

PrevaLED® COIN 111 G2

Technical Information



Benefits

- Fits in most existing R111 traditional luminaires
- Easy & fast design-in for luminaire manufacturers
- Narrow beam angles, 24° and 40°
- High lumen output for HID lamp replacement
- Flexibility through 3 lumen packages and 3 CCTs

Applications

For Spot & Track-light in:

- Chain stores, Retail shops
- Shopping malls
- Exhibition halls
- Museums

Technical Operating Data

| Product ** (made to order) | Nominal If [mA] | Nominal Power [W] | Radiance Angle [°] | Color Temp. [K] | Nominal Flux [lm] | Lum. Intensity [cd] | Typ. CRI [Ra] | Efficacy [lm/W] |
|-------------------------------|--------------------|-------------------------|-----------------------|--------------------|----------------------|---------------------------|---------------------|--------------------|
| PL-CN111-G2-1500-927-24D ** | 700 | 17.3 | 24 | 2700 | 1430 | 5150 | 92 | 82 |
| PL-CN111-G2-1500-930-24D | 700 | 17.3 | 24 | 3000 | 1430 | 5150 | 92 | 82 |
| PL-CN111-G2-1500-940-24D | 700 | 17.3 | 24 | 4000 | 1560 | 5620 | 92 | 90 |
| PL-CN111-G2-1500-927-40D ** | 700 | 17.3 | 40 | 2700 | 1430 | 2570 | 92 | 82 |
| PL-CN111-G2-1500-930-40D | 700 | 17.3 | 40 | 3000 | 1430 | 2570 | 92 | 82 |
| PL-CN111-G2-1500-940-40D | 700 | 17.3 | 40 | 4000 | 1560 | 2810 | 92 | 90 |
| PL-CN111-G2-2400-827-24D ** | 700 | 21.6 | 24 | 2700 | 2100 | 7560 | 83 | 97 |
| PL-CN111-G2-2400-830-24D | 700 | 21.6 | 24 | 3000 | 2300 | 8280 | 83 | 106 |
| PL-CN111-G2-2400-840-24D | 700 | 21.6 | 24 | 4000 | 2500 | 9000 | 83 | 115 |
| PL-CN111-G2-2400-827-40D ** | 700 | 21.6 | 40 | 2700 | 2100 | 3780 | 83 | 97 |
| PL-CN111-G2-2400-830-40D | 700 | 21.6 | 40 | 3000 | 2300 | 4140 | 83 | 106 |
| PL-CN111-G2-2400-840-40D | 700 | 21.6 | 40 | 4000 | 2500 | 4500 | 83 | 115 |
| PL-CN111-G2-3600-827-24D ** | 1050 | 32.1 | 24 | 2700 | 3000 | 10800 | 83 | 93 |
| PL-CN111-G2-3600-830-24D | 1050 | 32.1 | 24 | 3000 | 3300 | 11880 | 83 | 102 |
| PL-CN111-G2-3600-840-24D | 1050 | 32.1 | 24 | 4000 | 3600 | 12960 | 83 | 112 |
| PL-CN111-G2-3600-827-40D ** | 1050 | 32.1 | 40 | 2700 | 3000 | 5400 | 83 | 93 |
| PL-CN111-G2-3600-830-40D | 1050 | 32.1 | 40 | 3000 | 3300 | 5940 | 83 | 102 |
| PL-CN111-G2-3600-840-40D | 1050 | 32.1 | 40 | 4000 | 3600 | 6480 | 83 | 112 |

All Data are related to the entire module (Testing at steady status. Ta=25°C ± 5°C. Testing current tolerance: ±5%)

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

Technical Features

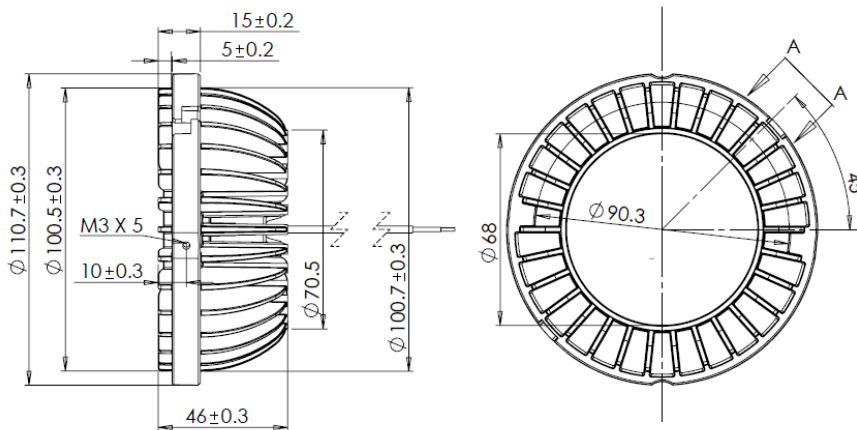
- Module ready to use with two cables:
 - red cable (+ pole)
 - black cable (- pole)
- Cable length 500 mm, cable Ø 1.6 mm/AWG 22
- Color Rendering index CRI (Ra) typ. 92 for PL-CN111-1500 and typ. 83 for PL-CN111-2400 & PL-CN111-3600
- Modul efficacy up to 115 lm/W
- Color tolerance: <MacAdam 4 SDCM
- Max. tc temperature of 85°C (see IEC/PAS 62717)
- L70B50 >= 50,000 hours at tp=75°C
- Best efficacy in combination with OSRAM OPTOTRONIC® constant current control gears

Minimum and Maximum Ratings

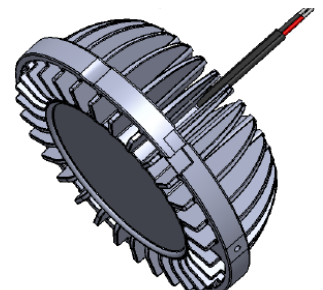
| Product | Operating Temperature At tc-Point [C°]* | Storage Temperature [C°]* | Max. Current [mA]* |
|--------------------------|--|------------------------------|-----------------------|
| PL-CN111-G2-1500-927-24D | -20 ... 85 | -40 ... 80 | 735 |
| PL-CN111-G2-1500-930-24D | -20 ... 85 | -40 ... 80 | 735 |
| PL-CN111-G2-1500-940-24D | -20 ... 85 | -40 ... 80 | 735 |
| PL-CN111-G2-1500-927-40D | -20 ... 85 | -40 ... 80 | 735 |
| PL-CN111-G2-1500-930-40D | -20 ... 85 | -40 ... 80 | 735 |
| PL-CN111-G2-1500-940-40D | -20 ... 85 | -40 ... 80 | 735 |
| PL-CN111-G2-2400-827-24D | -20 ... 85 | -40 ... 80 | 735 |
| PL-CN111-G2-2400-830-24D | -20 ... 85 | -40 ... 80 | 735 |
| PL-CN111-G2-2400-840-24D | -20 ... 85 | -40 ... 80 | 735 |
| PL-CN111-G2-2400-827-40D | -20 ... 85 | -40 ... 80 | 735 |
| PL-CN111-G2-2400-830-40D | -20 ... 85 | -40 ... 80 | 735 |
| PL-CN111-G2-2400-840-40D | -20 ... 85 | -40 ... 80 | 735 |
| PL-CN111-G2-3600-827-24D | -20 ... 85 | -40 ... 80 | 1100 |
| PL-CN111-G2-3600-830-24D | -20 ... 85 | -40 ... 80 | 1100 |
| PL-CN111-G2-3600-840-24D | -20 ... 85 | -40 ... 80 | 1100 |
| PL-CN111-G2-3600-827-40D | -20 ... 85 | -40 ... 80 | 1100 |
| PL-CN111-G2-3600-830-40D | -20 ... 85 | -40 ... 80 | 1100 |
| PL-CN111-G2-3600-840-40D | -20 ... 85 | -40 ... 80 | 1100 |

*) 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.

Dimensions & Mechanical data



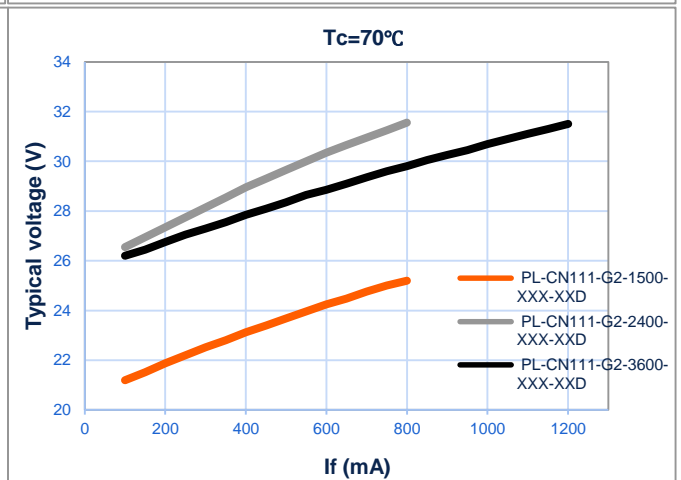
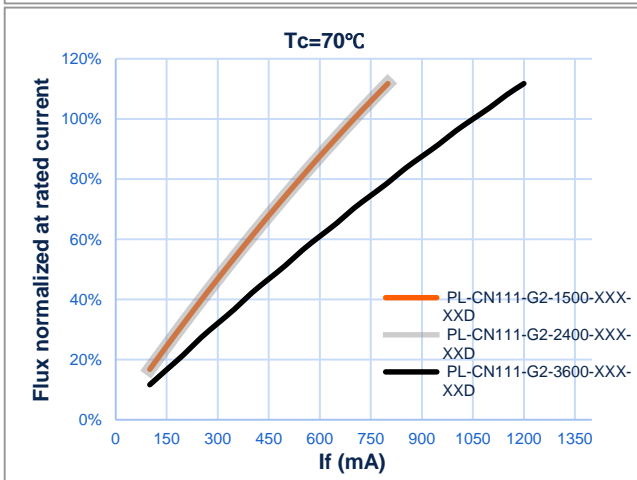
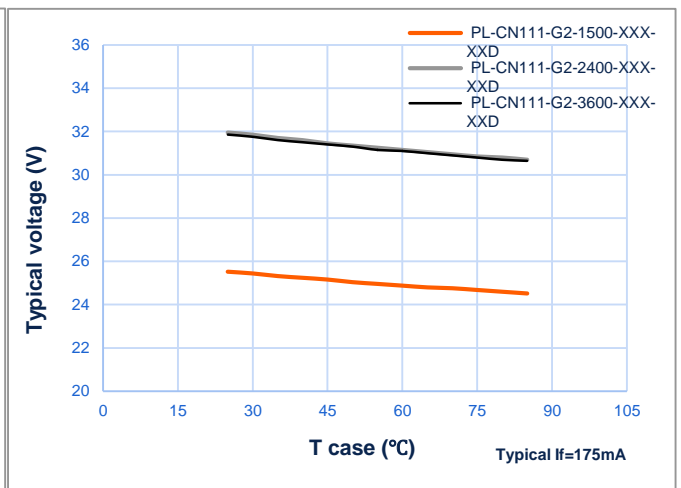
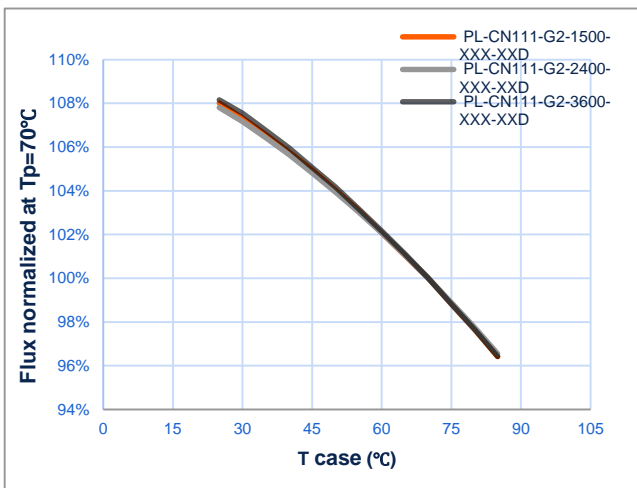
| | |
|----------------|---------------|
| Dimension (mm) | Ø111 x 46 (H) |
| Mounting | AR111 similar |
| Optics | PC lens |
| Weight | 290 grams |



Standard Compliance

| | |
|--------------------|-----------------------|
| Safety | EN 62031, IEC 60598-1 |
| EMC | EN 55015, EN 61547 |
| Eye Security | EN 62471 |
| Ingress Protection | Dry Location, IP 20 |
| Environment | RoHS |

Electrical Operating Conditions



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. 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.
- Correct electrical polarity needs to be observed. **Wrong polarity will destroy the module** and will result in no light emission.
- Pay attention to standard ESD precautions when installing the module.
- 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.
- Pay attention not to exceed the maximum operation temperature at tc point when the modules are used in enclosed environment.

Ordering Guide

| Product Name | Product Code | Product Number (EAN10) | Product Number (EAN40) | Piece per box |
|-----------------------|--------------------------|------------------------|------------------------|---------------|
| PrevaLED® COIN 111-G2 | PL-CN111-G2-1500-927-24D | 4052899323735 | 4052899323742 | 12 |
| PrevaLED® COIN 111-G2 | PL-CN111-G2-1500-930-24D | 4052899323797 | 4052899323803 | 12 |
| PrevaLED® COIN 111-G2 | PL-CN111-G2-1500-940-24D | 4052899323810 | 4052899323827 | 12 |
| PrevaLED® COIN 111-G2 | PL-CN111-G2-1500-927-40D | 4052899323834 | 4052899323841 | 12 |
| PrevaLED® COIN 111-G2 | PL-CN111-G2-1500-930-40D | 4052899323858 | 4052899323865 | 12 |
| PrevaLED® COIN 111-G2 | PL-CN111-G2-1500-940-40D | 4052899323872 | 4052899323889 | 12 |
| PrevaLED® COIN 111-G2 | PL-CN111-G2-2400-827-24D | 4052899323896 | 4052899323902 | 12 |
| PrevaLED® COIN 111-G2 | PL-CN111-G2-2400-830-24D | 4052899323919 | 4052899323926 | 12 |
| PrevaLED® COIN 111-G2 | PL-CN111-G2-2400-840-24D | 4052899323933 | 4052899323940 | 12 |
| PrevaLED® COIN 111-G2 | PL-CN111-G2-2400-827-40D | 4052899323957 | 4052899323964 | 12 |
| PrevaLED® COIN 111-G2 | PL-CN111-G2-2400-830-40D | 4052899323971 | 4052899323988 | 12 |
| PrevaLED® COIN 111-G2 | PL-CN111-G2-2400-840-40D | 4052899323995 | 4052899324008 | 12 |
| PrevaLED® COIN 111-G2 | PL-CN111-G2-3600-827-24D | 4052899324015 | 4052899324022 | 12 |
| PrevaLED® COIN 111-G2 | PL-CN111-G2-3600-830-24D | 4052899324039 | 4052899324046 | 12 |
| PrevaLED® COIN 111-G2 | PL-CN111-G2-3600-840-24D | 4052899324053 | 4052899324060 | 12 |
| PrevaLED® COIN 111-G2 | PL-CN111-G2-3600-827-40D | 4052899324077 | 4052899324084 | 12 |
| PrevaLED® COIN 111-G2 | PL-CN111-G2-3600-830-40D | 4052899324091 | 4052899324107 | 12 |
| PrevaLED® COIN 111-G2 | PL-CN111-G2-3600-840-40D | 4052899324121 | 4052899324138 | 12 |

Sales and Technical Support

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Sales and technical support is given by the local OSRAM subsidiaries. Complete subsidiaries listing is available at OSRAM homepage.

Application Note

Recommended OPTOTRONIC® devices

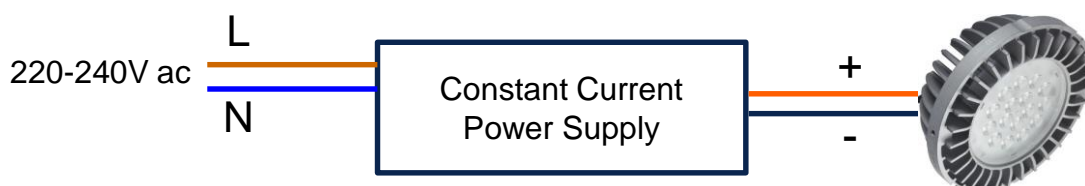
| Drivers | | Typ. Current [mA] | OTe 20/700 PC | OTe 20/700 TE | OTe 35/700 SD | OTe 35/700 PC | OTe 35/700 TE | OTe 35/1A TE | OTe 25 CS | OTe 35 CS | OTe 50 CS | OTe 25 PC |
|----------------------------|------|-------------------|---------------|---------------|---------------|---------------|---------------|--------------|-----------|-----------|-----------|-----------|
| Modules | | | | | | | | | | | | |
| Dimming | | | PC | TE | SD | PC | TE | TE | N.A. | N.A. | N.A. | PC |
| PL-CN111-G2-1500 | 700 | ✓ | ✓ | ✓ | | | | | ✓ | | | ✓ |
| PL-CN111-G2-2400 | 700 | | | ✓ | ✓ | ✓ | | | ✓ | ✓ | | ✓ |
| PL-CN111-G2-3600 | 1050 | | | | | | | ✓ | | | ✓ | |
| Connection Type | | | B | B | A | B | B | B | A | A | A | B |
| Driver Availability | | | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Jan 2014 |

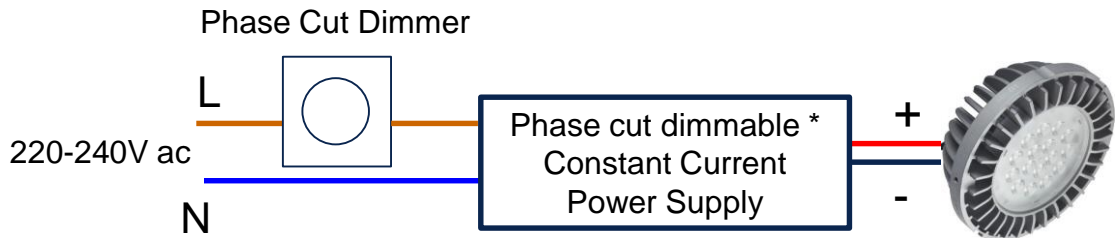
Reference Connection Diagrams

CAUTION

- The following diagrams are for reference only.
- Please refer to Instruction Sheet of power supply/ dimmer/ controller for details.
- Disconnected from mains supply before wiring work.
- Wrong polarity will destroy the module and result in no light emission.

Type A: 1-to-1 connection



Type B: 1-to-1 connection with Phase Cut/ Trailing Edge dimming

- Remark: - 1pc OTe PC driver for 1pc PL-CN111-G2 @700mA or 1050mA
- Dimming by reduce output current
* Trailing Edge dimmable OT shall work with trailing edge dimmer.