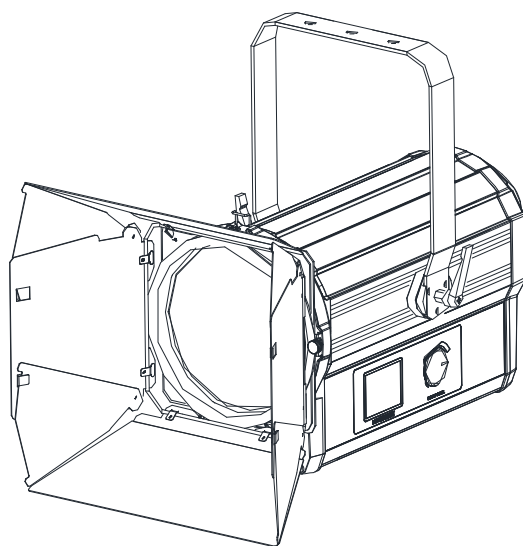


GTD

GTD-LF300



User Manual

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Guangzhou GTD Culture & Technology Group Co., Ltd.

Tel : +86 20 61808296 | Fax : +86 20 61812282

www.gtd-lighting.com | contact@gtd-lighting.com

Add : No.27,Fuyuan Yi Road,Xinya Street,Huadu Dist.Guangzhou,P.R.China 510800



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1. Safety instructions

Before using the fixture, read the latest version of the product user manual, paying particular attention to the safety instructions. Please check www.gtd-lighting.com for the latest revision/update of the user manual.



The manufacture of this fixture, are not responsible for damages, resulting from misuse of this fixture, due to the disregard of the information printed in this user manual.



DANGER!

Hazardous voltage. Risk of lethal or severe electric shock.



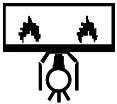
WARNING!

Wear protective eyewear. Never look directly into the light source.



WARNING!

Burn hazard. Hot surface. Do not touch.



Only to direct mounting on non-combustible surfaces.



Indoor use only.



Replace all cracked glass shields.



m | Minimum distance to lighted objects.

$t_a \dots ^\circ\text{C}$

Maximum ambient temperature.

$t_c \dots ^\circ\text{C}$

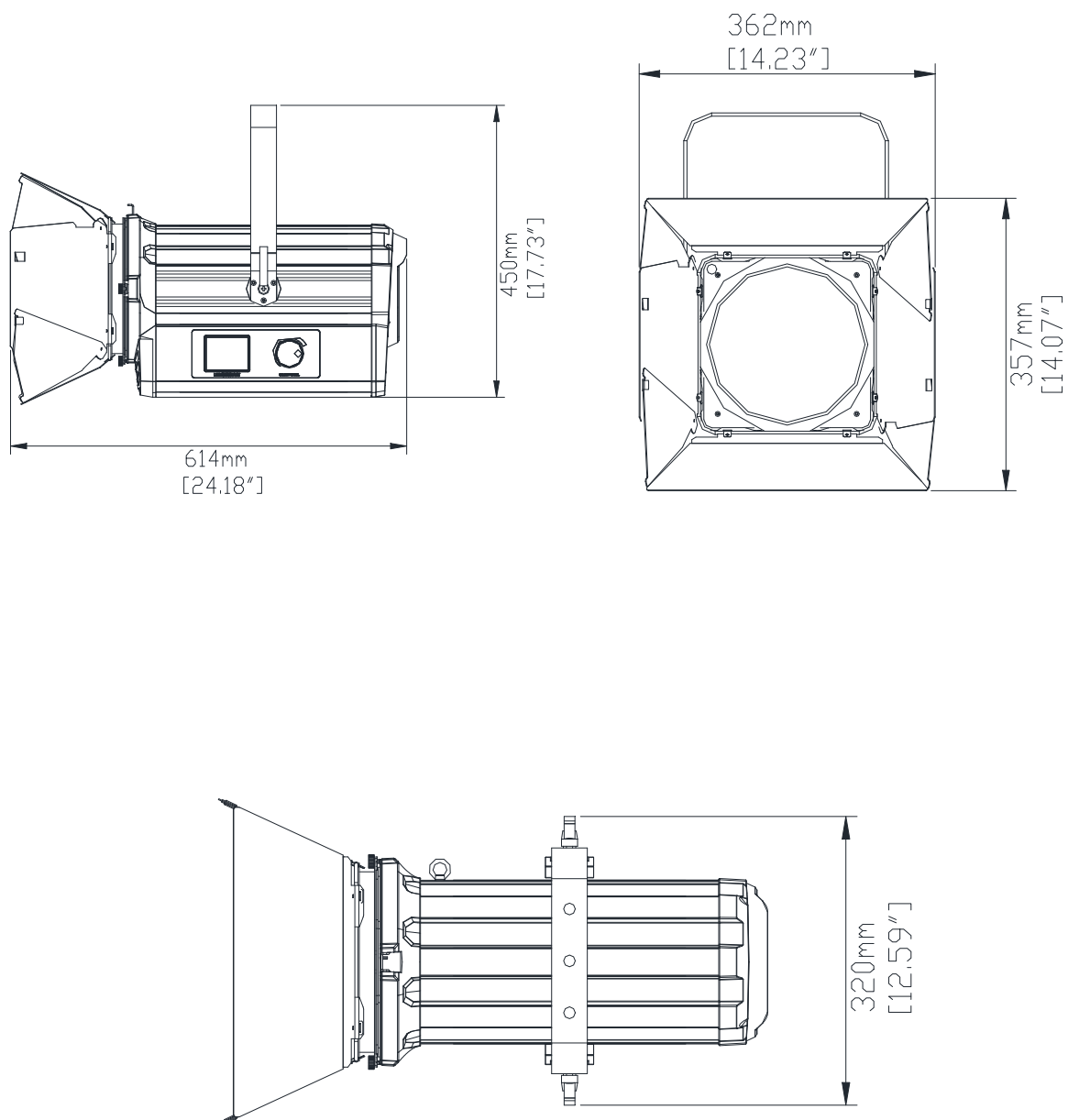
Maximum temp of the external surface.

General guidelines ⚠

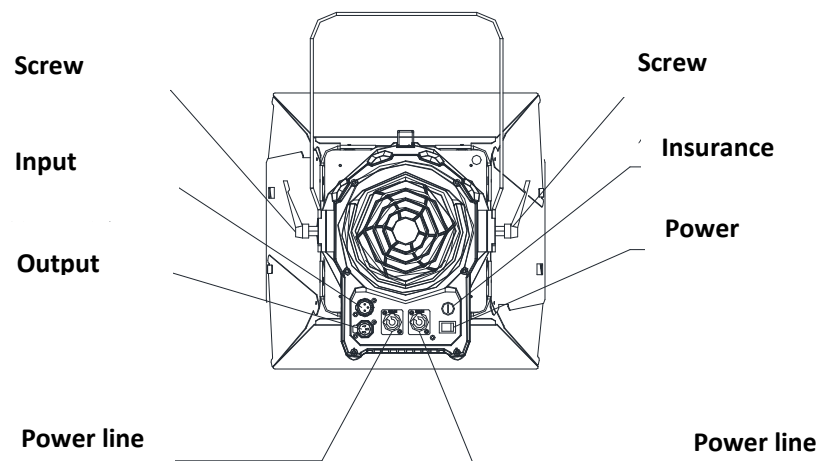
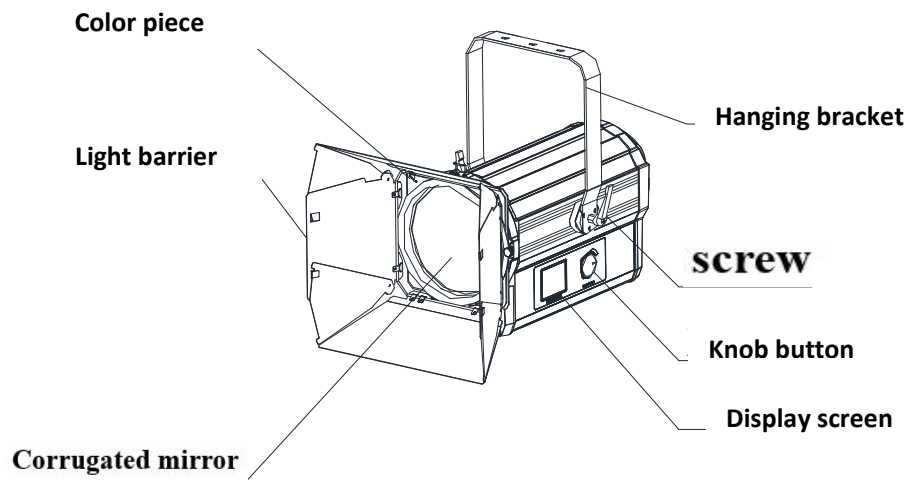
- The protection rating of this product IP20.
- Never open this fixture while it is in use.
- The fixture should be kept clean. DO NOT operate the fixture in extreme heat or dusty environments. Avoid contact with chemical liquid.
- Minimum distance to lighted objects must be 4.92 feet (1.5m).
- Maximum temp of the external surface 143.6 °F (62°C).
- Maximum ambient temperature 113°F (45°C).
- Minimum distance of inflammable materials from the surface 3.28 feet (1m).
- Lamp should be replaced if damaged or distorted in shape due to extreme heat.
- Cover, prism or LCD Menu Function Display with visible damages such as cracks or scratches must be replaced to ensure performance of the fixture.
- Disconnect the fixture from power before changing any parts or accessories.
- Basic insulation should be maintained between the controllable device and the product power supply.
- Make sure that the installation area can hold a minimum point load of 10 times the weight of all installed fixtures, clamps, cables, auxiliary equipment, etc. Make sure that the cover, clamps and locks are undamaged. Certified safety cables must always be used when installing the fixture.
- The fixture is only intended for installation, operation and maintenance by qualified professional. Instructions stated in the manual must be complied.
- The fixture must be kept in a well-ventilated place at least 50 cm away from any wall surface. Check if the fans or ventilation openings are unblocked.
- This fixture uses discharge lamp. Avoiding reduce the lamp's life, wait at least 15 minutes after powering off to allow the unit to cool down before handling.
- To ensure operational safety, broken or damaged cables and light source can only be fixed or replaced by certified technicians, certified local distributors or the manufacturer.
- Do not stick filters or other materials onto the lens. Do not modify the fixture or install other than GTD manufactured parts.
- For questions regarding safety operation, please contact our technical personnel or call the service hotline +862061808296.

2. Production instructions

2.1 Dimensions



2.2 Fixture overview



2.3 Accessories

| Item | Qty | Unit | Remark |
|--------------------|-----|------|--------------------------|
| User Manual | 1 | Pc | -- |
| Clamps | 1 | Set | 117*80*24 ϕ 50*10KG |
| Safety cable | 1 | Pc | -- |
| 5-pins signal line | 1 | Set | 5m |
| power line | 1 | Pc | 1.5m 2.0 mm2 |

3. Packing and shipping

3.1 Unpacking

Notes

All products are quality controlled before they dispatched to customers. If the fixture is damaged during delivery, the customer must notify the shipper and manufacturer to file a damage insurance claim. Photographic evidence of the damage must be provided.

Flight–Case(specification: 834*583*646mm, 4 sets in a box) : Uncover the flight–case and remove the plastic packing bags. Hold the handles of the fixture firmly and take it out carefully.

Cardboard box(specification: 680*400*300mm, 1 sets in a box): Open the box and take out the whole set of packaging foam which are contained both the fixture and its accessories. Remove the foam from the top, put away the accessories, and then take out the fixture wrapped in the plastic bag.

3.2 Packing after use

1. Switch off the fixture and wait for at least 5 minutes before disconnecting it from AC power. Cool down the fixture for at least 15 minutes before packing.
2. Flight case: Wrap the fixture in plastic bags. Gripping the handle and then place it in the flight case along with all the accessories carefully. Close the cover lid. The wrap page are not allowed over 2 layers. Do not upside down.
3. Cardboard box: Wrap the fixture in plastic bags. Put it in the packaging foam along with all the accessories. Place the other set of packaging foam on top then put it carefully in the cardboard box.

4. Installation

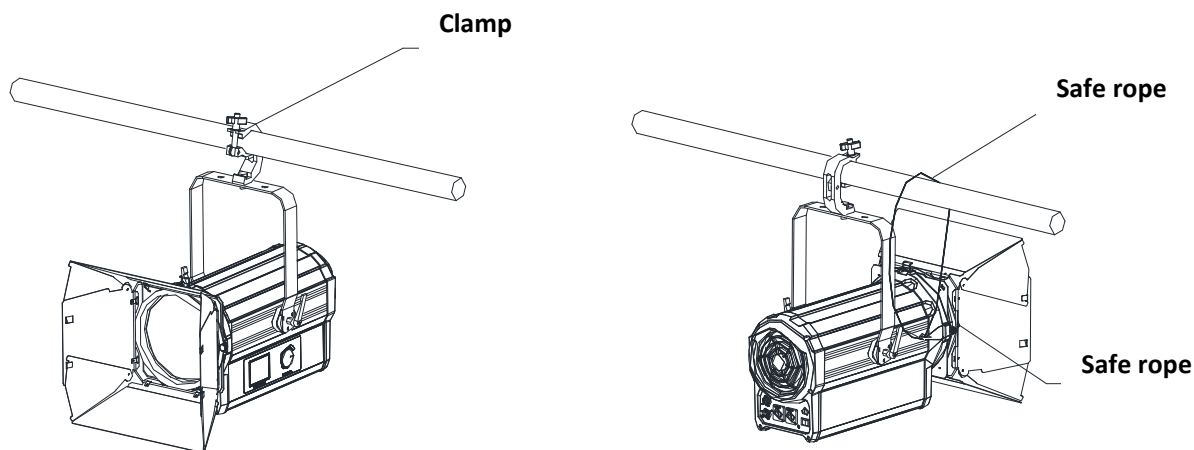
4.1 Clamps installation

The fixture can be placed on the stage or mounted on the truss which faces any direction. Attach the clamps to the mounting position on the base of the fixture.

Warning: Use one clamp when mounting the fixture. Turn the screws attached to each clamp a 1/4 turn clockwise to lock. Always remember to use the safety cable which goes through the mounting hole on the base.

4.2 Device installation

1. Make sure there is no damage on the clamps or safety cables before installation.
2. The clamp is mounted on the chassis of the handle, knob and fix the screw.



5. Power/ Control connection

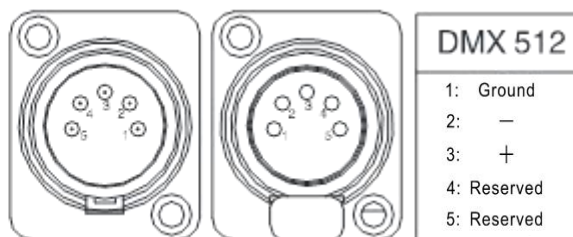
5.1 Power connection

Connection method:

- L (Live) Brown wire
- E (Earth) Yellow / Green bi-color wire
- N (Neutral) Blue wire
- The voltage and frequency of the power source must be in compliance with the ones marked on the fixture. It is strongly recommended that each fixture are to be connected to the power source separately so that they can be switched on / off individually.

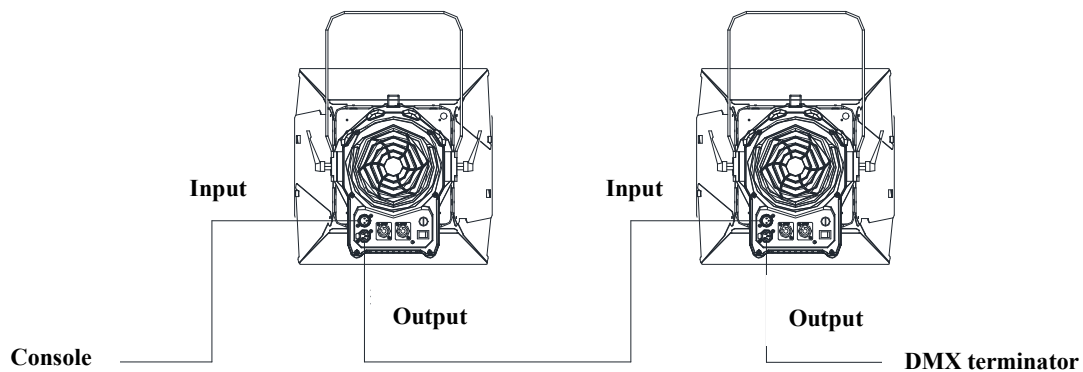
5.2 Control connection

The fixture has 5-pin XLR connectors for DMX data input and output as shown below. Connection between the console and fixture, and between fixtures must be made with 2 core screened DMX signal cable. Maximum connecting distance of signal cable is 150 meters. Additional DMX512 signal-amplifier is recommended for longer distance.



Connect the Console's DMX OUTPUT to the first fixture's DMX INPUT, then the first fixture's DMX OUTPUT to the second fixture's DMX INPUT and so on. It is recommended not to connect more than 32 units on a single

DMX universe. On the last fixture's output connect a DMX terminator. (The terminator is a 5-pin XLR connector with a 1/4W and 120Ω resistor between the pin 2 and pin 3) as shown below:

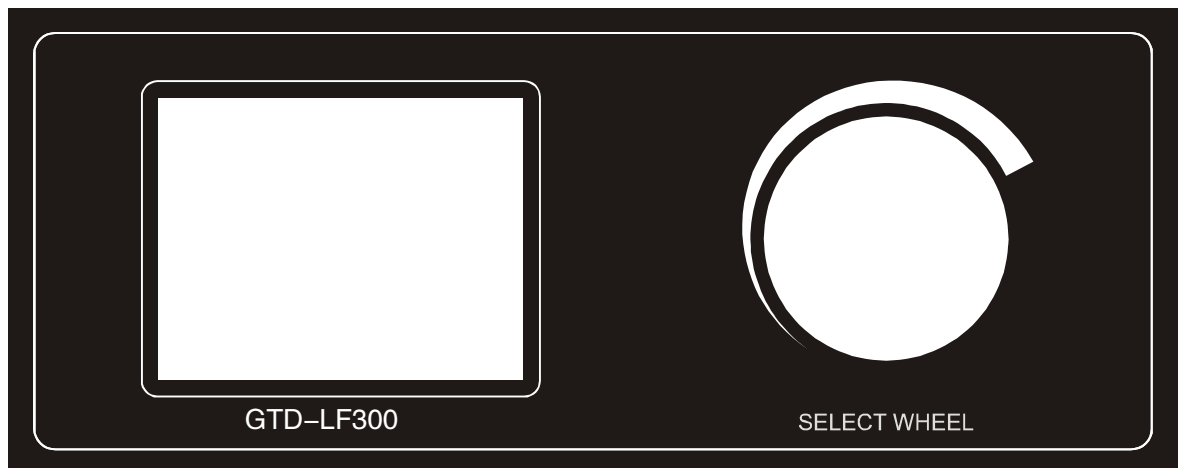


5.3 Testing

Connect the fixture to AC power. Check if the lamp is on and the fixture is independently controllable before putting into operation.

6. Control panel

6.1 Panel instruction



- Use knob-style button and display screen to set the address code and the function menu.
- View or modify the function setting by the knob-style button, choose the function menu by rotating clockwise or counterclockwise.
- Press the knob-style button to confirm which function that you have selected, then enter into the corresponding sub-menu, each sub-menu represents the specific function of the lamp (see the specific function menu table).
- Press the knob-style button to save the changes you have made or enter the sub-menu. Rotate clockwise or counterclockwise to modify the value (increase or decrease the value).

7. Technical specification

- **Optical**

Light source: LED 300W

Expected average lifetime: 20000 h

Color temperature correction: 5600K (CW)/3400K (WW)

Lumens: 16500lm(CW) / 16000lm (WW)

Zoom range: 12° – 55° (CW/WW)

CRI: Ra > 95(CW/WW)

- **Electrical**

Power input, nominal: AC 100–240V 50/60Hz

Max. Power consumption: 349W, Max current: 3.48A, PF: ≥ 0.96

Power supply unit: narrow range electronic SMPS

Main fuse: 6.3A

Power input: Self-contained power cord

DMX data input/output: Chassis 5-pin

- **Control and programming**

Control channels (DMX): 2CH

Protocol: DMX-512 RDM

Display: LCD

- **Physical / Installation**

Weight: 9kg (19.84lbs.)

IP rating: IP20

Material: Aluminum, steel, plastic

Mounting points: Lazy arm + safety line

- **Thermal**

Operating range: 14° F– 113°F (–10°C – 45°C)

Startup range: – 113°F (–25°C – 45°C)

Storage range: –40° F– 140°F (–40°C – +60°C)

Cooling: Active fan

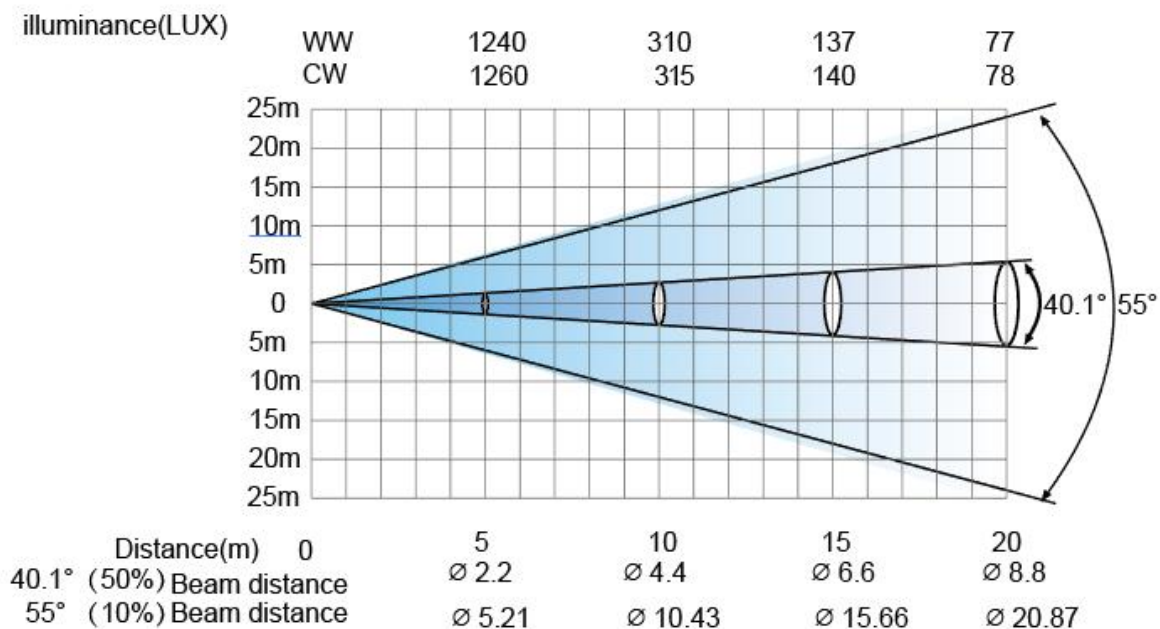
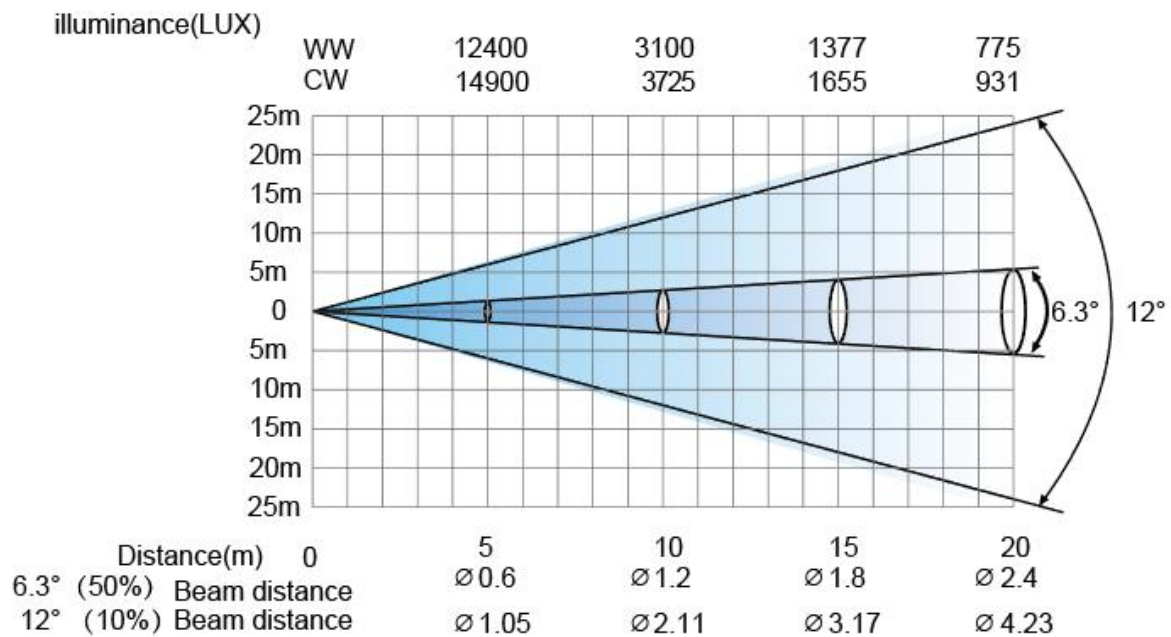
Humidity: $\leq 85\%$

- **Certification and Safety**

EMC: EN 55103-1:2009, EN 55103-2:2009, EN 61000-3-2:2006+A2:2009, EN 61000-3-3:2013, GB/T 17743-2007, GB 17625.1-2012

Safety: EN 60598-2-17:1989/A2:1991, GB 7000.1-2015, GB 7000.217-2008

- **Photometric**



• Other Features

- Enhanced stability of the fixture due to the wide input voltage AC/DC switching power supply which both reduces the impact of power and voltage fluctuations, and removes the restriction of voltage and frequency variations in different countries.
- Power setting: built-in continuous rechargeable battery, allowing setting functional data via LCD interface without power connection.
- Communications Design : DMX wired/wireless transmission, bidirectional-control technology, upgrade the software quickly and conveniently by using DMX cable.
- Thermal design: The wind drainage and intelligent temperature monitoring technology can monitor lighting's state : on/off. It can adjust the thermal design by the position's temperature of lighting so that the temperature can be controlled.

8. Menu structure

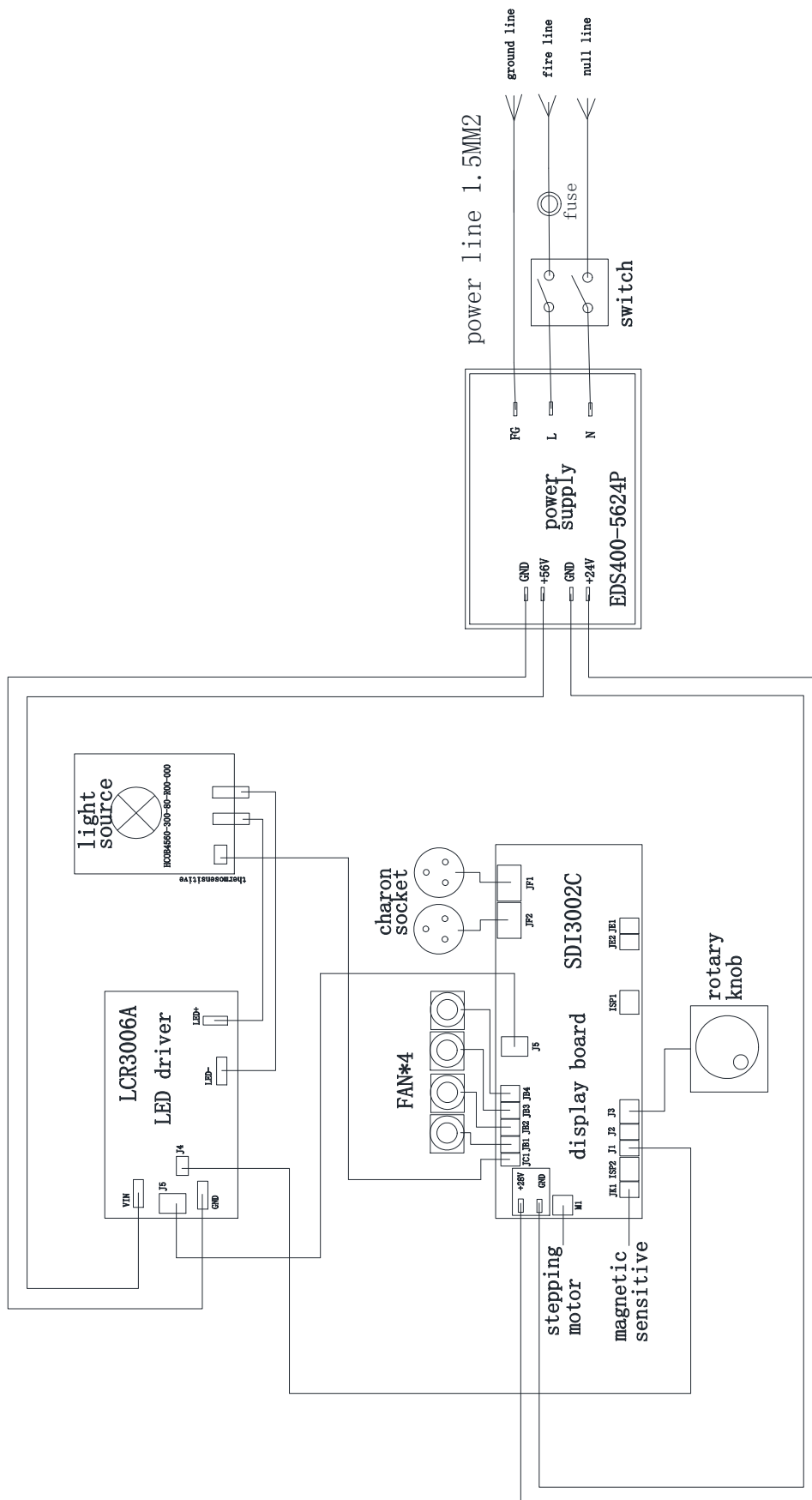
| Level 1 | Level 2 | Level 3 | Level 4 | Info |
|----------------|------------------|---|---|---|
| Run setting | Address:001~ XXX | | | Setting the DMX address |
| Device Info | Time Info | Since power on Total Time Exit | XXXXXXX Hour XXXXXXX Hour | Since power on time Product total run time |
| | Temperature | XXX 'C/'F | | Body temperature |
| | Fan1.Fans Info. | Normal xxx/Fault/NO... | | Show fans' status |
| | Software Version | Software Vx.x RDM Co 0951-xxxxxx Date&Time Now Date&Time Software Build | | Softwarte version RDM code The current time Software editing time |
| | Exit | | | Return to the previous menu |
| System Setting | Status Setting | No Signal Status Standby Time Exit | Off/Hold/Auto Disable/1~120Min,30 | The status while no signal Standby time Return |
| | Fan Speed | Smart Control High Speed Low Speed | | Auto fans speed Fans high speed Fans low speed |
| | Display Setting | Backlight Time Keyboard Lock Brightness Set Language Select Auto Screen Set Exit | 1~80 Min/Disable Enable/Disable 15~100% 80% Chinese/English off/on/auto | Backlight off time Press Key 3s to unlock Back lightness of screen Change the language Screen change Setting Return to the previous menu |
| | Temperature Unit | Celsius Fahrenheit | | Temperature unit |
| | Value Default | Dimmer Zoom Exit | Dimmer =XXX Zoom =XXX | The default value |
| | Restore Default | Yes/No | | Restore to default value |
| | Product Select | - Password- XXX(xx) | GTD LF300 CW GTD LF300 WW | Select the model of the device |

| | | | | |
|-----------------------|------------------------------------|-----------------------------|--------------------------------|------------------------------|
| | | | | |
| | Exit | | | |
| Motor Reset | System Reset Zoom Reset Exit | | | System reset Zoom reset |
| Channel Adjust | Manual Mode | Dimmer Zoom Exit | Dimmer =XXX Zoom =XXX | Manual control channel value |
| | Channel Mode | Standard Mode Basic Mode | | |
| | Exit | | | |
| Exit | | | | Return to the previous menu |

9. DMX Protocol

| DMX mode | Name | DMX value | | DMX percentage | | Function | Default DMX Value |
|-----------------|-----------|-----------|-----|----------------|--------|-----------------------|-------------------|
| Simplified(2ch) | | | | | | | |
| 1 | Intensity | 0 | 255 | 0.0% | 100.0% | No light → Full light | 0(0%) |
| 2 | Zoom | 0 | 255 | 0.0% | 100.0% | Near → Far | 0(0%) |


10. System wiring diagram




11. Maintenance and Troubleshooting

11.1 Cleaning and maintenance

It is required that the fixture should be kept clean and well maintained to ensure its reliability. Its lifespan mainly depends on the working environment and proper operation. Should you have any questions, please consult a technical engineer of GTD Lighting.

 Notes: Damage resulted from dust, smoke, oil or improper use is not covered by warranty.

 Notes: Disconnect the fixture from AC power, and let it cool down for at least 15 minutes before opening the housing. Make sure to use a soft cloth to clean the optical components, and be careful, as the coating is easily scratched. Do not use any organic solvent such as alcohol to clean the reflector mirror, dichroic color filters or housing of the fixture.

- If the lens is cracked or otherwise damaged, replace it immediately.
- If the lamp becomes damaged or deformed in any way it must be replaced.
- If the light from the lamp appears dim, this normally indicates that it is reaching the end of its life span and should be changed at once. Aged lamps run to the extremity of their life might explode.
- If fixture does not function, check the fuse on the power socket of the fixture. Replace the fuse of the same specification if it is blown.
- The fixture is equipped with thermal-protection device that will switch off the lamp in case of overheating. If this happens, please check that the fans are not blocked, and clean them if they are dirty. Check whether the fans are operational. If not, call a qualified technician.

11.2 Troubleshooting

| Problem | Possible Cause | Suggested Correction |
|---|--|---|
| No response after connected to A/C power | Power switch not turned on. | Turn on power switch. |
| | Take out the fuse and check if it is blown. | Locate the blown fuse. Remove the broken fuse. Insert areplacement fuse of the correct amperage |
| | Abnormal A/C input (A/C power socket, power cables, luminaire power socket). | Replace AC power socket and power cables, and then adjust power socket for proper connection. |
| | No DC voltage from switching power supply. | Check if the switching power supply has DC voltage output. Replace the switching power supply. |
| No response or wrong response to the commands of the control system | DMX cables disconnected from fixture's DATA IN connector. | Connect DMX cable to the fixture's DATA IN connector. |
| | Open circuit or short circuit fault in the DMX cables. | Replace DMX cables as required. |
| | Wrong DMX address for the fixture in the control system. | Ensure the address in "Run setting > Address Setting >Address" of the fixture is consistent with the address in the control system. |

| Problem | Possible Cause | Suggested Correction |
|--|---|---|
| | Misuse in “Channel setting > Channel Mode” of the fixture. | Choose the channel mode in “Channel setting > Channel Mode” of the fixture as required by the user |
| | Malfunctioning of DMX cannon input/output connectors. No input/output voltage to the main control board of the fixture. | Troubleshooting the DMX XLR signal plate of the fixture, replace the main control board of the fixture. |
| The lamp does not start when switch is turned on | Normal end of lamp life. | Test the lamp in an adjacent fixture which is known to be operating properly and then replace as necessary |
| | Whether the function of the relay board is intact, whether the signal is normal or not. | Repair or replace. |
| | Shorted leads between ballast and the lamp | Replace components as required. |
| | Incorrect ballast output. | Check ballast output to determine if it conforms to lamp requirements. If voltage and current do not stabilize in five to ten minutes warm-up time, ballast output is incorrect and adjustment should be made. Check capacitor wiring, if visibly available, to determine if capacitors are properly wired. |
| | Incorrect triggers output. | Replace triggers. |
| The lamp is off unexpected | The fixture is in sleep mode | Should the fixture is not in active use for “standby time”, the sleep mode is enabled automatically to make it more stable and safer, sleep time can be customized. |
| | Lamp has been operating: cool down time insufficient. | Environmental conditions such as extreme temperatures will have the fixture stop working, the lamps will require a period of time to cool and re-establish optimum starting conditions. Restart time varies with the degree of ventilation built into it, ambient temperature, and draft conditions. |
| | Overheat ballast resulting in premature failure or damaged ballast. | The ballast incorporate internal automatic-resetting thermal protection, which deactivates the ballast should it overheat. Normal operation resumes once the ballast has cooled sufficiently. Burned-out or failing lamps, or high temperatures in or around the fixture, |

| Problem | Possible Cause | Suggested Correction |
|--|---|---|
| | | can cause the ballast to overheat, so we need solve the problem and replace components as required |
| | Thermostat damaged. | Replace. |
| Shaking, wrong position, and out of control gobo wheel | No function the connector between gobo wheel motor and drive, loose, damaged, or broken cables connecting the gobo wheel and drive. | Reconnect the gobo wheel motor to the drive, and replace cables as required. |
| | The gobo wheel motor's drive IC on the PCB might be out of condition. | Replace the drive having the same software version as required. |
| | Dislocated magnetic tube and positioning magnet, or damaged magnetic tube. | Calibrate the position of the magnetic tube to the positioning magnet, and replace magnetic tube as required |
| | Shaking motor, wrong rotation angle, losing step or damaged motor | Replace the motor as required. |
| Decreased brightness, uneven pattern projections | Normal end of lamp life. | Test the lamp in an adjacent fixture which is known to be operating properly and then replace as necessary |
| | The midline of the lamp is not aligned with the center point of the effect assembly (consisting of the rotating gobo wheel, static gobo wheel, color wheel, strobe, prism, and frost), focus module, and object lens. | Reinstall the lamp. Adjust the lamp position until the midline of the lamp is aligned with the center point of the effect assemblies (consisting of the rotating gobo wheel,static gobo wheel, color wheel, strobe, prism, frost, the focus adjusting module, and the object lens). |
| | Excessive dusts or smudges on the effect assembly, focus module and objective lens. | Follow the instructions stated in this user manual to clean the effect assembly, focus module and objective lens. |
| | Damaged or deformed effect assembly, focus module or objective lens. | Replace the damaged or deformed components |
| Wrong color | Normal end of lamp life | Test the lamp in an adjacent fixture which is known to be operating properly and then replace as necessary |
| | Excessive dusts or smudges on the rotating gobo wheel or color wheel. | Follow the instructions stated in this user manual to clean the rotating gobo wheel or color wheel. |
| | Rotating gobo wheel, color wheel with | Replace the worn-off, damaged or deformed |

| Problem | Possible Cause | Suggested Correction |
|-----------------|--|---|
| | coating wearing off, damages or deformation | rotating gobo wheel and color wheel |
| Non-clear shape | Excessive dusts or smudges on the rotating gobo wheel or color wheel | Follow the instructions stated in this user manual to clean the rotating gobo wheel or color wheel. |
| | Excessive dusts or smudges on the focus module or objective lens | Follow the instructions stated in this user manual to clean the focus module or objective lens |
| | Damaged or deformed focus module or objective lens. | Replace the damaged or deformed focus module or objective lens. |

Guangzhou GTD Culture & Technology Group Co., Ltd.

Tel : +86 20 61808296 | Fax : +86 20 61812282

www.gtd-lighting.com | contact@gtd-lighting.com

Add : No.27,Fuyuan Yi Road,Xinya Street,Huadu Dist.Guangzhou,P.R.China 510800



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