Preface

FINE 400CL is a professional cyclorama light using the most advanced Lumileds R, G, B, A, L (optional W) five color light sources and the light output exceeds 12500Lm. With advanced HIS color management system, it realizes one-to-one corresponding color for both palette and output color of the fixture with visual and convenient features.

The built-in 16Bit dimmer precision make more precise color mixing and smoother dimmer, and the unique design for reflector to create asymmetric optics. Built in 2700k-6500k common white light and light CRI (Ra＞90)，it is the first choice for all kinds of large & medium professional theatres and TV station studio.The user manual takes FINE 400CL as an example.

★ 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. To obtain the latest information about software update, hardware and other files, please visit FINE ART online website.

P/N: 390723000003 Edition: E

Contents

Attached 1: Fixture exploded drawing
Attached 2: Photometric diagram
Attached 3: Wiring diagram

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.

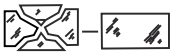
Warning!
Risk of eye injury.
Safety glasses must be worn.

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

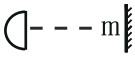
Do not use the light under the harsh condition

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

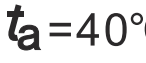
1. Safety information

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

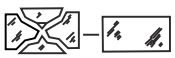
After receiving the fixture, please unpack and check if there is any damage due to transportation. If any obvious damage or flaw is found, do not put it into use and co-ntact the distributor or manufacturer as soon as possible.

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
its protection rating is IP20
The natural working temperature should be lower than 40 degrees. If the ambient temperature exceeds 40 degrees, please stop operating the unit immediately..
Protect the light from the chemical liquid.
The fixture should be kept dry and avoid working in presence of moisture, over-heat or dusty



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.

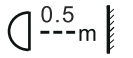
Protection against electrical shock

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.
Don't attempt to bypass the thermostat switch or fuse,replace defective fuses with specified ratings only

The maximum working temperature of the exterior surface, under a thermally steady state, is 60℃,
Do not touch the light when the fixture is working.
Do not illuminate surfaces within 0. 5 meters of the fixture.



Provide a minium clearance of 0. 1m 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 CHAIYI LIGHT CO. LTD.

2.Product introduction

2. 1 Fixture profile dimensions

●Front view

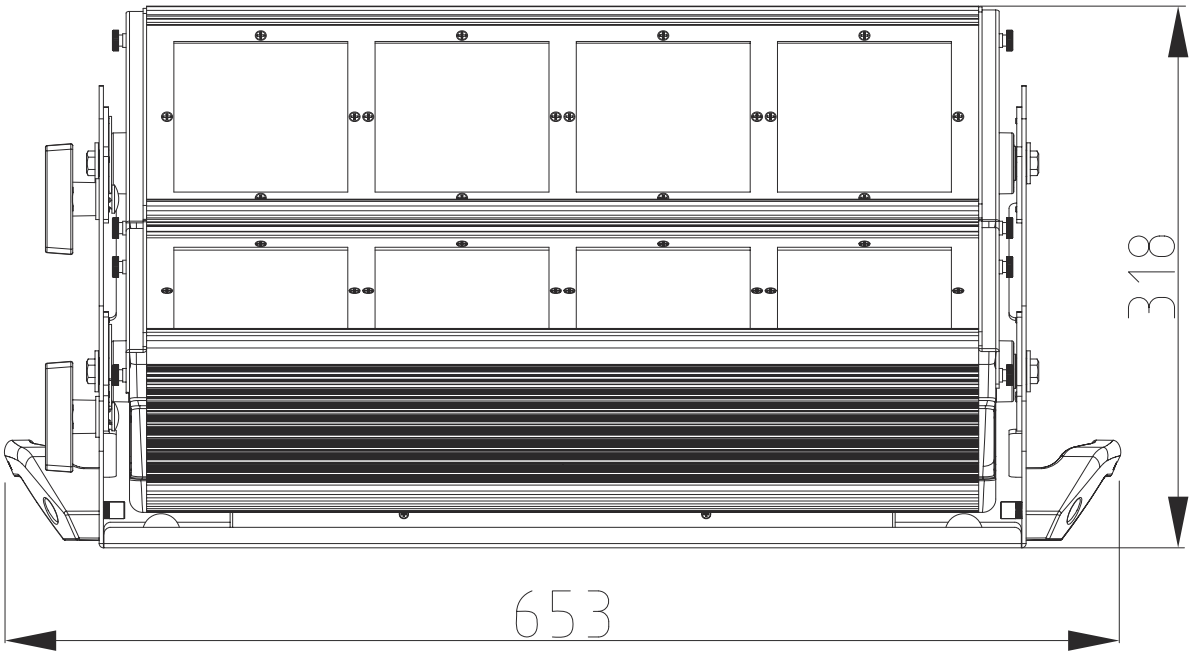


Fig. (2.1-1)

●Side view

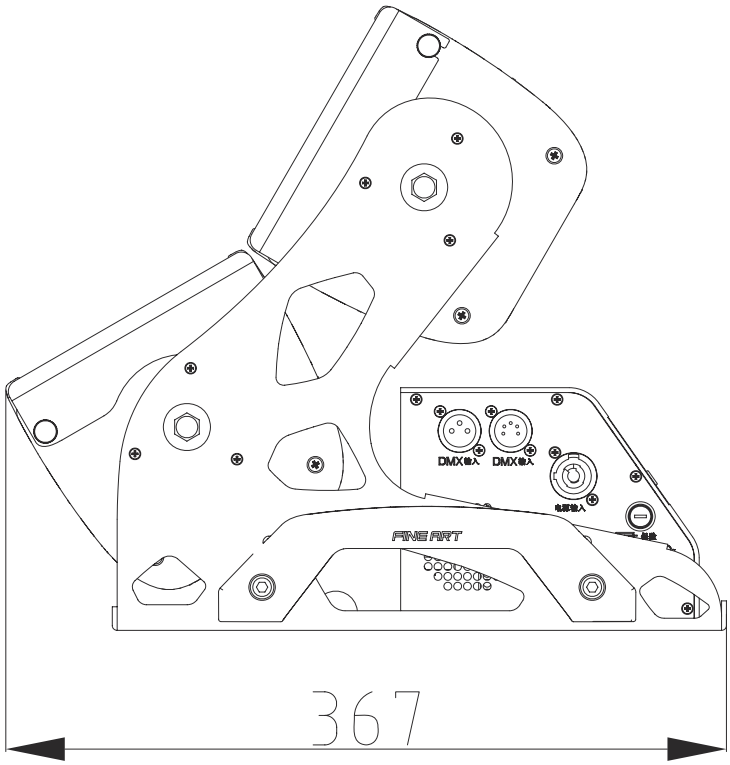


Fig. (2.1-2)

2. 2 Fixture introduction

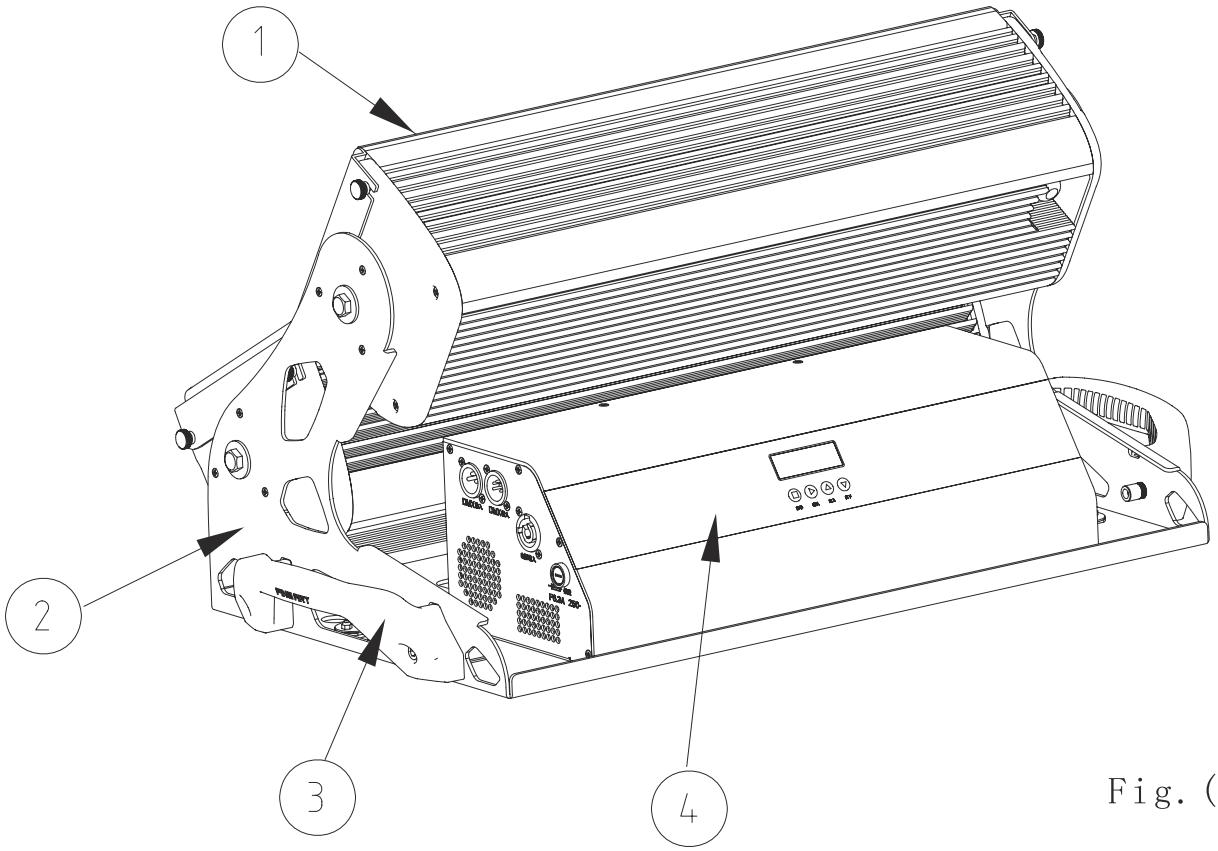


Fig. (2. 2-1)

1. Fixture module
2. The assembly of bottom
3. The handle of bottom
4. Power box assembly

3.Package & delivery

3.1 Included Items

FINE 400CL is packed with single flight case for 2 pcs, included items shown below.

Accessories	QTY	UNIT	Remarks
User Manual	1	pcs	Standard
Warranty card	1	pcs	Standard
Suspension fasteners	2	pcs	Standard
Power input cord	1	pcs	Standard
Safety cable	1	pcs	Standard
Signal cable	1	pcs	Standard
Fuse	2	pcs	Standard

Fig.(3.1-1)

Fixture Package

Before packaging, please disconnect the fixture from power supply and wait at least 15 minutes for cooling.

Remove dust buildup on the exterior surface. Pack the fixture with an inner bag and then put it into the case gently.

Pack the included accessories into the road-case.

Road-case stacking do not exceed 2 layers, upside down the road-case is not allowed.

Unpacking

Notice: inspect the units upon reception. If there is any evident damage due to transit, do not use the units and notify FINEART local distributor or contact GUANGZHOU CHAIYI LIGHT CO.,LTD directly.

Open the road-case and unpack the inner bag.

Grasp the handles on the base and lift the fixture out from the road-case. Alternatively, first open the upper casing of the road-case. Apply 2 sets of suspension clamps to the bottom of the base. Then lower the lifter to such a level where it's easier to clamp the fixture and the lifter together via a “G” hook. Secure the locking screw in the “G” hook. Finally, lift the fixture out of the flight case.

Release the transportation lock before power up the fixture.

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 ensure 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.

Installation introduction as below:

Hang on the truss

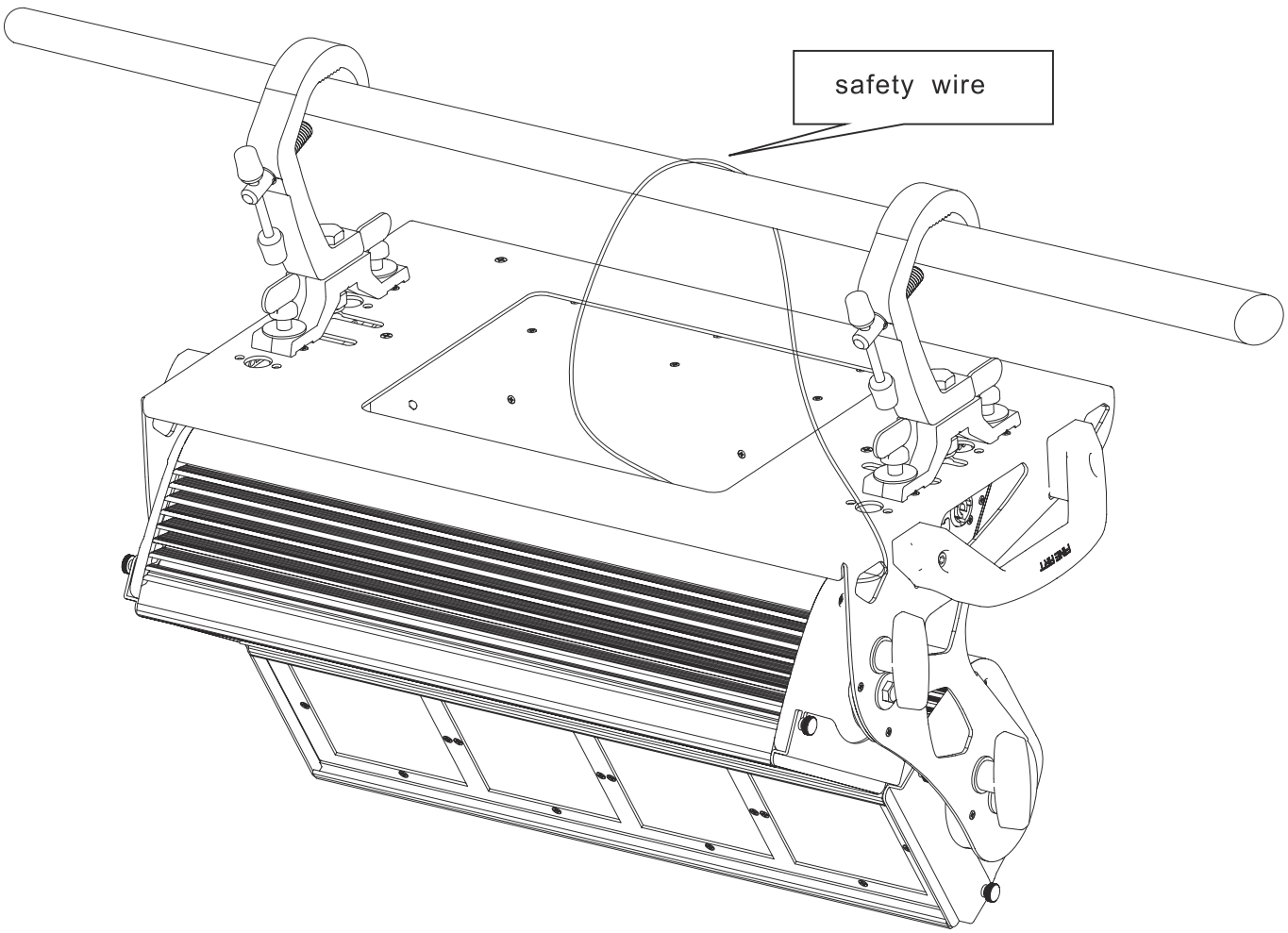


Fig.(4.1-1)

Warning Please add one safety wire after the fixture is hung on the truss.

5. Data Link

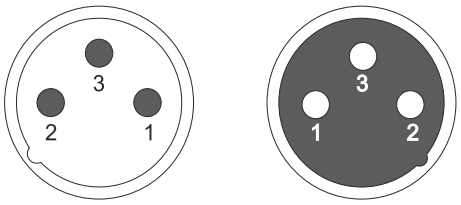
5.1 DMX 512 link

Note: The signal cable is type X connection.

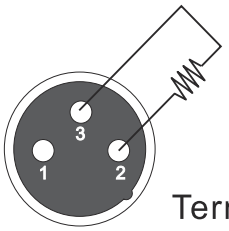
Type X connection—if the external flexible cable or cord of this fixture is damaged, it shall be replaced by a special cord or cord exclusively available from the manufacturer or his service agent.

3-pin XLR or 5-pin 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

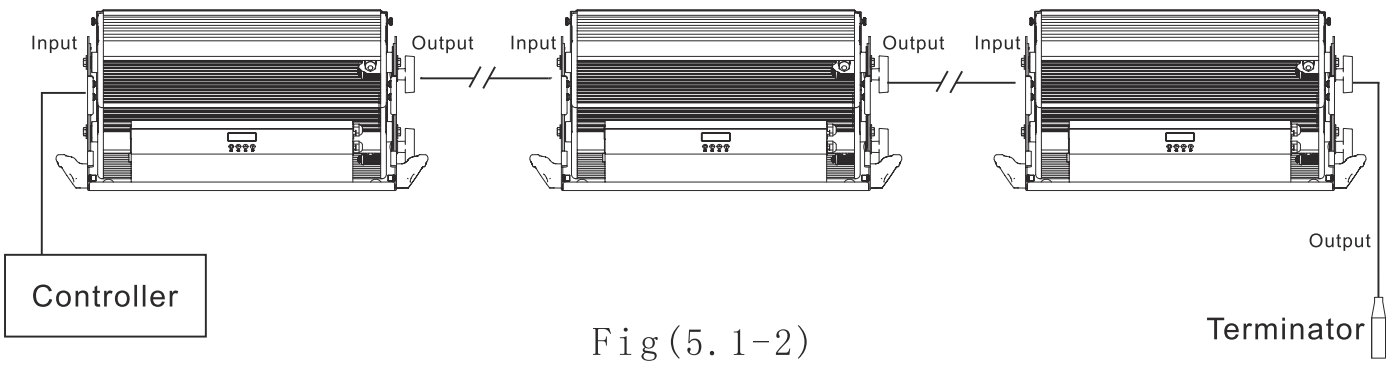
1	⏚ (shielded wire)	GND/OV
2	red	signal(-)
3	white	signal (+)

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 or 5-pin output of a lighting controller to the 3-pin or 5-pin input of a first fixture on the link, then connect the 3-pin or 5-pin output of the first fixture to the 3-pin or 5-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.

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.

The 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 creepage 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 with standard 3-pin or 5-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	⏚

Table(6.1-1)

Note:when using optional power cable:

1.Do not exceed 3 units fixtures at 100V～;

2.Do not exceed 6 units fixtures at 220V～。

7.Control Panel

7.1 Control Panel Introduction

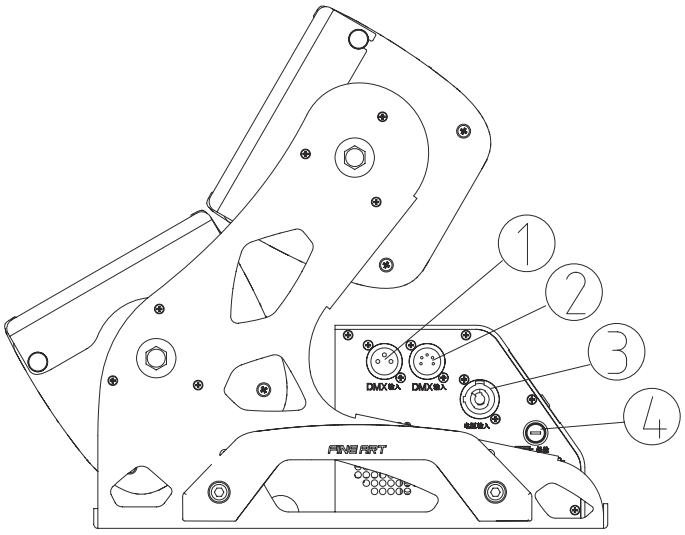


Fig. (7.1-1)

1.Signal input(3-pin)
2.Signal input(5-pin)
3.Power input
4.Fuse
5.Dispaly board
6.Menu
7.Enter
8.Up
9.Down
10.Power output
11.Signal output (5-pin)
12.Signal output (3-pin)

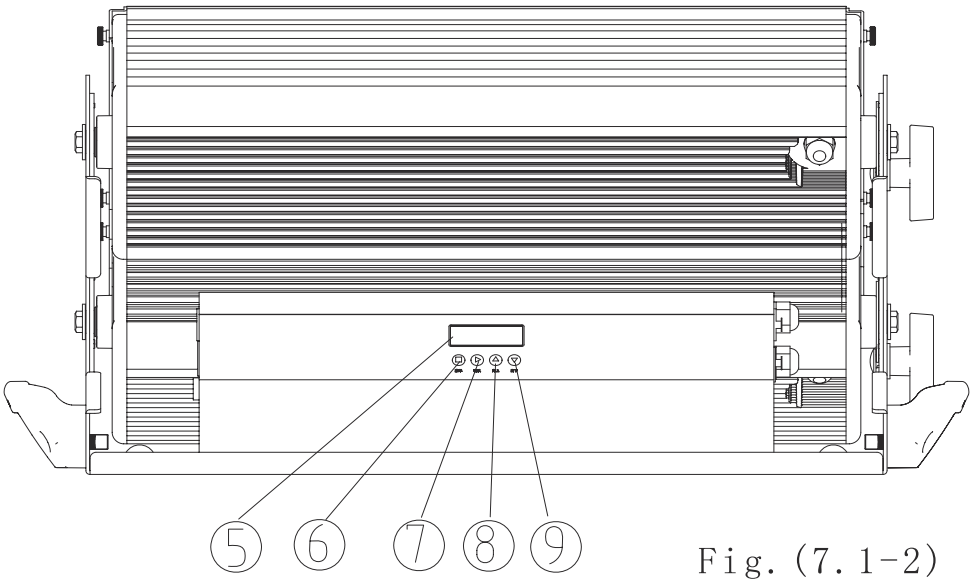


Fig. (7.1-2)

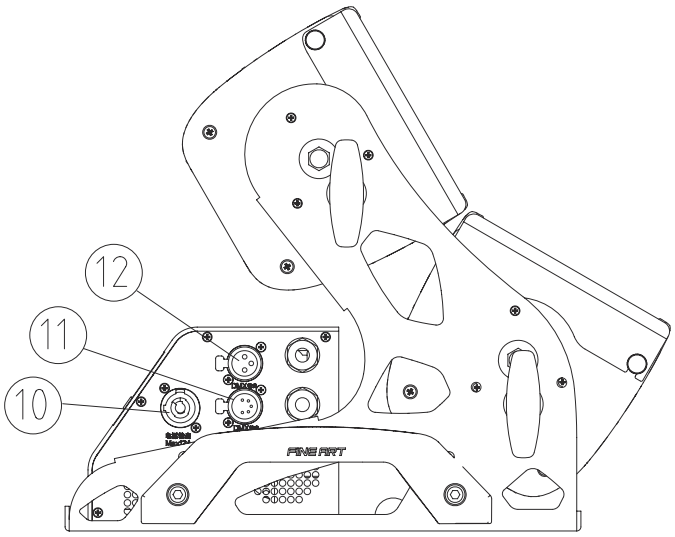


Fig. (7.1-3)

Display panel operational details

FINE 400CL

ID	1-512		
DIMM	R	0-255	Red
	G	0-255	Green
	B	0-255	Blue
	L	0-255	White
	A	0-255	Amber
SET	REST		Reset
	MODE	HSI	5 channel mode
		HSIC	7 channel mode
		RGB	5 channel mode
		STIO	5 channel mode
		DIRE	9 channel mode
		DIRS	12 channel mode
	FAN	POWR	Fast
		LIVE	Automatic
		STDO	Mute
	CURV	CV3	Curve 3
		CV2	Curve 2
		CV1	Curve 1
		OFF	Curve off

FINE 400CL7

ID	1-512		
DIMM	Red	0-255	Red
	Green	0-255	Green
	Royal Blue	0-256	Royal Blue
	Mint	0-257	Mint
	Amber	0-255	Amber
	Cyan	0-255	Cyan
	Blue	0-255	Dark Blue
SET	REST		Reset
	MODE	HSI	5 channel mode
		HSIC	7 channel mode
		RGB	5 channel mode
		STIO	5 channel mode
		DIRE	9 channel mode
		DIRS	16 channel mode
	FAN	POWR	Fast
		STDO	Mute
	DIMX	DIM4	dim4
		DIM3	dim3
		DIM2	dim2
		DIM1	dim1
		OFF	dim off
	CURV	CV3	Curve 3
		CV2	Curve 2
		CV1	Curve 1
		OFF	Curve off

Note:The reset password is up+up+down+down+enter in menu

8.Technical Feature

●OPTICAL SYSTEM

Light Source: FINE 400CL:R, G, B, A, L (optional W) five colors

FINE 400CL7:R, G, B, A, L,C,DB seven colors

Life Span: >50000h

Color Temperature:2700k-6500k :

CRI:>90

●FEATURE

Housing: Aluminum alloy die-casting, Stretching Aluminum

Structure: Dual-clutch, self-locking

●ELECTRIC

Input Power: 405w

PF > 0.98

●ELECTRONIC CONTROL TECHNOLOGY

Protocol: DMX512

Channel Mode: FINE 400CL:5/7/5/5/9/12

FINE 400CL:5/7/5/5/9/16

Control Panel: LED screen + button

●DIMENSION AND WEIGHT

Fixture Dimension:655mm×364mm×318mm

Package Dimension:850mm×737mm×530mmIncluded casters（flight case）

455 mm ×405 mm ×725 mm（Carton）

●Net Weight: 18kg

Gross Weight: 78.2kg(flight case),23.2 kg(Carton)

●PACKAGE

2pcs/flight case

1pc/carton

●WORKING ENVIRONMENT

Temperature: -10℃~40℃

●IP RATE

IP 20

9.Control Channel

FINE 400CL

English channel list						
Channel	HSI	HSIC	RGB	STIO	DIRE	DIRS
1	Hue	Hue	Red	Intensity	Red	Red1
2	Hue fine	Hue fine	Green	Color temp	Green	Green1
3	Saturation	Saturation	Blue	N/A	Blue	Blue1
4	Intensity	Intensity	N/A	N/A	Mint	Mint1
5	Strobe	Strobe	Strobe	Strobe	Amber	Amber1
6		N/A			N/A	Red2
7		Color temp			N/A	Green2
8					Intensity	Blue2
9					Strobe	Mint2
10						Amber2
11						Intensity
12						Strobe

FINE 400CL7

English channel list						
Channel	HSI	HSIC	RGB	STIO	DIRE	DIRS
1	Hue	Hue	Red	Dimmer	Red	Red1
2	Hue fine	Hue fine	Green	CCT	Green	Green1
3	Saturation	Staturation	Blue	N/A	Blue	Blue1
4	Intensity	Intensity	N/A	N/A	Lime	Lime1
5	Stobe	Stobe	Stobe	Stobe	Amber	Amber1
6		N/A	N/A	N/A	Cyan	Cyan1
7		Color temp	N/A	N/A	Dark Blue	Dark Blue1
8					Intensity	Red2
9					Strobe	Green2
10						Blue2
11						Lime2
12						Amber2
13						Cyan2
14						Dark Blue2
15						Intensity
16						Strobe

HSI	ch1	Hue	0-255	
	ch2	Hue fine	0-255	
	ch3	Saturation	0-255	
	ch4	intensity	0-255	
	ch5	Strobe	0-5	N/A
			6-105	Standard strobe
			106-110	N/A
			110-179	Thunderstreak strobe
			180-185	N/A
			186-255	Radom strobe
HSIC	ch1	Hue	0-255	
	ch2	Hue fine	0-255	
	ch3	Saturation	0-255	
	ch4	intensity	0-255	
	ch5	Strobe	0-5	N/A
			6-105	Standard strobe
			106-110	N/A
			110-179	Thunderstreak strobe
			180-185	N/A
			186-255	Radom strobe
	ch6	--	--	--
	ch7	Color temp	0-255	

RGB	ch1	Red	0-255	
	ch2	Green	0-255	
	ch3	Blue	0-255	
	ch4	--	--	--
	ch5	Strobe	0-5	N/A
			6-105	Standard strobe
			106-110	N/A
			110-179	Thunderstreak strobe
			180-185	N/A
			186-255	Radom strobe
Studio	ch1	Intensity	0-255	
	ch2	Color temp	0-5	3200K
			6-245	2500-6300K
			246-255	5600K
	ch3	--	--	--
	ch4	--	--	--
	ch5	Strobe	0-5	N/A
			6-105	Standard strobe
			106-110	N/A
			110-179	Thunderstreak strobe
			180-185	N/A
			186-255	Radom strobe

DIRE	ch1	Red	0-255	
	ch2	Green	0-255	
	ch3	Blue	0-255	
	ch4	Lime	0-255	
	ch5	Amber	0-255	
	ch6	N/A	N/A	Reserve
	ch7	N/A	N/A	Reserve
	ch8	intensity	0-255	
	ch9	Strobe	0-5	N/A
			6-105	Standard strobe
			106-110	N/A
			110-179	Thunderstreak strobe
			180-185	N/A
			186-255	Radom strobe
DIRS	ch01	Red	0-255	
	ch02	Green	0-255	
	ch03	Blue	0-255	
	ch04	Lime	0-255	
	ch05	Amber	0-255	
	ch06	Red	0-255	
	ch07	Green	0-255	
	ch08	Blue	0-255	
	ch09	Lime	0-255	
	ch11	Amber	0-255	
	ch11	intensity	0-255	
	ch12	Strobe	0-5	N/A
			6-105	Standard strobe
			106-110	N/A
			110-179	Thunderstreak strobe
			180-185	N/A
			186-255	Radom strobe

FINE 400CL7 DMX Chart

HSI	ch1	Hue	0-255	
	ch2	Hue fine	0-255	
	ch3	Saturation	0-255	
	ch4	intensity	0-255	
	ch5	Strobe	0-5	N/A
			6-105	Standard strobe
			106-110	N/A
			110-179	Thunderstreak strobe
			180-185	N/A
			186-255	Radom strobe
HSIC	ch1	Hue	0-255	
	ch2	Hue fine	0-255	
	ch3	Saturation	0-255	
	ch4	intensity	0-255	
	ch5	Strobe	0-5	N/A
			6-105	Standard strobe
			106-110	N/A
			110-179	Thunderstreak strobe
			180-185	N/A
			186-255	Radom strobe
	ch6	--	--	--
	ch7	Color temp	0-255	

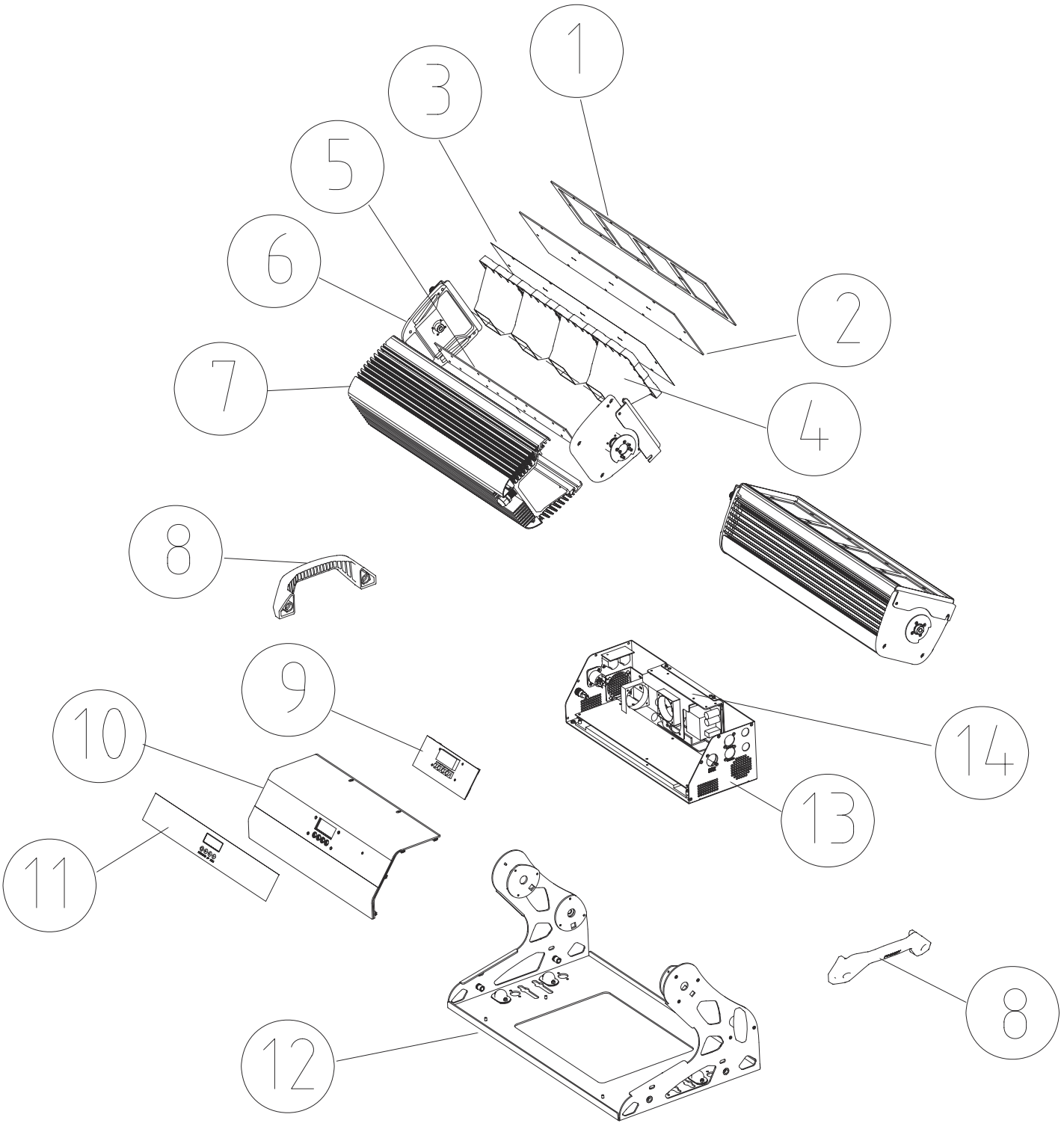
RGB	ch1	Red	0-255	
	ch2	Green	0-255	
	ch3	Blue	0-255	
	ch4	--	--	--
	ch5	Strobe	0-5	N/A
			6-105	Standard strobe
			106-110	N/A
			110-179	Thunderstreak strobe
			180-185	N/A
			186-255	Radom strobe
Studio	ch1	Intensity	0-255	
	ch2	Color temp	0-5	3200K
			6-245	2500-6300K
			246-255	5600K
	ch3	--	--	--
	ch4	--	--	--
	ch5	Strobe	0-5	N/A
			6-105	Standard strobe
			106-110	N/A
			110-179	Thunderstreak strobe
			180-185	N/A
			186-255	Radom strobe

DIRE	ch1	Red	0-255	
	ch2	Green	0-255	
	ch3	Blue	0-255	
	ch4	Lime	0-255	
	ch5	Amber	0-255	
	ch6	Cyan	0-255	
	ch7	Dark blue	0-255	
	ch8	intensity	0-255	
	ch9	Strobe	0-5	N/A
			6-105	Standard strobe
			106-110	N/A
			110-179	Thunderstreak strobe
			180-185	N/A
			186-255	Radom strobe
DIRS	ch01	Red	0-255	
	ch02	Green	0-255	
	ch03	Blue	0-255	
	ch04	Lime	0-255	
	ch05	Amber	0-255	
	ch06	Cyan	0-255	
	ch07	Dark blue	0-255	
	ch08	Red	0-255	
	ch09	Green	0-255	
	ch10	Blue	0-255	
	ch11	Lime	0-255	
	ch12	Amber	0-255	
	ch13	Cyan	0-255	
	ch14	Dark blue	0-255	
	ch15	Cyan	0-255	
	ch16	Strobe	0-5	N/A
			6-105	Standard strobe
			106-110	N/A
			110-179	Thunderstreak strobe
			180-185	N/A
			186-255	Radom strobe

10.Parts Ordering

Item	Specification	Ordering P/N
Driver board		330723100010
RGBLA LED board		330723100006
RGBLACDB LED board		330723100009
DMX output board		330723100005
DMX input board		330723100004
Power supply	input:90-264V Output:48V/8. 33A	330001200070
Display board		330723100002

Attached 1: Fixture exploded drawing



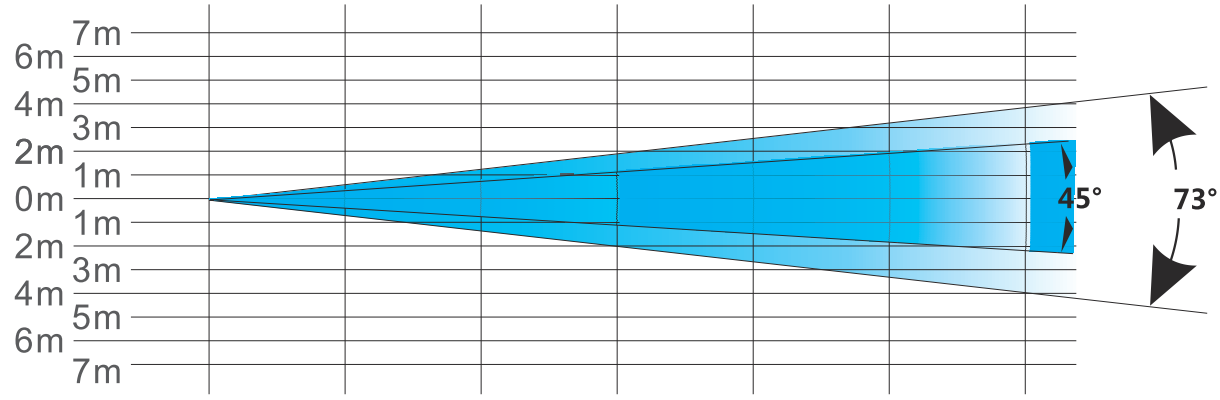
NO	Item	NO	Item	NO	Item
1	Acrylic textile board	6	Side cover	11	PVC paster
2	Transparent acrylic board	7	Cover	12	Metal bottom
3	10 degrees diffusion shell	8	The handle of bottom	13	Power box bracket
4	Reflector	9	Display board	14	Power supply
5	LED board	10	Power box aluminium extruded section		

Attached 2: Photometric diagram

♦FINE 400CL

Pan

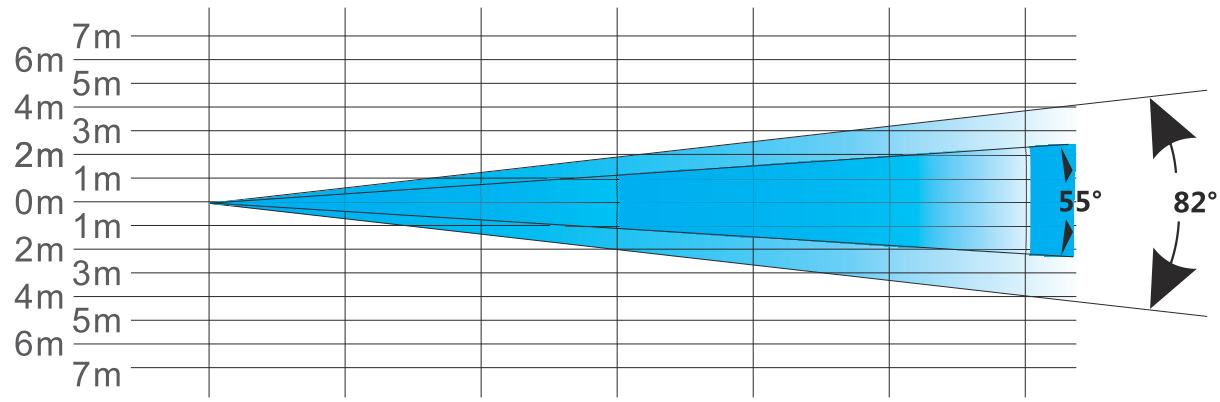
illuminance(lux)							
Red	0	554	138	62	35	22	15
Green	0	1108	277	123	69	44	31
Blue	0	141	35	16	9	6	4
Amber	0	630	158	70	39	25	18
Lime	0	1146	286	127	72	46	32
Mix	0	3590	898	399	227	144	100



Project distance（m）	0	2	4	6	8	10	12
45° beam diameter（m）	0	Ø1.65	Ø3.30	Ø4.94	Ø6.59	Ø8.24	Ø9.89
73° spot diameter（m）	0	Ø2.97	Ø5.95	Ø8.92	Ø11.90	Ø14.87	Ø17.85

Tilt

illuminance(lux)							
Red	0	554	138	62	35	22	15
Green	0	1108	277	123	69	44	31
Blue	0	141	35	16	9	6	4
Amber	0	630	158	70	39	25	18
Lime	0	1146	286	127	72	46	32
Mix	0	3590	898	399	227	144	100

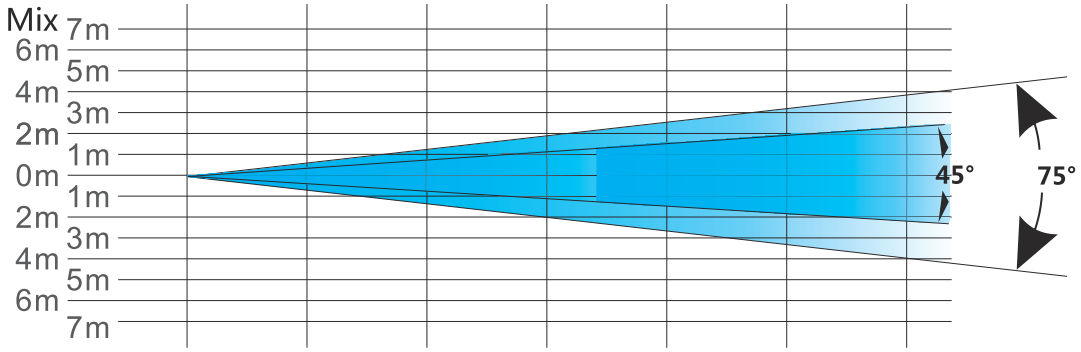


Project distance（m）	0	2	4	6	8	10	12
55° beam diameter（m）	0	Ø2.13	Ø4.26	Ø6.38	Ø8.51	Ø10.64	Ø12.77
82° spot diameter（m）	0	Ø3.46	Ø8.91	Ø10.37	Ø13.82	Ø17.28	Ø20.73

♦FINE 400CL7

Pan

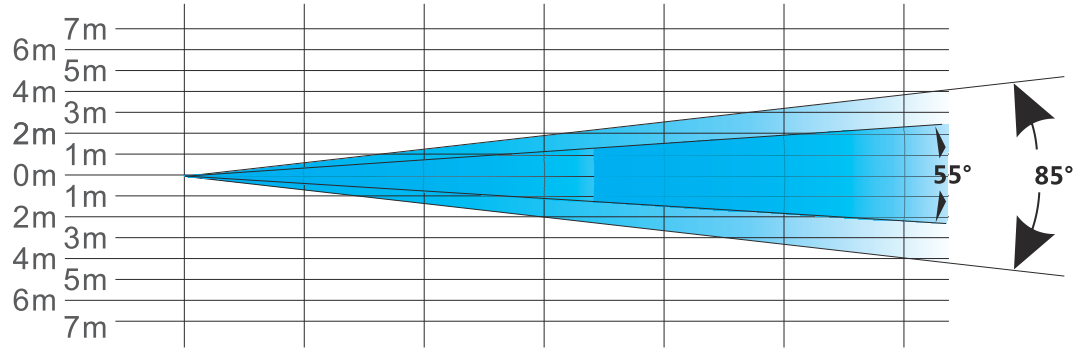
Red	0	454	113	50	28	18	13
Green	0	761	190	85	48	30	21
Blue	0	159	40	18	10	6	4
Amber	0	615	154	68	38	25	17
Lime	0	1416	354	157	88	57	39
Cyan	0	399	100	44	25	16	11
Dark blue	0	62	15	7	4	2	2
illuminance(lux) Mix	0	3815	954	424	238	153	106



Project distance (m)	0	2	4	6	8	10	12
45° beam diameter (m)	0	Ø1.64	Ø3.27	Ø4.91	Ø6.55	Ø8.18	Ø9.82
75° spot diameter (m)	0	Ø3.09	Ø6.18	Ø9.27	Ø12.36	Ø15.45	Ø18.55

Tilt

Red	0	454	113	50	28	18	13
Green	0	761	190	85	48	30	21
Blue	0	159	40	18	10	6	4
Amber	0	615	154	68	38	25	17
Lime	0	1416	354	157	88	57	39
Cyan	0	399	100	44	25	16	11
Dark blue	0	62	15	7	4	2	2
illuminance(lux) Mix	0	3815	954	424	238	153	106



Project distance (m)	0	2	4	6	8	10	12
55° beam diameter (m)	0	Ø1.96	Ø3.93	Ø5.89	Ø7.85	Ø9.82	Ø11.78
85° spot diameter (m)	0	Ø3.45	Ø6.91	Ø10.36	Ø13.82	Ø17.27	Ø20.73

Attached 3: Wiring diagram