DMX REFERENCE

# Aurora Profile V3

CKC Lighting



| | |
|---|---|
| **Manufacturer** | CKC Lighting |
| **GDTF file** | CKC_Lighting_Aurora_Profile_V3_82652.gdtf |
| **GDTF revision** | V004 · 2025-01-07 |
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# 1 About this manual

This document describes the Aurora Profile V3 by CKC Lighting. It was compiled from the GDTF file CKC_Lighting_Aurora_Profile_V3_82652.gdtf from the GDTF-Share library.

File revision: “V004”.

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 CKC Lighting; 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 |
|---|---|
| Power consumption | 361 W |
| Weight | 29.5 kg |

### DMX modes

| Mode | Channels | Units in one universe | First start addresses |
|---|---|---|---|
| Standard 38CH | 38 | 13 | 1, 39, 77, 115, ... |
| Extended 54CH | 54 | 9 | 1, 55, 109, 163, ... |
| CMY 36CH | 36 | 14 | 1, 37, 73, 109, ... |

### No light? Check these channels

- Standard 38CH: CH 7 Shutter at 32–63 or 96–127 or 160–191 or 224–255
- Extended 54CH: CH 7 Shutter at 32–63 or 96–127 or 160–191 or 224–255
- CMY 36CH: CH 7 Shutter at 32–63 or 96–127 or 160–191 or 224–255


Read the manual before use


Risk of electric shock


Do not stare into the light


Indoor use only

# 3 Safety instructions


Read the manual before use


Risk of electric shock


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**

- Connect the device only to a properly installed mains outlet with a protective earth (ground) contact. The outlet or other means of disconnection must remain easily accessible.
- Power supply: 90–240 V, 50/60 Hz. Before connecting, make sure that the mains voltage matches this value and the value on the rating plate of the device.
- Do not connect the device to a dimmer or to a dimmed circuit.
- Use only the original power cable or a cable with identical ratings. Protect the cable from damage, do not run it over sharp edges, and never unplug it by pulling on the cable.
- When connecting several devices to one circuit, do not exceed its permitted load.
- Do not touch the device with wet hands.

**⚠ 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.

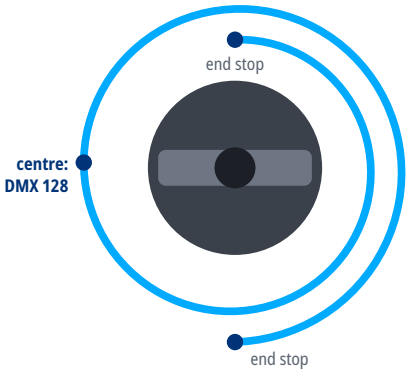
> ⚠ **WARNING**
>
> - The moving parts of the device (for example the head or arms) can move quickly and unexpectedly at any time – after power-on, during a reset, or on a command from the controller.
> - Keep yourself and any objects out of the range of movement. While the device is switched on, do 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

### Range of movement

**Pan 540°**

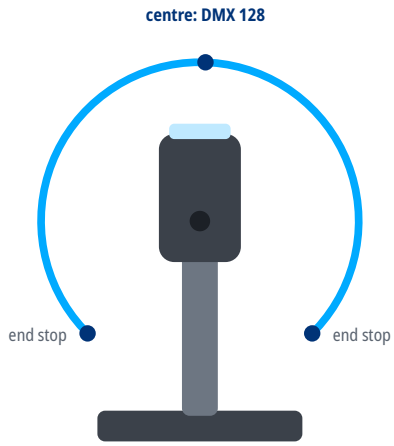
top view




**full travel in 4.2 s**

**Tilt 270°**

side view




**full travel in 2 s**

Full-travel times as stated in the GDTF file.

# 5 Installation

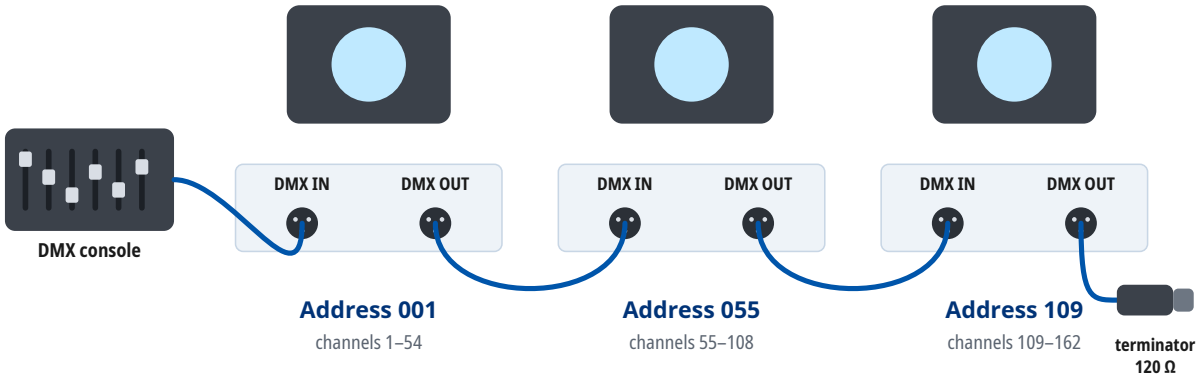
⚠ **WARNING**

- 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: 29.5 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 Extended 54CH: every unit occupies 54 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 “Extended 54CH”: 54.
- 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 “Extended 54CH”, you can use, for example, the start addresses 1, 55, 109, 163.
- The DMX mode set on the device must match the fixture profile (personality) used in the controller.

# 8 Functions at a glance

## Functions in each DMX mode

| | Standard 38CH<br>38 channels | Extended 54CH<br>54 channels | CMY 36CH<br>36 channels |
|---|---|---|---|
| Pan / Tilt | 1, 3 | 1, 3 | 1, 3 |
| Dimmer | 5 | 5 | 5 |
| Shutter / strobe | 7 | 7 | 7 |
| Color mixing | 8–12 | 5× (8–16) | 8–10 |
| Color temperature | 13 | 18 | 11 |
| Color wheel | 15 | 20 | 13 |
| Gobo wheel | 16, 19 | 21, 24 | 14, 17 |
| Gobo rotation | 17 | 22 | 15 |
| Prism | 23, 24 | 30, 31 | 21, 22 |
| Frost | 25 | 32 | 23 |
| Zoom | 20 | 25 | 18 |
| Focus | 21 | 27 | 19 |
| Iris | 22 | 29 | 20 |
| Animation wheel | 26 | 33 | 24 |

## Gobo wheel 1



1. Select: Open — DMX 0–5
2. Gobo 1 — DMX 6–20
3. Gobo 2 — DMX 21–35
4. Gobo 3 — DMX 36–50
5. Gobo 4 — DMX 51–65
6. Gobo 5 — DMX 66–80
7. Gobo 6 — DMX 81–96

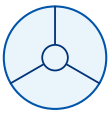
## Gobo wheel 2



1. Fix Gobos: Open — DMX 0–5
2. Gobo 1 — DMX 6–18
3. Gobo 2 — DMX 19–31
4. Gobo 3 — DMX 32–44
5. Gobo 4 — DMX 45–57
6. Gobo 5 — DMX 58–70
7. Gobo 6 — DMX 71–83
8. Gobo 7 — DMX 84–97

## Prism

1 
Open
**DMX 0–5**

2 
3 facets
Prism 1 (3 Facet)
**DMX 6–130**

3 
6 facets
Prism 2 (6 Liner)
**DMX 131–255**

## Animation wheel

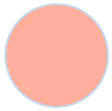
1 
open

2 
Animation

## Color wheel

1 
Pale yellow
**DMX 1**

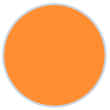
2 
Straw
**DMX 2**

3 
Gold tint
**DMX 3**

4 
Spring yellow
**DMX 4**

5 
Medium yellow
**DMX 5**

6 
Yellow
**DMX 6**

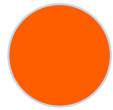
7 
Deep amber
**DMX 7**

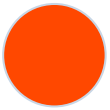
8 
Deep straw
**DMX 8**

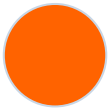
9 
Loving amber
**DMX 9**

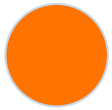
10 
Gold amber
**DMX 10**

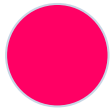
11 
Orange
**DMX 11**

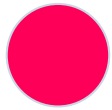
12 
Deep orange
**DMX 12**

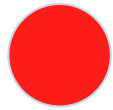
13 
Dark amber
**DMX 13**

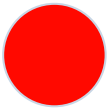
14 
Millenium gold
**DMX 14**

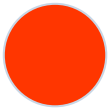
15 
Deep golden amber
**DMX 15**

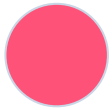
16 
Scarlet
**DMX 16**

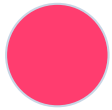
17 
Primary red
**DMX 17**

18 
Bright red
**DMX 18**

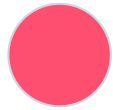
19 
Medium red
**DMX 19**

20 
Fire
**DMX 20**

21 
Pink
**DMX 21**

22 
Medium pink
**DMX 22**

23 
Dark pink
**DMX 23**

24 
Bright pink
**DMX 24**

25 Bright rose **DMX 25**

26 Special rose pink **DMX 26**

27 Vanity fair **DMX 27**

28 Magenta **DMX 28**

29 Dark magenta **DMX 29**

30 Rose purple **DMX 30**

31 Mauve **DMX 31**

32 Medium purple **DMX 32**

33 Lavender **DMX 33**

34 Palace blue **DMX 34**

35 Dark blue **DMX 35**

36 Medium blue **DMX 36**

37 Deep blue **DMX 37**

38 Daylight blue **DMX 38**

39 Slate blue **DMX 39**

40 Light blue **DMX 40**

41 Sky blue **DMX 41**

42 Pale navy blue **DMX 42**

43 Marine blue **DMX 43**

44 Peacock blue **DMX 44**

45 Lagoon blue **DMX 45**

46 medium blue green

47 Dark yellow green **DMX 47**

48 Primary green **DMX 48**

49 Fern green **DMX 49**

50 Moss green **DMX 50**

51 Dark green **DMX 51**

52 Lime green **DMX 52**

53 Pale green **DMX 53**

54 Quarter CT Blue **DMX 54**

55 Half CT Blue **DMX 55**

56 FULL CT Blue **DMX 56**

57 Double CT Blue **DMX 57**

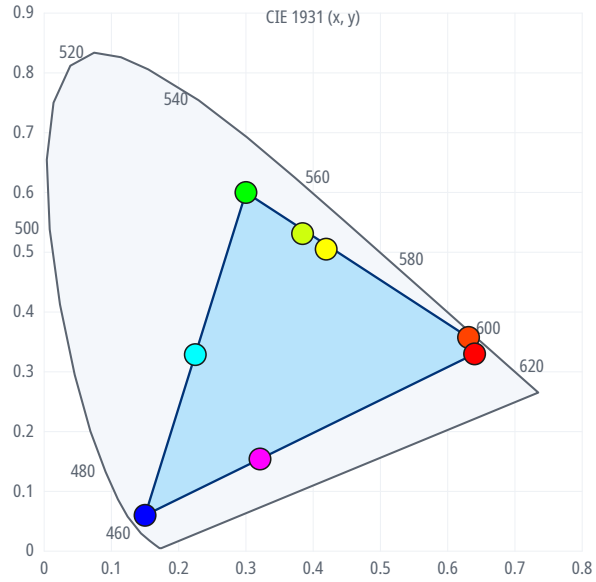
58 Quarter CT Orange **DMX 58**

59 Half CT Orange **DMX 59**

60 FULL CT Orange **DMX 60**

61 Open **DMX 0**

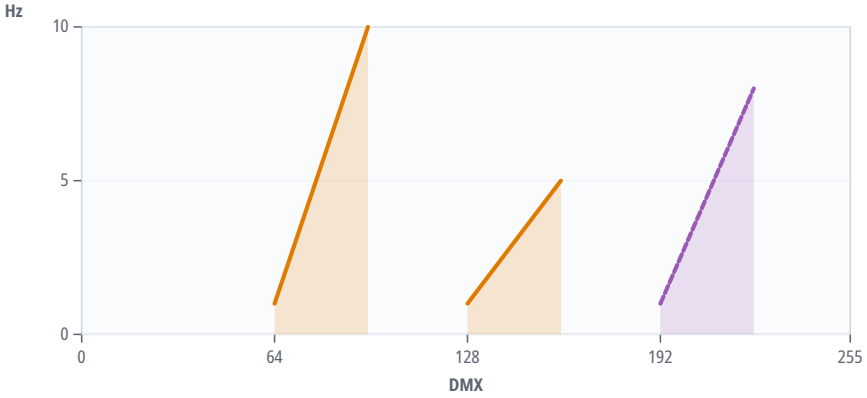
## LED colors and the colors they mix




| LED | x | y |
|---|---|---|
| Amber | 0.631 | 0.358 |
| Lime | 0.384 | 0.531 |
| Red | 0.640 | 0.330 |
| Green | 0.300 | 0.600 |
| Blue | 0.150 | 0.060 |
| Cyan | 0.225 | 0.329 |
| Magenta | 0.321 | 0.154 |
| Yellow | 0.419 | 0.505 |

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

## Strobe rate

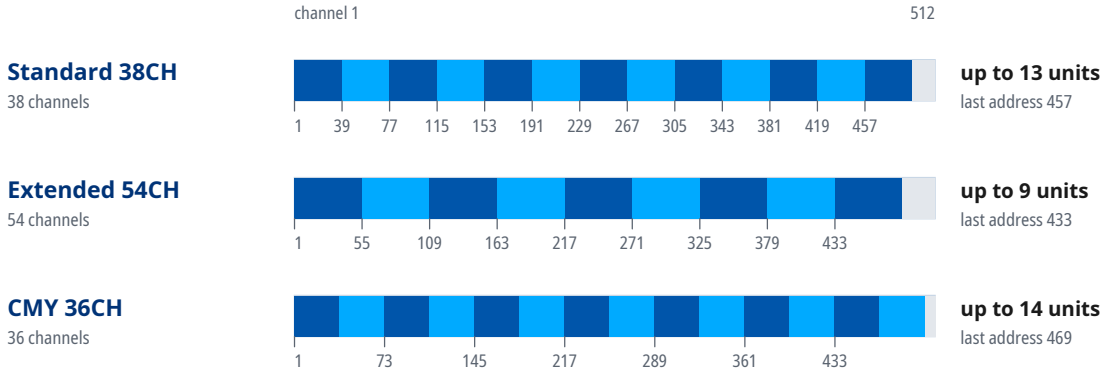



**CH 7 · Standard 38CH**

- 64–95: 1–10 Hz Strobe
- 128–159: 1–5 Hz Pulse
- 192–223: 1–8 Hz Random

# 9 DMX channels

### Units in one DMX universe




### Start addresses of 20 units in the mode “Extended 54CH”

| Unit | Start address | Unit | Start address | Unit | Start address | Unit | Start address |
|---|---|---|---|---|---|---|---|
| 1 | 1 | 6 | 271 | 11 | U2 · 55 | 16 | U2 · 325 |
| 2 | 55 | 7 | 325 | 12 | U2 · 109 | 17 | U2 · 379 |
| 3 | 109 | 8 | 379 | 13 | U2 · 163 | 18 | U2 · 433 |
| 4 | 163 | 9 | 433 | 14 | U2 · 217 | 19 | U3 · 1 |
| 5 | 217 | 10 | U2 · 1 | 15 | U2 · 271 | 20 | U3 · 55 |

Where a DMX universe is full, the next units continue in the next universe: “U2 · 1” is address 1 in the second universe, counted from the universe of the first unit.

## Mode Standard 38CH

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 7 Shutter at 32–63 or 96–127 or 160–191 or 224–255. The GDTF file gives these values for a console's Highlight function: CH 5 Dimmer 255, CH 7 Shutter 32, CH 11 Amber 0, CH 12 Green Cyan 0.

### Channel functions at a glance



| CH | Function | DMX | Description |
|---|---|---|---|
| **1** | Pan | 0–127 | Pan |
| | | 128 | Home |
| | | 128–255 | Pan |
| **2** | Pan Fine | 0–255 | Fine adjustment of CH 1 |
| **3** | Tilt | 0–127 | Tilt |
| | | 128 | Home |
| | | 128–255 | Tilt |
| **4** | Tilt Fine | 0–255 | Fine adjustment of CH 3 |
| **5** | Dimmer | 0–255 | 0% ... 100% |
| | | 255 | 100% |
| **6** | Dimmer Fine | 0–255 | Fine adjustment of CH 5 |
| **7** | Shutter | 0–31 | Shutter closed |
| | | 32–63 | Shutter open(1) |
| | | 64 | Min strobe |
| | | 65–94 | Min strobe ... max strobe |
| | | 95 | Max strobe |
| | | 96–127 | Shutter open (2) |
| | | 128 | Min Pulse |
| | | 129–158 | Min Pulse ... max Pulse |
| | | 159 | Max Pulse |
| | | 160–191 | Shutter open (3) |
| | | 192 | Min Random |
| | | 193–222 | Min Random ... max Random |
| | | 223 | Max Random |
| | | 224–255 | Shutter open (4) |
| **8** | Red | 0–255 | |
| **9** | Green | 0–255 | |
| **10** | Blue | 0–255 | |
| **11** | Amber | 0 | 0% Amber |
| | | 1–62 | 0% Amber ... 25% Amber |
| | | 63 | 25% Amber |
| | | 64–126 | 25% Amber ... 50% Amber |
| | | 127 | 50% Amber |
| | | 128–190 | 50% Amber ... 75% Amber |
| | | 191 | 75% Amber |
| | | 192–254 | 75% Amber ... 100% Amber |
| | | 255 | 100% Amber |
| **12** | Green Cyan | 0 | 0% Lime |
| | | 1–62 | 0% Lime ... 25% Lime |
| | | 63 | 25% Lime |

| CH | Function | DMX | Description |
|---|---|---|---|
| **12** | Green Cyan (continued) | 64–126 | 25% Lime ... 50% Lime |
| | | 127 | 50% Lime |
| | | 128–190 | 50% Lime ... 75% Lime |
| | | 191 | 75% Lime |
| | | 192–254 | 75% Lime ... 100% Lime |
| | | 255 | 100% Lime |
| **13** | Color Temperature | 0–23 | No function |
| | | 24–85 | 2400K-8500K (2400–8500 K) |
| | | 86–255 | 8500K |
| **14** | Tint | 0 | No function |
| | | 1–127 | Full Minus Green to Neutral |
| | | 128 | Neutral White |
| | | 129–255 | Neutral to Full Plus Green |
| **15** | Color Macro | 0 | Open |
| | | 1 | Pale yellow |
| | | 2 | Straw |
| | | 3 | Gold tint |
| | | 4 | Spring yellow |
| | | 5 | Medium yellow |
| | | 6 | Yellow |
| | | 7 | Deep amber |
| | | 8 | Deep straw |
| | | 9 | Loving amber |
| | | 10 | Gold amber |
| | | 11 | Orange |
| | | 12 | Deep orange |
| | | 13 | Dark amber |
| | | 14 | Millenium gold |
| | | 15 | Deep golden amber |
| | | 16 | Scarlet |
| | | 17 | Primary red |
| | | 18 | Bright red |
| | | 19 | Medium red |
| | | 20 | Fire |
| | | 21 | Pink |
| | | 22 | Medium pink |
| | | 23 | Dark pink |
| | | 24 | Bright pink |
| | | 25 | Bright rose |
| | | 26 | Special rose pink |
| | | 27 | Vanity fair |

| CH | Function | DMX | Description |
|---|---|---|---|
| **15** | Color Macro (continued) | 28 | Magenta |
| | | 29 | Dark magenta |
| | | 30 | Rose purple |
| | | 31 | Mauve |
| | | 32 | Medium purple |
| | | 33 | Lavender |
| | | 34 | Palace blue |
| | | 35 | Dark blue |
| | | 36 | Medium blue |
| | | 37 | Deep blue |
| | | 38 | Daylight blue |
| | | 39 | Slate blue |
| | | 40 | Light blue |
| | | 41 | Sky blue |
| | | 42 | Pale navy blue |
| | | 43 | Marine blue |
| | | 44 | Peacock blue |
| | | 45 | Lagoon blue |
| | | 46 | Lagoon blue ... dark yellow green |
| | | 47 | Dark yellow green |
| | | 48 | Primary green |
| | | 49 | Fern green |
| | | 50 | Moss green |
| | | 51 | Dark green |
| | | 52 | Lime green |
| | | 53 | Pale green |
| | | 54 | Quarter CT Blue |
| | | 55 | Half CT Blue |
| | | 56 | FULL CT Blue |
| | | 57 | Double CT Blue |
| | | 58 | Quarter CT Orange |
| | | 59 | Half CT Orange |
| | | 60 | FULL CT Orange |
| | | 61–255 | No function |
| **16** | Gobo | 0–5 | Select: Open |
| | | 6–20 | Gobo 1 |
| | | 21–35 | Gobo 2 |
| | | 36–50 | Gobo 3 |
| | | 51–65 | Gobo 4 |
| | | 66–80 | Gobo 5 |
| | | 81–95 | Gobo 6 |

| CH | Function | DMX | Description |
|---|---|---|---|
| **16** | Gobo (continued) | 96–110 | Shake Gobo 1 (0.1–5 Hz) |
| | | 111–125 | Shake Gobo 2 (0.1–5 Hz) |
| | | 126–140 | Shake Gobo 3 (0.1–5 Hz) |
| | | 141–155 | Shake Gobo 4 (0.1–5 Hz) |
| | | 156–170 | Shake Gobo 5 (0.1–5 Hz) |
| | | 171–185 | Shake Gobo 6 (0.1–5 Hz) |
| | | 186–192 | Gobo open: open |
| | | 193–223 | Slow to Fast CW (180–5.81 °/s) |
| | | 224 | Wheel rotation: Stop |
| | | 225–255 | Fast to Slow CCW (5.81–180 °/s) |
| **17** | Gobo Rotation | 0–5 | Rot Off |
| | | 5–128 | Position 0-540 |
| | | 128–191 | Gobo Pos Rotate: forward (2.81–180 °/s) |
| | | 191–192 | Rotation stop |
| | | 192–255 | Gobo Pos Rotate: backward (180–2.81 °/s) |
| **18** | Gobo Rotation Fine | 0–255 | Fine adjustment of CH 17 |
| **19** | Gobo 2 | 0–5 | Fix Gobos: Open |
| | | 6–18 | Gobo 1 |
| | | 19–31 | Gobo 2 |
| | | 32–44 | Gobo 3 |
| | | 45–57 | Gobo 4 |
| | | 58–70 | Gobo 5 |
| | | 71–83 | Gobo 6 |
| | | 84–96 | Gobo 7 |
| | | 97–109 | Shake Gobo 1 (0.1–5 Hz) |
| | | 110–122 | Shake Gobo 2 (0.1–5 Hz) |
| | | 123–135 | Shake Gobo 3 (0.1–5 Hz) |
| | | 136–148 | Shake Gobo 4 (0.1–5 Hz) |
| | | 149–161 | Shake Gobo 5 (0.1–5 Hz) |
| | | 162–174 | Shake Gobo 6 (0.1–5 Hz) |
| | | 175–187 | Shake Gobo 7 (0.1–5 Hz) |
| | | 188–192 | Open |
| | | 193–223 | Slow to Fast CW (5.81–180 °/s) |
| | | 224 | Rot Stop |
| | | 225–255 | Fast to Slow CCW (180–5.81 °/s) |
| **20** | Zoom | 0 | Narrow |
| | | 1–127 | Narrow ... Mid |
| | | 128 | Mid |
| | | 129–254 | Mid ... Wide |
| | | 255 | Wide |
| **21** | Focus | 0–255 | Focus |

| CH | Function | DMX | Description |
|---|---|---|---|
| **22** | Iris | 0 | Iris: Open |
| | | 1–224 | Iris: Open … Close |
| | | 225 | Iris: Close |
| | | 226 | Iris Pulse Open: slow |
| | | 227–234 | Iris Pulse Open: slow … fast |
| | | 235 | Iris Pulse Open: fast |
| | | 236 | Iris Pulse Close: slow |
| | | 237–244 | Iris Pulse Close: slow … fast |
| | | 245 | Iris Pulse Close: fast |
| | | 246 | Random: slow |
| | | 247–254 | Random: slow … fast |
| | | 255 | Random: fast |
| **23** | Prism | 0–5 | Open |
| | | 6–130 | Prism 1 (3 Facet) |
| | | 131–255 | Prism 2 (6 Liner) |
| **24** | Prism Rotation | 0–5 | Prism Rot Off |
| | | 6–128 | Prism position 0 to 540 |
| | | 129–191 | Slow to Fast CW (180–2.86 °/s) |
| | | 192 | Rotation Stop |
| | | 193–255 | Fast to Slow CCW (2.86–180 °/s) |
| **25** | Frost | 0 | 0% |
| | | 1–254 | 0% … 100% |
| | | 255 | 100% |
| **26** | Animation Wheel | 0–5 | Wheel Rot Off |
| | | 6–128 | Wheel Position 0 to 540 |
| | | 129–191 | Slow to Fast CW (2.86–180 °/s) |
| | | 192 | Rot Stop |
| | | 193–255 | Fast to Slow CCW (180–2.86 °/s) |
| **27** | Blade 1 A | 0 | Open |
| | | 1–254 | Open … Close |
| | | 255 | Close |
| **28** | Blade 1 B | 0 | Open |
| | | 1–254 | Open … Close |
| | | 255 | Close |
| **29** | Blade 2 A | 0 | Open |
| | | 1–254 | Open … Close |
| | | 255 | Close |
| **30** | Blade 2 B | 0 | Open |
| | | 1–254 | Open … Close |
| | | 255 | Close |
| **31** | Blade 3 A | 0 | Open |
| | | 1–254 | Open … Close |

| CH | Function | DMX | Description |
|---|---|---|---|
| **31** | Blade 3 A (continued) | 255 | Close |
| **32** | Blade 3 B | 0 | Open |
| | | 1–254 | Open ... Close |
| | | 255 | Close |
| **33** | Blade 4 A | 0 | Open |
| | | 1–254 | Open ... Close |
| | | 255 | Close |
| **34** | Blade 4 B | 0 | Open |
| | | 1–254 | Open ... Close |
| | | 255 | Close |
| **35** | Shaper Rotation | | Blade Modul rotation |
| | | 0 | Max |
| | | 1–127 | Max ... Center |
| | | 128 | Center |
| | | 129–254 | Center ... Min |
| | | 255 | Min |
| **36** | Speed Pan/Tilt | | Pan/Tilt Speed |
| | | 0–5 | No function |
| | | 6 | Fast |
| | | 7–254 | Fast ... Slow |
| | | 255 | Slow |
| **37** | Dimmer Mode | 0–20 | Standard |
| | | 21–40 | Stage |
| | | 41–60 | TV |
| | | 61–80 | Architectural |
| | | 81–100 | Theater |
| | | 101–255 | Default to Unit Setting |
| **38** | Control | | Control 1 |
| | | 0–5 | No function |
| | | 6–10 | Invert Pan on (Hold 3s) |
| | | 11–15 | Invert Pan off (Hold 5s) |
| | | 16–20 | Invert Tilt on (Hold 3s) |
| | | 21–25 | Invert Tilt off (Hold 5s) |
| | | 26–30 | Fan Auto (Hold 3s) |
| | | 31–35 | Fan Silent (Hold 5s) |
| | | 36–40 | Linear Curve (hold 3s) |
| | | 41–45 | Square Curve (hold 3s) |
| | | 46–50 | Inv-Square Curve (hold 3s) |
| | | 51–55 | S - Curve (hold 3s) |
| | | 56–60 | 1200Hz (hold 3s) |
| | | 61–65 | 3600 Hz (hold 3s) |
| | | 66–75 | 5000 Hz (hold 3s) |

| CH | Function | DMX | Description |
|---|---|---|---|
| **38** | Control (continued) | 76–80 | 10000 Hz (hold 3s) |
| | | 81–85 | 15000 Hz (hold 3s) |
| | | 86–90 | 20000 Hz (hold 3s) |
| | | 91–95 | 25000 Hz (hold 3s) |
| | | 96–100 | Reset Pan/Tilt (Hold 3s) |
| | | 101–105 | Reset only Head (Hold 3s) |
| | | 106–110 | Reset All Functions (Hold 3s) |
| | | 111–255 | No function |

## Mode Extended 54CH

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 7 Shutter at 32–63 or 96–127 or 160–191 or 224–255. The GDTF file gives these values for a console's Highlight function: CH 5 Dimmer 255, CH 7 Shutter 32, CH 14 Amber 0, CH 16 Green Cyan 0.

### Channel functions at a glance



| CH | Function | DMX | Description |
|---|---|---|---|
| **1** | Pan | | Same as CH 1 in the mode “Standard 38CH” (p. 14) |
| **2** | Pan Fine | 0–255 | Fine adjustment of CH 1 |
| **3** | Tilt | | Same as CH 3 in the mode “Standard 38CH” (p. 14) |
| **4** | Tilt Fine | 0–255 | Fine adjustment of CH 3 |
| **5** | Dimmer | | Same as CH 5 in the mode “Standard 38CH” (p. 14) |
| **6** | Dimmer Fine | 0–255 | Fine adjustment of CH 5 |
| **7** | Shutter | | Same as CH 7 in the mode “Standard 38CH” (p. 14) |
| **8** | Red | 0–255 | |
| **9** | Red Fine | 0–255 | Fine adjustment of CH 8 |
| **10** | Green | 0–255 | |
| **11** | Green Fine | 0–255 | Fine adjustment of CH 10 |
| **12** | Blue | 0–255 | |
| **13** | Blue Fine | 0–255 | Fine adjustment of CH 12 |
| **14** | Amber | 0–63 | 0% Amber … 25% Amber |
| | | 63–127 | 25% Amber … 50% Amber |
| | | 127–191 | 50% Amber … 75% Amber |
| | | 191–255 | 75% Amber … 100% Amber |
| | | 255 | 100% Amber |
| **15** | Amber Fine | 0–255 | Fine adjustment of CH 14 |
| **16** | Green Cyan | 0–63 | 0% Lime … 25% Lime |
| | | 63–127 | 25% Lime … 50% Lime |
| | | 127–191 | 50% Lime … 75% Lime |
| | | 191–255 | 75% Lime … 100% Lime |
| | | 255 | 100% Lime |
| **17** | Green Cyan Fine | 0–255 | Fine adjustment of CH 16 |
| **18** | Color Temperature | | Same as CH 13 in the mode “Standard 38CH” (p. 15) |
| **19** | Tint | | Same as CH 14 in the mode “Standard 38CH” (p. 15) |
| **20** | Color Macro | | Same as CH 15 in the mode “Standard 38CH” (p. 15) |
| **21** | Gobo | | Same as CH 16 in the mode “Standard 38CH” (p. 16) |
| **22** | Gobo Rotation | | Same as CH 17 in the mode “Standard 38CH” (p. 17) |
| **23** | Gobo Rotation Fine | 0–255 | Fine adjustment of CH 22 |
| **24** | Gobo 2 | | Same as CH 19 in the mode “Standard 38CH” (p. 17) |
| **25** | Zoom | 0–127 | Narrow … Mid |
| | | 128–255 | Mid … Wide |
| | | 255 | Wide |
| **26** | Zoom Fine | 0–255 | Fine adjustment of CH 25 |
| **27** | Focus | 0–255 | Focus |
| **28** | Focus Fine | 0–255 | Fine adjustment of CH 27 |
| **29** | Iris | | Same as CH 22 in the mode “Standard 38CH” (p. 18) |
| **30** | Prism | | Same as CH 23 in the mode “Standard 38CH” (p. 18) |

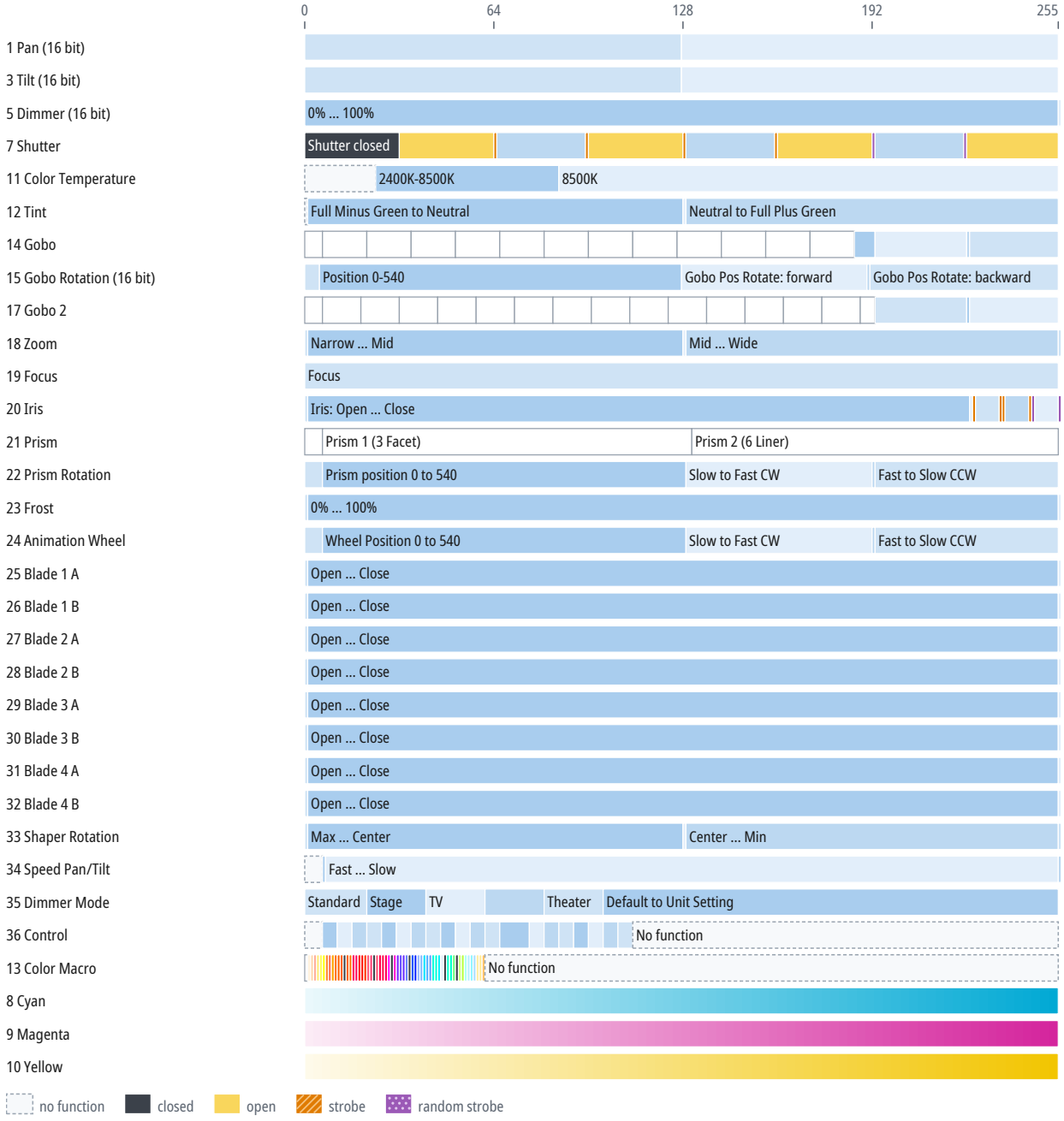
| CH | Function | DMX | Description |
|---|---|---|---|
| **31** | Prism Rotation | | Same as CH 24 in the mode “Standard 38CH” (p. 18) |
| **32** | Frost | | Same as CH 25 in the mode “Standard 38CH” (p. 18) |
| **33** | Animation Wheel | | Same as CH 26 in the mode “Standard 38CH” (p. 18) |
| **34** | Blade 1 A | 0–255 | Open ... Close |
| | | 255 | Close |
| **35** | Blade 1 A Fine | 0–255 | Fine adjustment of CH 34 |
| **36** | Blade 1 B | 0–255 | Open ... Close |
| | | 255 | Close |
| **37** | Blade 1 B Fine | 0–255 | Fine adjustment of CH 36 |
| **38** | Blade 2 A | 0–255 | Open ... Close |
| | | 255 | Close |
| **39** | Blade 2 A Fine | 0–255 | Fine adjustment of CH 38 |
| **40** | Blade 2 B | 0–255 | Open ... Close |
| | | 255 | Close |
| **41** | Blade 2 B Fine | 0–255 | Fine adjustment of CH 40 |
| **42** | Blade 3 A | 0–255 | Open ... Close |
| | | 255 | Close |
| **43** | Blade 3 A Fine | 0–255 | Fine adjustment of CH 42 |
| **44** | Blade 3 B | 0–255 | Open ... Close |
| | | 255 | Close |
| **45** | Blade 3 B Fine | 0–255 | Fine adjustment of CH 44 |
| **46** | Blade 4 A | 0–255 | Open ... Close |
| | | 255 | Close |
| **47** | Blade 4 A Fine | 0–255 | Fine adjustment of CH 46 |
| **48** | Blade 4 B | 0–255 | Open ... Close |
| | | 255 | Close |
| **49** | Blade 4 B Fine | 0–255 | Fine adjustment of CH 48 |
| **50** | Shaper Rotation | | Blade Modul rotation |
| | | 0–127 | Max ... Center |
| | | 128–255 | Center ... Min |
| | | 255 | Min |
| **51** | Shaper Rotation Fine | 0–255 | Fine adjustment of CH 50 |
| **52** | Speed Pan/Tilt | | Same as CH 36 in the mode “Standard 38CH” (p. 19) |
| **53** | Dimmer Mode | | Same as CH 37 in the mode “Standard 38CH” (p. 19) |
| **54** | Control | | Same as CH 38 in the mode “Standard 38CH” (p. 19) |

## Mode CMY 36CH

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 7 Shutter at 32–63 or 96–127 or 160–191 or 224–255. The GDTF file gives these values for a console's Highlight function: CH 5 Dimmer 255, CH 7 Shutter 32.

### Channel functions at a glance




| CH | Function | DMX | Description |
|---|---|---|---|
| **1** | Pan | | Same as CH 1 in the mode “Standard 38CH” (p. 14) |
| **2** | Pan Fine | 0–255 | Fine adjustment of CH 1 |
| **3** | Tilt | | Same as CH 3 in the mode “Standard 38CH” (p. 14) |
| **4** | Tilt Fine | 0–255 | Fine adjustment of CH 3 |

| CH | Function | DMX | Description |
|---|---|---|---|
| **5** | Dimmer | | Same as CH 5 in the mode “Standard 38CH” (p. 14) |
| **6** | Dimmer Fine | 0–255 | Fine adjustment of CH 5 |
| **7** | Shutter | | Same as CH 7 in the mode “Standard 38CH” (p. 14) |
| **8** | Cyan | 0–255 | |
| **9** | Magenta | 0–255 | |
| **10** | Yellow | 0–255 | |
| **11** | Color Temperature | | Same as CH 13 in the mode “Standard 38CH” (p. 15) |
| **12** | Tint | | Same as CH 14 in the mode “Standard 38CH” (p. 15) |
| **13** | Color Macro | | Same as CH 15 in the mode “Standard 38CH” (p. 15) |
| **14** | Gobo | | Same as CH 16 in the mode “Standard 38CH” (p. 16) |
| **15** | Gobo Rotation | | Same as CH 17 in the mode “Standard 38CH” (p. 17) |
| **16** | Gobo Rotation Fine | 0–255 | Fine adjustment of CH 15 |
| **17** | Gobo 2 | | Same as CH 19 in the mode “Standard 38CH” (p. 17) |
| **18** | Zoom | | Same as CH 20 in the mode “Standard 38CH” (p. 17) |
| **19** | Focus | 0–255 | Focus |
| **20** | Iris | | Same as CH 22 in the mode “Standard 38CH” (p. 18) |
| **21** | Prism | | Same as CH 23 in the mode “Standard 38CH” (p. 18) |
| **22** | Prism Rotation | | Same as CH 24 in the mode “Standard 38CH” (p. 18) |
| **23** | Frost | | Same as CH 25 in the mode “Standard 38CH” (p. 18) |
| **24** | Animation Wheel | | Same as CH 26 in the mode “Standard 38CH” (p. 18) |
| **25** | Blade 1 A | | Same as CH 27 in the mode “Standard 38CH” (p. 18) |
| **26** | Blade 1 B | | Same as CH 28 in the mode “Standard 38CH” (p. 18) |
| **27** | Blade 2 A | | Same as CH 29 in the mode “Standard 38CH” (p. 18) |
| **28** | Blade 2 B | | Same as CH 30 in the mode “Standard 38CH” (p. 18) |
| **29** | Blade 3 A | | Same as CH 31 in the mode “Standard 38CH” (p. 18) |
| **30** | Blade 3 B | | Same as CH 32 in the mode “Standard 38CH” (p. 19) |
| **31** | Blade 4 A | | Same as CH 33 in the mode “Standard 38CH” (p. 19) |
| **32** | Blade 4 B | | Same as CH 34 in the mode “Standard 38CH” (p. 19) |
| **33** | Shaper Rotation | | Same as CH 35 in the mode “Standard 38CH” (p. 19) |
| **34** | Speed Pan/Tilt | | Same as CH 36 in the mode “Standard 38CH” (p. 19) |
| **35** | Dimmer Mode | | Same as CH 37 in the mode “Standard 38CH” (p. 19) |
| **36** | Control | | Same as CH 38 in the mode “Standard 38CH” (p. 19) |

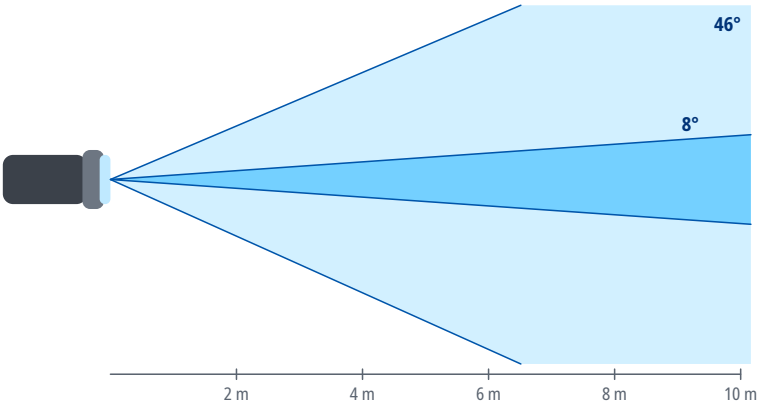
# 10 Technical specifications

| Parameter | Value |
|---|---|
| **Light** | |
| Light source | LED |
| LED power | 300 W |
| Luminous flux | 10,100 lm |
| Color temperature | 10,000 K |
| Color rendering index (CRI) | 95 |
| **Optics** | |
| Zoom | 8–46° |
| **Movement** | |
| Pan | 540° |
| Tilt | 270° |
| **Control** | |
| DMX connection | 5-pin XLR IN/OUT, 3-pin XLR IN/OUT |
| RJ45 connectors | RJ45 IN/OUT |
| **Electrical** | |
| Power supply | 90–240 V, 50/60 Hz |
| Power consumption | 361 W |
| Power connectors | powerCON TRUE1 IN/OUT |
| **Dimensions and construction** | |
| Weight | 29.5 kg |
| **Operating environment** | |
| Operating temperature | -40 to 45 °C |

### Speeds and ranges

| Parameter | Value |
|---|---|
| Color temperature range | 2400–8500 K |
| Strobe frequency | 1–10 Hz |
| Gobo wheel 1 rotation | up to 180 °/s (30 rpm) |
| Gobo wheel 2 rotation | up to 180 °/s (30 rpm) |
| Gobo 1 rotation | up to 180 °/s (30 rpm) |
| Prism rotation | up to 180 °/s (30 rpm) |
| Animation wheel rotation | up to 180 °/s (30 rpm) |

### Spot diameter




| Distance | Ø 8° | Ø 46° |
|---|---|---|
| 2 m | 0.28 m | 1.7 m |
| 4 m | 0.56 m | 3.4 m |
| 6 m | 0.84 m | 5.1 m |
| 8 m | 1.1 m | 6.8 m |
| 10 m | 1.4 m | 8.5 m |
| 15 m | 2.1 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.