

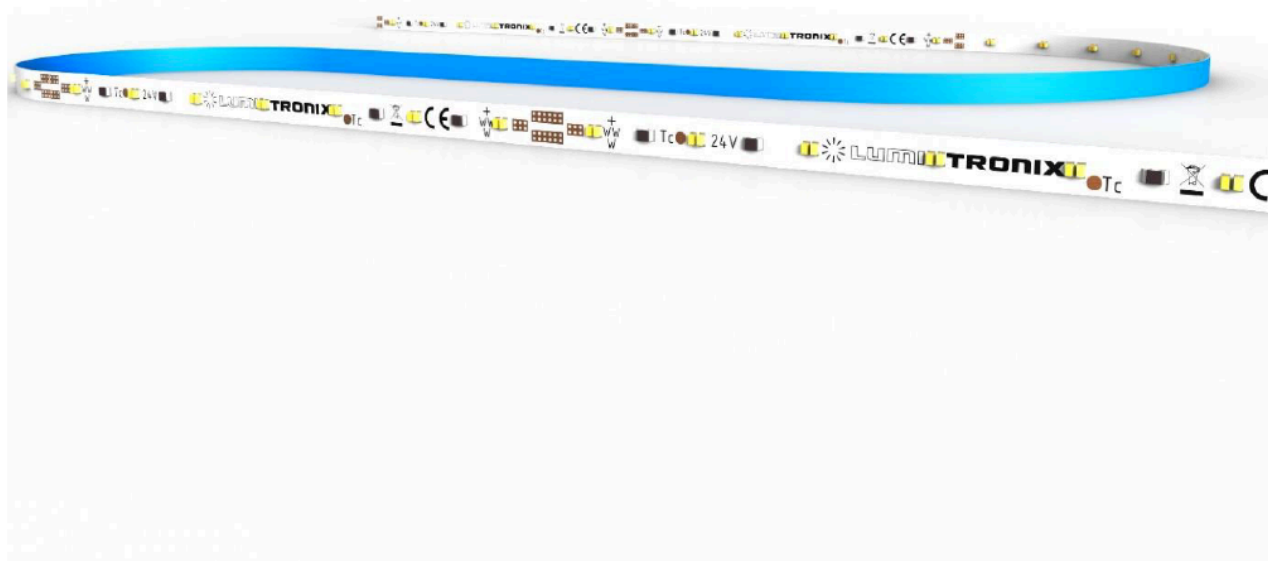


Lumistrips

DATASHEET

SLIMFLEXTW-2090 NICHIA LED STRIP TUNABLE WHITE
2700-6500K 2140LM 24V 140 LEDS/M 2M REEL

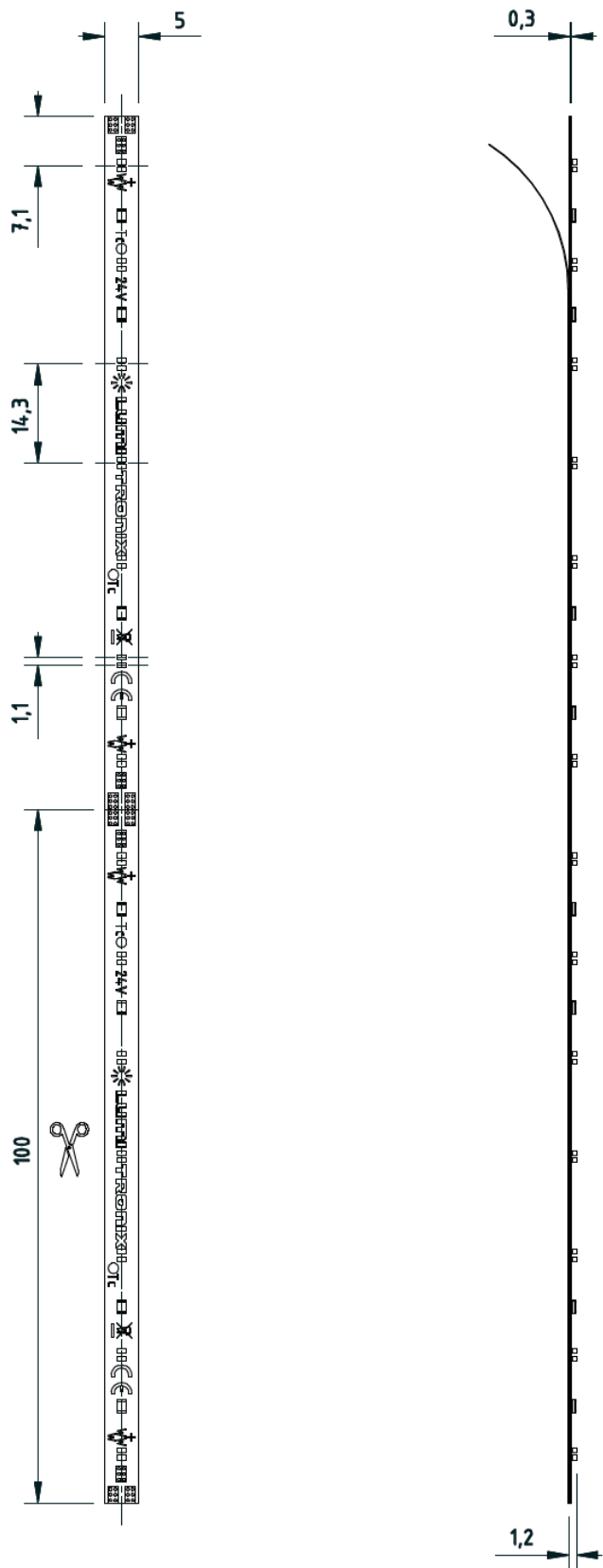
SKU: 56024



SLIMFLEXTW-2090 NICHIA LED STRIP TUNABLE WHITE 2700-6500K 2140LM 24V 140 LEDS/M 2M REEL

Article number (SKU)		56024	
Product name		SlimFlexTW-2090 Nichia LED Strip Tunable white 2700-6500K 2140lm 24V 140 LEDs/m 2m reel	
Classification		Professional	
Model identifier (equivalent models)		SlimFlex	
Photometric data (at TJ = 65°C, ± 10%)			
Light color		Tunable white	
Binning		3-Step MacAdam	
Color temperature (K)		2700 – 6500 K	
Dominant wavelength (nm)		-	
Luminous flux (lm)		1970 – 2140 lm	985 - 1070 lm/m
Radiant power (mW)		-	
CRI (Ra)		>80	
Efficiency (lm/W)		109 - 118 lm/W	
Beam angle FWHP		120°	
Lifetime L80B10C1 (h)		>60000 h	
Photometric code		827 - 865	
Electrical data (at TJ = 65°C, ± 10%) (reference settings)			
Operating mode		Constant voltage	
Voltage (V)		24 V	
Current (mA)		750 - 750 mA	
Power (W)		18 - 18 W	9 W/m
Standby power consumption (W)		0 W	
Dimmable		Yes	
Dimensions / Mechanical data		Metric units	Imperial units
Length		2000 mm	78.60"
Width		5 mm	0.197"
Height		1.2 mm	0.047"
Number of LEDs (pcs)		280 pcs	
Weight (g)		80 g	
Heat dissipation		Yes	
Temperatures			
Operating temperature at Tc		-40 °C to +85 °C	
Ambient temperature		-40 °C to +50 °C	
Storage temperature		-40 °C to +100 °C	
Approvals / Certifications			
CE / RoHS / Reach		Yes	
EN 62471 Risk group		RG0	
Energy efficiency class		E	
Mains voltage luminous efficacy (lm/W)		118 lm/W	
Version			
Date		1. July 2022	

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WARRANTY INFO



This LED Strip has 5 years commercial warranty. Please refer to <https://www.lumistrips.com/lumistrips-en-warranty> for warranty terms.

MANUFACTURING INFO



This LED strip is **made in Germany**, at a flex production line that uses the innovative manufacturing technology of plasma direct metallization, to turn flexible substrates into electrical conductive and solderable circuit boards, even those that before have not been suitable for an assembly with electronic components.

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LED strip made in reel-to-reel manufacturing, a production method that offers many advantages, from delivering custom designs without the error of soldering to the use of new base materials that make new designs possible, with easier handling, installation and transportation.

Reel-to-reel production Multiple advantages. New opportunities.



Endless products possible without error-prone soldering



New base materials such as PET, polyimide, paper etc.



Fast and automated processing on large production lines



Less residual material due to the processing of large roll lengths



Easier handling and installation thanks to self-adhesive backside



Savings potentials in logistics and warehousing



Design advantages in comparison to rigid boards



Higher functional density: dimensions and weight of components lower

Our professional LED Strips and Modules use LEDs from market leaders

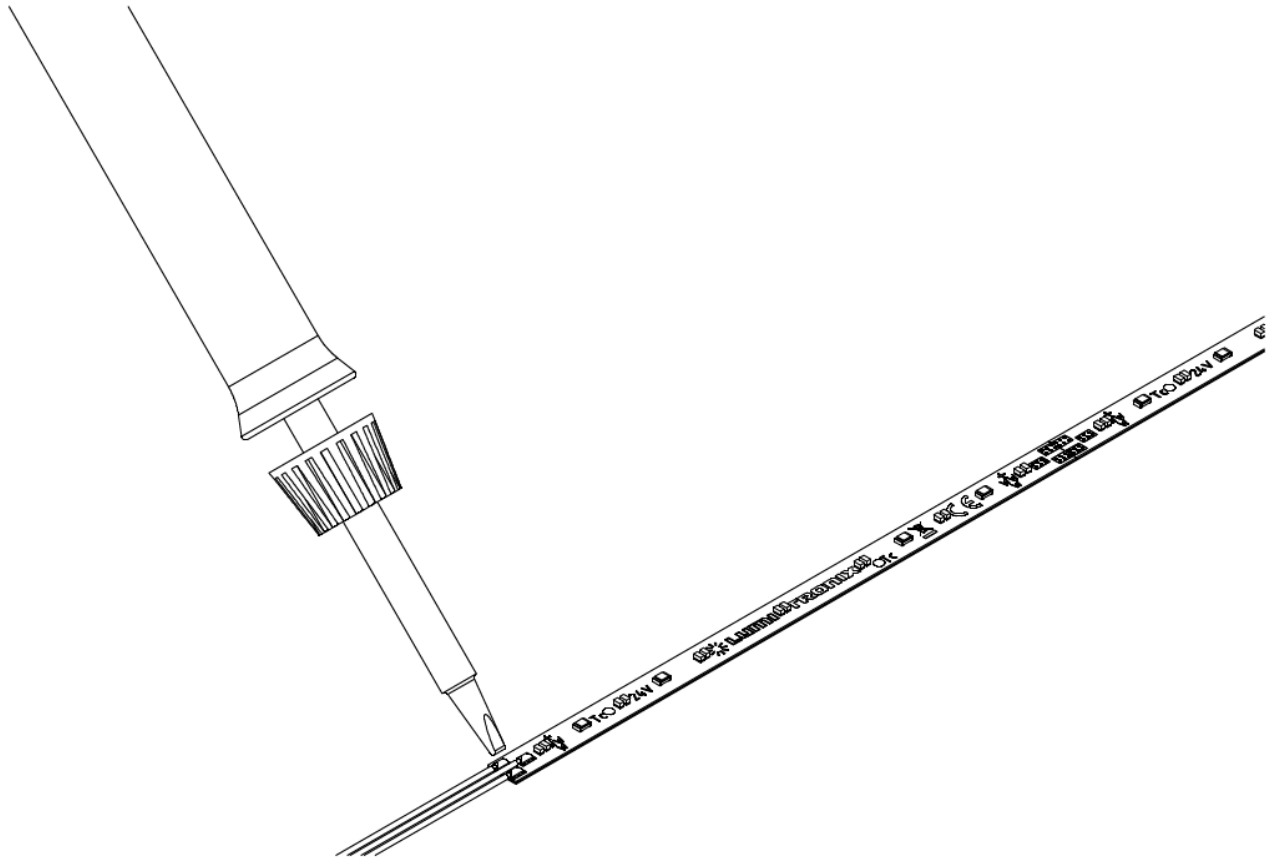
We develop and produce our LED strips at a state of the art facility in Germany, with the highest quality standards and by using only LEDs from market leaders such as Nichia, Samsung or Toshiba.

- **Nichia** is the LED market leader, with over 25% market share and decades of experience. Nichia researchers invented the blue and white LED production technology, also receiving the Nobel Prize for this achievement. Nichia LEDs are the **most efficient** (200 lm / w efficacy), durable (> 100,000 hours) and are also available with unique technologies such as **Optisolis**, CRI98+ natural light spectrum and **Rsp0a**, special white light for horticulture.
- **Samsung** is in the top 10 of global LED manufacturers and a well-known brand, renowned for the high performance of its products combined with the competitive price
- **Toshiba** is a Japanese conglomerate with a history of more than a century, now specialized in semiconductors, electronics and hardware, with nearly 20,000 employees and an annual turnover of 40 billion USD. Toshiba has built the TRI-R technology and built the LED chips used in **SunLike CRI97+ LEDs** produced by Seoul Semiconductor in South Korea. With the new **SunLike™ TRI-R™** technology from Toshiba-SSC (Seoul Semiconductor) and our strips and modules you can always enjoy a natural light source with the light spectrum very close to the sun.
- **Seoul Semiconductor** is in the top 10 of global LED manufacturers and renowned for innovation, durability and competitive price

Our strips have high quality components and professional support:

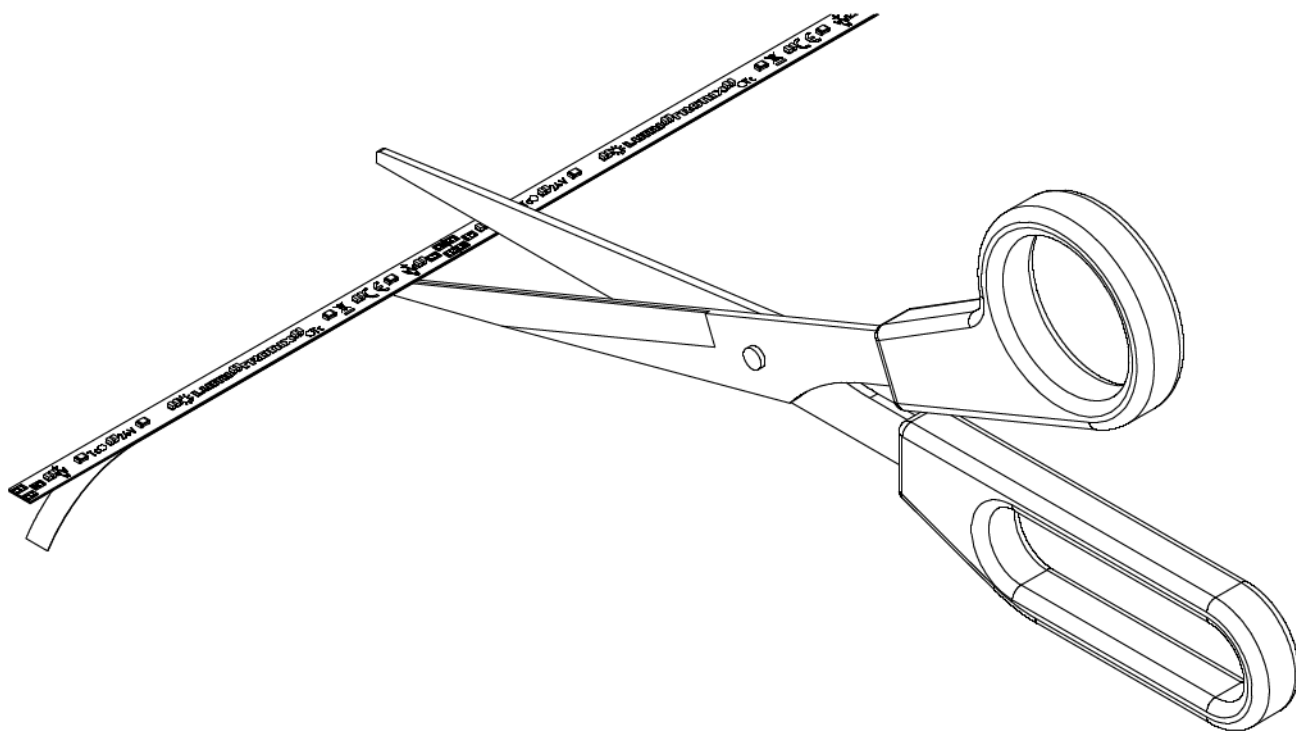
- We use LEDs from top brands and have superior designs
- We offer **professional support** for lighting projects
- The PCBs use high quality materials for best resistance, current flow and heat transfer
- Performance values in this datasheet match those in real world applications
- Function perfectly at high temperatures that would destroy many other strips

CONNECTION OF LED STRIP



The Professional LED Strips are connected via a lead connection to the connection pads provided for this purpose.

CUTTING INFO

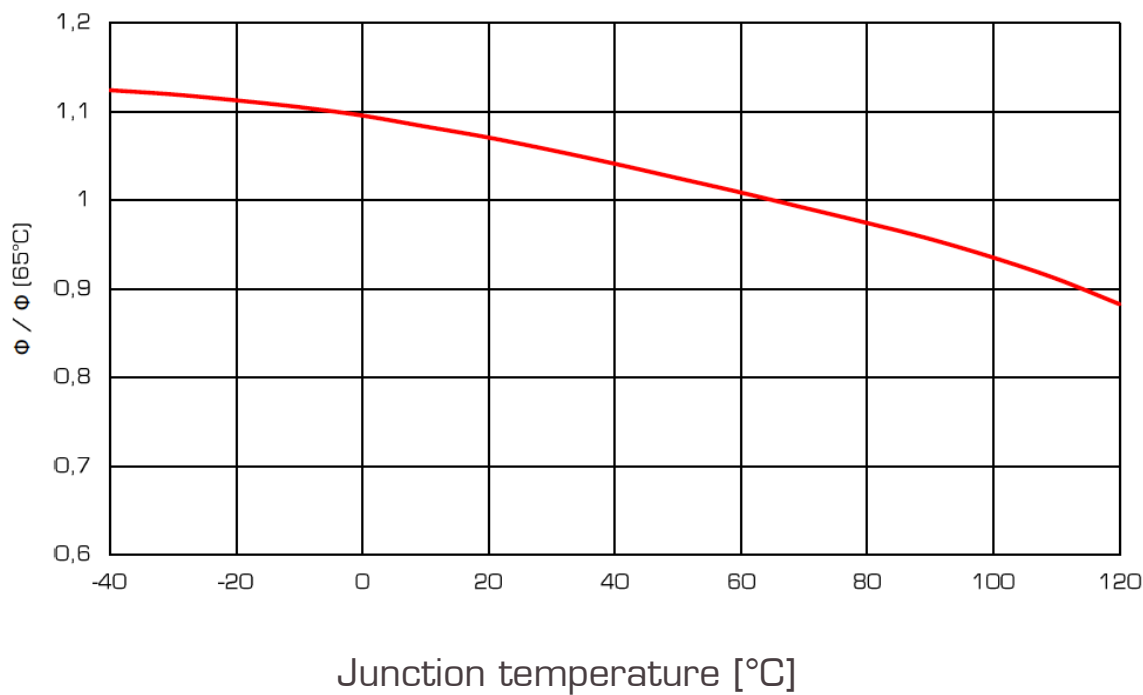


The LED strip can be separated or shortened every 100 mm. On the back of the LED strip is a double-sided heat-conducting adhesive tape, which allows installation of the LED strip. Professional LED strips can be cut with scissors.

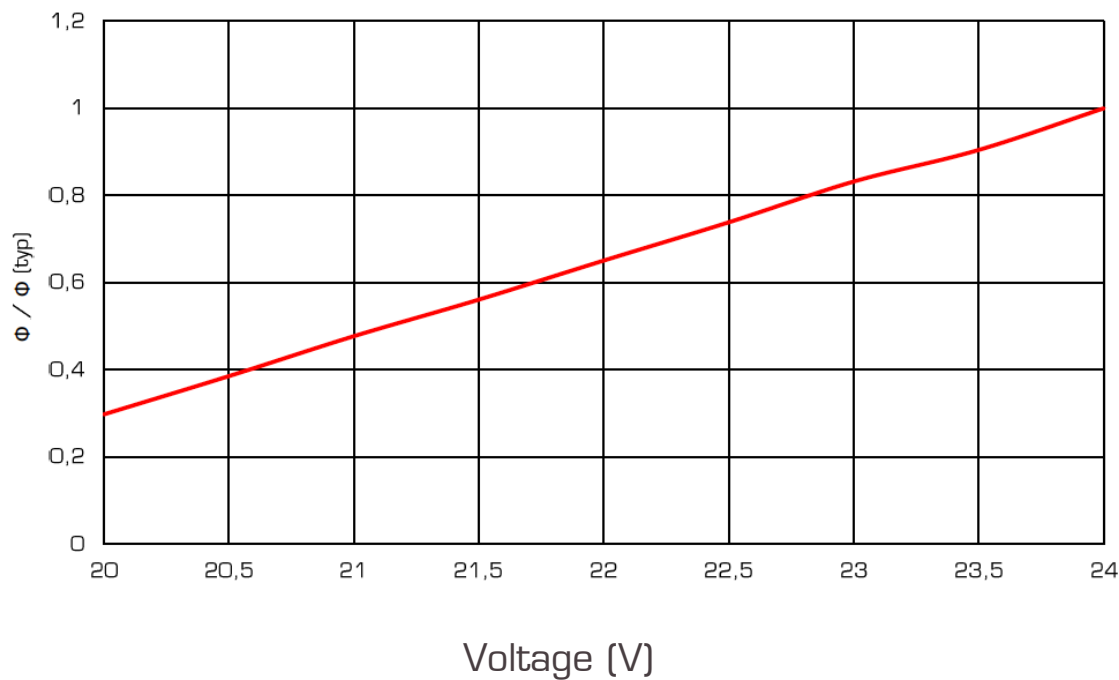
LED STRIP PRODUCT NAME EXPLAINED

LumiFlex2080 Samsung LED Strip warm white CRI80 2700K 6500lm 24V 70 LEDs/m 5m reel (1300lm/m and 12.6W/m)						
Product name	Primary application:	Spectrum quality (CRI):	LED brand	Photometric data	Electrical data	Key Photometric and electrical data per meter, for easy comparison to other LED strips
	10XX = LED strip for ambient light (up to 1000 lm/m)	xx80 = minimum acceptable	Product type		Dimensions	
	20XX = LED strip for general light, when combined with other sources (up to 1500 lm/m)	xx90 = good			Mechanical data	
	30XX = LED strip for general light (up to 2500 lm/m)	xx95 = very good				
	40XX = LED strip for work light (up to 5000 lm/m)	xx98 = best (full spectrum light)				

LUMINOUS FLUX vs. TEMPERATURE



LUMINOUS FLUX vs. VOLTAGE



Due to the special conditions in the production process of LEDs, the specified values are statistical averages. The individual LED may deviate from them.

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The LED modules and all their components must not be mechanically stressed.

Avoid undue claw action, e.g. by screwing or excessive bending.

The LED modules must not come into contact with aggressive chemical substances, either in operation or in storage.

The installation of the module (with the operating device) must be carried out in compliance with all applicable electrical and safety standards.

Pay attention to standard ESD precautions when installing the modules.

- The components on the LED modules must not be subjected to mechanical stress.
- The conductive paths on the boards must not be damaged or interrupted by the installation.
- Store and operate the LED modules only at a final humidity of 10% to 60%.

Our LED modules are not protected against overload, overtemperature and short-circuit currents. To operate the modules safely and reliably, it is therefore necessary to use an electronically stabilized power supply unit in which these

in which these safety functions are already integrated. If other power supplies than the ones distributed by us are used, the following protective

the following protective measures must be ensured on the power supply side:

MINIMUM REQUIREMENTS FOR POWER SUPPLIES: Short circuit protection - Overload protection - Overtemperature protection

- The installation of LED modules may only be carried out in compliance with all applicable regulations and standards by an authorized electrician.

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This LED strip can be purchased via the following websites:

www.ledrise.eu / www.lumistrips.com

