

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

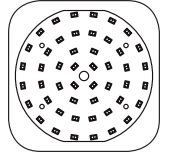
IEC 62031 / IEC 62471 / IEC 62717

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.

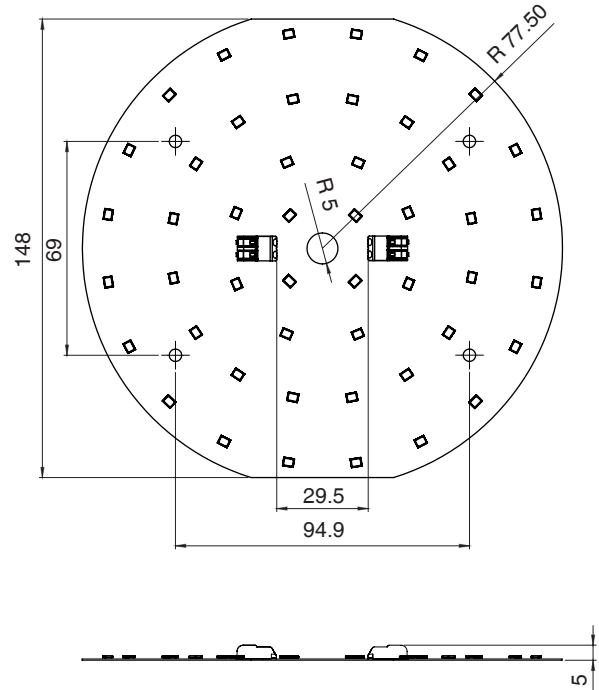


TECHNICAL DATA

- 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

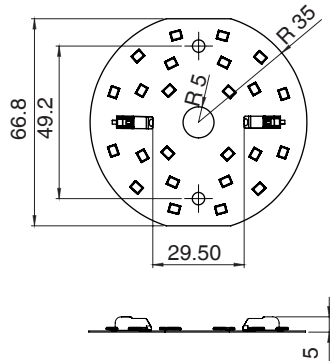
DIMENSIONS

MERAKI ROUND 155CC



(*) Measured in mm

MERAKI ROUND 70 CC

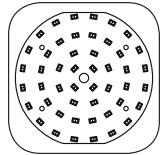


SPECIFIC TECHNICAL DATA - MERAKI ROUND 70 CC

CODE	CCT	QTY LED	CRI	RATED L CURRENT (mA)	MIN VOLTAGE (V) (*)	STANDARD VOLTAGE (V) (*)	MAX VOLTAGE (V) (*)	AVERAGE CURRENT (A)	NOMINAL POWER	LUMINOUS EFFICACY	TOTAL FLUX	PHOTO METRIC CODE
31.13.70.CC.02	2700k	24	>80	200	16,2	17,1	19,2	0,201	3,437	127,992	439,92	827.348
31.13.70.CC.02	2700k	24	>80	350	16,2	17,9	19,2	0,350	6,265	118,602	743,04	827.348
31.13.70.CC.02	2700k	24	>80	400	16,2	18,1	19,2	0,401	7,258	107,665	781,44	827.348
31.13.70.CC.02	2700k	24	>80	500	16,2	18,4	19,2	0,504	9,274	109,032	1011,12	827.348
31.13.70.CC.03	3000K	24	>80	200	16,2	17,1	19,2	0,201	3,437	136,720	469,92	830.348
31.13.70.CC.03	3000K	24	>80	350	16,2	17,9	19,2	0,350	6,265	123,658	774,72	830.348
31.13.70.CC.03	3000K	24	>80	400	16,2	18,1	19,2	0,401	7,258	115,005	834,72	830.348
31.13.70.CC.03	3000K	24	>80	500	16,2	18,4	19,2	0,504	9,274	115,864	1074,48	830.348
31.13.70.CC.04	4000K	24	>80	200	16,2	17,1	19,2	0,201	3,437	146,984	505,20	840.348
31.13.70.CC.04	4000K	24	>80	350	16,2	17,9	19,2	0,350	6,265	128,830	807,12	840.348
31.13.70.CC.04	4000K	24	>80	400	16,2	18,1	19,2	0,401	7,258	115,733	840,00	840.348
31.13.70.CC.04	4000K	24	>80	500	16,2	18,4	19,2	0,504	9,274	117,857	1092,96	840.348
31.13.70.CC.05	5000K	24	>80	200	16,2	17,1	19,2	0,201	3,437	171,074	588,00	850.348
31.13.70.CC.05	5000K	24	>80	350	16,2	17,9	19,2	0,350	6,265	141,702	887,76	850.348
31.13.70.CC.05	5000K	24	>80	400	16,2	18,1	19,2	0,401	7,258	127,306	924,00	850.348
31.13.70.CC.05	5000K	24	>80	500	16,2	18,4	19,2	0,504	9,274	129,011	1196,40	850.348

(*) Optical and electric measures with tolerance of +/- 10%.

Note: For higher fluxes (500mA) is required to keep Tc < 65°C, with heatsink (not included).



SPECIFIC TECHNICAL DATA MERAKI ROUND 70 CV

CODE	CCT	QTY LED	CRI	RATED CURRENT (mA)	STANDARD VOLTAGE (V) (*)	AVERAGE CURRENT (A)	NOMINAL POWER	LUMINOUS EFFICACY	TOTAL FLUX	PHOTO METRIC CODE
31.13.70.CV.02.24	2700k	24	>80	400	17,9	0,350	6,265	118,602	743,04	827.348
31.13.70.CV.03.24	3000K	24	>80	400	17,9	0,350	6,265	123,658	774,72	830.348
31.13.70.CV.04.24	4000K	24	>80	400	17,9	0,350	6,265	128,830	807,12	840.348
31.13.70.CV.05.24	5000K	24	>80	400	17,9	0,350	6,265	141,702	887,76	850.348

(*) Optical and electric measures with tolerance of +/- 10%.

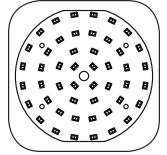
Note: For higher fluxes (500mA) is required to keep Tc < 65°C, with heatsink (not included).

SPECIFIC TECHNICAL DATA - MERAKI ROUND 155 CC

CODE	CCT	QTY LED	CRI	RATED CURRENT (mA)	MIN VOLTAGE (V) (*)	STNDARS VOLTAGE (V) (*)	MAX VOLTAGE (V) (*)	AVERAGE CURRENT (A)	NOMINAL POWER	LUMINOUS EFFICACY	TOTAL FLUX	PHOTO METRIC CODE
MERAKI ROUND 150 CC												
31.13.155.CC.02	2700K	48	>80	200	32,4	34,4	38,4	0,201	6,914	127,247	879,84	827.348
31.13.155.CC.02	2700K	48	>80	350	32,4	36,1	38,4	0,350	12,635	120,389	1521,12	827.348
31.13.155.CC.02	2700K	48	>80	400	32,4	36,6	38,4	0,401	14,713	110,921	1632,00	827.348
31.13.155.CC.02	2700K	48	>80	500	32,4	36,6	38,4	0,504	18,446	109,62	2022,24	827.348
31.13.155.CC.03	3000K	48	>80	200	32,4	34,4	38,4	0,201	6,914	135,925	939,84	830.348
31.13.155.CC.03	3000K	48	>80	350	32,4	36,1	38,4	0,350	12,635	122,631	1549,44	830.348
31.13.155.CC.03	3000K	48	>80	400	32,4	36,6	38,4	0,401	14,713	119,403	1732,80	830.348
31.13.155.CC.03	3000K	48	>80	500	32,4	36,6	38,4	0,504	18,446	116,498	2148,96	830.348
31.13.155.CC.04	4000K	48	>80	200	32,4	34,4	38,4	0,201	6,914	146,130	1010,40	840.348
31.13.155.CC.04	4000K	48	>80	350	32,4	36,1	38,4	0,350	12,635	138,700	1752,48	840.348
31.13.155.CC.04	4000K	48	>80	400	32,4	36,6	38,4	0,401	14,713	126,273	1852,80	840.348
31.13.155.CC.04	4000K	48	>80	500	32,4	36,6	38,4	0,504	18,446	120,973	2231,52	840.348
31.13.155.CC.05	5000K	48	>80	200	32,4	34,4	38,4	0,201	6,914	167,997	1161,60	850.348
31.13.155.CC.05	5000K	48	>80	350	32,4	36,1	38,4	0,350	12,635	139,802	1766,40	850.348
31.13.155.CC.05	5000K	48	>80	400	32,4	36,6	38,4	0,401	14,713	130,649	1896,00	850.348
31.13.155.CC.05	5000K	48	>80	500	32,4	36,6	38,4	0,504	18,446	129,716	2392,80	850.348

(*) Optical and electric measures with tolerance of +/- 10%.

Note: For higher fluxes (500mA) is required to keep Tc < 65°C, with heatsink (not included).



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

SPECIFIC TECHNICAL DATA MERAKI ROUND 155 CV

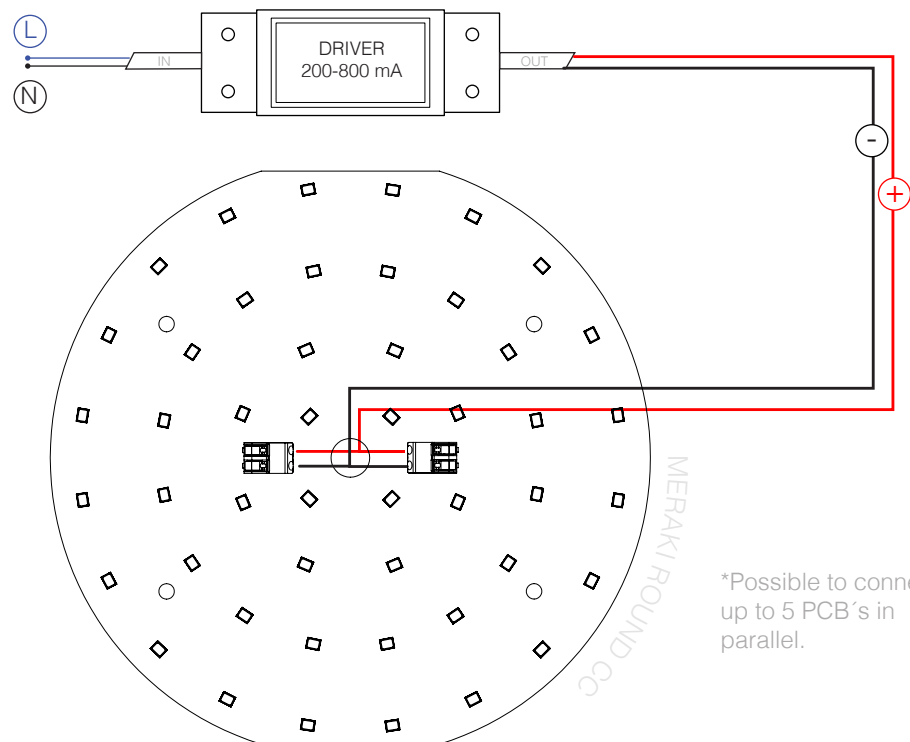
CODE	CCT	QTY LED	CRI	RATED CURRENT (mA)	STANDARD VOLTAGE (V) (*)	AVERAGE CURRENT (A)	NOMINAL POWER	LUMINOUS EFFICACY	TOTAL FLUX	PHOTO METRIC CODE
31.13.155.CV.02	2700k	48	>80	800	24	0,768	18,432	87,448	1611,84	827.348
31.13.155.CV.03	3000K	48	>80	800	24	0,768	18,432	93,359	1720,80	830.348
31.13.155.CV.04	4000K	48	>80	800	24	0,768	18,432	96,901	1786,08	840.348
31.13.155.CV.05	5000K	48	>80	800	24	0,768	18,432	100,443	1851,36	850.348

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

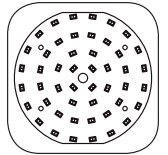
DRIVER + MODULE CONNECTION EXAMPLE

230 Vcc
50/60 Hz

Recommendation over PCB wire connection:
≤ 0,5 mm² (strand) / ≤ 0,75 mm² (solid)



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

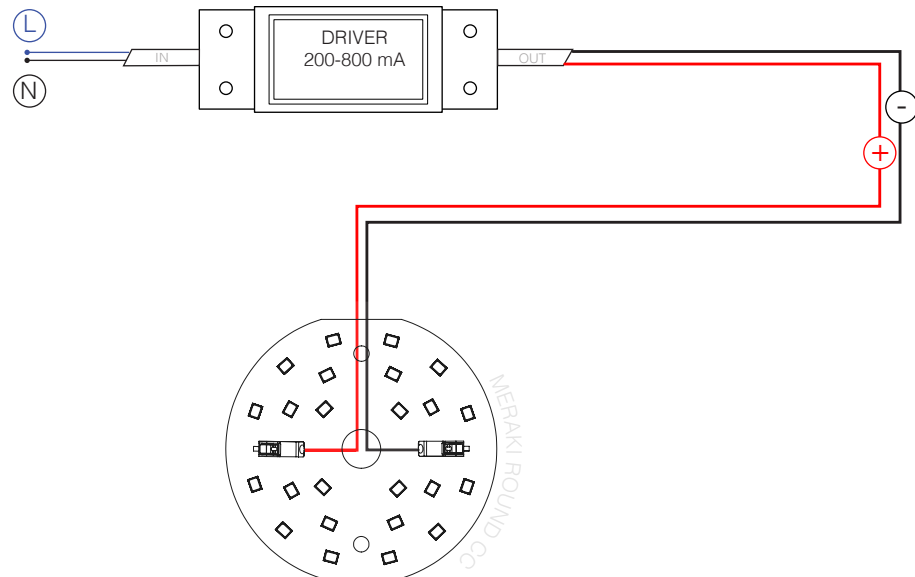


230 Vcc
50/60 Hz

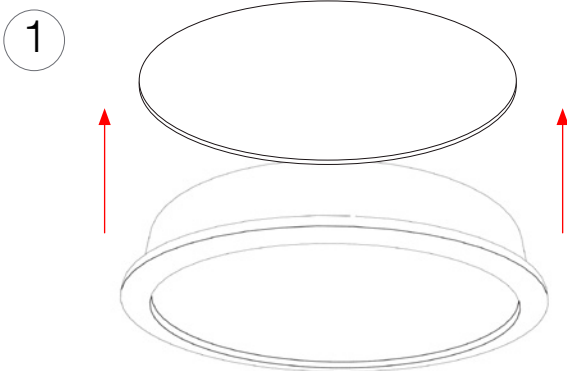


Reccommendation over PCB
wire connection:

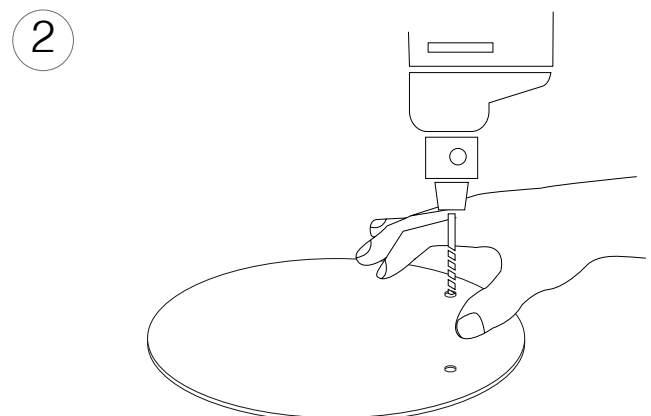
≤ 0,5 mm² (Flexible) / ≤ 0,75 mm² (Rigid)



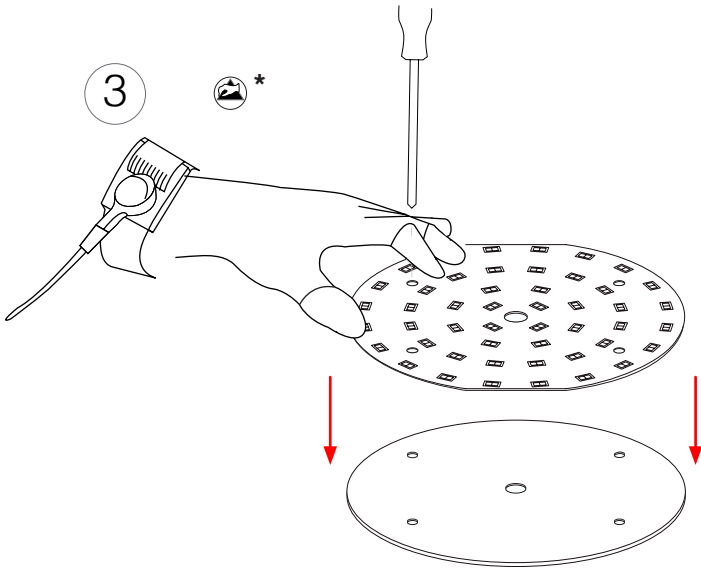
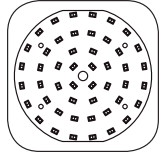
INSTALLATION AND CONNECTION EXAMPLE



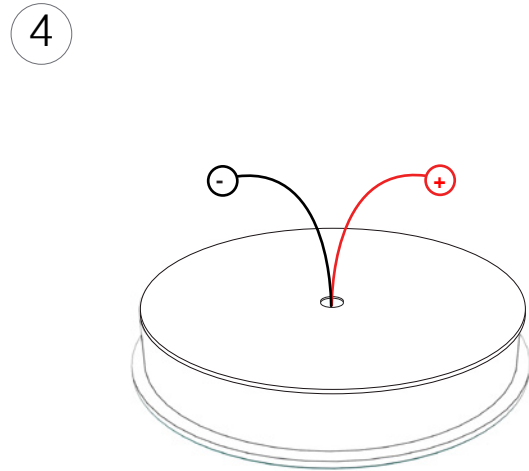
Dismantle profile base.



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

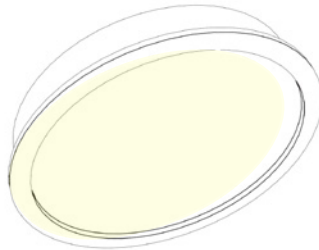


Place the PCB and apply pressure. Fix the screws to the fixture base. Note: Accessory: M3 screws.
(*) ESD protection



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

5



PCB is installed.

SECURITY AND INSTALLATION INFORMATION



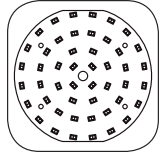
ELECTRICAL POWER

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. Vn 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.



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 0,4-1mm², 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°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 ± 5 nm for coloured LEDs. CCT shifts $\pm 0,001$ at 6.000 hrs. 3 SDCM are declared