

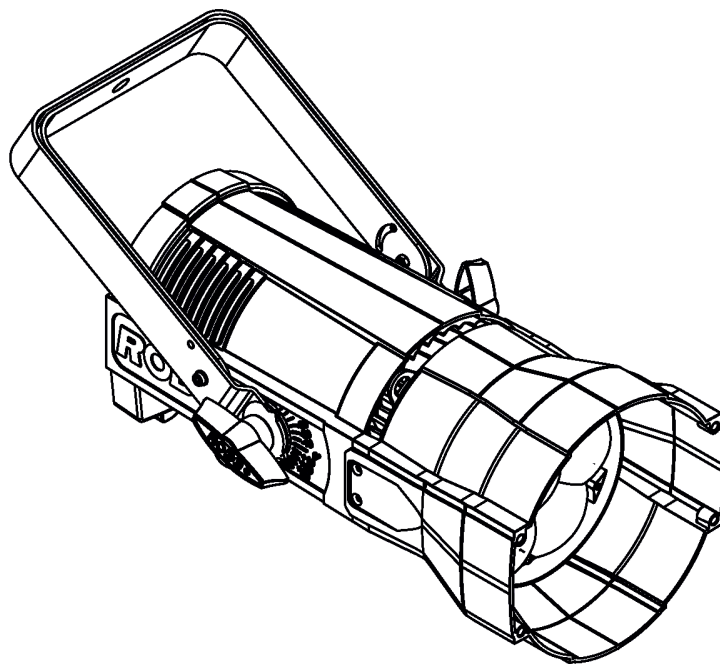
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**ROBE**

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**ROBIN<sup>®</sup> ParFect 150 RGBA**

**ROBIN<sup>®</sup> ParFect 150 FW RGBA**



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**USER MANUAL**

*Version 1.4*

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ROBE<sup>®</sup> lighting s.r.o. • Czech Republic • [www.robe.cz](http://www.robe.cz)

# ROBIN ParFect 150 RGBA

# ROBIN ParFect 150 FW RGBA

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**FOR YOUR OWN SAFETY, PLEASE READ THIS USER MANUAL CAREFULLY  
BEFORE POWERING OR INSTALLING YOUR ROBIN ParFect 150 RGBA !**

**Save it for future reference.**

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.

**The ParFect 150 was designed for indoor use and it is intended for professional application only. It is not for household use.**

## 1. Safety instructions

**DANGEROUS VOLTAGE CONSTITUTING A RISK OF ELECTRIC SHOCK IS PRESENT WITHIN THIS UNIT!**

Make sure that the available voltage is not higher than stated on the rear panel of the fixture. This fixture should be operated only from the type of power source indicated on the marking label. If you are not sure of the type of power supplied, consult your authorized distributor or local power company.

Always disconnect the fixture from AC power before cleaning, removing or installing any part of the fixture.

The power plug has to be accessible after installing the fixture. Do not overload wall outlets and extension cords as this can result in fire or electric shock.

Do not allow anything to rest on the power cord. Do not locate this fixture where the cord may be damaged by persons walking on it.

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

Refer servicing to qualified service personnel.

**This fixture falls under protection class I. Therefore this fixture has to be connected to a mains socket outlet with a protective earthing connection.**

Do not connect this fixture to a dimmer pack.

**Warning!**  
**Risk group 2, RG-2: CAUTION.**  
**Do not stare at exposed lamp in operation. May be harmful to the eyes.**  
**Avoid looking directly into the light source**  
**LED light emission. Do not view the light output with optical instruments or**  
**any device that may concentrate the beam.**  
**The light source contains blue LEDs.**

If the fixture 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.

Avoid brute force when installing or operating the fixture.

This fixture was designed for indoor use only, do not expose this unit to rain or use near water.

When choosing the installation spot, please make sure that the fixture is not exposed to extreme heat, moisture or dust.

**Do not block the lens array with any object when the fixture is under operation.**

Openings in housing of the fixture should never be covered with cloth or other materials, and never must be blocked.

This fixture should not be placed in a built-in installation unless proper ventilation is provided.

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

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

**To avoid damage of an internal optical system of the fixture, never let the sunlight (or other light source) lights directly to the lens array, even when the fixture is not working**

The fixture becomes hot during operation. Allow the fixture to cool approximately 15 minutes prior to manipulate with it.

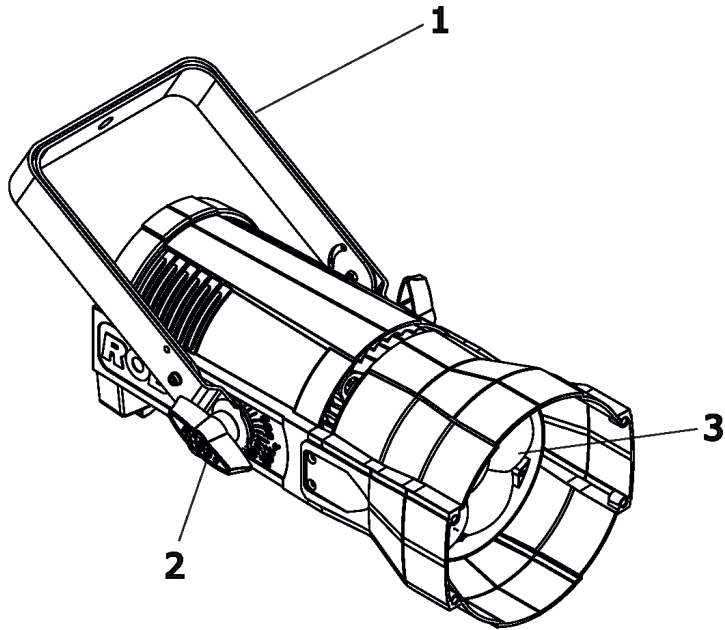
Operate the fixture only after having familiarized with its functions. Do not permit operation by persons not qualified for operating the fixture. Most damages are the result of unprofessional operation!

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

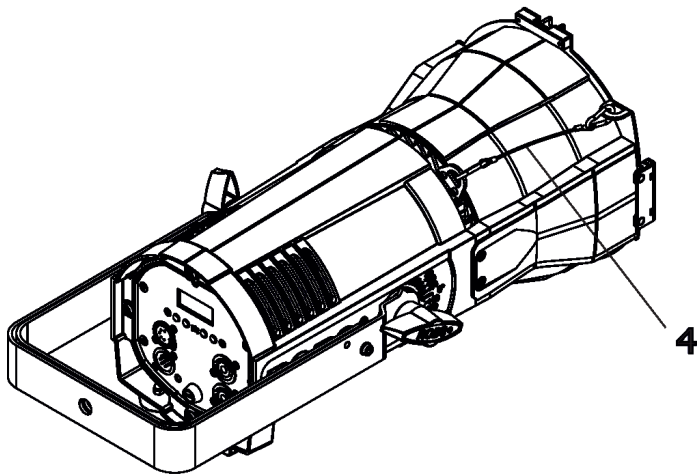
Please consider that unauthorized modifications on the fixture are forbidden due to safety reasons!

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, crash etc.

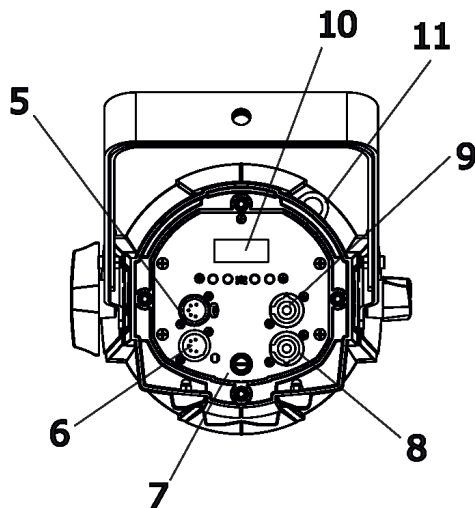
## 2. Fixture exterior view



- 1 - Mounting yoke
- 2 - Tilt locks
- 3 - Lenses array



- 4 - Safety wire securing accessory frame adaptor to the housing
- 5 - DMX OUT
- 6 - DMX IN
- 7 - Fuse holder
- 8 - Mains IN
- 9 - Mains OUT
- 10 - Display and control buttons
- 11 - Safety wire attachment point



### 3. Installation



**Fixtures must be installed by a Qualified electrician in accordance with all national and local electrical and construction codes and regulation.**

#### 3.1 Connection to the mains

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

The ParFect 150 is equipped with auto-switching power supply that automatically adjusts to any 50-60Hz AC power source from 100-240 Volts.

If you need to install a cord cap on the power cable to allow connection to power outlet, 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)!

The max. number of connected fixtures depends on AC mains power voltage:

CE:

15 fixtures at power supply= 230V

13 fixtures at power supply= 208V

7 fixtures at power supply= 120V

ETL:

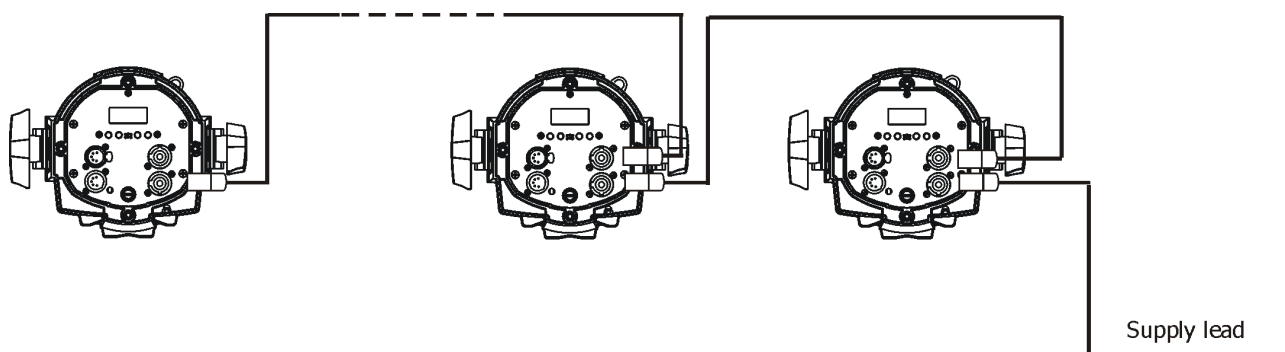
9 fixtures at power supply= 230V

8 fixtures at power supply= 208V

4 fixtures at power supply= 120V

Actual number of fixtures may differ from values stated above as you have to take into account the length of supply cables, circuit breaker etc. at projecting of the fixtures installation Do not overload the supply line and connecting leads.

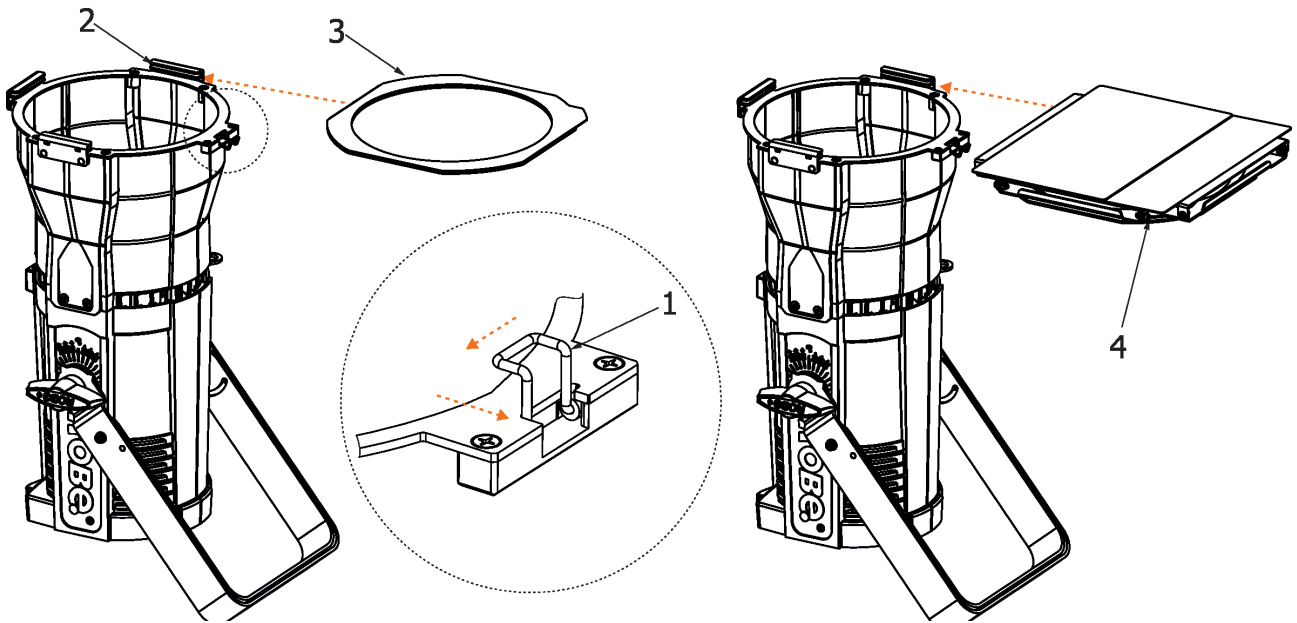
Wiring and connection work must be carried out by qualified staff!



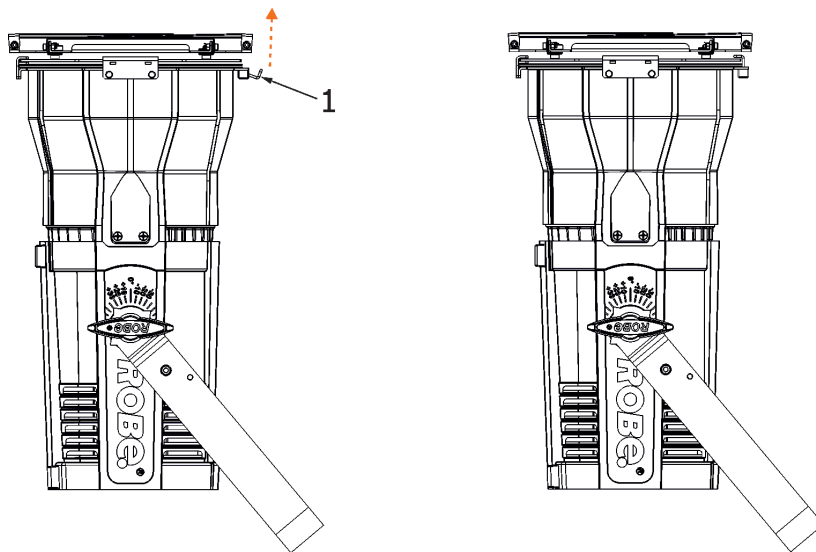
### 3.2 Installing barndoors and the gel frame

**Disconnect the fixture from mains before barndoors and the gel frame installation!  
DO NOT install the gel frame if the eggcrate has been installed on the fixture!**

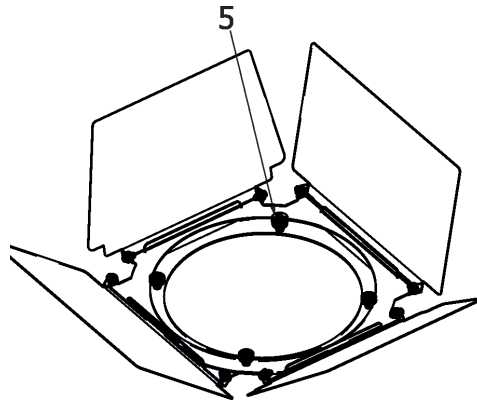
1. Unlock the spring lock (1) of the accessory frame adaptor (2) via pushing this spring lock as show red arrows on the picture.
2. Insert the gel frame (3) into the bottom slots of the accessory frame adaptor (2).
3. Insert the barndoors (4) into the top slots of the (2).



4. Secure both accessories by moving the spring lock (1) to locked position as shows the red arrow on the picture.



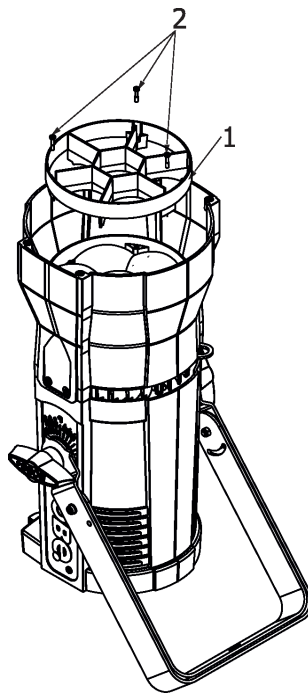
Note: the barndoors can be rotated to desired position and secured in this position via the securing screw (5).



### 3.3 Installing the eggcrate

**Disconnect the fixture from mains before eggcrate installation!  
DO NOT insert the gel frame after installing the eggcrate on the fixture!**

Screw the eggcrate (1) on the lens array module via the three screws (2).

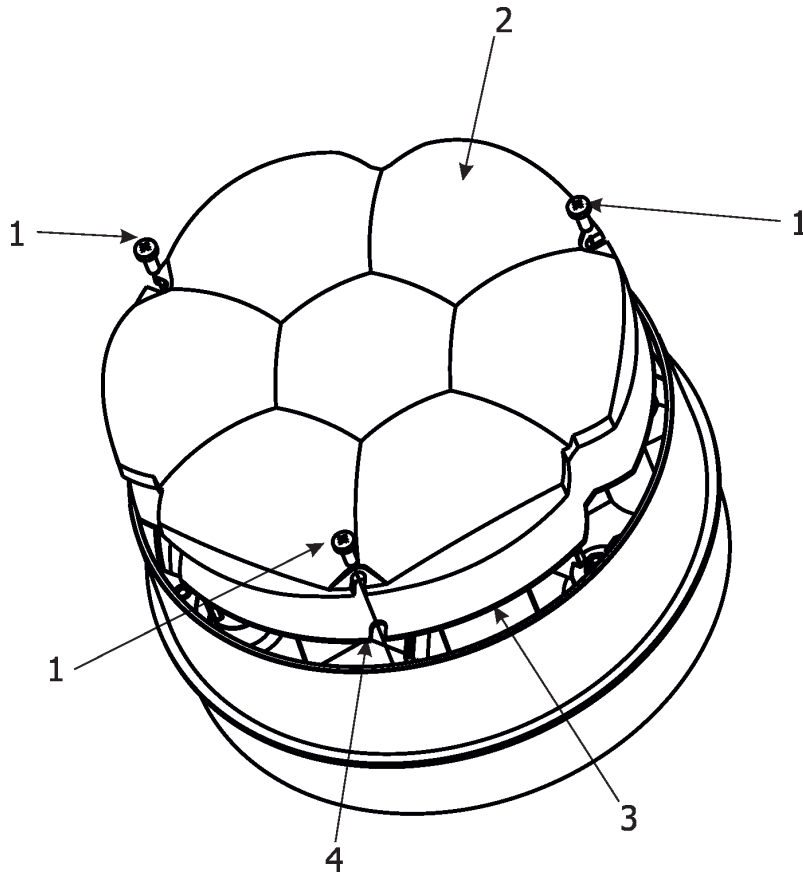




### 3.4 Installing the diffuser 2° (Robin Perfect 150 RGBA only)

**Disconnect the fixture from mains before installing the diffuser.**

1. Unscrew three screws (1) from fixture head and remove the plastic lens (2).
2. Place the diffuser 2° (3) to the fixture head, glossy side towards LEDs (correctly aim apertures (4) for screws).
3. Screw the diffuser 2° (3) back to the head by means of the three screws (1)



**Warning**  
Installation of the Diffuser 2° is one-time matter as the screws (1) are screwed into the plastic.  
You cannot install and uninstall the Diffuser 2° several times.

### 3.5 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 regulation.

***For overhead installation, the fixture must be always secured with a safety wire.***

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!

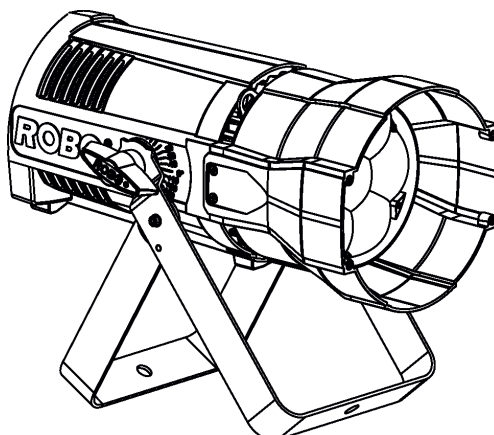
The fixture has to be installed out of the reach of public.

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

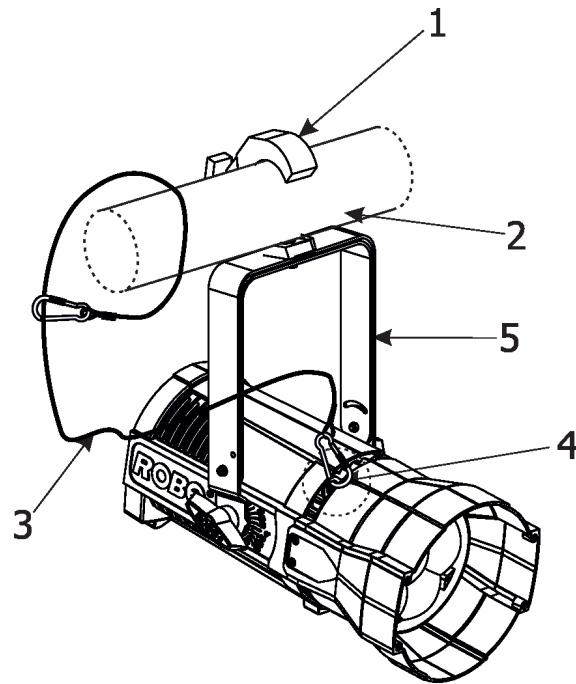
**When installing the device, make sure there is no highly inflammable material (decoration articles, etc.) in a distance of min. 0.4 m.**

**CAUTION!**  
**Use an appropriate clamp to rig the fixture on the truss.**  
**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 by means of the unfolded mounting yoke on the stage floor or rigged on a truss (with folded mounting yoke) 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. **Fasten the safety cable in the attachment point and around the truss as shown on the picture below.**



- 1-Clamp
- 2-Truss
- 3-Safety wire
- 4-Attachment point
- 5-Folded mounting yoke

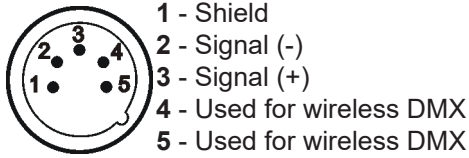
**When installing fixtures side-by-side, avoid illuminating one fixture with another!**

### 3.6 DMX-512 connection

The fixture is equipped with 5-pin XLR sockets for DMX input and output. Only use a shielded twisted-pair cable designed for RS-485 and 5-pin XLR-plugs and connectors in order to connect the controller with the fixture or one fixture with another.

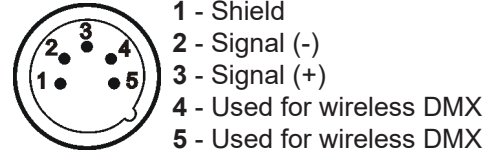
#### DMX output

XLR socket:



#### DMX input

XLRplug:

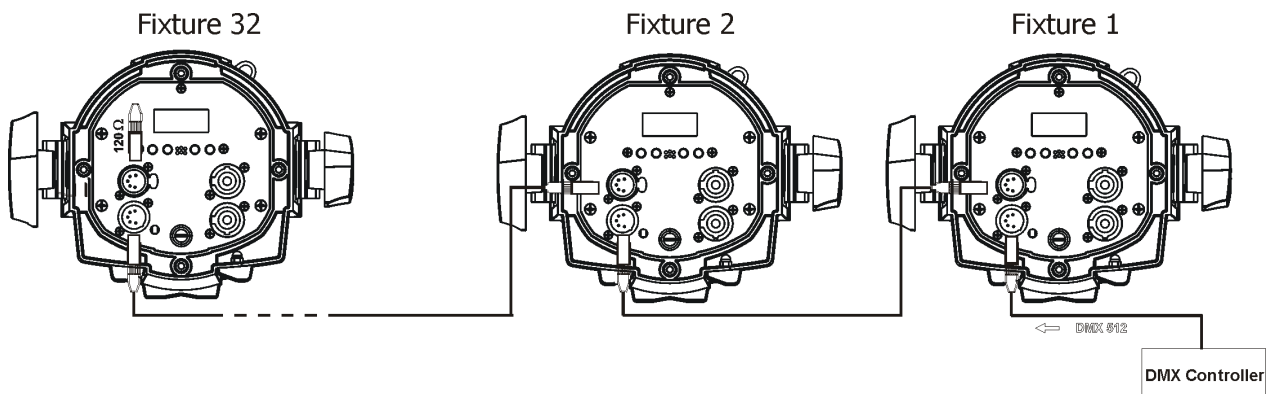


If you are using the standard DMX controllers, you can connect the DMX output of the controller directly with the DMX input of the first fixture in the DMX-chain. If you wish to connect DMX-controllers with other XLR-outputs, you need to use adapter-cables.

#### 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 interconnected.

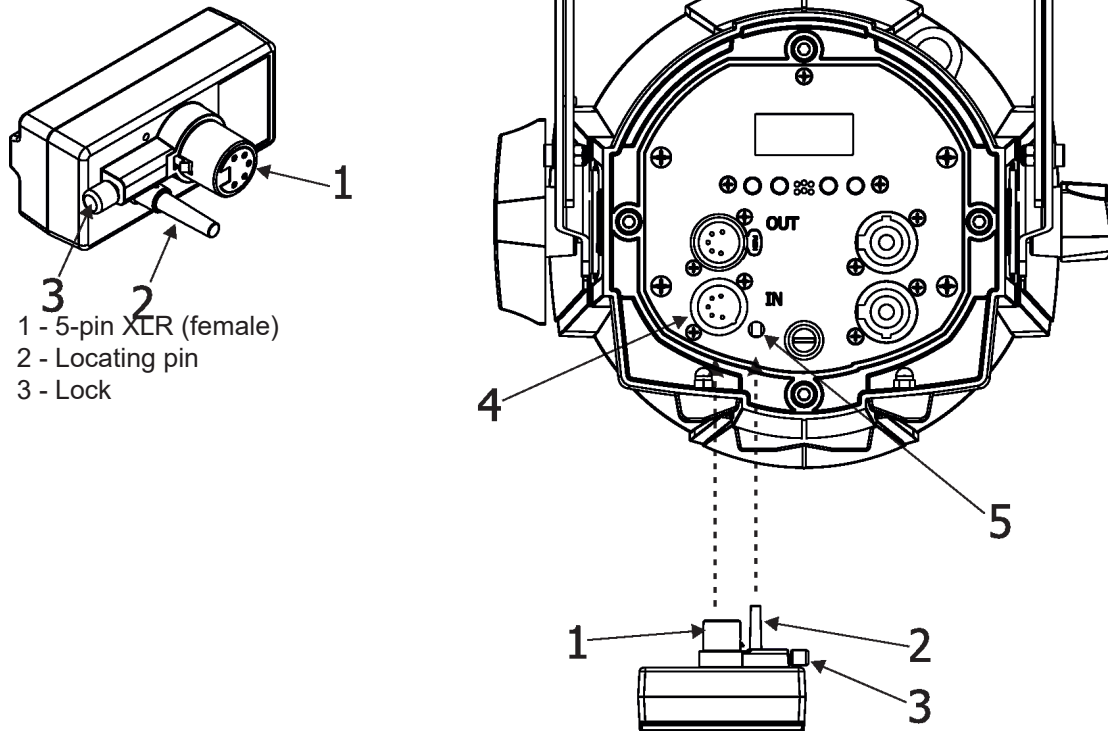
**Caution:** At the last fixture, the DMX-cable has to be terminated with a terminator. Solder a 120 Ω resistor between Signal (-) and Signal (+) into a 5-pin XLR-plug and plug it in the DMX-output of the last fixture.



### 3.7. Wireless DMX operation

The external ROBE Wireless CRMX Dongle for compact ROBIN fixtures allows receiving wireless DMX. This device is equipped with the Lumen Radio CRMX module and antenna for receiving DMX signal. CRMX module operates on the 2.4 GHz band.

ROBE Wireless CRMX Dongle



Push the 5-pin XLR plug (1) into 5-pin XLR socket (4) and at the same time locating pin (2) into the opening (5) in the fixture. In this way the wireless DMX module is connected with the fixture.

NOTE: when you disconnecting the DMX wireless module from the fixture, press and hold lock (5) during taking the wireless module out.

#### 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 “Stat” (Special -->Vireless -->Stat).

#### To unlink the fixture from DMX transmitter.

The fixture can be unlinked from receiver via the menu item “ Unlink“ (Special-->Vireless -->Unlink.).

## 4. Control menu map

Default settings=**Bold print**

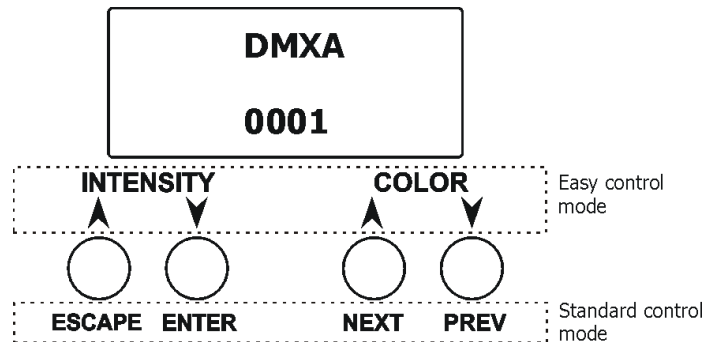
Level 1	Level 2	Level 3	Level 4	Level 5	Level 6	Level 7
<b>DMXA</b>	Set DMXA	001-512				
	DMX Pres	<b>Mode 1</b>				
		Mode 2				
<b>Info</b>	POn Time	Total				
		Reset				
	DMX In	Powr	0-255			
		:				
		Dim F	0-255			
	Hea Temp	Current				
		Highest				
		High Res				
	Sw Ver	IC-1				
		IC-2				
<b>Pers</b>	DMX Pres	<b>Mode 1</b>				
		Mode 2				
	Display	Turn				
		On/Off T	<b>On, Off</b>			
		Contrast	0-100%			
		Backlight	0-100%			
	Mic Sens	0... <b>10</b> ...19				
	Fans	<b>Auto</b> , High, Quiet				
	Col Mix	<b>RGBA</b> , CMY				
	White P	<b>On</b> , Off				
	Dimmer C	<b>Square</b> , Linear				
	Temp Uni	<b>°C</b> , °F				
	I Ef Pos	Powr				
		:				
		Dimm F				
	Store					
	Defaults					
<b>Manual</b>	Manual C	Powr	0-255			
		:				
		Dim F	0-255			
<b>Test Prg</b>						
<b>Sta Alone</b>	Music T	<b>On, Off</b>				
	Auto Run	<b>Off</b>				
		Test				
		Prog 1				
		:				
		Prog 3				
	Pr Play	Test Prg				
		Prog 1				
		:				
		Prog 3				
Pr Edit	Prog 1	Step 1	Powr			
	Prog 2	:	:			

Level 1	Level 2	Level 3	Level 4	Level 5	Level 6	Level 7
		Prog 3	Step 40	F.Tim	0-25.5	
				S.Tim	0-25.5	
				COPY		
				Prg En	1-40	
<b>Special</b>	RDM Low					
	RDM Hight					
	Wireless	Stat				
		Unlink				
	Adjust	DMX Val	Powr	0-255		
			:			
			Dim F	0-255		
		Clalib	Cal Mech	Zoom C	0-255	
				Store		
			Cal Col	Red C	0-255	
				Gre C	0-255	
				Blu C	0-255	
				Amb C	0-255	
				Store		
			Cal Load			
	Sw Upd	On, <b>Off</b>				

## 5. Control menu (Standard and Easy control mode)

The ParFect 150 is equipped with 2-row LCD display which allows to set the fixture's behaviour according to your needs, obtain information on its operation, test its various parts and lastly program it, if it has to be used in a stand-alone mode.

Control panel



The four control buttons have the following functions:

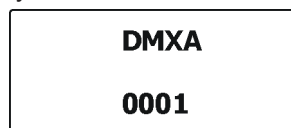
### Standard control mode (default setting)

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

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

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

After switching the fixture on, the display shows current DMX address.

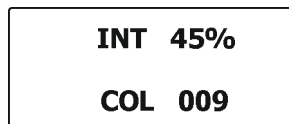


### Easy control mode

[INTENSITY] buttons used to set light intensity (dimmer).

[COLOR] buttons used to set colour

After switching the fixture on, the display shows adjusted dimmer intensity and colour before switching the Parfect 150 off.

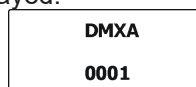


When the fixture is switched off, both adjusted color and light intensity are saved into memory to use them after switching the fixture on.

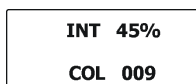
Note: DMX control in this mode is disabled.

### Switching the fixture to Easy control mode

When the current DMX address is displayed:



press the [NEXT] and [PREV] buttons at the same time until the screen for the Easy control mode appears.



For switching to the Standard control mode, press the [NEXT] and [PREV] buttons at the same time until the screen for the Standard control mode appears.

The following menu items are accessible in the Standard control mode only.

### 5.1 Addressing (DMXA)

**Set DMXA-** Use this menu item to set the DMX start address of the fixture, which is defined as the first channel from which the ParFect 150 will respond to the controller.

If you set, for example, the address 31, the ParFect 150 will use channels 31 - 48 for control (if Mode 1 is selected).



Please, be sure that you do not have any overlapping channels in order to control each ParFect 150 correctly and independently from any other fixture on the DMX data link.

If there is no data received at the DMX input, the display will start to flash "0001" with actually stored DMX address.

**DMX Pres - DMX preset.** Use the menu to select desired channel mode.

**Mode 1** - 17 control channels (default)

**Mode 2** - 11 control channels

## 5.2 Fixture information (Info)

**POn Time - Power on time.** Select this menu to read the number of fixture operation hours.

**Total** - The item shows the total number of the operation hours since the ParFect 150 has been fabricated.

**Reset** - The item shows the number of the operation hours that the ParFect 150 has been powered on since the counter was last reset.

In order to reset this counter to 0, press and hold both [NEXT] and [PREV] buttons and the [Enter] button at the same time.

**DMX In - DMX readout.** The menu is used to read DMX values of each channel received by the fixture.

**Hea. Temp - Temperature.** The menu shows temperature of the LED module.

**Current** - A current temperature of the LED module.

**Highest** - A maximum temperature of the the LED module since the fixture has been fabricated.

**High Res** - A maximum temperature of the the LED module since the counter was last reset.

In order to reset this counter, press and hold both [NEXT] and [PREV] buttons and the [Enter] button at the same time.

**Sw Ver - Software versions.** Select this item to read the software version of the fixture modules.

**IC-1** - A display processor.

**IC-2** - A LED control processor.

## 5.3 Personality (Pers)

**DMX Pres - DMX preset.** Use the menu to select desired channel mode.

**Mode 1** - 17 control channels (default)

**Mode 2** - 11 control channels

**Display - Display adjusting.** This menu allows you to adjust the display behaviour.

**Turn** - This function rotates menu 180 degrees from current orientation.

Note: Pressing and holding the Escape button also rotates menu.

**On/Off T** - This function allows you to keep the display permanent on or turn it off two minutes after last pressing any button on the control panel.

**Contrast**- Use this function to adjust contrast of the display (0-100%).

**Backlight**- Use this function to adjust backlight of the display (0-100%).

**Col. Mix. - Colour mixing mode.** This item allows switching into RGBA or CMY mode. In the CMY mode, the amber(8bit) and amber (16) bit channels are not active.

**White P - White Point 8000K.** If the function is on, the CTC channel allows to set desired white in range of 8000K-2700K

(0 DMX=8000K, 64 DMX=5600K, 128 DMX=4200K, 192 DMX=3200K, 255 DMX=2700K). Necessary condition is , that RGBA channels have to be full or set at the same DMX values, e.g. 255.

If this function is off, the range of whites is not uniform and may be different for each fixture.

**Mic Sens - Microfon sensitivity.** Enter the menu if you want to adjust the microphone sensitivity (0-min., 19-max.).

**Fan - Fan mode.** Use the menu to set the fixture fan to the max. power ("**High**") ,auto-control mode ("**Auto**") and quiet mode ("**Quiet**"). In the quiet mode is a speed of zoom reduced.

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

**Ef Pos - 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 connected.

**Defaults** - The menu item allows to set all fixture parameters to the default (factory) values.

## 5.4 Manual Control (Manual)

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

## 5.5 Test program (Test Prg)

Use this menu to to run a special demo-test sequences without an external controller, which will show you some possibilities of using the ParFect 150.

## 5.6 Stand-alone (St Alone)

The ParFect 150 offers three user-editable programs (Prog 1-Prog 3), each up to 40 steps. T

**Music T - Music trigger.** Select this function to enable the sound control of the running program via the built-in microphone.

**Auto Run - Presetting playback.** This function allows you to select the program which will be played in the stand-alone mode after switching the fixture on. Selected program will be played continuously in a loop.

**Off** - The option disables „Auto Run” function.

**Test, Prog 1, Prog 2, Prog 3** - Selected program will start running after switching the fixture on.

**Pr Play - Playing program.** Select this menu to run a desired program in a loop (Test Prg, Prog 1-Prog 3). Select the program you wish to run and press the [ENTER]. The selected program will start running. By Pressing the [ENTER] again, the program pauses running.

**Pr Edit - Editing program.** Select this menu to edit or create three editable programs (Prog 1-Prog 3). Each program step has a step time - during which effects last in the current step and a fade time- during which effects move to new positions.

To edit program.

1. Press [NEXT] or [PREV] to select the menu "Pr Edit" and press [ENTER].
2. Press [NEXT] or [PREV] to select the desired program and press [ENTER] button.
3. Press [NEXT] or [PREV] to select the desired program step and press [ENTER] button.
4. Press [NEXT] or [PREV] to select the desired item and press [ENTER] button. Now you can edit by [NEXT] or [PREV] buttons the DMX value (0-255) for selected item:

Prg En.	a total number of the program steps (value 1-40). This value you should be set before starting of programming (e.g. if you want to create program with the 10 steps, set Prg En=10).
Powr	power/special functions
Virt C	a virtual colour wheel
Red	a red colour coarse
Red F	a red colour fine
Green	a green colour coarse
Green F	a green colour fine
Blue	a blue colour coarse
Blue F	a blue colour fine
Amber	an amber colour
Amber F	an amber colour fine
CTC	a colour temperature correction
C Mix C	a colour mix control
Zoom	a zoom function
Zoom F	a zoom function fine
Stro	a strobe/shutter function

Dimm a dimmer function coarse  
 Dim F a dimmer function fine  
 F.Tim a fade time (0-25.5 sec)  
 S.Tim a step time (0-25.5 sec)  
 COPY copying the current prog. step to  
 the next prog. step

5. Press [ENTER] button to confirm adjusted value .
6. Press [ESCAPE] button, select next prog. step, press [ENTER] button and repeat steps 4 - 5).

## 5.7 Special functions (Special)

**RDM Low** - This menu item shows the first part of the RDM identification code.

**RDM High** - This menu item shows the second part of the RDM identification code.

**Wireless** - **Wireless DMX information.** The menu allows to read some information about Wireless DMX operation

**Stat - Wireless status.** Use the menu to read wireless DMX status.

**Unlink** - use this item to unlink fixture from wireless DMX.

**Adjust - Adjustment.** The menu allows the fine adjustment of effects.

**DMX Val- DMX values.** Use the menu to set DMX values of fixture's channels.

**Calib** - calibration of white colour.

**Cal Mech** - Use this menu to calibrate a zoom position.

**Cal Col** - Use this menu to set white colour 5600K.

*Calibration of the zoom position via the control board*

1. Disconnect DMX controller from the fixture and enter the "Cal Mech" menu.
2. Use the [PREV] and [NEXT] to find "Zoom C" and press [ENTER].
3. Set desired value and confirm it by pressing [ENTER].
4. After calibration, find item "Store" and press [ENTER]. to save all adjusted values and reset the fixture.

*Calibration of the white 5600K via the control board*

1. Disconnect DMX controller from the fixture , set the shutter, dimmer and RGBW channels at 255 DMX, zoom at 128 DMX and the CTC channel at DMX=64 (white 5600K). Aim the light beam on the lux meter (e.g. Minolta CL-500 A Chroma meter) which is placed cca 5m from the fixture.
2. Set the menu items colour mixing mode "Colour Mix" to RGBA and white point 8000K "White P" to On (Pers-> Col Mix -> RGBA, Pers-> White P -> On).
3. Enter the menu "Cal Col".
4. By means of the items "Red C, Gre C, Blu C and Amb C" adjust the 5600K colour temperature as exactly as possible ( $\Delta u'v' = 0$ ).
5. After adjusting 5600K colour temperature, select item Store and press the [ENTER] button to save all adjusted values .

Note: you can also use DMX controller for both calibrations stated above, calibration protocol is the following:

<b>Effect</b>	<b>Mode 1</b>	<b>Mode 2</b>
Fine adjustment of zoom position	channel 18	channel 12
Fine adjustment of red LEDs saturation	channel 19	channel 13
Fine adjustment of green LEDs saturation	channel 20	channel 14
Fine adjustment of blue LEDs saturation	channel 21	channel 15
Fine adjustment of amber LEDs saturation	channel 22	channel 16

**Cal Load** - Loads default (factory) calibration.

**Sw Upd - Software update.** The menu item allows you to update software in the fixture.

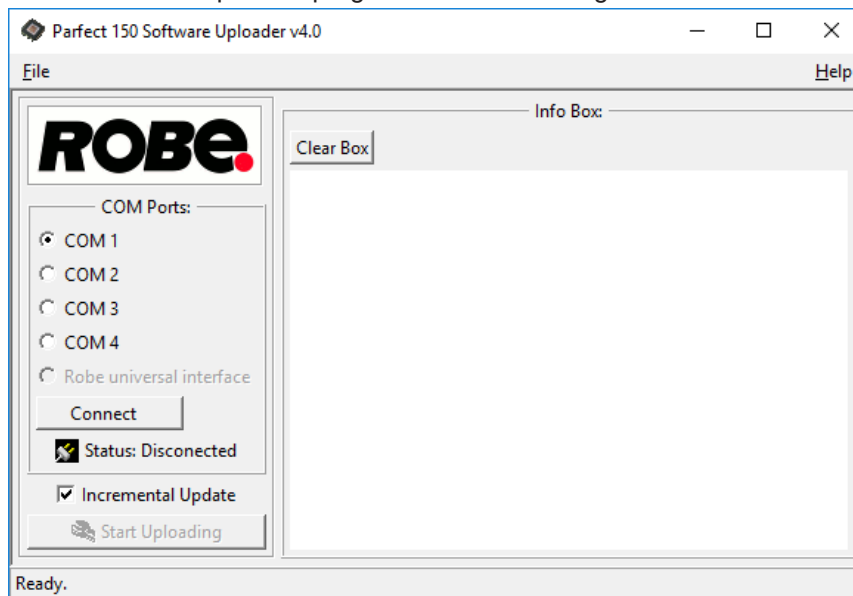
The following items are required in order to update software:

- PC running Windows or Linux or macOS
- DSU file
- Robe Universal Interface or Robe Universal interface WTX or Flash cable RS232/DMX P/N13050624)

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

To update software in the fixture:

1. DSU file is available from Robe web site at [WWW.robe.cz](http://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\_Perfect150\_18050253.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 (Special --> SW Upd).  
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\_Perfect150\_18050253.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 1 " 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 in the unit.

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

## 6. 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 the ParFect 150 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		*	*
DEVICE_RESET		*	
DMX_PERSONALITY		*	*
DMX_PERSONALITY_DESCRIPTION			*
STATUS_MESSAGES			*
STATUS_ID_DESCRIPTION			*
DEVICE_HOURS			*
PARAMETER_DESCRIPTION			*
ROBE_DMX_INPUT		*	*
ROBE_WIRELESS_UNLINK		*	

## 7. Error and information messages

### **Short Err**

The message informs you that short circuit has occurred on the LED PCB.

## 8. Technical Specifications

### Electrical

Power supply:.....electronic auto-ranging  
Input voltage range:..... 100-240V, 50-60Hz  
Fuse:.....T 3.15A  
Max. power consumption .....220W (I=1A, power factor=0.96 at 230V)  
Mains input: CE - max. 16A  
                  ETL - max. 10A  
Mains output: CE - max. 15A  
                  ETL - max. 9A

### Optic

Light source: 7 x high power RGBA multichip LEDs  
Min LED life expectancy: 20.000 hours  
RGBA/CMY colour mixing  
Variable CTO 2700-8000K  
CRI: 93 (white 8000K), 90 (white 5600K), 80 (white 4200K), 70 (white 3200K), 62 (white 2700K)  
Halogen lamp effect at whites 2700K and 3200K

### Virtual colour wheel

66 preset colours  
Rainbow effect with variable speed

### Zoom range

Parfect 150 RGBA/Parfect 150 FW RGBA: 3.8°-60°

### Strobe

Strobe effect with variable speed (0.3 - 20Hz)  
Random strobe pulse-effect with variable speed  
Opening/closing pulse effect with variable speed

### Dimmer

Smooth dimmer from 0 - 100 %

### Control

2-row LCD display & 4 buttons  
Readout fixture usage, receiving DMX values, temperatures, etc  
Built-in analyzer for easy fault finding, error messages  
Built-in demo sequences  
Quiet fan cooling  
Stand-alone operation  
3 user editable programs, each up to 40 steps  
Supported protocols: USITT DMX 512, RDM,  
Support of RDM (Remote Device Management)  
2 DMX modes (17, 11 control channels)  
2 control modes (Standard and Easy)

### External Wireless DMX/RDM module (option)

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

### Connection

DMX data in/out: Locking 5-pin XLR  
AC power input: Chassis connector Neutrik PowerCon, A-type, NAC3MPA  
AC power output: Chassis connector Neutrik PowerCon, B-type, NAC3MPB  
Note: mains cable is optional accessories

## Rigging

Mounting horizontally or vertically via mounting yoke (305° tilt range)

## Temperatures

Maximum ambient temperature : 40° C

Maximum surface temperature : 80° C (at LEDs heat sink)

## Distances

Min. distance from flammable surfaces: 0.4 m

Min. distance of illuminated objects: 0.8 m

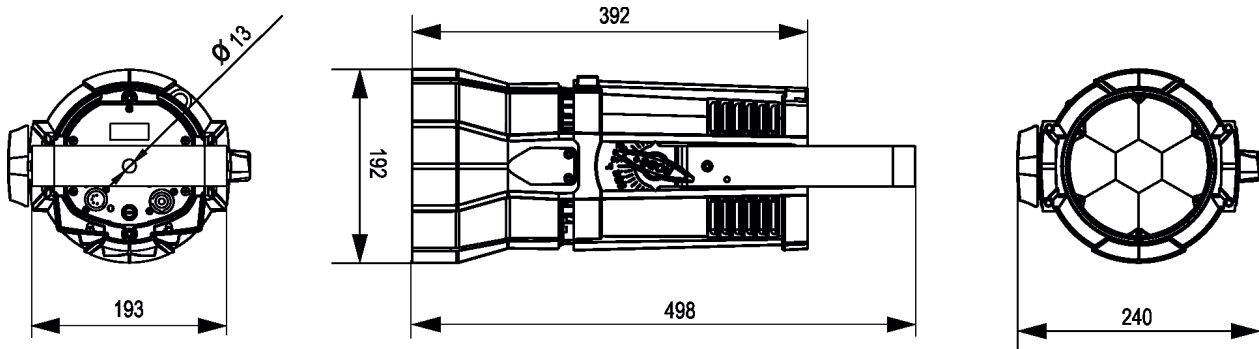
## Total heat dissipation

750 BTU/h (calculated)

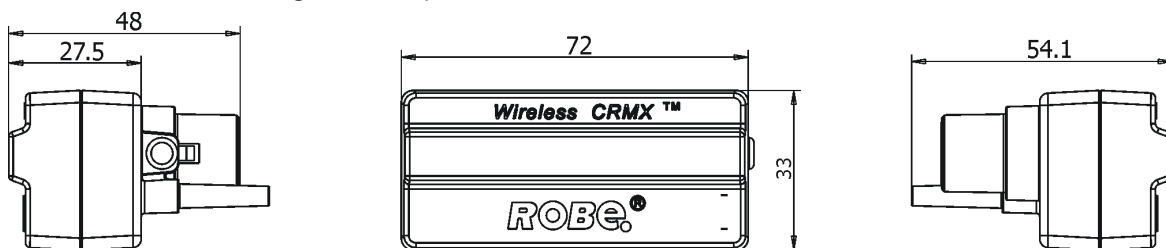
## Weight

5 kg

## Dimensions (mm)



## ROBE Wireless CRMX Dongle for compact ROBIN fixtures



## Included items

1 x ROBIN Parfect 150 RGBA/ROBIN Parfect 150 FW RGBA

1 x Accessory frame adaptor for Parfect 150 (P/N 99015324), installed on the fixture

1 x User manual

## Optional accessories

(P/N 10980127) ROBE Wireless CRMX Dongle for compact ROBIN fixtures

(P/N 10980346) EggCrate for Robin LEDBeam 150/Parfect 150

(P/N 10980445) EggCrate for Robin LEDBeam 150, ParFect 150 white

(P/N 10980348) HALO Frame adaptor for Robin ParFect 150

(P/N 10980349) Barndoor for Robin ParFect 150 black

(P/N 10980415) Barndoor for Robin ParFect 150 white

(P/N 10980372) Gel Frame for Parfect 150  
(P/N 10980373) Diffusion filter 2° for Parfect 150 (for installation to gel frame)  
(P/N 10980423) Diffusion filter 2° for Parfect 150 (for one-time installation under lenses)  
(P/N1305 1731) Mains Cable PowerCon In/open ended, 2m  
(P/N 1305 1724) Mains Cable PowerCon In/Schuko, 2m  
(P/N 1305 1725) Mains Cable PowerCon In/CEE 16A, 2m  
(P/N 1305 1726) Mains Cable PowerCon In/US, 2m  
(P/N 1305 1727) Daisy Chain PowerCon In/Out, EU, 2m  
(P/N 1305 1728 ) Daisy Chain PowerCon In/Out, US, 2m  
(P/N 17030386) Doughty Trigger Clamp  
(P/N 99011963) Safety wire 35 kg

## 9. 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 weak detergent solution is recommended for cleaning fixture's covers, under no circumstances should alcohol or solvents be used!

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

The interior of the fixture should be cleaned at least annually using a vacuum cleaner or compressed air. The cooling fan should be cleaned at least once a year.

**Important! Never use alcohols (ethanol, methanol, isopropyl alcohol), acetone and  
another aggressive solvents for cleaning the LED lens array.**

Recommended steps for cleaning the LED lens array:

1. Use low-pressure compressed air to remove coarse dust from lenses.
2. Use distilled water with weak detergent solution and lint-free small cloth for further cleaning of lenses.
3. Use an antistatic, alcohol-free screen cleaner (we recommend the Lyreco Screen Cleaner) and polish lenses until they are dry.
4. Check the lenses are dry before reapplying power.

### 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. 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, cracked plastic or any plastic part not sitting properly in place need to be immediately replaced.

More complicated maintenance and service operations are only to be carried out by authorized distributors.

### 9.1 Replacing the fuse

Replace the fuse by a fuse of the same type and rating only.

**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.

### 9.2 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.

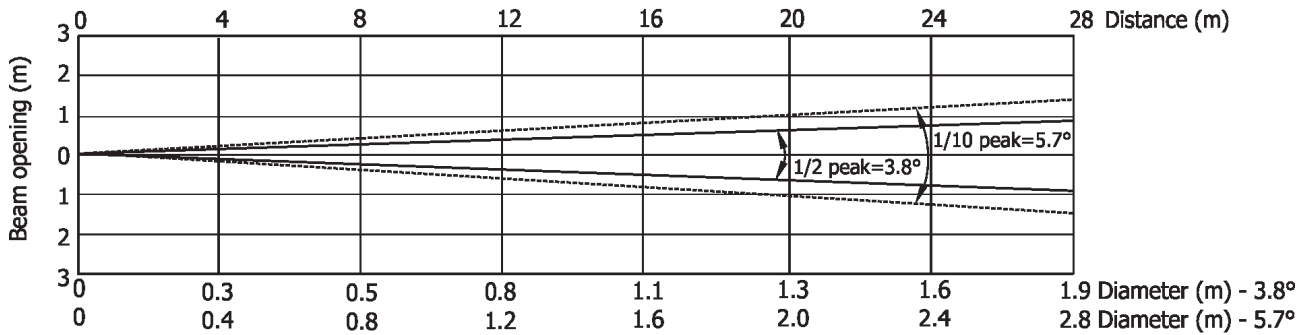


# 10. Photometric diagrams

## Robin Perfect 150 RGBA

### Min. Zoom

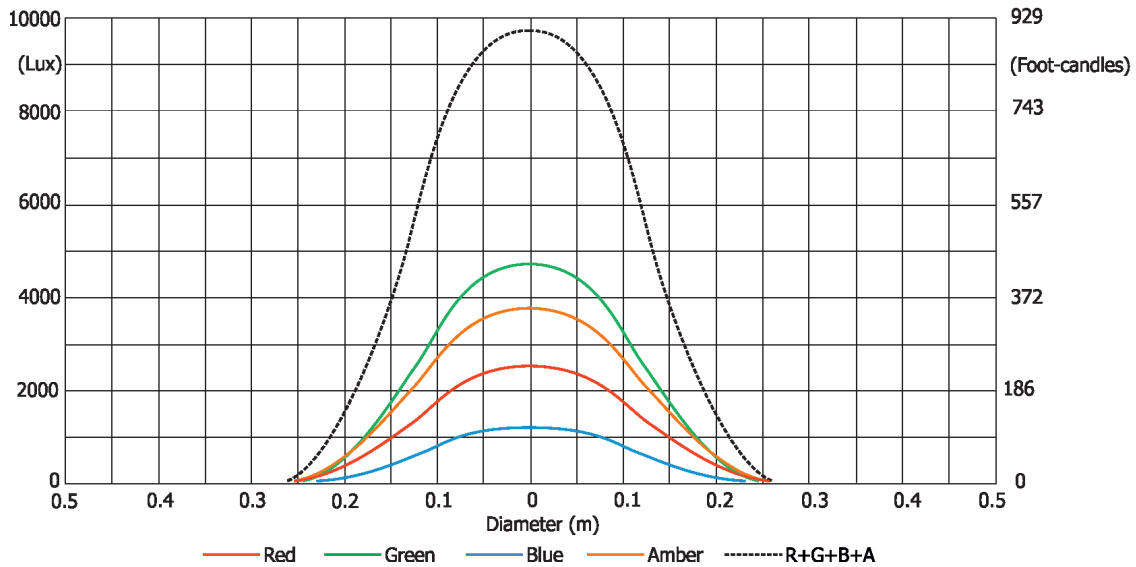
Total Output: 1105 lumens



Distance (m)	4	5	8	12	16	20	24	28	
Red	3670/341	2350/218	918/85	408/38	230/21	147/14	102/10	75/7	Intensity (center) Lux/Footcandles
Green	7547/701	4830/449	1887/175	838/78	472/44	300/28	210/20	154/14	
Blue	1140/106	1140/106	445/41	198/18	111/10	71/7	50/5	36/3.4	
Amber	6015/559	3850/358	1504/140	668/62	376/35	240/22	167/16	123/11.4	
R+G+B+A	15328/1424	9810/911	3832/356	1703/158	960/89	613/57	426/40	313/29	

### Illuminance distribution

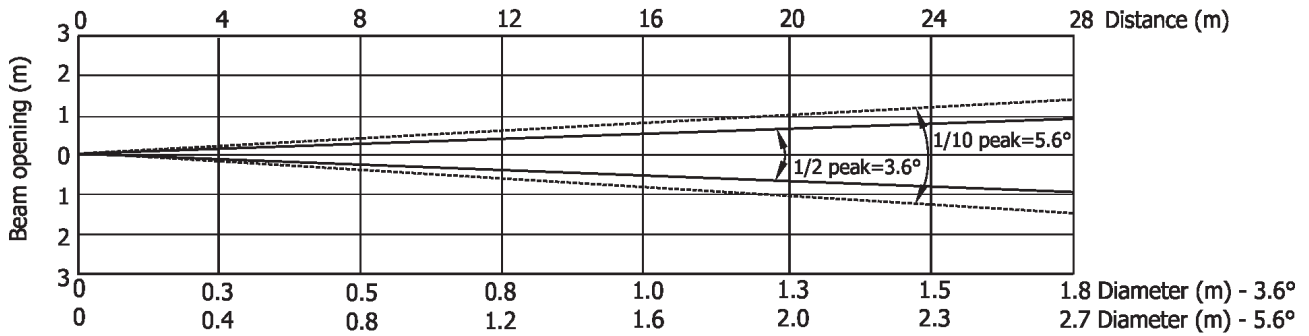
Distance=5m



# Robin Perfect 150 RGBA

## Min. Zoom (with EggCrate)

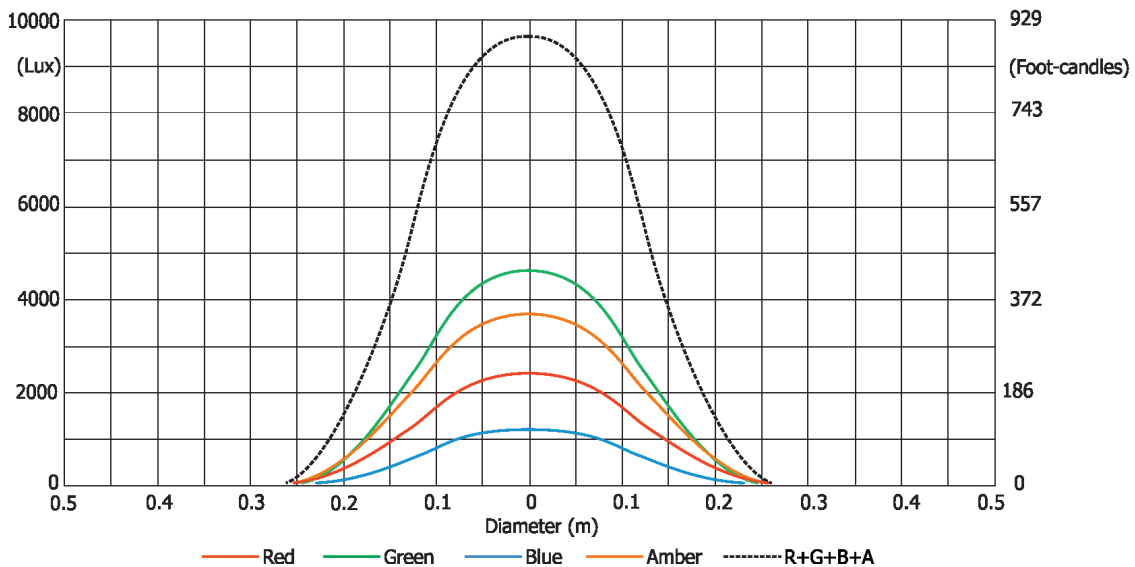
Total Output: 926 lumens



Distance (m)	4	5	8	12	16	20	24	28	
Red	3633/338	2325/216	908/84	404/38	227/21	145/13.5	100/9.4	74/7	Intensity (center) Lux/Footcandles
Green	7469/694	4780/444	1867/174	830/77	467/43	300/28	208/19	152/14	
Blue	1764/164	1130/105	441/41	196/18	110/10	71/7	50/4.6	36/3	
Amber	5953/553	3810/354	1488/138	662/62	372/35	238/22	165/15	122/11	
R+G+B+A	15172/1410	9710/902	3793/352	1686/157	948/88	607/56	421/39	310/29	

## Illuminance distribution

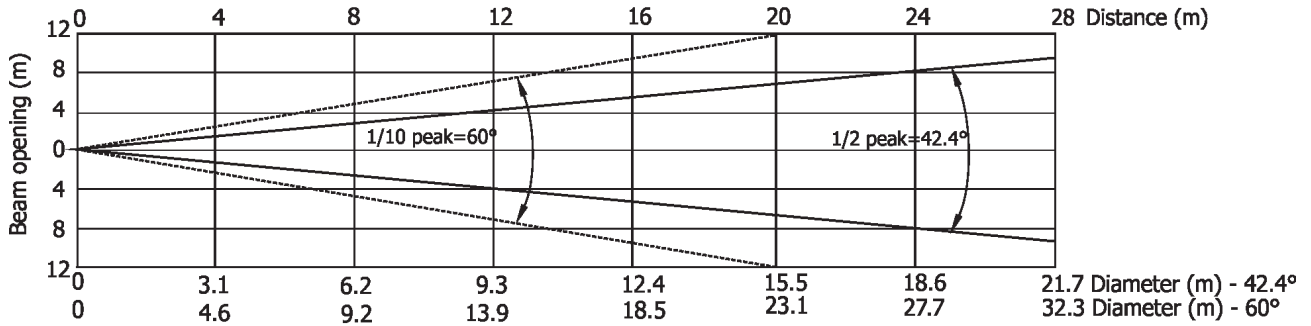
Distance=5m



# Robin Perfect 150 RGBA

## Max. Zoom

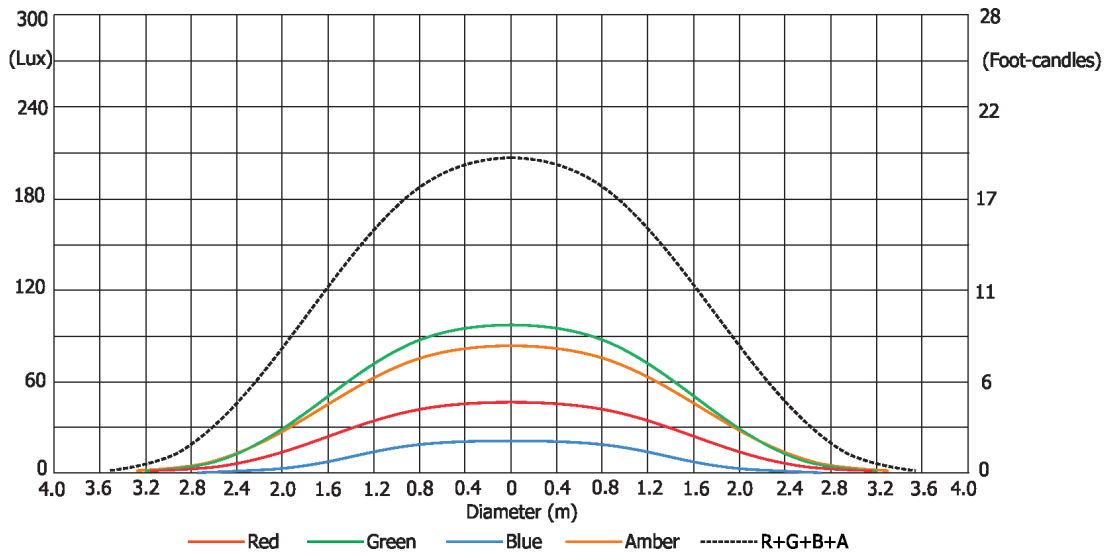
Total Output: 2245 lumens



Distance (m)	4	5	8	12	16	20	24	28	
Red	78/7	50/5	20/2	9/0.8	5/0.5	3/0.3	2/0.2	1.6/0.1	Intensity (center) Lux/Footcandles
Green	168/16	108/10	42/4	19/1.7	11/1	6.8/0.6	5/0.4	3/0.3	
Blue	41/4	26/2.4	10/0.9	5/0.4	2.5/0.2	1.6/0.2	1/0.1	0.8/0.1	
Amber	133/12	85/8	33/3	15/1.4	8/0.8	5/0.5	4/0.3	3/0.3	
R+G+B+A	320/30	205/19	80/7.4	36/3	20/1.9	13/1.2	9/0.8	7/0.6	

## Illuminance distribution

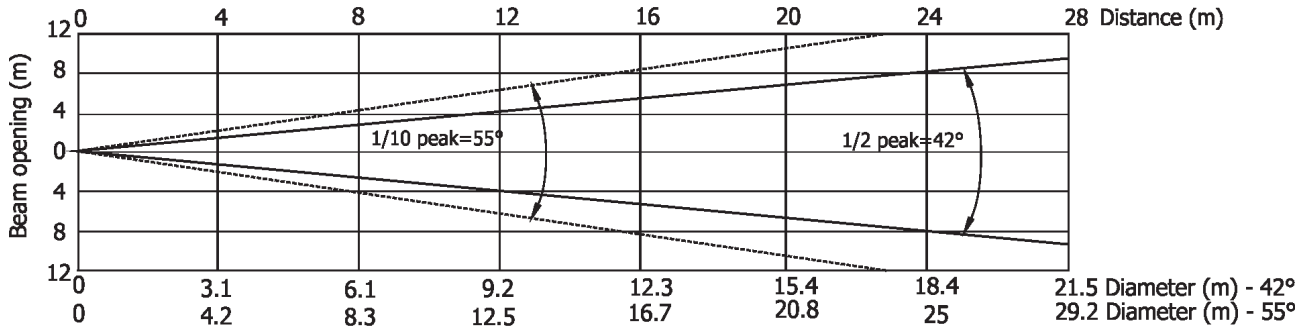
Distance=5m



# Robin Perfect 150 RGBA

## Max. Zoom (with EggCrate)

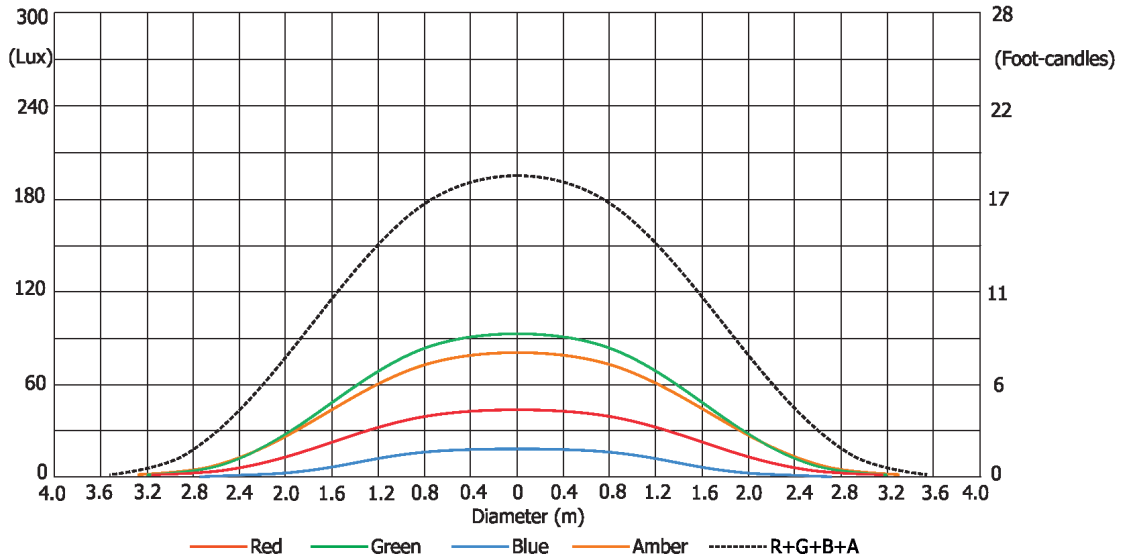
Total Output: 2065 lumens



Distance (m)	4	5	8	12	16	20	24	28	
Red	72/6.7	46/4	18/1.7	8/0.7	5/0.5	3/3.1	2/0.2	2/0.1	Intensity (center) Lux/Footcandles
Green	160/15	103/9.6	40/3.7	18/1.7	10/0.9	7/0.6	5/0.4	3/0.3	
Blue	38/3.5	24/2.2	9/0.9	4/0.4	2/0.2	1.4/0.1	1/0.1	0.7/0.1	
Amber	125/12	80/7.4	31/1.3	14/1.3	8/0.7	5/0.5	4/0.3	3/0.2	
R+G+B+A	294/27	188/18	73/7	33/3	18/1.7	12/1.1	8/0.8	6/0.6	

## Illuminance distribution

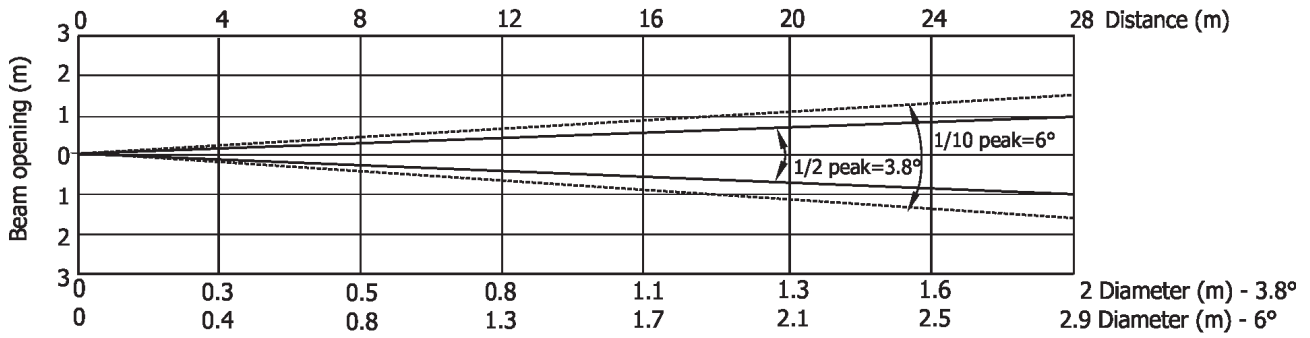
Distance=5m



# Robin Perfect 150 FW RGBA

## Min. Zoom

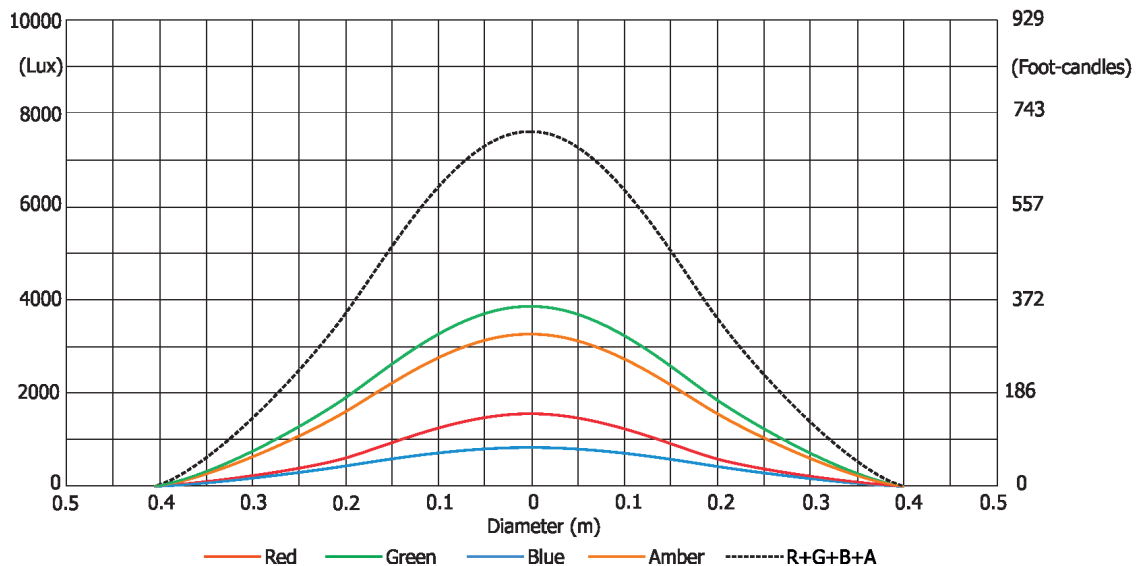
Total Output: 910 lumens



Distance (m)	4	5	8	12	16	20	24	28	
Red	2500/232	1600/149	625/58	278/26	156/15	100/9	70/6.5	51/4.7	Intensity (center) Lux/Footcandles
Green	6047/562	3870/360	1512/140	672/62	378/35	242/22.5	168/16	123/11.5	
Blue	1367/127	875/81	342/32	152/14	85/8	55/5	38/3.5	28/2.6	
Amber	4735/440	3030/282	1184/110	526/49	296/28	189/18	132/12	97/9	
R+G+B+A	11890/1105	7610/707	2973/276	1322/123	743/70	476/44	330/31	243/23	

## Illuminance distribution

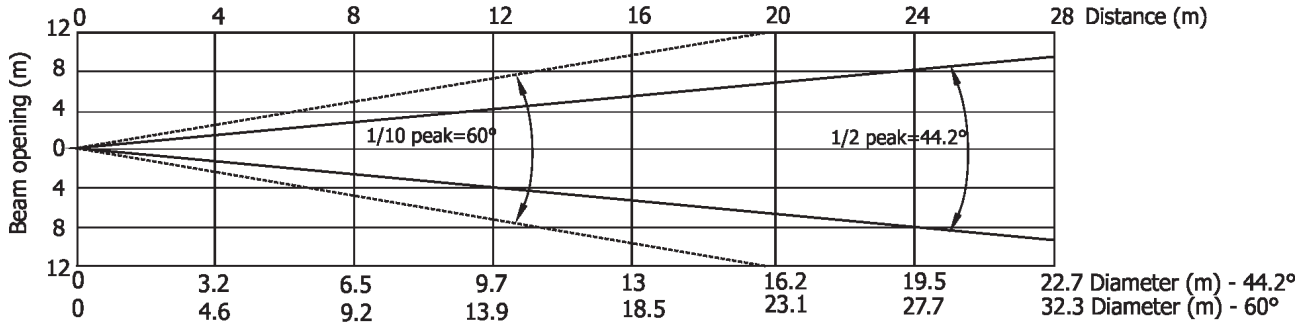
Distance=5m



# Robin Perfect 150 FW RGBA

## Max. Zoom

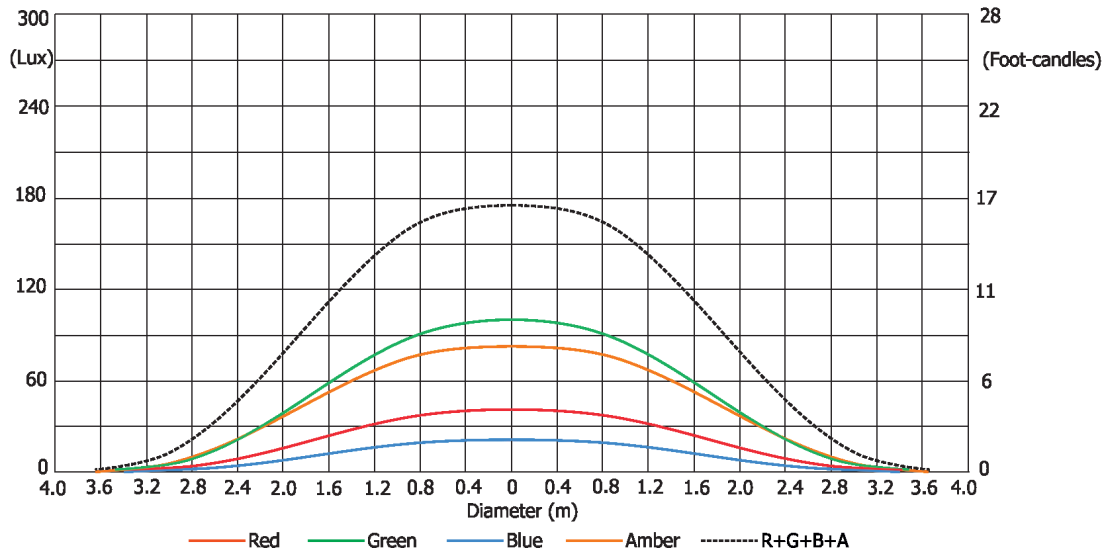
Total Output: 1796 lumens



Distance (m)	4	5	8	12	16	20	24	28	
Red	66/6	42/4	16/1.5	7/0.7	4/0.4	2.6/0.2	1.8/0.2	1.3/0.1	Intensity (center) Lux/Footcandles
Green	153/14	98/9	38/3.6	17/1.6	9.6/0.9	6/0.6	4/0.4	3/0.3	
Blue	33/3	21/2	8/0.8	3.6/0.3	2/0.2	1.3/0.1	0.9/0.1	0.7/0.1	
Amber	122/11	78/7	31/2.8	14/1.3	8/0.7	5/0.5	3.4/0.3	2.5/0.2	
R+G+B+A	270/25	173/16	68/6	30/2.8	17/1.6	11/1	8/0.7	6/0.5	

## Illuminance distribution

Distance=5m



## 11. ChangeLog

This section summarizes changes in the user manual.

<b>Version of the manual</b>	<b>Date of issue</b>	<b>Description of changes</b>
1.2	31/05/2018	FW version of the Parfect 150 RGBA added
1.3	28/07/2019	Checking of plastic parts added to chapter Maintenance
1.4	12/11/2019	Description of lenses cleaning added

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*Specifications are subject to change without notice.*

*November 12, 2019*

*Made in ROBE Lighting s.r.o., Palackého 416, 757 01 Valašské Meziříčí, Czech Republic*

DMX protocol

Robin Parfect 150 RGBA / Robin Parfect 150 FW RGBA - DMX protocol				
Version: 1.0 Mode 1-Standard 16-bit, Mode 2 -Reduced 8-bit				
Mode/channel		DMX Value	Function	Type of control
1	2			
1	1		<b>Power/Special functions</b>	
		0 -19	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. („Shutter,Strobe“ channel 20/15 must be at range: 0-31 DMX). Corresponding menu items are temporarily overridden.</i>	
		20-24	Display ON	step
		25-29	Display OFF	step
		30-34	RGBA colour mixing mode	step
		35-39	CMY colour mixing mode	step
		40-59	Reserved	
		60 - 64	Dimmer curve - square law	step
		65 - 69	Dimmer curve - linear	step
		70 - 74	Fan mode: Auto	step
		75 - 79	Fan mode: High	step
		80-84	White point 8000K ON	step
		85-89	White point 8000K OFF	step
		90-94	Fan mode: Quiet	step
		95 -129	Reserved	
			<i>To activate following functions, stop in DMX value for at least 3 seconds.</i>	
		130 - 149	Reserved	
		150 - 159	Zoom reset	step
		160 - 169	Reserved	
			<i>Tungsten effect simulation for whites 2700K and 3200K</i>	
		170-171	Tungsten effect simulation (750W) On	step
		172-173	Tungsten effect simulation (1000W) On	step
		174-175	Tungsten effect simulation (1200W) On	step
		176-177	Tungsten effect simulation (2000W) On	step
		178-179	Tungsten effect simulation (2500W) On	step
		180-181	Tungsten effect simulation Off	step
		182-255	Reserved	
2	2		<b>Virtual colour wheel</b>	
		0	No function (0=default)	step
		1-2	Filter 4 (Medium Bastard Amber)	step
		3-4	Filter 25 (Sunset Red)	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 36 (Medium Pink)	step
		15-16	Filter 89 (Moss Green)	step
		17-18	Filter 88 (Lime Green)	step
		19-20	Filter 90 (Dark Yellow Green)	step
		21-22	Filter 49 (Medium Purple)	step
		23-24	Filter 52 (Light Lavender)	step
		25-26	Filter 102 (Light Amber)	step



DMX protocol

Mode/channel		DMX Value	Function	Type of control
1	2			
		27-28	Filter 103 (Straw)	step
		29-30	Filter 140 (Summer Blue)	step
		31-32	Filter 124 (Dark Green)	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 126 (Mauve)	step
		41-42	Filter 117 (Steel Blue)	step
		43-44	Filter 118 (Light Blue)	step
		45-46	Filter 122 (Fern Green)	step
		47-48	Filter 182 (Light Red)	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 798 (Chrysalis Pink)	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 143 (Pale Navy Blue)	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 194 (Surprise Pink)	step
		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 219 (Fluorescent Green)	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

DMX protocol

Mode/channel		DMX Value	Function	Type of control
1	2			
		125-126	Filter 353 (Lighter Blue)	step
		127-128	Filter 507 (Madge)	step
		129-130	Filter 778 (Millennium Gold)	step
		131-132	Filter 793 (Vanity Fair)	step
		133-235	Raw DMX	proportional
		236-245	Rainbow effect (with fade time) from slow-> fast	proportional
		246-255	Rainbow effect (without fade time) from slow-> fast	proportional
<b>3</b>	<b>3</b>		<b>Red/Cyan (8 bit)*</b>	
		0 - 255	Colour saturation control - coarse 0-100% (255=default)	proportional
<b>4</b>	<b>*</b>		<b>Red/Cyan (16bit)*</b>	
		0 - 255	Colour saturation control - fine (255=default)	proportional
<b>5</b>	<b>4</b>		<b>Green/Magenta (8 bit) *</b>	
		0 - 255	Colour saturation control - coarse 0-100% (255=default)	proportional
<b>6</b>	<b>*</b>		<b>Green/Magenta (16bit) *</b>	
		0 - 255	Colour saturation control - fine (255=default)	proportional
<b>7</b>	<b>5</b>		<b>Blue/Yellow (8 bit) *</b>	
		0 - 255	Colour saturation control - coarse 0-100% (255=default)	proportional
<b>8</b>	<b>*</b>		<b>Blue/ Yellow (16bit) *</b>	
		0 - 255	Colour saturation control - fine (255=default)	proportional
<b>9</b>	<b>6</b>		<b>Amber (8 bit)</b>	
			<i>If RGBA mode is selected:</i>	
		0-255	Colour saturation control - coarse 0-100% (255=default)	proportional
			<i>If CMY mode is selected:</i>	
		0 - 255	No function	
<b>10</b>	<b>*</b>		<b>Amber (16 bit)</b>	
		0 - 255	Colour saturation control - fine (255=default)	proportional
<b>11</b>	<b>7</b>		<b>CTC</b>	
			<i>If function "White Point 8000K" is ON</i>	
		0-255	Col. temperature correction from 8000K to 2700K -for whites only (0=8000K, 64=5600K, 128=4200K, 192=3200K, 255=2700K) To get colour temperatures stated above, RGBA channels have to be set at the same value e.g. 255DMX (0=default) (To activate Tungsten effect at 2700K and 3200K , set DMX value at "Power/Special functions" channel)	proportional
			<i>If function "White Point 8000K" is OFF</i>	
		0-255	Colour temperature correction for from cool white to 2700K	proportional
<b>12</b>	<b>8</b>		<b>Colour Mix control</b>	
			<i>Defines relation between colour channels</i>	
			"Virtual" = Virtual Colours (Virtual Colour Wheel)	
			"Colour mix" = Colour channels (RGBA/CMY)	
		0-9	Virtual colors ("Virtual" has priority)	step
		10-19	Maximum mode (highest values have priority)	step
		20-29	Minimum mode (lowest values have priority)	step
		30-39	Multiply mode (multiply Virtual and Colour Mix)	step
		40-49	Addition mode (Virtual + Colour mix) (45=default)	step
		50-59	Subtraction mode (Virtual – Colour mix)	step
		60-69	Inverted Subtraction mode (Colour mix-Virtual)	step
		70-128	Reserved	
		129	Virtual colors (virtual has priority)	step
		130-254	Crossfade (crossfade between Virtual and Colour mix)	proportional

DMX protocol

Mode/channel		DMX Value	Function	Type of control
1	2			
		255	Colour channels ("Colour mix" has priority)	step
<b>13</b>	<b>9</b>		<b>Zoom</b>	
		0-255	Zoom from max. to min.beam angle (128=default)	proportional
<b>14</b>	<b>*</b>		<b>Zoom - fine</b>	
		0-255	Fine zooming (0=default)	proportional
<b>15</b>	<b>10</b>		<b>Shutter/ strobe</b>	
		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
<b>16</b>	<b>11</b>		<b>Dimmer intensity (8 bit)</b>	
		0 - 255	Dimmer intensity from 0% to 100% (0=default)	proportional
<b>17</b>	<b>*</b>		<b>Dimmer intensity - fine (16 bit)</b>	
		0 - 255	Fine dimming (0=default)	proportional
			*Select RGBA or CMY mixing mode on channel "Power/Special functions" .	
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			All Specifications subject to change without notice	

<b>Robin Parfect 150 RGBA/ Parfect 150 FW RGBA - colours on Virtual Colour Wheel</b>				
<b>Colour name</b>	<b>Red (DMX)</b>	<b>Green (DMX)</b>	<b>Blue (DMX)</b>	<b>Amber (DMX)</b>
Filter 4 (Medium Bastard Amber)	60	141	33	239
Filter 25 (Sunset Red)	255	9	2	223
Filter 19 (Fire)	255	0	0	36
Filter 26 (Bright Red)	255	0	0	0
Filter 58 (Lavender)	0	47	165	255
Filter 68 (Sky Blue)	0	250	138	45
Filter 36 (Medium Pink)	200	78	26	255
Filter 89 (Moss Green)	0	255	0	80
Filter 88 (Lime Green)	122	255	0	103
Filter 90 (Dark Yellow Green)	2	255	0	0
Filter 49 (Medium Purple)	255	0	27	0
Filter 52 (Light Lavender)	176	221	66	255
Filter 102 (Light Amber)	213	255	0	255
Filter 103 (Straw)	193	255	19	245
Filter 140 (Summer Blue)	74	255	42	51
Filter 124 (Dark Green)	16	255	4	15
Filter 106 (Primary Red)	255	3	1	0
Filter 111 (Dark Pink)	255	116	48	255
Filter 115 (Peacock Blue)	4	255	37	29
Filter 126 (Mauve)	255	0	39	0
Filter 117 (Steel Blue)	130	255	40	55
Filter 118 (Light Blue)	14	255	78	11
Filter 122 (Fern Green)	3	255	4	102
Filter 182 (Light Red)	255	16	2	0
Filter 121 (Filter Green)	143	255	0	0
Filter 128 (Bright Pink)	255	0	31	103
Filter 131 (Marine Blue)	14	255	34	81
Filter 132 (Medium Blue)	7	228	120	0
Filter 134 (Golden Amber)	164	83	0	0
Filter 135 (Deep Golden Amber)	255	50	0	0
Filter 136 (Pale Lavender)	134	123	30	10
Filter 137 (Special Lavender)	129	123	40	10
Filter 138 (Pale Green)	186	255	14	32
Filter 798 (Chrysalis Pink)	49	17	144	32
Filter 141 (Bright Blue)	0	225	62	0
Filter 147 (Apricot)	122	102	5	88
Filter 148 (Bright Rose)	255	30	13	39
Filter 152 (Pale Gold)	97	128	11	102
Filter 154 (Pale Rose)	96	105	11	103
Filter 157 (Pink)	228	85	18	69
Filter 143 (Pale Navy Blue)	0	210	75	73
Filter 162 (Bastard Amber)	208	252	25	184
Filter 164 (Flame Red)	253	0	0	82
Filter 165 (Daylight Blue)	9	255	106	61
Filter 169 (Lilac Tint)	159	194	28	71
Filter 170 (Deep Lavender)	195	177	78	149

<b>Colour name</b>	<b>Red (DMX)</b>	<b>Green (DMX)</b>	<b>Blue (DMX)</b>	<b>Amber (DMX)</b>
Filter 172 (Lagoon Blue)	0	255	71	10
Filter 194 (Surprise Pink)	109	131	55	92
Filter 180 (Dark Lavender)	139	107	126	19
Filter 181 (Congo Blue)	30	0	255	3
Filter 197 (Alice Blue)	75	222	156	26
Filter 201 (Full C.T. Blue)	135	242	64	36
Filter 202 (Half C.T. Blue)	180	255	48	35
Filter 203 (Quarter C.T. Blue)	172	255	40	74
Filter 204 (Full C.T. Orange)	196	155	4	103
Filter 219 (Fluorescent Green)	80	155	23	26
Filter 206 (Quarter C.T. Orange)	137	185	18	92
Filter 247 (Filter Minus Green)	122	175	57	245
Filter 248 (Half Minus Green)	118	199	41	255
Filter 281 (Three Quarter C.T. Blue)	191	255	76	5
Filter 285 (Three Quarter C.T. Orange)	210	182	7	29
Filter 352 (Glacier Blue)	0	173	55	51
Filter 353 (Lighter Blue)	0	222	51	83
Filter 507 (Madge)	255	0	0	109
Filter 778 (Millennium Gold)	190	32	0	143
Filter 793 (Vanity Fair)	255	5	26	48