DMX REFERENCE

Spectra 300

Volux



Manufacturer	Volux
GDTF file	Volux_Spectra_300_126743.gdtf
GDTF revision	Working MA2 spectra300 · 2026-01-30
Generated	2026-11-24

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1 About this manual

This document describes the Spectra 300 by Volux. It was compiled from the GDTF file Volux_Spectra_300_126743.gdtf from the GDTF-Share library.

File revision: “Working MA2 spectra300”.

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 Volux; 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	15 kg

DMX modes

Mode	Channels	Units in one universe	First start addresses
Standard Mode - 25Ch	25	20	1, 26, 51, 76, ...

No light? Check these channels

- Standard Mode - 25Ch: CH 14 Shutter at 0–3


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.

> ⚠ **WARNING**
>
> - The moving parts of the device (for example the head or arms) can move quickly and unexpectedly at any time – after power-on, during a reset, or on a command from the controller.
> - Keep yourself and any objects out of the range of movement. While the device is switched on, do not touch the moving parts, move them by hand, or obstruct their movement; this can cause injury (pinching) and damage the drive.
> - Do not carry the device by its moving parts. If the device has a transport lock, engage it before transport and release it before switching on.

4 Product description

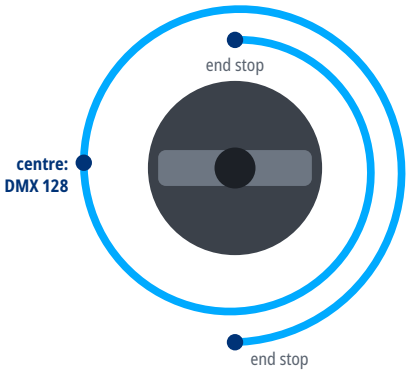
Description in the GDTF file

“Spectra 300 is a compact, LED-powered, CMY spot luminaire designed to provide immense output with an exceptionally wide zoom range that maintains a sharp focus with extensive colors and stunning effects to maximize functionality. Powered by a 300W LED engine, Spectra delivers bright, crisp projections with a 3.5deg - 46deg zoom range, complemented by an extensive color palette featuring CMY + CTO color mixing along with a dedicated 11-slot dichroic color wheel. Users can choose from 20 hand-selected gobos with auto-focus that can flood surfaces with sharp patterns and customize beams with iris and an 8-facet prism for uncompromised effects.”

Range of movement

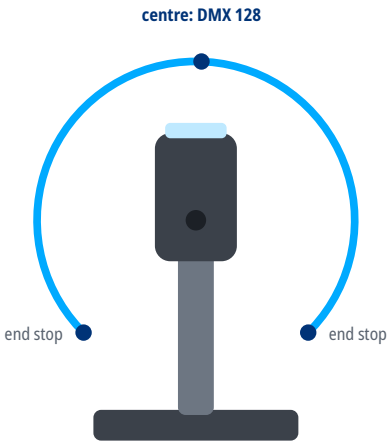
Pan 540°

top view



Tilt 270°

side view



5 Installation

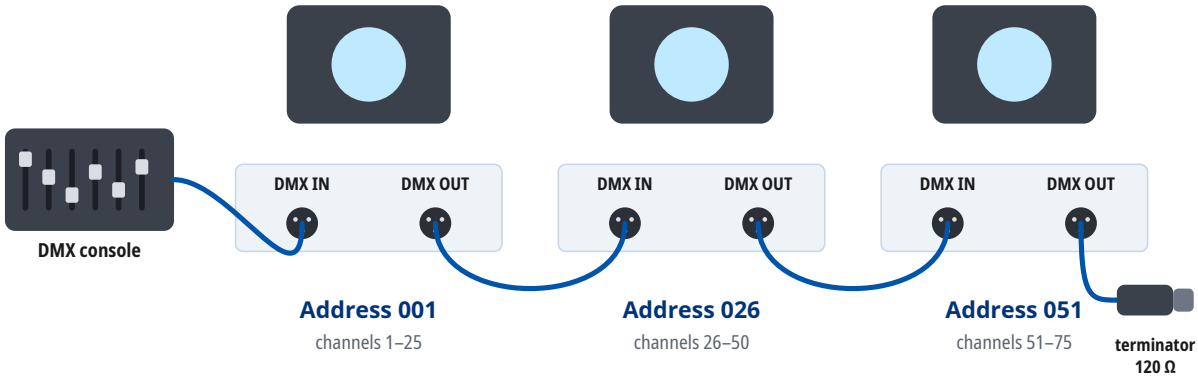
⚠ **WARNING**

- 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: 15 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 Standard Mode - 25Ch: every unit occupies 25 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

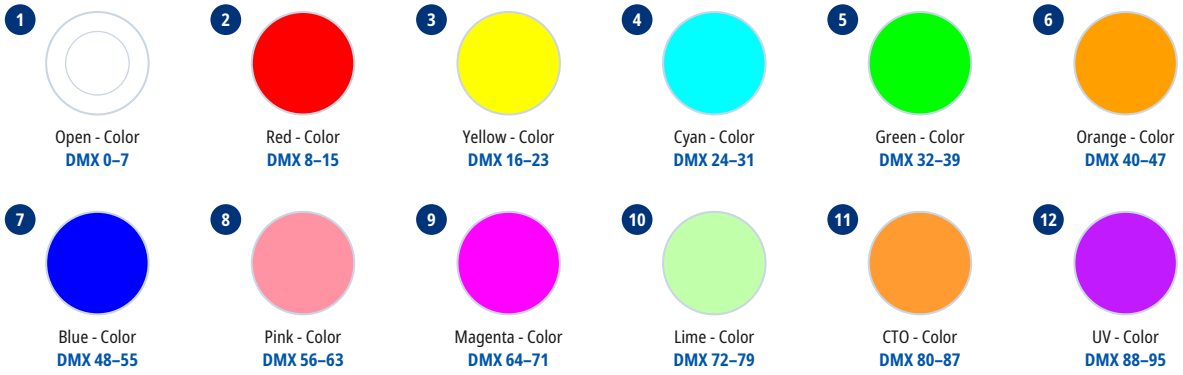
- The device occupies as many consecutive channels in the DMX universe as the selected DMX mode uses, starting at the set start address.
- Number of channels occupied in the DMX mode “Standard Mode - 25Ch”: 25.
- Choose start addresses so that the channels of individual devices do not overlap and the 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 “Standard Mode - 25Ch”, you can use, for example, the start addresses 1, 26, 51, 76.
- 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

	Standard Mode - 25Ch 25 channels
Pan / Tilt	1, 3
Dimmer	13
Shutter / strobe	14
Color mixing	6–8
Color temperature	9
Color wheel	5
Gobo wheel	10, 11
Gobo rotation	12
Prism	16, 17
Frost	23
Zoom	18
Focus	19, 20
Iris	22

Color wheel



Gobo wheel 1

1

STATIC GOBO: Open - Gobo Open
DMX 0–3

2

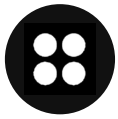
Gobo 1 - Gobo
DMX 4–7

3

Gobo 2 - Gobo
DMX 8–11

4

Gobo 3 - Gobo
DMX 12–15

5

Gobo 4 - Gobo
DMX 16–19

6

Gobo 5 - Gobo
DMX 20–23

7

Gobo 6 - Gobo
DMX 24–27

8

Gobo 7 - Gobo
DMX 28–31

9

Gobo 8 - Gobo
DMX 32–35

10

Gobo 9 - Gobo
DMX 36–39

11

Gobo 10 - Gobo
DMX 40–43

12

Gobo 11 - Gobo
DMX 44–47

13

Gobo 12 - Gobo
DMX 48–51

14

Gobo 13 - Gobo
DMX 52–55

Gobo wheel 2

1

ROTATING GOBO: Open - Gobo Open
DMX 0–7

2

Gobo 1 - Gobo
DMX 8–15

3

Gobo 2 - Gobo
DMX 16–23

4

Gobo 3 - Gobo
DMX 24–31

5

Gobo 4 - Gobo
DMX 32–39

6

Gobo 5 - Gobo
DMX 40–47

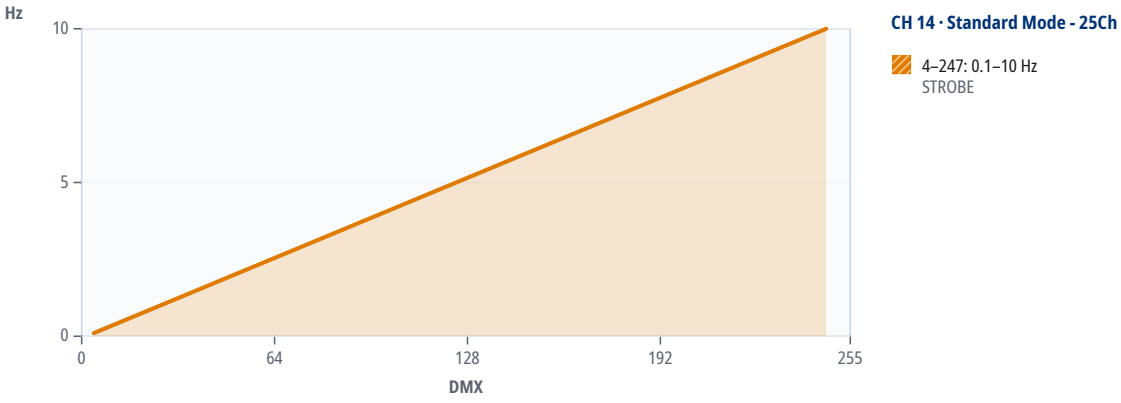
7

Gobo 6 - Gobo
DMX 48–55

8

Gobo 7 - Gobo
DMX 56–63

Strobe rate

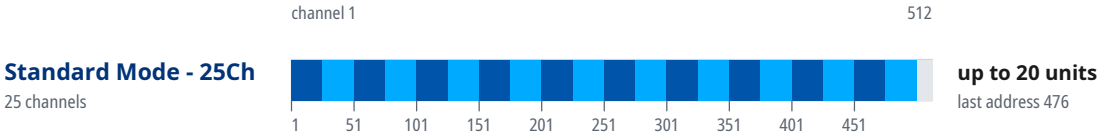


CH 14 · Standard Mode - 25Ch

4–247: 0.1–10 Hz
STROBE

9 DMX channels

Units in one DMX universe



Start addresses of 20 units in the mode “Standard Mode - 25Ch”

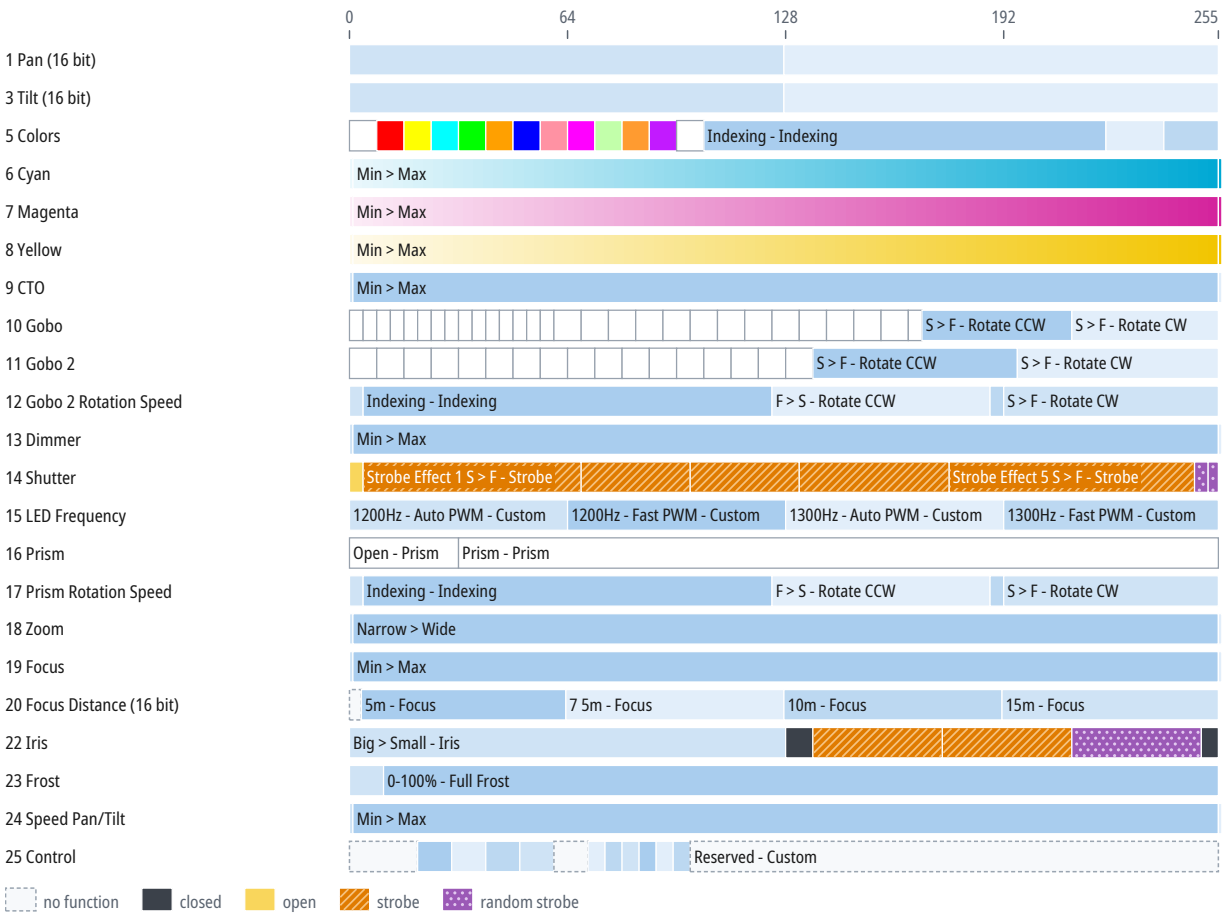
Unit	Start address	Unit	Start address	Unit	Start address	Unit	Start address
1	1	6	126	11	251	16	376
2	26	7	151	12	276	17	401
3	51	8	176	13	301	18	426
4	76	9	201	14	326	19	451
5	101	10	226	15	351	20	476

Mode Standard Mode - 25Ch

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 14 Shutter at 0–3. The GDTF file gives these values for a console's Highlight function: CH 14 Shutter 0.

Channel functions at a glance



CH	Function	DMX	Description
1	Pan	0–127	PAN
		127	Home
		128–255	PAN
2	Pan Fine	0–255	Fine adjustment of CH 1
3	Tilt	0–127	TILT
		127	Home
		128–255	TILT
4	Tilt Fine	0–255	Fine adjustment of CH 3
5	Colors	0–7	Open - Color
		8–15	Red - Color
		16–23	Yellow - Color
		24–31	Cyan - Color
		32–39	Green - Color
		40–47	Orange - Color
		48–55	Blue - Color
		56–63	Pink - Color
		64–71	Magenta - Color
		72–79	Lime - Color
		80–87	CTO - Color
		88–95	UV - Color
		96–103	Open - Color
		104–221	Indexing - Indexing
		222–238	S > F - Rotate CCW (80–0.1 °/s)
		239–255	S > F - Rotate CW (0.1–80 °/s)
6	Cyan	0	Min
		1–254	Min > Max
		255	Max
7	Magenta	0	Min
		1–254	Min > Max
		255	Max
8	Yellow	0	Min
		1–254	Min > Max
		255	Max
9	CTO	0	Min
		1–254	Min > Max
		255	Max
10	Gobo	0–3	STATIC GOBO: Open - Gobo Open
		4–7	Gobo 1 - Gobo
		8–11	Gobo 2 - Gobo
		12–15	Gobo 3 - Gobo
		16–19	Gobo 4 - Gobo

CH	Function	DMX	Description
10	Gobo (continued)	20–23	Gobo 5 - Gobo
		24–27	Gobo 6 - Gobo
		28–31	Gobo 7 - Gobo
		32–35	Gobo 8 - Gobo
		36–39	Gobo 9 - Gobo
		40–43	Gobo 10 - Gobo
		44–47	Gobo 11 - Gobo
		48–51	Gobo 12 - Gobo
		52–55	Gobo 13 - Gobo
		56–59	STATIC GOBO: Open - Gobo Open
		60–67	Gobo 1 Shake - Gobo Shake (0.1–10 Hz)
		68–75	Gobo 2 Shake - Gobo Shake (0.1–10 Hz)
		76–83	Gobo 3 Shake - Gobo Shake (0.1–10 Hz)
		84–91	Gobo 4 Shake - Gobo Shake (0.1–10 Hz)
		92–99	Gobo 5 Shake - Gobo Shake (0.1–10 Hz)
		100–107	Gobo 6 Shake - Gobo Shake (0.1–10 Hz)
		108–115	Gobo 7 Shake - Gobo Shake (0.1–10 Hz)
		116–123	Gobo 8 Shake - Gobo Shake (0.1–10 Hz)
		124–131	Gobo 9 Shake - Gobo Shake (0.1–10 Hz)
		132–139	Gobo 10 Shake - Gobo Shake (0.1–10 Hz)
		140–147	Gobo 11 Shake - Gobo Shake (0.1–10 Hz)
		148–155	Gobo 12 Shake - Gobo Shake (0.1–10 Hz)
		156–163	Gobo 13 Shake - Gobo Shake (0.1–10 Hz)
		164–167	STATIC GOBO OPEN: Open - Gobo Open
		168–211	S > F - Rotate CCW (80–0.1 °/s)
		212–255	S > F - Rotate CW (0.1–80 °/s)
11	Gobo 2	0–7	ROTATING GOBO: Open - Gobo Open
		8–15	Gobo 1 - Gobo
		16–23	Gobo 2 - Gobo
		24–31	Gobo 3 - Gobo
		32–39	Gobo 4 - Gobo
		40–47	Gobo 5 - Gobo
		48–55	Gobo 6 - Gobo
		56–63	Gobo 7 - Gobo
		64–71	ROTATING GOBO: Open - Gobo Open
		72–79	Gobo 1 Shake - Gobo Shake (0.1–10 Hz)
		80–87	Gobo 2 Shake - Gobo Shake (0.1–10 Hz)
		88–95	Gobo 3 Shake - Gobo Shake (0.1–10 Hz)
		96–103	Gobo 4 Shake - Gobo Shake (0.1–10 Hz)
		104–111	Gobo 5 Shake - Gobo Shake (0.1–10 Hz)
		112–119	Gobo 6 Shake - Gobo Shake (0.1–10 Hz)
		120–127	Gobo 7 Shake - Gobo Shake (0.1–10 Hz)

CH	Function	DMX	Description
11	Gobo 2 (continued)	128–135	ROTATING GOBO OPEN: Open - Gobo Open
		136–195	S > F - Rotate CCW (80–0.1 °/s)
		196–255	S > F - Rotate CW (0.1–80 °/s)
12	Gobo 2 Rotation Speed	0–3	Stop Loop - Stop Loop
		4–123	Indexing - Indexing
		124–187	F > S - Rotate CCW (655–0.1 °/s)
		188–191	Stop - Stop Loop
		192–255	S > F - Rotate CW (0.1–655 °/s)
13	Dimmer	0	Min
		1–254	Min > Max
		255	Max
14	Shutter	0–3	Open - Shutter Open
		4–67	Strobe Effect 1 S > F - Strobe (0.1–10 Hz)
		68–99	Strobe Effect 2 S > F - Strobe (0.1–10 Hz)
		100–131	Strobe Effect 3 S > F - Strobe (0.1–10 Hz)
		132–175	Strobe Effect 4 S > F - Strobe (0.1–10 Hz)
		176–247	Strobe Effect 5 S > F - Strobe (0.1–10 Hz)
		248–251	Strobe Random Effect 1 - Strobe Random
		252–255	Strobe Random Effect 2 - Strobe Random
15	LED Frequency		REFRESH RATE
		0–63	1200Hz - Auto PWM - Custom
		64–127	1200Hz - Fast PWM - Custom
		128–191	1300Hz - Auto PWM - Custom
		192–255	1300Hz - Fast PWM - Custom
16	Prism	0–31	Open - Prism
		32–255	Prism - Prism
17	Prism Rotation Speed	0–3	Stop Loop - Stop Loop (360°)
		4–123	Indexing - Indexing
		124–187	F > S - Rotate CCW (655–0.1 °/s)
		188–191	Stop - Stop Loop
		192–255	S > F - Rotate CW (0.1–655 °/s)
18	Zoom	0	Narrow
		1–254	Narrow > Wide
		255	Wide
19	Focus	0	Min
		1–254	Min > Max
		255	Max
20	Focus Distance	0–3	Auto Focus Disabled - Custom
		3–63	5m - Focus
		63–127	7 5m - Focus
		128–192	10m - Focus
		192–255	15m - Focus

CH	Function	DMX	Description
21	Focus Distance Fine	0–255	Fine adjustment of CH 20
22	Iris	0–127	Big > Small - Iris
		128–135	Iris Closed - Iris Closed
		136–173	Iris Macro 1 Slow Open Fast Close S > F - Macro (0.1–10 Hz)
		174–211	Iris Macro 2 Fast Open Slow Close S > F - Macro (0.1–10 Hz)
		212–249	Iris Macro 3 Open/Close Pulse S > F - Macro (0.1–10 Hz)
		250–255	Iris Closed - Iris Closed
23	Frost	0–9	Open - Frost Open
		10–255	0-100% - Full Frost
24	Speed Pan/Tilt		P/T SPEED
		0	Min
		1–254	Min > Max
		255	Max
25	Control	0–19	No Function - Custom
		20–29	Reset All - Reset
		30–39	Reset P/T - Reset
		40–49	Reset Color Gobo CMY/CTO - Reset
		50–59	Reset Zoom Focus Prism Frost - Reset
		60–69	Reserved - Custom
		70–74	Display Default - Custom
		75–79	Display Off - Custom
		80–84	Display On - Custom
		85–89	Fan - Quiet Mode - Low Speed - Custom
		90–94	Fan - Medium Speed - Custom
		95–99	Fan - High Speed - Custom
		100–255	Reserved - Custom

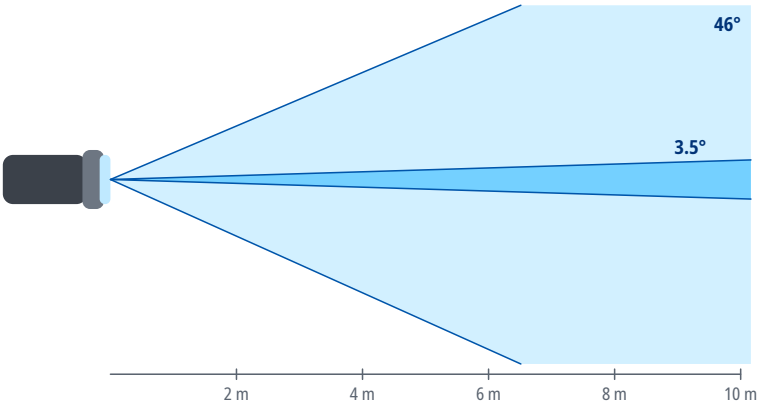
10 Technical specifications

Parameter	Value
Light	
Light source	LED
LED power	300 W
Luminous flux	13,000 lm
Color temperature	6,000 K
Color rendering index (CRI)	70
Optics	
Zoom	3.5–46°
Movement	
Pan	540°
Tilt	270°
Control	
RDM	yes (manufacturer ID 0x0801, device model ID 0x89B0)
Dimensions and construction	
Weight	15 kg
Operating environment	
Operating temperature	-10 to 50 °C

Speeds and ranges

Parameter	Value
Strobe frequency	0.1–10 Hz
LED frequency	0–10 Hz
Color wheel rotation	up to 80 °/s (13 rpm)
Gobo wheel 1 rotation	up to 80 °/s (13 rpm)
Gobo wheel 2 rotation	up to 80 °/s (13 rpm)
Gobo 2 rotation	up to 655 °/s (109 rpm)
Prism rotation	up to 655 °/s (109 rpm)

Spot diameter



Distance	Ø 3.5°	Ø 46°
2 m	0.12 m	1.7 m
4 m	0.24 m	3.4 m
6 m	0.37 m	5.1 m
8 m	0.49 m	6.8 m
10 m	0.61 m	8.5 m
15 m	0.92 m	12.7 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.
Movement is reversed	Check whether Pan/Tilt inversion is enabled in the device menu or in the controller.
Moving parts do not reach the correct position after power-on or transport	Switch the device off and on again to reset the position, and make sure the transport lock, if any, is released. If this does not help, contact a service center.
Movement is jerky	Check the value of the Pan/Tilt speed channel, if the device has one, and the stability of the DMX signal.

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.