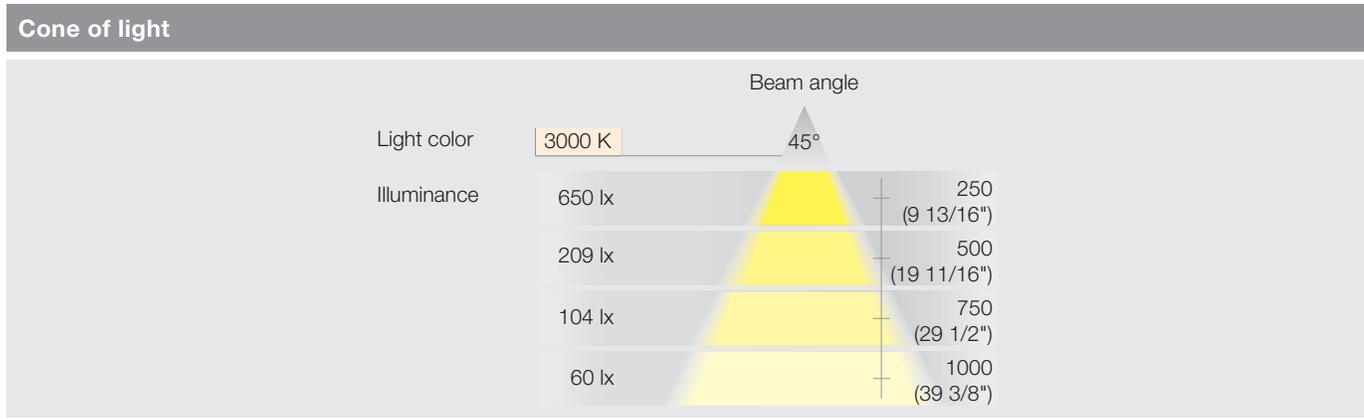


INFORMATION

LIGHTING EFFECTS AND LIGHTING TECHNOLOGY



Light source comparison

	LED	Halogen	Fluorescent lights
Color temperature	2700–6500 K	3000 K	2700–6500 K
Power consumption	0.5–6 Watt	5–50 Watt	7–58 Watt
Efficacy	30–100 Lm/W	14–18 Lm/W	65–100 Lm/W
Service life	up to 50,000 h	approx. 2,000 h	approx. 20,000 h
Heat generation	approx. 50 °C	approx. 90 °C	approx. 70 °C
Color rendering index (CRI)	70–95	60–95	50–90

Light output comparison

Light quantity

	200 lm	400 lm	600 lm	800 lm	1000 lm	1200 lm	1400 lm
LED	2 Watt	5 Watt	10 Watt	15 Watt			
Fluorescent light		8 Watt		14 Watt		16 Watt	
Halogen	10 Watt	20 Watt	35 Watt	50 Watt			
Incandescent bulb	25 Watt	40 Watt	60 Watt	75 Watt			100 Watt

SYMBOLS AND TERMS

TEST SYMBOLS AND DEFINITION OF TECHNICAL TERMS

	Technical Control Board		European Safety Standard
	Underwriters Laboratories (CAN/USA)		Only for use in dry locations
	Australian Communications Authority		Protected against solid foreign objects Ø 1 mm and larger and splash water
	Product Safety Electrical Appliance and Material Safety Law (for Japan)		IP44 after installation
	China Quality Certification		Lights to be used indoors only. Not to be used outdoors!
	Electrical Testing Labs (CAN/USA)		Do not use components that impede thermal radiation
	TISI – Thai Industrial Standards Institute		Kelvin
	BSMI (for Taiwan)		Watt
	Korea Certification Mark		Switch
	Protective extra-low voltage		Multi-white
	Furniture installation symbol		Dimmable
	Suitable for directly mounting to standard inflammable surfaces		Motion detector
	Protection class II		RGB light
	Protection class III		

Technical terms

Light color/ color temperature	The light color is a specification of the color appearance of a light source and is measured in Kelvin (K). The lower the Kelvin value, the warmer the light; the higher the value, the cooler the light. Light sources of 3400 K and below are considered “warm”, while light sources between 3400 and 5700 K are considered “cool”. Light sources above 5700 K are referred to as “daylight white” sources.
Luminous efficacy	The luminous efficacy is the indication of the illuminance in relation to a surface and its distance. It is indicated in Lux (lx).
Luminous intensity/light output	The luminous intensity indicates the light output, i.e. the quantity of light a lamp emits. It is indicated in Lumen (Lm).
Color rendering index	The color rendering index is a parameter that can be used to compare the color rendering quality of light sources at the same color temperature.
Binning	LEDs are sorted according to color temperature. LED color deviations are dependent on the grade of binning. Loox LED lights have a deviation of ±200 Kelvin.

LED LIGHTING TECHNOLOGY

LEDs (Light Emitting Diodes) can vary the properties of the light that is generated, and generate almost the entire color spectrum. Unlike normal light bulbs and halogen lamps, LEDs generate little heat. They use less energy and have a long service life.

ADVANTAGES:

- > **Long lasting**
LED lights have an extremely long service life of up to 25 years or more than 40,000 to 50,000 hours.
- > **Insensitive**
LEDs have an extremely small and robust design. This makes handling easier during furniture construction and transportation.
- > **Low heat generation**
LED lights generate very little heat, because of their low power consumption, making LED lighting systems particularly suitable for displays.
- > **Energy-saving**
LED lights use an impressive 90 percent less power than conventional light bulbs! This means that they can be used to incorporate modern lighting schemes in furniture, and still stay in line with the energy saving trend.
- > **Powerful**
Modern LED lights are bright and have a saturated light color. They achieve full brightness as soon as they are switched on. LED furniture lighting produces a lasting effect at the push of a button.
- > **Rich in variants**
LED lights are available in different colors, and can also be designed as color changing lights. This allows the light color to be coordinated with furniture contents, such as displays, in the best possible way.

THE LOOX LIGHTING TECHNOLOGY:

The Loox LED technology incorporates different power systems. A system is decided on by choosing the driver or by choosing a particular light. The choice of system is an important decision, because the driver that is selected can only be combined with lights from the same system.

12 V System

An array of choices in the 12 V system

The LED lights are voltage-controlled and connected in parallel in the 12 V system. The slots on the driver can be freely allocated. 12 V lights are presently the most extensive.

24 V System

Powerful 24 V system

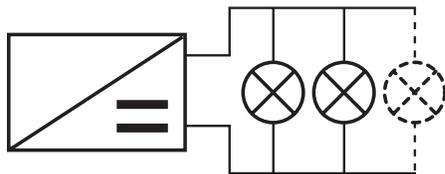
Technically speaking, the 24 V system is identical to the 12 V system, but has a considerably higher power level. 24 V lights are used when extremely bright lights are required.

350 mA System

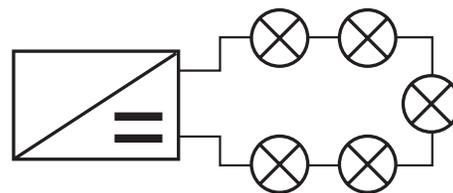
Spotlights in the 350 mA system

The LED lights in the 350 mA system are current-controlled and connected in series. This means that each slot has to be either occupied or must have a bridge. 350 mA lights provide extremely strong light output and are particularly suitable for spotlighting.

SWITCHING



Parallel connection for 12 V and 24 V systems

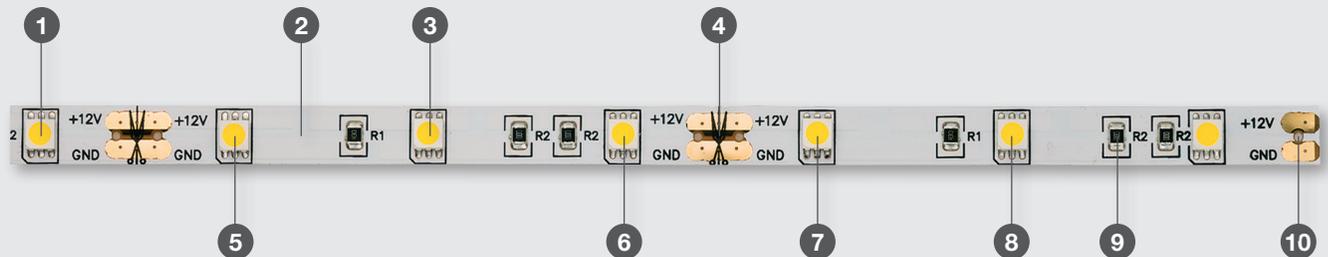


Series connection for 350 mA system

LED FLEXIBLE STRIP LIGHT

QUALITY FEATURES

What does the design of Loox LED flexible strip lights look like?



- 1 Very bright, high quality LED for the best light quality
- 2 Highly flexible LED strip light with rear 3M® adhesive tape for providing secure adhesion to practically any surface
- 3 Wide beam angle
- 4 Can be individually shortened and extended via the clip connector
- 5 No UV radiation
- 6 Service life of up to 50,000 hours – tested according to LM-80
- 7 Fine brightness and color temperature binning
- 8 The multilayer circuit board guarantees minimal loss of performance and minimal heat generation due to the high quality material components.
- 9 Using the maximum quality for the electronic components and the drivers provide consistently high light quality.
- 10 The gold-plated contacts provide a secure connection to the driver using the clip connector.