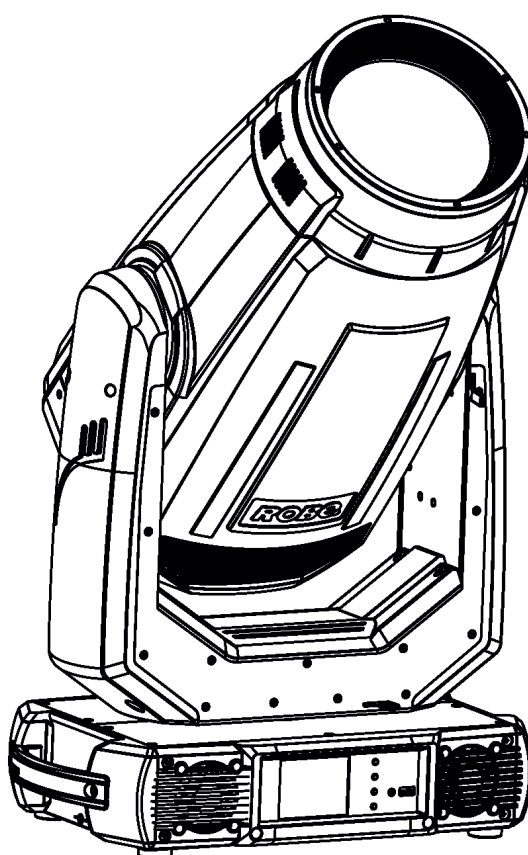

ROBE

ROBIN[®] Esprite



 **ROBIN[®]**
Innovative Technology

USER MANUAL

Version 1.2

ROBE[®] lighting s.r.o. • Czech Republic • www.robe.cz

Robin Esprite

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CAUTION!
Keep this device away from rain and moisture!
Unplug mains lead before opening the housing!

**FOR YOUR OWN SAFETY, PLEASE READ THIS USER MANUAL CAREFULLY
BEFORE YOU INITIAL START - UP!**

1. Safety instructions

Every person involved with installation and maintenance of this device have to:

- be qualified
- follow the instructions of this manual

CAUTION!
Be careful with your operations.
With a high voltage you can suffer
a dangerous electric shock when touching the wires!

This device has left our premises in absolutely perfect condition. In order to maintain this condition and to ensure a safe operation, it is absolutely necessary for the user to follow the safety instructions and warning notes written in this manual.

The manufacturer will not accept liability for any resulting damages caused by the non-observance of this manual or any unauthorized modification to the device.

Please consider that damages caused by manual modifications to the device are not subject to warranty.

Never let the power-cord come into contact with other cables! Handle the power cord and all connections with the mains with particular caution!

Make sure that the available voltage is not higher than stated on the rear panel.

WARNING! This unit does not contain an ON/OFF switch. Always disconnect power input cable to completely remove power from unit when not in use or before cleaning or servicing the unit.

Make sure that the power cord is never crimped or damaged by sharp edges. Check the device and the power-cord from time to time.

Always disconnect from the mains, when the device is not in use or before cleaning it. Only handle the power-cord by the plug. Never pull out the plug by tugging the power cord.

This device falls under protection class I. Therefore it is essential to connect the yellow/green conductor to earth. The electric connection, repairs and servicing must be carried out by a qualified employee.

Do not connect this device to a dimmer pack.

During the initial start-up some smoke or smell may arise. This is a normal process and does not necessarily mean that the device is defective.

Do not touch the device's housing bare hands during its operation (housing becomes hot)!
For replacement use fuses of same type and rating only.

LED light emission. Risk of eye injury.
Do not look straight at the fixture's LED source during operation. The intense light beam may damage your eyes.

Do not view the light output with optical instruments or any device that may concentrate the beam.

2. Operating determination

This device is a moving head for creating decorative effects and was designed for indoor use only. This device is for professional use only. It is not for household use.

If the device has been exposed to drastic temperature fluctuation (e.g. after transportation), do not switch it on immediately. The arising condensation water might damage your device. Leave the device switched off until it has reached room temperature.

Do not shake the device. Avoid brute force when installing or operating the device.

Never lift the fixture by holding it at the projector-head, as the mechanics may be damaged. Always hold the fixture at the transport handles.

When choosing the installation spot, please make sure that the device is not exposed to extreme heat, moisture or dust. There should not be any cables lying around. You endanger your own and the safety of others!

Make sure that the area below the installation place is blocked when rigging, de-rigging or servicing the fixture.

Always fix the fixture with an appropriate safety rope. Fix the safety rope at the correct holes only.

Only operate the fixture after having checked that the housing is firmly closed and all screws are tightly fastened.

The maximum ambient temperature 45°C must never be exceeded.

CAUTION!

The front lens has to be replaced when it is obviously damaged, so that its function is impaired, e. g. due to cracks or deep scratches!

Operate the device only after having familiarized with its functions. Do not permit operation by persons not qualified for operating the device. Most damages are the result of unprofessional operation!

Do not block the front objective lens with any object when the fixture is under operation.

The fixture housing never must be covered with cloth or other materials.

Please use the original packaging if the device is to be transported.

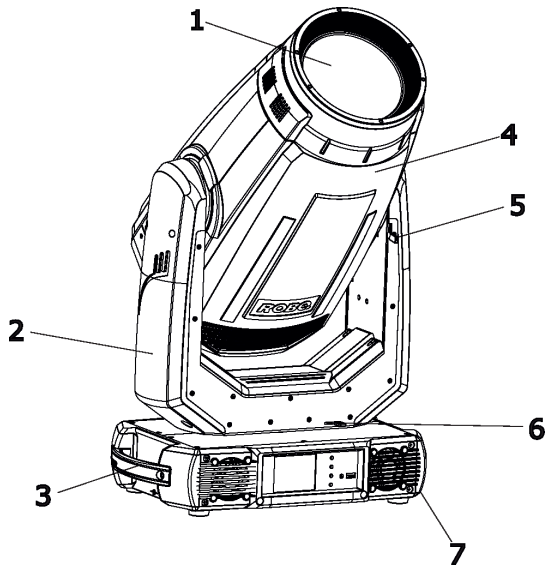
Please consider that unauthorized modifications on the device are forbidden due to safety reasons!

If this device will be operated in any way different to the one described in this manual, the product may suffer damages and the guarantee becomes void. Furthermore, any other operation may lead to dangers like short-circuit, burns, electric shock, burns etc.

CAUTION!

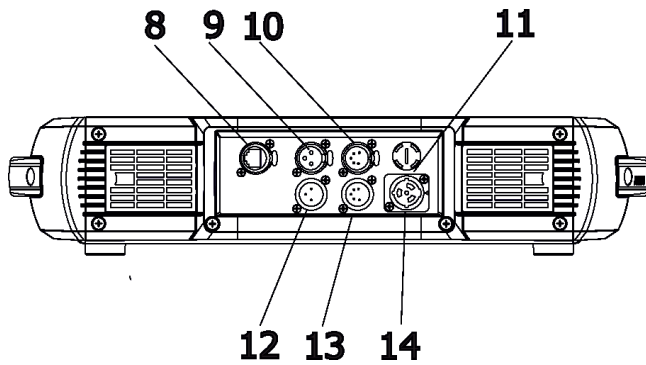
To avoid damage of the internal parts of the fixture head, never let the sunlight lights directly to the front lens , even when the fixture is not working !

3. Fixture exterior view

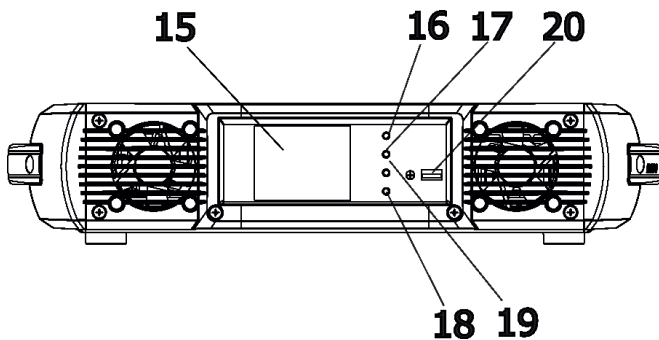


- 1 - Front lens
- 2 - Arm
- 3 - Handles
- 4 - Head
- 5 - Tilt lock
- 6 - Pan lock
- 7 - Base

The head has to be locked for transportation- the tilt lock latch (5) and the pan lock latch (6) have to be in the locked positions. To unlock the head, move these latches to unlock positions before operating the fixture.



- Rear panel of the base:**
- 8 - Ethernet input (RJ45)
 - 9 - 3-pin DMX output
 - 10 - 5-pin DMX output
 - 11 - Fuse holder
 - 12 - 3-pin DMX input
 - 13 - 5-pin DMX input
 - 14 - Power (PowerCon True 1)



- Front panel of the base:**
- 15 - QVGA touch screen
 - 16 - ESCAPE button
 - 17 - NEXT button
 - 18 - ENTER/DISPLAY ON button
 - 19 - PREV button
 - 20 - USB port

The ENTER/DISPLAY ON button also serves for switching the display on when the fixture is disconnected from the mains.

4. Installation



Fixtures must be installed by a qualified electrician in accordance with all national and local electrical and construction codes and regulations.

4.1 Connection to the mains

For protection from electric shock, the fixture must be earthed!

The Robin Esprite is equipped with auto-switching power supply that automatically adjusts to any 50-60Hz AC power source from 100-240 Volts.

Power cable is enclosed to the fixture. If you need to install a power plug on the power cable to allow connection to power outlets, install a grounding-type (earthed) plug, following the plug manufacturer's instructions. If you have any doubts about proper installation, consult a qualified electrician.

Core (EU)	Core (US)	Connection	Plug Terminal Marking
Brown	Black	Live	L
Light blue	White	Neutral	N
Yellow/Green	Green	Earth	

This device falls under class one and must be earthed (grounded).

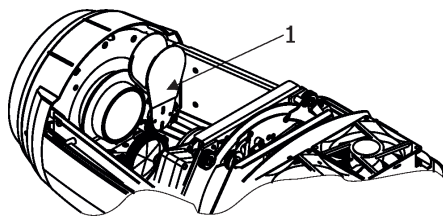
To apply power, first check that the head pan and tilt locks are released.

4.2 Replacing the medium frost

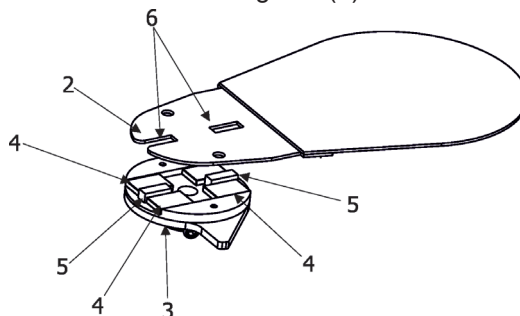
Unplug the fixture from mains before installing the frost module!

To replace the frost module.

1. Disconnect the fixture from mains and allow it to cool for 10 minutes.
2. Remove plastic cover of the head by loosening the 2 quarter-turn fasteners on the cover to get access to the frost module (1).



3. The holder (2) of the frost foil is fastened to the frost holder (3) by means of the four magnets (4). Grip the holder (2) and carefully tilt it out to break a force of magnets (4) on the frost holder (3).



4. Place a new frost module into the frost holder (3). Check, that both slots (6) snapped correctly into two protrusions (5) in the holder (3).
5. Place the plastic cover back on the fixture before applying power.

4.3 Replacing rotating gobos

Unplug the fixture from mains before replacing gobos!

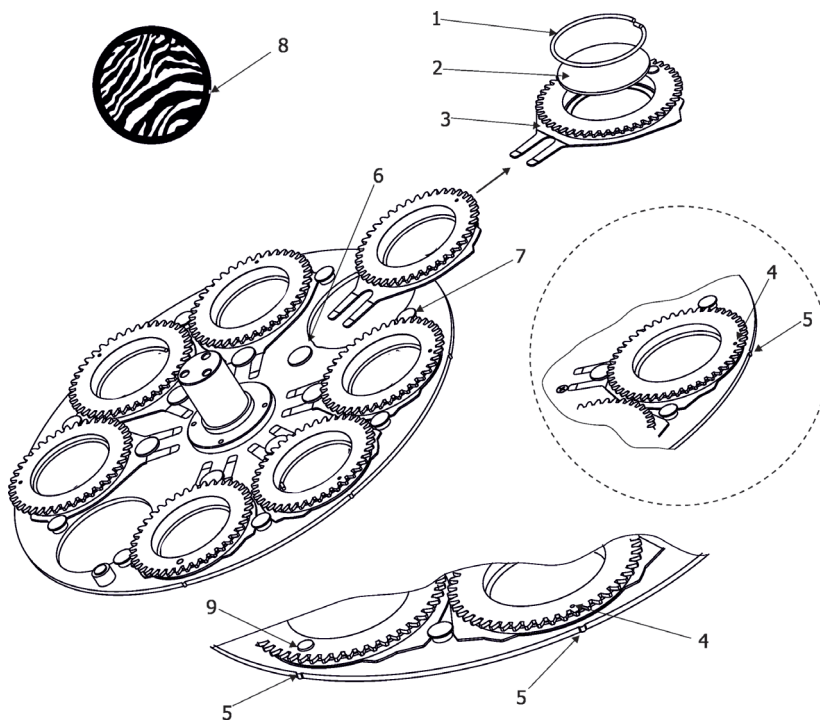
Rotating gobos

1. Disconnect the fixture from mains and allow it to cool.
2. Remove the plastic cover of the head by loosening the 2 quarter-turn fasteners on the cover.
3. Gently pull up the gobo holder (3) from the rotation gobo wheel.
4. Remove the spring lock (1) with an appropriate tool (e.g. small-bladed screwdriver) and remove it.
Do not touch the surface of the pattern of the glass gobo with bare fingers.
5. Remove the original gobo (2) and insert the new one (glossy side towards the light source).
The Robe gobo has a small position point (8) at its edge which has to aim at the position point (4) on the gobo holder (4). Insert the spring lock to secure correct gobo position in the gobo holder.
6. Insert the gobo holder back under the distance slots (6, 7) into rotating gobo wheel in this way, that its position point (4) has to aim at a small toothlike projection (5) on the edge of the rotating gobo wheel.

Important! When inserting the gobo holder back to the rotating gobo wheel, one of the adjacent gobo holder has to be oriented according to the same rule, it means that its position point (4) has to aimed at the toothlike projection (5) on the edge of the rotating gobo wheel. You have keep both marks (4) and (5) side by side when rotating the gobo wheel to the position allows inserting the gobo holder back.

5. Replace the plastic cover before applying power. Connect the fixture to mains.
6. Use the menu Service to fine adjust replaced gobo (Service -> Calibration -> Calibrate effects -> R. Gobo Index 1 ...R. Gobo Index 7).

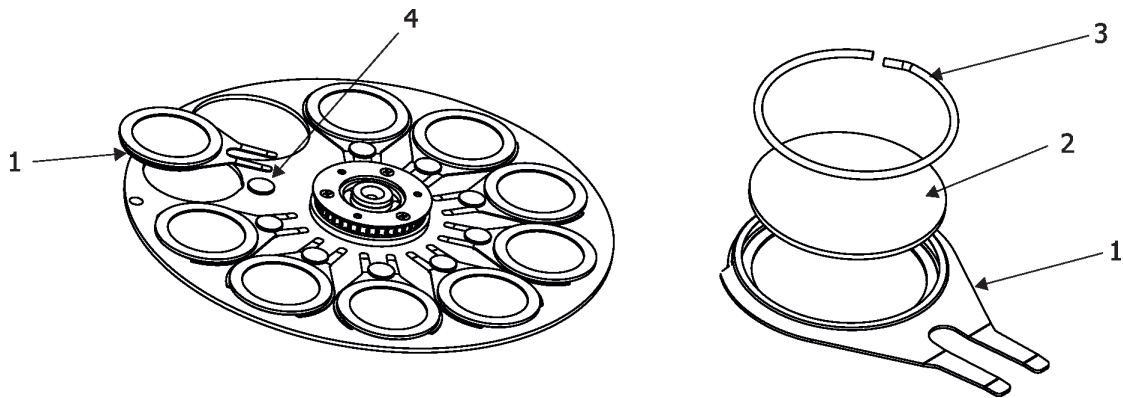
Note. The magnet (9) of the gobo holder has the same function as the position point (4) on the rest of gobo holders.



4.4 Replacing static gobos

Unplug the fixture from mains before replacing gobos!

1. Disconnect the fixture from mains and allow it to cool.
2. Remove the plastic cover of the head by loosening the 2 quarter-turn fasteners on the cover.
3. Gently pull up the gobo holder (1) from the static gobo wheel.
4. Remove the spring gobo-lock (3) with an appropriate tool (e.g. small-bladed screwdriver) and remove it.
Do not touch the surface of the pattern of the glass gobo.
5. Remove the original gobo (2) and insert the new one (glazy side towards the light source). Insert the spring-gobo lock (3) to secure it in the gobo holder (1).
6. Insert the gobo holder back to the static gobo wheel until it reaches the stop (4) in the static gobo wheel.
5. Replace the bottom cover before applying power.



4.5 Rigging the fixture

A structure intended for installation of the fixture(s) must safely hold weight of the fixture(s) placed on it. The structure has to be certificated to the purpose.

The fixture (fixtures) must be installed in accordance with national and local electrical and construction codes and regulations.

For overhead installation, the fixture must be always secured with a safety wire that can bear at least 10 times the weight of the fixture

When rigging, derigging or servicing the fixture staying in the area below the installation place, on bridges, under high working places and other endangered areas is forbidden.

The operator has to make sure that safety relating and machine technical installations are approved by an expert before taking into operation for the first time and after changes before taking into operation another time.

The operator has to make sure that safety relating and machine technical installations are approved by a skilled person once a year.

Allow the fixture to cool for ten minutes before handling.

The projector should be installed outside areas where persons may walk by or be seated.

IMPORTANT! OVERHEAD RIGGING REQUIRES EXTENSIVE EXPERIENCE, including calculating working load limits, installation material being used, and periodic safety inspection of all installation material and the projector. If you lack these qualifications, do not attempt the installation yourself, but use a help of professional companies.

CAUTION: Fixtures may cause severe injuries when crashing down! If you have doubts concerning the safety of a possible installation, do not install the fixture!

The fixture has to be installed out of the reach of public.

The fixture must never be fixed swinging freely in the room.

***Danger of fire !
When installing the device, make sure there is no highly inflammable material (decoration articles, etc.) in a distance of min. 1 m.***

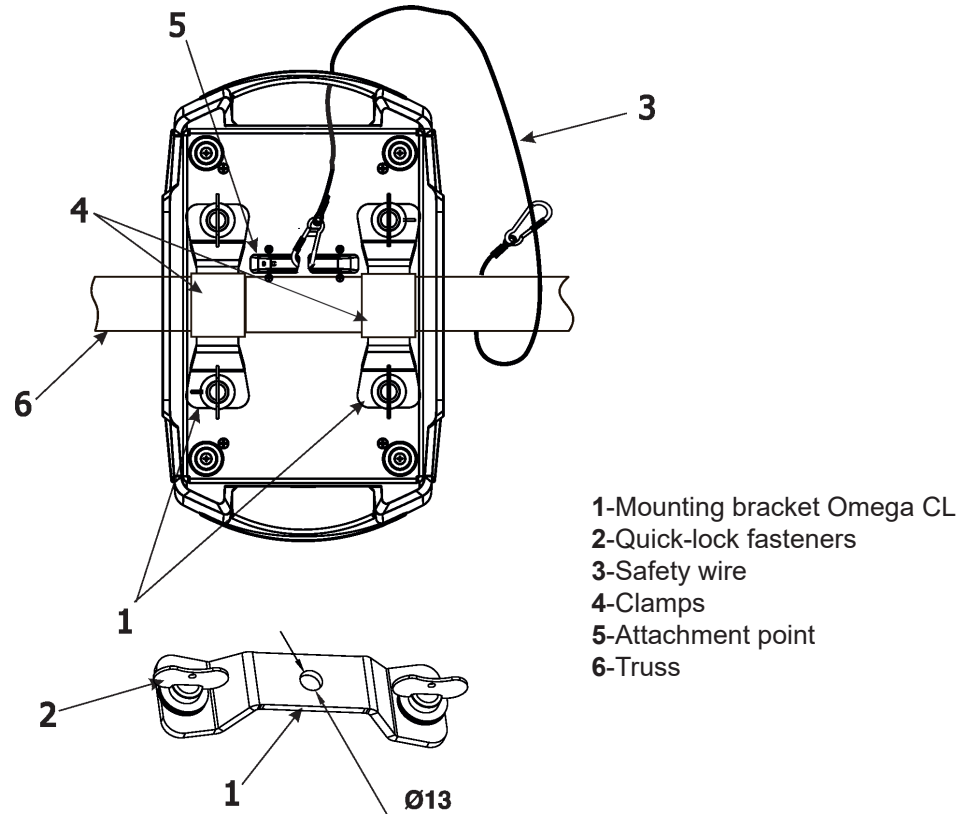
***CAUTION!
Use 2 appropriate clamps to rig the fixture on the truss.
Follow the instructions mentioned at the bottom of the base.
Make sure that the device is fixed properly! Ensure that the structure (truss) to which you are attaching the fixtures is secure.***

The fixture can be placed directly on the stage floor or rigged in any orientation on a truss without altering its operation characteristics .

For securing the fixture to the truss, install a safety wire which can hold at least 10 times the weight of the fixture. Use only the safety wire with a snap hook with screw lock gate.

Truss installation

1. Bolt clamps (4) to the brackets Omega CL (1) with M12 bolts and lock nuts through the hole in the bracket Omega CL.
2. Fasten the brackets Omega CL on the bottom of the base by means of the quick-lock fasteners (2) and tighten them fully clockwise.
3. Lock the snap hook of the safety wire (3) in the attachment point (5) a) and pull the safety wire around the truss (6) in a suitable position so that the maximum fall of the fixture will be 20 cm. Lock the snap hook with screw lock gate.



***When installing fixtures side-by-side,
avoid illuminating one fixture with another!***

DANGER TO LIFE!
***Before taking into operation for the first time, the installation has to be approved by
an expert!***

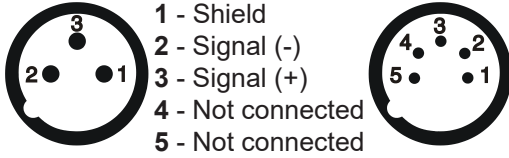
4.6 DMX-512 connection

The fixture is equipped with both 3-pin and 5-pin XLR sockets for DMX input and output. The sockets are wired in parallel.

Only use a shielded twisted-pair cable designed for RS-485 and 3-pin or 5-pin XLR-plugs and connectors in order to connect the controller with the fixture or one fixture with another.

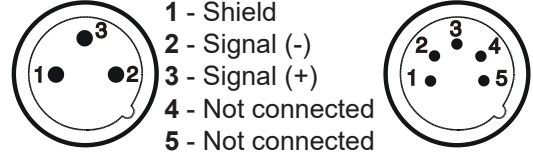
DMX output

XLR mounting sockets (rear view):



DMX input

XLR mounting plugs (rear view):

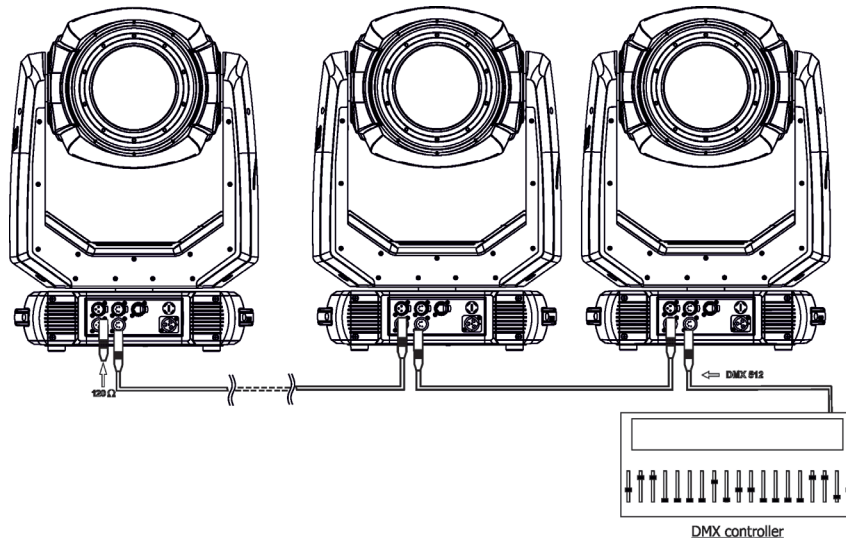


If you are using the standard DMX controllers, you can connect the DMX output of the controller directly with the DMX input of the first fixture in the DMX chain. If you wish to connect DMX controllers with other XLR outputs, you need to use adapter cables.

Building a serial DMX chain:

Connect the DMX output of the first fixture in the DMX chain with the DMX input of the next fixture. Always connect one output with the input of the next fixture until all fixtures are connected. Up to 32 fixtures can be connected.

Caution: At the last fixture, the DMX cable has to be terminated with a terminator. Solder a 120 Ω resistor between Signal (-) and Signal (+) into a 3-pin XLR plug and plug it in the DMX output of the last fixture.



4.7 Ethernet connection

The fixtures on a data link are connected to the Ethernet with ArtNet communication protocol. The control software running on your PC (or light console) has to support Art-Net protocol.

Art-Net communication protocol is a 10 Base T Ethernet protocol based on the TCP/IP. Its purpose is to allow transfer of large amounts of DMX 512 data over a wide area using standard network technology.

IP address is the Internet protocol address. The IP uniquely identifies any node (fixture) on a network.

The Universe is a single DMX 512 frame of 512 channels.

The Robin Esprite is equipped with 8-pin RJ-45 socket for Ethernet input. Use a network cable category 5 (with four "twisted" wire pairs) and standard RJ-45 plugs in order to connect the fixture to the network.

RJ-45 socket (front view):



- | | |
|------------------|------------------|
| 1- TD+ | 5- Not connected |
| 2- TD- | 6- RX- |
| 3- RX+ | 7- Not connected |
| 4- Not connected | 8- Not connected |

RJ-45 plug (front view):



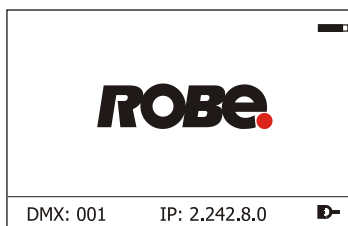
Patch cables that connect fixtures to the hubs or LAN sockets are wired 1:1, that is, pins with the same numbers are connected together:



If only the fixture and the computer are to be interconnected, no hubs or other active components are needed. A cross-cable has to be used:



If the fixture is connected with active Ethernet socket (e.g. switch) the network icon  will appear at the bottom right corner of the screen:



Direct Ethernet operation

Connect the Ethernet inputs of all fixtures with the Ethernet network.

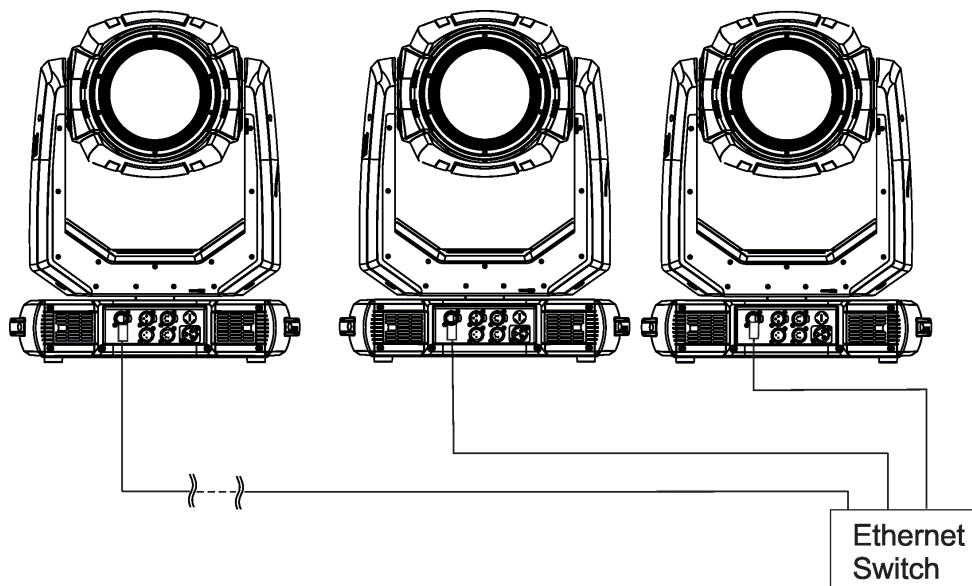
Option "Artnet" (gMal or gMA2 or sACN) has to be selected from "Ethernet Mode" menu at each fixture.

Set IP address (002.xxx.xxx.xxx / 010.xxx.xxx.xxx) and the Universe at each fixture.

(DMX address=146)
IP address=002.168.002.004
Universe=1

(DMX address=50)
IP address=002.168.002.003
Universe=1

(DMX address=1)
IP address=002.168.002.002
Universe=1



An advised PC setting: IP address: 002.xxx.xxx.xxx / 010.xxx.xxx.xxx (Different from fixture IP addresses)
NET mask: 255.0.0.0

Ethernet / DMX operation

Option "Artnet" (gMal or gMA2 or sACN) has to be selected from "Ethernet Mode" menu at first fixture.

Option "Ethernet To DMX" has to be selected from the "Ethernet Mode" menu at the first fixture (connected to the Ethernet) in the fixture chain, next fixtures have standard DMX setting.

Connect the Ethernet input of the first fixture in the data chain with the network. Connect the DMX output of this fixture with the input of the next fixture until all fixtures are connected to the DMX chain.

Caution: At the last fixture, the DMX chain has to be terminated with a terminator. Solder a 120 Ω resistor between Signal (-) and Signal (+) into a XLR-plug and connect it in the DMX-output of the last fixture.

Example:

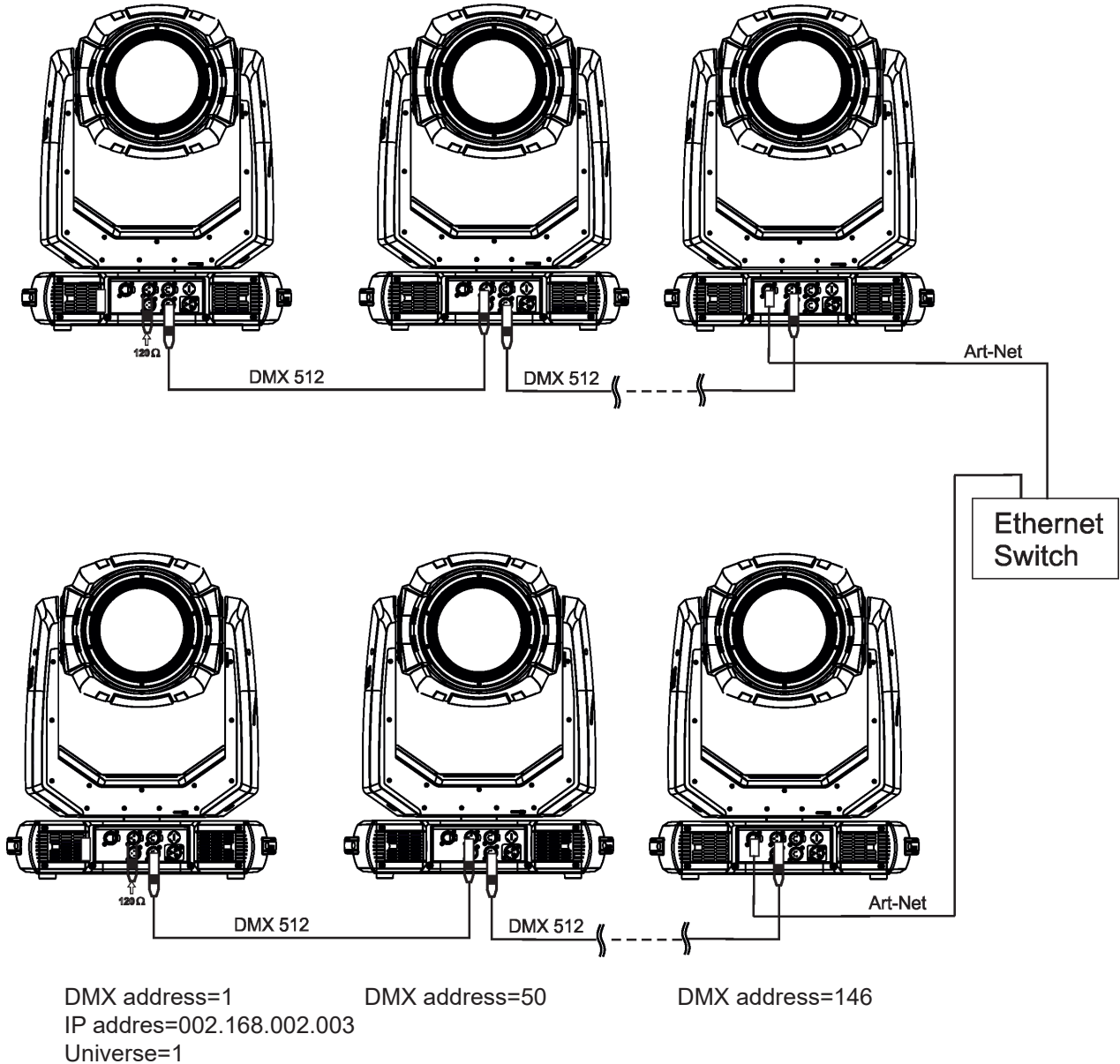
DMX address=1

IP address=002.168.002.002

Universe=0

DMX address=50

DMX address=146



4.8 Wireless DMX operation

The wireless version of the Robin Esprite is equipped with the Lumen Radio CRMX module and antenna for receiving DMX signal. CRMX module operates on the 2.4 GHz band.

The item " Wireless " from the menu "DMX Input" allows you to activate receiving of wireless DMX (Personality--> DMX Input -->Wireless.). First two options from the "DMX Input" menu are stated in DMX chart as well (channel Power/Special functions , range of 10-19 DMX). If DMX input option is changed by DMX command, the change is permanently written into fixture's memory.

DMX range of 10-19 switching fixture to the wired/wireless operation is active only during first 10 seconds after switching the fixture on.

After switching the fixture on, the fixture checks both modes of receiving DMX in the following order:

1. For the first five seconds, the fixture receives DMX signal from the wired input. If the Power/Special functions channel is set at some DMX input option, the fixture will receive DMX value according to this option. If DMX input option is set to the wired input , this option is saved and checking procedure is finished. If DMX input option is not set, the fixture continues next 5 seconds in scanning wireless DMX signal-see point 2.
2. For the next 5 seconds the fixture receives wireless DMX signal and again detects if the Power/Special functions channel is set at some DMX input option, if not, the fixture will take option which is set in the fixture menu "DMX Input".

To link the fixture with DMX transmitter.

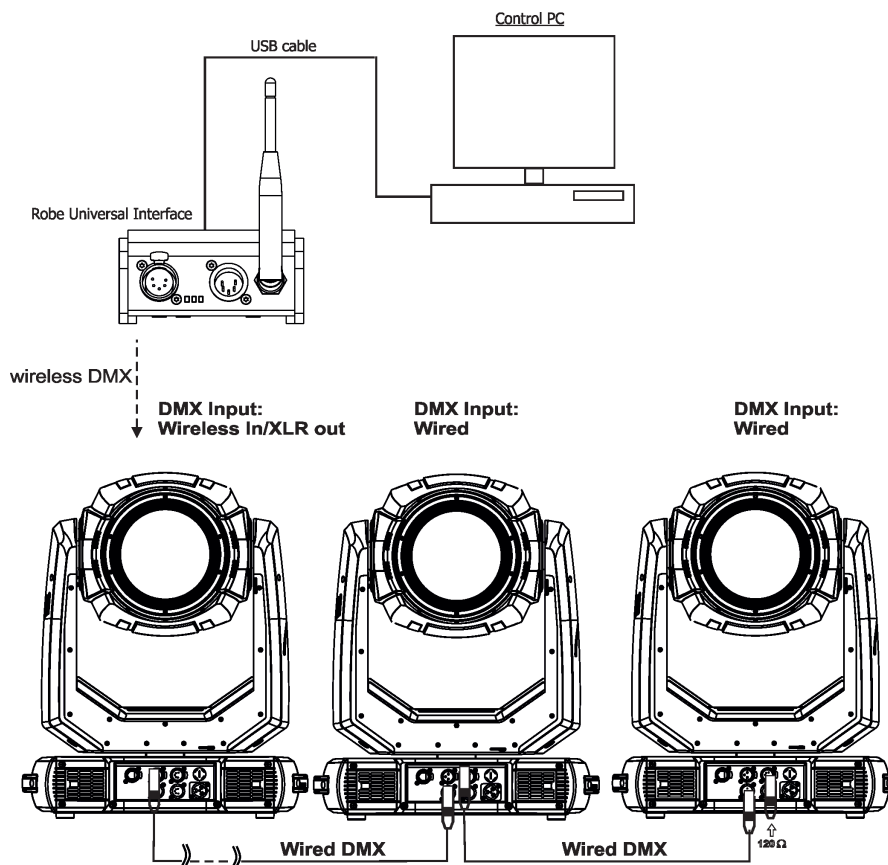
The fixture can be only linked with the transmitter by running the link procedure at DMX transmitter . After linking , the level of DMX signal (0-100 %) is displayed in the menu item "Wireless State" (Information -->Wireless State).

To unlink the fixture from DMX transmitter.

The fixture can be unlinked from receiver via the menu item " Unlink Wireless Adapter" (Information--> Wireless State --> Unlink Wireless Adaptor).

Note: If the option "Wireless In/XLR Out" is selected (Personality--> DMX Input -->Wireless In/XLR Out), the fixture receives wireless DMX and sends the signal to its wired DMX output. The fixture behaves as " Wireless/ Wired" adaptor.

Example of connection:



5. Remotely controllable functions

Effect wheel

The wheel rotates in both directions with variable speed which creates wide spectrum of graphic effects.

Gobo wheels

The fixture includes static gobo wheel with 9 gobos and rotating gobo wheel with 7 glass gobos rotating in both directions, indexable, replaceable "SLOT&LOCK" system.

Prism

The 6-facet prism rotates in both directions at different speeds, 16 prism/gobo macros are available.

Frost

Two frost filters (light 1° and medium 5°) provide variable frost for fine frosting. The medium frost is replaceable.

Iris

Motorized adjustable iris, wide range of variable pulse effects.

Zoom

Motorized zoom unit enables zoom between 5.5° - 49°.

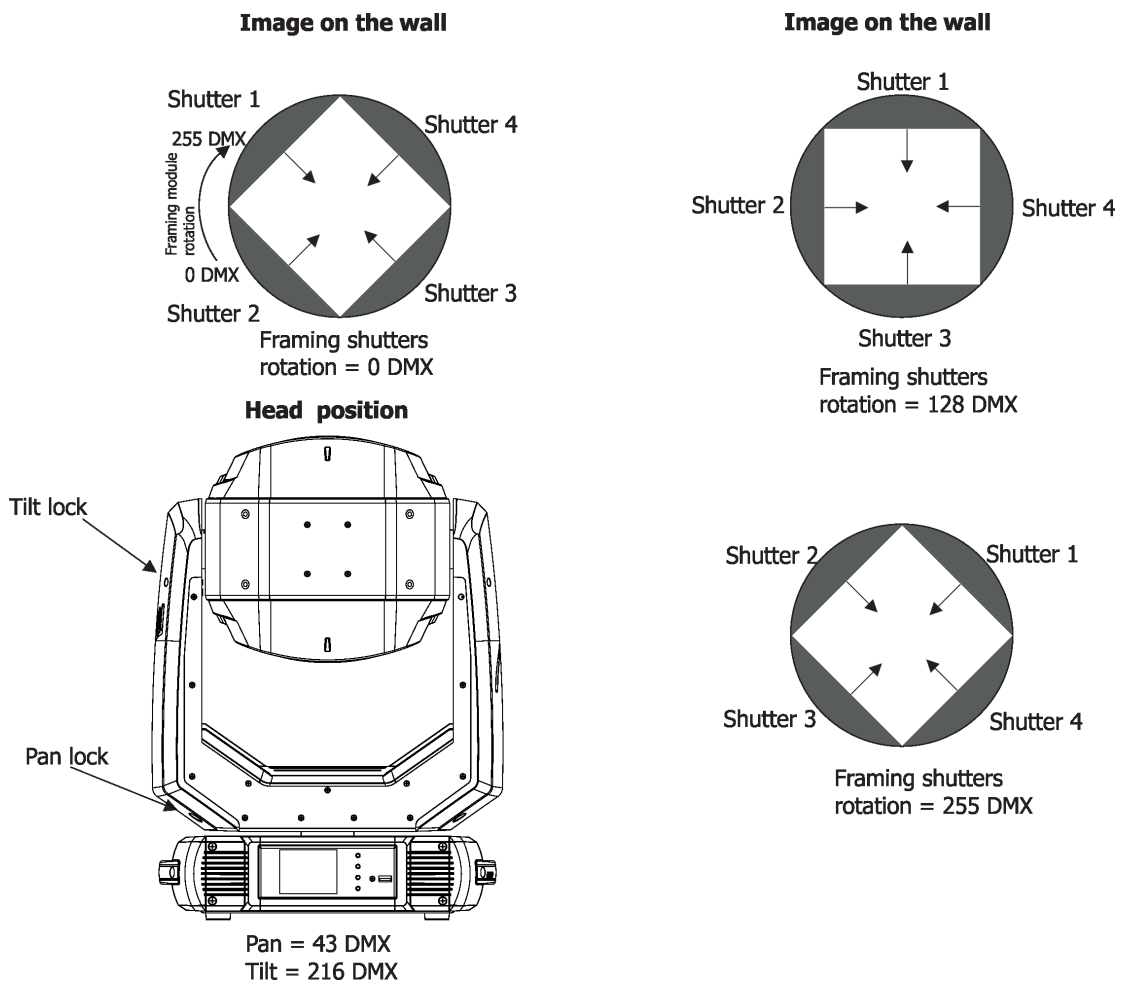
Focus

Motorized focus allows to focus beam from approx. 2 meters to infinity.

Framing system

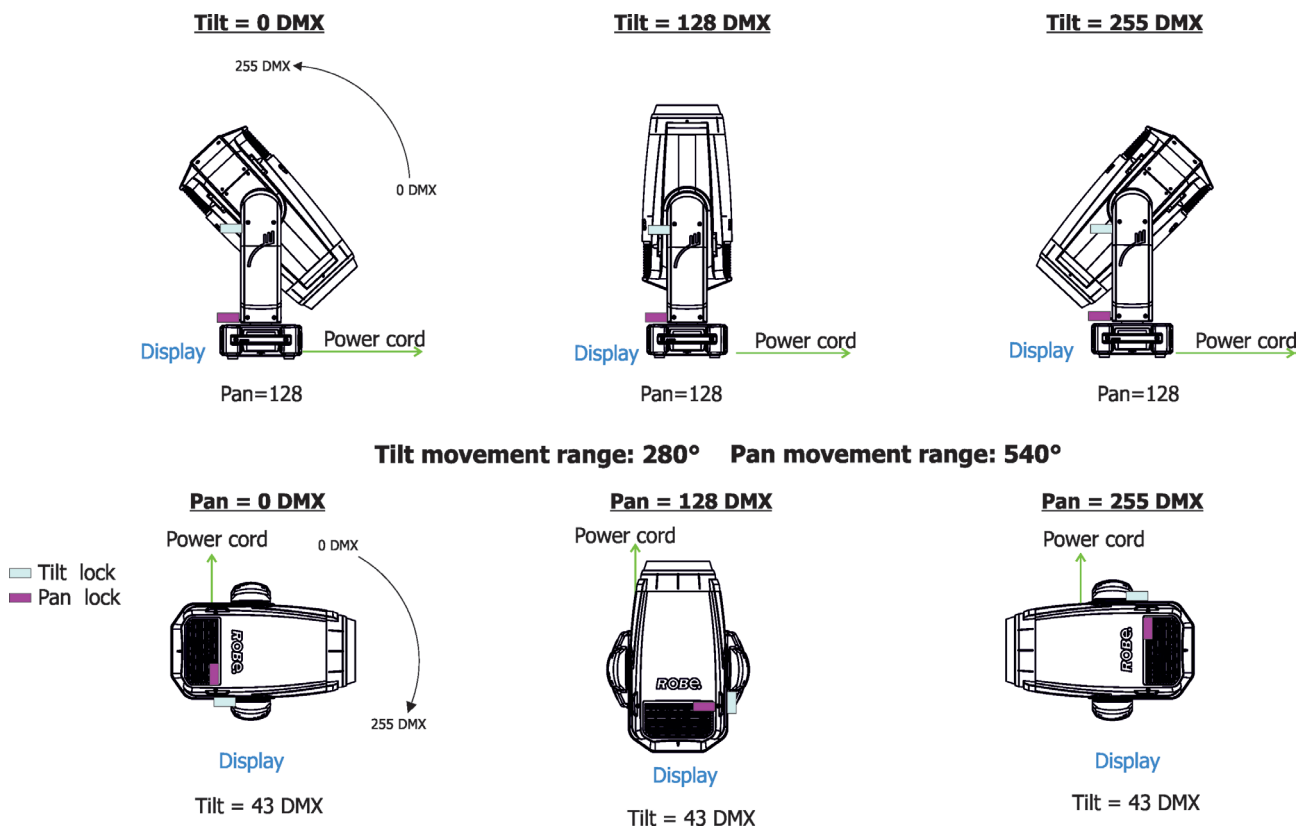
Framing system consists of four framing shutters. There is individual control of each shutter blade position and angle, together with rotation of the complete framing module. As well as providing a sharp precise or soft frame for the projected image.

Framing system orientation:



Pan/Tilt

Fast pan/tilt movement due to built-in electronic motion stabilizer (EMS). The electronic motion stabilizer ensures precise position of the fixture's head during its movement and reduces its swinging when the truss shakes. Pan /Tilt movement range: 0-540°/0-280°.



Colour wheel 1

This wheel contains five dichroic filters + open. The colour wheel can be positioned between two adjacent colours in any position. It is also possible to rotate the colour wheel continuously at different speeds ("Rainbow effect" in both directions).

Colour wheel 2

This wheel contains one multicolour filter, two dichroic filters and two CRI filters (80, 90) + open. The colour wheel can be positioned between two adjacent colours in any position. It is also possible to rotate the colour wheel continuously at different speeds ("Rainbow effect" in both directions).


CMY+CTO colour mixing system




The CMY color mixing system is based on graduated cyan, magenta, and yellow colour filters. A continuous range of colors may be achieved by varying the amount of each filter from 0 to 100%.

6. Control menu map

Default settings=**Bold print**

Tab	Level 1	Level 2	Level 3	Level 4	Level 5	Level 6
Addressing	Settings	DMX Address	001-512			
	DMX Presets	Mode 1				
		Mode 2				
		View Selected Preset				
	Ethernet Settings	Ethernet Mode	Disable			
			ArtNet			
			gMAI			
			gMA2			
			sACN			
		Ethernet To DMX	Off , On			
		IP Address/Net Mask	Default IP Address			
			Custom IP Address			
			Net Mask			
		ArtNet Universe	0-255			
		MANet settings	MANet/II Universe	01-256		
			MANet Session ID	01-32		
		sACN Settings	sACN Universe	00001-32000		
Information	Fixture Times	Power On Time	Total Hours			
			Resetable Hours			
		LEDs On Time	Total Hours			
			Resetable Hours			
		Air Filters	Elapsed Time			
			Alert Period	10-300		
	Fixture Temperatures	LEDs Temperatures	Cur.rent			
			Maximum NonRes..			
			Maximum Res..			
		Driver Temperature	Cur.rent			
			Maximum NonRes..			
			Maximum Res..			
		Base Temperature	Current			
			Maximum NonRes.			
			Maximum Res.			
	DMX Values	Pan				
		:				
		Dimmer Fine				
	Wireless State	Signal Quality				
		Unlink Wireless Adapter				
	Power Channel state					
	Software Versions	Display System				
		Module M				
		Module L				
		Module O				
		Module F-A				
		Module F-B				
		Module G				
		Module FR				
		Module C1				
		Module C2				
	Product IDs	Mac Address				
		RDM UID				

Tab	Level 1	Level 2	Level 3	Level 4	Level 5	Level 6
		RDM Label				
	View Logs	Fixture Errors				
		Fixture States	Power On			
			Power Off			
		Fixture Position				
		Fixture Temperatures	LEDs Temperature			
			Driver Temperatures			
			Base Temperatures			
Personality	User Mode	User A Settings				
		User B Settings				
	DMX Presets	Mode 1				
		Mode 2				
		View Selected Preset				
	DMX Input	Wired				
		Wireless				
		Wireless In/XLR Out				
	Pan/Tilt Settings	Pan Reverse	Off, On			
		Tilt Reverse	Off, On			
		Pan/Tilt Feedback	Off, On			
		Pan/Tilt mode	Time			
			Speed			
	Pan/Tilt EMS	On, Off				
	Microphone Sensitivity	1-10-20				
	Blackout Settings	Blackout During M.C.	Off, On			
		Blackout while:	Pan/Tilt moving	Off, On		
			Colour Wheel Moving	Off, On		
	Frequency Setup	300 Hz				
		600Hz				
		1200Hz				
		2400Hz				
		Frequency Adjust				
	Init Effect Positions	Pan	0-255			
		:				
		Dimmer Fine	0-255			
	Screen Settings	Display Intensity	1-10			
		Screen Saver Delay	Off-10min.			
		Touchscreen Lock	Off-10min.			
		Recalibrate Touchscreen				
		Display Orientation	Normal			
			Inverted			
			Auto			
	Temperature Unit	°C,°F				
	Fan Mode	Auto				
		High				
		Quiet				
	Boost mode	Off, On				
	Dimmer Curve	Linear				
		Square law				
	Date & Time Settings					
	Default Settings					
	Password Protection	Off, On				
	Reset Web Password					

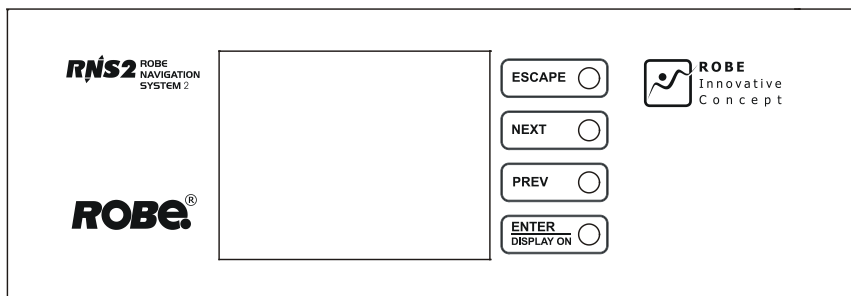
Tab	Level 1	Level 2	Level 3	Level 4	Level 5	Level 6
Manual Control	Reset Functions	Total System Reset				
		Pan/Tilt reset				
		Color System Reset				
		Gobo/Eff. Wh. Reset				
		Optics/Prism/Frost Res.				
		Iris/framing Sh. Reset				
	Manual Effect Control	Pan	0-255			
		:				
		Dimmer Fine	0-255			
Stand -Alone	Test Sequences	Dynamic Mode				
		Static Mode	Pan	0-255		
			Tilt	0-255		
			Zoom	0-255		
			Focus	0-255		
	MusicTrigger	Off, On				
	Preset Playback	None				
		Test				
		Prog. 1				
		Prog. 2				
		Prog. 3				
	Play Program	Play Program 1				
		Play Program 2				
		Play Program 3				
	Edit Program	Edit Program 1	Start Step	1-80		
		Edit Program 2	End Step	1-80		
		Edit Program 3	Edit Program Steps	Step 1	Pan	0-255
				:	:	
				:	Dimmer Fine	0-255
				:	Step Time	0-25,5 sec.
				Step 80	Pan	0-255
					:	
					Dimmer Fine	0-255
					Step Time	0-25,5 sec.
Service	Adjust DMX Values	Pan	0-255			
		:				
		Dimmer Fine	0-255			
	Calibrations	Calibrate Effects	Pan	0-255		
			Tilt	0-255		
			Effect Wheel	0-255		
			Rot. Gobo Wheel	0-255		
			R. Gobo Index 1	0-255		
			:	:		
			R. Gobo Index 7	0-255		
			Static Gobo	0-255		
			Colour Wheel 1	0-255		
			Colour Wheel 2	0-255		
			Prism 1	0-255		
			Prism 2	0-255		
			Zoom	0-255		
			Focus	0-255		
			Iris	0-255		
			Frost 1/1	0-255		
			Frost 1/2	0-255		
			Frost 2/1	0-255		
			Frost 2/2	0-255		

Tab	Level 1	Level 2	Level 3	Level 4	Level 5	Level 6
			Fr. Shutters rot.	0-255		
			Fr. Shutter 1 Move	0-255		
			Fr. Shutter 1 Swiv	0-255		
			Fr. Shutter 2 Move	0-255		
			Fr. Shutter 2 Swiv	0-255		
			Fr. Shutter 3 Move	0-255		
			Fr. Shutter 3 Swiv	0-255		
			Fr. Shutter 4 Move	0-255		
			Fr. Shutter 4 Swiv	0-255		
		Calibrate Fr. Hysteresis	Framing Lamella 1	0-8		
			Framing Lamella 2	0-8		
			Framing Lamella 3	0-8		
			Framing Lamella 4	0-8		
		Calibrate Pan/Tilt EMS				
		Load Default Calibrations				
	Update Software					

7. Control menu

The Robin Esprite is equipped with the QVGA Robe touch screen with battery backup which allows you to set the fixture's behaviour according to your needs, obtain information on its operation, control all range of effects and program it in stand-alone mode.

The fixture's menu can be controlled either by the control buttons or directly by touching the icon.



Control buttons on the front panel:

[ESCAPE] button used to leave the menu without saving changes.

[NEXT] , [PREV] buttons for moving between menu items and symbols, adjusting values.

[ENTER/Display On] button used to enter the selected menu (menu item) and to confirm adjusted value.

If the fixture is disconnected from mains, the button switches the touch screen on.

Icons used in the touch screen menu:



- [back arrow] used to move back to the previous screen (menu).



- [up arrow] used to move up on the previous page.



- [down arrow] used to move down on the next page.



- [confirm] used to save adjusted values, to leave menu or to perform desired action.



- [cancel] used to leave menu item without saving changes.



- [confirm+copy] used to save adjusted values and copy them to the next prog. step.



- [warning icon] used to indicate some error which has occurred in the fixture.



- [Ethernet] used to indicate Ethernet connected.



- [menu rotation] used to rotate menu 180 degrees from current orientation.



- [slider control] used to recall slider system for setting desired value.



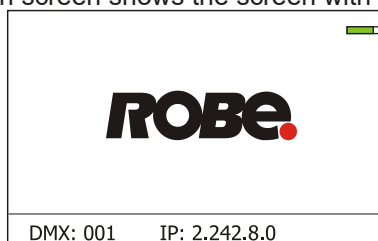
- [keyboard control] used to recall keyboard system for setting desired value.



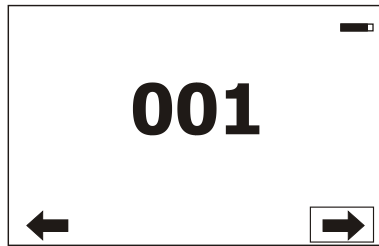
- [air filters cleaning] used to signal that cleaning period of the air filters elapsed.

The menu page displays icons for each function that you can perform from the touch screen.

After switching the fixture on, the touch screen shows the screen with the ROBE logo:



Touch any part of the screen or press the [ENTER/Display On] button to display the initial screen with the current stored DMX address:



Note: The green icon at the top right corner of the screen indicates the level of the display battery charging. If the whole icon is green, the battery is fully charged while the red icon indicates exhausted battery. The battery charges during fixture operation, its charging lasts cca 6 hours.

We recommend that the fixture should be in operation at least 7 hours per week to keep the battery fully charged. If you switch the fixture on and this screen will not appear till 1 minute, switch the fixture off and on again. If the screen lights, the battery is exhausted. In case the screen still does not light, the battery is faulty.

This is also indicated by an error message "Faulty battery" and if such an error message appears the battery should be replaced immediately. The lifetime of the battery is highly dependent on ambient temperature (and consequently on base temperature). If the maximum ambient temperatures (as recorded and displayed in menu: Information -> Fixture Temperatures -> Ambient Temperature -> Maximum NonRes.) are kept within the specified limits, the battery should last for at least two years. Should the ambient temperatures exceed the specified maximum temperature, the lifetime of the batteries could be considerably shortened even up to just one year or less and also result in physical damage (battery leakage) or unreliable fixture functions.

Damage caused by batteries failed due to exceeded maximum ambient temperature cannot be claimed under warranty terms.

Touch the green arrow at the bottom right corner of the screen or press the [ENTER/Display On] button to enter the "Address" menu.

Each item (such as a Tab, menu item, text box, icon) may be selected from a screen by simply touching the item in the list or by pressing the [NEXT] or [PREV] buttons to scroll through list items. With each press, the next item is highlighted. Press [ENTER/Display On] to select the highlighted item.

Before first fixture operation, set current date and time in the menu "Date & Time Settings" (menu path: Personality--> Date & Time Settings).

7.1 Tab "Address"



DMX Address - Select the menu to set the DMX start address.

DMX Preset - Use the menu to select desired channel mode.

DMX Preset - Use the menu to select desired channel mode.

Mode 1 - 49 control channels

Mode 2 - 42 control channels

View Selected Preset - Use the menu to display channels included in the selected mode.

Ethernet Settings - The menu allows all needed settings for the Ethernet operation

Ethernet Mode

Disable - The option disables Ethernet operation.

Artnet - Fixture receives Artnet protocol

gMAI - Fixture receives MANet 1 protocol

gMA2 - Fixture receives MANet 2 protocol

sACN - Fixture receives sACN protocol

Ethernet To DMX - Fixture receives protocol from the Ethernet input and sends DMX data to its DMX output (fixture works as an "Ethernet/DMX converter", next fixture can be connected to its DMX output and you can build a standard DMX chain by connecting another fixtures. Only one fixture has to be connected to the Ethernet.

IP Address/Net Mask - Select this menu to set IP address. IP address is the Internet protocol address. The IP uniquely identifies any node (fixture) on a network.

There cannot be 2 fixtures with the same IP address on the network!

Default IP Address -Preset IP address, you can set up only first byte of IP address (2 or 10) e.g. **002**.019.052.086.

Custom IP Address - The option enables to set up all bytes of IP address.

Net Mask - The option enables to set up all bytes of Net Mask.

ArtNet Universe - Use this item to set a Universe (0-255). The Universe is a single DMX 512 frame of 512 channels.

MANet Settings - Use this menu to set parameters for MANet operation.

MANet Universe I/II - The value of this item can be set in range 1-256.

MANet Session ID - The value of this item can be set in range 1-32.

sACN Settings - Use this menu to set parameters for sACN operation.

sACN Universe - The value of this item can be set in range 1-32000.

7.2 Tab "Information"



Fixture Times - The menu provides readouts of fixture and LED module operation hours.

Power On Time Hours - Select this menu to read the number of fixture operation hours.

Total Hours - The item shows the total number of the operation hours since the Robin Esprite has been fabricated.

Resetable Hours - The item shows the number of the operation hours that the Robin Esprite has been powered on since the counter was last reset.

In order to reset this counter to 0, touch the text box next to the item "Resetable Hours:"

LEDs On Time - Select this menu to read the number of LEDs operation hours.

In order to reset some counter to 0, touch the yellow text box next to desired colour.

Air Filters - Regular cleaning of the air filters is very important for the fixture's life and performance.

Build-up of dust, dirt and fog fluid residues reduces the fixture's light output and cooling ability.

The two items of this menu help you to keep cleaning period of the air filters.

Alert period - Cleaning schedule for the fixture depends on the operating environment.

It is therefore impossible to specify accurate cleaning interval. This item allows you to change the cleaning interval of the air filters. This "alert" value is 300 hours and it is set as default. Inspect the fixture within its 300 hours of operation to see whether cleaning is necessary. If cleaning is required, clean all air filters and change the value in this menu on acceptable level. Min. level of alert period is 10 hours, max. is 300 hours.

Elapsed Time - The item allows you to read the time which remains to cleaning air filters.

The time period is set in the menu mentioned above.

Expired time period is signalled by a negative mark (-) at the time value and a warning icon on the display.

Clean the filters and reset this menu item (by touching the text box next to the item "Elapsed Time").

Fixture Temperatures - The menu is used to view temperatures of the fixture's inside.

LEDs temperature - The menu shows temperature on the LED PCB in the light source

Current - A current temperature of the LED PCB.

Maximum NonRes. - A maximum temperature of the LED PCB since the fixture has been fabricated.

Maximum Res. - A maximum temperature of the LED PCBs since the counter was last reset.
In order to reset some counter to 0, touch desired text box under item "Max.Res."

Driver Temperature - The menu shows temperature on the LEDs control PCB in the fixture head.

Current - A current temperature on the LEDs control PCB.

Maximum NonRes. - A maximum temperature on the LEDs control PCB since the fixture has been fabricated.

Maximum Res. - A maximum temperature on the LEDs control PCB since the counter was last reset.

In order to reset this counter to 0, touch the text box next to the item "Maximum Res."

Base Temperature - The menu shows temperature on the display PCB in the fixture base.

Current - A current temperature on the display PCB.

Maximum NonRes. - A maximum temperature on the display PCB since the fixture has been fabricated.

Maximum Res. - A maximum temperature on the display PCB since the counter was last reset.

In order to reset this counter to 0, touch the text box next to the item "Maximum Res."

DMX Values - The menu items allows you to read DMX values of each channel received by the fixture.

Wireless State - The menu serves for reading of the wireless operation status.

Unlink Wireless Adapter - The item serves for unlinking the fixture from a DMX transmitter.

If the wireless module is not installed in the fixture, message "Wireless Module Not Installed" will appear.

Power Channel State - Select this item to see current setting of the functions, which can be set by menu items in "Personality" as well as by DMX command at channel "Power/Special functions".

Colour Functions State - Select this item to see current setting of the colour functions, which can be set by menu items in "Personality" as well as by DMX command at channel "Colour functions".

Software Version - Select this item to read the software version of the fixture processors:

Display System - A display processor on the display board in the fixture base

Module M - a Pan/Tilt processor

Module L - a LEDs control processor

Module O - a Focus/Zoom/Prism/ control processor

Module F-A - a Framming shutters control processor

Module F-B - a Framming shutters + Iris control processor

Module G - a Rot. gobo/Static gobo wheel control processor

Module FR - a Frost control processor

Module C1 - a Colour wheel 1 control processor

Module C2 - a Colour wheel 2 control processor

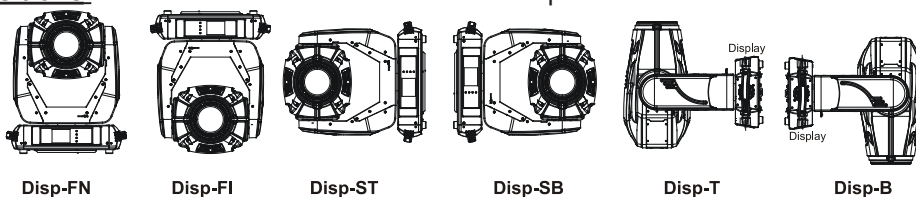
Product IDs - The menu is used to read the MAC Address ,RDM UID and RDM Label.

View Logs - Use this menu to read fixture's data which have been recorded during fixture operation. This collected data allows easier troubleshooting.

Fixture Errors - Use this menu to read fixture errors which have occurred during fixture operation.

Fixture States - In the menu are recorded fixture states as power on and power off.

Fixture Positions - In the menu are recorded installation positions of the fixture:



Fixture Temperatures - In the menu are recorded temperatures which have exceeded defined levels.

Note: The log buffer can contain max. 8000 records. If the buffer is full, old data will be overwritten.

7.3 Tab "Personality"



User mode - The Robin Esprite allows you to recall two user settings. After switching the fixture on for the first time, the User A settings is active. Now all changes made in the "Personality" menu, "Addressing" menu and the "Music Trigger" and "Preset Playback" items from the "Stand-alone" menu are saved to the User A settings. If you now select the User B settings, from this moment the changes made in these menus will be saved to the User B settings. After switching the fixture off and on, the User B setting is active. In this way you may use the two fixture operating behaviours.

User A Settings - the function recalls the user A settings.

User B Settings - the function recalls the user B settings.

DMX Preset - Use the menu to select desired channel mode.

Mode 1 - 49 control channels

Mode 2 - 42 control channels

View Selected Preset - Use the menu to display channels included in the selected mode.

DMX Input- Use the menu to select mode of DMX signal receiving.

Wired - DMX signal is received by means of the standard DMX cable.

Wireless - DMX signal is received by means of the inbuilt wireless module.

Wireless In/XLR Out- the fixture receives wireless DMX and sends the signal to its wired DMX output.

The fixture behaves as "Wireless/Wired" adapter.

The options "Wired" and "Wireless" are also stated in DMX chart (channel Power/Special functions).

Note. If the wireless module is not installed in the fixture, the following message will appear:

DMX Input Set to Wired

Wireless Module Missing

If the fixture is not connected to mains, the message "Not Available In Offline Mode" will appear after entering the menu DMX Input. To enter this menu, the fixture has to be connected to mains.

Pan/Tilt Settings - Use the menu set behaviour of both pan and tilt movements.

Pan Reverse - The item allows to invert pan movement.

Tilt Reverse - The item allows to invert tilt movement.

Pan/Tilt Feedback - The item allows to return the moving head to the required pan/tilt position after changing the position by an external force if this option is set on.

Note. Be careful, the Pan/Tilt Feedback should be permanent On, the option Off is not suitable for standard operation and the head of the fixture can be damaged!

Pan/Tilt mode - Use this menu to set the mode of the pan/tilt movement

Time mode – The pan and tilt will move with different speeds and they will come at the same time to the end point of their tracks (pan and tilt use their optimal speeds).

Time of the pan/tilt movement (25.5 sec. max.) is set by the channel "Pan/Tilt speed, Pan/Tilt time".

Speed Mode - Both Pan and tilt will move with the same speed as adjusted at the channel "Pan/Tilt speed, Pan/Tilt time".

Pan/Tilt EMS - Built-in electronic motion stabilizer ensures precise position of the fixture's head during its movement and also reducing its swinging when the truss shakes.

Microphone Sensitivity - Enter the menu if you want to adjust the microphone sensitivity from 1 (max.) to 20 (min.).

Blackout Settings - Use the menu if you need to close the light output under certain conditions which are described below

Blackout During MC - Blackout during movement correction. Set this option On if you wish to close light output during the time when the head goes to its correct position from which has been changed by an external force.

Active Blackouts - Use this menu if you wish to close the light output during effect changes.

Pan/Tilt Moving - The menu item enables to close light output while the pan/tilt DMX values are changing.

Colour Wheel Moving - The menu item enables to close light output while colour wheel is moving.

Frequency Setup - The function allows you to set the PWM (Pulse Width Modulation) output frequency of LEDs to 300Hz, 600Hz, 1200Hz or 2400Hz.

Frequency Adjust - The menu item allows you fine adjustment of the LED frequency around selected frequency.

Init Effect Positions - Use the menu to set all effects to the desired positions at which they will stay after switching the fixture on without DMX signal received.

Screen Settings - Use this menu to change the touch screen settings.

Display Intensity - The item allows to control the intensity of the screen (1-min., 10-max.).

Screen saver Delay - The item allows you to keep the screen on or to turn it off automatically after 1-10 minutes after last touch (or pressing any button on the control panel).

Touchscreen Lock - The item allows you to lock the screen after last touch (or pressing any button on the control panel). The time delay can be set in range of 1-10 minutes. To unlock the screen, press the [ENTER/Display On] button.


Recalibrate Touchscreen - The item starts calibration of the touch screen. Follow the instructions on the screen.

Display Orientation - The menu allows to change display orientation.

Normal - Standard display orientation if the fixture is placed horizontally (e.g. on the ground).

Inverted - Inverted orientation (needed if the fixture is hanging on the truss).

Auto - The option activates a gravitation sensor for automatic screen orientation.

Note: **Auto** option is set as default. You change the display orientation by touching the icon  on the display, and the option set in the "Display Orientation" menu is temporarily overridden.

Temperature unit - Use the menu item to change temperature unit from °C to °F.

Fan Mode - Use the menu to set the fixture fans to max. power mode ("**High**") or to the auto-control mode ("**Auto**"). The option "**Quiet**" allows you to set desired fan noise. The light output of the fixture will be reduced at low speed of fans.

Boost Mode - If the Boost Mode is On, the light output from the fixture will be increased about 6% towards to the operation with fans in High mode. Fans will run on max. power

Dimmer Curve - Use the menu to select desired dimmer curve: Linear or Square Law.

Date & Time Settings - Use this menu to set current date and time for the fixture log system (menu "View Logs"). Set this menu items before first fixture operation.

Default Settings - The menu item allows to set all fixture parameters in this menu to the default (factory) values except items "DMX Input".

Password Protection - allows to enter password in order to prevent unauthorized person from changing setting of the fixture.

Reset Web Password - The menu item allows you to reset a password for access on the Web server (default password: 2479, user: robe).

7.4 Tab "Manual Control"



Reset Functions - The menu allows to reset the fixture either per function modules or all modules together.

Total System Reset - The item resets all function modules.

Pan/Tilt Reset - The item resets a pan and a tilt.

Colour System Reset - The item resets colour wheel 1/colour wheel 2 and CMY+CTO system.

Gobo/Eff. Wh. Reset - The item resets static and rotating gobo wheel and an effect wheel.

Optics/Prism/Frost Res. - The item resets a zoom, focus, prism and a frost module.

Iris/Framing Sh. Reset - The item resets an iris module and framing shutters.

Manual Effect control - Use the menu to control all fixture channels by means of the control panel.

7.5 Tab "Stand-alone"



Test Sequences - Use the menu to run a test/demo sequences without an external controller, which will show you some possibilities of using Robin Esprite.

Dynamic Mode - This mode uses all Robin Esprite functions including pan/tilt movement and therefore is good for a complete introduction of the fixture.

Static Mode - This mode is suitable for projections on the wall, ceiling or ground without any pan/tilt movement. Adjust the pan, tilt, zoom and focus to desired positions and start test sequences by touching the green ► icon.

Music Trigger - Use the item to activate the sound control of the running program via the built-in microphone.

Preset Playback - This menu allows you to select the program which will be played in a loop after switching the fixture on (the option is commonly used in a stand-alone operation without an external controller).

None - The option disables "Presetting playback" function.

Test - The option starts the test sequences.

Prog. 1 - The option starts user program No. 1.

Prog. 2 - The option starts user program No. 2.

Prog. 3 - The option starts user program No. 3.

Play program - Use the menu to run desired program in a loop.

Play Program 1 - The option starts user program No.1.

Play Program 2 - The option starts user program No. 2.

Play Program 3 - The option starts user program No. 3.

Edit Program - Use the menu to create or to edit desired program. The Robin Esprite offers 3 free programs, each up to 80 steps.

Edit Program 1 - The option allows to edit user program No.1.

Edit Program 2 - The option allows to edit user program No.2.

Edit Program 3 - The option allows to edit user program No.3

To edit program:

1. Touch the item which you want to edit ("Edit Program 1" - "Edit Program 3").

2. Touch the item "Edit Program Steps".

3. Touch the item "Step 1".

4. From the list of effects touch desired effect and set its value. Browse through the list by touching the [up arrow] and [down arrow] and set all desired effects.

An item "Step Time" (value of 0-25.5 sec.) is the time during which effects last in the current step

5. Save adjusted effects to the current step by touching the [confirm] or save and copy them to the following step by touching the [confirm+copy]. By touching the text box "Preview" next to the current program step you can view created scene.

6. Repeat the steps 4 and 5 for next program steps.

7. After editing desired program steps, adjust the length of the program by touching the text boxes "Start Step" and "End Step".

Meaning of the icons used in the "Edit Program" menu:

⬇ - moves down on the next page

✓ - saves adjusted values and leaves menu

⬆ - moves up on the previous page

✓ - saves values to the current step and copy them to the following prog. step

✗ - leaves menu without saving values

7.6 Tab "Service"



Adjust DMX Values - The menu allows you to set all effects to desired positions before fine calibration of the effects .

Calibrations - This menu enables fine calibration of fixture effects and download default calibration values.

Calibrate Effects - The menu allows the fine adjustment of effects.

Pan- a pan position fine adjustment (value range: 0-255)

Tilt - a tilt position fine adjustment (value range: 0-255)

Effect Wheel - an effect wheel position fine adjustment (value range: 0-255)

Rot. Gobo Wheel - a carousel of rotating gobos fine movement (value range: 0-255)

R. Gobo Index 1 - a fine movement of the rotating gobo 1 (value range: 0-255)

R. Gobo Index 2 - a fine movement of the rotating gobo 2 (value range: 0-255)

R. Gobo Index 3 - a fine movement of the rotating gobo 3 (value range: 0-255)

R. Gobo Index 4 - a fine movement of the rotating gobo 4 (value range: 0-255)

R. Gobo Index 5 - a fine movement of the rotating gobo 5 (value range: 0-255)

R. Gobo Index 6 - a fine movement of the rotating gobo 6 (value range: 0-255)

R. Gobo Index 7 - a fine movement of the rotating gobo 7 (value range: 0-255)

Static Gobo - a static gobo wheel fine movement (value range: 0-255)

Colour Wheel 1 - a colour wheel 1 fine movement (value range: 0-255)

Colour Wheel 2 - a colour wheel 2 fine movement (value range: 0-255)

Prism 1 - a prism fine movement (value range: 0-255)

Prism 2 - a prism fine rotation (value range: 0-255)

Zoom - a zoom module fine movement (value range: 0-255)

Focus - a focus module fine movement (value range: 0-255)

Iris - an iris fine movement (value range: 0-255)

Frost 1/1 - a light frost fine position movement 1

Frost 1/2 - a light frost fine position movement 2

Frost 2/1 - a medium frost fine position movement 1

Frost 2/2 - a medium frost fine position movement 2

Fr. Shutters.rot- a framing shutters module fine rotation (value range: 0-255)

Fr. Shutter 1 Move - a Fram. lamella 1 fine moving

Fr. Shutter 1 Swiv. - a Fram. lamella 1 fine swivelling

Fr. Shutter 2 Move - a Fram. lamella 2 fine moving

Fr. Shutter 2 Swiv.- a Fram. lamella 2 fine swivelling

Fr. Shutter 3 Move - a Fram. lamella 3 fine moving

Fr. Shutter 3 Swiv. - a Fram. lamella 3 fine swivelling

Fr. Shutter 4 Move - a Fram. lamella 4 fine moving

Fr. Shutter 4 Swiv. - a Fram. lamella 4 fine swivelling

Calibration of the effects via the control board

1. Disconnect DMX controller from the fixture and enter the "Calibrate Effects" menu.
2. Use the [up arrow] and [down arrow] to find "Pan" and touch it to enter the fine effect adjustment screen.
3. Set desired value and save it by touching the [confirm].
4. Repeat steps 2 and 3 for next item
5. After calibrating all effects, touch the [confirm] to save all adjusted values and reset the fixture.

Calibration of the effects via the DMX controller

1. Connect DMX controller to the fixture and enter the "Calibrate Effects" menu.

Calibration protocol:

Effect	Mode 1	Mode 2
Pan	channel 50	channel 43
Tilt	channel 51	channel 44
Ef. wheel	channel 52	channel 45
Rot. Gobo Wheel	channel 53	channel 46
R. Gobo Index 1	channel 54	channel 47
R. Gobo Index 2	channel 55	channel 48
R. Gobo Index 3	channel 56	channel 49
R. Gobo Index 4	channel 57	channel 50

R. Gobo Index 5	channel 58	channel 51
R. Gobo Index 6	channel 59	channel 52
R. Gobo Index 7	channel 60	channel 53
Static gobo	channel 61	channel 54
Colour wheel 1	channel 62	channel 55
Colour wheel 2	channel 63	channel 56
Prism 1	channel 64	channel 57
Prism 2	channel 65	channel 58
Zoom	channel 66	channel 59
Focus	channel 67	channel 60
Iris	channel 68	channel 61
Frost 1/1	channel 69	channel 62
Frost 1/2	channel 70	channel 63
Frost 2/1	channel 71	channel 64
Frost 2/2	channel 72	channel 65
Fr. Shutters rot.	channel 73	channel 66
Fr. Shutter 1 Move	channel 74	channel 67
Fr. Shutter 1 swiveling.	channel 75	channel 68
Fr. Shutter 2 Move	channel 76	channel 69
Fr. Shutter 2 swiveling	channel 77	channel 70
Fr. Shutter 3 Move	channel 78	channel 71
Fr. Shutter 3 swiveling	channel 79	channel 72
Fr. Shutter 4 Move	channel 80	channel 73
Fr. Shutter 4 swiveling	channel 81	channel 74

Calibrate Fr. Hysteresis

Framing Lamella 1 - a framing lamella 1 reverse movement (value range: 0-8)

Framing Lamella 2 - a framing lamella 1 reverse movement (value range: 0-8)

Framing Lamella 3 - a framing lamella 1 reverse movement (value range: 0-8)

Framing Lamella 4 - a framing lamella 1 reverse movement (value range: 0-8)

The value set for every framing lamella gives a value at which the lamella reacts to its reverse movement promptly (without movement hysteresis).

Calibrate Pan/Tilt EMS - This menu item allows calibration of the pan/tilt electronic motion stabilizer.

Important: during this calibration any external force must not influence the fixture and the surface at which the fixture stands (or truss if the fixture hangs) has to be without movement, shake, strokes etc.

Load Default Calibrations - The item loads default (factory) calibration values.

Update software - The menu item allows you to update software in the fixture.

The following items are required in order to update software:

- PC running Windows or Linux or macOS
- DSU file
- Flash cable RS232/DMX, P/N13050624 (if you want to use a serial port of PC)
- Robe Universal Interface or Robe Universal interface WTX (if you want to use an USB port of PC)

After the software updating the fixture will be set to default values.

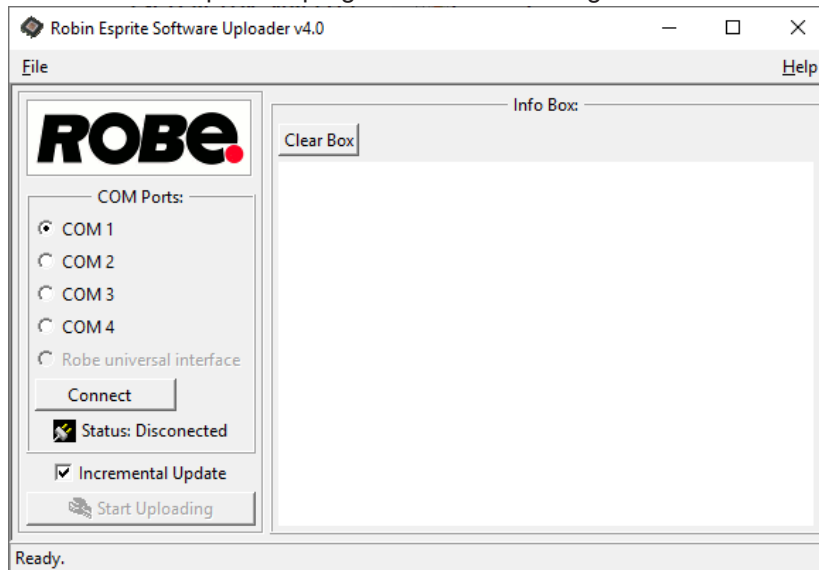
To update software in the fixture:

1. DSU file is available from Robe web site at WWW.robe.cz.
File with extension zip is intended for Windows (used and tested from XP to W10 on 32/64bit systems).
File with extension tbz is intended for Linux (used and tested on Debian and Ubuntu 32/64bit).
File with extension dmg is intended for macOS (used and tested on OSX up to Sierra) XQuartz required, install it from <https://www.xquartz.org/>
Save the download file to a folder on your computer.
In case that you use windows, extract files in the zip file (e.g. DSU_RobinEsprite_18100828.zip)
2. Disconnect the fixture from DMX controller.
3. If you use the flash cable RS232/DMX, connect a serial port of your computer with DMX input of the fixture by means of the cable.
If you use the Robe Universal Interface, connect a USB port of your computer with the Robe Universal Interface by means of the USB cable and DMX input of the fixture with the DMX output of the Robe Universal Interface via a DMX cable.
4. Switch the fixture to the update mode (tab "Service" --> Update Software).

Note: If you do not want to continue in the software update, you have to switch off and on the fixture to escape from the updating mode.

We recommend to cancel all running programs on your computer before starting the software update.

5. Double-click the software uploader file (e.g. DSU_RobinEsprite_18100828.exe) in the extracted files. The Software Uploader program will start running.



6. Select correct "COM " number if you use a Flash cable RS232/DMX or select "Robe Universal Interface " if you use the Robe Universal Interface/Robe Universal Interface WTX and then click on the "Connect" button.
7. If the connection is OK, click the "Start Uploading" button to start software uploading. It will take several minutes to perform software update.

If the option "Incremental Update" is not checked, all processors will be updated (including processors with the same software version).

If you wish to update only processors with new version of software, check the "Incremental Update box".

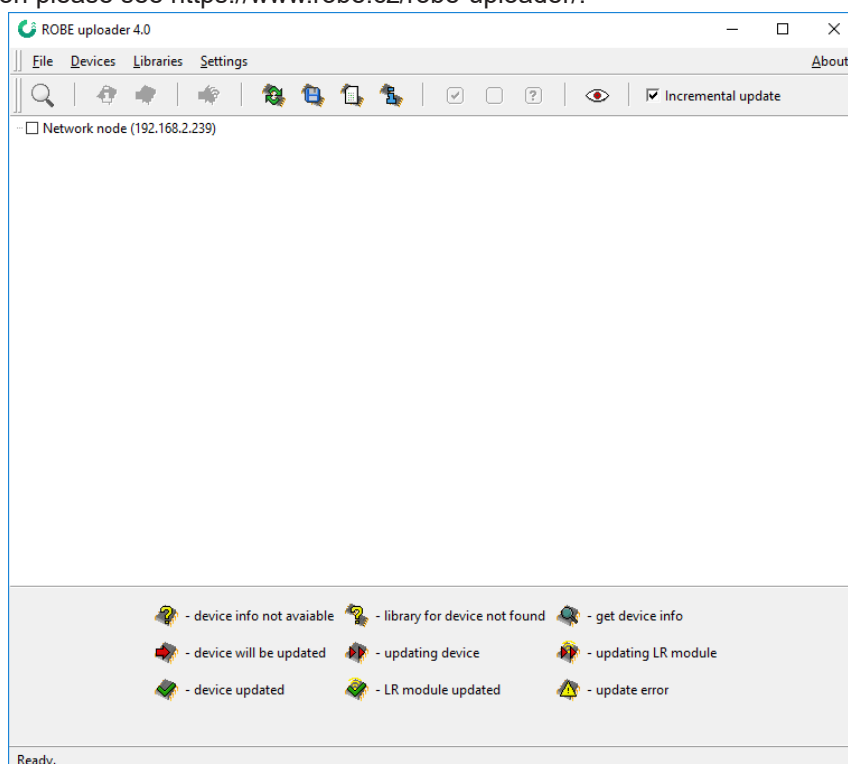
Avoid interrupting the process. Update status is being displayed in the "Info Box" window.

When the update is finished, the line with the text "Fixture is successfully updated" will appear in this window.

In case upload process is interrupted (e.g. power loss), the fixture stays in "Updating mode" and you will have to repeat the software update again.

Another way, how to update software in the fixtures (especially large installation of fixtures) is to use the ROBE Uploader. It is a software for automatized software update of Robe fixtures. It takes advantage of RDM support).

For more information please see <https://www.robe.cz/robe-uploader/>.



8. RDM

This fixture supports RDM operation. RDM (Remote Device Management) is a bi-directional communications protocol for use in DMX512 control systems, it is the new open standard for DMX512 device configuration and status monitoring.

The RDM protocol allows data packets to be inserted into a DMX512 data stream without adversely affecting existing non-RDM equipment. By using a special „Start Code,“ and by complying with the timing specifications for DMX512, the RDM protocol allows a console or dedicated RDM controller to send commands to and receive messages from specific moving lights.

RDM allows explicit commands to be sent to a device and responses to be received from it.

The list of commands for Robin Esprite is the following.

Parameter ID	Discovery command	SET command	GET command
DISC_UNIQUE_BRANCH	*		
DISC_MUTE	*		
DISC_UN_MUTE	*		
DEVICE_INFO			*
SUPPORTED_PARAMETERS			*
SOFTWARE_VERSION_LABEL			*
DMX_START_ADDRESS		*	*
IDENTIFY_DEVICE		*	*
DEVICE_MODEL_DESCRIPTION			*
MANUFACTURER_LABEL			*
DEVICE_LABEL		*	*
SENSOR_DEFINITION			*
SENSOR_VALUE			*
DISPLAY_INVERT		*	*
DISPLAY_LEVEL		*	*
PAN_INVERT		*	*
TILT_INVERT		*	*
DEVICE_RESET		*	
DMX_PERSONALITY		*	*
DMX_PERSONALITY_DESCRIPTION			*
STATUS_MESSAGES			*
STATUS_ID_DESCRIPTION			*

RDM model ID for the Robin Esprite is 0x0107.

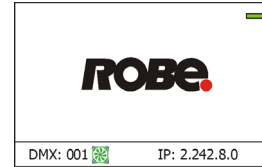
9. Error and information messages

Information icons



- Air Filters Cleaning

This icon signals that cleaning period of the air filters has elapsed and you have to clear air filters and reset the menu item "Elapsed Time".



Errors

Error in the fixture is signalled by the yellow warning icon at the bottom line of the screen:



Touch the warning icon or press the [ESCAPE] button to display error messages.

List of error and information messages:

Tilt Error 1 (Tilt Error 2)

This message will appear after the reset of the fixture if the head's magnetic-indexing circuit malfunctions (sensor failed or magnet is missing) or the stepping motor is defective or its driving IC on the PCB. The head is not located in the default position after the reset.

Pan Error 1 (Pan Error 2)

This message will appear after the reset of the fixture if the yoke's magnetic-indexing circuit malfunctions (sensor failed or magnet is missing) or the stepping motor is defective or its driving IC on the PCB. The yoke is not located in the default position after the reset of the fixture.

Prism Error 1 (Prism Error 2)

The messages will appear after the reset of the prism wheel if this wheel is not located in the default position.

Iris Error 1 (Iris Error 2)

The messages will appear after the reset of the iris if the iris is not located in the default position.

Frost 1 Error 1 (Frost 1 Error 2)

The messages will appear after the reset of the light frost module if this module is not located in the default position.

Frost 2 Error 1 (Frost 2 Error 2)

The messages will appear after the reset of the medium frost module if this module is not located in the default position.

Zoom Error 1 (Zoom Error 2)

The messages will appear after the reset of the zoom module if the zoom lens is not located in the default position.

Focus Error 1 (Focus Error 2)

The messages will appear after the reset of the focus module if the focus lens is not located in the default.

Gobo Carousel Error 1 (Gobo Carousel Error 2)

The messages will appear after the reset of the rotating gobo wheel if this wheel is not located in the default position.

Gobo Rotation Error 1 (Gobo Rotation Error 2)

The messages will appear after the reset of the rotating gobo wheel if the rotating gobos are not located in the default positions.

Effect Wheel Error 1 (Effect Wheel Error 2)

The messages will appear after the reset of the effect wheel if this wheel is not located in the default position

Fr. Shutters Rot. Error 1 (Fr. Shutters Rot. Error 2)

The messages will appear after the reset of the framing shutters module if this module is not located in the default position.

Fr. Shutter 1 Error 1 (Fr. Shutter 1 Error 2)

The messages will appear after the reset of the framing shutters module if the frame 1 is not located in the default position.

Fr. Shutter 2 Error 1 (Fr. Shutter 2 Error 2)

The messages will appear after the reset of the framing shutters module if the frame 2 is not located in the default position.

Fr. Shutter 3 Error 1 (Fr. Shutter 3 Error 2)

The messages will appear after the reset of the framing shutters module if the frame 3 is not located in the default position.

Fr. Shutter 4 Error 1 (Fr. Shutter 4 Error 2)

The messages will appear after the reset of the framing shutters module if the frame 4 is not located in the default position.

EEprom Error

Hardware error of the EEprom.

Recharge The battery

The battery on the display board needs to be charged. Let the fixture on for cca 6 hrs.

Battery Faulty. Replace it.

The battery on the display board is exhausted and should be replaced immediately.

Pan/Tilt EMS Cal. Error

The EMS system is not calibrated.

Pan/Tilt EMS Error

Control electronics cannot communicate with the EMS system.

Internal Error 1

Communication error between PCBs (error or noise was detected on communication wires)

Internal Error 2

Communication error (some PCB has failed or is disconnected (this PCB will show as N/A in menu --> Information --> Software versions) or error/noise was detected on communication wires)

Clean Air Filters

The message informs you that the item "Elapsed Time" in the "Fixture Information" menu is at 0 value. Clean air filters and reset this counter.

Overheated

The LED engine is overheated and light output is closed.

Base Fan Bad

One or both fans in the fixture base are disconnected from their control PCB or are faulty and has to be replaced. .

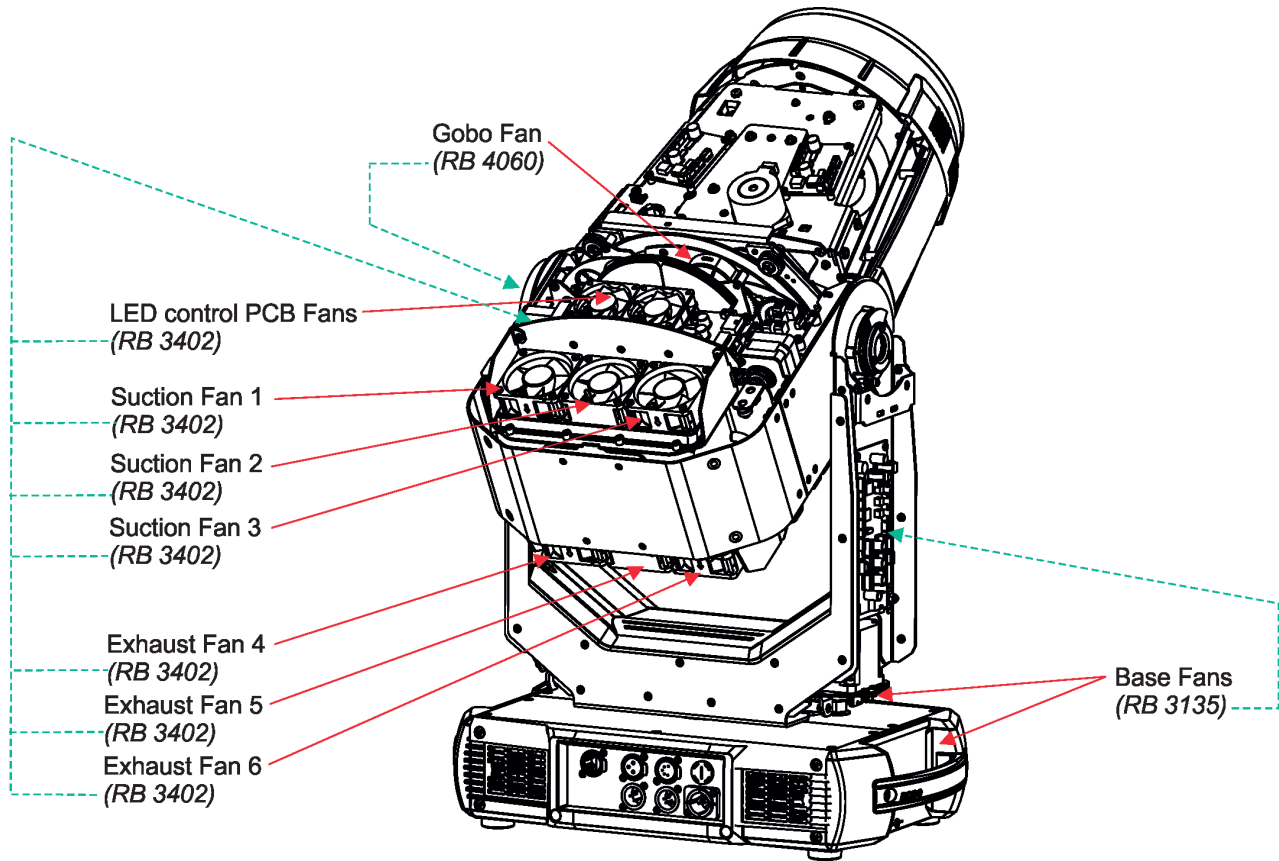
Fan 1 Bad/Fan 2 Bad/Fan 3 Bad

The suction fan 1 (fan 2/ fan 3) at the LED engine is disconnected from its control PCB or is faulty and has to be replaced.

Fan 4 Bad/ Fan 5 Bad/ Fan 6 Bad

The exhaust fan 4 (fan 5/ fan6) at the LED engine is disconnected from its control PCB or is faulty and has to be replaced.

Positions of cooling fans (and their control PCBs):



10. Technical Specifications

Electrical

Power supply: electronic auto-ranging
 Input voltage range: 100-240V, 50-60Hz
 Fuse: T 12 A
 Max. power consumption: 950W

Optic

Light source: 650 W White LED engine
 Colour temperature: 6200K
 CRI: 70 (standard), 80 or 90 by means of CRI filters on the colour wheel 2
 Min. LED life expectancy: 20.000 hours

Colour wheel 1

five dichroic filters (deep red, deep blue, orange, green, congo blue) + open

Colour wheel 2

one multicolour filter, two dichroic filters (lavender, laser green), CRI filter 80, CRI filter 90 + open

CMY + CTO mixing module

Smooth CMY colour mixing system
 Variable CTO: 3000K - 6.500K

Virtual colour wheel

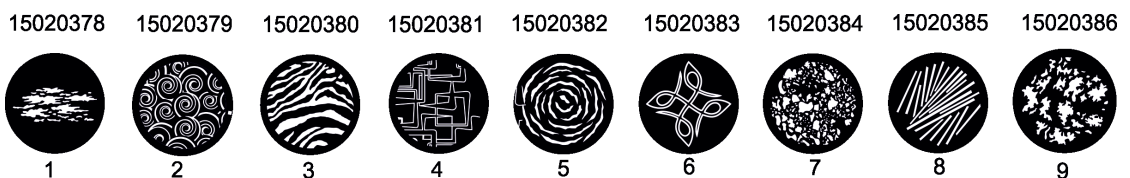
67 preset colours

Effect wheel

Aluminium effect wheel rotating in both directions with variable speed

Static gobo wheel

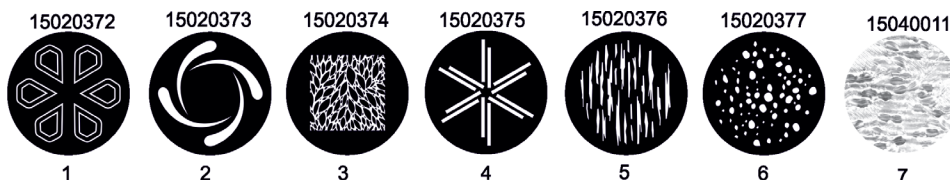
9 replaceable gobos, outside diameter: 26.8^{+0,1} mm, image diameter=23.5 mm, high temperature borofloat or better glass, thickness=1.1-3.5 mm
 Gobo wheel continuous rotation
 Gobos order:



Note. Metal (or aluminium) gobos cannot be used due to thermal stress.

Rotating gobo wheel

7 replaceable gobos can be indexed and rotated in both directions at different speeds
 Gobo carousel continuous rotation,
 Gobos: outside diameter= 26.8^{+0,1} mm, image diameter=23.5 mm, thickness=1.1-3.5 mm, high temperature borofloat or better glass. Do not use steel gobos 0.15mm
 "Slot&lock" system for easy replacement of gobos
 Gobos order:



Note. Metal (or aluminium) gobos cannot be used due to thermal stress.

Prism

Rotating 6-facet prism with continuous rotation in both directions

Iris

Motorized iris for different beam diameters

Frost filters

2 separate, variable frost filters (light (1°) and medium (5°))
The medium filter is replaceable

Framing shutters module

4 individually positionable blades plus rotation of the complete frame system +/- 60°
Each framing shutter can move up to 80% of the beam and swivel +/- 25°

Zoom

Linear motorized zoom
Min. beam angle :5.5°
Max. beam angle: 49°

Strobe

Strobe effect with variable speed (0.3 - 20Hz)

Dimmer

Smooth dimmer from 0 - 100 % (8 or 16 bit (internal 18 bit))

Control

Graphic touch screen for fixture setting and addressing
Gravitation sensor for auto screen positioning
Battery backup of the touch screen
Readout fixture and LEDs usage, receiving DMX values, temperatures, etc
Built-in analyzer for easy fault finding, error messages
Built-in demo sequences
Stand-alone operation
3 user editable programs, each up to 80 steps
Supported protocols: USITT DMX 512, RDM, ArtNet, MANet, MANet2, sACN
Support of RDM (Remote Device Management)
2 DMX modes (49, 42 control channels)

Wireless DMX/RDM module

Compliance with USITT DMX-512 (1986 & 1990) and 512-A
Full DMX fidelity and frame integrity
Auto sensing of DMX frame rate and frame size
<5ms DMX latency
Operational frequency range of 2402-2480 MHz
Producer: LumenRadio

Pan/Tilt

Pan movement range 540°
Tilt movement range 280°
16 bit movement resolution
Pan/Tilt electronic motion stabilizer
Automatic Pan/Tilt position correction
Remotely controllable speed of pan/tilt movement for easy programming
Pan/tilt-lock mechanism

Connection

DMX data in/out: Locking 3-pin and 5-pin XLR
AC power input: Chassis connector Neutrik PowerCon TRUE 1, NAC3MPX

Rigging

Mounting points: 2 pairs of 1/4-turn locks
Mounting horizontally or vertically via 2 Omega brackets

Temperatures

Maximum/Minimum ambient operating temperature : +45°C/-5°C
Maximum housing temperature : 70° C

Minimum distances

Min. distance from flammable surfaces: 1 m
Min. distance to lighted object: 3 m

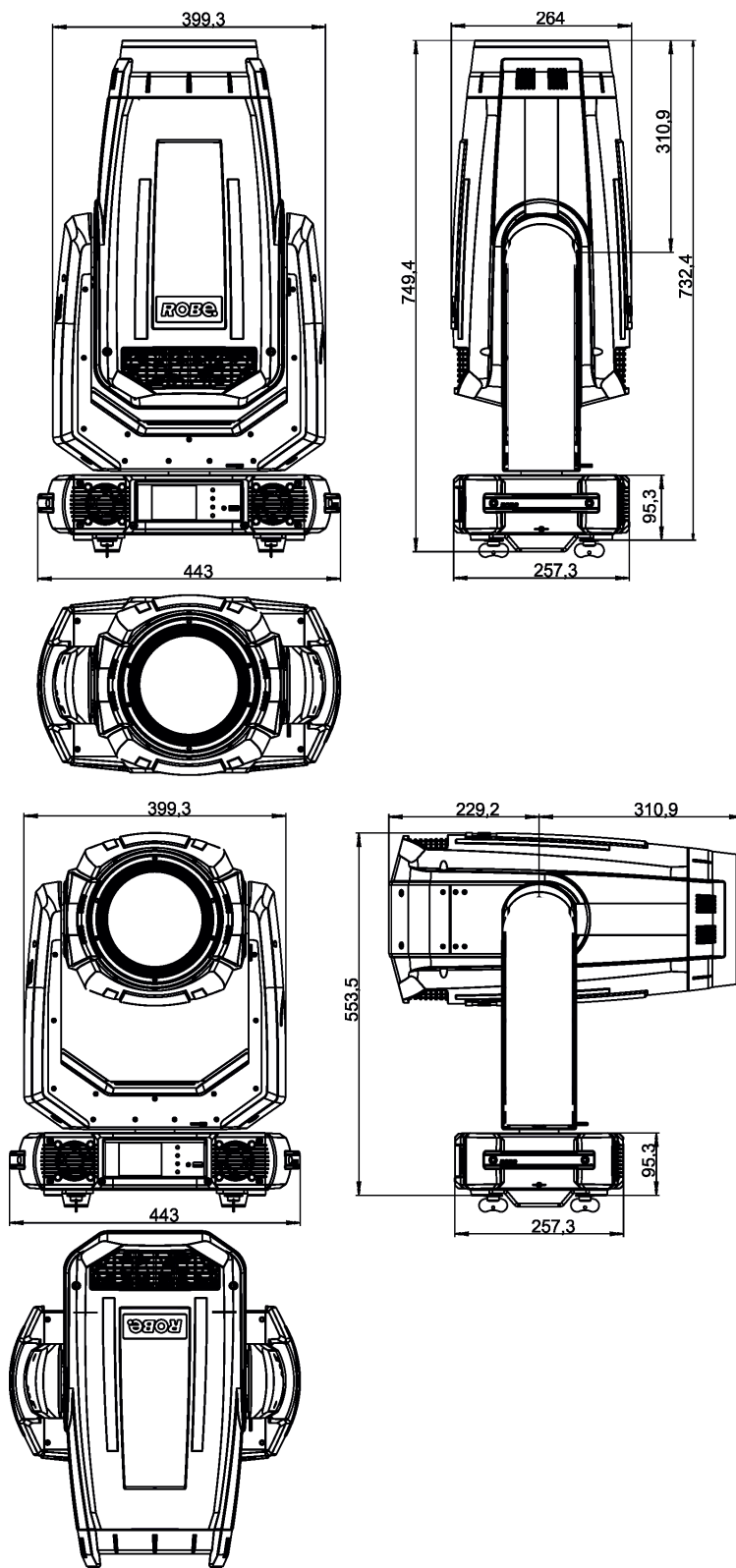
Total heat dissipation

2900 BTU/hr (calculated)

Weight

26.9 kg

Dimensions (mm)



Accessories

- 1 x Omega adaptor CL-regular 2 pcs in box (P/N 10980033)
- 1 x Power cable including powerCON TRUE1 In connector

Optional accessories

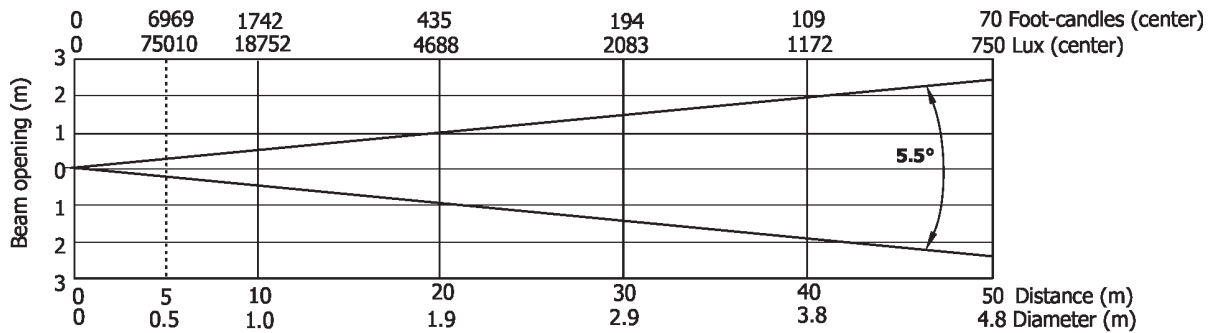
- Gel Frame Adaptor Esprite (P/N 10980463)
- Gel Frame Esprite (P/N 10980464)
- Top Hat Esprite (P/N)10980465
- Doughty Trigger Clamp (P/N 17030386)
- Safety wire 35 kg (P/N 99011963)
- Frost filter 10° (P/N 99015883)
- Frost filter 20° (P/N 99015908)
- Upgrade kit CRMX Universal 260 (P/N 99030100)

11. Photometric diagrams

Auto mode - CRI 70

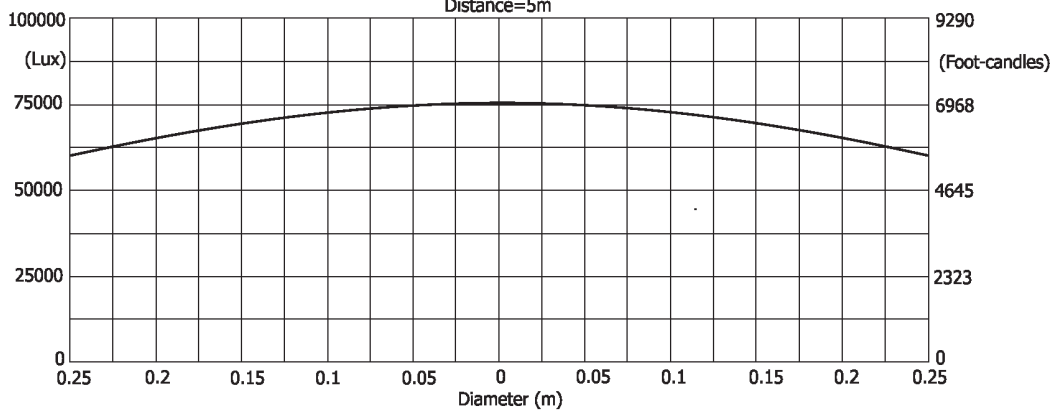
Beam angle 5.5° - Min. zoom

Total Output: 14185 lumens



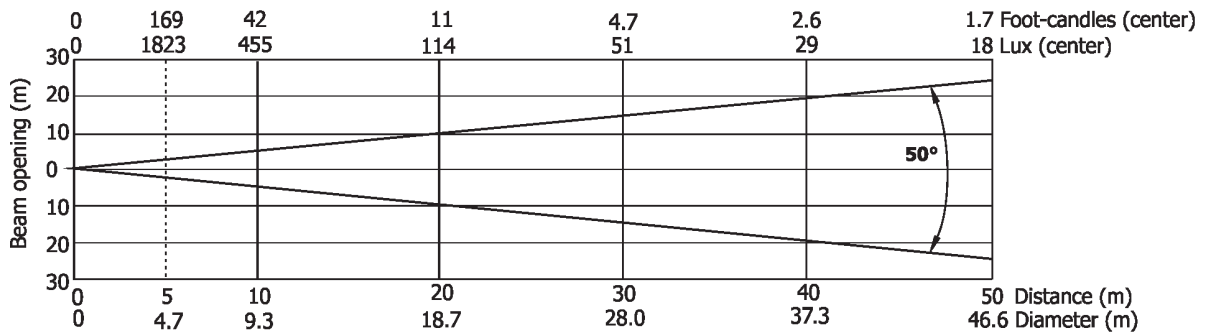
Illuminance distribution

Distance=5m



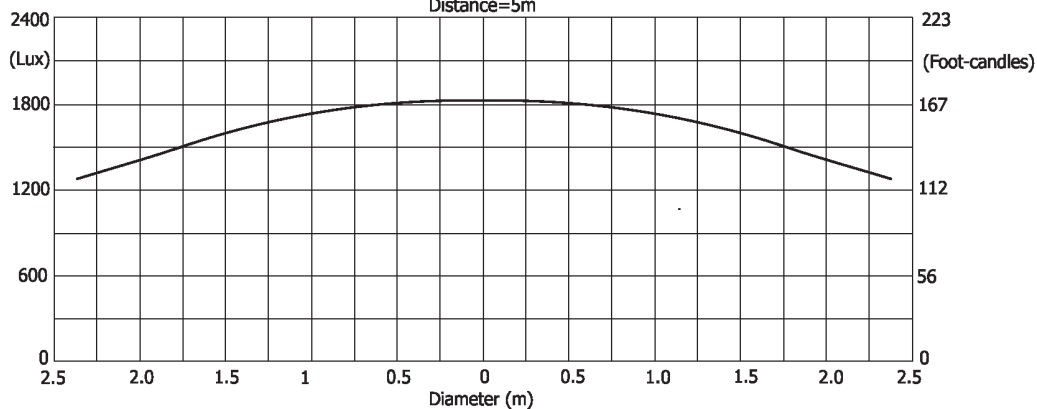
Beam angle 50° - Max. zoom

Total Output: 23866 lumens



Illuminance distribution

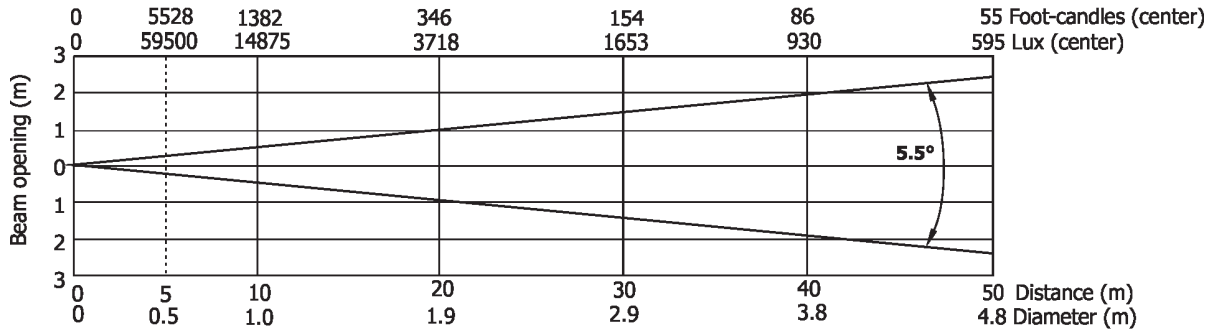
Distance=5m



Auto mode - CRI 80

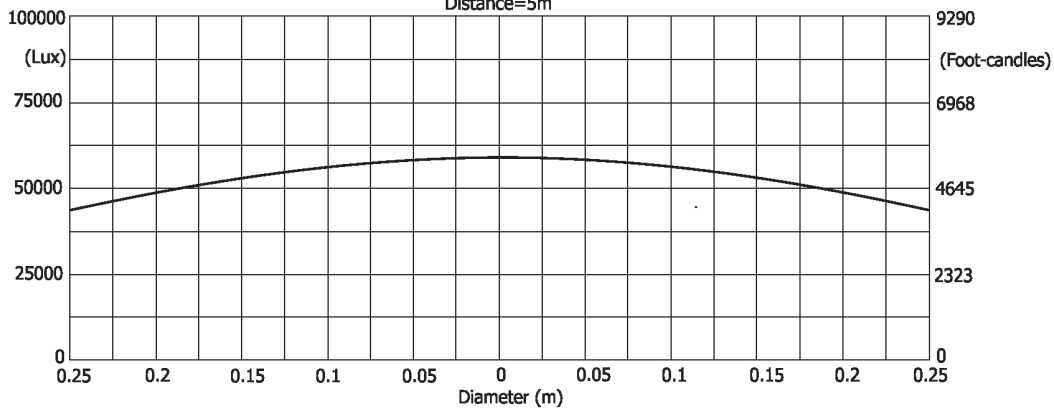
Beam angle 5.5° - Min. zoom

Total Output: 13697 lumens



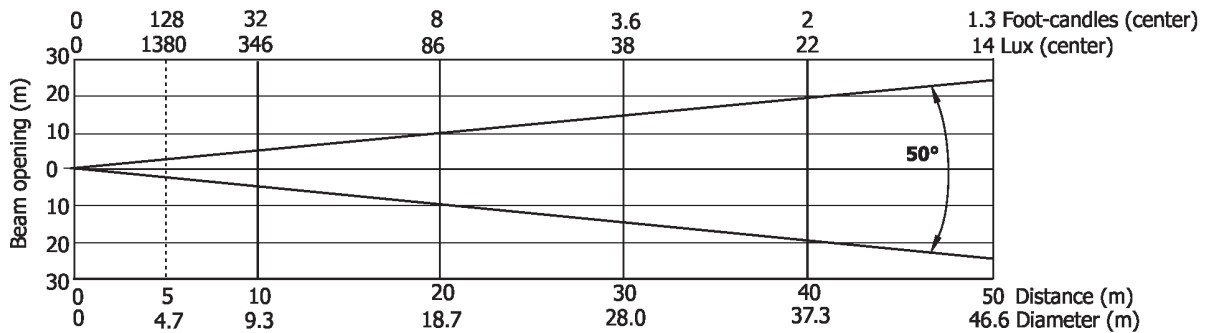
Illuminance distribution

Distance=5m



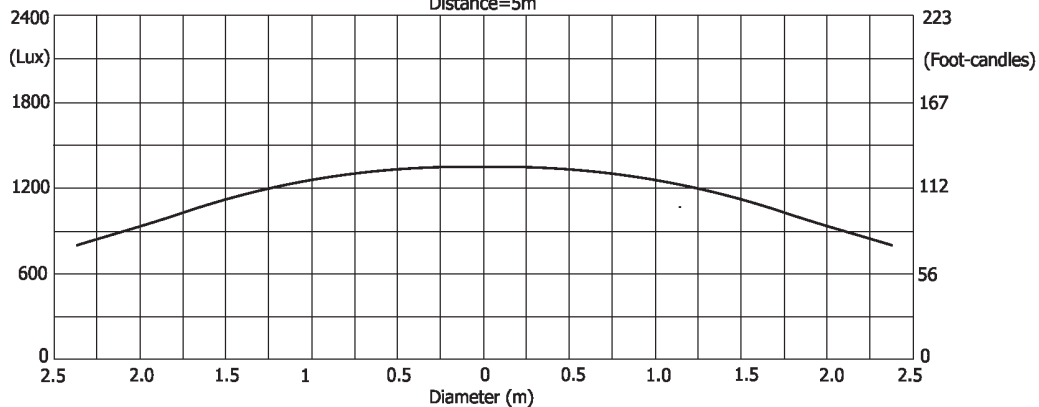
Beam angle 50° - Max. zoom

Total Output: 18377 lumens



Illuminance distribution

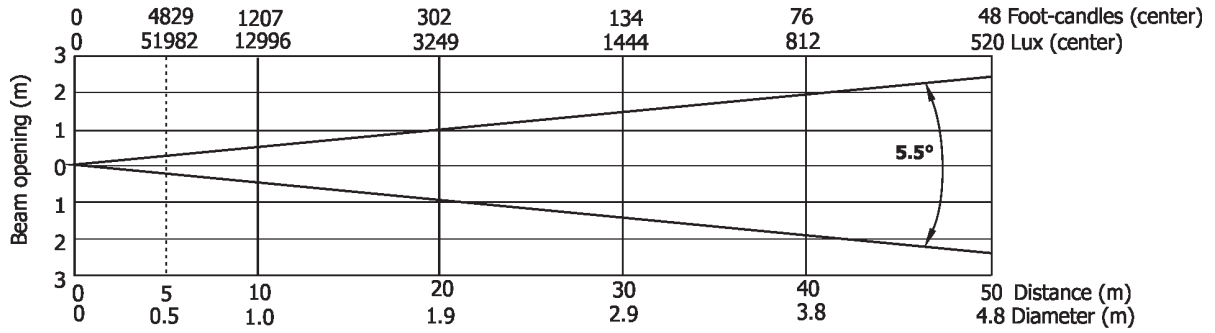
Distance=5m



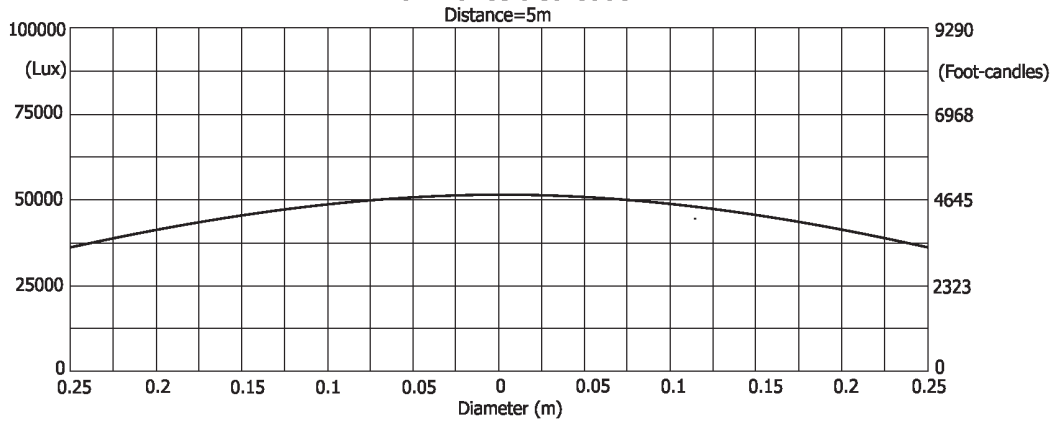
Auto mode - CRI 90

Beam angle 5.5° - Min. zoom

Total Output: 10034 lumens

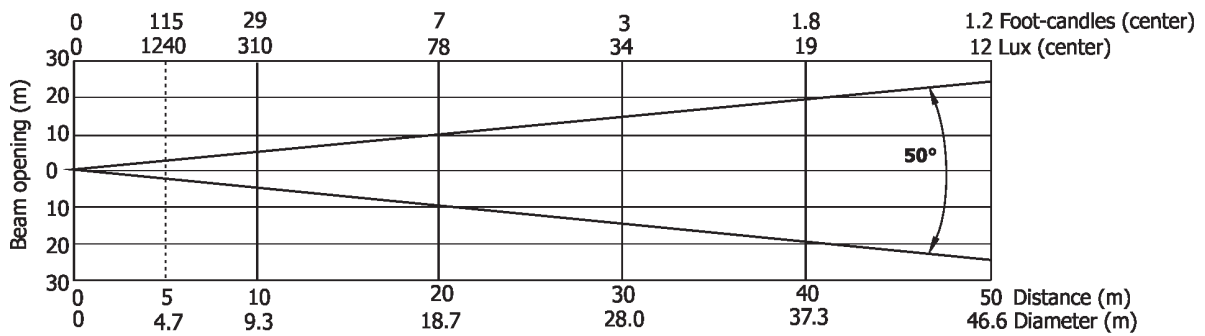


Illuminance distribution

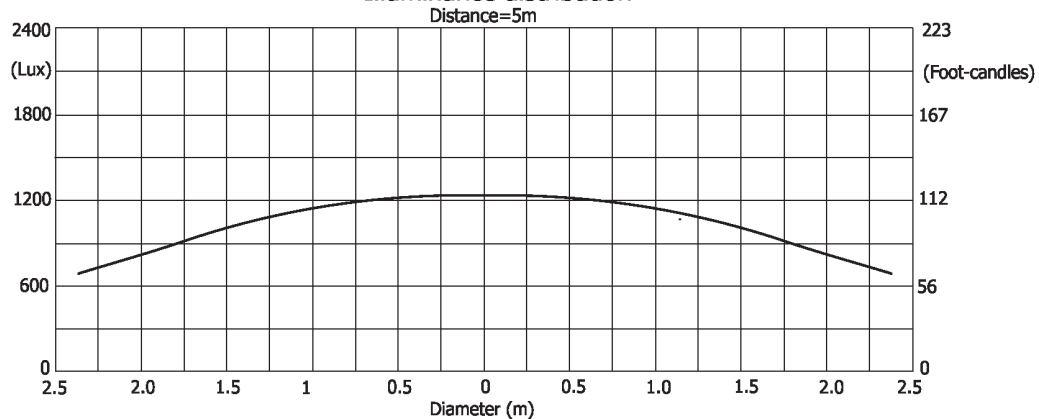


Beam angle 50° - Max. zoom

Total Output: 16644 lumens



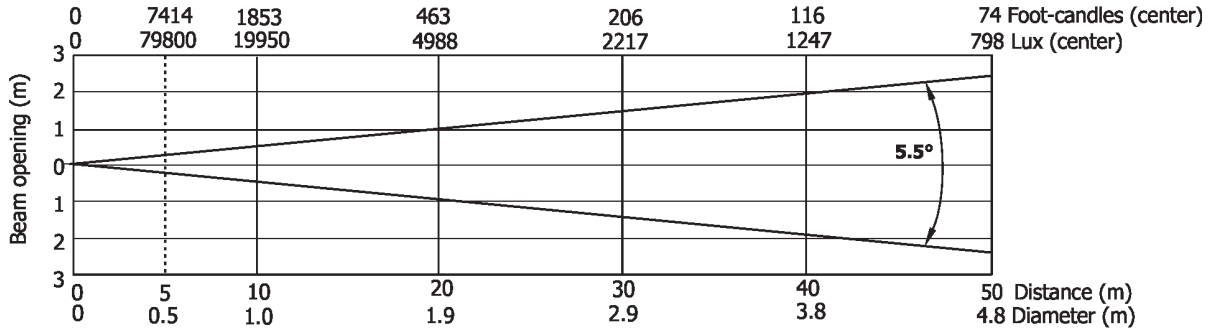
Illuminance distribution



High mode - CRI 70

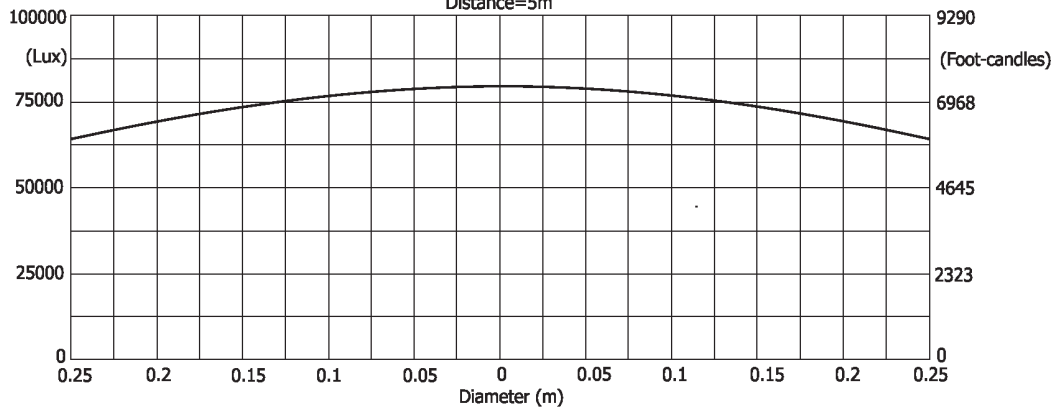
Beam angle 5.5° - Min. zoom

Total Output: 15090 lumens



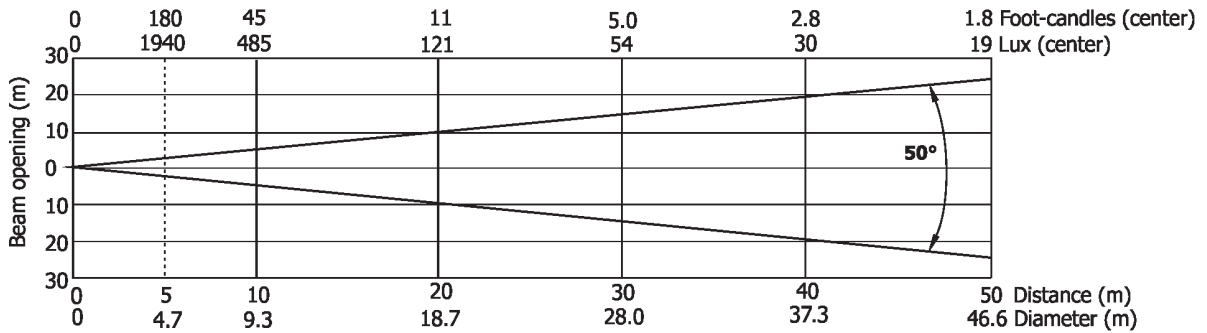
Illuminance distribution

Distance=5m



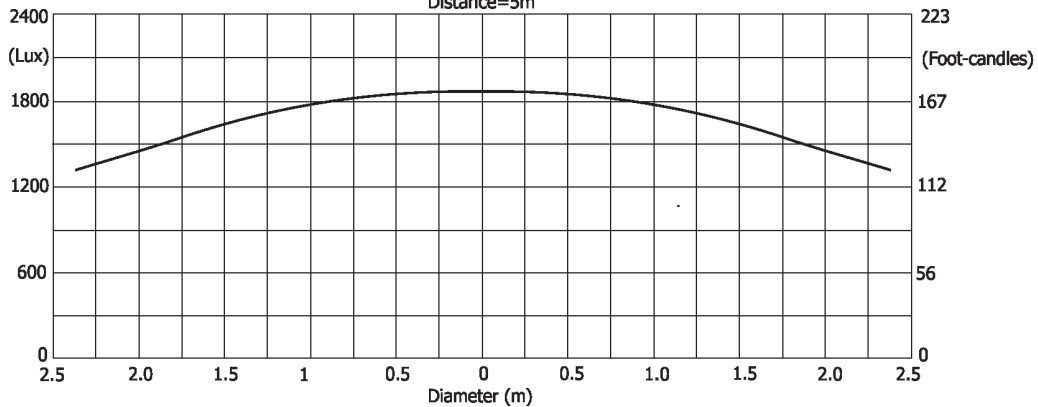
Beam angle 50° - Max. zoom

Total Output: 25390 lumens



Illuminance distribution

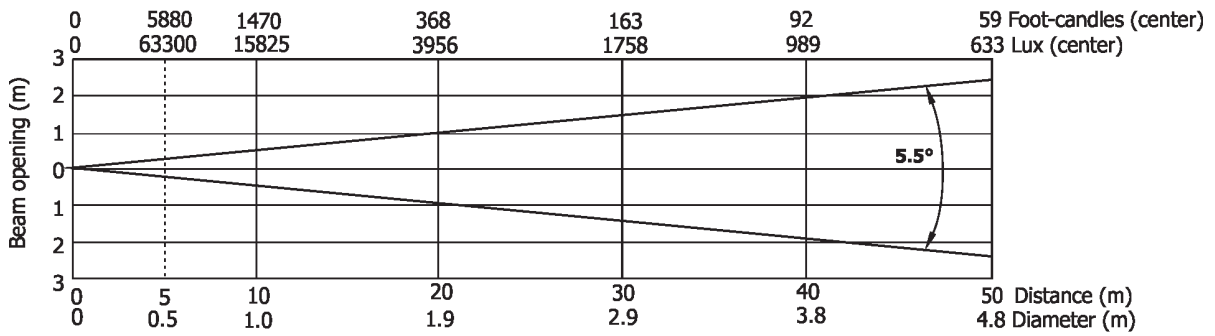
Distance=5m



High mode - CRI 80

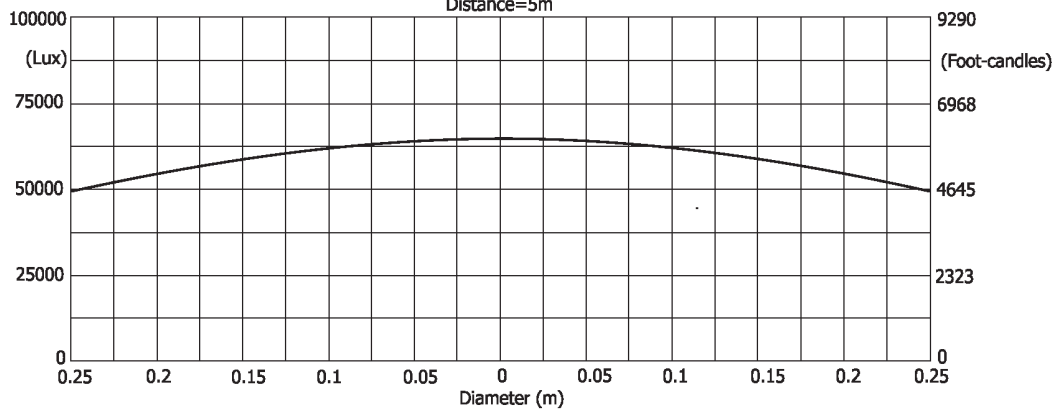
Beam angle 5.5° - Min. zoom

Total Output: 14572 lumens



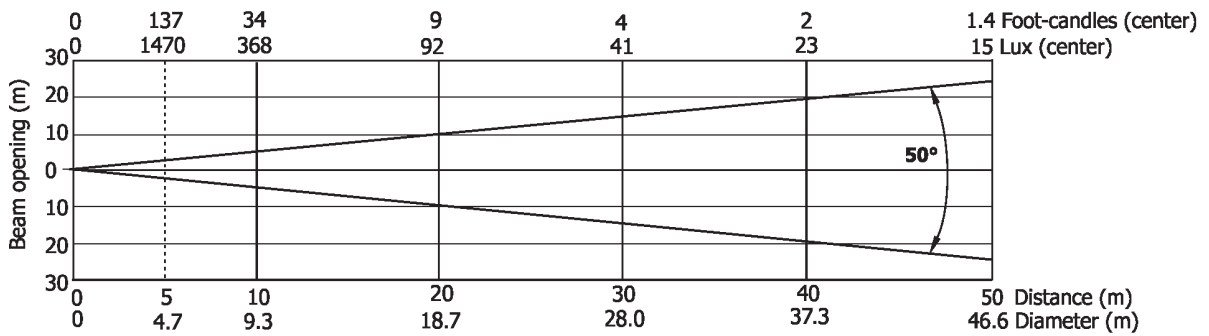
Illuminance distribution

Distance=5m



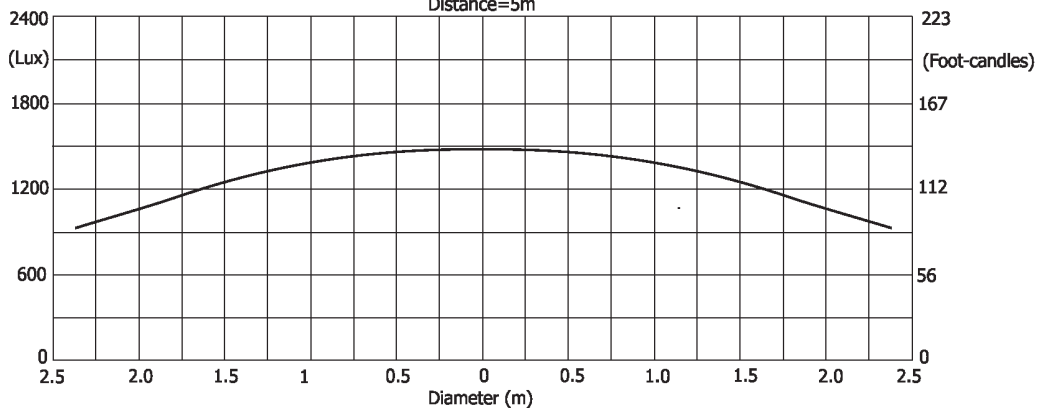
Beam angle 50° - Max. zoom

Total Output: 19550 lumens



Illuminance distribution

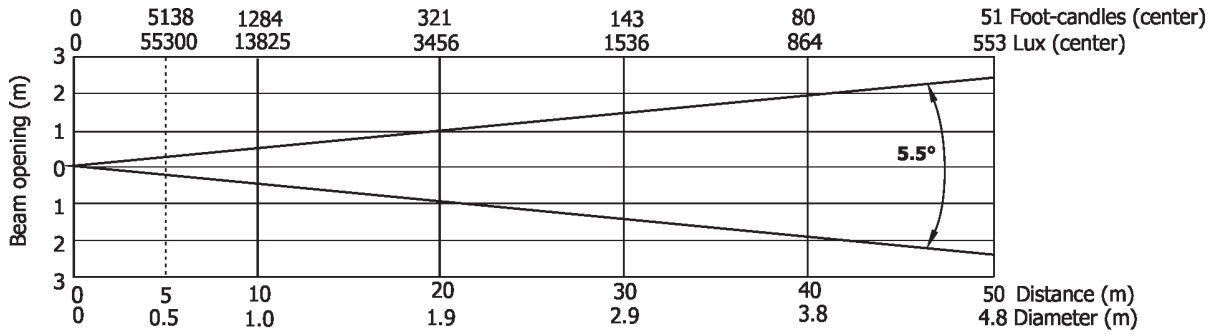
Distance=5m



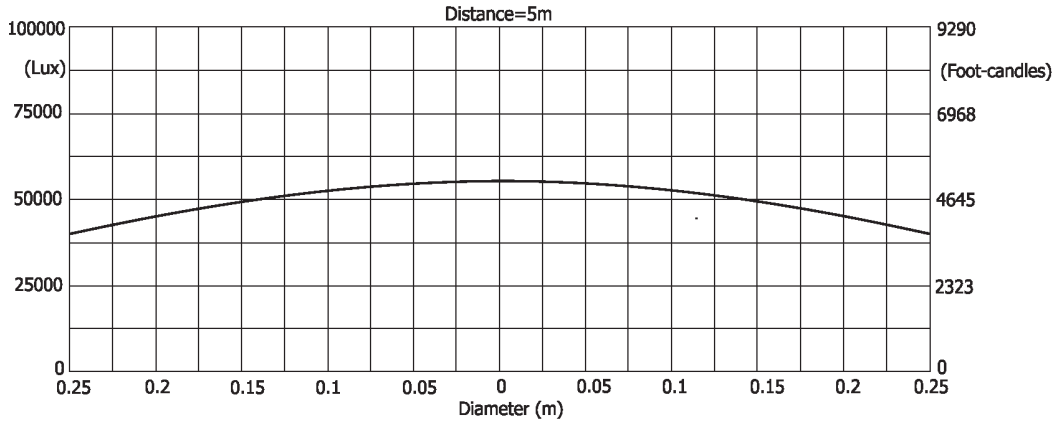
High mode - CRI 90

Beam angle 5.5° - Min. zoom

Total Output: 10563 lumens

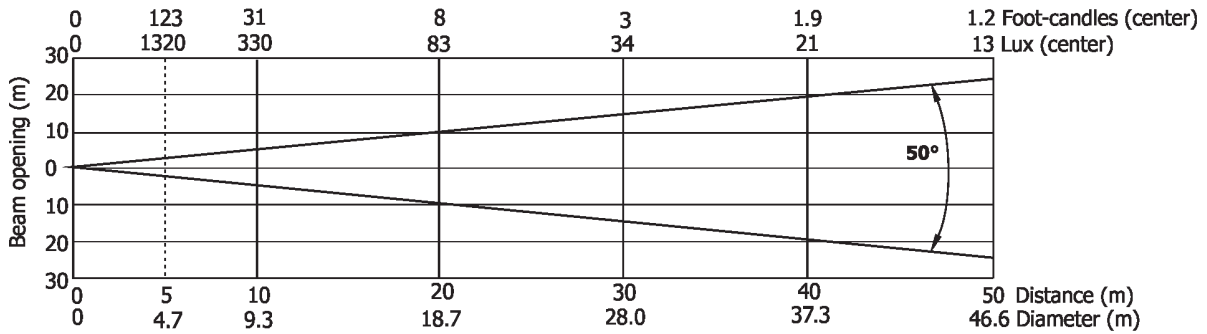


Illuminance distribution

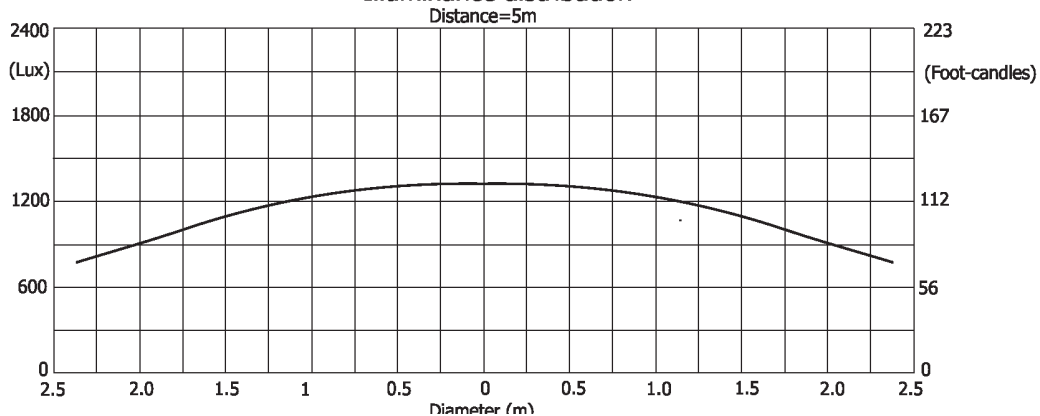


Beam angle 50° - Max. zoom

Total Output: 17520 lumens



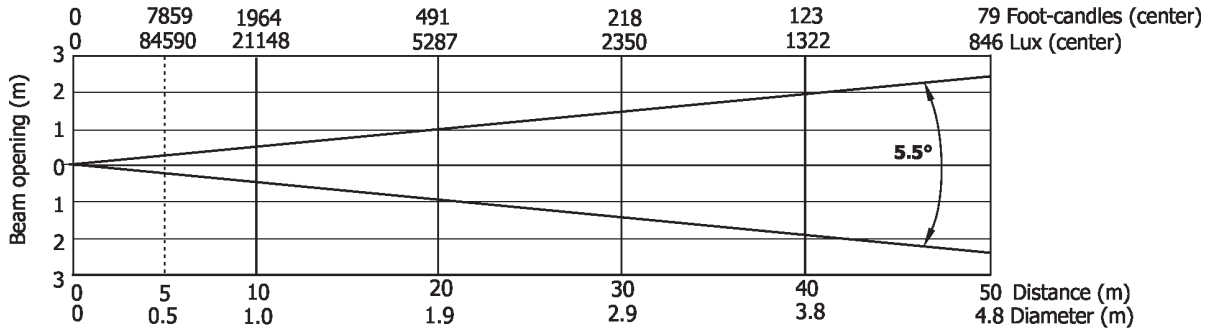
Illuminance distribution



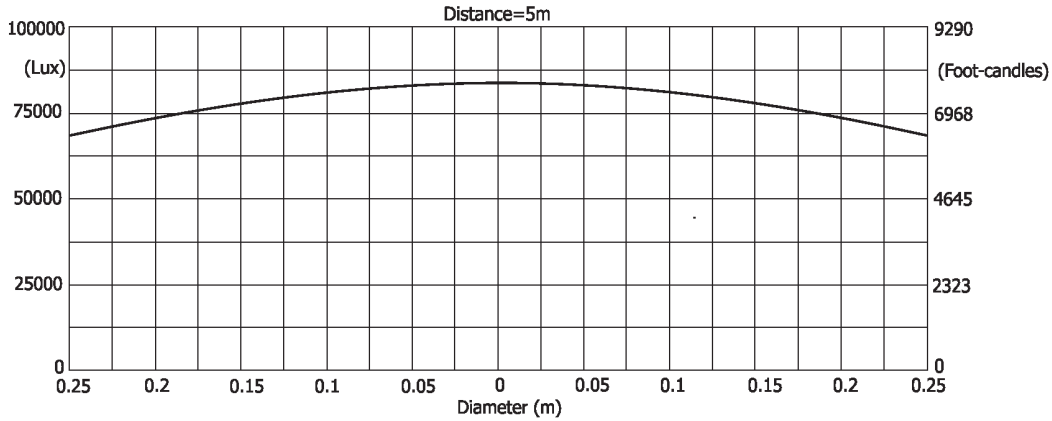
Boost mode - CRI 70

Beam angle 5.5° - Min. zoom

Total Output: 15915 lumens

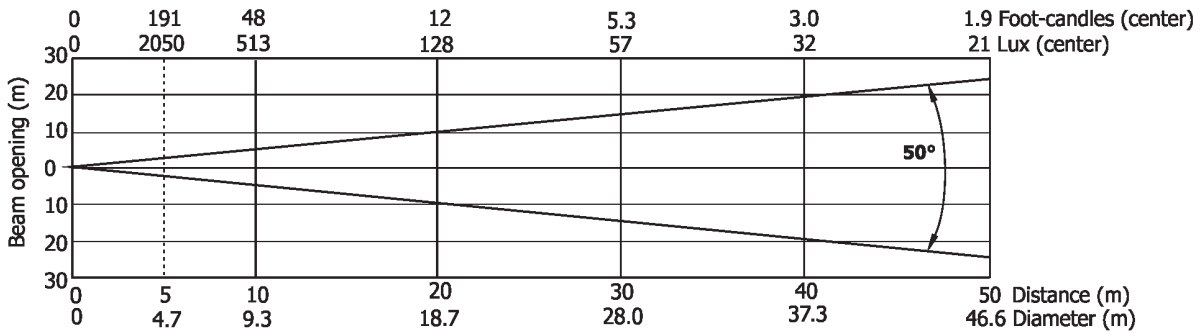


Illuminance distribution

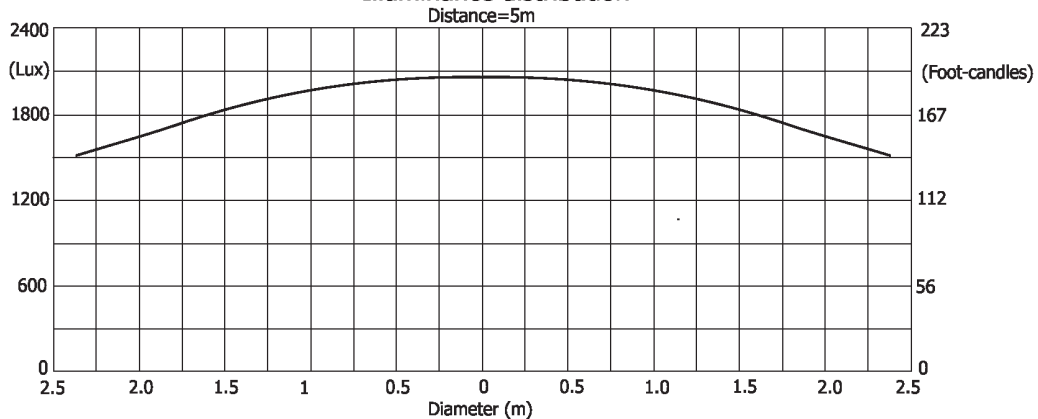


Beam angle 50° - Max. zoom

Total Output: 26910 lumens



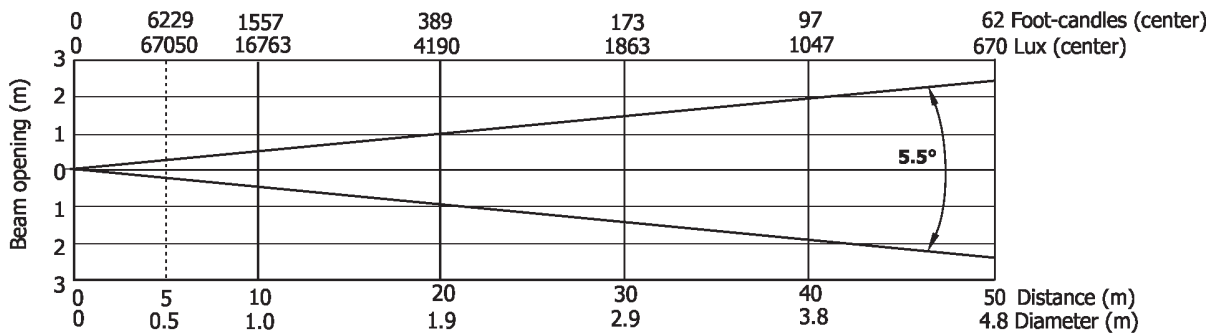
Illuminance distribution



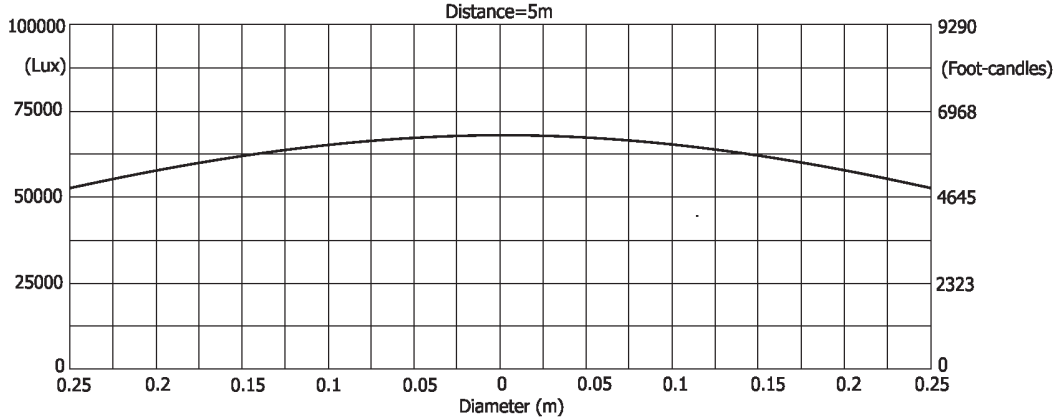
Boost mode - CRI 80

Beam angle 5.5° - Min. zoom

Total Output: 15446 lumens

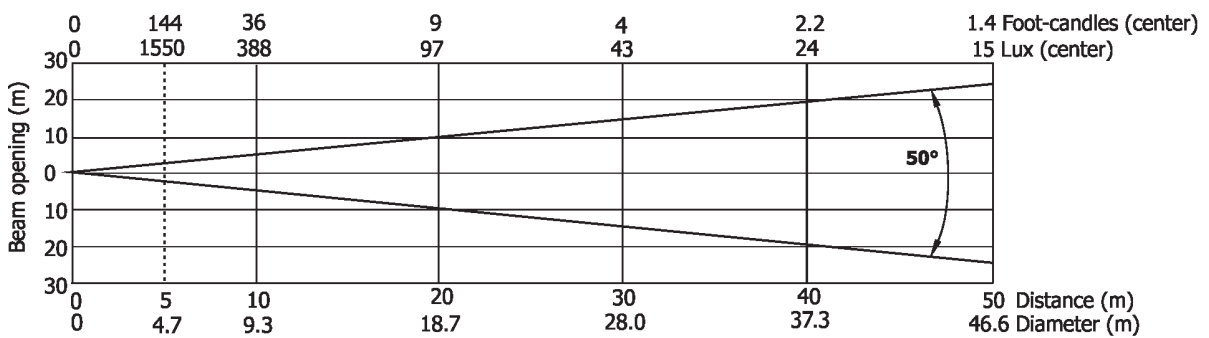


Illuminance distribution

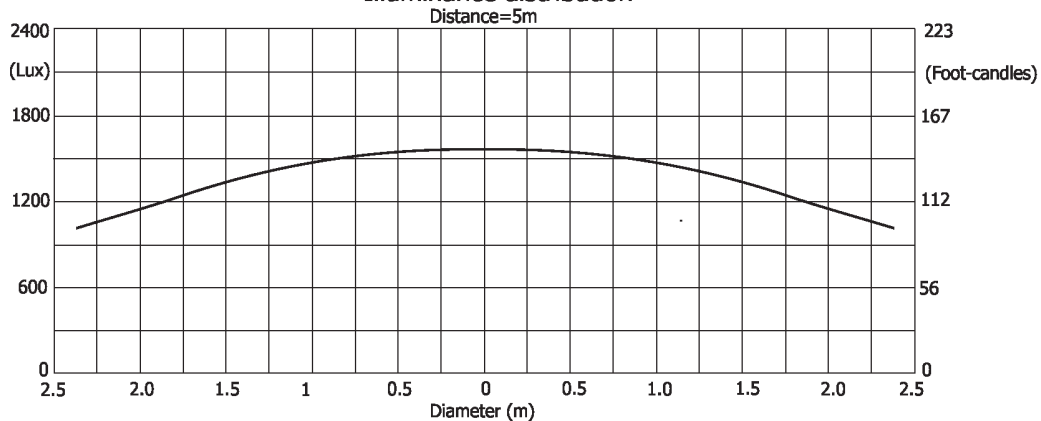


Beam angle 50° - Max. zoom

Total Output: 20723 lumens



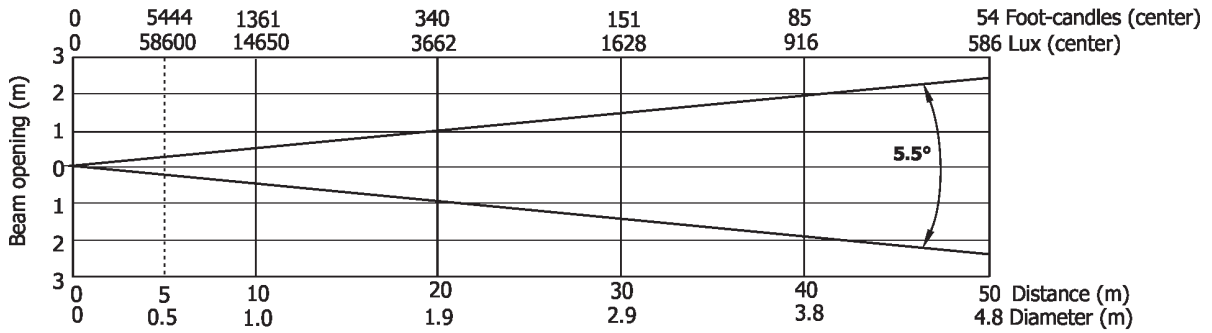
Illuminance distribution



Boost mode - CRI 90

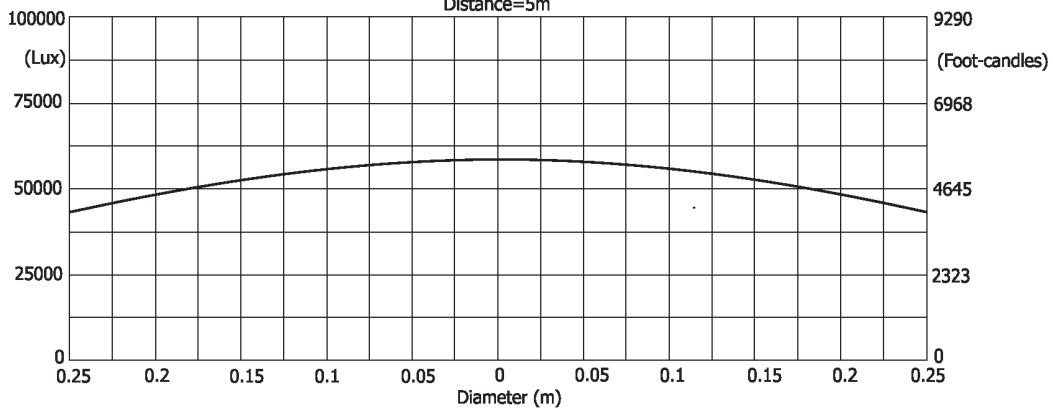
Beam angle 5.5° - Min. zoom

Total Output: 11190 lumens



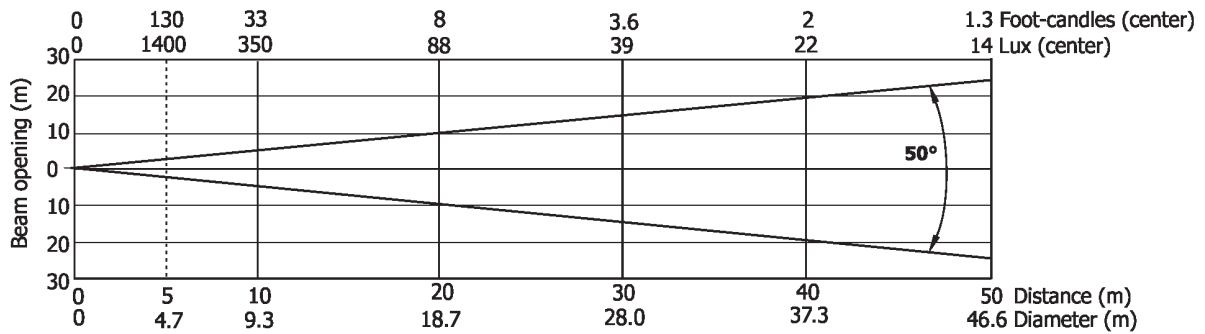
Illuminance distribution

Distance=5m



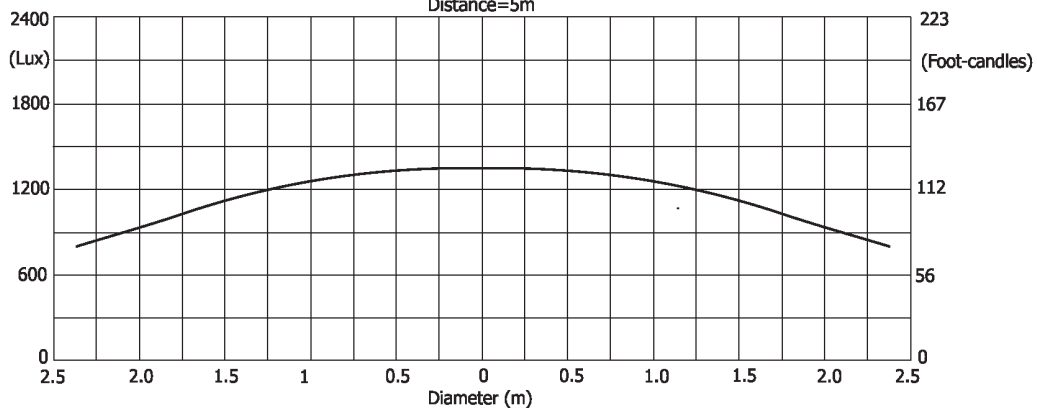
Beam angle 50° - Max. zoom

Total Output: 18571 lumens



Illuminance distribution

Distance=5m



12. Maintenance and cleaning

It is absolutely essential that the fixture is kept clean and that dust, dirt and smoke-fluid residues must not build up on or within the fixture. Otherwise, the fixture's light-output will be significantly reduced. Regular cleaning will not only ensure the maximum light-output, but will also allow the fixture to function reliably throughout its life. A soft lint-free cloth moistened with any good glass cleaning fluid is recommended, under no circumstances should alcohol or solvents be used!

DANGER !
***Disconnect from the mains before starting any
maintenance work***

The front objective lens will require weekly cleaning as smoke-fluid tends to building up residues, reducing the light-output very quickly. The cooling-fans should be cleaned monthly.

The interior of the fixture should be cleaned at least annually using a vacuum-cleaner or an air-jet.

Gobo wheels and the internal lenses should be cleaned monthly.

Remove dust and dirt from the fans and cooling vents using a soft brush and vacuum-cleaner.

***Important! Check the air filters periodically and clean before they become
clogged!***

Clean the air filters placed in the base. Use a vacuum cleaner, compressed air or you can wash them and put back dry.

After replacing the air filters, reset the elapsed time counter in the menu "Information"
(Information--->Air Filters---> Elapsed Time).

Replacing the fuse.

Before replacing the fuse, unplug mains lead.

1. Remove the fuse holder on the rear panel of the base with a fitting screwdriver from the housing (anti-clockwise).
2. Remove the old fuse from the fuse holder.
3. Install the new fuse in the fuse holder (only the same type and rating).
4. Replace the fuseholder in the housing and fix it.

Checking plastic parts of the fixture.

The plastic parts of the fixture should be checked for damages and beginning cracks at least every two months. In addition, the plastic part of the front lens has to be checked mechanically (by means of movement by the plastic part) if it is firmly fastened to the fixture. If hint of a crack is found on some plastic part, do not use the fixture until the damaged part will be replaced.

Cracks or another damages of the plastic parts can be caused by the fixture transportation or manipulation and also ageing process may influence plastic materials.

This checking is necessary for both fixed installations and preparing fixtures for renting. Any free moving parts inside of the fixture head, cracked plastic or any plastic part of front lens not sitting properly in place need to be immediately replaced.

12.1 Disposing of the product

To preserve the environment please dispose or recycle this product at the end of its life according to the local regulations and codes.

13. ChangeLog

This section summarizes changes in the user manual.

Version of the manual	Date of issue	Description of changes
1.1	11/09/2019	Accessories changed
1.2	120.9/2019	Boost mode added

September 20, 2019

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All Specifications subject to change without notice

Made in CZECH REPUBLIC by ROBE LIGHTING s.r.o. Palackeho 416/20 CZ 75701 Valasske Mezirici

Esprite - DMX protocol			
Version: 1.1 Mode 1 - Standard 16 bit, Mode 2 - Reduced 8 bit			
Quick overview of default DMX values for each channel			
Mode/channel		Default DMX Value	Function
1	2		
1	1	128	Pan
2	2	0	Pan Fine
3	3	128	Tilt
4	4	0	Tilt fine
5	5	0	Pan/Tilt speed , Pan/Tilt time
6	6	0	Power/Special functions
7	7	10	LED frequency selection
8	8	128	LED frequency fine adjusting
9	9	0	Max. light intensity indication and setting
10	10	0	Colour wheel 1
11	*	0	Colour wheel 1-fine positioning
12	11	0	Colour wheel 2
13	*	0	Colour wheel 2-fine positioning
14	12	0	Cyan
15	13	0	Magenta
16	14	0	Yellow
17	15	0	CTO
18	16	0	Virtual colour wheel
19	17	0	Effects speed
20	18	0	CMY+CTO+Colour wheels time
21	19	0	Static gobo/ Framing shutters/Zoom/Focus/Iris/Frost/Prism time
22	20	0	Effect wheel positioning
23	21	128	Effect wheel rotation
24	22	0	Effect wheel animations
25	23	0	Static gobo wheel
26	24	0	Rotating gobo wheel
27	25	128	Rot. gobo indexing and rotation
28	*	0	Rot. gobo indexing/rotation - fine
29	26	0	Prism
30	27	128	Prism indexing/rotation
31	28	0	Frost
32	29	0	Iris
33	*	0	Iris - fine
34	30	128	Zoom
35	*	0	Zoom - fine
36	31	128	Focus
37	*	0	Focus - fine
38	32	128	Framing shutters module rotation
39	33	0	Framing shutter 1- movement
40	34	128	Framing shutter 1- swivelling
41	35	0	Framing shutter 2- movement
42	36	128	Framing shutter 2- swivelling
43	37	0	Framing shutter 3 movement

DMX protocol

Mode/channel		Default DMX Value	Function	
1	2			
44	38	128	Framing shutter 3- swivelling	
45	39	0	Framing shutter 4 movement	
46	40	128	Framing shutter 4- swivelling	
47	41	32	Shutter/ strobe	
48	42	0	Dimmer intensity	
49	*	0	Dimmer intensity - fine	
Mode/channel		DMX Value	Function	Type of control
1	2			
1	1		Pan	
		0 - 255	Pan movement by 540° (128=default)	proportional
2	2		Pan Fine	
		0 - 255	Fine control of pan movement (0=default)	proportional
3	3		Tilt	
		0 - 255	Tilt movement by 280° (128=default)	proportional
4	4		Tilt fine	
		0 - 255	Fine control of tilt movement (0=default)	proportional
5	5		Pan/Tilt speed , Pan/Tilt time	
		0	Standard mode (0=default)	step
		1	Max. Speed Mode	step
			Pan/Tilt speed mode	
		2 - 255	Speed from max. to min.	proportional
			Pan/Tilt time mode	
		2 - 255	Time from 0.2 sec. to 25.5 sec.	proportional
6	6		Power/Special functions	
			Factory display menu setting: DMX Input-Wired ,Graphic display-On, Pan/tilt Mode-Speed,Blackout while pan/tilt moving-Off, Blackout while gobo wheels moving-Off,Blackout while colour wheels moving-Off, Fans mode-Auto	
		0 -9	Reserved (0=default)	
			<i>To activate following functions, stop in DMX value for at least 3 s and shutter must be closed at least 3 sec. (Channel „Shutter/ Strobe“ 47/41 must be at range: 0-31 DMX). Corresponding menu items are temporarily overwritten.</i>	
		10-14	DMX input: Wired DMX *	step
		15-19	DMX input: Wireless DMX *	step
			* function is active only 10 seconds after switching the fixture on	
		20-24	Graphic display: On	step
		25-29	Graphic display: Off	step
		30-39	Reserved	step
		40-44	Pan/Tilt mode: Speed	step
		45-49	Pan/Tilt mode: Time	step
		50-54	Blackout while pan/tilt moving: On	step
		55-59	Blackout while pan/tilt moving: Off	step
		60-64	Blackout while gobo wheels moving: On	step
		65-69	Blackout while gobo wheels moving: Off	step
		70-74	Blackout while colour wheels moving: On	step
		75-79	Blackout while colour wheels moving: Off	step

DMX protocol

Mode/channel		DMX Value	Function	Type of control
1	2			
		80-84	Fans mode: Auto	step
		85-89	Fans mode: High	step
		90-94	Boost mode On	step
		95-99	Boost mode Off	step
		100-109	Reserved	
		110-114	Dimmer curve: Square law	step
		115-119	Dimmer curve: Linear	step
		120-124	Parking position On	step
		125-129	Parking position Off	step
			<i>To activate following functions, stop in DMX value for at least 3 seconds.</i>	
		130 - 139	Fixture reset (except pan/tilt)	
		140 - 149	Pan/Tilt reset	step
		150 - 159	Colour system reset	step
		160 - 169	Gobo wheels/effect wheel reset	step
		170 - 179	Reserved	
		180 - 189	Zoom/focus/frost/prism reset	step
		190 - 199	Iris /framing shutters reset	step
		200 - 209	Total fixture reset	step
		210-224	Reserved	
			The following RoboSpot related commands are only applicable when the RoboSpot is connected:	
		225 - 229	RoboSpot enabled	step
		230 - 234	RoboSpot disabled - except handle faders and pan/tilt	step
		235 - 239	RoboSpot fully disabled	step
		240	Disabled "Quiet mode"	step
		241 - 255	Quiet mode - fan noise control from min. to max.	proportional
7	7		LED frequency selection	
			Factory display menu setting: 600Hz	
			<i>Select PWM output frequency of LEDs. Selected PWM frequency can be fine adjusted in 127 steps up/down around selected PWM frequency on the channel below. Corresponding menu item (Frequency Setup) is temporarily overridden.</i>	
		0-4	PWM frequency from Display menu (fixture utilizes PWM frequency set in the display menu item Frequency Setup).	step
		5-9	300 Hz	step
		10-14	600 Hz (10=default)	step
		15-19	1200 Hz	step
		20-24	2400 Hz	step
		25-255	Reserved (fixture utilizes PWM frequency set in the display menu item Frequency Setup).	
8	8		LED frequency fine adjusting	
			Factory display menu setting: 600Hz	
			<i>Select desired PWM output frequency of LEDs on the channel above.</i>	
		0-1	Selected LED Frequency	step
		2	LED Frequency (step -126)	step
		3	LED Frequency (step -125)	step
		4	LED Frequency (step -124)	step
		:		
		125	LED Frequency (step -3)	step

DMX protocol

Mode/channel		DMX Value	Function	Type of control
1	2			
		126	LED Frequency (step -2)	step
		127	LED Frequency (step -1)	step
		128	Selected LED Frequency (128=default)	step
		129	LED Frequency (step +1)	step
		130	LED Frequency (step +2)	step
		131	LED Frequency (step +3)	step
		:		
		252	LED Frequency (step +124)	step
		253	LED Frequency (step +125)	step
		254	LED Frequency (step +126)	step
		255	Selected LED Frequency	step
9	9		Max. light intensity indication and setting	
		0-10	No function (0=default)	
		11-20	Indication of drop of max. light intensity	step
			<i>A drop of max. light intensity of the fixture (compared to its original intensity) is indicated by a corresponding colour output: 0-5%, (WHITE /new LED module/) 6-10% (RED) 11-15% (GREEN) 16-20% (BLUE) 21-25% (CYAN) 26-30% (MAGENTA) 31-35% (YELLOW) 36-40% (ORANGE) Pan/tilt/zoom is set at 128 DMX (50%), Dimmer is open at 255 DMX (100%).</i>	
			<i>To set a drop of max. light intensity (compared to original light intensity), stay at DMX value for at least 3 sec. and shutter must be closed at least 3 sec. (Channel „Shutter/ Strobe“ 47/41 must be at range: 0-31 DMX). Corresponding menu items are permanently overwritten.</i>	
		21-30	Set drop by 6-10% (RED)	step
		31-40	Set drop by 11-15% (GREEN)	step
		41-50	Drop by 16-20% (BLUE)	step
		51-60	Set drop by 21-25% (CYAN)	step
		61-70	Set drop by 26-30% (MAGENTA)	step
		71-80	Set drop by 31-35% (YELLOW)	step
		81-90	Set drop by 36-40% (ORANGE)	step
		91-100	Original intensity (WHITE)	step
		101-255	Reserved	
10	10		Colour wheel 1	
			Continual positioning	
		0	Open/white (0=default)	proportional
		21	Deep red	proportional
		43	Deep blue	proportional
		64	Orange	proportional
		86	Green	proportional
		107	Congo blue	proportional

DMX protocol

Mode/channel		DMX Value	Function	Type of control
1	2			
		128-129	Open/White	step
			Positioning	
		130-141	Deep red	step
		142-153	Deep blue	step
		154-165	Orange	step
		166-177	Green	step
		178-189	Congo blue	step
		190 - 215	Forwards rainbow effect from fast to slow	proportional
		216 - 217	No rotation	step
		218 - 243	Backwards rainbow effect from slow to fast	proportional
		244 - 249	Random colour selection by audio control	step
			(Set microphone sensitivity in menu „Personality“)	
		250 - 255	Auto random colour selection from fast to slow	proportional
11	*		Colour wheel 1 - fine positioning	
		0 - 255	Fine positioning (0=default)	proportional
12	11		Colour wheel 2	
			Continual positioning	
		0	Open/white (0=default)	proportional
		21	Multicolour	proportional
		43	Laser green	proportional
		64	Lavender	proportional
		86	Filter CRI 80	proportional
		107	Filter CRI 90	proportional
		128-129	Open/White	step
			Positioning	
		130-141	Multicolour	step
		142-153	Laser green	step
		154-165	Lavender	step
		166-177	Filter CRI 80	step
		178-189	Filter CRI 90	step
		190 - 215	Forwards rainbow effect from fast to slow	proportional
		216 - 217	No rotation	step
		218 - 243	Backwards rainbow effect from slow to fast	proportional
		244 - 249	Random colour selection by audio control	step
			(Set microphone sensitivity in menu „Personality“)	
		250 - 255	Auto random colour selection from fast to slow	proportional
13	*		Colour wheel 2 - fine positioning	
		0 - 255	Fine positioning (0=default)	proportional
14	12		Cyan	
		0 - 255	Cyan from min. saturation --> full cyan (0=default)	proportional
15	13		Magenta	
		0 - 255	Magenta from min. saturation --> full magenta (0=default)	proportional
16	14		Yellow	
		0 - 255	Yellow from min. saturation --> full yellow (0=default)	proportional
17	15		CTO filter	
		0 - 255	CTO from 6500K --> 3000K (0=default)	proportional
18	16		Virtual colour wheel	
		0	No function (0=default)	step

DMX protocol

Mode/channel		DMX Value	Function	Type of control
1	2			
		1-2	Filter 4 (Medium Bastard Amber)	step
		3-4	Filter 10 (Medium Yellow)	step
		5-6	Filter 19 (Fire)	step
		7-8	Filter 26 (Bright Red)	step
		9-10	Filter 58 (Lavender)	step
		11-12	Filter 68 (Sky Blue)	step
		13-14	Filter 71 (Tokyo Blue)	step
		15-16	Filter 79 (Just Blue)	step
		17-18	Filter 88 (Lime Green)	step
		19-20	Filter 90 (Dark Yellow Green)	step
		21-22	Filter 100 (Spring Yellow)	step
		23-24	Filter 101 (Yellow)	step
		25-26	Filter 102 (Light Amber)	step
		27-28	Filter 103 (Straw)	step
		29-30	Filter 104 (Deep Amber)	step
		31-32	Filter 105 (Orange)	step
		33-34	Filter 106 (Primary Red)	step
		35-36	Filter 111 (Dark Pink)	step
		37-38	Filter 115 (Peacock Blue)	step
		39-40	Filter 116 (Medium Blue-Green)	step
		41-42	Filter 117 (Steel Blue)	step
		43-44	Filter 118 (Light Blue)	step
		45-46	Filter 119 (Dark Blue)	step
		47-48	Filter 120 (Deep Blue)	step
		49-50	Filter 121 (Filter Green)	step
		51-52	Filter 128 (Bright Pink)	step
		53-54	Filter 131 (Marine Blue)	step
		55-56	Filter 132 (Medium Blue)	step
		57-58	Filter 134 (Golden Amber)	step
		59-60	Filter 135 (Deep Golden Amber)	step
		61-62	Filter 136 (Pale Lavender)	step
		63-64	Filter 137 (Special Lavender)	step
		65-66	Filter 138 (Pale Green)	step
		67-68	Filter 139 (Primary Green)	step
		69-70	Filter 141 (Bright Blue)	step
		71-72	Filter 147 (Apricot)	step
		73-74	Filter 148 (Bright Rose)	step
		75-76	Filter 152 (Pale Gold)	step
		77-78	Filter 154 (Pale Rose)	step
		79-80	Filter 157 (Pink)	step
		81-82	Filter 158 (Deep Orange)	step
		83-84	Filter 162 (Bastard Amber)	step
		85-86	Filter 164 (Flame Red)	step
		87-88	Filter 165 (Daylight Blue)	step
		89-90	Filter 169 (Lilac Tint)	step
		91-92	Filter 170 (Deep Lavender)	step
		93-94	Filter 172 (Lagoon Blue)	step
		95-96	Filter 179 (Chrome Orange)	step

DMX protocol

Mode/channel		DMX Value	Function	Type of control
1	2			
		97-98	Filter 180 (Dark Lavender)	step
		99-100	Filter 181 (Congo Blue)	step
		101-102	Filter 197 (Alice Blue)	step
		103-104	Filter 201 (Full C.T. Blue)	step
		105-106	Filter 202 (Half C.T. Blue)	step
		107-108	Filter 203 (Quarter C.T. Blue)	step
		109-110	Filter 204 (Full C.T. Orange)	step
		111-112	Filter 205 (Half C.T. Orange)	step
		113-114	Filter 206 (Quarter C.T. Orange)	step
		115-116	Filter 247 (Filter Minus Green)	step
		117-118	Filter 248 (Half Minus Green)	step
		119-120	Filter 281 (Three Quarter C.T. Blue)	step
		121-122	Filter 285 (Three Quarter C.T. Orange)	step
		123-124	Filter 352 (Glacier Blue)	step
		125-126	Filter 353 (Lighter Blue)	step
		127-128	Filter 715 (Cabana Blue)	step
		129-130	Filter 778 (Millennium Gold)	step
		131-132	Filter 793 (Vanity Fair)	step
		133-255	Reserved	
19	17		Effects Speed <i>Speed of CMY&CTO movement and Rot. Gobo/Static Gobo selection</i>	
		0-255	Speed of CMY+CTO movement from max. to min. (0=default)	proportional
		0-255	Speed of Rot. Gobo/Stat. Gobo selection from max. to min.	proportional
20	18		CMY+CTO+Colour wheels time	
		0	Function is off (0=default)	step
		1 - 255	Time of CMY, CTO and Colour wheels movement (0.1sec-->25.5sec.)	proportional
21	19		Static gobo wheel/ Framing shutters/Zoom/Focus/Iris/Frost/Prism time	
		0	Function is off (0=default)	step
		1-255	Time of Static gobo movement (0.1 sec-->25.5 sec.)	proportional
		1 - 255	Time of framing shutters, zoom, focus, iris and frost movement (0.1 sec-->25.5 sec.)	proportional
		1-50	Time of prism movement (0.1 sec-->5 sec.)	proportional
22	20		Effect wheel positioning	
		0-19	No function (0=default)	step
		20-127	Proportional indexing (73-center)	proportional
		128-170	Ramping from open to full position (max--->min. speed)	proportional
		171-213	Ramping from open to half position (max. --->min. speed)	proportional
		214-255	Ramp. from half position to full position (max. --->min. speed)	proportional
23	21		Effect wheel rotation	
		0	No rotation	step
		1 - 127	Forwards rotation from fast to slow	proportional
		128	No rotation (128=default)	step
		129 - 255	Backwards rotation from slow to fast	proportional
24	22		Effect wheel animations	
		0-7	No animation (0=default)	

DMX protocol

Mode/channel		DMX Value	Function	Type of control
1	2			
			<i>Note : Set suitable DMX value at Focus channel to get desired animation. All animations were created at distance of 5 m from screen with zoom=128 DMX, Focus value is different for each effect (focus value is stated in parentheses for this distance)</i>	
			<i>The following channels are blocked: Effect wheel positioning, Effect wheel rotation, Static gobo wheel. Rotating gobo wheel, Rot. Gobo indexing and rotation, Rot. Gobo wheel fine rotation.</i>	
		8-9	Macro 1 (Focus=159)	step
		10-11	Macro 2 (Focus=144)	step
		12-13	Macro 3 (Focus=146)	step
		14-15	Macro 4 (Focus=160)	step
		16-17	Macro 5 (Focus=181)	step
		18-19	Macro 6 (Focus=181)	step
		20-21	Macro 7 (Focus=166)	step
		22-23	Macro 8 (Focus=142)	step
		24-25	Macro 9 (Focus=151)	step
		26-27	Macro 10 (Focus=152)	step
		28-255	Reserved	
25	23		Static gobo wheel	
		0-8	Open/hole (0=default)	step
		9-17	Gobo 1	step
		18-26	Gobo 2	step
		27-35	Gobo 3	step
		36-44	Gobo 4	step
		45-53	Gobo 5	step
		54-62	Gobo 6	step
		63-71	Gobo 7	step
		72-80	Gobo 8	step
		81-91	Gobo 9	step
			<u>Shaking gobos from slow to fast</u>	
		92-103	Gobo 1	proportional
		104-115	Gobo 2	proportional
		116-127	Gobo 3	proportional
		128-139	Gobo 4	proportional
		140-151	Gobo 5	proportional
		152-163	Gobo 6	proportional
		164-175	Gobo 7	proportional
		176-187	Gobo 8	proportional
		188-199	Gobo 9	proportional
		200 - 201	Open/hole	step
		202 - 222	Forwards gobo wheel rotation from fast to slow	proportional
		223 - 243	Backwards gobo wheel rotation from slow to fast	proportional
		244 - 249	Random gobo selection by audio control <i>(Set microphone sensitivity in menu „Personality“)</i>	step
		250 - 255	Auto random gobo selection from fast to slow	proportional
26	24		Rotating gobo wheel	
			<i>Index - set indexing on channel 27/25</i>	
		0-3	Open/hole (0=default)	step
		4-7	Gobo 1	step

DMX protocol

Mode/channel		DMX Value	Function	Type of control
1	2			
		8-11	Gobo 2	step
		12-15	Gobo 3	step
		16-19	Gobo 4	step
		20-23	Gobo 5	step
		24-27	Gobo 6	step
		28-31	Gobo 7	step
			<i>Rotation - set rotation on channel 27/25</i>	
		32-35	Gobo 1	step
		36-39	Gobo 2	step
		40-43	Gobo 3	step
		44-47	Gobo 4	step
		48-51	Gobo 5	step
		52-55	Gobo 6	step
		56-59	Gobo 7	step
			<i>Shaking gobos from slow to fast</i>	
			<i>Index - set indexing on channel 27/25</i>	
		60 - 69	Gobo 1	proportional
		70 - 79	Gobo 2	proportional
		80 - 89	Gobo 3	proportional
		90 - 99	Gobo 4	proportional
		100 - 109	Gobo 5	proportional
		110 - 119	Gobo 6	proportional
		120 - 129	Gobo 7	proportional
			<i>Shaking gobos from slow to fast</i>	
			<i>Rotation - set rotation on channel 27/25</i>	
		130 - 139	Gobo 1	proportional
		140 - 149	Gobo 2	proportional
		150 - 159	Gobo 3	proportional
		160 - 169	Gobo 4	proportional
		170 - 179	Gobo 5	proportional
		180 - 189	Gobo 6	proportional
		190 - 199	Gobo 7	proportional
		200 - 201	Open/hole	step
		202 - 221	Forwards gobo wheel rotation from fast to slow	proportional
		222 - 223	No rotation	step
		224 - 243	Backwards gobo wheel rotation from slow to fast	proportional
		244 - 249	Random gobo selection by audio control (Set microphone sensitivity in menu „Personality“)	step
		250 - 255	Auto random gobo selection from fast to slow	proportional
27	25		Rot. gobo indexing and rotation	
			<i>Gobo indexing - set position on channel 26/24</i>	
		0 - 255	Gobo indexing	proportional
			<i>Gobo rotation - set position on channel 26/24</i>	
		0	No rotation	step
		1 - 127	Forwards gobo rotation from fast to slow	proportional
		128	No rotation (128=default)	step
		129 - 255	Backwards gobo rotation from slow to fast	proportional
28	*		Rot. gobo indexing/rotation - fine	

DMX protocol

Mode/channel		DMX Value	Function	Type of control
1	2			
		0-255	Fine indexing/rotation (0=default)	proportional
29	26		Prism	
		0 - 19	Open position - hole (0=default)	step
		20 - 73	Prism indexing	step
		74-127	Prism rotation	step
			Prism/gobo macros	
			<i>The following channels are blocked: Prism, Prism rotation, Static gobo wheel, Rotating gobo wheel, Rot. Gobo indexing and rotation, Rot. Gobo wheel fine rotation.</i>	
		128 - 135	Macro 1	step
		136 - 143	Macro 2	step
		144 - 151	Macro 3	step
		152 - 159	Macro 4	step
		160 - 167	Macro 5	step
		168 - 175	Macro 6	step
		176 - 183	Macro 7	step
		184 - 191	Macro 8	step
		192 - 199	Macro 9	step
		200 - 207	Macro 10	step
		208 - 215	Macro 11	step
		216 - 223	Macro 12	step
		224 - 231	Macro 13	step
		232 - 239	Macro 14	step
		240 - 247	Macro 15	step
		248 - 255	Macro 16	step
30	27		Prism indexing/rotation	
			Prism indexing - set position on channel 29/26	
		0 - 255	Prism 1 indexing	proportional
			Prism rotation - set position on channel 29/26	
		0	No rotation	step
		1 - 127	Forwards prism rotation from fast to slow	proportional
		128	No rotation (128=default)	step
		129-255	Backwards prism rotation from slow to fast	proportional
31	28		Frost	
		0	Open (0=default)	step
			Light Frost	
		1-50	Light Frost from 0% to 100%	proportional
		51-53	100% Light Frost	step
		54-63	Pulse closing from slow to fast	proportional
		64-73	Pulse opening from fast to slow	proportional
		74-83	Ramping from fast to slow	proportional
		84-86	Open	step
			Medium Frost	
		87-136	Medium Frost from 0% to 100%	proportional
		137-139	100% Medium Frost	step
		140-149	Pulse closing from slow to fast	proportional
		150-159	Pulse opening from fast to slow	proportional
		160-169	Ramping from fast to slow	proportional

DMX protocol

Mode/channel		DMX Value	Function	Type of control
1	2			
		170-172	Open	step
			Combined Frost	
		173-222	Medium Frost from 0% to 100% (Light Frost inserted)	proportional
		223-225	100% Medium Frost (Light Frost inserted)	step
		226-235	Pulse closing from slow to fast	proportional
		236-245	Pulse opening from fast to slow	proportional
		246-255	Ramping from fast to slow	proportional
32	29		Iris	
		0	Open (0=default)	step
		1 - 179	From max. diameter to min. diameter	proportional
		180 - 191	Closed	step
			Pulse effects with Iris blackout	
		192 -219	Pulse opening from slow to fast	proportional
		220 - 247	Pulse closing from fast to slow	proportional
		248 - 249	Random pulse opening (fast)	step
		250 - 251	Random pulse opening (slow)	step
		252 - 253	Random pulse closing (fast)	step
		254 - 255	Random pulse closing (slow)	step
33	*		Iris - fine	
		0 - 255	Fine iris movement (0=default)	proportional
34	30		Zoom	
		0 - 255	Zoom from max. to min. beam angle (128=default)	proportional
35	*		Zoom - fine	
		0-255	Fine zooming (0=default)	proportional
36	31		Focus	
		0 - 255	Continuous adjustment from far to near (128=default)	proportional
37	*		Focus - fine	
		0- 255	Fine focusing (0=default)	proportional
38	32		Framing shutters module rotation	
		0-127	Rotation from right (0°) to 60°	proportional
		128	Centre (128=default)	step
		129-255	Rotation from 60° to left (120°)	proportional
39	33		Framing shutter 1- movement	
		0-255	Movement from Outward to Inward (0=default)	proportional
40	34		Framing shutter 1- swivelling	
		0-127	Swivelling from -25 degrees towards 0 degrees	proportional
		128	0 degrees (128=default)	step
		129-255	Swivelling from 0 degrees to +25 degrees	proportional
41	35		Framing shutter 2- movement	
		0-255	Movement from Outward to Inward (0=default)	proportional
42	36		Framing shutter 2- swivelling	
		0-127	Swivelling from -25 degrees towards 0 degrees	proportional
		128	0 degrees (128=default)	step
		129-255	Swivelling from 0 degrees to +25 degrees	proportional
43	37		Framing shutter 3 movement	
		0-255	Movement from Outward to Inward (0=default)	proportional
44	38		Framing shutter 3- swivelling	
		0-127	Swivelling from -25 degrees towards 0 degrees	proportional

DMX protocol

Mode/channel		DMX Value	Function	Type of control
1	2			
		128	0 degrees (128=default)	step
		129-255	Swivelling from 0 degrees to +25 degrees	proportional
45	39		Framing shutter 4 movement	
		0-255	Movement from Outward to Inward (0=default)	proportional
46	40		Framing shutter 4- swivelling	
		0-127	Swivelling from -25 degrees towards 0 degrees	proportional
		128	0 degrees (128=default)	step
		129-255	Swivelling from 0 degrees to +25 degrees	proportional
47	41		Shutter/ strobe	
		0 - 31	Shutter closed	step
		32 - 63	Shutter open (32=default)	step
		64 - 95	Strobe-effect from slow to fast	proportional
		96 - 127	Shutter open	step
		128 - 143	Opening pulse in sequences from slow to fast	proportional
		144 - 159	Closing pulse in sequences from fast to slow	proportional
		160 - 191	Shutter open	step
		192 - 223	Random strobe-effect from slow to fast	proportional
		224 - 255	Shutter open	step
48	42		Dimmer intensity	
		0 - 255	Dimmer intensity from 0% to 100% (0=default)	proportional
49	*		Dimmer intensity - fine	
		0 - 255	Fine dimming (0=default)	proportional
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