Schréder
Experts in lightability™

ROAD

IZYLUM NEO

HI FLEX™ 1&2
HI FLEX™ 2
LENSO FLEX™ 4

A New Benchmark in Road Lighting Excellence

Developed from the trusted experience of the IZYLUM luminaire range and decades of expertise in road lighting, IZYLUM NEO introduces a next-generation solution for modern road and urban illumination.

Benefiting from the strengths of its predecessors while firmly focusing on the future, IZYLUM NEO offers a combination of energy efficiency, intuitive usability and long-term durability.

Featuring versatile photometric platforms, this luminaire can be tailored to match various road typology needs and lighting classes.

Thanks to its optimised, user-centric design, IZYLUM NEO simplifies installation and maintenance, and integrates seamlessly with existing smart lighting systems, while minimising environmental impact.

IZYLUM NEO provides the best lighting experience at every stage, for installers, city planners and citizens alike.

IP 66 | IK 10

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

Concept

The IZYLUM NEO luminaires have been optimised to deliver enhanced energy efficiency in a compact, user-friendly, sustainable housing.

The luminaires' body and fixation parts are made of die-casted aluminium, while the protector is made of flat glass. Combining durable materials and an aerodynamic profile, IZYLUM NEO is built to withstand the rigours of time and the environment, ensuring long-lasting reliability with minimal maintenance requirements.

Available in different sizes, IZYLUM NEO provides a well-dimensioned, efficient lighting solution suitable for various road and urban applications.

Engineered for the best efficiency, it takes advantage of the LensoFlex®4 and HiFlex™ photometric platforms, offering flexible, energy-efficient solutions that can be tailored to meet the specific lighting needs of any project, while maximising savings and providing a quick return on investment.

To simplify installation and maintenance operations, IZYLUM NEO benefits from the latest generation of the IzyFix universal fixation system, adapted to post-top and side-entry mounting on any spigot (Ø32mm, Ø42-48mm, Ø60mm and Ø76mm). This innovative fixation enables switching from one position to another at any time, without removing the luminaire from the pole. This unique feature eases installation and offers complete versatility for pole and bracket configurations.

IZYLUM NEO can optionally be equipped with a NEMA or a Zhaga socket, enabling it to easily integrate with existing connected lighting networks to support the development of smart cities. Thanks to an optional lower socket, the addition of a sensor is fast and easy, providing light-on-demand scenarios.

TYPES OF APPLICATION

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

KEY ADVANTAGES

- LensoFlex®4 versatile solutions for high-end photometries maximising comfort and safety
- HiFlex™ photometric engine designed for optimised energy efficiency
- Maximised savings in energy and maintenance costs
- Designed for long-lasting performance
- Tool-free access with a clear, perceptible click upon closing
- On-site adjustment from post-top to side-entry without disconnecting the luminaire from the pole thanks to IzyFix
- Zhaga-D4i certified
- Connected-ready
- Based on open and interoperable standards

Its modular architecture integrates several photometric engines, enabling tailored light distributions to match diverse road project requirements.

The IZYLUM NEO luminaires support NEMA and Zhaga-D4i connectivity for seamless integration into modern lighting networks.

Designed according to sustainability principles, IZYLUM NEO helps you achieve your durability goals while supporting the development of tomorrow's cities.

Designed for the greatest ease of use, IZYLUM NEO offers a user-friendly mounting system, with on-site adjustable tilting, and tool-free access to electrical components.

IZYLUM NEO | IZYLUM NEO 1

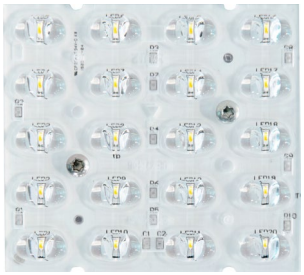
IZYLUM NEO | IZYLUM NEO 2

IZYLUM NEO | IZYLUM NEO 3

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.



HiFlex™

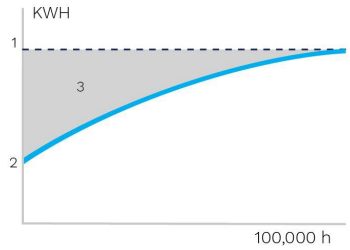
The HiFlex™ platform is expertly designed to optimise energy efficiency. Its photometric engines feature high-power LEDs that deliver exceptional performance while consuming minimal energy, resulting in unmatched efficacy (lm/W).

Ideal for projects that require a streamlined approach to maximising lighting efficacy and achieving swift ROI, HiFlex™ is available in two versions: HiFlex™1, boasting 24 LEDs and HiFlex™2, equipped with 36 LEDs. Both variants are designed with the priorities of compactness, cost-effectiveness and high performance in mind.

Constant Light Output (CLO)

This system compensates for the depreciation of luminous flux to avoid excess lighting at the beginning of the installation's service life. Luminous depreciation over time must be taken into account to ensure a predefined lighting level during the luminaire's useful life.

Without a CLO feature, this simply means increasing the initial power upon installation in order to make up for luminous depreciation. By precisely controlling the luminous flux, the energy needed to reach the required level can be maintained throughout the luminaire's life.

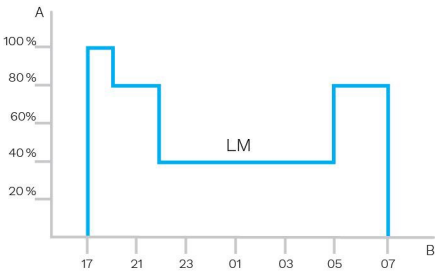


1. Standard lighting level | 2. LED lighting consumption with CLO | 3. Energy savings

Custom dimming profile

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

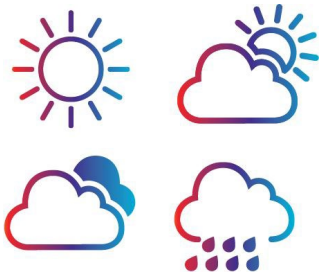
The period between switching on and switching off is used to activate the preset dimming profile. The customised dimming system generates maximum energy savings while respecting the required lighting levels and uniformity throughout the night.



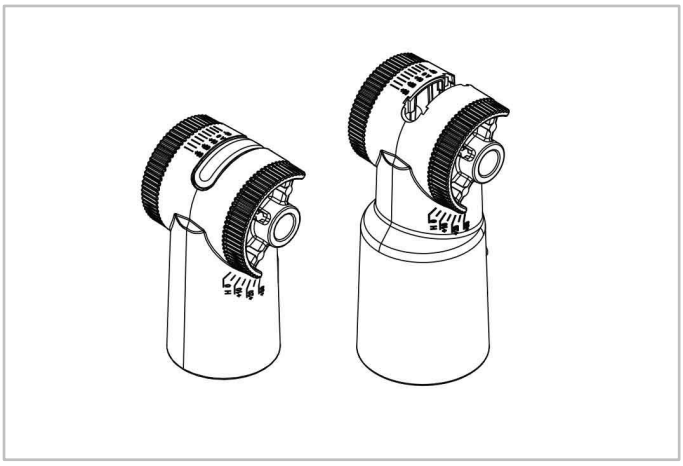
A. Dimming level | B. Time

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.



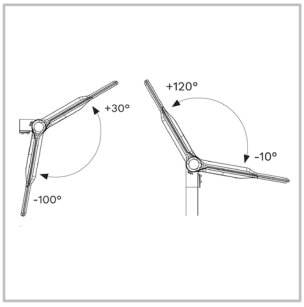
The Schréder IzyFix patented high-pressure die-casted aluminium universal fixation system is an integral part of the luminaire mounted in the factory. The IzyFix system aims to fit needs worldwide by meeting IEC and ANSI 3G testing requirements. It is intended to simplify life for customers and installers in the process of purchasing and installing luminaires for various applications.



From post-top to side-entry in one movement

The innovative design allows changing from a side-entry to a post-top position – even with luminaires ordered with factory pre-cabling – without any switching work on the fixation or disconnection from the pole. Therefore the type of mounting (horizontal or vertical) does not have to be considered when ordering. This unique feature also eases installation. After setting the correct position, an accessory is provided to cover the resulting space and ensure further protection of the luminaire.

Best-in-class tilting range



The IzyFix universal fixation system enables a best-in-class range of mounting angle of 130°*, to ensure maximum lighting performance for all kinds of road scenarios and offer the possibility of installing the luminaire in extreme situations as well. With a setting mark on the body and angles on the spigot, adjusting is carried out in 5° increments by loosening two screws. The wide tilting range enables more comfortable access to the gear compartment during field maintenance.

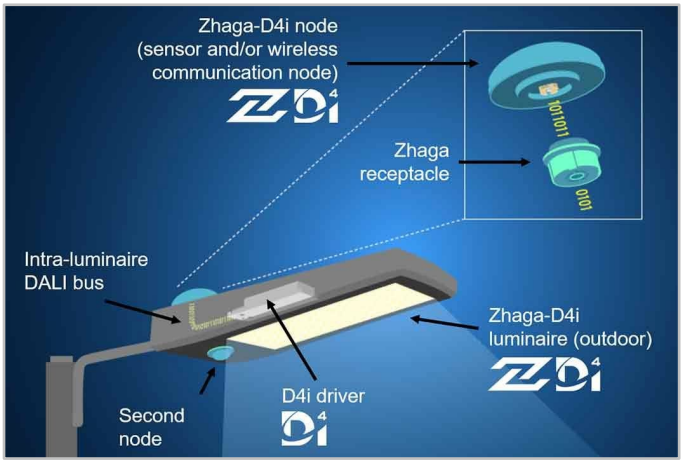
*Depending on the size and shape of the luminaire, the inclination angle may be reduced. For more accurate information, always consult the installation sheets.

Variation for all poles

Due to the many different applications used worldwide, Schréder has created a range of fixation systems and reducers to satisfy all needs that might come up on the market.

	IzyFix Ø60mm	IzyFix Ø76mm
Ø32mm spigot	✓ (with reducer)	✓ (with reducer)
Ø42-48mm spigot	✓	✓ (with reducer)
Ø60mm spigot	✓	✓
Ø76mm spigot	×	✓

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.

2 sockets: top and bottom

The Zhaga socket is small and suited to applications where aesthetics is essential. The architecture of Zhaga-D4i also foresees the possibility of putting two sockets on one luminaire, allowing for instance, the combination of a detection sensor and a control node. This also has the added value of standardising certain detection sensor communications with the D4i protocol.

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

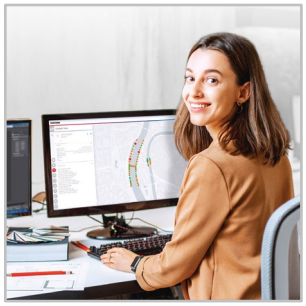
With EXEDRA, Schréder has taken a technology-agnostic approach: we rely on open standards and protocols to design an architecture able to interact seamlessly with third-party software and hardware solutions. Schréder EXEDRA is designed to unlock complete interoperability, as it offers the ability to:

- 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

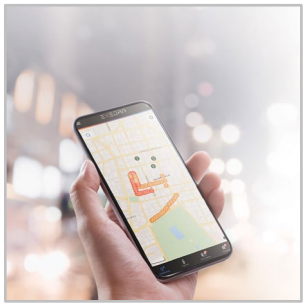
Data is gold. Schréder EXEDRA brings it with all the clarity managers need to drive decisions. The platform collects massive amounts of data from end devices and, aggregates, analyses and intuitively displays them to help end-users take the right actions.

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.

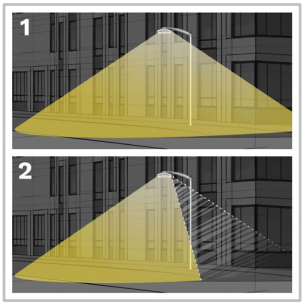
Mobile App: any time, any place, connect to your street lighting



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.

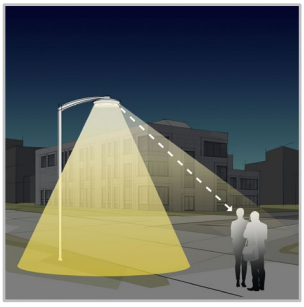
Direct the light only where it is wanted and needed



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.

IZYLUM NEO | CHARACTERISTICS

Schréder

GENERAL INFORMATION

Circle Light label	Score ≥90 - The product fully meets circular economy requirements
Driver included	Yes
CE mark	Yes
ENEC certified	Yes
ENEC+ certified	Yes
Zhaga-D4i certified	Yes

HOUSING AND FINISH

Housing	Aluminium
Optic	PMMA
Protector	Tempered glass
Housing finish	Polyester powder coating
Standard colour(s)	AKZO grey 900 sanded
Tightness level	IP 66
Impact resistance	IK 10
Vibration test	Compliant with ANSI C 136-31 standard, 3G load Compliant with modified IEC 68-2-6 (0.5G)
Access for maintenance	Tool-less access to gear compartment

OPERATING CONDITIONS

Operating temperature range (Ta)	-40 °C to +55 °C / -40 ° F to 131 °F

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

ELECTRICAL INFORMATION

Electrical class	Class I EU, Class II EU
Nominal voltage	220-240V – 50-60Hz
Surge protection options (kV)	10
Electromagnetic compatibility (EMC)	EN 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	Motion sensor (optional)

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) 5700K (Cool White CW 757)
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) >70 (Cool White CW 757)
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

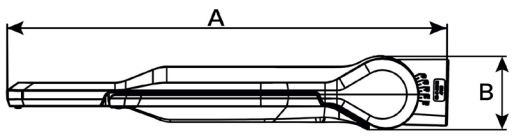
All configurations	100,000h - L95

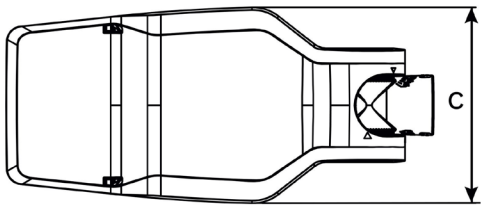
· Lifetime may be different according to the size/configurations. Please consult us.

DIMENSIONS AND MOUNTING

AxBxC (mm | inch)	IZYLUM NEO 1 : 560x94x258 | 22.0x3.7x10.2 IZYLUM NEO 2 : 652x94x258 | 25.7x3.7x10.2 IZYLUM NEO 3 : 655x94x376 | 25.8x3.7x14.8
Weight (kg | lbs)	IZYLUM NEO 1 : 4.5-5.5 | 9.9-12.1 IZYLUM NEO 2 : 5.3-6.3 | 11.7-13.9 IZYLUM NEO 3 : 6.8-7.9 | 15.0-17.4
Aerodynamic resistance (CxS)	IZYLUM NEO 1 : 0.04 IZYLUM NEO 2 : 0.06 IZYLUM NEO 3 : 0.08
Mounting possibilities	Side-entry slip-over – Ø32mm Side-entry slip-over – Ø42mm Side-entry slip-over – Ø48mm Side-entry slip-over – Ø60mm Side-entry slip-over – Ø76mm Post-top slip-over – Ø32mm Post-top slip-over – Ø42mm Post-top slip-over – Ø48mm Post-top slip-over – Ø60mm Post-top slip-over – Ø76mm

· *Size and weight may be different according to the configuration. Please consult us for more information.*





IZYLUM NEO | Slip-over mounting for Ø32-60mm spigot - 2xM10 screws

IZYLUM NEO | Slip-over mounting for Ø32-76mm spigot - 2xM10 screws

IZYLUM NEO 1

Photometry

HI FLEX™ 1&2

	Luminaire output flux (lm)								Power consumption (W)		Luminaire efficacy (lm/W)
	Warm White WW 722		Warm White WW 727		Warm White WW 730		Neutral White NW 740				
Number of LEDs	Min	Max	Min	Max	Min	Max	Min	Max	Min	Max	Up to
24	1100	5700	1300	6400	1300	6700	1500	7200	10	51	155
36	1700	8800	1900	9900	2000	10300	2200	11100	15	77	165

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

IZYLUM NEO 1

Photometry

HI FLEX™ 2

	Luminaire output flux (lm)								Power consumption (W)		Luminaire efficacy (lm/W)
	Warm White WW 722		Warm White WW 727		Warm White WW 730		Neutral White NW 740				
Number of LEDs	Min	Max	Min	Max	Min	Max	Min	Max	Min	Max	Up to
36	1700	8800	1900	9900	2000	10300	2200	11100	15	77	165

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

IZYLUM NEO 1

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		Cool White CW 757				
Number of LEDs	Min	Max	Min	Max	Min	Max	Min	Max	Min	Max	Min	Max	Min	Max	Up to
10	600	3500	600	3800	700	4100	600	3800	700	4400	700	4300	10	36	156
20	800	7000	900	7700	1000	8200	900	7700	1000	8900	1000	8600	13	70	169
25	1800	8500	2000	9300	2200	10000	2000	9300	2400	10800	2300	10400	16	87	169

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

IZYLUM NEO 2

Photometry

HI FLEX™1&2

	Luminaire output flux (lm)								Power consumption (W)		Luminaire efficacy (lm/W)
	Warm White WW 722		Warm White WW 727		Warm White WW 730		Neutral White NW 740				
Number of LEDs	Min	Max	Min	Max	Min	Max	Min	Max	Min	Max	Up to
48	2200	11500	2500	13000	2600	13500	2800	14500	19	104	164
72	3400	18000	3800	20300	4000	21100	4300	22700	28	154	175

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

IZYLUM NEO 2

Photometry

HI FLEX™ 2

	Luminaire output flux (lm)								Power consumption (W)		Luminaire efficacy (lm/W)
	Warm White WW 722		Warm White WW 727		Warm White WW 730		Neutral White NW 740				
Number of LEDs	Min	Max	Min	Max	Min	Max	Min	Max	Min	Max	Up to
72	3400	18000	3800	20300	4000	21100	4300	22700	28	154	175

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

IZYLUM NEO 2

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		Cool White CW 757				
Number of LEDs	Min	Max	Min	Max	Min	Max	Min	Max	Min	Max	Min	Max	Min	Max	Up to
30	1200	8900	1400	9800	1500	10500	1400	9800	1600	11400	1500	11000	18	82	177
40	1600	11900	1800	13100	1900	14000	1800	13100	2100	15200	2000	14700	25	109	174
50	3700	14600	4000	16000	4300	17100	4000	16000	4700	18600	4500	17900	30	135	171

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

IZYLUM NEO 3

Photometry

HI FLEX™ 1&2

	Luminaire output flux (lm)								Power consumption (W)		Luminaire efficacy (lm/W)
	Warm White WW 722		Warm White WW 727		Warm White WW 730		Neutral White NW 740				
Number of LEDs	Min	Max	Min	Max	Min	Max	Min	Max	Min	Max	Up to
72	3500	16400	3900	18500	4100	19300	4400	20800	28	138	175
96	4600	21900	5200	24700	5500	25700	5900	27700	38	183	175
108	5100	25300	5800	28600	6000	29700	6500	32000	42	205	179
144	7200	26000	8100	29400	8500	30600	9100	32900	54	193	189

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

IZYLUM NEO 3

Photometry

HI FLEX™ 2

	Luminaire output flux (lm)								Power consumption (W)		Luminaire efficacy (lm/W)
	Warm White WW 722		Warm White WW 727		Warm White WW 730		Neutral White NW 740				
Number of LEDs	Min	Max	Min	Max	Min	Max	Min	Max	Min	Max	Up to
108	5100	25300	5800	28600	6000	29700	6500	32000	42	205	179
144	7200	26000	8100	29400	8500	30600	9100	32900	54	193	189

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

IZYLUM NEO 3

Photometry

LENSO FLEX™4

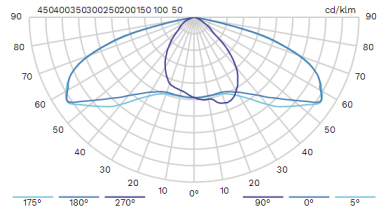
	Luminaire output flux (lm)										Power consumption (W)		Luminaire efficacy (lm/W)
	Warm White WW 722		Warm White WW 727		Warm White WW 730		Neutral White NW 740		Cool White CW 757				
Number of LEDs	Min	Max	Min	Max	Min	Max	Min	Max	Min	Max	Min	Max	Up to
50	2100	14100	2300	15500	2500	16500	2700	17900	2600	17300	30	122	184
60	2500	16900	2800	18600	3000	19900	3200	21500	3100	20800	36	143	185
70	3000	18200	3300	20000	3500	21400	3800	23200	3700	22400	42	150	187
75	5700	19000	6300	20900	6800	22300	7300	24200	7100	23400	44	160	184
80	3400	20800	3700	22900	4000	24400	4300	26500	4200	25600	46	172	191
100	7700	25100	8500	27600	9000	29500	9800	32000	9500	30900	57	215	191

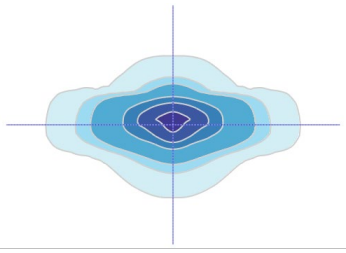
Tolerance on LED flux is ± 7% and on total luminaire power ± 5 %

Hiflex1&2

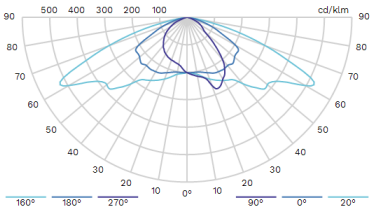
HI FLEX™ 1&2

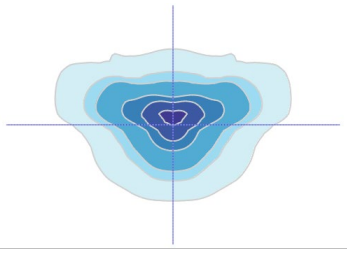
5424 Narrow



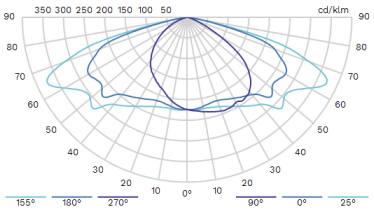


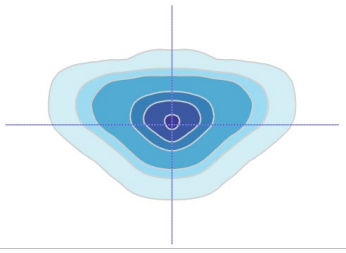
5426 Medium



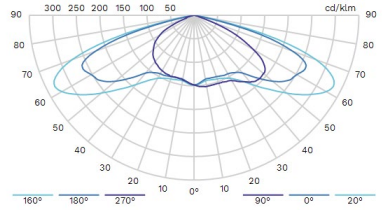


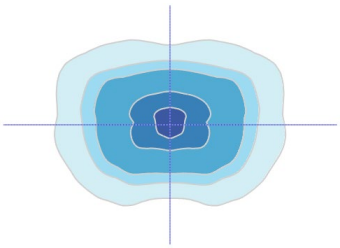
5428 Medium



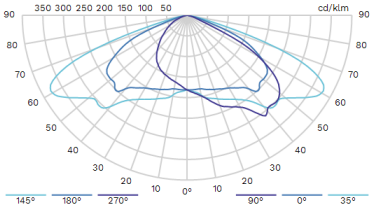


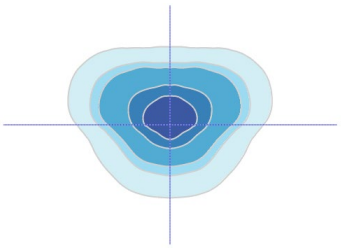
5425 Wide





5427 Extra-Wide

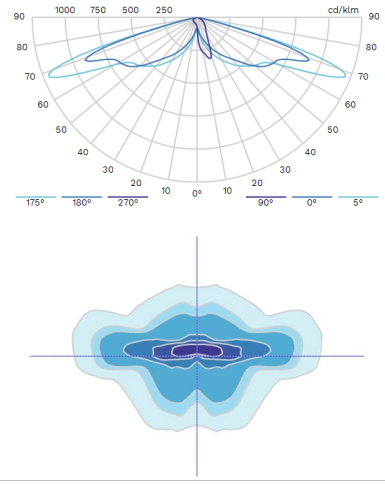




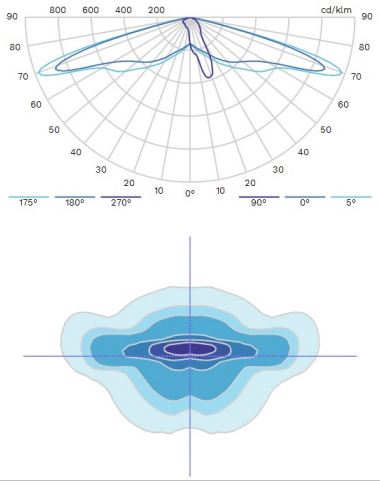
LensoFlex4

LENSO FLEX™4

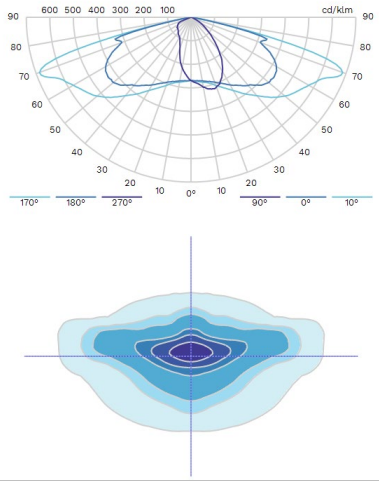
5300 Ultra-Narrow



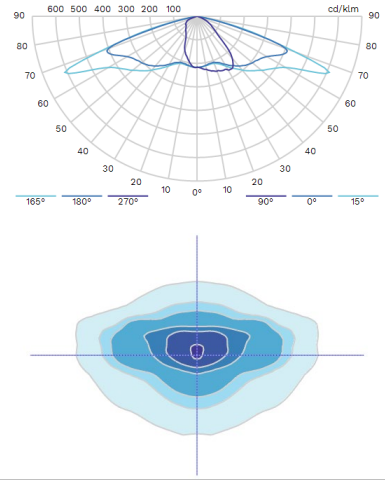
5390 Ultra-Narrow



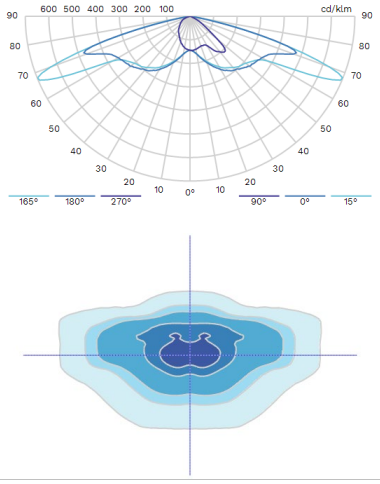
5301 Narrow



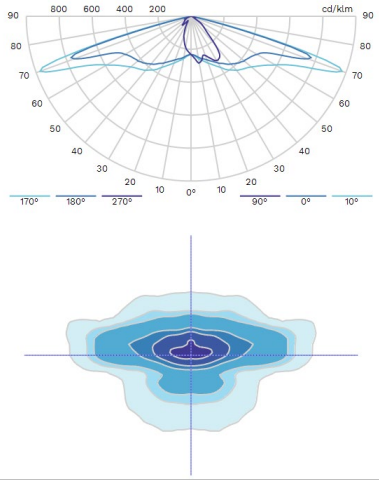
5303 Medium



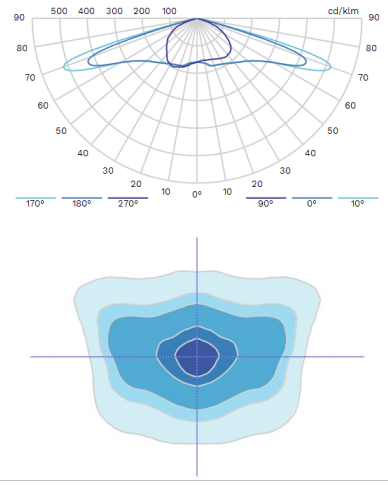
5305 Medium



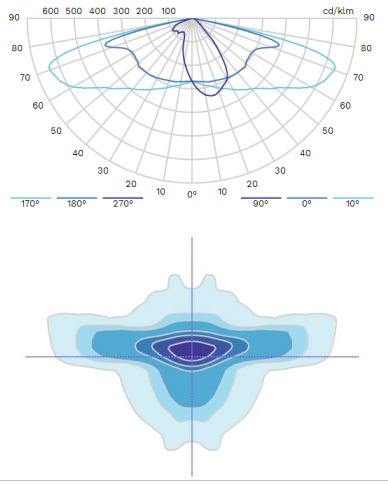
5306 Medium



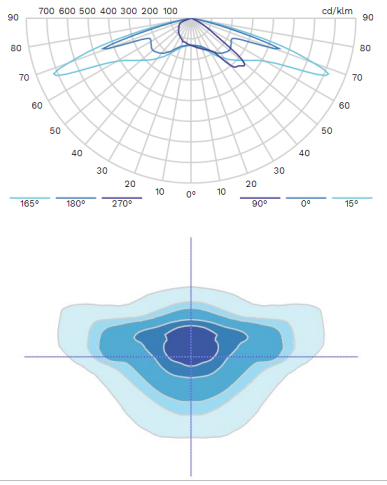
LENSO FLEX™4 5392 **Medium**



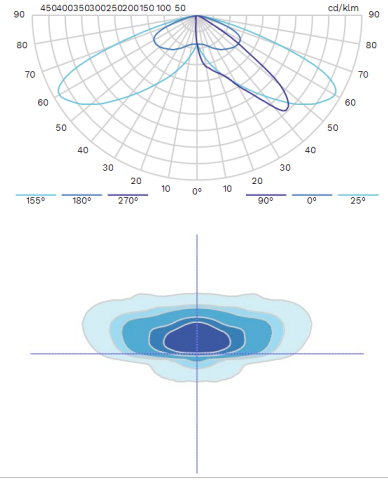
LENSO FLEX™4 5399 **Medium**



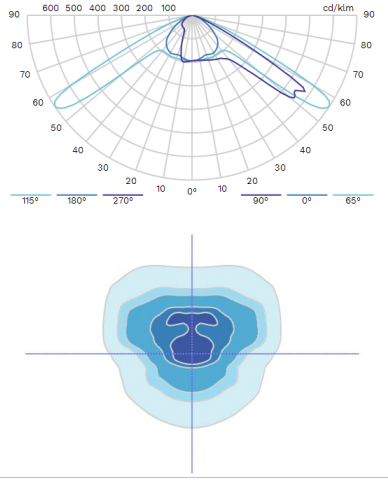
LENSO FLEX™4 5307 **Wide**



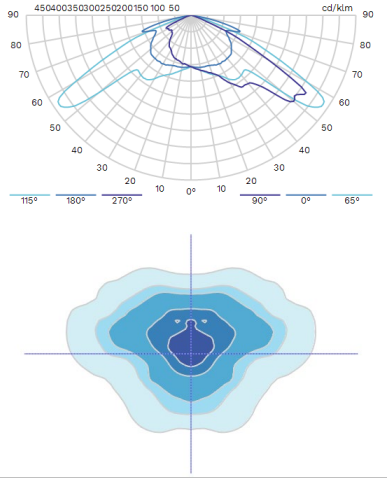
LENSO FLEX™4 5308 **Wide**



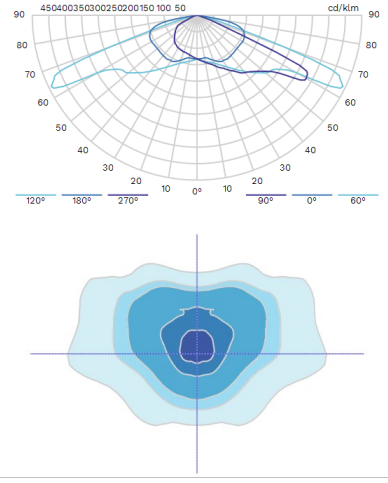
LENSO FLEX™4 5366 **Extra-Wide**



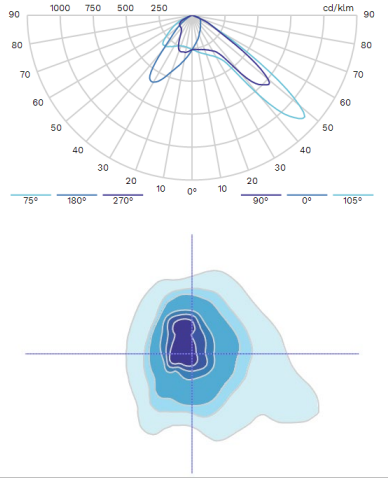
LENSO FLEX™4 50010 **Extra-Wide**



LENSO FLEX™4 5393 **Ultra-Wide**



LENSO FLEX™4 5370 **Zebra Left**



LENSO FLEX™4 5369 **Zebra Right**