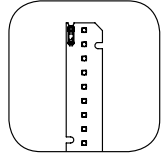


MERAKI LED MODULES

ECO BACKLIGHT 282-140-LINEAL CC (280X24 MM)



New MERAKI ECO BACKLIGHT 282-140 are ideal to complete fixture designs that seek homogeneity and short distance from the module to the circuit breaker. The modules provide an alternative to former technologies for signage. They are intended to backlight and at nominal power they do not need heatsinks. As a result of its easy installation and performance, MERAKI ECO BACKLIGHT 282-140 is a perfect partner for professionals in light fixtures production. Excellent items for development of light fixtures and backlit signage. Its wide ranging colour temperature offers total colours flexibility.

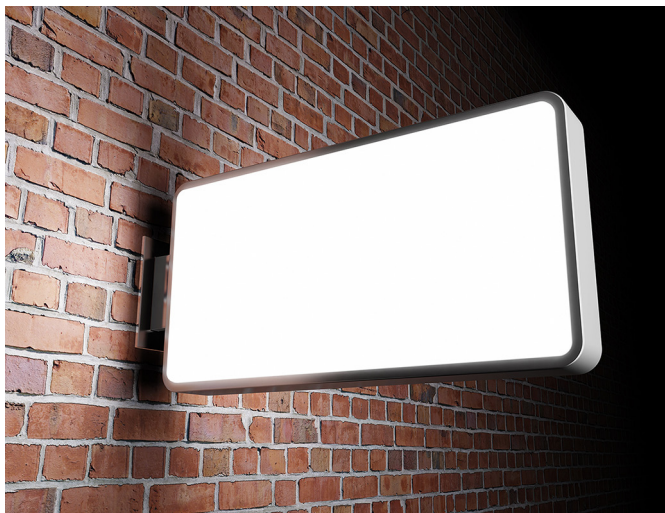


In compliance with:

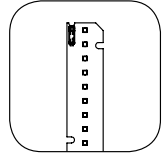
IEC 62031 / IEC 62471 / IEC 62717

APPLICATION

PRODUCT DESCRIPTION



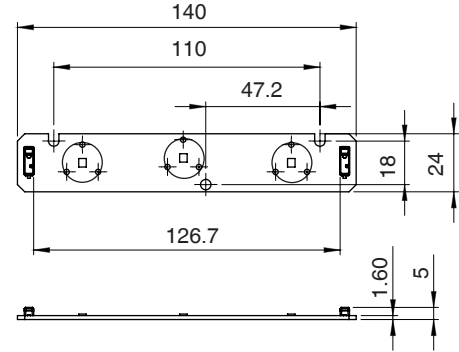
- Available in 2700K-3000K-4000K-5000K
- CRI>80 (CRI90 available) – colours under request
- Efficiency > 135 lm/W
- Colour tolerance SDCM
- Easy to install
- Space-saving design
- Life-time exceeds 50.000 hrs.
- 5 years guarantee
- High lm/\$ relation
- Exclusive design (no heatsink required)
- Homogeneous and wide beam range



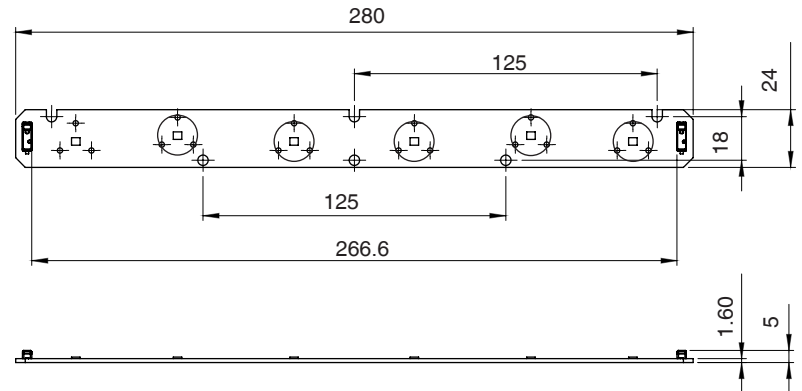
TECHNICAL DATA

- SELV voltage
- Available in 2700K/3000K/4000K/5000K
- CRI80-90
- Operating temperature between -30°C and 45° C
- EN 61471:2008 group 1
- Standard Tc 65°C
- LED viewing angle 147° BACKLIGHT type
- Weight 70 g
- MOQ 64 pieces
- Possibility to integrate with LOGO Custom

DIMENSIONS



(*) Measured in mm



SPECIFIC TECHNICAL DATA

SPECIFIC TECHNICAL DATA - ECO 140

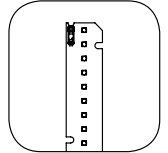
CODE	CCT	RATED CURRENT mA	VOLTAGE Min (V)	VOLTAGE Typ(V)	VOLTAGE Max(V)	NOMINAL POWER (W)	LUMINOUS EFFICACY (lm/W)	TOTAL FLUX (lm)	PHOTO METRIC CODE
31.13.140.01.3	2700K	200	5,7	5,9	6,2	1,20	127,92	153,8	827.348
31.13.140.01.3	2700K	350	5,7	6,1	6,2	2,15	109,75	235,7	827.348
31.13.140.01.3	2700K	500	5,7	5,8	6,2	2,92	110,48	322,3	827.348
31.13.140.02.3	3000K	200	5,7	5,9	6,2	1,20	130,12	156,4	830.348
31.13.140.02.3	3000K	350	5,7	6,1	6,2	2,15	112,68	241,9	830.348
31.13.140.02.3	3000K	500	5,7	5,8	6,2	2,92	112,55	328,4	830.348
31.13.140.03.3	4000K	200	5,7	5,9	6,2	1,20	136,96	164,6	840.348
31.13.140.03.3	4000K	350	5,7	6,1	6,2	2,15	115,35	247,7	840.348
31.13.140.03.3	4000K	500	5,7	5,8	6,2	2,92	111,40	324,9	840.348
31.13.140.04.3	5000K	200	5,7	5,9	6,2	1,20	139,45	167,6	850.348
31.13.140.04.3	5000K	350	5,7	6,1	6,2	2,15	118,56	254,6	850.348
31.13.140.04.3	5000K	500	5,7	5,8	6,2	2,92	121,96	355,8	850.348

(*) It is required to keep Tc < 65°C.

Note: Tolerance range for flux measurements of 8%.

For module supply including high adhesion thermal tape, please add the letter "C" behind the product code. Example: 31.13.140.04.3C.

QTY LED 3 CRI >80



SPECIFIC TECHNICAL DATA

SPECIFIC TECHNICAL DATA - ECO 282

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
31.13.282.01.6	2700K	200	11,2	11,9	12,8	2,40	127,92	307,5	827.348
31.13.282.01.6	2700K	350	11,2	12,2	12,8	4,29	109,75	471,3	827.348
31.13.282.01.6	2700K	500	11,2	11,5	12,8	5,79	111,44	644,6	827.348
31.13.282.02.6	3000K	200	11,2	11,9	12,8	2,41	130,12	312,8	830.348
31.13.282.02.6	3000K	350	11,2	12,2	12,8	4,29	112,68	483,9	830.348
31.13.282.02.6	3000K	500	11,2	11,5	12,8	5,79	113,53	656,7	830.348
31.13.282.03.6	4000K	200	11,2	11,9	12,8	2,40	136,95	329,2	840.348
31.13.282.03.6	4000K	350	11,2	12,2	12,8	4,29	115,35	495,4	840.348
31.13.282.03.6	4000K	500	11,2	11,5	12,8	5,79	112,37	649,9	840.348
31.13.282.04.6	5000K	200	11,2	11,9	12,8	2,40	139,45	335,2	850.348
31.13.282.04.6	5000K	350	11,2	12,2	12,8	4,29	118,56	509,2	850.348
31.13.282.04.6	5000K	500	11,2	11,5	12,8	5,79	123,02	711,6	850.348

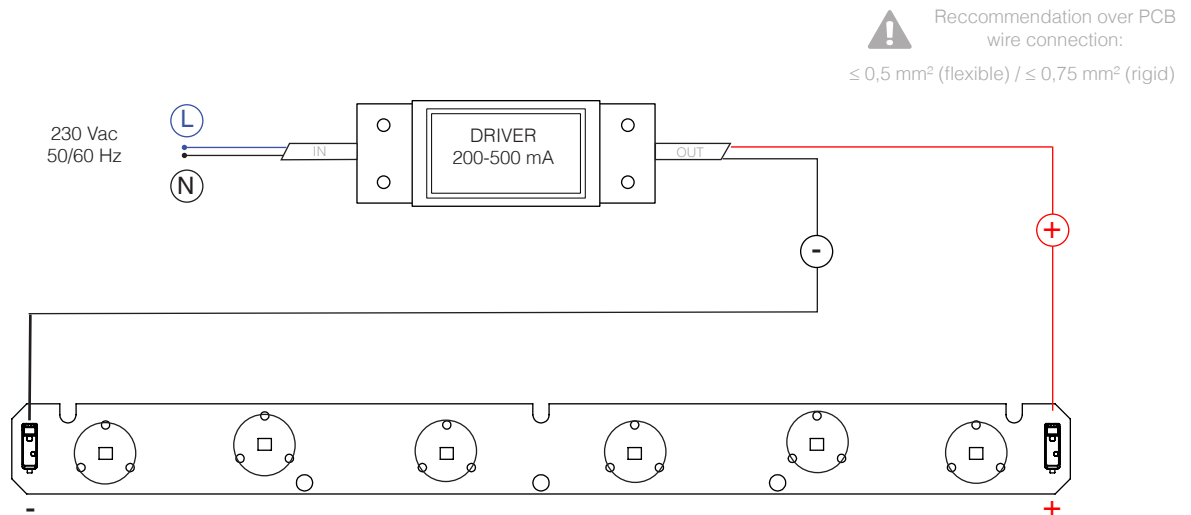
Note: It is required to keep Tc < 65°C.

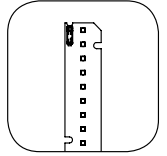
Tolerance range for flux measurements of 8%.

For module supply including high adhesion thermal tape, please add the letter "C" behind the product code. Example: 31.13.140.04.6C.

QTY LED 6 CRI >80

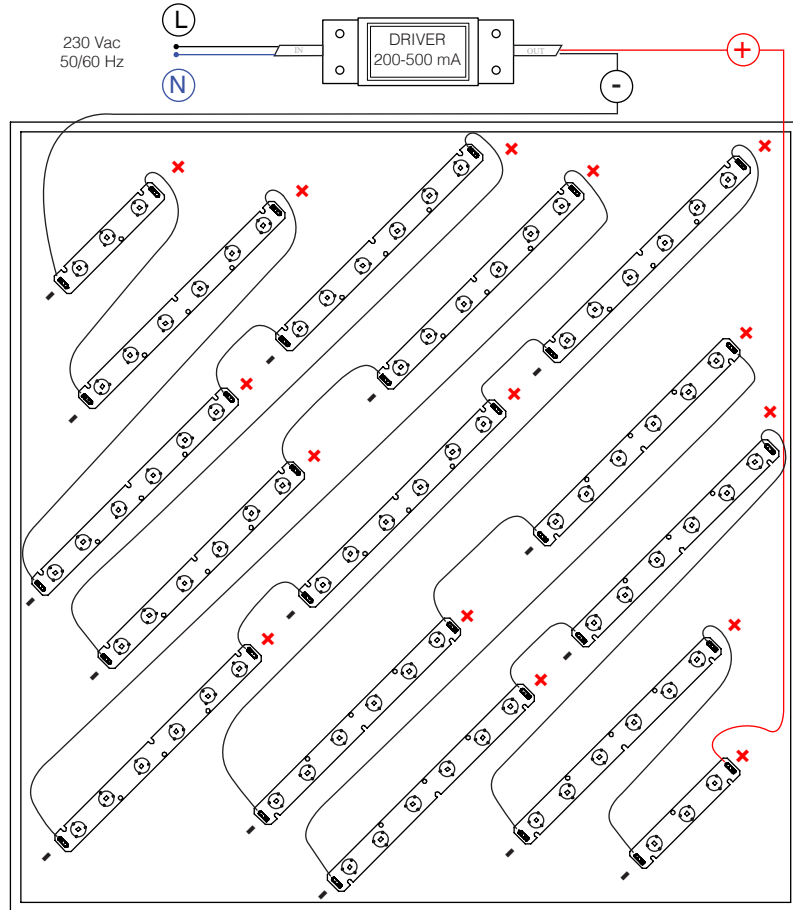
CONNECTION EXAMPLE





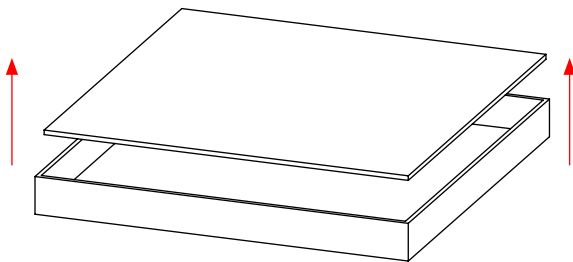
CONNECTION EXAMPLE

Standard installation example:



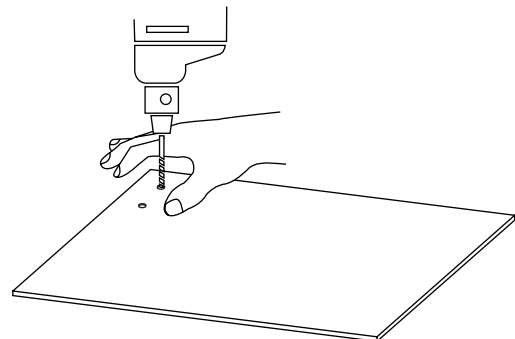
INSTALLATION AND CONNECTION EXAMPLE

1

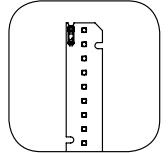


Dissmantele profile base.

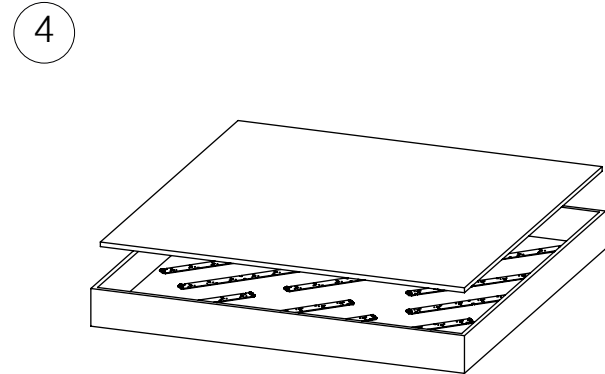
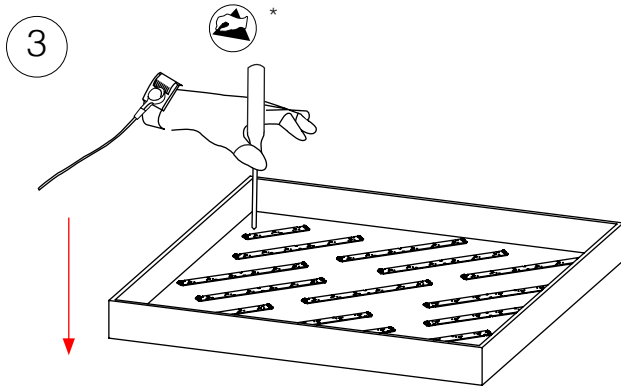
2



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



INSTALLATION AND CONNECTION EXAMPLE



Place the PCB and apply pressure. Fix the screws to the fixture base. Note: Accessory: M3 screws. (*) ESD protection to earth connection

Annex the heatsink. Introduce the positive (+, red) and negative (-, black) wires in the pre-made holes, and connect them to appropriate voltage.

SECURITY AND INSTALLATION INFORMATION



ELECTRICAL POWER

MERAKI ECO BACKLIGHT 282-140 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. Please, verify driver's min. and max. Vn values specified in this data sheet.



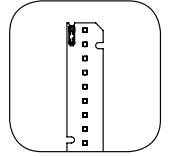
ISOLATION

MERAKI ECO BACKLIGHT 282-140 functions with SELV voltage, does not require active isolation of the component as long as maximum reference SELV voltage of 50V 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 BACKLIGHT 282-140 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 BACKLIGHT 282-140 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 from 3 to 6 pre-made holes of $D=4$ mm. 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 BACKLIGHT 282-140 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 $\pm 5\text{nm}$ for coloured LEDs. CCT shifts $\pm 0,001$ at 6.000 hrs. 3 SDCM are declared over the complete module. Modules viewing angle is 120° .