DMX REFERENCE

EclFS_50

EclipseFS_50

Prolights



Manufacturer	Prolights
GDTF file	Prolights_EclFS_50_170495.gdtf
GDTF revision	Rev 014 - Reduced geometry - Updated photometrics - Custom attributes alignment · 2026-11-2
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1 About this manual

This document describes the EclipseFS_50 by Prolights. It was compiled from the GDTF file Prolights_EclFS_50_170495.gdtf from the GDTF-Share library.

File revision: “Rev 014 - Reduced geometry - Updated photometrics - Custom attributes alignment”.

The DMX modes, the channel functions and the technical data are given as the GDTF file states them. Installation, operation from the device's control panel, service and safety instructions are described in the manufacturer's original user manual, which takes precedence over this document.

This document was not issued or endorsed by Prolights; product names and trademarks belong to their owners.

Safety notices are marked with signal words according to the severity of the hazard: DANGER – an imminent hazard that will result in death or serious injury; WARNING – a potential hazard that could result in death or serious injury; CAUTION – a potential hazard that could result in minor injury or property damage; NOTE – additional information for correct and safe use.

> **NOTE** This product is designed for stage and effect lighting. It is not suitable for household room illumination.

2 Quick reference

Parameter	Value
Weight	9.3 kg

DMX modes

Mode	Channels	Units in one universe	First start addresses
5ch Tun	5	102	1, 6, 11, 16, ...
3200K	1	512	1, 2, 3, 4, ...
5400K	1	512	1, 2, 3, 4, ...
6500K	1	512	1, 2, 3, 4, ...
1ch	1	512	1, 2, 3, 4, ...
2ch	2	256	1, 3, 5, 7, ...
3ch	3	170	1, 4, 7, 10, ...
3ch RGB	3	170	1, 4, 7, 10, ...
4ch RGBL	4	128	1, 5, 9, 13, ...
5ch	5	102	1, 6, 11, 16, ...
5ch RGBL	5	102	1, 6, 11, 16, ...
8ch	8	64	1, 9, 17, 25, ...
13ch	13	39	1, 14, 27, 40, ...
20ch	20	25	1, 21, 41, 61, ...



Read the manual before use



Do not stare into the light



Indoor use only

3 Safety instructions



Read the manual before use



Do not stare into the light



Indoor use only

⚠ WARNING

- This device is intended for professional use. Installation, connection, setup and maintenance must be carried out only by suitably qualified persons who have read this manual.
- Use the device only for its intended purpose and as described in this manual.
- Do not open the housing and do not modify or tamper with the device. Refer all repairs to an authorized service center.
- Do not use the device if its housing, power or data cable, or a connector is damaged, if the device has been dropped, or if liquid or a foreign object has entered it. In such a case, have it checked by a service center.
- Disconnect the device from the power supply before cleaning, maintenance or any work on the connections.
- After moving the device from a cold to a warm environment, let it reach room temperature before switching it on to prevent condensation inside.
- The device is not a toy; keep it out of the reach of children.

⚠ WARNING

- This device is designed for indoor use only. Protect it from rain, splashing water, moisture and dust, and do not place containers with liquids on it.
- Do not operate the device in high humidity, near water, or where condensation can form on it.

⚠ CAUTION

- This device emits intense light. Do not look directly into the light source or the beam at close range; doing so may damage your eyes.
- Do not aim the beam at the eyes of people or animals at close range, and do not view the light source through optical instruments (binoculars, camera lenses).
- Do not aim the beam at flammable or heat-sensitive materials at close range.

⚠ CAUTION

- Strobe and fast flashing light effects can trigger epileptic seizures in susceptible people (photosensitive epilepsy) and can cause nausea or disorientation.
- Inform the audience and performers in advance that strobe effects will be used, for example with a notice at the entrance, and do not use them longer than necessary.

4 Product description

Description in the GDTF file

“High power RGBL full spectrum ellipsoidal LED. Eclipse FS is a full colour elipsoidal LED, designed to deliver a full range of pastels, saturates and whites, both with or without gobos. The Eclipse FS’ RGB + Lime LED engine has been specially engineered to provide a full spectrum and full output in the most

discerning environments, regardless of which role the Eclipse FS is playing.”

5 Installation

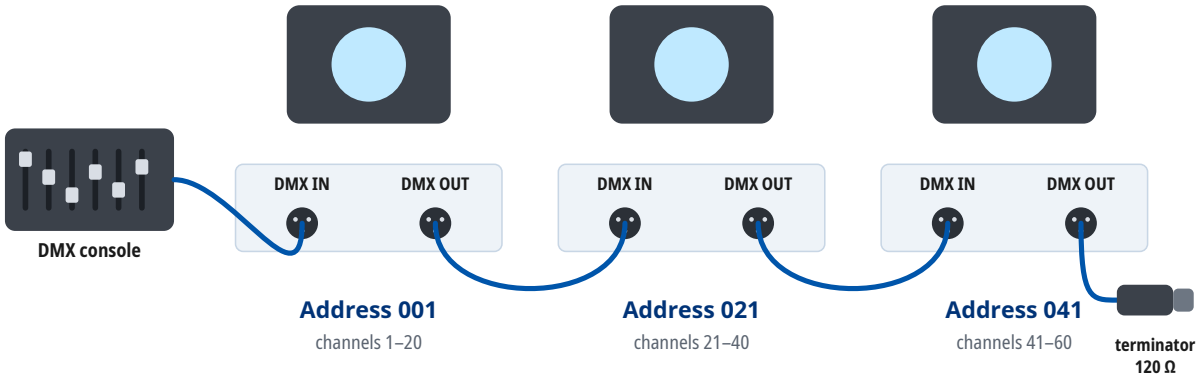
⚠ **WARNING**

- Rigging must be carried out only by qualified persons in accordance with applicable regulations, in particular those for work at height.
- The supporting structure and fixings must safely carry the weight of all suspended devices; verify their load capacity in advance.
- Weight of the device: 9.3 kg.
- Use suitable mounting hardware (for example truss clamps) and tighten all screw connections properly.
- Always secure the suspended device against falling with a safety cable of adequate load capacity, routed through a fixed point of the device and around the supporting structure.
- During installation and removal, keep people out of the area below the work position.
- Regularly inspect the fixings and the safety cable for damage, corrosion and loosening.

6 Connections

- Use shielded cable designed for DMX512 with an impedance of 110 Ω. Ordinary microphone cable is not suitable for DMX, especially over longer distances.
- Connect the devices in a daisy chain: connect the DMX OUT of one device to the DMX IN of the next. Do not split the line with Y-cables or wire it in a star; the line may be split only with a DMX splitter.
- Connect the shield to pin 1 only. Do not connect the shield (ground) to the metal shell of the connector; this can cause short circuits or erratic behavior.
- XLR pin assignment: pin 1 – shield (ground), pin 2 – Data- (Data Complement), pin 3 – Data+ (Data True). On 5-pin connectors, pins 4 and 5 are not connected; a 5-pin connector can be connected to a 3-pin one with a cable adapter.
- Terminate the end of the line (for impedance matching): plug an XLR connector with a 120 Ω, ¼ W resistor between pins 2 and 3 into the DMX OUT of the last device. This reduces the risk of erratic behavior.
- Connect no more than 32 devices to one DMX line. For more devices or longer runs, use a DMX splitter or booster.

DMX line



Mode 20ch: every unit occupies 20 channels from its address. At most 32 units on one line; for more units or longer runs use a DMX splitter. A 120 Ω terminator closes the last DMX OUT.

7 Operation

Setting the DMX address

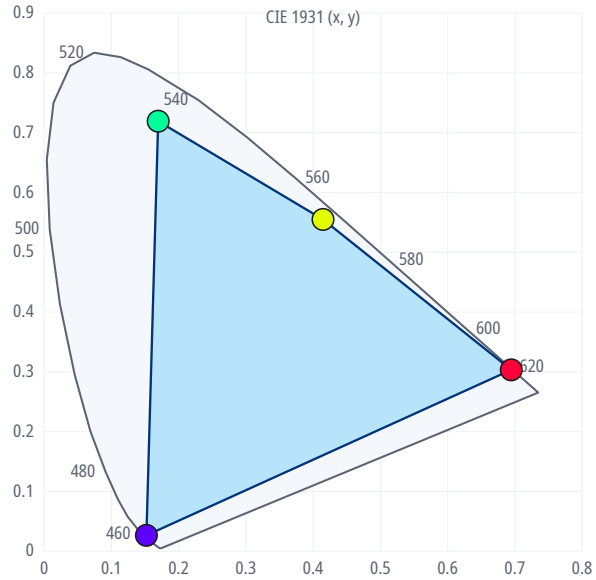
- The device occupies as many consecutive channels in the DMX universe as the selected DMX mode uses, starting at the set start address.
- Number of channels occupied in the DMX mode “20ch”: 20.
- Choose start addresses so that the channels of individual devices do not overlap and the last occupied channel does not exceed 512. Devices with the same start address and mode respond identically.
- For several devices in a row in the DMX mode “20ch”, you can use, for example, the start addresses 1, 21, 41, 61.
- The DMX mode set on the device must match the fixture profile (personality) used in the controller.
- The device supports RDM (Remote Device Management), two-way communication with the controller over the DMX line.

8 Functions at a glance

Functions in each DMX mode

	5ch Tun 5 channels	3200K 1 channel	5400K 1 channel	6500K 1 channel	1ch 1 channel	2ch 2 channels	3ch 3 channels	3ch RGB 3 channels
Dimmer	1	1	1	1	1	1	1	✓
Color mixing	2–5							1–3
Color temperature						2	2	

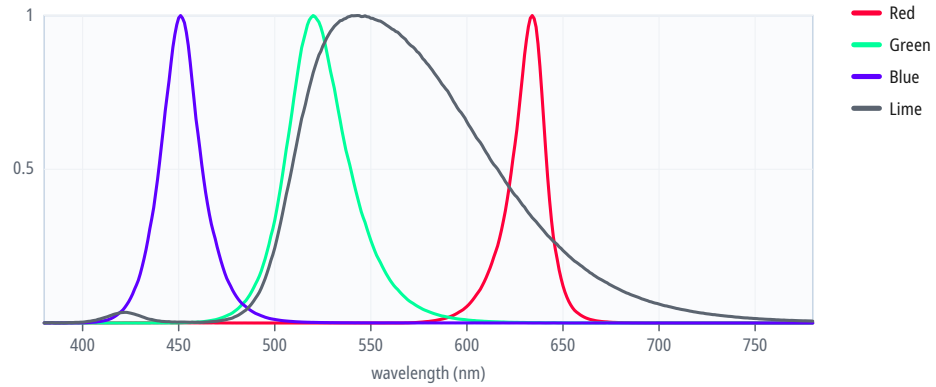
LED colors and the colors they mix



LED	x	y
Red	0.695	0.303
Green	0.170	0.719
Blue	0.152	0.026
Lime	0.415	0.555

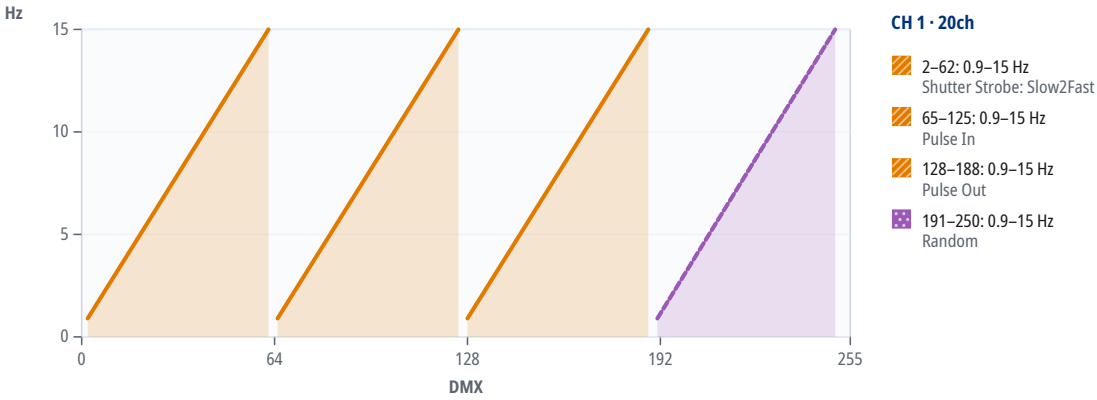
The shaded area holds the colors the LEDs can mix; the dots are the LED colors the GDTF file states.

Spectra of the light sources



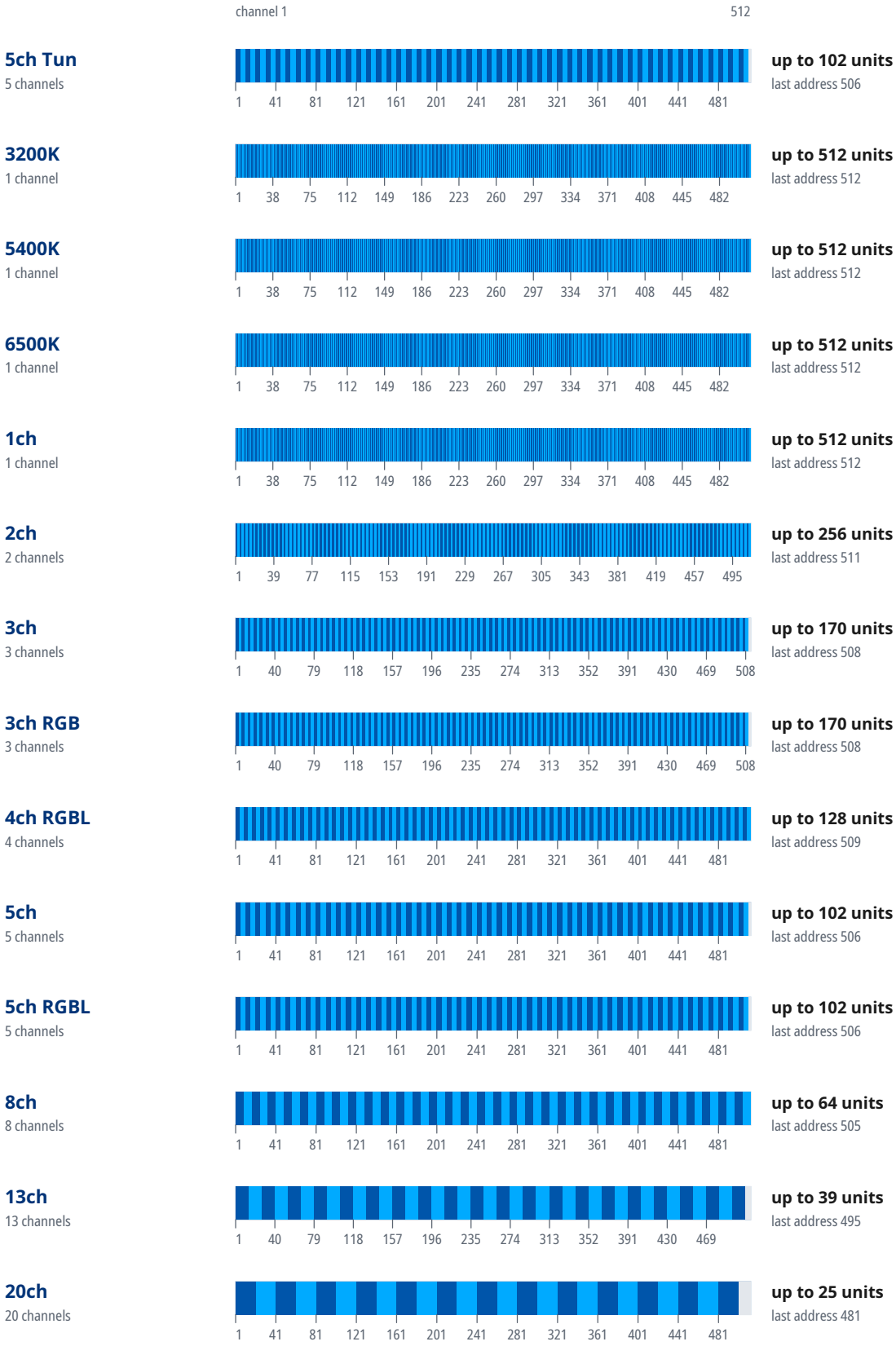
Relative spectrum of each light source as the GDTF file states it; each curve is scaled to its own maximum.

Strobe rate



9 DMX channels

Units in one DMX universe



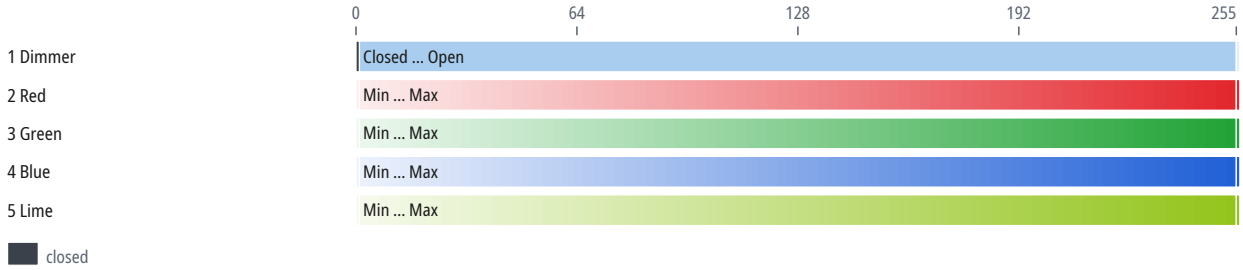
Start addresses of 20 units in the mode “20ch”

Unit	Start address	Unit	Start address	Unit	Start address	Unit	Start address
1	1	6	101	11	201	16	301
2	21	7	121	12	221	17	321
3	41	8	141	13	241	18	341
4	61	9	161	14	261	19	361
5	81	10	181	15	281	20	381

Mode 5ch Tun

If the device receives DMX in this mode but gives no light, check these channels: CH 1 Dimmer above 0. The GDTF file gives these values for a console's Highlight function: CH 1 Dimmer 255.

Channel functions at a glance

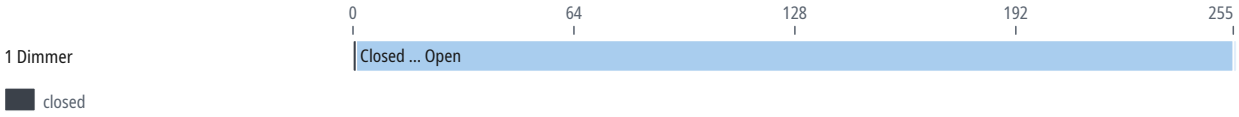


CH	Function	DMX	Description
1	Dimmer	0	Closed
		1–254	Closed ... Open
		255	Open
2	Red	0	Min
		1–254	Min ... Max
		255	Max
3	Green	0	Min
		1–254	Min ... Max
		255	Max
4	Blue	0	Min
		1–254	Min ... Max
		255	Max
5	Lime	0	Min
		1–254	Min ... Max
		255	Max

Mode 3200K

If the device receives DMX in this mode but gives no light, check these channels: CH 1 Dimmer above 0. The GDTF file gives these values for a console's Highlight function: CH 1 Dimmer 255.

Channel functions at a glance

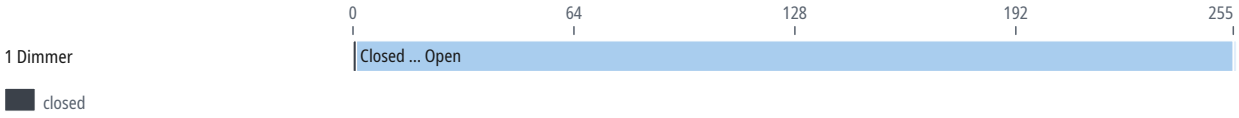


CH	Function	DMX	Description
1	Dimmer		Same as CH 1 in the mode “5ch Tun” (p. 9)

Mode 5400K

If the device receives DMX in this mode but gives no light, check these channels: CH 1 Dimmer above 0. The GDTF file gives these values for a console's Highlight function: CH 1 Dimmer 255.

Channel functions at a glance

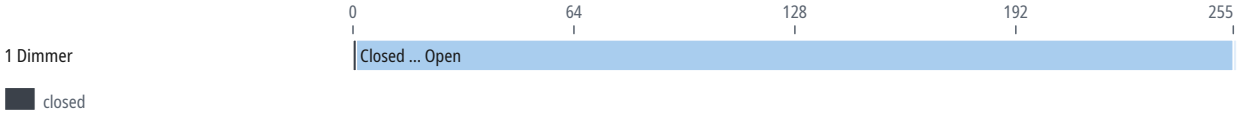


CH	Function	DMX	Description
1	Dimmer		Same as CH 1 in the mode “5ch Tun” (p. 9)

Mode 6500K

If the device receives DMX in this mode but gives no light, check these channels: CH 1 Dimmer above 0. The GDTF file gives these values for a console's Highlight function: CH 1 Dimmer 255.

Channel functions at a glance

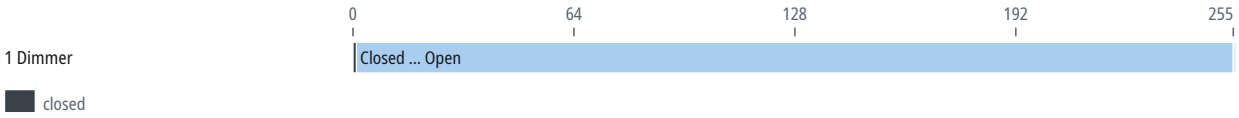


CH	Function	DMX	Description
1	Dimmer		Same as CH 1 in the mode “5ch Tun” (p. 9)

Mode 1ch

If the device receives DMX in this mode but gives no light, check these channels: CH 1 Dimmer above 0. The GDTF file gives these values for a console's Highlight function: CH 1 Dimmer 255.

Channel functions at a glance

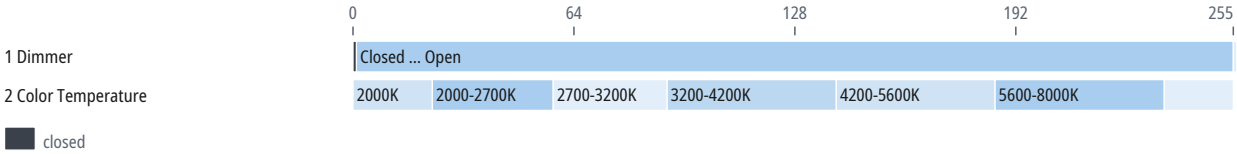


CH	Function	DMX	Description
1	Dimmer		Same as CH 1 in the mode “5ch Tun” (p. 9)

Mode 2ch

If the device receives DMX in this mode but gives no light, check these channels: CH 1 Dimmer above 0. The GDTF file gives these values for a console's Highlight function: CH 1 Dimmer 255.

Channel functions at a glance

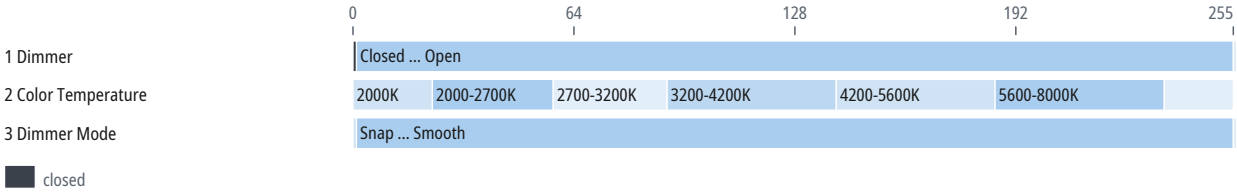


CH	Function	DMX	Description
1	Dimmer		Same as CH 1 in the mode “5ch Tun” (p. 9)
2	Color Temperature	0–22	2000K
		23–57	2000-2700K (2000–2699 K)
		58–90	2700-3200K (2700–3199 K)
		91–139	3200-4200K (3200–4199 K)
		140–185	4200-5600K (4200–5599 K)
		186–234	5600-8000K (5600–7999 K)
		235–255	8000-10000K (8000–10000 K)

Mode 3ch

If the device receives DMX in this mode but gives no light, check these channels: CH 1 Dimmer above 0. The GDTF file gives these values for a console's Highlight function: CH 1 Dimmer 255.

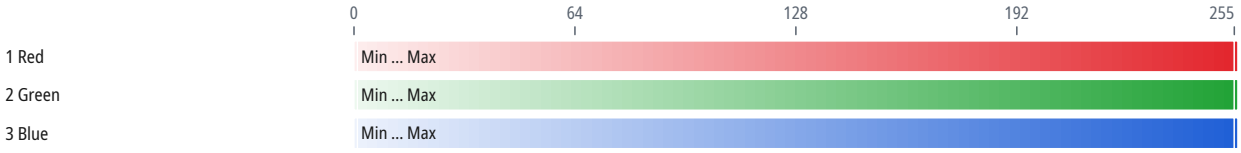
Channel functions at a glance



CH	Function	DMX	Description
1	Dimmer		Same as CH 1 in the mode “5ch Tun” (p. 9)
2	Color Temperature		Same as CH 2 in the mode “2ch” (p. 11)
3	Dimmer Mode	0	Snap
		1–254	Snap ... Smooth
		255	Smooth

Mode 3ch RGB

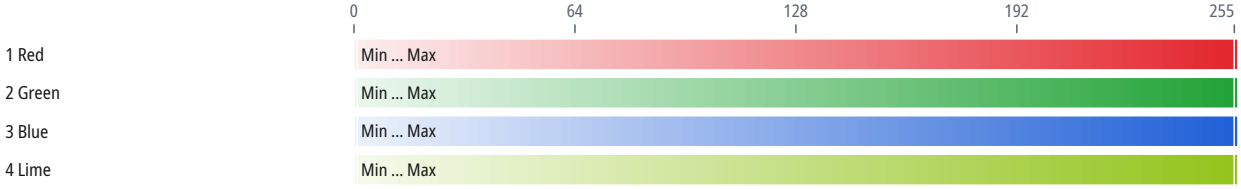
Channel functions at a glance



CH	Function	DMX	Description
1	Red		Same as CH 2 in the mode “5ch Tun” (p. 9)
2	Green		Same as CH 3 in the mode “5ch Tun” (p. 9)
3	Blue		Same as CH 4 in the mode “5ch Tun” (p. 9)

Mode 4ch RGBL

Channel functions at a glance



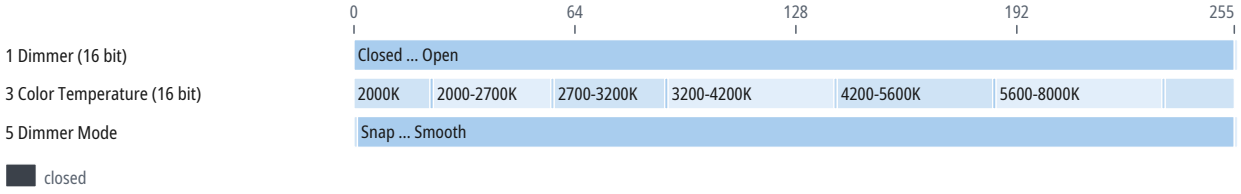
CH	Function	DMX	Description
1	Red		Same as CH 2 in the mode “5ch Tun” (p. 9)
2	Green		Same as CH 3 in the mode “5ch Tun” (p. 9)
3	Blue		Same as CH 4 in the mode “5ch Tun” (p. 9)
4	Lime		Same as CH 5 in the mode “5ch Tun” (p. 9)

Mode 5ch

16-bit parameters use two channels, coarse and fine: value = 256 × coarse value + fine value.

If the device receives DMX in this mode but gives no light, check these channels: CH 1 Dimmer above 0. The GDTF file gives these values for a console's Highlight function: CH 1 Dimmer 255.

Channel functions at a glance



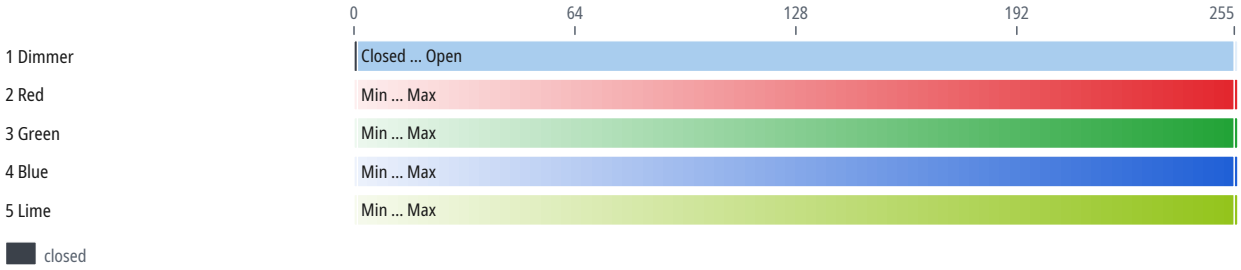
CH	Function	DMX	Description
1	Dimmer	0–255	Closed ... Open
		255	Open
2	Dimmer Fine	0–255	Fine adjustment of CH 1
3	Color Temperature	0–22	2000K
		22–23	2000K ... 2000-2700K

CH	Function	DMX	Description
3	Color Temperature (continued)	23–57	2000-2700K (2000–2699 K)
		57–58	2000-2700K ... 2700-3200K
		58–90	2700-3200K (2700–3199 K)
		90–91	2700-3200K ... 3200-4200K
		91–139	3200-4200K (3200–4199 K)
		139–140	3200-4200K ... 4200-5600K
		140–185	4200-5600K (4200–5599 K)
		185–186	4200-5600K ... 5600-8000K
		186–234	5600-8000K (5600–7999 K)
		234–235	5600-8000K ... 8000-10000K
		235–255	8000-10000K (8000–10000 K)
4	Color Temperature Fine	0–255	Fine adjustment of CH 3
5	Dimmer Mode		Same as CH 3 in the mode “3ch” (p. 11)

Mode 5ch RGBL

If the device receives DMX in this mode but gives no light, check these channels: CH 1 Dimmer above 0. The GDTF file gives these values for a console's Highlight function: CH 1 Dimmer 255.

Channel functions at a glance

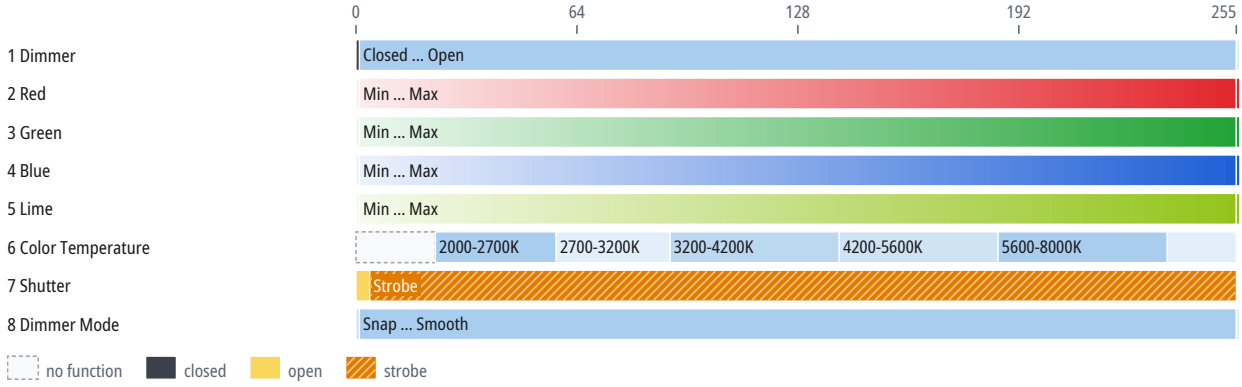


CH	Function	DMX	Description
1	Dimmer		Same as CH 1 in the mode “5ch Tun” (p. 9)
2	Red		Same as CH 2 in the mode “5ch Tun” (p. 9)
3	Green		Same as CH 3 in the mode “5ch Tun” (p. 9)
4	Blue		Same as CH 4 in the mode “5ch Tun” (p. 9)
5	Lime		Same as CH 5 in the mode “5ch Tun” (p. 9)

Mode 8ch

If the device receives DMX in this mode but gives no light, check these channels: CH 1 Dimmer above 0; CH 7 Shutter at 0–3 “Open”. The GDTF file gives these values for a console's Highlight function: CH 1 Dimmer 255.

Channel functions at a glance



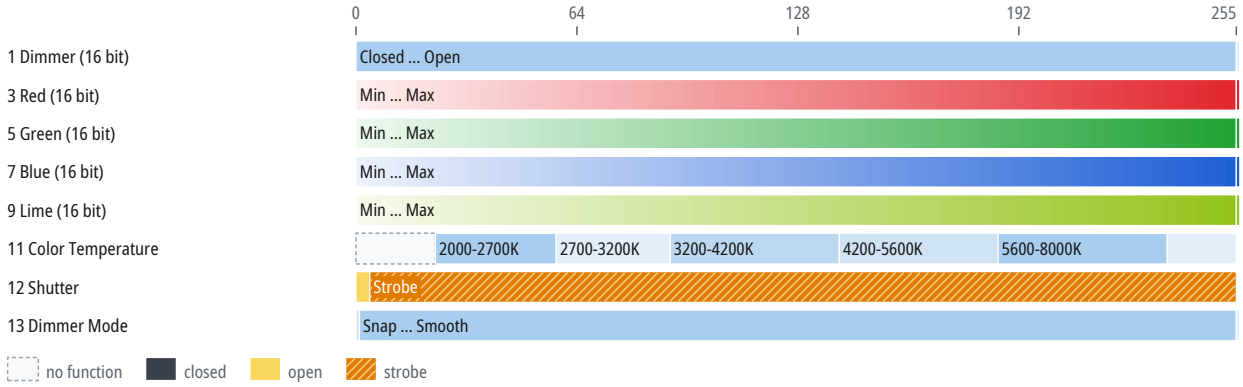
CH	Function	DMX	Description
1	Dimmer		Same as CH 1 in the mode “5ch Tun” (p. 9)
2	Red		Same as CH 2 in the mode “5ch Tun” (p. 9)
3	Green		Same as CH 3 in the mode “5ch Tun” (p. 9)
4	Blue		Same as CH 4 in the mode “5ch Tun” (p. 9)
5	Lime		Same as CH 5 in the mode “5ch Tun” (p. 9)
6	Color Temperature	0–22	No Function
		23–57	2000-2700K (2000–2699 K)
		58–90	2700-3200K (2700–3199 K)
		91–139	3200-4200K (3200–4199 K)
		140–185	4200-5600K (4200–5599 K)
		186–234	5600-8000K (5600–7999 K)
		235–255	8000-10000K (8000–10000 K)
7	Shutter	0–3	Open
		4–255	Strobe (0.9–15 Hz)
8	Dimmer Mode		Same as CH 3 in the mode “3ch” (p. 11)

Mode 13ch

16-bit parameters use two channels, coarse and fine: value = 256 × coarse value + fine value.

If the device receives DMX in this mode but gives no light, check these channels: CH 1 Dimmer above 0; CH 12 Shutter at 0–3 “Open”. The GDTF file gives these values for a console's Highlight function: CH 1 Dimmer 255.

Channel functions at a glance



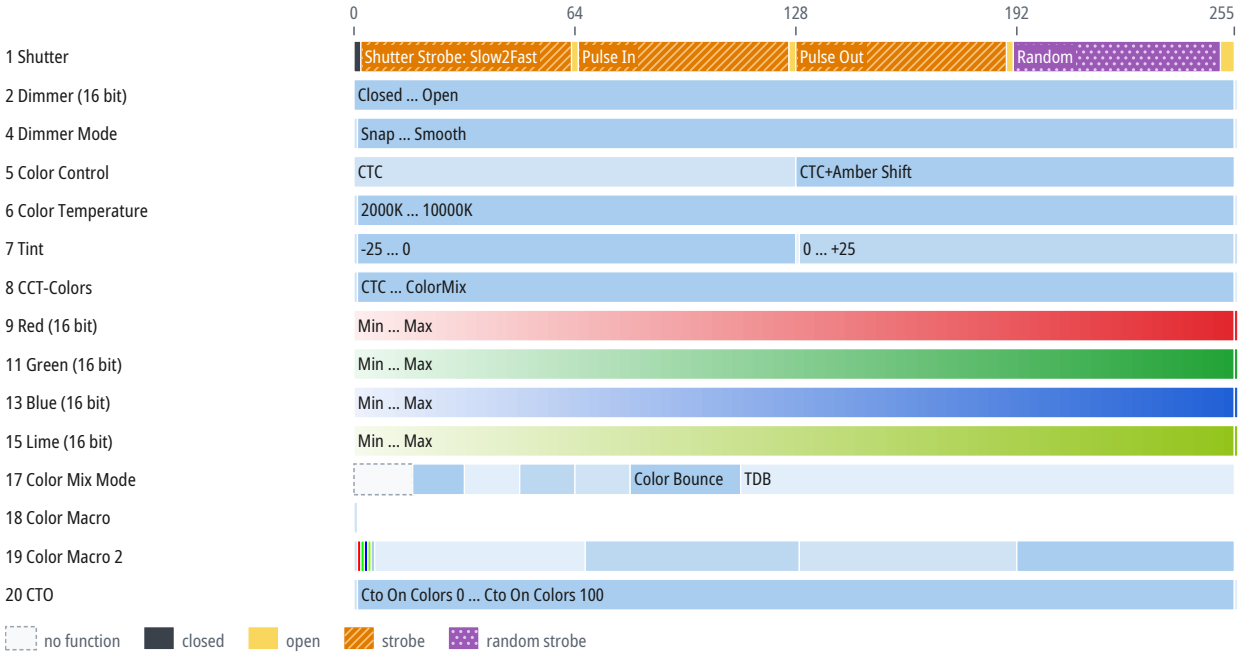
CH	Function	DMX	Description
1	Dimmer		Same as CH 1 in the mode “5ch” (p. 12)
2	Dimmer Fine	0–255	Fine adjustment of CH 1
3	Red	0–255	Min ... Max
		255	Max
4	Red Fine	0–255	Fine adjustment of CH 3
5	Green	0–255	Min ... Max
		255	Max
6	Green Fine	0–255	Fine adjustment of CH 5
7	Blue	0–255	Min ... Max
		255	Max
8	Blue Fine	0–255	Fine adjustment of CH 7
9	Lime	0–255	Min ... Max
		255	Max
10	Lime Fine	0–255	Fine adjustment of CH 9
11	Color Temperature		Same as CH 6 in the mode “8ch” (p. 14)
12	Shutter		Same as CH 7 in the mode “8ch” (p. 14)
13	Dimmer Mode		Same as CH 3 in the mode “3ch” (p. 11)

Mode 20ch

16-bit parameters use two channels, coarse and fine: value = 256 × coarse value + fine value.

If the device receives DMX in this mode but gives no light, check these channels: CH 1 Shutter at 63–64, 126–127, 189–190 or 251–255 “Open”; CH 2 Dimmer above 0. The GDTF file gives these values for a console's Highlight function: CH 2 Dimmer 255.

Channel functions at a glance



CH	Function	DMX	Description
1	Shutter	0–1	Close
		2–62	Shutter Strobe: Slow2Fast (0.9–15 Hz)
		63–64	Open
		65–125	Pulse In (0.9–15 Hz)
		126–127	Open
		128–188	Pulse Out (0.9–15 Hz)
		189–190	Open
		191–250	Random (0.9–15 Hz)
		251–255	Open
2	Dimmer		Same as CH 1 in the mode “5ch” (p. 12)
3	Dimmer Fine	0–255	Fine adjustment of CH 2
4	Dimmer Mode		Same as CH 3 in the mode “3ch” (p. 11)
5	Color Control	0–127	CTC
		128–255	CTC+Amber Shift
6	Color Temperature	0	2000K
		1–254	2000K ... 10000K
		255	10000K
7	Tint	0	-25
		1–127	-25 ... 0

CH	Function	DMX	Description
7	Tint (continued)	128	0
		129–254	0 … +25
		255	+25
8	CCT-Colors	0	CTC
		1–254	CTC … ColorMix
		255	ColorMix
9	Red		Same as CH 3 in the mode “13ch” (p. 15)
10	Red Fine	0–255	Fine adjustment of CH 9
11	Green		Same as CH 5 in the mode “13ch” (p. 15)
12	Green Fine	0–255	Fine adjustment of CH 11
13	Blue		Same as CH 7 in the mode “13ch” (p. 15)
14	Blue Fine	0–255	Fine adjustment of CH 13
15	Lime		Same as CH 9 in the mode “13ch” (p. 15)
16	Lime Fine	0–255	Fine adjustment of CH 15
17	Color Mix Mode	0–16	No function
		17–31	White Presets
		32–47	Cw Spin
		48–63	CCWSpin
		64–79	Continuous
		80–111	Color Bounce
		112–255	TDB
18	Color Macro		When CH 17 is 17–31:
		0–255	White Presets
			When CH 17 is 32–47:
		0	CW RainbowFX Slow
		1–254	CW RainbowFX Slow … CW RainbowFX Fast
		255	CW RainbowFX Fast
			When CH 17 is 48–63:
		0	CCW RainbowFX Slow
		1–254	CCWSpin
		255	CCW RainbowFX Slow
			When CH 17 is 64–111:
		0	Black
		1	Red
		2	Green
		3	Blue
		4	Lime
		5	LED All
		6–66	Red up Green down Blue full Lime full
		67–128	Red full Green up Blue down Lime full
		129–191	Red full Green full Blue up Lime down
		192–255	Red down Green full Blue full Lime up

CH	Function	DMX	Description
19	Color Macro 2		When CH 18 is 64–111:
		0	Black
		1	Red
		2	Green
		3	Blue
		4	Lime
		5	LED All
		6–66	Red up Green down Blue full Lime full
		67–128	Red full Green up Blue down Lime full
		129–191	Red full Green full Blue up Lime down
		192–255	Red down Green full Blue full Lime up
20	CTO		CTO On Colors
		0	Cto On Colors 0
		1–254	Cto On Colors 0 ... Cto On Colors 100
		255	Cto On Colors 100

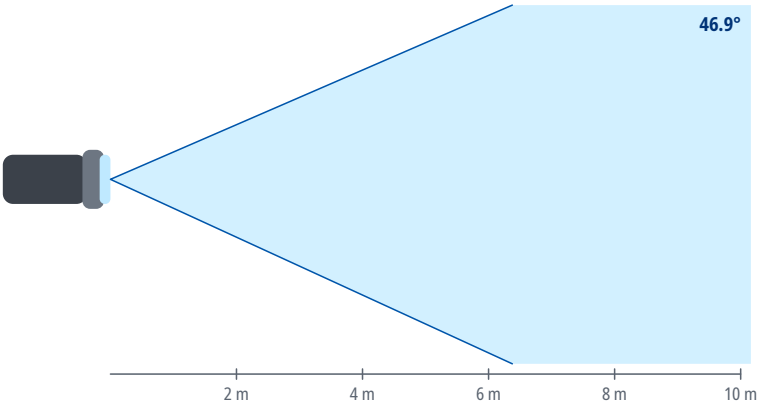
10 Technical specifications

Parameter	Value
Light	
Light source	LED
LED power	200.9 W
Luminous flux	5,596.1 lm
Color temperature	5,355 K
Color rendering index (CRI)	79
Optics	
Beam angle	46.9°
Control	
DMX connection	5-pin XLR IN/OUT
RDM	yes (manufacturer ID 0x15D0, device model ID 0x0113)
Electrical	
Power connectors	powerCON TRUE1 IN/OUT
Dimensions and construction	
Weight	9.3 kg
Operating environment	
Operating temperature	-20 to 45 °C

Speeds and ranges

Parameter	Value
Color temperature range	2000–10000 K
Strobe frequency	0.9–15 Hz

Spot diameter



Distance	Ø 46.9°
2 m	1.7 m
4 m	3.5 m
6 m	5.2 m
8 m	6.9 m
10 m	8.7 m
15 m	13 m

Spot diameter square to the beam axis, calculated from the beam angle.

11 Maintenance and cleaning

- Before cleaning and maintenance, switch the device off, disconnect it from the power supply and let it cool down.
- Clean the housing with a soft, dry or slightly damp cloth. Do not use solvents, abrasive cleaners or

pressure washers, and make sure no liquid gets into the device.

- Clean optical parts (lenses, front glass), if the device has any, with a soft lint-free cloth and a cleaner intended for optics or glass.
- Regularly inspect the housing, cables, connectors and fixings. Have damaged parts replaced by a service center.
- How often to clean depends on the environment; dust, smoke and fog make the device dirty much faster.

12 Troubleshooting

Problem	Remedy
The device does not switch on	Check the supply voltage, the cables and the fuse, if the device has one.
The device does not respond to DMX	Check the start address, the selected DMX mode and whether it matches the profile in the controller, the cable connection to DMX IN, and the controller output (universe).
The device behaves erratically or flickers	Check the terminator at the end of the line, the condition and wiring of the cables (shield on pin 1 only), the number of devices on the line (32 at most), and that the line is not split without a splitter.
Only some devices on the line respond	Check the cable and connectors between the last working and the first non-working device, and make sure all devices on the line are switched on.
Devices respond to the wrong channels or affect each other	Check that the addresses do not overlap and that the DMX mode on the devices matches the patch in the controller.
The device or the connected load does not light up although it receives DMX	Check the values of the dimmer, shutter and strobe channels against the DMX channel table. For the DMX modes for which the sources state it, the chapter DMX channels gives under the mode's heading which channels must be open.

13 Disposal

The crossed-out wheeled bin symbol on the product, in the manual or on the packaging means that the product must not be disposed of with unsorted household waste at the end of its life.

Take the end-of-life equipment to a collection point, for example a municipal collection site or a retailer. Proper disposal enables materials to be recycled and helps prevent possible negative effects on the environment and human health.

Follow the regulations applicable in your country; in the Czech Republic, take-back is governed by Act No. 542/2020 Coll., on End-of-Life Products.

Recycle the packaging materials according to their type.