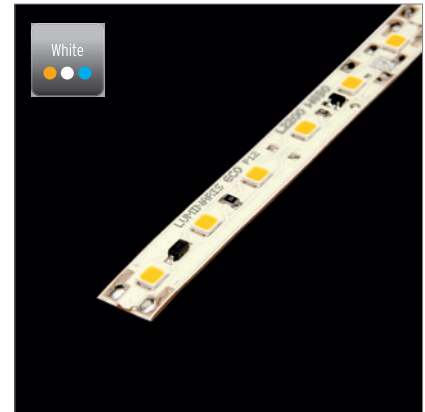


Flexible power LED strip

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
- 12 mm / 0.47" LED pitch, ideal for cove lighting and accent lighting with direct view on the light source in small spaces
- 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 130 lm/W @ W840
- 3 color temperatures (2,700 K, 3,000 K, 4,000 K)
- Protection diode against miswiring on each step
- Outstanding lifetime L80/B10 > 60,000 h (based on 10,000 h LM80 reports, $T_c = 85^\circ\text{C} / 185^\circ\text{F}$)
- 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

Lifetime
L80/B10 > 60.000 h

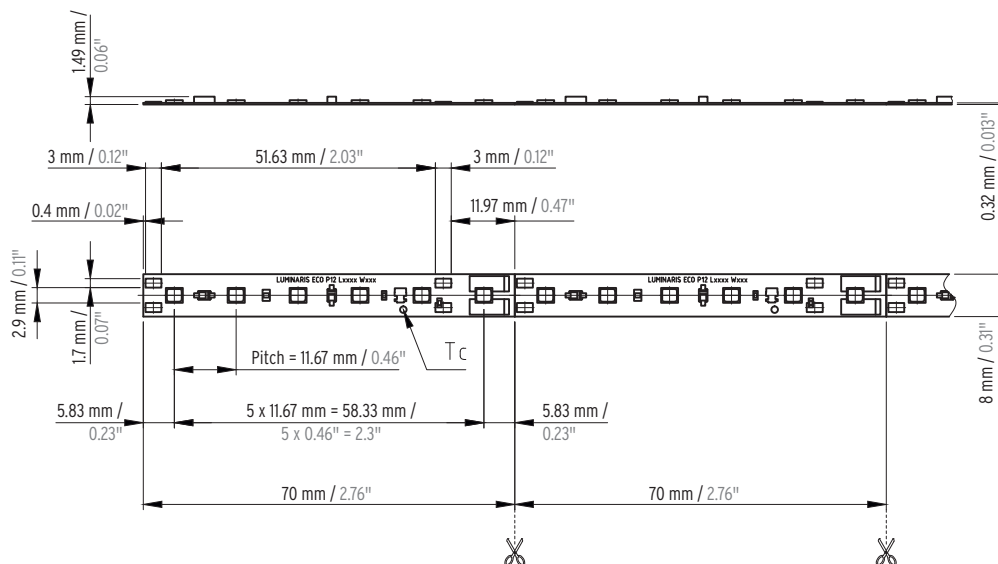
Photometric code
Wxxx/339

LM 79 compliant
LM 79

LM 80 compliant
LM 80

Technical specifications

Mechanical dimensions



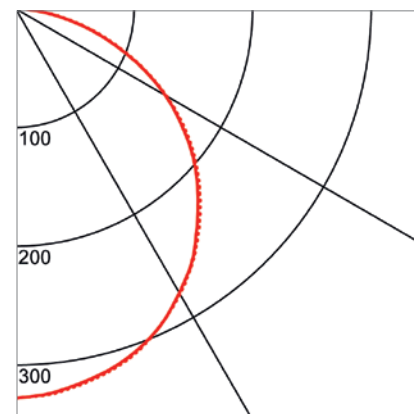
Technical data

LEDs (3.5 mm x 2.8 mm / 0.14" x 0.11")	6 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 V DC
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 Tc mark on the tape in thermal equilibrium.

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

Light distribution



Important note

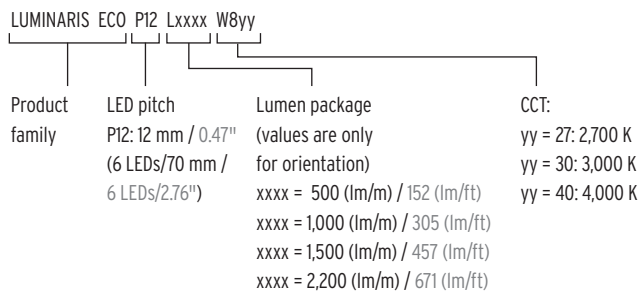


The Tj Away® technology allows for sufficient cooling for power levels up to 15 W/m / 4.6 W/ft (50 mA per 140 mm / 5.51").

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 @ l _{max} ²	Efficacy	maximum length ¹ (mm / ft)	Watt per meter ² / Watt per feet ²	Watt per packaging unit ²
LUMINARIS ECO P12 L500 W827	10700	2,700 K	82	650 lm/m / 198 lm/ft	126 lm/W	14,000 mm / 46 ft	5.14 W/m / 1.6 W/ft	72 W
LUMINARIS ECO P12 L500 W830	10701	3,000 K	83	660 lm/m / 201 lm/ft	128 lm/W	14,000 mm / 46 ft	5.14 W/m / 1.6 W/ft	72 W
LUMINARIS ECO P12 L500 W840	10703	4,000 K	82	690 lm/m / 210 lm/ft	134 lm/W	14,000 mm / 46 ft	5.14 W/m / 1.6 W/ft	72 W
LUMINARIS ECO P12 L1000 W827	10705	2,700 K	82	1,030 lm/m / 314 lm/ft	120 lm/W	7,000 mm / 23 ft	8.57 W/m / 2.6 W/ft	60 W
LUMINARIS ECO P12 L1000 W830	10706	3,000 K	83	1,050 lm/m / 320 lm/ft	123 lm/W	7,000 mm / 23 ft	8.57 W/m / 2.6 W/ft	60 W
LUMINARIS ECO P12 L1000 W840	10708	4,000 K	82	1,100 lm/m / 335 lm/ft	128 lm/W	7,000 mm / 23 ft	8.57 W/m / 2.6 W/ft	60 W
LUMINARIS ECO P12 L1500 W827	10710	2,700 K	82	1,780 lm/m / 543 lm/ft	115 lm/W	4,200 mm / 13.8 ft	15.43 W/m / 4.7 W/ft	65 W
LUMINARIS ECO P12 L1500 W830	10711	3,000 K	83	1,810 lm/m / 552 lm/ft	117 lm/W	4,200 mm / 13.8 ft	15.43 W/m / 4.7 W/ft	65 W
LUMINARIS ECO P12 L1500 W840	10713	4,000 K	82	1,900 lm/m / 579 lm/ft	123 lm/W	4,200 mm / 13.8 ft	15.43 W/m / 4.7 W/ft	65 W
LUMINARIS ECO P12 L2200 W827	10715	2,700 K	82	2,310 lm/m / 704 lm/ft	112 lm/W	3,640 mm / 11.9 ft	20.57 W/m / 6.3 W/ft	75 W
LUMINARIS ECO P12 L2200 W830	10716	3,000 K	83	2,350 lm/m / 716 lm/ft	114 lm/W	3,640 mm / 11.9 ft	20.57 W/m / 6.3 W/ft	75 W
LUMINARIS ECO P12 L2200 W840	10718	4,000 K	82	2,470 lm/m / 753 lm/ft	120 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 Given data are typical values. Due to tolerances of the production process and the electrical components, values can vary up to 10%.

Electrical connection



Art.- No.: 15000283

VarioCon Flex Click Mono 8 mm / 0.32", 0.5 m / 1.64' cable

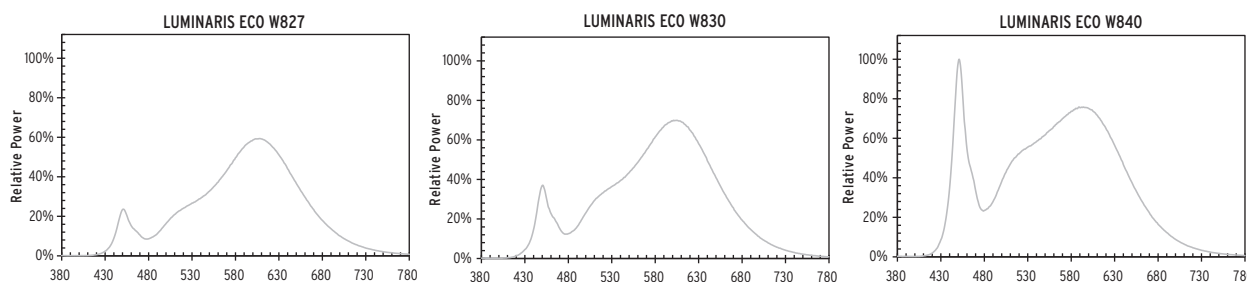
0.35 mm² (22 AWG), 5 A nominal current (120 W), maximum rated voltage 25 V

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

