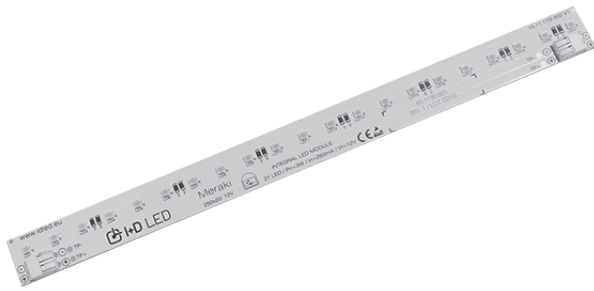
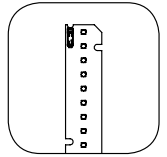


MERAKI LED MODULES

ECO 250X20 - LINEAL CV 12V

(250X20MM)



New MERAKI 250x20 ECO 12V from family MERAKI LINEAL CV 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. MERAKI 250x20 ECO 12V modules are specially indicated for the production of linear lighting, both direct and indirect. It is available with 21 LED per modules. Regarding its input current, heatsinks could be avoided. Modules are available on diverse CCT and SELV voltage.



In compliance with:

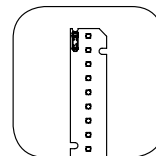
IEC 62031 / IEC 62471 / IEC 62717

APPLICATION

PRODUCT DESCRIPTION



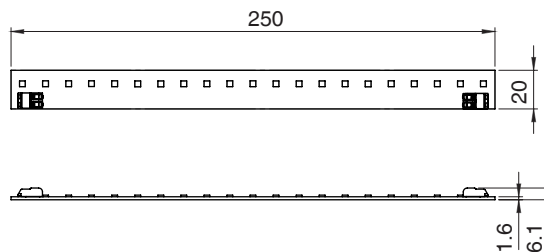
- Available in 2700K-3000K-4000K-5000K
- CRI>80 (CRI90 available under request)
- Efficiency > 100 lm/W
- Colour tolerance 3 SDCM
- Easy to install
- Space-saving design
- Life-time exceeds 50.000 hrs
- 5 years guarantee
- High lm/\$ relation
- Exclusive design, no heatsink required
- Extremely flat profile: 8mm



TECHNICAL DATA

- SELV voltage
- Available in 2700K/3000K/4000K/5000K
- Typical CRI80 (CRI90 available under request)
- Operating temperature between -30°C and +45° C
- EN 61471:2008 group 1
- Standard Tc 75°C
- LED viewing angle 20°
- Weight 20 g
- MOQ 44 units
- Possible to integrate with LOGO Custom

DIMENSIONS



(*) Measures in mm

SPECIFIC TECHNICAL DATA - 21 LED MODULE

| 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 |
|-----------------|-------|---------------------|--------------------|-------------------|-------------------|----------------------|-----------------------------|--------------------|-------------------|
| 31.13.282.12.01 | 2700k | 250 | 12 | 12 | 12 | 3000 | 86,80 | 260,4 | 827/850.348 |
| 31.13.282.12.02 | 3000k | 250 | 12 | 12 | 12 | 3000 | 94,50 | 283,5 | 827/850.348 |
| 31.13.282.12.03 | 4000k | 250 | 12 | 12 | 12 | 3000 | 104,65 | 313,9 | 827/850.348 |
| 31.13.282.12.04 | 5000k | 250 | 12 | 12 | 12 | 3000 | 115,50 | 346,5 | 827/850.348 |

Note: It is required to keep Tc < 65°C.

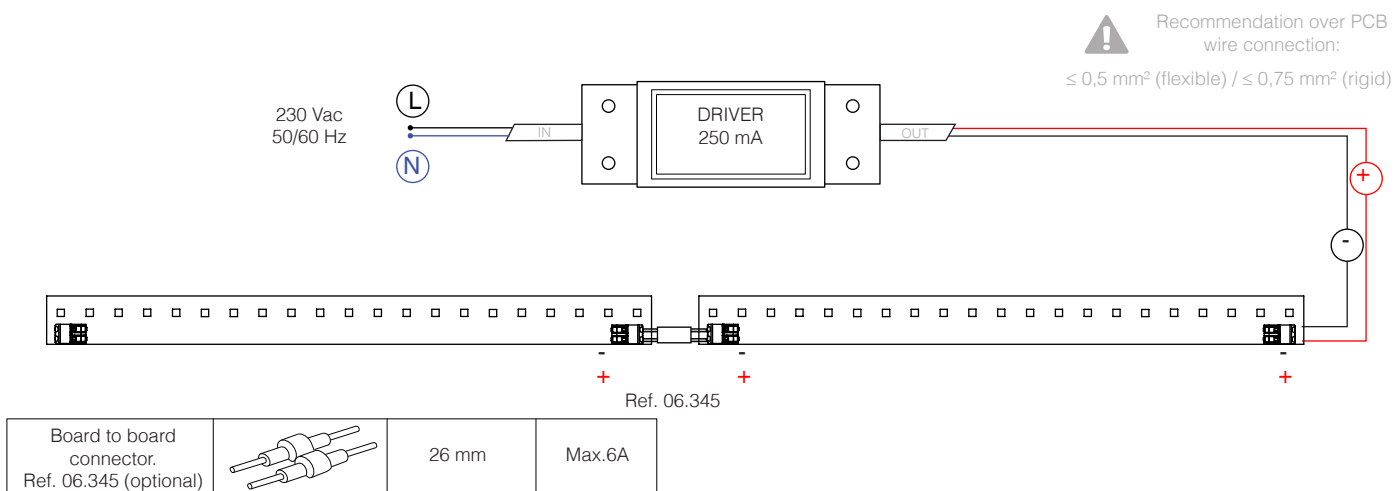
For nominal current values of 350 mA pasive heatsink is required.

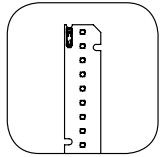
Tolerance range for flux measurements of 8%.

For PCB supply including high adhesion thermal tape, please add the letter "C" behind the product code. Example: 31.13.282.12.04C

QTY LED 21 CRI TYP >80

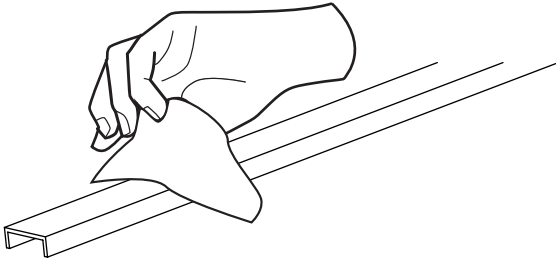
DRIVER + MODULE CONNECTION EXAMPLE





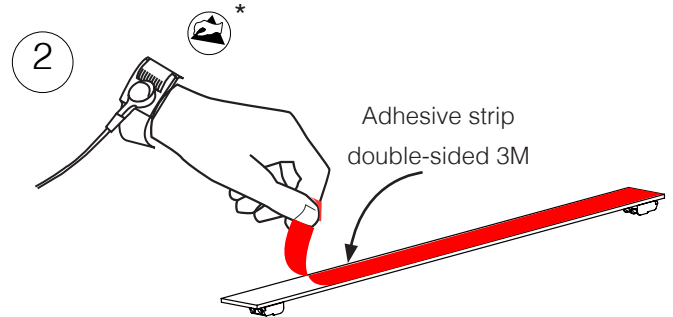
INSTALLATION AND CONNECTION EXAMPLE

1



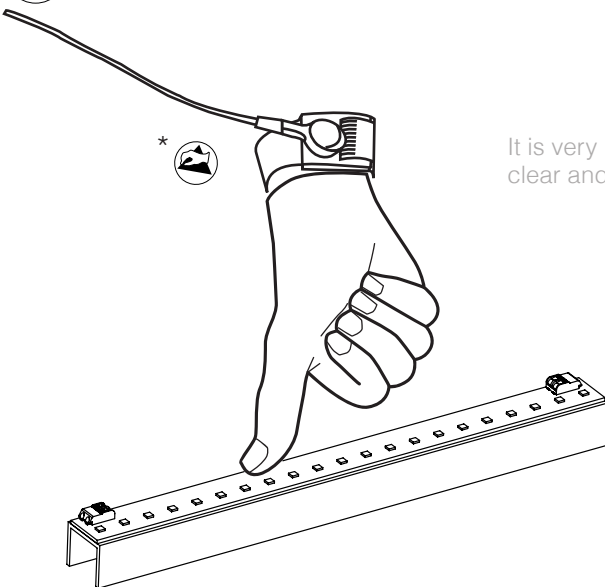
Make sure that surface where the PCB (LED strip) will be stick is clean and flat for proper adhesion.

2



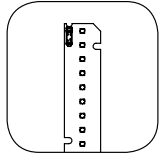
Remove film from adhesive tape.
(*) ESD protection.

3



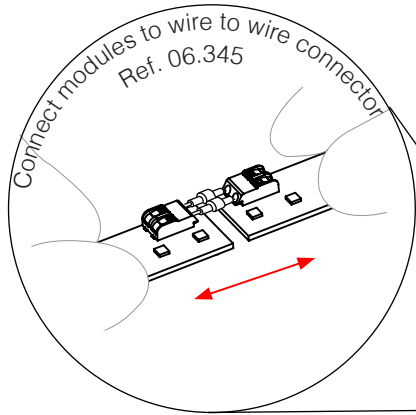
It is very important to keep a clear and flat surface.

Place the LED strip on top of the desired surface and apply pressure carefully.
(*) ESD protection.

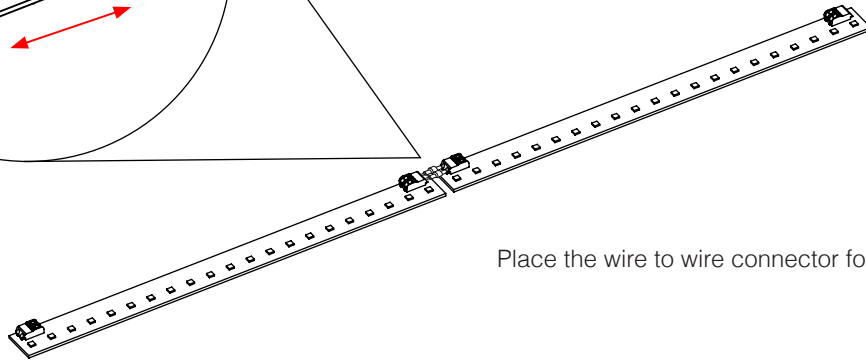


INSTALLATION AND CONNECTION EXAMPLE

4

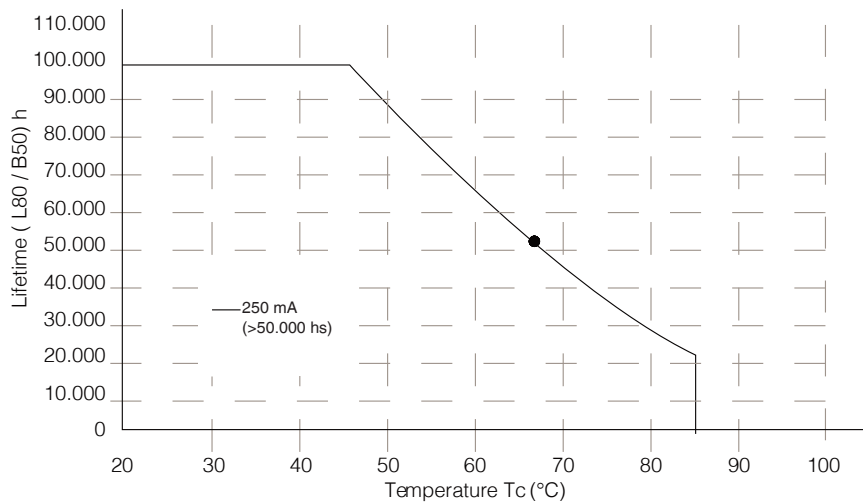


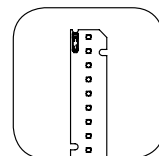
Max. no. of PCBs:
depends on driver type
Vf total PCBs ≤ Vout Driver



Place the wire to wire connector for interconnection.

Lifetime Derating for MERAKI LINEAL MERAKI





SECURITY AND INSTALLATION INFORMATION



ELECTRICAL POWER

MERAKI 250X20 ECO 12V 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). MERAKI 250X20 ECO 12V has 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. Family MERAKI LED MODULES require specific driver protection against short-circuit currents, temperature raise and overloads.



ISOLATION

MERAKI 250X20 ECO 12V functions with SELV voltage and 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 250X20 ECO 12V 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 250X20 ECO 12V must be perfectly placed (and/or stick) on the lighting device, profile or base for a proper connection between modules and power source. The module will be delivered with double sided tape for installation if requested (optional). 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 and electronic components.

Ideal wire for this connection type is unipolar rigid wire of 0,4-1mm², with a strip wire of 4-5MM. To remove wire, push orifice on the connector (or flap) and pull smoothly.



TEMPERATURE

MERAKI 250X20 ECO 12V life-time depends to a great extent on operating temperature. Under no circumstance temperature should exceed the maximum permissible ($T_c=75^{\circ}\text{C}$) 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 and 2SDCM 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° .