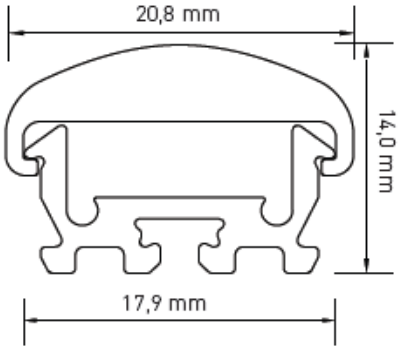
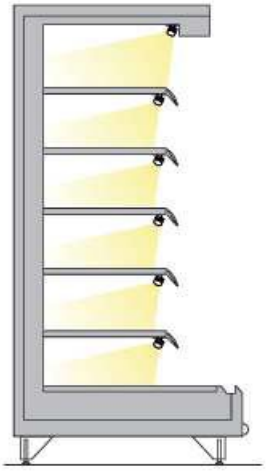


Undershelf Lighting

REFRIGERATORS & FREEZERS LUMINAIRES

FEATURES & BENEFITS

- Undershelf lighting for shelves of refrigerated cabinets
- Available in various temperature colors
- Plug & Play solution with the Quick Connection System (QCS)
- High efficiency due directional lighting, integrated heat removal and highly efficient LED's
- Excellent product lighting thanks to the combination of SMD LED´s and different optics
- Safe use due safety extra-low voltage (SELV)
- Simple installation with fixing plates
- Cooling profile made of anodised, extruded aluminium
- LED modules protected against moisture & dust by sealing with varnish
- Linear lenses made of PMMA with 90° frosted lens (90F)
- Dimmable



APPLICATION

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

SPECIFICATIONS

Supply voltage	24V DC
Ambient temperature ta	-30 ... +30 ˚C
Max. surface temeprature on profile tc	60 ˚C
Type of protection	IP 20
Protection class	III
Risk group (EN 62471:2008)	1
CRI	90, 95

SKU SPECIFICATIONS

Article Number	Description	Current (mA)	Length (mm)	Nr. of modules	Luminous flux light engine (lm)	Power (W)	CCT
90101110	LED LE180 NW 1L10-1 24V/80mA 90F8QY	80	180	1	170	1.9	95
90101355	LED LE450 NW 2L10-1 24V/100mA 90F8QY	100	450	2	420	4.8	95
90101055	LED LE475 PM 2L10-1 24V/80mA 90F8QY	80	475	2	280	3.8	90
90100957	LED LE475 WW 2L10-1 24V/80mA 90F8QY	80	475	2	280	3.8	95
90101477	LED LE570 NW 2L10-1 24V/100mA 90F8QY	100	570	2	420	4.8	95
90100981	LED LE850 PM 4L10-1 24V/80mA 90F8QY	80	850	4	560	7.7	90
90100958	LED LE850 WW 4L10-1 24V/80mA 90F8QY	80	850	4	560	7.7	95
90100894	LED LE900 PM 4L10-1 24V/80mA 90F8QY	80	900	4	670	7.7	95
90100907	LED LE900 NW 4L10-1 24V/80mA 90F8QY	80	900	4	560	7.7	90
90100913	LED LE900 PC 4L10-1 24V/80mA 90F8QY	80	900	4	560	7.7	95
90100925	LED LE900 WW 4L10-1 24V/80mA 90F8QY	80	900	4	535	7.7	95
90101575	LED LE900 NW 4L10-1 24V/100mA 90F8QY	100	900	4	830	9.6	95
90100959	LED LE1000 WW 4L10-1 24V/80mA 90F8QY	100	1000	4	830	9.6	95
90101431	LED LE1000 NW 4L10-1 24V/100mA 90F8QY	80	1000	4	560	7.7	95
90100895	LED LE1200 PM 5L10-1 24V/80mA 90F8QY	80	1200	5	830	9.6	95
90100908	LED LE1200 NW 5L10-1 24V/80mA 90F8QY	80	1200	5	690	9.6	90
90100914	LED LE1200 PC 5L10-1 24V/80mA 90F8QY	80	1200	5	690	9.6	95
90100926	LED LE1200 WW 5L10-1 24V/80mA 90F8QY	80	1200	5	670	9.6	95
90100953	LED LE1200 NW 5L10-1 24V/100mA 90F8QY	100	1200	5	1040	12.0	95

**All typical values for Ta=25°C +/- 2°C, setting time =200ms*

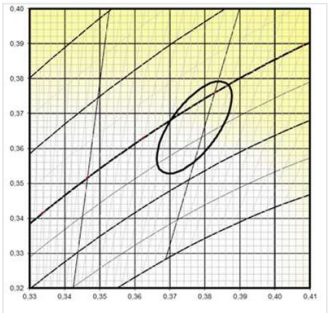
**Luminous flux min. value = typ. value – 20%*

**Tolerance mechanical dimensions +/- 1mm*

**Tolerance electrical data +/- 15%*

**Tolerance optical data +/-10%*

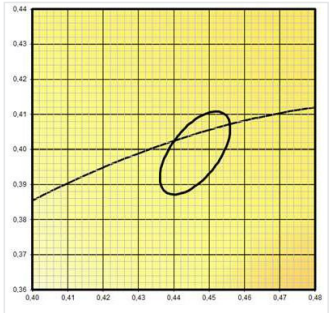
COORDINATES AND TOLERANCES ACCORDING TO CIE 1964



CIE - Coordinates

Neutral white 4200K

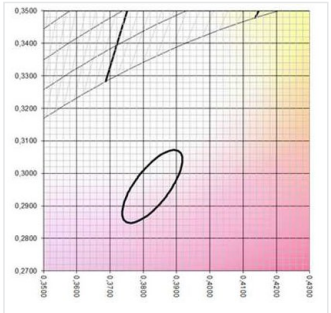
	x0	y0
Center point	0.3770	0.3660
MacAdam ellipse	5SDCM	



CIE - Coordinates

Warm white 3000K

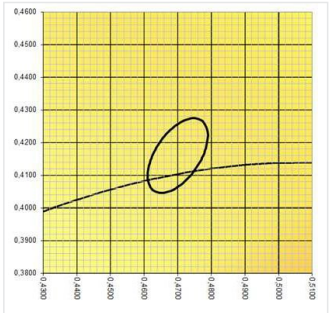
	x0	y0
Center point	0.4460	0.3990
MacAdam ellipse	5SDCM	



CIE - Coordinates

Packed Meat

	x0	y0
Center point	0.3827	0.2960
MacAdam ellipse	5SDCM	



CIE - Coordinates

Pasta & Cheese 2700K

	x0	y0
Center point	0.4700	0.4160
MacAdam ellipse	5SDCM	

OPTICAL PROPERTIES

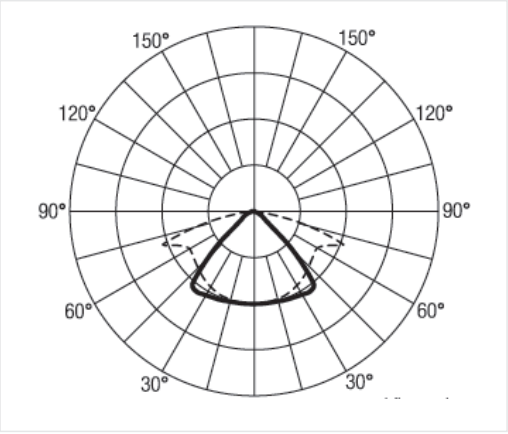
Lifetime tc_{LED} temperature in ˚C	Luminous flux in %	Lifetime in h
0	70	50000
	80	30000
25	70	47000
	80	29000
45	70	45000
	80	28000

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

Standards

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

Light distribution curve 90° lens



** 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.*