

RoHS

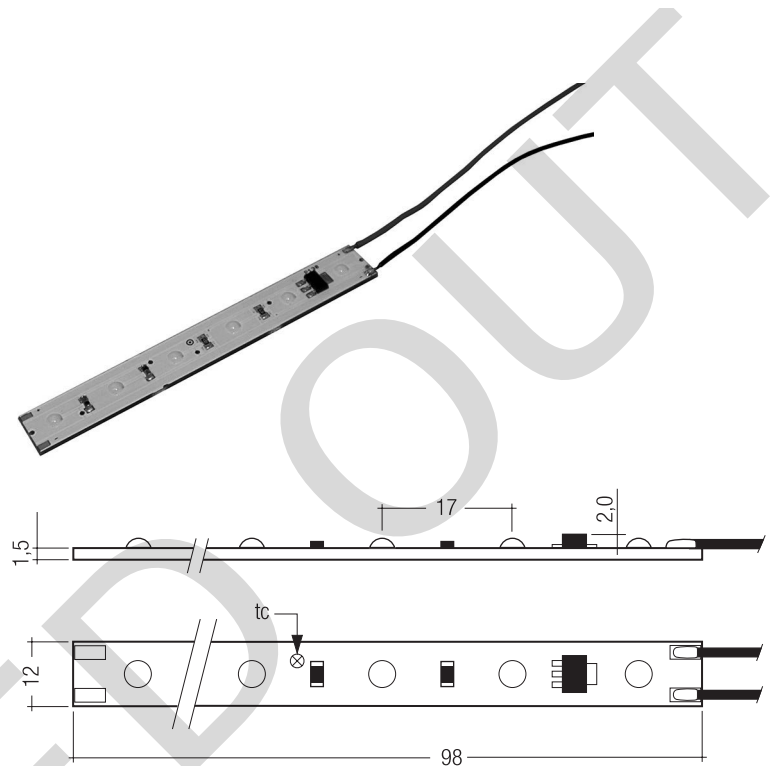
TALEXmodule STRIP P130-2 EOS

Product description

- LED strip module for linear illumination, highlighting of lines and edges and for side injection
- For safety lighting, general lighting, effect lighting and shelf lighting
- Suitable for TALEXaccessory PROFILE Z200-2 / Z201-2 / Z22W-2
- Edge injection of transparent or diffuse materials
- With maximum possible beam angle for uniform illumination
- Low-profile
- Simple installation thanks to pre-fitted adhesive tape
- High-power LED in chip-on-board technology (COB)
- Dimmable by pulse width modulation (PWM)
- Integrated current source to stabilise luminous flux
- Wide 140° distribution of light for uniform illumination
- Attached with premounted thermally conductive double-sided adhesive tape
- Connection: cable 200 mm

Technical data

Ambient temperature t_a	-30 ... +40 °C
Max. tc point ^①	75 °C
Risk group (EN 62471:2008)	0



Ordering data

Type	Article number	Colour ^②	Colour temperature	Packaging carton	Weight per pc.
6 light points per module					
P130-2 DL	89600745	Daylight white	6,500 K	20 pc(s).	0.007 kg
P130-2 NW	89600746	Neutral white	4,200 K	20 pc(s).	0.007 kg
P130-2 WW	89600747	Warm white	3,000 K	20 pc(s).	0.007 kg
P130-2 GOLD	89600744	Gold	2,700 K	20 pc(s).	0.007 kg
P130-2 CM2	89600786	Cool meat	-	20 pc(s).	0.007 kg
P130-2 CM+	89600976	Cool meat +	-	20 pc(s).	0.007 kg



Colour temperatures and tolerances, page 5, 6

Specific technical data

Type	Typ. luminous flux ^②	Supply voltage DC ^③	Power ^④	Colour rendering index CRI/R _{ff} ^⑤	Energy classification
6 light points per module					
P130-2 DL	156 lm	24 V	2.9 W	> 75	A
P130-2 NW	128 lm	24 V	2.9 W	> 80	A
P130-2 WW	114 lm	24 V	2.5 W	> 80	A
P130-2 GOLD	96 lm	24 V	2.5 W	> 90	A
P130-2 CM2	100 lm	24 V	2.9 W	> 75	A
P130-2 CM+	80 lm	24 V	2.5 W	> 75	A

^① $R_{th,jhs}$ = Thermal Resistance (Junction – Heat Sink). Exceeding the max. temperature limits leads to a reduced life or the module can be damaged. Measuring of the temperature at the tc-point in the thermally stable state with a temperature sensor.

^② Tolerance range for optical and electrical data: $\pm 15\%$.

^③ Exceeding the max. operating voltage leads to an overload on the TALEXmodule STRIP. This may in turn result in a reduction in lifetime or even in destruction. Tolerance range for the supply voltage: 12 V: +2 V / -0 V; 24 V: +2 V / -0 V.

^④ R_{ff} (cool meat and cool meat +): specific reflection index for illumination of meat and meat products according to standard DIN 10504.

^⑤ Gold: light colour for cheese and pastries, cool meat: light colour for fresh meat and sausages.

All values at $t_a = 25\text{ °C}$.

LED control gear matrix – TALEX(module STRIP P130-2

IN-BUILT LCU			REMOTE LCU														Max. chaining
Type	0010 K301 24V		0025 K201 24V	0025 K210 24V one4all	0025 K211 24V	LCU 035/24 E020	LCU 060/24 E020	LCU 100/24 E020	LCU 150/24 E020								
Article number	86456215		86453418	86455937	86455066	24166320	24166324	24166328	24166333								
Assignable LED control gear			Assignable LED control gear														
Type	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	
TALEX(module STRIP P130-2	1	4	1	8	1	8	1	8	1	11	2	20	4	33	7	50	15

Lighting controls matrix – TALEX(module STRIP P130-2

REMOTE						IN-BUILT				
Type	C001		C002		C004		C003 DALI RGB			
Article number	86454974		86454968		24138760		86457912			
Assignable lighting controls						Assignable lighting controls				
Type	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.		
TALEX(module STRIP P130-2	1	48	1	48	1	48	1	48	1	12

Standards

EN 62031
EN 62471

Thermal design and heat sink

The rated life of TALEX products depends to a large extent on the temperature. If the permissible temperature limits are exceeded, the life of the TALEXmodule STRIP P130-2 will be greatly reduced or the TALEXmodule STRIP P130-2 may be destroyed.

Therefore the TALEXmodule STRIP P130-2 needs to be mounted onto a heat sink. However, it is allowed to operate TALEXmodule STRIP P130-2 without heat sink for a short period of time (30 seconds).

Tridonic's excellent thermal design for the TALEXmodule STRIP products provides the lowest thermal resistance and therefore allowing new compact designs without sacrificing quality, safety and life time.

tc point, ambient temperature ta, temperature and service life

The temperature at tc reference point is crucial for the light output and life time of a TALEX product.

For TALEXmodule STRIP P130-2 a max. tc temperature of 75 °C is recommended in order to achieve an optimum between heat sink requirements, light output and life time.

Compliance with the maximum permissible reference temperature at the tc point must be checked under operating conditions in a thermally stable state. The maximum value must be determined under worst-case conditions for the relevant application.

Heat sink characteristics

TALEXmodule STRIP P130-2

ta	tc	Rth, hs-a
0 °C	70 °C	25.2 K/W
10 °C	70 °C	21.6 K/W
20 °C	70 °C	18.0 K/W
30 °C	70 °C	14.4 K/W
40 °C	70 °C	10.8 K/W

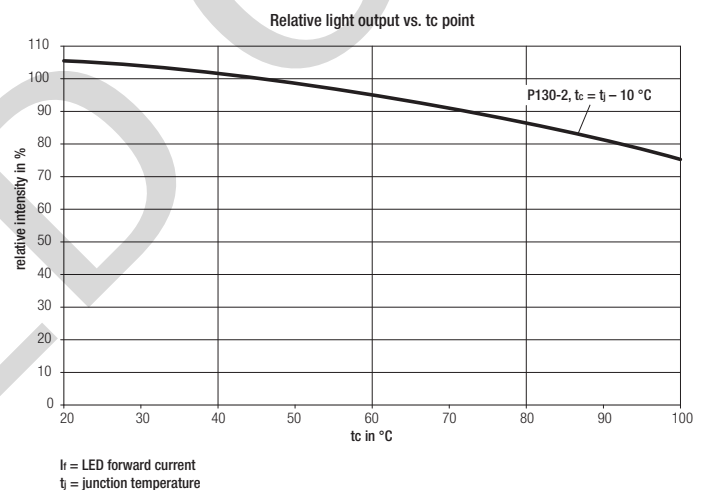
Notes

Above values are guidelines based on natural convection, heat sink material: aluminium ≥ 1 mm thick,

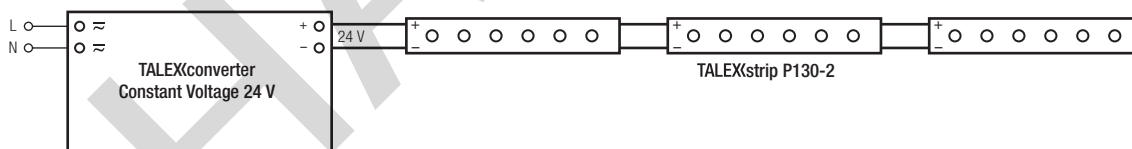
Rth, hs-a = required thermal resistance of heat sink

The actual required heat sink surface need to be corrected according to the actually measured temperature at tc.

Thermal behaviour



Wiring example



Chaining:
P130-2 → max. 15 pieces

Mounting instruction



TALEXmodule STRIP from Tridonic which have to be installed on a heat sink are equipped as standard with thermally conductive adhesive tape on the back of the pc board.

These TALEX products must be installed with this adhesive tape. To ensure permanent adhesion the fixing/cooling surface must be cleaned before installing the TALEX modules to remove all dirt, dust and grease.

The contact adhesion surface must have a surface energy of at least 38 mNm. The contact pressure must be at least 10 kg/cm² (ideally: 40 kg/cm²) for at least 3 seconds.

Processing must take place at an ambient temperature of 23 +/- 5°C. A dwell time of 24 hours is required after adhesion.

To avoid damaging the modules during processing you must not touch the components or the glob top. A suitable tool must be used.

For more information please call or email your Tridonic contact.



Chemical substance may harm the LED module. Chemical reactions could lead to colour shift, reduced luminous flux or a total failure of the module caused by corrosion of electrical connections.

Materials which are used in LED applications (e.g. sealings, adhesives) must not produce dissolver gas. They must not be condensation curing based, acetate curing based or contain sulfur, chlorine or phthalate. Avoid corrosive atmosphere during usage and storage.



EOS/ESD safety guidelines

The device / module contains components that are sensitive to electrostatic discharge and may only be installed in the factory and on site if appropriate EOS/ESD protection measures have been taken. No special measures need be taken for devices/modules with enclosed casings (contact with the pc board not possible), just normal installation practice. Please note the requirements set out in the document EOS / ESD guidelines (Guideline_EOS_ESD.pdf) at: <http://www.tridonic.com/com/en/technical-data.asp>

Electrical supply/choice of LED control gear

TALEXmodule EOS from Tridonic are not protected against overvoltages, overcurrents, overloads or short-circuit currents. Safe and reliable operation can only be guaranteed in conjunction with a LED control gear which complies with the relevant standards. The use of TALEXconverter from Tridonic in combination with TALEXmodule EOS guarantees the necessary protection for safe and reliable operation.

If a LED control gear other than Tridonic TALEXconverter is used, it must provide the following protection:

- SELV
- Short-circuit protection
- Overload protection
- Overtemperature protection

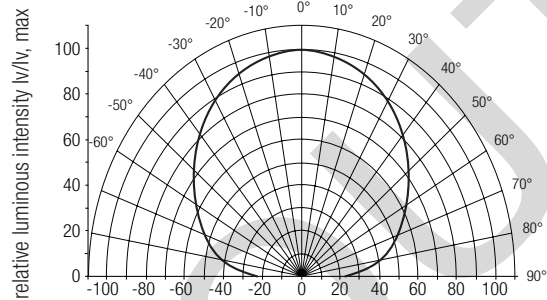


TALEXmodule STRIP P130-2 must be supplied by a constant current LED control gear. Operation with a constant voltage LED control gear will lead to an irreversible damage of the module. The TALEXmodule STRIP P130-2 are protected against reversed polarity.

Optical characteristics TALEXmodule STRIP P130-2

The optical design of the TALEXmodule STRIP lens system ensures an optimum of homogeneity for the light distribution.

Light distribution



The diagrams based on statistic values. The real values can be different.

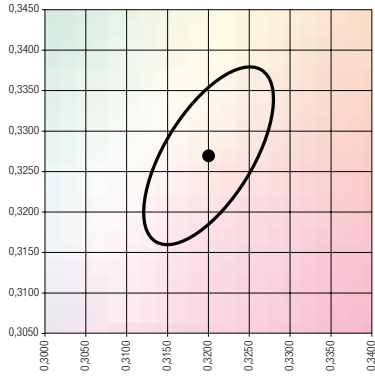
Light colour	lv _{max.} (cd)
Warm white (WW)	21
Neutral white (NW)	24
Daylight white (DL)	29
Red (R)	
Green (G)	
Blue (B)	

For further information see Design-in Guide, 3D data and photometric data on www.tridonic.com or on request.

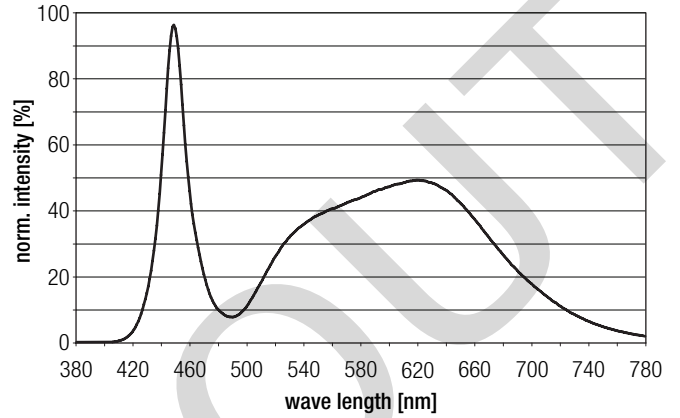
Coordinates and tolerances according to CIE 1964

6,500 K

	x0	y0
Centre	0.3200	0.3270

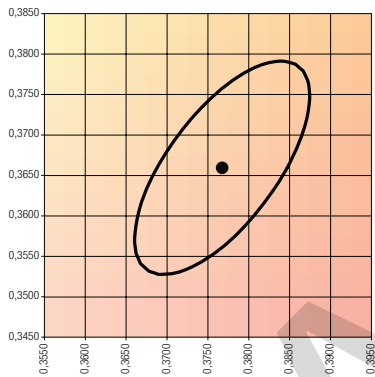


MacAdam ellipse: 5SDCM

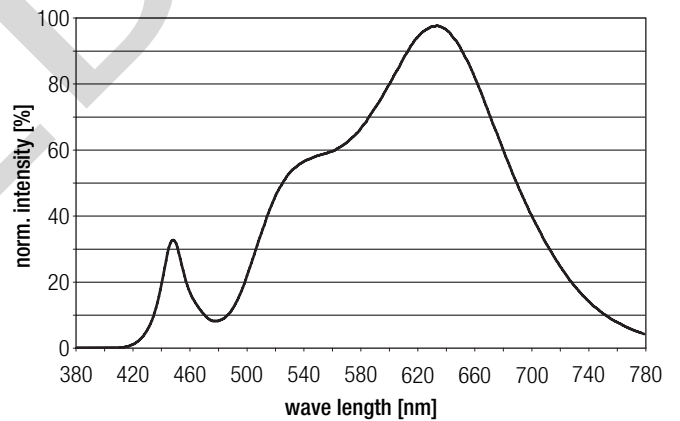


4,200 K

	x0	y0
Centre	0.3770	0.3660

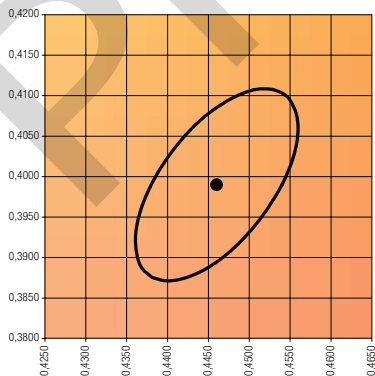


MacAdam ellipse: 5SDCM

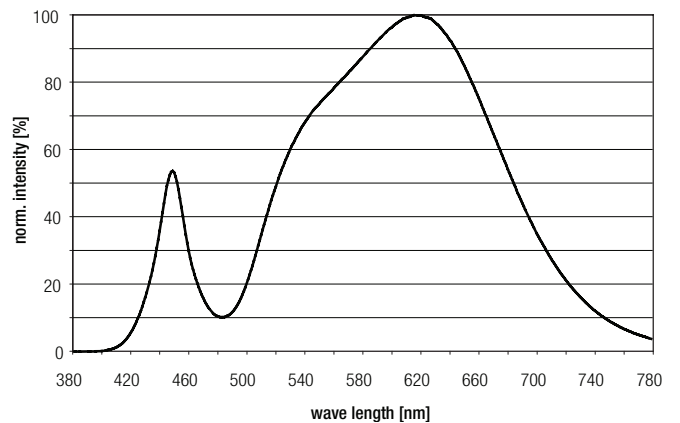


3,000 K

	x0	y0
Centre	0.4460	0.3990

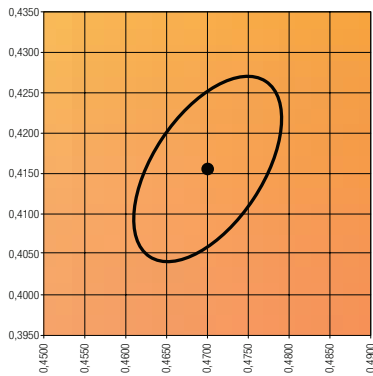


MacAdam ellipse: 5SDCM

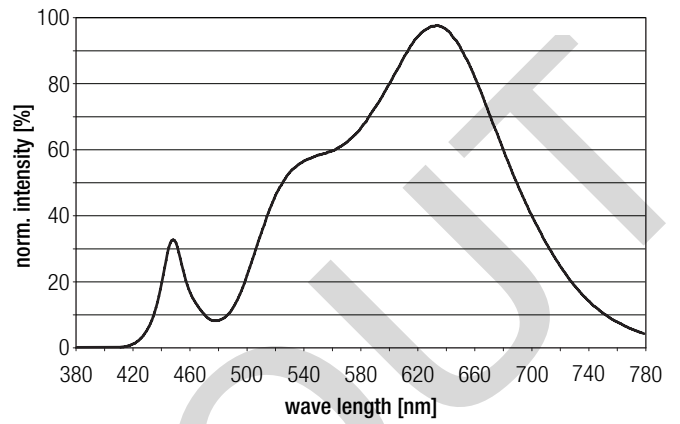


Gold

	x0	y0
Centre	0.3630	0.3070

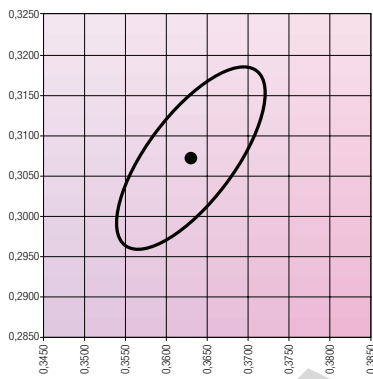


MacAdam ellipse: 5SDCM

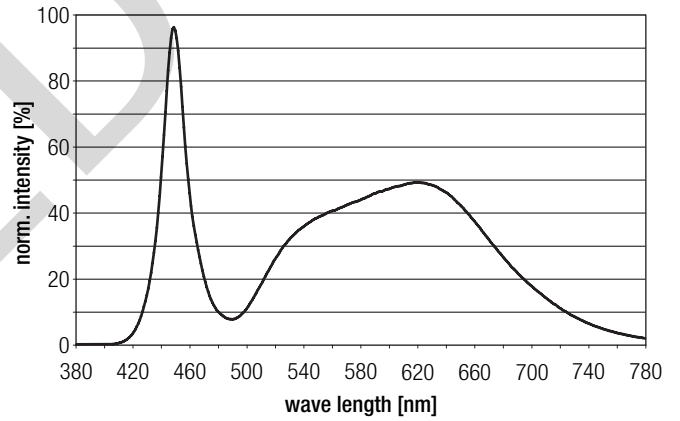


Cool meat

	x0	y0
Centre	0.4700	0.4160

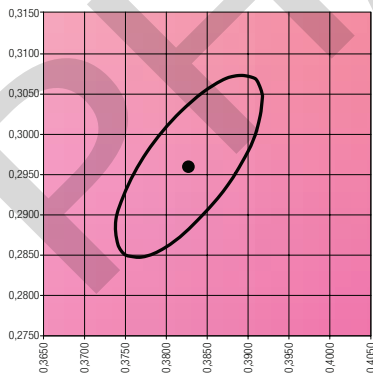


MacAdam ellipse: 5SDCM



Cool meat +

	x0	y0
Centre	0.3827	0.2960



MacAdam Ellipse: 5SDCM

