



# LINEAR FLEX BASIC HL

## LFBHL-SW800-24V-6D167-20



### 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

<b>Operating voltage</b>	24 VDC
<b>Nominal capacity / m</b>	28,8 W
<b>Nominal capacity / segment</b>	1,44 W
<b>LED type</b>	SMD 5050
<b>LED spacing</b>	16,7 mm
<b>LED quantity / m</b>	120
<b>Cut size</b>	50 mm / 6 LED
<b>Dimensions (l x w x h)</b>	5000 x 20 x 2 mm
<b>Service life</b>	>36.000 h / L70
<b>Tc point temperature</b>	Tc max. +70 °C
<b>Ambient temperature</b>	-25 ... +50 °C
<b>ESD classification</b>	Testing severity level 1



### CONNECTION-RELATED INFORMATION

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



### FULFILMENT OF STANDARDS

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



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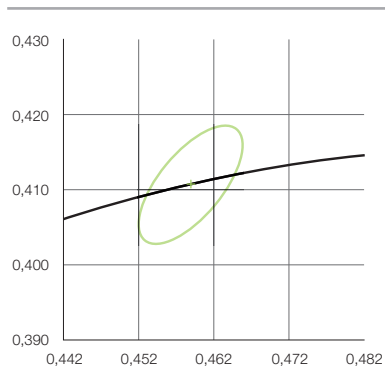
### SPECIFIC DATA OVERVIEW

Item no.	Light colour	Nominal colour temp.	Typ. lumen / m	Tolerance	Operating voltage
9009241	warm white	2700 K	1902 lm	3 SDCM	24 VDC
9009349	warm white	3000 K	1902 lm	3 SDCM	24 VDC
9009242	neutral white	4000 K	2014 lm	3 SDCM	24 VDC
9009243	cool white	6000 K	2014 lm	3 SDCM	24 VDC

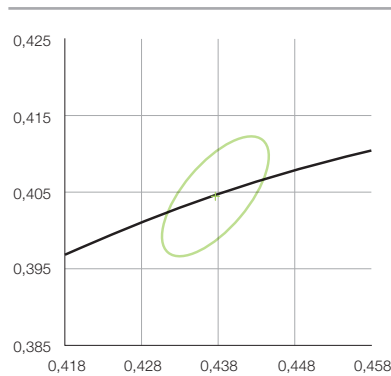
### PHOTOMETRIC DATA

Item no.	Nominal colour temperature	Colour temperature	Colour location coordinates (x,y)	Typ. luminous flux / m	Luminous flux tolerance	CRI (Ra)	Beam angle
9009241	2700 K	2710 K	0,4590 / 0,4107	1902 lm	± 31 %	≥ 80	120°
9009349	3000 K	2995 K	0,4377 / 0,4045	1902 lm	± 31 %	≥ 80	120°
9009242	4000 K	3901 K	0,3841 / 0,3753	2014 lm	± 31 %	≥ 80	120°
9009243	6000 K	5852 K	0,3251 / 0,3314	2014 lm	± 31 %	≥ 80	120°

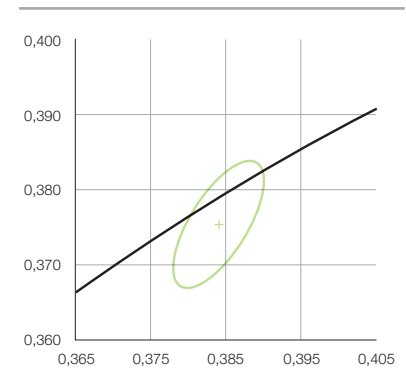
#### 2700 K



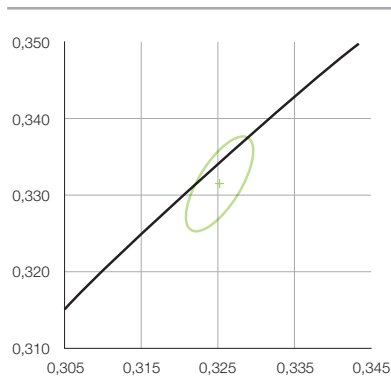
#### 3000 K



#### 4000 K



#### 6000 K





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### ELECTRICAL DATA

Item no.	Nominal voltage	Typ. capacity / m	Typ. current / m	Current tolerance	Energy classification
9009241	24 VDC	26,9 W	1,12 A	± 19 %	A
9009349	24 VDC	26,9 W	1,12 A	± 19 %	A
9009242	24 VDC	26,9 W	1,12 A	± 19 %	A
9009243	24 VDC	26,9 W	1,12 A	± 19 %	A

### THERMAL DATA

Item no.	Service life	Rated service life	tc rated	tp rated	Ambient temperature	Storage temperature
9009241	>36.000 h	L70 B10	70 °C	65° C	-25 ... +50 °C	-20 ... +65 °C
9009349	>36.000 h	L70 B10	70 °C	65° C	-25 ... +50 °C	-20 ... +65 °C
9009242	>36.000 h	L70 B10	70 °C	65° C	-25 ... +50 °C	-20 ... +65 °C
9009243	>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
9009241	5000 mm	30 mm	IP 00	—	self-adhesive
9009349	5000 mm	30 mm	IP 00	—	self-adhesive
9009242	5000 mm	30 mm	IP 00	—	self-adhesive
9009243	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



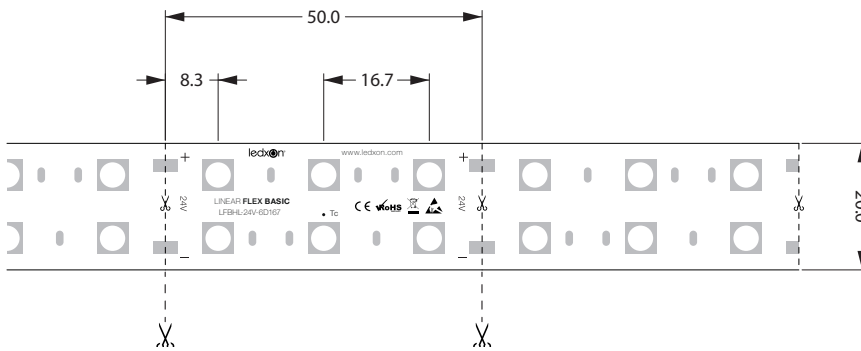
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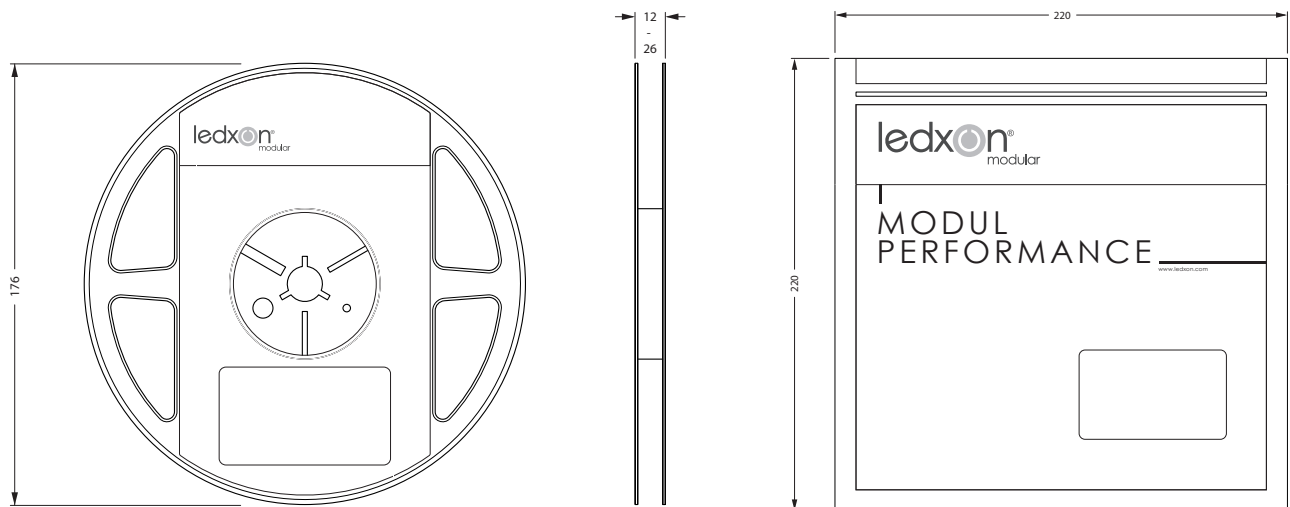
### DIMENSIONS

Item no.	Length	Width	Height	Cut size	LED / cut size	LED / m	LED spacing
9009241	5000 mm	20 mm	2 mm	50 mm	6 pcs.	120 pcs.	16,7 mm
9009349	5000 mm	20 mm	2 mm	50 mm	6 pcs.	120 pcs.	16,7 mm
9009242	5000 mm	20 mm	2 mm	50 mm	6 pcs.	120 pcs.	16,7 mm
9009243	5000 mm	20 mm	2 mm	50 mm	6 pcs.	120 pcs.	16,7 mm



### ORDER INFORMATION

Item no.	Item description	Packaging unit (PU)	Ordering unit (OU)	Weight gross / PU	Dimensions / PU length x width x height
9009241	LFBHL-SW827-24V-6D167-20	1 roll = 5 m	1 metre	240 g	240 mm x 220 mm x 28 mm
9009349	LFBHL-SW830-24V-6D167-20	1 roll = 5 m	1 metre	240 g	240 mm x 220 mm x 28 mm
9009242	LFBHL-SW840-24V-6D167-20	1 roll = 5 m	1 metre	240 g	240 mm x 220 mm x 28 mm
9009243	LFBHL-SW860-24V-6D167-20	1 roll = 5 m	1 metre	240 g	240 mm x 220 mm x 28 mm





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### INFORMATION ON SERVICE LIFE

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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

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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

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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  $270^\circ\text{C}$  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.