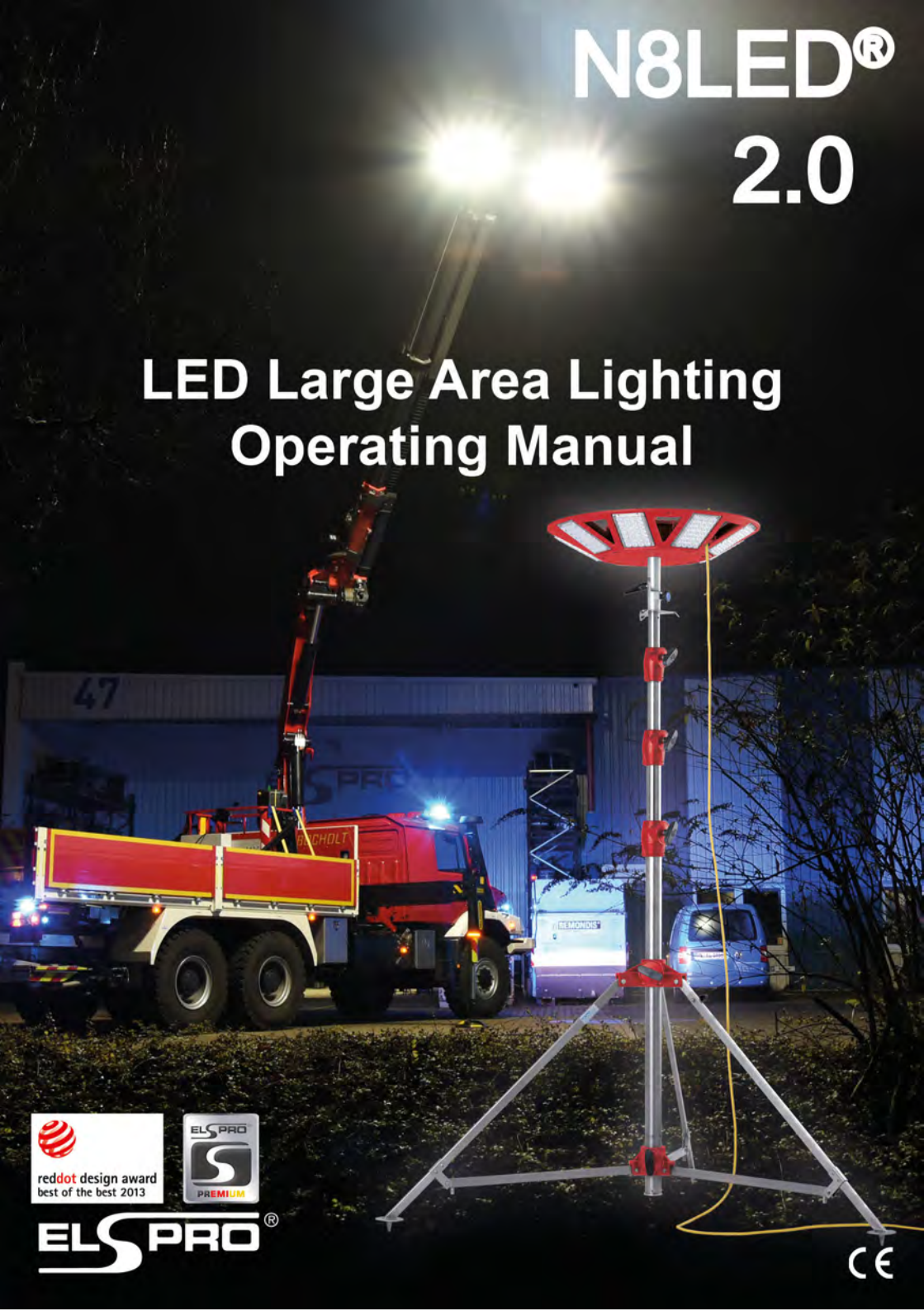


N8LED® 2.0

LED Large Area Lighting Operating Manual



ELSPRO®

CE

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1 General

1.1 Information about the Operating Manual

This operating manual enables you to safely and properly operate the LED – Lamp N8LED.

The N8LED consists of a sturdy aluminum construction and various accessories.

(These various combinations are hereinafter referred to as N8LED)

Carefully read through this operating manual before using the N8LED for the first time. Take good care of the operating manual.

Failure to comply with this operating manual can lead to severe injury or damage to the N8LED.

1.2 Symbols in the Manual



DANGER! Electrical Current!

Indicates dangerous situations resulting from electrical current which can lead to death or severe injury if they are not avoided.



WARNING!

Identifies possible dangerous situations which can lead to death or severe injury if they are not avoided.



CAUTION!

Identifies notices of dangers which could result in damage to the N8LED.



NOTICE!

Highlights tips and other useful information.

1.3 Liability

All specifications and instructions are given in consideration of our previous experience and findings, according to our best knowledge.

The manufacturer accepts no liability for damages resulting from failure to comply with instructions, improper use, unauthorized modifications, technical changes or the use of unapproved spare parts.

Technical changes in connection with the improvement of usage characteristics and further development reserved.

1.4 Disposal

When the end of use has been reached, particularly when functional faults occur, make the obsolete N8LED unusable. Dispose of the N8LED by returning the N8LED to ELSPRO Elektrotechnik GmbH & Co. KG or in accordance with the environmental regulations applicable in your country. Electrical waste may not be disposed of together with household waste. Contact your community authorities or ELSPRO Elektrotechnik GmbH & Co. KG for matters pertaining to recycling.

1.5 Manufacturer's Address

ELSPRO Elektrotechnik GmbH & Co. KG

Kleinhülsen 47
D-40721 Hilden
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Fax: +49 (0)2103/9710-80
E-mail: info@elspro.de
Internet: www.elspro.de
Internet: www.n8led.de

Service Hotline:

Tel.: +49 (0)2103/9710-10
Fax: +49 (0)2103/9710-80
E-Mail: info@elspro.de
Internet: www.elspro.de

2 Safety

2.1 Proper Use

The N8LED can be used as interior and exterior lighting. The N8LED is protected against:

- Penetration by granular foreign objects (e.g. sand),
- Spraying water from all directions.

The N8LED is equipped with country-specific connectors according to the version. Safe use is only possible with the compatible power connectors.

The N8LED is designed for industrial use.

The use of the N8LED in areas subject to explosion hazards is prohibited.

2.2 Personal Qualifications

People who can be expected to be sufficiently qualified and to reliably perform their work are allowed as operating personnel:

- Electrical specialists
- Trained personnel

Persons whose responsiveness is influenced, such as by drugs, alcohol or medication, are not allowed.

Take note of the age and occupation-specific regulations applicable at the site of use when choosing personnel.

2.3 Special Dangers to Children

- Do not leave the N8LED unsupervised when children or persons who cannot gauge the risks are in the vicinity.
- Packaging materials may not be used as toys. There is danger of suffocation.

2.4 Dangers to People



WARNING!

- Before every use, ensure that all screw and plug connections are tightly connected.
- When using the lamp on a stand, secure the stand by fastening with cables.



WARNING!

- Ensure that no lines are crushed; there is risk of a short-circuit.
- Use no explosive or easily flammable materials in the vicinity of the N8LED. There is risk of fire or explosion.

2.5 Electrical Current



DANGER! Electrical Current!

The N8LED serves for lighting. There is a fundamental risk of electrical shock in this context. Therefore, take special note of the following in particular:

- Never touch the plug with wet hands.
- Always pull directly on the power plug in order to remove it from the socket. Never pull on the power cable, as it could break.
- Never kink, clamp, drive over or bring the power cable into contact with heat sources.
- Use only extension cords which are designed for the power consumption of the power consumer.
- The device is only protected against spraying water. Never immerse it in water or other liquids. The water would penetrate immediately.
- The N8LED 230 VAC is equipped with a network filter with integrated micro fuse. This disconnects the current as soon as current flows which is too high.

2.6 Fuse Protection Notices

**DANGER! Electrical Current!**

The micro fuse does not disconnect the current supply. Voltage is still connected to the N8LED even if the micro fuse has triggered.

Therefore:

Always remove the supply before making changes to the N8LED, before changing a fuse or a dangerous situation occurs.

2.7 Dangers to the Device

- The aluminum housing of the N8LED is designed to be extremely sturdy. Nevertheless hard impacts can lead to damage to the aluminum housing, components and attachments or to the supply line.

2.8 In the Event of Danger

- Immediately disconnect the supply line of the N8LED from voltage in case of danger or accidents.

2.9 In Case of Defect

- Never operate a defective N8LED. There is risk of electrical shock.

**NOTICE!**

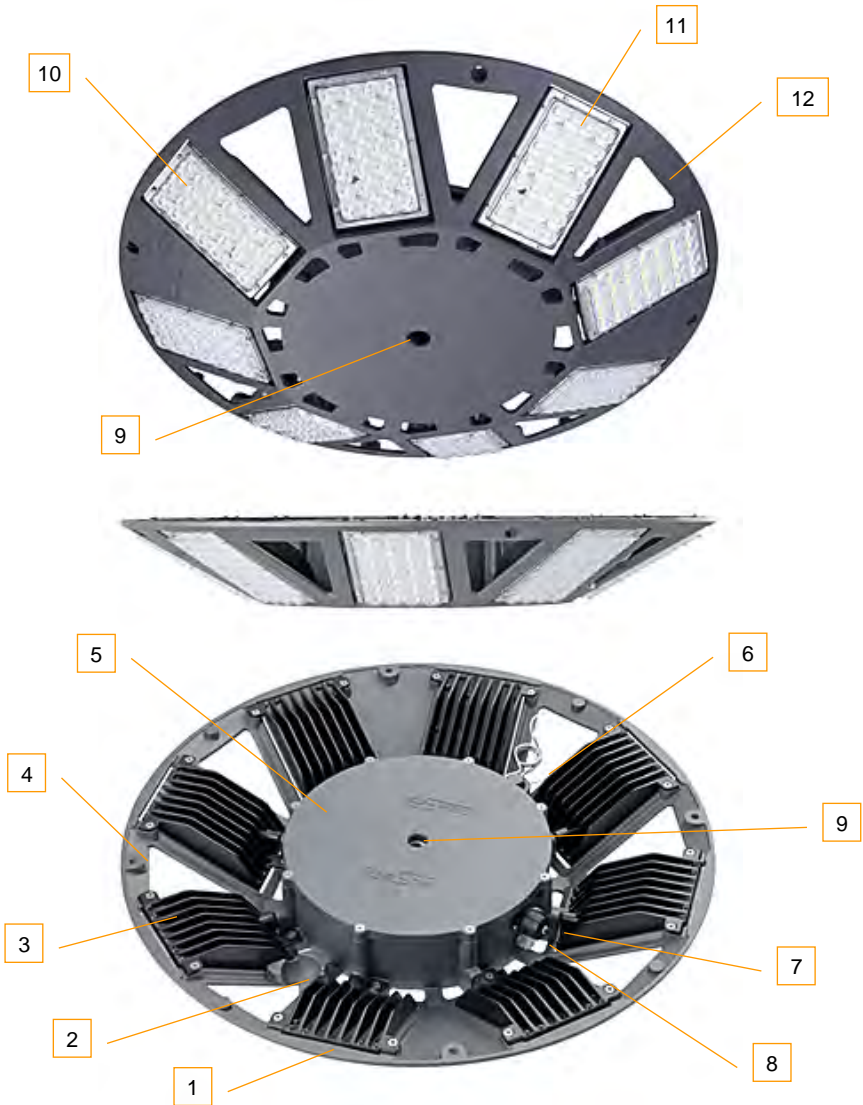
Use only original spare parts. Warranty and any liability claims are void upon the use of other spare parts.

2.10 During Operation**WARNING!**

Never leave the device unsupervised. This prevents accidents!

- Always leave the cover closed during operation.

3 Overview



1. Aluminum lamp housing
2. Depression for receiving the line stopper
3. Aluminum cooling element including LED module
4. Eye hook receptacle
5. Aluminum lamp cover
6. Scraper ring lamp fastening and spring cotter pin
7. 230 V connector
8. Pressure compensation valve
9. Stand receptacle – adapter for DIN peg
10. LED board
11. Polycarbonate lens optic
12. Finger grips

Other color variants available:



4 From Unpacking to Connection

4.1 Unpacking

Unpack the N8LED and inspect the contents for completeness.

Scope of supply:

- 1 N8LED



- 1 stand adapter for DIN peg assembly (optional)



- 1 supply line with plug system and stopper (optional)
- 1 bag (optional)



- 1 chain set (optional)
- 1 Operating manual



- Dispose of packaging material which is no longer needed according to the regulations applicable in your country.

If you should discover transport damage, immediately contact your dealer.



NOTICE!

Report any defect as soon as it is recognized. Damage compensation claims can only be validated during the applicable complaint periods.

4.2 Setup

- Insert the stand adapter for DIN peg into the lamp receptacle until the expansion flanges expand and lock. The adapter has a flat side which must correspond with the lamp receptacle so that the adapter fits into the lamp.
- The stand adapter can be inserted from both sides, so it is possible to cast light downward or upward.



- Remove the spring cotter pin from its rest position and insert it into the opening of the stand adapter. The spring cotter pin prevents the expansion flanges of the stand adapter from being unlocked and thus doubly secures the lamp to the adapter.



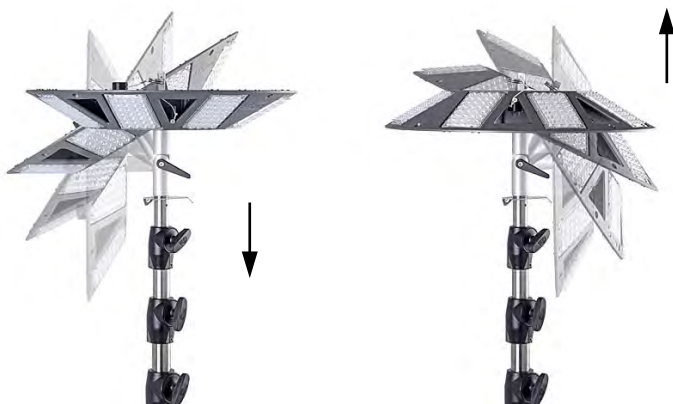
- Then place the lamp on the DIN peg and secure with the star screw



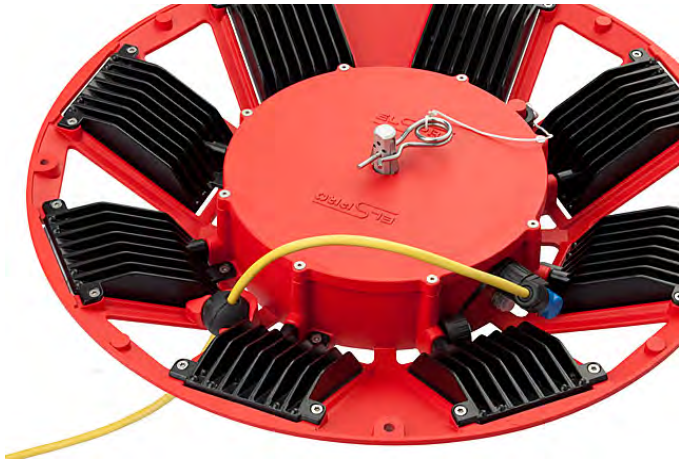
WARNING!

Danger of tipping when aligning the N8LED in the case of uncontrolled handling!

- Secure the lamp when adjusting the tilt joint by holding the housing with one hand.
- The N8LED can be aligned in various positions via the tilt joint of the stand adapter, both downward as well as upward. To do so, simply loosen the adjustable clamping levers and retighten in the desired position.



4.3 Connection



DANGER! Electrical Current!

The N8LED is operated by alternating current. There is always risk of electrical shock in this context. Therefore: Do not insert the power connector until the device is properly connected!

- Guide the supply line through the lamp opening in which the recess for the line stopper is located.
- Place the angle coupling of the supply line on the attachment plug of the lamp, tighten the union nut and place the supply line stopper in the provided recess.



ACHTUNG!

When using the N8LED with a spare power generator, the spare power generator must be switched on first – only after this has been done should you plug the N8LED into the power socket! Non-observance can lead to the destruction of the LED drivers as a result of the excessive voltage in the spare power generator when it is switched on!

- Plug the supply line plug into the supply socket.
- Ensure that there is no dirt between the cooling fins, as this could destroy the LEDs under certain circumstances. Regularly remove dirt and foliage.



WARNING! Tripping Risk!

Run the cables which lead to the N8LED so that no tripping hazards are created. Cover the cable if necessary with a cable bridge.

- If you use an extension cord, ensure that the connector system is not in water (e.g. in a puddle).



Shown with stainless steel stand TW7840SA



WARNING!

The N8LED is equipped with modern, high-performance LEDs! The light of these LEDs contains wavelengths which can be dangerous to human eyes.

Therefore: Never look directly into the LEDs from short distances!!

5 Disassembly

- Pull the power plug from the supply socket and thereby disconnect the N8LED from voltage.
- Loosen the star screw of the stand adapter and lift the lamp from the DIN peg.
- Remove the spring cotter pin from the stand adapter



- Push the black ring over the expansion flanges of the stand adapter until it contacts the cover.
- Then pull the stand adapter out of the N8LED.



- Loosen the plug connection of the supply line on the N8LED and remove the supply line with the stopper from the lamp.



6 Chain Suspension / Upward Illumination

- The N8LED can be suspended with the chain set, article no. 828-600, from the ceiling. To do so, the 4 ring nuts with socket screws are installed in the provided fastening means.
- Then mount the chains to the ring screws with carabineer hooks and gather the free ends on a large carabineer hook.
- Then insert the chain to the ceiling into the large carabineer hook.
- Latch two additional carabineer hooks into one of the four chains at a spacing of one chain link, then set the supply line stopper between the two carabineer hooks by guiding the line through the carabineer hooks.
- If the N8LED is aligned upward, an eyelet is provided on the housing for receiving a carabineer which serves as tension relief for the stopper.



7 Carrying Bag and Case

- The carrying bag provides the possibility to store the N8LED, incl. its supply line, accessories and operating manual.
- Lay the bag flat on a solid and suitable surface with the text up.



- After opening the zipper, the supply line and the operating manual of the N8LED can be removed.



- Open the three Velcro closures on the intermediate cover, under which the N8LED is located.



- There is another bag with Velcro closure on the bottom under the N8LED in which the accessories are stored (stand adapter, chain, etc.)

Carrying Bag and Case

- Adjust the shoulder carrying strap to your needs in order to be able to safely and comfortably transport the N8LED.
- An additional carrying handle on the edge of the bag makes handling the bag easier.
- Reinforcements incorporated into the bag protect your N8LED from impacts



- The aluminum frame case provides the possibility to store the N8LED, incl. its supply line, accessories and operating manual.
- This classical and sturdy aluminum frame case is ideal for heavy duty demands – including exterior use. It provides you with great practical benefits in mobile use.
-



8 Faults

8.1 All LED Modules do not illuminate

- Inspect whether the power cable of the device is correctly inserted and whether the supply socket is providing current.
-
- If you cannot resolve the error, contact repair services.
- Have a qualified electrician check the internal micro fuse on the mains filter to see if it has tripped. Have this microfuse replaced if necessary.

8.2 One LED Module does not illuminate

- Remove the cover of the N8LED by loosening 8 cover screws with a Torx wrench, size 25.
- Inspect the fuse on the related LED driver board; replace the fuse as necessary.
- If you cannot resolve the error, contact repair services.

8.3 Replace LED Module

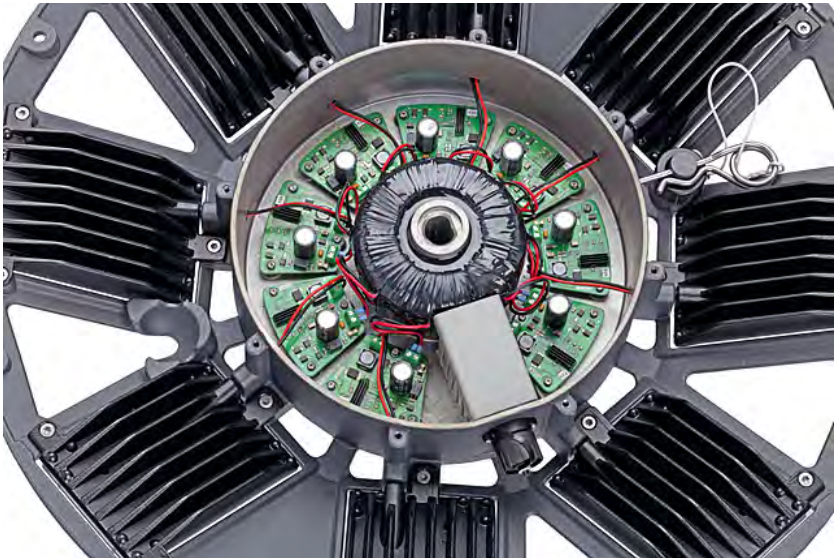


- Remove the cover of the N8LED by loosening the 8 cover screws with a Torx wrench, size 25.
- Loosen the two wires of the LED module with a compatible screwdriver.
- Loosen the three fastening screws of the LED module with a Torx wrench, size 25.
- Then pull the complete module forward at an angle and remove it.
- Insert the new module and carry out the previous steps in reverse.
- Connect the red wire to the LED + contact and the black wire to the LED - contact.

8.4 Replace LED Driver



- Remove the N8LED cover by loosening the 8 cover screws with a Torx wrench, size 25.
- Loosen the four wires of the LED module with a compatible screwdriver.
- Loosen the three fastening screws of the LED driver with a Torx wrench, size XX, and remove the LED driver board.
- Insert the new LED driver board and carry out the previous steps in reverse.
- Connect the red wire of the LED module to the LED + contact and the black wire to the LED - contact.
- Connect the two wires of the transformer to the AC 42V contacts of the LED driver board.



9 Cleaning and Care



WARNING!

Unplug all connectors before cleaning the device. This prevents accidents!



CAUTION!

Do not use any caustic cleaning agents. These can destroy parts of the lamp.

Clean the device with a damp cloth and a mild cleaning agent (e.g. soapy water)

Ensure that no moisture enters the interior.

10 Inspections Before Every Use

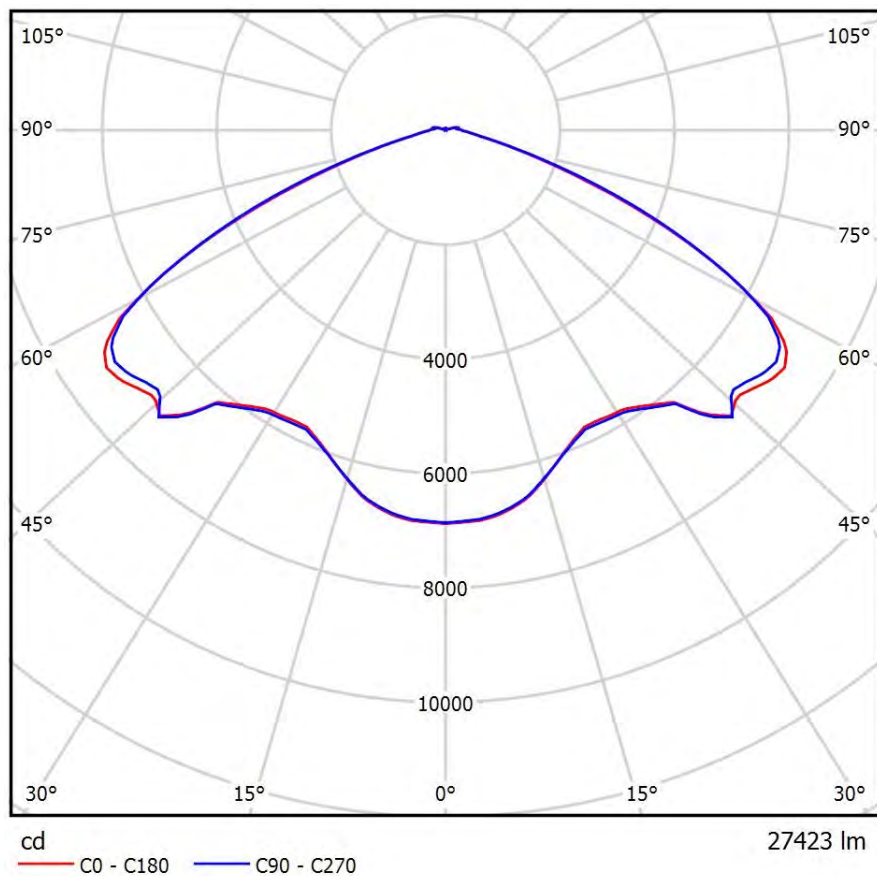
Adhere to the nationally applicable inspection periods. The respective inspection periods can be found in the laws and regulations applicable in your country.

- Visual inspection for external damage on aluminum housing, power cable and on power plug of the device.
- If you find damage on a device, give the device to your maintenance department immediately for repair.
- Have the inspection performed by an electrical specialist or with the use of suitable inspection tools by a person trained in electrical engineering, under the supervision and authority of an electrical specialist.

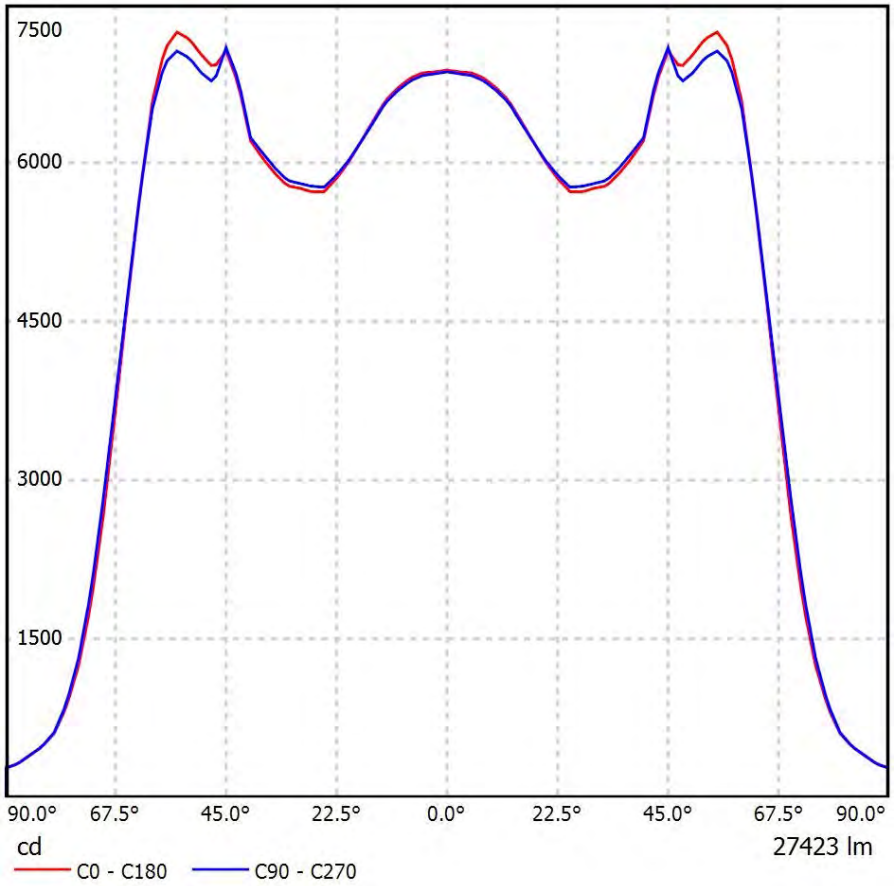
11 Technical Data

Description	Specification
Voltage	230 VAC +/- 10% oder 42 VAC +/- 10% 24 VDC
Rated frequency	50-60 Hz at AC
Approx. power consumption	280 watt 252 watt 250 watt
Approx. total luminous flux	30,024 lumens 27,423 lumens
Daylight color	5,000 Kelvin
Angle of emission	360 degrees
Protection type	IP 65
Protection Class	Protection class II or III
Photobiological Safety According to DIN EN 62471	Distance up to 45 cm = Risk Group 2 Distance from 46 cm = Risk Group 1 Distance from 52 cm = Risk Group 0 Free Group
Dimensions	Ø 640 mm, height 90 mm
Weight	15 kg
Housing material	Aluminium
Lens material	Polycarbonate
Usage environment conditions	Suitably dust and spraying water protected for heavy duty operation
Available with plug connectors for	Germany Great Britain Denmark Switzerland
Usage temperature range	-20 to +45 °C

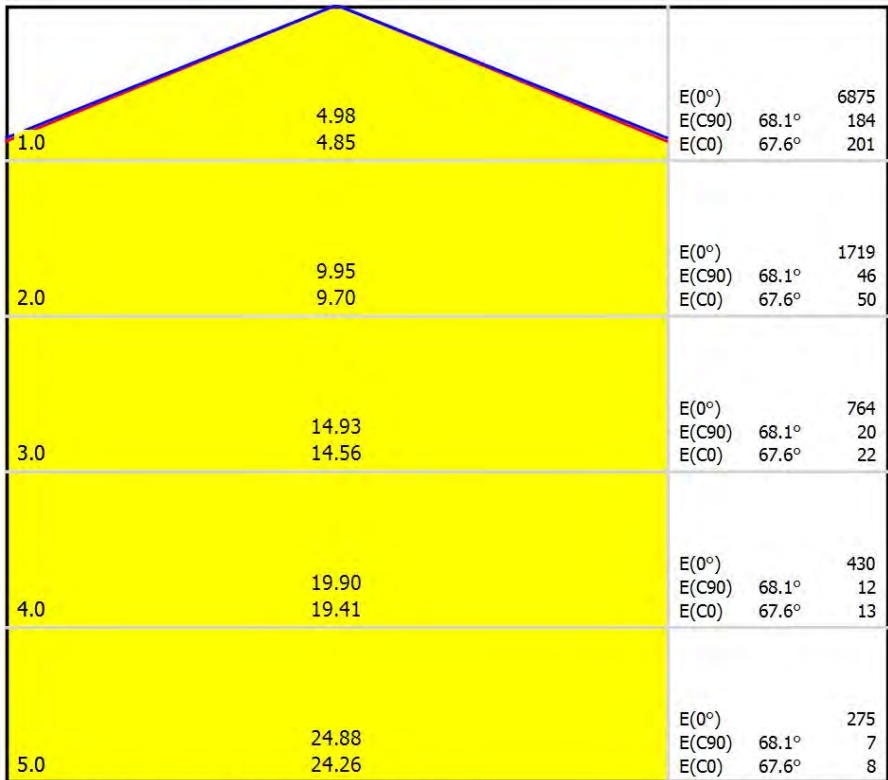
Light distribution curve (polar)



Light distribution curve (linear)



Peg diagram



Abstand [m]

Kegeldurchmesser [m]

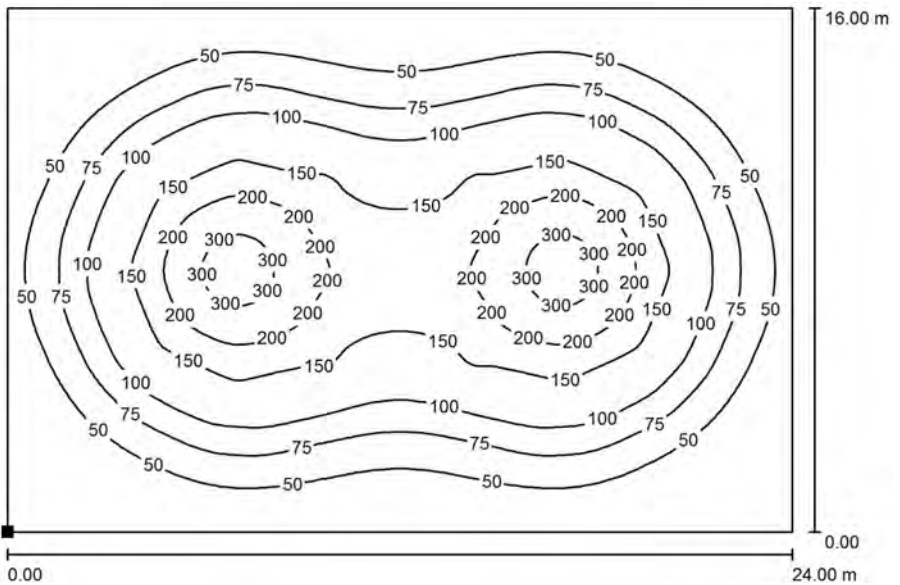
Beleuchtungsstärke [lx]

— C0 - C180 (Halbstreuwinkel: 135.2°)

— C90 - C270 (Halbstreuwinkel: 136.2°)

Sample configuration traffic control

Number of N8LED	2 pieces
Distance of N8LED	10 meters
Mounting height	4 meters
Max. illuminance	359 Lux



Subject to changes and errors

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