Schréder
Experts in lightability™

DECORATIVE

CALLA LED

LENSO FLEX™ 2

The LED lighting solution for a convivial ambiance

The CALLA LED luminaire can incorporate a direct or an indirect photometric engine to nicely light residential neighbourhoods, parks, urban centres and more.

This elegant, organic luminaire ensures a distinctive presence in public spaces, both by day and at night. The indirect lighting guarantees pleasant, glare-free ambiance lighting, while the direct version provides the right lumen package to light your urban spaces.

CALLA LED is especially designed for stylish, decorative lighting where performance, aesthetics and light pollution factors are important criteria.

IP 66 | IK 07

URBAN & RESIDENTIAL STREETS | BRIDGES | BIKE & PEDESTRIAN PATHS | RAILWAY STATIONS & METROS | CAR PARKS | SQUARES & PEDESTRIAN AREAS

Concept

The CALLA LED luminaire is composed of a high-pressure die-cast aluminium housing, an aluminium canopy and a PMMA protector. The indirect version has an internal reflector consisting of an indirect mirror system with 208 free formed surfaces to provide comfort and performance. The direct version is equipped with LensoFlex® photometric engines, fitted with high-power LEDs to provides the best performance while maximising energy savings.

The complete luminaire has an IP 66 tightness level. The CALLA LED luminaire is based on the FutureProof concept. The canopy can be easily opened, without tools, so that the LED engine can be changed in a few simple steps. Removal of the electrical compartment is also toolless, to ease any maintenance activities.

CALLA LED is available with symmetrical and asymmetrical light distribution to provide comfortable yet strong light in various urban applications.

The CALLA LED luminaire offers slip-over mounting onto a Ø60mm or Ø76mm (with adapter) spigot. It can be fixed on both a cylindrical stepped pole and on a tapered pole to create aesthetic ensembles.

The direct lighting version can be equipped with a NEMA 7-pins or a Zhaga socket, enabling easy access to the digital era of lighting.

CALLA LED offers slip-over mounting onto a Ø60mm or Ø76mm (with adapter) spigot

CALLA LED provides direct or indirect lighting. The indirect version offers 15 and 28 LED photometric engines, while the direct version is available with 16 and 24 LED photometric engines.

TYPES OF APPLICATION

- URBAN & RESIDENTIAL STREETS
- BRIDGES
- BIKE & PEDESTRIAN PATHS
- RAILWAY STATIONS & METROS
- CAR PARKS
- SQUARES & PEDESTRIAN AREAS

KEY ADVANTAGES

- IP 66 tightness level
- ThermiX® for long lasting performance
- Supplied pre-cabled to facilitate its installation
- FutureProof: easy replacement of the photometric engine and electronic assembly
- Tool free access for maintenance
- Connected-ready for your future Smart city requirements
- Indirect or direct lighting

Calla LED can be easily opened, without any tools, for maintenance.

The direct lighting version is available with a NEMA or a Zhaga socket

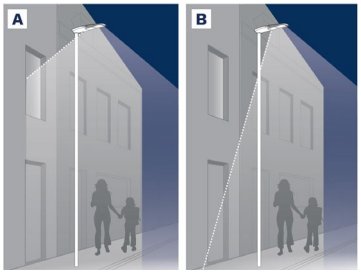
LensoFlex®2

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.

Back Light control

As an option, the LensoFlex®2 and LensoFlex®4 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.

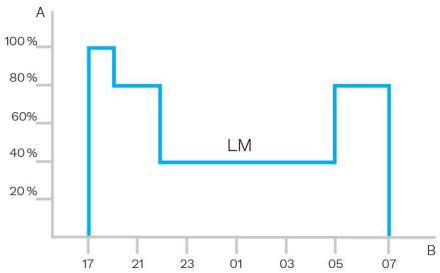


A. Without Back Light control | B. With Back Light control

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.

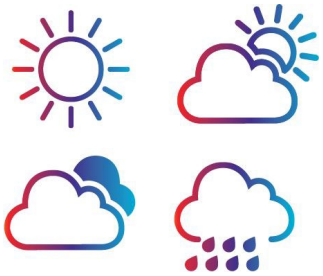
The period between switching on and switching off is used to activate the preset dimming profile. The customised dimming system generates maximum energy savings while respecting the required lighting levels and uniformity throughout the night.



A. Dimming level | 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 nightfall so as to provide safety and comfort in public spaces.

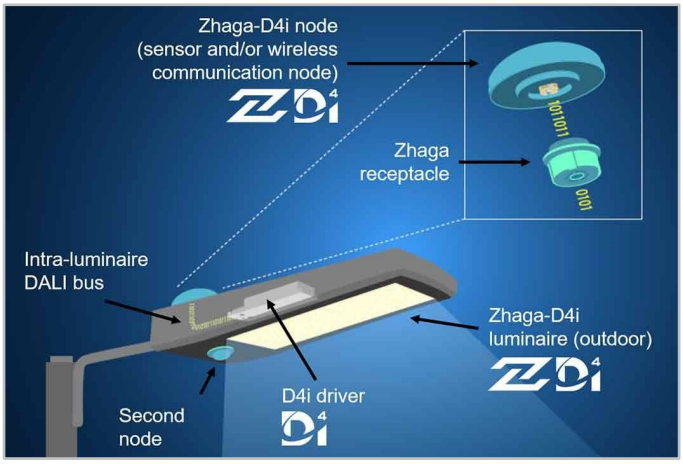


PIR sensor: motion detection

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 parametres 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.

The Zhaga consortium joined forces with the DiiA and produced a single Zhaga-D4i certification that combines the Zhaga Book 18 version 2 outdoor connectivity specifications with the DiiA's D4i specifications for intra-luminaire DALI.



Standardisation for interoperable ecosystems

Member of Zhaga

As a founding member of the Zhaga consortium, Schréder has participated in the creation of, and therefore supports, the Zhaga-D4i certification program and the initiative of this group to standardise an interoperable ecosystem. The D4i specifications take the best of the standard DALI2 protocol and adapt it to an intra-luminaire environment but it has certain limitations. Only luminaire mounted control devices can be combined with a Zhaga-D4i luminaire. According to the specification, control devices are limited respectively to 2W and 1W average power consumption.

Certification program

The Zhaga-D4i certification covers all the critical features including mechanical fit, digital communication, data reporting and power requirements within a single luminaire, ensuring plug-and-play interoperability of luminaires (drivers) and peripherals such as connectivity nodes.

Cost-effective solution

A Zhaga-D4i certified luminaire includes drivers offering features that had previously been in the control node, like energy metering, which has in turn simplified the control device therefore reducing the price of the control system.

Schréder EXEDRA is the most advanced lighting management system on the market for controlling, monitoring and analysing streetlights in a user-friendly way.

Standardisation for interoperable ecosystems

Schréder plays a key role in driving standardisation with alliances and partners such as uCIFI, TALQ or Zhaga. Our joint commitment is to provide solutions designed for vertical and horizontal IoT integration. From the body (hardware) to the language (data model) and the intelligence (algorithms), the complete Schréder EXEDRA system relies on shared and open technologies. Schréder EXEDRA also relies on Microsoft™ Azure for cloud services, provided with the highest levels of trust, transparency, standards conformance and regulatory compliance.

Breaking the silos

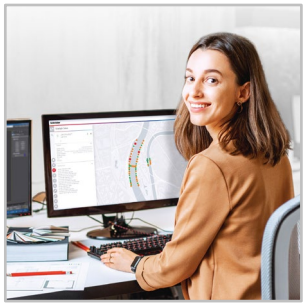
With EXEDRA, Schréder has taken a technology-agnostic approach: we rely on open standards and protocols to design an architecture able to interact seamlessly with third-party software and hardware solutions. Schréder EXEDRA is designed to unlock complete interoperability, as it offers the ability to:

- control devices (luminaires) from other brands
- manage controllers and to integrate sensors from other brands
- connect with third-party devices and platforms

A plug-and-play solution

As a gateway-less system using the cellular network, an intelligent automated commissioning process recognises, verifies and retrieves luminaire data into the user interface. The self-healing mesh between luminaire controllers enables real-time adaptive lighting to be configured directly via the user interface. OWLET IV luminaire controllers, optimised for Schréder EXEDRA, operate Schréder's luminaires and luminaires from third parties. They use both cellular and mesh radio networks, optimising geographical coverage and redundancy for continuous operation.

Tailored experience



Schréder EXEDRA includes all advanced features needed for smart device management, real-time and scheduled control, dynamic and automated lighting scenarios, maintenance and field operation planning, energy consumption management and third-party connected hardware integration. It is fully configurable and includes tools for user management and multi-tenant policy that enables contractors, utilities or big cities to segregate projects.

A powerful tool for efficiency, rationalisation and decision making

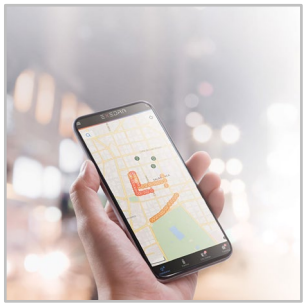
Data is gold. Schréder EXEDRA brings it with all the clarity managers need to drive decisions. The platform collects massive amounts of data from end devices and, aggregates, analyses and intuitively displays them to help end-users take the right actions.

Protected on every side

ISO 27001
BUREAU VERITAS
Certification

Schréder EXEDRA provides state-of-the-art data security with encryption, hashing, tokenisation, and key management practices that protect data across the whole system and its associated services. The whole platform is ISO 27001 certified. It demonstrates that Schréder EXEDRA meets the requirements for establishing, implementing, maintaining and continually improving security management.

Mobile App: any time, any place, connect to your street lighting



The Schréder EXEDRA mobile application offers the essential functionalities of the desktop platform, to accompany all types of operator on site in their daily effort to maximise the potential of connected lighting. It enables real-time control and settings, and contributes to effective maintenance.

GENERAL INFORMATION

Recommended installation height	3m to 5m | 10' to 16'
FutureProof	Easy replacement of the photometric engine and electronic assembly
Driver included	Yes
CE mark	Yes
ENEC certified	Yes
ROHS compliant	Yes
Zhaga-D4i certified	Yes
French law of December 27th 2018 - Compliant with application type(s)	b, c, d, f, g
UKCA marking	Yes
Testing standard	LM 79-08 (all measurements in ISO17025 accredited laboratory)

HOUSING AND FINISH

Housing	Aluminium
Optic	Aluminium reflector PMMA
Protector	PMMA
Housing finish	Polyester powder coating
Standard colour(s)	RAL 9006s
Tightness level	IP 66
Impact resistance	IK 07
Vibration test	Compliant with modified IEC 68-2-6 (0.5G)
Access for maintenance	Tool-less access to gear compartment

· Any other RAL or AKZO colour upon request

OPERATING CONDITIONS

Operating temperature range (Ta)	-30°C up to +35°C / -22°F up to 95°F

· Depending on the luminaire configuration. For more details, please contact us.

ELECTRICAL INFORMATION

Electrical class	Class I EU, Class II EU
Nominal voltage	220-240V – 50-60Hz
Surge protection options (kV)	10
Electromagnetic compatibility (EMC)	EN 61547 / EN 61000-4-2, -3, -4, -5, -6, -8, -11
Control protocol(s)	DALI
Control options	Bi-power, Custom dimming profile, Photocell, Remote management
Socket	Zhaga (optional) NEMA 7-pin (optional)
Associated control system(s)	Schréder EXEDRA
Sensor	PIR (optional)

OPTICAL INFORMATION

LED colour temperature	2700K (WW 727) 3000K (WW 730) 3000K (WW 830) 4000K (NW 740)
Colour rendering index (CRI)	>70 (WW 727) >70 (WW 730) >80 (WW 830) >70 (NW 740)
ULOR	<4%
ULR	<5%

· ULOR may be different according to the configuration. Please consult us.
· ULR may be different according to the configuration. Please consult us.

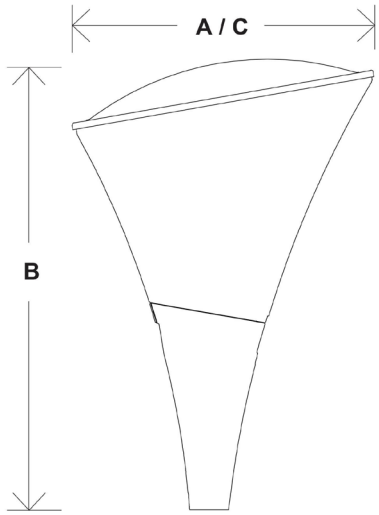
LIFETIME OF THE LEDS @ TQ 25°C

All configurations	100,000h - L95

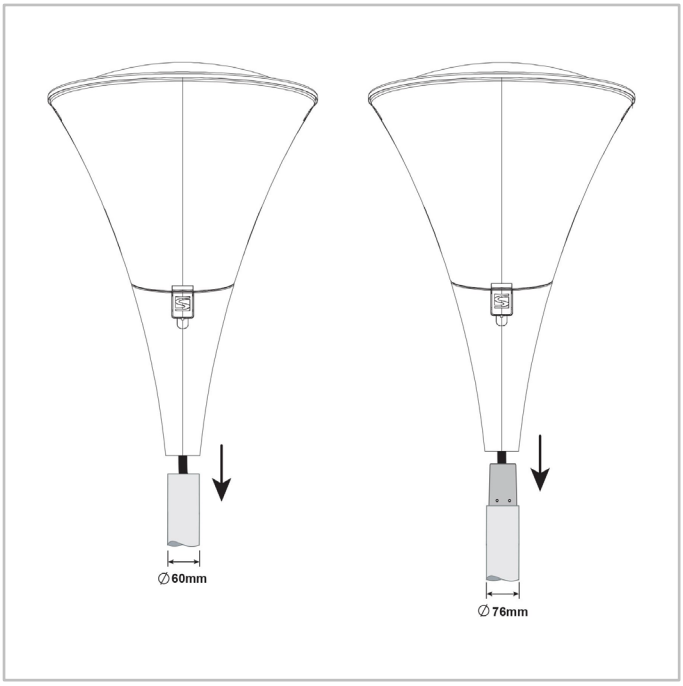
· Lifetime may be different according to the size/configurations. Please consult us.

DIMENSIONS AND MOUNTING

AxBxC (mm | inch)	593x881x593 | 23.3x34.7x23.3
Weight (kg | lbs)	11.0 | 24.2
Aerodynamic resistance (CxS)	0.34
Mounting possibilities	Post-top slip-over – Ø60mm Post-top slip-over – Ø76mm



CALLA LED | Slip-over mounting onto a Ø60mm or a Ø76mm (with adapter) spigot – 2xM8 screws



CALLA LED

	Luminaire output flux (lm)						Power consumption (W)		Luminaire efficacy (lm/W)
	Warm White 727		Warm White 730		Neutral White 740				
Number of LEDs	Min	Max	Min	Max	Min	Max	Min	Max	Up to
15	1500	2700	1700	3000	1800	3100	17	24	133
28	2900	5000	3200	5500	3300	5700	30	43	139

Tolerance on LED flux is ± 7% and on total luminaire power ± 5 %

CALLA LED

Photometry

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	Luminaire output flux (lm)						Power consumption (W)		Luminaire efficacy (lm/W)
	Warm White 730		Warm White 830		Neutral White 740				
Number of LEDs	Min	Max	Min	Max	Min	Max	Min	Max	Up to
16	2000	3400	1800	3200	2100	3600	18	26	146
24	3000	5100	2800	4800	3100	5400	27	38	149

Tolerance on LED flux is ± 7% and on total luminaire power ± 5 %

BLAST FLEX™

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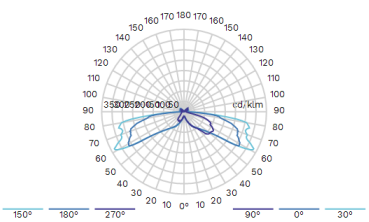

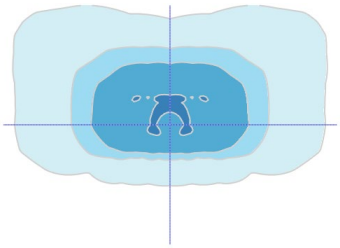

BLAST FLEX™

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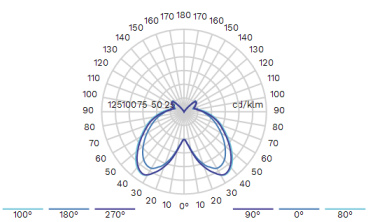

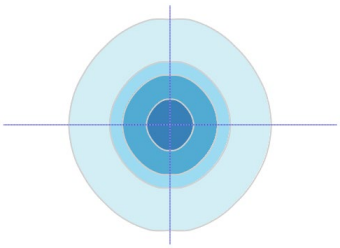

LENSO FLEX™2

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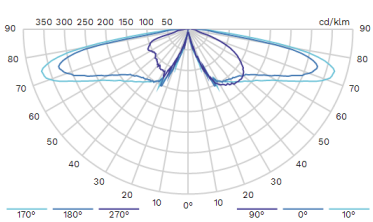

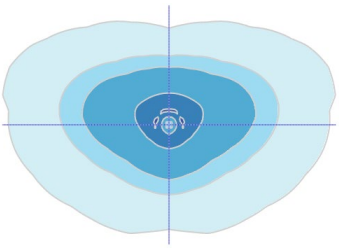

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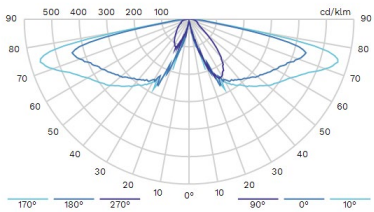

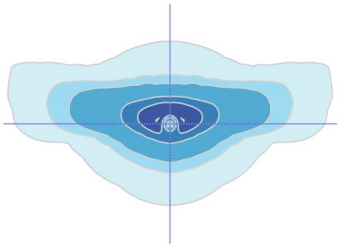

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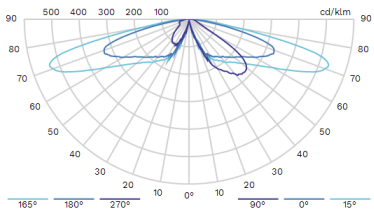

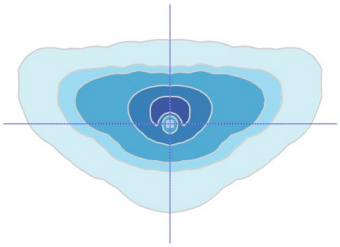

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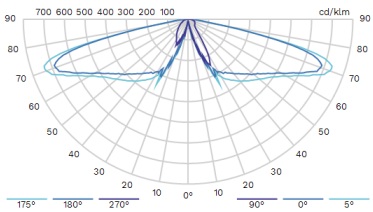

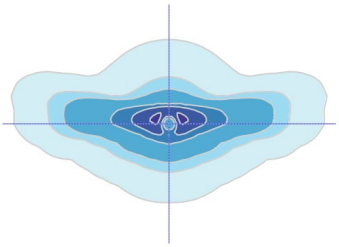

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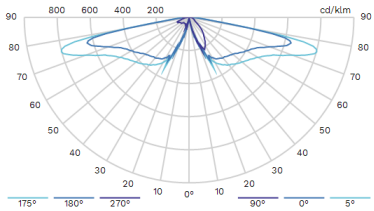

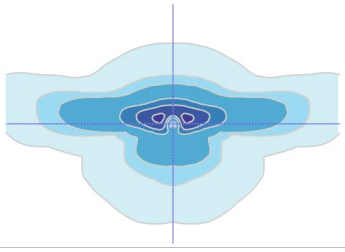

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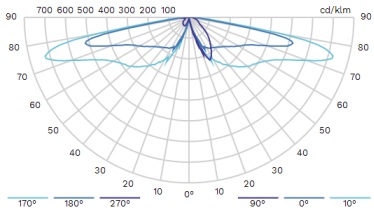

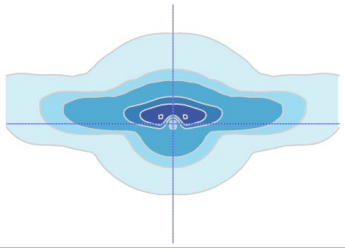

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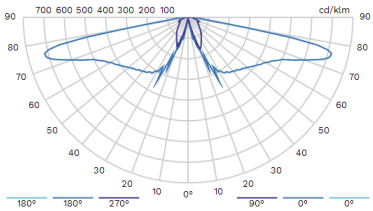

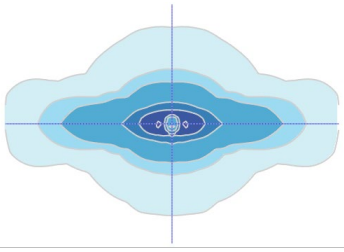

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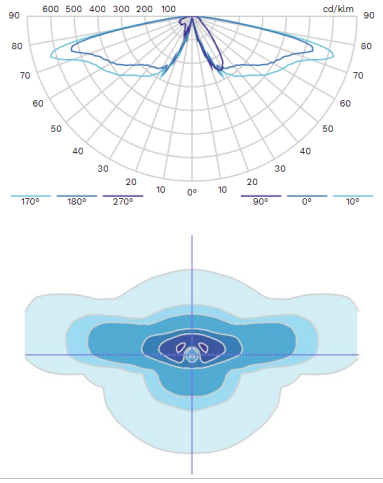

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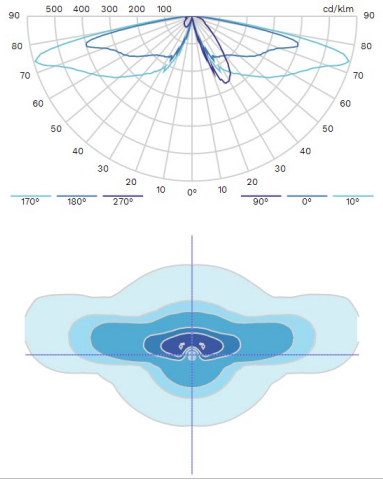

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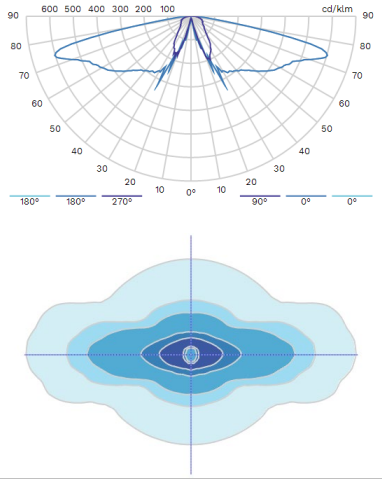

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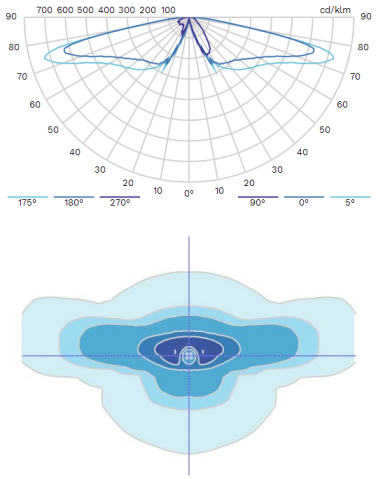

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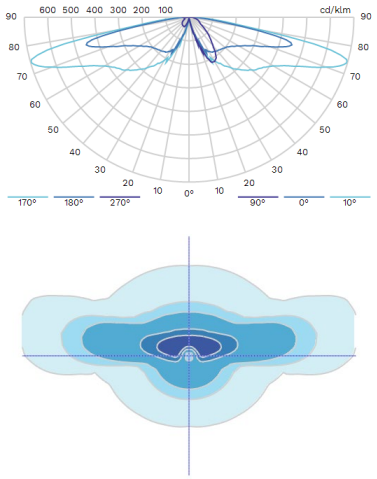

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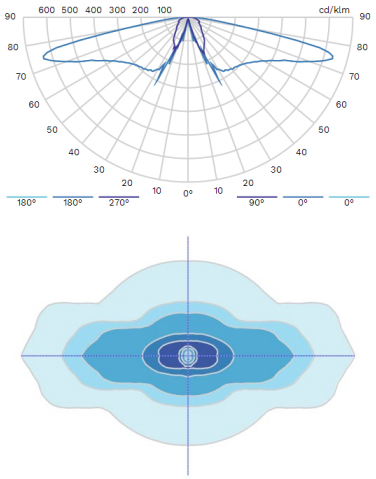

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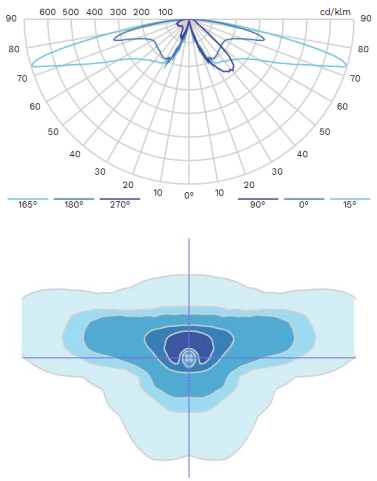

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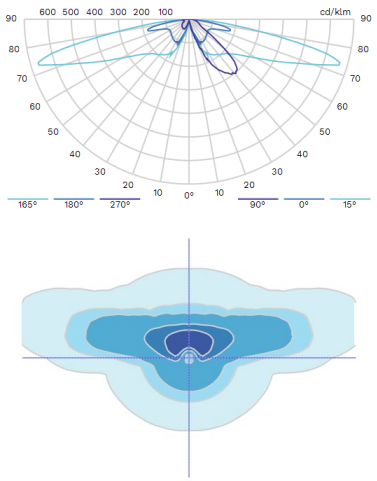

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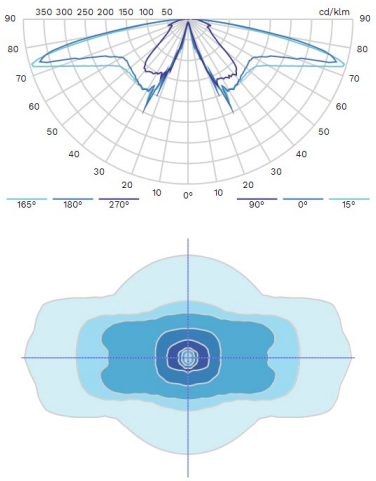

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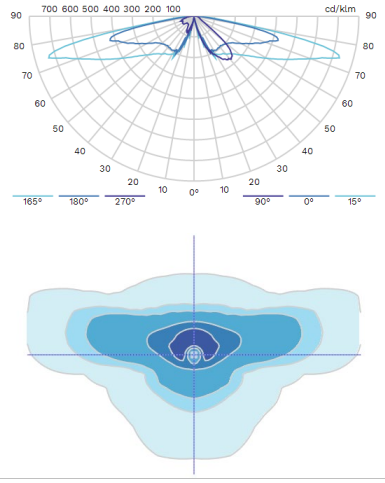

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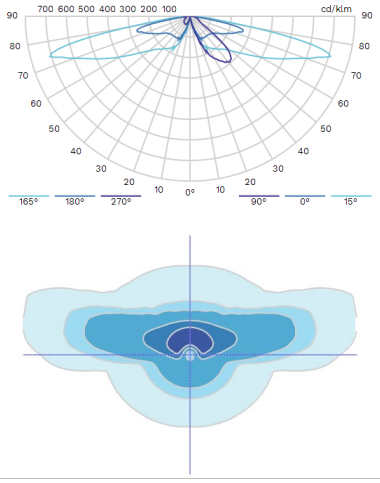

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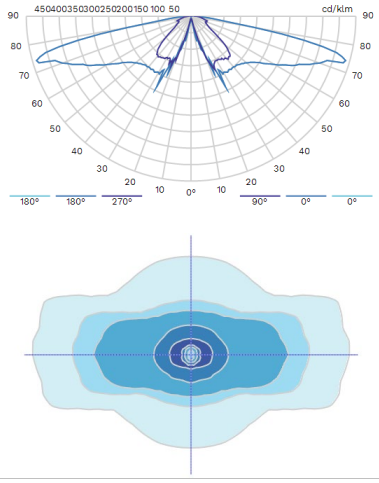

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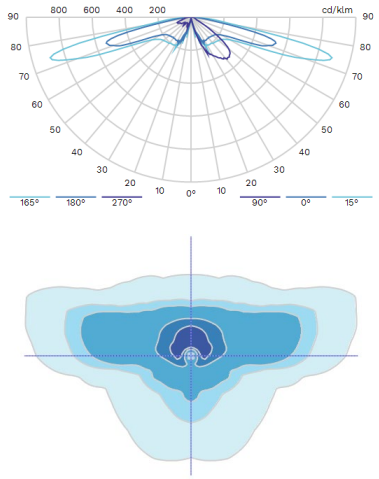

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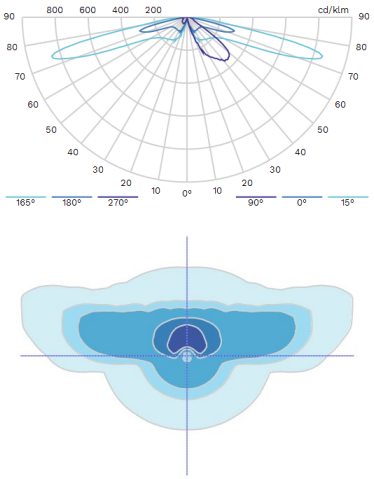

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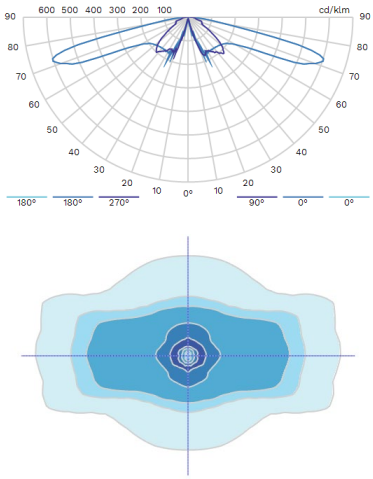

LENSO FLEX 2

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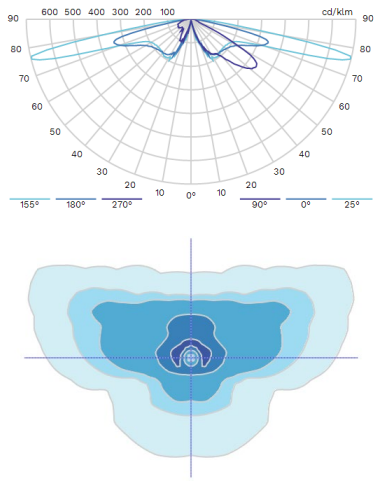

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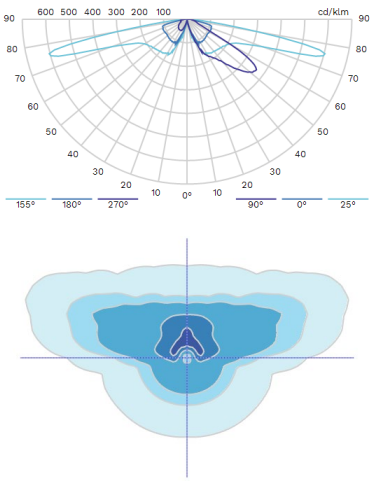

LENSO FLEX 2

5250 SY