XLED 590

PR-8100

This product manual contains important information about the safe installation and use of this projector. Please read and follow these instructions carefully and keep this manual in a safe place for future reference.

INDEX

Please note that as part of our ongoing commitment to continuous product development, specifications are subject to change without notice. Whilst every care is taken in the preparation of this manual we reserve the right to change specifications in the course of product improvement. The publishers cannot be held responsible for the accuracy of the information herein, or any consequence arising from them.

Every unit is tested completely and packed properly by the manufacturer. Please make sure the packing and / or the unit are in good condition before installation and use. Should there be any damage caused by transportation, consult your dealer and do not use the unit. Any damage caused by improper use will not be assumed by the manufacturer and / or dealer.

ACCESSORIES

These items are packed together with the projector:

Name	Quantity	Unit	Remark
G clamps	2	Pcs	
Ω clamps	2	Pcs	Options
XLR cable	1	Pc	5-pin plug
Safety cord	1	Pc	
This manual	1	Pc	

SAFE USAGE OF THE PROJECTOR

When unpacking and before disposing of the carton, check there is no transportation damage before using the projector. Should there be any damage caused by transportation, consult your dealer and do not use the apparatus.

The projector is for indoor use only, IP20. Use only in dry locations. Keep this device away from rain and moisture, excessive heat, humidity and dust. Do not allow contact with water or any other liquids.

The projector is not designed or intended to be mounted directly on to inflammable surfaces. 

The projector is only intended for installation, operation and maintenance by qualified personnel.

The projector must be installed in a location with adequate ventilation, at least 50cm from adjacent wall rfaces Be sure that no ventilation slots are blocked.

Do not project the beam onto inflammable surfaces, minimum distance is 5m. 5m

Avoid direct exposure to the light from the lamp. The light is harmful to the eye.

Do not attempt to dismantle and/or modify the projector in any way.

Electrical connection must only be carried out by qualified personnel.

Before installation, ensure that the voltage and frequency of power sup ly m t h the power requirements of the projector.

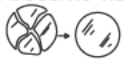
It is essential that each projector is correctly earthed and that electric l in tallation conforms to all relevant standards.

Do not connect this device to any other types of dimmer appar tus.

Make sure that the power-cord is never crimped or damaged by sharp edges. Never let the power-cord come into contact with other cables. Only handle the power-cord by the pl g. Never pull out the plug by tugging the power-cord.

Keep the optical system clean. Do not touch th LED lens with bare hands.

The projector should always be ins al d w h a secondary safety fixing. On the projector base brink,there is a hole for the safety cord provided. It should be ttached as shown in “installing the projector” section.

LED lens shall be changed if they ave become visibly damaged to such an extent that their effectiveness is impaired, for example by cracks o de p scratches. 

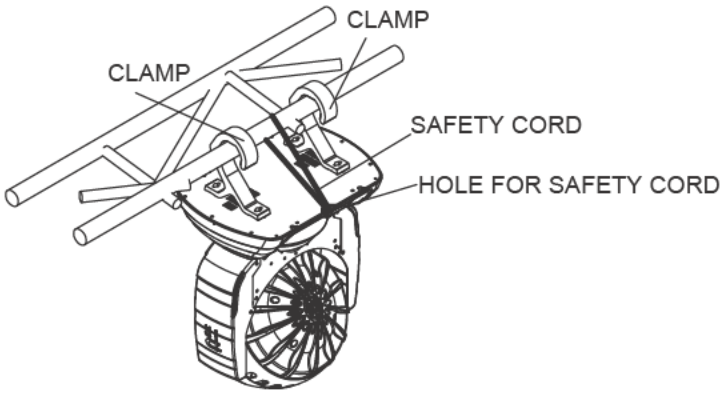
Exterior surface temperatures of the luminaire after 5 minutes operation is 40℃, when steady state is achieved 50℃.

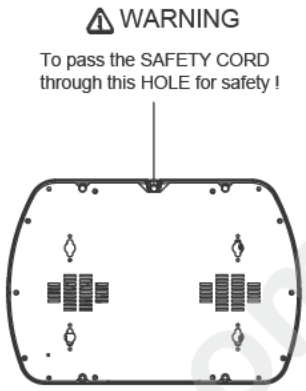
There is no user serviceable parts inside the projector, do not open the housing and never operate the projector with the covers removed.

Always disconnect from the mains, when the device is not in use or before cleaning it or before attempting any maintenance work !

If you have any questions, don’t hesitate to consult your dealer or manufacturer.

INSTALL THE PROJECTOR





Take 2 clamps and the safety cord out from the package and mount 2 clamps on the underside of xtu e with 4 retainers attached to each clamp. Hang the fixture on the structure and fasten the screws attached to each clamp. (See the **WARNING** on the bottom side of the fixture base as shown above) **To pass the SAFETY CORD through this HOLE for safety!** Always ensure that the projector is firmly anchored to avoid vibration and slipping whilst functioning. Always ensure that the structure that you are going to mount the projector on is secure an is strong enough to support a weight of XLED 590.

WARNING:

1. The projector MUST NOT be lifted or carried by the clamps.

2. For safety reasons, the safety cord should afford 10 times of the un 's weight.

POWER SUPPLY-MAINS

Connect the power cord as follows:

L (live) =brown

E (earth) =yellow/green

N (neutral) =blue

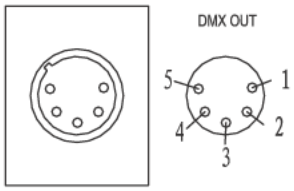
Use the plug provided to connect the mains power to the projector paying attention to the voltage and frequency marked on the panel of the projector. It is eco mended that each projector be supplied separately so that they may be individually switched on and off.

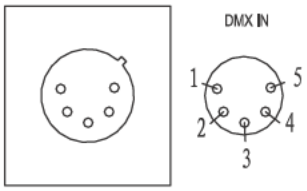
IMPORTANT

It is essential that each rojector is correctly earthed and the electrical installation conforms to all relevant standards.

CONTROL CONNECTION

5-PIN



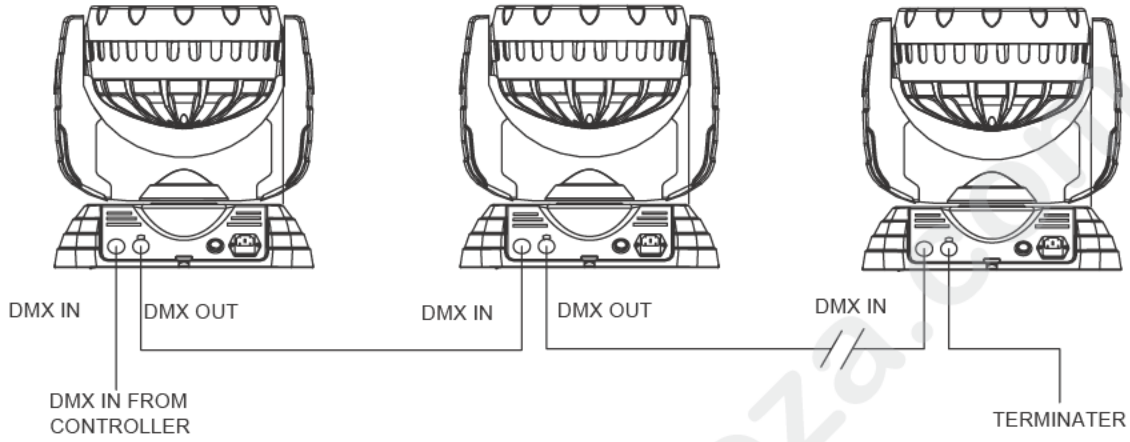


DMX 512	
PIN	FUNCTION
1	GND
2	DATA-
3	DATA+
4	N/C
5	N/C

Connection between the controller and a projector and between one projector and another must be made with a 2 core-screened cable, with each core having at least a 0.5mm diameter. Connection to and from the projector is via

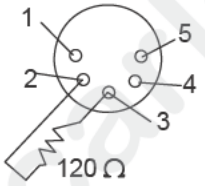
cannon 5 pin (which are included with the projector) XLR plugs and sockets. The XLR's are connected as shown in the figure above.
Note: Care should be taken to ensure that none of the pins touch the metallic body of the plug or each other. The body of the plug is not connected in any way. The XLED 590 accepts digital control signals in protocol DMX512 (1990).

Connect the controller's output to the first fixture's input, and connect the first fixture's output to the second fixture's input and connect the rest fixtures in the same way. Eventually connect the last fixture's output to a DMX terminator as shown in the figure below.



DMX TERMINATOR

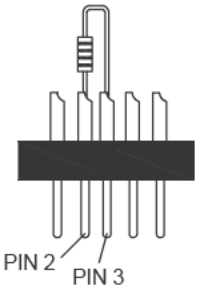
In the Controller mode, at the last fixture in the chain, t e DMX output has to be connected with a DMX terminator. This prevents electrical noise from disturbing and corrupting th DMX control signals.
The DMX terminator is simply an XLR connect with a 120Ω (ohm) resistor connected across pins 2 and 3, which is then plugged into the output socket on the la t proj tor in the chain. The connections are illustrated below.



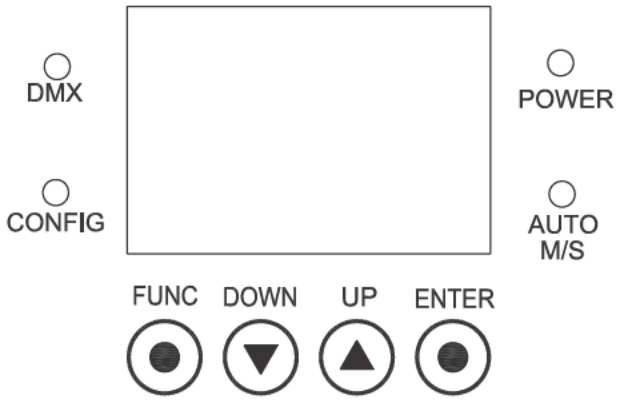
DMX TERMINATOR

CONNECTION

Connect a 120Ω(OHM) resistor across pins 2 and 3 in an XLR plug and insert it into the DMX out socket on the last unit in the chain.



SETUP OPTIONS-PROJECTOR CONFIGURATION



Projector configuration can be set conveniently via push-button switch and LCD display. Turn the proje tor n and the LCD display will show the DMX address you set and saved last time and it can be reset and save agai as you please.
Launch the projector and press button ENTER for more than 5 seconds to unlock the panel, th LCD will show the function menu of the projector, each main menu has its submenus and each submenu has a specific function. For details, please see the "OPERATION MENU" section.
Press button UP or DOWN if you want to browse through the various Setup Option Pres button ENTER to save your settings or enter the next menu. Press button UP or DOWN to shift.
Press button FUNC, it will return to the upper menu one by one. If you s ay f r minutes, it will show display status automatically.

TO SET THE DMX START ADDRESS

Each XLED 590 must be given a DMX start address so that t e co rect projector responds to the correct control signals. This DMX start address is the channel number from whic he projector starts to "listen" to the digital control information being sent out from the controller. The XLED 590 has DMX modes, which are standard mode, extended mode and short mode. For example, the standard mode has 13 channels, so set the No. 1 projector's address 001, No. 2 projector's address 014, No. 3 projector's add ess 027, No. 4 projector's address 040, and so on.
Launch the projector. Press button ENTER for more than 5 seconds to unlock the panel.
Press button ENTER to display DMX Add ess;
Press button UP and DOWN to et th address;
Press button ENTER to con rm. A the same time, the GREEN LED will flash one time. It means the setting has been enabled.
Press button FUNC, it will re urn to the upper menu one by one.

OPERATION MENU

1st LEVEL	2nd LEVEL	3rd LEVEL	4th LEVEL	5th LEVEL	6th LEVEL
PR LIGHTING DMX Address	PR LIGHTING DMX Address XXX				
PR LIGHTING Reset	PR LIGHTING Reset Are You Sure				
PR LIGHTING Config Settings	PR LIGHTING DMX Mode	PR LIGHTING DMX Mode Standard 16			
		PR LIGHTING DMX Mode Extended 16			
		PR LIGHTING DMX Mode Short 8			
	PR LIGHTING Loss of DMX	PR LIGHTING When DMX is Lost Normal Time Out			
		PR LIGHTING When DMX is Lost Hold Last Value			
PR LIGHTING Option Settings	PR LIGHTING Pan DMX Invert	PR LIGHTING Pan DMX Invert OFF			
		PR LIGHTING Pan DMX Invert ON			
	PR LIGHTING Tilt DMX Invert	PR LIGHTING Tilt DMX Invert OFF			
		PR LIGHTING Tilt DMX I vert ON			
	PR LIGHTING Pan Tilt wap	PR LIGHTING Pan Tilt Swap OFF			
		PR LIGHTING Pan Tilt Swap ON			
	PR L GHTING Dimmer Invert	PR LIGHTING Dimmer Invert OFF			
		PR LIGHTING Dimmer Invert ON			
	PR LIGHTING Defaults	PR LIGHTING Defaults Off			
		PR LIGHTING Defaults Restore Defaults			
	PR LIGHTING Display Mode	PR LIGHTING Display On Always			
		PR LIGHTING Display Off After Delay			

PR LIGHTING Display Options	PR LIGHTING Display Invert	PR LIGHTING Display Invert Off			
		PR LIGHTING Display Invert On			
	PR LIGHTING Display Dimming	PR LIGHTING Disp Dim Level X			
	PR LIGHTING Display Contrast	PR LIGHTING Display Contrast XX			
PR LIGHTING Information	PR LIGHTING LED Hours	PR LIGHTING LED Hours = ******			
	PR LIGHTING Power On Hours	PR LIGHTING Power On Hours = ******			
	PR LIGHTING Temperature	PR LIGHTING Driver Board	PR LIGHTING Driver Board = XX℃		
		PR LIGHTING Head Sensor	PR LIGHTING Head Sensor = XX℃		
	PR LIGHTING Software Version	PR LIGHTING Display Board	PR LIGHTING Display Board = *.*.*		
	PR LIGHTING View DMX Values	PR LIGHTING DMX Channel XXX= XXX			
	PR LIGHTING Electronic SN	PR LIGHTING Electronic SN = **********			
PR LIGHTING Test Modes	PR LIGHTI G Factory Setup	PR LIGHTIN Factory Se OFF			
		R LIGHTING F ctory Setup ON (Or press buttons UP、DOWN and ENTER to enter Calibration Menu)	PR LIGHTING Calibration Menu Red	PR LIGHTING Cal bration Menu Red XX	
			PR LIGHTING Calibration Menu Green	PR LIGHTING Cal bration Menu Green XX	
			Calibration Menu Blue	PR LIGHTING Cal bration Menu Blue XX	
	PR LIGHTING Self Test	PR LIGHTING Self Test OFF			
		PR LIGHTING Self Test ON			

PR LIGHTING Operation Mode	PR LIGHTING Operation Mode = DMX Operation				
	PR LIGHTING Operation Mode = Master Mode	PR LIGHTING Select Memory User Memory 1			
		PR LIGHTING Select Memory User Memory 2			
		PR LIGHTING Select Memory Preset Memory 1			
		PR LIGHTING Select Memory Preset Memory 2			
		PR LIGHTING Select Memory Preset Memory 3			
	PR LIGHTING Operation Mode = Slave Mode	PR LIGHTING Select Memory User Memory 1			
		PR LIGHTING Select Memory User Memory 2			
		PR LIGHTING Select Memory Preset Memory 1			
		PR LIGHTING Select Memory Preset Memory 2			
		PR LIGHTING Select Memory Preset Memory 3			
	PR LIGHTING Operation Mode = Static Scene				
				PR LIGHTING Dimmer	PR LIGHTING Dimmer XXX
				PR LIGHTING Color Temp.	PR LIGHTING Color Temp. XXX
				PR LIGHTING RGB Macros	PR LIGHTING RGB Macros XXX
				PR LIGHTING Red	PR LIGHTING Red XXX
				PR LIGHTING Green	PR LIGHTING Green XXX
				PR LIGHTING Blue	PR LIGHTING Blue XXX
				PR LIGHTING Strobe	PR LIGHTING Strobe XXX

PR LIGHTING User Memories	PR LIGHTING Edit U er Memory	PR LIGHTING User Memory 1	PR LIGHTING Scene XX	PR LIGHTING Pan Coarse	PR LIGHTING Pan Coarse XXX
				PR LIGHTING Pan Fine	PR LIGHTING Pan Fine XXX
				PR LIGHTING Tilt Coarse	PR LIGHTING Tilt Coarse XXX
				PR LIGHTING Tilt Fine	PR LIGHTING Tilt Fine XXX
				PR LIGHTING M-Speed	PR LIG TING M Spee X X
				PR LIGHTING Delay	R LIGHTING Delay X.XX Seconds
				PR L GHTI G L k To tep	PR LIGHTING Link To Step XX
		PR LIGHTING User Memory 2	PR LIGHTING Scene XX	PR LIGHTING Dimmer	PR LIGHTING Dimmer XXX
				PR LIGHTING Color Temp.	PR LIGHTING Color Temp. XXX
				PR LIGHTING RGB Macros	PR LIGHTING RGB Macros XXX
				PR LIGHTING Red	PR LIGHTING Red XXX
				PR LIGHTING Green	PR LIGHTING Green XXX
				PR LIGHTING Blue	PR LIGHTING Blue XXX
				PR LIGHTING Strobe	PR LIGHTING Strobe XXX
				PR LIGHTING Pan Coarse	PR LIGHTING Pan Coarse XXX
				PR LIGHTING Pan Fine	PR LIGHTING Pan Fine XXX
				PR LIGHTING Tilt Coarse	PR LIGHTING Tilt Coarse XXX
				PR LIGHTING Tilt Fine	PR LIGHTING Tilt Fine XXX
				PR LIGHTING M-Speed	PR LIGHTING M-Speed XXX

				PR LIGHTING Delay	PR LIGHTING Delay X.XX Seconds
				PR LIGHTING Link To Step	PR LIGHTING Link To Step XX
		PR LIGHTING Static Scene	PR LIGHTING Dimmer	PR LIGHTING Dimmer XXX	
			PR LIGHTING Color Temp.	PR LIGHTING Color Temp. XXX	
			PR LIGHTING RGB Macros	PR LIGHTING RGB Macros XXX	
			PR LIGHTING Red	PR LIGHTING Red XXX	
			PR LIGHTING Green	PR LIGHTING Green XXX	
			PR LIGHTING Blue	PR LIGHTING e XXX	
			PR LIGHTING Strobe	PR GHTING Strobe XXX	
			PR LIGHTIN Pan Coa e	PR LIGHTING Pan Coarse XXX	
			R LIGHTING Pa Fine	PR LIGHTING Pan Fine XXX	
			PR LIGHTING Tilt Coarse	PR LIGHTING Tilt Coarse XXX	
			PR LIGHTING Tilt Fine	PR LIGHTING Tilt Fine XXX	
			PR LIGHTING M-Speed	PR LIGHTING M-Speed XXX	
	PR LIGHTING Init User Memory	PR LIGHTING Reset User Memory 1	PR LIGHTING Reset User 1 Unlock 2 3 4 （Press buttons UP、DOWN and ENTER）		
		PR LIGHTING Reset User Memory 2	PR LIGHTING Reset User 2 Unlock 2 3 4		
		PR LIGHTING Reset Static Scene	PR LIGHTING Reset Static Scn Unlock 2 3 4		

DMX PROTOCOL

Short mode	Standard mode	Extended mode	FUNCTION	DMX	DESCRIPTION
1	1	1	Dimmer	000-255	Dimming from dark to light
		2	Dimmer 16 Bit	000-255	Dimmer in 16 Bit precision
	2	3	Colour Temperature	000-255	Colour temperature adjustment
				000-016	The projector functions and contr d by RGB channels
				017-024	White (Colour Temperature 100 0K)
				025-032	White (Colour Temperat re 7200K)
				033-040	White (Colour Temperature 5600K)
				041-048	White (Colour Temperature 3200K)
				049-056	Cyan
				057-064	Yellow
	3	4	Macro Channel	065-072	Magenta
				073-080	R d
				081-088	G een
				089 096	Blue
				97-104	Aqua
				105-112	Amber
				113-120	Orange
				121-128	Pink
				129-255	RGB Color Cycle
2	4	5	RED	000-255	Red, dimming from dark to light
		6	RED 16Bit	000-255	Red in 16 Bit precision
3	5	7	GREEN	000-255	Green, dimming from dark to light
		8	GREEN 16Bit	000-255	Green in 16 Bit precision
4	6	9	BLUE	000-255	Blue, dimming from dark to light
		1	BLUE 16Bit	000-255	Blue in 16 Bit precision
5	7	11	Strobe	000-009	No strobe
				010-255	Strobe speed from slow to fast
6	8	12	Pan	000-255	Pan rotation from 0° to 540°
	9	13	Pan Fine (16Bit)	000-255	Pan rotation in 16 precision
7	10	14	Tilt	000-255	Tilt rotation from 0° to 270°
	11	15	Tilt Fine (16Bit)	000-255	Tilt rotation in 16 precision
	12	16	Pan & Tilt Speed	000-255	Pan &Tilt speed from fast to slow
8	13	17	Control	000-047	Reserved
				048-080	Reset
				081-255	Reserved

LED INDICATION

Green	On	DMX signal OK
	Off	No DMX signal
	Flash	DMX signal error
Yellow	On	Setting the panel
Blue	On	Power
Red/Green	Red	Slave mode or Running self test mode
	Green	Master mode

MAINTENANCE

To prolong the life of the projector, some maintenance work has to be done to ensure the LED opt al system in good condition. If the projector does not function, check the fuses on the power socket of the proje tor, they should only be replaced by fuses of the same specification. Should these be damaged, call a qualified techn cian efore replacement. The projector has thermal protection device that will switch off the projector in case of overheating.Should either of these operate, check that the fans are not blocked, and if they are dirty, clean them before s itching on the projector again. Check that the fans are operational, if not, call a qualified technician.

Any maintenance work should only be carried out by qualified technician .

KEEPING THE PROJECTOR CLEAN

To ensure the reliability of the projector, it should be kept cle n It ecommended that the fans should be cleaned every 15 days. LED lens should also be regularly cleaned o ma ntain an optimum light output.

Cleaning frequency depends on the environment in wh ch the fixture operates: damp, smoke or particularly dirty surroundings can cause greater accumulation of dirt o he nit's optics. A soft cloth and typical glass cleaning products should be used for cleaning. It is recommended to cl an the external optics at least once every 20 days.

Do not use any organic solvent, e.g. alcoh to clean housing of the apparatus.

TROUBLESHOOTING

PROBLEM	ACTION
The projector doesn't switch on	➢ Check the fuse on the power socket.
The lamp comes on but the projector doesn't r spond to the controller	➢ Make sure that the projector is correctly configurated. ➢ Replace or repair the DMX cable.
The beam appears dim	➢ Check that the optics is clean.

TECHNICAL DATA

VOLTAGES:

100V/120V/200V/220V /230V/240V　AC, 50/60Hz

POWER CONSUMPTION:

480W@220V

LED:

Type	OSRAM Diamond Dragon
Power consumption	5W
Amount	90（30R＋30G＋30B）
Manufacturers Rated LED Life	50000 Hours

COLOURS:

RGB colour mixing

COLOUR TEMPERATURE CORRECTION:

Linearly colour temperature correction

DIMMER:

0-100% linearly adjustable

STROBE:

1~25 F.P.S

HEAD MOVEMENT:

Pan 540º, Tilt 270º with auto position correction

BEAM ANGLE:

Projector beam angle　2 °

Options　10°, 35°

Note: Projector specifi ations are subject to change according to different projector beam angles.

CONTROL:

DMX512, 5 pin interfaces
RDM c ntrol protocol
8 channels in short mode, 13 channels in standard mode, and 17 channels in extended mode
Ma ter/Slave mode
Static scene mode
Stand-alone mode
Self-test mode

OTHER FUNCTIONS:

Adjustable Pan & Tilt speed

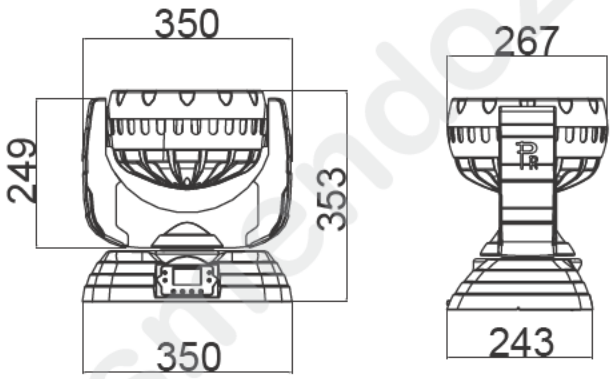
Automatic fan speed adjustment
Auto thermal cut-off
Display Dimming and Contrast adjustment
LEDs and fixture usage time display
DMX 512 channels display
Menu display inversion

HOUSING:
Composite plastic+ die-casting aluminum, IP20

WORK ENVIRONMENT TEMPERATURE:
-20°C~40°C

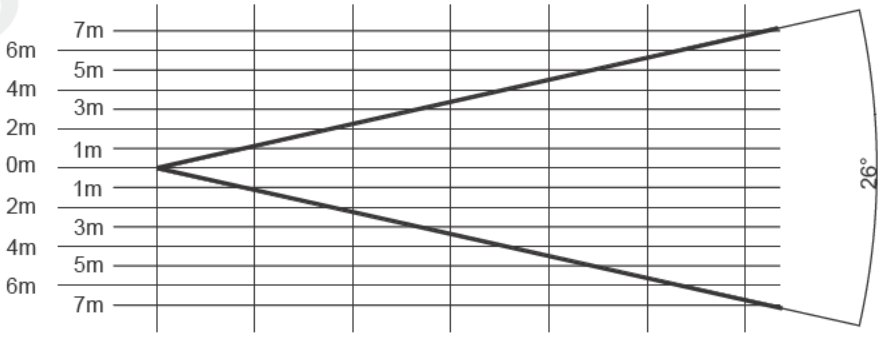
WEIGHT:
11kg

SIZES:
See it below

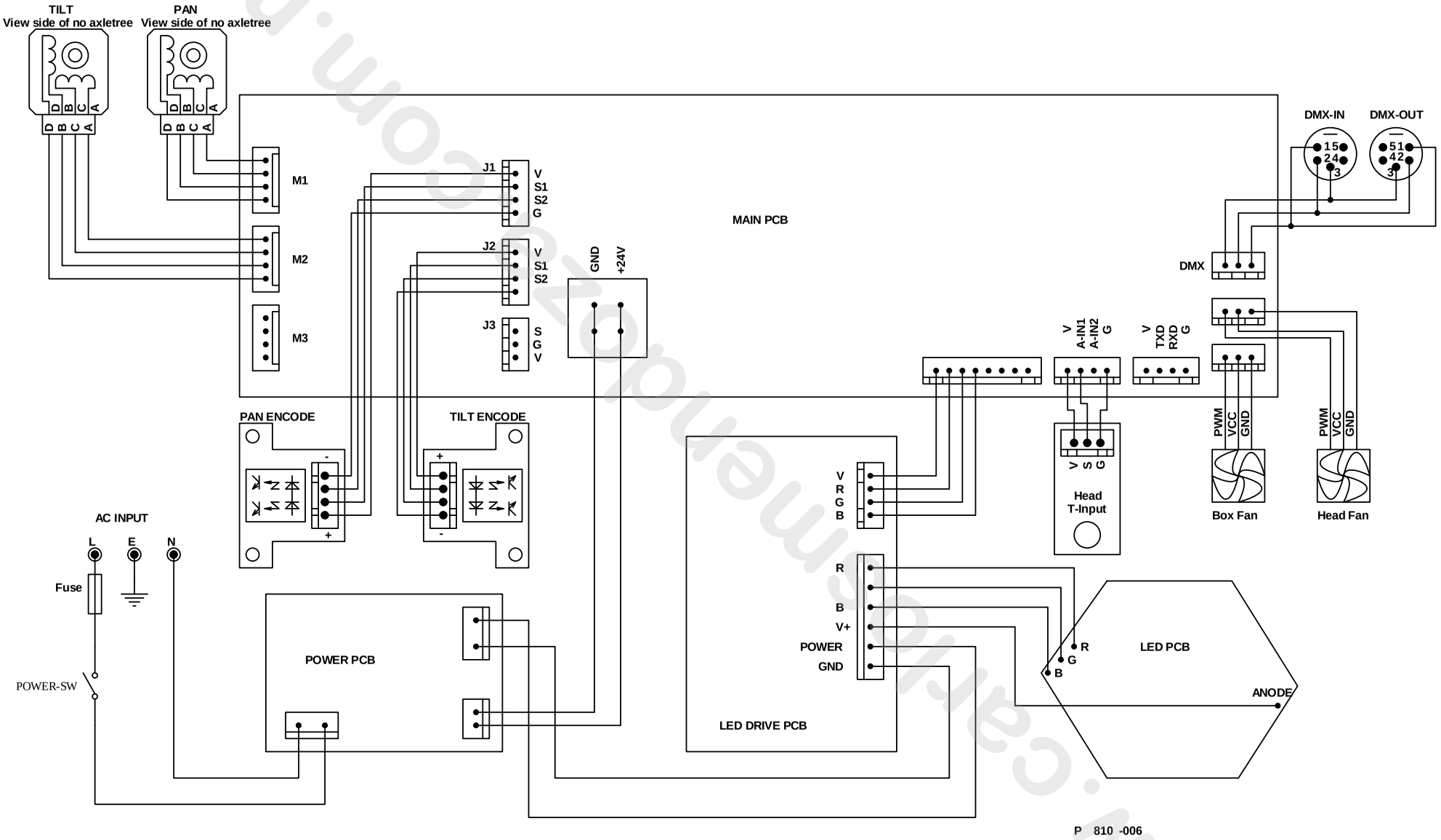


LIGHT OUTPUT:

26° lux	(R、 B)	6079	1520	675	380	243	169
26° lux	R)	1030	257	114	64	41	29
26° lu	(G)	3301	825	367	206	132	92
26	lux (B)	2515	629	279	157	101	70



	DISTANCE(m)	0m	5m	10m	15m	20m	25m	30m
26°	DIAMETER(m)	ϕ0	ϕ2.27	ϕ4.55	ϕ6.82	ϕ9.09	ϕ11.36	ϕ13.64



COMPONENT ORDER CODES

NAME	PART NO.	QUANTITY	REMARK
PAN ROTATION MOTOR	030040052	1	23HS0015L
TILT ROTATION MOTOR		1	
FAN IN BASE	030060060	1	DC24V, 0.14A
FAN IN LAMP HEAD	030060061	1	DC24V, 0.22A
LENS	070070006	90	
LED	150020201	30	Red
LED	150020202	30	Green
LED	150020204	30	Dark blue
POWER STWITCH	190010104	1	AC250V,10A
POWER SUPPLY	192010130	1	DC24V/2A
LED CONTROL PCB	230020400	1	
LED DRIVE PCB	230020402	1	
FUSE	270041006	1	5X20,10A
PAN DRIVE BELT	290151256	1	HTD330-3M
TILT DRIVE BELT	290151223	1	HTD426-3M-8

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