Introduction

Thanks for purchasing FINE 300/400 Fresnel Spotlight. This exquisite LED, with aluminum alloy shell, which looks very delicate, is a newly launched product by FINE ART. It's CE compliant and a perfect combination of advanced electronic controlling technology and exceptional user friendly design. It supports international standardized DMX512 control.

It uses high CRI, large power LED module and innovative 15-60°electric zoom optics and cooling system design, which makes brighter effect with uniform and soft spot. It's the first choice for replacing the conventional 2000 w halogen lamps. This fixture has 3 high characteristics: high luminous flux, high CRI and high light efficiency, which brings a huge impact on the technical innovation of LED lighting fixture.

FINE 300/400 T/D Fresnel spotlight is widely used in large fixed stage, large performance venues, temporary performance, TV studio, meeting, professional opera and all kinds of entertainment or professional place.

This user manual takes 300/400 T/D FS as an example. If you use other series, the operation may be slightly different, but it will not affect your use.

★ Declaration

This product has passed the final check for both functionalities and package when delivered from the factory. All users should observe the instructions and pay attentions to the warnings covered by this manual. Unreasonable damages resulting from unintended operations or not heeding instructions covered by this manual will void the warranty,Specifications in this manual intend for reference only, the fixture delivered takes the priority. Any future modification pertaining to content of this manual, there will be no particular notifications. FINE ART reserves all copyrights.To obtain the latest information about software update, hardware and other files, please visit FINE ART online website.

P/N: 390721000014 Edition: E

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The following symbols are used to identify important safety information on the product and in this manual:

DANGER!
Hazardous voltage.
Risk of severe or lethal electric shock.

DANGER!
Safety hazard.
Risk of severe injury or death.

DANGER!
Refer to manual before installing, powering or servicing.

Warning!
Fire hazard.

Warning!
Burn hazard.
Hot surface. not touch. Do not touch.

Warning!
Risk of eye injury.
Safety glasses must be worn.

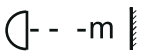
Warning!
Risk of hand injury.
Safety gloves must be worn.

Do not use the light under the harsh condition

Do not direct lens to sun ray or strong light!

Do not actuate during operation

Replace any cracked protective shield



Minimum distance from lighted objects (metres)

Rated maximum ambient temperature

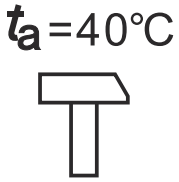
1. Safety information

WARNING!
Read the safety precautions in this section before installing, powering, operating or servicing this product.

After receiving the fixture, please unpack and check if there is any damage due to transportation. If any obvious damage or flaw is found, do not put it into use and co-ntact the distributor or manufacturer as soon as possible.

This fixture is intended for professional use only.
When operating the fixture, attentions should be drawn to fire/electric-shock hazards and lethal injuries caused by fall.

Read this User Mannual before mounting and ennergizing the fixture
Observe the safety guideline and notice the warnings both in this User Mannual and on the fixture.
Yet any safety concerns not covered hereby, contact the distributor or service hot-line.



Protection against over heat
The light is suitable for indoor environment or outdoor environment; its protection rating is IP20.
The natural working temperature should be lower than 40 degrees. If the ambient temperature exceeds 45 degrees, please stop operating the unit immediately..
Protect the light from the chemical liquid.

Protection against explosion
Shields must be replaced if they have become visible damaged to such an extent that their effectiveness is impaired.

Protection against ultraviolet

Prolonged exposure to an unshielded discharged lamp can case eye and skin burns.Do not stare directly into the light output.Never look at an exposed lamp while it is lit

Never operate the fixture with missing or damaged lenses and/or covers.

Change the damaged head lens,shields or covers immediately.

Protection against injury due to falls

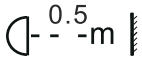
To inspect that the structure and the truss hooks are in good condition and can bear about 10 times the weight of the fixture.
Ensure the cover and all riggings are securely fastened, safety wire is necessary to use as a secondary attachment.
Block access below the working area and work from a stable platform while installing, servicing or moving the fixture.

Protection against electrical shock

All electrical connections must be performed by a qualified person with technical certificate.
Make sure that the mains power supply you use is up to local construction and electronic code regulation, the over-load protection reliable earthing is essential.
Each fixture must be grounded correctly, and be installed according to related regulation.
Disconnect the fixture from mains supply before replacing any fuse.
Avoid using the fixture in damp environment.

Keep flammable materials far away from the fixture.
Make sure the fixture is far away from the flammable or explosive materials. The minimun distance between the fixture and those materials should be 0. 5m.

The maximum working temperature of the exterior surface, under a thermally steady state, is 75℃,
Do not touch the light when the fixture is working.
Do not illuminate surfaces within 0. 5 metersof the fixture.



Provide a minium clearance of 0. 1 m around the cooling fans and air vents.
Do not place any filter or other objects onto the optical lens.
Do not revise the fixture or install any parts not from Guangzhou CHAI YI LIGHT CO. LTD.

2. Product introduction

2. 1 Fixture profile dimensions

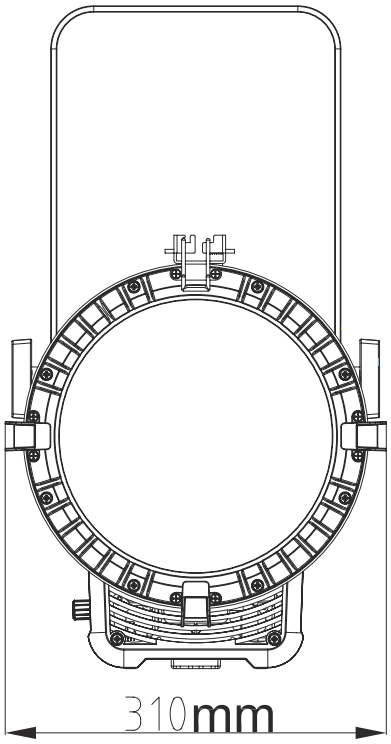


Fig. (2. 1-1)

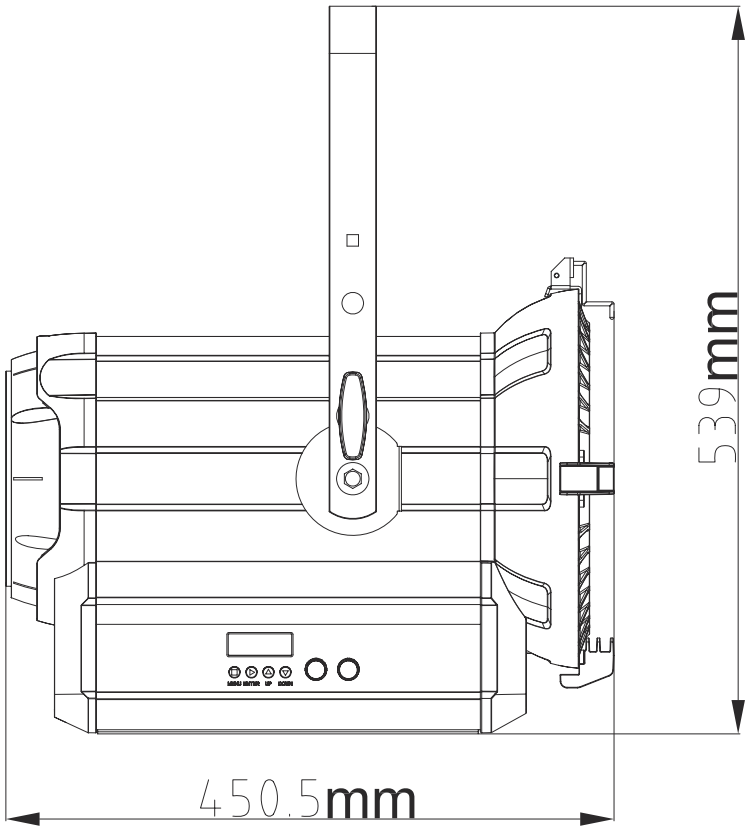


Fig. (2. 1-2)

2. 2 Fixture introduction

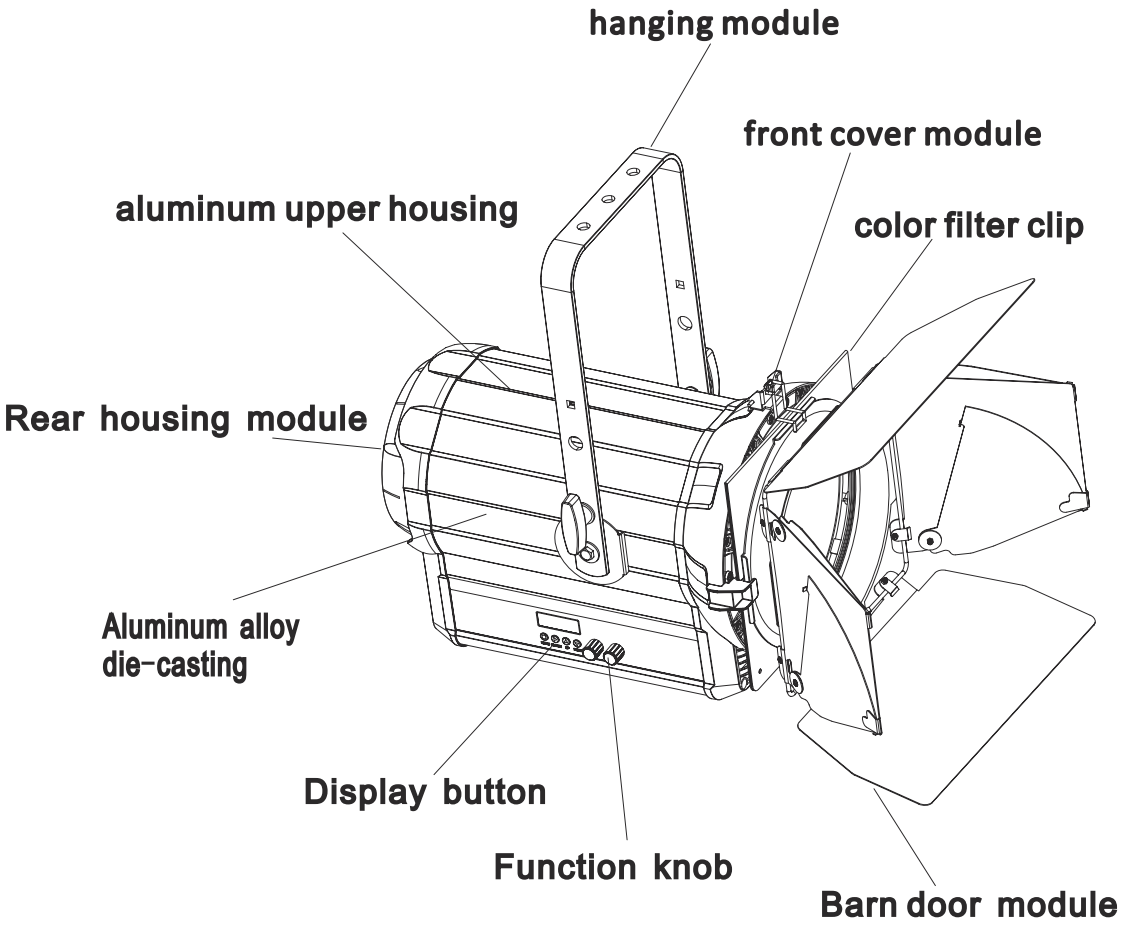


Fig. (2. 2-1)

3.Package & delivery

3. 1 Included Items

FINE 300/400 T/D FS is packed with single flight case for 4 pcs, included items shown below.(shown as table 3.1-1):

Accessories	QTY	UNIT	Remarks
User Manual	1	pc	Standard
Warranty card	1	pc	Standard
Suspension fasteners	1	pc	Standard
Power input cord	1	pc	Standard
Safety cable	1	pc	Standard
Signal cable	1	pc	Standard
Fuse	2	pc	Standard
Color filter clamp	1	pc	Option
Barn door module	1	pc	Option

Table (3. 1-1)

4.Installation

User must be timely check the fixture and its install materials, if you are non-qualified to check that, please contact the professional person. Wrong installation will result in fatal hazard.

The fixture working ambient temperature are between -10℃-40℃, When ambient temperature over the range, don't operate the fixture. When the fixture are in installation, teardown, remove or servicing, don't stand in under the fixture.

Operator must be insure the fixture are safely connected. The input power supply must match the specific type demanded by the fixture. Make sure the installation check annually by professional person.

Hang upside down on the truss.

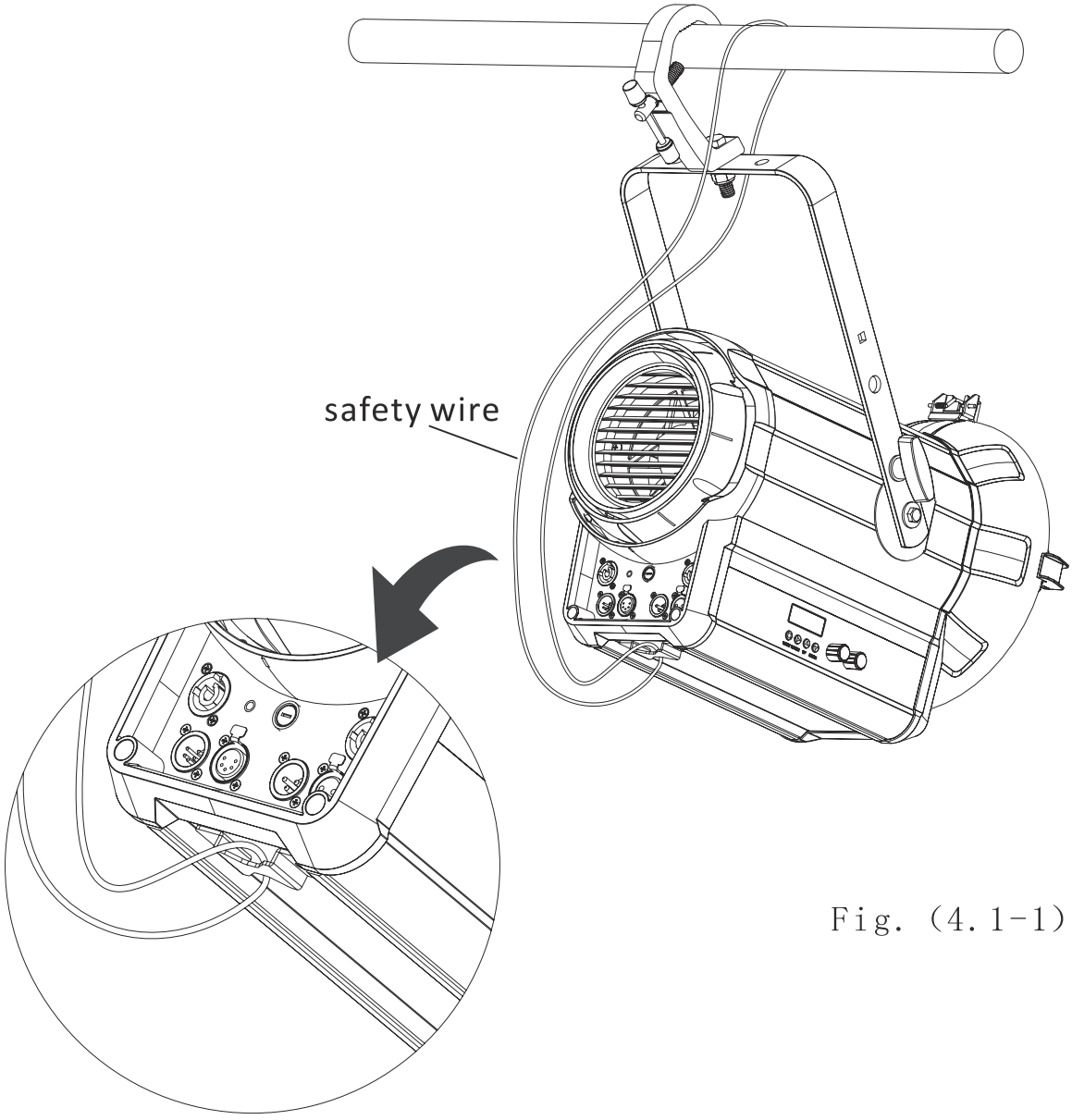


Fig. (4.1-1)

Warning Please add one safety cable to the bracket.

5.Tips for Data Link

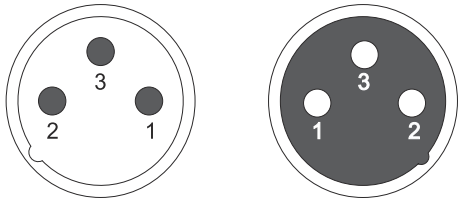
5.1DMX 512 for data transferring

Note: The signal cable is type X connection.

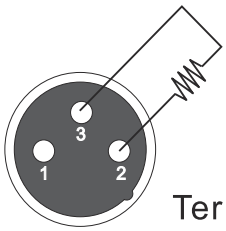
Type X connection—if the external flexible cable or cord of this fixture is damaged, it shall be replaced by a special cord or cord exclusively available from the manufacturer or his service agent.

3-pin XLR connecters are provided for fixture DMX input and output.
Pin 1 is for earthing, pin 2 is for minus signals, and pin 3 is for plus signals.

To prevent and absorb the reflection and interference of the signals, each data link must be ended by a respective terminator.



3 pin XLR socket



Terminator

DMX 512

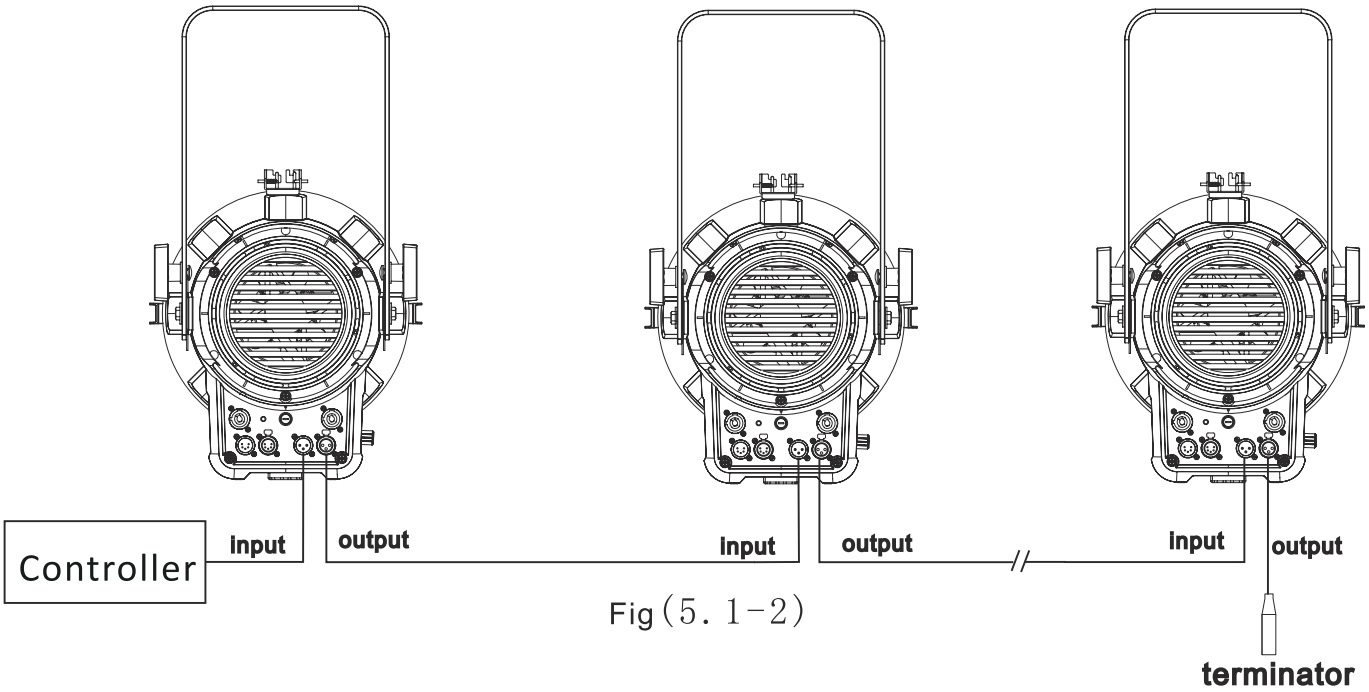
1	⏚ (shielded wire)	GND/OV
2	red	signal(-)
3	white	signal (+)

Terminator specification:
a 120Ωresistor with a power of 0.25w, solderd between pin 2 and pin 3 at the end of respective data link.

Fig(5.1-1)

Connect the 3-pin output of a lighting controller to the 3-pin input of a first fixture on the link, then connect the 3-pin output of the said first fixture to the 3-pin input of a second fixture. Similarly, repeat the above connection step and end the data link with a plug-in terminator. Shown as Fig. 5.1-2 below.

If long-distance data transfer occurs, a DMX512 signal amplifier is necessary. The added amplifier is inserted between the lighting controller and the first fixture on the basis of a normal data link.



Fig(5. 1-2)

Notice:

1. No more than one signal input or output can occur in one fixture.
2. Don't split a data link via output ports on the fixture, use a DMX512 signal amplifier instead, if necessary.
3. Use only shielded-pair cables, and standard microphone cable is not reliable for long-distance data transfer.

6. AC Power supply

6. 1 **Power Connection**

Notice:Type X attachment for power supply connection.

Method of attachmentof the cable or cord such that any replacement can only be made by the manu-facturer, his service agent or similarly qualified person.

6.1.1The person must have the relevant qualification to connect the power supply. The AC power voltage shall be suitable to the lamp provided with over-loading or cree page protection.Connecting the equipment to the power supply, do not connect to silicon boxsystem, or else, it will destroy the equipment. The fixture is provided withstandard 3-pin socket. Please according to table 6.1-1 connect to power supply, Yellow/green line must be earthed. If you still have any question to the installation, please consultant with the experienced electrician.

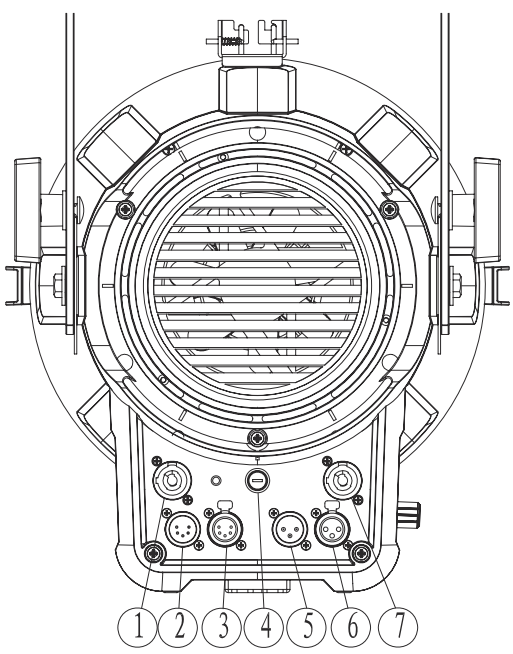
Color	Wire	Mark
Brown	Live	L
Blue	Neutral	N
Yellow/Green	Earth	⏚

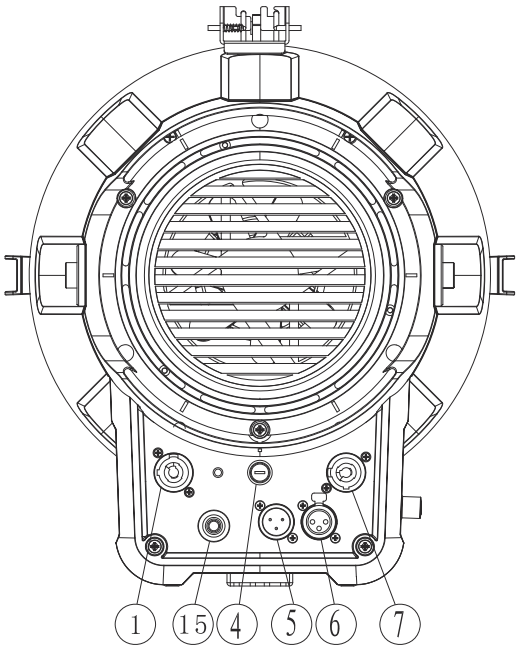
Fig(6.1-1)

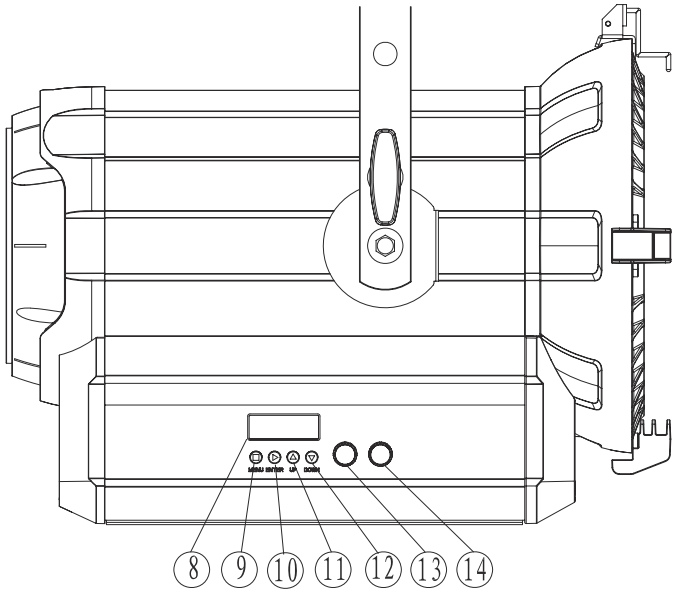
Note: Do not exceed 3 units fixtures at 110V
Do not exceed 6 units fixtures at 220V

7. Control Panel

7. 1Control Panel Introduction







NO.	Item	NO.	Item	NO.	Item
1	Power input	6	DMX output (3-pins)	11	UP
2	DMX input(5-pins)	7	Power output	12	DOWN
3	DMX output(5-pins)	8	Display Panel	13	Brightness knob
4	Fuse	9	Menu	14	Focus knob
5	DMX input(3-pins)	10	Enter	15	Aviation socket

7. 2 Display panel operational function detail

ID	1-512	-	ADD
DIMM	0-100	-	Dimmer
ZOOM	0-100	-	Focus
SET	MODE	1CH	1 channal mode
		4CH	4 channal mode
		5CH	5 channal mode
	FAN	POWR	Fast
		LIVE	Auto
		STDO	Mute
	CURV	CUE3	Curve 3
		CUE2	Curve 2
		CUE1	Curve 1
		OFF	Curve off
	MSGN	NO	Data off
		YES	Data on
	REST	-	Reset

Knob introduction

Brightness knob: firstly, press the brightness knob, activate brightness adjustment function;secondly, the display will show " D 000", rotate the knob for " 000-100" degrees brightness adjustment, finally, press the enter button for brightness confirmation.

Focus knob: firstly, press the focus knob, activate corresponding function; secondly, the display will show " Z 000", rotate the knob for " 000-100" degrees focal distance adjustment, finally, press the enter button for focal distance confirmation.

8.Technical Feature

8. 1Production feature explanation

Production Feature Explanation
Power Supply: AC 100-240V, 50/60Hz
Input power: FINE 300T/DFS: 320W
Input power: FINE 400T/D FS: 420W
PF≥0.98

OPTICS
Lamp Type:
FINE 300T/D FS: 300W LED
FINE 400T/D FS: 400W LED
Electric Zoom: 15° - 60°
Color Temperature
FINE 300T FS: 3200k
FINE 400T FS: 3200k
FINE 300D FS: 5600k
FINE 400D FS: 5600k
Luminous Flux
FINE 300T FS: ＞14725lm
FINE 400T FS: ＞18055lm
FINE 300D FS: ＞14990lm
FINE 400D FS: ＞20290lm
Light Efficiency
FINE 300T FS: ＞46lm/W
FINE 400T FS: ＞44lm/W
FINE 300D FS: ＞48lm/W
FINE 400D FS: ＞51lm/W
CRI: ＞90

ELECTRONIC CONTROL TECHNOLOGY
Protocol: DMX512
Channel Mode: 3
Control Panel: LED screen + button
Data input/output: 3-pins / 5-pins XLRHousing: Aluminum alloy die-casting + plastic shell
Product color: Black
IP rate: IP 20
Weight: 12kg
Dimension:
Fixture Dimension: 450.5mm x 310mm x 539mm
Package dimension: 680*580*545mm
Package: 2pcs/flight case
It is up to the CE standard and GB7000.217-2008, GB7000.1-2007 standard.

9. Control Channel

9. 1DMX control channel

Channel			
Channel	1	4	5
1	Dimmer	Dimmer	Dimmer
2	——	Strobe	16B strobe fine
3	——	Focusing	Strobe
4	——	Function	Focusing
5	——	——	Function

1channel mode

1CH	Ch1	dimmer	0-255	dimmer0-100%

4channel mode

4CH	Ch1	dimmer	0-255	dimmer0-100%
	Ch2	strobe	0-5	Non
			6-105	standard strobe
			106-109	Non
			110-179	thunder strobe
			180-185	Non
			186-255	random strobe
	Ch3	focus	0-255	focus,15°-60 °
	Ch4	function	0-5	vacant
			6-25	fan speed,fast
			26-50	fan speed,slow
			51-75	fan speed,auto
			76-85	horizontal forward
			86-95	horizontal reversal
			96-105	vertical corotation
			106-115	vertical reversal
			116-179	vacant
			180-200	reset
			201-255	vacant

5 channel mode

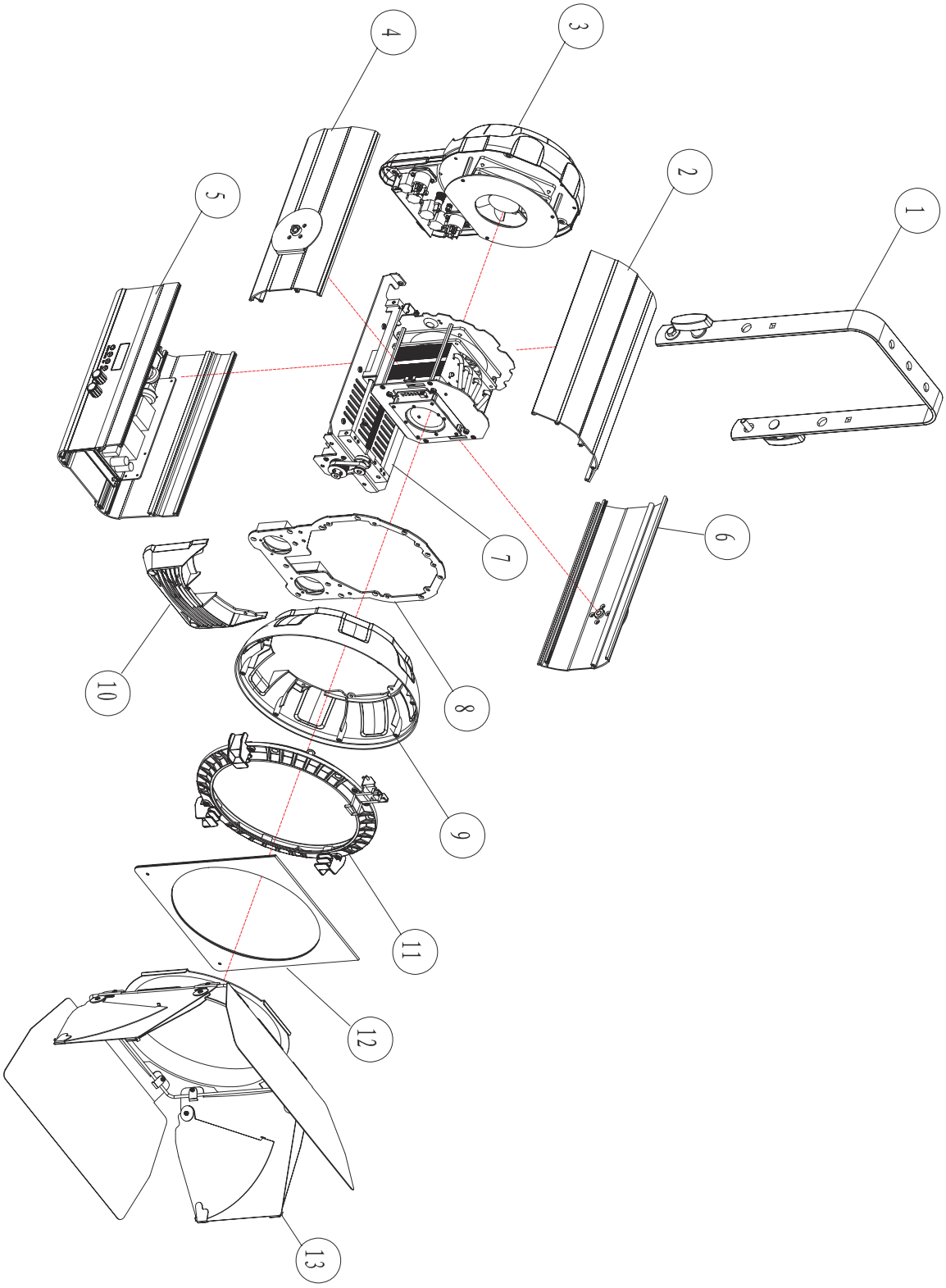
5CH	Ch1	dimmer	0-255	dimmer0-100%
	Ch2	16itdimmer	0-255	16Bdimmer fine
	Ch3	strobe	0-5	Non
			6-105	standard strobe
			106-110	Non
			110-179	thunder strobe
			180-185	Non
			186-255	random strobe
	Ch4	focus	0-255	focus,15°-60 °
	Ch5	function	0-5	vacant
			6-25	fan speed ,fast
			26-50	fan speed ,slow
			51-75	fan speed ,auto
			76-85	horizontal forward
			86-95	horizontal reversa
			96-105	vertical corotation
			106-115	vertical reversal
			116-179	vacant
			180-200	reset
			201-255	vacant

Note: When using the electronic control function, push the faders of the console slowly, and stop for about 2 seconds after adjusting the required channel value, the lamp will rotate in X or Y direction. When the lamp is rotated, the operator should keep an eye on the position of the lamp. When the lamp is rotated to the desired position, the operator should operate the console to stop it from turning.

10.Parts Ordering

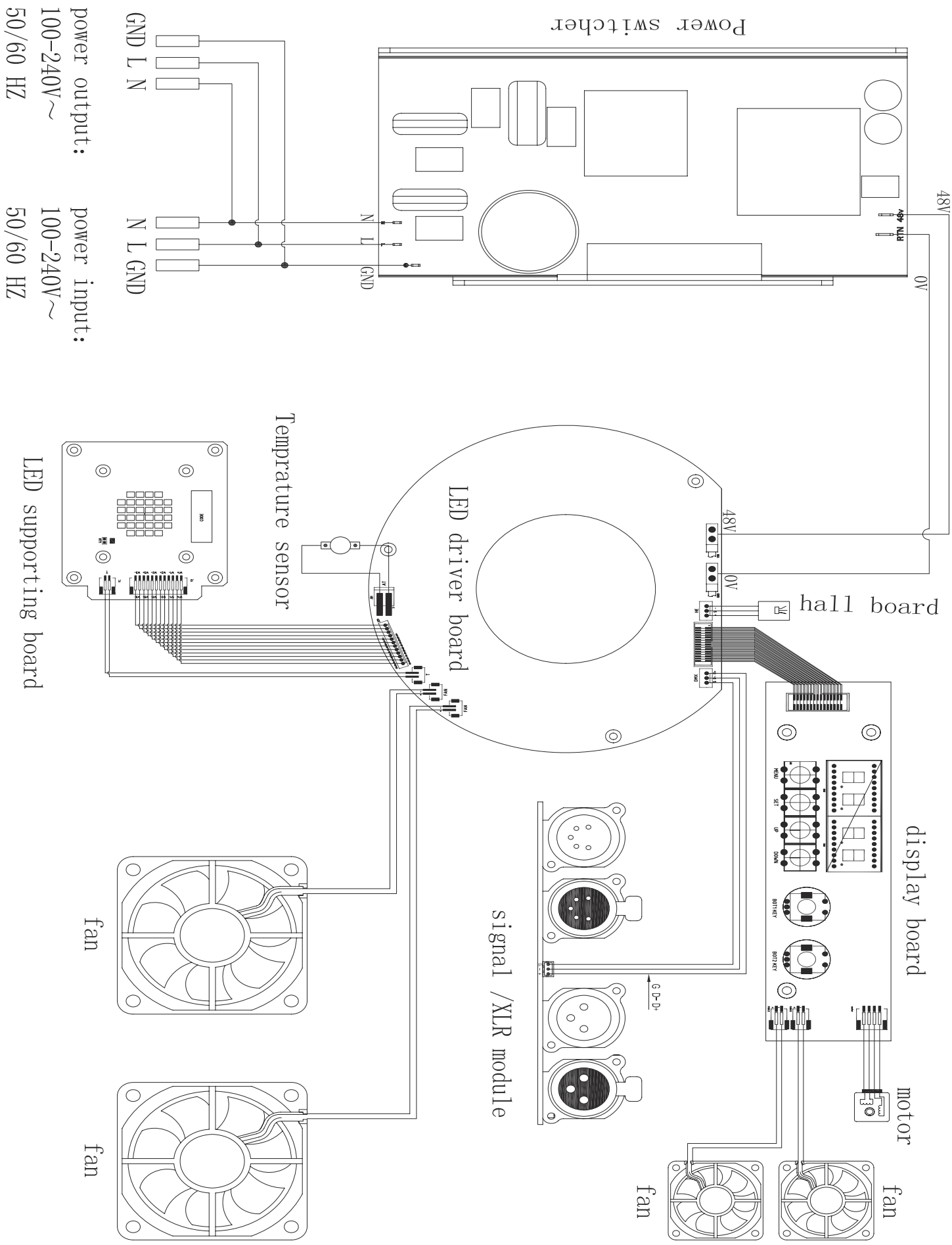
Item	Specification	Ordering P/N
Warm white led board（PCBA）	FINE 300T FS	330720100006
Cold white led board （PCBA）	FINE 300D FS	330720100005
Warm white led board （PCBA）	FINE 400T FS	180103000023
Cold white led board（PCBA）	FINE 400D FS	330720100013
2 stepper motors	–	140102000108
Power switcher	–	330001200012
Hall board（PCBA）	–	330720100001
DMXboard（PCBA）	–	330720100002
Display board（PCBA）	–	330720100003
Drive board（PCBA）	FINE 400T/D FS	330720100012
Drive board（PCBA）	FINE 300T/D FS	330720100004

Attached 1: fixture exploded drawing

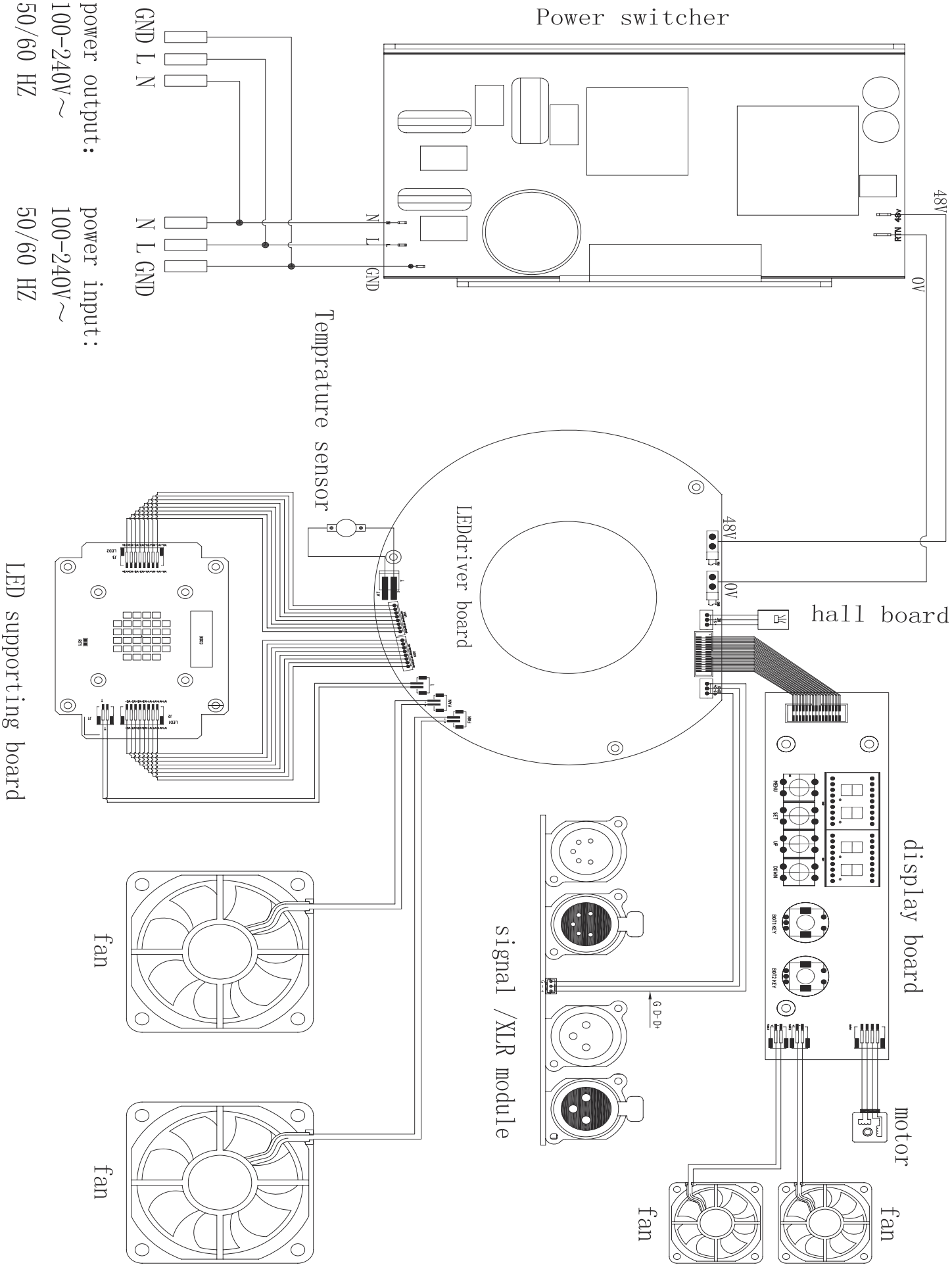


NO.	Item	NO.	Item	NO.	Item
1	Hanging module	6	Aluminum housing,left	11	Front cover module
2	Aluminum housing, upper	7	Light souce module	12	Color filter clip(optional)
3	Aluminum housing, rear	8	Head metal plate module	13	Barn door module (optional)
4	Aluminum housing,right	9	Head shell 1		
5	Aluminum housing,bottom	10	Head shell 2		

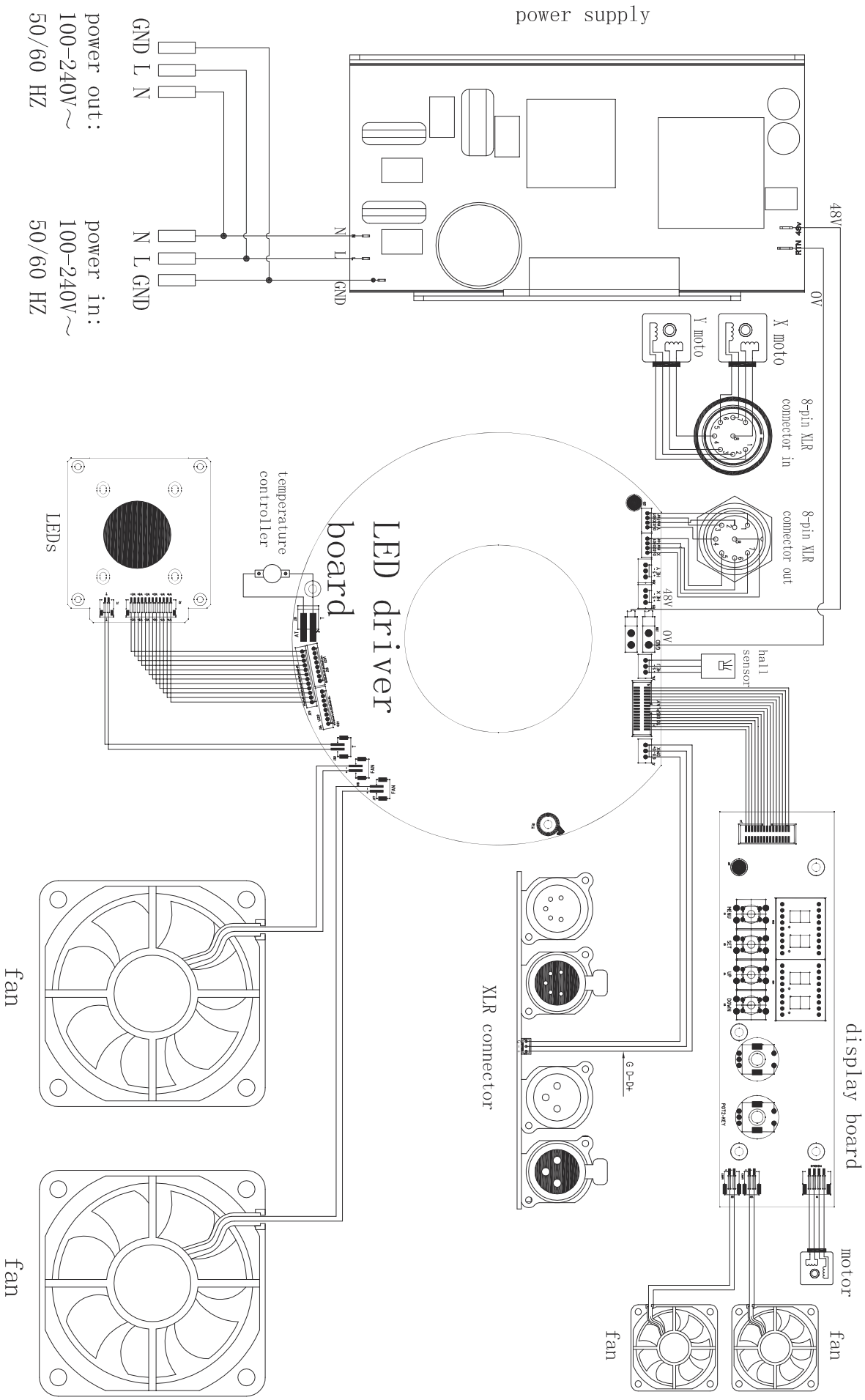
Attached 2: FINE 300T/D FS wiring diagram



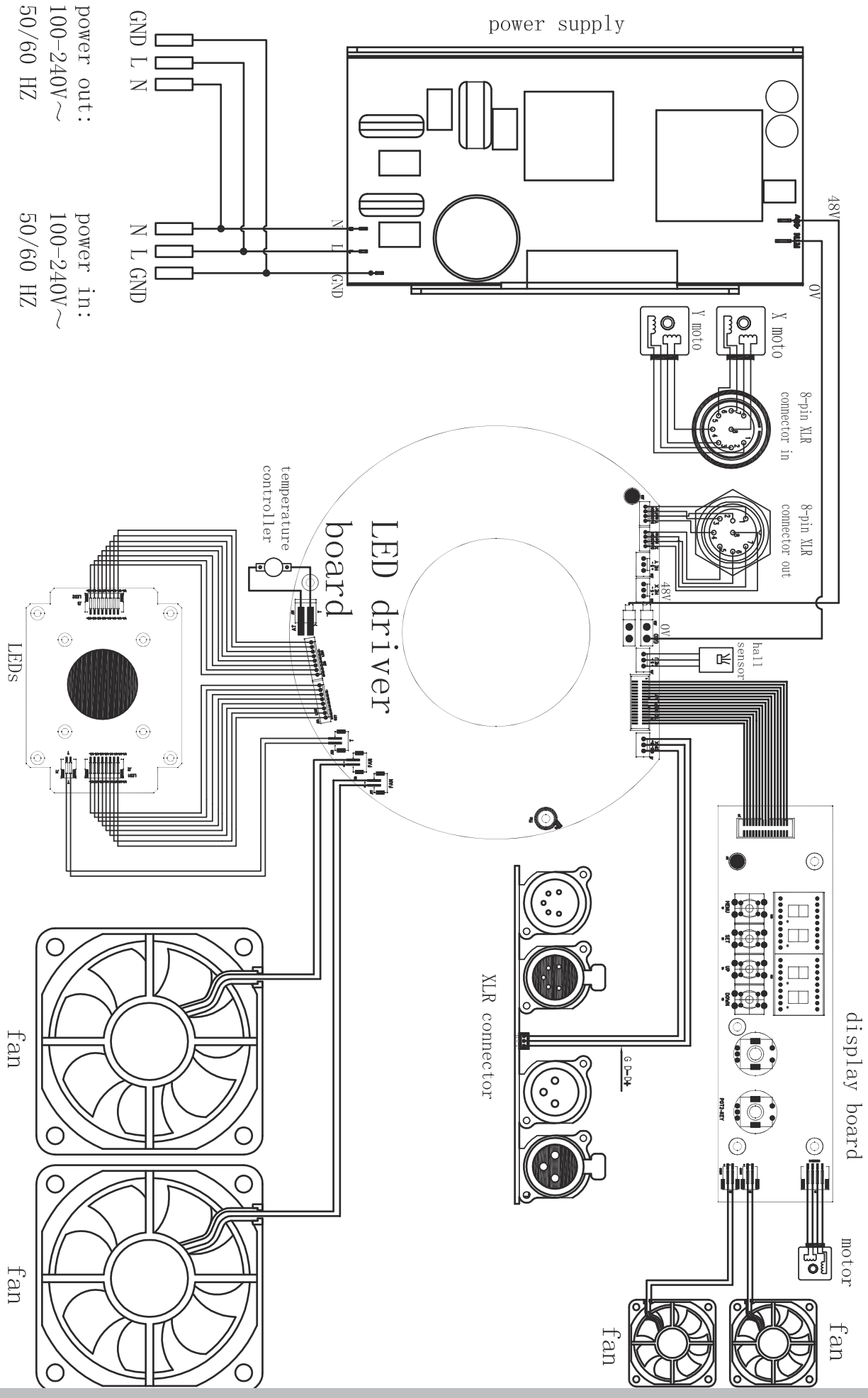
Attached 3: FINE 400T/D FS wiring diagram



Attached 4: FINE 300TM/DM FS wiring diagram



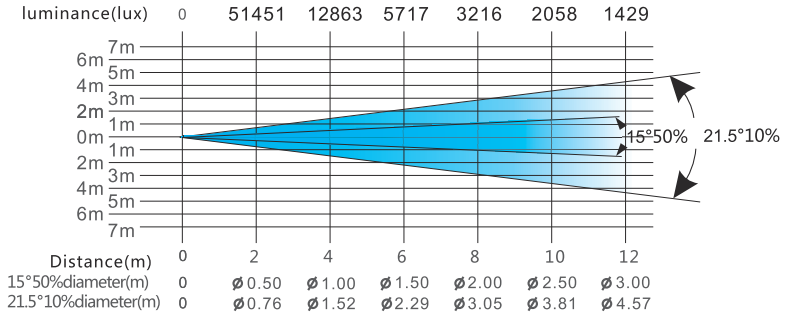
Attached 5: FINE400TM/DM FS wiring diagram



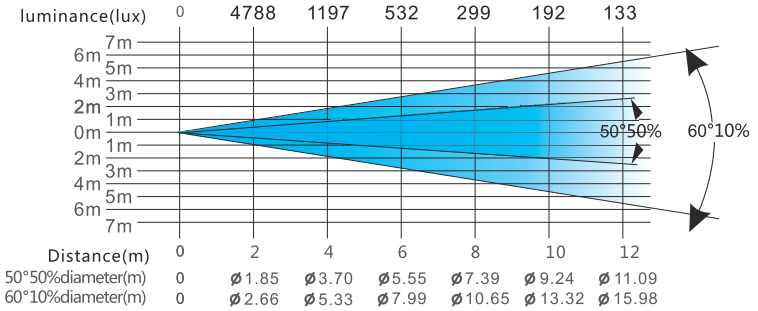
Attached 6: FINE 300T/D FS photometric diagram

FINE 300T FS

●PHOTOMETRIC DIAGRAM①

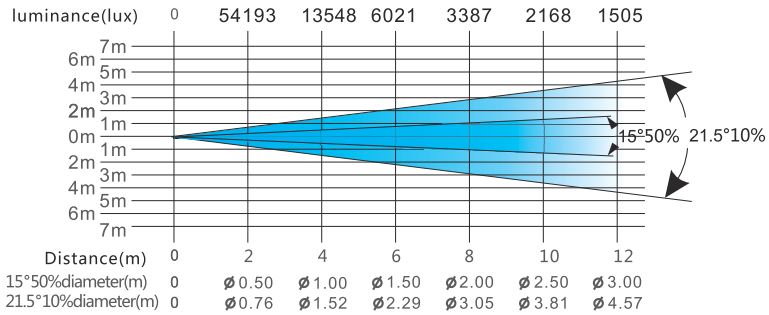


●PHOTOMETRIC DIAGRAM②

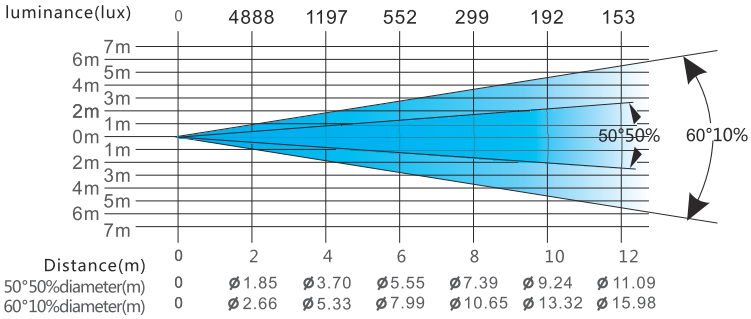


FINE 300D FS

●PHOTOMETRIC DIAGRAM①



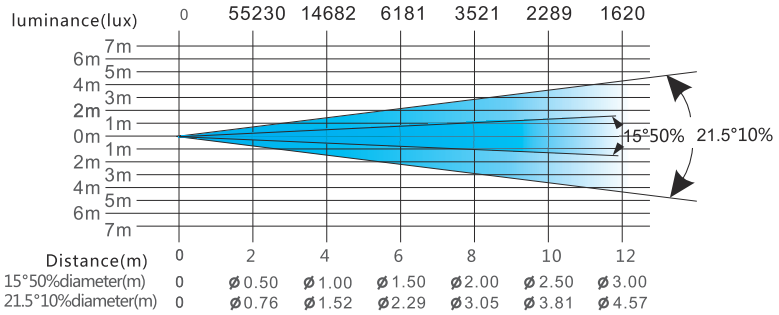
●PHOTOMETRIC DIAGRAM②



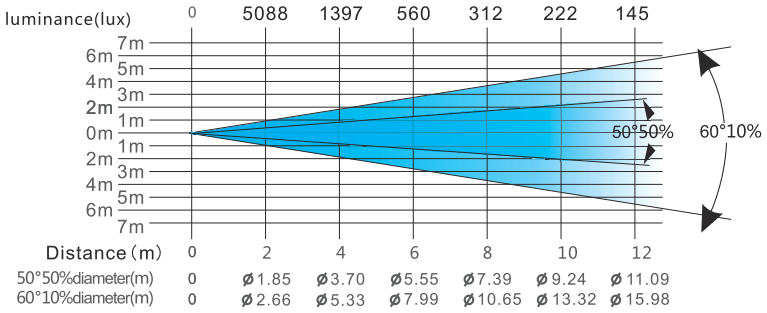
Attached 7: FINE 400T/D FS photometric diagram

FINE 400T FS

●PHOTOMETRIC DIAGRAM①

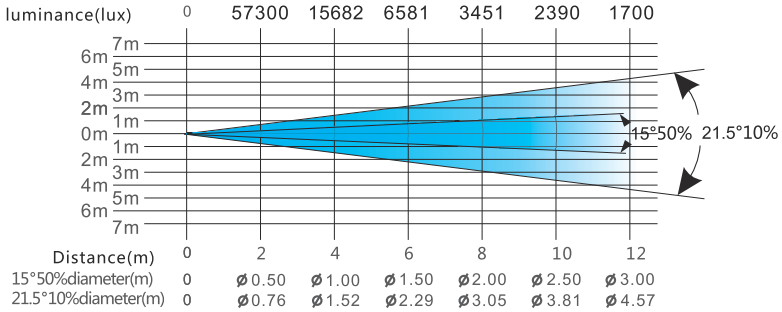
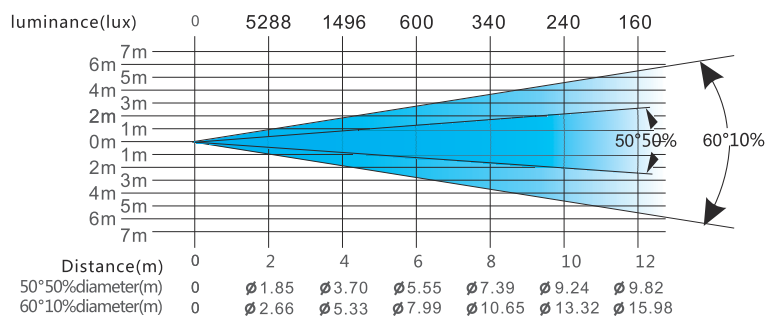


●PHOTOMETRIC DIAGRAM②



FINE 400D FS

●PHOTOMETRIC DIAGRAM①



●PHOTOMETRIC DIAGRAM②