BOS LIGHTING

FRESNEL 60



MAKE LIFE BRIGHTER

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TABLE OF CONTENTS

SAFETY INSTRUCTIONS & MAINTENANCE	PAGE 3
INSTALLATION	PAGE 4
PRODUCT SIZE & MOUNTING	PAGE 5
DMX-512 CONTROL CONNECTIONS	PAGE 7
PHOTOMETRIC DATA	PAGE 8
MENU OVERVIEW	PAGE 9
DMX CHANNELS	PAGE 10
TROUBLESHOOTING AND CLEANING	PAGE 11
TECHNICAL SPECIFICATIONS	PAGE 13

SECTION 1

SAFETY INSTRUCTIONS & MAINTENANCE

This product is for professional use only. It is not for household use.

This product presents risks of severe injury or death due to fire and burn hazards, electric shock and falls. Read this manual before installing, powering or servicing the fixture, follow the safety precautions listed below and observe all warnings in this manual and printed on the fixture. This device has left the factory in perfect condition. In order to maintain this condition and to ensure a safe operation, it is absolutely necessary for the user to follow the safety instructions and warning notes written in this user manual.

If you have questions about how to operate the fixture safely, please contact us via info@bos-lighting.nl.

WARNING!
Read the safety precautions in this section before unpacking, installing, powering or operating this product.

- Review the following safety precautions carefully before installing or operating the fixture. This fixture must be installed in accordance with the applicable installation code by a person familiar with the construction and operation of the fixture and the hazards involved.

WARNING!
Risk of electric shock.

- Always power off/unplug the fixture before removing any covers.
- Ensure that the power is turned off when connecting the fixture to the AC mains supply.
- Do not apply power if the fixture is in any way damaged.
- Do not immerse the fixture in water or liquid.

WARNING!
Take measures to prevent burns and fire.

- Install in a location that prevents accidental contact with the fixture.
- Install only in a well-ventilated space.
- Install at least 0.3 m (12 in.) away from objects to be illuminated.
- Install only in accordance with applicable building codes.
- Ensure a minimum clearance of 0.1 m (4 in.) around the cooling fans.
- Do not paint, cover or modify the fixture.
- Keep all flammable materials away from the fixture.
- Allow the fixture to cool for 15 minutes after operation, before touching it.
- CAUTION: Exterior surface temperature after 5 min. operation = 45 °C

WARNING!
Take measure to prevent personal injury.

- Do not look directly at the light source from close range.
- Take precautions to prevent injury due to falls when working at height.
- For permanent installation, ensure that the fixture is securely fastened to a load-bearing surface with suitable corrosion-resistant hardware.
- For temporary installation with clamps, ensure that the quarter-turn fasteners are turned fully and secured with a suitable safety cable.
- The cable must be approved for a safe working load (SWL) of 10 times the weight of the fixture, and it must have a minimum gauge of 3 mm.

CAUTION!
Disconnect from mains before starting maintenance operation

The following points have to be considered during the inspection:

1. All screws for installing the devices or parts of the device have to be tightly connected and must not be corroded.
2. There must not be any deformations on the housing, color lenses, fixations and installation spots (ceiling, suspension, trussing).
3. Mechanically moved parts must not show any traces of wearing and must not rotate with unbalances.
4. The electric power supply cables must not show any damage, material fatigue or sediments.

Further instructions depending on the installation spot and usage have to be adhered by a skilled installer and any safety problems have to be removed.

SECTION 2

INSTALLATION

WHAT IS IN THE BOX?

- 1x Fresnel 60
- 1x Shuko -> True1
- 1x Safety cable
- 1x Quicklock bracket for clamp

PREPARING

Unpack the fixture and inspect it to ensure that it has not been damaged during transport. Read the manual before installation.

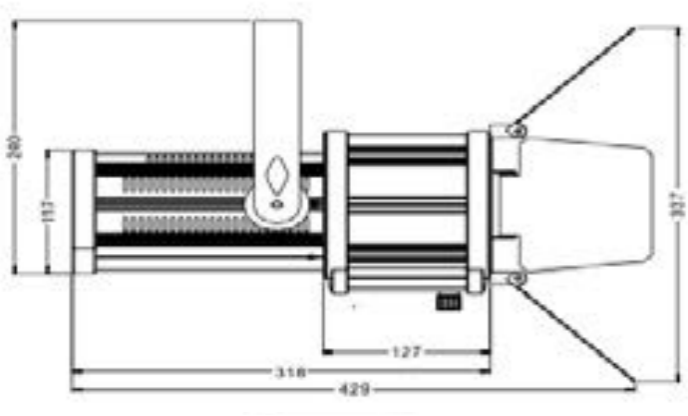
When selecting a location for the fixture, ensure that:

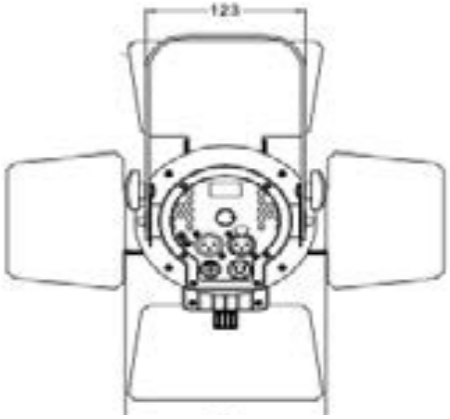
- It is situated away from public thoroughfares and protected from contact with people.
- It is placed with no chance of getting wet
- It has adequate ventilation.

SECTION 3

PRODUCT SIZE & MOUNTING

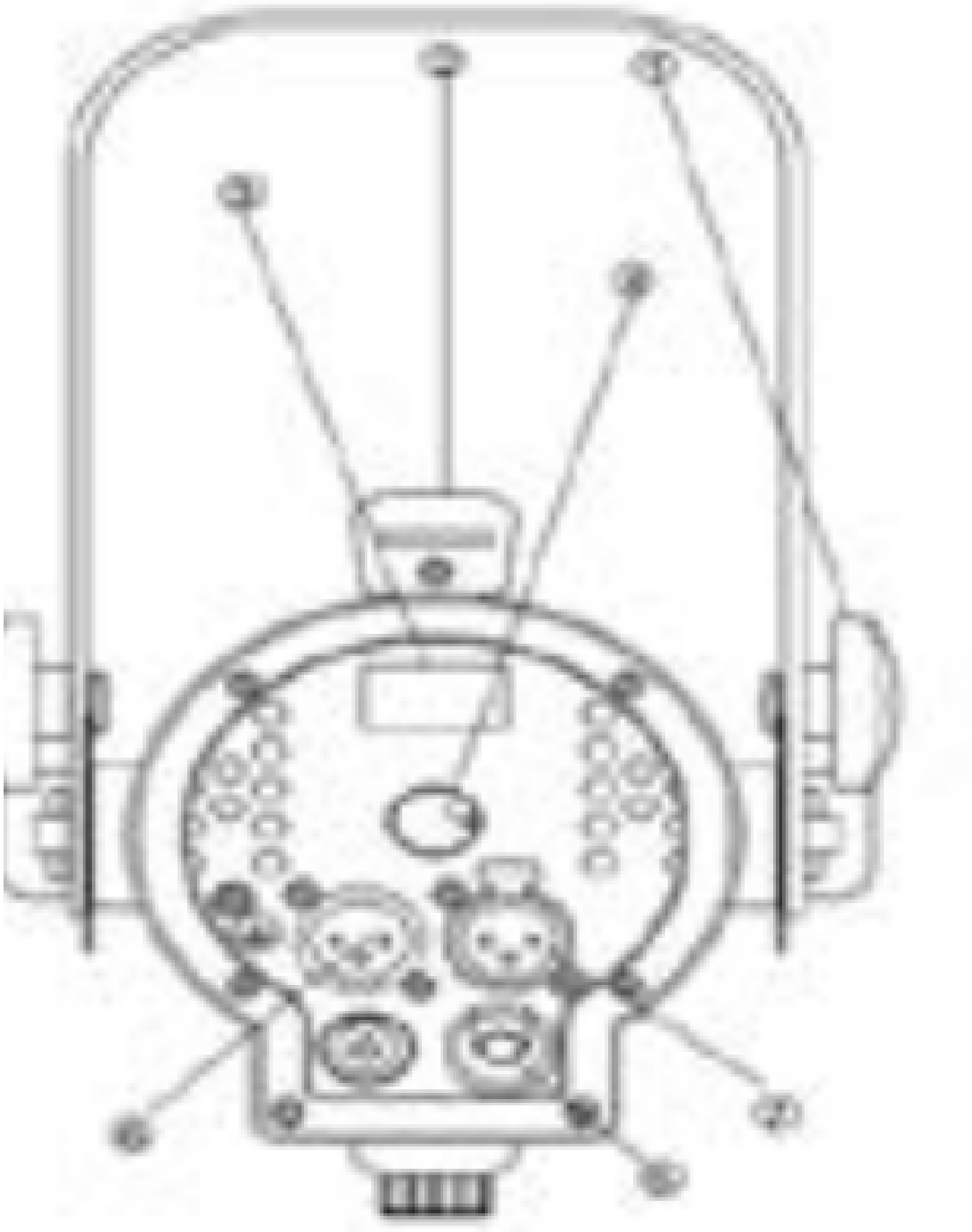
DIMENSIONS FRESNEL 60





PRODUCT SIZE & MOUNTING

PARTS

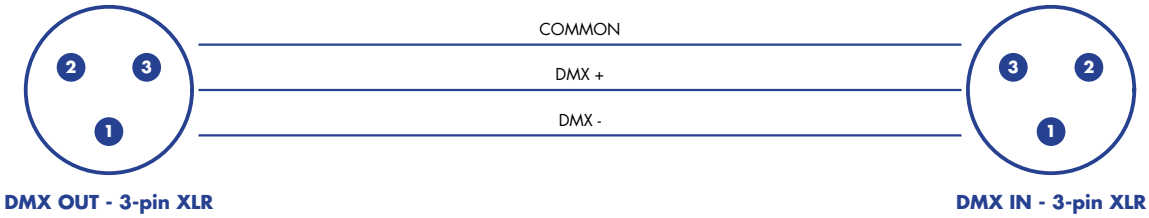


1. Fixation screws
2. Shutter blade
3. Display
4. Function selection knob
5. Power IN
6. DMX IN
7. DMX OUT

SECTION 4

DMX-512 CONTROL CONNECTIONS

Connect the provided XLR cable to the female 3-pin XLR & 5-pin XLR output of your controller and the other side to the male 3-pin XLR & 5-pin XLR input of the moving head. You can chain multiple moving head together through serial linking. The cable needed should be two core, screened cable with XLR input and output connectors. Please refer to the diagram below.



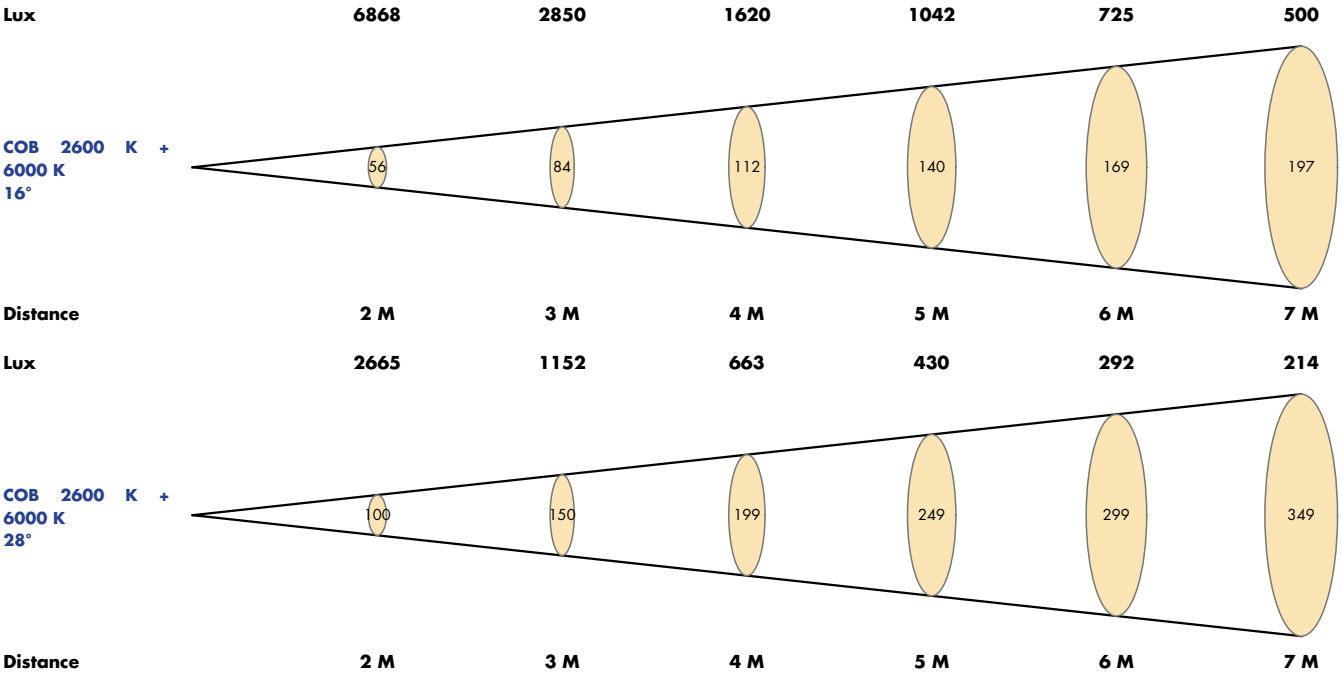
DMX OUT - 3-pin XLR **DMX IN - 3-pin XLR**

1: Ground
2: Data - (cold)
3: Data + (hot)

For installations where the DMX cable has to run a long distance or is in an electrically noisy environment, it is recommended to use a DMX terminator. This helps in preventing corruption of the digital control signal by electrical noise. The DMX terminator is simply an XLR plug with a 120 Ohm resistor connected between pins 2 and 3, which is then plugged into the output XLR socket of the last fixture in the chain.

SECTION 5

PHOTOMETRIC DATA



Lux at 16°

Source	2 M	3 M	4 M	5 M	6 M	7 M
W	3037	1260	721	460	322	223
A	4031	1700	963	615	422	295
W + A	6868	2850	1620	1042	725	500

Lux at 28°

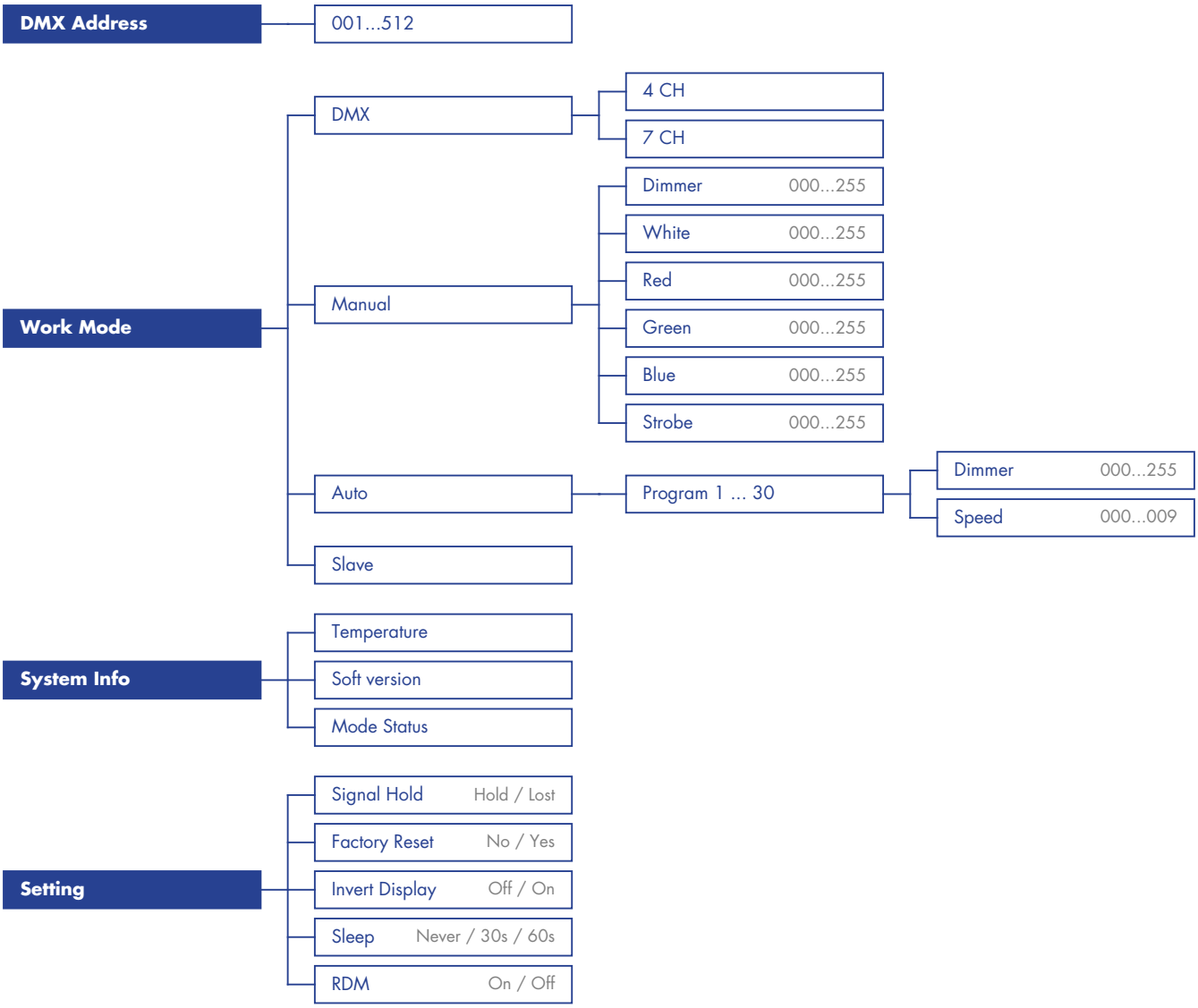
Source	2 M	3 M	4 M	5 M	6 M	7 M
W	1181	510	296	192	133	100
A	1583	683	396	255	174	130
W + A	2665	1152	663	430	292	214

Beam size in centimeters

Angle	2 M	3 M	4 M	5 M	6 M	7 M
16°	56	84	112	140	169	197
28°	100	150	199	249	299	349

SECTION 6

MENU OVERVIEW



DMX CHANNELS

4 CH

Channel	Function	Value	Description
1	Warm white 2600 K	000...255	From dark (0) to bright (255)
2	Cold white 6000 K	000...255	From dark (0) to bright (255)
3	CCT	000...255	From warm 2600 K (0) to cold 6000 K (255)
4	Master dimmer	000...255	Master level dimming

7 CH

Channel	Function	Value	Description
1	Warm white 2600 K	000...255	From dark (0) to bright (255)
2	Cold white 6000 K	000...255	From dark (0) to bright (255)
3	CCT	000...255	From warm 2600 K (0) to cold 6000 K (255)
4	Strobe	000...009	No strobe
		010...255	Levels strobe function
5	Delay	000...063	1st level delay function
		064...127	2nd level delay function
		128...191	3rd level delay function
		192...255	4th level delay function
6	Master dimmer	000...255	Master level dimming
7	Dimmer fine	000...255	Fine control of channel 6 (16 bit)

Colour temperature macro (channel 3)

Value	Colour temperature	Value	Colour temperature
001...255	2600 K - 6000 K		

SECTION 8

TROUBLESHOOTING AND CLEANING

CAUTION!
Disconnect from mains before starting maintenance operation

The lamp contains professional components such as microcomputer circuit board and high-voltage power supply. For your safety and product life, non-professionals should not disassemble the lamp and related accessories without authorization.

The diode does not light up (except LED light source)

Possible cause: The bulb is not completely cooled, or the bulb has reached the end of its life, the treatment is as follows:

- Due to abnormal operation, the bulb is not completely cooled down, so let the lamp body cool down for more than 10 minutes to make the inside completely return to normal state, and then turn on the power again.
- Check whether the bulb has reached the end of its life, and replace it with a new one.
- Check whether the bulb and the lighter circuit are leaking, falling off, or having poor contact.
- Replace with a new light source.

The light beam appears dim

Possible cause: The bulb has been used for a long time or the light path is not clean, the treatment is as follows:

- Check whether the bulb has reached the end of its life, and replace it with a new one
- Check whether the optical components or bulbs are clean, and whether there is dust on the bulbs and other optical components.
- Regular cleaning and maintenance of the bulbs and components in the lamps are required.

Blurred pattern projection

Possible cause: Lenses are dirty or electronic focus is defect:

- Check if the lenses are clean.
- Check whether the electronic focus channel value is suitable for the current projection distance.

The lamps work intermittently

Possible cause: The internal circuit enters the protection state, and the treatment is as follows

- Check whether the fan is operating normally or whether it is dirty, causing the internal temperature of the lamp to rise
- Check whether the internal temperature control switch is closed
- Check whether the bulb has reached the end of its service life, and replace it with a new one.

After the lamp is reset normally, it does not accept the control of the console

Possible cause: signal line failure or abnormal lamp parameter setting, the treatment is as follows:

- Check the start address code and check the connection of the DMX signal line (whether the signal line cable is intact, and whether the connection of the head is loose)
- Add signal amplifier, add 120 ohm terminal resistance.

The lamp can't start

Possible cause: bad power line, the treatment is as follows:

- Check whether the fuse on the power input socket is fused, replace the fuse.
- Lamps have poor line contact due to vibration during long-distance transportation.
- Check the input power, computer board and other plug-in devices.

CAUTION!
Disconnect from mains before starting cleaning operation

In order to make the lights in good condition and extend the life time, we suggest a regular cleaning to the lights.

1. Clean the inside and outside lens each week to avoid the weakness of the lights due to accumulation of dust.
2. Clean the fan each week.
3. A detailed electric check by approved electrical engineer each three month, make sure that the circuit contacts are in good condition, prevent the poor contact of circuit from overheating.

We recommend a frequent cleaning of the device. Please use a moist, lint-free cloth. Never use alcohol solvents.

TROUBLESHOOTING AND CLEANING

There are no serviceable parts inside the device. Please refer to the instructions under "Installation instructions".

Should you need any spare parts, please order genuine parts from your local dealer.

SECTION 9

TECHNICAL SPECIFICATIONS

Light source	1x COB 60 W (cool white + warm white)
Beam angle	16° - 28°
Repetition rate	20.000 Hz
Control	DMX, buttons and display
Number of DMX channels	4 CH, 7 CH
Power connections	Lockable powerCON in/out
Control connections	3-pin or 5-pin XLR in/out
Power consumption	60 W
Operating supply voltage	100 - 240 V, 50/60 Hz
Protection class	IP20, indoor
Mounting options	Hanging
Dimensions (W x H x D), with bracket	155 mm x 140 mm x 318 mm
Weight	3,5 kg
Temperature range	0 °C ... 40 °C
Relative humidity	20 % ... 80 % (non-condensing)
Construction	Indoor housing, fresnel lens, rotating barndoors
Number of LEDs	2
Colour mixture	2600 K - 6000 K
LED type	2-in-1 COB, 2600 K - 6000 K
Fanless	No
Wireless DMX	No
Housing colour	Black