

# Introduction

FINE 1512C AL and FINE 156C AL are LED wash lamps. It adopts 15W RGBW four-in-one LED light source. It has single point controllable, high color saturation and uniform color mixing, good wash effect. The center distance of the light source is consistent along the direction of the lamp body, which can realize animation water flow effect. The appearance of the streamlined design, simple installation, the latest linear dimming technology, no flicker output, waterproof level IP65, is suitable for cultural performances, TV stations, conference centers, theaters, dance halls, sprinkles, buildings, bridges, overpasses, parks such as places for lighting, background wash and outline sketching.

## 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 .

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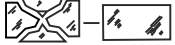
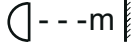

P/N:390711000058 Edition: D

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# 1. Safety information

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

						
<b>DANGER!</b> Hazardous voltage. Risk of severe or lethal electric shock.	<b>DANGER!</b> Safety hazard. Risk of severe injury or death.	<b>DANGER!</b> Refer to manual before installing, powering or servicing.	<b>Warning!</b> Fire hazard.	<b>Warning!</b> Burn hazard. Hot surface. Do not touch.	<b>Warning!</b> Risk of eye injury. Safety glasses must be worn.	<b>Warning!</b> Risk of hand injury. Safety gloves must be worn.
						
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		



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

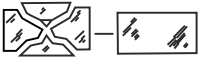
### Protection against over heat

FINE 1512C/156C AL is suitable for indoor and outdoor environment; its protection rating is IP65.

$t_a = 40^\circ\text{C}$  The fixture should be kept dry and avoid working in presence of moisture, over-heat or heavy smokes.



The natural working temperature should be lower than 40 degrees. If the ambient temperature exceeds 40 degrees, please stop operating the unit immediately.



### Protection against explosion

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



### 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 connections or maintenances 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.



### Protection against burning or fire

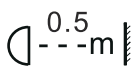
Replace defective fuses with specified ratings only.

Keep flammable materials far away from the fixture. Minimum distance from the flammable materials is 0.5m.



Under the steady working state, the max temperature of exterior surface of FINE 1512C AL is 83°C and FINE 156C AL is 75°C, Please don't touch the moving head during movement.

The minimum distance between the fixture and the lighted objects is 0.5m.



Ensure a minimum clearance of 0.1m around the cooling fans and ventilations

Do not place any filter or other object onto the optical lens.

Allow the fixture to cool for at least 15 minutes before transit.

Do not revise the fixture or install any parts not from GUANGZHOU CHAIYI LIGHT CO.,LTD.

## 2.Product introduction

### 2.1 Fixture profile dimension

FINE 1512C AL

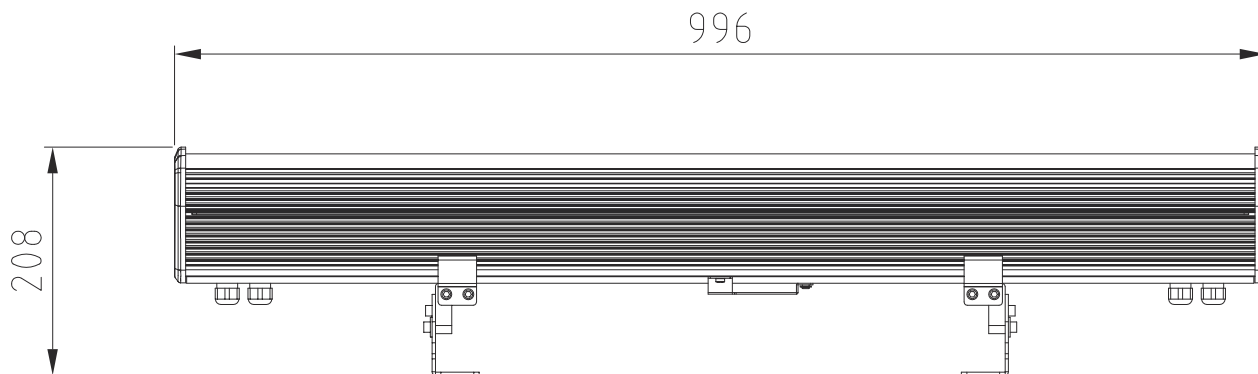


Fig (2. 1-1) Front view

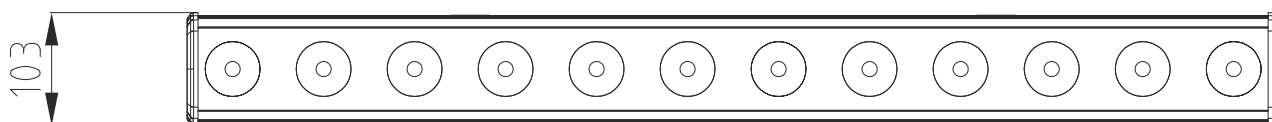


Fig (2. 1-2) Vertical view

FINE 156C AL

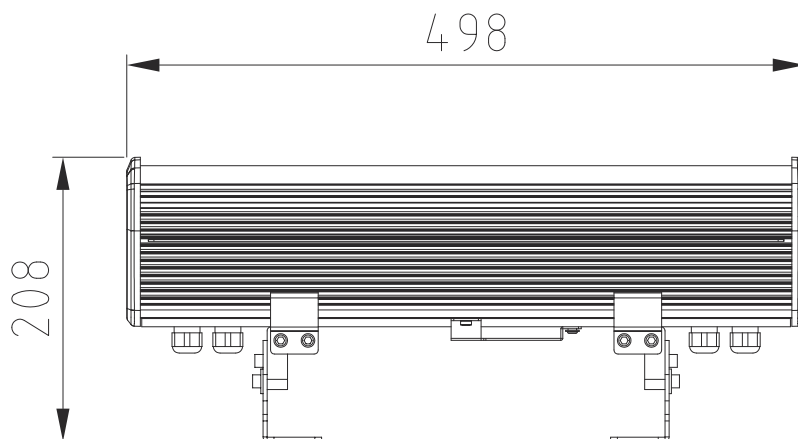


Fig (2. 1-3) Front view

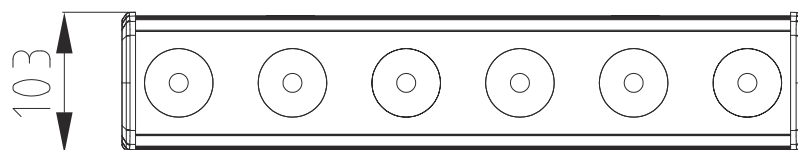
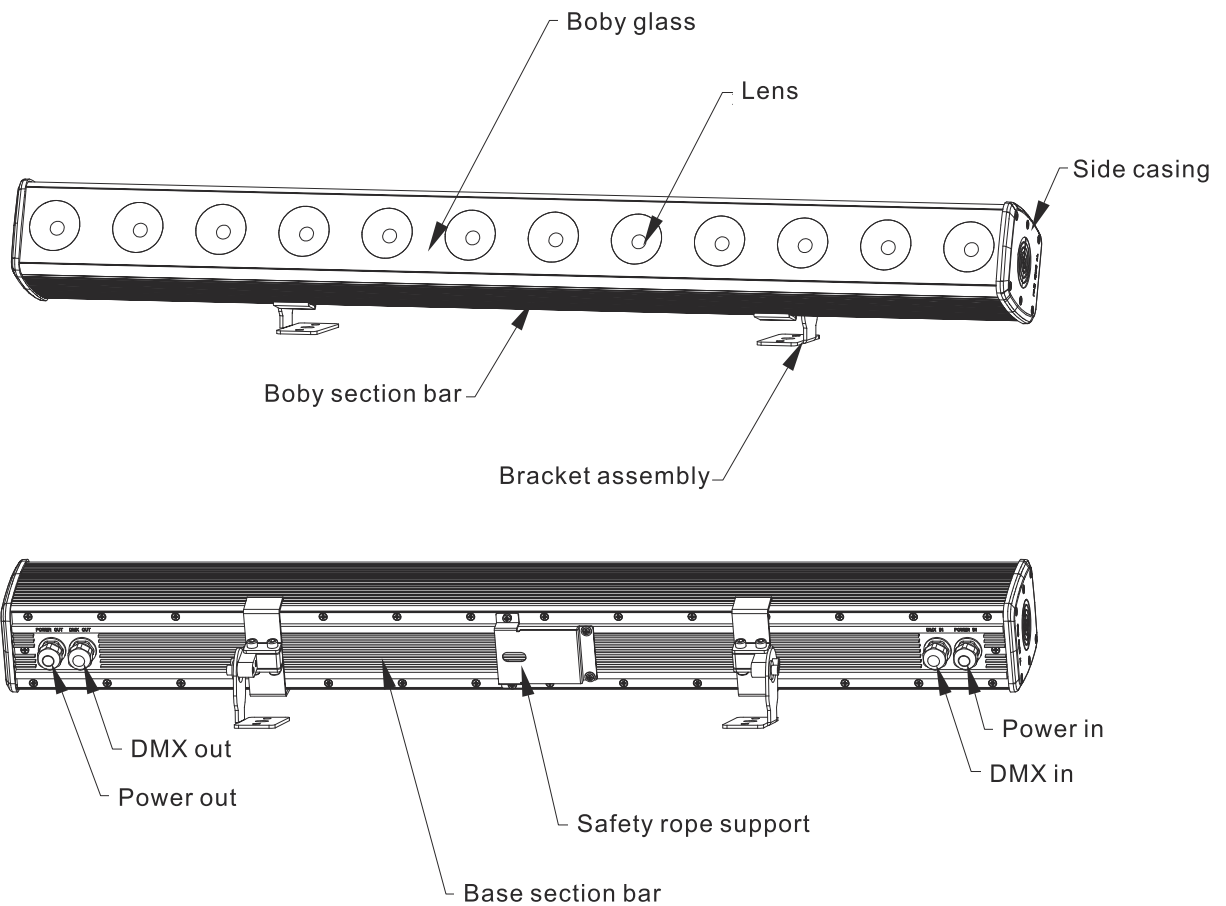


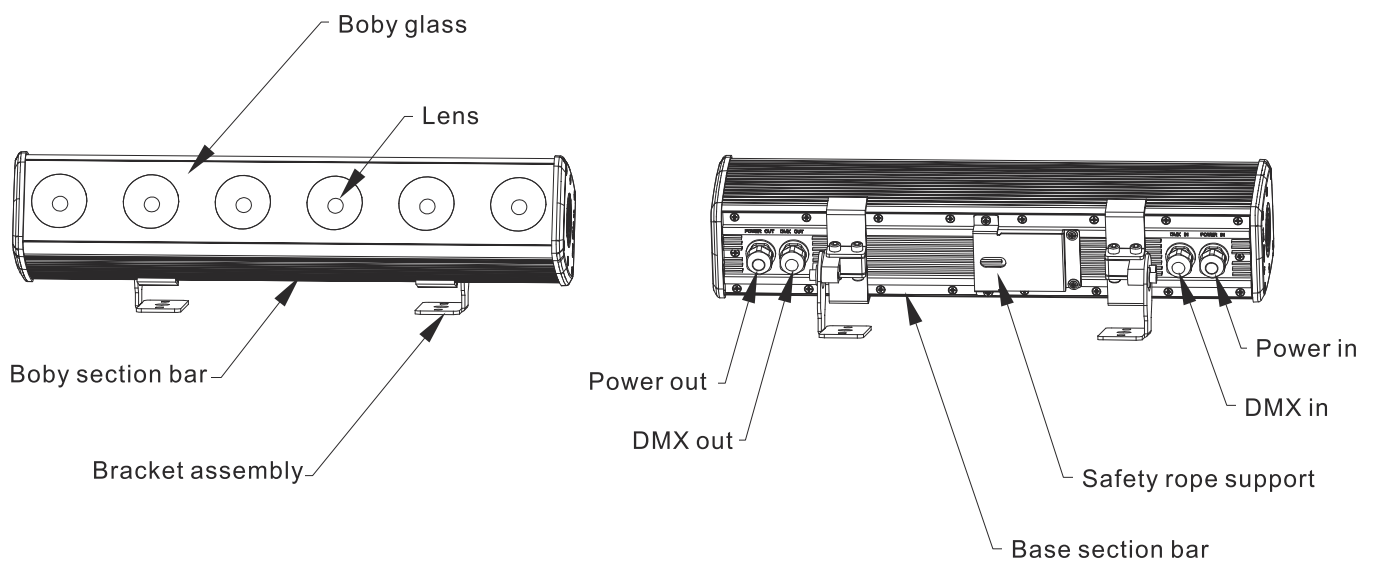
Fig (2. 1-4) Vertical view

## 2.2 Fixture introduction

### FINE 1512C AL



### FINE 156C AL



### 3.Package & delivery

FINE 1512C/156C AL is packed with flight case .One single standard flight case carries six fixtures ,included items as below list:

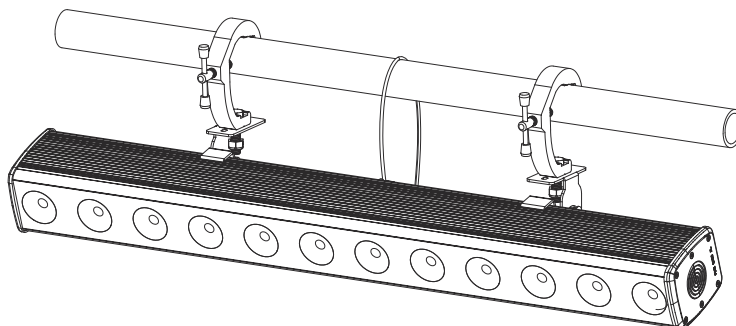
Accessories	QTY	UNIT
Clamp Moudle	2	PCS
Power Cord	1	PCS
Safety Wire	1	PCS
Connecting Line	1	PCS
User Manual	1	PCS
Warranty Card	1	PCS
Qualified certificate	1	PCS

### 4.Installation

User must be termly 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  $-10^{\circ}\text{C}$ - $40^{\circ}\text{C}$  , When ambient temperature over the range, don't operate the fixture. When the fixture are in installation, teardown, remove or servicing, don't stand 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.The fixture of light source shall be replaced by the manufacturer or service agent or someone with similar qualifications.

Hang on the truss with clamps



Warning

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

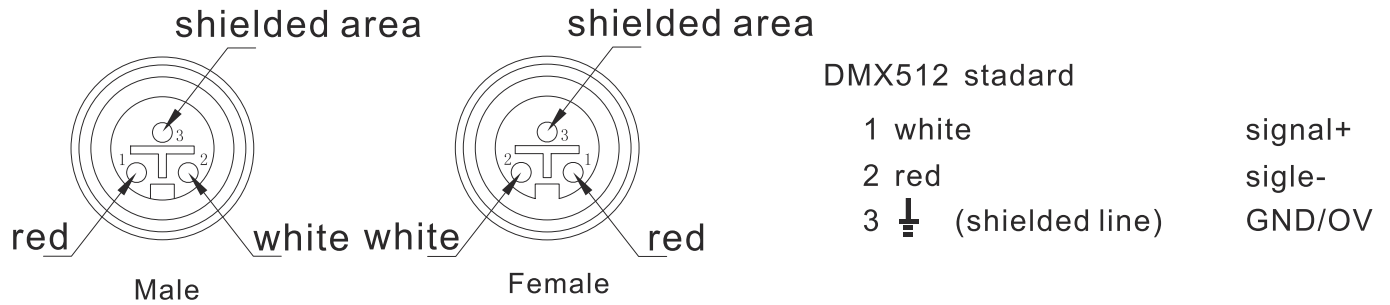
# 5.Data link

Note: The signal cable is type Y connection.

Type Y 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.

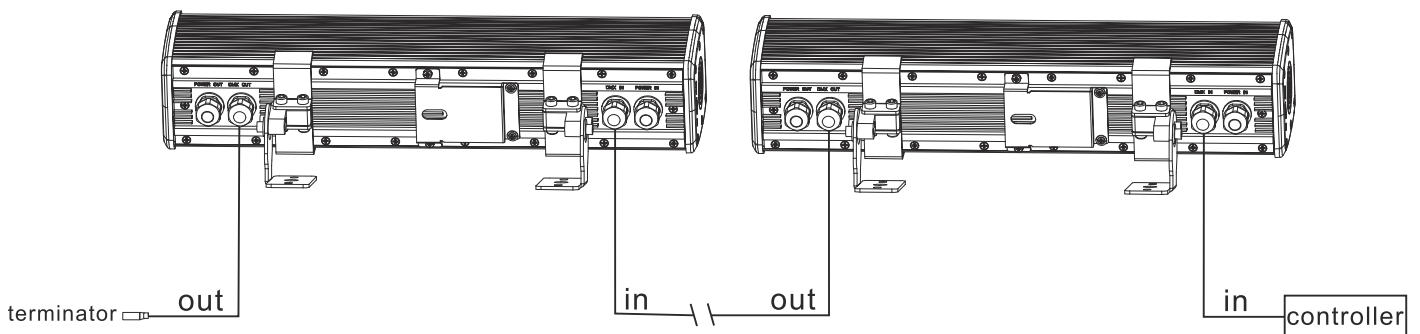
3-pin XLR or 5-pin XLR connectors are provided for fixture DMX input and output. Pin 1 is for minus signals, pin 2 is for plus signals, and pin 3 is for earthing.

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



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 said 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. 5.1-1 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.



(5. 1-1)

**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. Power Connection

Notice: Type Y attachment for power supply connection.

Method of attachment of the cable or cord such that any replacement can only be made by the manufacturer, his service agent or similarly qualified person.

The person must have the relevant qualification to connect the power supply. The AC power voltage shall be suitable to the fixture provided with over-loading or creepage protection.

Connecting the equipment to the power supply, do not connect to silicon box system, or else, it will destroy the equipment. The fixture is provided with standard 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 consult with the experienced electrician.


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

table 6.1-1

- Notice: 1. FINE 1512C AL: Do not exceed 4 units fixtures at 110V~;  
Do not exceed 8 units fixtures at 220V~。  
2. FINE 156C AL: Do not exceed 8 units fixtures at 110V~;  
Do not exceed 16 units fixtures at 220V~。

# 7. Technical Feature

## ◇ OPTICAL SYSTEM

Fine 1512C: 15W x 12 pcs LEDs four in one

Fine 156C: 15W x 6 pcs LEDs four in one

Angle: 15° (50%)

## ◇ EFFECT EQUIPMENT

All optical domain dimming, 65536 grades dimming accuracy, high light output.

Fast strobe 1-25 Hz

Color macro and color gradual change effects

## ◇CONTROL AND PROGRAMMING

Control Channel: 10/51/9/9/7/4(Fine 1512C)

10/27/9/9/7/4(Fine 156C)

Protocol: Standard DMX512

DMX Signal Connection: 3-pin XLR input/output

## ◇FEATURE

Housing:Aluminium alloy+Stalinite

## ◇ELECTRONIC CONTROL TECHNOLOGY

Fixture reset by console controlling

0-100% dimmer

Constant current drive mode

Temperature sensor detection, intelligent adjustment for light source power

DMX channel level monitoring

Fixture information query

Initial brightness settings for each color

## ◇ELECTRIC

100-240V~, 50/60Hz power supply

Input Power: Fine 1512C :230W

Fine 156C:106W

PF $\geq$ 0.95

## ◇SAFETY PROTECTION

Overcurrent protection/ Overvoltage protection/ Overheating protection

## ◇WORKING POSITION

Any safe position

## ◇WORKING TEMPERATURE

Temperature: -10°C ~40°C

## ◇PACKAGE

6pcs /flight case

1pc /carton

## ◇IP RATE

IP 65

# 8.Control Channel

English Control Channel Chart						
Channel	RGBW	PIXIE	HSI	CMY	CCT	RGB
1	Function	Function	Function	Function	Function	Function
2	R	Dimmer	Hue	C	Dimmer	R
3	G	Strobe	H Fine	M	CTO	G
4	B	RI	Saturation	Y	Strobe	B
5	W	G1	Intensity	Intensity	ColorWheel&Color gradual change	
6	Dimmer	B1	Strobe	Strobe	Macro Effect&Speed	
7	Strobe	W1	ColorWheel&Color gradual change	ColorWheel&Color gradual change	Macro function background color	
8	Color Wheel&Color gradual change	.	Macro Effect&Speed	Macro Effect&Speed		
9	Macro Effect&Speed	.	Macro function background color	Macro function background color		
10	Macro function background color	.				
...		.				
...		.				
24		R6(1512/156)				
25		G6(1512/156)				
26		B6(1512/156)				
27		W6(1512/156)				
...		... (1512)				
48		R12(1512)				
49		G12(1512)				
50		B12(1512)				
51		W12(1512)				

RGBW	CH1	Function (It needs delay 3s when use it)	0-5	N/A
			6-15	RGBW
			16-25	PIXIE
			26-35	HSI
			36-45	CMY
			46-55	CCT
			56-65	RGB
			66-199	N/A
			200-204	DIM2
			205-209	DIM1
			210-214	DIM0
			215-219	N/A
			220-214	N/A
	215-255	N/A		
	CH2	Red	0-255	
	CH3	Green	0-255	
	CH4	Blue	0-255	
	CH5	White	0-255	
	CH6	Intensity	0-255	
	CH7	Strobe	0-5	None
6-105			Standard strobe	
106-110			None	
110-179			Thunder strobe	
180-185			None	
186-255			Random strobe	
CH8	Color Wheel	0-5	N/A	
		6-255	Color Wheel 1-65	
CH9	Macro Effect	0-5	N/A	
		6-255	Macro 1-25	
CH10	Macro function background color	0-255	HIS mode	

RGB	CH1	Function(It needs delay 3s when use it)	0-5	N/A
			6-15	RGBW
			16-25	PIXIE
			26-35	HSI
			36-45	CMY
			46-55	CCT
			56-65	RGB
			66-199	N/A
			200-204	DIM2
			205-209	DIM1
			210-214	DIM0
			215-219	N/A
			220-214	N/A
			215-255	N/A
	CH2	Red	0-255	
CH3	Green	0-255		
CH4	Blue	0-255		

HSI	CH1	Function(It needs delay 3s when use it)	0-5	N/A
			6-15	RGBW
			16-25	PIXIE
			26-35	HSI
			36-45	CMY
			46-55	CCT
			56-65	RGB
			66-199	N/A
			200-204	DIM2
			205-209	DIM1
			210-214	DIM0
			215-219	N/A
			220-214	N/A
			215-255	N/A
	CH2	Hue	0-255	
	CH3	Hue Fine	0-255	
	CH4	Chroma	0-255	
	CH5	Intensity	0-255	
	CH6	Strobe	0-5	None
			6-105	Standard strobe
			106-110	None
			110-179	Thunder strobe
			180-185	None
			186-255	Random strobe
	CH7	Color Wheel	0-5	N/A
			6-255	Color Wheel 1-65
	CH8	Macro function	0-5	N/A
			6-255	Macro 1-25
	CH9	Macro function background color	0-255	HIS mode

PIXIE	CH1	Function(It needs delay 3s when use it)	0-5	N/A
			6-15	RGBW
			16-25	PIXIE
			26-35	HSI
			36-45	CMY
			46-55	CCT
			56-65	RGB
			66-199	N/A
			200-204	DIM2
			205-209	DIM1
			210-214	DIM0
			215-219	N/A
			220-214	N/A
	215-255	N/A		
	CH2	Intensity	0-255	Dimmer
	CH3	Strobe	0-5	None
			6-105	Standard strobe
			106-110	None
			110-179	Thunder strobe
			180-185	None
			186-255	Random strobe
CH4	Red 1	0-255		
CH5	Green 1	0-255		
CH6	Blue 1	0-255		
CH7	White 1	0-255		
.....	.....			
CH48	Red 12	0-255		
CH49	Green 12	0-255		
CH50	Blue 12	0-255		
CH51	White 12	0-255		

CCT	CH1	Function(It needs delay 3s when use it)	0-5	N/A
			6-15	RGBW
			16-25	PIXIE
			26-35	HSI
			36-45	CMY
			46-55	CCT
			56-65	RGB
			66-199	N/A
			200-204	DIM2
			205-209	DIM1
			210-214	DIM0
			215-219	N/A
			220-214	N/A
	215-255	N/A		
	CH2	Intensity	0-255	
	CH3	CCT	0-5	6500K
			6-15	5600K
			16-25	4300K
			26-35	3200K
			36-255	2600-10000K
	CH4	Strobe	0-5	None
			6-105	Standard strobe
			106-110	None
			110-179	Thunder strobe
			180-185	None
			186-255	Random strobe
	CH5	Color Wheel	0-5	N/A
6-255			Color Wheel 1-65	
CH6	Macro function	0-5	N/A	
		6-255	Macro 1-25	
CH7	Macro function background color	0-255	HIS mode	

CMY	CH1	Function(It needs dalay 3s when use it)	0-5	N/A
			6-15	RGBW
			16-25	PIXIE
			26-35	HSI
			36-45	CMY
			46-55	CCT
			56-65	RGB
			66-199	N/A
			200-204	DIM2
			205-209	DIM1
			210-214	DIM0
			215-219	N/A
			220-214	N/A
	215-255	N/A		
	CH2	Intensity	0-255	
	CH3	C	0-255	Cyan
	CH4	M	0-255	Magenta
	CH5	Y	0-255	Yellow
	CH6	Strobe	0-5	None
			6-105	Standard strobe
			106-110	None
110-179			Thunder strobe	
180-185			None	
186-255			Random strobe	
CH7	Color Wheel	0-5	N/A	
		6-255	Color Wheel 1-65	
CH8	Macro function	0-5	N/A	
		6-255	Macro 1-25	
CH9	Macro function background color	0-255	HIS mode	



FINE LR100

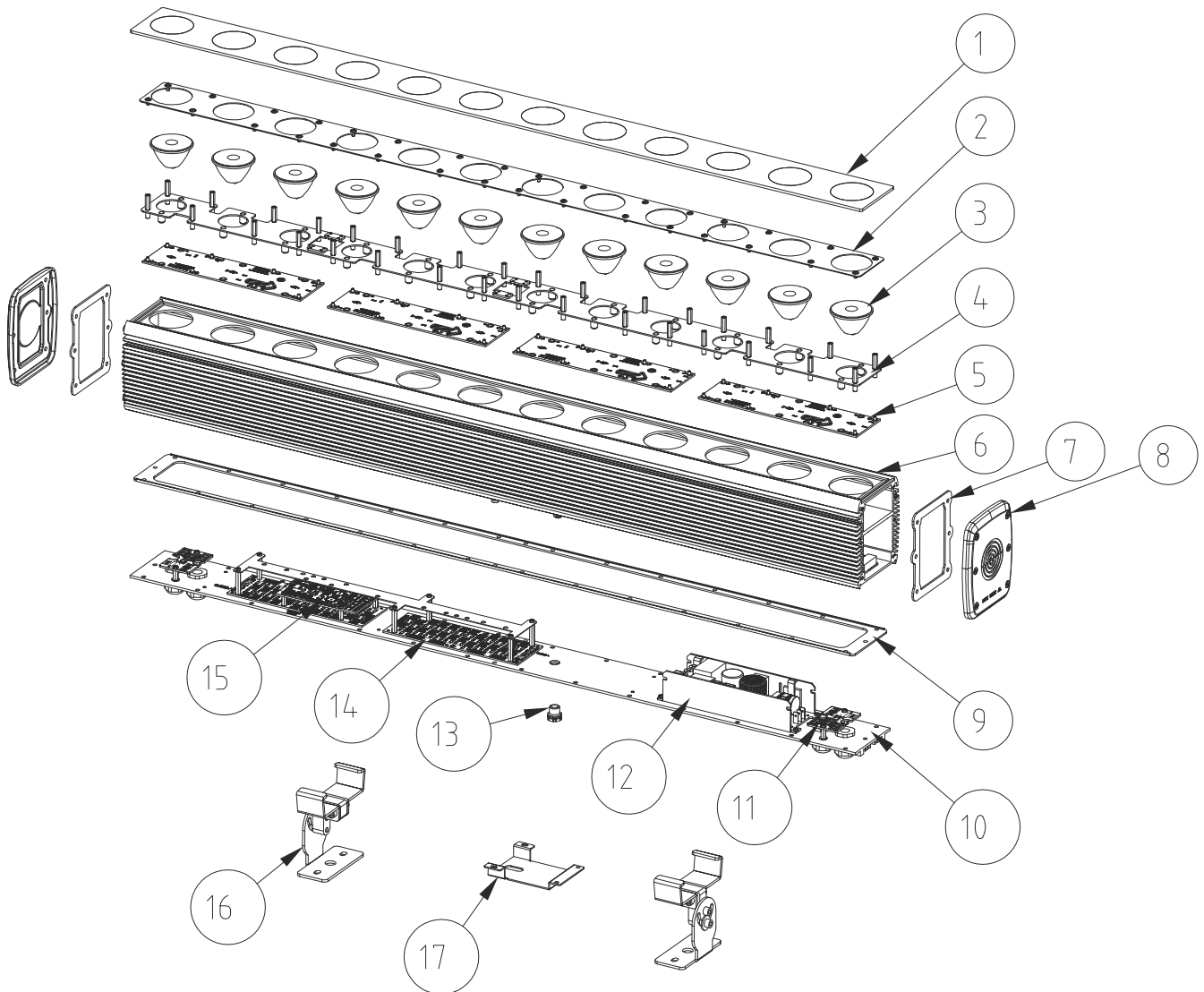
Note: The fixture can be remote manipulation through the FINE LR100 handheld remote dialer. It is mainly used for fixture menus, including address code, channel mode, one-button automatic batch programming address function and so on. Directly access through the DMX512 signal line, no need additional interface. The specific operation steps are detailed in the manual user of FINE LR100.

# 9.Parts Code

Item	Specifition	P/N
Glass (1512)		200711000029
Glass (156)		200711000032
Lens		200712000040
LED Board		330711100073
Power Supply (1512)	INPUT : 90-264Vac, 47-63Hz, OUTPUT : 24V/10.4A, POWER : 250W	330001200044
Power Supply (156)	INPUT : 90-264Vac, 47-63Hz, OUTPUT : 24V/4.16A, POWER : 100W	330001200046
Control Board		330711110074
Driver Board		330711100075

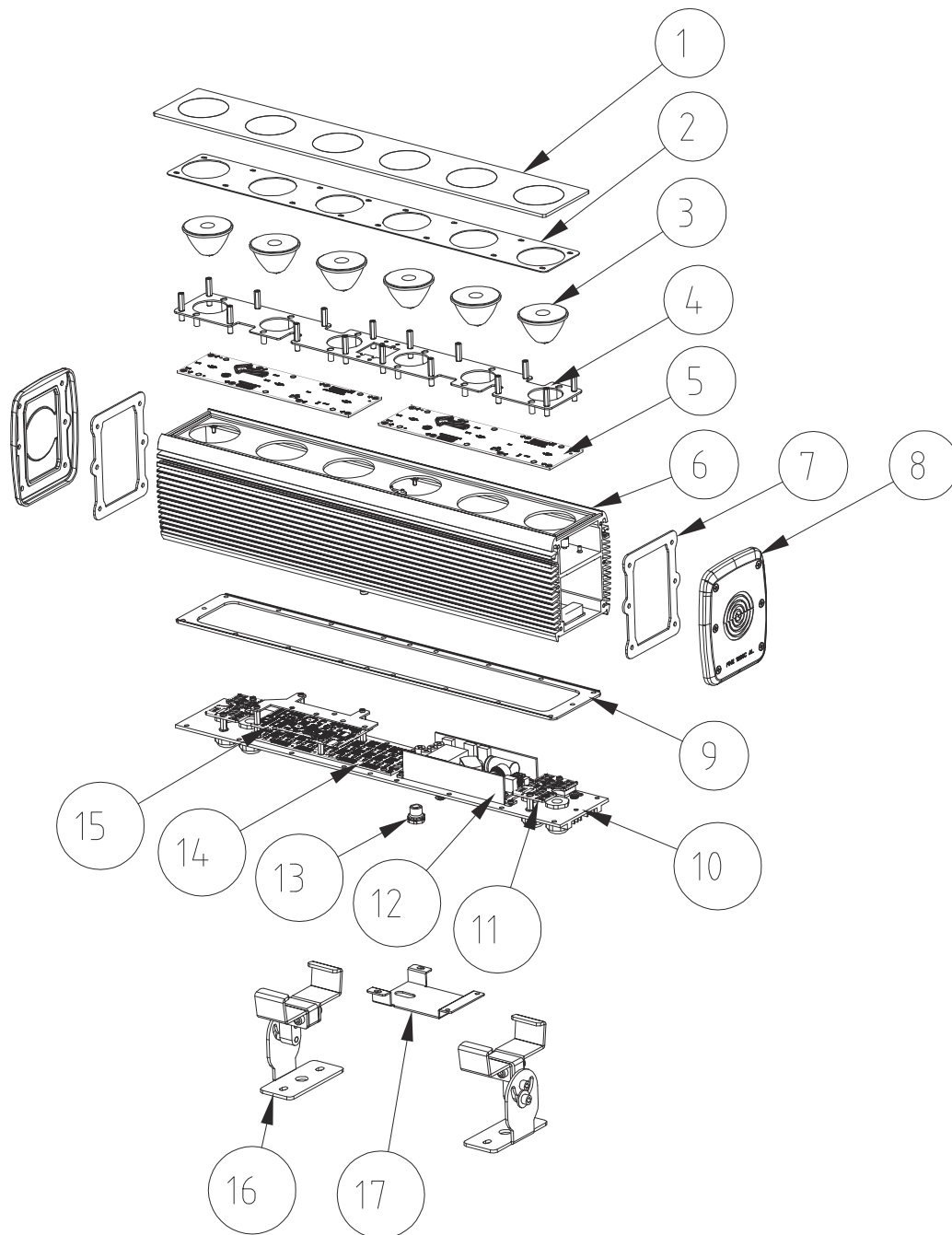
# Attached 1: Exploded view

FINE 1512C AL



NO.	item	NO.	item	NO.	item
1	Boby glass	2	Lens board	3	Lens
4	LED fixed board	5	LED board	6	Boby section bar
7	Side casing water-proof silicone	8	Side casing	9	Bottom waterproof silicone
10	Base section bar	11	Transfer board	12	Power supply
13	Respirator	14	Driver board	15	Control board
16	Bracket assembly	17	Safety rope support board		





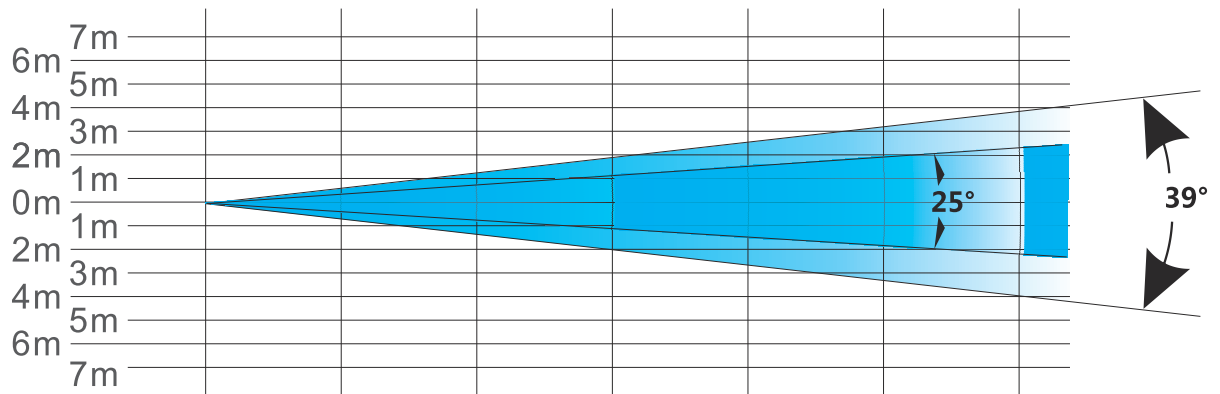
NO.	item	NO.	item	NO.	item
1	Body glass	2	Lens board	3	Lens
4	LED fixed board	5	LED board	6	Body section bar
7	Side casing waterproof silicone	8	Side casing	9	Bottom waterproof silicone
10	Base section bar	11	Transfer board	12	Power supply
13	Respirator	14	Driver board	15	Control board
16	Bracket assembly	17	Safety rope support board		

## Attached2: Photometric diagram

### FINE 1512C AL

#### PAN

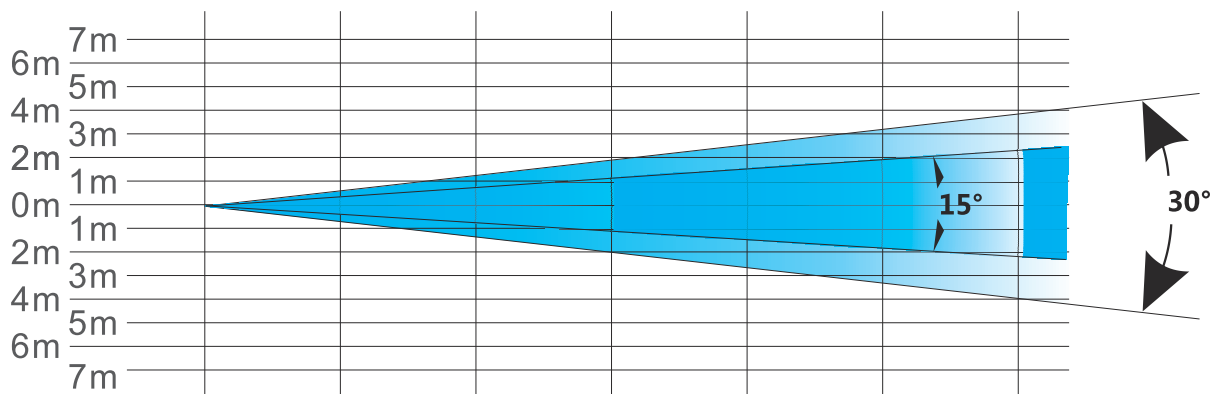
white illuminance (lux)	0	3395	849	377	212	136	94
blue illuminance (lux)	0	240	60	27	15	10	7
green illuminance (lux)	0	1876	469	208	117	75	52
red illuminance (lux)	0	1214	303	135	76	49	34
mix illuminance (lux)	0	6562	1641	729	410	262	182



Project distance (m)	0	2	4	6	8	10	12
25° beam diameter (m)	0	0.87	1.74	2.61	3.48	4.35	5.21
39° spot diameter (m)	0	1.43	2.86	4.29	5.71	7.14	8.57

#### TILT

white illuminance (lux)	0	3395	849	377	212	136	94
blue illuminance (lux)	0	240	60	27	15	10	7
green illuminance (lux)	0	1876	469	208	117	75	52
red illuminance (lux)	0	1214	303	135	76	49	34
mix illuminance (lux)	0	6562	1641	729	410	262	182

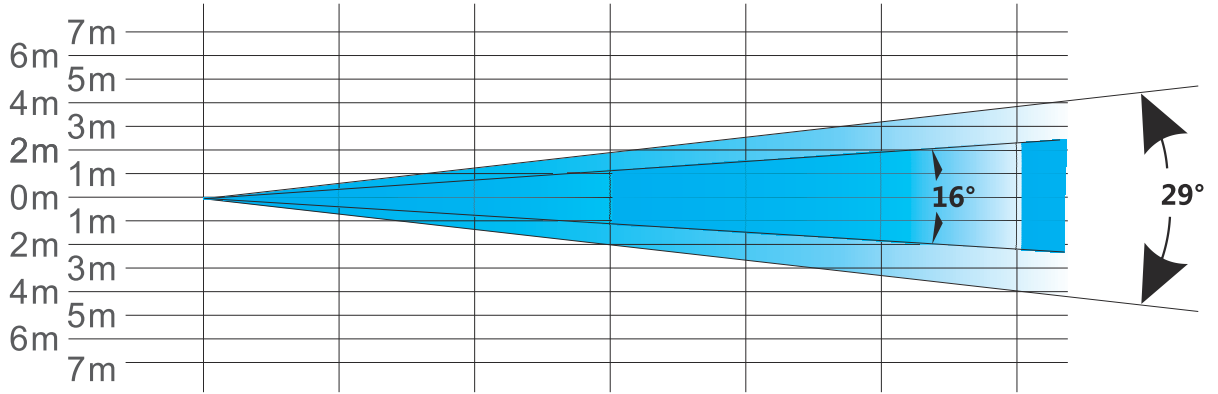


Project distance (m)	0	2	4	6	8	10	12
15° beam diameter (m)	0	0.52	1.05	1.57	2.10	2.62	3.14
30° spot diameter (m)	0	1.07	2.14	3.21	4.29	5.36	6.43

# FINE 156C AL

## PAN

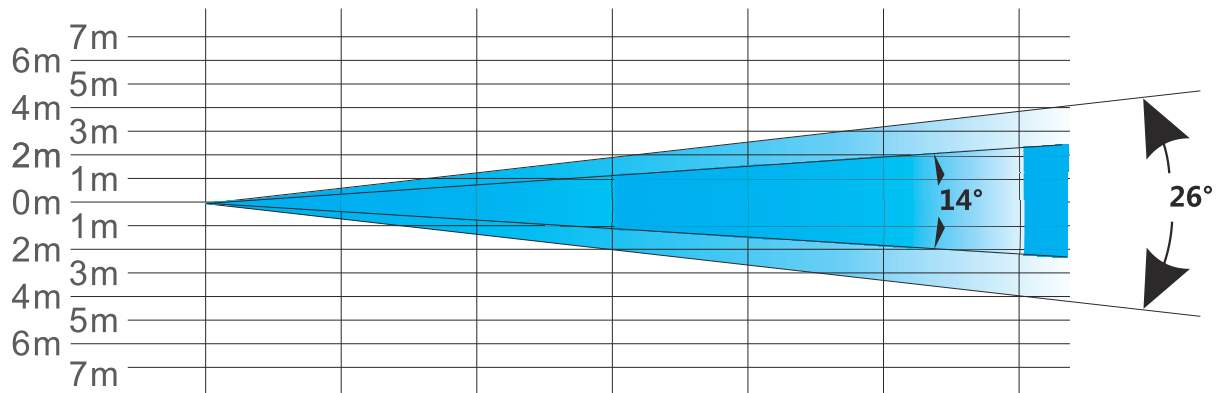
white illuminance (lux)	0	3764	941	418	235	151	105
blue illuminance (lux)	0	407	102	45	25	16	11
green illuminance (lux)	0	2171	543	241	136	87	60
red illuminance (lux)	0	1225	306	136	77	49	34
mix illuminance (lux)	0	7266	1816	807	454	291	202



Project distance (m)	0	2	4	6	8	10	12
16° beam diameter (m)	0	0.56	1.12	1.68	2.24	2.80	3.36
29° spot diameter (m)	0	1.04	2.08	3.11	4.15	5.19	6.23

## TILT

white illuminance (lux)	0	3764	941	418	235	151	105
blue illuminance (lux)	0	407	102	45	25	16	11
green illuminance (lux)	0	2171	543	241	136	87	60
red illuminance (lux)	0	1225	306	136	77	49	34
mix illuminance (lux)	0	7266	1816	807	454	291	202



Project distance (m)	0	2	4	6	8	10	12
14° beam diameter (m)	0	0.49	0.99	1.48	1.98	2.47	2.97
26° spot diameter (m)	0	0.91	1.81	2.72	3.62	4.53	5.44

# Attached3: Wiring diagram

FINE 1512C AL

