

Lightbar Series

PLCC 2110 Lightbar IP20 Series Datasheet

Product description :

- 24 V constant voltage strip (SELV)
- Ideal for application on aluminum extrusions but also for various decorative lighting applications such as cove lighting, facade accent lighting etc.

Features and benefits :

- Extremely narrow pitch distance enables short distance to diffuser and outstanding homogeneity
- Small color tolerance (SDCM3-5), Ra> 90
- Color temperature 2700, 3000, 4000 and 6000 K
- Self-adhesive 3M tape at the backside for simple mounting on different surfaces
- Life-time 30,000-50,000 hours
- 3-5-year guarantee

Typical Applications :

- Stairway Accent Lighting
- Home or Club Lighting
- Architectural decorative Lighting
- Arch edge Lighting







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General Information

Ordering Code Format

| <u>6</u> x1 | LB | R 1 x2 | X X X3 | J X4 | E | 0 x5 | <u>С</u> Хб | X X X X7 | XX X8 |
|----------------|--------------|-----------------|-----------|----------------|--|---------|----------------|-------------|--------------|
| | X1 Item | X2 Serie | | Emit | X3 tting Color | | X4 Driver | | X5 Length |
| 6 | Module | LBR1 | FPC | CW NW WW | Cool White Neutral Whit Warm White | e | CV 24V | EO | 5.0M |
| E | X6 mitter | X7 Number of | | | X8 al No. | | | | |
| С | 2110 | 700 | 700pcs | xx | - | | | | |

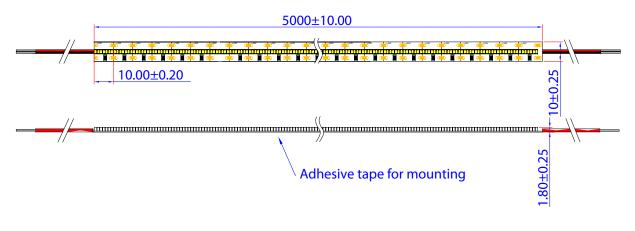
Technical data

| Parameter | Value | Units | |
|---------------------------|----------|---------|--|
| Beam characteristic | 120 | °C | |
| Ambient temperature range | -25~ +45 | °C | |
| Tp rated | 65 | °C | |
| Тс | 75 | °C | |
| Type of protection | IP | 20 | |
| | 2700 | К | |
| Color Tomperature | 3000 | К | |
| Color Temperature | 4000 | К | |
| | 6000 | К | |
| Number of connection | 5 | М | |
| Risk group(EN62778) | | 1 | |
| | IEC62031 | | |
| | IEC62778 | | |
| Classification acc. to | IEC62717 | | |
| | IEC610 | 000-4-2 | |



Product Dimensions

2110-700LEDs/M Series Dimensions (CV 24V IP20)



Notes: 1. All dimensions are in millimeters.

2. Tolerance is ±0.20 mm

Electric-Optical Characteristics

| Order code | ССТ (К/) | Voltage (CV) | Luminous flux TP25°C | Luminous flux TP65°C | Efficacy TP25°C | Efficacy TP65°C | Power (W/M) | Ra |
|------------------|-------------|-----------------|-------------------------|-------------------------|--------------------|--------------------|----------------|-----|
| 6LBR1CWJE0C70011 | 6000 | 24 | 2160 lm/M | 1944 lm | 90 lm/W | 81 lm/W | 24 | >90 |
| 6LBR1NWJE0C70011 | 4000 | 24 | 2160 lm/M | 1944 lm | 90 lm/W | 81 lm/W | 24 | >90 |
| | 3000 | 24 | 2040 lm/M | 1836 lm | 85 lm/W | 76.5 lm/W | 24 | >90 |
| 6LBR1WWJE0C70011 | 2700 | 24 | 1920 lm/M | 1728 lm | 80 lm/W | 72 lm/W | 24 | >90 |

Notes:

1. The Maximum and minimum lumen flux are based on $\pm 10\%$ of the typical rate.

2. The Maximum and minimum Power are based on $\pm 10\%$ of the typical rate.



Standards

Energy classification

| Туре | ССТ | Energy Classification |
|--------------------------|-------|-----------------------|
| 2110-24v-700LED/M Series | 2700K | А |
| 2110-24v-700LED/M Series | 3000K | А |
| 2110-24v-700LED/M Series | 4000K | A+ |
| 2110-24v-700LED/M Series | 6000K | A+ |

Thermal details

Storage and humidity

Storage temperature:-35 ... +70 °C

Operation only in non condensing environment.

Humidity during processing of the module should be between 0 to 70 %



Life time

Life-time, lumen maintenance and failure rate

1. The light output of an LED Module decreases over the life-time, this is characterized with the L value.

2. L70 means that the LED module will give 70 % of its initial luminous flux. This value is always related to the number of operation hours and therefore defines the life-time of an LED module.

3. As the L value is a statistical value and the lumen maintenance may vary over the delivered LED modules value defines the amount of modules which are below the specific L value, e.g. L70B10 means 10 % of the LED modules are below 70 % of the initial Luminous flux, respectively 90 % will be above 70 % of the initial value. In addition the percentage of failed modules (fatal failure) is characterized by the C value.

4. The F value is the combination of the B and C value. That means for F degradation and complete failures are considered, e.g. L70F10 means 10 % of the LED Modules may fail or below 70% of the initial luminous flux.

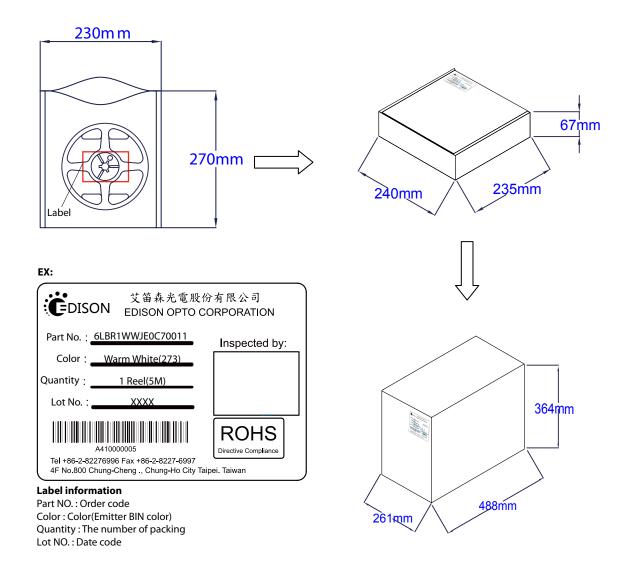
| Supply Voltage | Tp temperature | L90/F10 | L90/F50 | L80/F10 | L80/F50 | L70/F10 | L70/F50 |
|-------------------|-------------------|-----------|-----------|-----------|-----------|-----------|-----------|
| 24V | 40 | >28,000 h | >29,000 h | >29,000 h | >30,000 h | >30,000 h | >30,000 h |
| 24V | 45 | >27,000 h | >28,000 h | >28,000 h | >30,000 h | >30,000 h | >30,000 h |
| 24V | 55 | >20,000 h | >22,000 h | >23,000 h | >30,000 h | >30,000 h | >30,000 h |
| 24V | 65 | >18,000 h | >21,000 h | >22,000 h | >30,000 h | >30,000 h | >30,000 h |
| 24V | 75 | >15,000 h | >18,000 h | >20,000 h | >30,000 h | >30,000 h | >30,000 h |

Lumen maintenance for 2110-24v-700LED/M Series



Product Packaging Information

| Туре | | Anti-static bags/ inner box(pcs) | | Outside Carton size(mm) | GW±5% (kg) |
|--------------------------|------------|-------------------------------------|----|----------------------------|---------------|
| 2110-24V-700LED/M Series | 260x230x10 | 4 | 10 | 488x261x364 | 7.4 |





Precaution for Use

1. DO NOT use the products with materials has Sulfur.

2. DO NOT assemble in humid environment or the conditions of containing oxidizing gas such as C1, H2S, NH3, SO2, NOX, etc.

3. DO NOT add or change wires while the circuit of Module is active. Long time exposure to sunlight or UV should be avoided.

4. DO NOT press the product; even a slight pressure may damage the product. The environments such as high temperatures, high humidity or direct expose to sunlight should be avoided since the product is sensitive to these conditions.

5. Installation of LED modules (with power supplies) needs to be made with regard to all applicable and safety standards. Only qualified personnel should be allowed to perform installations.

- 6. Assembly must not damage or destroy conducting paths on the circuit board.
- 7. Please ensure that the power supply is of adequate power to operate the total load.
- 8. The maximum run length from any power feed should be limited to 5000 mm.

Environmental Compliance

The PLCC 2110 lightbar FPC series are compliant to the Restriction of Hazardous Substances Directive or RoHS. The restricted materials including lead, mercury cadmium hexavalent chromium, polybrominated biphenyls (PBB) and polybrominated diphenyl ether (PBDE) are not used in lightbar FPC series to provide an environmentally friendly product to the customers.

Application Notes

The PLCC 2110 lightbar series are available in cool white , neutral white and warm white for application such as under-cabinet lighting, cove lighting and festivals, shows and exhibitions decorative lighting. Moreover, additional fine-tuned high color rendering index (CRI) version of cool white , neutral white and warm white all make lightbar the ideal lighting choice for vividly building or decoration products, presenting the products outline.



Revision History

| Versions | Description | Release Date |
|----------|---|--------------|
| 1 | Establish order code information | 2019/01/10 |
| 2 | Upgrade version | 2019/08/28 |
| 3 | Revise Electric-Optical Characteristics | 2019/11/01 |

About Edison Opto

Edison Opto is a leading manufacturer of high power LED and a solution provider experienced in LDMS. LDMS is an integrated program derived from the four essential technologies in LED lighting applications- Thermal Management, Electrical Scheme, Mechanical Refinement, Optical Optimization, to provide customer with various LED components and modules. More Information about the company and our products can be found at www.edison-opto.com

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