

# Specification

Products Name: LED FLOOD LIGHT 100W

Model No.: ZGE-TGD285WB376B-100LF

Product Code: 16124025

Document Code: ZG-WI-RD-SP-

Edition: A/2

Department: R&D Certer

## Changed records of issued documents

| Issued time | Version | Changed content                            | Implementer  |
|-------------|---------|--|--------------|
| 2014.9.13   | A/0     | First Issuing                              | Hongshuan Li |
| 2015.5.14   | A/1     | Revise LED and driver                      | Junchao Lv   |
| 2015.8.13   | A/2     | Modify voltage and current of driver label | Junchao Lv   |
|             |         |  |              |
|             |         |  |              |
|             |         |  |              |

Documents distributed to department: department of technology、 product department、 quality

**Edited:**

**Verify:**

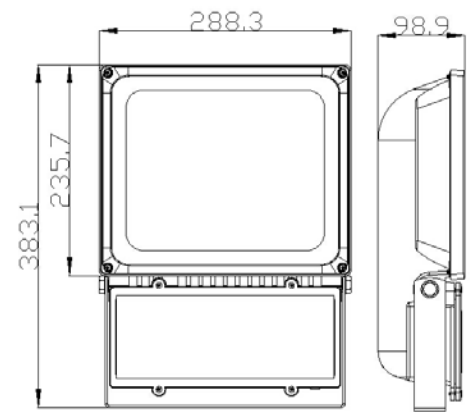
**Approval:**

|                  |             |               |                             |                                |       |           |
|------------------|-------------|---------------|-----------------------------|--------------------------------|-------|-----------|
| Document number: |             | Products Name | <b>LED FLOOD LIGHT 100W</b> | Formulating time: 14 May, 2014 |       |           |
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一、 Purpose: Definite technical standard of LED light,direct LED examination

二、 Basic specifications of product:

- A、 Appearance as right image:
- B、 Light boundary dimension: 288.3\*383.1\*98.9mm
- C、 Lamp net weight: 5500g±30g
- D、 Lamp color: Silver/matt black
- E、 Material: lampshade-glass; lamp body - Alu.ADC12; reflector - Alu.1100
- F、 LED Chip: COB, 10 series 5 in parallel, 2 PCS
- G、 Power wire: conductor $\geq 1.0\text{mm}^2$ ; wire length:  $\geq 0.3\text{m}$ ; tail end: copper-clad
- H、 Power driving model: Isolated; Driver IP rating: IP65;
- I、 IP grade: IP65; electrical shock protection grade: Class I
- J、 Environment temperature: working  $-20^{\circ}\text{C}\sim +45^{\circ}\text{C}$ ; storage  $-30^{\circ}\text{C}\sim +60^{\circ}\text{C}$ ;
- K、 Environment humidity: working- 10%~75%; storage- 10%~90%
- L、 Lamp head: N/A
- M、 Others: non-dimmable



三、 Electric parameter:

Test condition:light for 15 mins under nominal voltage input and  $25^{\circ}\text{C}\pm 1^{\circ}$ working environment

| Item name                   | Unit                      | Minimum         | Typical value | Maximum | Remarks   |
|-----------------------------|---------------------------|-----------------|---------------|---------|-----------|
| Input Voltage               | V                         | AC100           | AC220         | AC240   |           |
| Input Current               | A                         | 1.02            | 0.46          | 0.4     |           |
| Lamp power                  | W                         | 100W $\pm 10\%$ |               |         |           |
| Power factor                | PF                        | $\geq 0.9$      |               |         |           |
| Light power                 | W                         | 100W $\pm 10\%$ |               |         |           |
| Frequency                   | Hz                        | 47              | 50            | 63      |           |
| Output                      | DC26-36V;1500mA $\pm 5\%$ |                 |               |         | 2 drivers |
| Power conversion efficiency | %                         | 87              |               |         |           |

|                  |             |               |                             |                                |       |           |
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#### 四、Optical parameter requirement:

Test condition:light for 15 mins under 220V AC input and 25°C±1°working environment

| Item name                 | Unit | Minimum | Typical value | Maximum | Remarks    |
|---------------------------|------|---------|---------------|---------|------------|
| Color temperature         | K    | /       | /             | /       |            |
|                           |      | /       | /             | /       |            |
|                           |      | 5800    | 6150          | 6500    | Pure White |
| Color rendering index(CR) | Ra   | /       |               |         |            |
|                           |      | /       |               |         |            |
|                           |      | ≥70     |               |         | Pure White |
| Luminous Flux             | lm   | /       |               |         |            |
|                           |      | ./      |               |         |            |
|                           |      | ≥7200   |               |         | Pure White |
| Lighting effect           | lm/W | /       |               |         |            |
|                           |      | /       |               |         |            |
|                           |      | ≥80     |               |         | Pure White |
| Beam angle                | °    | 100     | 100           | 110     |            |
| Chromaticity              | SDCM | <10     |               |         |            |

#### 五、Reliability requirements:

| Item name                        | Standard specification  |
|----------------------------------|---|
| Lumen maintenance                | Lumen maintenance is not lower than 92% after lighting for 3000h,and not lower than 88% after lighting for 6000H; and not lower than 70% after lighting for 70% of lifespan   |
| Working life                     | Under nominal voltage input, working life is forced not lower than 25000h in 25°C±1°C   |
| Guarantee period                 | 2 years   |
| IP grade                         | Must meet the test requirements of IEC  |
| Durability test                  | Test cycle should be 10 cycles,circuit should normal operate during 10 cycles.1 cycle is 24h,mains input on lamps during the begining 21h,then cut down the input in the last 3h.Testing voltage:nominal voltage X 1.10 ± 0.015,forbiding below case during test--<br>1.any part could not lose efficacy;<br>2.lamp could not be unsafe;<br>3.No damaging track system;<br>4.writing label should be clear;<br>5.No crazing,burn,shape changed and so on. |
| Low temperature and low pressure | placing for 3 hours in -20°C temperature,then start it with 100V,light normally.( it's enterprise internal test regulations)  |

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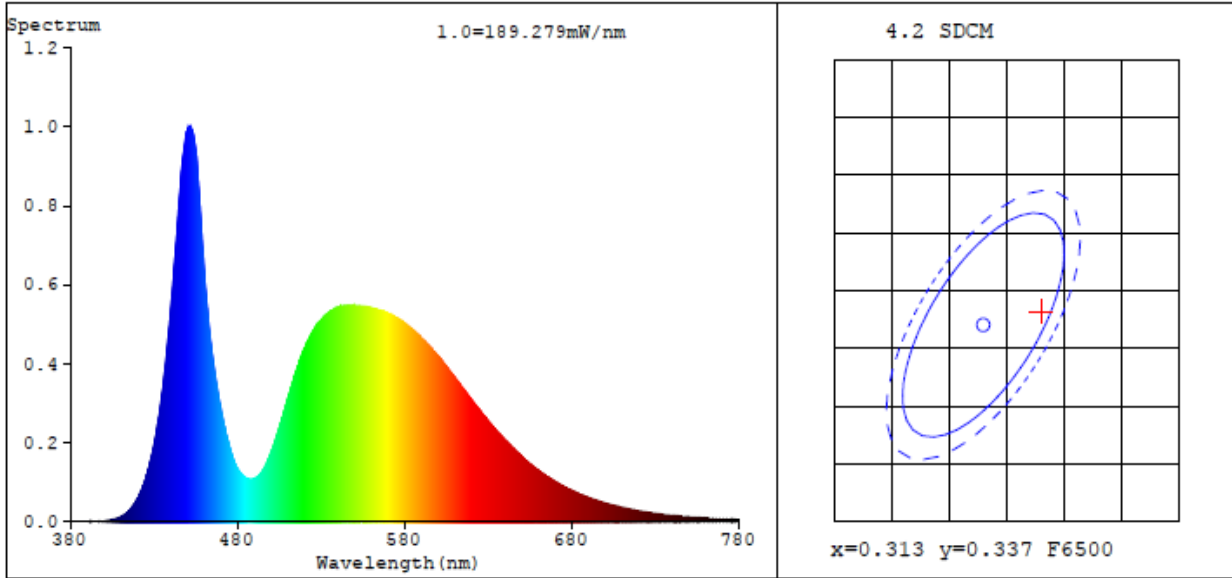
#### 六、 Safety requirement:

| Item name   | Standard specification  |
|---|---|
| Logo durability   | Wipe the logo with watering cloth for 15 seconds; then wipe it with ethane for 15 seconds after dried, at last check the logo clarity   |
| Structure   | Meet GB7000.1-2007 or IEC60598-1: 2008 Correlated standard  |
| The Insulated Resistance and Electric Strength after 48H moist test | (1)Moist Test: Any value between humidity 91%~95% & environment temperature 20°C~30°C, keep inside the test box for 48H if temperature difference 1°C ;<br>(2)Bring to DC500V to bear on insulation resistance between electrical parts and metal parts for 1 minute. The Insulated Resistance(I type): Basic insulation $\geq 2M\Omega$ , additional insulation $\geq 2M\Omega$ , double insulation or reinforced insulation $\geq 4M\Omega$ ;<br>(3)Bring to 2U+1000V (I type, basic insulation) to bear on insulation resistance between electrical parts and metal parts for lights, the test couldn't appear the flicker or puncture (U=working voltage) |
| Leakage current   | On working time, the current between power polarity and body case $\leq 0.7mA$ (Class I clamp) .  |
| Ground connection rule  | More than 10A current producing by Less than 12V floating voltage connects the ground terminal and between all kinds of metal parts separately, and release the current at least 1min, ground resistance $\leq 0.5\Omega$ ; contact area connecting with ground should be bare metal surface; yellow-green double colors connect the ground line.   |
| Hot test (regular work)   | During the test and the end of the test, the temperature of the tested components shall not exceed the limit.   |
| Electrical shock protection   | Insulating paint is not reliable, not as a protective layer against electric shock; not accessible live parts, basic insulation metal parts is difficult to touch; enough mechanical strength, rigid fixation.  |
| Internal and external wiring  | Meet the standard requirements (internal connecting conductor $\geq 0.5mm^2$ , external connecting conductor $\geq 0.75mm^2$ ) .  |
| Creepage distance and electric clearance                            | PTI < 600;<br>creepage distance: basic insulation $\geq 2.5mm$ ;<br>additional insulation $\geq 3.6mm$ ; reinforced insulation $\geq 6.5mm$<br>electric clearance: basic insulation $\geq 1.7mm$ ;<br>additional insulation $\geq 3.6mm$ ; reinforced insulation $\geq 6.5mm$   |
| Power supply terminal disturbance voltage                           | Test is only for lead-in reference, not mandatory indicators, unnecessary to pass the test  |
| CE LVD  | Y   |

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七、Optical and electrical test parameter:

**Spectrum Test Report**



**Color Parameters:**

Chromaticity Coordinate:  $x=0.3180$   $y=0.3381$   $u'=0.1981$   $v'=0.4739$   
 $T_c=6175K$  (Duv=0.0052) Dominant WL:Ld =495.7nm Purity=4.9%  
 Red Ratio:R=13.3% Peak WL:Lp=450.9nm HWL:Lhd=23.6nm  
 Render Index:Ra=71.5  
 R1 =69 R2 =76 R3 =79 R4 =72 R5 =69 R6 =66 R7 =83  
 R8 =59 R9 =0 R10=40 R11=67 R12=37 R13=70 R14=88 R15=64

**Photo Parameters:**

Flux =8206 lm Eff. : 85.93 lm/W Fe = 18.51 W

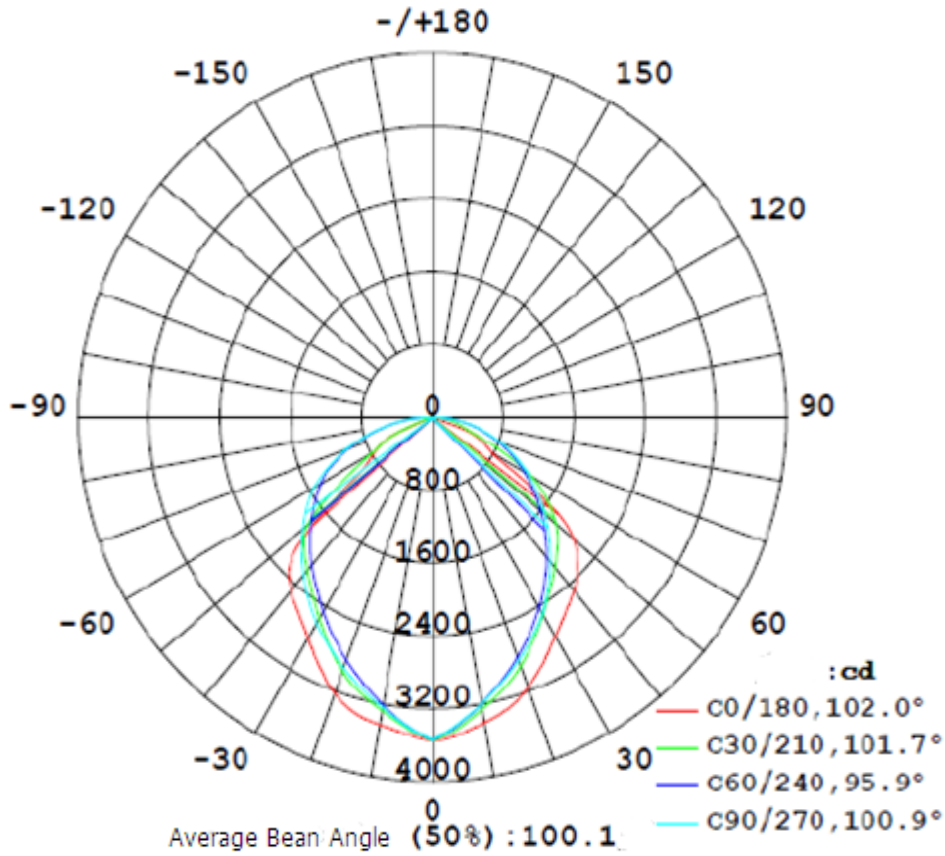
**Electrical parameters:**

V = 220.7V I = 0.4550 A P =95.50 W PF = 0.9500  
 LEVEL:OUT WHITE:ANSI\_6500K

Status: Integral T = 4 ms Ip = 54186 (83%)

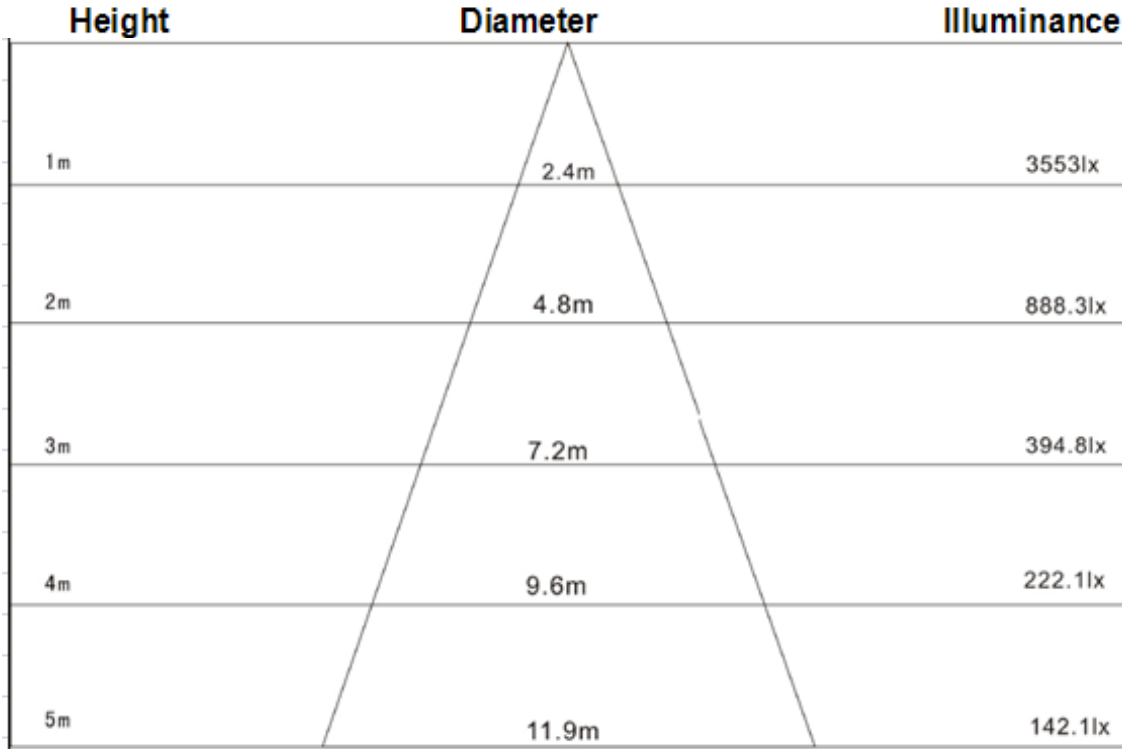
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八、Surface of light intensity distribution:

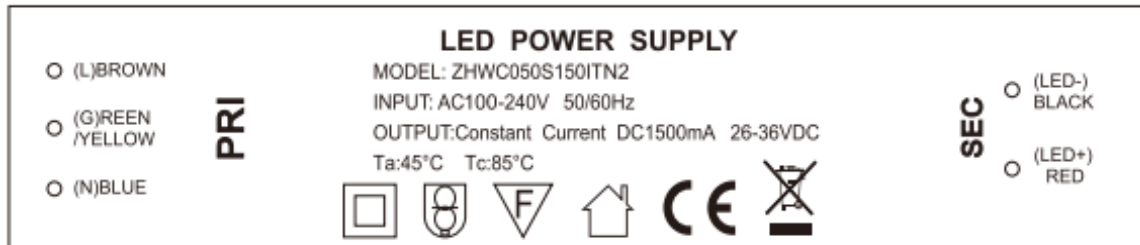


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九、Average illumination image:



十、(1) Driver Nameplate:



(2) Nameplate:



Remarks:

Product nameplate is adhesive labels, color temperature will according to the order requirement to chose frame filling. Date of printing as per actual production date.

|                  |             |               |                                 |                                |       |           |
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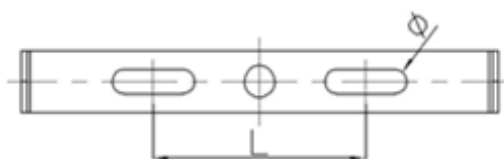
## 十一、Installation:

### Step 1

Opening package, take out lamp and accessories, check the accessories are complete or not, if the glass is damaged please ask for suppliers to replace immediately.

### Step 2

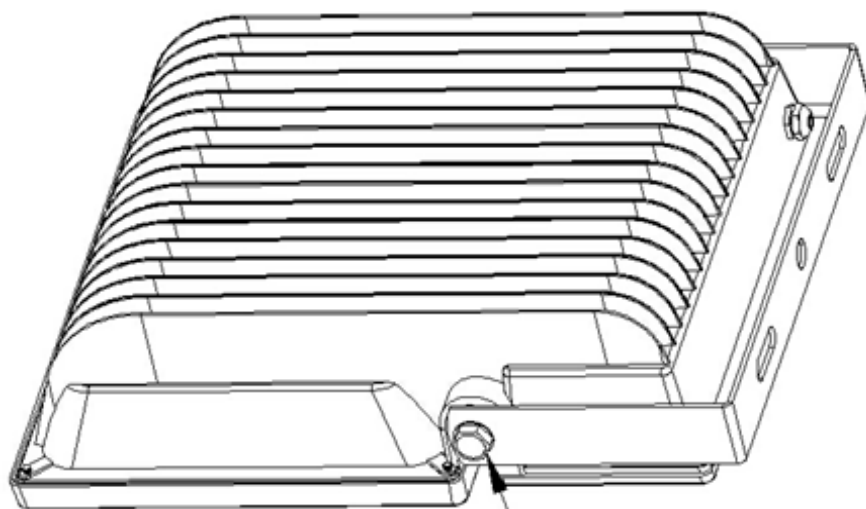
Lights can install on the ground、 wall or brackets according to actual situation such as installation on the brackets with hexagonal head screw fixed. And dig the hole on ground or wall with suitable expansion bolt fixing according to light's bracket if install on the ground or wall. As drawing:



Lamp Bracket

### Step 3

After fixing light body, unscrew from both side, then tighten the screws when turns the light to the correct angle



Loosen the screw at the both end of lamp, can adjust the angle of projection.

### Step 4

Connection line: brown wire connects the fire wire, blue line connects the null line, and yellow-green line connects ground wire.



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## 十二、Packing:

| Package      | Dimension(mm) | Box & CTN     | Qty  | N.W.(KG) | G.W.(KG) |
|--------------|---------------|---------------|------|----------|----------|
| Inner box    | 135*295*400mm | 1pc/box       | 1pc  | 5.5      | 5.9      |
| Outer Carton | 420*315*290mm | 2 layers /CTN | 2pcs | 11.53    | 12.53    |

## 十三、Attention:

- 1、 Please take care of glass part when moving;
- 2、 Do not disassemble the lights if not professional;
- 3、 The working power is high voltage alternating current which is installed in out of reach by people,the wire core shall not be exposed while connecting,and do ground protection;
- 4、 Place for installation must be carrying capacity enough to ensure the safety;
- 5、 Please don't touch the light cup by hand when working , in order not to be scalded;
- 6、 Working ambient temperature should be less than 45℃ .Otherwise, It will effect the lifespan of products.Keep it well;
- 7、 Do not work over the range of voltage to ensure the lifespan of barretter;
- 8、 This product has tri-proof.It can work in rain but couldn't soak into the water;
- 9、 Clear the dust in one time to keep the good heat dispersion. Be noted that do not clear the products with corrosive liquid;
- 10、 Ask for professional to installation or maintaince.

**Attention: Won't notice if any information changed. Any doubts please contact supplier directly!**