

# Ymera



Design : ÅF Lighting



## Aesthetic appeal, comfort and efficiency

The Ymera features a refined design and state-of-the-art LED technology, providing an energy-efficient lighting solution that enhances city streets.

Suited to both roads, public squares and other urban outdoor areas, the Ymera enables high-quality lighting and a lower carbon footprint for towns and cities - creating a safe and attractive environment.

Scandinavian inspired, the Ymera brings elegance to cities through four distinctive versions including an illuminated dome and a decorative skirt.

The Ymera benefits from highly efficient light distributions that are compliant with stringent standards for glare control. This refined luminaire has been specifically developed to reduce disability glare and improve quality of light.



IP 66

IK 09

IK 10



4/10kV



ROADS & MOTORWAYS



URBAN & RESIDENTIAL STREETS



BIKE & PEDESTRIAN PATHS



SQUARES & PEDESTRIAN AREAS



CAR PARKS



BRIDGES



LARGE AREAS



RAILWAY STATIONS & METROS

## Concept

The Ymera range combines the energy efficiency of LED technology with the photometric performance of the LensoFlex®2 and LensoFlex®3 concepts developed by Schröder. Certain available photometric distributions are compliant with G\*4 class requirements to restrict glare and discomfort. Ymera can lower the threshold increment (TI) to less than 6%, ensuring glare free environments.

The Ymera luminaire is composed of an aluminium body sealed with a glass protector. Its accessories include an illuminated dome in diffuse polycarbonate with a high-power LED and a decorative skirt reducing the glare when approaching the luminaire. It creates a true range with four different designs characterised by their distinctive identity. A flux enhancer is available as an option.

The luminaire is delivered with an universal slip-over 60mm fixation piece for both side-entry and post-top (with an aluminium adaptor) mounting. An optional side-entry penetrating fixation piece for a 60mm diameter tube is available to complement the range of installation possibilities. Ymera is also supplied pre-wired to facilitate installation as there is no need to open the luminaire. As an option, the luminaire is deliverable with quick-on IP 68 connectors to accelerate the wiring process.

As an option, Ymera can be equipped with a standard NEMA 7-pin receptacle, enabling easy entry to the digital era of lighting while ensuring compatibility with advanced lighting features that plan, monitor and control outdoor lighting networks.



Ymera includes a universal Ø60mm slip-over fixation piece.



A penetrating fixation piece for a Ø60mm tube is available as an option for flush mounting.



Ymera is available with an illuminated dome (high-power LED) and a decorative skirt.



As an option for more lumen output, a flux enhancer is set around the LEDs.

## Types of application

- Roads and motorways
- Urban and residential streets
- Bike and pedestrian paths
- Squares and pedestrian areas
- Car parks
- Bridges
- Large areas
- Railway stations and metros

## Key advantages

- Elegant and robust design with four aesthetic versions
- State-of-the-art technology for low energy consumption
- Broad range of lighting distributions
- High visual comfort: glare up to G\*4 class, TI <6%
- Designed for side-entry and post-top mounting (depending on accessory)
- Supplied pre-wired to facilitate installation (optional quick-on connectors)
- Designed to incorporate the Owlet range of control solutions

Ymera | basic



Ymera | dome



Ymera | skirt



Ymera | dome+skirt





## LensoFlex®2

LensoFlex®2 is based upon the addition principle of photometric distribution. Each LED is associated with a specific PMMA lens that generates the complete photometric distribution of the luminaire. The number of LEDs in combination with the driving current determines the intensity level of the light distribution.

The proven LensoFlex®2 concept includes a glass protector to seal the LEDs and lenses into the luminaire body.



## LensoFlex®3

LensoFlex®3 uses lenses made of mouldable and optical-grade silicon offering superior transparency and excellent photothermal stability. This withstands high driving currents and delivers maximised lumen output over time.

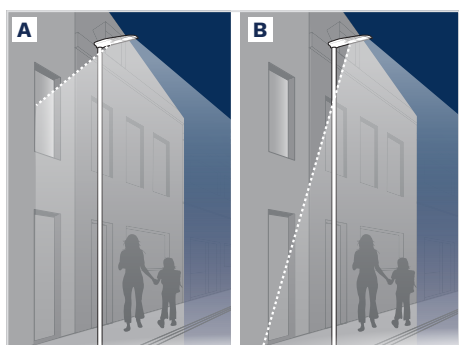
As silicon offers a higher thermal resistance compared to PMMA, temperature is not as critical for LensoFlex®3 engines. This offers two distinct advantages; LensoFlex®3 ensures enhanced performance in warm climates and enables a high driving current to be used to increase the lumen output and a higher lm/kg ratio. It also does not suffer from yellowing over time.



## Back Light control

As an option, the LensoFlex®2 modules can be equipped with a Back Light control system.

This additional feature minimises light spill from the back of the luminaire to avoid intrusive light towards buildings.

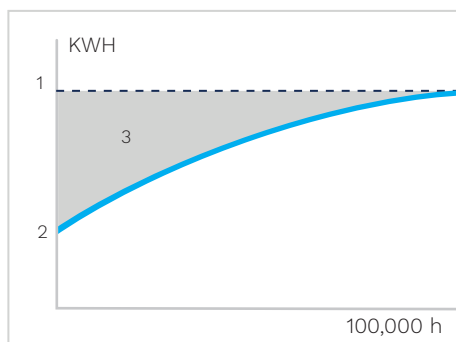


A. Without Back Light control | B. With Back Light control



## Constant Light Output (CLO)

This system compensates for the depreciation of luminous flux to avoid excess lighting at the beginning of the installation's service life. Luminous depreciation over time must be taken into account to ensure a predefined lighting level during the luminaire's useful life. Without a CLO feature, this simply means increasing the initial power upon installation in order to make up for luminous depreciation. By precisely controlling the luminous flux, the energy needed to reach the required level can be maintained throughout the luminaire's life.

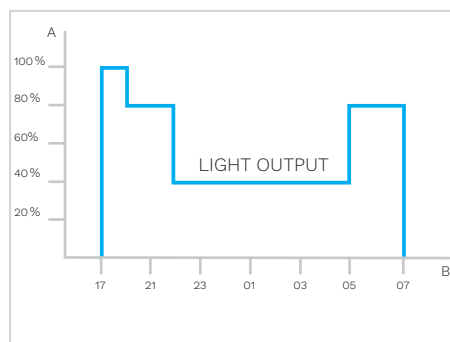


1. Standard lighting level
2. LED lighting consumption with CLO
3. Energy savings



## Custom dimming profile

Intelligent luminaire drivers can be programmed with complex dimming profiles. Up to five combinations of time intervals and light levels are possible. This feature does not require any extra wiring. The period between switching on and switching off is used to activate the preset dimming profile. The customised dimming system generates maximum energy savings while respecting the required lighting levels and uniformity throughout the night.

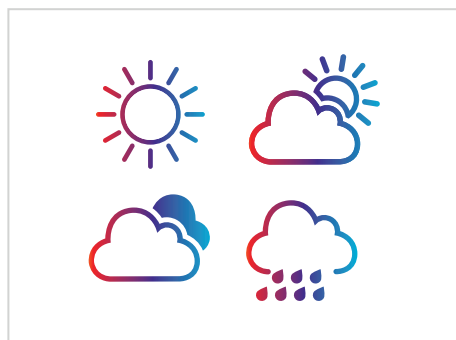


- A. Performance
- B. Time



## Daylight sensor / photocell

Photocell or daylight sensors switch the luminaire on as soon natural light falls to a certain level. It can be programmed to switch on during a storm, on a cloudy day (in critical areas) or only at night fall so as to provide safety and comfort in public spaces.



## PIR sensor: motion detection

In places with little nocturnal activity, lighting can be dimmed to a minimum most of the time. By using passive infrared (PIR) sensors, the level of light can be raised as soon as a pedestrian or a slow vehicle is detected in the area. Each luminaire level can be configured individually with several parameters such as minimum and maximum light output, delay period and ON/OFF duration time. PIR sensors can be used in an autonomous or interoperable network.



## Owlet IoT

Owlet IoT remotely controls luminaires in a lighting network, creating opportunities for improved efficiency, accurate real-time data and energy savings of up to 85%.



Plugging the LUCO P7 CM controller onto the 7-pin NEMA socket

### All-in-one

The LUCO P7 CM controller includes the most advanced features for optimised asset management. It also provides an integrated photocell and operates with an astronomical clock for seasonal dimming profile adaptations.

### Easy to deploy

Thanks to wireless communication, no cabling is needed. The network is not subject to physical constraints or limitations. From a single control unit to an unlimited network, you can expand your lighting scheme at any time. With real-time geolocation and automatic detection of luminaire features, commissioning is quick and easy.

### User-friendly

Once a controller is installed on a luminaire, the luminaire automatically appears with its GPS coordinates on a web-based map. An easy-to-use dashboard enables each user to organise and customise screens, statistics and reports. Users can gain relevant, real-time insights.

The Owlet IoT web application can be accessed at all times from anywhere in the world with a device connected to the Internet. The application adapts to the device to offer an intuitive and user-friendly experience.

Real-time notifications can be pre-programmed to monitor the most important elements of the lighting scheme.

### Secure

The Owlet IoT system uses a local wireless mesh communication networks to control the on-site luminaires combined with a remote control system utilising the cloud to ensure smooth data transfers to and from the central management system.

The system uses encrypted IP V6 communication to protect data transmission in both directions. Using a secure APN, Owlet IoT ensures a high level of protection.

In the exceptional case of a communication failure, the built-in astronomical clock and photocell will take over to switch the luminaires on and off, thus avoiding a complete blackout at night.

### Efficient

Thanks to sensors and/or pre-programmed settings, lighting scenarios can be easily adapted to cope with live events, providing the right lighting levels at the right time and in the right place.

The integrated utility grade meter offers the highest accuracy available on the market today, enabling decisions based on real figures. Accurate real-time feedback and clear reporting ensures that the network operates efficiently and maintenance is optimised.

When LED luminaires are switched on, the inrush current can create problems for the electricity grid. Owlet IoT incorporates an algorithm to preserve the grid at all times.

### Open

The LUCO P7 CM controller can be plugged onto the standard 7 pin NEMA socket and operates through either a DALI or 1-10V interface to control the luminaire.

Owlet IoT is based on the IPv6 protocol. This method for addressing devices can generate an almost unlimited number of unique combinations to connect non-traditional components to the Internet or computer network.

Through open APIs, Owlet IoT can be integrated into existing or future global management systems.



With the Dome or Dome+Skirt version of Ymera, a POHO device – with or without an integrated PIR sensor – will be necessary to plug the LUCO P7 CM.

## GENERAL INFORMATION

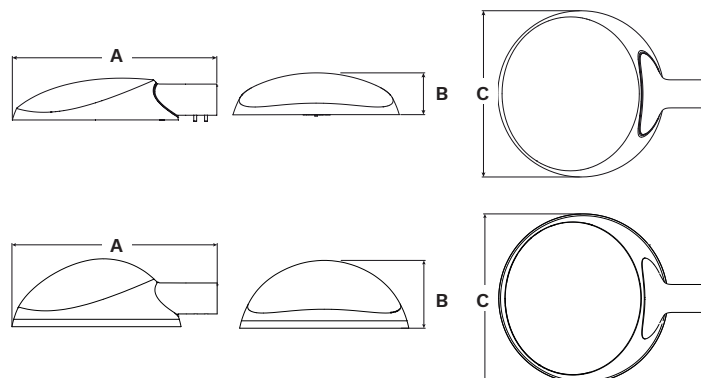
Recommended installation height	4m to 12m   13' to 40'
FutureProof	Easy replacement of the photometric engine and electronic assembly on-site
Driver included	Yes
CE mark	Yes
ENEC Plus certified	Yes
ROHS compliant	Yes
Testing standard	LM 79-80 (all measurements in ISO17025 accredited laboratory)

## HOUSING AND FINISH

Housing	High-pressure die-cast aluminium
Optic	PMMA (LensoFlex®2) Silicon (LensoFlex®3)
Protector	Tempered glass
Dome and skirt	Anti-UV polycarbonate
Housing finish	Polyester powder coating
Colour	AZO grey 900 sanded Any other RAL or AKZO colour upon request
Tightness level	IP 66
Impact resistance	IK 10 IK 09 (with Dome and/or frosted glass)
Vibration standard	Compliant with modified IEC 68-2-6
Access for maintenance	Direct access to the gear compartment by unscrewing 6 screws

## DIMENSIONS AND MOUNTING

AxBxC (mm   inch)	Basic – 568x116x462   22.4x4.6x18.2 Dome+skirt – 573x190x472   22.5x7.5x18.6
Weight (kg   lbs)	Basic – 8   17.6 Dome+Skirt – 9   19.8
Aerodynamic resistance (CxS)	Basic – 0.18 Dome+Skirt – 0.21
Standard mounting	Slip-over side-entry Ø60mm (2")
Optional mountings	Post-top adaptor Ø60mm (2") Penetrating fixation with Ø42mm (1.5") spigot for Ø60mm tube



## ELECTRICAL INFORMATION

Electrical class	EU class I or II
Nominal voltage	220-240V – 50-60Hz
Power factor	> 90% at full load
Surge protection	4kV (10kV/10kA optional)
Electromagnetic compatibility (EMC)	EN 55015 / EN 61000-3-2 / EN 61000-4-2, -3, -4, -5, -6, -11
Control options	No dimming, custom dimming, CLO, DALI or 0-10V
NEMA socket	7-pin (optional)
Sensor	PIR (optional)

## OPTICAL INFORMATION

LED colour temperature	3000K (Warm white) 4000K (Neutral white)
Colour rendering index (CRI)	> 80 (Warm white) > 70 (Neutral white)
Upward Light Output Ratio (ULOR)	0% (*)

(\*) Versions without illuminated dome.

## OPERATING CONDITIONS

Operating temperature range (Ta)	-30 °C up to +30 °C (*) -22 ° F up to 86 ° F (*)
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(\*) Depending on the luminaire configuration. For more details, please contact us.

## LIFETIME OF THE LEDS @ TQ 25°C

Up to 700mA	100,000h – L95
From 701mA up to 1A	100,000h – L86





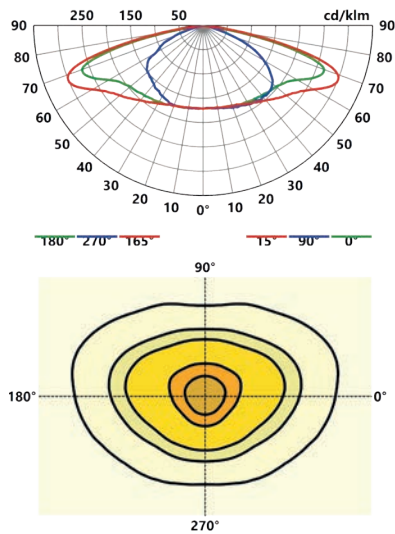
			Luminaire output flux (lm) Warm White (3000K) - CRI 80		Luminaire output flux (lm) Neutral White (4000K) - CRI 70		Power consumption (W)		Luminaire efficacy (lm/W)	
Luminaire	Number of LEDs	Current (mA)	Min	Max	Min	Max	Min	Max	Up to	Photometry
Ymera	16	350	1600	2000	1900	2400	18.2	18.2	136	LENZO FLEX <sup>+</sup> 2
	16	500	2200	2800	2600	3300	25.7	25.7	132	LENZO FLEX <sup>+</sup> 2
	16	700	2900	3700	3500	4400	36.2	36.2	123	LENZO FLEX <sup>+</sup> 2
	16	350	2000	2100	2300	2500	17	17	149	LENZO FLEX <sup>+</sup> 3
	16	500	2700	2900	3200	3400	25	25	139	LENZO FLEX <sup>+</sup> 3
	16	700	3600	3900	4300	4600	36	36	129	LENZO FLEX <sup>+</sup> 3
	16	1000	4800	5200	5600	6100	52	52	118	LENZO FLEX <sup>+</sup> 3
	24	350	2400	3100	2900	3700	26.8	26.8	138	LENZO FLEX <sup>+</sup> 2
	24	500	3300	4300	3900	5000	38.1	38.1	133	LENZO FLEX <sup>+</sup> 2
	24	700	4400	5600	5200	6600	55.5	55.5	120	LENZO FLEX <sup>+</sup> 2
	24	350	3000	3200	3500	3800	26	26	146	LENZO FLEX <sup>+</sup> 3
	24	500	4100	4400	4800	5200	38	38	137	LENZO FLEX <sup>+</sup> 3
	24	700	5500	5900	6400	6900	53	53	131	LENZO FLEX <sup>+</sup> 3
	24	1000	7300	7800	8500	9100	77	77	119	LENZO FLEX <sup>+</sup> 3
	32	350	3200	4100	3800	4900	35.1	35.1	141	LENZO FLEX <sup>+</sup> 2
	32	500	4500	5700	5300	6700	49	49	138	LENZO FLEX <sup>+</sup> 2
	32	700	6000	7600	7000	8900	70	70	128	LENZO FLEX <sup>+</sup> 2
	32	350	4000	4300	4700	5000	35.9	35.9	141	LENZO FLEX <sup>+</sup> 3
	32	500	5500	5900	6400	6900	50	50	138	LENZO FLEX <sup>+</sup> 3
	32	700	7300	7900	8600	9200	71	71	130	LENZO FLEX <sup>+</sup> 3
	32	1000	9700	10500	11300	12200	105	105	116	LENZO FLEX <sup>+</sup> 3
	48	350	4900	6200	5800	7400	52.5	52.5	141	LENZO FLEX <sup>+</sup> 2
	48	500	6700	8600	7900	10100	75	75	135	LENZO FLEX <sup>+</sup> 2
	48	700	8900	11300	10500	13300	105	105	127	LENZO FLEX <sup>+</sup> 2
	48	350	6000	6500	7000	7500	53	53	143	LENZO FLEX <sup>+</sup> 3
	48	500	8300	8900	9600	10300	76	76	137	LENZO FLEX <sup>+</sup> 3
	48	700	11000	11900	12900	13900	105	105	132	LENZO FLEX <sup>+</sup> 3

Tolerance on LED flux is  $\pm 7\%$  and on total luminaire power  $\pm 5\%$ .



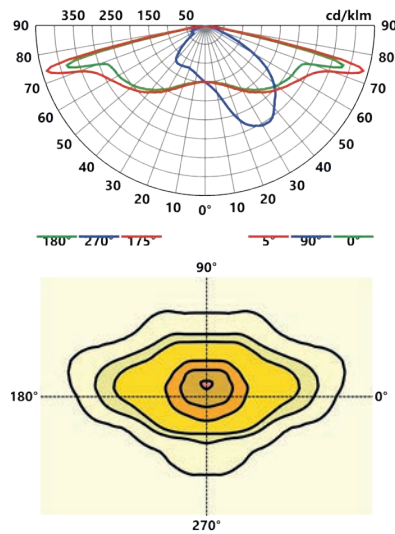
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FLEX® 2

5068 ASY



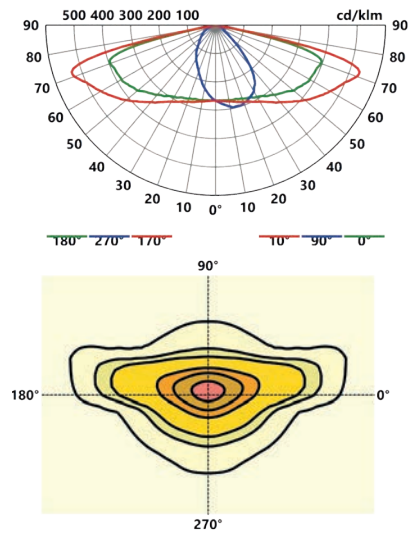
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5098 ASY



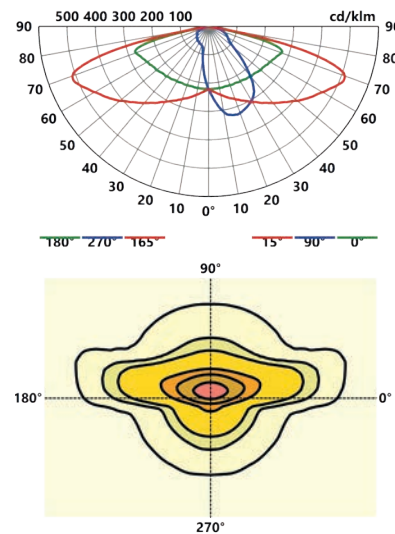
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5102 ASY



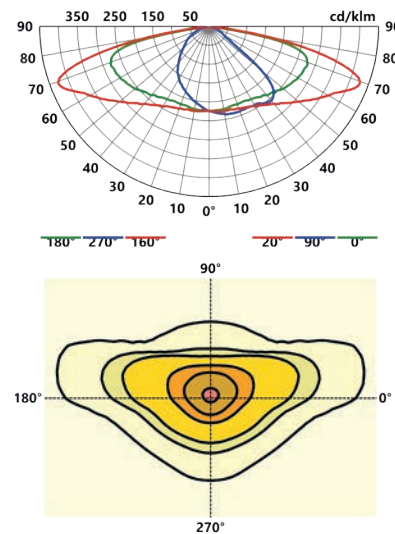
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5102 ASY | BACKLIGHT



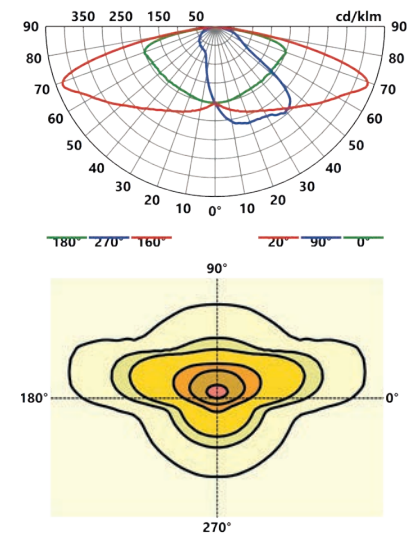
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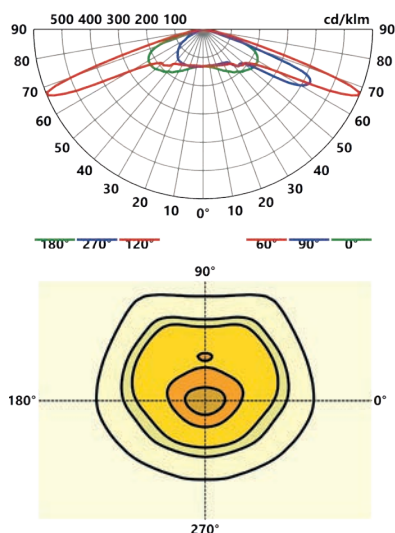
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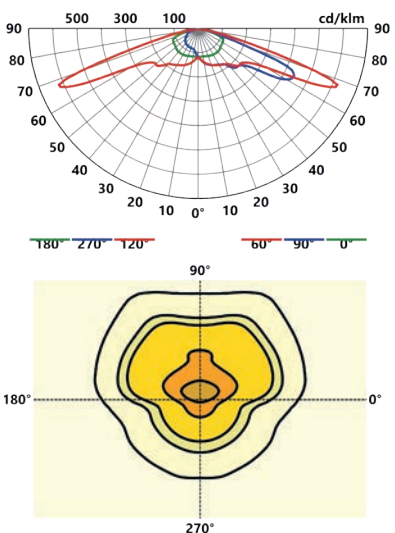
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5119 ASY



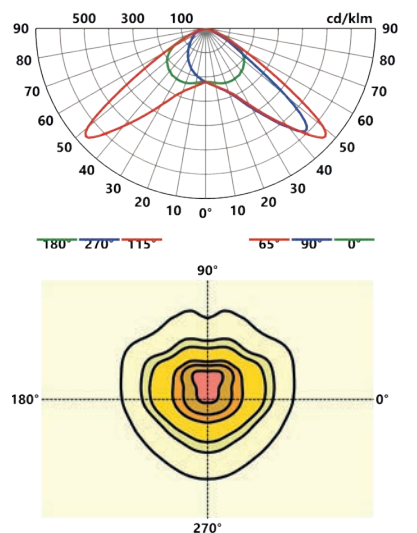
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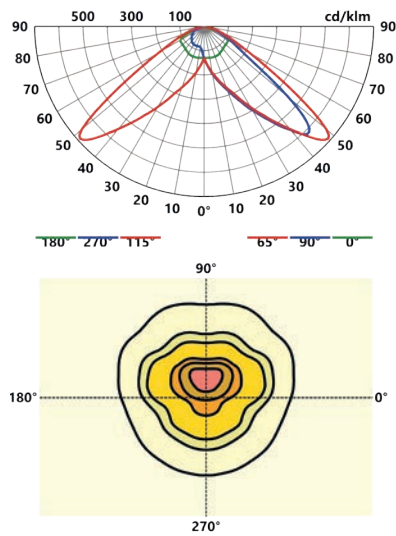
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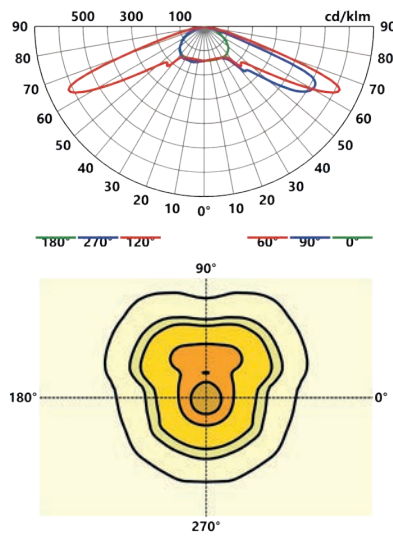
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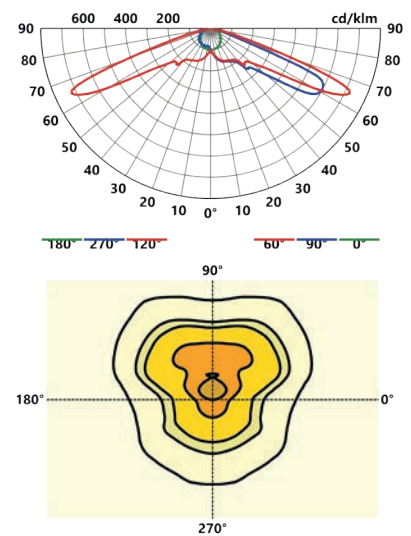
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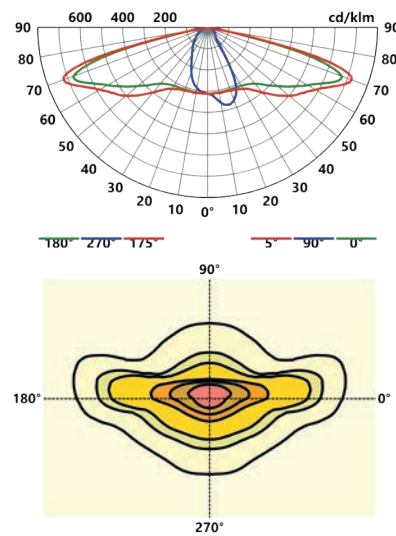
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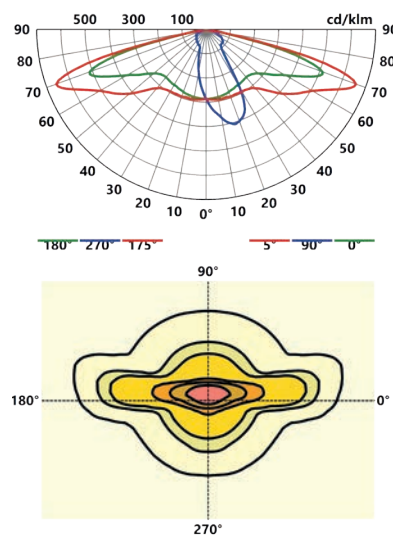
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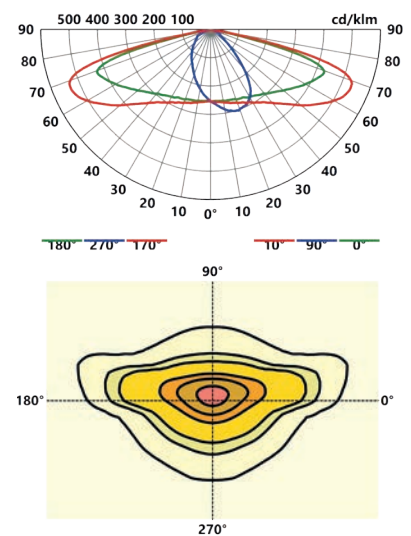
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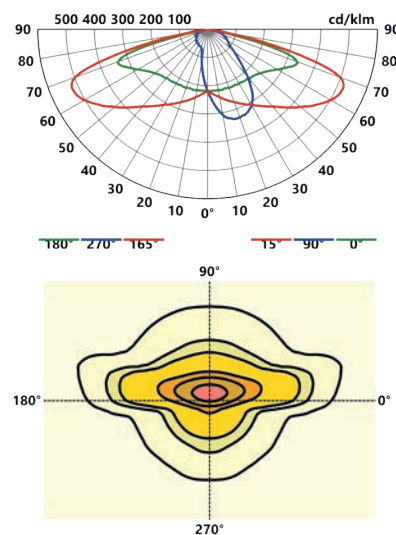
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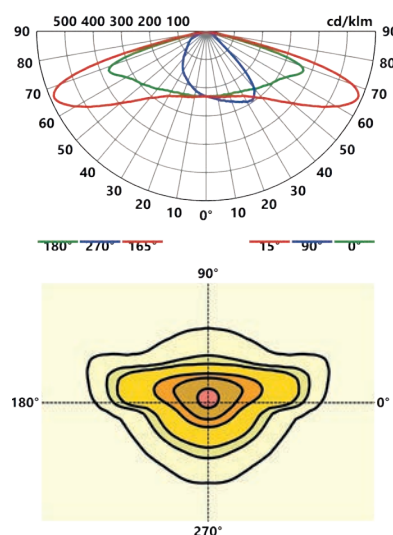
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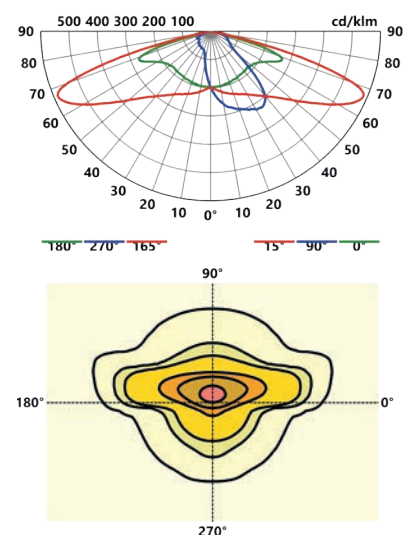
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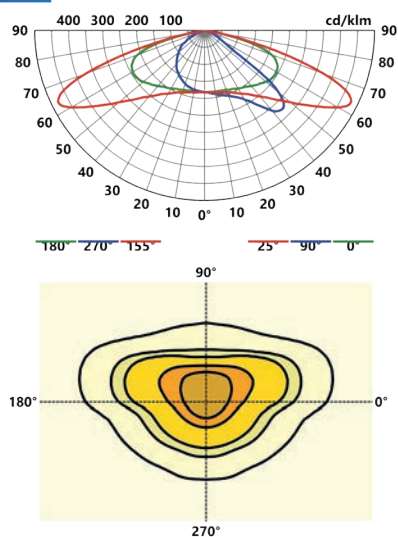
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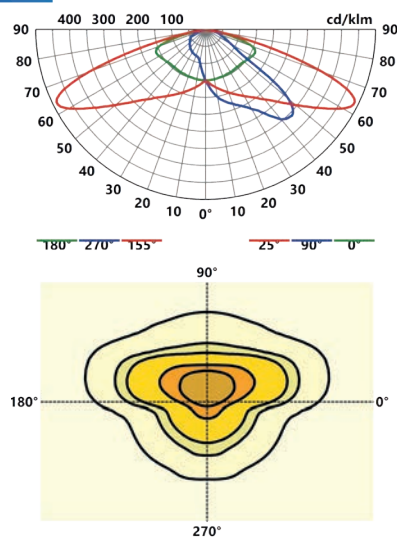
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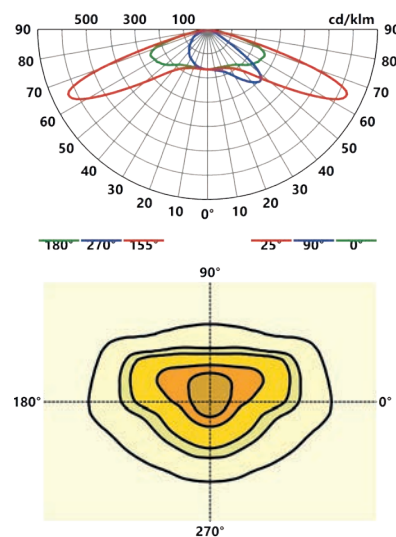
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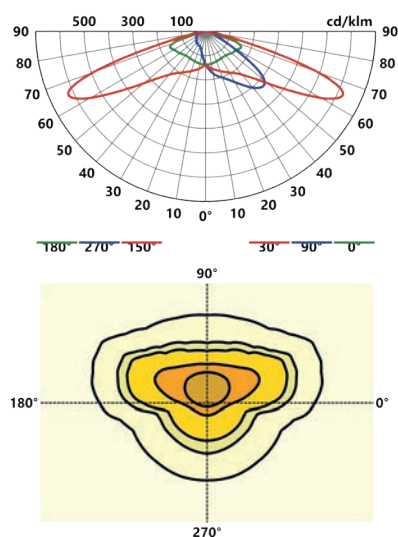
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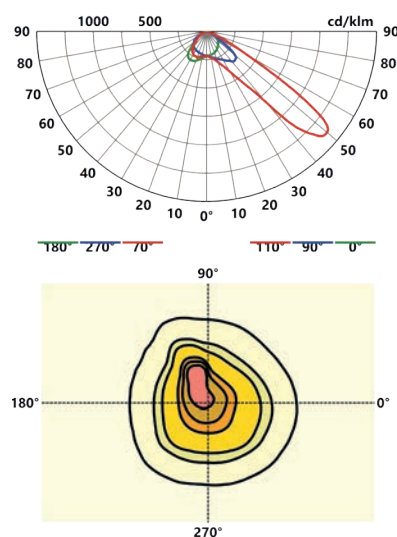
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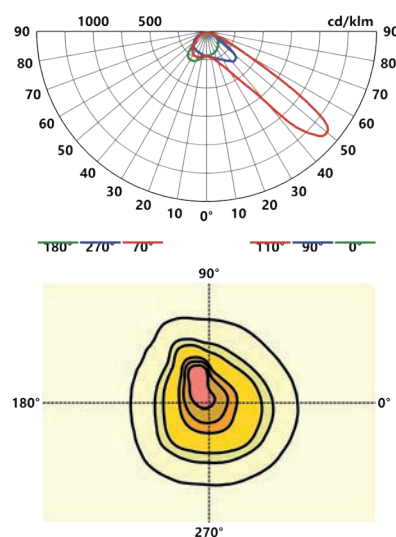
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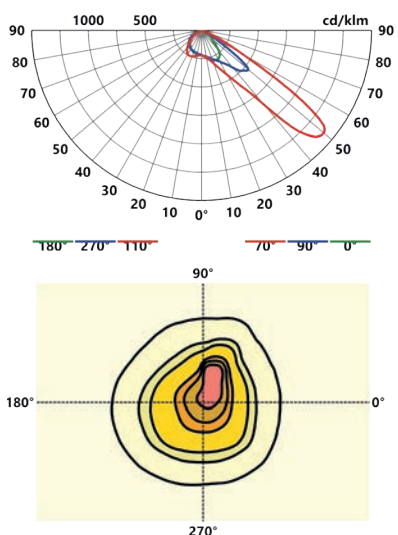
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5144 ASY | BACKLIGHT



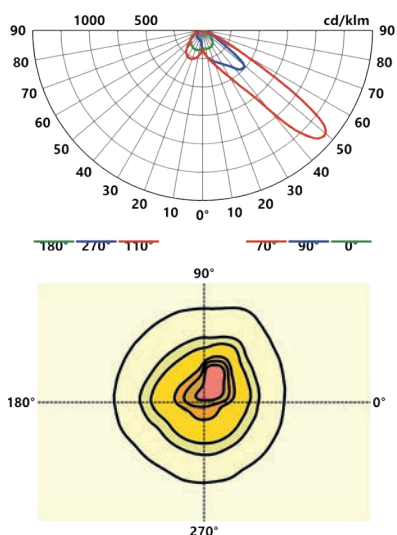
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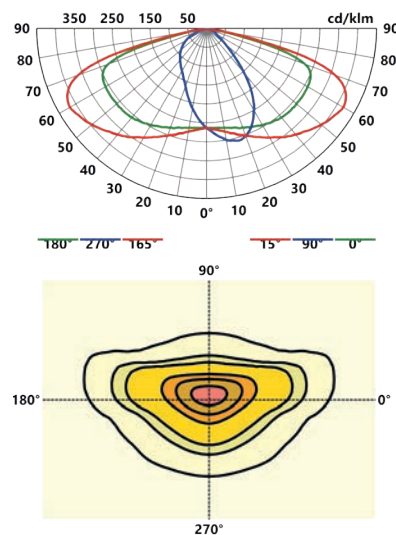
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5145 ASY | BACKLIGHT



LENSO  
FLEX® 3

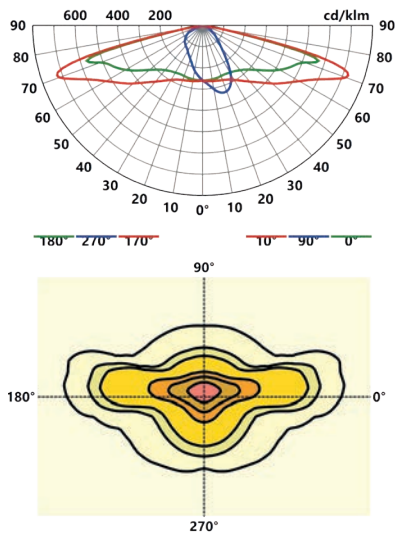
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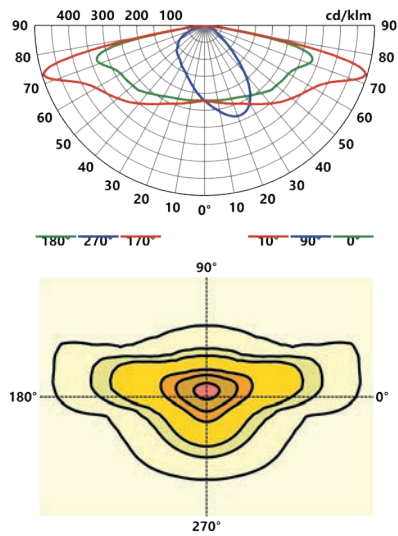
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5162 ASY



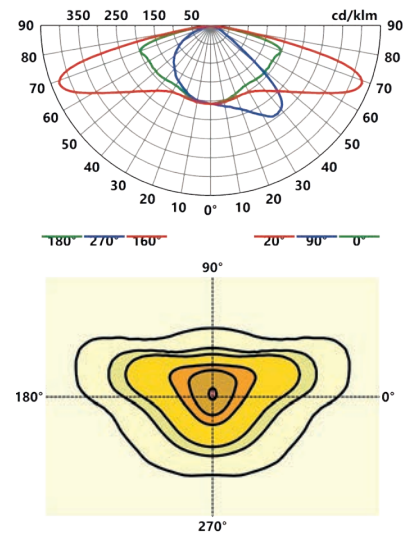
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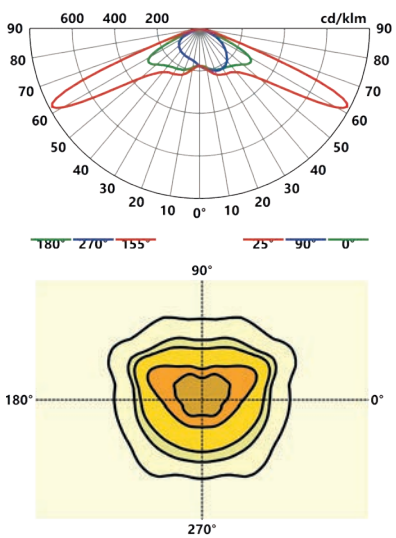
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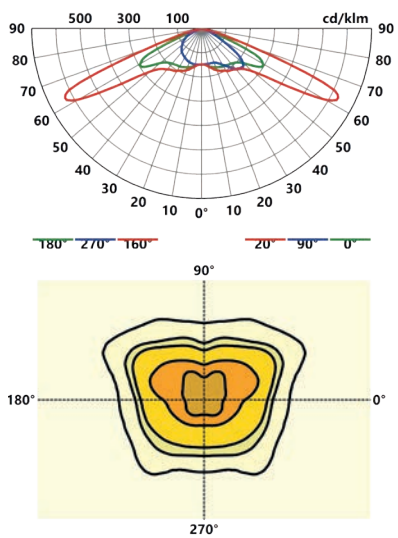
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FLEX® 3

5203 ASY



LENZO  
FLEX® 3

5204 ASY



LENZO  
FLEX® 3

5209 ASY

