Schréder
Experts in lightability™

DECORATIVE

PILZEO

Designer : Achilles Design

owlet®

LENSO FLEX™2

Elegant and cost-effective solution with cutting-edge LED technology

The post-top luminaire PILZEO transforms the classic 'mushroom' lantern into a contemporary design. Based on the proven LensoFlex®2 LED engine, the PILZEO ensures photometric performance to provide safety and well-being in the public space.

The name PILZEO refers directly to the `Pilzleuchte' - literally `mushroom luminaire' - a very popular type of lantern in German-speaking countries. This classical form has been refreshed to provide an aesthetic continuity while generating massive energy savings.

The PILZEO luminaire is adapted to various urban landscapes such as residential areas, parks, squares, bicycle paths and historical urban centres.

IP 66 | IK 08 | RoHS | CE

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

Concept

PILZEO offers a pleasing and modern take on a classic design and has been specifically designed to use LEDs to provide maximised savings in energy and maintenance costs.

The base section and body of the luminaire are made of high-pressure die-cast aluminium while the protector and the top cover are composed of polycarbonate. The design of the PILZEO luminaire guarantees an IP 66 tightness level to maintain performance over time.

The photometric versatility of the PILZEO luminaire, which provides both asymmetrical and symmetrical light distributions, makes it the perfect tool for various lighting applications: pedestrian areas (parks, squares...), bike paths, residential streets, car parks and urban roads.

PILZEO is FutureProof. Both the LED unit and the electronic assembly can be replaced, without any tools, to take advantage of future technological developments.

To facilitate installation and maintenance operations, PILZEO integrates patented technologies such as the IzyHub compact connection and connectivity module for quick, tool-free and error-proof wiring.

This connected-ready luminaire is compatible with standard NEMA 7-pin or Zhaga socket, enabling easy access to the digital era of lighting with advanced lighting features that plan, monitor and control outdoor lighting networks.

To facilitate installation, the luminaire is delivered pre-wired.

This connected-ready luminaire is compatible with standard NEMA 7-pin or Zhaga socket

TYPES OF APPLICATION

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

KEY ADVANTAGES

- Cost effective lighting solution for creation of ambiance
- Elegant design for low height installation
- IP 66 tightness level for long lasting performance
- Tool free access for maintenance
- Based on open and interoperable standards
- Compatible with Schréder EXEDRA control platform
- Zhaga-D4i certified
- Connected-ready for your future Smart cities' requirements

Some versions of PILZEO can be equipped with a Back Light Control system.

The LED unit and the electronic assembly can be replaced without using any tools.

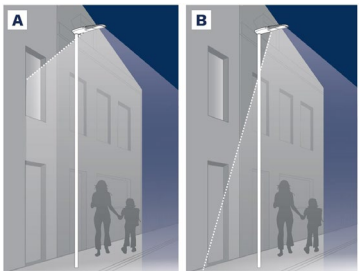
LensoFlex®2

LensoFlex®2 is based upon the addition principle of photometric distribution. Each LED is associated with a specific PMMA lens that generates the complete photometric distribution of the luminaire. The number of LEDs in combination with the driving current determines the intensity level of the light distribution.

Back Light control

As an option, the LensoFlex®2 and LensoFlex®4 modules can be equipped with a Back Light control system.

This additional feature minimises light spill from the back of the luminaire to avoid intrusive light towards buildings.

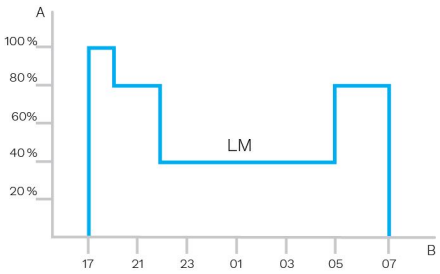


A. Without Back Light control | B. With Back Light control

Custom dimming profile

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

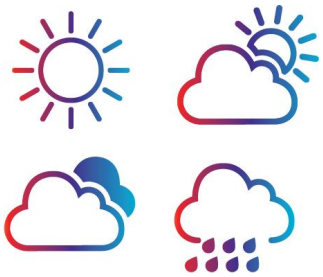
The period between switching on and switching off is used to activate the preset dimming profile. The customised dimming system generates maximum energy savings while respecting the required lighting levels and uniformity throughout the night.



A. Dimming level | B. Time

Daylight sensor / photocell

Photocell or daylight sensors switch the luminaire on as soon natural light falls to a certain level. It can be programmed to switch on during a storm, on a cloudy day (in critical areas) or only at nightfall so as to provide safety and comfort in public spaces.



PIR sensor: motion detection

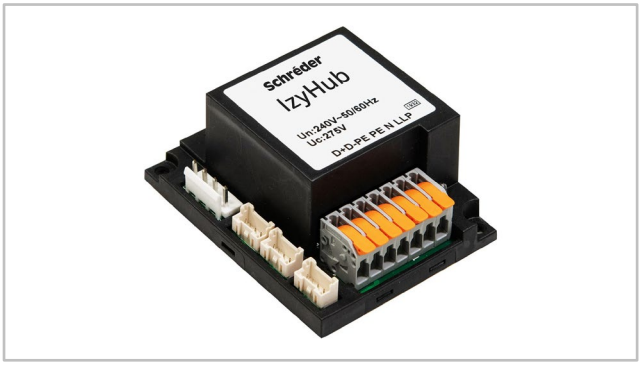
In places with little nocturnal activity, lighting can be dimmed to a minimum most of the time. By using passive infrared (PIR) sensors, the level of light can be raised as soon as a pedestrian or a slow vehicle is detected in the area.

Each luminaire level can be configured individually with several parametres such as minimum and maximum light output, delay period and ON/OFF duration time. PIR sensors can be used in an autonomous or interoperable network.

IzyHub

IzyHub is an innovative device that aims to keep luminaire installation and maintenance hassle-free. This single central connection hub distributes electricity and control information to all parts of the luminaire, ensuring that all components work together and offering reliable, long-term performance.

Its compact size and error-proof connections enable smaller and lighter luminaires that are easier to maintain and upgrade.



Surge Protection

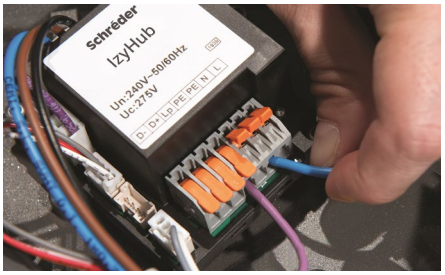
IzyHub features a built-in surge protection device. This prevents electrical surges resulting from lightning strikes and other transient voltages that originate from the mains network from damaging the luminaire, even in the most demanding conditions. The protective device also includes an end-of-life LED warning light, indicating that the luminaire is protected correctly.

User-friendly

Installing a luminaire has never been easier. IzyHub features tool-free connector as the main connection terminal. It enables 30% shorter installation times compared with standard solutions. Lever actuated spring-loaded electrical connectors provide optimal contact throughout the entire life of the product.

Easy maintenance

On the rare occasion that a component needs to be replaced in the luminaire, IzyHub makes sure that operations are carried out quickly and easily. Luminaire component connections are keyed so that mixing up electrical connections is physically impossible. Installers do not need to trace wires individually: plug it in, and it works straight away.



Versions and upgrades

IzyHub has several versions featuring different connectivity options.

IzyHub can include an SPD, can work with external dimming and operate with all type of control sockets. It is also able to provide bi-power control and to include fuse options.

These options provide flexibility for future upgrades by only having to replace the IzyHub to connect the new equipment. No complicated re-wiring needed.

The Schréder Bluetooth solution consists of 3 main components:

- A Bluetooth dongle plugged into the modular driver of the luminaire (BLE transceiver)
- A Bluetooth antenna fitted on the luminaire
- A smartphone application called Sirius BLE

Easy to use

The Schréder Bluetooth solution is ideal for the on-site configuration of individual outdoor luminaires using Bluetooth. From the ground, the user is able to switch the luminaire on or off, adapt the dimming curve, read diagnostic data and much more. A user-friendly application called Sirius BLE provides an easy and secure access to the control and configuration functions.

Whether you are managing a lighting network in an urban or a residential area, this solution will make it easy to control your outdoor luminaires while simply standing by the pole.

Quick and easy pairing

Get the Sirius App from Schréder. Go to the menu. Press the “SCAN DEVICE (START)” button, to search for the surrounding BLE modules. They will be displayed with a bar graphic (signal intensity) to indicate the closest and the most distant one you can reach. Click on the device you want to connect to and enter your personal access key to control the luminaire.

Defining the settings

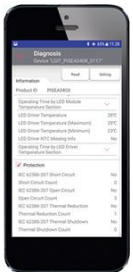
Once you are connected to a luminaire, you can set various parameters such as the maximum output current, minimum dimming level and custom dimming profile.

Manual dimming control

The App enables you to do a manual override to adapt the dimming levels instantly. Simply tap on the “Dimming” button in the main menu and adjust the dimming using the wheel and button. Predefined dimming levels can be applied immediately. The corresponding value is displayed on the wheel. This enables you to test the ON / OFF and dimming features of the luminaire paired to the smartphone.

On-site diagnostic

When a luminaire is paired, you can access various diagnostic information: total number of power up events, operation time of LED module and driver, total energy consumption of LED driver... etc. You can also track operating events (short circuits, thermal shutdowns...). The diagnostic values may be the current state or values accumulated to date.



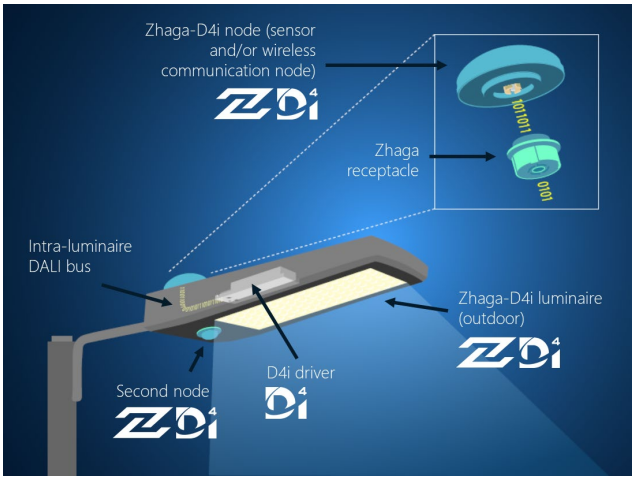
The Zhaga consortium joined forces with the DiiA and produced a single Zhaga-D4i certification that combines the Zhaga Book 18 version 2 outdoor connectivity specifications with the DiiA's D4i specifications for intra-luminaire DALI.

Standardisation for interoperable ecosystems

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.

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

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.

GENERAL INFORMATION

Recommended installation height	4m to 5m | 11' to 16'
FutureProof	Easy replacement of the photometric engine and electronic assembly on-site
Driver included	Yes
CE mark	Yes
ENEC certified	Yes
ROHS compliant	Yes
Zhaga-D4i certified	Yes
French law of December 27th 2018 - Compliant with application type(s)	a, b, c, d, e, f, g
Testing standard	LM 79-08 (all measurements in ISO17025 accredited laboratory)

HOUSING AND FINISH

Housing	Aluminium Composite materials
Optic	PMMA
Protector	Polycarbonate
Housing finish	Polyester powder coating
Standard colour(s)	AKZO grey 900 sanded
Tightness level	IP 66
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

· 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
Power factor (at full load)	0.9
Surge protection options (kV)	10
Electromagnetic compatibility (EMC)	EN 61547 / EN 61000-4-2, -3, -4, -5, -6, -8, -11
Control protocol(s)	Bluetooth, 1-10V, DALI
Control options	Bi-power, Custom dimming profile, Photocell, Remote management
Socket	Zhaga (optional) NEMA 7-pin (optional)
Associated control system(s)	Sirius BLE Owlet Nightshift Owlet IoT Schréder EXEDRA
Sensor	PIR (optional)

OPTICAL INFORMATION

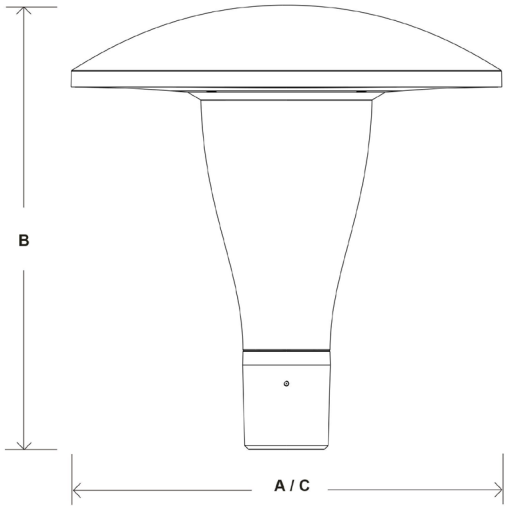
LED colour temperature	2200K (Warm White 822) 2700K (Warm White 727) 3000K (Warm White 730) 3000K (Warm White 830) 4000K (Neutral White 740)
Colour rendering index (CRI)	>80 (Warm White 822) >70 (Warm White 727) >70 (Warm White 730) >80 (Warm White 830) >70 (Neutral White 740)
Upward Light Output Ratio (ULOR)	<4%

LIFETIME OF THE LEDS @ TQ 25°C

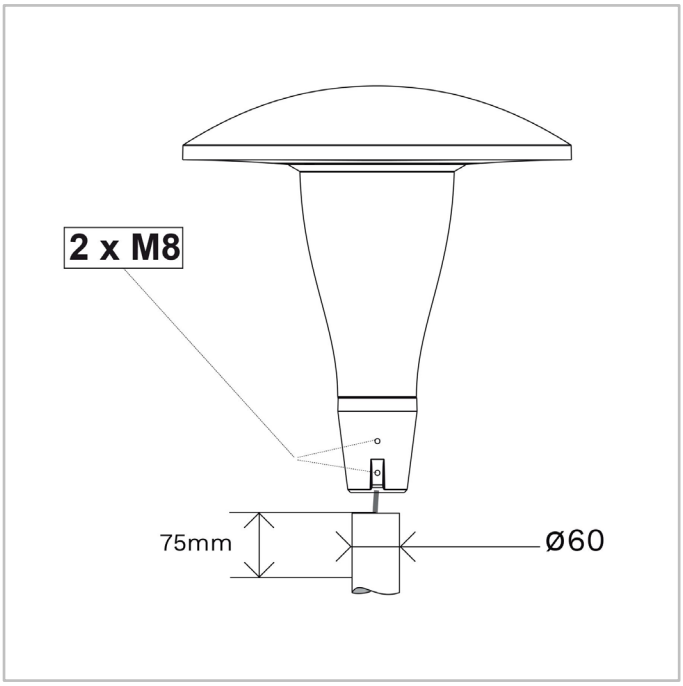
All configurations	100,000h - L90

DIMENSIONS AND MOUNTING

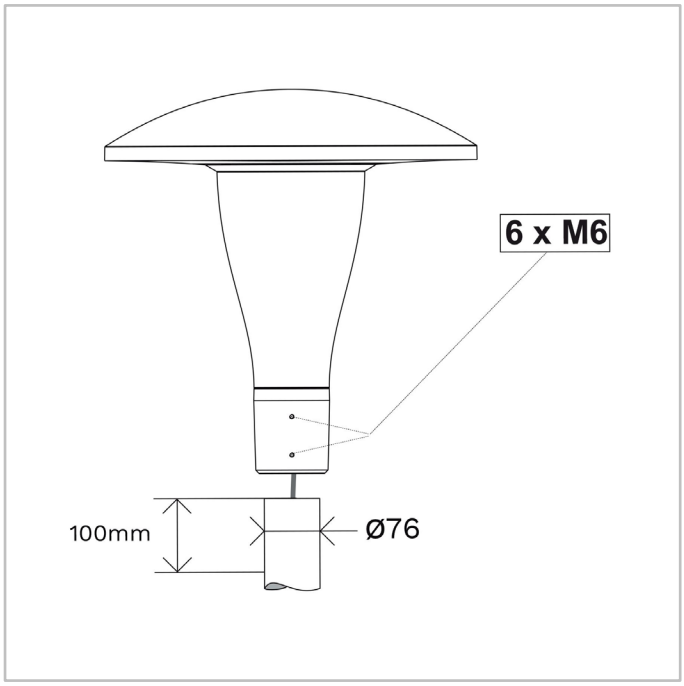
AxBxC (mm | inch)	524x530x524 | 20.6x20.9x20.6
Weight (kg | lbs)	6.7 | 14.7
Aerodynamic resistance (CxS)	0.07
Mounting possibilities	Post-top slip-over – Ø60mm Post-top slip-over – Ø76mm



PILZEO | Slip-over mounting Ø60 mm - 2XM8 screws



PILZEO | Slip-over mounting Ø76 mm - 6XM6 screws

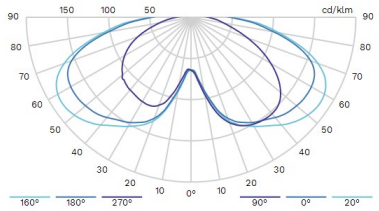


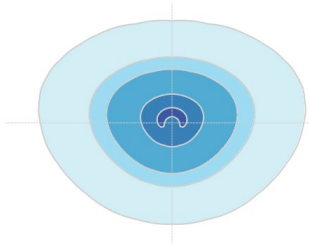
Luminaire	Number of LEDs	Current (mA)	Luminaire output flux (lm) Warm White 727		Luminaire output flux (lm) Warm White 730		Luminaire output flux (lm) Warm White 822		Luminaire output flux (lm) Warm White 830		Luminaire output flux (lm) Neutral White 740		Power consumption (W)		Luminaire efficacy (lm/W)	Photometry
			Min	Max	Min	Max	Min	Max	Min	Max	Min	Max	Min	Max	Up to	
PILZEO	8	350	800	1000	900	1200	600	800	800	1000	900	1200	9.4	9.4	128	LENSO FLEX°2
	8	380	900	1100	1000	1300	700	900	900	1100	1000	1300	10.1	10.1	129	LENSO FLEX°2
	8	400	900	1200	1000	1300	700	900	900	1200	1000	1400	10.7	10.7	131	LENSO FLEX°2
	8	460	1000	1300	1100	1500	800	1000	1000	1300	1200	1500	12.3	12.3	122	LENSO FLEX°2
	8	500	1100	1400	1200	1600	900	1100	1100	1400	1300	1600	13.3	13.3	120	LENSO FLEX°2
	8	600	1200	1600	1400	1800	1000	1300	1200	1600	1400	1900	15.9	15.9	119	LENSO FLEX°2
	8	700	1400	1800	1500	2000	1100	1400	1400	1800	1600	2100	18.5	18.5	114	LENSO FLEX°2
	12	350	1200	1600	1400	1800	1000	1300	1200	1600	1400	1800	13.9	13.9	129	LENSO FLEX°2
	12	400	1400	1800	1500	2000	1100	1400	1400	1800	1600	2100	15.8	15.8	133	LENSO FLEX°2
	12	500	1700	2100	1800	2400	1300	1700	1700	2100	1900	2500	19.6	19.6	128	LENSO FLEX°2
	12	600	1900	2500	2100	2700	1500	1900	1900	2500	2200	2800	23.5	23.5	119	LENSO FLEX°2
	12	700	2100	2700	2300	3000	1700	2100	2100	2700	2400	3100	27.6	27.6	112	LENSO FLEX°2
	16	350	1700	2100	1900	2400	1300	1700	1700	2100	1900	2500	18.1	18.1	138	LENSO FLEX°2
	16	400	1900	2400	2100	2700	1500	1900	1900	2400	2100	2800	20.5	20.5	137	LENSO FLEX°2
	16	500	2200	2900	2500	3200	1800	2300	2200	2900	2600	3300	25.7	25.7	128	LENSO FLEX°2
	16	600	2500	3300	2800	3700	2000	2600	2500	3300	2900	3800	30.8	30.8	123	LENSO FLEX°2
	16	700	2800	3600	3100	4100	2200	2900	2800	3600	3300	4200	36.3	36.3	116	LENSO FLEX°2
	24	350	2500	3200	2800	3600	2000	2600	2500	3200	2900	3700	27.2	27.2	136	LENSO FLEX°2
	24	400	2800	3600	3100	4000	2200	2900	2800	3600	3200	4200	30.9	30.9	136	LENSO FLEX°2
	24	500	3400	4300	3700	4800	2700	3400	3400	4300	3900	5000	38.5	38.5	130	LENSO FLEX°2
	24	590	3800	4900	4200	5500	3000	3900	3800	4900	4400	5600	45	45	124	LENSO FLEX°2
	24	600	3800	5000	4300	5500	3000	3900	3800	5000	4400	5700	45.5	45.5	125	LENSO FLEX°2
	24	700	4300	5500	4700	6100	3400	4300	4300	5500	4900	6300	53.5	53.5	118	LENSO FLEX°2

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

LENSO FLEX 2

5068





LENSO FLEX 2

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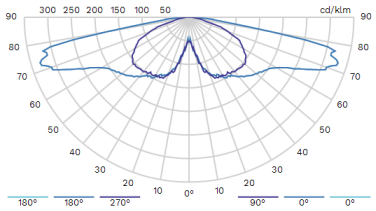

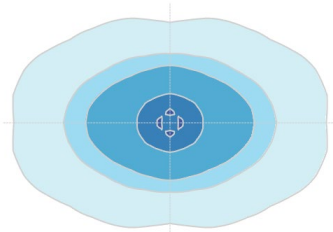

LENSO FLEX 2

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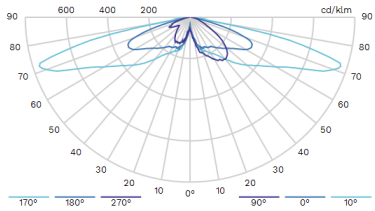

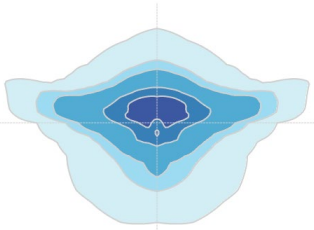

LENSO FLEX 2

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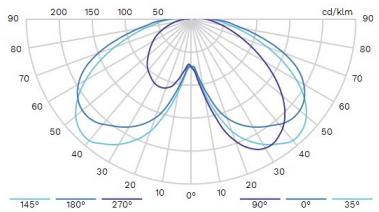

LENSO FLEX 2

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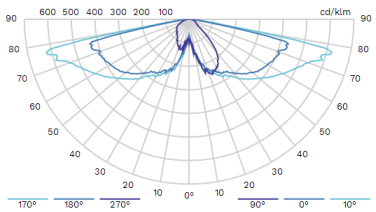

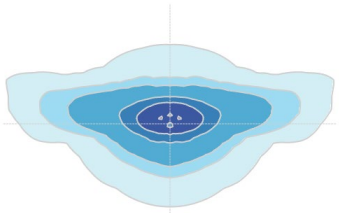

LENSO FLEX 2

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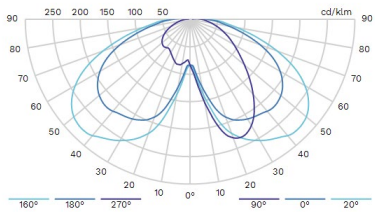

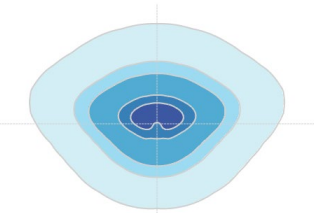

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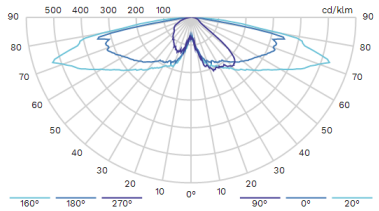

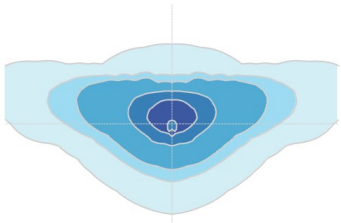

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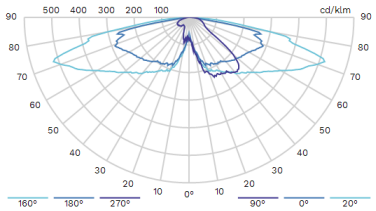
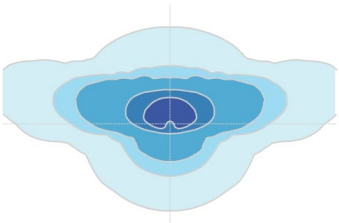
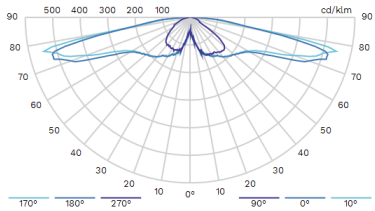
5103 - BL

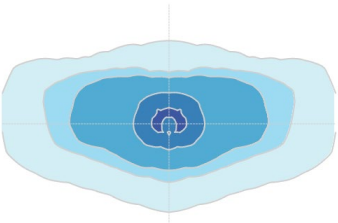




LENSO FLEX 2

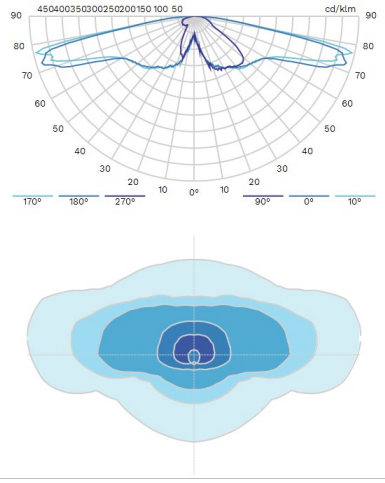
5112





LENSO FLEX 2

5112 - BL



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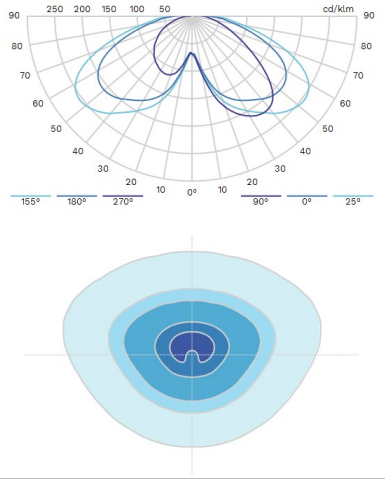
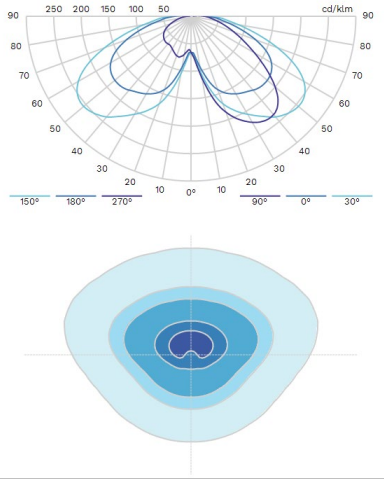


LENSO FLEX 2

5117 - BL



LENSO FLEX 2

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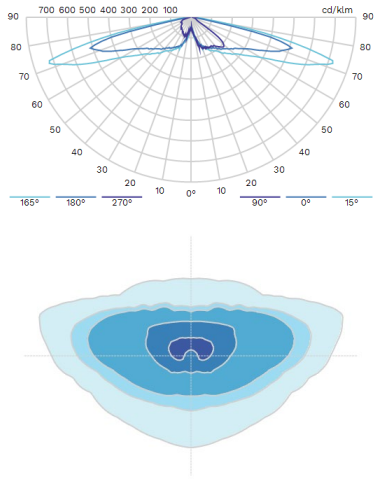
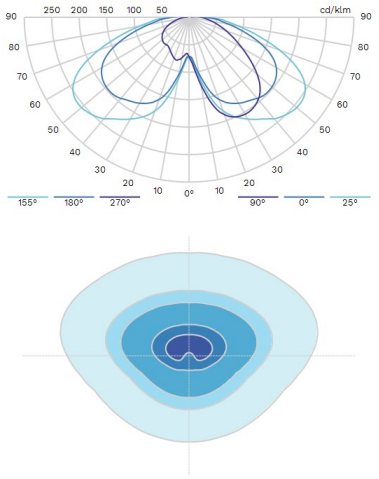


LENSO FLEX 2

5118 - BL



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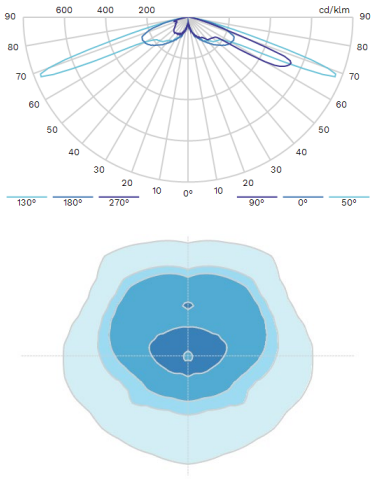
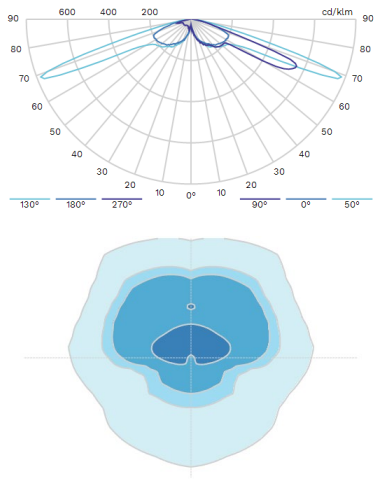


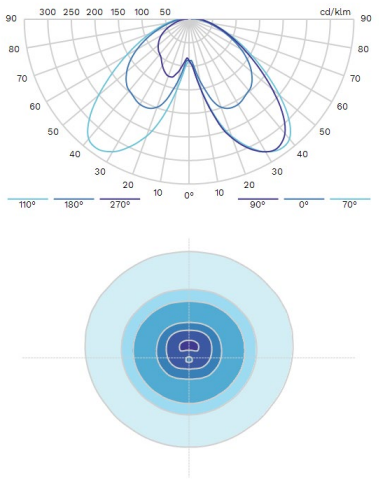
LENSO FLEX 2

5119 - BL



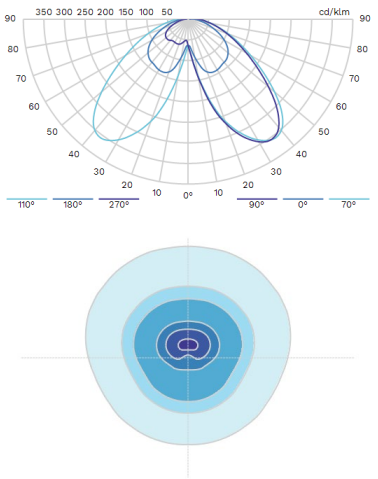
LENSO FLEX 2

5120



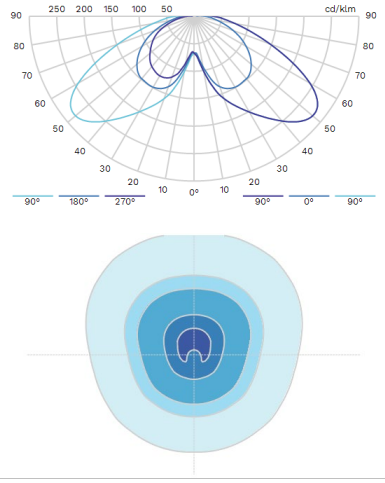
LENSO FLEX 2

5120 - BL



LENSO FLEX 2

5121



LENSO FLEX 2

5121 - BL