

Counter Lighting

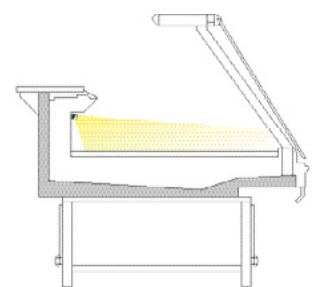
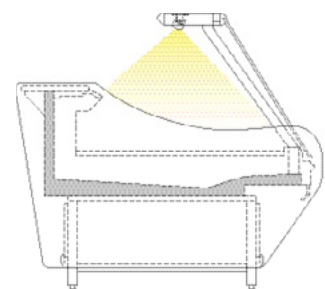
REFRIGERATORS & FREEZERS LUMINAIRES

FEATURES & BENEFITS

- Efficient lighting for counters and cabinets
- 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

APPLICATION

Grocery & Supermarkets freezers and refrigerators .
Other specialized uses for narrow enclosures.



SPECIFICATIONS

Supply voltage	24V DC
Ambient temperature t_a	-30 ... +30 °C
Max. surface temperature on profile t_c	60 °C
Type of protection	IP 20
Protection class	III
Risk group (EN 62471:2008)	1
CRI	≥90

SKU SPECIFICATIONS

Article Number	Description	Length (mm)	Nr. of modules	Luminous flux light engine (lm)	Power (W)	CCT
91420040	Bright-Line Counter 910mm, 4000K CRI90, 15W, COF8Q	910	6	1780	15,0	NW
91420041	Bright-Line Counter 910mm, 3000K CRI90, 15W, COF8Q	910	6	1550	15,0	WW
91420042	Bright-Line Counter 910mm, 2700K CRI90, 15W, COF8Q	910	6	1470	15,0	PC
91420043	Bright-Line Counter 910mm, 2400K CRI90, 15W, COF8Q	910	6	1400	15,0	BP
91420044	Bright-Line Counter 910mm, Meat CRI90, 15W, COF8Q	910	6	1400	15,0	PM
91420045	Bright-Line Counter 910mm, 4000K CRI90, 15W, COW8Q	910	6	1450	15,0	NW
91420046	Bright-Line Counter 910mm, 3000K CRI90, 15W, COW8Q	910	6	1260	15,0	WW
91420047	Bright-Line Counter 910mm, 2700K CRI90, 15W, COW8Q	910	6	1200	15,0	PC
91420048	Bright-Line Counter 910mm, 2400K CRI90, 15W, COW8Q	910	6	1140	15,0	BP
91420049	Bright-Line Counter 910mm, Meat CRI90, 15W, COW8Q	910	6	1140	15,0	PM
91420050	Bright-Line Counter 1200mm, 4000K CRI90, 20W, COF8Q	1200	8	2370	20,0	NW
91420051	Bright-Line Counter 1200mm, 3000K CRI90, 20W, COF8Q	1200	8	2070	20,0	WW
91420052	Bright-Line Counter 1200mm, 2700K CRI90, 20W, COF8Q	1200	8	1960	20,0	PC
91420053	Bright-Line Counter 1200mm, 2400K CRI90, 20W, COF8Q	1200	8	1860	20,0	BP
91420054	Bright-Line Counter 1200mm, Meat CRI90, 20W, COF8Q	1200	8	1860	20,0	PM
91420055	Bright-Line Counter 1200mm, 4000K CRI90, 20W, COW8Q	1200	8	1940	20,0	NW
91420056	Bright-Line Counter 1200mm, 3000K CRI90, 20W, COW8Q	1200	8	1680	20,0	WW
91420057	Bright-Line Counter 1200mm, 2700K CRI90, 20W, COW8Q	1200	8	1600	20,0	PC
91420058	Bright-Line Counter 1200mm, 2400K CRI90, 20W, COW8Q	1200	8	1520	20,0	BP
91420059	Bright-Line Counter 1200mm, Meat CRI90, 20W, COW8Q	1200	8	1520	20,0	PM

* All typical values for $T_a=25^{\circ}\text{C} \pm 2^{\circ}\text{C}$, setting time =200ms

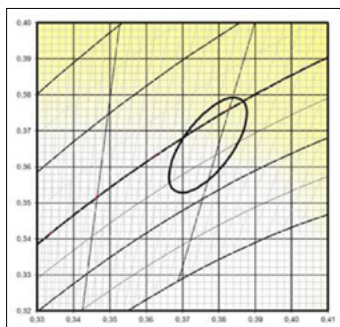
* Luminous flux min. value = typ. value - 20%

* Tolerance mechanical dimensions +/- 1mm

* Tolerance electrical data +/- 15%

* Tolerance optical data +/-10%

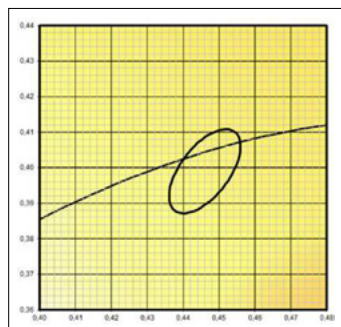
COORDINATES AND TOLERANCES ACCORDING TO CIE 1964



CIE - Coordinates

Neutral white 3950K

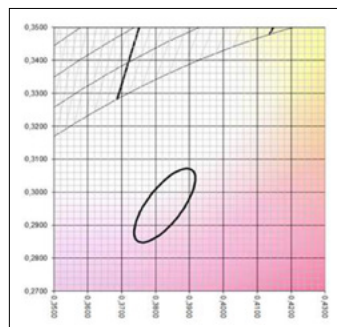
	x0	y0
Center point	0.3770	0.3660
MacAdam ellipse	3SDCM	



CIE - Coordinates

Warm white 2800K

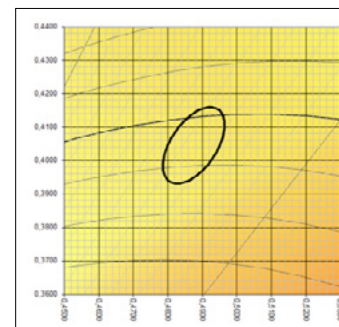
	x0	y0
Center point	0.4480	0.3990
MacAdam ellipse	3SDCM	



CIE - Coordinates

Meat & Deli

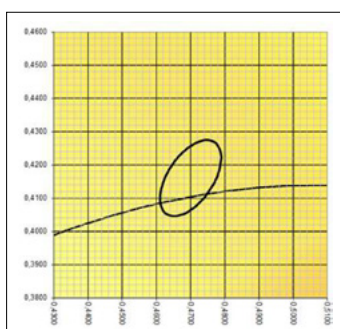
	x0	y0
Center point	0.3890	0.3030
MacAdam ellipse	3SDCM	



CIE - Coordinates

Bread & Pastries 2350K

	x0	y0
Center point	0.4880	0.4020
MacAdam ellipse	3SDCM	



CIE - Coordinates

Pasta & Cheese 2660K

	x0	y0
Center point	0.4750	0.4160
MacAdam ellipse	3SDCM	

OPTICAL PROPERTIES

Lifetime

tc _{LED} temperature in °C	Luminous flux in %	Lifetime in h
0	70	50000
	80	30000
25	70	47000
	80	29000
45	70	45000
	80	28000

Standards

- *EN 60598-1
- *EN 60598-2-1
- *EN 62031
- *EN 62471

Thermal Behavior

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

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

*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 should be measured in the thermally stable state and under operating conditions by means of a temperature sensor or temperature sensitive sticker in accordance with EN60598 - 1. The entire profile can be used as the tc point.