HORIZONTAL LIGHTING | Sense Line GenX+

Cooler & Freezer cabinets, Dry shelves

Plug & Play Cinch-Connection-System

Canopy Lighting

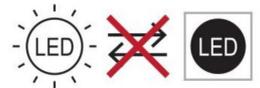**Shelf Lighting**

Counter Lighting

Handrail Lighting

Neutral White

Warm White

Meat & Deli

▎▎ PRODUCT DESCRIPTION

- High efficient lighting
- Ready-to-connect solution available, thanks to Cinch Connection System
- High operational performance due to directional lighting & integrated heat dissipation
- Excellent product illumination thanks to the combination of SMD LEDs and innovative optics
- Safe-use operation due to safety extra-low voltage (SELV)
- Simple installation with application of fixing plates
- Optional blinds are available
- Heat sink profile made of extruded LowCarbon-Aluminium
- LED modules protected against moisture & dust by conformal coating
- End caps made of PBT
- Linear lenses made of polycarbonate (GWT up to 850°C)
- Dimming capability
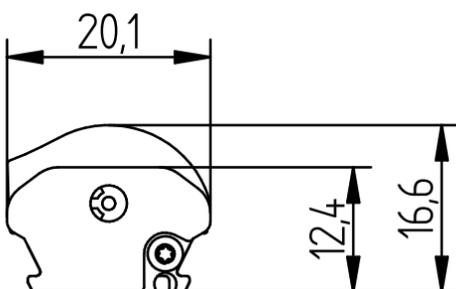- Suitable for use with the Lumitech Power Line (e.g. multideck)

▎▎ TECHNICAL DATA

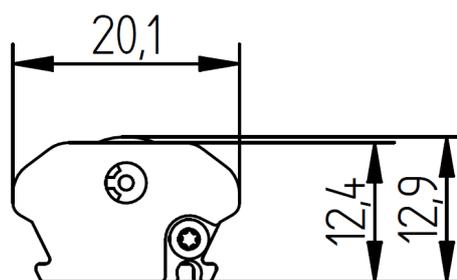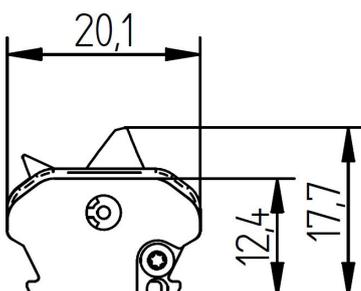|	
Supply voltage	24 VDC
Ambient temperature ta	-30 ... +30 °C
Max. surface temperature on profile tc	60 °C
Type of protection	IP54 (only with „PROTECTION KIT")
Protection class	III
Risk group (EN 62471:2008)	0

CE RoHS 11 c UL US LISTED

▎▎ DIMENSIONS

CANOPY LIGHTING - ASC

20,1
12,4
16,6

SHELF & COUNTER LIGHTING - COS

20,1
12,4
12,9

HANDRAIL LIGHTING - ASH

20,1
12,4
17,7

LUMITECH
YOUR LIGHTING SOLUTION

▮▮ TECHNICAL DATA | ORDER DATA

Art. No.	Type	Length	Light colour	No. of LED modules	Luminous flux [lm]	Power [W]	Efficiency [lm/W]	CRI	EEC light source
Canopy Lighting (HE & HO)									
91451000	LED LE890 NW 6L14-XHD2 24V/33mA ASC8DY	890mm	4000K	6	770	4,8	160	92	C
91451001	LED LE890 WW 6L14-XHD2 24V/33mA ASC8DY	890mm	3000K	6	750	4,8	156	92	D
91451002	LED LE890 PM 6L14-XHD1 24V/33mA ASC8DY	890mm	Meat	6	620	4,8	129	88	E
91451003	LED LE1170 NW 8L14-XHD2 24V/33mA ASC8DY	1170mm	4000K	8	1020	6,4	159	92	C
91451004	LED LE1170 WW 8L14-XHD2 24V/33mA ASC8DY	1170mm	3000K	8	990	6,4	155	92	D
91451005	LED LE1170 PM 8L14-XHD1 24V/33mA ASC8DY	1170mm	Meat	8	830	6,4	130	88	E
91451006	LED LE1731 NW 12L14-XHD2 24V/33mA ASC8DY	1731mm	4000K	12	1530	9,6	159	92	C
91451007	LED LE1731 WW 12L14-XHD2 24V/33mA ASC8DY	1731mm	3000K	12	1490	9,6	155	92	D
91451008	LED LE1731 PM 12L14-XHD1 24V/33mA ASC8DY	1731mm	Meat	12	1240	9,6	129	88	E
91451009	LED LE890 NW 6L14-XHD2 24V/60mA ASC8DY	890mm	4000K	6	1370	9,0	152	92	C
91451010	LED LE890 WW 6L14-XHD2 24V/60mA ASC8DY	890mm	3000K	6	1330	9,0	148	92	D
91451011	LED LE890 PM 6L14-XHD1 24V/60mA ASC8DY	890mm	Meat	6	1110	9,0	123	88	E
91451012	LED LE1170 NW 8L14-XHD2 24V/60mA ASC8DY	1170mm	4000K	8	1830	12,0	153	92	C
91451013	LED LE1170 WW 8L14-XHD2 24V/60mA ASC8DY	1170mm	3000K	8	1770	12,0	148	92	D
91451014	LED LE1170 PM 8L14-XHD1 24V/60mA ASC8DY	1170mm	Meat	8	1480	12,0	123	88	E
91451015	LED LE1731 NW 12L14-XHD2 24V/60mA ASC8DY	1731mm	4000K	12	2740	18,0	152	92	C
91451016	LED LE1731 WW 12L14-XHD2 24V/60mA ASC8DY	1731mm	3000K	12	2660	18,0	148	92	D
91451017	LED LE1731 PM 12L14-XHD1 24V/60mA ASC8DY	1731mm	Meat	12	2210	18,0	123	88	E
Shelf Lighting									
91451018	LED LE890 NW 6L14-XHD2 24V/25mA COS8DY	890mm	4000K	6	560	3,6	156	92	C
91451019	LED LE890 WW 6L14-XHD2 24V/25mA COS8DY	890mm	3000K	6	550	3,6	153	92	D
91451020	LED LE890 PM 6L14-XHD1 24V/25mA COS8DY	890mm	Meat	6	450	3,6	125	88	E
91451021	LED LE1170 NW 8L14-XHD2 24V/25mA COS8DY	1170mm	4000K	8	750	4,8	156	92	C
91451022	LED LE1170 WW 8L14-XHD2 24V/25mA COS8DY	1170mm	3000K	8	730	4,8	152	92	D
91451023	LED LE1170 PM 8L14-XHD1 24V/25mA COS8DY	1170mm	Meat	8	600	4,8	125	88	E
Counter Lighting									
91451024	LED LE890 NW 6L14-XHD2 24V/60mA COS8DY	890mm	4000K	6	1370	9,0	152	92	C
91451025	LED LE890 WW 6L14-XHD2 24V/60mA COS8DY	890mm	3000K	6	1330	9,0	148	92	D
91451026	LED LE890 PM 6L14-XHD1 24V/60mA COS8DY	890mm	Meat	6	1110	9,0	123	88	E
91451027	LED LE1170 NW 8L14-XHD2 24V/60mA COS8DY	1170mm	4000K	8	1830	12,0	153	92	C
91451028	LED LE1170 WW 8L14-XHD2 24V/60mA COS8DY	1170mm	3000K	8	1770	12,0	148	92	D
91451029	LED LE1170 PM 8L14-XHD1 24V/60mA COS8DY	1170mm	Meat	8	1480	12,0	123	88	E
Handrail Lighting									
91451030	LED LE1170 CW 8L14-XHD2 24V/60mA ASH8DY	1170mm	5000K	8	1630	12,0	136	92	C
91451031	LED LE1170 NW 8L14-XHD2 24V/60mA ASH8DY	1170mm	4000K	8	1630	12,0	136	92	C
91451032	LED LE1731 CW 12L14-XHD2 24V/60mA ASH8DY	1731mm	5000K	12	2440	18,0	136	92	C
91451033	LED LE1731 NW 12L14-XHD2 24V/60mA ASH8DY	1731mm	4000K	12	2440	18,0	136	92	C

Packaging: 12 pieces/carton, 360 pieces/pallet

*other light colors on request

- Luminous flux min. value = typ. value +/- 15%
- Tolerance mechanical dimensions +/- 1mm
- Tolerance electrical data +/- 15%
- Tolerance optical data +/-15%
- Tolerance min. value CRI +/-2

▮▮ CONVERTER

Output voltage	24 VDC +10 %
Power driver	= sum of the typical individual power of the light engins + 10 %
Chaining length (in series)	max. 50 LED 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 and must be also technically approved by LUMITECH Lighting Solution GmbH. Power supply units must ensure the following protective measures:

- SELV
- Short-circuit protection
- Overload protection
- Overtemperature protection
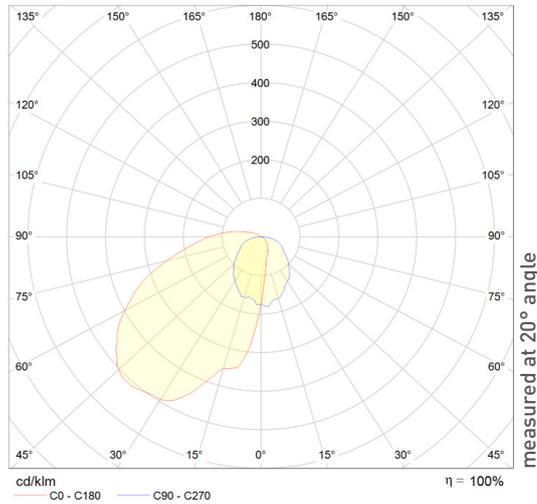- Protection against environmental influences

The luminaires must be operated on 24V constant voltage LED drivers.

Operation on a constant current LED driver will result in irreversible damage to the luminaire.

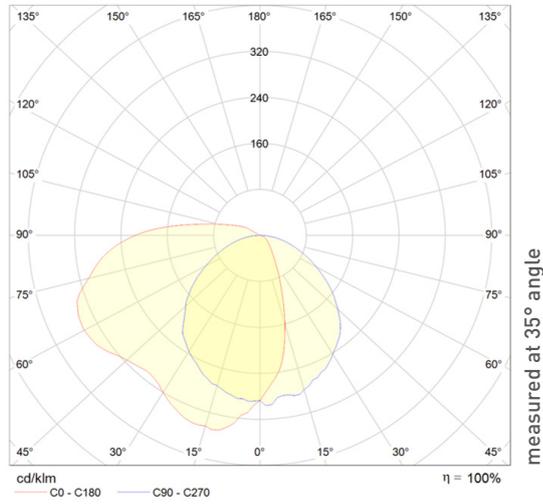Reverse polarity can damage the luminaire.
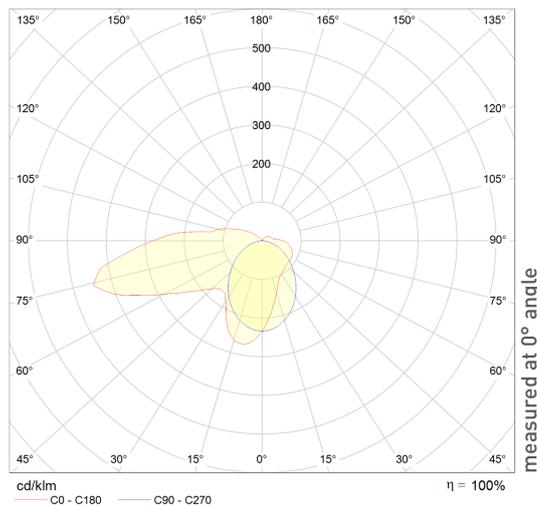
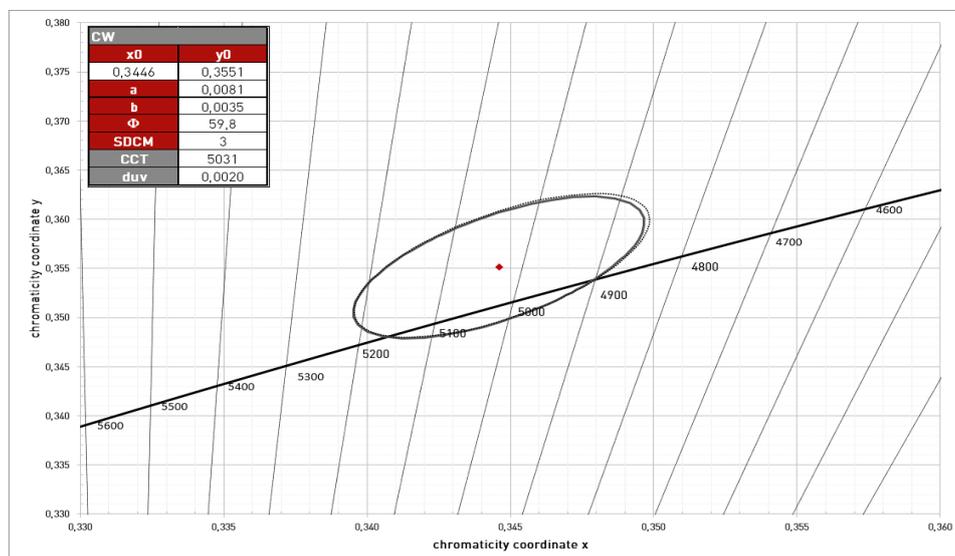## ▌▌ OPTICAL PROPERTIES - LUMINAIRE

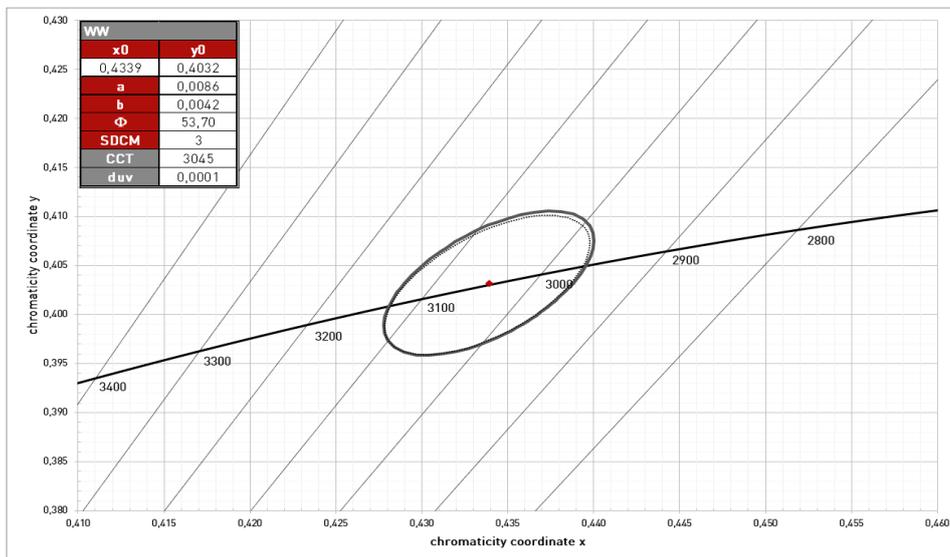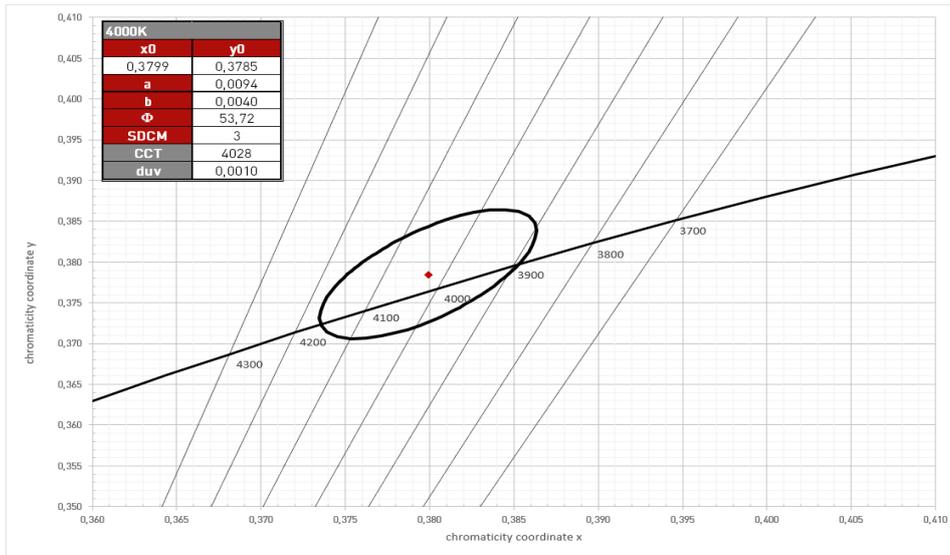### CANOPY LIGHTING - ASC

SHELF & COUNTER LIGHTING - COS

HANDRAIL LIGHTING - ASH

▌▌ COORDINATES AND TOLERANCES (DATA REFERS ONLY TO LED MODULES WITHOUT LENS)

CW	
x0	y0
0,3446	0,3551
a	0,0081
b	0,0035
Φ	59,8
SDCM	3
CCT	5031
duv	0,0020

4000K	
x0	y0
0,3799	0,3785
a	0,0094
b	0,0040
Φ	53,72
SDCM	3
CCT	4028
duv	0,0010

WW	
x0	y0
0,4339	0,4032
a	0,0086
b	0,0042
Φ	53,70
SDCM	3
CCT	3045
duv	0,0001

Packed Meat

Packed Meat (CIE1931)	
x0	y0
0,3838	0,2961
a	0,00834
b	0,00408
Φ	48,0
SDCM	3
CCT	3024
duv	-0,0431

Messkonditionen:	
Messmethode:	integral
Mittelungen:	1
Thermischer Zustand:	kalt – gepulst
Beobachter:	2° - CIE 1931
Einschwingzeit:	3s
Spannungsversorgung:	Labornetzteil

Measurement conditions:	
Measurement method:	integral
Averages:	1
Thermal state:	kalt – gepulst
Observer:	2° - CIE 1931
Settling time:	3s
Power supply:	lab power supply

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

70.000h (L80 B10)

STANDARDS

- EN 60598-1
- EN 60598-2-1
- EN 62031
- EN 62471
- EN 60335-1, EN 60335-2-24, EN 60335-2-89
- Eco Design 2019/2020 (SLR)
- Energy Labelling 2019/2015 (ELR)
- PRP/HACCP (Food Safety)
- RoHS/Reach
- ENEC, UL

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 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.
> - Lumitech¨ accessories must be used. Accessories (e.g. cables) from other manufacturers can lead to failures and damage. The use of these parts will void any warranty claim!
> - Luminaires must not be installed next to a cooling or heating outlet!