



LINEAR FLEX BASIC HL

LFBHL-SW800-24V-12D83-20



PRODUCT DESCRIPTION

- Voltage-based, flexible LED module
- Ideal for professional, linear lighting purposes
- Suitable for use where high lighting levels are required
- Very high light quality and colour consistency (MacAdam 3)
- Available in 2700, 3000, 4000, and 6000 K
- Service life of >36.000 hours / L70B10
- Double layer circuit board with optimised thermal management
- Fixed using self-adhesive 3M adhesive tape

TECHNICAL DATA/OVERVIEW

Operating voltage	24 VDC
Nominal capacity / m	19,2 W
Nominal capacity / segment	0,96 W
LED type	SMD 3528
LED spacing	8,3 mm
LED quantity / m	240
Cut size	50 mm / 12 LED
Dimensions (l x w x h)	5000 x 15 x 1,65 mm
Service life	50.000 h
Tc point temperature	Tc min. -25 °C / Tc max. +70 °C
Ambient temperature	-35 ... +50 °C
ESD classification	Testing severity level 1



CONNECTION-RELATED INFORMATION

Pad dimensions (l x w)	2 x 2 mm
Quantity of pads	2
Max. wire cross section	0,75 mm ²
Max. assembly length [m]	5



FULFILMENT OF STANDARDS

EN 62031	IEC 62717	DIN 5510-2
EN 62471	EN 45545, -1, -3	CE / RoHS



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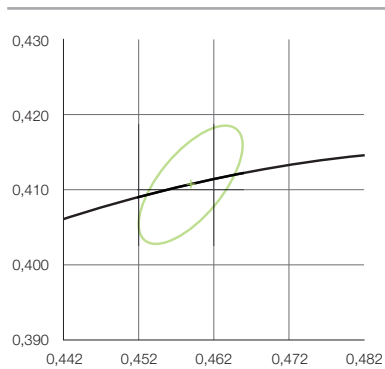
SPECIFIC DATA OVERVIEW

Item no.	Light colour	Nominal colour temp.	Typ. lumen / m	Tolerance	Operating voltage
9009047	warm white	2700 K	1249 lm	3 SDCM	24 VDC
9009141	warm white	3000 K	1249 lm	3 SDCM	24 VDC
9009100	neutral white	4000 K	1311 lm	3 SDCM	24 VDC
9009046	cool white	6000 K	1311 lm	3 SDCM	24 VDC

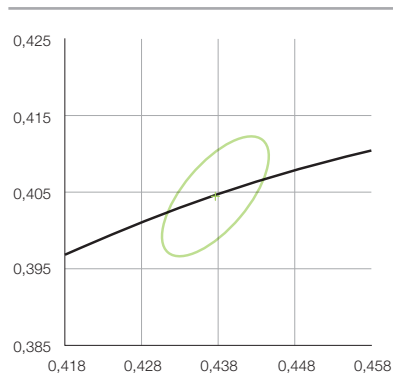
PHOTOMETRIC DATA

Item no.	Nominal colour temperature	Colour temperature	Colour location coordinates (x,y)	Typ. luminous flux / m	Luminous flux tolerance	CRI (Ra)	Beam angle
9009047	2700 K	2710 K	0,4590 / 0,4107	1249 lm	± 29 %	≥ 80	120°
9009141	3000 K	2995 K	0,4377 / 0,4045	1249 lm	± 29 %	≥ 80	120°
9009100	4000 K	3901 K	0,3841 / 0,3753	1311 lm	± 29 %	≥ 80	120°
9009046	6000 K	5852 K	0,3251 / 0,3314	1311 lm	± 29 %	≥ 80	120°

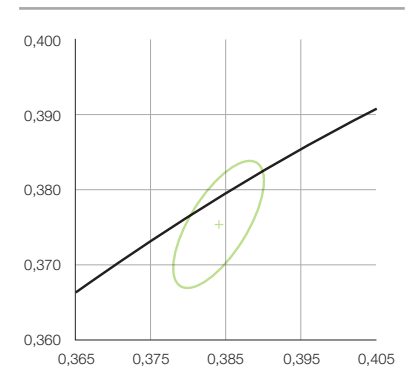
2700 K



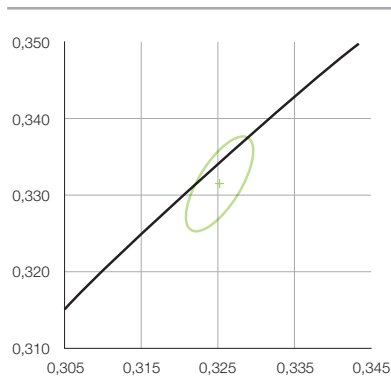
3000 K



4000 K



6000 K





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ELECTRICAL DATA

Item no.	Nominal voltage	Typ. capacity / m	Typ. current / m	Current tolerance	Energy classification
9009047	24 VDC	18,2 W	0,76 A	± 19 %	A
9009141	24 VDC	18,2 W	0,76 A	± 19 %	A
9009100	24 VDC	18,2 W	0,76 A	± 19 %	A
9009046	24 VDC	18,2 W	0,76 A	± 19 %	A

THERMAL DATA

Item no.	Service life	Rated service life	tc rated	tp rated	Ambient temperature	Storage temperature
9009047	>36.000 h	L70 B10	70 °C	65° C	-25 ... +50 °C	-20 ... +65 °C
9009141	>36.000 h	L70 B10	70 °C	65° C	-25 ... +50 °C	-20 ... +65 °C
9009100	>36.000 h	L70 B10	70 °C	65° C	-25 ... +50 °C	-20 ... +65 °C
9009046	>36.000 h	L70 B10	70 °C	65° C	-25 ... +50 °C	-20 ... +65 °C

FURTHER INFORMATION

Item no.	Max. feed-in length	Max. bending radius	IP rating	Water protection	Fixture
9009047	5000 mm	30 mm	IP 00	—	self-adhesive
9009141	5000 mm	30 mm	IP 00	—	self-adhesive
9009100	5000 mm	30 mm	IP 00	—	self-adhesive
9009046	5000 mm	30 mm	IP 00	—	self-adhesive

PRODUCT KEY DESCRIPTION

LFBML	SW800	24V	5S100	20
category	photometrical Code	voltage- / current-based	layout code	protection class



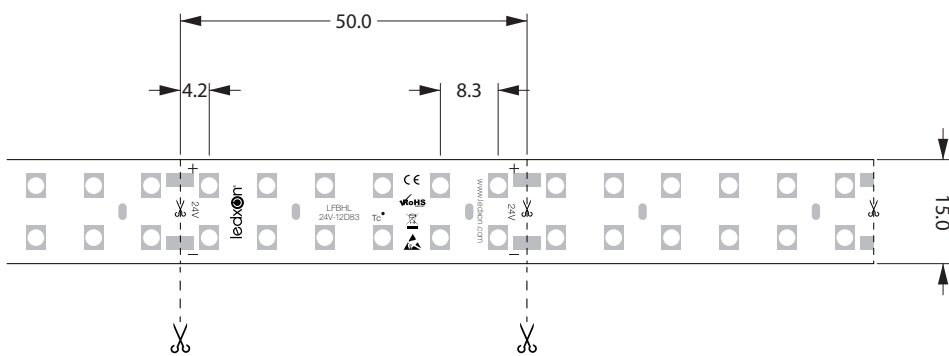
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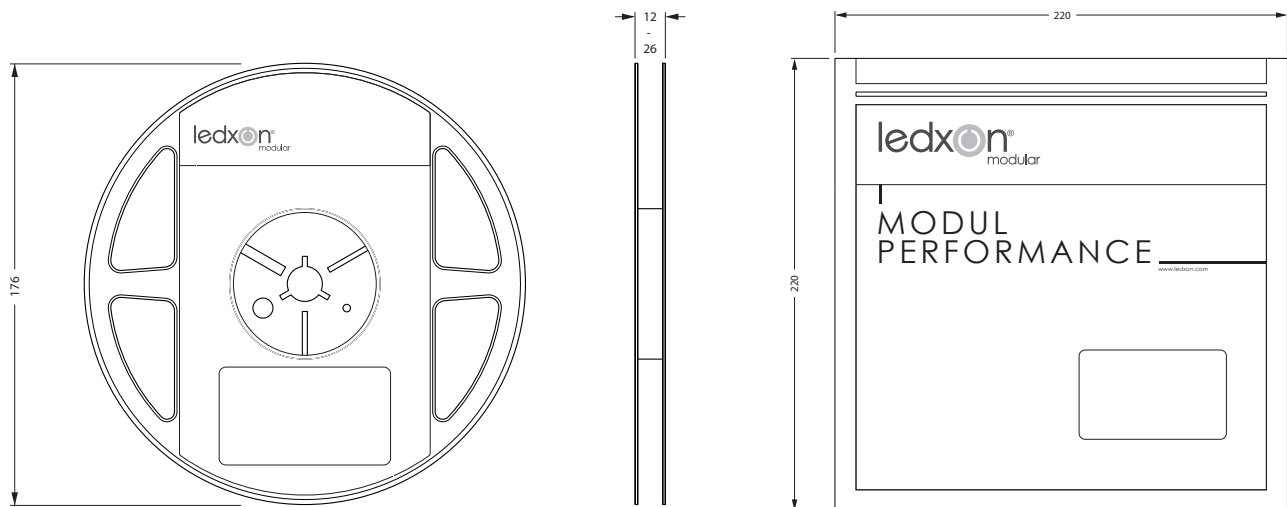
DIMENSIONS

Item no.	Length	Width	Height	Cut size	LED / cut size	LED / m	LED spacing
9009047	5000 mm	15 mm	2 mm	50 mm	12 pcs.	240 pcs.	8,3 mm
9009141	5000 mm	15 mm	2 mm	50 mm	12 pcs.	240 pcs.	8,3 mm
9009100	5000 mm	15 mm	2 mm	50 mm	12 pcs.	240 pcs.	8,3 mm
9009046	5000 mm	15 mm	2 mm	50 mm	12 pcs.	240 pcs.	8,3 mm



ORDER INFORMATION

Item no.	Item description	Packaging unit (PU)	Ordering unit (OU)	Weight gross / PU	Dimensions / PU length x width x height
9009047	LFBHL-SW827-24V-12D83-20	1 roll = 5 m	1 metre	186 g	240 mm x 220 mm x 19,5 mm
9009141	LFBHL-SW830-24V-12D83-20	1 roll = 5 m	1 metre	186 g	240 mm x 220 mm x 19,5 mm
9009100	LFBHL-SW840-24V-12D83-20	1 roll = 5 m	1 metre	186 g	240 mm x 220 mm x 19,5 mm
9009046	LFBHL-SW860-24V-12D83-20	1 roll = 5 m	1 metre	186 g	240 mm x 220 mm x 19,5 mm





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INFORMATION ON SERVICE LIFE

The maximum T_c/T_p temperature is a crucial factor for the service life information relating to ledxon LED modules.

If the permitted limits are exceeded, this shall significantly reduce the service life and may even result in the destruction of the modules.

The expected service life of >36,000 hours represents a purely statistical parameter. (L70/B10 at $T_p = 65^\circ\text{C}$)

For optimum operation of ledxon LED modules, we recommend installation only on rigid and stationary surfaces.

The heatsink must provide for sufficient heat dissipation such that the maximum permitted temperature is not exceeded at the T_c point.

The temperatures at the T_c point must be measured in accordance with the specifications stated in EN 60598-1.

INFORMATION ON PHOTOMETRIC AND ELECTRICAL DATA

Capacity coordinates and tolerances in accordance with CIE 1931

Measurement environment temperature: $t_a = 25^\circ$

Measurement tolerance for colour coordinates (x / y) +/- 0.005

Tolerance range of photometric and electrical data +/-10%

The maximum permitted operating voltage must not be exceeded. Otherwise a reduction in service life or a failure may occur.

All ledxon LED modules can be dimmed using PWM (pulse width modulation).

SAFETY AND INSTALLATION INFORMATION

When installing flexible LED modules, the maximum permitted bend radius must not be fallen short of.

Bending these modules laterally results in damage to the printed circuit board.

In order to ensure optimum adherence for the double-sided 3M adhesive tape, ledxon recommends installing the modules only on dry, clean surfaces that are free of grease, oil and silicone. ledxon does not accept any liability for the correct adhesion of the LED modules.

When installing ledxon LED modules, standard ESD safety precautions must be complied with.

ledxon flexible LED modules are delivered without cabling. These modules are electrified by soldering leads onto

the soldering pads provided. The maximum permitted cable cross-section must be observed in this process. Here, the soldering

temperature of 270°C for a maximum of 10 seconds must not be exceeded. ledxon modules that are equipped with LED types SMD

5050 and 5630 are subject to photobiological risk group 1.