

IZYLUM



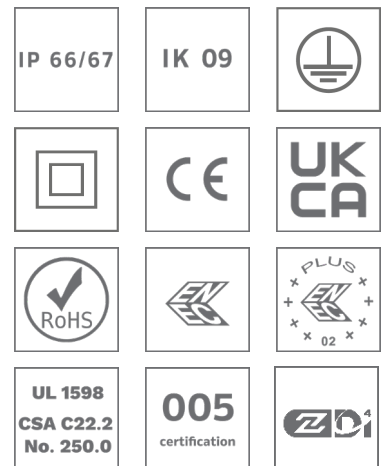
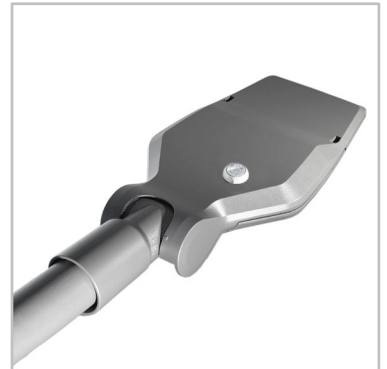
Designer : Indio da Costa



A time-saving, versatile and high-performing road and urban solution

Based on Schröder's experience and proven track record with road and urban LED lighting, the IZYLUM luminaire benefits from numerous innovations to provide the best experience for all stakeholders in public lighting: cities 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 and 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.



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 five sizes, 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, boulevards and motorways.

The IZYLUM range takes advantage of the latest photometric innovations. The LensoFlex®4 and HiFlex™ platforms offer 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.

To simplify installation and maintenance operations, IZYLUM introduces patented technologies such as the 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 available with an IzyFix universal fixation system 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.



IZYLUM integrates highly efficient photometrical platforms.



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

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
- 5 sizes to provide the most accurate solution for numerous road and urban applications
- 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
- Wide range of operating temperatures
- Zhaga-D4i certified
- Connected-ready
- LensoFlex®4 versatile solutions for high-end photometries maximising comfort and safety
- HiFlex™ photometric engine designed for optimised energy efficiency



IZYLUM meets the requirements of the circular economy.



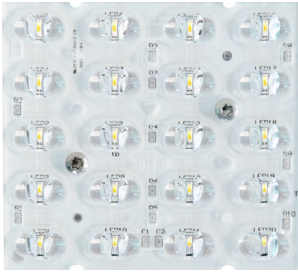
IZYLUM is connected-ready and can operate with various sensors and control systems.



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.



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).

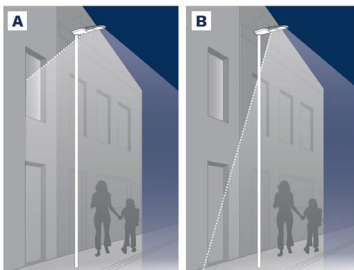
Ideal for projects that require a streamlined approach to maximising lighting efficacy and achieving swift ROI, HiFlex™ is available in two versions: HiFlex™1, boasting 24 LEDs and HiFlex™2, equipped with 36 LEDs. Both variants are designed with the priorities of compactness, cost-effectiveness and high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



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



Embellishment plate

This accessory not only provides a more aesthetic solution as it covers the wires supplying the PCBA's with power, it also increases the lumen output thanks to its extra bright surface that reflects light out of the optical unit. Depending on the configuration, the embellishment plate can increase the lumen output by 2 to 3%.





Diamond cooling blocks

IZYLUM 5 features newly developed cooling blocks on the upper side of the optical compartment. Their diamond shape has been carefully designed to minimise dust and water accumulation while providing optimal thermal management to maintain performance over time.

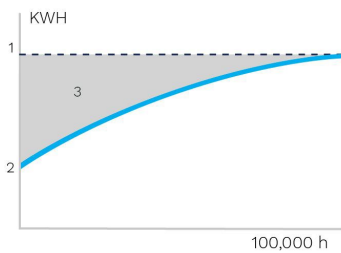




Constant Light Output (CLO)

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.



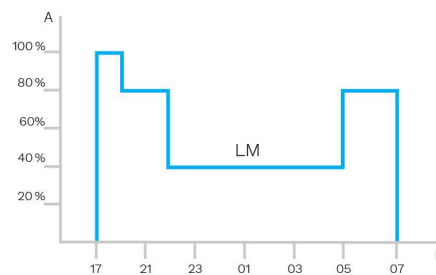
1. Standard lighting level | 2. LED lighting consumption with CLO | 3. Energy savings



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



PIR sensor: motion detection

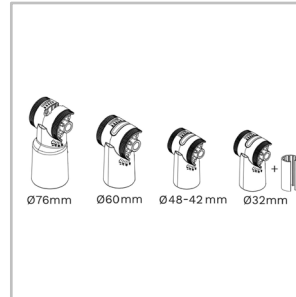
In places with little nocturnal activity, lighting can be dimmed to a minimum most of the time. By using passive infrared (PIR) sensors, the level of light can be raised as soon as a pedestrian or a slow vehicle is detected in the area.

Each luminaire level can be configured individually with several parameters 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.



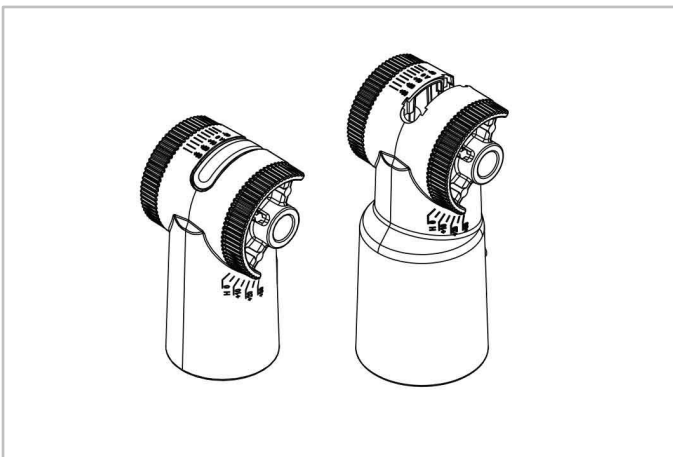
The Schröder IzyFix patented high-pressure die-casted aluminium universal fixation system is an integral part of the luminaire mounted in the factory. The IzyFix system aims to fit needs worldwide by meeting IEC and ANSI 3G testing requirements. It is intended to simplify life for customers and installers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

Variation for all poles



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

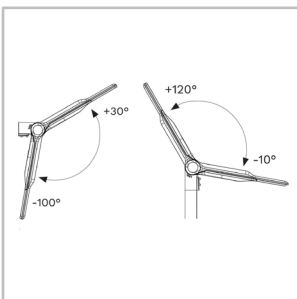
	IzyFix Ø60mm	IzyFix Ø76mm
Ø32mm spigot	✓ (with reducer)	✓ (with reducer)
Ø42-48mm spigot	✓	✓ (with reducer)
Ø60mm spigot	✓	✓
Ø76mm spigot	✗	✓



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-cablings – 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.

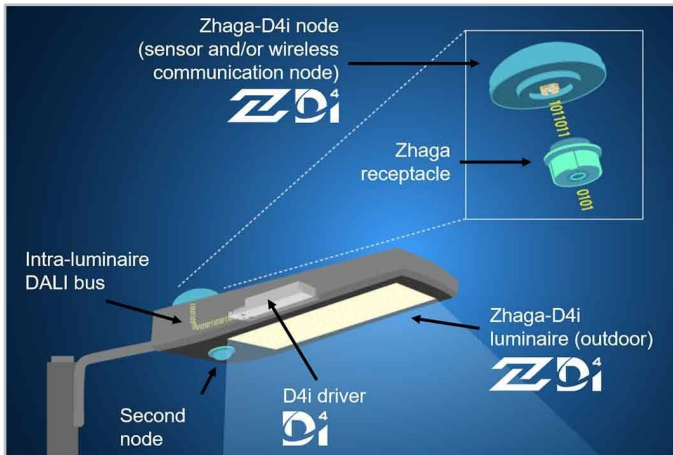
*Depending on the size and shape of the luminaire, the inclination angle may be reduced. For more accurate information, always consult the installation sheets.

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.

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.



Standardisation for interoperable ecosystems



As a founding member of the Zhaga consortium, Schröder 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.

Schröder 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

Schröder 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 Schröder EXEDRA system relies on shared and open technologies. Schröder 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, Schröder 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. Schröder 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

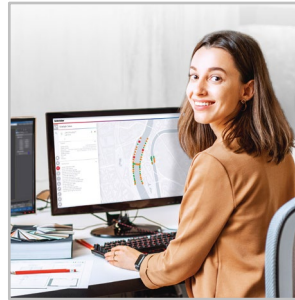
A plug-and-play solution



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 Schröder EXEDRA, operate Schröder'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



Schröder 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

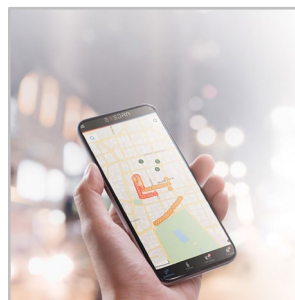
Data is gold. Schröder EXEDRA brings it with all the clarity managers need to drive decisions. The platform collects massive amounts of data from end devices and, aggregates, analyses and intuitively displays them to help end-users take the right actions.

Protected on every side



Schröder 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 Schröder 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 Schröder 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.

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
UL certified	Yes
ROHS compliant	Yes
Zhaga-D4i certified	Yes
BE 005 certified	Yes
UKCA marking	Yes
Testing standard	EN 60598-1 EN 60598-2-3 IEC TR 62778 EN 62262 LM 79-08 (all measurements in ISO17025 accredited laboratory) LM 80 (all measurements in ISO17025 accredited laboratory)

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

ELECTRICAL INFORMATION

Electrical class	Class 1 US, Class I EU, Class II EU
Nominal voltage	120-277V – 50-60Hz 220-240V – 50-60Hz 347-480V – 50-60Hz
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)	1-10V, DALI
Control options	AmpDim, Bi-power, Custom dimming profile, Photocell, Remote management
Socket	Zhaga (optional) NEMA 7-pin (optional)
Associated control system(s)	Schröder EXEDRA
Sensor	PIR (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

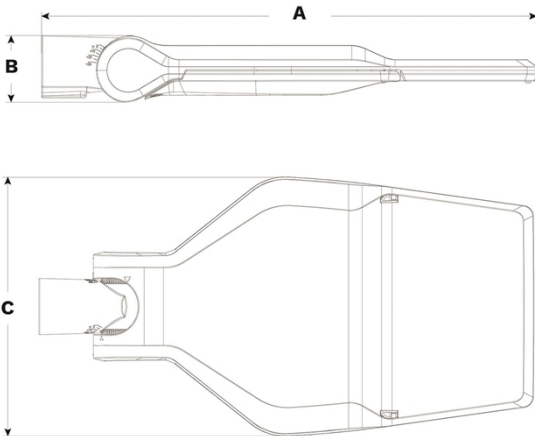
All configurations	100,000h - L95 (high-power LEDs)
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· Lifetime may be different according to the size/configurations. Please consult us.

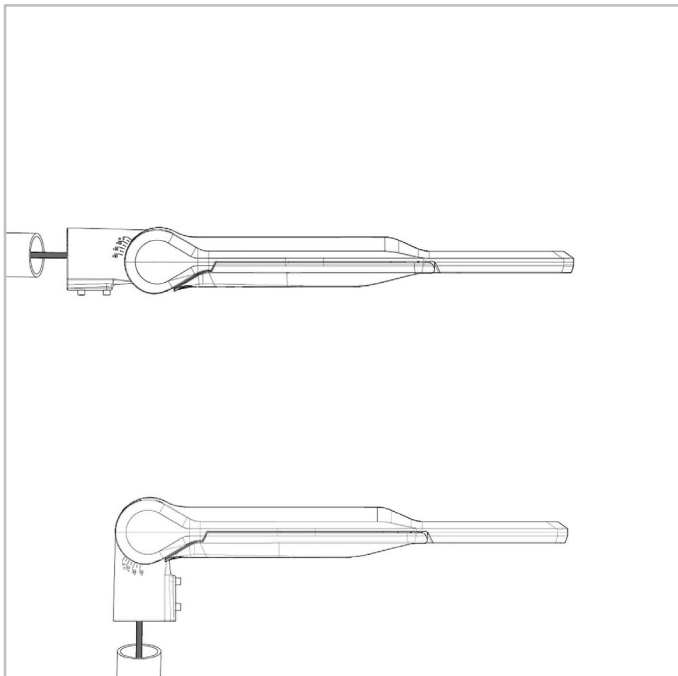
DIMENSIONS AND MOUNTING

AxBxC (mm inch)	IZYLUM 1 : 545x94x294 21.5x3.7x11.6 IZYLUM 2 : 562x94x352 22.1x3.7x13.9 IZYLUM 3 : 673x94x368 26.5x3.7x14.5 IZYLUM 4 : 873x94x390 34.4x3.7x15.4 IZYLUM 5 : 873x94x390 34.4x3.7x15.4
Weight (kg lbs)	IZYLUM 1 : 4.7-5.7 10.3-12.5 IZYLUM 2 : 6.1-7.1 13.4-15.6 IZYLUM 3 : 6.8-8.1 15.0-17.8 IZYLUM 4 : 9.9-12.1 21.8-26.6 IZYLUM 5 : 10.3-12.6 22.7-27.7
Aerodynamic resistance (CxS)	IZYLUM 1 : 0.03 IZYLUM 2 : 0.03 IZYLUM 3 : 0.03 IZYLUM 4 : 0.03 IZYLUM 5 : 0.03
Mounting possibilities	Side-entry slip-over – Ø32mm Side-entry slip-over – Ø42mm Side-entry slip-over – Ø48mm Side-entry slip-over – Ø60mm Side-entry penetrating – 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 Post-top penetrating – Ø60mm

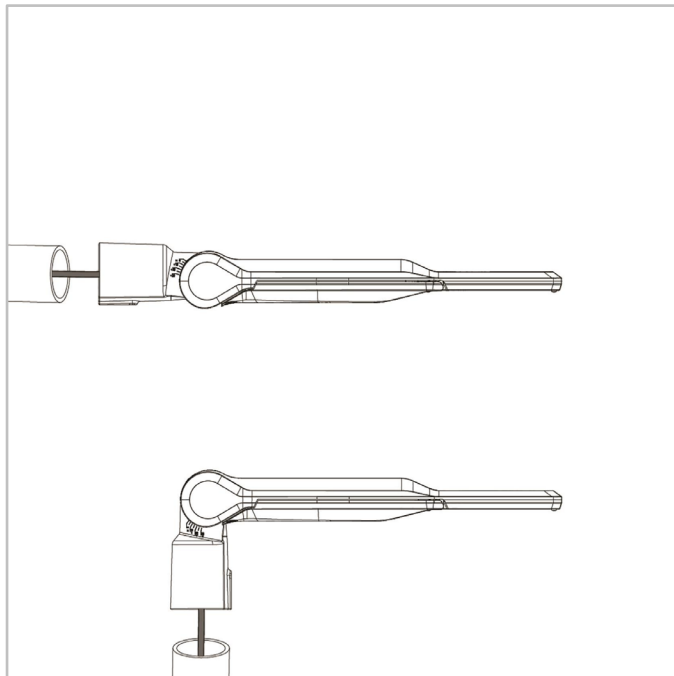
· For more information about mounting possibilities, please consult the installation sheet.
 · Dimensions given for IZYLUM with Ø60mm spigot (side-entry mounting)



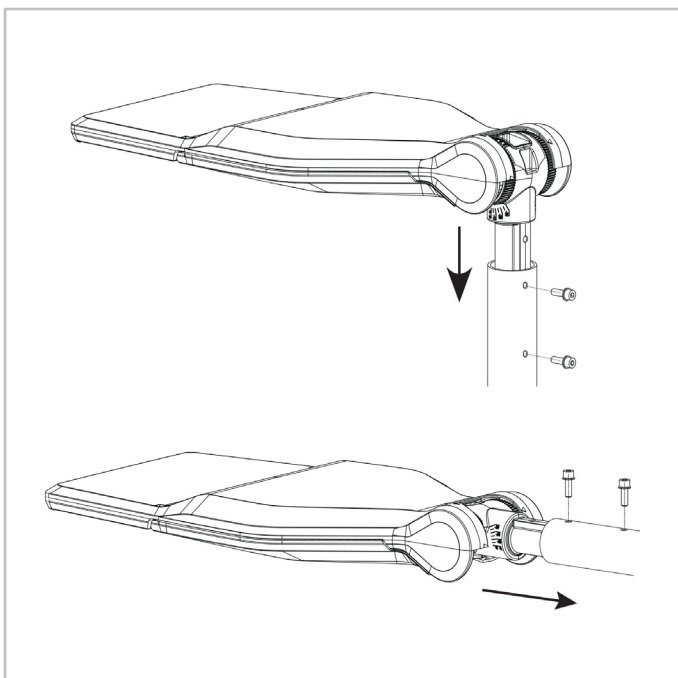
IZYLUM | Slip-over mounting for Ø32-60mm spigot - 2xM10 screws

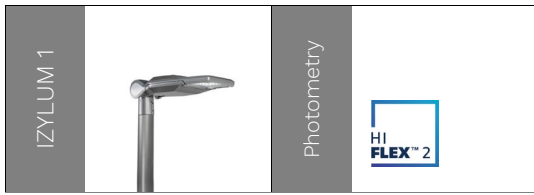


IZYLUM | Slip-over mounting for Ø32-76mm spigot - 2xM10 screws



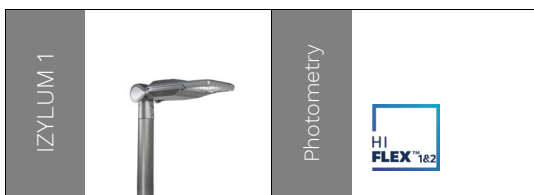
IZYLUM | Penetrating fixation for Ø60mm spigot - 2xM8 screws





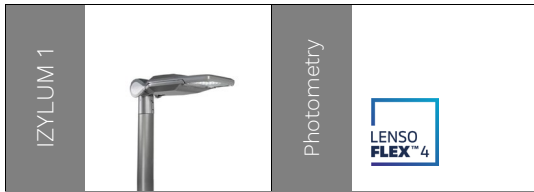
Number of LEDs	Luminaire output flux (lm)								Power consumption (W)		Luminaire efficacy (lm/W)
	Warm White WW 722		Warm White WW 727		Warm White WW 730		Neutral White NW 740				
	Min	Max	Min	Max	Min	Max	Min	Max	Min	Max	Up to
24	1200	6100	1300	6900	1400	7200	1500	7700	11	54	157
36	1700	5600	2000	6300	2100	6600	2200	7100	15	44	165

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



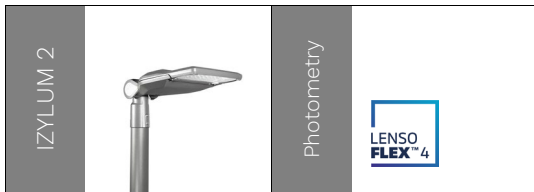
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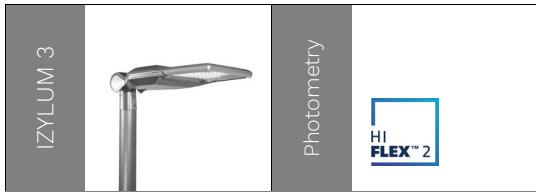
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	Warm White WW 722		Warm White WW 727		Warm White WW 730		Warm White WW 830		Neutral White NW 740		Cool White CW 757				
	Min	Max	Min	Max	Min	Max	Min	Max	Min	Max	Min	Max	Min	Max	Up to
10	700	3400	700	3500	800	3800	700	3600	800	4100	800	4000	7	34	150
20	1400	6800	1400	7100	1600	7700	1500	7300	1700	8200	1600	8000	13	65	165
25	1900	7000	2000	7300	2200	8000	2100	7500	2400	8700	2300	8200	15	64	174

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



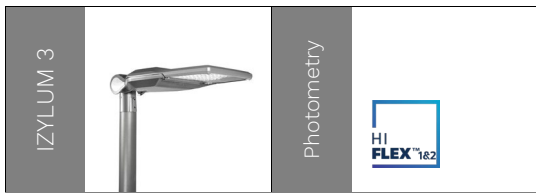
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	Min	Max	Min	Max	Min	Max	Min	Max	Min	Max	Min	Max	Min	Max	Up to
30	2100	9300	2200	9700	2400	10600	2300	10000	2600	11200	2500	11000	19	82	175
40	2800	12400	3000	12900	3200	14200	3000	13300	3400	15000	3300	14600	24	109	179

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



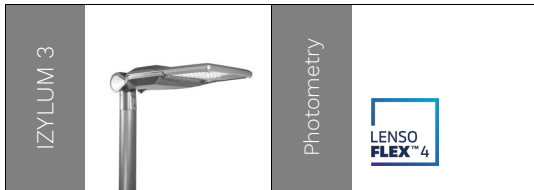
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	Min	Max	Min	Max	Min	Max	Min	Max	Min	Max	Up to
48	2400	10100	2700	11400	2800	11900	3000	12800	20	83	166
72	3600	10900	4100	12300	4200	12800	4500	13800	30	84	170

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



Number of LEDs	Luminaire output flux (lm)								Power consumption (W)		Luminaire efficacy (lm/W)
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72	3600	10900	4100	12300	4200	12800	4500	13800	30	84	170

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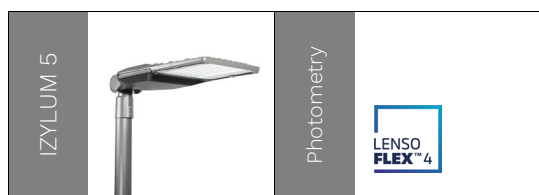
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	Min	Max	Min	Max	Min	Max	Min	Max	Min	Max	Min	Max	Min	Max	Up to
40	2800	10500	3000	11000	3200	12000	3100	11300	3400	12700	3400	12400	24	86	179
50	3600	13000	3700	13500	4100	14800	3800	13900	4300	15700	4200	15300	30	108	182
60	4300	15600	4500	16300	4900	17800	4600	16700	5200	18900	5100	18400	35	128	184
70	5000	17500	5200	18300	5700	20000	5400	18800	6100	21200	5900	20600	41	142	184
80	5700	19800	6000	20600	6500	22600	6200	21200	6900	23900	6800	23300	46	162	183

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



Number of LEDs	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				
	Min	Max	Min	Max	Min	Max	Min	Max	Min	Max	Min	Max	Min	Max	Up to
70	5000	15800	5200	16500	5700	18000	5400	17000	6100	19100	5900	18600	41	127	184
80	5700	18100	6000	18800	6600	20600	6200	19400	7000	21900	6800	21300	46	144	186
100	7200	22600	7500	23600	8200	25800	7700	24300	8700	27300	8500	26600	58	182	186
120	8600	27100	9000	28300	9900	31000	9300	29100	10500	32800	10200	32000	71	218	183

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



Number of LEDs	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				
	Min	Max	Min	Max	Min	Max	Min	Max	Min	Max	Min	Max	Min	Max	
70	5000	19300	5200	20100	5700	22000	5400	20700	6100	23300	5900	22700	41	162	185
80	5700	20100	6000	21000	6500	23000	6100	21600	6900	24300	6700	23700	46	162	186
100	7200	27600	7500	28800	8200	31500	7700	29600	8700	33400	8400	32500	58	234	187
120	8600	33100	9000	34500	9800	37800	9200	35500	10400	40000	10100	39000	71	280	184

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



