DMX REFERENCE

# Wash ZP480

CKC Lighting



| | |
|---|---|
| **Manufacturer** | CKC Lighting |
| **GDTF file** | CKC_Lighting_Wash_ZP480_86161.gdtf |
| **GDTF revision** | V003 · 2025-02-12 |
| **Generated** | 2026-11-23 |

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# 1 About this manual

This document describes the Wash ZP480 by CKC Lighting. It was compiled from the GDTF file CKC_Lighting_Wash_ZP480_86161.gdtf from the GDTF-Share library.

File revision: “V003”.

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 | 690 W |
| Weight | 27 kg |

### DMX modes

| Mode | Channels | Units in one universe | First start addresses |
|---|---|---|---|
| Standard 31CH | 31 | 16 | 1, 32, 63, 94, ... |
| Extended 39CH | 39 | 13 | 1, 40, 79, 118, ... |
| Basic 27CH | 27 | 18 | 1, 28, 55, 82, ... |

### No light? Check these channels

- Standard 31CH: CH 5 Dimmer above 0; CH 7 Shutter at 32–63 “open” or 96–127 or 160–191 or 224–255
- Extended 39CH: CH 5 Dimmer above 0; CH 7 Shutter at 32–63 “open” or 96–127 or 160–191 or 224–255
- Basic 27CH: CH 3 Dimmer above 0; CH 4 Shutter at 32–63 “open” 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.

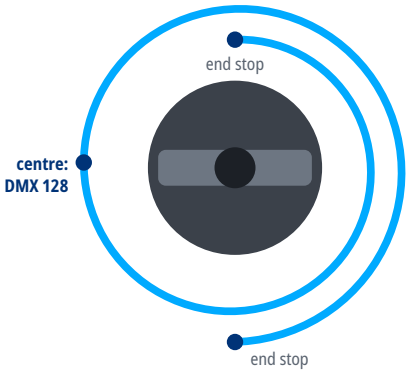
> ⚠ **WARNING**
>
> - The moving parts of the device (for example the head or arms) can move quickly and unexpectedly at any time – after power-on, during a reset, or on a command from the controller.
> - Keep yourself and any objects out of the range of movement. While the device is switched on, do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

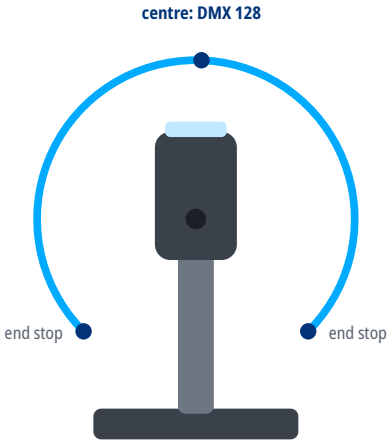
**Pan 540°**

top view




**Tilt 270°**

side view



# 5 Installation

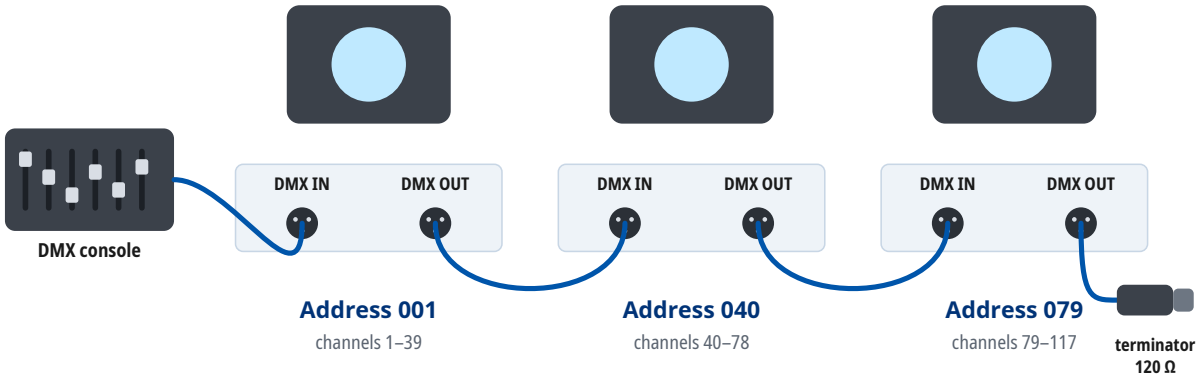
⚠ **WARNING**

- 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: 27 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 39CH: every unit occupies 39 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 39CH”: 39.
- 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 39CH”, you can use, for example, the start addresses 1, 40, 79, 118.
- The DMX mode set on the device must match the fixture profile (personality) used in the controller.

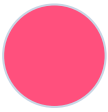
# 8 Functions at a glance

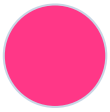
## Functions in each DMX mode

| | Standard 31CH<br>31 channels | Extended 39CH<br>39 channels | Basic 27CH<br>27 channels |
|---|---|---|---|
| Pan / Tilt | **1, 3** | **1, 3** | **1, 2** |
| Pan / Tilt resolution | 16 bit | 16 bit | 8 bit |
| Dimmer | **5** | **5** | **3** |
| Dimmer resolution | 16 bit | 16 bit | 8 bit |
| Shutter / strobe | **7** | **7** | **4** |
| Color mixing | **8–12** | **5× (8–16)** | **5–9** |
| Color temperature | **14** | **19** | **11** |
| Color wheel | **13** | **18** | **10** |
| Frost | **19** | **26** | **16** |
| Zoom | **16** | **21** | **13** |
| Focus | **17** | **23** | **14** |
| Iris | **18** | **25** | **15** |

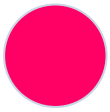
## Color wheel

1. LEE 007 - Pale Yellow — **DMX 1**
2. LEE 103 - Straw — **DMX 2**
3. LEE 151 - Gold Tint — **DMX 3**
4. LEE 100 - Spring Yellow — **DMX 4**
5. LEE 010 - Medium Yellow — **DMX 5**
6. LEE 101 - Yellow — **DMX 6**
7. LEE 104 - Deep Amber — **DMX 7**
8. LEE 015 - Deep Straw — **DMX 8**
9. LEE 179 - Chrome Orange — **DMX 9**
10. LEE 021 - Gold Amber — **DMX 10**
11. LEE 105 - Orange — **DMX 11**
12. LEE 158 - Deep Orange — **DMX 12**
13. LEE 022 - Dark Amber — **DMX 13**
14. LEE 778 - Millenium Gold — **DMX 14**
15. LEE 135 - Deep Gold Amber — **DMX 15**
16. LEE 024 - Scarlet — **DMX 16**
17. LEE 106 - Primary Red — **DMX 17**
18. LEE 026 - Bright Red — **DMX 18**
19. LEE 027 - Medium Red — **DMX 19**
20. LEE 019 - Fire — **DMX 20**
21. LEE 157 - Pink — **DMX 21**
22. LEE 036 - Medium Pink — **DMX 22**
23. LEE 111 - Dark Pink — **DMX 23**
24. LEE 128 - Bright Pink — **DMX 24**

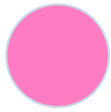
25 
LEE 148 - Bright Rose
**DMX 25**

26 
LEE 332 - Special Rose Pink
**DMX 26**

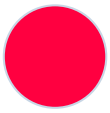
27 
LEE 793 - Vanity Fair
**DMX 27**

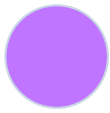
28 
LEE 113 - Magenta
**DMX 28**

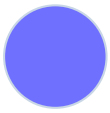
29 
LEE 046 - Dark Magenta
**DMX 29**

30 
LEE 048 - Rose Purple
**DMX 30**

31 
LEE 126 - Mauve
**DMX 31**

32 
LEE 049 - Medium Purple
**DMX 32**

33 
LEE 058 - Lavender
**DMX 33**

34 
LEE 197 - Alice Blue
**DMX 34**

35 
LEE 119 - Dark Blue
**DMX 35**

36 
LEE 132 - Medium Blue
**DMX 36**

37 
LEE 120 - Deep Blue
**DMX 37**

38 
LEE 165 - Daylight Blue
**DMX 38**

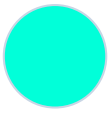
39 
LEE 161 - Slate Blue
**DMX 39**

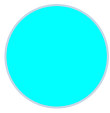
40 
LEE 118 - Light Blue
**DMX 40**

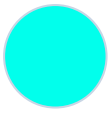
41 
LEE 068 - Sky Blue
**DMX 41**

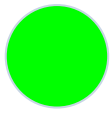
42 
LEE 143 - Pale Navy Blue
**DMX 42**

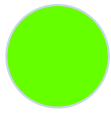
43 
LEE 131 - Marine Blue
**DMX 43**

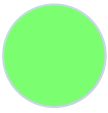
44 
LEE 115 - Peacock Blue
**DMX 44**

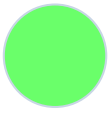
45 
LEE 172 - Lagoon Blue
**DMX 45**

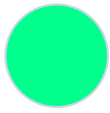
46 
LEE 116 - Medium Blue Green
**DMX 46**

47 
LEE 090 - Dark Yellow Green
**DMX 47**

48 
LEE 139 - Primary Green
**DMX 48**

49 
LEE 122 - Fern Green
**DMX 49**

50 
LEE 089 - Moss Green
**DMX 50**

51 
LEE 124 - Dark Green
**DMX 51**

52 
LEE 088 - Lime Green
**DMX 52**

53 
LEE 138 - Pale Green
**DMX 53**

54 
LEE 203 - Quarter C T Blue
**DMX 54**

55 
LEE 202 - Half C T Blue
**DMX 55**

56 
LEE 201 - Full C T Blue
**DMX 56**

57 
LEE 200 - Double C T Blue
**DMX 57**

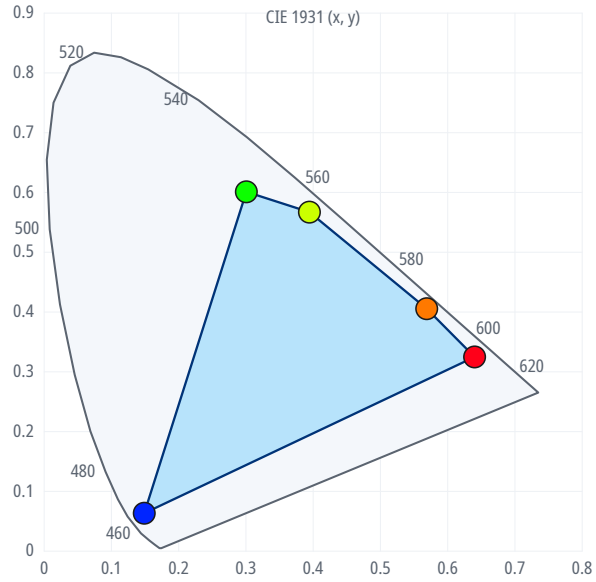
58 
LEE 206 - Quarter C T Orange
**DMX 58**

59 
LEE 205 - Half C T Orange
**DMX 59**

60 
LEE 204 - Full C T Orange
**DMX 60**

61 
No function
**DMX 0**

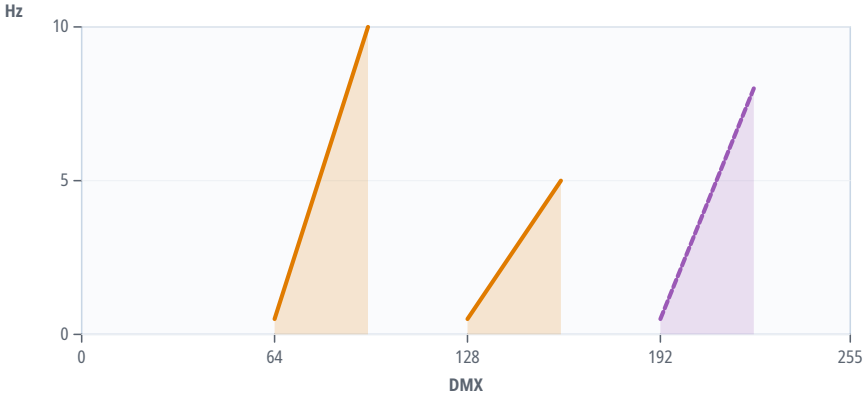
## LED colors and the colors they mix




| LED | x | y |
|---|---|---|
| Red | 0.640 | 0.325 |
| Green | 0.301 | 0.601 |
| Blue | 0.149 | 0.063 |
| Amber | 0.569 | 0.406 |
| Lime | 0.394 | 0.567 |

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

## Strobe rate

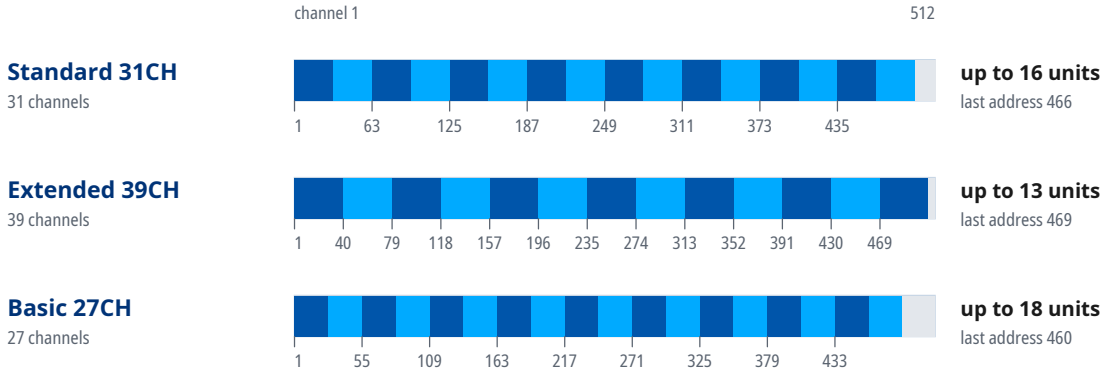



**CH 7 · Standard 31CH**

- 64–95: 0.5–10 Hz Strobe
- 128–159: 0.5–5 Hz Pulse
- 192–223: 0.5–8 Hz Random

# 9 DMX channels

### Units in one DMX universe




### Start addresses of 20 units in the mode “Extended 39CH”

| Unit | Start address | Unit | Start address | Unit | Start address | Unit | Start address |
|---|---|---|---|---|---|---|---|
| 1 | 1 | 6 | 196 | 11 | 391 | 16 | U2 · 79 |
| 2 | 40 | 7 | 235 | 12 | 430 | 17 | U2 · 118 |
| 3 | 79 | 8 | 274 | 13 | 469 | 18 | U2 · 157 |
| 4 | 118 | 9 | 313 | 14 | U2 · 1 | 19 | U2 · 196 |
| 5 | 157 | 10 | 352 | 15 | U2 · 40 | 20 | U2 · 235 |

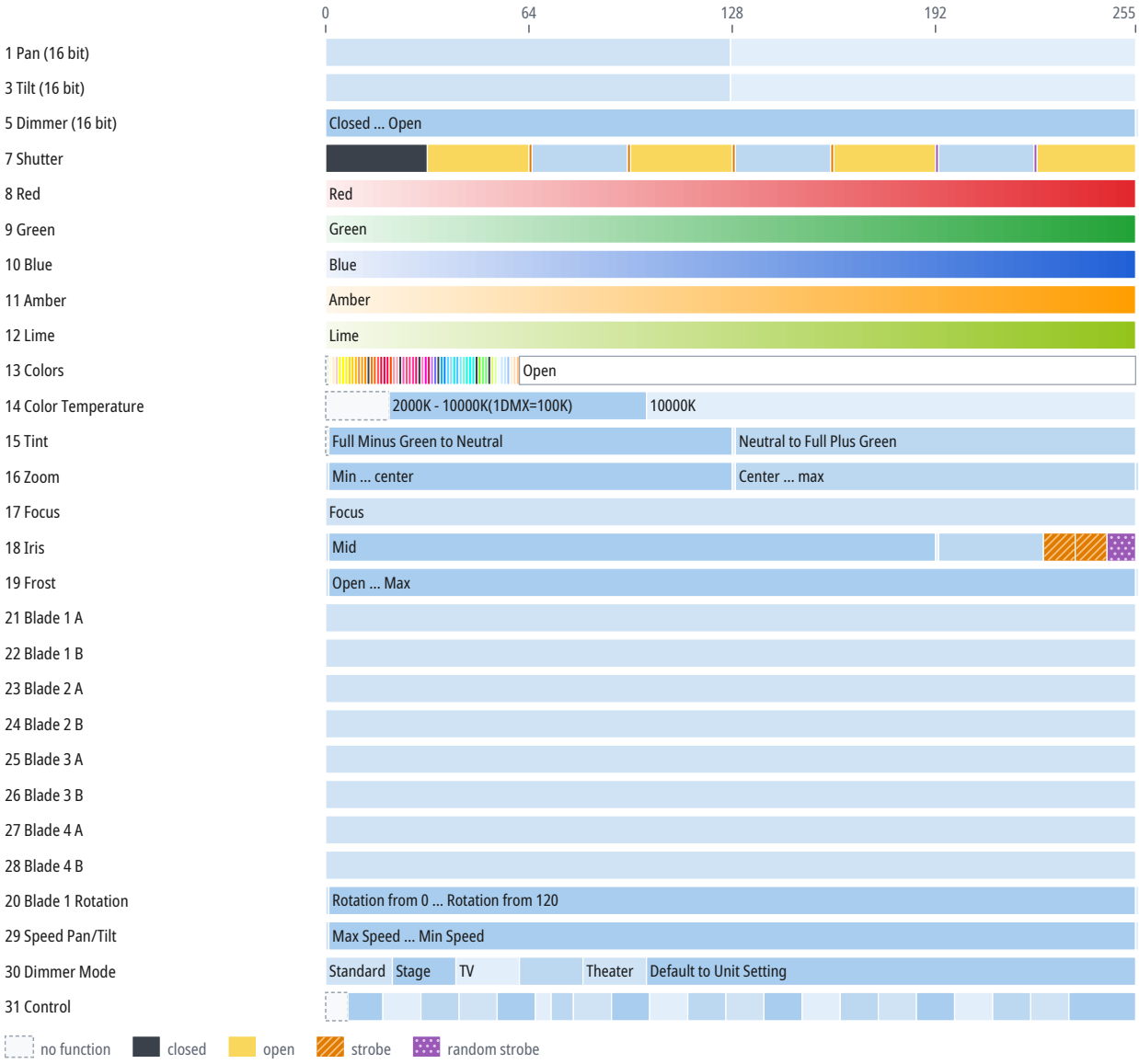
Where a DMX universe is full, the next units continue in the next universe: “U2 · 1” is address 1 in the second universe, counted from the universe of the first unit.

## Mode Standard 31CH

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 5 Dimmer above 0; CH 7 Shutter at 32–63 “open” 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 | 0–127 | Pan 1 |
| | | 128 | Home |
| | | 128–255 | Pan 1 |
| **2** | Pan Fine | 0–255 | Fine adjustment of CH 1 |
| **3** | Tilt | 0–127 | Tilt 1 |
| | | 128 | Home |
| | | 128–255 | Tilt 1 |

| CH | Function | DMX | Description |
|---|---|---|---|
| **4** | Tilt Fine | 0–255 | Fine adjustment of CH 3 |
| **5** | Dimmer | 0–255 | Closed ... Open |
| | | 255 | Open |
| **6** | Dimmer Fine | 0–255 | Fine adjustment of CH 5 |
| **7** | Shutter | 0–31 | Shutter 1: close |
| | | 32–63 | Shutter 1: open |
| | | 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 | Red |
| **9** | Green | 0–255 | Green |
| **10** | Blue | 0–255 | Blue |
| **11** | Amber | 0–255 | Amber |
| **12** | Lime | 0–255 | Lime |
| **13** | Colors | | Virtual Swatch Book |
| | | 0 | No function |
| | | 1 | LEE 007 - Pale Yellow |
| | | 2 | LEE 103 - Straw |
| | | 3 | LEE 151 - Gold Tint |
| | | 4 | LEE 100 - Spring Yellow |
| | | 5 | LEE 010 - Medium Yellow |
| | | 6 | LEE 101 - Yellow |
| | | 7 | LEE 104 - Deep Amber |
| | | 8 | LEE 015 - Deep Straw |
| | | 9 | LEE 179 - Chrome Orange |
| | | 10 | LEE 021 - Gold Amber |
| | | 11 | LEE 105 - Orange |
| | | 12 | LEE 158 - Deep Orange |
| | | 13 | LEE 022 - Dark Amber |
| | | 14 | LEE 778 - Millenium Gold |
| | | 15 | LEE 135 - Deep Gold Amber |
| | | 16 | LEE 024 - Scarlet |
| | | 17 | LEE 106 - Primary Red |

| CH | Function | DMX | Description |
|---|---|---|---|
| **13** | Colors (continued) | 18 | LEE 026 - Bright Red |
| | | 19 | LEE 027 - Medium Red |
| | | 20 | LEE 019 - Fire |
| | | 21 | LEE 157 - Pink |
| | | 22 | LEE 036 - Medium Pink |
| | | 23 | LEE 111 - Dark Pink |
| | | 24 | LEE 128 - Bright Pink |
| | | 25 | LEE 148 - Bright Rose |
| | | 26 | LEE 332 - Special Rose Pink |
| | | 27 | LEE 793 - Vanity Fair |
| | | 28 | LEE 113 - Magenta |
| | | 29 | LEE 046 - Dark Magenta |
| | | 30 | LEE 048 - Rose Purple |
| | | 31 | LEE 126 - Mauve |
| | | 32 | LEE 049 - Medium Purple |
| | | 33 | LEE 058 - Lavender |
| | | 34 | LEE 197 - Alice Blue |
| | | 35 | LEE 119 - Dark Blue |
| | | 36 | LEE 132 - Medium Blue |
| | | 37 | LEE 120 - Deep Blue |
| | | 38 | LEE 165 - Daylight Blue |
| | | 39 | LEE 161 - Slate Blue |
| | | 40 | LEE 118 - Light Blue |
| | | 41 | LEE 068 - Sky Blue |
| | | 42 | LEE 143 - Pale Navy Blue |
| | | 43 | LEE 131 - Marine Blue |
| | | 44 | LEE 115 - Peacock Blue |
| | | 45 | LEE 172 - Lagoon Blue |
| | | 46 | LEE 116 - Medium Blue Green |
| | | 47 | LEE 090 - Dark Yellow Green |
| | | 48 | LEE 139 - Primary Green |
| | | 49 | LEE 122 - Fern Green |
| | | 50 | LEE 089 - Moss Green |
| | | 51 | LEE 124 - Dark Green |
| | | 52 | LEE 088 - Lime Green |
| | | 53 | LEE 138 - Pale Green |
| | | 54 | LEE 203 - Quarter C T Blue |
| | | 55 | LEE 202 - Half C T Blue |
| | | 56 | LEE 201 - Full C T Blue |
| | | 57 | LEE 200 - Double C T Blue |
| | | 58 | LEE 206 - Quarter C T Orange |
| | | 59 | LEE 205 - Half C T Orange |

| CH | Function | DMX | Description |
|---|---|---|---|
| **13** | Colors (continued) | 60 | LEE 204 - Full C T Orange |
| | | 61–255 | Open |
| **14** | Color Temperature | 0–19 | No Function |
| | | 20–100 | 2000K - 10000K(1DMX=100K) (2000–10000 K) |
| | | 101–255 | 10000K |
| **15** | Tint | 0 | No function |
| | | 1–127 | Full Minus Green to Neutral |
| | | 128 | Neutral White |
| | | 129–255 | Neutral to Full Plus Green |
| **16** | Zoom | 0 | Min |
| | | 1–127 | Min ... center |
| | | 128 | Center |
| | | 129–254 | Center ... max |
| | | 255 | Max |
| **17** | Focus | 0–255 | Focus |
| **18** | Iris | 0 | Iris: Open |
| | | 1–191 | Mid |
| | | 192 | Iris: Close |
| | | 193–225 | Iris |
| | | 226–235 | Iris Pulse Close 2 (1–10 Hz) |
| | | 236–245 | Iris Pulse Open 3 (1–8 Hz) |
| | | 246–255 | Iris Strobe Random 4 (1–5 Hz) |
| **19** | Frost | 0 | Open |
| | | 1–254 | Open ... Max |
| | | 255 | Max |
| **20** | Blade 1 Rotation | | Blade 1 Rot 1 |
| | | 0 | Rotation from 0 |
| | | 1–254 | Rotation from 0 ... Rotation from 120 |
| | | 255 | Rotation from 120 |
| **21** | Blade 1 A | 0–255 | |
| **22** | Blade 1 B | 0–255 | |
| **23** | Blade 2 A | 0–255 | |
| **24** | Blade 2 B | 0–255 | |
| **25** | Blade 3 A | 0–255 | |
| **26** | Blade 3 B | 0–255 | |
| **27** | Blade 4 A | 0–255 | |
| **28** | Blade 4 B | 0–255 | |
| **29** | Speed Pan/Tilt | 0 | Max Speed |
| | | 1–254 | Max Speed ... Min Speed |
| | | 255 | Min Speed |
| **30** | Dimmer Mode | 0–20 | Standard |
| | | 21–40 | Stage |

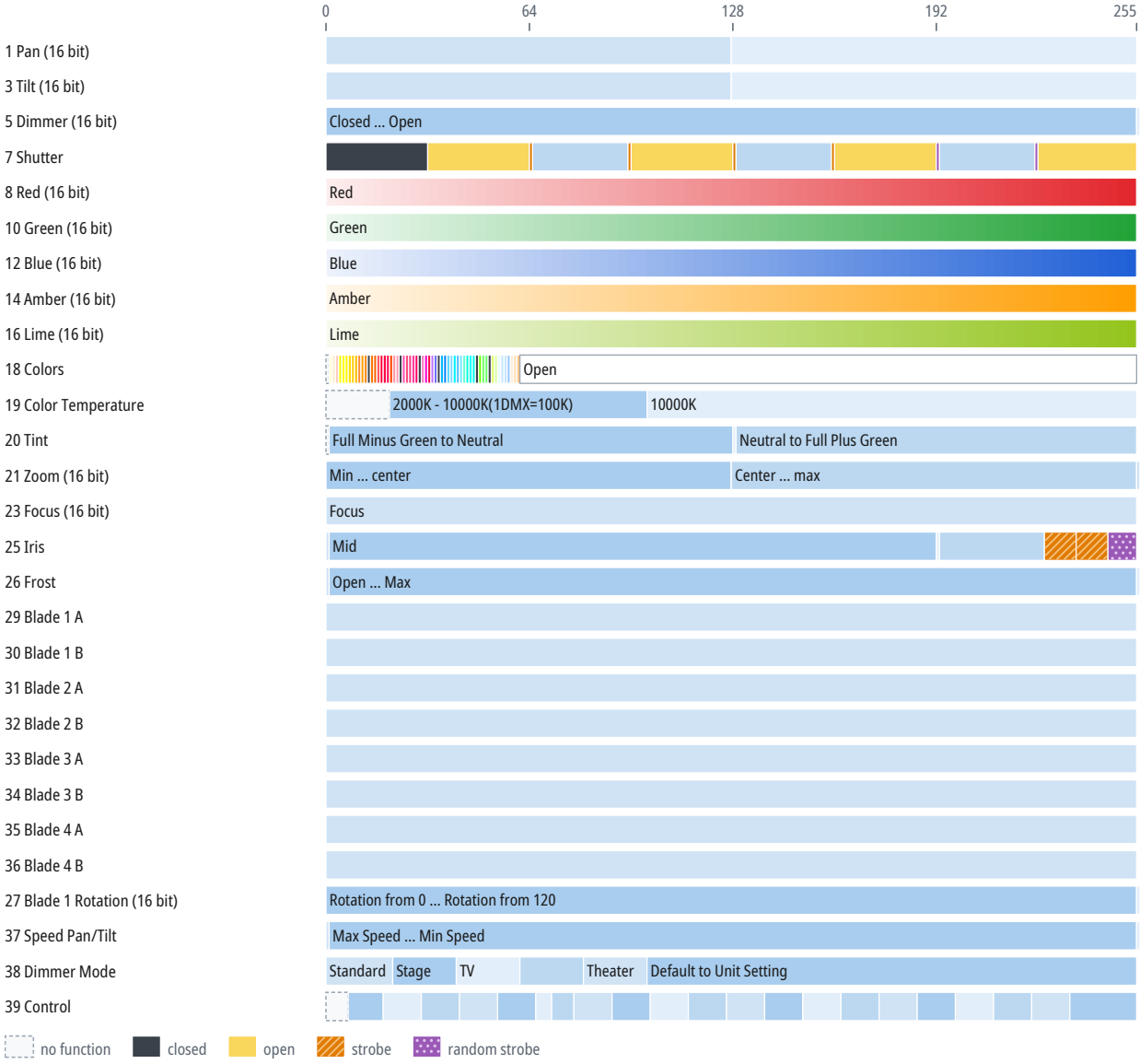
| CH | Function | DMX | Description |
|---|---|---|---|
| **30** | Dimmer Mode (continued) | 41–60 | TV |
| | | 61–80 | Architectural |
| | | 81–100 | Theater |
| | | 101–255 | Default to Unit Setting |
| **31** | Control | 0–6 | No function |
| | | 7–17 | Invert Pan on (Hold 3s) |
| | | 18–29 | Invert Pan off (Hold 5s) |
| | | 30–41 | Invert Tilt on (Hold 3s) |
| | | 42–53 | Invert Tilt off (Hold 5s) |
| | | 54–65 | Fan Auto (Hold 3s) |
| | | 66–70 | Fan Silent (Hold 3s) |
| | | 71–77 | Fan High (Hold 3s) |
| | | 78–89 | Linear Dimmer Curve (hold 3s) |
| | | 90–101 | Square Dimmer Curve (hold 3s) |
| | | 102–113 | Inv-Square Dimmer Curve (hold 3s) |
| | | 114–125 | S - Dimmer Curve (hold 3s) |
| | | 126–137 | Led Freq1200 Hz (hold 3s) |
| | | 138–149 | Led Freq3600 Hz (hold 3s) |
| | | 150–161 | Led Freq5000 Hz (hold 3s) |
| | | 162–173 | 10000 Hz (hold 3s) |
| | | 174–185 | 15000 Hz (hold 3s) |
| | | 186–197 | 20000 Hz (hold 3s) |
| | | 198–209 | 25000 Hz (hold 3s) |
| | | 210–221 | Reset Pan/Tilt (Hold 3s) |
| | | 222–233 | Reset only Head (Hold 3s) |
| | | 234–255 | Reset All Functions (Hold 3s) |

## Mode Extended 39CH

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 5 Dimmer above 0; CH 7 Shutter at 32–63 “open” 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



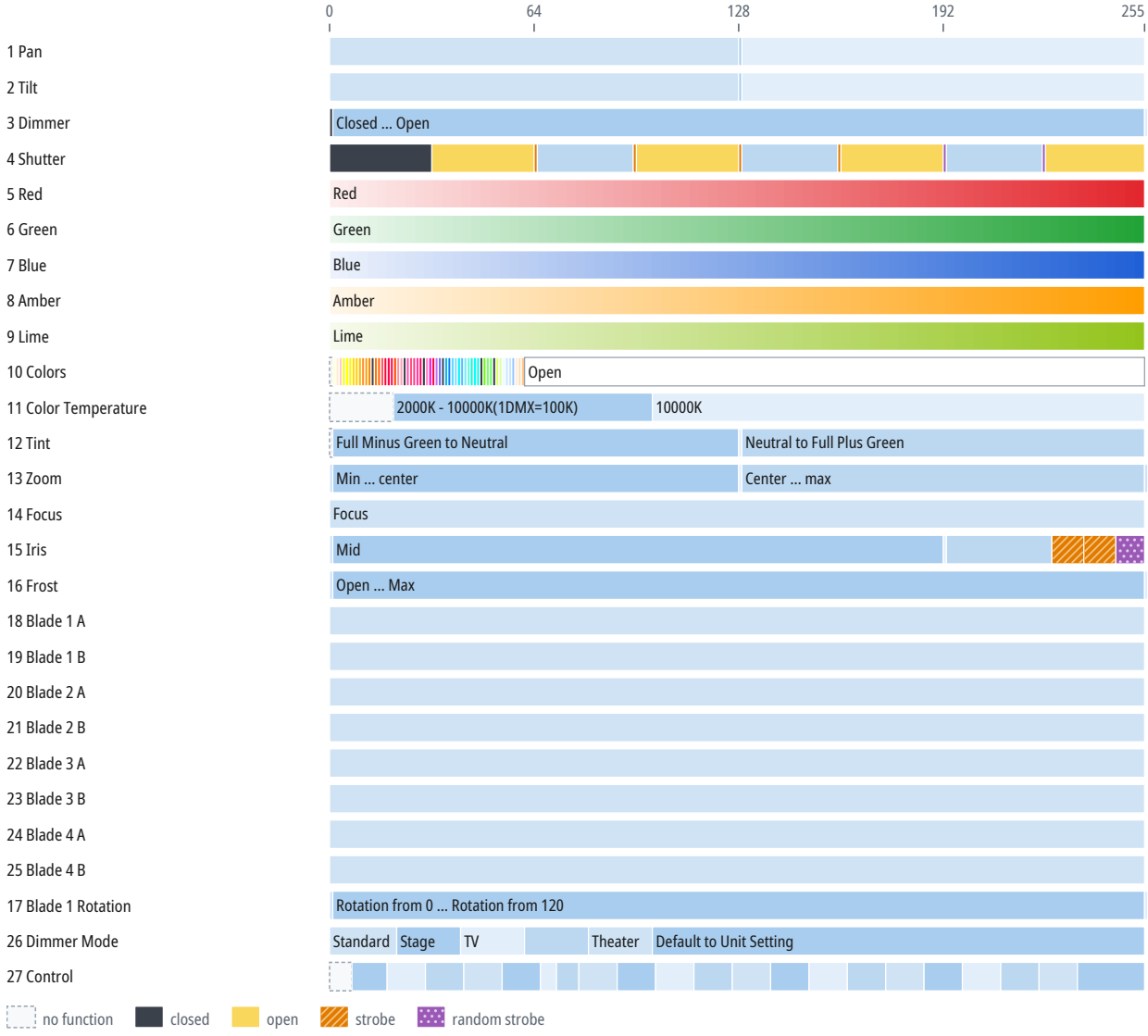

| CH | Function | DMX | Description |
|---|---|---|---|
| **1** | Pan | | Same as CH 1 in the mode “Standard 31CH” (p. 12) |
| **2** | Pan Fine | 0–255 | Fine adjustment of CH 1 |
| **3** | Tilt | | Same as CH 3 in the mode “Standard 31CH” (p. 12) |
| **4** | Tilt Fine | 0–255 | Fine adjustment of CH 3 |
| **5** | Dimmer | | Same as CH 5 in the mode “Standard 31CH” (p. 13) |
| **6** | Dimmer Fine | 0–255 | Fine adjustment of CH 5 |
| **7** | Shutter | | Same as CH 7 in the mode “Standard 31CH” (p. 13) |

| CH | Function | DMX | Description |
|---|---|---|---|
| **8** | Red | 0–255 | Red |
| **9** | Red Fine | 0–255 | Fine adjustment of CH 8 |
| **10** | Green | 0–255 | Green |
| **11** | Green Fine | 0–255 | Fine adjustment of CH 10 |
| **12** | Blue | 0–255 | Blue |
| **13** | Blue Fine | 0–255 | Fine adjustment of CH 12 |
| **14** | Amber | 0–255 | Amber |
| **15** | Amber Fine | 0–255 | Fine adjustment of CH 14 |
| **16** | Lime | 0–255 | Lime |
| **17** | Lime Fine | 0–255 | Fine adjustment of CH 16 |
| **18** | Colors | | Same as CH 13 in the mode “Standard 31CH” (p. 13) |
| **19** | Color Temperature | | Same as CH 14 in the mode “Standard 31CH” (p. 15) |
| **20** | Tint | | Same as CH 15 in the mode “Standard 31CH” (p. 15) |
| **21** | Zoom | 0–127 | Min … center |
| | | 128–255 | Center … max |
| | | 255 | Max |
| **22** | Zoom Fine | 0–255 | Fine adjustment of CH 21 |
| **23** | Focus | 0–255 | Focus |
| **24** | Focus Fine | 0–255 | Fine adjustment of CH 23 |
| **25** | Iris | | Same as CH 18 in the mode “Standard 31CH” (p. 15) |
| **26** | Frost | | Same as CH 19 in the mode “Standard 31CH” (p. 15) |
| **27** | Blade 1 Rotation | | Blade 1 Rot 1 |
| | | 0–255 | Rotation from 0 … Rotation from 120 |
| | | 255 | Rotation from 120 |
| **28** | Blade 1 Rotation Fine | 0–255 | Fine adjustment of CH 27 |
| **29** | Blade 1 A | 0–255 | |
| **30** | Blade 1 B | 0–255 | |
| **31** | Blade 2 A | 0–255 | |
| **32** | Blade 2 B | 0–255 | |
| **33** | Blade 3 A | 0–255 | |
| **34** | Blade 3 B | 0–255 | |
| **35** | Blade 4 A | 0–255 | |
| **36** | Blade 4 B | 0–255 | |
| **37** | Speed Pan/Tilt | | Same as CH 29 in the mode “Standard 31CH” (p. 15) |
| **38** | Dimmer Mode | | Same as CH 30 in the mode “Standard 31CH” (p. 15) |
| **39** | Control | | Same as CH 31 in the mode “Standard 31CH” (p. 16) |

## Mode Basic 27CH

If the device receives DMX in this mode but gives no light, check these channels: CH 3 Dimmer above 0; CH 4 Shutter at 32–63 “open” or 96–127 or 160–191 or 224–255. The GDTF file gives these values for a console's Highlight function: CH 3 Dimmer 255, CH 4 Shutter 32.

### Channel functions at a glance




| CH | Function | DMX | Description |
|---|---|---|---|
| **1** | Pan | 0–127 | Pan 1 |
| | | 128 | Home |
| | | 129–255 | Pan 1 |
| **2** | Tilt | 0–127 | Tilt 1 |
| | | 128 | Home |
| | | 129–255 | Tilt 1 |
| **3** | Dimmer | 0 | Closed |
| | | 1–254 | Closed ... Open |
| | | 255 | Open |

| CH | Function | DMX | Description |
|---|---|---|---|
| **4** | Shutter | | Same as CH 7 in the mode “Standard 31CH” (p. 13) |
| **5** | Red | 0–255 | Red |
| **6** | Green | 0–255 | Green |
| **7** | Blue | 0–255 | Blue |
| **8** | Amber | 0–255 | Amber |
| **9** | Lime | 0–255 | Lime |
| **10** | Colors | | Same as CH 13 in the mode “Standard 31CH” (p. 13) |
| **11** | Color Temperature | | Same as CH 14 in the mode “Standard 31CH” (p. 15) |
| **12** | Tint | | Same as CH 15 in the mode “Standard 31CH” (p. 15) |
| **13** | Zoom | | Same as CH 16 in the mode “Standard 31CH” (p. 15) |
| **14** | Focus | 0–255 | Focus |
| **15** | Iris | | Same as CH 18 in the mode “Standard 31CH” (p. 15) |
| **16** | Frost | | Same as CH 19 in the mode “Standard 31CH” (p. 15) |
| **17** | Blade 1 Rotation | | Same as CH 20 in the mode “Standard 31CH” (p. 15) |
| **18** | Blade 1 A | 0–255 | |
| **19** | Blade 1 B | 0–255 | |
| **20** | Blade 2 A | 0–255 | |
| **21** | Blade 2 B | 0–255 | |
| **22** | Blade 3 A | 0–255 | |
| **23** | Blade 3 B | 0–255 | |
| **24** | Blade 4 A | 0–255 | |
| **25** | Blade 4 B | 0–255 | |
| **26** | Dimmer Mode | | Same as CH 30 in the mode “Standard 31CH” (p. 15) |
| **27** | Control | | Same as CH 31 in the mode “Standard 31CH” (p. 16) |

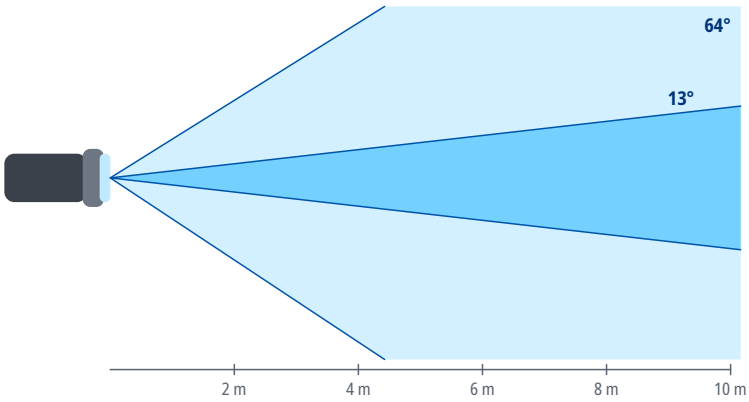
# 10 Technical specifications

| Parameter | Value |
|---|---|
| **Light** | |
| Light source | LED |
| LED power | 480 W |
| Luminous flux | 12,200 lm |
| Color temperature | 10,000 K |
| Color rendering index (CRI) | 90 |
| **Optics** | |
| Zoom | 13–64° |
| **Movement** | |
| Pan | 540° |
| Tilt | 270° |
| **Control** | |
| DMX connection | 3-pin XLR IN/OUT |
| **Electrical** | |
| Power supply | 90–240 V, 50/60 Hz |
| Power consumption | 690 W |
| Power connectors | powerCON TRUE1 IN |
| **Dimensions and construction** | |
| Weight | 27 kg |
| **Operating environment** | |
| Operating temperature | -20 to 45 °C |

## Speeds and ranges

| Parameter | Value |
|---|---|
| Color temperature range | 2000–10000 K |
| Strobe frequency | 0.5–10 Hz |

## Spot diameter




| Distance | Ø 13° | Ø 64° |
|---|---|---|
| 2 m | 0.46 m | 2.5 m |
| 4 m | 0.91 m | 5 m |
| 6 m | 1.4 m | 7.5 m |
| 8 m | 1.8 m | 10 m |
| 10 m | 2.3 m | 12.5 m |
| 15 m | 3.4 m | 18.7 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.