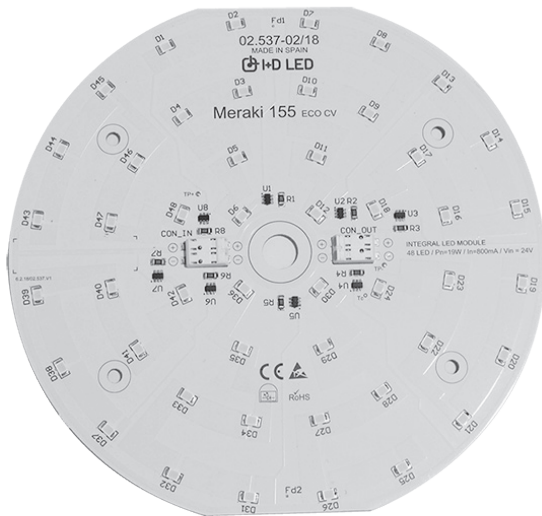
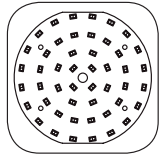


# MERAKI LED MODULES

## ROUND 155/70 CC AND CV(D=70/155MM)



New MERAKI ROUND 155-70 are ideal to complete round or square designed light fixtures that require high efficiency and flexibility. These LED modules are capable to replace fluorescence downlights of 2x26W with no need to replace the whole fixture, meaning direct cost saving. At nominal power they do not need heatsinks. As a result of its easy installation and performance, is a perfect partner for professionals in light fixtures production. MERAKI ROUND 155-70 modules are excellent items for development of light fixtures and cost saving (vs. former technologies). Versions at constant voltage offer total flexibility.



In compliance with:

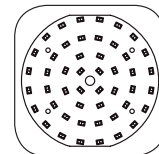
**IEC 62031 / IEC 62471 / IEC 62717**

### APPLICATION

### PRODUCT DESCRIPTION



- Available in 2700K-3000K-4000K-5000K
- CRI>80 (CRI90 available under request)
- Efficiency > 175 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)
- Direct cost saving
- Extremely flat profile: 8mm
- Light weighted. Possibility to place module over heatsink or crystal.

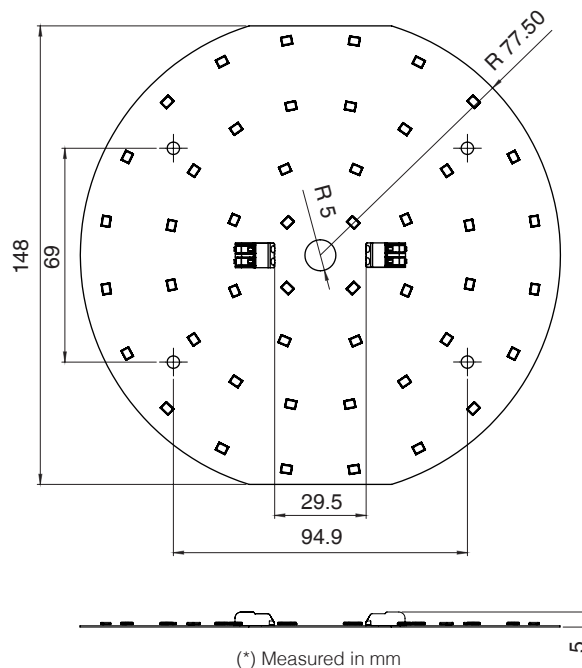


#### TECHNICAL DATA

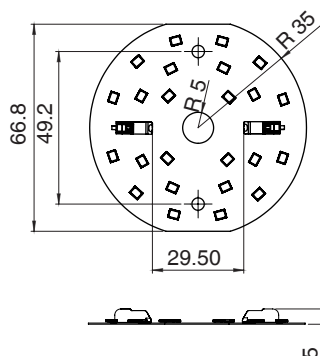
- SELV voltage
- Available in 2700K/3000K/4000K/5000K
- CRI>80 (CRI 90 available under request)
- Operating temperature between -30°C and 45° C
- EN 61471:2008 group 1
- Standard Tc 65°C
- LED viewing angle 120°
- Weight 60 gr
- MOQ 32 pieces
- Possibility to integrate with LOGO Custom

#### DIMENSIONS

#### MERAKI ROUND 155CC



#### MERAKI ROUND 70 CC

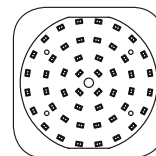


#### SPECIFIC TECHNICAL DATA

#### SPECIFIC TECHNICAL DATA MERAKI ROUND 70 CC

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
31.13.70.CC.02	2700K	200	16,2	17,1	19,2	3,44	127,99	439,9	827.348
31.13.70.CC.02	2700K	350	16,2	17,9	19,2	6,26	118,60	743,1	827.348
31.13.70.CC.02	2700K	400	16,2	18,1	19,2	7,25	107,66	781,4	827.348
31.13.70.CC.02	2700K	500	16,2	18,4	19,2	9,27	109,03	1011,1	827.348
31.13.70.CC.03	3000K	200	16,2	17,1	19,2	3,43	136,72	469,9	830.348
31.13.70.CC.03	3000K	350	16,2	17,9	19,2	6,26	123,65	774,7	830.348
31.13.70.CC.03	3000K	400	16,2	18,1	19,2	7,25	115,01	834,7	830.348
31.13.70.CC.03	3000K	500	16,2	18,4	19,2	9,27	115,86	1074,4	830.348
31.13.70.CC.04	4000K	200	16,2	17,1	19,2	3,44	146,98	505,2	840.348
31.13.70.CC.04	4000K	350	16,2	17,9	19,2	6,27	128,83	807,1	840.348
31.13.70.CC.04	4000K	400	16,2	18,1	19,2	7,25	115,73	840	840.348
31.13.70.CC.04	4000K	500	16,2	18,4	19,2	9,27	117,85	1092,9	840.348
31.13.70.CC.05	5000K	200	16,2	17,1	19,2	3,44	171,07	588	850.348
31.13.70.CC.05	5000K	350	16,2	17,9	19,2	6,26	141,70	887,7	850.348
31.13.70.CC.05	5000K	400	16,2	18,1	19,2	7,25	127,30	924	850.348

Note: Optical and electric measures with tolerance of +/- 10%.  
 For higher fluxes (500mA) is required to keep Tc < 65°C, with heatsink (not included)  
 QTY LED 24 CRI >80



### SPECIFIC TECHNICAL DATA MERAKI ROUND 70 CV

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
31.13.70.CV.02.24	2700K	400	15	17,9	21	6,26	118,60	743,1	827.348
31.13.70.CV.03.24	3000K	400	15	17,9	21	6,26	123,65	774,7	830.348
31.13.70.CV.04.24	4000K	400	15	17,9	21	6,26	128,83	807,1	840.348
31.13.70.CV.05.24	5000K	400	15	17,9	21	6,26	141,70	887,7	850.348

Note: Optical and electric measures with tolerance of +/- 10%.  
For higher fluxes (500mA) is required to keep Tc < 65°C, with heatsink (not included)  
QTY LED 24 CRI >80

### SPECIFIC TECHNICAL DATA MERAKI ROUND 155 CC

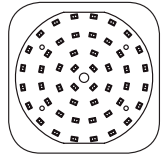
CODE	CCT	RATED CURRENT mA	VOLTAGE Min (V)	VOLTAGE Typ(V)	VOLTAGE Max(V)	NOMINAL POWER (W)	LUMINOUS EFFICACY (lm/W)	TOTAL FLUX (lm)	PHOTO METRIC CODE
31.13.155.CC.02	2700K	200	32,4	34,4	38,4	6,91	127,25	879,8	827.348
31.13.155.CC.02	2700K	350	32,4	36,1	38,4	12,64	120,39	1521,1	827.348
31.13.155.CC.02	2700K	400	32,4	36,6	38,4	14,71	110,92	1632	827.348
31.13.155.CC.02	2700K	500	32,4	36,6	38,4	18,44	109,62	2022,2	827.348
31.13.155.CC.03	3000K	200	32,4	34,4	38,4	6,91	135,92	939,8	830.348
31.13.155.CC.03	3000K	350	32,4	36,1	38,4	12,63	122,63	1549,4	830.348
31.13.155.CC.03	3000K	400	32,4	26,6	38,4	14,71	119,40	1732,8	830.348
31.13.155.CC.03	3000K	500	32,4	36,6	38,4	18,44	116,49	2148,9	830.348
31.13.155.CC.04	4000K	200	32,4	34,4	38,4	6,91	146,13	1010,4	840.348
31.13.155.CC.04	4000K	350	32,4	36,1	38,4	12,63	138,70	1752,4	840.348
31.13.155.CC.04	4000K	400	32,4	36,6	38,4	14,71	126,27	1852,8	840.348
31.13.155.CC.04	4000K	500	32,4	36,6	38,4	18,44	120,97	2231,5	840.348
31.13.155.CC.05	5000K	200	32,4	34,4	38,4	6,91	167,99	1161,6	850.348
31.13.155.CC.05	5000K	350	32,4	36,1	38,4	12,63	139,80	1766,4	850.348
31.13.155.CC.05	5000K	400	32,4	36,6	38,4	14,71	130,64	1896	850.348
31.13.155.CC.05	5000K	500	32,4	36,6	38,4	18,44	129,71	2392,8	850.348

Note: Optical and electric measures with tolerance of +/- 10%.  
For higher fluxes (500mA) is required to keep Tc < 65°C, with heatsink (not included)  
QTY LED 48 CRI >80

### SPECIFIC TECHNICAL DATA MERAKI ROUND 155CV

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
31.13.155.CV.02	2700K	800	21	24	27	18,43	87,44	1611,8	827.348
31.13.155.CV.03	3000K	800	21	24	27	18,43	93,36	1720,8	830.348
31.13.155.CV.04	4000K	800	21	24	27	18,43	96,90	1786,1	840.348
31.13.155.CV.05	5000K	800	21	24	21	18,43	100,44	1851,4	850.348

Note: Optical and electric measures with tolerance of +/- 10%.  
For higher fluxes (500mA) is required to keep Tc < 65°C, with heatsink (not included)  
QTY LED 48 CRI >80



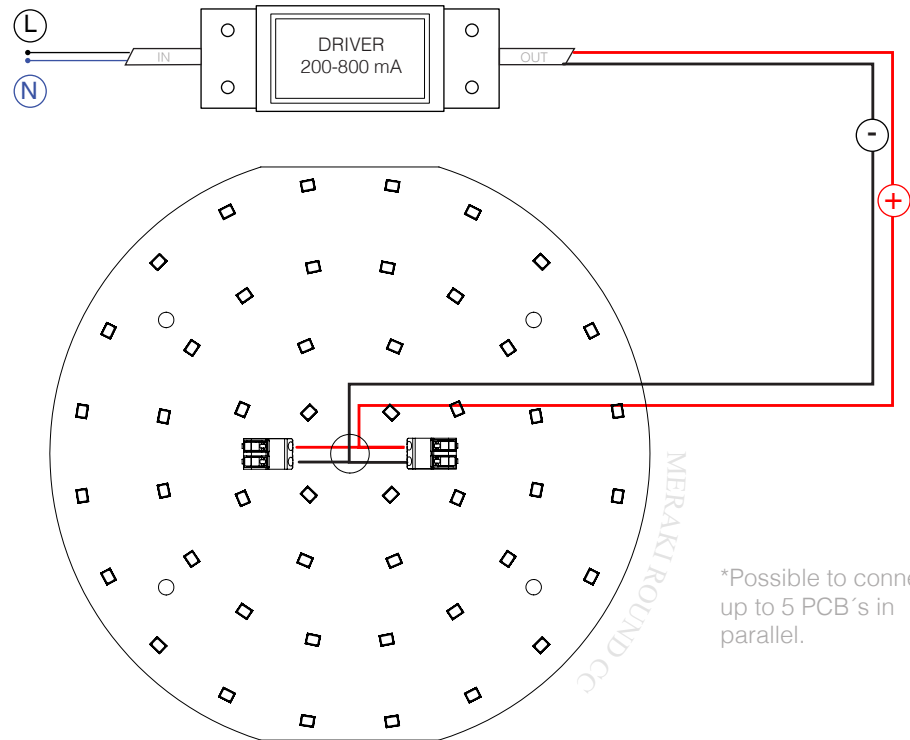
### DRIVER + MODULE CONNECTION EXAMPLE

230 Vcc  
50/60 Hz



Recommendation over PCB  
wire connection:

≤ 0,5 mm<sup>2</sup> (strand) / ≤ 0,75 mm<sup>2</sup> (solid)



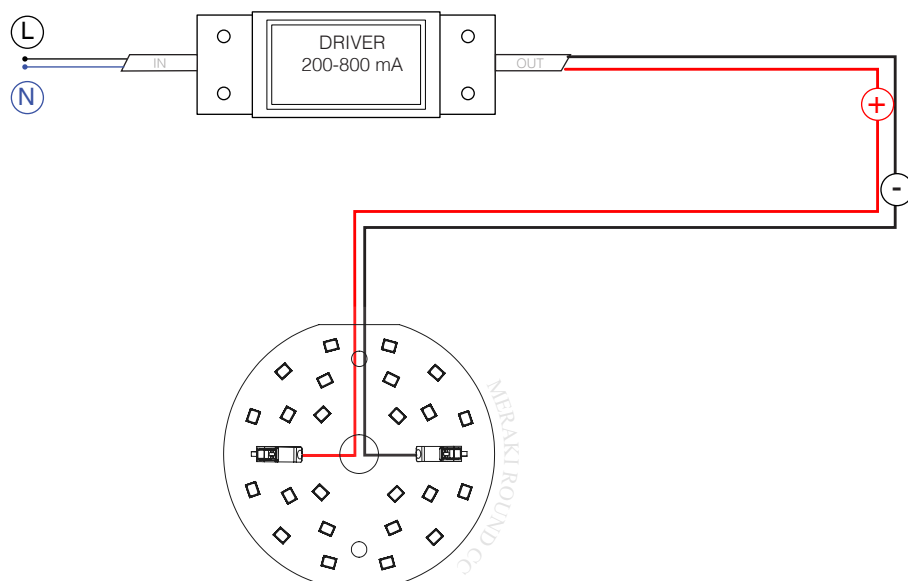
\*Possible to connect  
up to 5 PCB's in  
parallel.

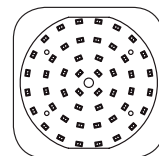
230 Vcc  
50/60 Hz



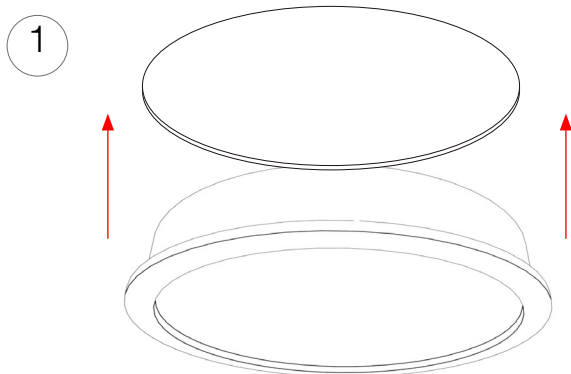
Recommendation over PCB  
wire connection:

≤ 0,5 mm<sup>2</sup> (Flexible) / ≤ 0,75 mm<sup>2</sup> (Rigid)

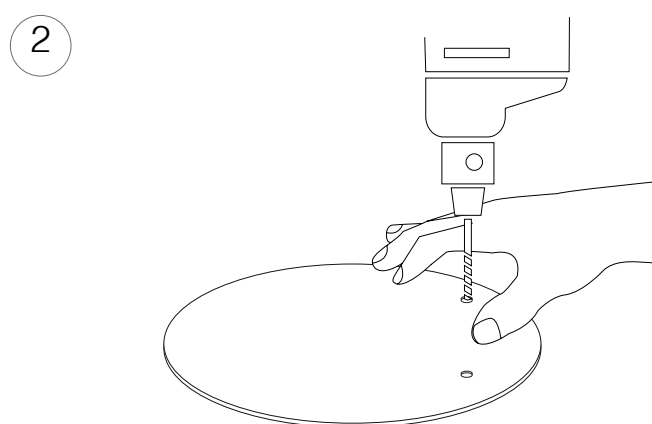




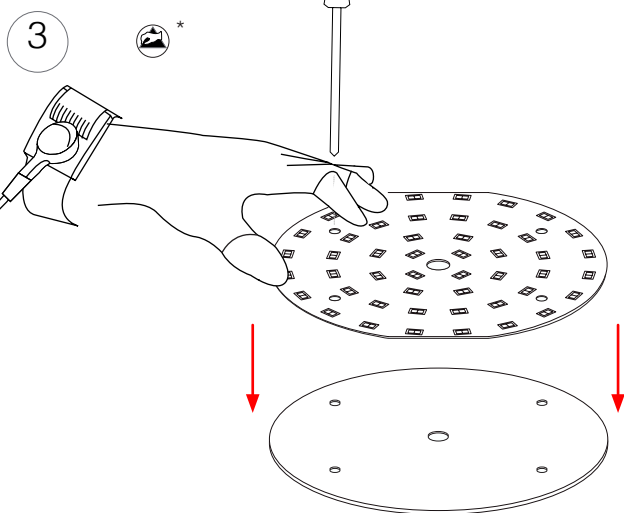
## INSTALLATION AND CONNECTION EXAMPLE



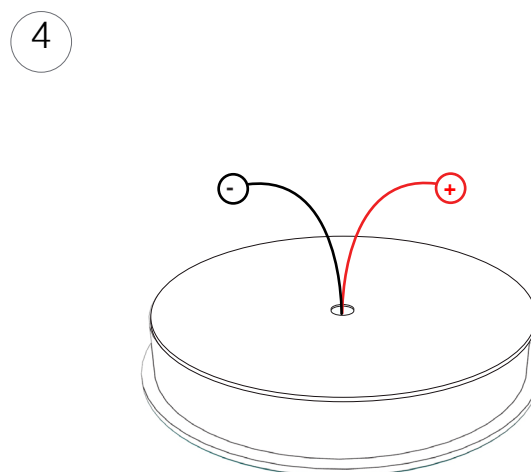
Dismantle profile base.



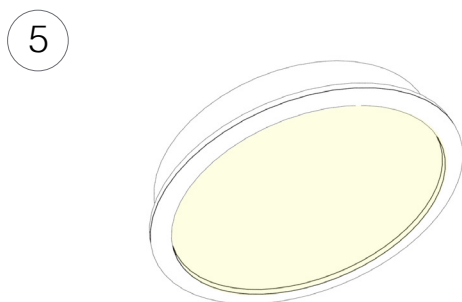
For eventual attachment of the fixture (with no use of double sided adhesive tape) drill a hole in the profile.



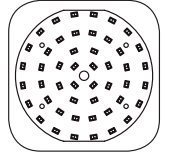
Place the PCB and apply pressure. Fix the screws to the fixture base. Note: Accessory M3 screws.  
(\* ESD protection)



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



PCB is installed.



### SECURITY AND INSTALLATION INFORMATION



#### ELECTRICAL POWER

MERAKI ROUND 155-70 CC AND CV 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.  $V_n$  values specified in this data sheet.



#### ISOLATION

MERAKI ROUND 155-70 CC AND CV 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 ROUND 155-70 CC AND CV 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 ROUND 155-70 CC AND CV 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, and other electronic components.

The module will be delivered with 5 pre-made holes: 4 holes of  $D=5$  mm and 1 central hole of  $D=10$ mm. Maximum torque for fixing recommended 0,4-0,5 Nm to avoid mechanical stress. Ideal wire for this connection type is unipolar solid 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 ROUND 155-70 CC AND CV 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  $\pm 5$ 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  $120^\circ$ .