Schréder
Experts in lightability™

DECORATIVE

FLEXIA TOP

Designer : iOl Design

LENSO FLEX™4

The ultimate platform for your unique urban lighting solution

Various designs, many configurations, one single DNA. FLEXIA is the ultimate platform to create your unique urban lighting solution. Focus on creating a unique ambiance for people living and visiting your spaces instead of dealing with non-stop constraints. With no technical limitations, more design consistency and the guarantee of the latest innovations, FLEXIA offers a versatile technological platform with refined aesthetics. FLEXIA incorporates a refined design with an advanced and interchangeable technology compatible with a circular economy. Ideal for large boulevards, city centres, public squares, bike paths and other urban outdoor areas, FLEXIA delivers a high-quality lighting with design consistency and lowers the carbon footprint for towns and cities - creating a safe and attractive environment.

IP 66 | IK 09 | UL 1598 CSA C22.2 No. 250.0 | 005 certification | RoHS

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

Concept

FLEXIA TOP is a decorative post-top luminaire designed to provide the greatest modularity and easy customisation. It is composed of an aluminum body sealed with a polycarbonate protector.

Create a unique lighting ambiance thanks to the FLEXIA TOP accessories like Coppa and Quattro. FLEXIA TOP also offers three different decorative crowns: the Mona as standard and the Lisa or Scala as options. Both the Lisa and Scala crowns can have a customised finish (colour, pattern, texture) to enhance your identity.

FLEXIA TOP is part of the FLEXIA range and shares the same technical architecture for more consistency and interchangeability. It relies on the new LensoFlex®4 photometrical engine, developed on a concept of performance, dark-sky compliance (PureNight) and versatility, and use the same CR-Kit that regroups the LEDs, lenses, gear and electrical accessories on a tool-free removable unit. This standardisation of internal components enables an easier and more cost-effective management of spare parts.

To simplify installation, FLEXIA TOP is delivered pre-cabled. FLEXIA TOP offers a tool-free access to the gear compartment. For safety reasons, it includes an instant electrical disconnection on opening.

The FLEXIA TOP luminaire is available with various connectivity options (NEMA or Zhaga), sensors and the FlexiWhite solution that adapts the colour temperature of the lighting to the need of the space and the moment. Thanks to tool-free access to the optical compartment, Croma coloured filters can be added any time to create a special atmosphere for events.

Built with recyclable materials and with an architecture designed for easy service, FLEXIA TOP is a role model for a circular economy.

TYPES OF APPLICATION

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

KEY ADVANTAGES

- State-of-the-art LED modular platform that can be endlessly customised
- Design consistency for all urban applications
- Numerous mounting possibilities
- Tool-free philosophy: opening, cabling and LED engine removal
- PureNight: dark-sky and low-glare lighting distributions
- FlexiWhite option for human-centric and nature-friendly scenarios
- Supplied pre-cabled to facilitate its installation
- Connected-ready for your future Smart city requirements
- Based on open and interoperable standards
- Compatible with the Schréder EXEDRA control platform
- Zhaga-D4i certified

FLEXIA TOP offers a slip-over mounting on Ø60 or Ø76mm spigots.

FLEXIA TOP can be customised with three different crowns and internally enhanced with various accessories for more modularity and creativity.

FLEXIA TOP includes an instant electrical disconnection on opening and a complete tool-free removable LED engine.

To remain as open and interoperable as possible, FLEXIA TOP is available with both NEMA or Zhaga sockets and complies with the new ZD4i standard.

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FLEXIA TOP | Standard

FLEXIA TOP | With Coppa accessory

FLEXIA TOP | With Quattro accessory

FLEXIA TOP | With Croma coloured filter

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FLEXIA TOP | With Coppa accessory + Croma coloured filter

FLEXIA TOP | With customised crowns

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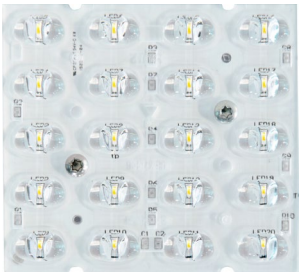
LensoFlex®4

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.



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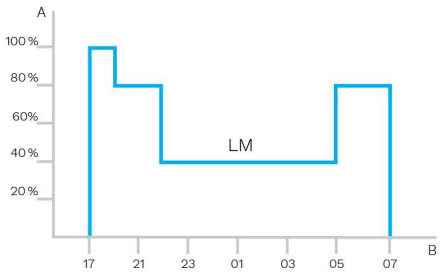
Custom dimming profile

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.

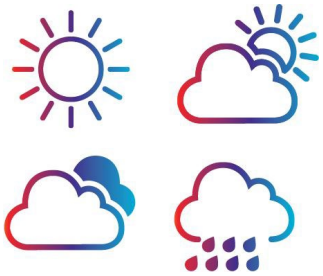
The period between switching on and switching off is used to activate the preset dimming profile. The customised dimming system generates maximum energy savings while respecting the required lighting levels and uniformity throughout the night.



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.

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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

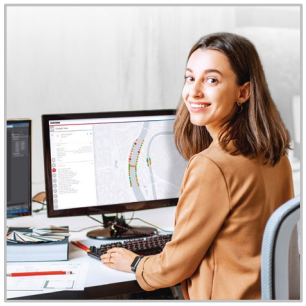
With EXEDRA, Schréder has taken a technology-agnostic approach: we rely on open standards and protocols to design an architecture able to interact seamlessly with third-party software and hardware solutions. Schréder EXEDRA is designed to unlock complete interoperability, as it offers the ability to:

- 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

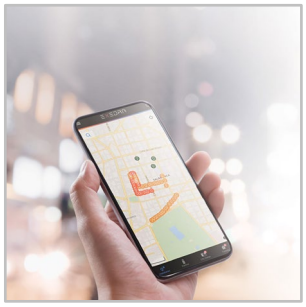
Data is gold. Schréder EXEDRA brings it with all the clarity managers need to drive decisions. The platform collects massive amounts of data from end devices and, aggregates, analyses and intuitively displays them to help end-users take the right actions.

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.

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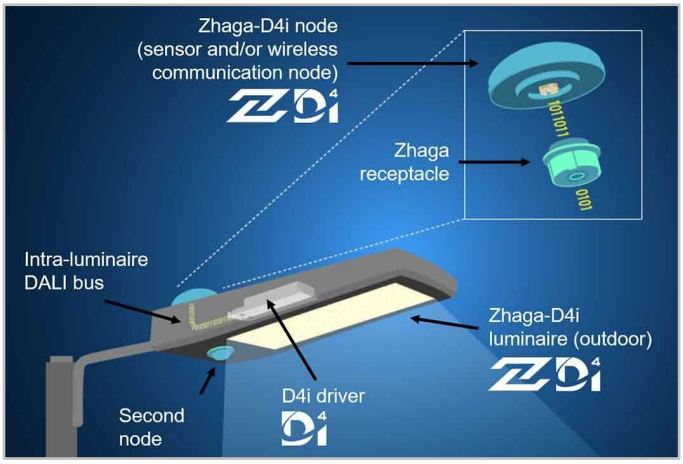
The Zhaga consortium joined forces with the DiiA and produced a single Zhaga-D4i certification that combines the Zhaga Book 18 version 2 outdoor connectivity specifications with the DiiA's D4i specifications for intra-luminaire DALI.



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.

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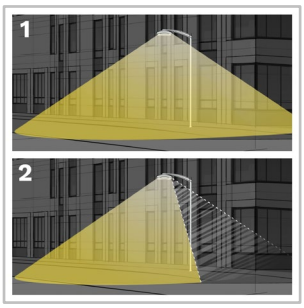
With the PureNight concept, Schréder offers the ultimate solution for restoring the night sky without switching off cities, while maintaining safety and well-being for people and preserving wildlife. The PureNight concept guarantees that your Schréder lighting solution satisfies environmental laws and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

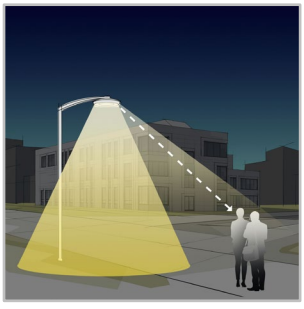
Direct the light only where it is wanted and needed



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.

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GENERAL INFORMATION

Recommended installation height	4m to 5m | 11' to 16'
FutureProof	Easy replacement of the photometric engine and electronic assembly on-site
Circle Light label	Score ≥90 - The product fully meets circular economy requirements
Driver included	Yes
CE mark	Yes
CB mark	Yes
ENEC certified	Yes
ENEC+ certified	Yes
UL certified	Yes
ROHS compliant	Yes
Dark Sky friendly lighting (IDA certification)	Yes
Zhaga-D4i certified	Yes
French law of December 27th 2018 - Compliant with application type(s)	a, b, e
BE 005 certified	Yes
RCM mark	Yes
UKCA marking	Yes
Testing standard	LM 79-08 (all measurements in ISO17025 accredited laboratory)

· Meets IDA Dark Sky requirements when fitted with a clear protector

HOUSING AND FINISH

Housing	Aluminium
Optic	PMMA
Protector	Polycarbonate
Housing finish	Polyester powder coating
Standard colour(s)	AKZO grey 900 sanded
Tightness level	IP 66
Impact resistance	IK 09
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)	-40°C up to +55°C / -40°F up to 131°F with wind effect

· 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
Power factor (at full load)	0.95+
Surge protection options (kV)	10 20
Electromagnetic compatibility (EMC)	EN 55015 / EN 61000-3-2 / EN 61000-4-5 / EN 61547
Control protocol(s)	1-10V, DALI
Control options	AmpDim, 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	2200K (WW 722) 2700K (WW 727) 3000K (WW 730) 4000K (NW 740)
Colour rendering index (CRI)	>70 (WW 722) >70 (WW 727) >70 (WW 730) >70 (NW 740)
ULOR	<3%
ULR	<3%

· 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 - L95

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

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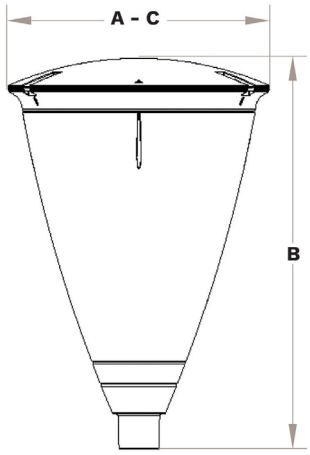
DIMENSIONS AND MOUNTING

AxBxC (mm | inch)	504x752x504 | 19.8x29.6x19.8
Weight (kg | lbs)	10.0 | 22.0
Aerodynamic resistance (CxS)	0.11
Mounting possibilities	Post-top slip-over – Ø60mm Post-top slip-over – Ø76mm

· For more information about mounting possibilities, please consult the installation sheet.



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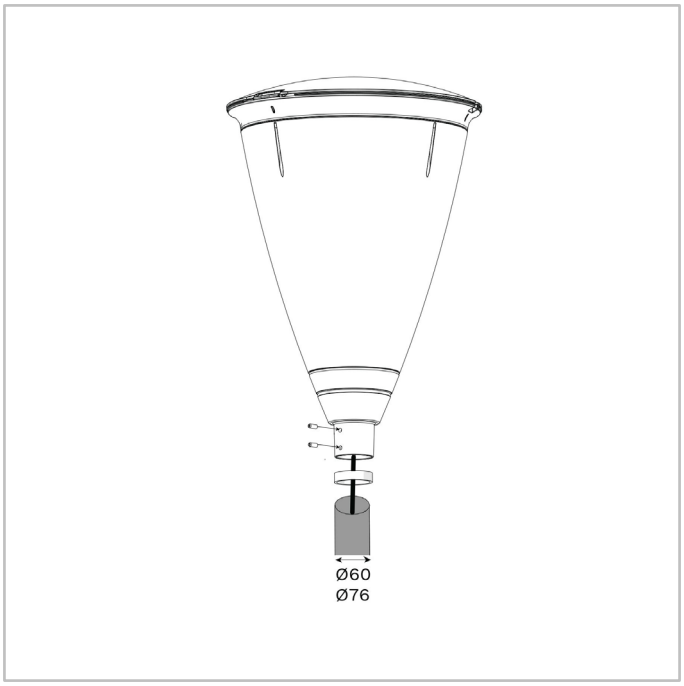
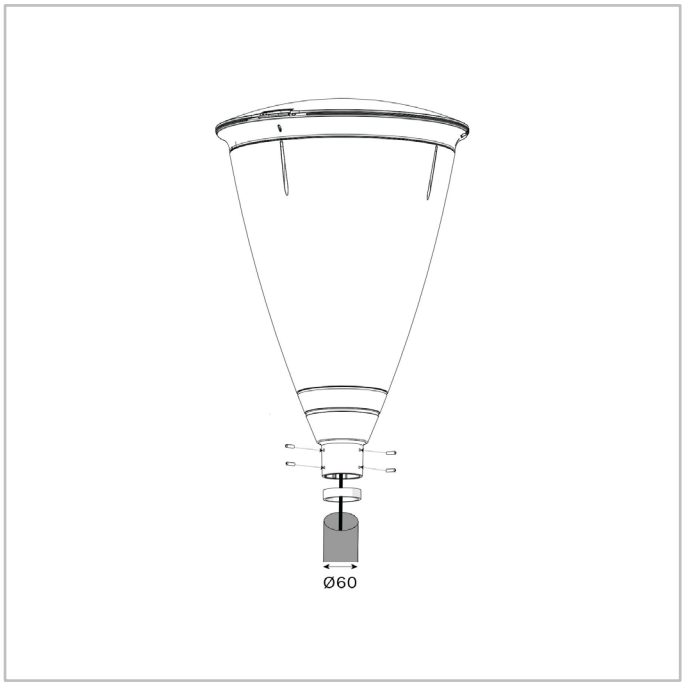
FLEXIA TOP | Universal slip-over mounting Ø60mm (P3) or Ø76mm (P4) - 2XM8 screws



FLEXIA TOP | Slip-over mounting Ø60mm (P6) - 6XM8 screws



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FLEXIA TOP 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		Neutral White 740				
Number of LEDs	Min	Max	Min	Max	Min	Max	Min	Max	Min	Max	Up to
10	600	2100	600	2400	700	2700	700	2700	8	22	136
20	1200	6000	1300	6900	1500	7600	1500	7800	14	66	147
40	2400	9100	2700	10500	3000	11500	3100	11800	25	89	160

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

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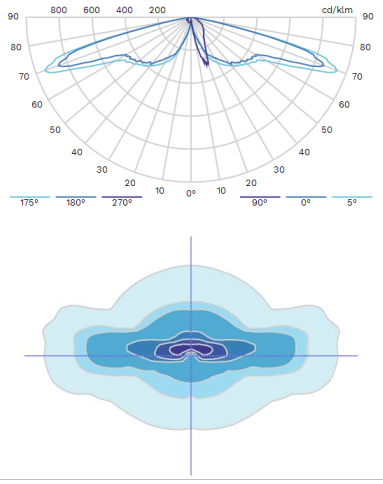
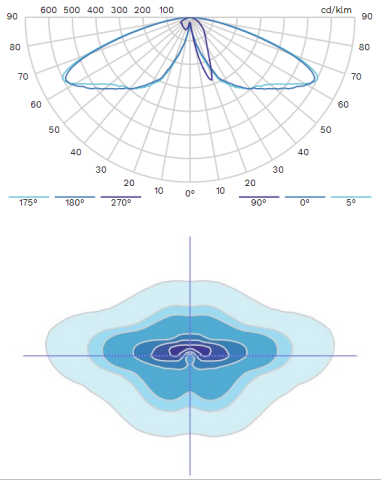
5300 BL



5300 Diffuse protector



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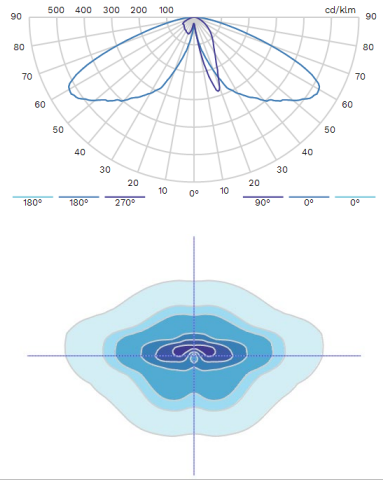

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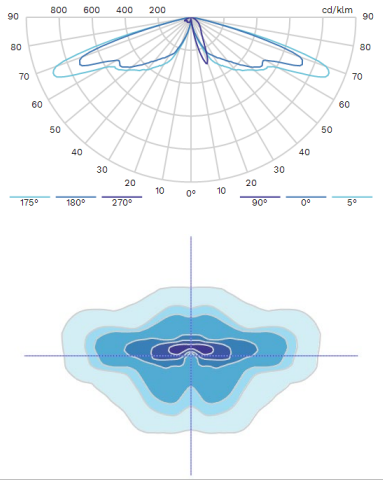

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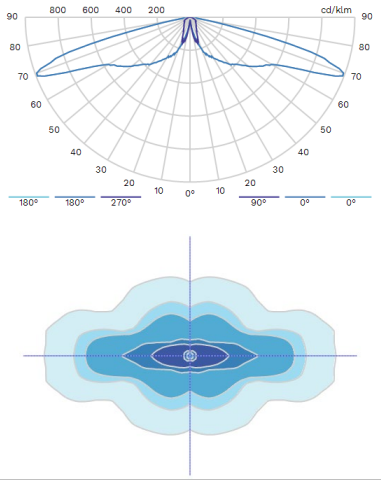

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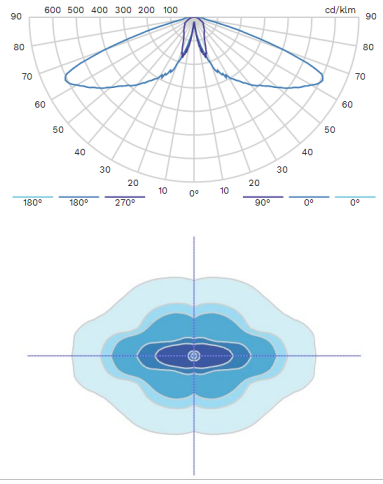

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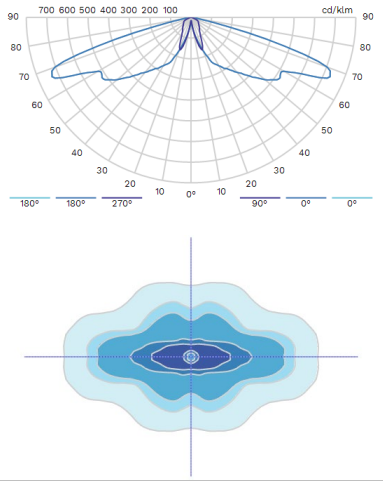
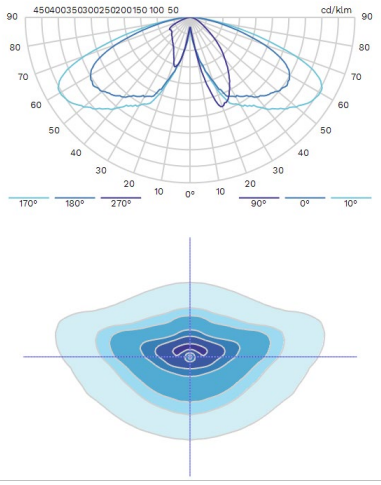
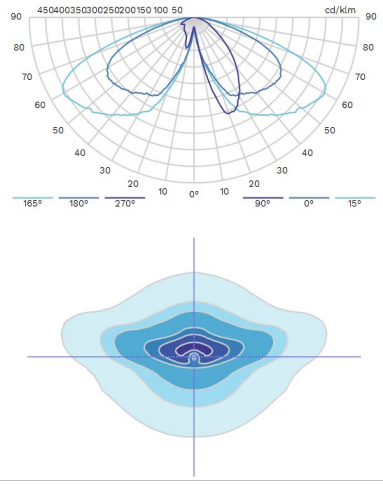


5301 Diffuse protector



5301 Diffuse protector BL



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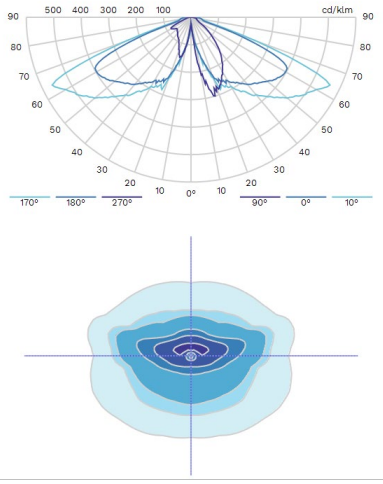
5301 GL



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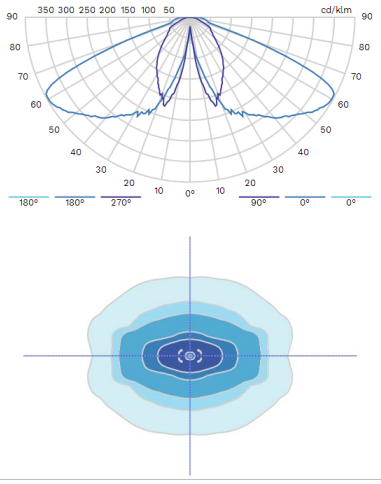

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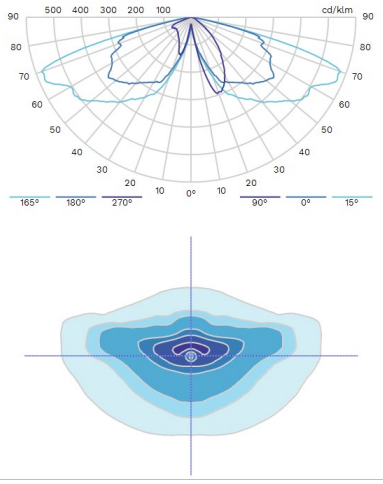

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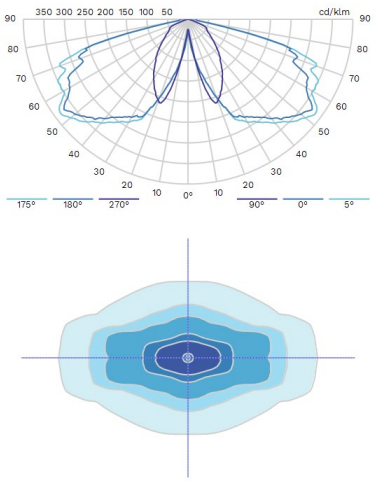

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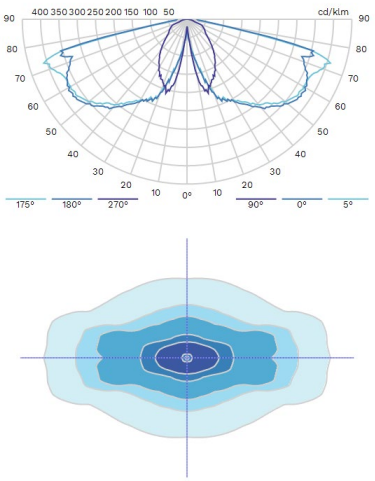

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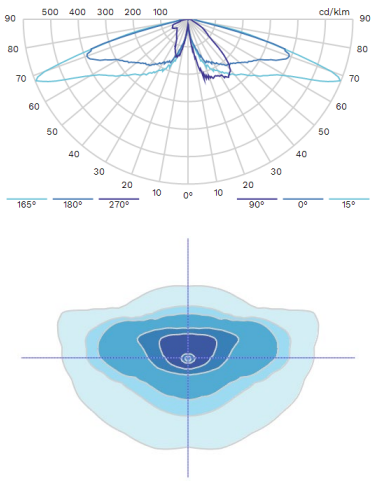

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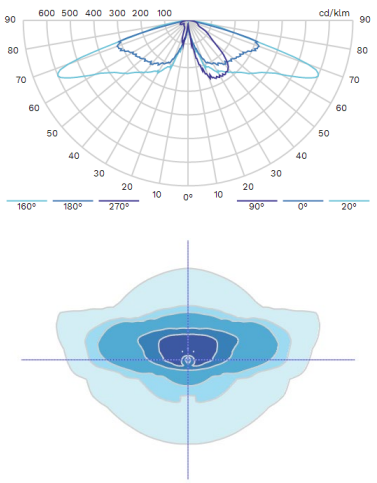

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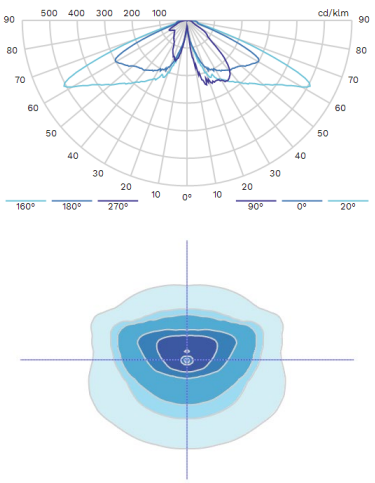

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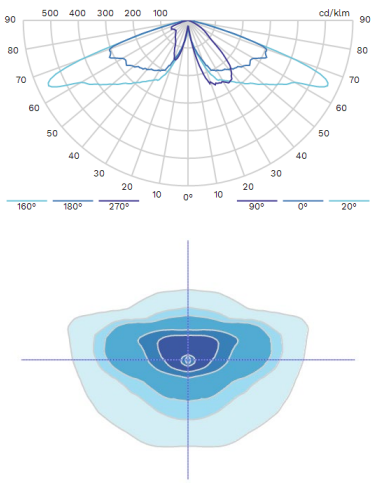

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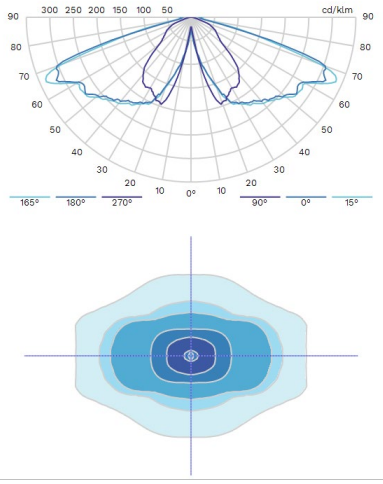
5303 LF SY



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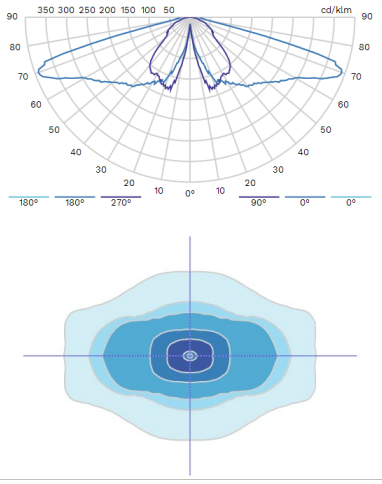

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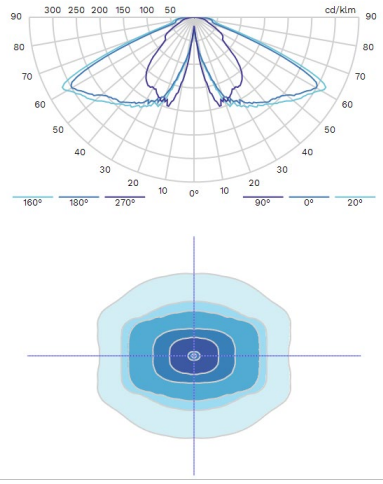

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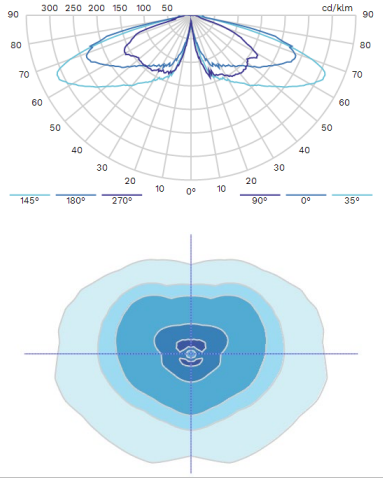

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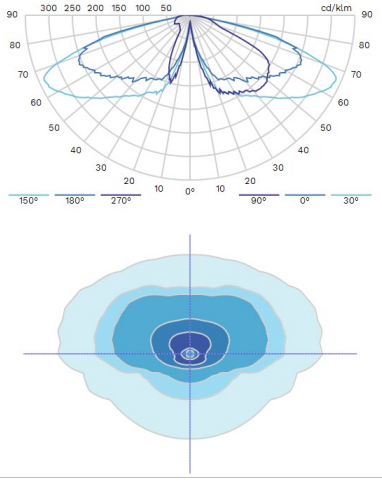
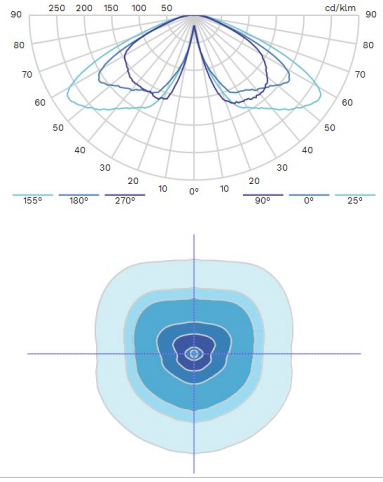


5304 Diffuse protector GL



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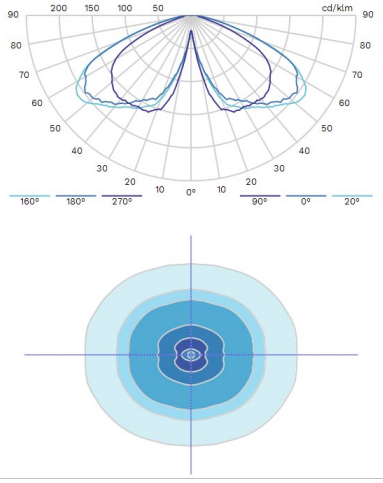

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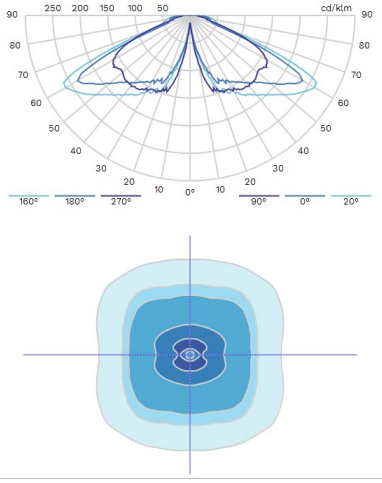

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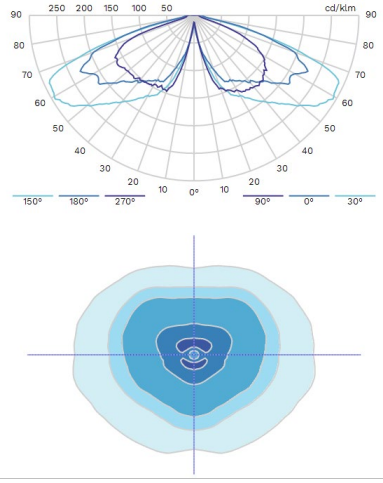

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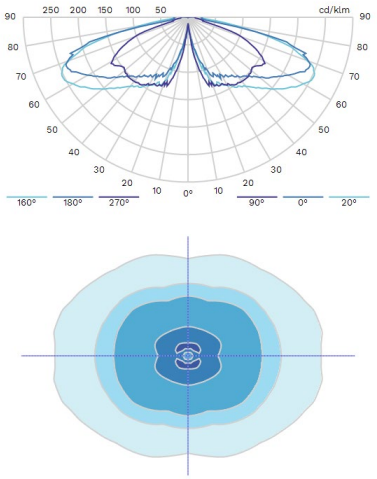

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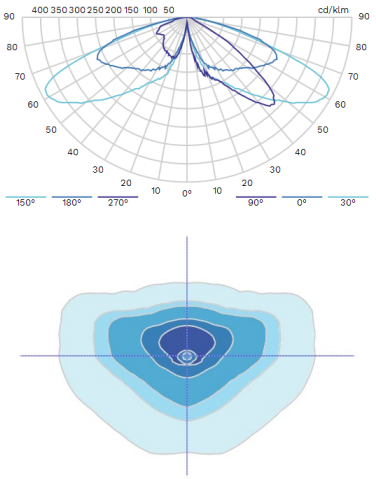

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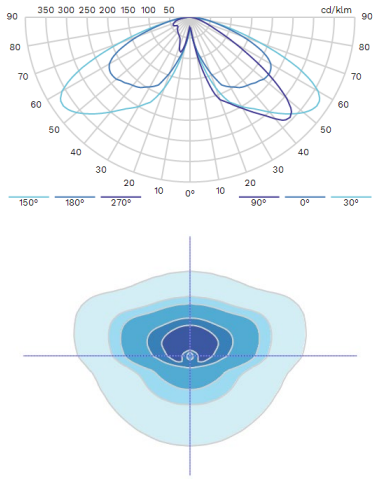

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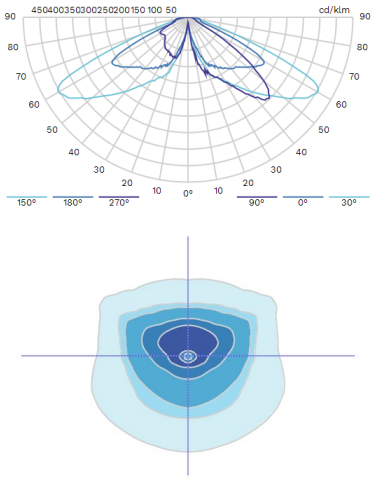

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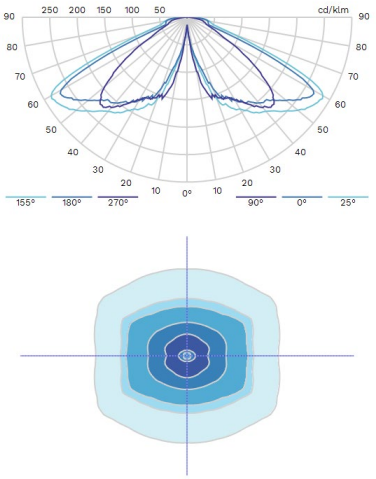

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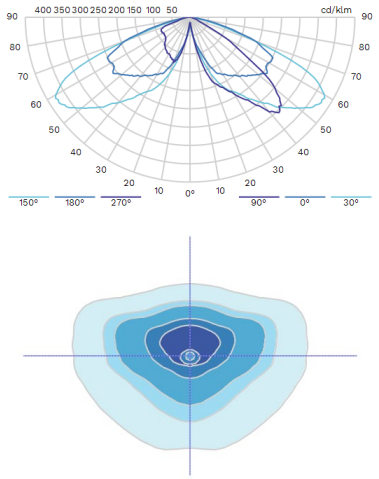

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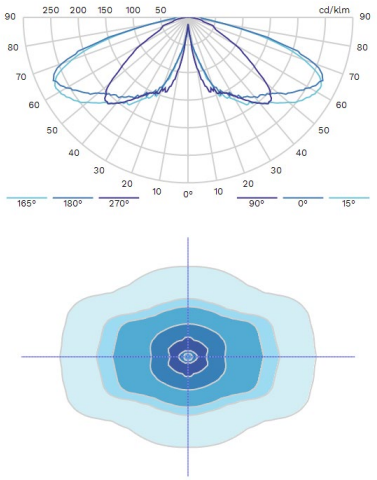

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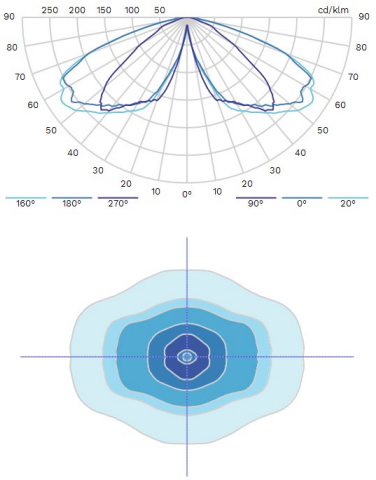

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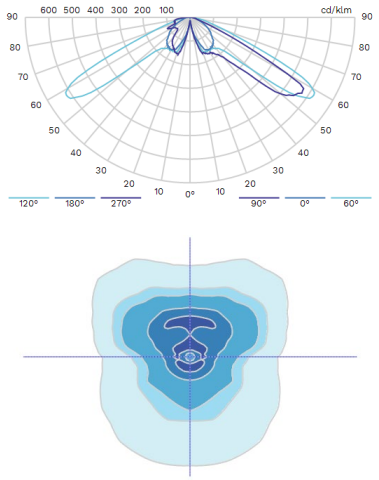

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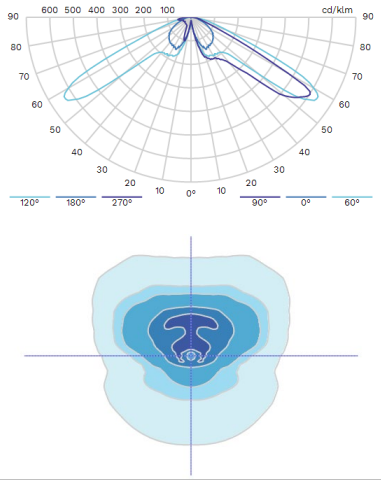
5366 BL



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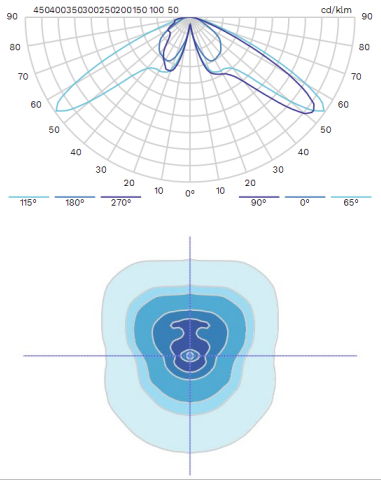

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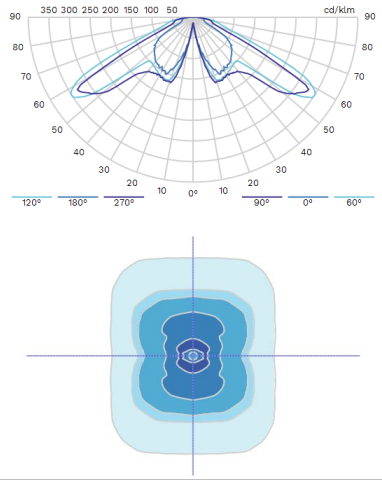

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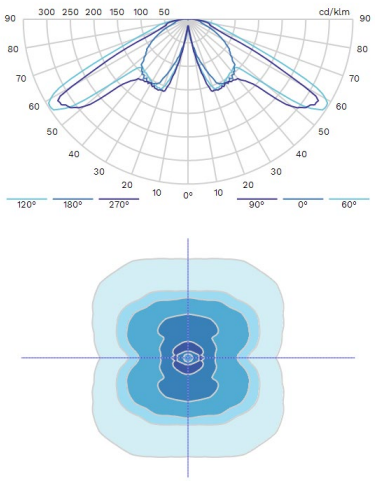

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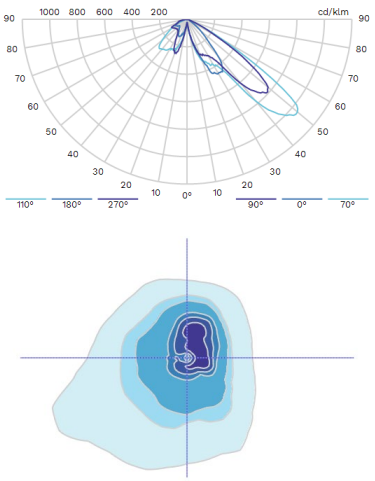

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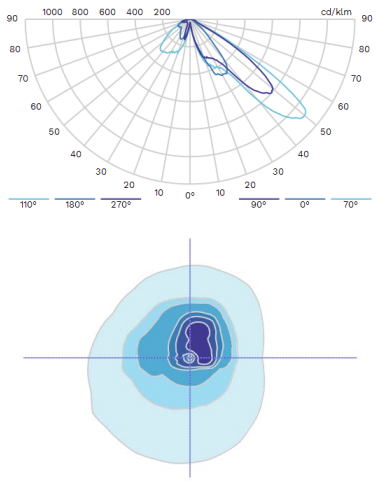

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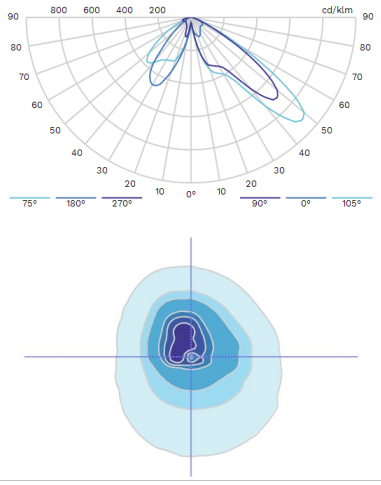

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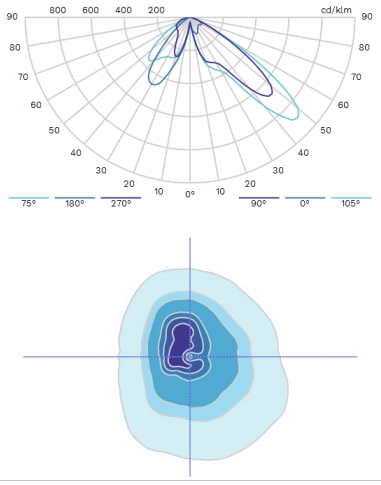
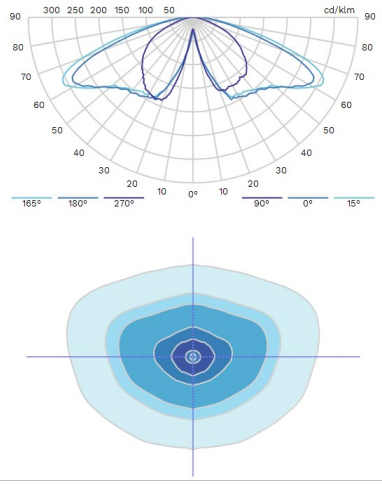


5392 Diffuse protector



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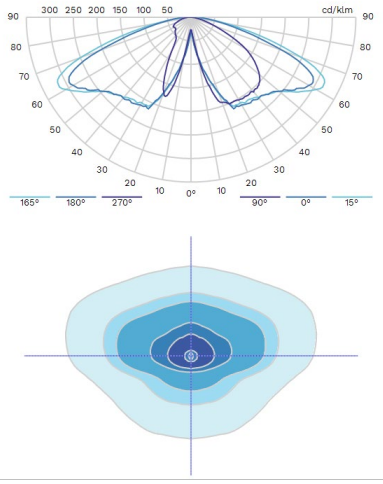
5392 Diffuse protector BL



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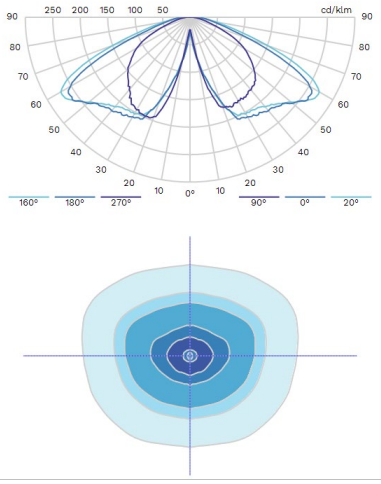

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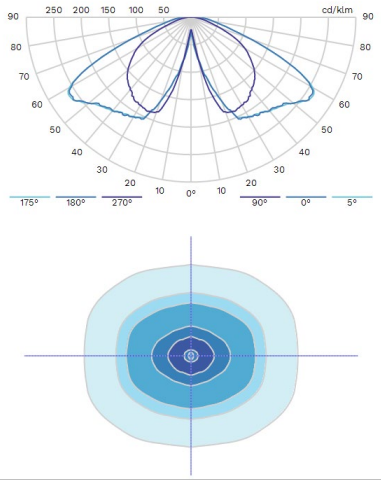

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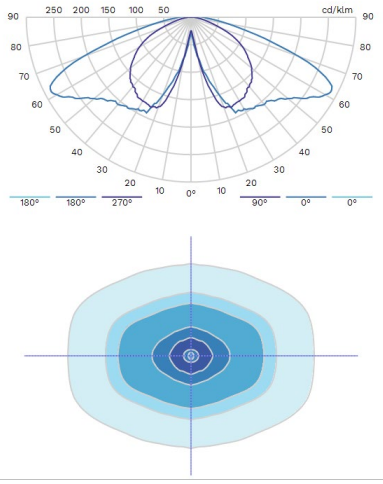

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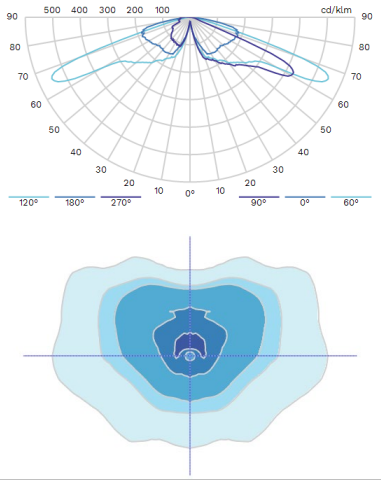

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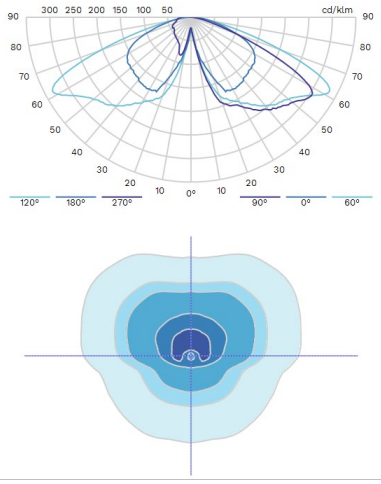

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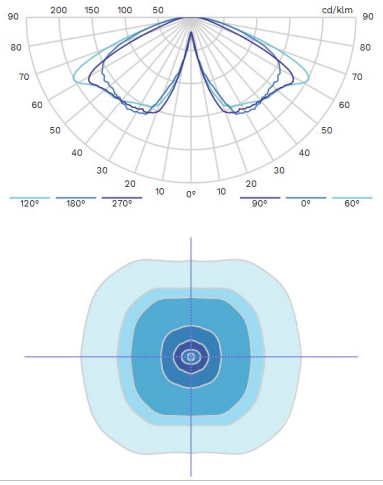

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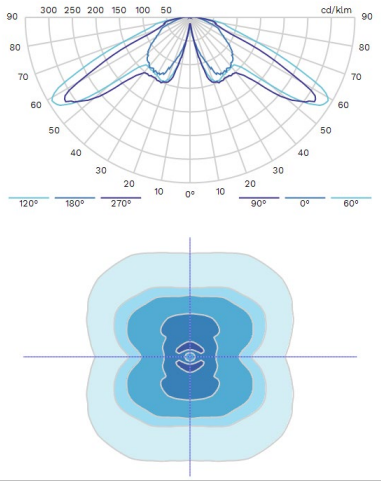

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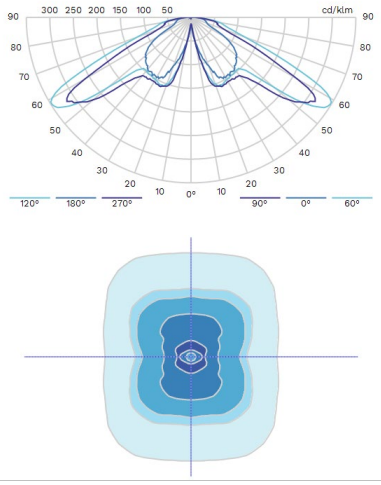

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