

Product Specification

Customer Name:

Manufacture Company: Jiangsu Wenrun Optoelectronics Co.LTD

Product P/N: WRRG008*-00**

| Manufacture Company | | |
|---------------------|----------|-------------|
| Draft By | Check By | Approved By |
| 杨媛媛 | 房杰 | 朱燕龙 |

| Customer Confirmed Information | | |
|--------------------------------|----------|--------------|
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| RECORDS OF REVISION | | | | | | |
|---------------------|------|---------|---------|---------|-------|----------|
| DATA | MARK | SUMMARY | COMMENT | PREPARE | CHECK | APPROVAL |
| | | | | | | |

1. Scope and general description

This specifications provide for the LED tube for the Non dimmer of the G13 type socket.

2. Specification

- 2-1 Socket : G13
- 2-2 Certification : None
- 2-3 Dimming : None
- 2-4 Total luminous flux : 800lm
- 2-5 Rated input voltage : AC 100~240V
- 2-6 Input frequency : 50Hz/60Hz
- 2-7 Power : 8W
- 2-8 Product mass : 120g ±10%
- 2-9 Design life time : 30,000H(Ta=25 °C, 70% or more of initial luminous flux)
- 2-10 Protected function : IP20

3. Environmental condition

- 3-1 Operation temperature : -20~40°C
- 3-2 Operation humidity : 20~90%RH
- 3-3 Storage temperature : -40~80°C
- 3-4 Storage humidity : 20~90%RH

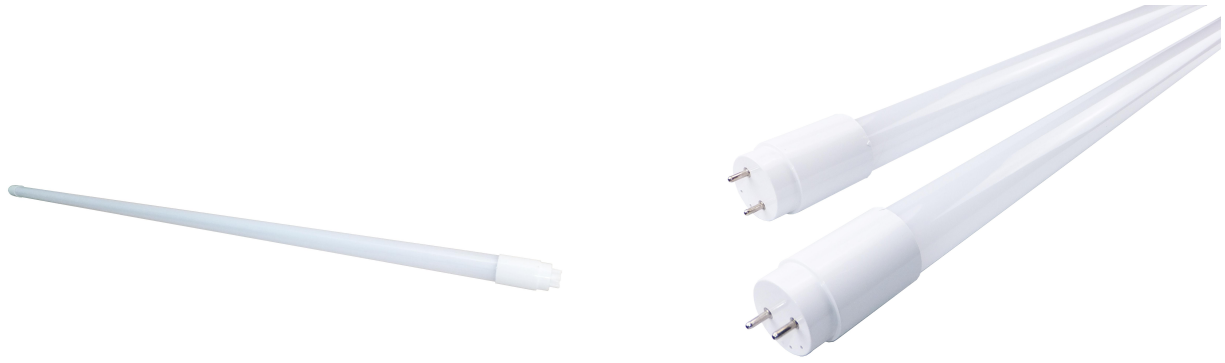
4. Electro-optical characteristic

- 4-1 Total luminous flux : 800lm±10%
- 4-2 Beam angle : 120°
- 4-2 Colortemperature : 6000K±500K(WRRG008C-0011)
5000K±500K(WRRG008C-0025)
4000K±400K(WRRG008N-0018)
3000K±300K(WRRG008W-0016)
- 4-3 Ra : 80(min.)
- 4-4 Input operation voltage : AC 100~265V
- 4-5 Input frequency : 50Hz/60Hz
- 4-6 Rated power consumption : 8W±8%
- 4-7 PF : 0.95(min.)
- ※ Determnation condition : AC 220V(After 1H of light)

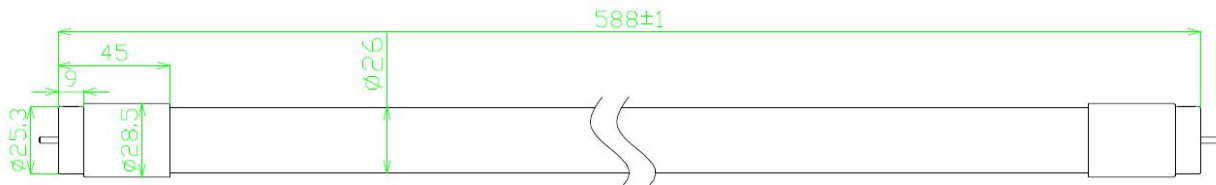
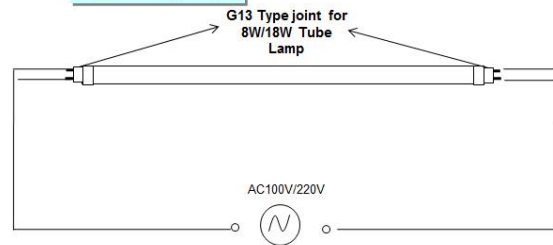
5. Appearance and structure

5-1 Shape and dimension

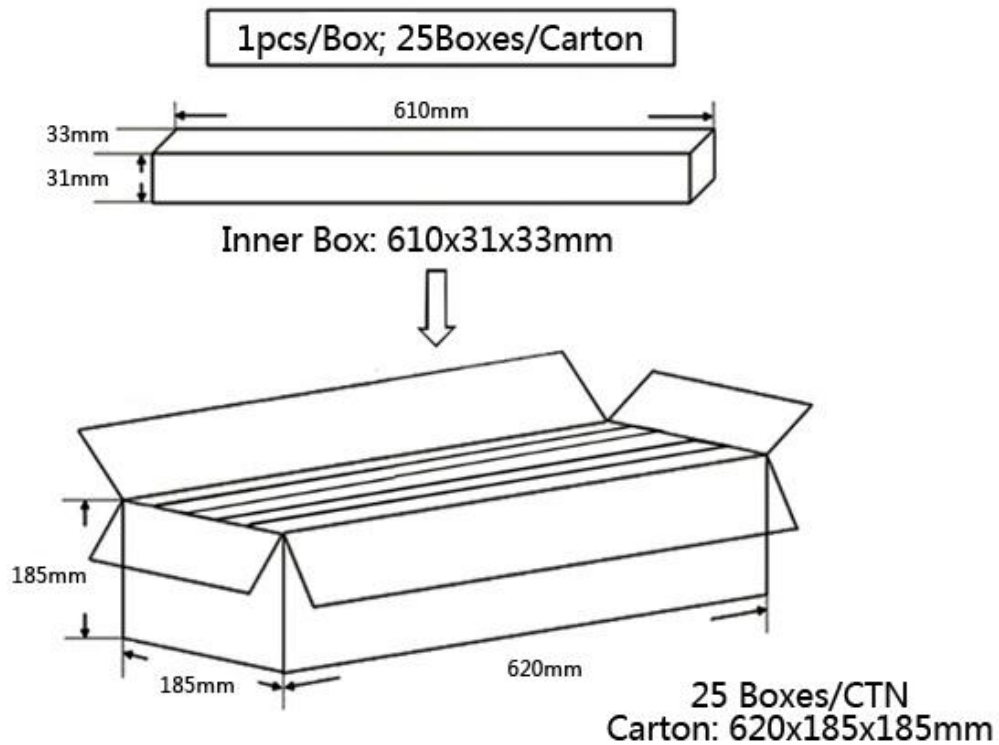
| Length/mm | Width/mm | Height/mm |
|-----------|----------|-----------|
| 588 | 26 | 29 |



Block diagram



5-2 Packing



6. Reliability

6-1 Safety

6-1-1 Insulating resistance

Insulation resistance between live parts of the cap and accessible parts of the lamp

:10 MΩ min

Voltage: 500 Vdc

6-1-2 Electric strength

Test voltage:3000 V(r.m.s.)

test time:1 min (100% inspection for all shipment:1 sec)

Cut off current 10 mA

Immediately after the insulation resistance test, the same part is done.

6-1-3 Leak current

Leak current : 1.0 mA max at 230 VAC/50 Hz,25 °C

6-1-4 Voltage dips, short interruptions test

Test standard : IEC61000-4-11

Voltage ratings : AC230V

Test level : Unom-30%(10 periods)

Unom-100%(0.5 periods)

Judgment : No damage, Automatic restoration

6-2 EMC

6-2-1 EMI

• Standard: EN55015

6-2-2 Electrical fast transient/burst immunity test

Test standard : IEC61547 , (Basic standard IEC61000-4-4)

Voltage ratings : AC230V

Test level : Peak Voltage / ± 1 kV,
Repetition frequency ; ± 5 kHz

Judgment : No damage, Automatic restoration

6-2-3 Electrostatic discharge immunity test

Test standard : IEC61547 , (Basic standard IEC61000-4-2)

Voltage ratings : AC230V

Test levels : Air discharges ; ± 8 kV
: Contact discharge ; ± 4 Kv

Judgment : No damage, Automatic restoration

6-2-4 Surge immunity test

Test standard : IEC61547 , (Basic standard IEC61000-4-5)

Voltage ratings : AC230V

Test levels : ± 0.5 kV (line to line)

Judgment : No damage, Automatic restoration

6-3 Environmental test

6-3-1 High temperature storage.

Externals, the structure, operation, and the performance must meet when you do the performance assessment after 2H is left at the normal temperature after 24H is left at 50°C.

6-3-2 Low temperature storage.

Externals, the structure, operation, and the performance must meet when you do the performance assessment after 2H is left at the normal temperature after 246H is left at -10°C.

6-3-3 High temperature operation

Externals, the structure, operation, and the performance must meet when it confirms

the operation in the same atmosphere after 96H energizes by the voltage rating of 40°C rated frequency, and the performance assessment is done after 2H is left at the normal temperature.

6-3-4 Low temperature operation

(a) Starting up

Operation must meet when confirming the cold-start operation in the same atmosphere in the voltage rating of the rated frequency after 24H is left at 5°C.

(b) Continue operation

Externals, the structure, operation, and the performance must meet when it confirms the operation in the same atmosphere after 96H energizes by the voltage rating of -10°C rated frequency, and the performance assessment is done after 2H is left at the normal temperature.

6-3-5 High temperature and high humidity operation.

Externals, the structure, operation, and the performance must meet when it confirms the operation in the same atmosphere after 96H energizes by the voltage rating of 35°C 90% rated frequency, and the performance assessment is done after 2H is left at the normal temperature.

6-3-6 Heat cycle test

It leaves it by no energizing in the environment of the figure below.

The soldering parts of parts and the performances must meet when evaluating it after 2H is left at the normal temperature after 10 cycles.

High temperature/Time : 50°C/30 minute

Low temperature/Time : -10°C/30 minute

6-4 Mechanical performance

6-4-1 Packing fall test

Operation, the insulation resistance, the withstand voltage, the starting characteristic, and the total luminous flux must meet when you test product while packed prescribed.

(height of 60 cm, 1 corner, 3 mausoleums, bottom, side, up side, set packing)

6-4-2 Packing vibration test

Operation, the insulation resistance, the withstand voltage, the starting characteristic, and the total luminous flux must meet when you test product while packed prescribed.

10~50 Hz, Cycle 3 minute, acceleration 1 G, X:15 minute, Y:15 minute, Z:30 minute

6-4-3 Bending moment

1.5 Nm or more

7. Safety Approvals

- EN62560, EN60968, EN62471, IEC61347-2-13:2006

8. Shipment inspection

The shipment inspection standard is separately decided.

9. Note

9-1 Its use cannot be guaranteed outside the specifications regulations range.

9-2 Please note handling and carrying enough because this product is a precision instrument.

9-3 Please do not leave it in a humid place and the place where a lot of dust exists.

Please do not receive the influence of moisture and a direct salt on the apparatus side and use it when setting it up in the place (salt damage region) where the influence of the sea breeze is received.

9-4 Please use it so that the drop of water should not hang.

9-5 This product is designed by general household use, and do not use it for a special usage like the vehicle for the medical treatment etc.

9-6 This product is for the indoor. Please do not use it for the outdoor.

10. About the priority level of the document

This specifications must give priority when contradiction is caused in this specifications and other contract documents.

11. others

11-1 When the doubt is caused in specifications, both cordially hit the settlement of the issue. Revise this specifications to the conference of both more.

11-2 When the specification, the material, the manufacturing process of this product, and the managerial system are changed for the product improvement etc. , it is assumed that the quality reliability confirmation data is attached beforehand, and it proposes it in the document.

11-3 This product uses neither the Aluminum electrolytic capacitors using the quaternary ammonium electrolyte nor the tantalum capacitor.

11-4 This product doesn't use a brominated flame retardant.

11-5 Production place: China

11-6 This product is the RoHS Directive.