Schréder
Experts in lightability™

ROAD

HESTIA GEN2

LENSO FLEX™4

Elegant solution with cutting-edge technology

HESTIA GEN2 is a fluid, light and elegant LED luminaire designed to bring a touch of refinement to your urban spaces while helping you benefit from the advantages of the latest lighting innovations.

HESTIA GEN2 offers an economical lighting solution based on state-of-the-art photometric technologies. This luminaire is available with different lumen packages, all characterised by low energy consumption for high-quality photometric performance.

Available in 2 sizes (Mini and Midi), this outdoor LED lighting adapts to any kind of urban space. HESTIA GEN2 is a connected-ready luminaire that can be fitted with various remote control technologies to enable perfectly optimised urban lighting management. Create elegant, comfortable and safe environments in your city, thanks to HESTIA GEN2!

IP 65 | IK 08 | UK CA | UL 1598 CSA C22.2 No. 250.0 | CE

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

Concept

HESTIA GEN2 luminaires are composed of durable, recyclable materials. The luminaire body and lower frame are made of painted die-cast aluminium, while the protector is made of glass. The protector is available in two versions - flat or curved. The flat glass protector allows a ULOR of 0%.

HESTIA GEN2 luminaires are equipped with the lastest LensoFlex® photometric engines that have been specifically developed for lighting spaces where the well-being and safety of people using the environment are essential.

This luminaire is available in two sizes - Mini and Midi - with different lumen packages, all characterised by low energy consumption for high-quality photometric performance.

HESTIA GEN2 is a connected-ready luminaire. As an option, it can be fitted with a NEMA or a Zhaga socket, allowing various remote control solutions for perfectly optimised lighting installation management. A PIR motion sensor can also be added to generate light only when it is necessary, thus creating significant energy savings.

HESTIA GEN2 can be installed using a side-entry fixation on a Ø34mm bracket.

HESTIA GEN2 offers a sophisticated, economical lighting solution.

HESTIA GEN2 is available with various control solutions for optimising lighting management and creating significant savings.

TYPES OF APPLICATION

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

KEY ADVANTAGES

- Elegant design incorporating the advantages of LED technology
- Low energy consumption
- True range with two sizes and numerous lumen packages
- Proven LensoFlex®4 photometrical engines
- Connected-ready for your future Smart city requirements
- Compatible with the Schréder EXEDRA control platform
- Zhaga-D4i certified

The LensoFlex® photometric engines provide the highest efficiency.

HESTIA GEN2 features a toolless opening system, providing easy access for maintenance.

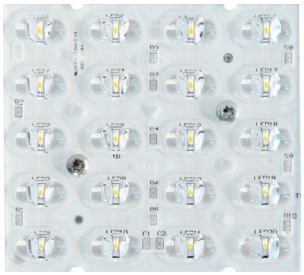
HESTIA GEN2 | Flat glass protector

HESTIA GEN2 | Curved glass protector

LensoFlex®4

LensoFlex®4 maximises the heritage of the LensoFlex® concept with a very compact yet powerful photometric engine based upon the addition principle of photometric distribution. The number of LEDs in combination with the driving current determines the intensity level of the light distribution. With optimised light distributions and very high efficiency, this fourth generation enables the products to be downsized to meet application requirements with an optimised solution in terms of investment.

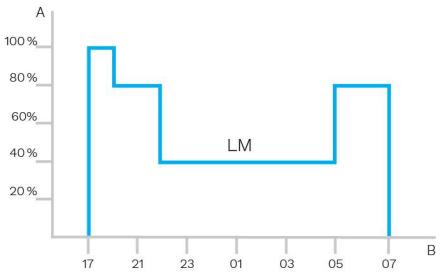
LensoFlex®4 optics can feature backlight control to prevent intrusive lighting, or a glare limiter for high visual comfort.



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.

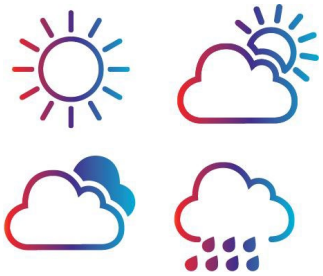
The period between switching on and switching off is used to activate the preset dimming profile. The customised dimming system generates maximum energy savings while respecting the required lighting levels and uniformity throughout the night.



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.

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

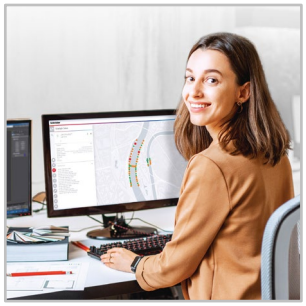
With EXEDRA, Schréder has taken a technology-agnostic approach: we rely on open standards and protocols to design an architecture able to interact seamlessly with third-party software and hardware solutions. Schréder EXEDRA is designed to unlock complete interoperability, as it offers the ability to:

- 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

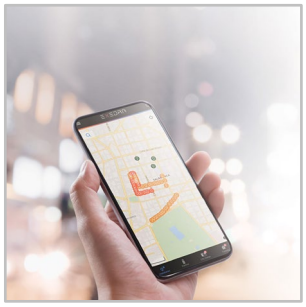
Data is gold. Schréder EXEDRA brings it with all the clarity managers need to drive decisions. The platform collects massive amounts of data from end devices and, aggregates, analyses and intuitively displays them to help end-users take the right actions.

Protected on every side

ISO 27001
BUREAU VERITAS
Certification

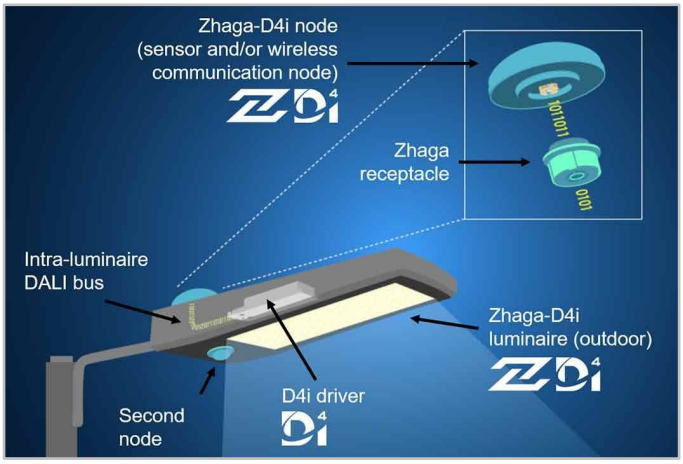
Schréder EXEDRA provides state-of-the-art data security with encryption, hashing, tokenisation, and key management practices that protect data across the whole system and its associated services. The whole platform is ISO 27001 certified. It demonstrates that Schréder EXEDRA meets the requirements for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

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

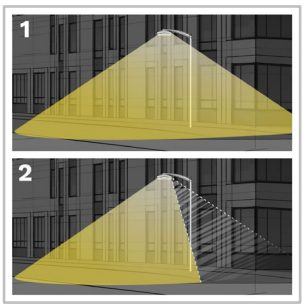
The Zhaga-D4i certification covers all the critical features including mechanical fit, digital communication, data reporting and power requirements within a single luminaire, ensuring plug-and-play interoperability of luminaires (drivers) and peripherals such as connectivity nodes.

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.

With the PureNight concept, Schréder offers the ultimate solution for restoring the night sky without switching off cities, while maintaining safety and well-being for people and preserving wildlife. The PureNight concept guarantees that your Schréder lighting solution satisfies environmental laws and requirements. Well-designed LED lighting has the potential to improve the environment in all respects.

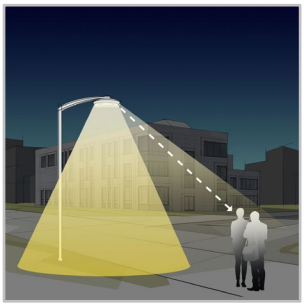
Direct the light only where it is wanted and needed



Schréder is renowned for its expertise in photometry. Our optics direct light only where it is wanted and needed. However, light trespass behind the luminaire might be a key concern when it comes to protecting a sensitive wildlife habitat or avoiding intrusive lighting towards buildings. Our fully integrated backlight solutions easily address this potential risk.

1. Without backlight
2. With backlight

Offer maximum visual comfort to people



Because of the lower installation height compared to road lighting, visual comfort is an essential aspect of urban lighting. Schréder designs lenses and accessories to minimise any type of glare (distracting, discomforting, disabling glare and blinding glare). Our design offices harness a range of possibilities to find the best solutions for each project and ensure that we provide a gentle light that delivers the best night-time experience.

Protect wildlife

If not well designed, artificial lighting can badly affect wildlife. Blue light and excessive intensity can have a damaging effect on all types of life. Blue light radiation has the ability to suppress the production of melatonin, the hormone that contributes to the regulation of the circadian rhythm. It can also alter the behavioural patterns of animals including bats and moths, as it can change their movements towards or away from light sources. Schréder favours warm white LEDs with minimal blue light, combined with advanced control systems including sensors. This enables permanent adaptation of the lighting to the real needs of the moment, minimising disturbance to the fauna and flora.

Choose a Dark Sky certified luminaire

The International Dark-Sky Association (IDA) is the recognised authority on light pollution. It provides leadership, tools and resources to industries and companies willing to reduce light pollution. The IDA's Fixture Seal of Approval programme certifies outdoor lighting fixtures as being Dark Sky Friendly. All products approved by this programme must comply with the following criteria:

- The light sources shall have a maximum correlated colour temperature of 3000K;
- Uplight allowance limited to 0.5% of total output, or 50 lumens, with no more than

  10 lumens in the 90-100 degree UL zone;
- The luminaires must have a dimming capability to 10% of full rating;
- The luminaires must be equipped with a fixed mounting option;
- The luminaires must have Safety Certification by an independent laboratory.

This approved Schréder range of luminaires complies with these requirements.

GENERAL INFORMATION

Recommended installation height	4m to 12m | 13' to 39'
Circle Light label	Score between 60 and 90 - The product meets most of circular economy requirements
Driver included	Yes
CE mark	Yes
ENEC certified	Yes
UL certified	Yes
Dark Sky friendly lighting (IDA certification)	Yes
Zhaga-D4i certified	Yes
UKCA marking	Yes

HOUSING AND FINISH

Housing	Aluminium
Optic	PMMA
Protector	Tempered glass
Housing finish	Polyester powder coating
Tightness level	IP 65
Impact resistance	IK 08
Vibration test	Compliant with modified IEC 68-2-6 (0.5G)
Access for maintenance	Tool-less access to gear compartment

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 1 US, Class I EU, Class II EU
Nominal voltage	120-277V – 50-60Hz 220-240V – 50-60Hz 347V - 50-60Hz
Surge protection options (kV)	10
Electromagnetic compatibility (EMC)	EN 55015 / EN 61000-3-2 / EN 61000-3-3 / EN 61547
Control protocol(s)	1-10V, DALI
Control options	AmpDim, Bi-power, Custom dimming profile, Remote management
Socket	Zhaga (optional) NEMA 7-pin (optional)
Associated control system(s)	Schréder EXEDRA
Sensor	PIR (optional)

OPTICAL INFORMATION

LED colour temperature	2200K (WW 722) 2700K (WW 727) 3000K (WW 730) 3000K (WW 830) 4000K (NW 740)
Colour rendering index (CRI)	>70 (WW 722) >70 (WW 727) >70 (WW 730) >80 (WW 830) >70 (NW 740)
ULOR	0%
ULR	0%

· ULOR 0%: only for flat glass version.

· Meets IDA Dark Sky requirements when fitted with LEDs of 3000K or less.

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

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

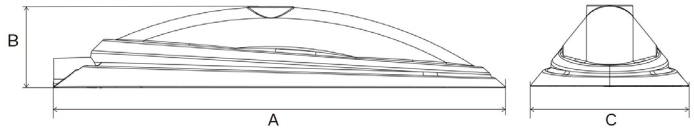
LIFETIME OF THE LEDS @ TQ 25°C

All configurations	100,000h - L90

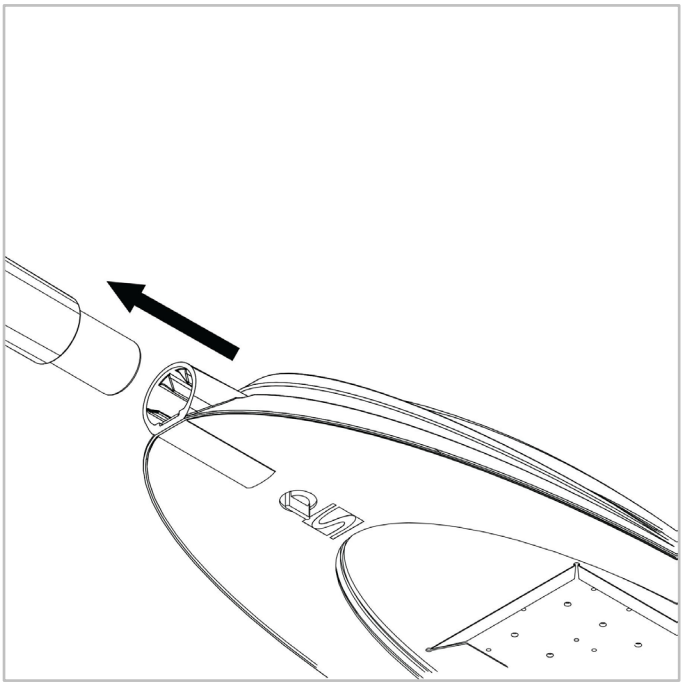
· Lifetime may be different according to the size/configurations. Please consult us.

DIMENSIONS AND MOUNTING

AxBxC (mm | inch)	HESTIA GEN2 MINI : 780x139x266 | 30.7x5.5x10.5 HESTIA GEN2 MIDI : 925x166x324 | 36.4x6.5x12.8
Weight (kg | lbs)	HESTIA GEN2 MINI : 7.0 | 15.4 HESTIA GEN2 MIDI : 10.0 | 22.0
Aerodynamic resistance (CxS)	HESTIA GEN2 MINI : 0.07 HESTIA GEN2 MIDI : 0.08
Mounting possibilities	Side-entry slip-over – Ø34mm



HESTIA GEN2 | Side-entry mounting on a Ø34mm bracket – 2 x M8 screws



HESTIA GEN2 MINI

Photometry

LENSO FLEX™4

	Luminaire output flux (lm)										Power consumption (W)		Luminaire efficacy (lm/W)
	Warm White 722		Warm White 727		Warm White 730		Warm White 830		Neutral White 740				
Number of LEDs	Min	Max	Min	Max	Min	Max	Min	Max	Min	Max	Min	Max	Up to
10	900	2300	1100	2800	1100	2900	1100	2700	1200	3000	10	31	139
20	1300	4600	1600	5600	1600	5800	1500	5400	1700	6100	13	58	153
30	1900	4900	2400	6000	2400	6200	2300	5800	2600	6600	19	47	159
40	2600	6600	3200	8100	3300	8300	3100	7800	3400	8800	25	62	161

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

HESTIA GEN2 MIDI

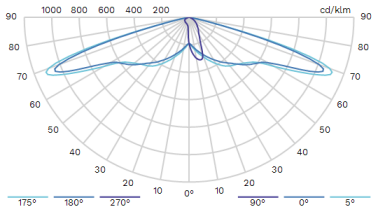
Photometry

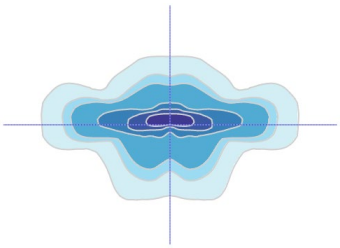
LENSO FLEX™4

	Luminaire output flux (lm)										Power consumption (W)		Luminaire efficacy (lm/W)
	Warm White 722		Warm White 727		Warm White 730		Warm White 830		Neutral White 740				
Number of LEDs	Min	Max	Min	Max	Min	Max	Min	Max	Min	Max	Min	Max	Up to
40	2600	8500	3100	10500	3200	10800	3000	10100	3400	11400	25	95	160
50	3200	8900	3900	10900	4000	11200	3800	10500	4300	11800	31	85	164
60	3900	10700	4700	13100	4900	13400	4600	12600	5200	14200	36	102	165

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

5300





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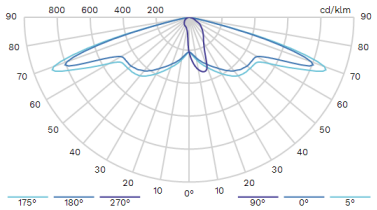

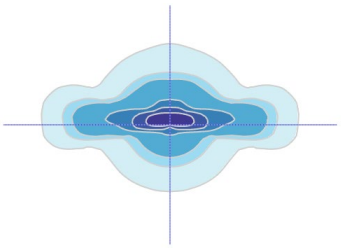

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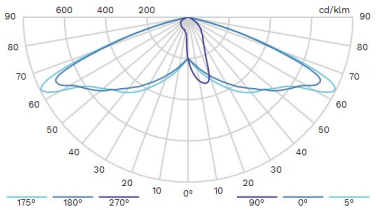

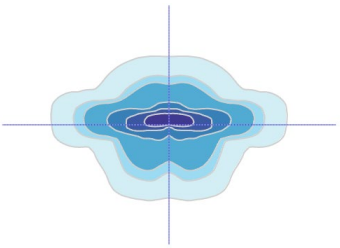

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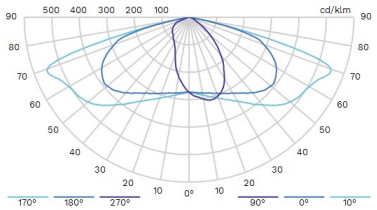

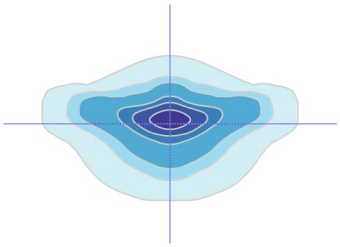

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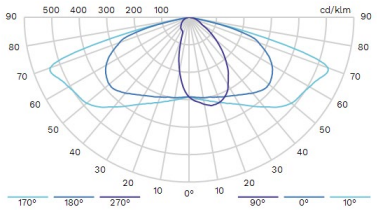

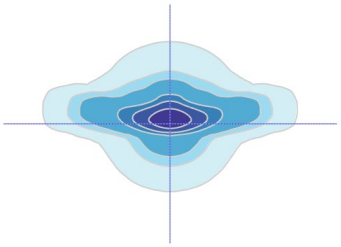

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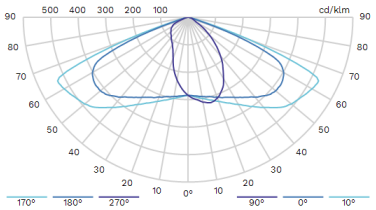

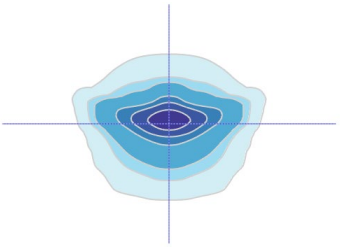

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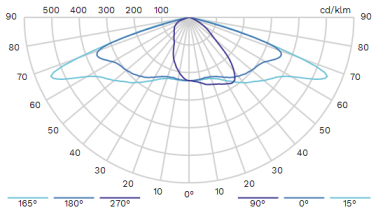

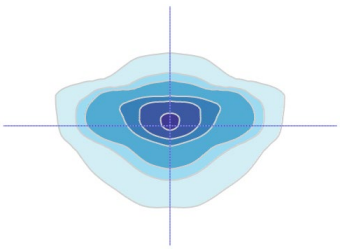

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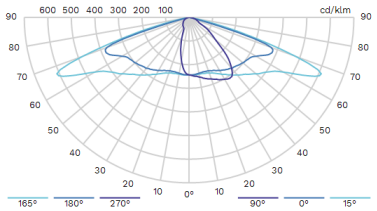

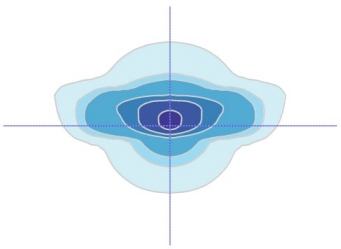

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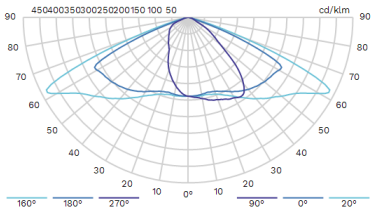

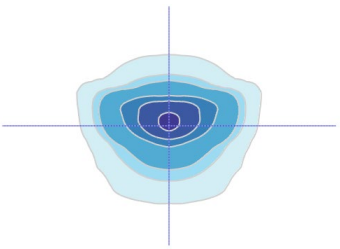

LENSO FLEX™4

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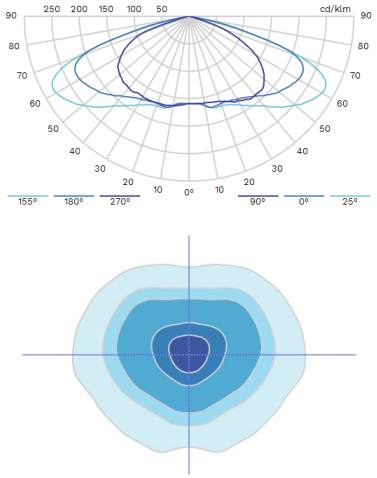

LENSO FLEX™4

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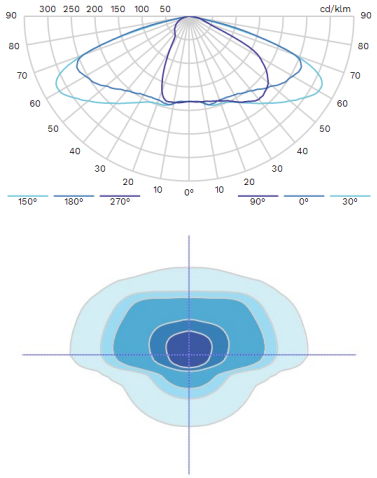
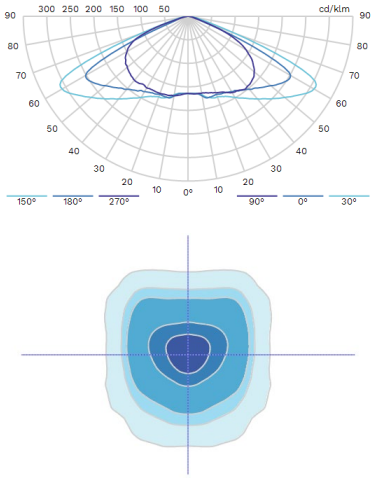


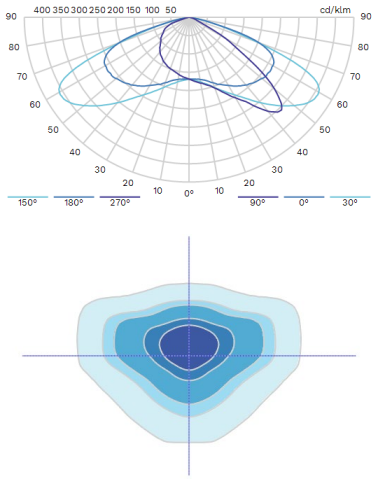
LENSO FLEX™4

5304 GL



LENSO FLEX™4

5308



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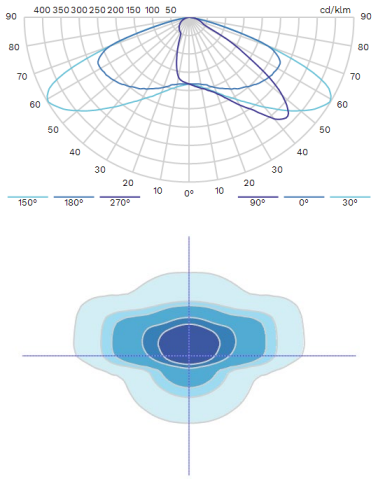

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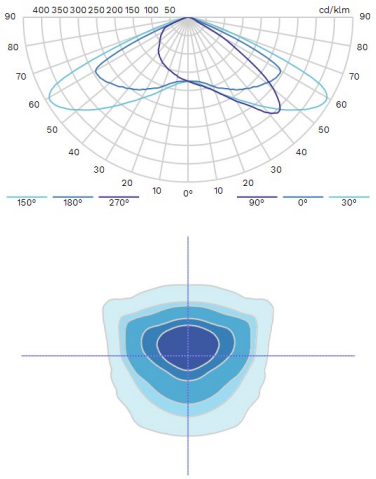

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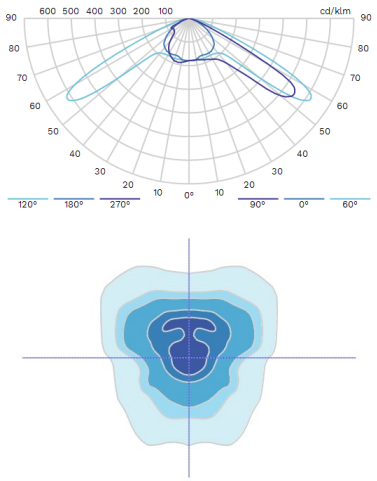

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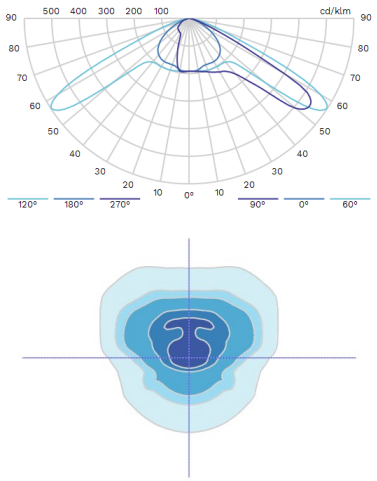

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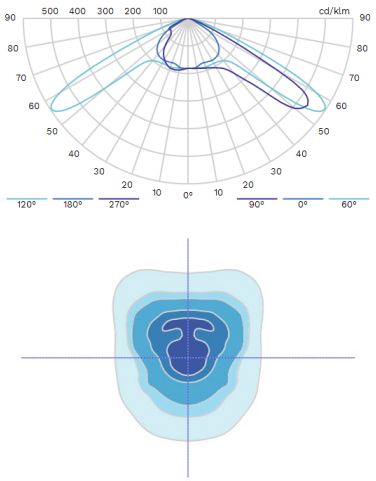

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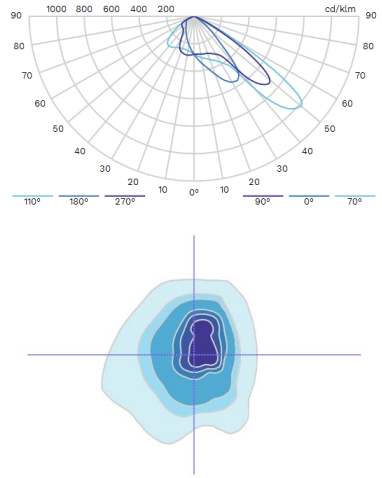
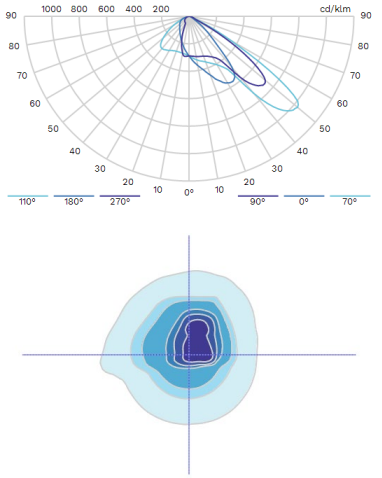
5369 ZR



LENSO FLEX™4

5369 ZR BL



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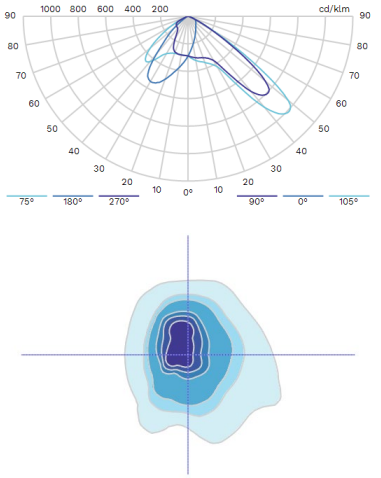

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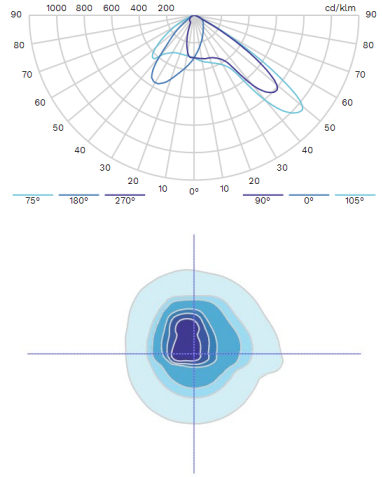

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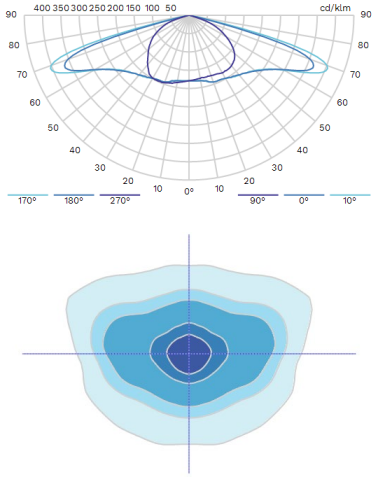

LENSO FLEX™4

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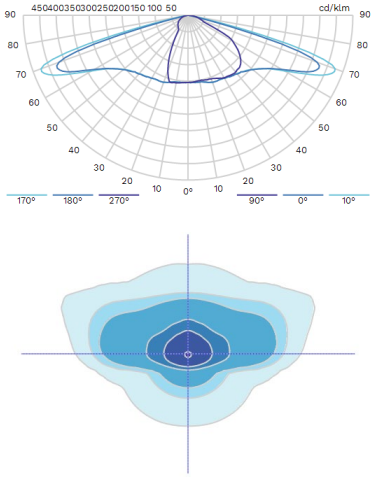

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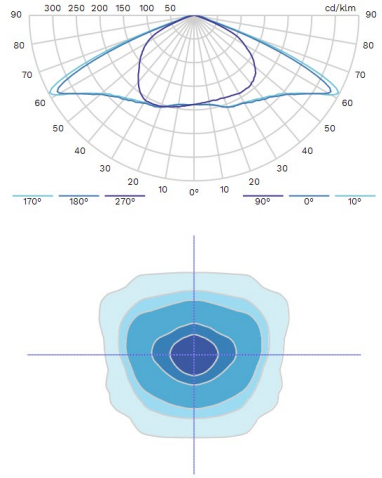
5392 GL



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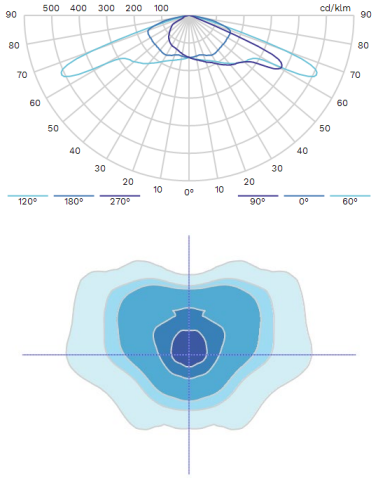

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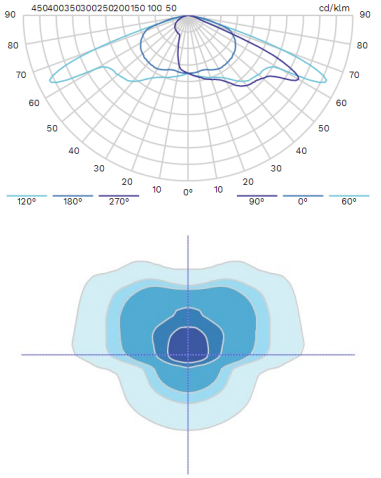

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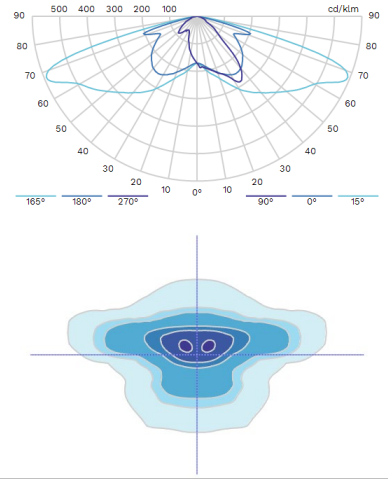

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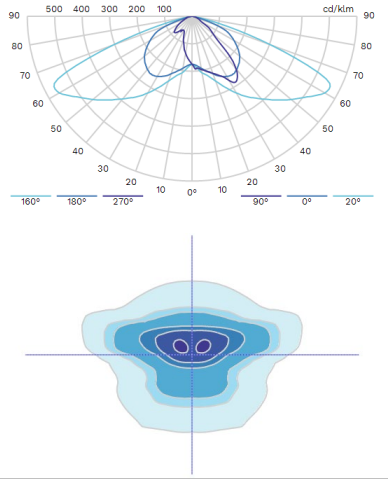

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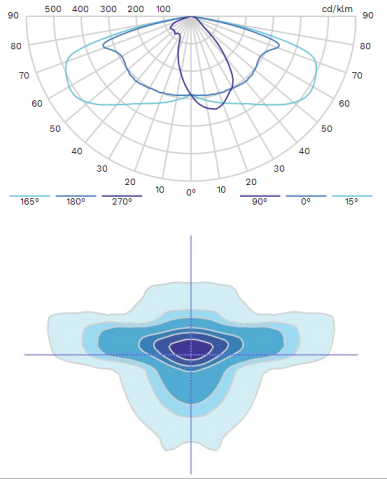
5399



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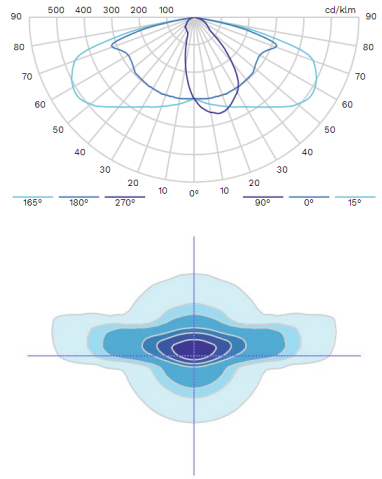

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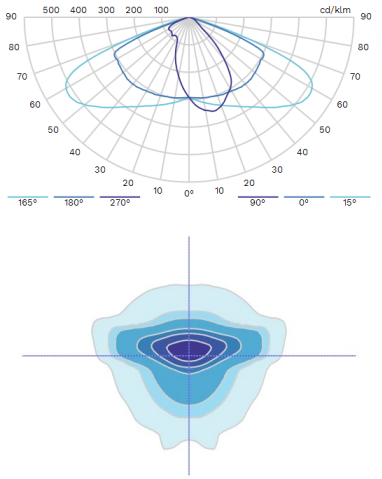

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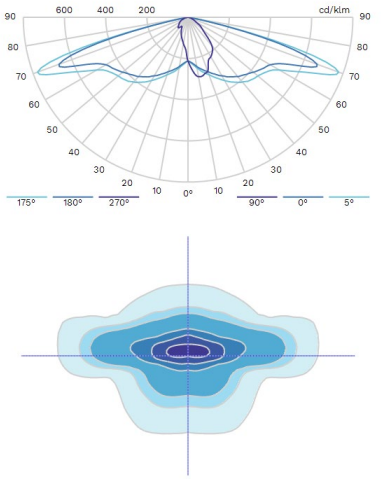

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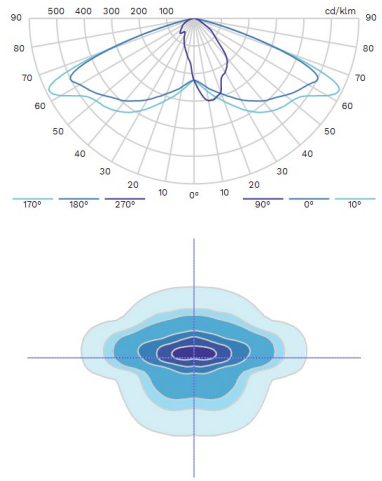

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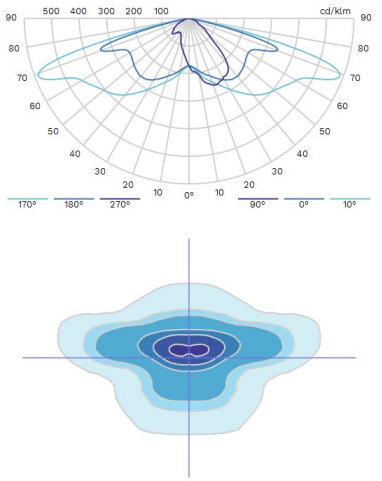

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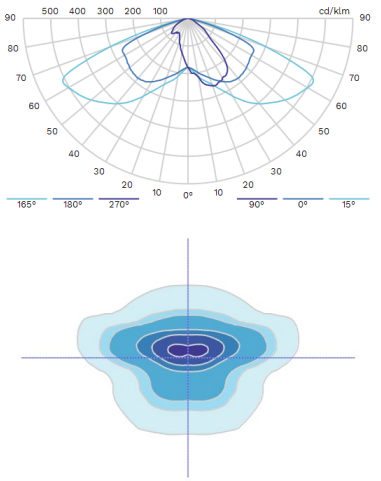

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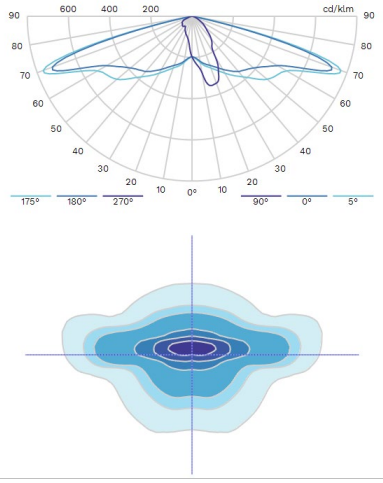

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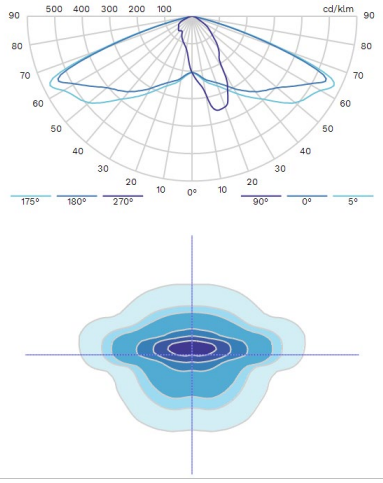

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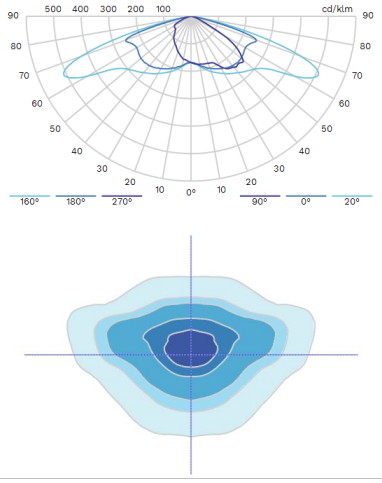

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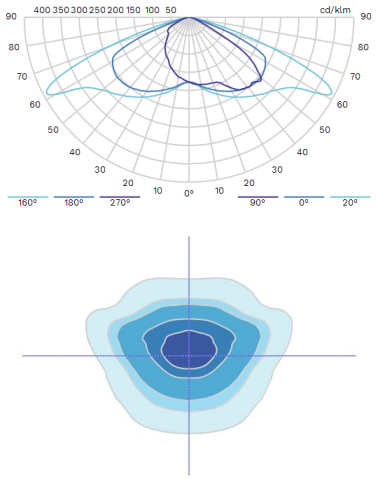

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50010