Technical Datasheet

BackLED M High Output CP G4

Benefits

- New and higher lumen package in small housing
- Uniform illumination at high LED pitches thanks to Square Lens Technology
- PCB and LEDs are protected inside a complete over-molded IP66 housing
- CRI Index is over >80, 3SDCM
- Very long life time and 5 years guarantee

Applications

- Backlighting of medium size channel letters
- Backlighting of luminous stretch ceilings
- Backlighting of single and double-sided light boxes
- Permanent outdoor use in enclosed light boxes or channel letters

Technical Operating Data

Product	Color	No. of LED-modules per chain	Voltage [V DC]*	Power /module [W]*	Radiance angle [°]*	Color Temp [K]*	Lum. Flux Chain / module [lm]*
BA-M-HO-CP 880 G4	Sky White	40	12	48 / 1,2	150	8000K	4880 / 122
BA-M-HO-CP 865 G4	Cool Daylight	40	12	48 / 1,2	150	6500K	5240 / 131
BA-M-HO-CP 840 G4	Cool White	40	12	48 / 1,2	150	4000K	5240 / 131
BA-M-HO-CP 830 G4	Warm White	40	12	48 / 1,2	150	3000K	4880 / 122

*) Due to the special conditions of the manufacturing processes of LED the typical data of technical parameters can only reflect statistical figures and do not necessarily correspond to the actual parameters of each single product which could differ from the typical data;
All values are tested at Ta 25 °C;

Technical Features

- LED chain comprising 40 LED modules connected by flexible cables
- Each LED module contains 3 LEDs
- Full encapsulation of the LED modules with ingress protection IP66
- 150° light beam with Square-Ray Lens® technology
- Uniform light pattern on 100-150 mm light box depths
- Optimal operation on OPTOTRONIC® 12V power supplies (15 W, 30 W, 60 W, 150 W, 300 W)
- Dimmable
- Compatible with mounting profile BA-MP-M-CP-2
- 50.000 h Lifespan (L70B50) at Tc max
- Full encapsulation of the LED modules with ingress protection IP66

IP66 [1)]

5 Year OSRAM Guarantee

Safe Dimming SDT Technology

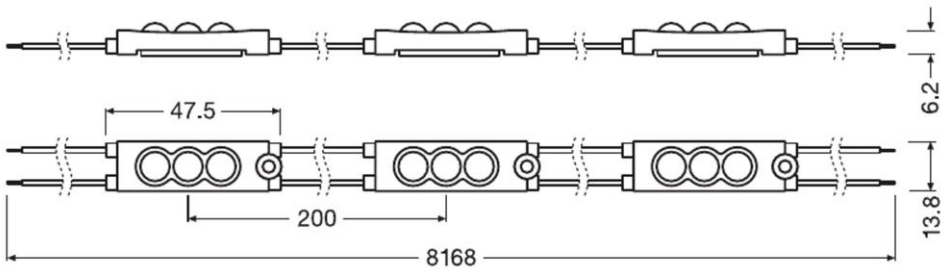
[1)]: The LED modules must not be operated in places which are directly exposed to atmospheric conditions.
For outdoor applications, hence the LED module has to be protected by appropriate sealed enclosures or covers. Operation in or under water is prohibited.

Minimum / Maximum Ratings

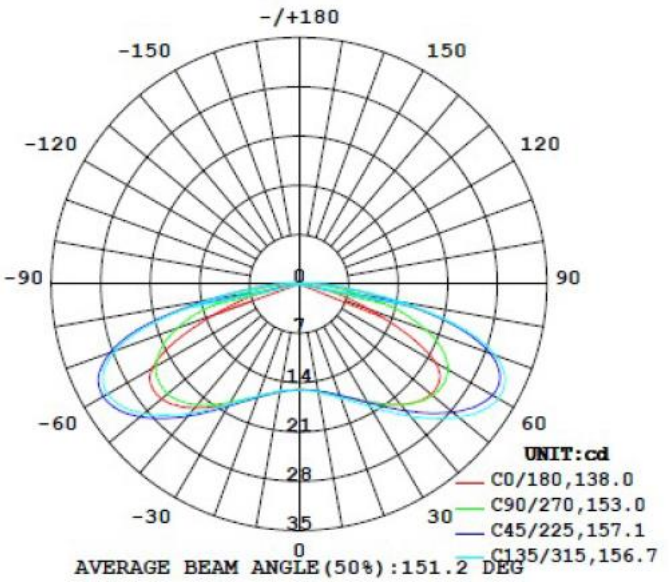
Product	Operating Temperature at Tc-Point [°C]*	Storage Temperature Tc-Point [°C]*	Voltage Range [V dc]*	Reverse Voltage [V dc]*
BA-M-HO-CP 880 G4	-30 … +70	-30 … +85	12 … 13	13
BA-M-HO-CP 865 G4	-30 … +70	-30 … +85	12 … 13	13
BA-M-HO-CP 840 G4	-30 … +70	-30 … +85	12 … 13	13
BA-M-HO-CP 830 G4	-30 … +70	-30 … +85	12 … 13	13

*) Exceeding maximum ratings for operating and storage temperature will reduce expected life time or destroy the LED Modules.
Exceeding maximum ratings for operating voltage will cause hazardous overload and will likely destroy the LED Modules.
The temperature of the LED modules must be measured at the Tc-point according to EN60598-1 in a thermally constant status with a temperature sensor or a temperature sensitive label.

Dimension



Light Distribution



150° (±10%)
Square-Ray Lens®

Safety Information

- The LED module itself and all its components must not be mechanically stressed.
- Assembly must not damage or destroy conducting paths on the circuit board.
- To avoid mechanical damage, the LED modules should be attached securely to the intended substrate. Heavy vibration should be avoided.
- Once modules are glued by means of their tapes on the application surface, modules must not be removed and re-located. This would lead to mechanical stress and IP rate may not be granted as well as lifetime.

In order to drive OSRAM LED-Modules safely, it is absolutely necessary to operate them with an electronically stabilized power supply protecting against short circuits, overload and overheating.

OSRAM OPTOTRONIC® electronic control gear complies to all relevant standards and guarantees safe operation.

For dimming applications attention should be paid to specific references in “OPTOTRONIC ® Technical Guide”.
To also ease the luminaire/installation approval, electronic control gear for LED or LED modules must carry the CE mark.
In Europe LED modules declaration of conformity must include the following standards:
CE: IEC 62471, IEC 60598-1, EN 60529, EN 62031, EN 55015, EN 61547.

Please see the relevant application guides for more detailed information.

- Installation of LED modules (with power supplies) needs to be made with regard to all applicable electrical and safety standards.
- Observe correct polarity! Incorrect polarity will lead to no light emission and may cause damage of the LED module.
- Parallel connection is highly recommended as safe electrical operation mode. Serial connection is not recommended. Unbalanced voltage drop can cause hazardous overload and damage the LED module.
- Electrical contact is achieved with the contact cables.
  - A maximum 250 modules can be operated on one OT FIT 300W 12V.
  - A maximum 125 modules can be operated on one OT FIT 150W 12V.
  - A maximum of 50 modules can be operated on one OT FIT 60W 12V.
  - A maximum of 25 modules can be operated on one OPTOTRONIC® 12V 30W.
  - A maximum of 12 modules can be operated on one OPTOTRONIC® 12V 15W.
- Cutting within the chain is only allowed between the wiring of the modules.
- Pay attention to ESD steps when mounting the module.
- When using power supplies other than OSRAM OPTOTRONIC®, in order to ensure continuous safe operation, the output voltage has to be 12.5V ±0.5V
- LED modules are dimmable by means of PWM (pulse width modulation). It is recommended using the following OSRAM control gears: OPTOTRONIC® OT DIM, OT DALI DIM, OT DALI DIM.
- The LED modules must not be operated in places which are directly exposed to atmospheric conditions.
  For outdoor applications, hence the LED module has to be protected by appropriate sealed enclosures or covers.
  Operation in or under water is prohibited.
- Each LED module is equipped with a pre-mounted double-sided adhesive tape which allows for optional or additional mounting. Due to varying properties of adherents and multiple external influences during the operation of the modules, OSRAM assumes no liability and provides no guarantee for a permanent adherence of the modules to the surface. OSRAM recommends fixation of the modules by means of suitable screws.
- To ensure uniform illumination, a reflective matt white surface is generally recommended for all internal frame walls and back panels of light boxes.

Ordering Guide

Product group	Product name	EAN 10*	S-Unit**
BackLED M High Output CP 830 G4	BA-M-HO-CP-830-G4	4062172183451	50
BackLED M High Output CP 840 G4	BA-M-HO-CP-840-G4	4062172183475	50
BackLED M High Output CP 865 G4	BA-M-HO-CP-865-G4	4062172183499	50
BackLED M High Output CP 880 G4	BA-M-HO-CP-880-G4	4062172183512	50

* EAN 10: Ordering number per single sale unit
** S-Unit: Modules / accessory number per shipping unit

Note: Typical performance data are subject to change without any further notice, particularly as LED technology evolves.

Product group	Product name	EAN 10*	S-Unit**
Mounting Profile	BA-MP-M-CP-2M	4062172168410	50

***** EAN10: Ordering number per single sale unit
**S-Unit: Chains / accessory number per shipping unit

Sales and Technical Support

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www.osram.com/backlighting
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Sales and technical support is given by the local OSRAM subsidiaries.

On our world wide homepage all OSRAM subsidiaries are listed with complete address and phone numbers.