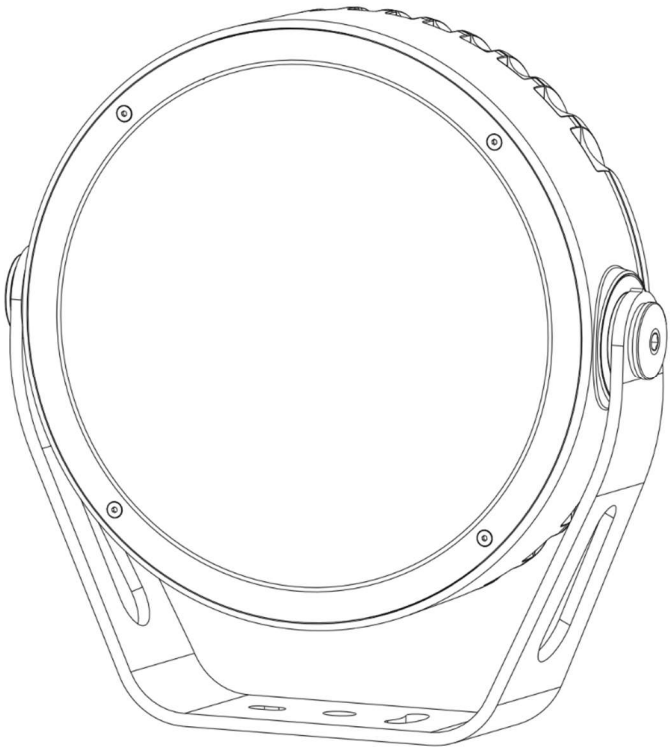
Anolis
A ROBE Business

Calumma UN S SC



QR code for user manual

USER MANUAL

Version 1.0

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FOR YOUR OWN SAFETY, PLEASE READ THIS USER MANUAL CAREFULLY
BEFORE POWERING OR INSTALLING YOUR Calumma !

Save it for future reference.

This device has left our premises in absolutely perfect condition. In order to maintain this condition and to ensure safe operation, it is absolutely necessary for the user to follow the safety instructions and warnings written in this manual.

The manufacturer will not accept liability for any resulting damages caused by the non-observance of this manual or any unauthorized modification to the device.

Unauthorized modification will void warranty.

1. Safety instructions

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

This fixture should be operated only from the type of power source indicated on the marking label. If you are not sure of the type of power supplied, consult your authorized distributor or local power company.

Always disconnect the fixture from AC power before servicing or cleaning.

Make sure the power/data cable is not damaged by sharp edges.

Do not install the unit near an open flame.

Refer servicing to qualified service personnel.

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

Do not connect this fixture to a dimmer pack.

LED light emission. Risk of eye injury. Do not look into the beam from a short distance without suitable protective eyewear. Do not look at LEDs with magnifiers or similar optical instruments that may concentrate the light output.

The fixture was designed for outdoor use. This fixture must not be used for underwater installation.

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

Avoid using the unit in locations subject to possible impacts.

The fixture body never must be covered with cloth or other materials when the fixture is under operation.

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

The fixture becomes hot during operation. Allow the fixture to cool approximately 30 minutes prior to servicing or maintenance.

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

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

If this device will be operated in any way different to the one described in this manual, the product may suffer damages and the warranty becomes void. Furthermore, any other operation may lead to dangers like short-circuit, burns, electric shock etc.

The product (covers and cables) must not be exposed to a high frequency electromagnetic field higher than 3V/m.

Immunity of the equipment is designed according to the standard EN 55035 Electromagnetic compatibility of multimedia equipment - Immunity requirements

Emission of the equipment complies with the standard EN55032 Electromagnetic compatibility of multimedia equipment – Emission Requirements according to class B.

Contains FCC ID: 2A6PL-DMXRDMRW001
Contains IC: 29573-DMXRDMRW001

This device complies with part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

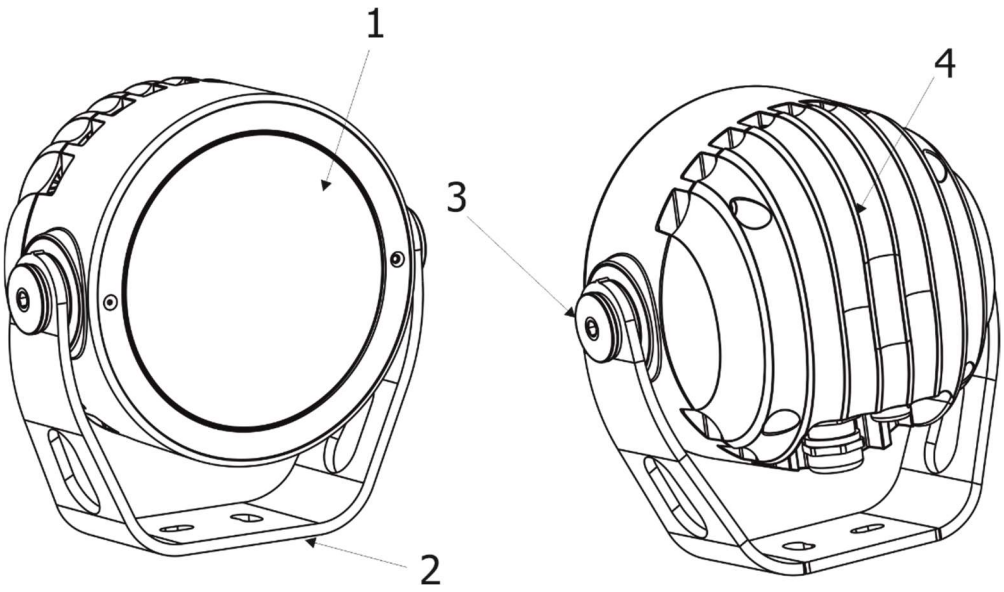
Changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

The [Device] wireless operation is safe and complies to RF Exposure requirements.

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:
- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

Warning for fixtures with Harsh Environment Finish (HEF):
Handle with care!
Avoid any damage to the painted surface.
Damaging the paint may result in corrosion and loss of warranty.

2. Fixture exterior view

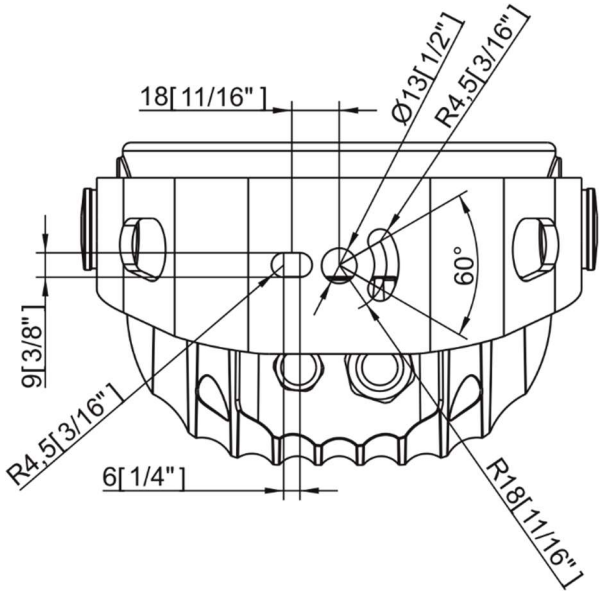


1. Transparent glass cover
2. Mounting yoke
3. Tilt adjusting lock
4. LED module with heat sink

3. Installation

3.1 Mounting the fixture

The Calumma UN S can be fastened in any orientation on a flat, non-flammable surface by means of mounting yoke (2).



The LED module (4) can be tilted +180°/-180°. Use an Allen key 2.5 for adjusting a LED module position.

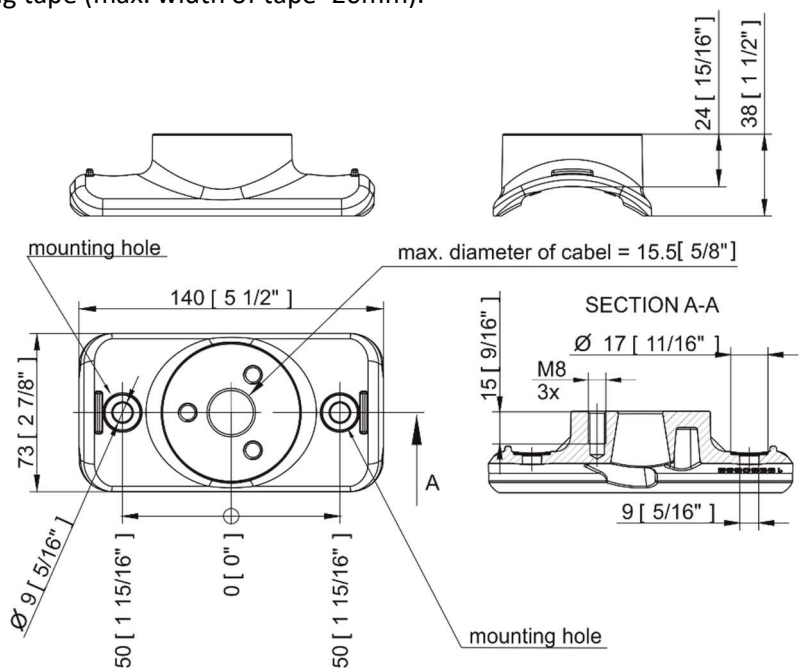
Ensure that the structure to which you are attaching the fixture is secure.

Mounting the fixture via the pole clamp adaptor

The pole clamp adaptor serves as a fastening element for Calumma UN S on a pole of diameter of 76-116mm or on the flat pole. The Calumma UN S has to be equipped with a modified mounting yoke (P/N 11418772) intended for this way of installation.

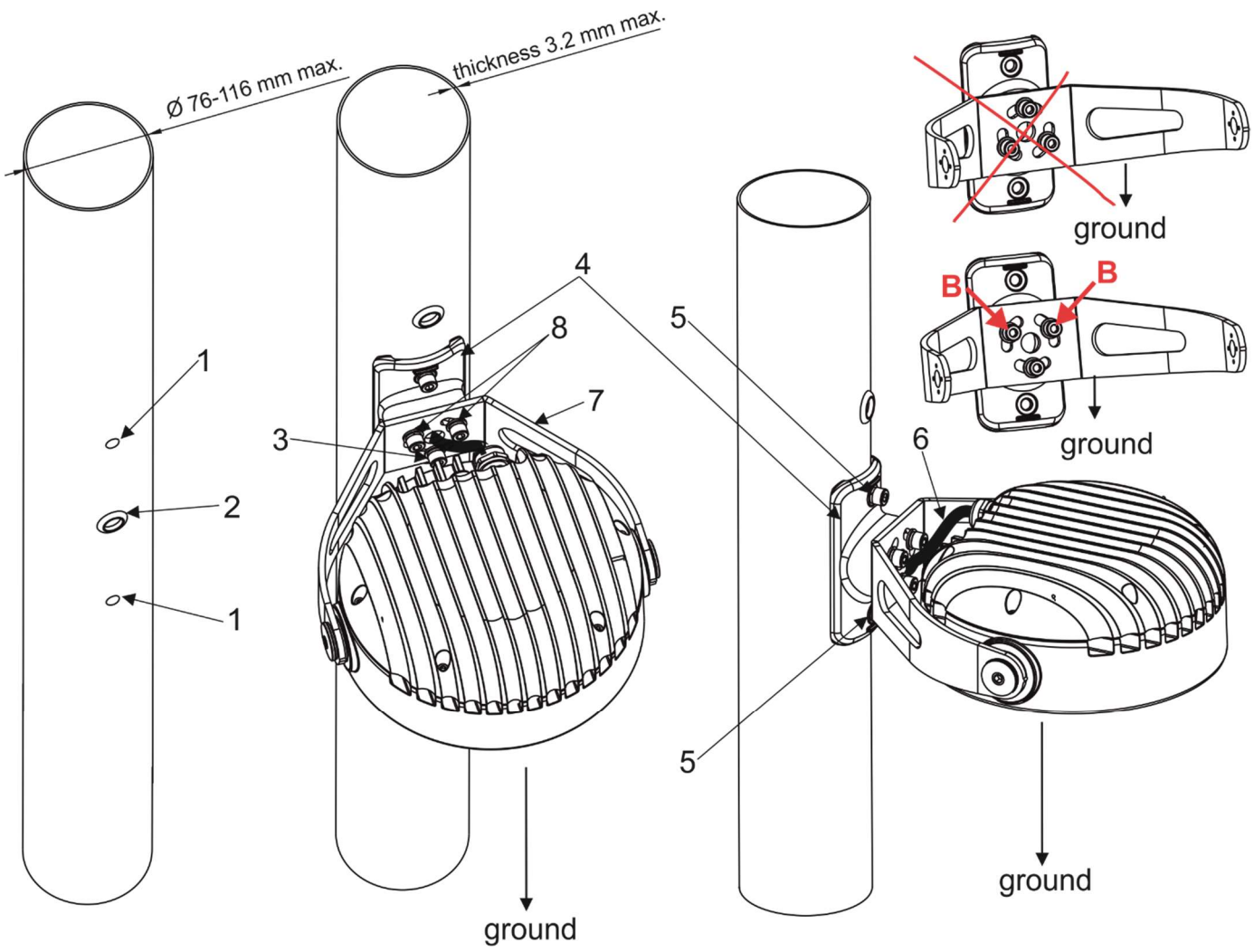
The pole clamp adaptor set includes: 1x pole clamp adaptor, 1x rubber cable gland, 3x Allen screw M8x20, 3x flat washer, 3x spring washer, 2x tube spacer.

1. The pole clamp adaptor can be screwed on the pole by means of two screws or fixed by means of a steel clamping tape (max. width of tape=20mm).



If you use two screws for fastening the pole clamp adaptor on the pole, drill two holes (1) for fastening the pole clamp adaptor on the pole. Diameter of holes depends on material of pole and used screws. Be sure that fastening of the pole clamp adaptor is secure to keep weight of Calumma.

2. Drill the hole (2) for rubber cable gland (diameter of hole=20mm, max. thickness of pole wall= 3.2mm), make drilled hole edges clean (without burrs) and insert the rubber gland into the hole.



3. Screw the pole clamp adaptor (4) on the pole by means of two screws (5) with spring washers or use a steel clamping tape for fastening the pole clamp adaptor on the pole.
   In case of screwing the pole clamp adaptor (7) on a flat surface (pole), two pole spacers have to be inserted under two mounting holes of the pole clamp adaptor (on fastening screws (5)) to fill up space between the pole and the pole clamp adaptor
4. Pass the Calumma cable (6) through mounting yoke (7), pole clamp adaptor (4) and through cable gland (2) into the pole.
5. Screw the Calumma mounting yoke (7) on the pole clamp adaptor (4) by means of three Allen screws M8x20 (3) with washers (Allen screw + spring washer+ flat washer). Keep correct orientation of the fastening screws (3) as drawn on the picture – two screws (B) have to aim upwards, one screw has to be orientated towards ground.
   NOTE. Three mounting openings in the mounting yoke allow positioning of the mounting yoke in range of 0°- 360°.

3.2 Connection to mains

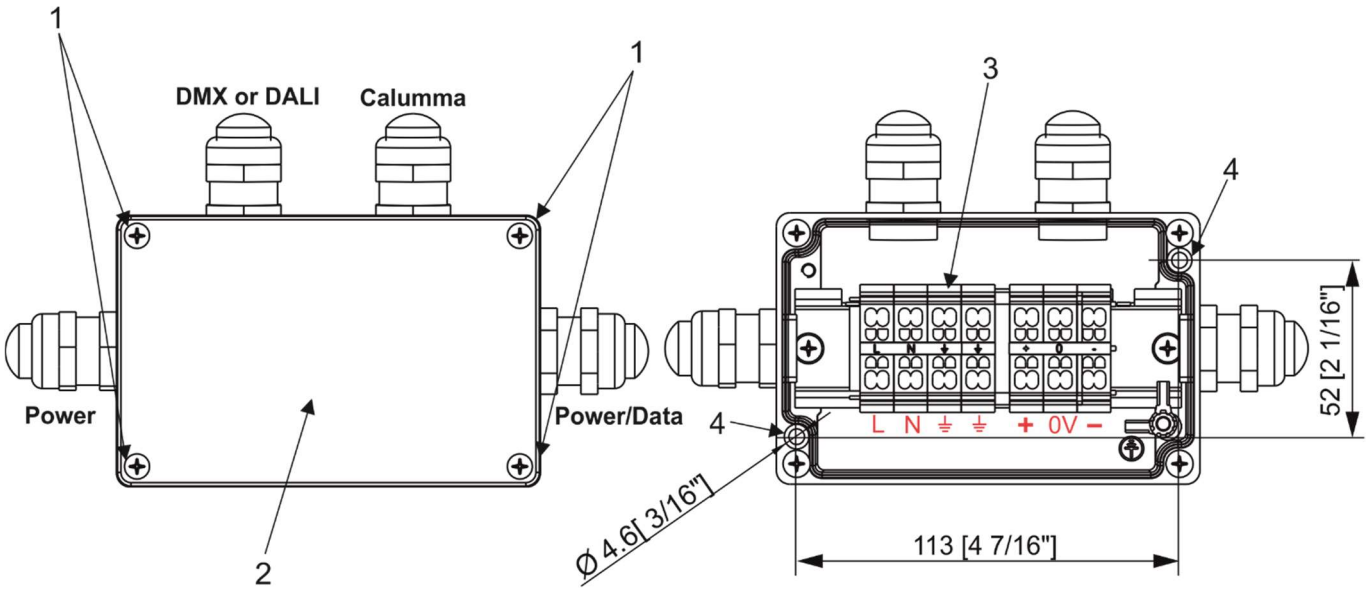
> ***The unit must be installed by a qualified electrician in accordance with all national and local electrical and construction codes and regulations.***
> ***This device falls under class one and must be grounded!***

The Calumma is equipped with auto-switching power supply that automatically adjusts to any 50/60Hz AC power source from 120-277 Volts.

3.2.1 Junction box installation

> **The junction box box falls under protection class I . Therefore, every junction box has to be connected to a mains socket outlet with a protective earthing connection.**

1.Unscrew the four screws (1) from the cover (2) on the junction box to get access to the terminal block (3) and two mounting holes of diameter of 4.6 mm (4).
2. Screw the junction box on a non-flammable flat surface.



3. Connect cables.

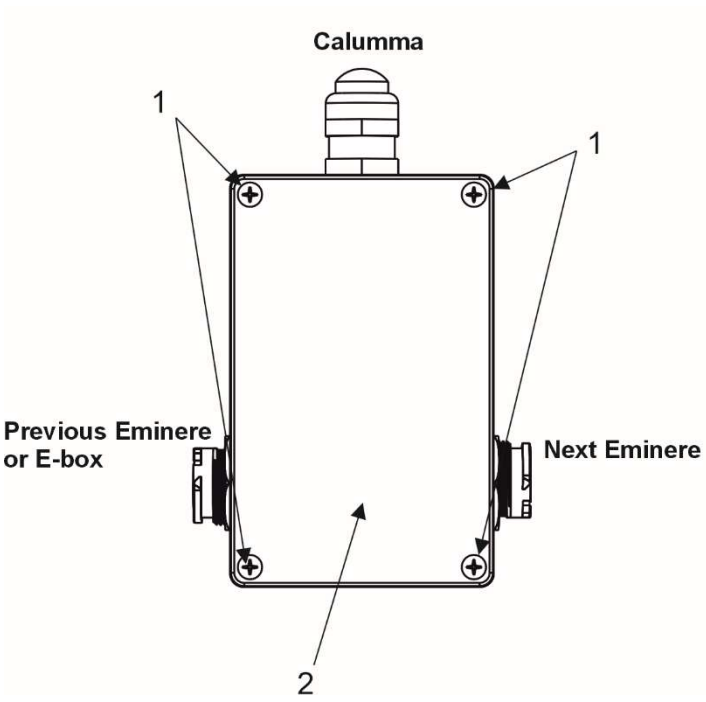
CE version of the junction box -the Calumma cable gland M20 x 1.5 with a standard seal serves for a cable of diameter of 6-12mm
US version of the junction box -the Calumma cable gland M20 x 1.5 with a standard seal serves for a cable of diameter of 7-13mm

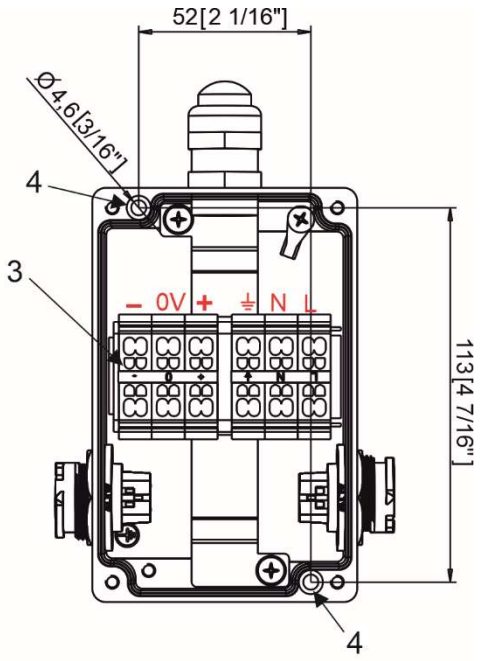
The reducing seal for diameter of cable 4-8mm (P/N 13051388) is enclosed in the Junction box. You have to remove the original seal from the cable gland M20x1.5 and use this enclosed reducing seal instead of it

Remove the end cap from the cable gland before passing the cable.

The junction box with panel connectors serves for connecting Calummas (Calumma UN S/M/L/XL) to the line of Emineres.

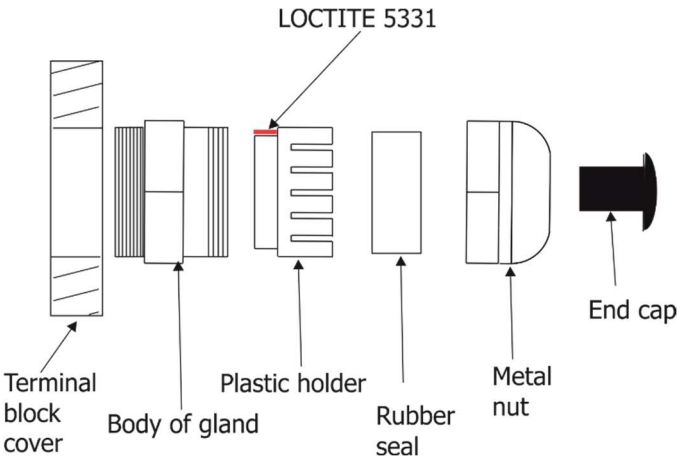
CE version of the junction box with panel connectors -the Calumma cable gland M20 x 1.5 with a standard seal serves for a cable of diameter of 6-12mm.
US version of the junction box with panel connectors -the Calumma cable gland M20 x 1.5 with a standard seal serves for a cable of diameter of 7-13mm.





We recommend to apply an adequate layer of the paste LOCTITE 5331 on the plastic holder of the cable gland M20x1.5 before inserting it into the body of the gland

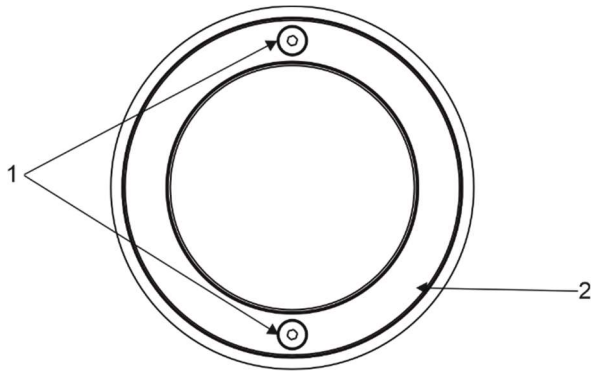
Cable gland M20x1.5:



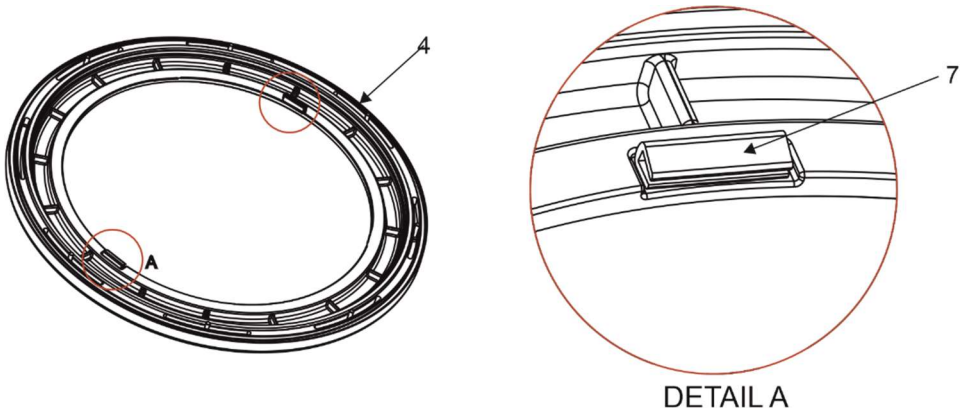
4. Screw the cover (2) back on the junction box.

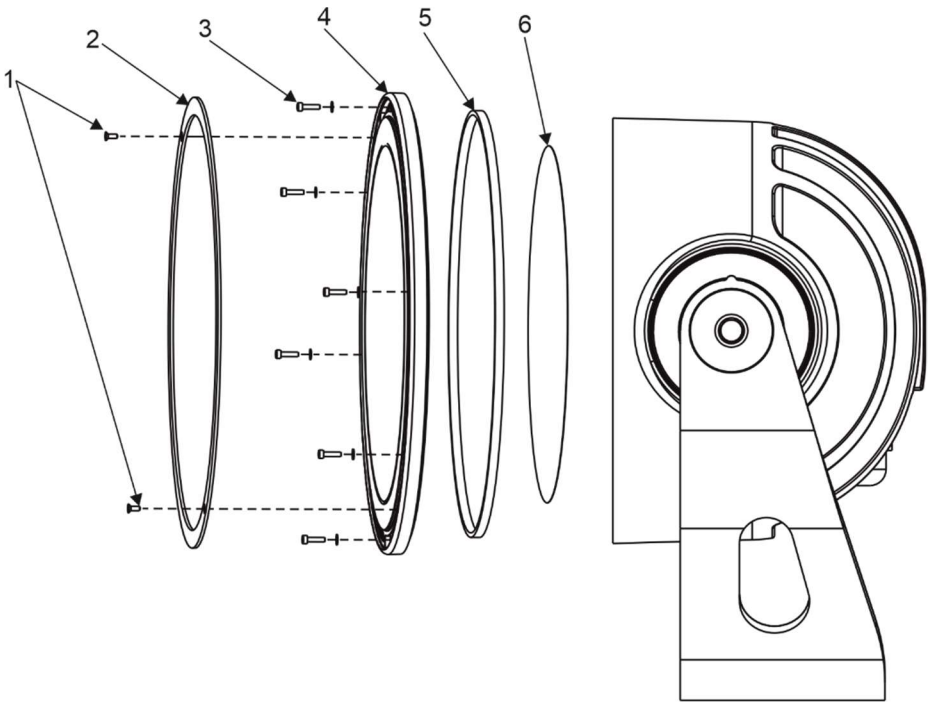
3.3 Outdoor foil holder installation

1. Close the light output from the Calumma.
2. Unscrew two flat-head screws M3x8, DIN 799, A4 (1) from the front side of the Calumma and remove the flange (2).



3. Place the optical foil (6) to the outdoor foil holder (4). The optical foil has to be inserted in the rubber holders (7) of the outdoor foil holder (4). The rubber holders allow you to turn the optical foil slightly to desired position if you use bi-symmetrical or asymmetrical foil (light output from the Calumma has to be enabled at adjusting the optical foil position).



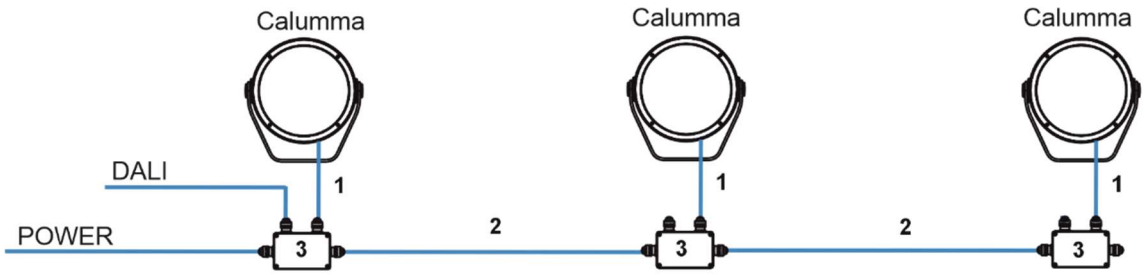


4. Screw the outdoor foil holder (4) with the optical foil on the Calumma by means of 6 hex socket head screws M3x12, DIN 912, A4 (3). Use a tightening torque 0.5 Nm. The gasket (5) is a part of the outdoor foil holder and is adhered into it. Only check the gasket for signs of deformities or damages and if it is correctly placed in the outdoor foil holder.
5. Screw the flange (2) back on the Calumma by means of two flat-head screws M3x8, DIN 7991, A4 (1), use a tightening torque 1 Nm.

4. Control and connection options

4.1 DALI

Example (CE/US)



CE/US

1-Hybrid cable (P/N 13053693) standard 1 m with bare-end, black or on request hybrid cable (13053697), 1 m with bare-end, white.

2-Hybrid Cable (P/N 13053693) standard 1 m with bare-end, black or on request hybrid cable (13053697), 1 m with bare-end, white or scope of others.

3-Junction box Ral 9011 (P/N 10980714).

CE/US

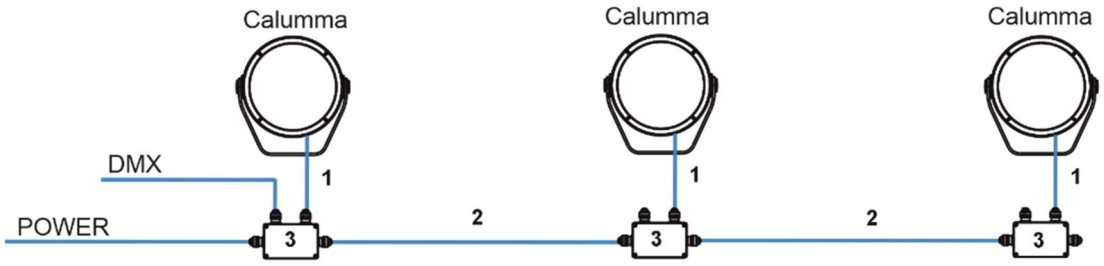
Cable B2ca-DALI-5x1.5mm² BELCOM (P/N 13053693) connection

Core	Connection	Core	Connection
Black	Live (L)	Red	Data
White	Neutral (N)	Orange	Data
Yellow/Green	Ground (Earth)		

Up to 64 Calummas UN S can be connected in DALI network.

4.2 DMX

Example (CE)



CE

1-Flamar 3x16 AWG + 1x(2x24 AWG) - (P/N 13051508), standard 1 m with bare-end, black or HYB-5731ZH LSZH (P/N 13053694) hybrid cable, white

2-Flamar 3x16 AWG + 1x(2x24 AWG) - (P/N 13051508), black or HYB-5731ZH LSZH (P/N 13053694), hybrid cable, White or scope of others.

3- Junction box Ral 9011 (P/N 10980714)

CE

Cable Flamar 3x AWG 16 + 1x (2x AWG 24), (P/N 1305 1508) connection:

Core	Connection	Core	Connection
Black	Live (L)	Red	Data + (+)
Blue	Neutral (N)	White	Data – (-)
Yellow/Green	GND,Ground	Shielding	Data ground (0V)

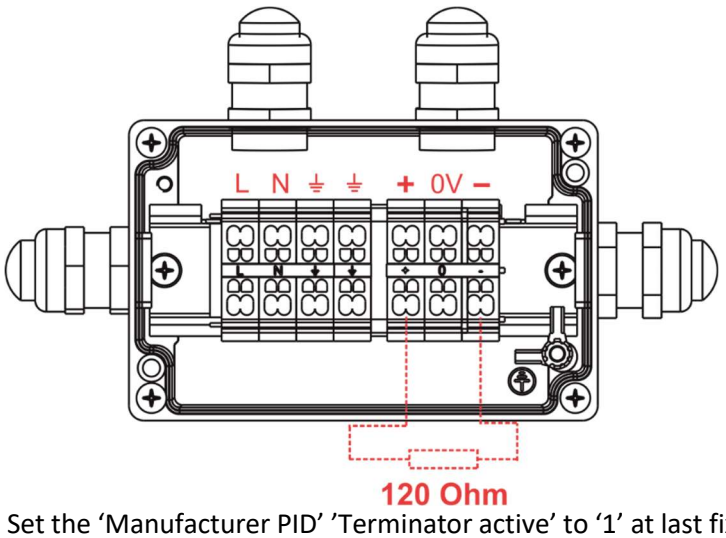
Up to 32 Calummas UN S can be connected in DMX line.

Behavior when DMX data is lost.

This depends on if E-box is present or not. Without E-box, last valid DMX frame is held.
With E-box, there is a DMX Hold setting in the E-box (menu path: Personality →DMX Hold).
DMX Hold = On: last DMX frame is held,
DMX Hold = Off: E-box sends zero values to Calummas UN S.

NOTE: DMX line of Calummas UN S has to be terminated at the last fixture.
EITHER connect a 120 Ohm resistor between terminals + and - in the junction box at last fixture,

NOTE: DMX line of Calummas UN S has to be terminated at the last fixture. Connect a 120 Ohm resistor between terminals + and - in the junction box at fixture.
Example



OR terminate via RDM Set the 'Manufacturer PID' 'Terminator active' to '1' at last fixture by means of RDM Control Panel.

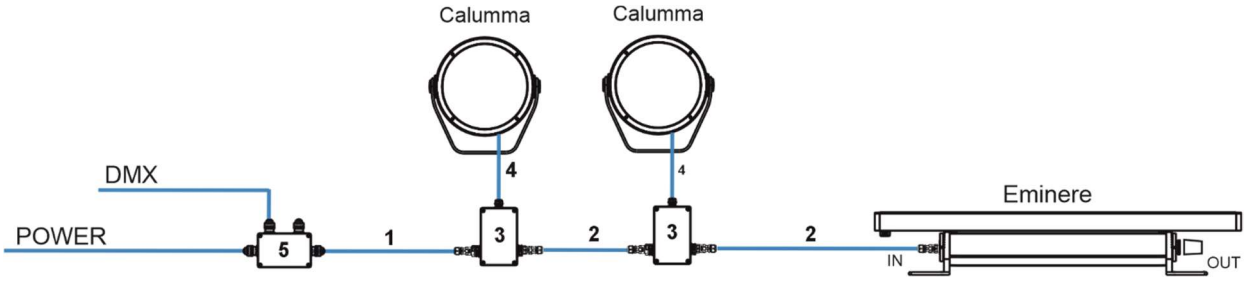


Ensure **ONLY** the last fixture in the line is terminated using **ONE** of the above methods!

DMX with Junction box for Calumma/Eminere

Note: The last unplugged connector must be fitted with a waterproof cap to protect the IP rating.

Example (CE)



CE

1-Leader cable FF 2 m (P/N 13053438)
Leader cable FF 5 m (P/N 13053440)
Leader cable FF 10 m (P/N 13053436)
Leader cable FF 25 m (P/N 13053437)
Leader Cable FF 50m (P/N 13053439)

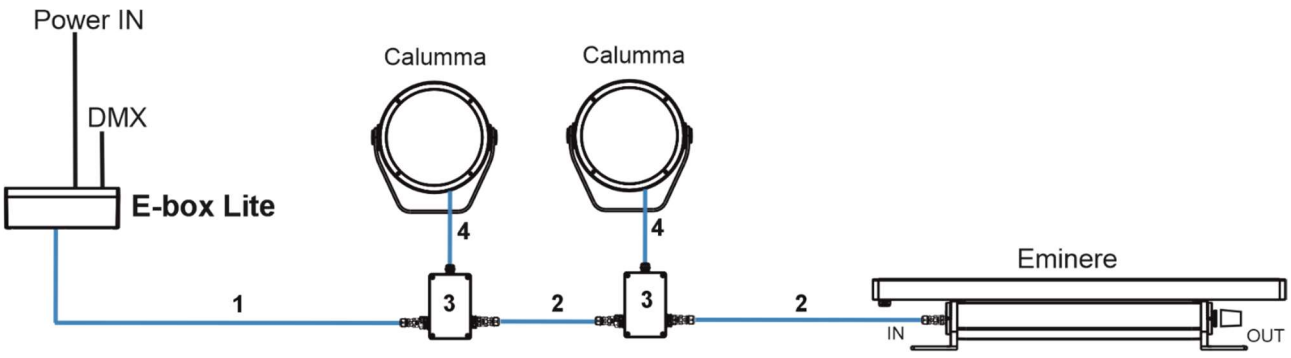
2-Jumper cable FF/FM 0,25 m (P/N 13053422)
Jumper cable FF/FM 0,5 m (P/N 13053423)
Jumper cable FF/FM 1 m (P/N 13053425)
Jumper cable FF/FM 2 m (P/N 13053427)
Jumper cable FF/FM 3 m (P/N 13053428)
Jumper cable FF/FM 5 m (P/N 13053430)
Jumper cable FF/FM 10 m (P/N 13053424)

3-Junction box w/Panel connector CE RAL9011 (P/N 10981268)
Junction box w/Panel connector CE RAL9007 (P/N 10981295)
Junction box w/Panel connector CE RAL8004 cus (P/N 10981326)

4- Flamar 3x16 AWG + 1x(2x24 AWG) - (P/N 13051508), Standard 1 m with bare-end, black or HYB-5731ZH LSZH (13053694), Hybrid cable, white.

5- Junction box Ral 9011 (P/N 10980714)

Example (US)



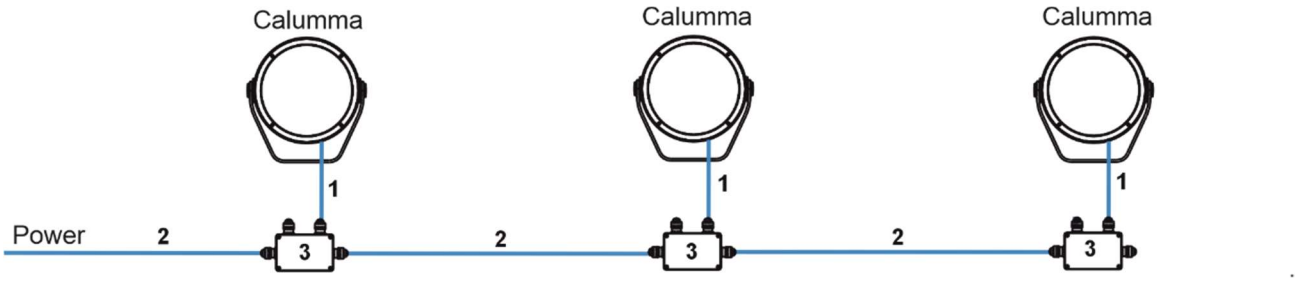
US

1- Leader Cable FF 2m (P/N 13053433)
Leader Cable FF 5m (P/N 13053435)

Leader Cable FF 10m (P/N 13053431)
Leader Cable FF 25m (P/N 13053432)
Leader Cable FF 50m (P/N 13053434)
2-Jumper cable FF/FM 0,25 m (P/N1 3053422)
Jumper cable FF/FM 0,5 m (P/N 13053423)
Jumper cable FF/FM 1 m (P/N 13053425)
Jumper cable FF/FM 2 m (P/N 13053427)
Jumper cable FF/FM 3 m (P/N 13053428)
Jumper cable FF/FM 5 m (P/N 13053430)
3-Junction box w/Panel connector US RAL9011 (P/N 10981269)
Junction box w/Panel connector US RAL1013 (P/N 10981358)
4- Cable SJTW 6x14 AWG (P/N 13053480), standard 1 m with bare-end, black or cable SJTW 6x14 AWG (P/N 13053695), white.
5- Junction box Ral 9011 (P/N 10980714)

4.3 Power On/Off

Example CE/US



CE
1-H07BB-F 3G 1.5 (P/N 13050919), 3-cored cable, standard 1 m with bare-end, black.
2-H07BB-F 3G 1.5 (P/N 13050919), 3-cored cable, standard 1 m with bare-end, black.
3-Junction box Ral 9011 (P/N 10980714).

US
1-SEOOW power 3x16 AWG (P/N 13051558-01), 3-cored cable, Standard 1 m with bare-end, black.
2-SEOOW power 3x16 AWG (P/N 13051558-01), 3-cored cable, Standard 1 m with bare-end, black.
3-Junction box Ral 9011 (P/N 10980714).

Note: This type of connection is available for single chip (SC) versions only – pure white or single colour.
Non dimmable.
Input voltage: 120-277V.

CE
3-cored cable H07BB-F 3G 1.5 (13050919) connection.

Core	Connection
Brown	Live (L)
Light Blue	Neutral (N)
Yellow/Green	GND ⏚

US

3-cored cable SEOOW power 3x16 AWG (P/N 13051558-1) connection.

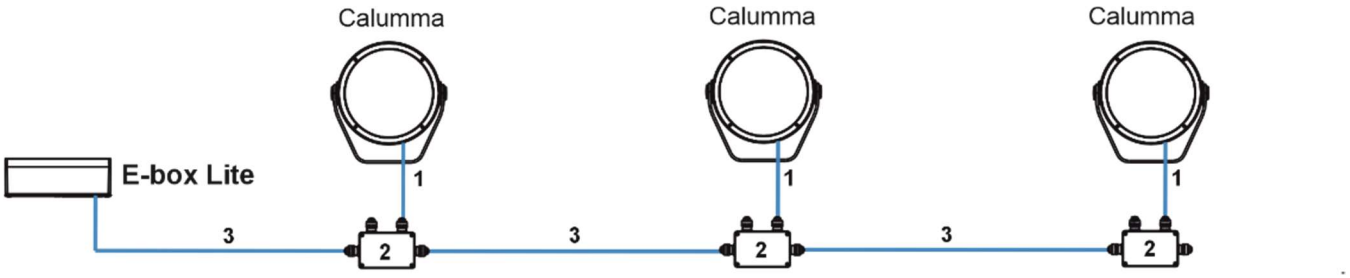
Core	Connection
Black	Live (L)
White	Neutral (N)
Green	GND ⏚

4.4 DMX or Ethernet via E-box

Pass Through mode is intended for this connection. Max. 32 fixtures can be connected to one LED output of the E-Box (Star, Daisy, Lite) in this mode.

NOTE. Each DMX line of Calummas UN S has to be terminated at the last fixture. Please see instructions in chapter 4.2 DMX.

Example CE/US



Note: This type of connection is available for S, M, L, and XL versions. E-Box has to be in Pass Through mode only.

CE

1-Flamar 3x16 AWG + 1x(2x24 AWG) - (P/N 13051508), standard 1 m with bare-end, black or HYB-5731ZH LSZH (13053694), hybrid cable, white.
2-Junction box Ral 9011 (P/N 10980714).
3-Flamar 3x16 AWG + 1x(2x24 AWG) - (P/N 13051508), black or HYB-5731ZH LSZH (P/N 13053694), hybrid cable, white or scope of others.

US

1-Cable SJTW 6x14 AWG (P/N 13053480), standard 1 m with bare-end, black or cable SJTW 6x14 AWG (P/N 13053695), white.
2-Junction box Ral 9011 (P/N 10980714).
3-cable SJTW 6x14 AWG (P/N 13053480), black or cable SJTW 6x14 AWG (P/N 13053695), white.

CE

5-cored cable Flamar 3x AWG 16 + 1x (2x AWG 24), (P/N 1305 1508) connection.

Core	Connection	Core	Connection
Black	Live (L)	Red	Data + (+)
Blue	Neutral (N)	White	Data – (-)
Yellow/Green	GND, ⏚	Shielding	Data ground (0V)

US

6-cored cable SJTW 6x 14AWG, (P/N 1305 3480) connection.

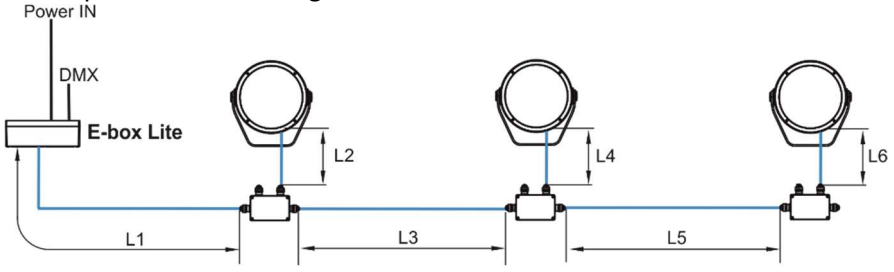
Core	Connection	Core	Connection
Black	Live (L)	Red	Data + (+)
White	Neutral (N)	Orange	Data – (-)
Yellow/Green	GND, ⏚	Blue	Data ground (0V)

Number of connected Calummas to one E-box output depends on a cable length, power voltage, type of Calumma and E-box operation mode.
The tables below state max. number of Calummas connected to the one LED output of the E-box in the Pass-Through mode.

Table for Pass-Through mode.

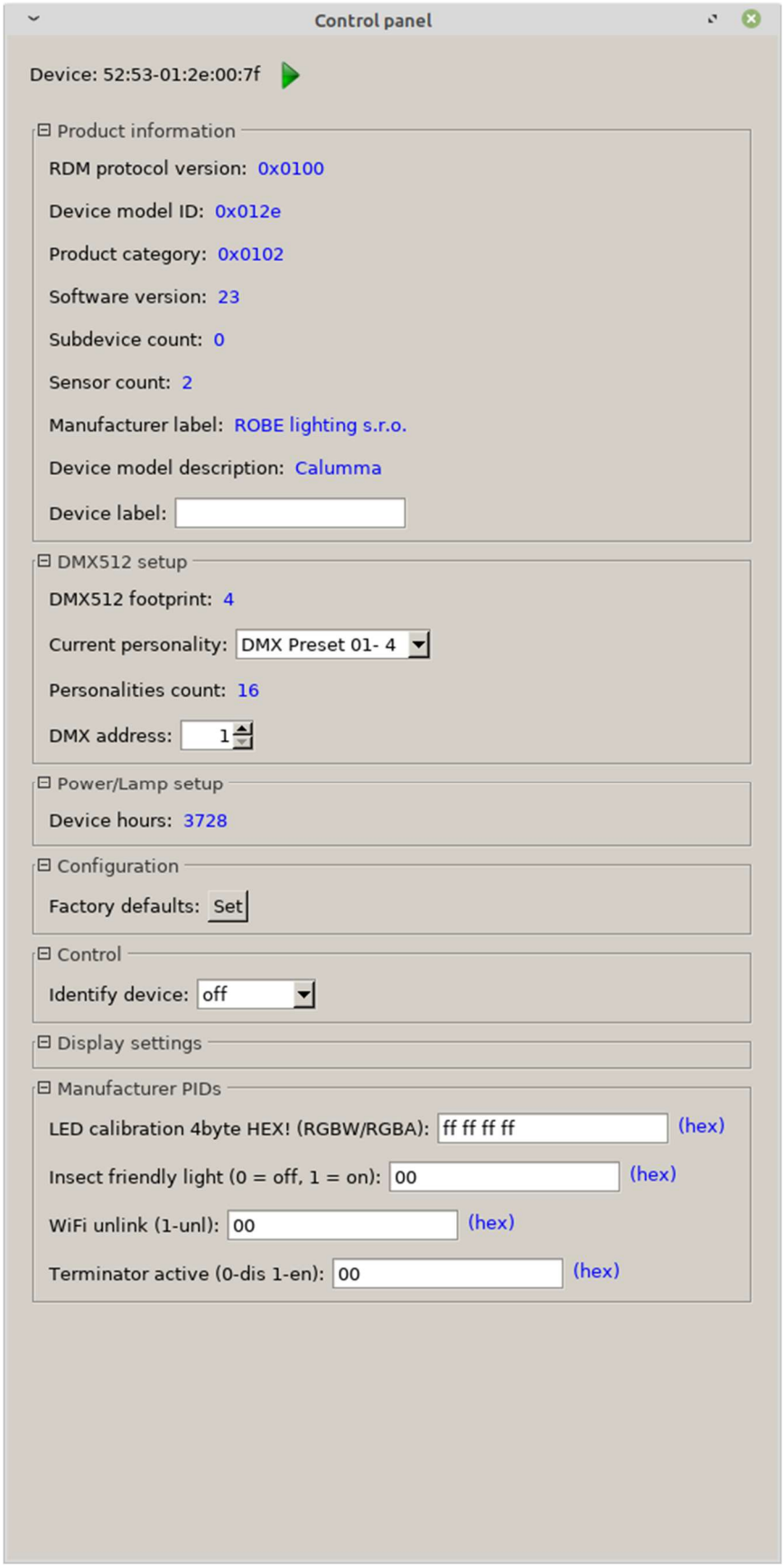
Calumma UN S SC	**Voltage**			
Cable length *	**120V**	**190V**	**230V**	**277V**
10 m	32	32	32	32
20 m	32	32	32	32
30 m	32	32	32	32
50 m	26	32	32	32
70 m	18	32	32	32
100 m	13	32	32	32

* Cable length is a total cable length between power supply (e.g. E-box) and last connected Calumma.
Example: Total cable length=L1+L2+L3+L4+L5+L6



4.5 Example of Control panel in RDM manager

The software RDM manager is available on the ROBE website (https://www.robe.cz/support), product RUNIT WTX.



Green arrow saves changes made in the Control panel to the Calumma.

Manufacturer PIDs

LED calibration 4byte HEX! (RGBW/RGBA) - the item shows 4 bytes of calibration values for calibrated white colours of RGBW(RGBA) Calumma.
E.g.



CTC channel has to be set to some calibrated white colour (21 DMX-1800K, 66 DMX-2700K, 91 DMX-3200K, 141 DMX-4200K, 211 DMX-5600K, 255 DMX-6500K) otherwise the item shows values "ff ff ff ff" (and calibration values cannot be saved to the Calumma).
Warning!
Changing and saving values in this item will affect calibrated white colour(s) of the Calumma .

Insect friendly light - the item effects RGBA Calumma UN S only. If the item is on, blue colour is not used in calibrated white colours. This modification of white lights results in a smaller attraction of white light for insects (mosquitos, moths..). The function is also available from DMX chart (channel Special Function, range 7-10 DMX).

WiFi unlink - the item is inactive for Calumma UN S.

Terminator active - the item allows you to terminate line of Calummas UN S.

5. Software update

Software update of Calumma UN S modules has to be done by means of the software ROBE Uploader running on PC.
The ROBE Uploader is a software for automatized software update of ROBE fixtures. The ROBE Uploader switches Calummas S to the update mode automatically.
Please see https://www.robe.cz/robe-uploader/ for more information.

The Calummas S have to be operated in the Pass-Through mode.
To update Calummas S including the E-box.

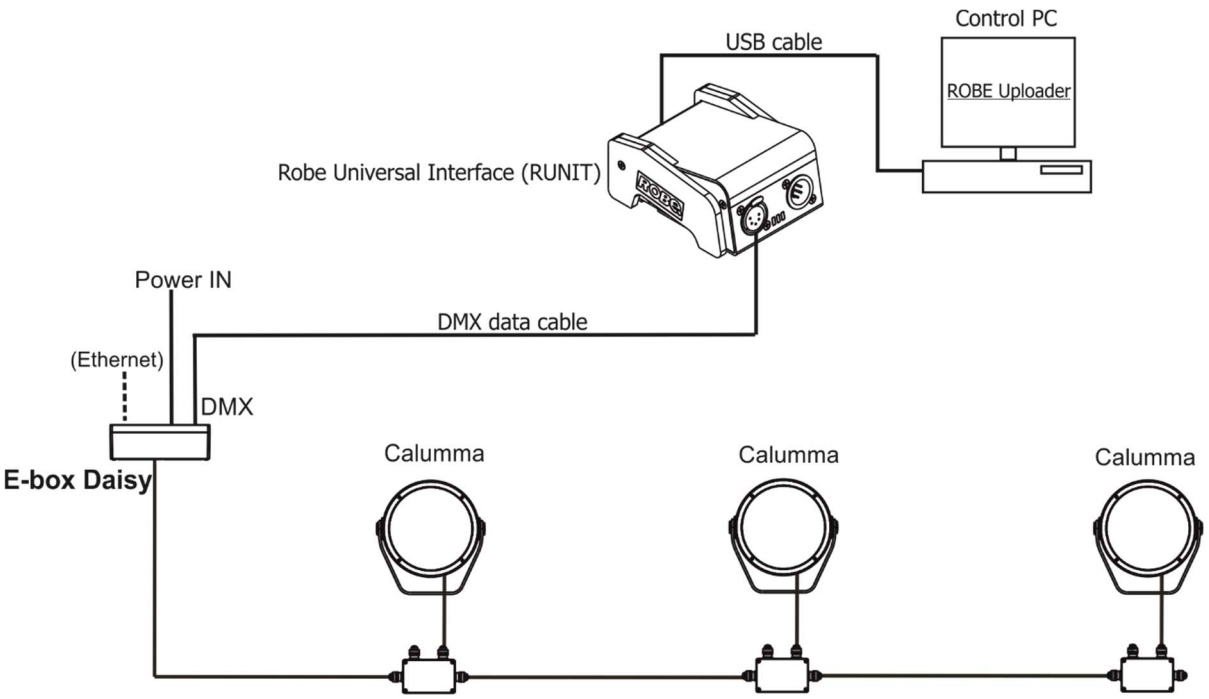
1. Update connected LED modules by means of the file Calumma.lib in the ROBE Uploader.
2. Set the E-box to the Standard mode and switch it off/on. Use the file EminereEbox.lib in the ROBE Uploader for software update of the E-box.
3. After updating the E-box, set the E-box to the Pass-Through mode and switch it off/on.

For more information about updating please see the E-box Lite/Daisy/Star user manual.

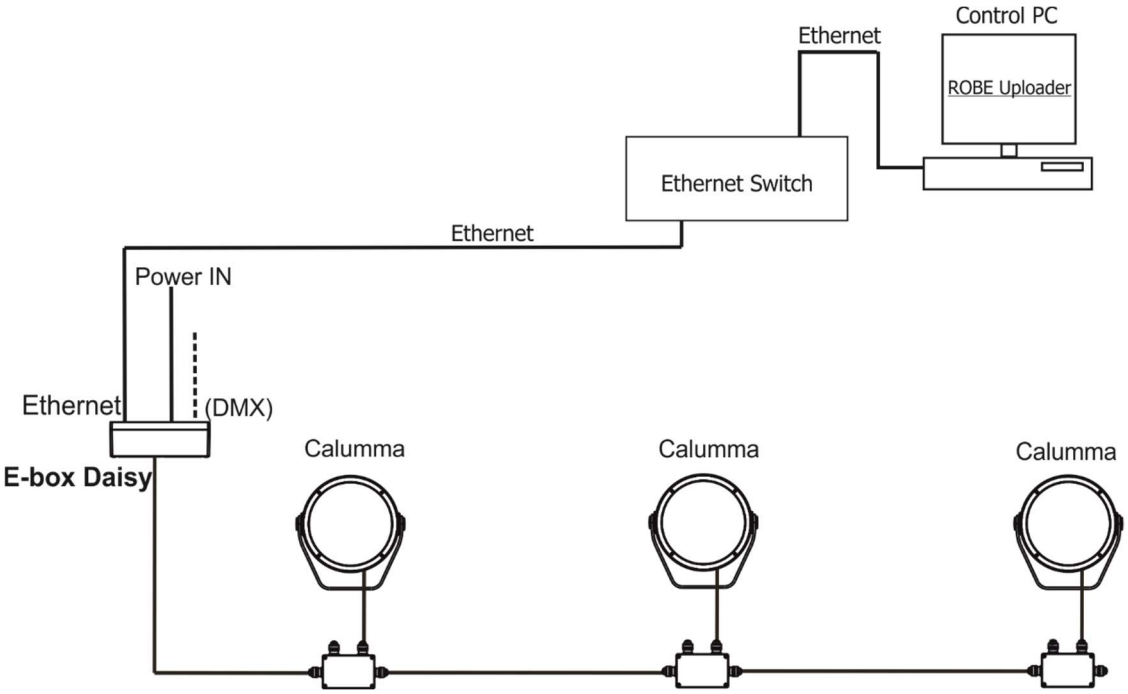
Note: Calummas S in DALI connection and ON/OFF connection cannot be updated.

Examples of connection:

1. By means of DMX connection and RUNIT. Connection via junction boxes.

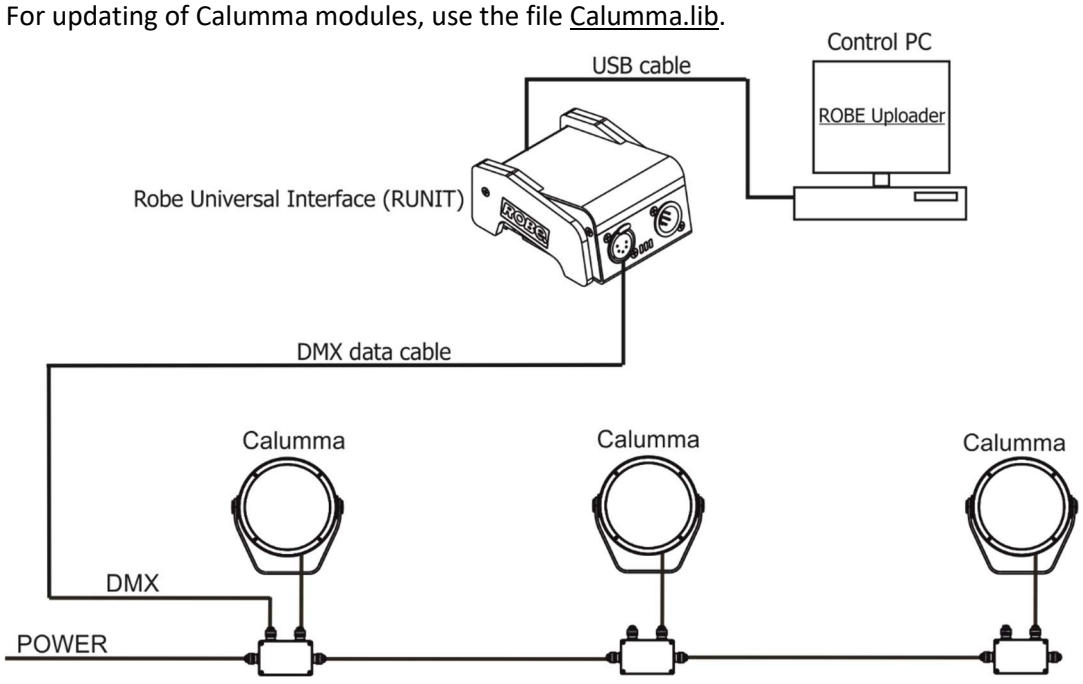


2. By means of the Ethernet connection. Connection via junction boxes.



DMX connection

For updating of Calumma modules, use the file Calumma.lib.



6. Technical specifications

Power supply

- Electronic auto-ranging
- Input voltage: 120 - 277V AC, 50/60 Hz
- Power consumption: 12 W (@ 2.5°, 3.5°), 28 W (@ 5°, 7°)
- Inrush current: 60A/230VAC, 30A/115VAC

Optical

- Light source: 3 High power single chip LEDs (2.5°, 3.5°),
  7 High power single chip LEDs (5°, 7°)
- Colour variants: RGBW (W - 6500 K), RGBA, PW (W - 3000 K)
- Beam Angle: PW (W - 3000 K)
- Projected lumen maintenance: L90B10 >90.000 hrs, Ta = 25°C / 77°F
- LED diameter: LED (2.5°, 3.5°), ø 45 mm; LED (5°, 7°), ø 32 mm

Compatible drivers

- E-box Daisy
  1 Output
  1 Main power Input
  Control: DMX, Art-Net, sACN , W-DMX control, RDM
  Pixel control
  120-277V Input
  Connection via terminal blocks, inlets via grommet
  IP67

- E-box Star
  6 outputs
  1 Main power Input
  Control: DMX, Art-Net, sACN , W-DMX control, RDM
  Pixel control
  120-277V Input
  Connection via terminal blocks, inlets via grommet
  IP67

- E-box Lite
  1 output
  1 Main power Input
  Control: DMX, W-DMX control, RDM
  Pixel control
  120-277V Input
  Connection via screw terminal blocks, inlets via grommet
  IP67

Dali 2 device type

- DT8

Mounting method

- Via yoke
- Adjustability: -180°/+180°

Housing

- High pressure die-cast aluminium body
- Tempered glass

Cooling system

- Convection

Total heat dissipation

- 10 BTU/h (@ 2.5°, 3.5°), 72 BTU/h (@ 5°, 7°) (calculated)

Protection factor

- CE: IP 67 (IP 66 junction box)
- US: Suitable for wet location

Impact rating

- IK10

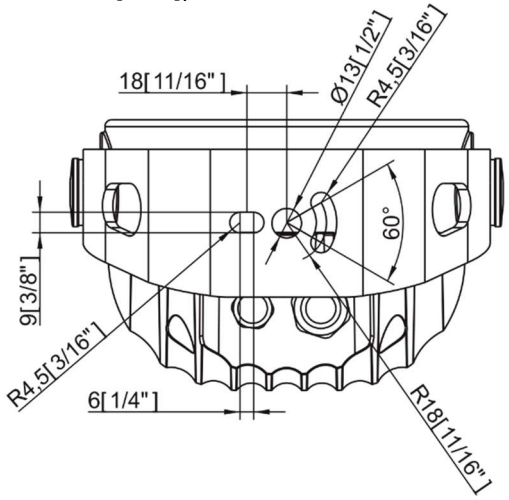
Operating ambient temperature range

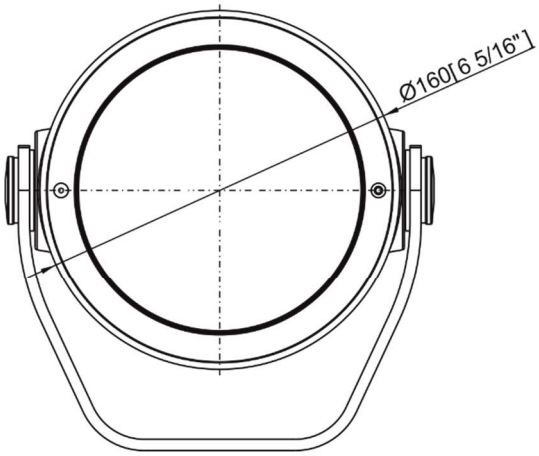
- -20°C /+40°C (-4°F /+104°F)

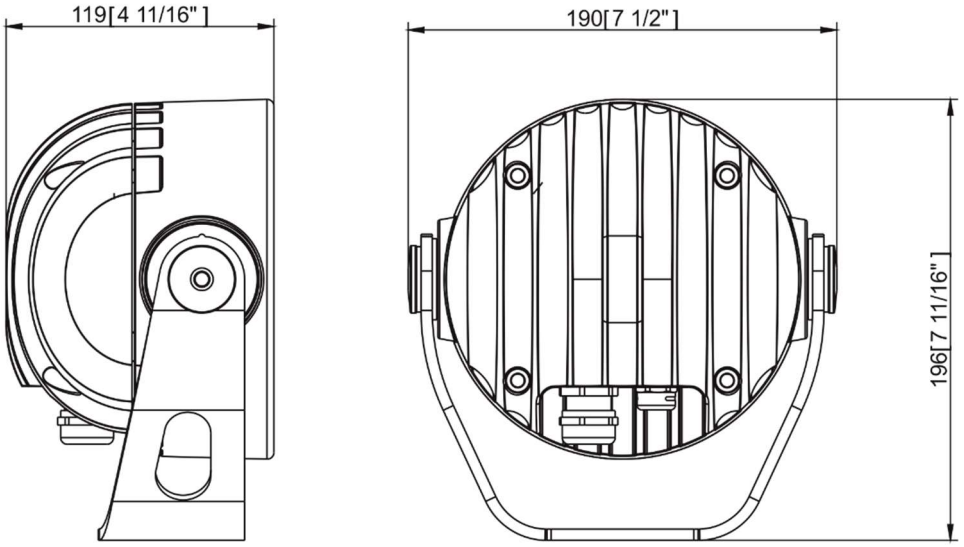
Weight

- 3.68 kg (8.11 lbs)

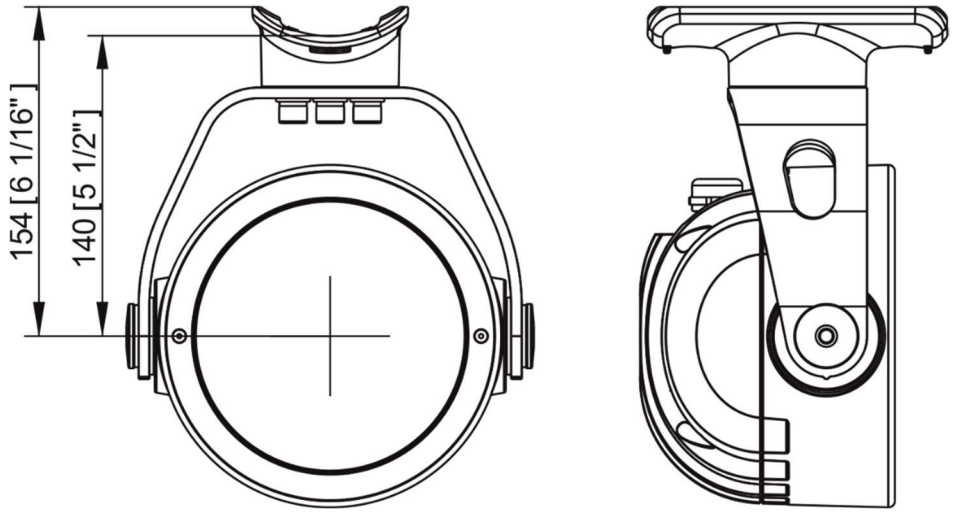
Dimensions (All dimensions in mm [inch])



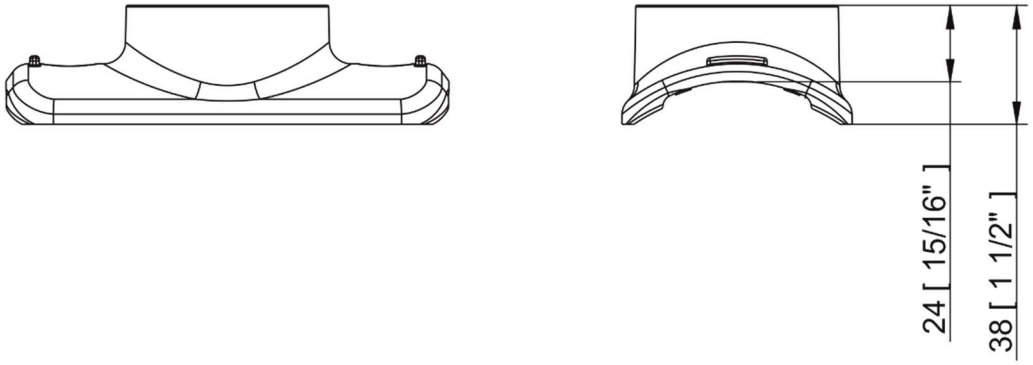


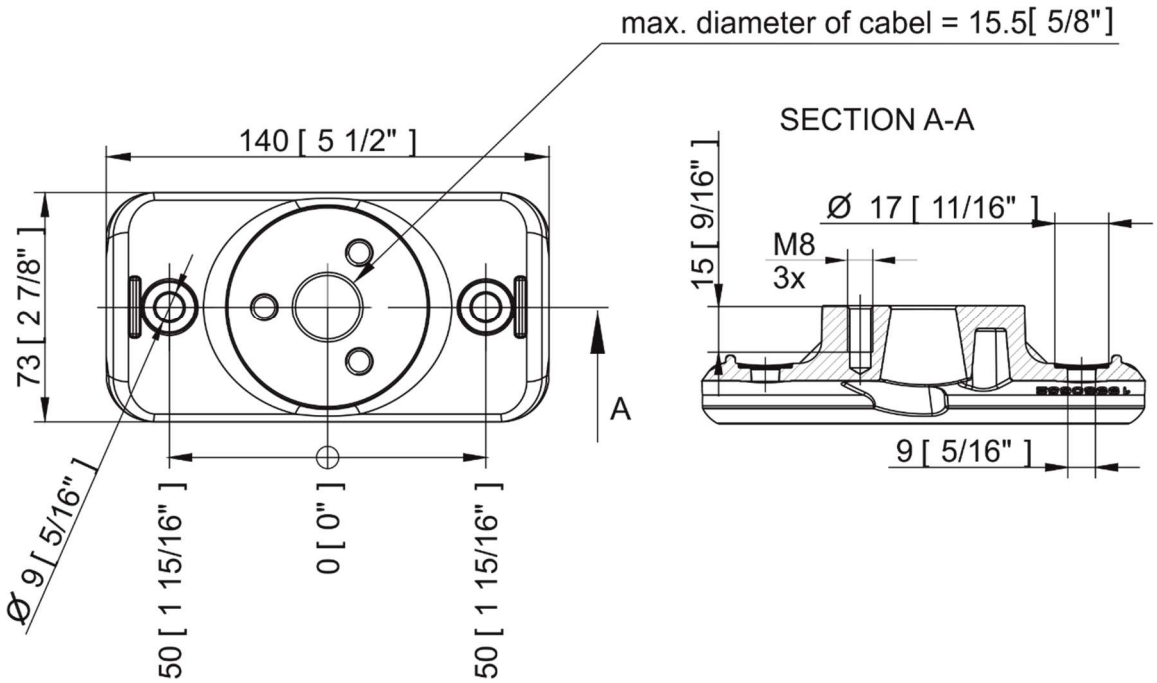


Calumma UN S with Pole clamp adaptor

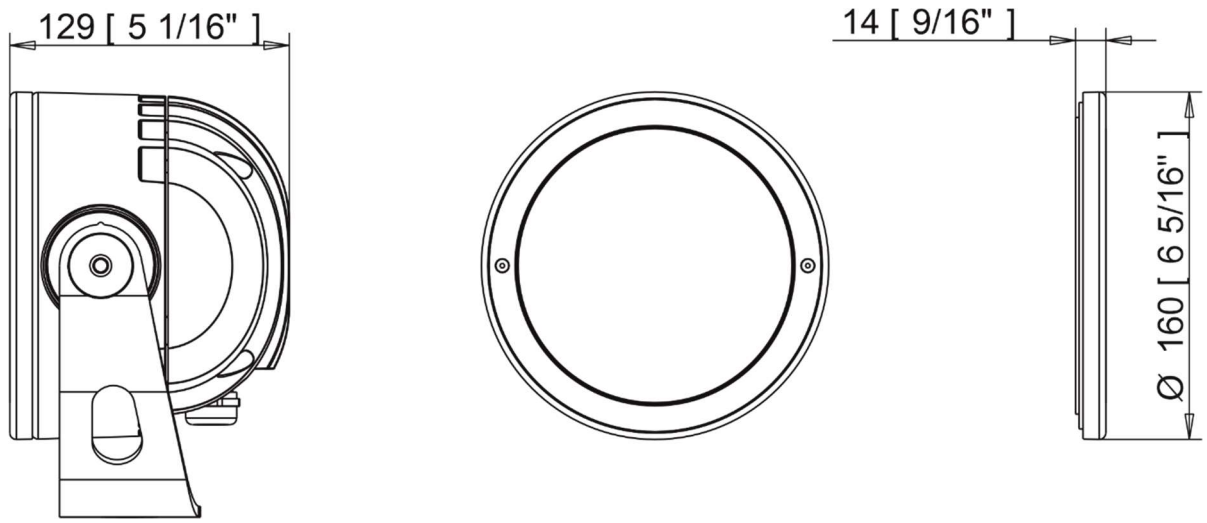


Pole clamp adaptor for Calumma

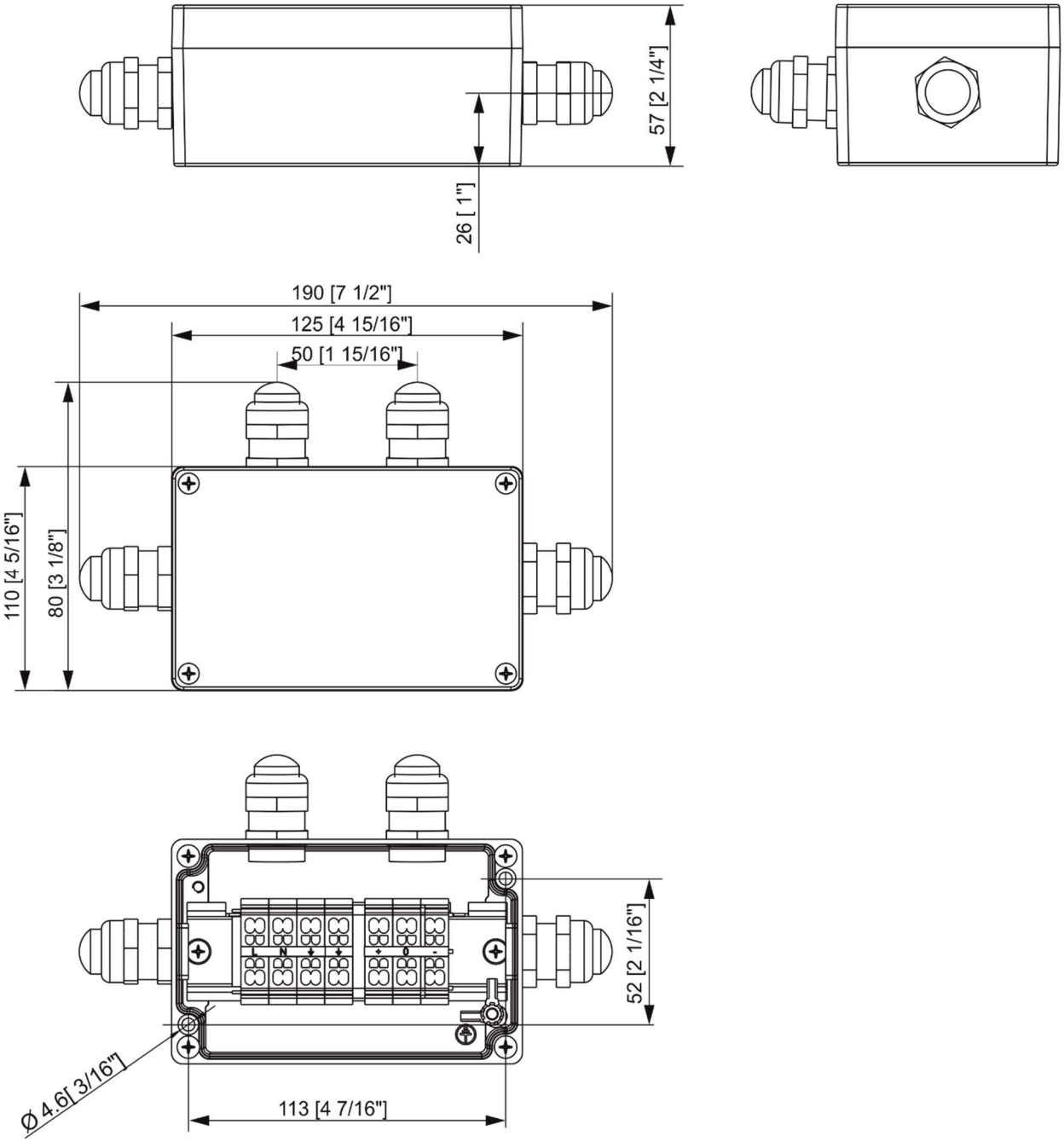




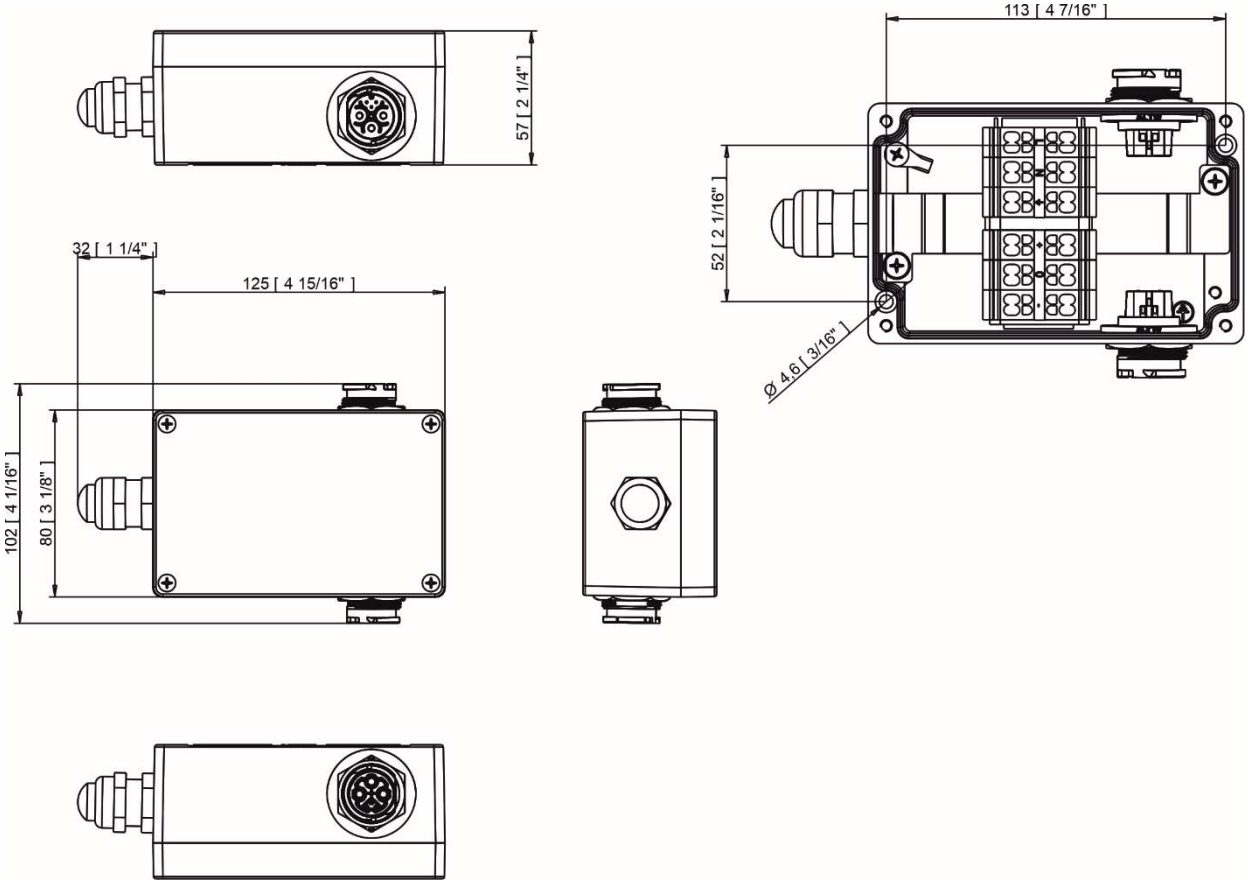
Calumma UN S with Outdoor Foil Holder


129 [5 1/16"]
14 [9/16"]
Ø 160 [6 5/16"]

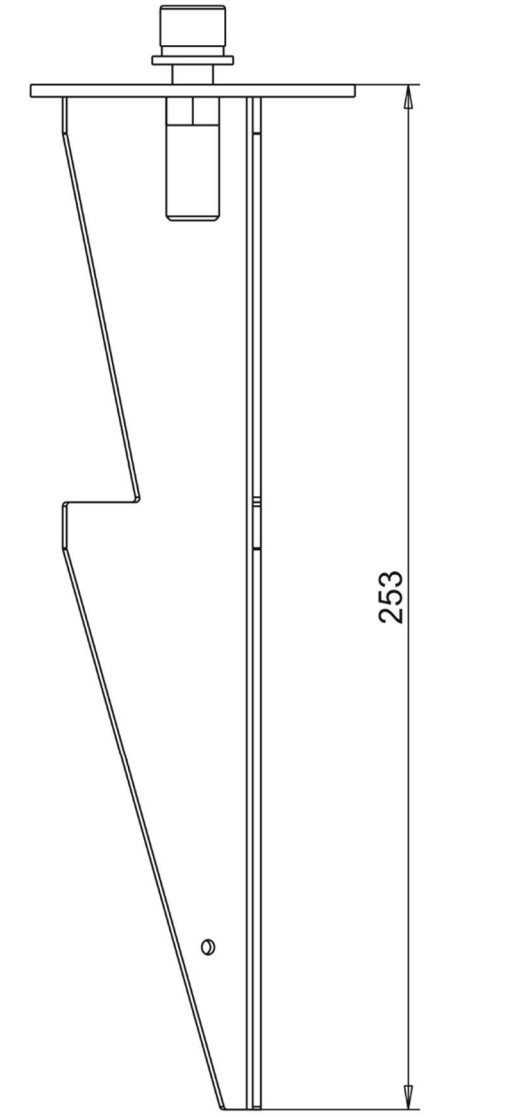
Junction box

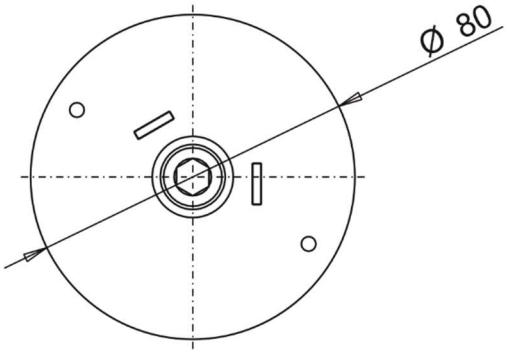


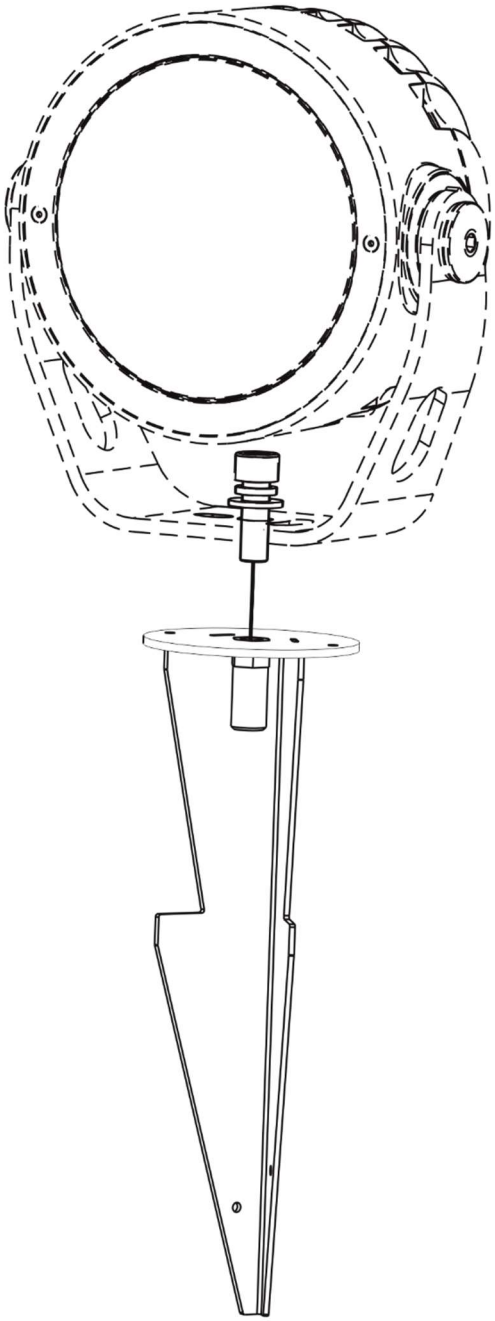
Junction box with panel connectors



Land Spike







Included items

- 1 x Calumma UN S MC / Calumma UN S SC
- 1 x User manual

Optional accessories

Junction Box for Calumma, 1x Output, Ral 9006 (P/N 10980757)
Junction Box for Calumma, 1x Output, Ral 9011 (P/N 10980714)
Junction Box w/Panel Connector CE RAL9011 (P/N 10981268)
Junction Box w/Panel Connector US RAL9011 (P/N 10981269)
Junction Box w/Panel Connector CE RAL9007 (P/N 10981295)
Junction Box w/Panel Connector CE RAL8004 cus (P/N 10981326)
Junction Box w/Panel Connector US RAL1013 (P/N 10981358)
Top Hat Calumma S RAL9011 (P/N 10980733)
Half Top Hat Calumma S RAL9011 (P/N 10980737)
Pole clamp adaptor for Calumma RAL 9011 (P/N 10980783)
Land Spike for Calumma S, M, L, XL (P/N 10981065)
Tenon Adaptor for Calumma S
Pole Mount Bracket for Calumma S

E-box Daisy (P/N 10063655)
E-box Daisy/W (P/N 10063638)
E-box Lite (P/N 10063657)
E-box Lite/W (P/N 10063653)
E-box Star (P/N 10063656)
E-box Star/W (P/N 10063644)

Jumper cable FF/FM 0,25 m (P/N 13053422)
Jumper cable FF/FM 0,5 m (P/N 13053423)
Jumper cable FF/FM 1 m (P/N 13053425)
Jumper cable FF/FM 2 m (P/N 13053427)
Jumper cable FF/FM 3 m (P/N 13053428)
Jumper cable FF/FM 5 m (P/N 13053430)
Jumper cable FF/FM 10 m (P/N 13053424)

US:
Leader Cable FF 2m (P/N 13053433)
Leader Cable FF 5m (P/N 13053435)
Leader Cable FF 10m (P/N 13053431)
Leader Cable FF 25m (P/N 13053432)
Leader Cable FF 50m (P/N 13053434)

CE:
Leader cable FF 2 m (P/N 13053438)
Leader cable FF 5 m (P/N 13053440)
Leader cable FF 10 m (P/N 13053436)
Leader cable FF 25 m (P/N 13053437)
Leader Cable FF 50m (P/N 13053439)

Cable Flamar 3x AWG 16 + 1x (2x AWG 24), (P/N 1305 1508)

7. Cleaning and maintenance

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

Rinse off loose dirt with low pressure water spray. Wash the housing with a soft brush or sponge and a mild, non-abrasive washing detergent. Rinse it.
Maintenance and service operations are only to be carried out by a qualified person.
Should you need any spare parts, please use ROBE OEM parts.

7.1 Disposing of the product

To preserve the environment please dispose or recycle this product at the end of its life according to the local regulations and codes.

8. ChangeLog

This section summarizes changes in the user manual.

Version of manual	Date of issue	Description of changes

Specifications are subject to change without notice.
November 9, 2026
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DMX protocol for Calumma - All sizes - MC and SC

Version: 1.3 (16 modes in total)

Mode/Channels in all							
1	*2*	*3*	*4*	*5*	*6*	*7*	*8-10*
4	3	12	3	6	8	15	Reserved

Mode 1- RGBW(A)-8bit, Mode 2- RGB 8-bit, Mode 3- full RGBW(A)
Mode 4- White-full control, Mode 5- Reduced RGBW(A)
Mode 6- Reduced RGBW(A)+white control, Mode 7- Full control
Mode 7-Full RGBW(A)+virt. Colour wheel

RGBW/RGBA/RGB modes

Mode/channels							DMX Value	Function	Type of control
1	*2*	*3*	*4*	*5*	*6*	*7*			
-	-	-	-	-	-	1		**Special functions**	
							0	No function	step
								To activate following functions , stop in DMX value for at least 3 sec.	
							1-2	Save current DMX values to fixture as initial DMX values.	step
							3-4	Show saved initial DMX values	step
							5-6	Run factory demo sequences at switching fixture on (without DMX)	step
							7-8	Insect friendly light On (RGBA version only)	step
							9-10	Insect friendly light Off (RGBA version only)	step
							11-255	Reserved	
1	1	1	-	1	1	2		**Red**	
							0 - 255	Red LEDs saturation control (0-100%)	proportional
-	-	2	-	-	-	3		**Red Fine**	
							0 - 255	Red LEDs saturation control fine	proportional
2	2	3	-	2	2	4		**Green**	
							0 - 255	Green LEDs saturation control (0-100%)	proportional
-	-	4	-	-	-	5		**Green Fine**	
							0 - 255	Green LEDs saturation control fine	proportional
3	3	5	-	3	3	6		**Blue**	
							0 - 255	Blue LEDs saturation control (0-100%)	proportional
-	-	6	-	-	-	7		**Blue Fine**	
							0 - 255	Blue LEDs saturation control fine	proportional
4	-	7	-	4	4	8		**White (Amber)**	
							0 - 255	White LEDs saturation control (0-100%)	proportional
-	-	8	-	-	-	9		**White (Amber) Fine**	
							0 - 255	White LEDs saturation control fine	proportional
-	-	9	1	-	5	10		**Green correction**	
							0	Uncorrected white	step
							1-127	Minus green - uncorrected white	proportional
							128	Uncorrected white (128=default)	step
							129-255	Uncorrected white - Plus green	proportional
-	-	10	2	-	6	11		**Colour temperature correction (CTC)**	
							0	No function	step
							1 - 10	Tungsten dimming 2700 K	step
							11 - 20	Tungsten dimming 3200 K	step
							21-255	Colour temperature changing from 1800 K --> 6500 K	proportional
								(21-1800K, 66-2700K, 91-3200K,141-4200K, 211-5600K, 255-6500K)	
-	-	-	-	-	-	12		**Virtual Colour Wheel**	
							0	No function	step

Mode/channels							DMX Value	Function	Type of control
1	*2*	*3*	*4*	*5*	*6*	*7*			
							1-2	White 1800 K	step
							3-4	White 2700 K	step
							5-6	White 3200 K	step
							7-8	White 4200 K	step
							9-10	White 5600 K	step
							11-12	White 6500 K	step
							13	Blue (Blue=full, Red+Green+White/Amber=0)	step
							14-23	Red=0, Green->up,Blue =full, White/Amber=0	proportional
							24	Cyan (Red=0, Green=full, Blue =full, White/Amber=0)	step
							25-34	Red=0, Green=full, Blue->down, White/Amber=0	proportional
							35	Green (Red=0, Green=full, Blue =0, White/Amber=0)	step
							36-45	Red->up, Green=full, Blue=0, White/Amber=0	proportional
							46	Yellow (Red=full, Green=full, Blue=0, White/Amber=0)	step
							47-56	Red=full, Green->down, Blue=0, White/Amber=0	proportional
							57	Red(Red=full, Green=0, Blue=0, White/Amber=0)	step
							58-67	Red=full, Green=0, Blue->up, White/Amber=0	proportional
							68	Magenta (Red=full, Green=0, Blue=full, White/Amber=0)	step
							69-78	Red -> down, Green=0, Blue=full, White/Amber=0	proportional
							79	Blue (Red=0, Green=0, Blue=full, White/Amber=0)	step
								Transition effects	
							80-87	Rainbow effect (with fade time) from slow-> fast	proportional
							88-95	Rainbow effect (without fade time) from slow-> fast	proportional
							96-103	Full dynamic white (1800K->6500K->1800K) (with fade time) from slow-> fast	proportional
							104-111	Full dynamic white (1800K->6500K->1800K) (without fade time) from slow-> fast	proportional
							112-119	Dynamic warm white (1800K-3000K-1800K) (with fade time) from slow-> fast	proportional
							120-127	Dynamic warm white (1800K-3000K-1800K) (without fade time) from slow-> fast	proportional
							128-135	Rainbow effect + full dynamic white (with fade time) from slow-> fast	proportional
							136-143	Rainbow effect + full dynamic white (without fade time) from slow-> fast	proportional
							144-151	Blue/Green effect (with fade time) from slow-> fast	proportional
							152-159	Blue/Green effect (without fade time) from slow-> fast	proportional
							160-167	Red/Blue effect (with fade time) from slow-> fast	proportional
							168-175	Red/Blue effect (without fade time) from slow-> fast	proportional
							176-183	Green/Red effect (with fade time) from slow-> fast	proportional
							184-191	Green/Red effect (without fade time) from slow-> fast	proportional
							192-199	Blue/4000K effect (with fade time) from slow-> fast	proportional
							200-207	Blue/4000K effect (without fade time) from slow-> fast	proportional
							208-215	Green/4000K effect (with fade time) from slow-> fast	proportional
							216-223	Green/4000K effect (without fade time) from slow-> fast	proportional
							224-231	Red/4000K effect (with fade time) from slow-> fast	proportional
							232-239	Red/4000K effect (without fade time) from slow-> fast	proportional
						13		**Shutter/Strobe**	
							0-31	Shutter closed	step
							32-63	Shutter open	step
							64-95	Strobe-effect from slow to fast	proportional

Mode/channels							DMX Value	Function	Type of control
1	*2*	*3*	*4*	*5*	*6*	*7*			
							96-127	Shutter open	step
							128-143	Opening pulse in sequences from slow to fast	proportional
							144-159	Closing pulse in sequences from fast to slow	proportional
							160-191	Shutter open	step
							192-223	Random strobe-effect from slow to fast	proportional
							224-255	Shutter open	step
-	-	**11**	**3**	**5**	**7**	**14**		**Dimmer**	
							0 - 255	Light intensity coarse (0-100%)	proportional
-	-	**12**	-	**6**	**8**	**15**		**Dimmer Fine**	
							0 - 255	Light intensity fine	proportional

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All Specifications subject to change without notice

DMX protocol for Calumma - All sizes - MC and SC

Version: 1.3 (16 modes in total)

Mode/Channels in all				TW Modes: Mode 11- White selection + Dimmer, Mode 12- WW + CW
11	*12*	*13*	*14-16*	PW Mode: Mode 13- Dimmer
3	4	2	Reserved	

TW and PW modes

Mode/channels			DMX Value	Function	Type of control
11	*12*	*13*			
1	-	-		**White colour selection**	
			0 - 255	White from 2700 K - 6500 K	proportional
-	**1**	-		**Warm White**	
			0 - 255	Warm White LEDs saturation control (0-100%)	proportional
-	**2**	-		**Cool White**	
			0 - 255	Cool White LEDs saturation control (0-100%)	proportional
2	**3**	**1**		**Dimmer**	
			0 - 255	Light intensity coarse (0 - 100%)	proportional
3	**4**	**2**		**Dimmer Fine**	
			0 - 255	Light intensity fine	proportional

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