

# YMER A



Designer : AF lighting



## Aesthetic appeal, comfort and efficiency

The YMER A incorporates a refined design and state-of-the-art LED technology to provide an energy-efficient lighting solution that enhances city streets.

Perfect for roads, public squares, bike paths and other urban outdoor areas, YMER A delivers a high-quality lighting and lowers the carbon footprint for towns and cities - creating a safe and attractive environment

Scandinavian inspired, the YMER A brings elegance to cities through four distinctive versions including an illuminated dome and a decorative skirt.

The YMER A benefits from highly efficient light distributions that are compliant with stringent standards for glare control. This refined luminaire has been specifically developed to reduce disability glare and improve the quality of light.

IP 66

IK 10



005  
certification

CE

UK  
CA



## Concept

The YMER A range combines the energy efficiency of LED technology with the photometric performance of the LensoFlex®2 and LensoFlex®3 engines developed by Schröder. Certain photometric distributions are compliant with G\*4 class requirements to restrict glare and discomfort. YMER A can lower the threshold increment (TI) to less than 6%, ensuring glare free environments.

The YMER A luminaire is composed of an aluminium body sealed with a glass protector. Its accessories include an illuminated dome in diffuse polycarbonate with a high-power LED and a decorative skirt that reduces glare. It is a complete range of luminaires with four different designs for a distinctive identity. A flux enhancer is available as an option.

The luminaire is delivered with a universal slip-over 60mm fixation piece for both side-entry and post-top (with an aluminium adapter) mounting. An optional side-entry penetrating fixation piece for a 60mm diameter tube is available to complement the range of installation possibilities.

YMER A is supplied pre-wired to facilitate installation as there is no need to open the luminaire. As an option, the luminaire can be delivered with quick-on IP 68 connectors to accelerate the wiring process.

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



YMER A includes an universal Ø60mm slip-over fixation piece.



YMER A 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
- LARGE AREAS
- SQUARES & PEDESTRIAN AREAS
- ROADS & MOTORWAYS

## KEY ADVANTAGES

- Elegant and robust design with four aesthetic versions
- State-of-the-art LED technology for low energy consumption
- Broad range of lighting distributions
- High visual comfort: glare up to G\*4 class, TI <6%
- Designed for side-entry and post-top mounting (depending on accessory)
- Supplied pre-wired to facilitate installation (optional quick-on connectors)
- Connected-ready for your future Smart city requirements
- Based on open and interoperable standards
- Compatible with the Schröder EXEDRA control platform



YMER A is available with an illuminated dome (high-power LED) and a decorative skirt.



As an option to increase the lumen output, a flux enhancer can be placed around the LEDs.

YMER | basic



YMER | dome



YMER | skirt



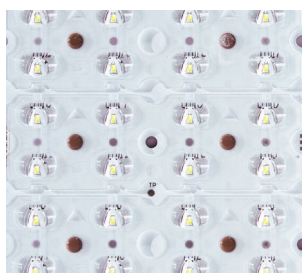
YMER | dome+skirt





## 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.



## LensoFlex®3

LensoFlex®3 uses lenses made of mouldable and optical-grade silicon offering superior transparency and excellent photothermal stability. This withstands high driving currents and delivers maximised lumen output over time. As silicon offers a higher thermal resistance compared to PMMA, temperature is not as critical for LensoFlex®3 engines. This offers two distinct advantages; LensoFlex®3 ensures enhanced performance in warm climates and enables a high driving current to be used to increase the lumen output and a higher lm/kg ratio. It also does not suffer from yellowing over time.

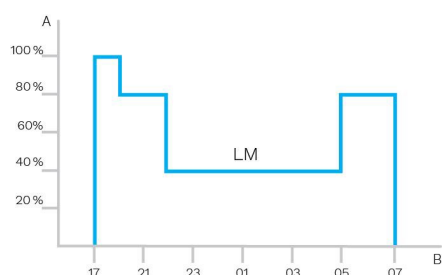




## Custom dimming profile

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 as 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 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.



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

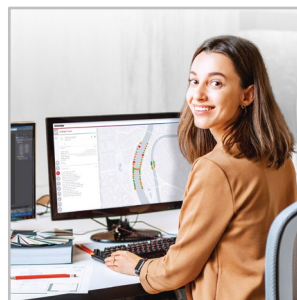
With EXEDRA, Schröder has taken a technology-agnostic approach: we rely on open standards and protocols to design an architecture able to interact seamlessly with third-party software and hardware solutions. Schröder EXEDRA is designed to unlock complete interoperability, as it offers the ability to:

- 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

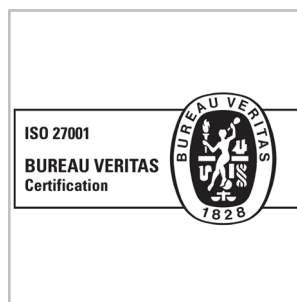


Schröder EXEDRA includes all advanced features needed for smart device management, real-time and scheduled control, dynamic and automated lighting scenarios, maintenance and field operation planning, energy consumption management and third-party connected hardware integration. It is fully configurable 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

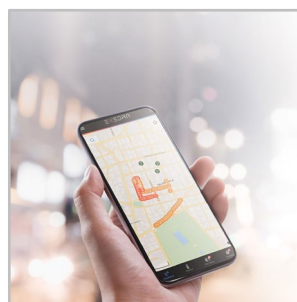
Data is gold. Schröder EXEDRA brings it with all the clarity managers need to drive decisions. The platform collects massive amounts of data from end devices and, aggregates, analyses and intuitively displays them to help end-users take the right actions.

## Protected on every side



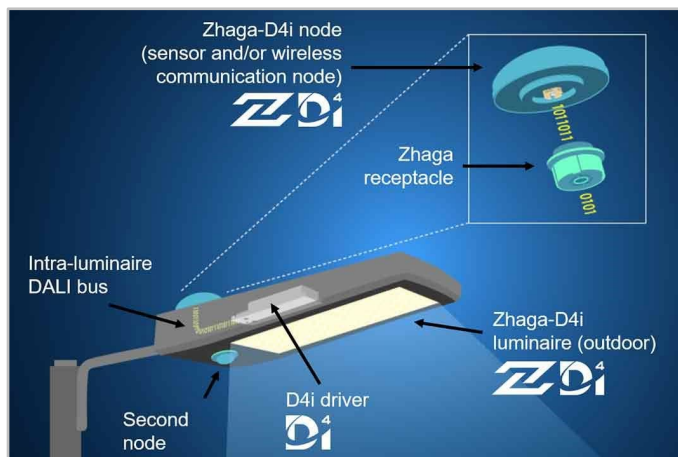
Schröder EXEDRA provides state-of-the-art data security with encryption, hashing, tokenisation, and key management practices that protect data across the whole system and its associated services. The whole platform is ISO 27001 certified. It demonstrates that Schröder EXEDRA meets the requirements for 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.

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, 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

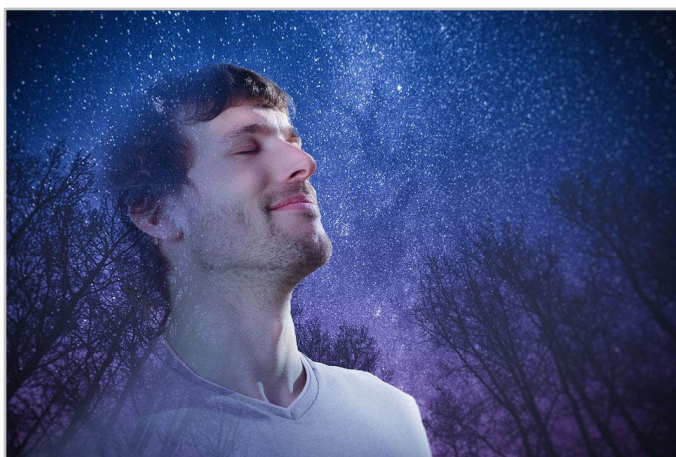
The Zhaga-D4i certification covers all the critical features including mechanical fit, digital communication, data reporting and power requirements within a single luminaire, ensuring plug-and-play interoperability of luminaires (drivers) and peripherals such as connectivity nodes.

## Cost-effective solution

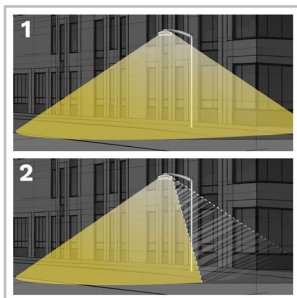
A Zhaga-D4i certified luminaire includes drivers offering features that had previously been in the control node, like energy metering, which has in turn simplified the control device therefore reducing the price of the control system.



With the PureNight concept, Schröder 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 Schröder lighting solution satisfies environmental laws and requirements. Well-designed LED lighting has the potential to improve the environment in all respects.



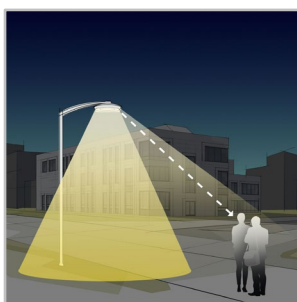
## Direct the light only where it is wanted and needed



Schröder 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.

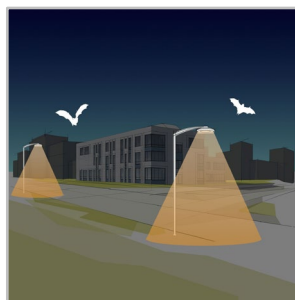
1. Without backlight
2. With backlight

## 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. Schröder 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. Schröder 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.

## Choose a Dark Sky certified luminaire



The International Dark-Sky Association (IDA) is the recognised authority on light pollution. It provides leadership, tools and resources to industries and companies willing to reduce light pollution. The IDA's Fixture Seal of Approval programme certifies outdoor lighting fixtures as being Dark Sky Friendly. All products approved by this programme must comply with the following criteria:

- “- The light sources shall have a maximum correlated colour temperature of 3000K;
- Uplight allowance limited to 0.5% of total output, or 50 lumens, with no more than
  - 10 lumens in the 90-100 degree UL zone;
- The luminaires must have a dimming capability to 10% of full rating;
- The luminaires must be equipped with a fixed mounting option;
- The luminaires must have Safety Certification by an independent laboratory.”

This approved Schröder range of luminaires complies with these requirements.



## GENERAL INFORMATION

Recommended installation height	4m to 12m   13' to 39'
FutureProof	Easy replacement of the photometric engine and electronic assembly on-site
Driver included	Yes
CE mark	Yes
ENEC certified	Yes
ENEC+ certified	Yes
ROHS compliant	Yes
Dark Sky friendly lighting (IDA certification)	Yes
French law of December 27th 2018 - Compliant with application type(s)	a, b, c, d, e, f, g
BE 005 certified	Yes
UKCA marking	Yes
Testing standard	LM 79-08 (all measurements in ISO17025 accredited laboratory)

· The Dome version of the YMER A does not comply with IDA Dark Sky requirements.

## HOUSING AND FINISH

Housing	Aluminium
Optic	PMMA Silicon
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 modified IEC 68-2-6 (0.5G)
Access for maintenance	By loosening screws on the bottom cover

· Any other RAL or AKZO colour upon request

## OPERATING CONDITIONS

Operating temperature range (Ta)	-30°C up to +40°C / -22°F up to 104°F with wind effect
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· 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)	4 10
Electromagnetic compatibility (EMC)	EN 61547 / EN 61000-4-2, -3, -4, -5, -6, -8, -11
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 (WW 822) 2700K (WW 727) 3000K (WW 730) 3000K (WW 830) 4000K (NW 740)
Colour rendering index (CRI)	>80 (WW 822) >70 (WW 727) >70 (WW 730) >80 (WW 830) >70 (NW 740)
ULOR	0%
ULR	0%

· Meets IDA Dark Sky requirements when fitted with LEDs of 3000K or less.

· ULOR may be different according to the configuration. Please consult us.

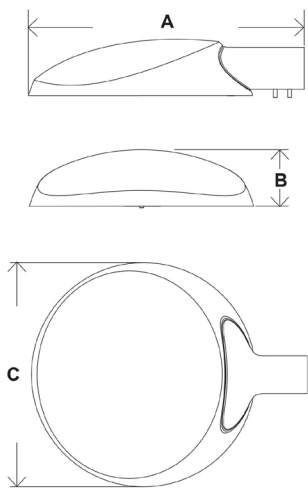
· ULR may be different according to the configuration. Please consult us.

## LIFETIME OF THE LEDS @ TQ 25°C

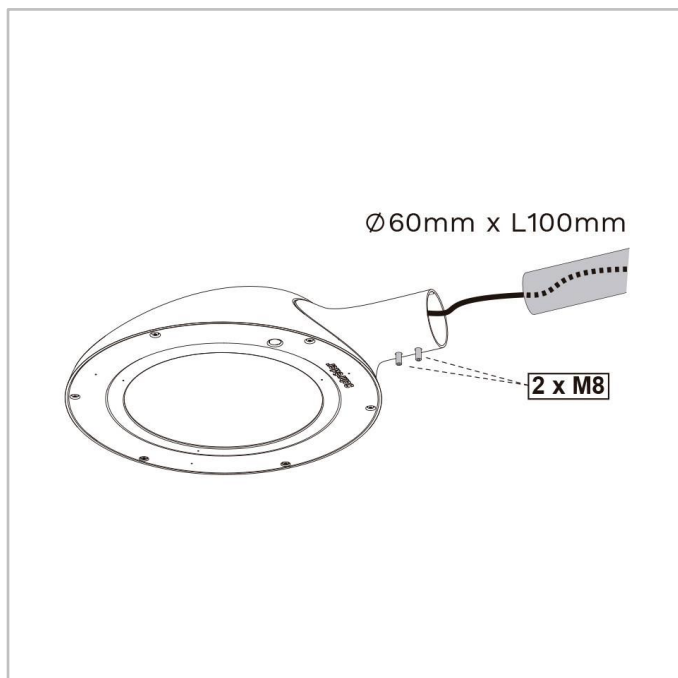
All configurations	100,000h - L90
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DIMENSIONS AND MOUNTING

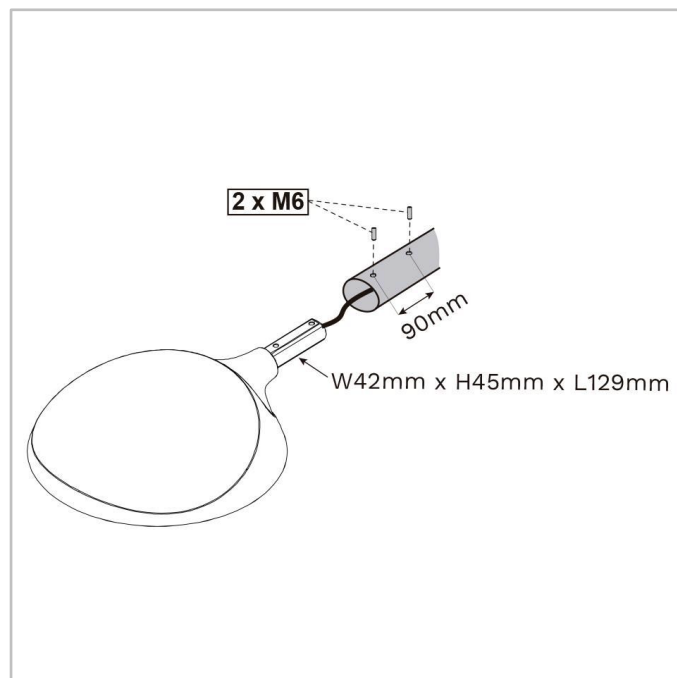
AxBxC (mm   inch)	568x116x462   22.4x4.6x18.2
Weight (kg   lbs)	8.0   17.6
Aerodynamic resistance (CxS)	0.02
Mounting possibilities	Side-entry slip-over – Ø60mm Side-entry penetrating – Ø60mm Post-top slip-over – Ø60mm



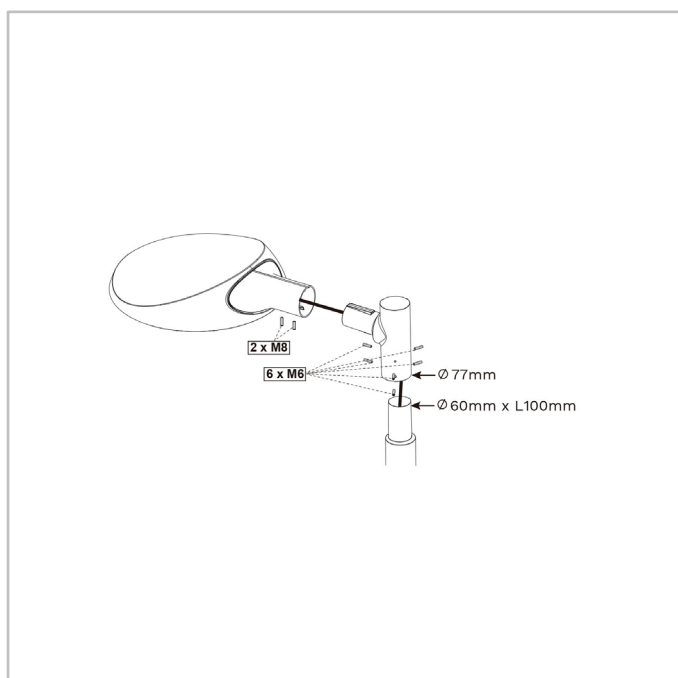
YMER A | Side-entry mounting Ø60 mm - 2xM8 screws



YMER A | Penetrating fixation Ø42 mm



YMER A | Post-top adaptor for a vertical mounting on a Ø76 mm pole





Luminaire output flux (lm)											Power consumption (W)		Luminaire efficacy (lm/W)
Warm White 822			Warm White 727		Warm White 730		Warm White 830		Neutral White 740				
Number of LEDs	Min	Max	Min	Max	Min	Max	Min	Max	Min	Max	Min	Max	Up to
16	1300	3000	1700	4100	1900	4500	1700	4200	1900	4800	18	36	148
24	2000	4600	2500	6200	2800	6800	2500	6300	2900	7200	27	54	151
32	2700	6100	3400	8200	3800	9000	3400	8500	3900	9600	35	71	155
48	4100	9200	5100	12400	5700	13600	5100	12700	5900	14400	52	107	156

Tolerance on LED flux is  $\pm 7\%$  and on total luminaire power  $\pm 5\%$

