

HYBRID 460 USER's MANUAL





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1. Introduction

Thank you for selecting the 460W LED hybrid fixture.

WARNING!

This product is not suitable for household use.

You now own a professional lighting unit that offers endless possibilities. Before installing, make sure that no damage was done to your luminaire during transport.

For your own safety and that of others, please read this instruction manual carefully before installing the unit. Anyone involved in installing, operating, or servicing the 600W LED profile must:

- Be a qualified, authorized professional.
- Strictly follow the instructions in this user manual.

Please take the time to read this manual carefully and thoroughly before installing and operating the luminaire. You should have a good knowledge of its operating conditions and all pertinent product information.

After you have become familiar with this manual, we recommend that you keep a copy for future use.

SAFETY INSTRUCTIONS

Please read the safety instructions and warnings in this manual carefully before installing and operating the 600W LED profile.

WARNING!

Risk of electric shock.

Use caution when handling. This luminaire requires high voltage, which can result in electric shock. The 460W LED fixture left our factory in perfect working condition. However, if you notice a defect, immediately contact our factory before use.

Failure to observe the safety, installation or assembly instructions contained herein, or any modification made to the 460W LED fixture will render the warranty null and void.

Check that the supply voltage does not exceed the maximum authorized limit. Check that your electrical installation complies with current standards.

In all cases, make sure that the power cables attached to your 460W LED fixture have not been damaged due to cuts and splices or crushed in any way.

Handle these cables with extreme caution while they are connected to a power source.

Your 460W LED fixture conforms to Class 1 safety standards. The unit must be grounded electrically. Make sure that the power source connected to your 600W LED profile is switched o before attempting any work on it.

Installation and connection to an electrical source must be performed by an authorized installer.

Our factory declines all responsibility should this luminaire be installed by an unqualified person.



Never disconnect your 460W LED profile by pulling on the power cable! First unlock the connector lock ring on the power cable until it is fully disengaged, and then gently pull on the connector to disconnect the cable.

Do not connect or disconnect the power cable of your 460W LED fixture with wet hands.

At first use, your 460W LED fixture may give of an odor. This is a normal occurrence that should dissipate after a few minutes of operation.

WARNING!

Do not connect or disconnect the power cable at your 460W LED fixture if the cable is energized! This could cause arcing and damage your 460W LED fixture, requiring repair.

Be careful to power of your 460W LED fixture by removing the power plug from the source, before connecting or disconnecting the luminaire.

WARNING!

Never look directly into the lamps if lit or stand directly in line with the luminaire if close by. Installation, removal, or replacement of the unit must be performed with power to prevent any risk of glare and eye injury.

WARNING!

The fixture quickly becomes very hot during operation.

To avoid risk of burn, never handle or adjust the luminaire while it is energized and after it has been lit for more than 10 consecutive minutes. Some parts of the luminaire can reach a high temperature, particularly the body/radiator. Turn off the luminaire and wait for it to cool before handling.

CONDITIONS OF USE

Your 460W LED fixture is a moving-head luminaire equipped with LED source intended for professional use (e.g., architectural, stage, television, theater, or museum lighting).

The 460W LED fixture has an IP20 protection rating. It is intended strictly for indoor use. It must never be partially or fully submerged, even temporarily.

Condensation may form on your 460W LED fixture in the following cases:

- Immediately after turning on the heating.
- In places with fog or a high level of humidity.
- When the luminaire is suddenly moved from a cold to a warm environment, or vice versa.

In such cases, you must wait until the luminaire readjusts to the ambient temperature of the room where it will be installed for operation.

Do not shake the 460W LED fixture while installing or handling.

Do not pull the 460W LED fixture by one of its cables to move it. Lift the luminaire by its handles.



Choosing the appropriate place to install the 460W LED fixture is essential. The following points should be observed:

- Do not expose it to a heat source.
- Do not install it near flammable materials.
- Be sure that dust or miscellaneous debris cannot clump around the body of the luminaire as this may interfere with its optimal cooling and proper operation.
- The 460W LED fixture must be installed out of reach of the public and all persons not authorized to operate the luminaire.

We recommend a minimum distance of 5 m between the outside surface of the light and the illuminated object.

Due to the nature of its cooling principle, you should never prevent air from circulating around the body of the luminaire. You must provide a minimum clearance around your 460W LED fixture to allow for cooling.

The 460W LED fixture can be installed in a ground pit or any other confined enclosure only under certain conditions. With this kind of installation, a system of forced ventilation should be used up to allow air to circulate freely around the luminaire(s). The air must be constantly renewed because the luminaire cannot be operated in closed system. Failure to comply with these requirements may destroy or prematurely wear the 400W LED fixture, and our company cannot be held responsible.

No load should be placed on the 460W LED fixture. The fixture must not be installed in such a way as to allow a person, vehicle, or any object to run over or park on it.

Never lay or drop any hard, heavy, or blunt, objects on the 460W LED fixture. This includes items made of glass or porcelain (e.g., bottles, dishware, or glass beads). The luminaire is made of materials such as plastic and extruded aluminum, making it resistant but not unbreakable. Objects made of hard materials such as steel or glass that fall on the unit may cause breakage of the plastic parts or the body. Our company cannot be held responsible for the luminaire's broken plastic parts or body, which are not covered under warranty.

The temperature of the room where the 460W LED fixture is installed must never exceed 45° C (Ta = 45° C).

The 460W LED fixture requires a 110-240V AC supply voltage. Check that your luminaires have been installed for an application that is compatible with this information.

Check that the brackets on which you hang or attach your 600W LED profile can sustain the weight of the luminaire (30kg), taking into consideration all necessary safety factors.

Do not use your 460W LED fixture before being familiar with these recommendations and do not allow unqualified personnel to handle the product.

To transport your 460W LED fixture, we strongly recommend that you use the complete original packaging, including the dense protective foam inserts.

If your 460W LED fixture is not being used for a long period, you should disconnect the luminaire from the power source.

Never dispose of the 460W LED fixture in a rubbish bin.



PRESENTATION AND FEATURES

The 460W LED fixture is a non-waterproof moving head wash light (IP20 protection rating) using the latest generation of high-performance of LED-type lamps.

This luminaire can be controlled remotely by an external DMX512 signal.

The 460W LED fixture incorporates high power white LED source.

The luminaire requires from 36 to 58 DMX channels to be controlled via an external command system that sends a DMX512 signal (see below for details).

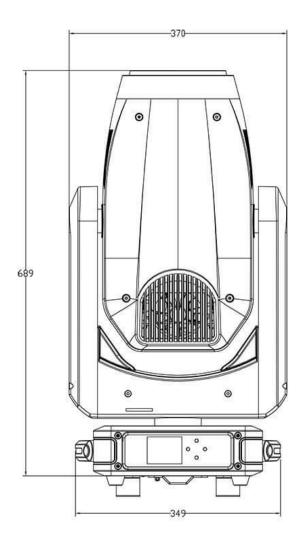
To adjust the settings on the 460W LED fixture (i.e., DMX address, DMX operating mode and other options), a Remote Device Management (RDM)-type DMX controller may be required. The DMX RDM protocol is a universal, widely used standard.

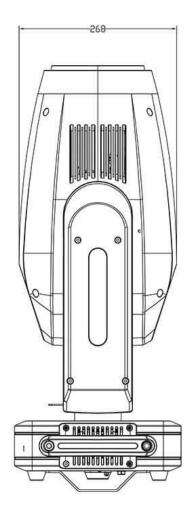
A light console or any standard DMX-type controller is sufficient.

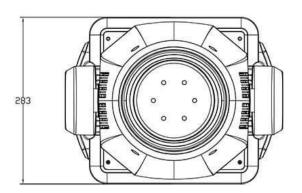
The 460W LED fixture consists of a metal frame and plastic covers. The power connectors and DMX512 signal connectors are on the back of the fixture's base.



2. Dimensions









INSTALLATION INSTRUCTIONS.

This luminaire should be installed by a qualified technician.

The fixture should be used in an environment with a temperature between -5°C and +45°C. Do not operate the luminaire outside this temperature range.

The luminaire must be hung so that the weight of this unit multiplied by 10 can be sustained for 1 hour without causing the suspension system or the supporting structure to be deformed.

The installation must always be secured at a second attach point, e.g., by a safety cable of the appropriate size.

Do not stand under the luminaire while it is being installed, dismantled, or serviced.

The operator must ensure that a qualified technician has approved the installation of the luminaire for safety before it is first operated. Installation should be inspected once a year by a qualified technician.

WARNING!

The installation of this luminaire must be validated by a qualified technician before it is used for the first time.

The luminaire should be installed in a location where the public cannot, touch, walk or sit on the luminaire.

Suspending the luminaire and/or installing it high up requires considerable experience, e.g., calculating load, selecting, and adapting quality fastening materials, and periodically inspecting the entire installation. Without this skill and knowledge, do not attempt to install this unit by yourself. Improper installation may cause an accident resulting in personal injury or death.

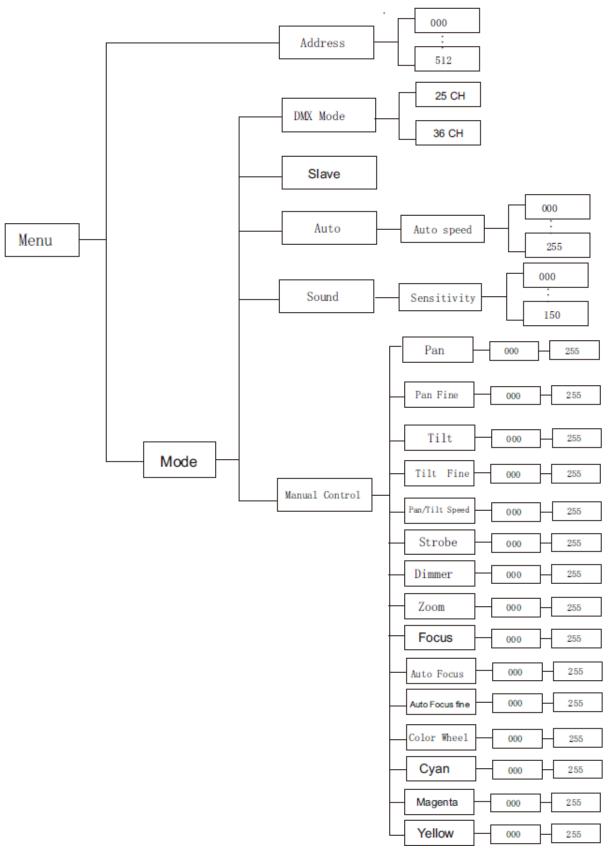
WARNING!

The luminaire should be connected to an electrical source by a qualified electrician.

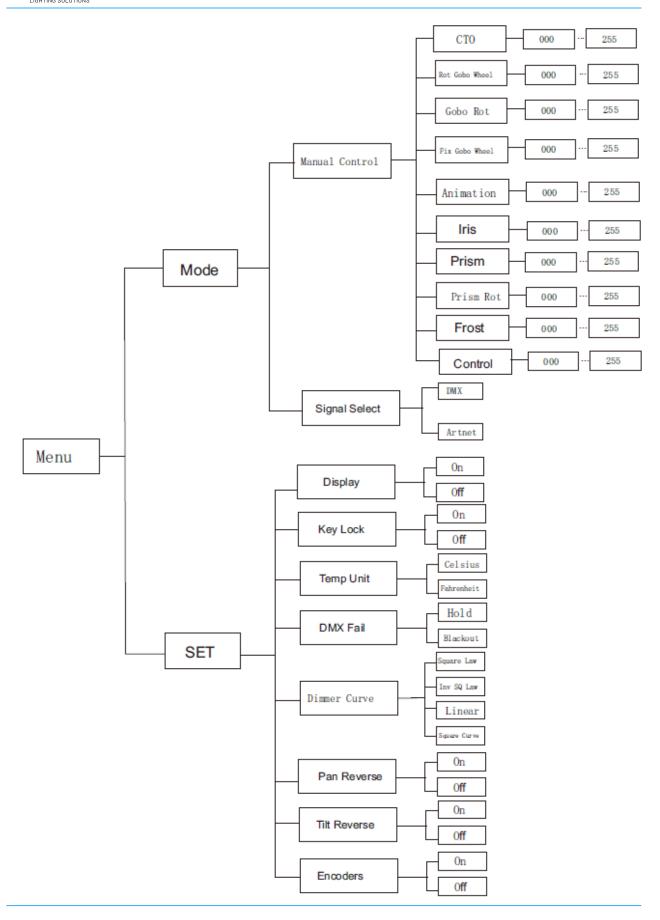
Before installing the luminaire make sure that the selected installation spot can support at least 10 times the weight of the unit. Connect the luminaire to the power source by the power cord.



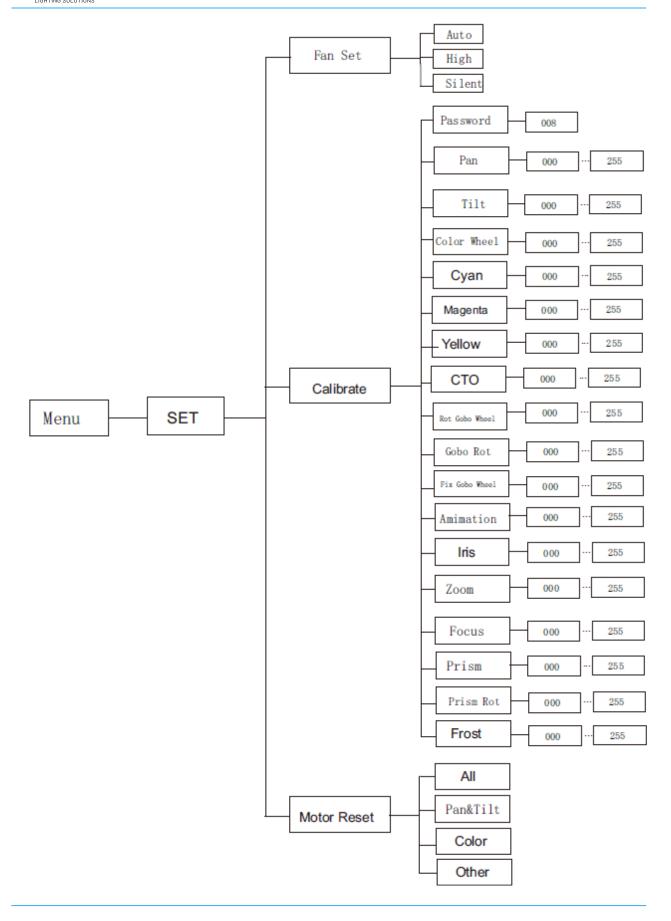
3. Menu Instruction



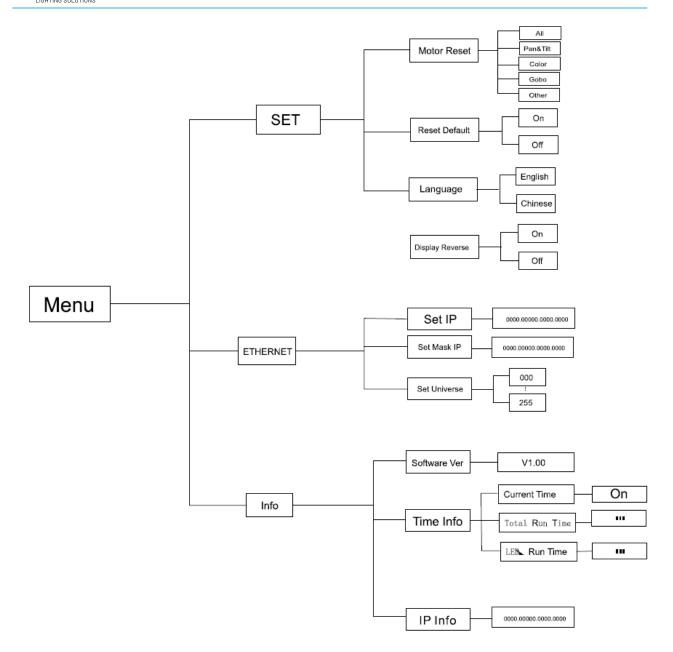














4. Channel List

Mode		Value	Function
25CH 36CH			
	4		Pan Movement 8bit
1	1	0-255	Pan Movement
2	2		Pan Fine 16bit
2	2	0-255	Fine control of Pan movement
2	3		Tilt Movement 8bit
3		0-255	Tilt Movement
4	4		Tilt Fine 16bit
4		0-255	Fine control of Tilt movement
_	_		Speed Pan/Tilt movement
5	5	0-255	Max to Min speed
			Shutter/Strobe
		0-10	Shutter closed
		11-21	Shutter open
		22-126	Strobe effect slow to fast
6	6	127-137	Shutter open
		138-201	Pulse-effect in sequences
		202-212	Shutter open
		213-244	Random strobe effect slow to fast
		245-255	Shutter open
7	7		Dimmer intensity
,	,	0-255	Intensity 0 to 100%
	8		Dimmer intensity fine
	· ·	0-255	Dimmer intensity fine
8	9		Zoom
	,	0-255	Zoom adjustment from small to big
	10		Zoom Fine
	10	0-255	Zoom adjustment fine
9	11		Focus
		0-255	Continuous adjustment from near to far
	12		Focus fine
	12	0-255	Continuous adjustment fine
			Empty
			Empty
10	13		Empty
			Empty
	-		Empty
			Empty
11	14		Empty
-11			Empty



			Color Wheel
		0-15	White
		16-22	White + Red
		23-29	Red
		30-36	Red + Green
		37-43	Green
	2 15	44-50	Green + Blue
		51-57	Blue
		58-64	Blue + Yellow
		65-71	Yellow
12		72-78	Yellow + Orange
		79-85	Orange
		86-92	Orange + Light Pink
		93-99	Light Pink
		100-106	Light Pink + Dark Pink
		107-113	Dark Pink
		114-120	
		121-127	White
		128-189	Forwards rainbow effect from fast to slow
		190-193	No rotation
		194-255	Backwards rainbow effect from slow to fast
	1.0		Color Wheel Fine
	16	0-255	Color wheel colour change to any position fine
12	2 47		Cyan Color
13	17	0-255	Cyan 0-100% (White to Cyan)
	10		Cyan Color Fine
	18	0-255	Cyan fine
14	19		Magenta Color
14	19	0-255	Magenta 0-100% (White to Magenta)
	20		Magenta Color Fine
	20	0-255	Magenta fine
15	21		Yellow Color
13		0-255	Yellow 0-100% (White to Yellow)
	22		Yellow Color Fine
		0-255	Yellow fine
16	.6 23		CTO Color
10		0-255	CTO 0-100% (White to CTO)
	24		CTO Color Fine
		0-255	CTO fine



Rotating Gobos/Cont. Rotation 1	
0-7 Open	
8-20 Rotating Gobo 1	
21-33 Rotating Gobo 2	
34-46 Rotating Gobo 3	
47-59 Rotating Gobo 4	
5	
73-85 Rotating Gobo 6 86-98 Rotating Gobo 7	
112-124 Gobo 2 shake slow to fast	
125-137 Gobo 3 shake slow to fast	
138-150 Gobo 4 shake slow to fast	
151-163 Gobo 5 shake slow to fast	
164-176 Gobo 6 shake slow to fast	
177-189 Gobo 7 shake slow to fast	
190-221 Gobo wheel rotation forwards from fast to slow	
222-223 No rotation	
224-255 Gobo wheel rotation backwards from slow to fast	
Rotating Gobo Index/Rotating Gobo Rotation 1	
0-127 Gobo indexing	
18 26 128-189 Forwards gobo rotation from fast to slow	
190-193 No rotation	
194-255 Backwards gobo rotation from slow to fast	
Rotating Gobo Indexing Fine 1	
0-255 Fine indexing	
Fixed Gobo 2	
0-9 Open	
10-19 Gobo 1	
20-29 Gobo 2	
30-39 Gobo 3	
40-49 Gobo 4	
50-59 Gobo 5	
60-69 Gobo 6	
70-79 Gobo 7	
19 28 80-89 Gobo 8	
90-99 Gobo 9	
100-109 Gobo 1 shake slow to fast	
110-119 Gobo 2 shake slow to fast	
120-129 Gobo 3 shake slow to fast	
130-139 Gobo 4 shake slow to fast	
140-149 Gobo 5 shake slow to fast	
150-159 Gobo 6 shake slow to fast	
160-169 Gobo 7 shake slow to fast	
170-179 Gobo 8 shake slow to fast	
180-189 Gobo 9 shake slow to fast	



		190-221	Gobo wheel rotation forwards from fast to slow
	-	222-223	No rotation
	-	224-255	Gobo wheel rotation backwards from slow to fast
		22 1 233	Animation Wheel
	-	0-127	Animation indexing
20	29	128-189	Forwards rotation from fast to slow
		190-193	No rotation
	-	194-255	Backwards rotation from slow to fast
		13 1 233	Iris
21	30	0-255	Max. diameter to Min. diameter
		0 233	Iris Fine
	31	0-255	Iris fine
		0 233	Prism
22	32	0-127	Open
	32	128-255	Prism
		120 233	Rotating Prism Index/Rotating Prism Rotation
	-	0-127	Prism indexing
23	33	128-189	Forwards prism rotation from fast to slow
25	33	190-193	No rotation
	-	194-255	Backwards prism rotation from slow to fast
		134 233	Rotating Prism Indexing Fine
	34	0-255	Fine indexing
		0 233	Frost
24	35	0-127	Open
		128-255	Frost
			Reset/LCD/Fans
	-	0-9	Unused
	-	10-19	Display off
		20-29	Display on
		30-39	Display invert off
		40-49	Display invert on
		50-59	Auto fan control mode
		60-69	High fan control mode
		70-79	Silent fan control mode
		80-89	Square law
25	36	90-99	InvSQ law
	-	100-109	Linear
	-	110-119	S curve
	-	120-149	Unused
	-	150-159	All motor reset
		160-169	Scan motor reset
		170-179	Colors motor reset
		180-189	Gobo motor reset
		190-199	Other motor reset
		200-255	Unused



5. Error Messages

ERROR MESSAGES

When you turn on the 460W LED fixture, it will first perform an automatic reset.

The display may show "Err channel is XX" indicating there is a problem with one or more of the channels. "XX" represents channel 1,2, 3, 4, 5 or 6, which contain the testing sensor for positioning. For example, the message, "Err channel is Pan movement", indicates an error in channel 1. If there is an error on channel 1 and channel 3 at the same time, the following error message may appear: "Err channel is Pan movement", "Err channel is Tilt movement". The system will flash twice, and the fixture will generate a second reset. If the error message persists after more than two resets, the channels showing errors will not work properly but the other channels will function normally.

Please contact our company for service and do not attempt to repair the luminaire yourself.

PAN- movement Er

(PAN-yoke movement error): This message will appear after the reset if the yoke's magnetic-indexing circuit malfunctions (failed sensor or magnet missing) or the stepping-motor is defective (also caused by its driving IC on the main PCB). The PAN- movement does not return to the default position after the reset.

TILT- movement Er

(TILT-head movement error): This message will appear after the reset if the head's magnetic-indexing circuit malfunctions (sensor failed or magnet missing) or the stepping-motor is defective (also caused by its driving IC on the main PCB). The TILT- movement does not return to the default position after the reset.



6. Technical Parameter

OPTICS

Source: 460W white LED

Life: >30,000H

POWER SUPPLY

AC100-240V 50/60HZ Switch power supply Input power: 550w

MOVEMENT

Pan movement: 540/630° optional (16 bit)

Tilt movement: 270° (16 bit)

Advanced motion system: auto repositioning, fast, quiet and smooth

COLORS

CMY infinite color mixing+ CTO 1 Color wheel with 7 dichroic filters + open CTO linear CT:2700K-6500K

GOBOS

1 Rotating gobo wheels:

7 interchangeable + open, with shaking effect and gobo wheel can be positioned

1 fixed gobo wheel:

8 interchangeable + open, with gobo shaking effect

FEATURES

DMX channels:26/35ch

1 Rotating gobo wheels:

7 interchangeable + open, with shaking effect and gobo wheel can be positioned

1 fixed gobo wheel:

8 interchangeable + open, with gobo shaking effect

prism: 1 bidirectional 5-facet rotating prism, prism can be positioned

Focus

3 color wheels, and with CMY infinite color mixing

5-100% electronic Iris

Shutter: electronic, variable from 1-25Hz or random

Dimming: 0-100% linear dimming Frost: light frost, heavy frost Zoom: 6°- 42°linear zoom

Animation wheel: special dynamic water effect

Protocol: DMX 512, RDM, Artnet



DISPLAY

Battery operated for fast addressing 15 second standby auto lock Pan/ Tilt disengage (hold MENU and ENTER button)

SOFTWARE

Upgrades: fast and convenient using uploader over DMX Remote reset DMX address, fixture reset, sound control by DMX

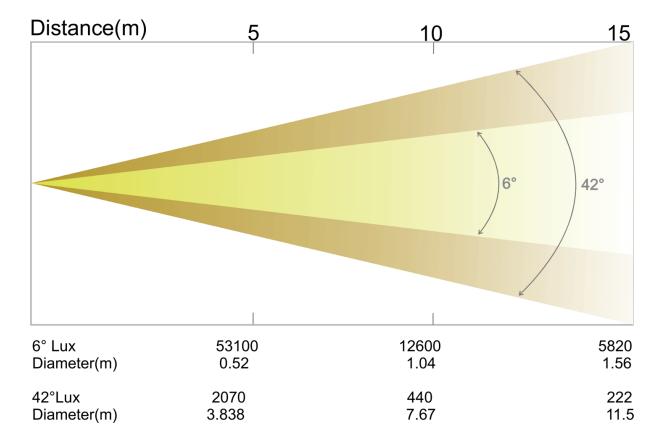
OTHER SPEC

Input signal isolation
Optional ArtNET control
RDM compatible
intelligent fan noise control, intelligent energy-saving
DIMENSIONS AND WEIGHT
Packing Dimension: 380 X460 X840mm

Net Weight: 24KG



7. Illumination





8. Gobos Chart