Schréder
Experts in lightability™

DECORATIVE

VALSSI

LENSO FLEX™ 4

Timeless, sustainable design for your urban lighting projects

The VALSSI luminaire range genuinely combines timeless urban design with a sophisticated touch, delivering a lighting solution that seamlessly integrates into any cityscape. Designed to meet the needs of diverse urban environments, VALSSI associates the power of LED technology with a wide range of light distributions. This innovative combination provides a comprehensive lighting solution that can be tailored to a variety of projects and settings.

Designed for a circular economy, the VALSSI luminaires provide a high-performance yet sustainable choice for modern lighting networks.

IP 65 | IK 08

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

Concept

The VALSSI luminaires are composed of a die-cast aluminium body with a stylish enclosing lower frame , giving it a touch of sophistication. The protector is fixed to the lower frame and made of flat glass.

The VALSSI's design is not only distinguished by its refined shape, it is also a circular and sustainable solution. Access and removal of the internal components is fully tool-free, by simply releasing hand screws. The electronic components, as well as the LED engines, are fixed to the same internal aluminium plate, also removable with hand screws. This innovative design further eases component replacement, as well as any future upgrade to the luminaire.

Developed to provide the best performance, VALSSI takes advantage of the latest photometric innovations. The Schréder LensoFlex® platform offers flexible, energy-efficient photometric solutions that can be tailored to meet the specific lighting needs of any project while maximising savings and providing a quick return on investment.

A connected-ready lighting solution, VALSSI can be optionally available with a NEMA or a Zhaga socket, providing access to remote management features such as real-time and scheduled control options, dynamic and automated lighting scenarios, maintenance scheduling and energy consumption management.

Its integrated side-entry fixation enables easy mounting onto Ø60mm spigots. VALSSI is also available with a catenary mounting system for wire suspension.

Connected-ready for your future smart lighting projects

Rely on the latest advanced photometric engines to provide the best performance

Built for a circular economy

Tool-free access to ease maintenance

TYPES OF APPLICATION

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

KEY ADVANTAGES

- Timeless design with the advantages of LED technology
- LensoFlex®4 versatile solutions for high-end photometries maximising comfort and safety
- Connected-ready
- Based on open and interoperable standards
- Tool-free access for easy maintenance
- FutureProof: follows the principles of circular economy
- Zhaga-D4i certified
- RCM-compliant

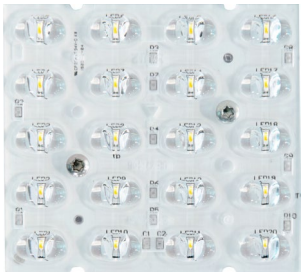
VALSSI | Mini

VALSSI | Midi

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.

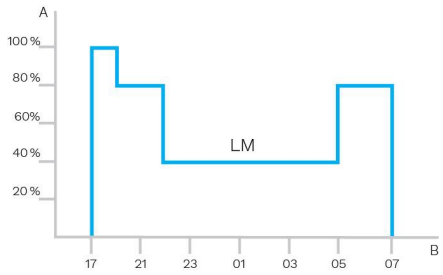
LensoFlex®4 optics can feature backlight control to prevent intrusive lighting, or a glare limiter for high visual comfort.



Custom dimming profile

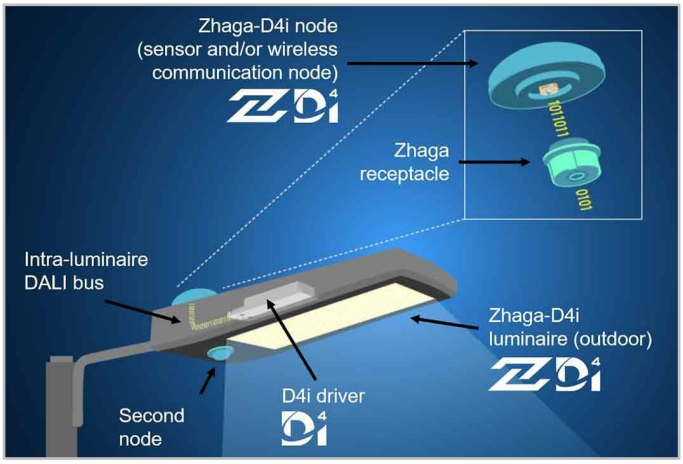
Intelligent luminaire drivers can be programmed with complex dimming profiles. Up to five combinations of time intervals and light levels are possible. This feature does not require any extra wiring.

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

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

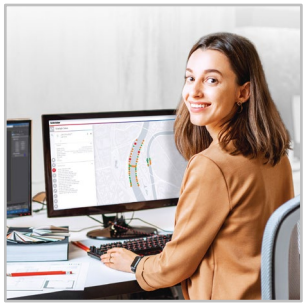
With EXEDRA, Schréder has taken a technology-agnostic approach: we rely on open standards and protocols to design an architecture able to interact seamlessly with third-party software and hardware solutions. Schréder EXEDRA is designed to unlock complete interoperability, as it offers the ability to:

- 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

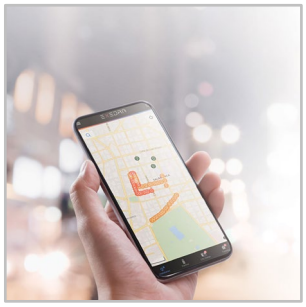
Data is gold. Schréder EXEDRA brings it with all the clarity managers need to drive decisions. The platform collects massive amounts of data from end devices and, aggregates, analyses and intuitively displays them to help end-users take the right actions.

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.

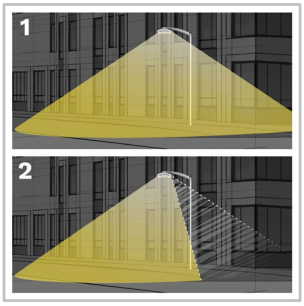
Mobile App: any time, any place, connect to your street lighting



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.

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.

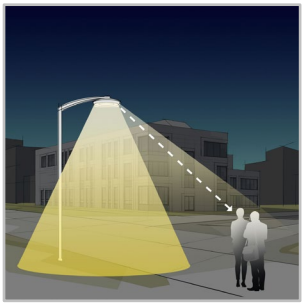
Direct the light only where it is wanted and needed



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.

Get the starry sky back

The Upward Light Ratio (ULR) and Upward Light Output Ratio (ULOR), the latter taking the flux from the luminaire into account, provide information on the percentage of light emitted towards the sky. This Schréder range of luminaires minimises or eliminates (depending on the options) upward-directed light flux. It complies with strict international and local requirements.

GENERAL INFORMATION

Circle Light label	Score ≥90 - The product fully meets circular economy requirements
CE mark	Yes
ENEC certified	Yes
ENEC+ certified	Yes
Zhaga-D4i certified	Yes
RCM mark	Yes
Testing standard	EN 60598-1 EN 60598-2-3 EN 62262 IEC 62493 IEC 62471

HOUSING AND FINISH

Housing	Aluminium
Optic	PMMA
Protector	Tempered glass
Housing finish	Polyester powder coating
Standard colour(s)	RAL 7016 anthracite grey
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 +55°C / -22°F up to 131°F with wind effect

· 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 55015 / EN 61000-3-2 / EN 61000-3-3 / EN 61547
Control protocol(s)	1-10V, DALI
Control options	Bi-power, Custom dimming profile, Photocell, Remote management
Socket	Zhaga (optional) NEMA 7-pin (optional)
Associated control system(s)	Schréder EXEDRA

OPTICAL INFORMATION

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

· 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

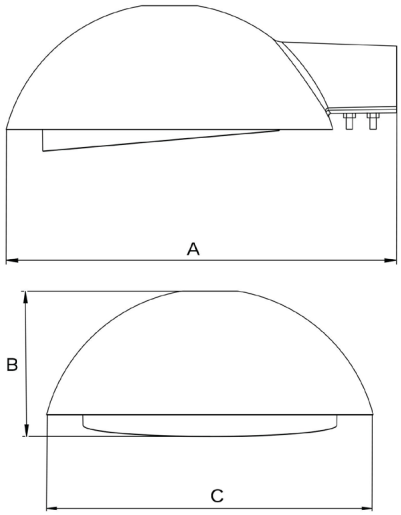
All configurations	100,000h - L95

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

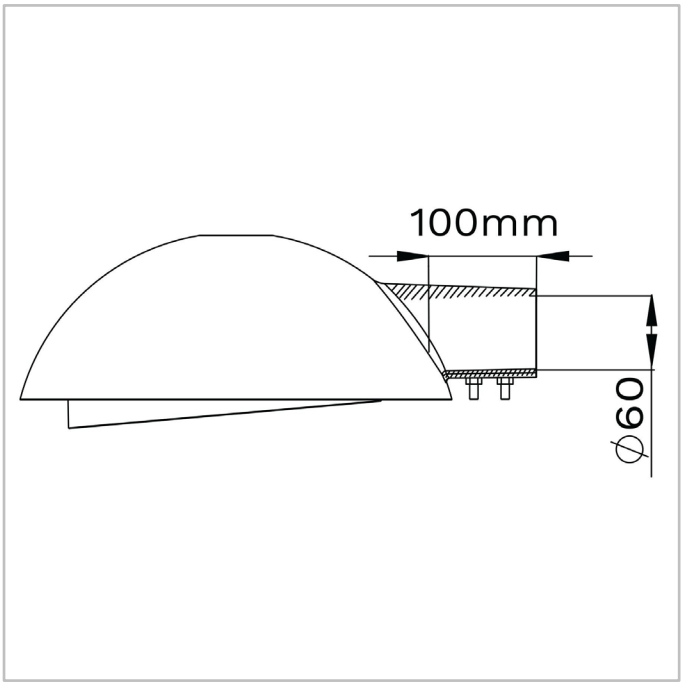
DIMENSIONS AND MOUNTING

AxBxC (mm | inch)	VALSSI MINI : 495x185x414 | 19.5x7.3x16.3 VALSSI MIDI : 635x230x560 | 25.0x9.1x22.0
Weight (kg | lbs)	VALSSI MINI : 7.0 | 15.4 VALSSI MIDI : 12.0 | 26.4
Aerodynamic resistance (CxS)	VALSSI MINI : 0.06 VALSSI MIDI : 0.09
Mounting possibilities	Side-entry slip-over – Ø60mm Catenary

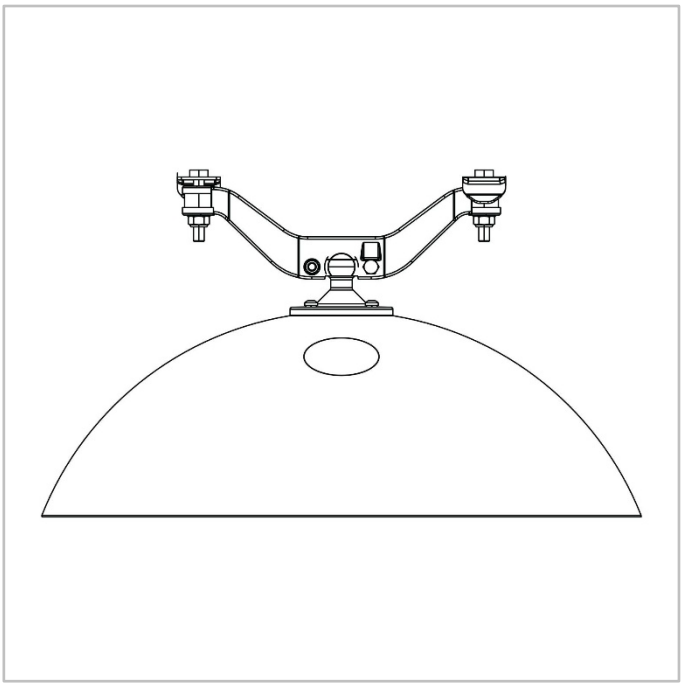
· *For more information about mounting possibilities, please consult the installation sheet.*



VALSSI | Side-entry mounting for Ø60mm spigots



VALSSI | Catenary fixation



VALSSI MINI

Photometry

LENSO FLEX™4

	Luminaire output flux (lm)										Power consumption (W)		Luminaire efficacy (lm/W)
	Warm White WW 722		Warm White WW 727		Warm White WW 730		Warm White WW 830		Neutral White NW 740				
Number of LEDs	Min	Max	Min	Max	Min	Max	Min	Max	Min	Max	Min	Max	Up to
10	700	2000	800	2200	800	2400	800	2200	900	2600	7	21	137
20	1500	4100	1600	4500	1700	4800	1600	4500	1900	5200	14	39	146
30	2200	6100	2400	6800	2600	7200	2400	6800	2800	7800	19	57	155
40	3000	8200	3200	9000	3500	9600	3200	9000	3800	10500	25	75	156
50	3700	10100	4100	11100	4400	11800	4100	11100	4700	12800	31	93	159

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

VALSSI MIDI

Photometry

LENSO FLEX™4

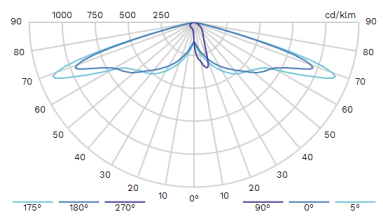
	Luminaire output flux (lm)										Power consumption (W)		Luminaire efficacy (lm/W)
	Warm White WW 722		Warm White WW 727		Warm White WW 730		Warm White WW 830		Neutral White NW 740				
Number of LEDs	Min	Max	Min	Max	Min	Max	Min	Max	Min	Max	Min	Max	Up to
40	200	8300	200	9200	200	9800	200	9200	200	10600	24	78	168
50	3800	10400	4200	11500	4400	12200	4200	11500	4800	13300	30	97	170
60	4500	12500	5000	13800	5300	14700	5000	13800	5800	16000	36	113	172
70	5300	14600	5800	16100	6200	17200	5800	16100	6800	18600	42	130	173
80	400	16700	400	18400	400	19600	400	18400	500	21300	47	151	174

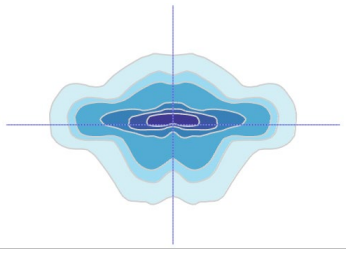
Tolerance on LED flux is ± 7% and on total luminaire power ± 5 %

LensoFlex4

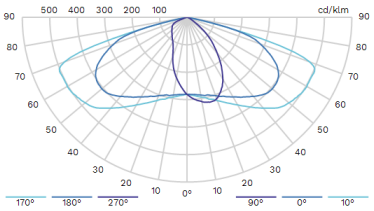
LENSO FLEX™4

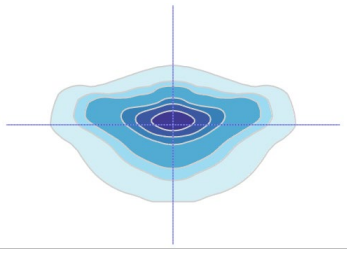
5300 Ultra-Narrow



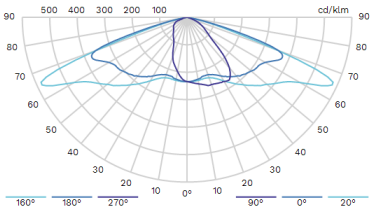


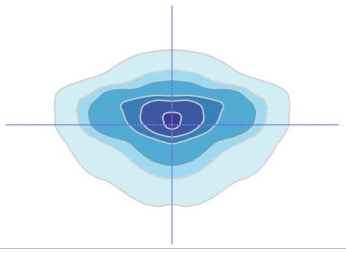
5301 Narrow





5303 Medium





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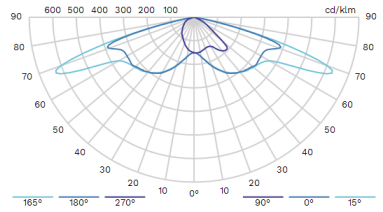

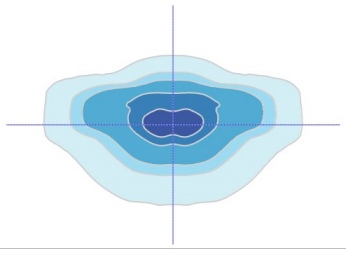

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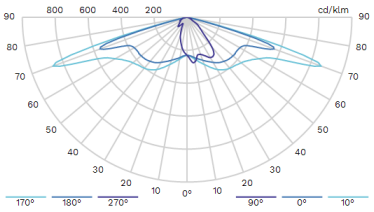

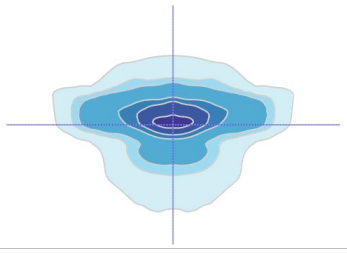

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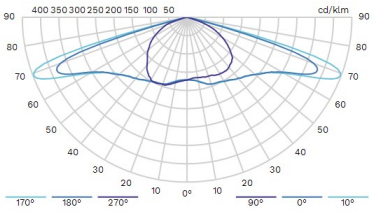
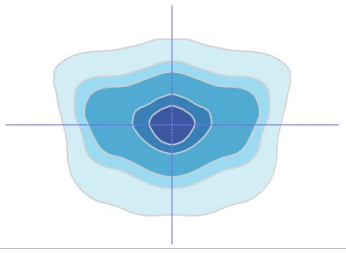
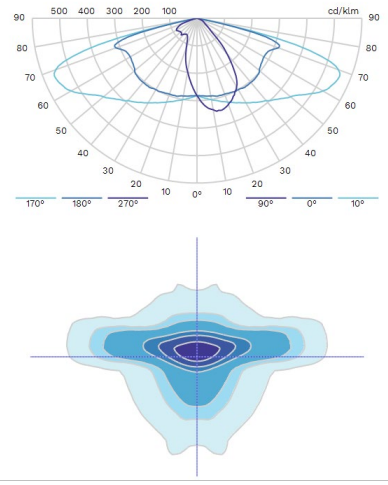
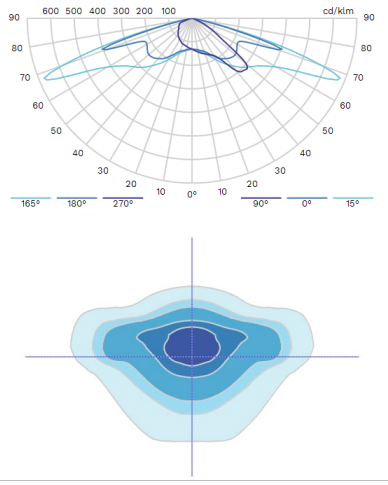




LENSO FLEX™4 5399 **Medium**



LENSO FLEX™4 5307 **Wide**



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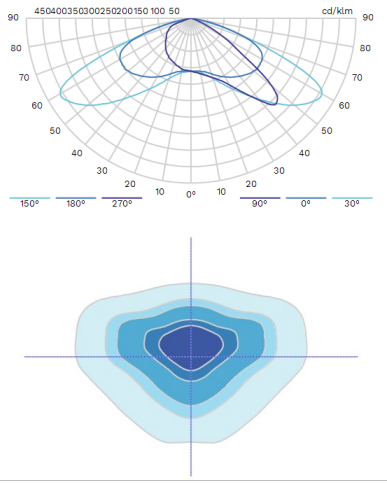

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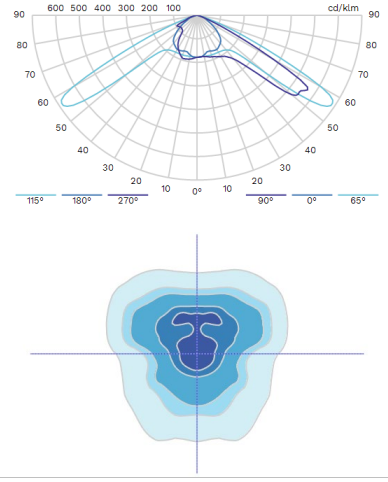

LENSO FLEX™4 5393 **Ultra-Wide**