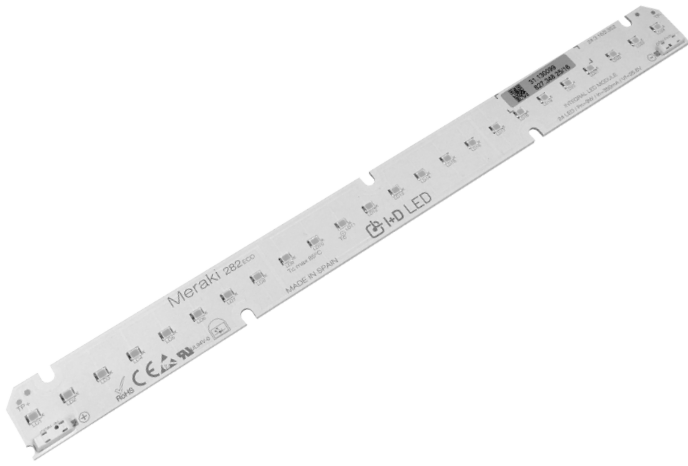




New modules MERAKI ECO 282 from MERAKI LINEAL CC family are ideal for flexible fixtures that require high performance and excellent lm/\$ relation. These modules are very simple to connect and to assembly to any surface. Specially indicated for the production of linear lighting, both direct and indirect. Available in 12 and 24 LED per module. The modules have two different functioning: high flux and high efficiency. Depending on its input current, heatsinks could be avoid. Modules are available in diverse CCT and SELV voltage.



In compliance with:

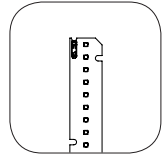
IEC 62031 / IEC 62471 / IEC 62717

APPLICATION



PRODUCT DESCRIPTION

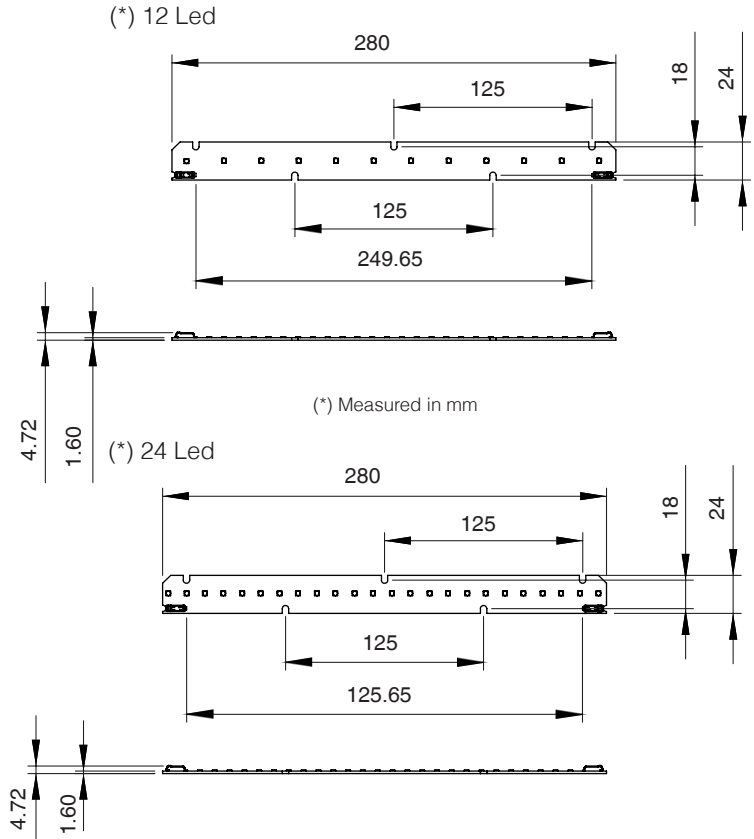
- Available in 2700K-3000K-4000K-5000K
- CRI>80
- Efficiency > 175 lm/W
- Colour tolerance 3 SDCM
- Easy to install
- Space-saving design
- Life-time exceeds 50.000 hrs.
- 5 years guarantee
- High lm/\$ relation



TECHNICAL DATA

- SELV operating voltage
- Available at 2700-3000-4000-5000K
- Typical CRI80, CRI90 on request
- Operation -20°C + 45 ° C
- EN 61471: 2008 group 1
- Typical Tc 65 ° C
- LED opening 120 °
- Weight 20 g
- MOQ 44 pcs
- Box weight approx. 900 g
- Dimmable PWM.

DIMENSIONS



SPECIFIC TECHNICAL DATA

SPECIFIC TECHNICAL DATA MODULE 24 LED

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
31.13.07009	2700K	200	23,2	23,4	26,4	4,72	138,51	730,6	827.348
31.13.07009	2700K	350	23,2	23,6	26,4	8,68	114,69	1228,8	827.348
31.13.07009	2700K	500	23,2	25,7	26,4	12,90	101,10	1541,5	827.348
31.13.07010	3000K	200	23,2	23,4	26,4	4,72	156,78	741,1	830.348
31.13.07010	3000K	350	23,2	24,6	26,4	8,65	137,58	1191,3	830.348
31.13.07010	3000K	500	23,2	25,7	26,4	12,90	120,51	1551,7	830.348
31.13.07011	4000K	200	23,2	23,1	26,4	4,66	177,36	827,6	840.348
31.13.07011	4000K	350	23,2	24,3	26,4	8,55	162,12	1386,7	840.348
31.13.07011	4000K	500	23,2	25,3	26,4	12,70	142,13	1805,1	840.348
31.13.07012	5000K	200	23,2	23,1	26,4	4,66	195,86	796,1	850.348
31.13.07012	5000K	350	23,2	24,3	26,4	8,55	184,96	1429,2	850.348
31.13.07012	5000K	500	23,2	25,3	26,4	12,7	161,83	1886,9	850.348

Note: It is required to keep Tc < 65°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: 31.13.07012C.

QTY LED 24 CRI TYP >80



SPECIFIC TECHNICAL DATA

SPECIFIC TECHNICAL DATA MODULE 12 LED

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
31.13.07009.12	2700K	200	11,2	11,5	12,8	2,32	144,12	334,8	827.348
31.13.07009.12	2700K	350	11,2	12,3	12,8	4,33	106,87	462,7	827.348
31.13.07009.12	2700K	400	11,2	12,5	12,8	5,03	105,31	529,2	827.348
31.13.07009.12	2700K	500	11,2	12,9	12,8	6,49	92,09	597,6	827.348
31.13.07010.12	3000K	200	11,2	11,5	12,8	2,32	152,39	354	830.348
31.13.07010.12	3000K	350	11,2	12,3	12,8	4,33	112,81	488,4	830.348
31.13.07010.12	3000K	400	11,2	12,5	12,8	5,03	108,70	546,2	830.348
31.13.07010.12	3000K	500	11,2	12,9	12,8	6,49	98,68	640,3	827.348
31.13.07011.12	4000K	200	11,2	11,5	12,8	2,32	167,89	390	840.348
31.13.07011.12	4000K	350	11,2	12,3	12,8	4,33	120,57	522	840.348
31.13.07011.12	4000K	400	11,2	12,5	12,8	5,03	112,00	562,8	840.348
31.13.07011.12	4000K	500	11,2	12,9	12,8	6,49	102,55	665,4	827.348
31.13.07012.12	5000K	200	11,2	11,5	12,8	0,20	175,58	407,9	827.348
31013.07012.12	5000K	350	11,2	12,3	12,8	4,33	124,42	538,7	850.348
31.13.07012.12	5000K	400	11,2	12,5	12,8	5,03	119,64	601,2	850.348
31.13.07012.12	5000K	500	11,2	12,9	12,8	6,49	107,06	694,7	850.348

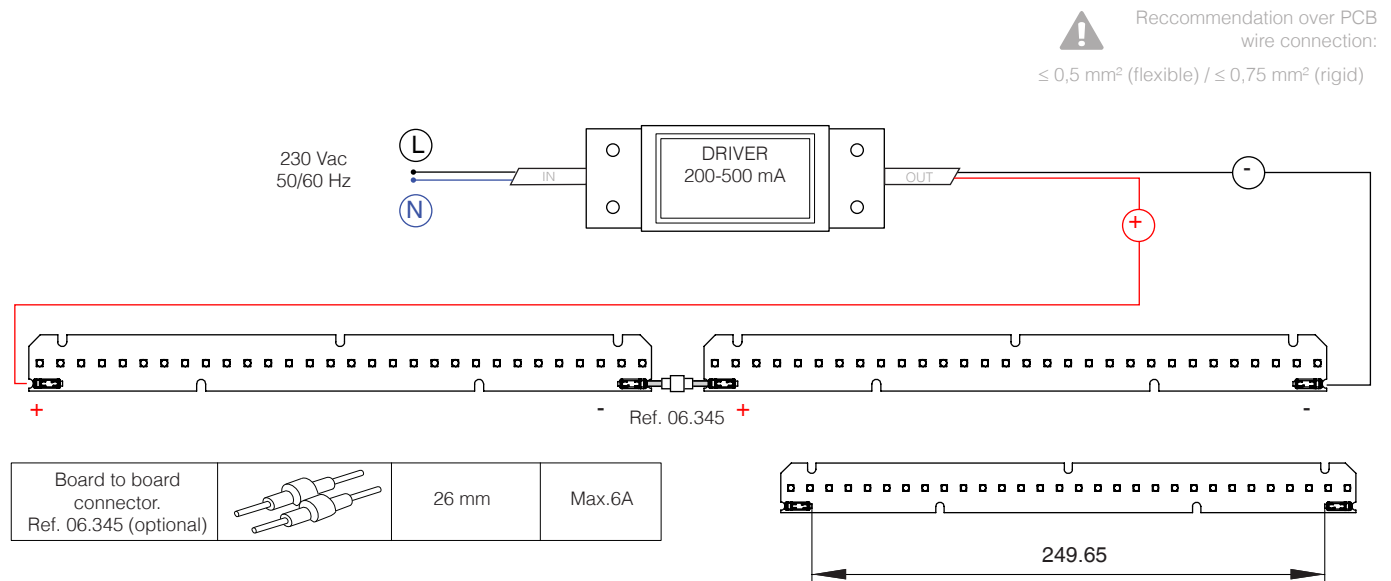
Note: It is required to keep Tc < 65°C.

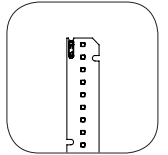
Tolerance range for flux measurements of 8%.

For PCB supply including high adhesion thermal tape, please add the letter "C" behind the product code. Example: 31.13.07012C.

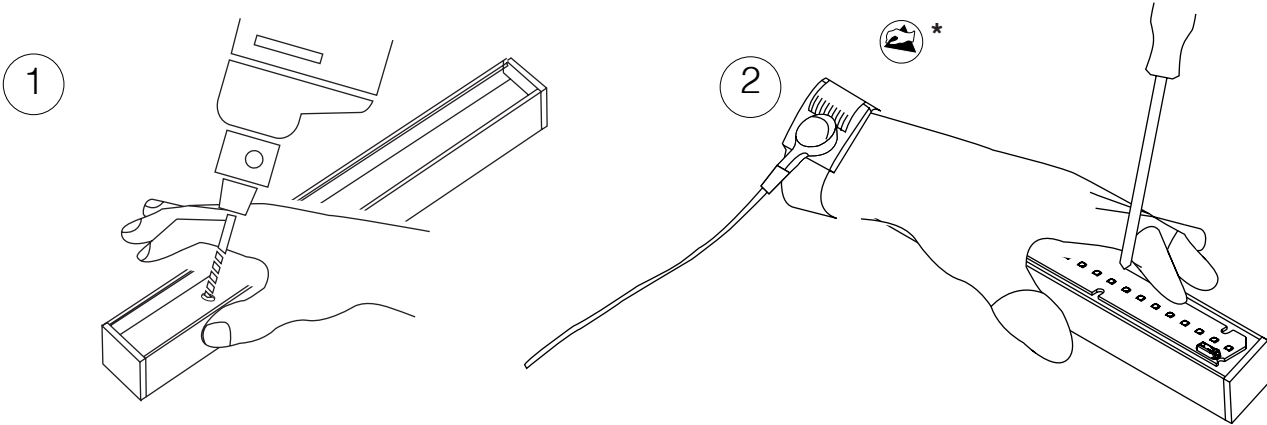
QTY LED 24 CRI TYP >80

DRIVER + MODULE CONNECTION EXAMPLE





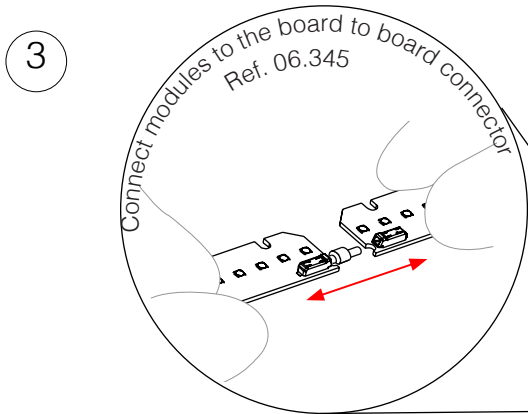
CONNECTION AND INSTALLATION EXAMPLE



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

2 Place the PCB and apply pressure. Fix the screws to the fixture base. Note: Accessory M3 screws.

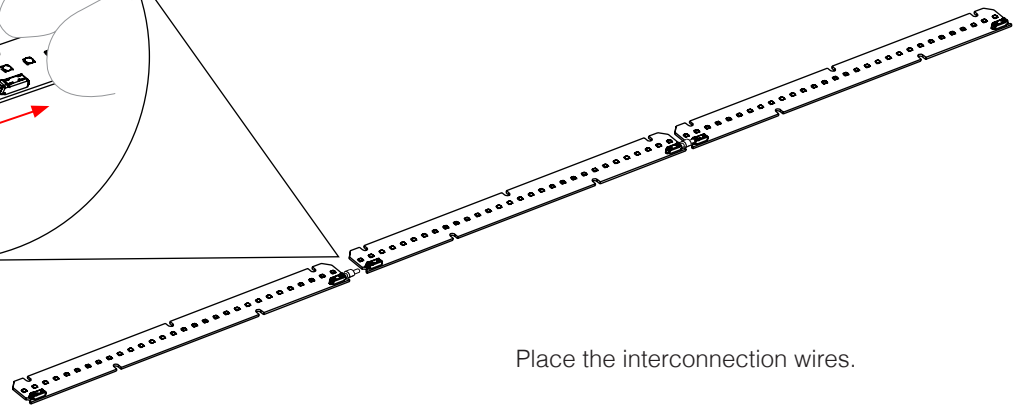
(*) ESD protection



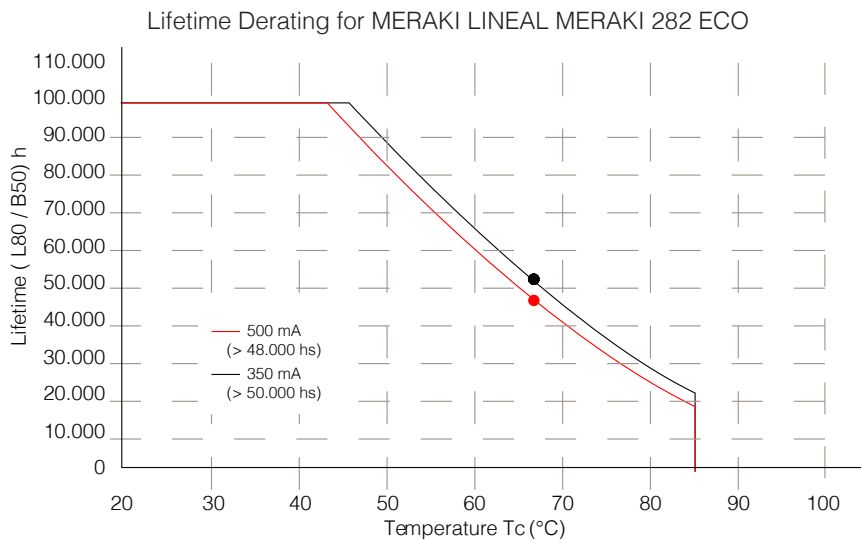
3 Connect modules to the board to board connector
Ref. 06.345



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



Place the interconnection wires.





SECURITY AND INSTALLATION INFORMATION



ELECTRICAL POWER

MERAKI ECO 282 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 282 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 282 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 282 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 5 pre-made holes of $D=4$ mm according to dimensions drawing (ZHAGA L2W2).

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 282 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° .