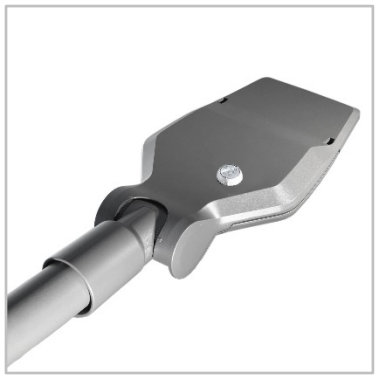
Schréder
Experts in lightability™

ROAD

IZYLUM

Designer : Indio da Costa



MID FLEX™ 2 LENSO FLEX™ 4

A time saving, versatile and high performance road and urban solution

Based on Schréder experience and proven track record with road and urban LED lighting, the IZYLUM luminaire benefits from numerous innovations to provide the ultimate experience for any stakeholder in the project - municipalities looking for a fast return on investment with an environmentally friendly, easy-to-operate lighting solution, contractors wanting to save time and avoid mistakes during installation, and citizens requiring safe, comfortable environments.

This connected-ready range of luminaires not only offers a realistic platform for smart cities; its compact, lightweight, optimised design minimises the carbon footprint at every stage of the product lifecycle. IZYLUM stands out as the best in class for a circular economy.

IP 66
IP 67

IK 09

URBAN & RESIDENTIAL STREETS

BRIDGES

BIKE & PEDESTRIAN PATHS

RAILWAY STATIONS & METROS

CAR PARKS

SQUARES & PEDESTRIAN AREAS

ROADS & MOTORWAYS

Concept

IZYLUM is a robust yet compact luminaire, designed with a focus on ease of installation and maintenance, enabling customers to extend its lifetime with future upgrades. Composed of two separate parts made of high-pressure die-casted aluminium, the body is sealed with tempered flat glass, offering a high degree of tightness and resistance to shocks.

Available in three sizes with a LED count of 10 to 120 LEDs, IZYLUM provides a well-dimensioned, efficient lighting solution ranging from various low-height applications such as parks, bicycle paths or residential streets to main roads and boulevards.

The IZYLUM range takes advantage of the latest photometric innovations. It uses the new LensoFlex®4 and MidFlex™2 photometric engines, which have been developed around the ideas of performance, compactness, versatility and standardisation. They both fit in the same product design, no matter which photometrical concept is preferred.

To simplify installation and maintenance operations, IZYLUM introduces patented technologies such as the IzyHub compact connection and connectivity module, for quick, error-proof wiring, and a new IzyFix universal fixation system enabling post-top or side-entry mounting. The luminaire offers tool-free access to the gear compartment. The bottom cover opens downwards and is retained by a hinge. Closing of the luminaire is confirmed with a clear, loud clicking noise, audible even in a noisy urban environment.

Supplied pre-wired (optional), IZYLUM is adapted to post-top and side-entry mounting on any spigot (Ø32mm, Ø42-48mm, Ø60mm and Ø76mm). The IzyFix system 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 regarding pole and bracket configurations.

The IzyFix system enables tilting within a 130° range and fully complies with IEC and ANSI 3G vibration standards.

Types of application

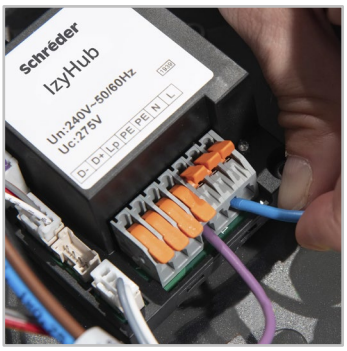
- URBAN & RESIDENTIAL STREETS
- BRIDGES
- BIKE & PEDESTRIAN PATHS
- RAILWAY STATIONS & METROS
- CAR PARKS
- SQUARES & PEDESTRIAN AREAS
- ROADS & MOTORWAYS

Key advantages

- Maximised savings in energy and maintenance costs
- New generation of LensoFlex®4 and MidFlex™2 photometric engines offering high-efficiency lighting, comfort and safety
- 3 sizes to provide the most accurate solutions for numerous road and urban applications
- Tool-free access with a clear confirmative click upon closing
- Fast and error-proof installation and maintenance with IzyHub
- On-site adjustment from post-top to side-entry without disconnecting the luminaire from the pole thanks to IzyFix
- Wide range of operating temperatures
- Connected-ready

IZYLUM introduces two new highly efficient photometrical platforms.

The IzyFix universal fixation system with switching from a post-top to a side-entry position facilitates luminaire ordering and installation.



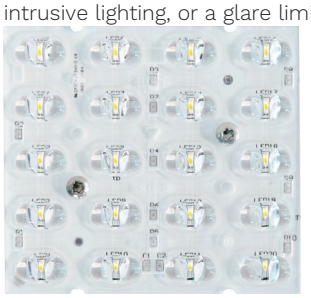
The failure-proof IzyHub module eases electrical connection on installation and during maintenance operations.

IZYLUM is connected-ready and can operate with various sensors and control systems.

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.

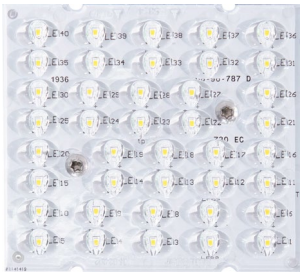
LensoFlex®4 optics can feature backlight control to prevent intrusive lighting, or a glare limiter for high visual comfort.



MidFlex™2

The second-generation MidFlex™2 photometric engine takes advantage of the latest generation of mid-power LEDs and dedicated optics for professional applications.

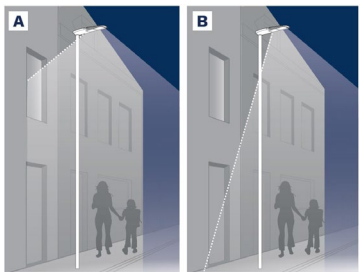
Designed to have the same footprint and fixations as the LensoFlex®4, the MidFlex™2 platform provides an alternative solution for those who are looking for very cost-effective yet efficient lighting while keeping the same luminaire design.



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.

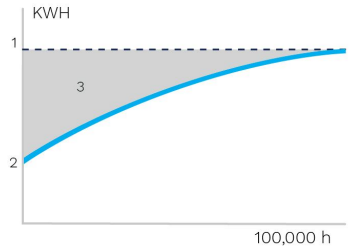


A. Without Back Light control | B. With Back Light control

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.

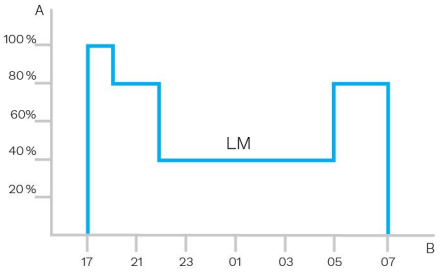


1. Standard lighting level | 2. LED lighting consumption with CLO | 3. Energy savings

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. Performance | B. Time

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.

IzyFix

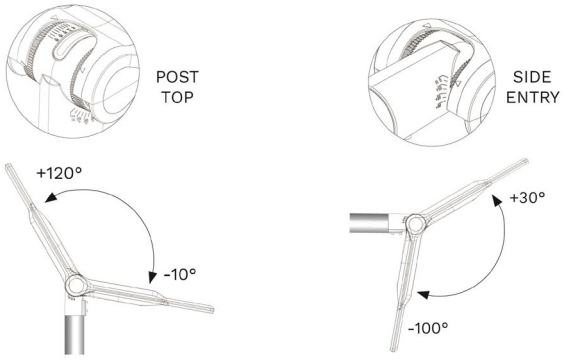
The Schréder IzyFix patented high-pressure die-casted aluminium universal fixation system is an integral part of the luminaire mounted in the factory. The IzyFix system aims to fit needs worldwide by meeting IEC and ANSI 3G testing requirements. It is intended to simplify life for customers and installers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

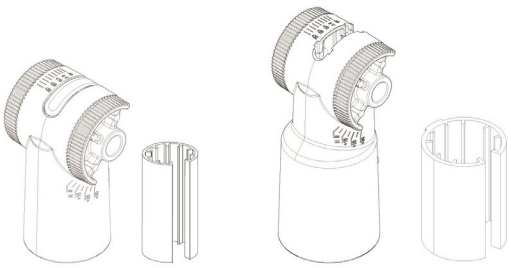


Variation for all poles

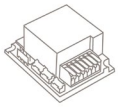
Due to the many different applications used worldwide, Schréder has created a range of fixation systems and reducers to satisfy all needs that might come up on the market.

IzyFix Ø60mm - suitable for:
- Ø32mm spigot (with reducer)
- Ø42-48mm spigot
- Ø60mm spigot

IzyFix Ø76mm - suitable for:
- Ø32mm spigot (with reducer)
- Ø42-48mm spigot (with reducer)
- Ø60mm spigot
- Ø76mm spigot



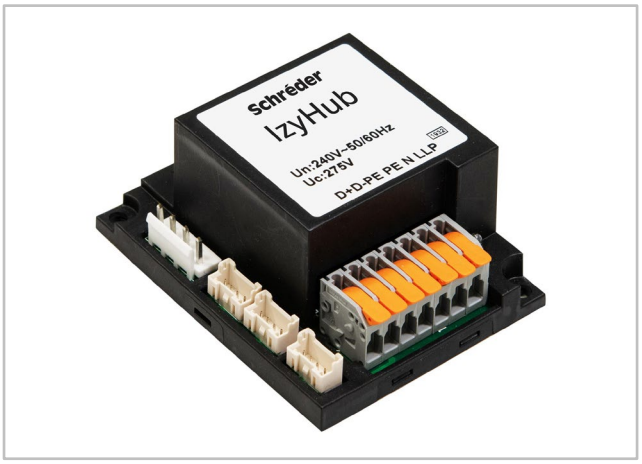
Ø60 Ø76



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

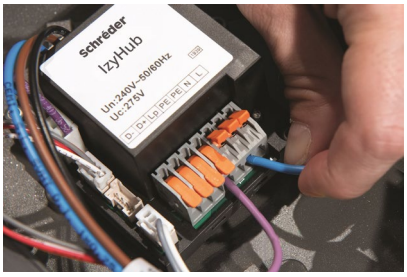
IzyHub features a built-in surge protection device. This prevents electrical surges resulting from lightning strikes and other transient voltages that originate from the mains network from damaging the luminaire, even in the most demanding conditions. The protective device also includes an end-of-life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

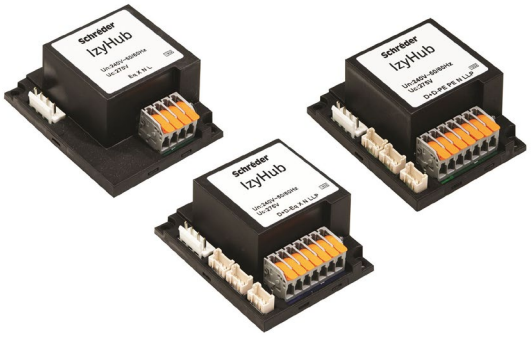


Versions and upgrades

IzyHub has several versions featuring different connectivity.

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.



Owlet IoT

Owlet IoT remotely controls luminaires in a lighting network, creating opportunities for improved efficiency, accurate real-time data and energy savings of up to 85%.

ALL-IN-ONE

The LUCO P7 CM controller includes the most advanced features for optimised asset management. It also provides an integrated photocell and operates with an astronomical clock for seasonal dimming profile

adaptations.

EASY TO DEPLOY

Thanks to wireless communication, no cabling is needed. The network is not subject to physical constraints or limitations.

From a single control unit to an unlimited network, you can expand your lighting scheme at any time.

With real-time geolocation and automatic detection of luminaire features, commissioning is quick and easy.

USER-FRIENDLY

Once a controller is installed on a luminaire, the luminaire automatically appears with its GPS coordinates on a web-based map.

An easy-to-use dashboard enables each user to organise and customise screens, statistics and reports. Users can gain relevant, real-time insights.

The Owlet IoT web application can be accessed at all times from anywhere in the world with a device connected to the Internet. The application adapts to the device to offer an intuitive and user-friendly experience.

Real-time notifications can be pre-programmed to monitor the most important elements of the lighting scheme.

SECURE

The Owlet IoT system uses a local wireless mesh communication networks to control the on-site luminaires combined with a remote control system utilising the cloud to ensure smooth data transfers to and from the central management system.

The system uses encrypted IP V6 communication to protect data transmission in both directions. Using a secure APN, Owlet IoT ensures a high level of protection.

In the exceptional case of a communication failure, the built-in astronomical clock and photocell will take over to switch the luminaires on and off, thus avoiding a complete blackout at night.

EFFICIENT

Thanks to sensors and/or pre-programmed settings, lighting scenarios can be easily adapted to cope with live events, providing the right lighting levels at the right time and in the right place.

The integrated utility grade meter offers the highest accuracy available on the market today, enabling decisions based on real figures.

Accurate real-time feedback and clear reporting ensures that the network operates efficiently and maintenance is optimised.

When LED luminaires are switched on, the inrush current can create problems for the electricity grid. Owlet IoT incorporates an algorithm to preserve the grid at all times.

OPEN

The LUCO P7 CM controller can be plugged onto the standard 7 pin NEMA socket and operates through either a DALI or 1-10V interface to control the luminaire.

Owlet IoT is based on the IPv6 protocol. This method for addressing devices can generate an almost unlimited number of unique combinations to connect non-traditional components to the Internet or computer network.

Through open APIs, Owlet IoT can be integrated into existing or future global management systems.

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.

GENERAL INFORMATION

Recommended installation height	4m to 15m+ | 13' to 49'+
Circle Light label	Score >90 - The product fully meets circular economy requirements
Driver included	Yes
CE Mark	Yes
ENEC certified	Yes
ENEC+ certified	Yes
ROHS compliant	Yes
Testing standard	LM 79-08 (all measurements in ISO17025 accredited laboratory) LM 80 (all measurements in ISO17025 accredited laboratory) EN 60598-1:2015+A1:2018 EN 60598-2-13:2006+A1:2012+A2:2016 EN 62262:2002 IEC TR 62778:2014

HOUSING AND FINISH

Housing	Aluminium
Optic	PMMA
Protector	Tempered glass
Housing finish	Polyester powder coating
Standard colour(s)	AKZO grey 900 sanded
Tightness level	IP66/IP67
Impact resistance	IK 09
Vibration test	Compliant with ANSI C 136-31 standard, 3G load and 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 I EU, Class II EU
Nominal voltage	220-240V – 50-60Hz
Power factor (at full load)	0.95+
Surge protection options (kV)	6 8 10
Electromagnetic compatibility (EMC)	EN 55015:2013/A1:2015, EN 61000-3-2:2014, EN 61000-3-3:2013, EN 61547:2009, EN 62493:2015
Control protocol(s)	Bluetooth, 1-10V, DALI
Control options	AmpDim, Bi-power, Custom dimming profile, Photocell, Remote management
Socket	Low voltage socket (optional) NEMA 7-pin (optional)
Associated control system(s)	Sirius BLE Owlet Nightshift Owlet IoT
Sensor	PIR (optional)

OPTICAL INFORMATION

LED colour temperature	3000K (Warm White 730) 4000K (Neutral White 740)
Colour rendering index (CRI)	>70 (Warm White 730) >70 (Neutral White 740)
Upward Light Output Ratio (ULOR)	0%

LIFETIME OF THE LEDS @ TQ 25°C

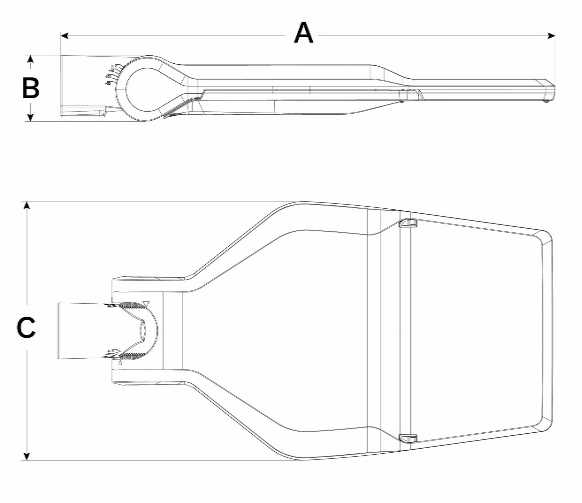
All configurations	60,000h - L80 (mid-power LEDs) 100,000h - L95 (high-power LEDs)

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

DIMENSIONS AND MOUNTING

AxBxC (mm | inch)	IZYLUM 1 - 587x94x294 | 23.1x3.7x11.6 IZYLUM 3 - 715x94x368 | 28.1x3.7x14.5
Weight (kg | lbs)	IZYLUM 1 - 4.9 | 10.8 IZYLUM 3 - 7 | 15.4
Aerodynamic resistance (CxS)	IZYLUM 1 - 0.03 IZYLUM 3 - 0.03
Mounting possibilities	Side-entry slip-over – Ø32mm Side-entry slip-over – Ø42mm Side-entry slip-over – Ø48mm Side-entry slip-over – Ø60mm 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.



Luminaire	Number of LEDs	Current (mA)	Luminaire output flux (lm) Warm White 730		Luminaire output flux (lm) Neutral White 740		Power consumption (W)		Luminaire efficacy (lm/W)	
			Min	Max	Min	Max	Min	Max	Up to	Photometry
IZYLUM 1	10	200	800	900	900	900	7.2	7.2	125	LENSO FLEX 4
	10	350	1400	1500	1500	1600	12	12	133	LENSO FLEX 4
	10	500	2000	2000	2100	2200	16.9	16.9	130	LENSO FLEX 4
	10	700	2600	2700	2800	2800	23.6	23.6	119	LENSO FLEX 4
	20	200	1700	1800	1800	1900	13.4	13.4	142	LENSO FLEX 4
	20	300	2500	2600	2700	2800	19.3	19.3	145	LENSO FLEX 4
	20	350	2900	3000	3100	3200	22.4	22.4	143	LENSO FLEX 4
	20	450	3700	3800	3900	4000	28.7	28.7	139	LENSO FLEX 4
	20	500	4000	4100	4200	4400	31.9	31.9	138	LENSO FLEX 4
	20	550	4300	4500	4600	4700	35.1	35.1	134	LENSO FLEX 4
	20	700	5300	5400	5600	5700	45.5	45.5	125	LENSO FLEX 4
	40	60	-	-	2100	2200	16.3	16.3	135	MID FLEX 2
	40	75	-	-	2600	2700	20.2	20.2	134	MID FLEX 2
	40	90	-	-	3100	3200	24.3	24.3	132	MID FLEX 2
	40	110	-	-	3700	3900	30	30	130	MID FLEX 2
	40	140	-	-	4600	4800	38.9	38.9	123	MID FLEX 2

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

Luminaire	Number of LEDs	Current (mA)	Luminaire output flux (lm) Warm White 730		Luminaire output flux (lm) Neutral White 740		Power consumption (W)		Luminaire efficacy (lm/W)	Photometry
			Min	Max	Min	Max	Min	Max	Up to	
IZYLUM 3	40	200	3600	3700	3800	3900	24.3	24.3	160	LENSO FLEX 4
	40	300	5200	5300	5500	5600	37	37	151	LENSO FLEX 4
	40	350	6000	6200	6300	6500	42.5	42.5	153	LENSO FLEX 4
	40	450	7400	7600	7800	8100	55	55	147	LENSO FLEX 4
	40	500	8100	8300	8600	8800	61.5	61.5	143	LENSO FLEX 4
	40	550	8700	9000	9200	9500	68	68	140	LENSO FLEX 4
	40	700	10500	10800	11100	11400	86	86	133	LENSO FLEX 4
	50	200	4500	4600	4800	4900	29.8	29.8	164	LENSO FLEX 4
	50	300	6500	6700	6900	7100	45	45	158	LENSO FLEX 4
	50	350	7500	7700	7900	8100	52.5	52.5	154	LENSO FLEX 4
	50	450	9300	9600	9800	10100	68.5	68.5	147	LENSO FLEX 4
	50	500	10100	10400	10700	11000	76	76	145	LENSO FLEX 4
	50	550	10900	11300	11600	11900	83	83	143	LENSO FLEX 4
	50	700	13200	13600	13900	14300	108	108	132	LENSO FLEX 4
	60	200	5400	5600	5700	5900	35.4	35.4	167	LENSO FLEX 4
	60	300	7800	8100	8300	8500	53.5	53.5	159	LENSO FLEX 4
	60	350	9000	9300	9500	9800	63	63	156	LENSO FLEX 4
	60	450	11200	11500	11800	12100	83	83	146	LENSO FLEX 4

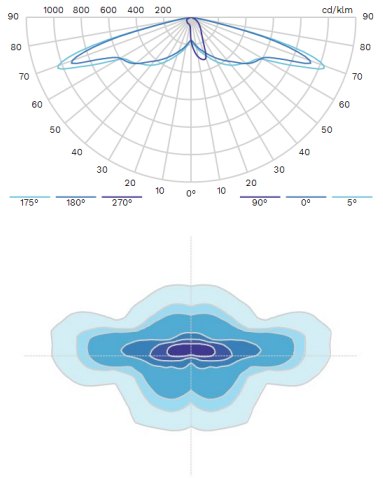
Tolerance on LED flux is ± 7% and on total luminaire power ± 5 %

Luminaire	Number of LEDs	Current (mA)	Luminaire output flux (lm) Warm White 730		Luminaire output flux (lm) Neutral White 740		Power consumption (W)		Luminaire efficacy (lm/W)	
			Min	Max	Min	Max	Min	Max	Up to	Photometry
IZYLUM 3	60	500	12200	12500	12900	13200	92	92	143	LENSO FLEX 4
	60	550	13100	13500	13900	14300	102	102	140	LENSO FLEX 4
	60	700	15800	16300	16700	17200	128	128	134	LENSO FLEX 4
	80	60	-	-	4400	4600	31.1	31.1	148	MID FLEX 2
	80	75	-	-	5400	5600	39	39	144	MID FLEX 2
	80	90	-	-	6400	6600	47	47	140	MID FLEX 2
	80	105	-	-	7300	7500	55.5	55.5	135	MID FLEX 2
	80	110	-	-	7600	7800	58	58	134	MID FLEX 2
	80	135	-	-	9000	9300	73	73	127	MID FLEX 2
	80	140	-	-	9300	9600	76	76	126	MID FLEX 2
	120	60	-	-	6600	6800	45	45	151	MID FLEX 2
	120	75	-	-	8100	8400	57	57	147	MID FLEX 2
	120	90	-	-	9600	9900	69.5	69.5	142	MID FLEX 2
	120	105	-	-	11000	11300	82	82	138	MID FLEX 2
	120	110	-	-	11400	11800	87	87	136	MID FLEX 2
	120	135	-	-	13500	14000	109	109	128	MID FLEX 2
	120	140	-	-	13900	14400	113	113	127	MID FLEX 2

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

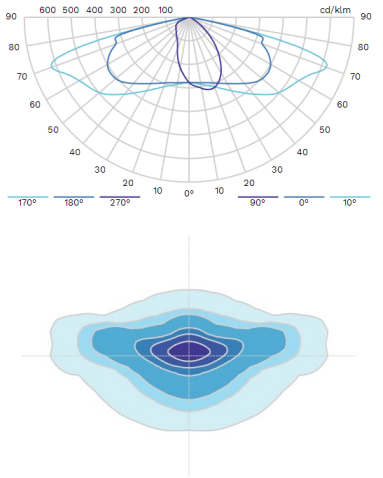
LENSO FLEX™4

5300



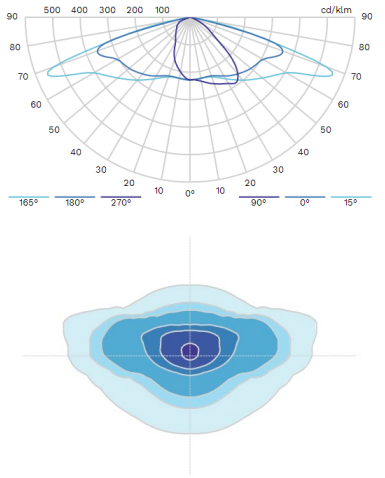
LENSO FLEX™4

5301



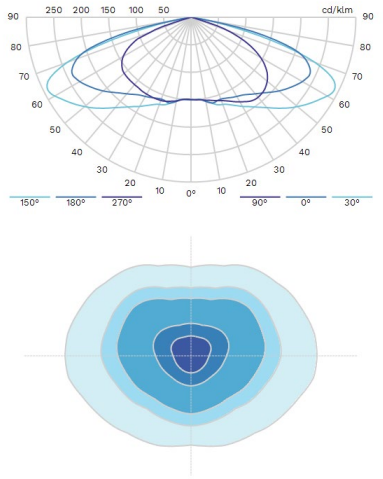
LENSO FLEX™4

5303



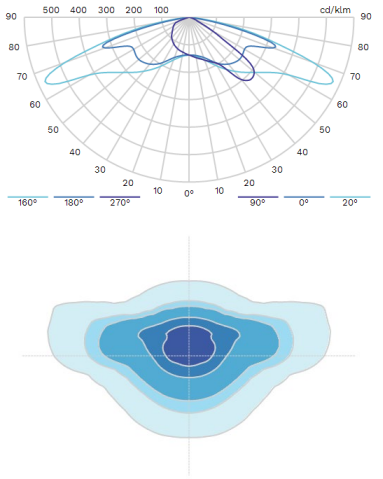
LENSO FLEX™4

5304



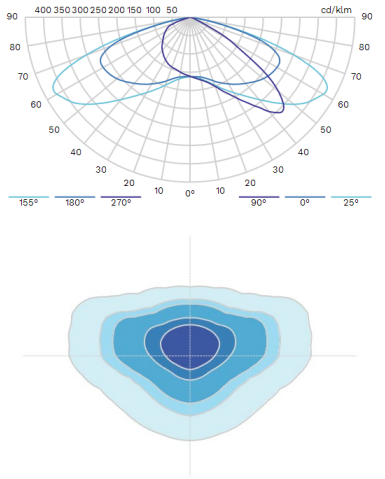
LENSO FLEX™4

5307



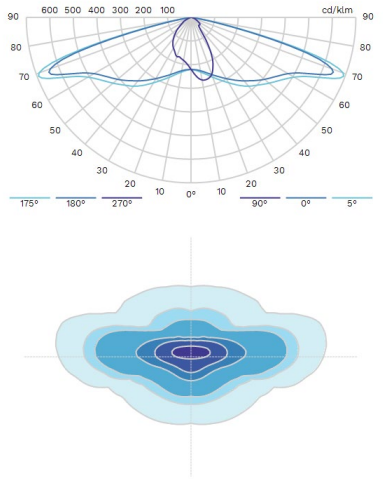
LENSO FLEX™4

5308



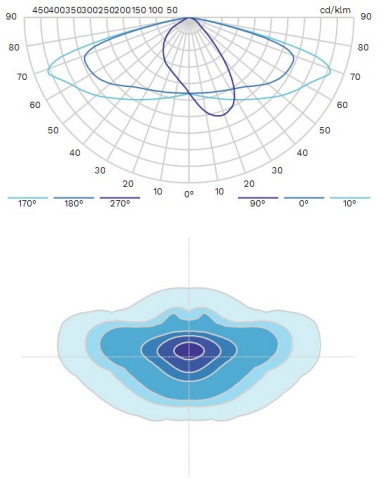
MID FLEX™2

5311



MID FLEX™2

5312



MID FLEX™2

5314