

TANGO 100 BEAM PR-6801

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

PR LIGHTING LTD.
<http://www.pr-lighting.com>

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ACCESSORIES

The following items are supplied with the projector and please check:

Name	Quantity	Unit	Remark
Safety cord	1	Pc	
User manual	0	Pc	QR Code

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 the 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.

Any future technical change in the user manual won't be with any further notice.

Note: For the products made by Guangzhou PR lighting Ltd, the warranty for the whole product is one year starting from the delivery date but the light source is not within the warranty.








1. SAFETY AND WARNINGS



NOTE

Before a projector's installation, power-on, operation and maintenance, please carefully read the safety information hereinafter!

The following safety signs are used in the user manual.

						
Warning	User Manual	Electrical shock	Goggles	Protective Gloves	Flames	High Temperature



- When unpacking, check if there is transportation damage before using a projector. Should there be any damage caused by transportation, consult your dealer and do not use it.
- The manufacturer is not responsible for any loss caused by the user not following the manual or changing a projector as he/she likes.
- Please be noted that the damage caused by changing a projector at will is not warranted.
- Do not hesitate to contact the dealer or the manufacturer if any questions or advice.
- If a lamp is damaged or deforms because of heat, it should be replaced. (It applies only to traditional lamps)



- The projector is for indoor and outdoor use, IP65.
- It can be used in humid and dusty areas. And it can contact water and other non-corrosive liquids.
- The projector should be kept away from high temperature, fire, electrical surge, vibration and strong light while being operated
- The projector is only intended for installation, operation and maintenance by qualified personnel. And the operation must strictly follow the procedures in the manual
- No repairable parts in the projector and do not open covers for maintenance by yourself.



- Don't look straightly into the light sources especially for epileptics, otherwise eyes will be burned.
- Do not connect a projector to any type of dimmer pack.
- If the lamp, lens and screen protective cover of the a projector have obvious damage, i.e., to the extent that it hurts the performance like cracking or deformation. Please stop using it and replace them with the original parts, otherwise its performance will be compromised.
- For the installation location of a projector, it shouldn't be seen in the distance of less than 4 meters for a long time.



- Before operation, please confirm that all covers (housing) are on and screws tightened. It's forbidden to use a projector while covers (housing) are off.
- Keep the lamp clean and do not touch it with bare hands.
- While operating it, wear protective items like eye goggles, gloves and etc..



- Any electrical connection must be carried out by a qualified person.
- Before installation, please confirm the voltage supplied matches what is required for a projector.
- Each projector must be properly earthed and installed as per related electrical standards.
- Do not use power cord with its insulator damaged and connect the power cord with other cables.
- If a projector is not used or under cleaning, please hold the plug and unplug it. Do not unplug it forcefully or by pulling the power cable.
- All power cords must conform to related safety and regulations.

- If a projector is not water and dust proof, while being operated it should not be under rains or in humidity to avoid short circuit.
- Do not switch on and off a projector constantly in very short intervals, otherwise the light source's and other electrical parts' life will be shortened .



- There are safety cord holes at the bottom of the base of a projector. In view of safety, please run the safety cord supplied through the safety cord holes for safety support.
- Before any installation, maintenance and cleaning work, please ensure a projector is disconnected from power mains.



- While running normally under normal ambient temperature, the temperature of the external surface of the metal housing of a projector including that of the heat sink may reach 55°C at maximum.
- While the lamp is stricken for the first time, there will be smoke and strange smell. It's normal and does not mean a projector has some defects.

- While it running, don't touch the metal housing to avoid being burned!



- Do not mount a projector directly on inflammable surface.
- Do not project the beam straightly on combustible items and the minimum distance between a projector and illuminated items is 10m.
- A projector should be installed with good ventilation and the minimum distance between a projector and a wall is 50cm. At the same time, please ensure the fans and air inlets and outlets are workable.
- Do not let the front lens under sunlight or other strong light sources at any angle, otherwise the danger of fire can be caused by the focused beam by the lens inside a projector.



- The product meets The General Technical Requirements and Standards for Recycle and Use Of Expired Appliance and Electronic Products.
- When the product meets disposal standards and needs to be disposed, a client needs to dispose and recycle it.

2. INSTRUCTIONS

●CLEANING AND MAINTENANCE

If a projector can't start. Please check if the fuse is blown up. If it does, replace it with a new fuse with same ratings. And the projector has over-temperature protective device. If the temperature is too high, the protective device will be triggered to shut the projector off. When it happens, please check if the fans run normally or fan shield is blocked by dust. After the issue is solved, restart the projector.

The accumulation of oil, smoke and dust on the lens will compromise the light output. Cleaning a projector is very necessary to ensure a reliable use of it. Cooling fans need to be cleaned every 15days.

Cleaning frequency is to be decided by operations and its environment. Use soft cloth and normal detergent for glass for cleaning work. It's advised external optical system be cleaned every 20days and internal optical systems every 30/60days. Keep lens clean and do not touch optical parts with bare hands.

Special note:

It's normal phenomena that there will be mild water mist on the lens while the waterproof product is in use.



- Before any maintenance and cleaning, please ensure the project is off the power
- Only qualified person is allowed to do maintenance



- To avoid internal damage, sun light or other light mustn't penetrate into the projector via front lens whether it runs or not
- Do not use alcohol or other organic solvent to clean the housing to avoid damage.
- Do not use any detergent with chemical elements to clean color filters with coatings.

•LUBRICATION

To ensure smooth movement of gobos and zoom and focus lens, it's advised rotators' bearings and 2 sliding bars for zoom and focus lens be lubricated every 2 months. High quality and high temperature lubricant/grease is advised..

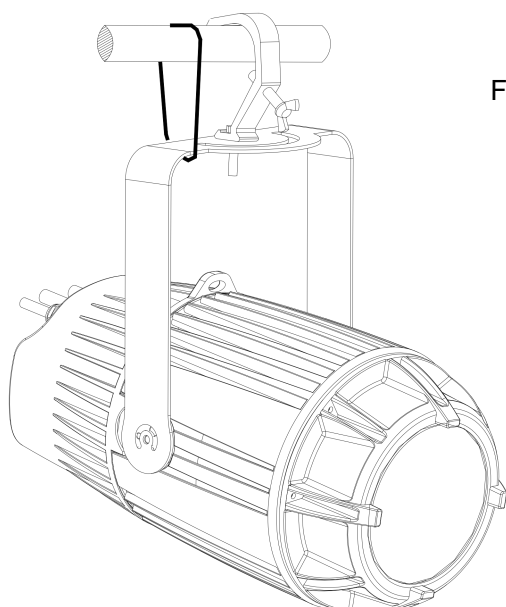
•TROUBLESHOOTING

PROBLEM	ACTION
The projector doesn't switch on	<ul style="list-style-type: none"> ➤ Check the power cord connection ➤ Power Switch fails or is not connected well, call a professional technician for repairing and checking ➤ Control board is not connected normally, call a professional technician for repairing and checking ,
The project can be turned on, but the LED lamps can't be on	<ul style="list-style-type: none"> ➤ LED lamp board is not connected well, call a professional technician for repairing and checking
The LED lamps can be on, but not controlled by DMX	<ul style="list-style-type: none"> ➤ Check if DMX Start Address is properly set ➤ Check if XLR cable fails or not
The brightness decreases obviously	<ul style="list-style-type: none"> ➤ Ambient temperature is too hot which makes the projector too hot, please take appropriate ventilation measures

3. INSTALLATION

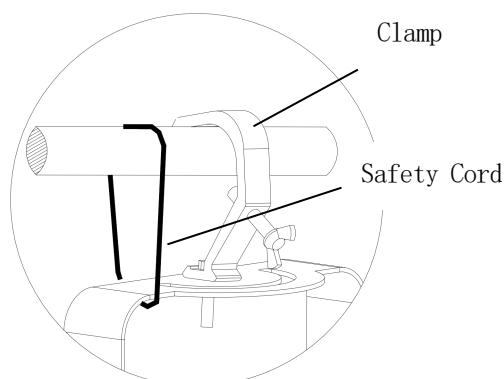
•RIGGING

Before moving a projector, Please lock Pan and Tilt. Before its operation, please unlock them. It's forbidden to run a projector with power while it is locked.



Warning!

For safety, please run the safety cord through the arm or its hole .



Take 1 clamp and 1 safety cord out from the package and tighten the clamp with the arm, and then mount the whole unit on the truss, tighten the clamp's retainers to keep the unit stable. (See the **WARNING** on the underside of the base as shown above) **To pass the SAFETY CORD through the ARM for safety!** Always ensure that the unit is firmly anchored to avoid vibration and slipping whilst functioning. Always ensure that the structure that you are going to mount the unit to is secure and strong enough to support the weight of the unit



WARNING:

- The projector **MUST** be lifted or carried by the **HANDLES** instead of clamps.
- For safety the safety cord should afford 10 times the Projector’s weight.

•POWER CONNECTION

Connect the power cord as follows:

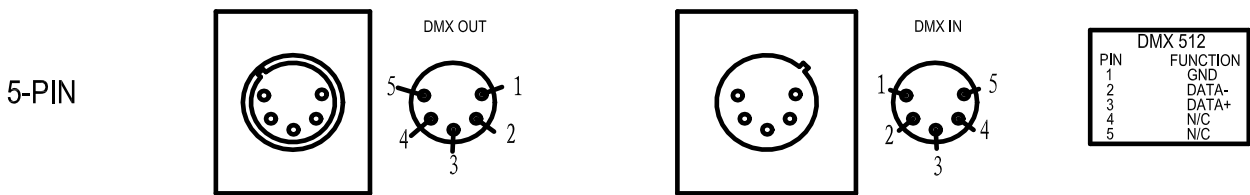
- L (live) =brown
- E (earth) =yellow/green
- N (neutral) =blue

Before power connection, please ensure the power supplied must match what the nameplate says. It is recommended that each projector be connected with power separately so that they may be individually switched on and off.



- The earth wire(yellow/green) must be connected to the ground. And electrical connection must be in accordance with the standards concerned.
- If any questions about the electrical installation, do not continue but consult a qualified electrician.

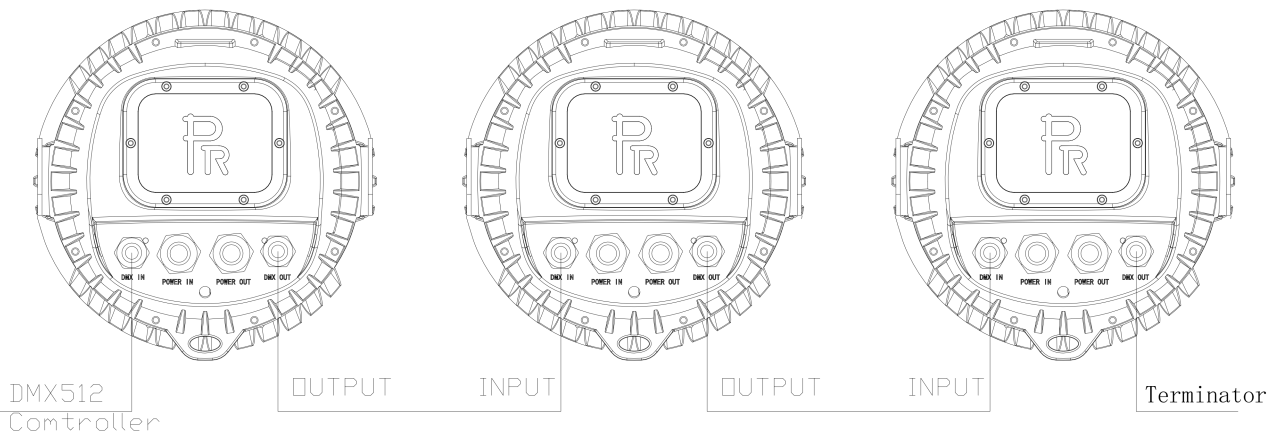
•DMX CONTROL CONNECTION:



Connection between controller and projector and between one projector and another must be made with a twin-screened cable, with each wire having at least a 0.5mm in diameter. Connection to and from the projector is via cannon 5 pin (which are included with the projector) or 5 pin 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. XLR plugs and sockets mustn't be connected in any way other than mentioned in the above figure. The unit accepts digital control signals in protocol DMX512 (1990).

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

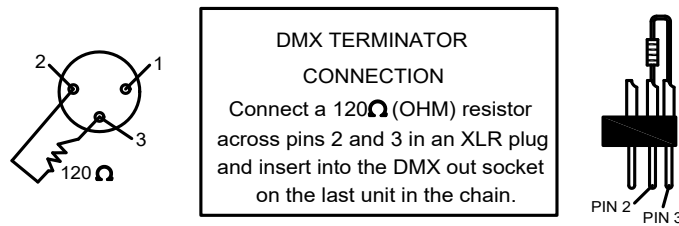


•DMX TERMINATOR

In the Controller mode, at the last fixture in the chain, the DMX output has to be connected with a DMX terminator. This prevents

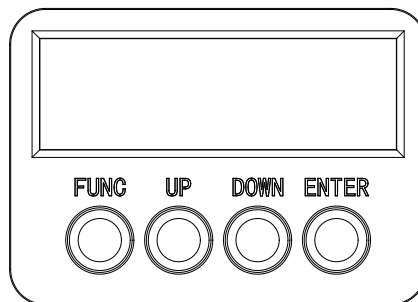
electrical noise from disturbing and corrupting the DMX control signals.

The DMX terminator is simply an XLR connector with a 120Ω (ohm) resistor connected across pins 2 and 3, which is then plugged into the output socket on the last projector in the chain. The connections are illustrated below.



4. SETUP AND CONFIGURATION

●FRONT PANEL OPERATION



The projector's functions and start address can be conveniently set via buttons and LCD screen.

To browse through or modify the projector's functions, press key **ENTER** for more than 2 seconds to unlock the control panel and the screen displays its function menu. Each main function menu has its sub-menus, and each submenu stands for its respective function. For the details, please see the following:

To set or browse through the projector's functions, press key **UP** or **DOWN**.

Press the key **ENTER** to save your settings or enter into the submenus. Press key **UP** or **DOWN** to change values (plus or minus)

Press key **FUNC**, it will return to the upper menu. If the key not pressed, the system will go back to display status automatically.

●DMX START ADDRESS

Each Projector must be given a DMX start address so that the correct projector responds to the correct control signals. This DMX start address is the channel number from which the projector starts to "listen" to the digital control information being sent out from the controller. The Unit has 1 DMX modes, which is standard mode. For standard mode, it has 8 channels, so set the No. 1 projector's address 001, No. 2 projector's address 09, No. 3 projector's address 017, No. 4 projector's address 025, and so on.

Launch the projector. Press button **ENTER** more than 3 seconds to unlock panel.

Press button **ENTER** to display DMX address;

Press button **UP** and **DOWN**, you can set the address;

Press button **ENTER** to confirm; after powered on next time, the default will be last value saved

Press button **FUNC**, it will return to the upper menu

●STAND-ALONE MODE

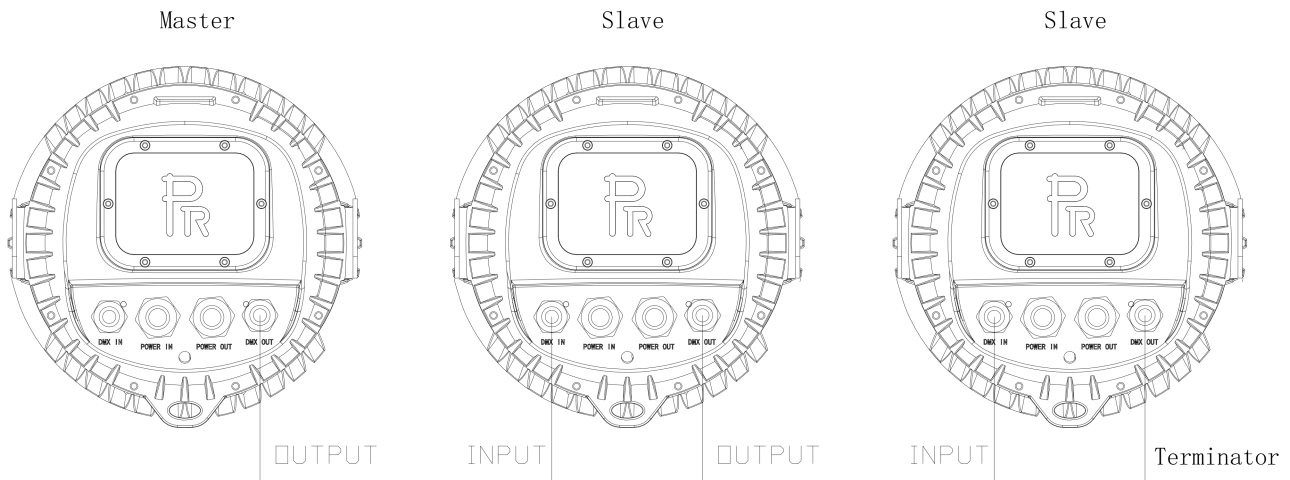
Operate the projector without connecting with a controller, enable the master mode through the operation panel, the projector will run in Stand-Alone mode automatically.

DMX address can be set at any number within 512.

●MASTER/SLAVE MODE

Many projectors can run synchronously in the Master/Slave mode by linking them with each other. First, connect the first fixture's DMX output to the second fixture's DMX input using XLR-XLR control cable and then connect the second fixture's DMX output to the third fixture's DMX input, and so on until all projector are connected in this way. Eventually connect the last fixture's DMX output to a DMX terminator. Set 1st projector as the master and others are Slaves.

Start Addresses of all Slaves are 001; Operation mode of the Master can be set any mode for a Master' and Slaves' operation mode can be set accordingly
 After Powered on, the group will run in Master/Slave Mode



5. OPERATION MENU

1 st level menu	2 nd level menu	3 rd level menu	4 th level menu
Address	001 - 512		DMX Address
Config Setup	MasterSlave	Slave	Default : Slave
		Master	
	Moto Offset	Color	000 - 255
		Focus	000 - 255
		RPrism	000 - 255
		Prism	000 - 255
	Clean Progra	Yes	
	PRM Transmit	Yes	
	Factory Setting	Yes	
	Factory Config	000 - 255	
	Display Invert	Yes	
		No	
Lcd Light Setup	On	Backlight will be turned off 3 minutes after no key is pushed	
	Off		
Language Setup	English	Default : English	
	Chinese		
Moto Reset	Yes/No		
Information	LED Temperature	XX	
	Fixture use Time	XXXX	
	Software Version	X.X.X	
Test Mode	Auto Test		
	Dimmer	000 - 255	Brightness of LED lamp
	Color	000 - 255	Motor position
	Prism	000 - 255	Motor position

	RPrism	000 - 255	Motor position	
	Focus	000 - 255	Motor position	
Operation Mode	DMX Mode	Yes		
	User Memory	Yes		
	Preset Memory (PR01~PR16)	PR01~PR16		
	User Progra Edit (ET01~ET16)	Dimmer	000 - 255	
		Strobe	000 - 255	
		Color	000 - 255	
		Prism	000 - 255	
		RPrism	000 - 255	
Focus		000 - 255		
Keep Time		00 - 200 (0- 20S)		

6. DMX PROTOCOL

	Function	DMX Value	Description
1	Dimmer H	000-255	Linear dimmer
2	Dimmer L	000-255	Dimmer in 16 bit
3	Strobe	000-007	No strobe
		008-255	Strobe from slow to fast
4	Color wheel	000-007	White
		008-015	White - Red
		016-023	Red
		024-031	Red - Yellow
		032-039	Yellow
		040-047	Yellow - Light Blue
		048-055	Light Blue
		056-063	Light Blue - Blue
		064-071	Blue
		072-079	Blue - Light Green
		080-087	Light Green
		088-095	Light Green - Orange
		096-103	Orange
		104-111	Orange - Purple
		112-119	Purple
		120-127	Purple - White
5	Prism	000-127	Close
		128-255	Open

6	R Prism	000-127	Motor position
		128-189	Clockwise rotation from fast to slow
		190-193	Stop
		194-255	Anti-clockwise rotation from slow to fast
7	Focus	000-255	Motor position
8	Function	000-199	No
		200-209	Motor reset

7. TECHNICAL DATA

Input voltage: 100V~240V AC, 50/60Hz

Input power: 100W @ 230V

Maximum current: 0.6A

Power factor: PF>0.9

LIGHT SOURCE SPECIFICATIONS

LED lamp : White

Power Consumption : 80W

Manufacturers Rated Lamp Life: 20000hours

Color temperature: 6200K

COLORS

1 color wheel :7 colors+ white

Bi-direction rainbow effect with variable speeds

Stepping/linear color changing

DIMMER

Linear Dimmer from 0-100%

FOCUS

DMX linear focusing

STROBE

Electronic Strobe 0-25FPS. with preset strobe pulse effect

BEAM ANGLE

Beam angle :2.0°

CONTROL

International standard DMX512 signal control protocol and 5 pin interfaces

Standard mode 8 channels

HOUSING

Cast Aluminum , high temperature/anti-UV ABS, IP65

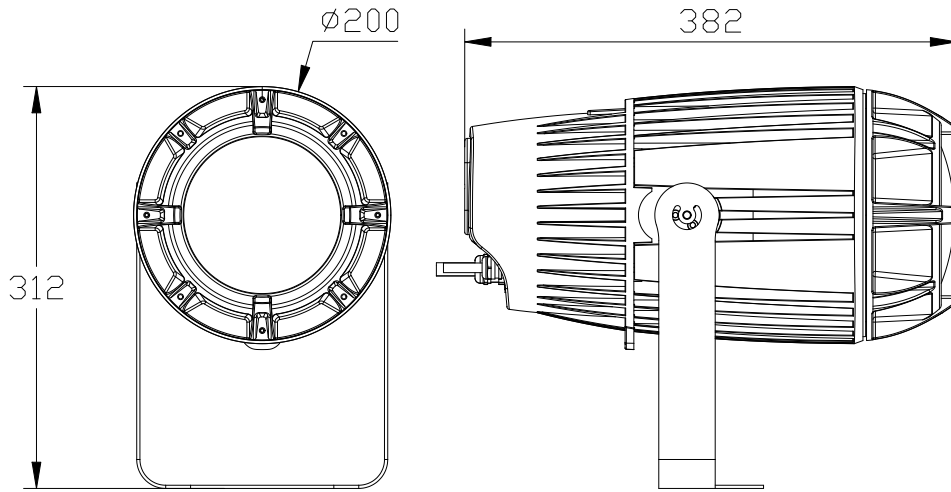
NET WEIGHT

9.0Kg

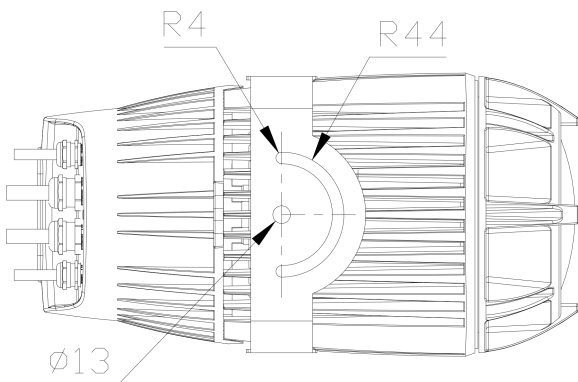
OPERATION TEMPERATURE:

Maximum ambient temperature 40 °C

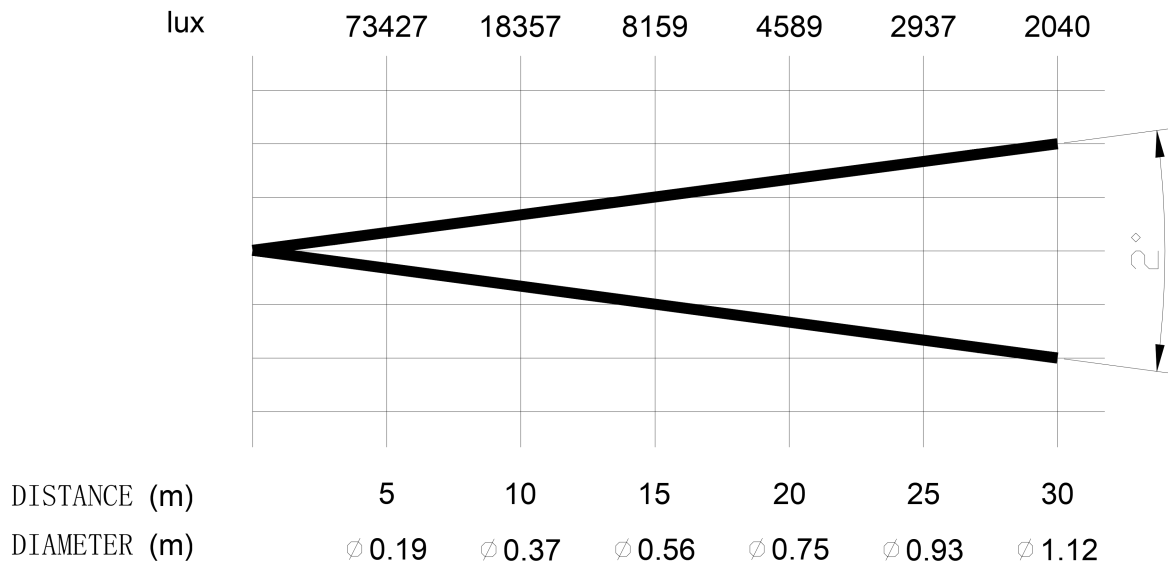
SIZES(unit: mm)



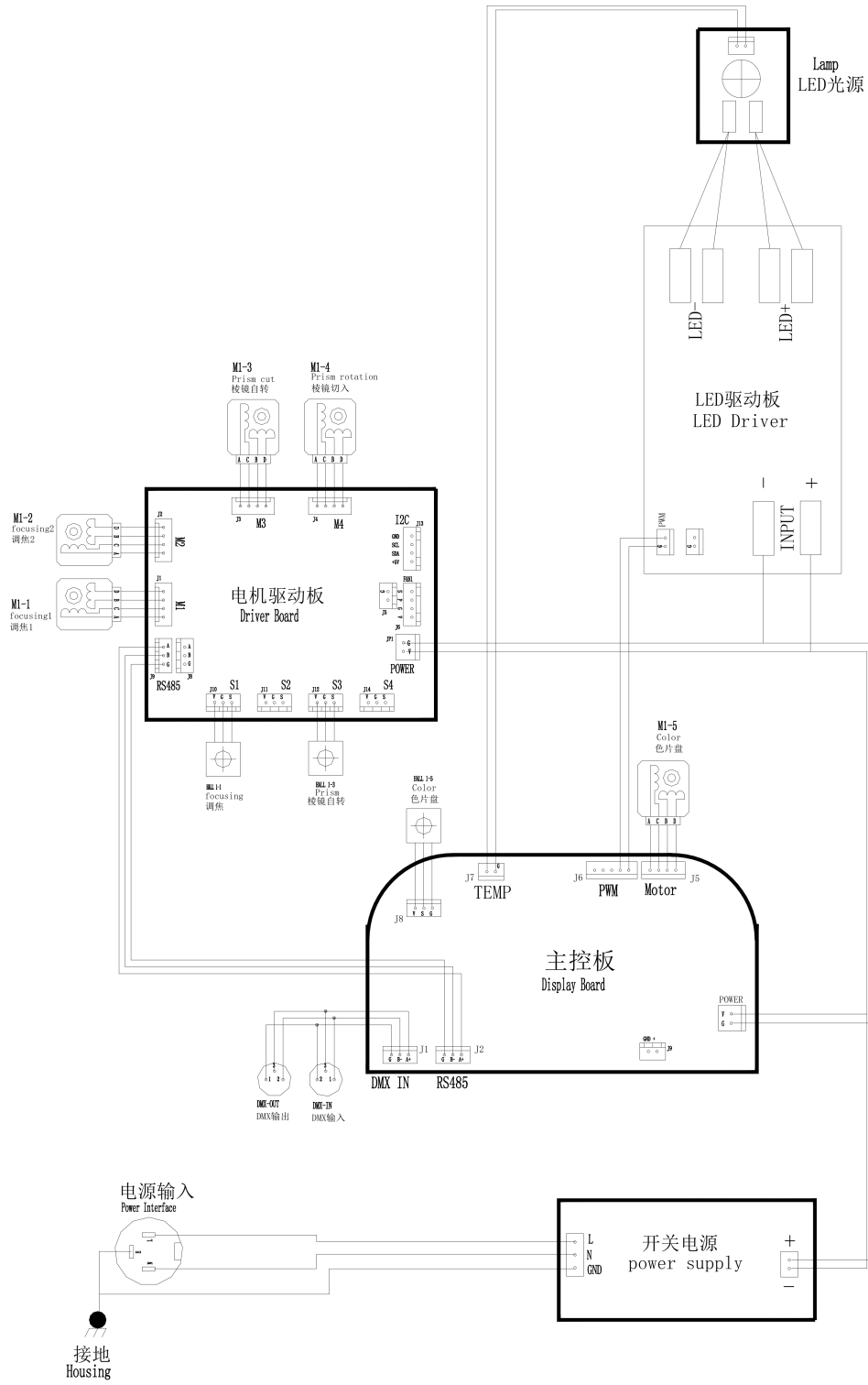
SUPPORT SIZE(unit: mm)



LIGHT OUTPUT



8. CIRCUIT DIAGRAM



9. COMPONENT ORDER CODES

Name	Code No.	Qty.	Specifications
200W switching power supply	6190000008A	1	
LED constant current source	6190000016	1	
80W light source	6150000042	1	
Stepper motor	6030040001	2	
Stepper motor	6030040254	2	
Stepper motor	030040073B	1	

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PR lighting will try its best to offer accurate and overall information about a product's technical data. Any changes won't be notified if necessary. Patented Products.
Counterfeiting Will be Prosecuted!

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