



CANOPY | Sense Line



Refrigeration & Freezer equipment



Canopy lighting



High efficiency



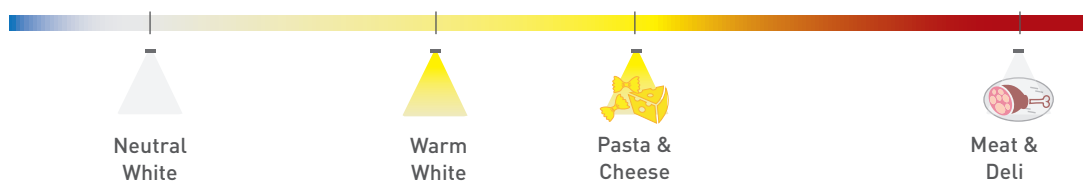
CINCH
Cinch-Connection-System

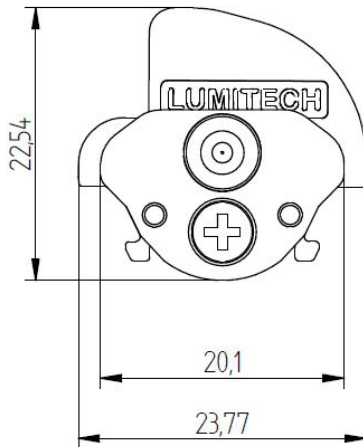


Dimmable



Various lengths





PRODUCT DESCRIPTION

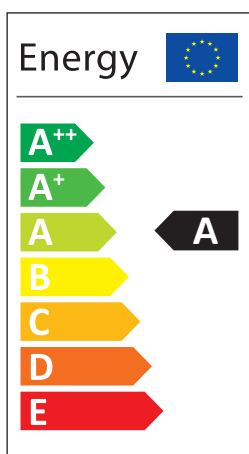
- High efficient canopy lighting for cooling and freezer shelves
- Available in a variety of light colours and can be matched to specific food types
- Ready-to-connect solution available, thanks to our Cinch Connection System
- High operational performance due to directional lighting, integrated heat removal and highly efficient LEDs
- Excellent product illumination thanks to the combination of SMD LEDs and innovative optics
- Avoids glare and reflections
- Safe-use operation due safety extra-low voltage (SELV)
- Simple installation with application of fixing plates
- Heat sink profile made of anodised, extruded aluminium
- LED modules protected against moisture & dust by Conformal coating
- End caps made of PBT
- Linear lenses made of PMMA
- Dimming capability

TECHNICAL DATA

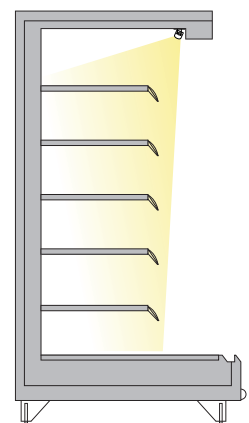
Supply voltage	24 VDC
Ambient temperature t_a	-30 ... +30 °C
Max. surface temperature on profile t_c	60 °C
Type of protection	IP44
Protection class	III
Risk group (EN 62471:2008)	1

IP44

ENERGY CLASS



APPLICATION



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TECHNICAL DATA | ORDER DATA

Art. Nr.	Type	Colour	No. of modules	Luminous flux (lm)	Power (W)	CRI
91440098	Sense-Line Canopy 910mm, 4000K CRI90, 12W, CLW8DY	Neutral White	6	1240	11,4	≥90
91440099	Sense-Line Canopy 910mm, 3000K CRI90, 12W, CLW8DY	Warm White	6	1080	11,4	≥90
91440100	Sense-Line Canopy 910mm, 2700K CRI90, 12W, CLW8DY	Pasta & Cheese	6	1030	11,4	≥90
91440101	Sense-Line Canopy 910mm, Meat CRI90, 12W, CLW8DY	Meat & Deli	6	970	11,4	≥90
91440102	Sense-Line Canopy 910mm, 4000K CRI90, 15W, HO, CLW8DY	Neutral White	6	1550	15,0	≥90
91440103	Sense-Line Canopy 910mm, 3000K CRI90, 15W, HO, CLW8DY	Warm White	6	1350	15,0	≥90
91440104	Sense-Line Canopy 910mm, 2700K CRI90, 15W, HO, CLW8DY	Pasta & Cheese	6	1280	15,0	≥90
91440105	Sense-Line Canopy 910mm, Meat CRI90, 15W, HO, CLW8DY	Meat & Deli	6	1210	15,0	≥90
91440106	Sense-Line Canopy 1200mm, 4000K CRI90, 16W, CLW8DY	Neutral White	8	1660	15,2	≥90
91440107	Sense-Line Canopy 1200mm, 3000K CRI90, 16W, CLW8DY	Warm White	8	1440	15,2	≥90
91440108	Sense-Line Canopy 1200mm, 2700K CRI90, 16W, CLW8DY	Pasta & Cheese	8	1370	15,2	≥90
91440109	Sense-Line Canopy 1200mm, Meat CRI90, 16W, CLW8DY	Meat & Deli	8	1300	15,2	≥90
91440110	Sense-Line Canopy 1200mm, 4000K CRI90, 20W, HO, CLW8DY	Neutral White	8	2070	20,0	≥90
91440111	Sense-Line Canopy 1200mm, 3000K CRI90, 20W, HO, CLW8DY	Warm White	8	1800	20,0	≥90
91440112	Sense-Line Canopy 1200mm, 2700K CRI90, 20W, HO, CLW8DY	Pasta & Cheese	8	1710	20,0	≥90
91440113	Sense-Line Canopy 1200mm, Meat CRI90, 20W, HO, CLW8DY	Meat & Deli	8	1620	20,0	≥90
91440114	Sense-Line Canopy 1760mm, 4000K CRI90, 23W, CLW8DY	Neutral White	12	2480	22,8	≥90
91440115	Sense-Line Canopy 1760mm, 3000K CRI90, 23W, CLW8DY	Warm White	12	2160	22,8	≥90
91440116	Sense-Line Canopy 1760mm, 2700K CRI90, 23W, CLW8DY	Pasta & Cheese	12	2050	22,8	≥90
91440117	Sense-Line Canopy 1760mm, Meat CRI90, 23W, CLW8DY	Meat & Deli	12	1940	22,8	≥90
91440118	Sense-Line Canopy 1760mm, 4000K CRI90, 30W, HO, CLW8DY	Neutral White	12	3100	30,0	≥90
91440119	Sense-Line Canopy 1760mm, 3000K CRI90, 30W, HO, CLW8DY	Warm White	12	2690	30,0	≥90
91440120	Sense-Line Canopy 1760mm, 2700K CRI90, 30W, HO, CLW8DY	Pasta & Cheese	12	2560	30,0	≥90
91440121	Sense-Line Canopy 1760mm, Meat CRI90, 30W, HO, CLW8DY	Meat & Deli	12	2420	30,0	≥90

Packaging: 12 pieces/carton, 360 pieces/pallet

- All typical values for Ta=25°C +/- 2°C, setting time =200ms
- Luminous flux min. value = typ. value - 20%
- Tolerance mechanical dimensions +/- 1mm
- Tolerance electrical data +/- 15%
- Tolerance optical data +/-10%

CONVERTER

Output voltage	24VDC +10 %
Power converter	= sum of the typical individual power of the light engines + 20%
Chain length (luminaires)	120mA: max 21 modules 100mA: max 24 modules 80mA: max 28 modules 60mA: max 33 modules 40mA: max 40 modules

Selection of the operating device/protective functions

The operating device protects the modules against overvoltage, overcurrent, overload and short circuits. The device must comply with the relevant standards for safe operation in freezer and refrigeration equipment. Power supply units must ensure the following protective measures:

- SELV
- Short-circuit protection
- Overload protection
- Overtemperature protection
- Protection against environmental influences

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ACCESSORY - MOUNT | FIXING PLATES

Type	METAL 0°	METAL 0° magnetic	METAL 30°	METAL 45°	METAL adjustable	METAL adjustable magnetic
Art. Nr.	88167376	88167382	88167378	88167379	88167384	88167385



CINCH | FEEDER



- Feeder cable for connecting a linear LED engine to a converter via Cinch

ORDERING DATA - Feeder

Length	Weight	Type	Art. Nr.
3.000mm	85g	LED Feeder straight CINCH 3000	89601602
4.000mm	102g	LED Feeder angled CINCH 4000	89601603

RoHS

CINCH | BRIDGE



- Bridge for connecting two linear LED engines via Cinch

ORDERING DATA - Bridge

Length	Weight	Type	Art. Nr.
120 mm	6g	LED Bridge straight CINCH 120	89601604
250 mm	10g	LED Bridge straight CINCH 250	89601607

RoHS

CINCH | DIRECT CONNECTOR



- Direct Connection of two linear LED engines via Cinch

ORDERING DATA - Direct Connector

Length	Weight	Type	Art. Nr.
4,5mm	80g	LED Bridge CINCH direct connector (100 pcs per pack)	89601606

RoHS

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■ ■ ■ CINCH | PROTECTION PLUG



- Protection Plug for Cinch Endcaps on LED-Luminaires

■ ■ ■ ORDERING DATA – Protection Plug

Type	Art. Nr.
LED PROTECTION PLUG CINCH black (100 pcs per pack)	88167416
RoHS	

■ ■ ■ CINCH | SEALING RING



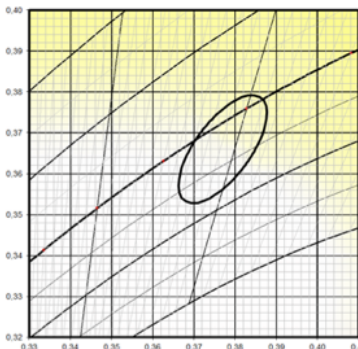
- Additional sealing ring for connectors at Feeder, Bridge & Direct Connector

■ ■ ■ BESTELLDATEN – End Cap

Type	Art. Nr.
LED SEALING RING CINCH black (100 pcs per pack)	88167417
RoHS	

■ ■ ■ COORDINATES AND TOLERANCES ACCORDING TO CIE 1964 - DATA REFERS ONLY TO LED MODULES WITHOUT COVER

Neutral White



CIE coordinates

Neutral White 3950K

	x0	y0
Centre	0,3770	0,3660
MacAdam Ellipse: 3SDCM		

Suitable, e.g., for dairy products and frozen products

Pasta & Cheese



CIE coordinates

Pasta & Cheese 2660K

	x0	y0
Centre	0,4750	0,4160
MacAdam Ellipse: 3SDCM		

Special colour for pasta & cheese

Warm White



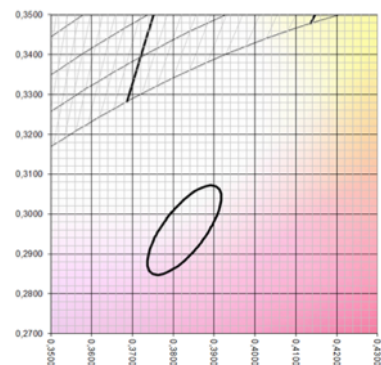
CIE coordinates

Warm White 2800K

	x0	y0
Centre	0,4480	0,3990
MacAdam Ellipse: 3SDCM		

Suitable, e.g., for vegetables, fruit and wine

Meat & Deli



CIE coordinates

Meat & Deli

	x0	y0
Centre	0,3830	0,3060
MacAdam Ellipse: 3SDCM		

Special colour for meat and deli

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COLOUR KEY

Code	CW	NW	WW	PC	BP	PM
Colour	Cool White	Neutral White	Warm White	Pasta & Cheese	Bread & Pastries	Meat & Deli
CCT	5000K	4000K	3000K	2700K	2400K	special colour

LIFETIME

50.000h (L70 B10)

STANDARDS

- EN 60598-1
- EN 60598-2-1
- EN 62031
- EN 62471
- EN 60335-2-89 ANNEX BB

THERMAL BEHAVIOUR

Operating temperature (operation, no defects)	ta	-30 ... +30 °C
Storage temperature	ts	-30 ... +60 °C
Temperature cooling profile ¹²	tc	-30 ... +60 °C

¹ Values apply to operation at 100% output, natural convection.

² If the maximum temperature limits are exceeded, the lifetime of the module will be greatly reduced or the module may be destroyed. The tc point temperature at the profile of the light engine should be measured in the thermally stable state and under operating conditions by means of a temperature sensor or temperature-sensitive sticker (available for example from conrad.com or rs-components.com) in accordance with EN60598-1. The entire profile can be used as the tc point.



Note

- Installation should only be conducted by a licensed electrician.
- Reversing the polarity can damage the product!
- Make sure the converter has been switched off prior to connecting the light engine. If this is not observed, the light engine may be damaged!
- Connection or operation is only permitted when using the specified converters. Higher voltages result in damage to or failure of the light engine.
- The user is responsible for correct selection of illumination intensity. Excessive illumination intensity may lead to greying or colour changes of displayed products.