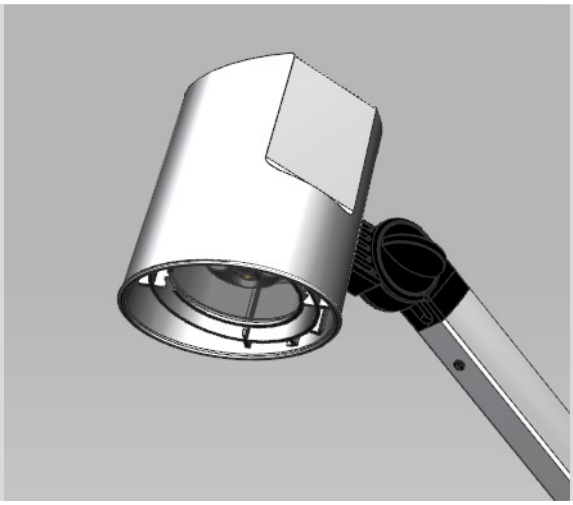
Brandon MEDICAL

BRILLIANT BY DESIGN

# Installation and operating Instructions EN



## Coolview-ECO

Examination light

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# 1 SYMBOLS

| |
|---|
| The warning symbol is used for all instructions that are important for safety. If warnings are ignored, users may be injured or the light or surroundings may be damaged. The warning symbol is used with the following signal words as follows: |

| | |
|---|---|
|  | **DANGER**<br>May cause death or serious injury.<br><br>**WARNING**<br>May cause minor injury. |
|  | Follow the operating instructions |
|  | Appliance of protection class II |
|  | CE conformity mark |
|  | Disposal |
|  | Storage air humidity |
|  | Storage temperature |
|  | “Off” for a part of the appliance |
|  | “On” for a part of the appliance |
|  | Manufacturer |

# 2 SAFETY INSTRUCTIONS

## 2.1 Intended use

The **ELED7HX** treatment light is designed to provide local illumination of the body of a patient for diagnosis or examination. The light is not designed for use in operating rooms. It is designed for continuous operation. It must be possible to stop the examination or diagnosis without danger to the patient if the light fails during use.

## 2.2 User profiles

***Medical staff***
All persons with medical training who work in the field for which they were trained.
***Cleaning staff***
All persons familiar with national and workplace-related hygiene requirements.
***Qualified electricians***
All persons with training in electronics and electrical engineering who are familiar with the relevant standards and regulations.
***Qualified professionals***
A qualified professional is capable of mounting and dismounting the luminaire thanks to professional training, knowledge and experience and knowledge of the regulations.

## 2.3 Safety instructions

- The lamp is to be operated by medical staff.
- The instructions for use are an integral part of the product; they are to be kept and made available for all later users.
- All work on the light (including repairs) must be carried out by qualified electricians only. The light must be installed exclusively by a qualified professional.
- The light shall not be modified or manipulated. Use in any other manner than according to the intended use with the original parts may result in different specifications and life-threatening dangers.
- The light must not be used in an explosive environment. The power supply of the light is a potential ignition source.
- The light must be used in dry and dust-free rooms only.
- The light must not be left on unattended.
- Do not use a damaged light. Defective cables are also a potential hazard. Do not position cables and a defective handle near heat sources or sharp edges.
- Eye damage. Never look directly at the light cone.
- Replace a damaged glass before using the light again.
- Never apply additional loads to the light head and the arm system.
- Do not cover the light with a cloth or similar while operating.
- The ventilation openings (if existing) must always be free during operation!
- The light must not be used close to external sources of heat that exceed the ambient temperature limit.
- The light must not be used outside its intended ambient conditions.
- The manufacturer cannot be held responsible for damages due to uses different from the intended use or to non-compliance with the safety instructions and warnings.

## 2.4 Specific fitting instructions

***ELED7HX**:*
The light may be mounted only on walls that guarantee sufficient hold (wall mount).

## 2.5 Warning levels

| ⚠ **DANGER** |
|---|
| Warnings against hazards that may result **in serious injuries or death** in case of non-observance. |
| ⚠ **WARNING** |
| Warnings against hazards that may result in **injuries** in case of non-observance. |
| ***CAUTION*** |
| Warnings against hazards that may result in **material damage** in case of non-observance. |

# 3 VARIANTS

## 3.1 ELED7HX

## 3.2 ELED7S3MT

# 4 ASSEMBLY

- The lights are equipped with an adapter pin. The light must be positioned in one of the accessories described in chapter 9.

# 5 OPERATION

**⚠ DANGER**

**Danger of death from electric shock.**

- ▶ Do not plug a damaged power cable.
- ▶ Do not bend power cables to prevent them from damages.
- ▶ Replace a damaged power cable before using the light again.
- ▶ Mains voltage and frequency must always match the data on the name plate before starting the appliance.
- ▶ Except for the replacement of the light source, no modification or change may be carried out by the user on live parts.

***CAUTION***

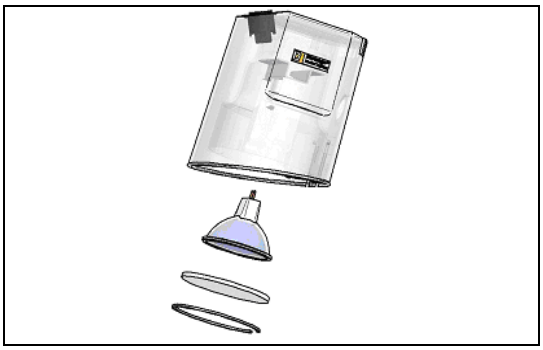
**ELED7HX**

- ▶ Wind the power cable on the roller base when the light is not being used.

## 5.1 light source replacement

**⚠ DANGER**

- ▶ Only replace defective light sources with sources of the same power (W, watt), voltage (V, volt) and type. Information in the “Technical Data” in chapter 13.



1. Make sure that the mains plus is pulled out and that the light is switched off.
2. Remove the snap ring and the protective glass.
3. Hold the LED module at its external ring and pull it out carefully.
4. Mount the replacement light source carefully.
5. Put the protective glass back in place and mount the snap ring again.

# 6 DISINFECTION CLEANING AND STERILISATION

***CAUTION***

**Damage due to improper cleaning**

- ▶ Do not use alcohol, solvent or cleaning agents containing chlorine or scouring agents for disinfection cleaning.
- ▶ Damage to the lens by concentrated disinfectant or solvent.
- ▶ Follow the mixing ratio recommended by the manufacturers.
- ▶ Use of incorrect cloths may lead to scratches.

***CAUTION***

**A dirty lens will reduce the illuminating power.**

- ▶ Clean the lens regularly.
- ▶ Only wipe disinfection is permitted.

***CAUTION***

The external components of the light can be disinfected with the following, correctly diluted products:

- ▶ Lysoformin®
- ▶ Dismozon®
- ▶ Hexaquart®plus
- ▶ Sagrotan®- fast disinfecting cleaner

***CAUTION***

All applicable occupational health and safety regulations and the requirements specified by the national regulators for hygiene and disinfection must be observed to reduce the risk of disease transmission as much as possible.

## 7 TECHNICAL SAFETY CONTROLS

**⚠ DANGER**

**Danger of death from electric shock.**

- ▶ Disconnect the plug from the mains and set the switch to the off position.
- ▶ Check the connecting cable for damage at least once a year.

***CAUTION***

- ▶ All maintenance and repair work may be performed only by an electrician.
- ▶ For the corresponding user profile, see chapter 2 Safety Instructions.

## 8 DISPOSAL, RECYCLING

Do not dispose of the light and of the light source with the normal refuse. Bring the light to a recycling centre or return it to a dealer with a disposal service, in compliance with the local regulations.
Cut off the cable flush with the housing.

The above-mentioned products are recyclable for more than 95%. The lights have been designed to be recycling-compliant, so that, when these products reach their end of life, a high proportion of the materials can be used for recycling or for energy recovery. They contain no hazardous substances, nor substances requiring special supervision.

## 9 ACCESSORIES

Desk Bracket Part No: OABKT16D

Wall Bracket Part No: CABKT16WAL

Rail Clamp Part No: CABKTR16

## 10 ADDITIONAL INFORMATION

Decommissioning the lamp requires no special measures.

This light is maintenance-free.

Additional documentation is available upon request with the manufacturer.

Operating this light generates no risks that might affect other appliances.

The power supply unit integrates a galvanic separating device that would prevent overvoltages from getting through.

In order to save energy, the lamp should only be switched on when it is really used.

## 11 SPARE PARTS

| | |
|---|---|
| Power supply 12V | Art. No.:D58703000 |
| Osram LED | Art. No.:D68780000 |

## 12 TROUBLESHOOTING

| Malfunction | Possible cause | Remedy | User profiles |
|---|---|---|---|
| Light does not come on | Contact fault | Check the plugged connections, switch on again | All |
| Light does not come on | Light source defective | Replace light source | Qualified electrician |
| Light does not come on | Power supply defective | Replace power supply | Qualified electrician |

## 13 TECHNICAL DATA

| | |
|---|---|
| **Electrical values:** | |
| Rated voltage | 100 - 240 V |
| Frequency range | 50 / 60 Hz |
| Power consumption | 19 - 27 VA |
| Power supply | 100 - 240V AC / 12 V DC |
| **Illumination values:** | |
| Central illuminance $E_c$ at a distance of 0.5m | 6'000 Lux |
| Light field diameter d10 at 0.5m | Ø = 46 cm |
| Colour temperature | 4000 K |
| Colour Rendering Index Ra | 85 |
| Special index R9 (red) | 23 |
| Total illuminance $E_e$ | < 1000 W/m$^2$ |
| **Environmental conditions for transport, storage and operation:** | |
| Ambient temperature (storage and transport) | -20°C to +70°C |
| Ambient temperature (operation) | 10°C to 35°C |
| Relative humidity (non-condensing) | max. 90% |
| **Weight:** | |
| **ELED7HX** | 1.7 kg |
| **ELED7S3M** | 4.0 kg |
| **Operating mode:** | |
| Operating mode | Continuous operation |
| **Classification:** | |
| Protection against electrical shock | Protection class II |
| Degree of protection as per IEC 529 | IP 20 |
| Classification as per 93/42 EWG – EEC – Annex IX (medical device class) | Class I |
| Electrical safety test and EMC according to: | EN/IEC 60601-1<br>EN/IEC 60601-2-41<br>EN/IEC 60601-2-57<br>EN/IEC 60601-1-2 |
| **Light source:** | |
| Manufacturer | Osram |
| Type | 35 24° 7 W/840 GU5.3 |
| Classification (ILCOS) | DRR-7-12-GU5,3-50/24 |
| Life time | 30,000h |



Illumination data ± 10% tolerance

# 14 ELECTROMAGNETIC COMPATIBILITY (EMC)

| Guidelines- Electromagnetic interference emissions | | |
|---|---|---|
| **The medical device is intended for operation in an electromagnetic environment as defined below. The user is to make sure that it will be operated in this kind of environment.** | | |
| **Emissions** | **Compliance according to** | **Electromagnetic environment** |
| HF emissions<br>(CISPR 11) | Group 1 | The medical device uses HF energy exclusively for its internal functions. Therefore its HF emissions are very low, and they are unlikely to affect neighbouring electronic appliances. |
| HF emissions<br>(CISPR 11) | Class B | The medical device is intended for use in all establishments, including residential buildings and establishments that are connected directly (without transformer) at the same low voltage network as residential buildings. |
| Emissions of harmonics<br>(IEC 61000-3-2) | Class A | |
| Emissions of voltage fluctuations/flicker<br>(IEC 61000-3-3) | Compliant | |

| Guidelines- Electromagnetic immunity | | | |
|---|---|---|---|
| **The medical device is intended for operation in an electromagnetic environment as defined below. The user is to make sure that it will be operated in this kind of environment.** | | | |
| **Immunity against** | **IEC 60601-1-2 test level** | **Compliance level of the medical device** | **Electromagnetic environment** |
| Electrostatic discharge (ESD)<br>(IEC 61000-4-2) | Contact discharge: ± 6 kV<br>Air discharge: ± 8 kV | ± 6 kV<br>± 8 kV | Preferred floors: wood, concrete or ceramic tiles.<br>In case of synthetic floor coverings, the relative air humidity should be at least 30 %. |
| Electrical fast transients/ Bursts (IEC 61000-4-4) | Network lines: ± 2 kV<br>Long input and output lines: ± 1 kV | ± 2 kV<br>Not applicable | The quality of the supply voltage should correspond to that of a typical business or hospital environment. |
| Surge voltages<br>(IEC 61000-4-5) | Common-mode voltage: ±2 kV<br>Differential mode voltage: ±1 kV | ±2 kV<br>±1 kV | The quality of the supply voltage should correspond to that of a typical business or hospital environment. |
| Supply frequency magnetic field (50/60 Hz)<br>(IEC 61000-4-8) | 3 A/m | 3 A/m | There should be no appliances with exceptionally strong supply-frequency magnetic fields (transformer stations, etc.) operating in the close environment of the medical device. |
| Voltage dips and short-time interruptions of the supply voltage<br>(IEC 61000-4-11) | Dip >95 %, 0.5 periods<br>Dip 60 %, 5 periods<br>Dip 30 %, 25 periods<br>Dip >95 %, 5 seconds | Dip >95 %, 0.5 periods<br>Dip 60 %, 5 periods<br>Dip 30 %, 25 periods<br>Dip >95 %, 5 seconds | The quality of the supply voltage should correspond to that of a typical business or hospital environment. If the user needs a continued operation in case of a breakdown of the energy supply, it is recommended to power the medical device with an uninterruptible power supply or a battery. |
| Radiated HF disturbance<br>(IEC 61000-4-3) | 80 MHz to 2,5 GHz: 3 V/m | 3 V/m | Recommended minimum distance from portable and mobile radio equipment with transmission power PEIRP to the medical device, including its connection lines:<br>(1,84 m x □PEIRP)[1)] |
| Conducted HF disturbances<br>(IEC 61000-4-6) | 150 kHz to 80 MHz: 3 V | 3 V | Recommended minimum distance from portable and mobile radio equipment with transmission power PEIRP to the medical device, including its connection lines:<br>(1,84 m x □PEIRP)[1)] |
| 1) For PEIRP, use the maximum “equivalent isotropically radiated power” of the surrounding radio equipment in watt. High-frequency emissions may also be generated in the surrounding of appliances beating the symbol  . At the location of the medical device, the field intensity of stationary, portable or mobile radio transmitters shout not exceed 3 V/m in the 150 kHz to 2,5 GHz frequency range and 1 V/m above 2,5 GHz. | | | |

| Recommended safety distances to portable and mobile HF communication equipment<br>The safety distances mentioned below correspond to the specifications in IEC 60601-1-2. | | | |
|---|---|---|---|
| **Max. PEIRP (W)** | **150 kHz to 2.5 GHz** | **All other frequencies** | **Examples** |
| 0,03 | 0,32 m (1,05 ft) | 0,96 m (3,15 ft) | e. g. WLAN 5250 / 5775 (Europe) |
| 0,10 | 0,58 m (1,90 ft) | 1,75 m (5,74 ft) | e. g. WLAN 2440 (Europe) |
| 0,17 | 0,76 m (2,49 ft) | 2,28 m (7,48 ft) | e. g. Bluetooth, RFID 2,5 GHz |
| 0,20 | 0,82 m (2,69 ft) | 2,47 m (8,10 ft) | e. g. WLAN 5250 (not in Europe) |
| 0,25 | 0,92 m (3,02 ft) | 2,76 m (9,06 ft) | e. g. UMTS mobile phones |
| 0,41 | 1,18 m (3,87 ft) | 3,53 m (11,58 ft) | e. g. DECT wireless phones |
| 0,82 | 1,67 m (5,48 ft) | 5,00 m (16,40 ft) | e. g. RFID 13,56 MHz |
| 1,00 | 1,84 m (6,04 ft) | 5,52 m (18,11 ft) | e. g. WLAN 5600 (not in Europe) |
| 1,64 | 2,36 m (7,74 ft) | 7,07 m (23,20 ft) | e. g. GSM 1800 / GSM 1900 |
| 3,28 | 3,33 m (10,93 ft) | 10,00 m (32,81 ft) | e. g. GSM 900 mobile phones, RFID 868 MHz |

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