



DOOR FREEZER | Bright Line



Freezer equipment



Central door lighting



Lateral door lighting



High efficiency



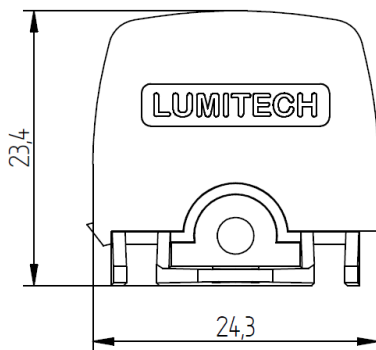
Dimmable



Ready to connect solution



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PRODUCT DESCRIPTION

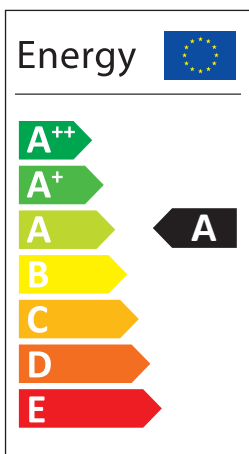
- High efficient, extra slim lighting for freezer equipment doors
- Available in a variety of light colours and can be matched to specific food types
- Ready-to-connect solution
- High operational performance due to directional lighting, integrated heat removal and highly efficient LEDs
- Excellent product illumination thanks to the combination of SMD LEDs and innovative optics
- Safe-use operation due safety extra-low voltage (SELV)
- Simple installation with endcaps or fixing plates (optional also tape)
- Heat sink profile made of anodised, extruded aluminium
- LED modules protected against moisture & dust by Conformal coating
- Length of connecting cable 2,4 m
- End caps made of PBT
- Linear lenses made of PMMA
- Dimming capability

TECHNICAL DATA

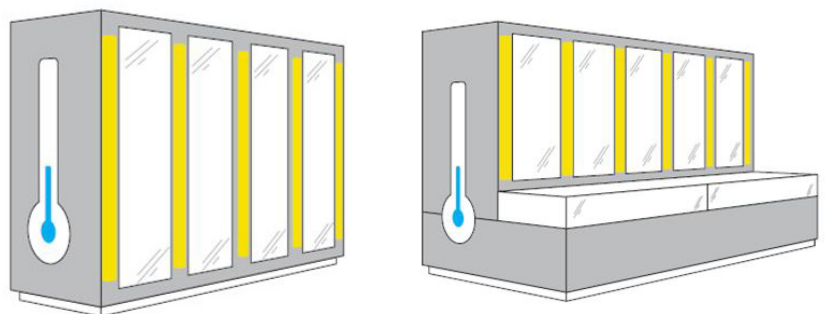
Supply voltage	24 VDC
Ambient temperature t_a	-30 ... +30 °C
Max. surface temperature on profile t_c	60 °C
Type of protection	IP44
Protection class	III
Risk group [EN 62471:2008]	1

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
91420106	Bright-Line Door Freezer 910mm, 5000K CRI90, 6W, C2400, SED-8 C	CW	6	640	6,0	≥90
91420107	Bright-Line Door Freezer 910mm, 5000K CRI90, 6W, C2400, SED-8 L	CW	6	500	6,0	≥90
91420108	Bright-Line Door Freezer 910mm, 5000K CRI90, 6W, C2400, SED-8 R	CW	6	500	6,0	≥90
91420109	Bright-Line Door Freezer 910mm, 4000K CRI90, 6W, C2400, SED-8 C	NW	6	670	6,0	≥90
91420110	Bright-Line Door Freezer 910mm, 4000K CRI90, 6W, C2400, SED-8 L	NW	6	520	6,0	≥90
91420111	Bright-Line Door Freezer 910mm, 4000K CRI90, 6W, C2400, SED-8 R	NW	6	520	6,0	≥90
91420112	Bright-Line Door Freezer 1500mm, 5000K CRI90, 10W, C2400, SED-8 C	CW	10	1060	10,0	≥90
91420113	Bright-Line Door Freezer 1500mm, 5000K CRI90, 10W, C2400, SED-8 L	CW	10	830	10,0	≥90
91420114	Bright-Line Door Freezer 1500mm, 5000K CRI90, 10W, C2400, SED-8 R	CW	10	830	10,0	≥90
91420115	Bright-Line Door Freezer 1500mm, 4000K CRI90, 10W, C2400, SED-8 C	NW	10	1110	10,0	≥90
91420116	Bright-Line Door Freezer 1500mm, 4000K CRI90, 10W, C2400, SED-8 L	NW	10	870	10,0	≥90
91420117	Bright-Line Door Freezer 1500mm, 4000K CRI90, 10W, C2400, SED-8 R	NW	10	870	10,0	≥90
91420118	Bright-Line Door Freezer 1650mm, 5000K CRI90, 11W, C2400, SED-8 C	CW	11	1170	11,0	≥90
91420119	Bright-Line Door Freezer 1650mm, 5000K CRI90, 11W, C2400, SED-8 L	CW	11	910	11,0	≥90
91420120	Bright-Line Door Freezer 1650mm, 5000K CRI90, 11W, C2400, SED-8 R	CW	11	910	11,0	≥90
91420121	Bright-Line Door Freezer 1650mm, 4000K CRI90, 11W, C2400, SED-8 C	NW	11	1220	11,0	≥90
91420122	Bright-Line Door Freezer 1650mm, 4000K CRI90, 11W, C2400, SED-8 L	NW	11	960	11,0	≥90
91420123	Bright-Line Door Freezer 1650mm, 4000K CRI90, 11W, C2400, SED-8 R	NW	11	960	11,0	≥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

ACCESSORY - MOUNT | FIXING PLATES

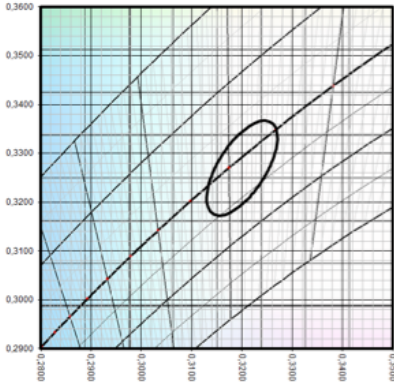
Type	METAL 0°
Art. Nr.	88167376



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

Cool White

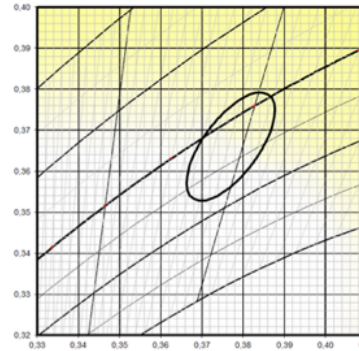


CIE coordinates
Cool White 4900K

	x0	y0
Centre	0,3478	0,3535
MacAdam Ellipse:	3SDCM	

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

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

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)

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.

STANDARDS

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



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.