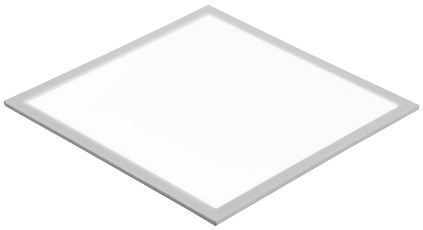
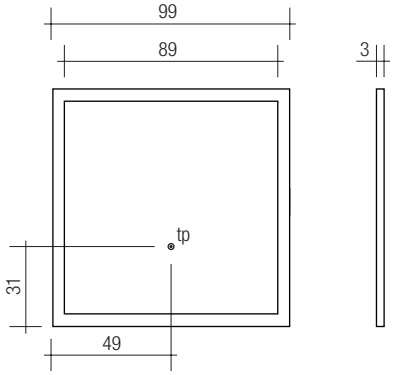
OLEDmodule LUREON REP 10-40 DC/DL 2

LUREON REP

Product description

- Typ. forward current 230 mA
- High efficiency > 50 lm/W
- Colour temperature 4,000 K
- High colour rendering index CRI > 90
- Small colour tolerance MacAdam 4
- Homogeneous, non-glare and wide-area lighting
- Dimmable neutral white light
- High specific light distribution of 12,000 lm/m²
- Extremely flat design (< 3 mm)
- White diffuse surfaces
- Connection with cable or plug contact





The position of the tp point is on the backside of the module in the middle of the lable.

Technical data

Beam characteristic	120°
Ambient temperature ta	0 ... +40 °C
Typ. tp point	40 °C
Risk group (EN 62471:2008)	0

Standards, page 3

Colour temperatures and tolerances, Page 6

Order data

Type	Article number	Colour temperature③	Type of connection	Packaging, carton	Weight per pc.
LUREON REP 10-40-DL 2	**28000249**	4,000 K	Cable	10 pc(s).	0.2 kg
LUREON REP 10-40-DC 2	**28000250**	4,000 K	Plug contact	10 pc(s).	0.2 kg

Specific technical data

Type	Photometric code	Typ. luminous flux①	Forward current①②	Supply voltage①	Typ. power①	Colour rendering index CRI①③
OLEDmodule LUREON REP 10-40 DC/DL 2	940/4x7	70 lm	230 mA	5.9 V	1.4 W	> 90
	940/4x7	76 lm	250 mA	6.0 V	1.5 W	> 90
	940/4x7	104 lm	350 mA	6.1 V	2.1 W	> 90

All data for tp = 25 °C.

① Tolerance range for optical and electrical data ±15 %.

② For the valid current range, please refer to the diagram on page 4. Exceeding the max. operating current leads to an overload of the module. This may result in a significant reduction in life-time or even in destruction.

③ Colour temperature and tolerances according to CIE 1931.

LED control gear matrix – OLEDmodule LUREON REP 10-40 DC/DL 2

	LED control gear with dimming function				LED control gear without dimming function											
Type	LCI 050/1050 N020		LCAI 015/0350 A020 one4all		LCI 005/0350 E020		LCCI 016/0350 B020		LCCI 016/0500 B020		LCCI 016/0700 B020		LCCI 016/0350 Q010		LCCI 016/500 Q010		LCCI 016/0700 Q010	
Art. no.	24166468		86458899		24166311		86459210		86459211		86459212		86459213		86459214		86459215	
							Assignable LED control gear											
Type	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.
LUREON REP 10-40 DC/DL 2 230 mA	1	8	–	–	–	–	1	7	1	5	1	3	1	7	1	5	1	3
LUREON REP 10-40 DC/DL 2 250 mA	1	8	–	–	–	–	1	7	1	5	1	3	1	7	1	5	1	3
LUREON REP 10-40 DC/DL 2 350 mA	1	8	1	6	1	2	1	7	1	5	1	3	1	7	1	5	1	3

Standards
EN 62471

Photometric code

Key for photometric code, e. g. 830 / 559

1st digit		2nd + 3rd digit	4th digit	5th digit	6th digit	
Code	CRI	Colour temperature in Kelvin x 100	McAdams initial	McAdams after 25% of the life-time (max.6000h)	Lumen maintanance after 25% of the life-time (max.6000h)	
					Code	Remaining lumen
7	67 – 76				7	≥ 70 %
8	77 – 86				8	≥ 80 %
9	87 – ≥90				9	≥ 90 %

Thermal design and heat sink
The rated life of OLED products depends to a large extent on the temperature. If the permissible temperature limits are exceeded, the life of the OLEDmodule LUREON REP will be greatly reduced or the OLEDmodule LUREON REP may be destroyed.

tp point, ambient temperatur and life-time
The temperature at the tp point is critical for the light output and life-time of the module.

Check for compliance with the permitted tc temperature under operating conditions in the thermally stable state. Bear in mind the worst-case conditions for the particular application.

The tc and tp temperature of OLEDmodules from Tridonic are measured at the same reference point.

Storage conditions
Store the modules in a dry environment at temperatures between 0° and 60 °C under ESD conditions.

Cooling type
The module is self-cooling.

Mounting instructions
Avoid mechanical stress from impact and pressure forces on the OLED module otherwise the glass may break, the surface film may delaminate or the internal structure may be damaged.

Always wear appropriate gloves when installing or removing the elements to avoid damaging or contaminating the contacts or the module.

Hold the module on its side when installing or removing and avoid direct contact with the metal contacts.

An installation in a luminaire needs a cord grip for the cable.

The modules are designed for indoor use. Keep the module away from water and areas of high humidity. Make sure condensation cannot form on the module.

EOS/ESD safety guidelines

The device / module contains components that are sensitive to electrostatic discharge and may only be installed in the factory and on site if appropriate EOS/ESD protection measures have been taken. No special measures need be taken for devices/modules with enclosed casings (contact with the pc board not possible), just normal installation practice. Please note the requirements set out in the document EOS / ESD guidelines (Guideline_EOS_ESD.pdf) at:
http://www.tridonic.com/com/en/technical-docs.asp

Thermal behaviour

storage temperature	0 ... +60 °C
operating temperature ta	-0 ... +40 °C
tp (at typ. current)	40 °C
tc max. (at typ. current)	60 °C
max. humidity*	0 ... 80 %

*not condensating

Expected Life-time①

tp temperature	I_F	Luminous flux	Life-time
25 °C	230 mA	80 %	–
		70 %	15,000 h
		50%	–
25 °C	250 mA	80 %	–
		70 %	–
		50%	–
25 °C	350 mA	80%	–
		70%	–
		50%	–

① Preliminary data – life-time tests ongoing

Electrical supply/choice of control gear
OLED modules from Tridonic are not protected against overvoltages, overcurrents, overloads or short-circuit currents. The OLED module is protected against shortterm reverse polarity by means of protection diode. Nevertheless, if possible avoid a polarity reversal of the OLED. Safe and reliable operation of the module is therefore possible only with a LED control gear that complies with the relevant specifications.

If a LED control gear is used that does not come from Tridonic it must offer the following protective functions:
- Short-circuit detection
- Overload detection
- Overtemperature shutdown

Operate OLED modules on constant-current LED control gears.
The module may be destroyed if it is operated on a constant-voltage LED control gear. Reversing the polarity may damage the module.

Type of connection – solder contact
The modules are suitable only for manual soldering (max. 260 °C, 2 seconds). An automatic soldering process may destroy the module because of the heat applied.

The module will be delivered with pre-assembled cable.

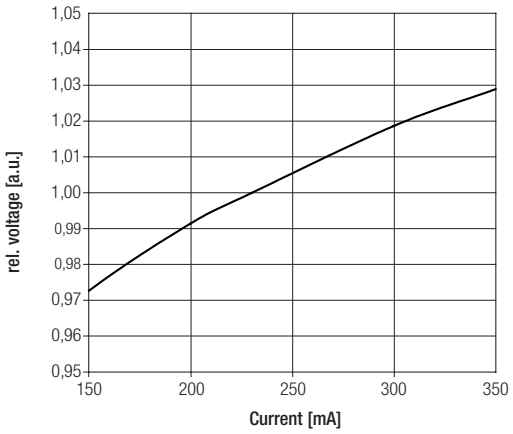
Wiring
Cable: AWG 26; length 200 mm

Colour	white	black
Function	+	–

Type of connection – plug contact
Plug type: Molex Flexi-Mate
Cable: AWG 26; length 200 mm

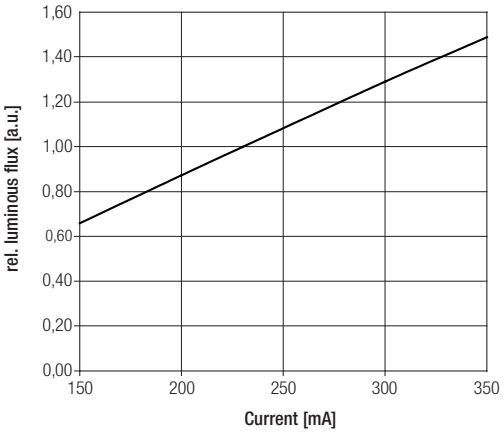
Colour	white	black
Function	+	–

Relative forward voltage



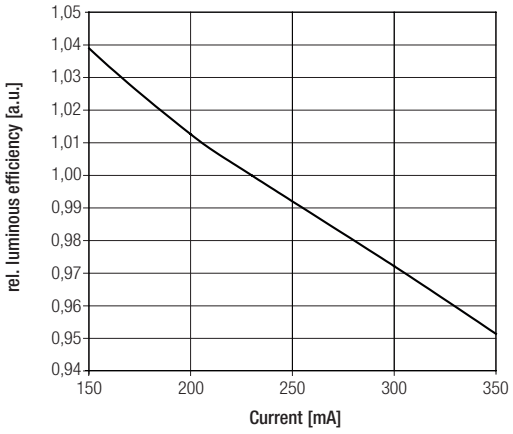
rel. voltage at ta = 25 °C

Relative luminous flux



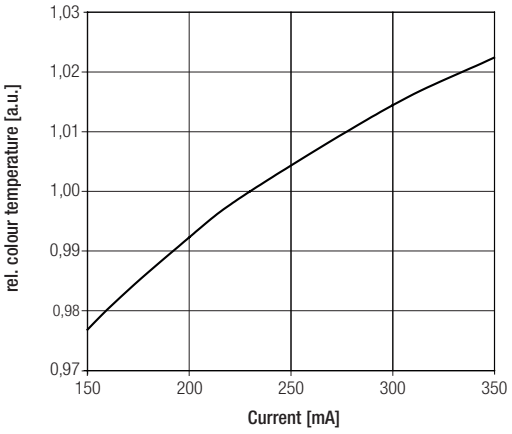
rel. luminous flux at ta = 25 °C

Relative luminous efficiency



rel. luminous efficiency at ta = 25 °C

Relative colour temperature

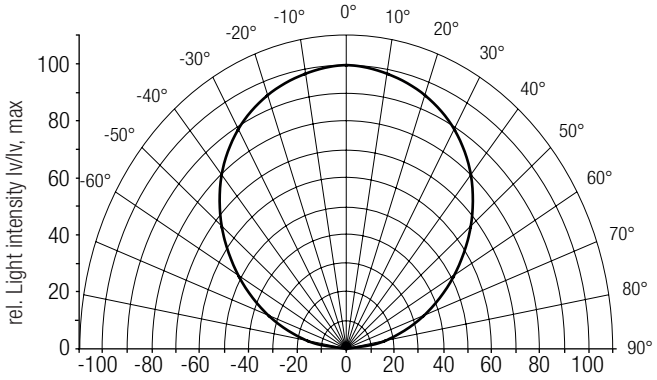


rel. colour temperature at ta = 25 °C

Optical properties

The optical design ensures optimum homogenity for the light distribution.

Light distribution

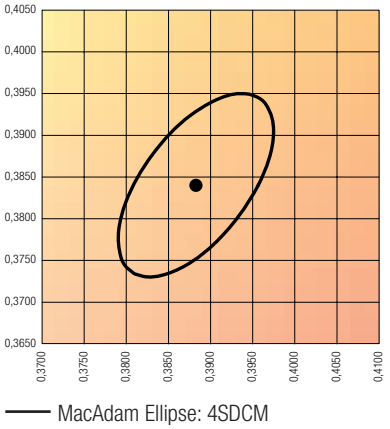


Coordinates and tolerances according to CIE 1964

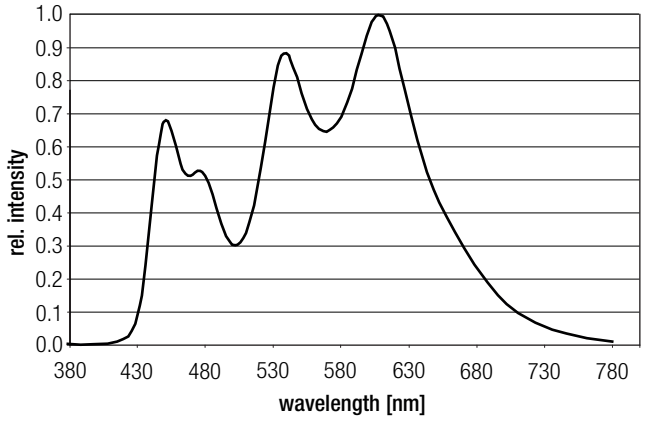
The specified colour coordinates are measured integral by a current impulse of 230 mA and a duration of 5 minutes.
The ambient temperature of the measurement is ta = 25 °C.
The measurement tolerance of the colour coordinates is ± 0.01.

4,000 K [1]

	x0	y0
Centre	0.3880	0.3840



MacAdam Ellipse: 4SDCM



[1] Colour temperature and tolerances according to CIE 1931