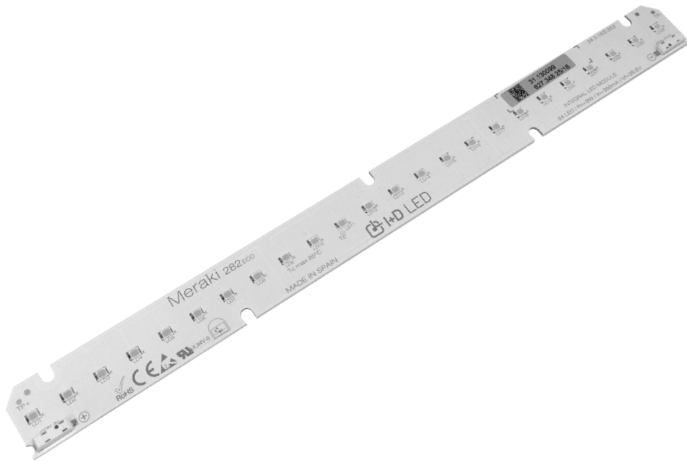
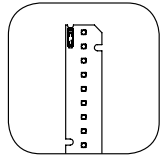


# MERAKI LED MODULES

## ECO 282 IL SOLE - LINEAL CC

( 280X24MM)



New MERAKI iSOLE 282 from MERAKI LINEAL CC family are ideal for small size 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. It has a luminous spectrum similar to sunlight, which avoids disturbing blue spectrum picks and focuses on total satisfaction for end user. It is available with 12 or 24 LED per module. Regarding input current, heatsinks could be avoided. Modules are available on diverse CCT and SELV voltage.



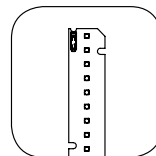
In compliance with  
IEC 62031 / IEC 62471 / IEC 62717

### APPLICATION

### PRODUCT DESCRIPTION



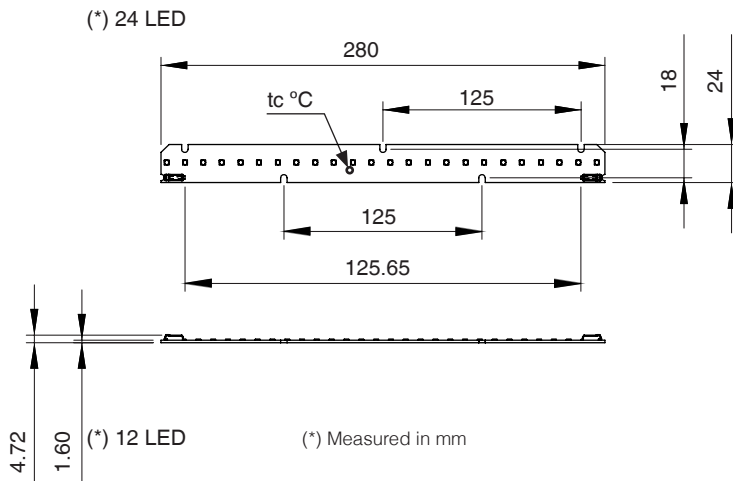
- Available in 2700K-3000K-4000K-5000K
- CRI>97
- Improves circadian cycle
- Efficiency >100 lm/W
- Colour tolerance 4 SDCM
- Easy to install
- Space-saving design
- Life-time exceeds 50.000 hrs
- 5 years guarantee
- Exclusive design (no heatsink required)
- Intended for offices and homes



### TECHNICAL DATA

- SELV voltage
- Available in 2700K-3000K-4000K-5000K (3000K in stock, other under request)
- CRI>97
- Low blue spectrum picks
- Operating temperature between -30°C and 45° C
- EN 61471:2008 group 1
- Standard Tc 65°C
- Viewing LED angle 120°
- Weight 20 g
- MOQ 88 uds
- Possible to integrate with LOGO Custom

### DIMENSIONES



### SPECIFIC TECHNICAL DATA

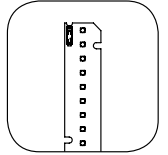
#### SPECIFIC TECHNICAL DATA

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.SUN.2K7	2700K	200	23,2	23,4	26,4	4,73	63,47	300	827.348
31.13.282.SUN.2K7	2700K	350	23,2	23,4	26,4	8,24	71,39	588	827.348
31.13.282.SUN.2K7	2700K	400	23,2	23,4	26,4	9,41	75,01	705,6	827.348
31.13.282.SUN.3K	3000K	200	23,2	23,4	26,4	4,73	80,02	378,2	830.348
31.13.282.SUN.3K	3000K	350	23,2	23,4	26,4	8,24	78,73	648,5	830.348
31.13.282.SUN.3K	3000K	400	23,2	23,4	26,4	9,41	79,60	748,8	830.348
31.13.282.SUN.4K	4000K	200	23,2	23,4	26,4	4,73	90,63	428,4	840.348
31.13.282.SUN.4K	4000K	350	23,2	23,4	26,4	8,24	86,86	715,4	840.348
31.13.282.SUN.4K	4000K	400	23,2	23,4	26,4	9,41	84,78	797,5	840.348
31.13.282.SUN.5K	5000K	200	23,2	23,4	26,4	4,73	102,16	482,8	850.348
31.13.282.SUN.5K	5000K	350	23,2	23,4	26,4	8,24	91,78	756	850.348
31.13.282.SUN.5K	5000K	400	23,2	23,4	26,4	9,41	92,99	874,8	850.348

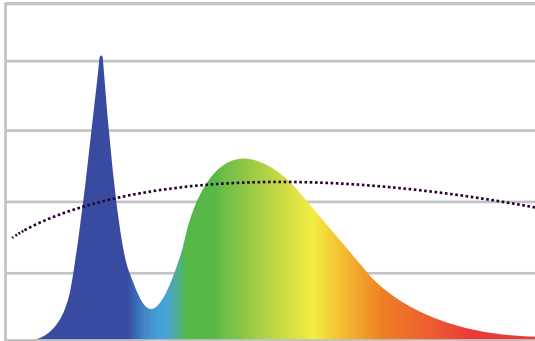
Note: It is required to keep Tc < 65°C.

Tolerance range for flux measurements of 8%.

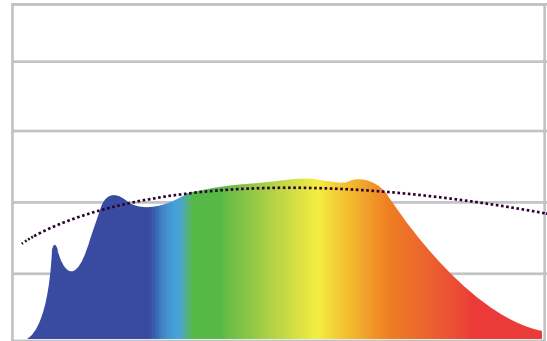
For PCB supply including high adhesion thermal tape, please add the letter "C" behind the product code. Example: 31.13.282.SUN.5KC  
QTY LED 24 CRI TYP >95



STANDARD LED Vs. iSOLE LED SPECTRUM COMPARISON

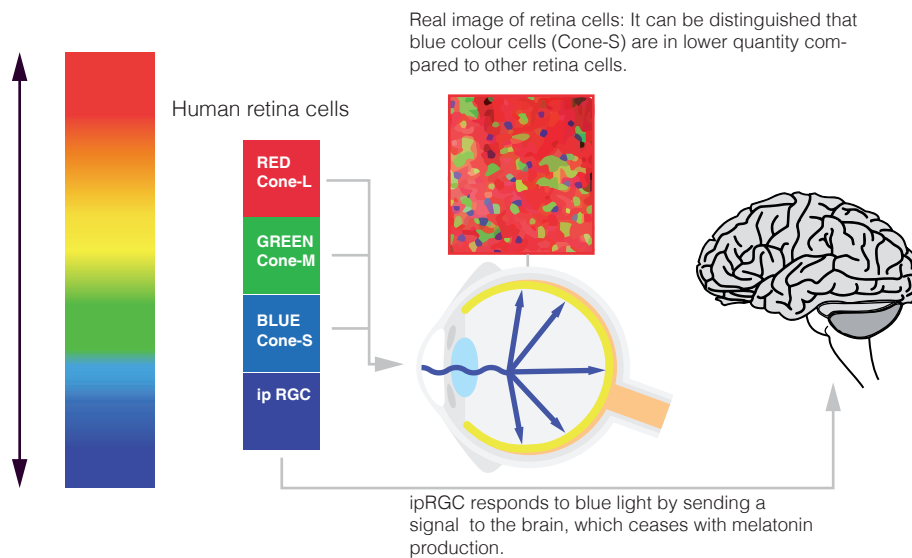


Standard LED spectrum (blue pick)

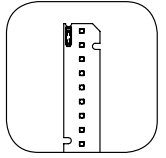


iSOLE LED spectrum (well-balanced)

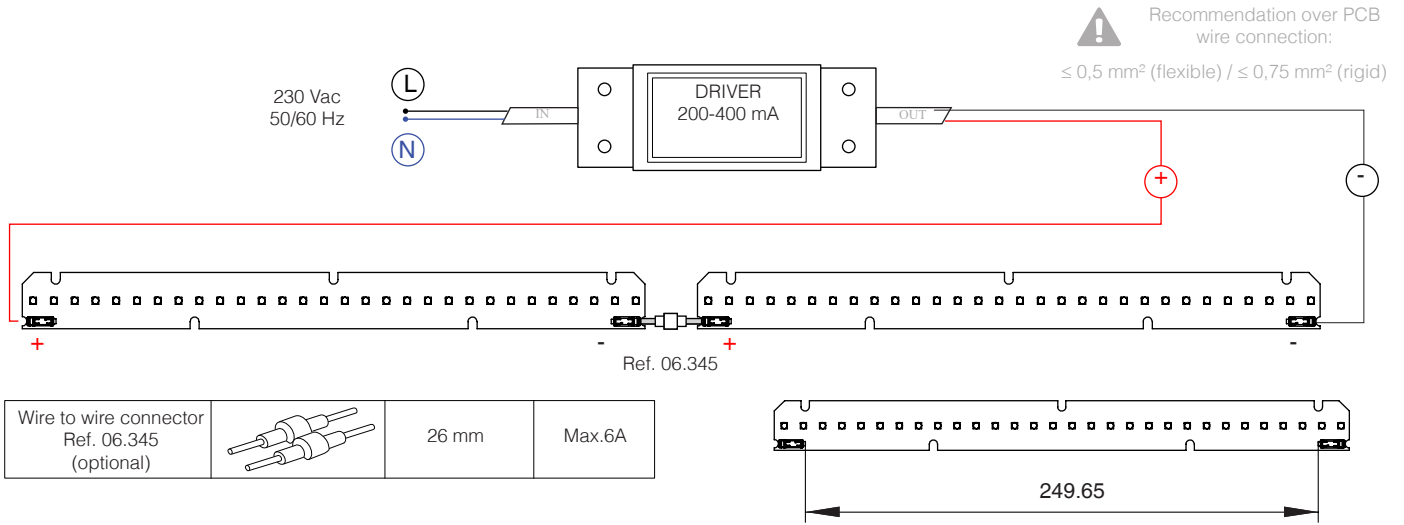
¿WHY IS THIS TYPE OF LUMINOUS SPECTRUM OUTSTANDING?



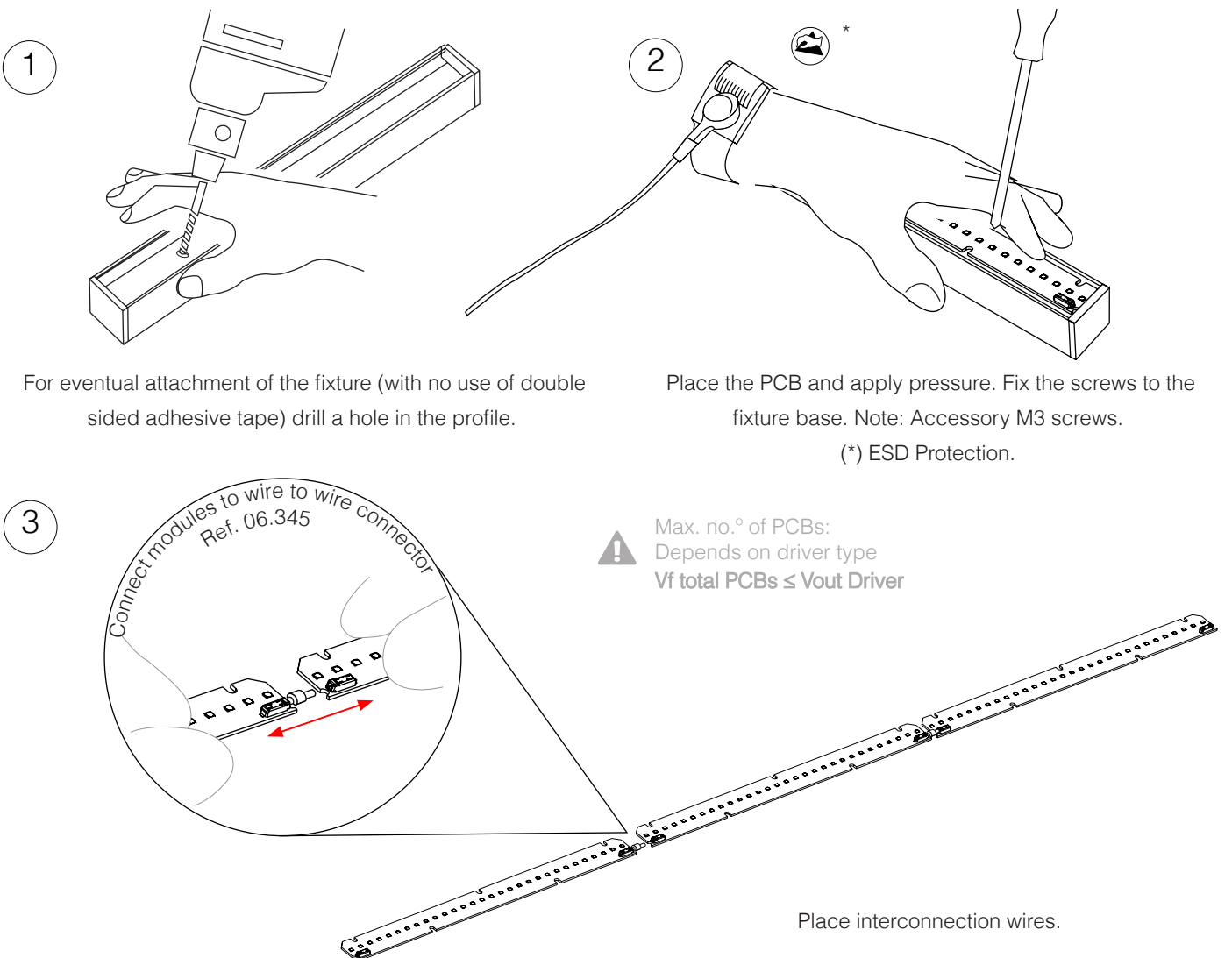
Blue light normal spectrum alters human circadian cycle, releasing high quantity of picks at this wave length. These picks are received by the eye, which sends signals to the brain to cease melatonin production. Melatonin deficiency has a direct negative effect on humor, sleep, and in general health status. New iSOLE spectrum contributes to the human eye to behave naturally, as it does with sunlight.

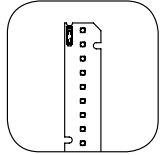


### DRIVER + MODULE CONNECTION EXAMPLE

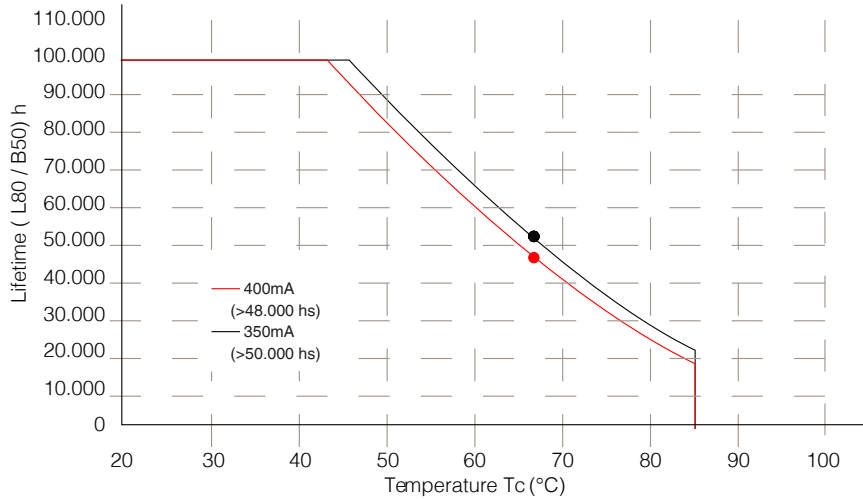


### INSTALLATION AND CONNECTION EXAMPLE





Lifetime Derating for MERAKI LINEAL MERAKI 282



### SECURITY AND INSTALLATION INFORMATION



#### ELECTRICAL POWER

MERAKI 282 ILSOLE 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 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 282 ILSOLE has integrated protection against reverse polarity errors. 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.



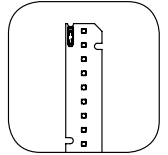
#### ISOLATION

MERAKI 282 ILSOLE 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 282 ILSOLE 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](http://www.idled.eu).



### MOUNTING AND INSTALLATION

I+D LED S.L. is not responsible for the installation of the product. MERAKI 282 ILSOLE must be perfectly placed (and/or stick) on the lighting device, profile or base for a proper connection between modules and power source, respecting its nominal values. 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.

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 0,4-1mm<sup>2</sup>, with a strip wire of 6,5-7MM. To remove wire, push orifice on the connector and pull smoothly.



### TEMPERATURE

MERAKI 282 ILSOLE 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  $-20^{\circ}\text{C}$  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  $120^{\circ}$ .

Spectrum graph and data are sourced from LED Sunlike and LED Manufacturers.