

# **Integrated High Power LED Street Light (YZLD-018 series)**

## **PRODUCT SPECIFICATION (The second edition)**



---

Issued by Jiangsu Yangtze Electromechanical Science & Technology Co., Ltd

### **Remark :**

1. Please read carefully this product description before use to prevent any accidents or damages to the product.
2. The ultimate explanation is made by our company.

## Content

<b>1. Summary</b>	<b>3</b>
1. A breif introduction to product	3
2. Product feature	3
3. Technological advantages	4
4. Application	4
5. Technical specification	4
6. Ambient environment	4
<b>2. Technical Feature</b>	<b>5</b>
1. Technical specification	5
2. Power supply data	5
<b>3. Size</b>	<b>6</b>
1. Shape & size	6
2. Product structure	6
3. Packaging size	7
<b>4. Mounting and Adjustment</b>	<b>7</b>
<b>5. Usage Notice</b>	<b>8</b>
<b>6. Analysis and Removalment of Malfunction</b>	<b>9</b>
<b>7. Transportation and Storage</b>	<b>9</b>
1. Notice for lifting and transportation	9
2. Storage condition	9
<b>8. Unpacking and Inspection</b>	<b>10</b>
<b>9. Guarrantee</b>	<b>10</b>

## 1. Summary

### 1. A brief introduction to the product

LED ( Light Emitting Diode ) belongs to solid state lighting , and based on the lighting principle of semiconductor luminescence of solids, LED' s spectrum mostly concentrates in visible spectrum, thus reputed as the newest light source in the 21s century. It is going to be the light source of the forth generation after incandescent lamp, fluorescent lamp and HID, and commonly seen as one of the ten most cutting-edge technology in the 21s century. This new light source is destined to replace traditional light source, and bring about a new industrial revolution—green lighting revolution!

The integrated high power LED Street light irradiates evenly the light emitted by LED light source to a designated area in one direction, thus it decreases light pollution and increases luminance and evenness. We integrate the lamp housing with the LED light source by our patent technology. The heat in the operation of LED light source is transmitted through the holed lamp housing quickly, and spread into the air above the lamp housing. Meanwhile the heat created by the LED light source heats the air in the grids of the lamp housing, leading to gas expansion and air flows upwards. The cold air supplements quickly to form an endless air circulation and heat exchange. The heat produced by the LED light source becomes a “power producer” and decreases the heat quickly. This grid structure prevents ash from gathering in the lamp housing.

### 2. Product feature

① High power integrated light source: The Bridgelux chip we use is imported from America, and one particle could be from 30w~100w.

② High efficiency cooling material: The lamp housing is made of aluminum alloy, and we add rare earth into it.

③ Encapsulation Technology: The LED light source is encapsulated on the cooling module directly, and this encapsulation is based on liquid metal die bond technology.

④ Heat dissipation : We develop new structure and material for radiator, and create a new kind of LED light source module, overcoming the difficulties of high heat resistance.

⑤ Integration of heat sink and lamp housing: It is single-plate integrated LED lamps, for which we develop the key technology for heat dissipation, light distribution, and decrease the cost of production.

The combination of LED light source module and radiator bring about a series of LED application products, and enforces the standardization and utilization of LED lamps.




### 3. Technical advantages

- ① Efficiency : High luminance efficiency. Compared with traditional lamps, it saves 60%~ 80% electricity charges.
- ② Lumen: One LED light source could be more than 10,000 lumens.
- ③ Light decrease: The integrated encapsulation technique breaks the bottleneck of heat obstruction and light decrease.
- ④ Heat spread: The holed radiator made of aluminum alloy spreads heat quickly. The lamp housing is die casted to be a holed multi-facet 3D structure, which quickens air convection and spread heat easily.
- ⑤ Light distribution: We have rectangular glass lens and eccentric glass lens for light distribution.

### 4. Application

The LED Street light is mainly used on express way, main road, Collector Street, roads in a factory, square or courtyard.

### 5. Type

-  Item : integrated high power solar LED street light
-  Model No. : YZLD-018
-  Size : 650×300×148mm

### 6. Ambient environment

Temperature : -40°C ~ 50°C ; Humidity : 10% ~ 90% RH

## 2. Technical Feature

### 1. Technical data

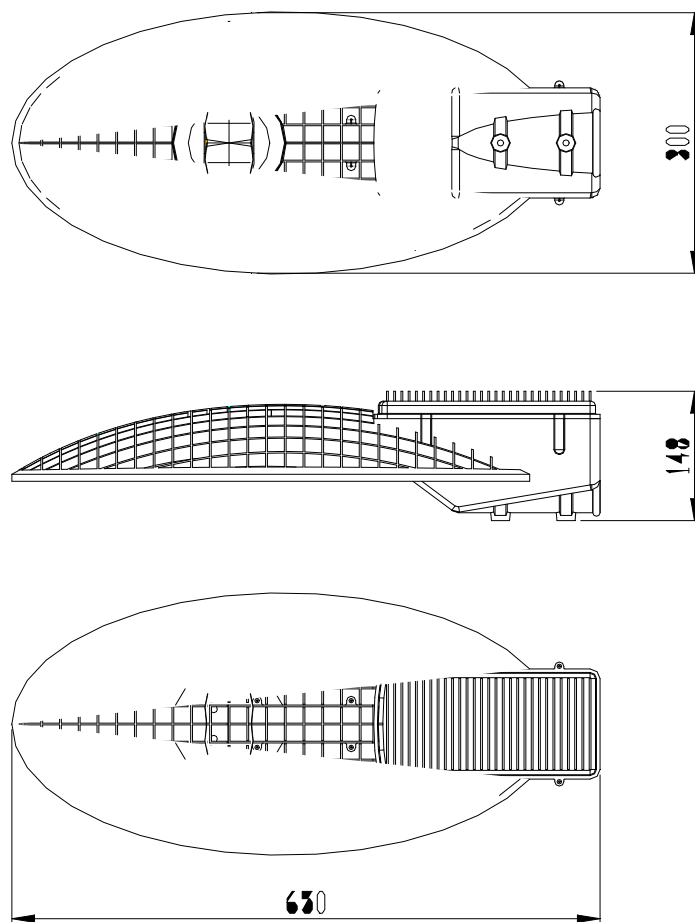
Technical specification							
Model No.	YZLD-018 series						
	YZLD-018-030、YZLD-018-040、YZLD-018-050、 YZLD-018-060、YZLD-018-070、YZLD-018-080、 YZLD-018-100						
Power(W)	100 W						
Power(W)	30	40	50	60	70	80	100
Number of LEDs	1	1	1	1	1	1	1
Weight (kg)	6.5	6.5	6.5	6.5	6.5	6.5	6.5
Lumen efficiency of the whole lamp	>100 lm/w						
Lamp efficiency	≥90%						
Color rendering index(CRI)	Ra≥65						
Color Temperature	2500~7000 K						
LED junction temperature (T <sub>J</sub> )	< 65℃						
Ambient environment	temperature : -40℃ ~ 50℃ humidity : 10% ~ 90% RH						
IP level	IP65/IP67						
Storage temperature	-40℃ ~ 70℃						
Color of lamp housing	White, skyblue blue, diamond blue, silver gray and yellow.						
Mounting height	5~10m						
Working hours	> 50000 hours						
Warranty	5 years						

### 2. Power supply data

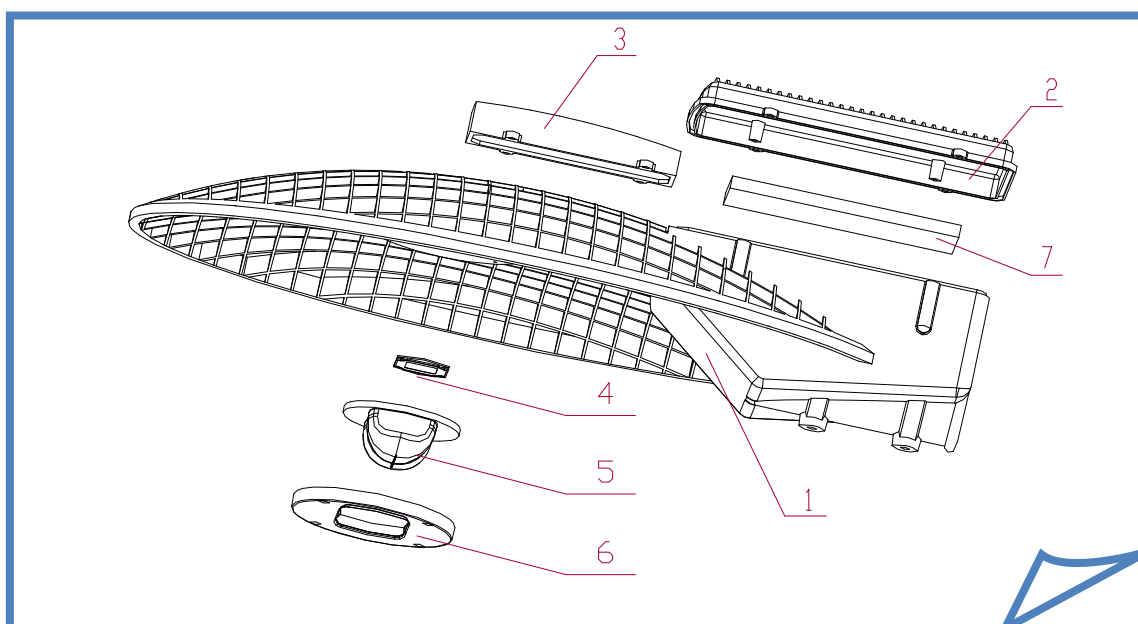
Power supply data	
Input voltage ( V )	AC 90~305
Power supply efficiency	0.88~0.95

### 3. Size

#### 1. Shape and size (mm)

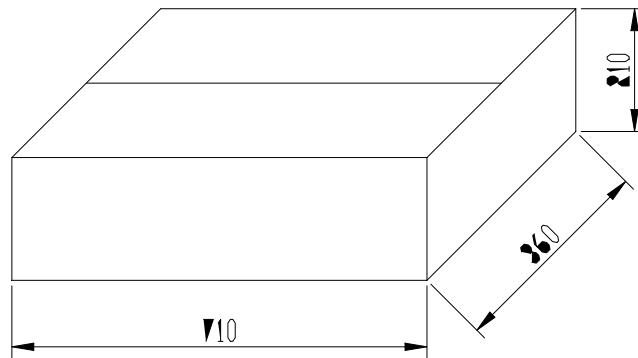


#### 2. Product structure

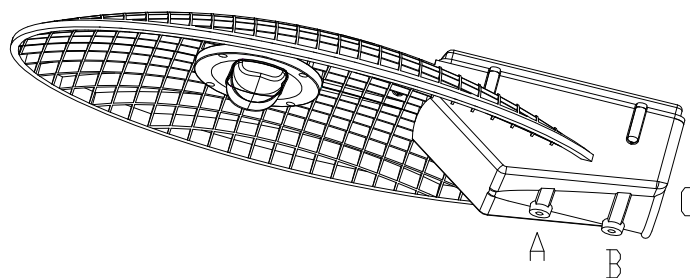


S/N	Item	Model No.	QTY	Material	Remark
1	Lamp housing	YZLD-018-K	1	Aluminum alloy	
2	Driver lid	YZLD-018-Q	1	Aluminum alloy	
3	LED light source	YZLD-201	1	Bridglux	
4	Lens	YZLD-002	1	Optical glass	
5	Junk ring	YZLD-102	1	Aluminum alloy	
6	Driver	Appointed by client	1	Mean well	


### 3. Packing size (mm)



### 4. Mounting and Adjustment



A, B : Fastening bolt C : Mounting hole  $\phi 60$

 Connect the wire in the inlet of the lamp with the wire in the lamp pole.

Dark color wire	L
Light color wire	N
Double color wire	G

- ✚ According to the diameter of the arm of the lamp pole, adjust the lamp to a proper position, then harness the lamp C on the arm of the lamp pole.
- ✚ Fasten the two bolts (A, B) , tightening torque 40-60 Nm , fixing the street light on the lamp pole.
- ✚ Plug in and the lamp is alight.
- ✚ ( the rated voltage on the nameplate is input voltage range)
- ✚ Mounting must be done by professional electrician.
- ✚ The lamp is Y type connect: please don' t replace power supply wire by yourself. If the power supply wire is destroyed, it must be replaced by professional electrician.

## 5. Usage Notice

1. The lamp can' t be used when the wind speed is above 20m/s.
2. It is can be used with solar system and DC 24V power.
3. The color temperature could be  $\pm 250\text{K}$ .
4. Please contact us if you want to replace the LED light source, don' t replace the light source by yourself.
5. Please notice us if you need to dim the light on time. Without prior notice, the lamp is not dimmable, and can' t be used with a dimmer.
6. For your safety, please install electric shock proof facility before use.
7. Make sure the lamp is in good condition before use. Don' t throw the lamp.
8. The lamp should be stored in a cool and dry environment.
9. Non-professionals don' t take down lamps.
10. Please use it in  $-40\sim 50^{\circ}\text{C}$ , and please contact us if it' s used outside the range.
11. Use it within the range of the specified voltage lest it would cause fire or electric shock.
12. Please don' t light up it at noon lest fire was caused by overheat.
13. Don' t use it in wet places such as bathroom lest there was electric shock or fire caused by bad insulation.
14. Don' t use it under water lest it would cause electric shock. Please buy IP68 lamp if you need to use it under water.
15. Don' t use it in the case of strenuous vibration or beating lest it would fall down.
16. Staring at it for a long time would cause eyesore or temporary blindness.
17. Please connect ground wire as stipulated lest it would cause electric shock.
18. Please use special tool in the mounting lest it fell down.
19. Please follow rules to connect wires such as power line and ground line. The joints should be wrapped with insulation tape, lest it would cause fire, electricity leakage or electric shock.
20. Be careful if it is used in big wind lest it fell down.



21. The lamp would fall down if the pole is not strong enough.
22. Don't use it by sea or in salty places lest corrosion. Please notice if it is used in such above areas.
23. Don't expose it in lampblack, soot, corrosive gas lest falling down caused by corrosion.
24. If there is snow on the lamp pole, please clean it before use.

## 6. Analysis and Removal of Malfunction

If there was any abnormal condition happens in the process of usage, please consult professional engineers for help; analyze the malfunction according to the following chart.

Malfunction	Reason	Ways of removal
LED light source doesn't work	Power supply input terminal is not well connected.	Connect them.
	Power supply is destroyed	Replace it with a new power supply.
One of the LED light sources doesn't work.	The positive cathode and negative cathode of light source are connected oppositely.	Watch through the lens to make sure the red line is connected to "+", otherwise exchange positive and negative cathode.
	LED is destroyed	Use a reliable power supply to test it to make sure if the light source is destroyed.

## 7. Transportation and Storage

1. Notice for lifting and transportation:

Glass lens is easy to be broken.

Prevent water from flowing into the mounting tube of LED street light, and destroying the power supply.

Make sure all the parts are fastened before mounting.

2. Storage condition

Storage condition : it should be stored in a cool and dry place, in the ambient condition of -40°C ~ 70 °C.

## 8. Unpacking and Inspection

Matters needing attention:

- ★ Check that whether the box has large damage
- ★ Check the certification and check that whether the goods are qualified.
- ★ Check that whether the lens are damaged

## 9. Guarrantee

According to the relevant provisions of *Consumer Protection Law*, our company solemnly promises to provide you with the following services:

- ★ From the purchasing day, we have 2 year entire lamp warranty
- ★ The following dose not belong to free services:
- ★ During the installation and use, the lamps are damaged by external force or other human factors
- ★ Altered invoices or purchased lamp without invoices
- ★ The lamps are damaged by demolition
- ★ Damage due to external factors such as external factors
- ★ Damage caused by not in accordance with the requirements of instructions
- ★ Damage caused by non-resistance factors (such as earthquakes, hurricanes, lightning, etc.)