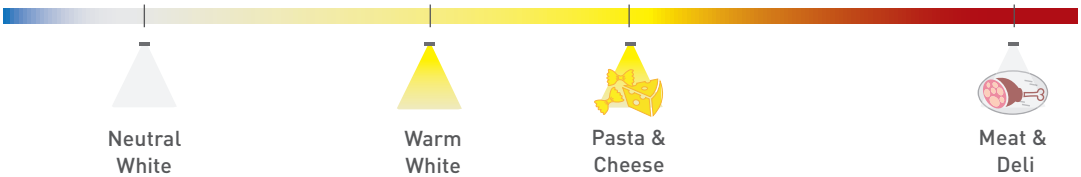
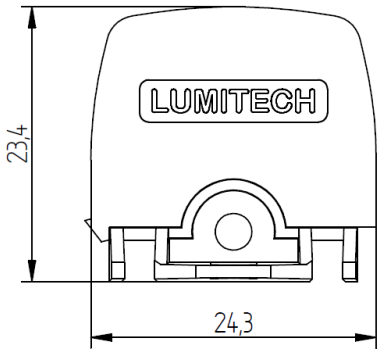
LUMITECH

DOOR COOLER | Bright Line

- Refrigeration equipment
- Central door lighting
- Lateral door lighting
- High efficiency
- Dimmable
- Ready to connect solution



DOOR COOLER | Bright Line



PRODUCT DESCRIPTION

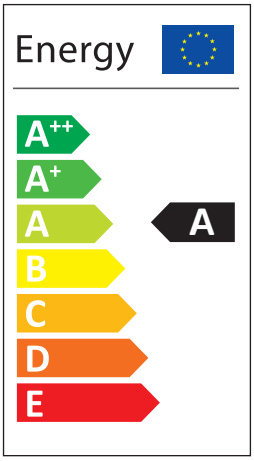
- High efficient, extra slim lighting for refrigeration equipment doors
- Available in a variety of light colours and can be matched to specific food types
- Ready-to-connect solution
- High operational performance due to directional lighting, integrated heat removal and highly efficient LEDs
- Excellent 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

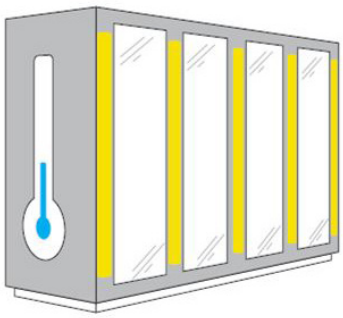
Supply voltage	24 VDC
Ambient temperature ta	-30 ... +30 °C
Max. surface temperature on profile tc	60 °C
Type of protection	IP44
Protection class	III
Risk group (EN 62471:2008)	1

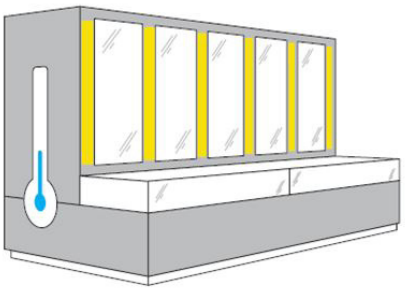
IP44 RoHS

ENERGY CLASS



APPLICATION





DOOR COOLER | Bright Line

TECHNICAL DATA | ORDER DATA

Art. Nr.	Type	Colour	No. of modules	Luminous flux (lm)	Power (W)	CRI
91420070	Bright-Line Door Cooler 1250mm, 4000K CRI90, 16W, C2400, SED-8 C	NW	8	1700	15,2	≥90
91420071	Bright-Line Door Cooler 1250mm, 4000K CRI90, 8W, C2400, SED-8 L	NW	8	700	8,0	≥90
91420072	Bright-Line Door Cooler 1250mm, 4000K CRI90, 8W, C2400, SED-8 R	NW	8	700	8,0	≥90
91420073	Bright-Line Door Cooler 1250mm, 3000K CRI90, 16W, C2400, SED-8 C	WW	8	1470	15,2	≥90
91420074	Bright-Line Door Cooler 1250mm, 3000K CRI90, 8W, C2400, SED-8 L	WW	8	610	8,0	≥90
91420075	Bright-Line Door Cooler 1250mm, 3000K CRI90, 8W, C2400, SED-8 R	WW	8	610	8,0	≥90
91420076	Bright-Line Door Cooler 1250mm, 2700K CRI90, 16W, C2400, SED-8 C	PC	8	1400	15,2	≥90
91420077	Bright-Line Door Cooler 1250mm, 2700K CRI90, 8W, C2400, SED-8 L	PC	8	580	8,0	≥90
91420078	Bright-Line Door Cooler 1250mm, 2700K CRI90, 8W, C2400, SED-8 R	PC	8	580	8,0	≥90
91420079	Bright-Line Door Cooler 1250mm, Meat CRI90, 16W, C2400, SED-8 C	PM	8	1330	15,2	≥90
91420080	Bright-Line Door Cooler 1250mm, Meat CRI90, 8W, C2400, SED-8 L	PM	8	550	8,0	≥90
91420081	Bright-Line Door Cooler 1250mm, Meat CRI90, 8W, C2400, SED-8 R	PM	8	550	8,0	≥90
91420082	Bright-Line Door Cooler 1500mm, 4000K CRI90, 19W, C2400, SED-8 C	NW	10	2120	19,0	≥90
91420083	Bright-Line Door Cooler 1500mm, 4000K CRI90, 10W, C2400, SED-8 L	NW	10	870	10,0	≥90
91420084	Bright-Line Door Cooler 1500mm, 4000K CRI90, 10W, C2400, SED-8 R	NW	10	870	10,0	≥90
91420085	Bright-Line Door Cooler 1500mm, 3000K CRI90, 19W, C2400, SED-8 C	WW	10	1840	19,0	≥90
91420086	Bright-Line Door Cooler 1500mm, 3000K CRI90, 10W, C2400, SED-8 L	WW	10	760	10,0	≥90
91420087	Bright-Line Door Cooler 1500mm, 3000K CRI90, 10W, C2400, SED-8 R	WW	10	760	10,0	≥90
91420088	Bright-Line Door Cooler 1500mm, 2700K CRI90, 19W, C2400, SED-8 C	PC	10	1750	19,0	≥90
91420089	Bright-Line Door Cooler 1500mm, 2700K CRI90, 10W, C2400, SED-8 L	PC	10	720	10,0	≥90
91420090	Bright-Line Door Cooler 1500mm, 2700K CRI90, 10W, C2400, SED-8 R	PC	10	720	10,0	≥90
91420091	Bright-Line Door Cooler 1500mm, Meat CRI90, 19W, C2400, SED-8 C	PM	10	1660	19,0	≥90
91420092	Bright-Line Door Cooler 1500mm, Meat CRI90, 10W, C2400, SED-8 L	PM	10	680	10,0	≥90
91420093	Bright-Line Door Cooler 1500mm, Meat CRI90, 10W, C2400, SED-8 R	PM	10	680	10,0	≥90
91420094	Bright-Line Door Cooler 1650mm, 4000K CRI90, 21W, C2400, SED-8 C	NW	11	2330	20,9	≥90
91420095	Bright-Line Door Cooler 1650mm, 4000K CRI90, 11W, C2400, SED-8 L	NW	11	960	11,0	≥90
91420096	Bright-Line Door Cooler 1650mm, 4000K CRI90, 11W, C2400, SED-8 R	NW	11	960	11,0	≥90
91420097	Bright-Line Door Cooler 1650mm, 3000K CRI90, 21W, C2400, SED-8 C	WW	11	2030	20,9	≥90
91420098	Bright-Line Door Cooler 1650mm, 3000K CRI90, 11W, C2400, SED-8 L	WW	11	840	11,0	≥90
91420099	Bright-Line Door Cooler 1650mm, 3000K CRI90, 11W, C2400, SED-8 R	WW	11	840	11,0	≥90
91420100	Bright-Line Door Cooler 1650mm, 2700K CRI90, 21W, C2400, SED-8 C	PC	11	1930	20,9	≥90
91420101	Bright-Line Door Cooler 1650mm, 2700K CRI90, 11W, C2400, SED-8 L	PC	11	790	11,0	≥90
91420102	Bright-Line Door Cooler 1650mm, 2700K CRI90, 11W, C2400, SED-8 R	PC	11	790	11,0	≥90
91420103	Bright-Line Door Cooler 1650mm, Meat CRI90, 21W, C2400, SED-8 C	PM	11	1830	20,9	≥90
91420104	Bright-Line Door Cooler 1650mm, Meat CRI90, 11W, C2400, SED-8 L	PM	11	750	11,0	≥90
91420105	Bright-Line Door Cooler 1650mm, Meat CRI90, 11W, C2400, SED-8 R	PM	11	750	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

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

Neutral White

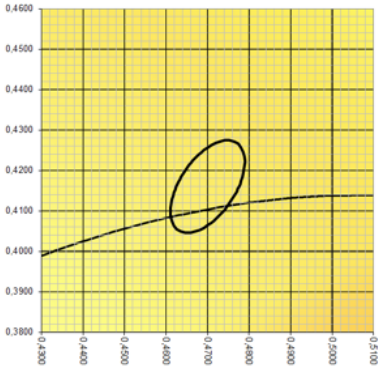
CIE coordinates

Neutral White 3950K

	x0	y0
Centre	0.3770	0.3660
MacAdam Ellipse: 3SDCM		

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

Pasta & Cheese



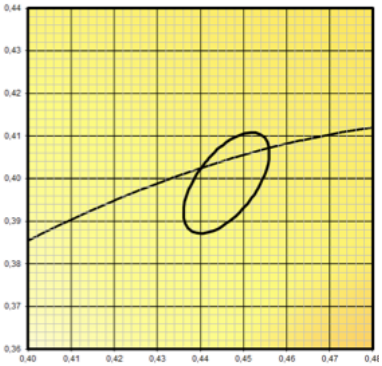
CIE coordinates

Pasta & Cheese 2660K

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

Special colour for pasta & cheese

Warm White



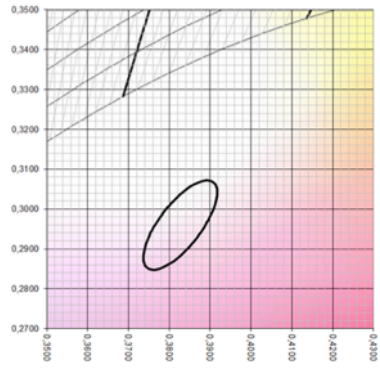
CIE coordinates

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

DOOR COOLER | Bright Line

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.