

MILANEO



reddot winner 2025

Designer : Sven von Boetticher (ID AID Design Studio)



Minimalist elegance, advanced lighting technology

MILANEO is a contemporary urban luminaire that combines minimalist elegance with cutting-edge performance. Inspired by the pure lines of industrial design, it offers a modern reinterpretation of the classic street lantern, and is distinguished with the prestigious Red Dot Design Award, one of the world's largest and most renowned design competitions that celebrates excellence in design and innovation.

Beneath its refined silhouette, MILANEO incorporates advanced, connected lighting technologies, delivering high-efficiency illumination while optimising energy consumption.

The perfect balance of design innovation and functional excellence, MILANEO enhances urban spaces, reinforcing their identity while shaping the cities of tomorrow.



Concept

MILANEO is composed of a cast aluminium body, the lower part of which is covered by an embellishment ring, and a plastic protector.

The cylindrical protector has been developed to minimise upward reflection of the light, to comply with the strictest standards in terms of light pollution and dark-sky requirements. In its post-top version, the protector features an aesthetic black embellishment plate, further helping to reduce light reflection while bringing a refined finish.

The combination of appealing design with advanced lighting technology is the basis for MILANEO. That's why this luminaire is equipped with the latest Schröder LensoFlex® photometric engines, a powerful LED platform offering flexible, energy-efficient lighting solutions that can be tailored to meet the specific needs of any project, maximising savings and providing a quick return on investment.

A connected-ready solution, MILANEO can be delivered with a NEMA or Zhaga socket, enabling seamless integration with connected lighting systems, and making it a valuable asset for optimising your lighting infrastructure management to generate extra savings. Additionally, the post-top version can be equipped with a second Zhaga socket (located on its fixation base) to add motion sensor features, creating light-on-demand scenarios and supporting more responsible use of energy resources.

MILANEO offers suspended and post-top mounting options on various types of spigot, to suit a wide range of urban environment needs.



Celebrated for its innovative design, MILANEO was given the prestigious Red Dot Design Award.



Featuring the latest connectivity technologies, MILANEO enables remote management and adaptive lighting scenarios.



Designed in line with sustainability principles, MILANEO limits light pollution and contributes to more responsible, future-orientated cities.



Available with a range of poles and brackets, MILANEO enables the creation of unique ambiances.

TYPES OF APPLICATION

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

KEY ADVANTAGES

- Timeless and elegant design for rural and urban environments
- LensoFlex®4 versatile solutions for high-end photometries maximising comfort and safety
- Connected-ready
- Zhaga-D4i certified
- Compatible with the Schröder EXEDRA control platform
- Various configurations with poles and brackets
- Post-top or suspended mounting



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.

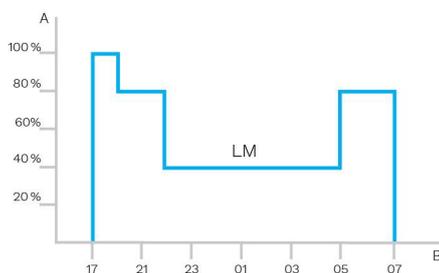




Custom dimming profile

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.

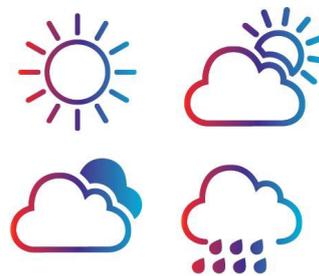


A. Dimming level | B. Time



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 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.

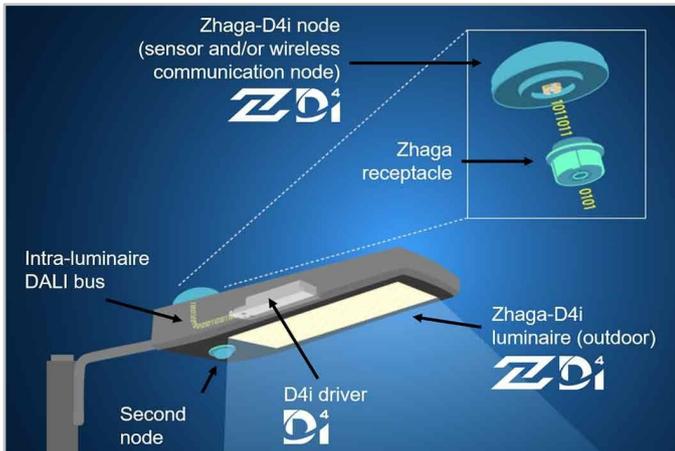


The Zhaga consortium joined forces with the DiiA and produced a single Zhaga-D4i certification that combines the Zhaga Book 18 version 2 outdoor connectivity specifications with the DiiA's D4i specifications for intra-luminaire DALI.

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

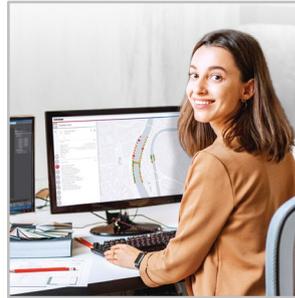
With EXEDRA, Schröder has taken a technology-agnostic approach: we rely on open standards and protocols to design an architecture able to interact seamlessly with third-party software and hardware solutions. Schröder EXEDRA is designed to unlock complete interoperability, as it offers the ability to:

- 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

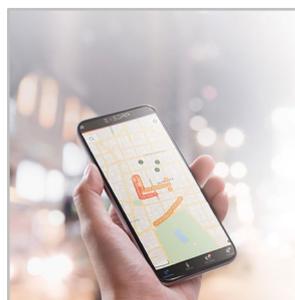
Data is gold. Schröder EXEDRA brings it with all the clarity managers need to drive decisions. The platform collects massive amounts of data from end devices and, aggregates, analyses and intuitively displays them to help end-users take the right actions.

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.

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.



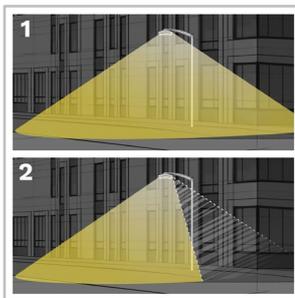
Protect wildlife



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.

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.

GENERAL INFORMATION

Recommended installation height	5m to 10m 16' to 33'
Driver included	Yes
CE mark	Yes
ENEC certified	Yes
ENEC+ certified	Yes
Zhaga-D4i certified	Yes
UKCA marking	Yes

HOUSING AND FINISH

Housing	Aluminium
Optic	PMMA
Protector	PMMA
Housing finish	Polyester powder coating
Standard colour(s)	RAL 9005 Jet black
Tightness level	IP 66
Impact resistance	IK 06
Vibration test	Compliant with modified IEC 68-2-6 (0.5G)
Access for maintenance	By loosening screws on the top cover

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
Surge protection options (kV)	10
Electromagnetic compatibility (EMC)	EN 55015 / EN 61000-3-2 / EN 61000-3-3 / EN 61547
Control protocol(s)	1-10V, DALI
Control options	AmpDim, Bi-power, Custom dimming profile, Remote management
Socket	Zhaga (optional) NEMA 7-pin (optional)
Associated control system(s)	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)
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)
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

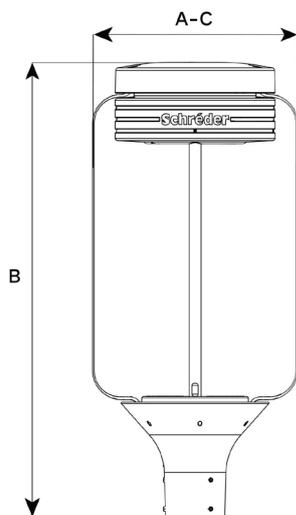
All configurations	100,000h - L95
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· Lifetime may be different according to the size/configurations. Please consult us.

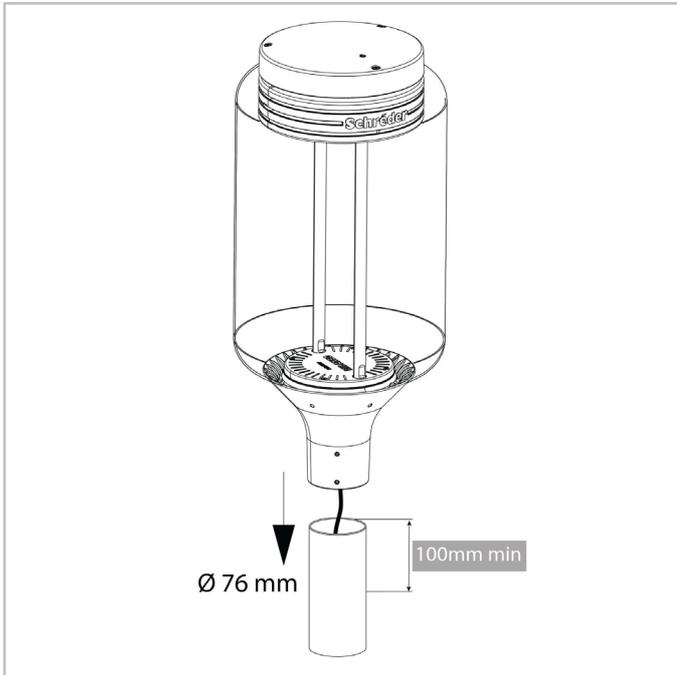
DIMENSIONS AND MOUNTING

AxBxC (mm inch)	350x784x350 13.8x30.9x13.8
Weight (kg lbs)	9.9 21.8
Aerodynamic resistance (CxS)	0.12
Mounting possibilities	Post-top slip-over – Ø76mm Suspended ¾" gas male Suspended 1" gas male Suspended 1" 1/4 gas male Suspended 1" gas female

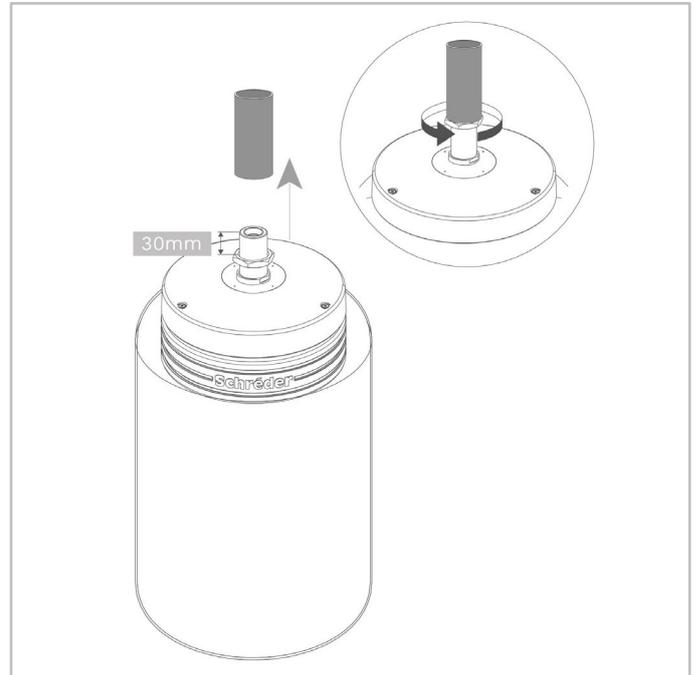
· For more information about mounting possibilities, please consult the installation sheet.



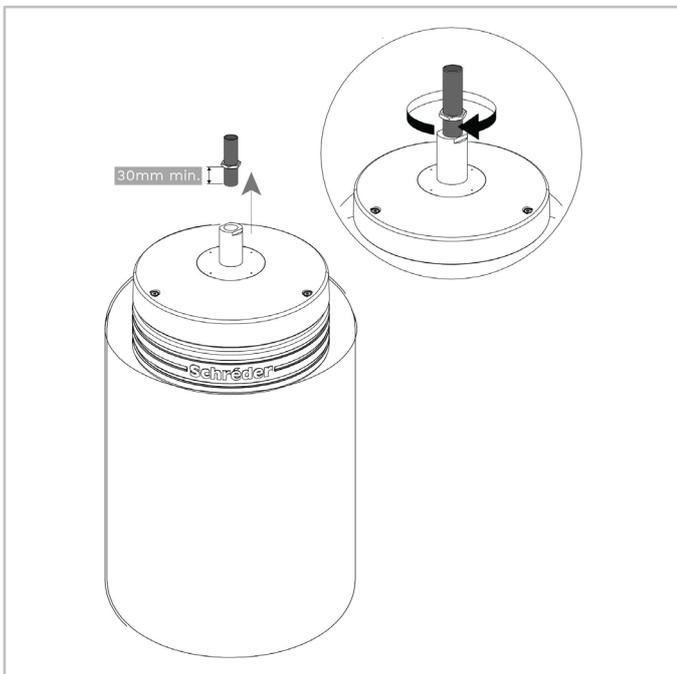
MILANEO | Post-top mounting on Ø76mm spigots



MILANEO | Suspended mounting with male 1", male 1 1/4", male 3/4" fixations



MILANEO | Suspended mounting with female 1" gas fixation





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				
	Min	Max	Min	Max	Min	Max	Min	Max	Min	Max	Min	Max	
10	600	2400	700	2700	700	2900	700	2700	800	3100	7	22	158
20	1200	6100	1400	6700	1500	7100	1400	6700	1600	7700	13	56	169

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

