

COINlight® Pro - CP51

Preliminary Data Sheet



Benefits

- Fits in MR16 luminaire fixtures
- Usage without additional heat sink possible
 - 3.6 W with 50,000h @L70/Ta=25°C
 - 7.5 W with 25,000h @L70/Ta=25°C
- Life time up-to 12 times longer vs. Halogen lamps
- Efficacy up-to 4 times better vs. Halogen lamps

Applications

- Hospitality
 - Restaurant & Hotel
 - Corridors & Elevator
- Shop

Technical Operating Data

Product	Color	Number of LEDs	Current [A]*	Power [W]*	Radiance Angle [°]*	Color Temp. [K]*	Lum. Intensity [cd]*	Lum. Flux [lm]
CP51-W4F-10-857	white	4	0.51	9,8	36	5700	1600	800
CP51-W4F-8-857	white	3	0.39	7,5	36	5700	1200	600
CP51-W4F-4-857	white	3	0.2	3,6	36	5700	650	320
CP51-W4F-10-827	white	4	0.51	9,8	36	2700	1330	670
CP51-W4F-8-827	white	3	0.39	7,5	36	2700	1000	500
CP51-W4F-4-827	white	3	0.2	3,6	36	2700	540	270

*) All Data are related to the entire module

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 +) Preliminary Data

Technical Features

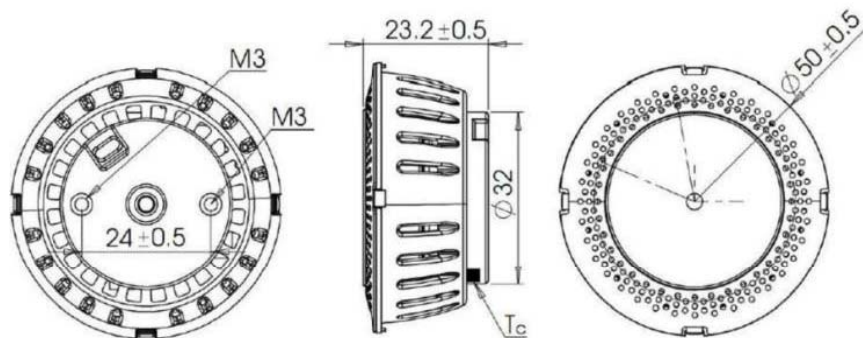
- Module ready to use with three cables:
 - red cable (+ pole)
 - black cable (- pole)
 - white cable (dimming)
- Cable length 500 mm, cable Ø 1.6 mm/AWG 22
- Color Rendering index CRI typ. 85
- Modul efficacy up to 86 lm/W
- System efficacy up to 76 lm/W
- Best efficacy in combination with OSRAM OPTOTRONIC® 24V constant voltage control gears
- Recommendation of OPTOTRONIC® OT8, OT20, OT75, OTi DALI 75
- Dimmable by pulse width modulation (PWM) and OT DIM
- Lifetime 50.000 hrs L70 B50 @ Tc max

Minimum and Maximum Ratings

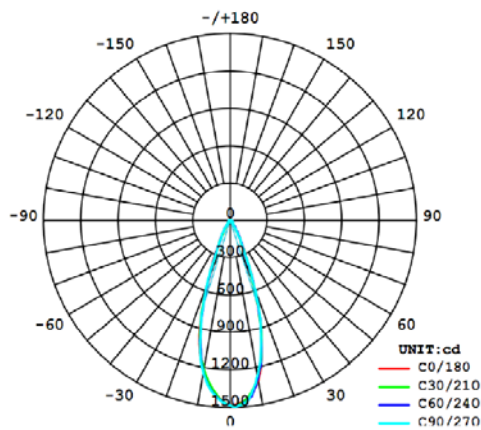
Product	Operating Temperature at Tc-Point [C°]*	Storage Temperature [C°]*	Voltage Range [V dc]*	Reverse Voltage [V dc]*	Forward Voltage [V dc]*
CP51-W4F-10-857	-30 ... 90	-30 ... 90	23 ... 25	25	24
CP51-W4F-8-857	-30 ... 90	-30 ... 90	23 ... 25	25	24
CP51-W4F-4-857	-30 ... 90	-30 ... 90	23 ... 25	25	24
CP51-W4F-10-827	-30 ... 90	-30 ... 90	23 ... 25	25	24
CP51-W4F-8-827	-30 ... 90	-30 ... 90	23 ... 25	25	24
CP51-W4F-4-827	-30 ... 90	-30 ... 90	23 ... 25	25	24

*) Exceeding maximum ratings for operating and storage temperature will reduce expected life time or destroy the LED Module.
 Exceeding maximum ratings for operating current will cause hazardous overload and will likely destroy the LED Module.
 The temperature of the LED module 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. For exact location of the Tc-point see drawing below.

Drawing



Viewing Angle



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 to the connecting cables, the module should be attached securely to the intended substrate. Heavy vibration should be avoided.

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

To also ease the luminaire/installation approval, electronic control gear for LED or LED modules should carry the CE mark and be ENEC certified. In Europe the declarations of conformity must include the following standards:
CE: EC 61347-2-13, EN 55015, IEC 61547 and IEC 61000-3-2 - ENEC: 61347-2-13 and IEC/EN 62384.
Also check for the mark of an independent authorized certification institute. Please see the relevant brochure for more detailed information (see "Related and Further Information").

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

- Installation of LED modules (with power supplies) needs to be made with regard to all applicable electrical and safety standards. Only qualified personnel should be allowed to perform installations.
- Observe correct polarity!
Depending on the product incorrect polarity will lead to emission of red or no light. The module can be destroyed! Correct polarity immediately! (see "reverse voltage", page 2).
- 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.
- Pay attention to ESD steps when mounting the module.
- In case of thermal overload in the application COINlight Pro CP51 intelligent protection system would switch over into reversible blinking mode. The LED module will not be damaged. Improving heat dissipation by extending the size of the heat sink or reducing the ambient temperature would provide regular operation mode.
- COINlight Pro works as a three wire system: red cable (pluspole), black cable (minuspole) and a white cable for dimming. If no dimming is required the white and black cables must be connected to the minus pole.
- A schematic drawing with wiring diagrams for dimming purpose is shown on page 4 "Dimming COINlight PRO CP51"
- The module, as manufactured, has no conformal coating and therefore offers no inherent protection against corrosion.
- Damage by corrosion will not be honored as a materials defect claim. It is the user's responsibility to provide suitable protection against corrosive agents such as moisture and condensation and other harmful elements.
- If the IP rating of the fixture should be higher than IP20, the design of the housing should be according to the IP standards in the application.

Dimming COINlight Professional CP51

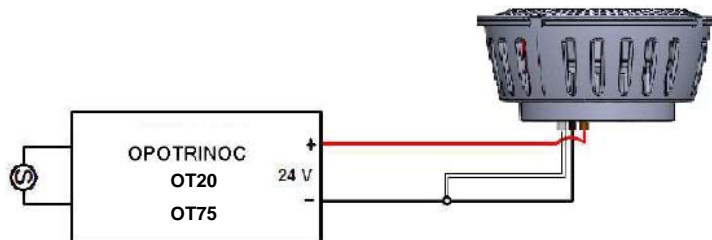
CP51 is a high end LED module that can be easily used in various combinations with OSRAM power supplies and light management systems. It can realize dimming functions by connection to a PWM controller.

- Dimming range: 100% to 10% flicker free
- Frequency: 120 - 300 Hz

Three opportunities

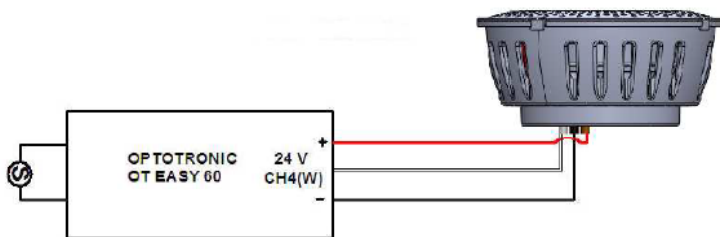
1. Operation with power supply – without dimming function

Configuration A



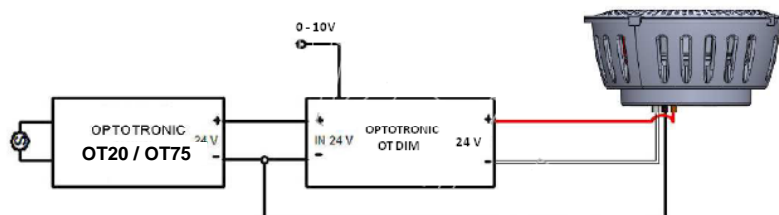
2. Operation with OT EASY 60 – dimming function

Configuration B



3. Operation with OT DIM – dimming function

Configuration C



Assembly Information

- The mounting of the module can be done with M3 screws and should be done on a metal heat sink! Please pay attention to standard ESD precautions!
- In order to optimize the thermal management the metal surface needs to be clean (free from dirt and oil) and planar for the best contact with the LED module. Between LED module and mounting surface the use of a thermal interface material (thin layer of heatconductive paste or thermal foil) is recommended.
- The housing of the COINlight Pro is a primary heat sink. The metal surface increases the cooling effect and prolongs the service life time.
- The heat sink CPDPHS-51 as accessory part is available for optimized cooling of the module.

Ordering Guide

Product group	Product	EAN*	S-Unit*
COINlight® Pro	CP51-W4F-10-857	4008321 975942	20
COINlight® Pro	CP51-W4F-8-857	4008321 975904	20
COINlight® Pro	CP51-W4F-4-857	4008321 975867	20
COINlight® Pro	CP51-W4F-10-827	4008321 975928	20
COINlight® Pro	CP51-W4F-8-827	4008321 975881	20
COINlight® Pro	CP51-W4F-4-827	4008321 975843	20
Heat sink	CPDPHS-51	4008321 975829	16

*) EAN: Ordering number per single module

S-Unit: Modules per shipping unit

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

Sales and Technical Support

OSRAM AG

Hellabrunner Strasse 1
D - 81536 München Germany
www.osram.com

Phone: +49 (0)89 6213-0

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.

Related and Further Information

- A new approach to light 153 S006 GB
- OSRAM LED Systeme www.osram.de/led-systeme
- OPTOTRONIC® Technical Guide 130 T008 DE www.osram.de/evg-downloads
- OPTOTRONIC® Data sheets http://catalog.myosram.com
- Eulumdat Files www.osram.de/led-systeme-downloads
- New standards for LED control gear www.osram.de/evg-downloads