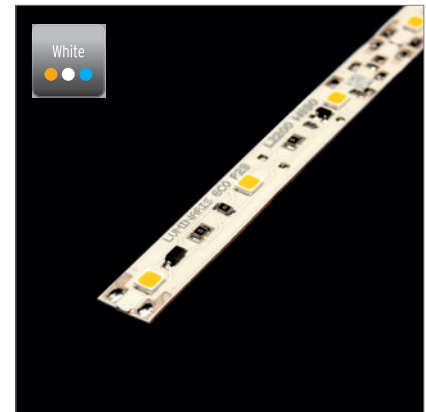


Flexible power LED strip

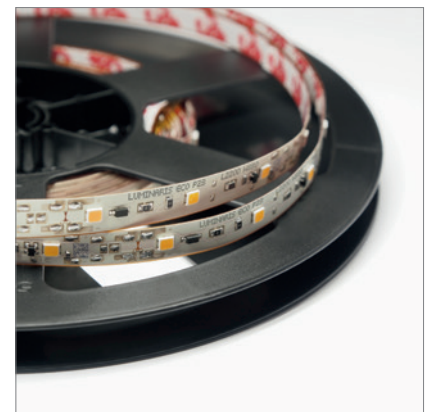
Product description

- 8 mm / 0.31" wide dimmable linear light engine based on flexible circuit boards, produced in a reel-to-reel process
- 24 V DC constant voltage operation
- 23 mm / 0.91" LED pitch, ideal for cove lighting and accent lighting without direct view on the light source
- Current source ICs on each step guarantee 100% lumen flux from the first step to the last step
- Up to 14 m / 46' length with a single electrical feed-in
- High performance adhesive tape for quick and reliable installation and commissioning
- 4 lumen packages up to 2,200 lm/m / 671 lm/ft light output
- Efficacy typical 100 lm/W @ W840
- 3 color temperatures (2,700 K, 3,000 K, 4,000 K)
- Protection diode against miswiring on each step (cut length 70 mm / 2.76")
- Outstanding lifetime L80/B10 > 60,000 h (based on 10,000 h LM80 reports, T_c = 85°C / 185°F)
- Excellent Color Consistency (3 Step MacAdams)
- Color over angle (COA) better than 50 K (full beam)



Features and benefits

- Flexible LED strip manufactured in unique reel-to-reel production process for best-in-class thermal management: Tj Away®
- Slim form factor (width = 8 mm / 0.31"), bending radius > 20 mm / 0.79" for slim aluminum profiles, organic and curved designs
- Cost efficient:
 - No additional wiring, no tools, no screw, no rivets, no soldering needed for fixture integration
 - Simplified luminaire design due to SELV architecture
 - Only one electrical connection per maximum run length needed
 - Excellent price-performance
- State-of-the-art 3528 LED package
- Long-term supply chain security due to One-Bin-Only (OBO) policy



Tj Away®
LED LINEAR™ TECHNOLOGY

ONE BIN ONLY

LM 79 compliant

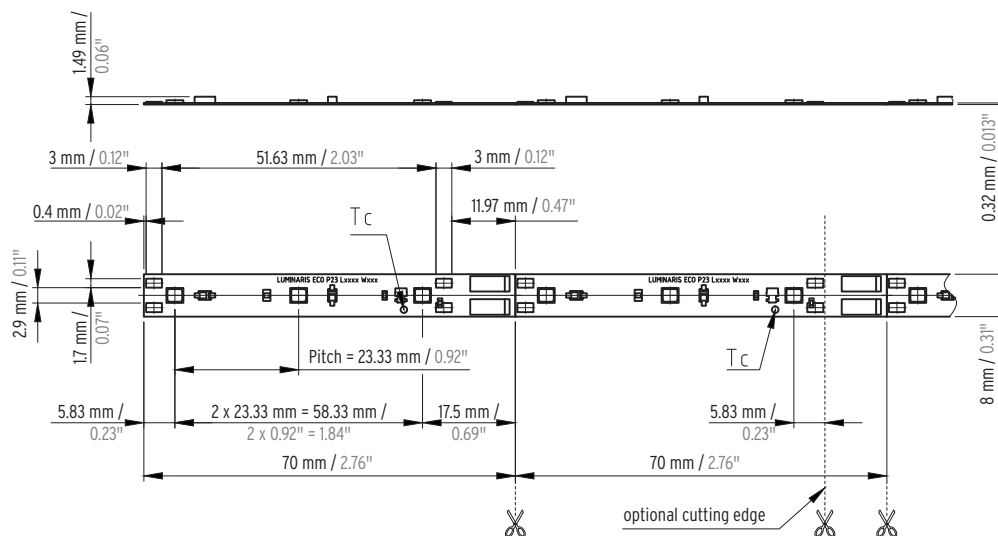
LM 80 compliant

Lifetime

Photometric code

Technical specifications

Mechanical dimensions



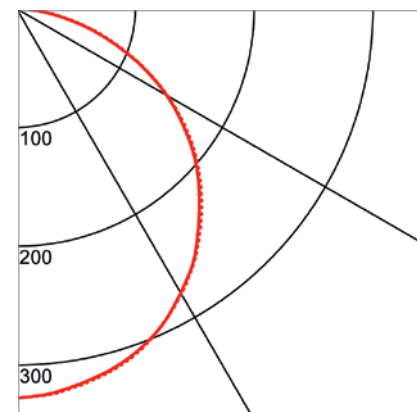
Technical data

LEDs (3.5 mm x 2.8 mm / 0.14" x 0.11")	3 LEDs per 70 mm / 2.76"
Beam characteristics	120° (Lambertian)
CCT binning	< 3SDCM (OBO)
Binning tolerances	$\Delta CIE (x,y) < \pm 0.005$
Ambient temperature range (T_a)	-40°C ... 50°C / -40°F ... 122°F
Max. case temperature (T_c) ¹	85°C / 185°F
Lifetime ($T_c < 85^\circ\text{C} / 185^\circ\text{F}$) ²	> 60,000 hrs L90/B10
Thermal resistance (Heat-sink-case)	< 20 K/W
Supply voltage	23 V... 25 VDC
Insulation test voltage	2 kV
ESD classification	Severity level 1
Risk group (EN 62471:2008)	0
Type of protection	IP00
Forward current regulation	Each step IC controlled

¹ Case temperature is measured at the T_c mark on the tape in thermal equilibrium.

² Lifetime data based on LM80 reports over 10,000 hrs.

Light distribution



Important note

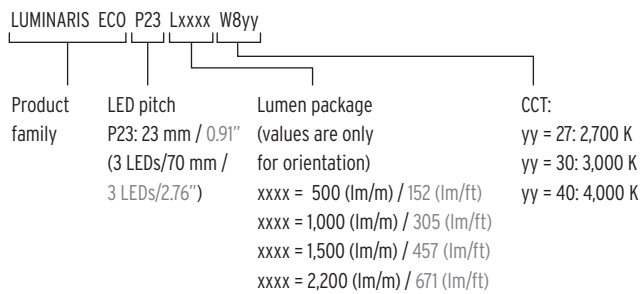


The Tj Away® technology allows for sufficient cooling for power levels up to 15 W/m / 4.6 W/ft (50 mA per 140 mm / 5.51").

Free convection leads away the heat and ensures a junction temperature below 85°C / 185°F for ambient temperatures below 40°C / 104°F.

Order information

Explanation of the order code:



Product code	Art. No.	CCT	CRI	Lumen/m / Lumen/ft @ I _{max} ²	Efficacy	maximum length ¹ (mm / ft)	Watt per meter ² / Watt per feet ²	Watt per packaging unit ²
LUMINARIS ECO P23 L500 W827	10680	2,700 K	82	500 lm/m / 152 lm/ft	97 lm/W	14,000 mm / 46 ft	5.6 W/m / 1.7 W/ft	78 W
LUMINARIS ECO P23 L500 W830	10681	3,000 K	83	500 lm/m / 152 lm/ft	97 lm/W	14,000 mm / 46 ft	5.6 W/m / 1.7 W/ft	78 W
LUMINARIS ECO P23 L500 W840	10683	4,000 K	82	530 lm/m / 162 lm/ft	103 lm/W	14,000 mm / 46 ft	5.6 W/m / 1.7 W/ft	78 W
LUMINARIS ECO P23 L1000 W827	10685	2,700 K	82	1,000 lm/m / 305 lm/ft	97 lm/W	7,000 mm / 23 ft	8.57 W/m / 2.6 W/ft	60 W
LUMINARIS ECO P23 L1000 W830	10686	3,000 K	83	1,020 lm/m / 311 lm/ft	99 lm/W	7,000 mm / 23 ft	8.57 W/m / 2.6 W/ft	60 W
LUMINARIS ECO P23 L1000 W840	10688	4,000 K	82	1,070 lm/m / 326 lm/ft	103 lm/W	7,000 mm / 23 ft	8.57 W/m / 2.6 W/ft	60 W
LUMINARIS ECO P23 L1500 W827	10690	2,700 K	82	1,490 lm/m / 454 lm/ft	88 lm/W	4,200 mm / 13.8 ft	15.43 W/m / 4.7 W/ft	65 W
LUMINARIS ECO P23 L1500 W830	10691	3,000 K	83	1,520 lm/m / 463 lm/ft	90 lm/W	4,200 mm / 13.8 ft	15.43 W/m / 4.7 W/ft	65 W
LUMINARIS ECO P23 L1500 W840	10693	4,000 K	82	1,590 lm/m / 485 lm/ft	93 lm/W	4,200 mm / 13.8 ft	15.43 W/m / 4.7 W/ft	65 W
LUMINARIS ECO P23 L2200 W827	10695	2,700 K	82	2,120 lm/m / 646 lm/ft	95 lm/W	3,640 mm / 11.9 ft	20.57 W/m / 6.3 W/ft	75 W
LUMINARIS ECO P23 L2200 W830	10696	3,000 K	83	2,160 lm/m / 659 lm/ft	97 lm/W	3,640 mm / 11.9 ft	20.57 W/m / 6.3 W/ft	75 W
LUMINARIS ECO P23 L2200 W840	10698	4,000 K	82	2,250 lm/m / 686 lm/ft	101 lm/W	3,640 mm / 11.9 ft	20.57 W/m / 6.3 W/ft	75 W

¹ Maximum length with one electrical feed-in of 23... 25 VDC. Maximum length represents the packaging unit on a reel.

² An electrical feed-in of less than 24 V may cause higher tolerances of max. 20%

Electrical connection

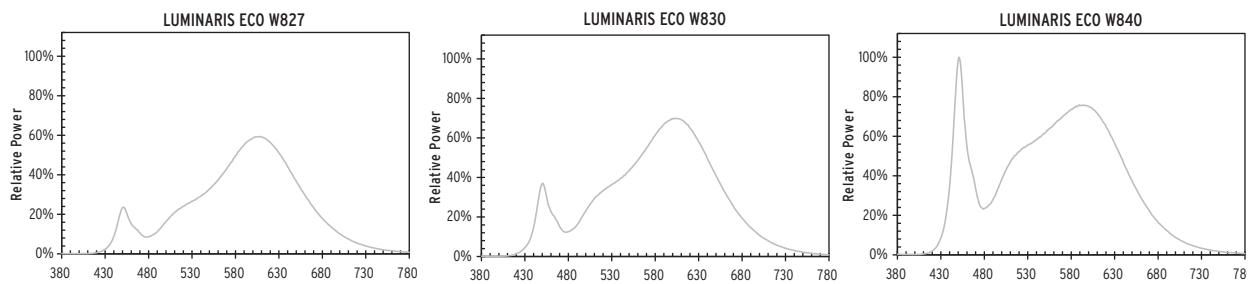


Art.- No.: 15000283
VarioCon Flex Click Mono 8 mm / 0.32", 0.5 m / 1.64' cable
0.35 mm² (22 AWG), 5 A nominal current (120 W), maximum rated voltage 25 V
UL recognized (accordance with UL 1977), designed according to IEC 60838-2-2



NOTE: The safest and most reliable electrical connection is achieved by soldering. LUMINARIS ECO LED tapes are equipped with solder pads, pre-wetted with a tin reservoir for an optimized solder process.

Optical data



Photometrical code	W827 / 359	W830 / 359	W840 / 359
CIE _x ; CIE _y ¹	0.4592; 0.4139	0.4384; 0.4092	0.3739; 0.3736
CRI; R ₉	82; 6	83; 6	82; 9
Fidelity factor R _f	83	83	82
Gamut factor R _g	95	95	95
Skin fidelity R _{f, skin}	86	87	88
Initial Color Consistency	< 3 SDCM		
Δu'v' at 10,000 hours	< 0.005		
Lifetime @ T _c < 85°C ²	> 60,000 hours L80/B10 (based on 10,000 h LM80)		
Photobiological safety	RG0		

¹ Measurement tolerances ± 0.005

² Case temperature measured in thermal equilibrium at the T_c mark according to IEC EN 60598-1

Absolute ratings

Parameter	Minimum value	Maximum value
Case Temperature T _c	-20°C / -4°F	85°C / 185°F
Storage temperature	-30°C / -22°F	85°C / 185°F
Ambient Temperature	-25°C / -13°F	max T _c not reached

Certification and standards compliance

Relevant clauses of EN 62471:2008

EN 62031:2008 (First Edition) + A1:2013 + A2:2015

IEC 62471:2006; IEC/TR 62471-2:2009; IEC/TR 62778:2014

IEC 62031:2008 + A1:2013 + A2:2015

CE

SELV

Electrical class I, II and III luminaires

