Inventronics	TypeI, Medium TypeII, Medium TypeIII, Medium TYPEII, BLS	3000* 4000 5000 5700	10KV	>100,000 (L70)
	ZGSM-LD35KS	72units/ 78mA	35W	125 lm /w	4375 lm							
	ZGSM-LD55KS	96units/ 88mA	55W	125 lm /w	6875 lm							
KM	ZGSM-LD60KM	96units/ 93mA	60W	130 lm /w	7800 lm							
	ZGSM-LD90KM	144units/ 93mA	90W	130 lm /w	11700 lm							
	ZGSM-LD120KM	192units/ 93mA	120W	130 lm /w	15600 lm							
KL	ZGSM-LD120KL	192units/ 93mA	120W	130 lm /w	15600 lm							
	ZGSM-LD150KL	240units/ 93mA	150W	130 lm /w	19500 lm							
	ZGSM-LD180KL	288units/ 93mA	180W	130 lm /w	23400 lm							
	ZGSM-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	ZGSM-LD25KS	24units/ 41mA	25W	145 lm /w	3625 lm	100-240V /277V AC 50 /60Hz	Philips Lumileds 5050	MeanWell Inventronics	TypeII, Medium TypeIII, Medium	3000* 4000 5000 5700	10KV	>100,000 (L70)
	ZGSM-LD35KS	36units/ 40mA	35W	145 lm /w	5075 lm							
	ZGSM-LD55KS	48units/ 45mA	55W	145 lm /w	7975 lm							
KM	ZGSM-LD60KM	48units/ 50mA	60W	150 lm /w	9000 lm							
	ZGSM-LD90KM	72units/ 50mA	90W	150 lm /w	13500 lm							
	ZGSM-LD120KM	96units/ 50mA	120W	150 lm /w	18000 lm							
KL	ZGSM-LD120KL	96units/ 50mA	120W	150 lm /w	18000 lm							
	ZGSM-LD150KL	120units/ 50mA	150W	150 lm /w	22500 lm							
	ZGSM-LD180KL	144units/ 50mA	180W	150 lm /w	27000 lm							
	ZGSM-LD200KL	168units/ 50mA	200W	150 lm /w	30000 lm							

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

Certification

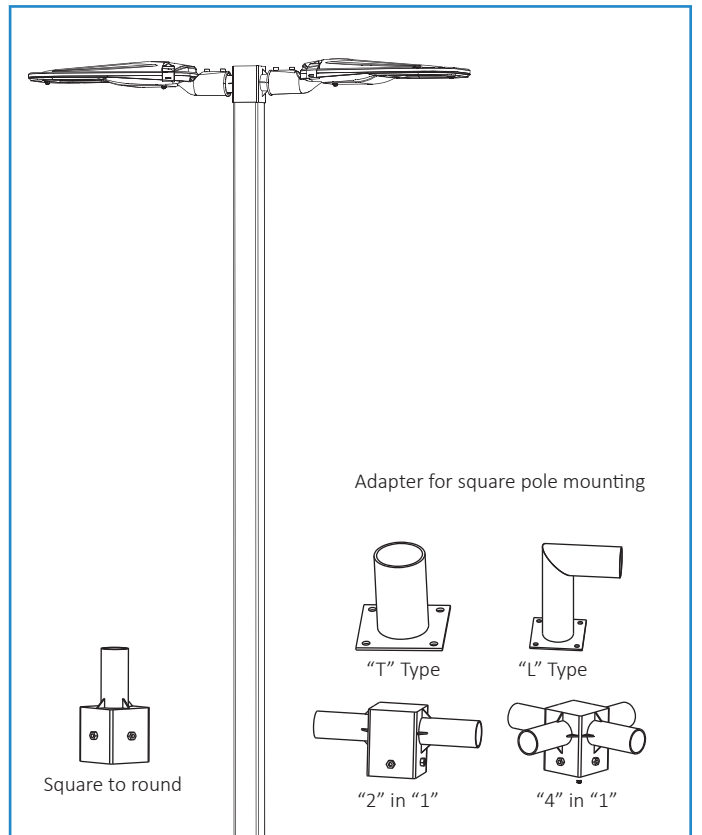| Manufacturer |
|---|
| ISO9001, ISO14001 |
| K Series [ZGSM-LD25KS, ZGSM-LD35KS, ZGSM-LD55KS, ZGSM-LD60KM, ZGSM-LD90KM, ZGSM-LD120KM, ZGSM-LD120KL, ZGSM-LD150KL, ZGSM-LD180KL, ZGSM-LD200KL, |
| CE, ROHS, CB, FCC, LM79, LM80, ENEC |

ZGSM
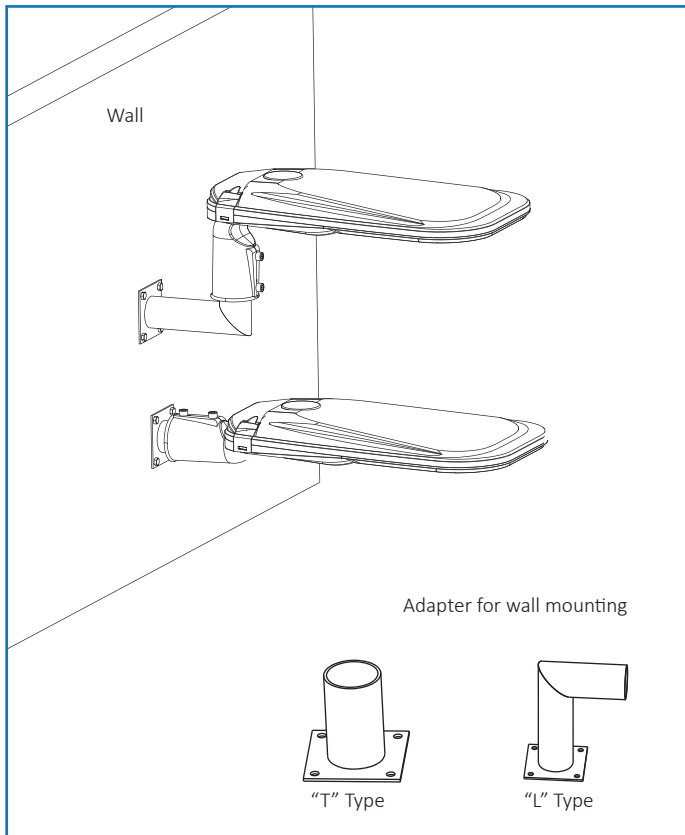SAVE TODAY'S ENERGY FOR TOMORROW
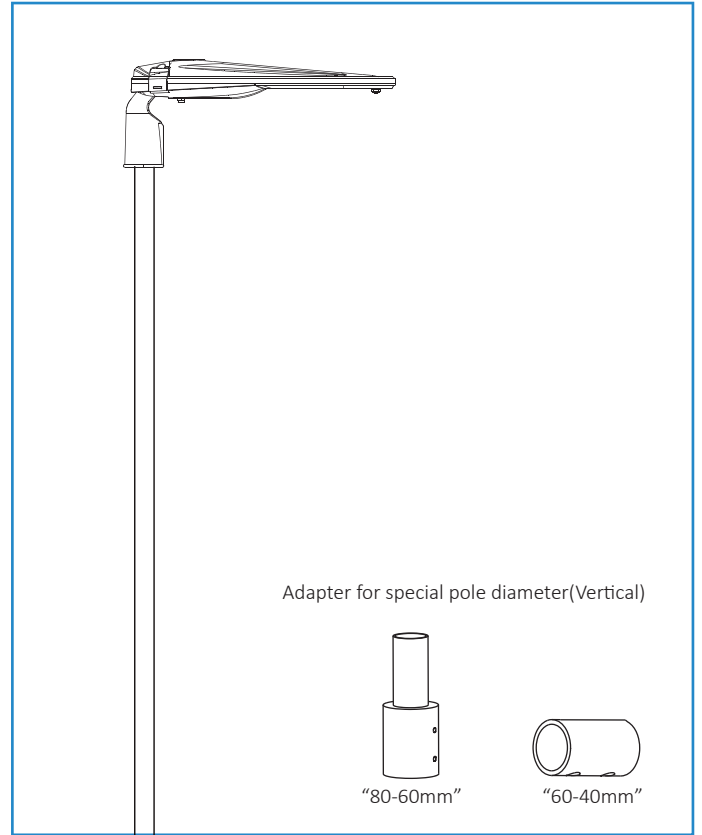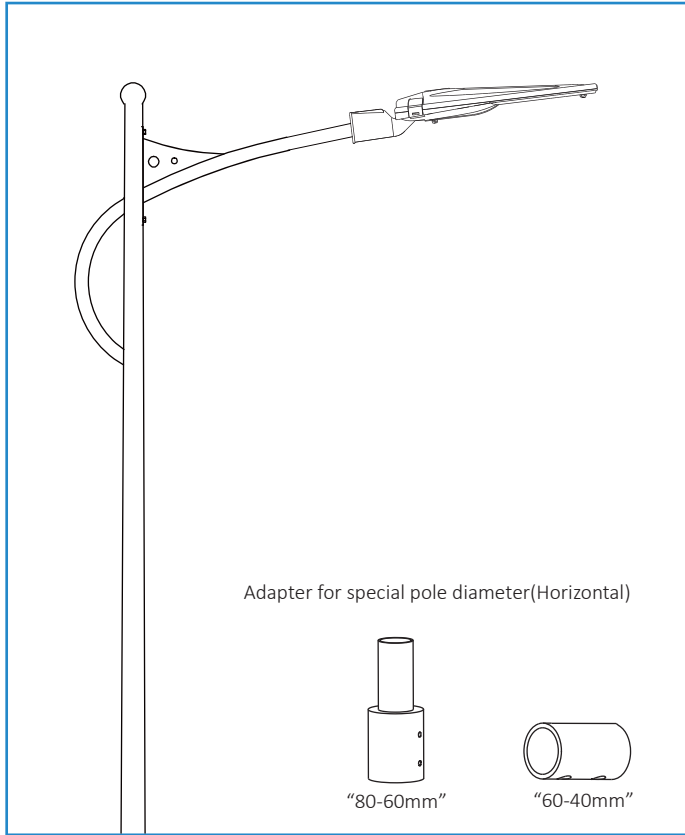
Design

★ External Design
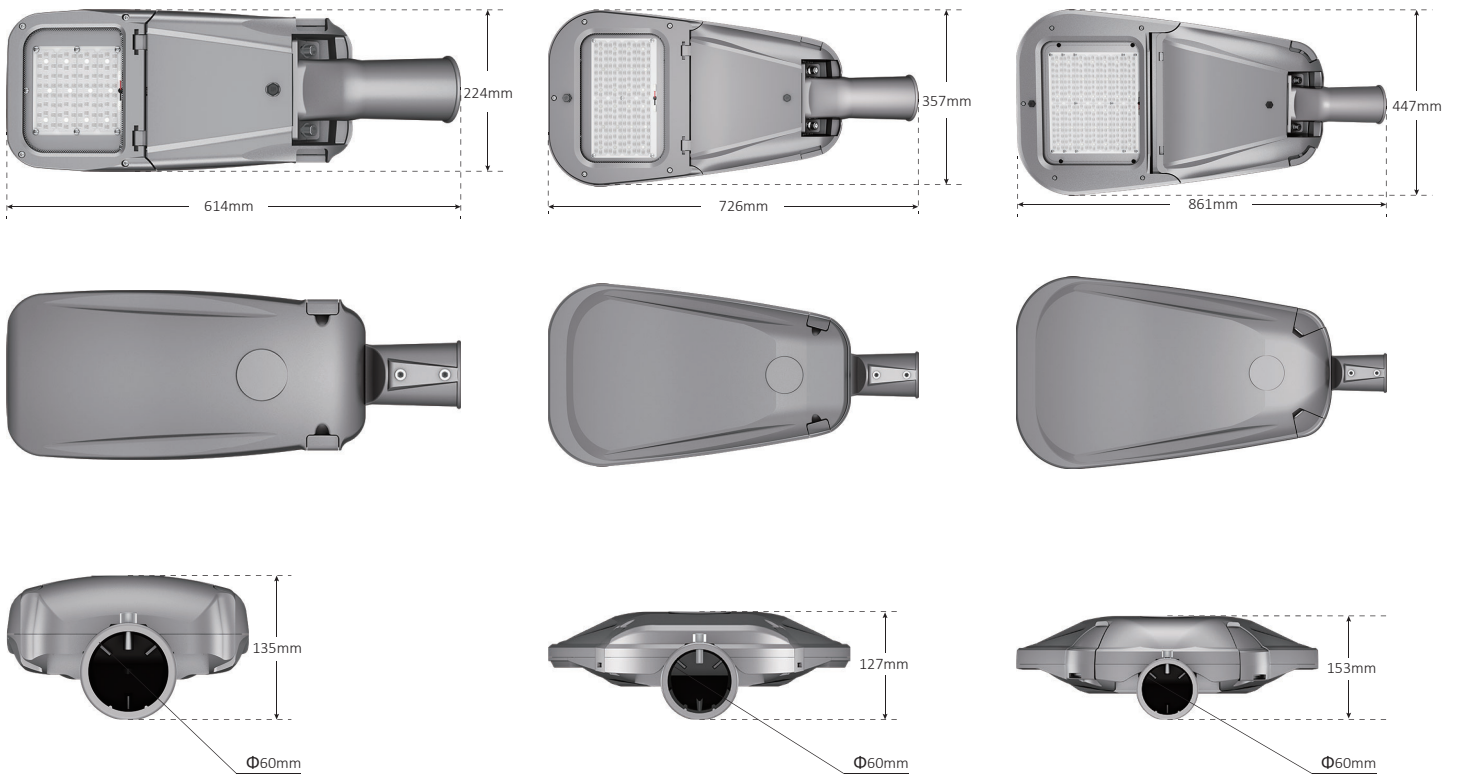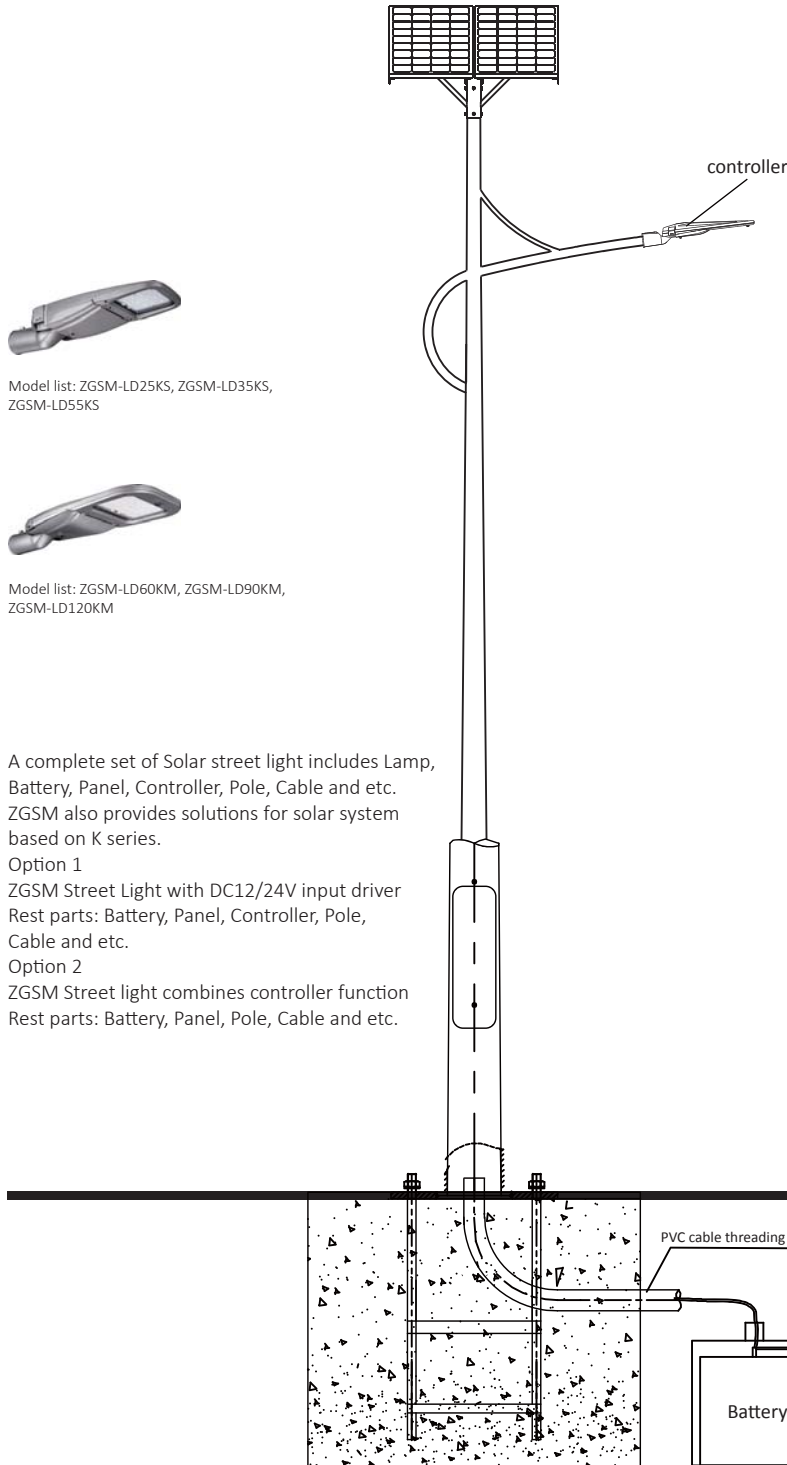

Working Environment & Packing

Model	Product Dimensions (mm)	Carton Size (mm)	N.W (kg)	G.W (kg)	Working Environment	Storage Temperature	Rating	CRI	Power Factor	Power Efficiency	Material	Pole Diameter (mm)
ZGSM-LD25KS	614*224*135	670*310*170	5.8	6.8								
ZGSM-LD35KS	614*224*135	670*310*170	5.9	6.9								
ZGSM-LD55KS	614*224*135	670*310*170	6.0	7.0								
ZGSM-LD60KM	726*357*127	785*410*160	7.8	9.5								
ZGSM-LD90KM	726*357*127	785*410*160	8.1	10.1	-40 ºC ~ +50 ºC 10% ~ 90%RH	-40 ºC ~ +50 ºC	Class I IP66 IK08	>70	>0.95	>90%	Housing: Die-cast aluminum Lens: Tempered glass and PC	60 (50 optional)
ZGSM-LD120KM	726*357*127	785*410*160	8.2	10.2								
ZGSM-LD120KL	861*447*153	915*495*225	12.0	14.5								
ZGSM-LD150KL	861*447*153	915*495*225	12.0	14.5								
ZGSM-LD180KL	861*447*153	915*495*225	12.1	14.6								
ZGSM-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

Adapter for special pole diameter(Horizontal)

"80-60mm"   "60-40mm"

Adapter for special pole diameter(Vertical)

"80-60mm"   "60-40mm"

Wall

Adapter for wall mounting

"T" Type   "L" Type

Adapter for square pole mounting

Square to round

"T" Type   "L" Type

"2" in "1"   "4" in "1"

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Solar Street Light System

Model list: ZGSM-LD25KS, ZGSM-LD35KS, ZGSM-LD55KS

Model list: ZGSM-LD60KM, ZGSM-LD90KM, ZGSM-LD120KM

controller

SOLAR PANEL

CONTROLLER

PARTS CONNECTION DIAGRAM

MPPT solar charge controller with built-in LED driver

solar panel

LED lamps

Battery

A complete set of Solar street light includes Lamp, Battery, Panel, Controller, Pole, Cable and etc.
ZGSM also provides solutions for solar system based on K series.
Option 1
ZGSM Street Light with DC12/24V input driver
Rest parts: Battery, Panel, Controller, Pole, Cable and etc.
Option 2
ZGSM Street light combines controller function
Rest parts: Battery, Panel, Pole, Cable and etc.

GROUND

PVC cable threading pipes

Battery   Battery

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?

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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, ZGSM provides different light distribution lens for the K Series street light to achieve best lighting effect in different applications.
ZGSM follows the North American IESNA standard in providing the optional lens width ,TypeI, 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.
ZGSM selects the most suitable lens for its customers according to the detailed parameters project by project.
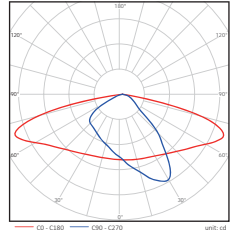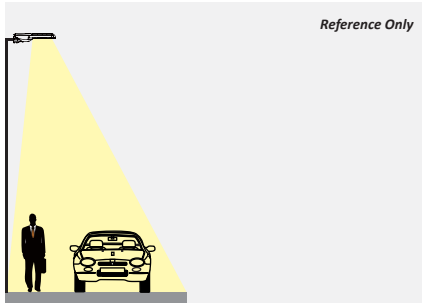
TYPE I

The Type I lens of ZGSM K 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.
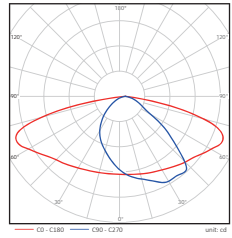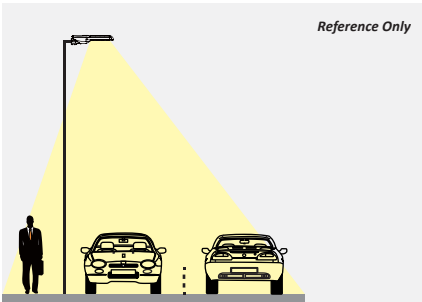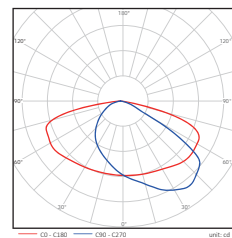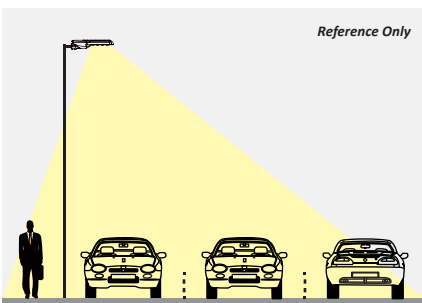
TYPE II

The Type II lens of ZGSM K 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.
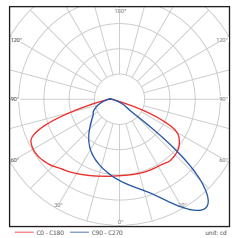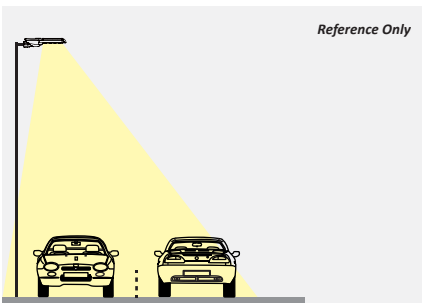
TYPEII BLS

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, high way, bridge and etc.

TYPE III

The Type III lens of ZGSM 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.

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Intelligence Street Lighting System
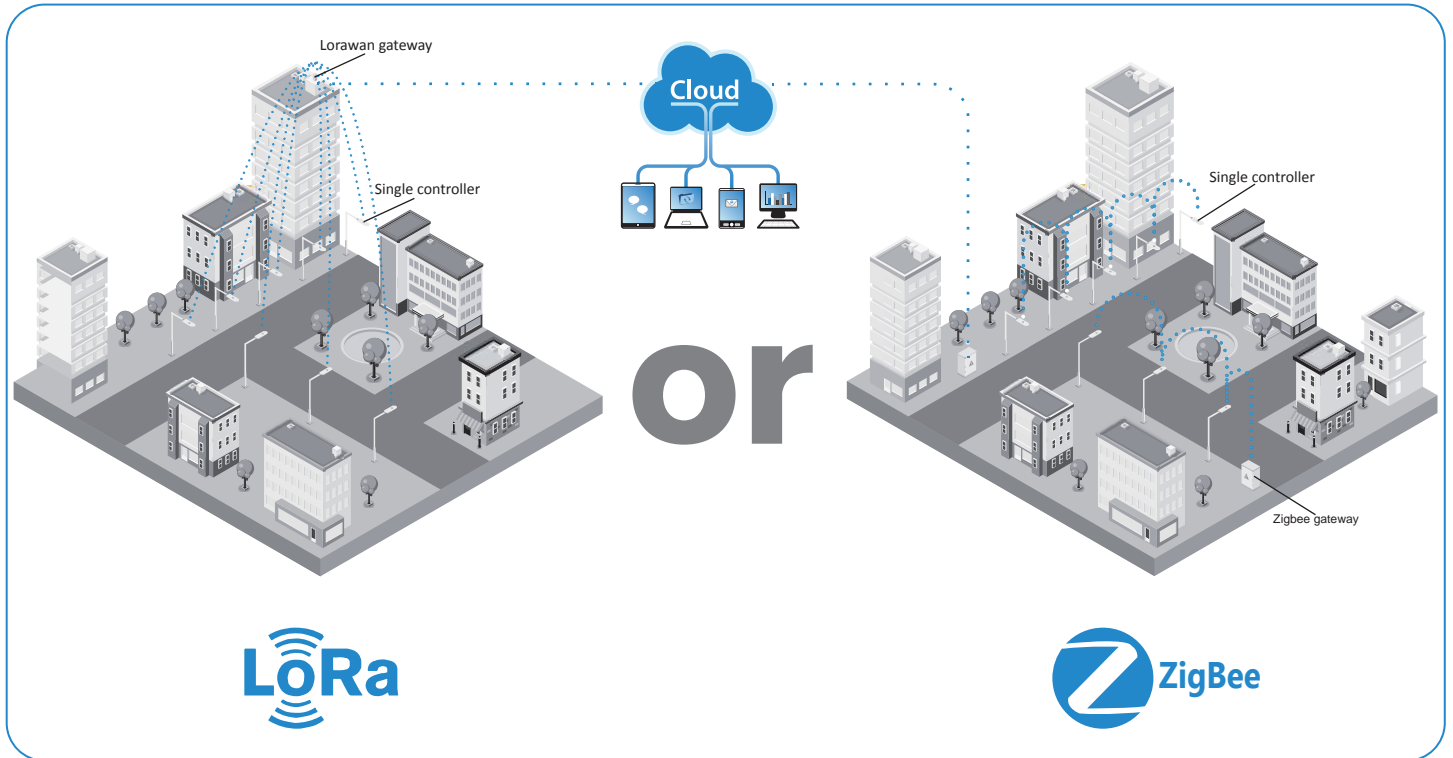
ZGSM provides a total solution for intelligence street lighting system.

ZGSM 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/ 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 ZGSM Team.

Optical Control

Optical control function is supported by optional
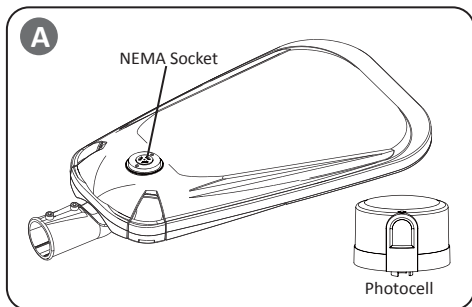
If the fixture with PHOTOCELL function, the NEMA Socket will be installed on the cover of fixture. See **A**. Fit the pins of Photocell to NEMA Socket, firmly insert and rotate Photocell to proper position.

<Verifying>
Make sure all the connections done and photocell is well installed on the fixture, switch on the power supply and cover the window of NEMA Socket, 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	≤ 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

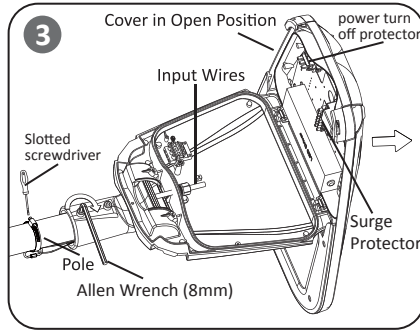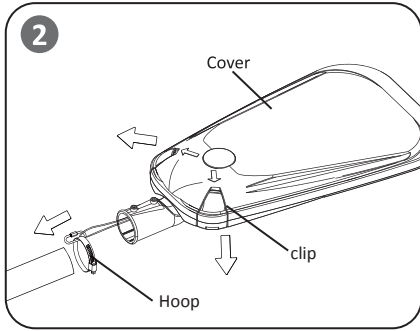All dimensions are mentioned in mm

CLASS I

Flexible Fitter

Adjustable tilt angle: ±0-5-10-15º

+15°
0
-15°

Horizontal Installation

+15°
0
-15°

Vertical Installation

Fitter

1

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Installation

2

Cover

clip

Hoop

3

Cover in Open Position

power turn off protector

Input Wires

Slotted screwdriver

Pole

Allen Wrench (8mm)

Surge Protector

4

clip

5

STEP 1:
Adjust the multi-angle fitter (0, 5 ,10, 15 degree vertical and 0, 5,10, 15 degree horizontal) to proper position by 4mm (5/32") allen wrench. See **1**.

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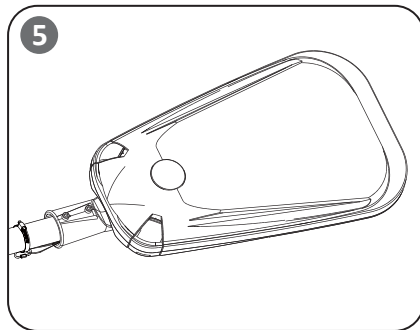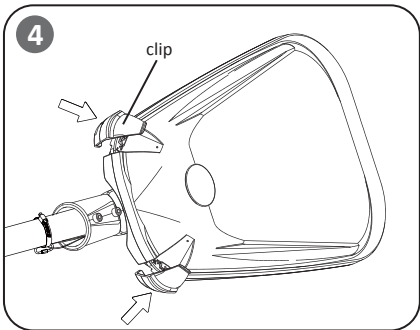Open the left and right clips on the back of the luminaire. See **2**.

STEP 3:
Insert the pole and external power cord into the luminaire cavity and hoop of Anti-falling rope.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.Tighten the hoop on the pole by Slotted screwdriver See **3**.

STEP 4:
Connect the external power cord to the power turn off protector plug and complete the electrical connections.
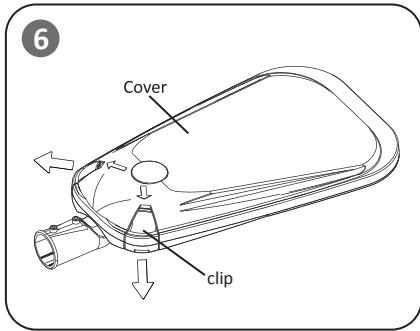
STEP 5:
Close the cover and clips. See **4 5**.
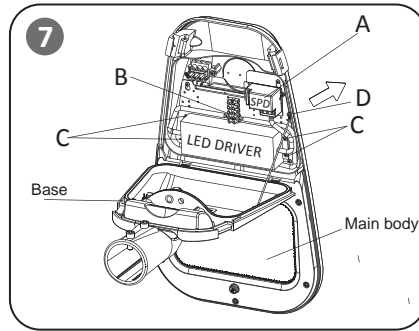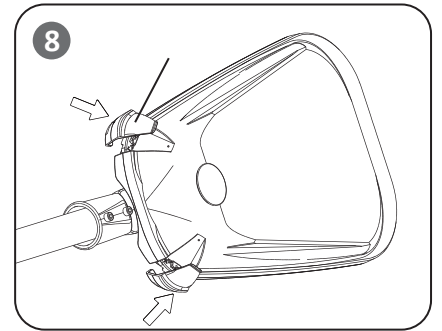
Maintenance

★ Driver replacement

6

Cover

clip

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

7

A

B

C

C

D

LED DRIVER
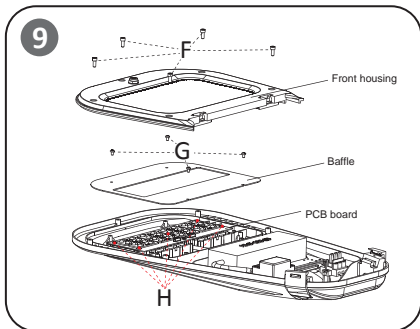
Base

Main body

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

8

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

★ LED components replacement

9

F

Front housing

G

Baffle

PCB board

H

STEP 1:
Same process with driver replacement **STEP1** and then unscrew the M4x8 screw by cross screwdriver **(see Ⓓ in 7)** and take down the main body from base. Unscrew the five M5x10 screws **(see Ⓕ)**by allen wrench and remove the front housing, unscrew the four M4x6 **(see Ⓖ)** by cross screwdriver and remove the Baffle, unscrew the five M4x6 **(see Ⓗ)**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.

10
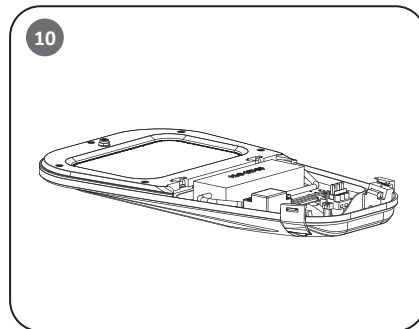
STEP 2:
Connect and tighten up each part back step by step.

11

D
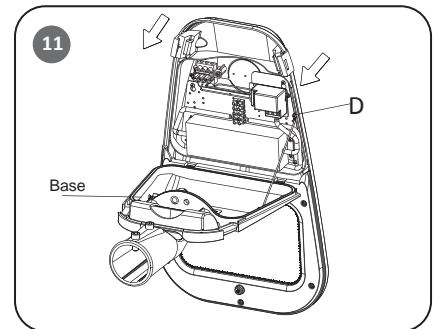
Base

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

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