

New modules MERAKI ECO 702 from MERAKI LINEAL CC family are ideal for small size fixtures that require high performance and connection flexibility. These modules are very simple to connect and to assembly to any surface. Specially indicated for the production of linear lighting, both direct and indirect.

The modules have two different functioning: high flux and high efficiency. Regarding input current, heatsinks could be avoided. Modules are available on diverse CCT and SELV voltage.



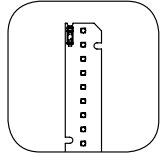
In compliance with
IEC 62031 / IEC 62471 / IEC 62717

APPLICATION

PRODUCT DESCRIPTION



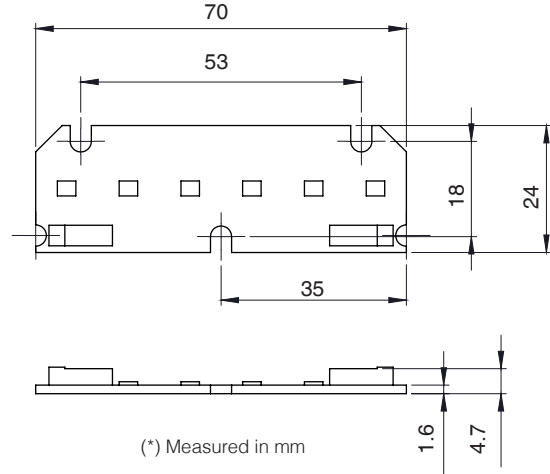
- Available in 2700K-3000K-4000K-5000K
- CRI>80
- Efficiency > 175 lm/W
- Colour tolerance 3 SDCM
- Easy to install
- Space-sav design
- Life-time exceeds 50.000 hrs
- 5 years guarantee
- High lm/\$ relation



TECHNICAL DATA

- SELV voltage
- Available in 2700-3000-4000-5000K
- Typical CRI80, CRI90 under request
- Operating temperature between -20°C and +45°C
- EN 61471:2008 group 1
- Standard Tc 65°C
- LED viewing angle 120°
- Weight 10 g
- MOQ 96 units
- Packaging weight (approx.) 960 g
- PWM dimmable

DIMENSIONS



SPECIFIC TECHNICAL DATA

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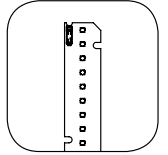
| CODE | CCT | RATED CURRENT mA | VOLTAGE Min (V) | VOLTAGE Typ(V) | VOLTAGE Max(V) | NOMINAL POWER (W) | LUMINOUS EFFICACY (lm/W) | TOTAL FLUX (lm) | PHOTO METRIC CODE |
|-------------|-------|---------------------|--------------------|-------------------|-------------------|----------------------|-----------------------------|--------------------|-------------------|
| 31.13.07021 | 2700K | 200 | 5,6 | 5,85 | 6,6 | 1,18 | 154,56 | 182,6 | 827.348 |
| 31.13.07021 | 2700K | 350 | 5,6 | 6,15 | 6,6 | 2,17 | 141,51 | 307,2 | 827.348 |
| 31.13.07021 | 2700K | 500 | 5,6 | 6,43 | 6,6 | 2,59 | 135,34 | 349,8 | 827.348 |
| 31.13.07022 | 3000K | 200 | 5,6 | 5,85 | 6,6 | 1,18 | 156,78 | 185,3 | 830.348 |
| 31.13.07022 | 3000K | 350 | 5,6 | 6,15 | 6,6 | 2,17 | 137,58 | 297,8 | 830.348 |
| 31.13.07022 | 3000K | 500 | 5,6 | 6,42 | 6,6 | 2,58 | 131,79 | 340,1 | 830.348 |
| 31.13.07023 | 4000K | 200 | 5,6 | 5,77 | 6,6 | 1,17 | 177,51 | 206,9 | 840.348 |
| 31.13.07023 | 4000K | 350 | 5,6 | 6,07 | 6,6 | 2,14 | 162,26 | 346,7 | 840.348 |
| 31.13.07023 | 4000K | 500 | 5,6 | 6,32 | 6,6 | 2,54 | 155,84 | 395,9 | 840.348 |
| 31.13.07024 | 5000K | 200 | 5,6 | 5,77 | 6,6 | 1,17 | 182,54 | 212,8 | 850.348 |
| 31.13.07024 | 5000K | 350 | 5,6 | 6,07 | 6,6 | 2,14 | 167,23 | 357,3 | 850.348 |
| 31.13.07024 | 5000K | 500 | 5,6 | 6,32 | 6,6 | 2,54 | 160,61 | 408,1 | 850.348 |

Note: wwl is required to keep Tc<85°C.

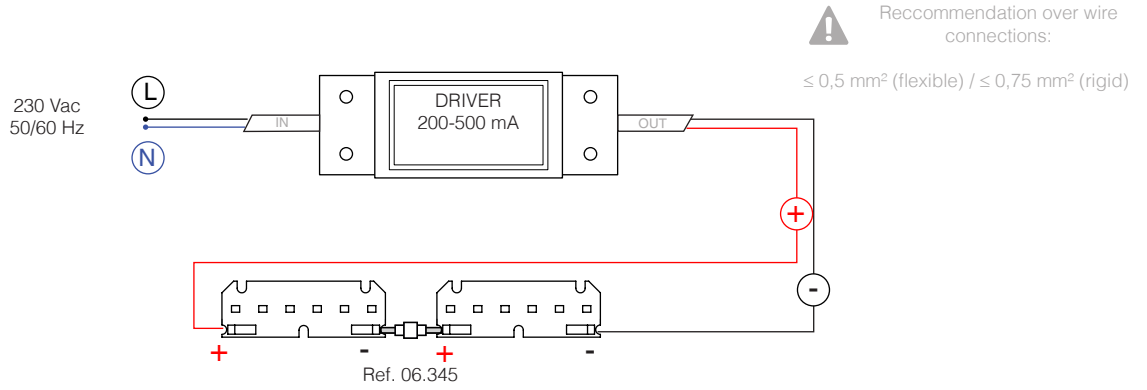
Tolerance range for flux measurements of 8%.


For PCB supply including high adhesion thermal tape, please add the letter "C" behind the product code. Example: 31.13.07023C.

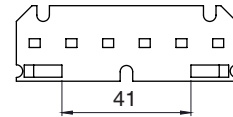
QTY LED 6 CRI TYP >80

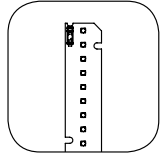


DRIVER + MODULE CONNECTION EXAMPLE

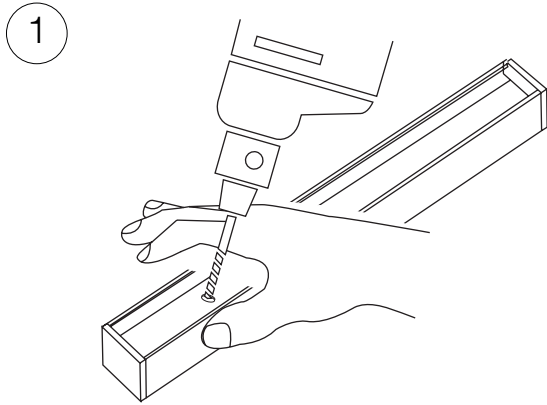


| | | | |
|---|---|-------|--------|
| Board to board connector. Ref. 06.345 (optional) |  | 26 mm | Max.6A |
|---|---|-------|--------|

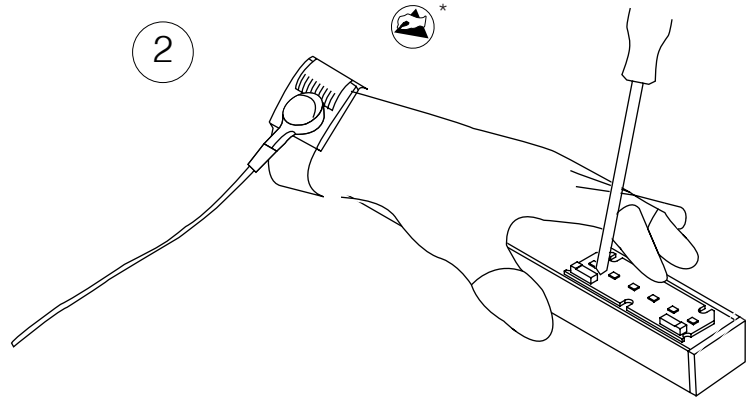




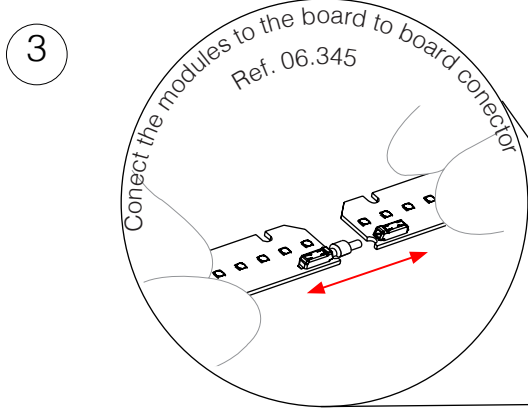
INSTALLATION AND CONNECTION EXAMPLE



1 For eventual attachment of the fixture (with no use of double sided tape) drill a hole in the profile.

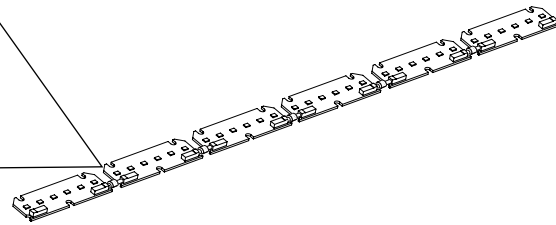


2 Place the PCB and apply pressure. Fix the screws to the lighting base. Note: Accessory M3 screws (*) Protection ESD



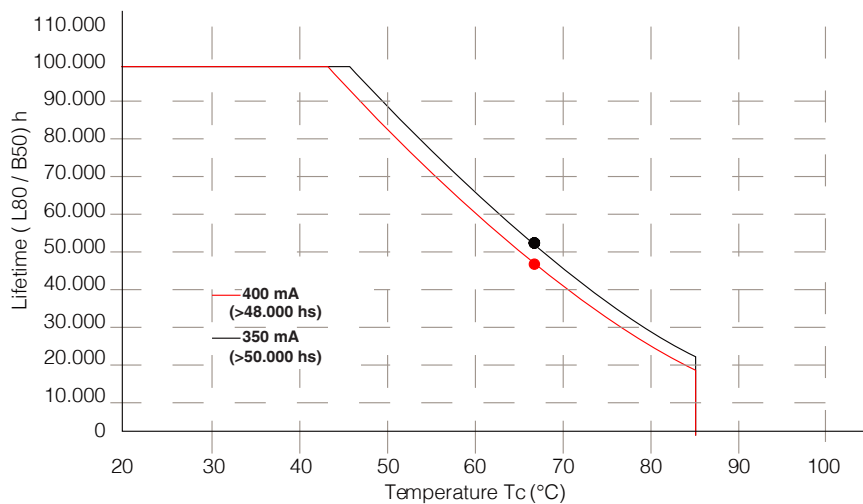
3 Connect the modules to the board to board connector Ref. 06.345

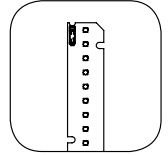
! Max. no. of PCBs: depends on used driver:
Vf total modules ≤ Vout driver



Place the board to board connectors and join together with other modules. Fix the screws to the lighting base in accordance with the no. of modules. Note: Accessory: M3 screws.

Lifetime Derating for MERAKI LINEAL MERAKI 702 ECO





SECURITY AND INFORMATION INSTALLATION



ELECTRICAL POWER

MERAKI ECO 702 must be feed at constant current; the energy source power must be in accordance with the quantity of connected modules for proper functioning of the module (or group of modules). Family MERAKI LED MODULES have polarity, for this reason rated current, nominal power and polarity must be taken into account. If that is not the case, the module might be irreversibly damaged. MERAKI LED MODULES require specific driver protection against short-circuit currents, temperature raise and overloads.



ISOLATION

MERAKI ECO 702 functions with SELV voltage, does not require active isolation of the component as long as maximum reference SELV voltage is not exceeded. In other case, it will be mandatory earth connection on all conductive components of the fixture or light engine when the number of modules in the series exceeds SELV voltage. The driver must be in compliance with CE, UL or valid analogous regulation.



ESD – STATIC ELECTRICITY INFORMATION

MERAKI ECO 702 contains electronic components which are very sensible to static electricity. In this respect is it highly recommendable to always manipulate the items with appropriate ESD protection, and take adequate measures for safety matters. If you need further information please refer to our webpage www.idled.eu.



MOUNTING AND INSTALLATION

I+D LED S.L. is not responsible for the installation of the product. MERAKI ECO 702 must be perfectly placed (and/or stick) on the lighting device, profile or base for a proper connection between modules and power source. Thermal transference between PCB and luminaire body must be at its highest, in order to ensure that fixture temperature does not exceed T_c in any case.

If any type of chemical substance is used during the assembly of the luminaire or light engine, it must not have any type of curing by means of gas condensation; as these chemical substances may damage the LEDs.

The module will be delivered with pre-made holes of $D=4$ mm according to dimensions drawing (ZHAGA L70W2). Maximum torque for fixing recommended 0,4-0,5 Nm to avoid mechanical stress. Ideal wire for this connection type is unipolar rigid wire of 0,4-1mm², with a strip wire of 6,5-7MM. To remove wire, push orifice on the connector and pull smoothly.



TEMPERATURE

MERAKI ECO 702 life-time depends to a great extent on operating temperature. Under no circumstance temperature should exceed the maximum permissible ($T_c=65^{\circ}\text{C}$) limit here indicated. Exposure to higher temperatures might affect its long term proper functioning. Room temperature must be measured under worst-case conditions to ensure life-time and keep product's guarantee. Store modules between -20°C and $+80^{\circ}\text{C}$, and at a maximum humidity level of 65%.



OPTICAL CHARACTERISTICS + CCT

Measurement of LED discrete points may have variations in regards on the CCT temperature here described, with a variance of 3SDCM for white and +/- 5nm for coloured LEDs. CCT shifts +/- 0,001 at 6.000 hrs. 3 SDCM are declared over the complete module. Modules viewing angle is 120° .