

CANOPY | Bright Line



Refrigeration & Freezer equipment



Canopy lighting



High efficiency



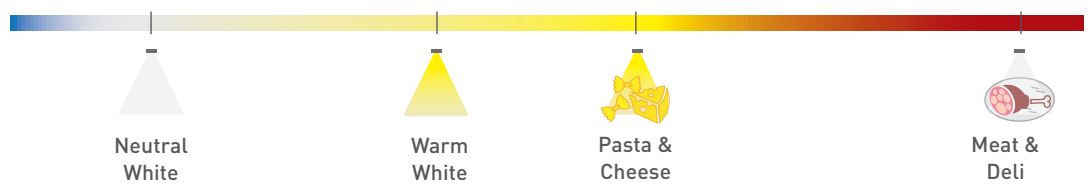
QCS
Quick-Connection-System



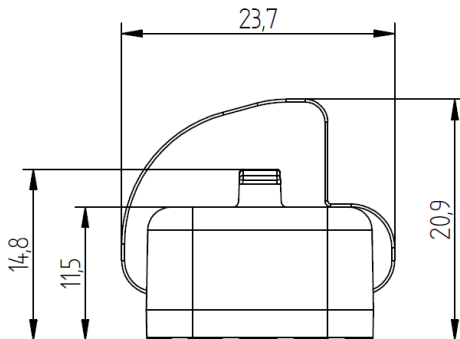
Dimmable



Various lengths



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PRODUCT DESCRIPTION

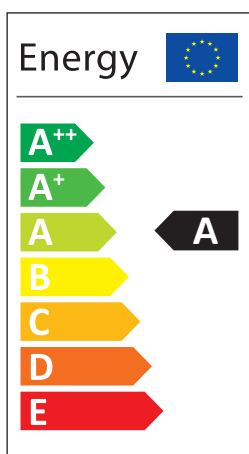
- High efficient canopy lighting for cooling and freezer shelves
- Available in a variety of light colours and can be matched to specific food types
- Ready-to-connect solution available, thanks to our Quick Connection System (QCS)
- High operational performance due to directional lighting, integrated heat removal and highly efficient LEDs
- Excellent product illumination thanks to the combination of SMD LEDs and innovative optics
- 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

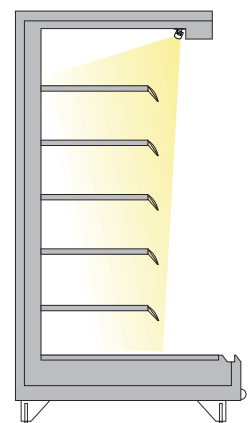
Supply voltage	24 VDC
Ambient temperature t_a	-30 ... +30 °C
Max. surface temperature on profile t_c	60 °C
Type of protection	IP20
Protection class	III
Risk group (EN 62471:2008)	1

IP20

ENERGY CLASS



APPLICATION



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TECHNICAL DATA | ORDER DATA

Art. Nr.	Type	Colour	No. of modules	Luminous flux (lm)	Power (W)	CRI
91420000	Bright-Line Canopy 910mm, 4000K CRI90, 12W, CLW8Q	NW	6	1240	11,4	≥90
91420001	Bright-Line Canopy 910mm, 3000K CRI90, 12W, CLW8Q	WW	6	1080	11,4	≥90
91420002	Bright-Line Canopy 910mm, 2700K CRI90, 12W, CLW8Q	PC	6	1030	11,4	≥90
91420003	Bright-Line Canopy 910mm, Meat CRI90, 12W, CLW8Q	PM	6	970	11,4	≥90
91420004	Bright-Line Canopy 910mm, 4000K CRI90, 15W, HO, CLW8Q	NW	6	1550	15,0	≥90
91420005	Bright-Line Canopy 910mm, 3000K CRI90, 15W, HO, CLW8Q	WW	6	1350	15,0	≥90
91420006	Bright-Line Canopy 910mm, 2700K CRI90, 15W, HO, CLW8Q	PC	6	1280	15,0	≥90
91420007	Bright-Line Canopy 910mm, Meat CRI90, 15W, HO, CLW8Q	PM	6	1210	15,0	≥90
91420008	Bright-Line Canopy 1200mm, 4000K CRI90, 16W, CLW8Q	NW	8	1660	15,2	≥90
91420009	Bright-Line Canopy 1200mm, 3000K CRI90, 16W, CLW8Q	WW	8	1440	15,2	≥90
91420010	Bright-Line Canopy 1200mm, 2700K CRI90, 16W, CLW8Q	PC	8	1370	15,2	≥90
91420011	Bright-Line Canopy 1200mm, Meat CRI90, 16W, CLW8Q	PM	8	1300	15,2	≥90
91420012	Bright-Line Canopy 1200mm, 4000K CRI90, 20W, HO, CLW8Q	NW	8	2070	20,0	≥90
91420013	Bright-Line Canopy 1200mm, 3000K CRI90, 20W, HO, CLW8Q	WW	8	1800	20,0	≥90
91420014	Bright-Line Canopy 1200mm, 2700K CRI90, 20W, HO, CLW8Q	PC	8	1710	20,0	≥90
91420015	Bright-Line Canopy 1200mm, Meat CRI90, 20W, HO, CLW8Q	PM	8	1620	20,0	≥90
91420016	Bright-Line Canopy 1760mm, 4000K CRI90, 23W, CLW8Q	NW	12	2480	22,8	≥90
91420017	Bright-Line Canopy 1760mm, 3000K CRI90, 23W, CLW8Q	WW	12	2160	22,8	≥90
91420018	Bright-Line Canopy 1760mm, 2700K CRI90, 23W, CLW8Q	PC	12	2050	22,8	≥90
91420019	Bright-Line Canopy 1760mm, Meat CRI90, 23W, CLW8Q	PM	12	1940	22,8	≥90
91420020	Bright-Line Canopy 1760mm, 4000K CRI90, 30W, HO, CLW8Q	NW	12	3100	30,0	≥90
91420021	Bright-Line Canopy 1760mm, 3000K CRI90, 30W, HO, CLW8Q	WW	12	2690	30,0	≥90
91420022	Bright-Line Canopy 1760mm, 2700K CRI90, 30W, HO, CLW8Q	PC	12	2560	30,0	≥90
91420023	Bright-Line Canopy 1760mm, Meat CRI90, 30W, HO, CLW8Q	PM	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	24 VDC +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

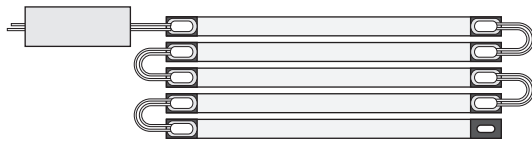
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ACCESSORY - MOUNT | FIXING PLATES

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



QUICK-CONNECTION-SYSTEM (QCS) | BRIDGES



- Bridge for connecting two linear LED engines via QCS
- Bridge for connecting a linear LED engine to a feeder link via QCS

ORDER DATA - Bridges

Length	Weight	Type	Art. Nr.
30 mm	0.004 kg	LED Bridge QCS 30 **	89601262
50 mm	0.004 kg	LED Bridge QCS 50 **	89601263
100 mm	0.005 kg	LED Bridge QCS 100 **	89601264
250 mm	0.007 kg	LED Bridge QCS 250 **	89601265
400 mm	0.009 kg	LED Bridge QCS 400 **	89601266
800 mm	0.016 kg	LED Bridge QCS 800 **	89601267
1,200 mm	0.022 kg	LED Bridge QCS 1200 *	89601268
2,000 mm	0.034 kg	LED Bridge QCS 2000 *	89601269

Packaging: * 25 pieces/carton, 400 pieces/pallet | ** 50 pieces/carton, 800 pieces/pallet
Also available in black.

QUICK-CONNECTION-SYSTEM (QCS) | FEEDER CABLE



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

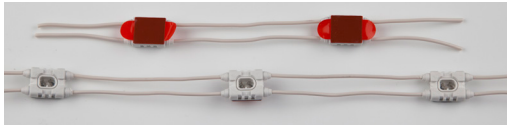
ORDER DATA - Feeder Cable

Length	Weight	Type	Art. Nr.
500 mm	0.009 kg	LED Feeder QCS 500 **	89601258
1,000 mm	0.017 kg	LED Feeder QCS 1000 **	89601259
1,500 mm	0.025 kg	LED Feeder QCS 1500 *	89601260
2,000 mm	0.033 kg	LED Feeder QCS 2000 *	89601261
4,000 mm	0.065 kg	LED Feeder QCS 4000 ***	89601601

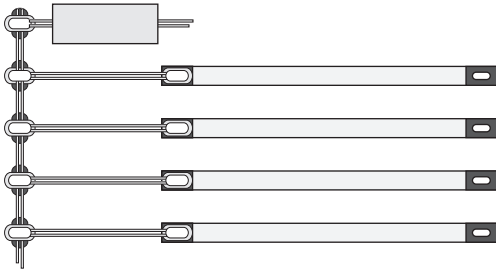
Packaging: * 25 pieces/carton, 400 pieces/pallet | ** 50 pieces/carton, 800 pieces/pallet | *** 10 pieces/carton
Also available in black.

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QUICK-CONNECTION-SYSTEM (QCS) | FEEDER LINK



- Flexible feeder link for connecting several linear LED engines to a converter
- Slots equipped with double-sided adhesive tape



ORDER DATA - Feeder Link

Length	Spacing	Type	Art. Nr.
10m	108 mm	LED Feeder Link QCS	8811762

Packaging: 1 roll corresponds to 10m with 92 slots

QCS | PROTECTION SET



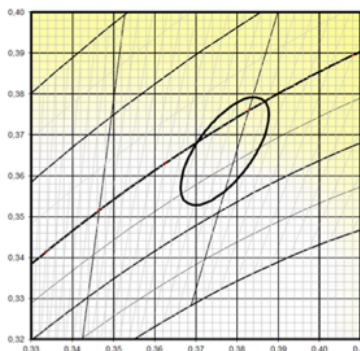
- Cover to protect QCS connectors

ORDERING DATA - Protection Set

Type	Packaging	Art. Nr.
LED PROTECTION QCS BLIND CAP	1 bag (holds 100 pieces)	88167414
LED PROTECTION QCS END CAP	1 bag (holds 50 pieces)	88167415

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

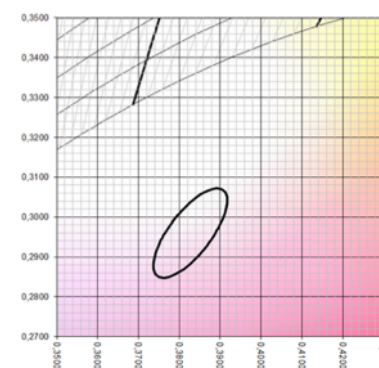
Warm White 2800K

	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.