CITEA GEN3

LENSO**FLEX**™4

Timeless urban luminaire blending circular design with exceptional performance

With this third generation, CITEA is redesigning its architecture around the concepts of sustainability and circularity. It benefits from a standardised, future-proof, tool-free design that enables cities to streamline maintenance operations, simplify spare part management and ensure long-term availability of components.

CITEA GEN3 brings together the most efficient lighting technologies while supporting more responsible use of resources, lowering total cost of ownership across the lighting network.

IP 66   IK 10

CE   UKCA

URBAN &
RESIDENTIAL
STREETS

BRIDGES

BIKE &
PEDESTRIAN
PATHS

RAILWAY
STATIONS &
METROS

CAR PARKS

SQUARES &
PEDESTRIAN
AREAS

ROADS &
MOTORWAYS

Schréder
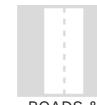
Concept

CITEA GEN3 has been redesigned to support a more circular, resource-efficient approach to urban lighting. Its architecture relies on the CR-KIT, a standardised, tool-free, interchangeable unit combining the LED engine and gear compartment. This standardised kit, accessible without tools, is used across the latest Schréder luminaire range, allowing simplified spare part management, reduced maintenance operations and lower operational costs across the lighting network. Furthermore, CITEA GEN3 features a fully removable lower door that speeds up servicing and upgrades, allowing cities to adapt their lighting infrastructure over time without replacing the luminaires.

CITEA GEN3 delivers high lumen packages and superior efficiency compared to market standards. These features are complemented by a range of optics that enable precise light direction, for more efficient energy use and compliance with the strictest light pollution standards (ULOR 0%).

Beyond its performance, CITEA GEN3 is a strong aesthetic asset for urban environments. Its timeless design, combined with a choice of poles, brackets and mounting options (post-top, side-entry, suspended or adjustable), ensures seamless integration into both new developments and existing infrastructure.

Designed for connected cities, CITEA GEN3 is ready for smart lighting deployments. With NEMA 7-pin and up to 2 Zhaga sockets (top and down), it enables precise control of energy consumption, proactive maintenance and smart city applications. Cities benefit from open and interoperable connectivity without platform dependency. Thanks to a second socket positioned under the luminaire, CITEA GEN3 is Zhaga sensor-ready, enabling optimised energy usage and more responsive public spaces.

CITEA GEN3 lowers operational costs through its circular, standardised design.

Smart-ready luminaire for connected and interoperable cities.

TYPES OF APPLICATION

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

KEY ADVANTAGES

- Timeless and elegant design for rural and urban environments
- Wide range of mounting options and brackets
- Sustainable and circular: replace only the components you need and avoid unnecessary waste
- Tool free access
- Connected-ready
- Zhaga-D4i certified
- Wide choice of photometrical distributions
- No light pollution
- Based on open and interoperable standards
- LensoFlex®4 versatile solutions for high-end photometries maximising comfort

Enables cohesive, aesthetically pleasing lighting setups across various urban environments.


CITEA GEN3 offers high lighting performance with optimised energy use and precise light control.

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.
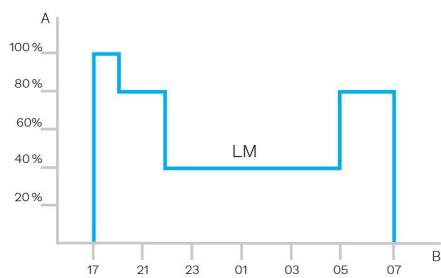
A. Dimming level | B. Time

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.
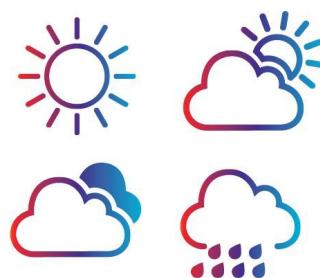
PIR sensor: motion detection

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 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.

Schréder

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

Standardisation for interoperable ecosystems

As a founding member of the Zhaga consortium, Schréder has participated in the creation of, and therefore supports, the Zhaga-D4i certification program and the initiative of this group to standardise an interoperable ecosystem. The D4i specifications take the best of the standard DALI2 protocol and adapt it to an intra-luminaire environment but it has certain limitations. Only luminaire mounted control devices can be combined with a Zhaga-D4i luminaire.

According to the specification, control devices are limited respectively to 2W and 1W average power consumption.

Certification program

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

Cost-effective solution

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

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.

Schréder EXEDRA is the most advanced lighting management system on the market for controlling, monitoring and analysing streetlights in a user-friendly way.

Standardisation for interoperable ecosystems

Schréder plays a key role in driving standardisation with alliances and partners such as uCIFI, TALQ or Zhaga. Our joint commitment is to provide solutions designed for vertical and horizontal IoT integration. From the body (hardware) to the language (data model) and the intelligence (algorithms), the complete Schréder EXEDRA system relies on shared and open technologies. Schréder EXEDRA also relies on Microsoft Azure for cloud services, provided with the highest levels of trust, transparency, standards conformance and regulatory compliance.

Breaking the silos

With EXEDRA, Schréder has taken a technology-agnostic approach: we rely on open standards and protocols to design an architecture able to interact seamlessly with third-party software and hardware solutions. Schréder EXEDRA is designed to unlock complete interoperability, as it offers the ability to:
• control devices (luminaires) from other brands
• manage controllers and to integrate sensors from other brands
• connect with third-party devices and platforms

A plug-and-play solution

As a gateway-less system using the cellular network, an intelligent automated commissioning process recognises, verifies and retrieves luminaire data into the user interface. The self-healing mesh between luminaire controllers enables real-time adaptive lighting to be configured directly via the user interface. OWLET IV luminaire controllers, optimised for Schréder EXEDRA, operate Schréder'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
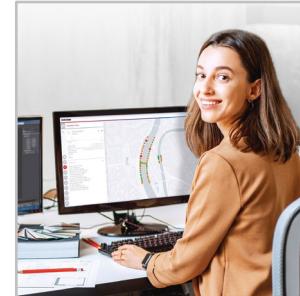
Schréder EXEDRA includes all advanced features needed for smart device management, real-time and scheduled control, dynamic and automated lighting scenarios, maintenance and field operation planning, energy consumption management and third-party connected hardware integration. It is fully configurable and includes tools for user management and multi-tenant policy that enables contractors, utilities or big cities to segregate projects.

## A powerful tool for efficiency, rationalisation and decision making

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

Protected on every side

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

## Mobile App: any time, any place, connect to your street lighting
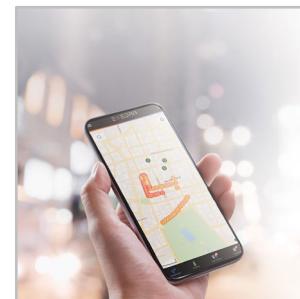
The Schréder EXEDRA mobile application offers the essential functionalities of the desktop platform, to accompany all types of operator on site in their daily effort to maximise the potential of connected lighting. It enables real-time control and settings, and contributes to effective maintenance.

With the PureNight concept, Schréder 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 Schréder lighting solution satisfies environmental laws and requirements. Well-designed LED lighting has the potential to improve the environment in all respects.
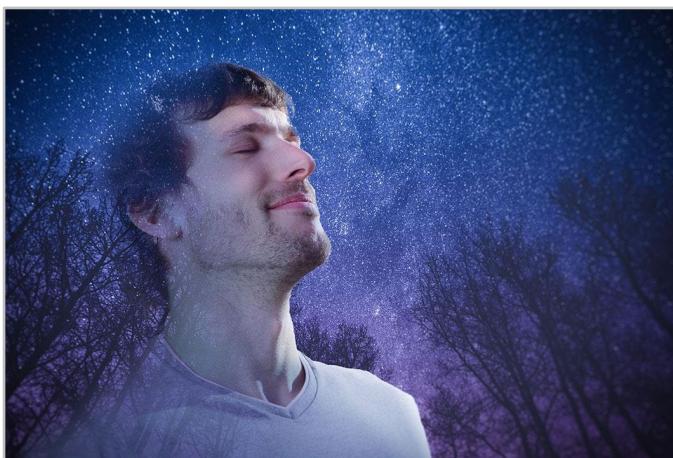
Direct the light only where it is wanted and needed

Schréder 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.
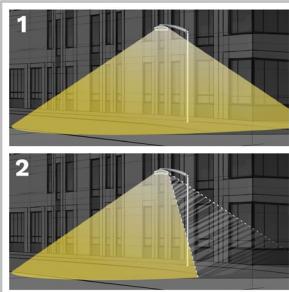
1. Without backlight
2. With backlight

Offer maximum visual comfort to people
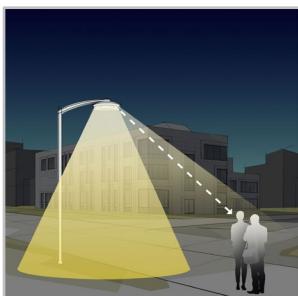
Because of the lower installation height compared to road lighting, visual comfort is an essential aspect of urban lighting. Schréder designs lenses and accessories to minimise any type of glare (distracting, discomforting, disabling glare and blinding glare). Our design offices harness a range of possibilities 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. Schréder 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.

Get the starry sky back

The Upward Light Ratio (ULR) and Upward Light Output Ratio (ULOR), the latter taking the flux from the luminaire into account, provide information on the percentage of light emitted towards the sky. This Schréder range of luminaires minimises or eliminates (depending on the options) upward-directed light flux. It complies with strict international and local requirements.

GENERAL INFORMATION

FutureProof	Easy replacement of the photometric engine and electronic assembly
CE mark	Yes
UKCA marking	Yes
ENEC certified	Yes
ENEC+ certified	Yes
Zhaga-D4i certified	Yes

HOUSING AND FINISH

Housing	Aluminium
Optic	PMMA
Protector	Tempered glass
Housing finish	Polyester powder coating
Standard colour(s)	AKZO grey 900 sanded
Tightness level	IP 66
Impact resistance	IK 10
Access for maintenance	Tool-less access to gear compartment

OPERATING CONDITIONS

Operating temperature range (Ta)	-30°C up to +55°C / -22° F up to 131°F

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

ELECTRICAL INFORMATION

Electrical class	Class I EU, Class II EU
Nominal voltage	220-240V – 50-60Hz
Surge protection options (kV)	10
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)	Schréder 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

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

DIMENSIONS AND MOUNTING

AxBxC (mm | inch)	CITEA GEN3 MIDI : 595x185x597 | 23.4x7.3x23.5
Weight (kg | lbs)	CITEA GEN3 MIDI : 14.0 | 30.8
Aerodynamic resistance (CxS)	CITEA GEN3 MIDI : 0.08
Mounting possibilities	Side-entry slip-over – Ø60mm Side-entry penetrating – Ø48mm Post-top slip-over – Ø60mm Suspended ¾" gas male Suspended 1" gas male Suspended 1" gas female Catenary Surface mounting Direct mounting on poles

· *For more information about mounting possibilities, please consult the installation sheet.*
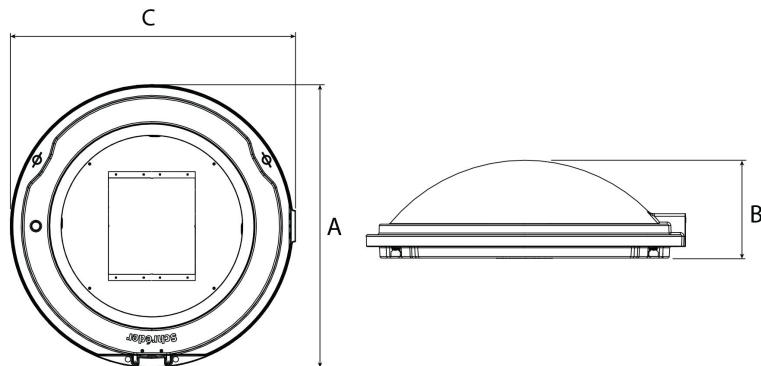
CITEA GEN3 | Side-entry enclosing Ø60mm mounting (L2)
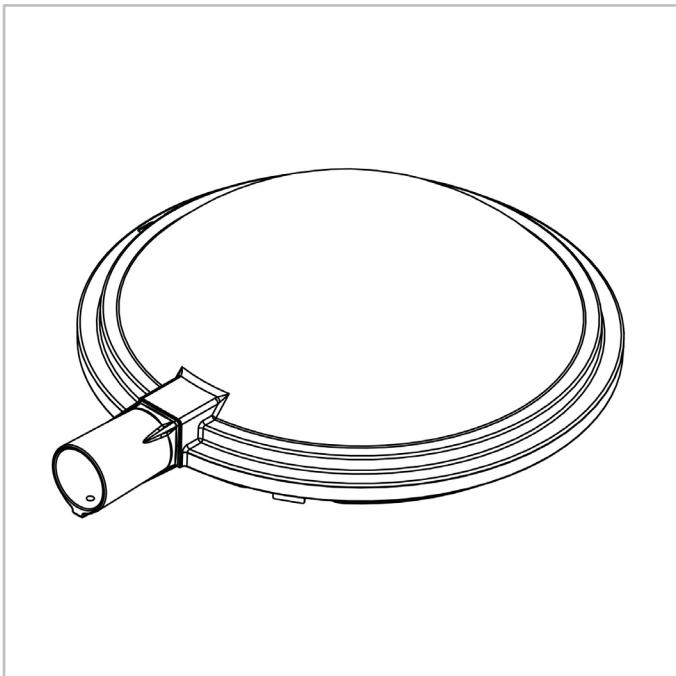
CITEA GEN3 | Side-entry penetrating spigot Ø48mm (L3)

CITEA GEN3 | Side-entry 40X40 square direct mounting (E1)
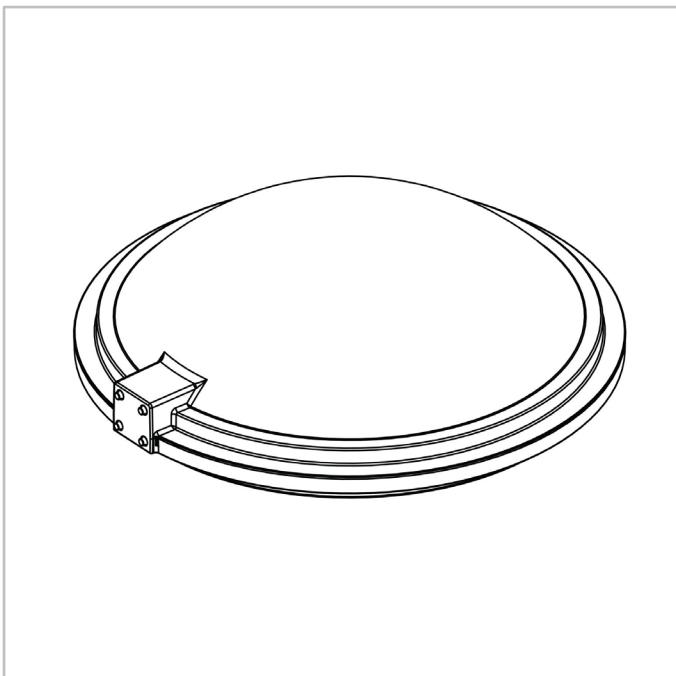
CITEA GEN3 | Knuckle joint side-entry enclosing Ø60mm mounting (A6)

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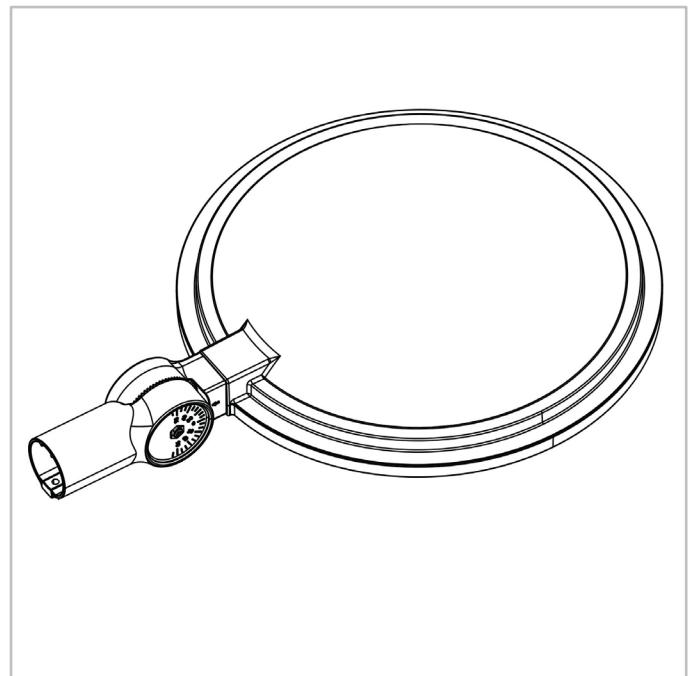
### CITEA GEN3 | Knuckle joint side-entry penetrating Ø48mm spigot (A5)
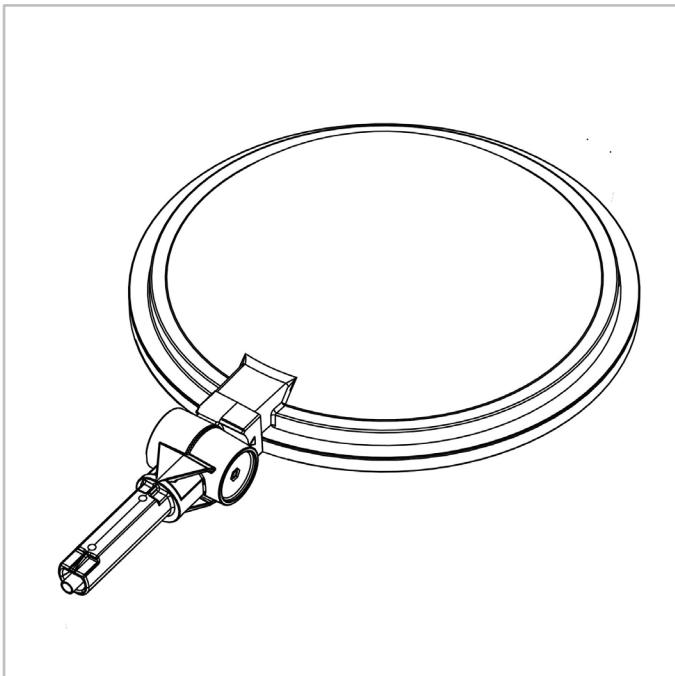
### CITEA GEN3 | Knuckle joint 1" gas male side-entry mounting (A3)
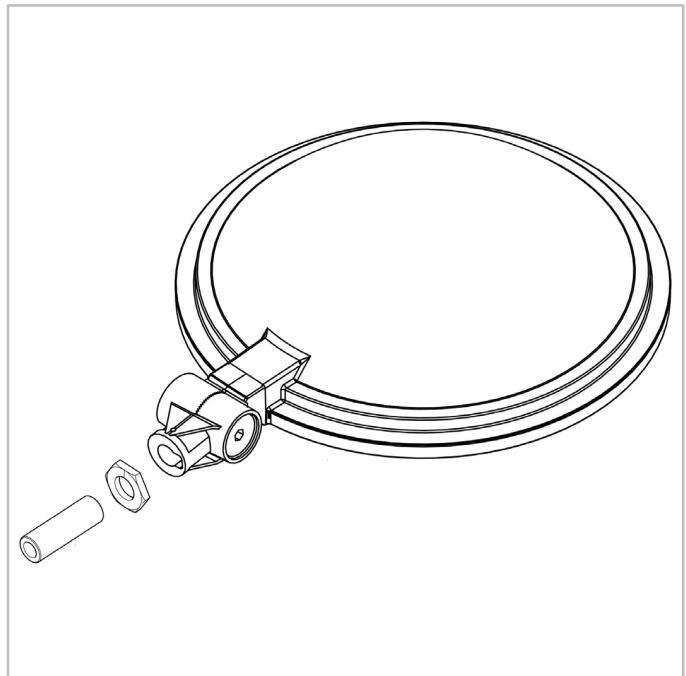
### CITEA GEN3 | Knuckle joint 1" gas female side-entry mounting (A4)
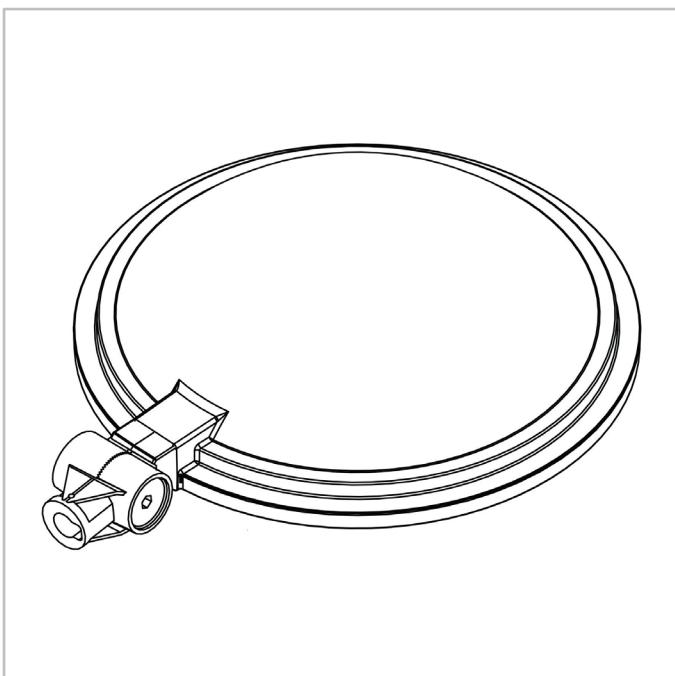
### CITEA GEN3 | Knuckle joint side-entry 60X50 square mounting (A2)
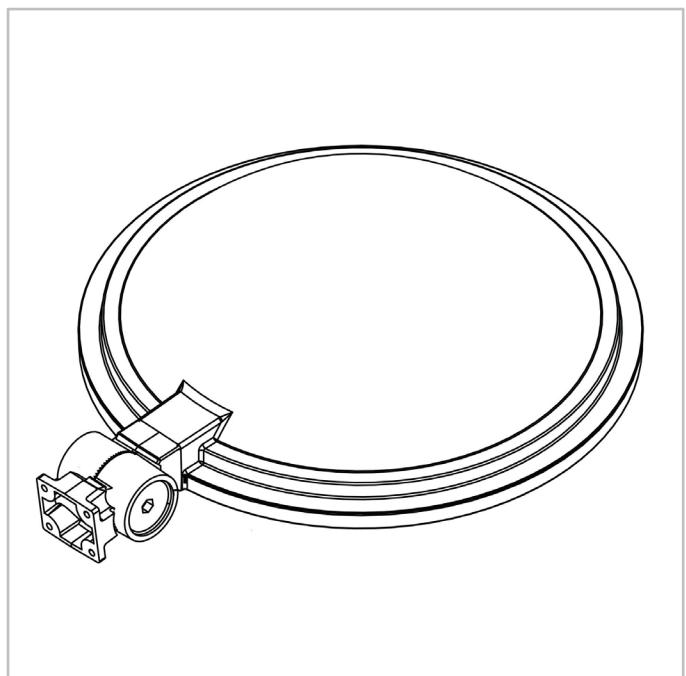
### CITEA GEN3 | Knuckle joint surface mounting (WB)
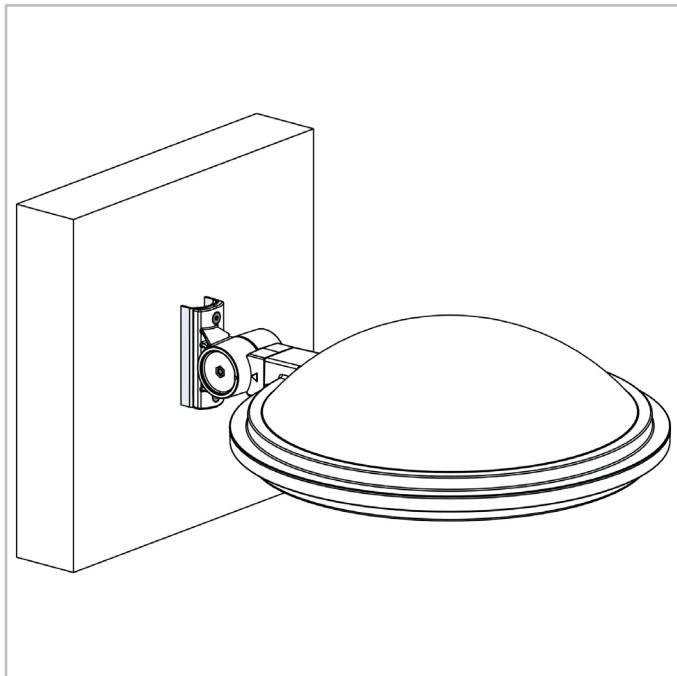
### CITEA GEN3 | Knuckle joint rear bracket mounting (WM)
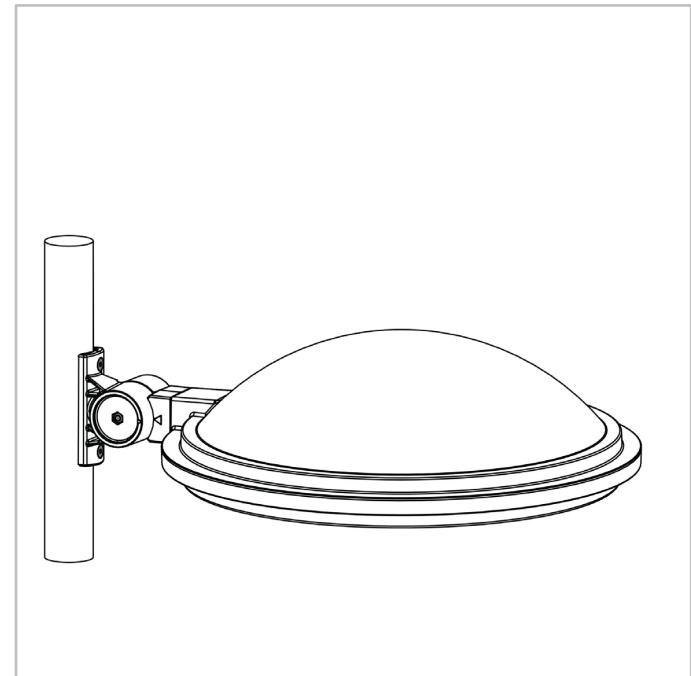
### CITEA GEN3 | Post-top Ø60mm single mounting (P1)
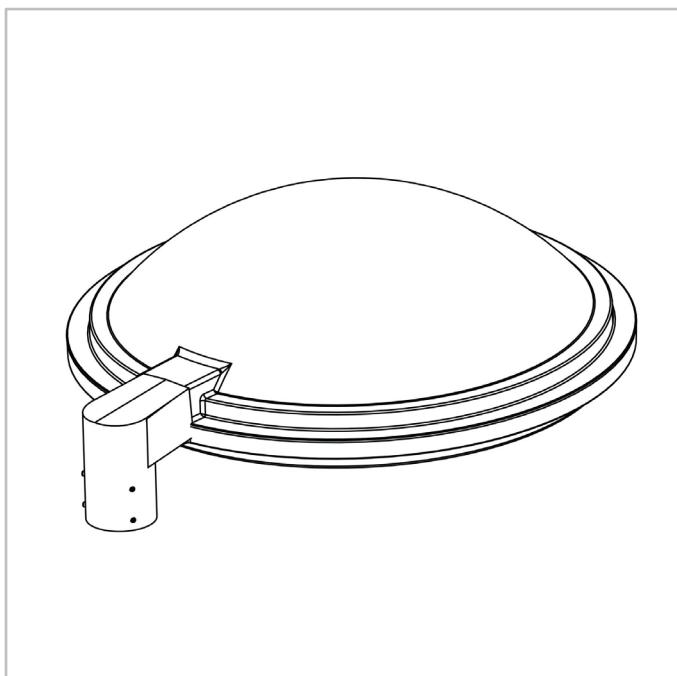
### CITEA GEN3 | Post-top Ø60mm double mounting (PD)
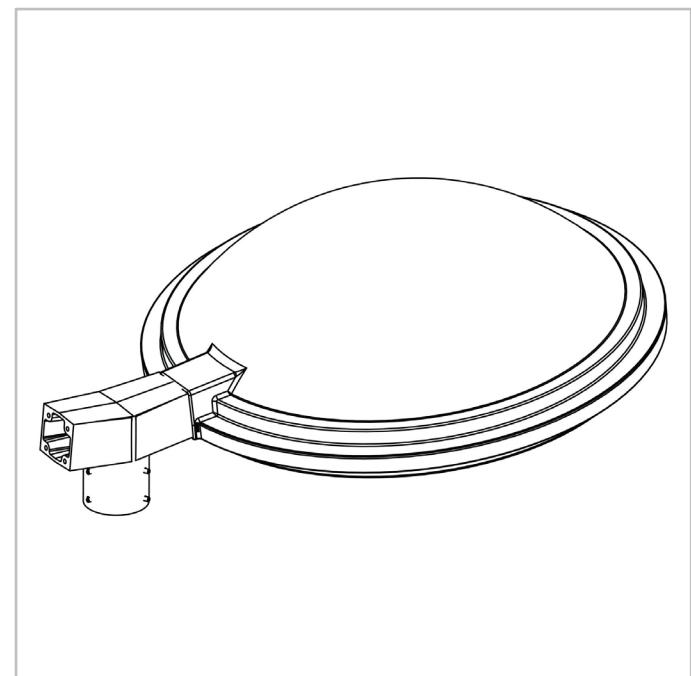
## CITEA GEN3 | Catenary fixed mounting (S8)
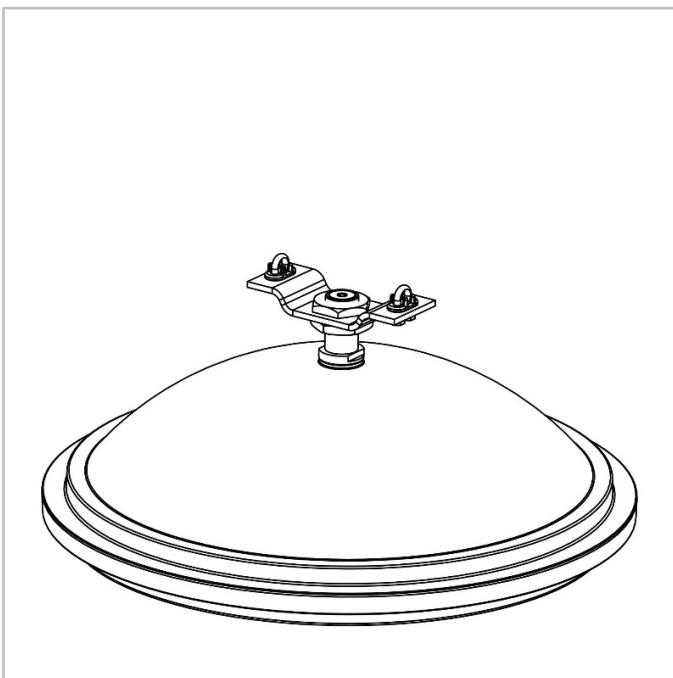
## CITEA GEN3 | Suspended and knuckle joint 1" gas female enclosing mounting (S5)
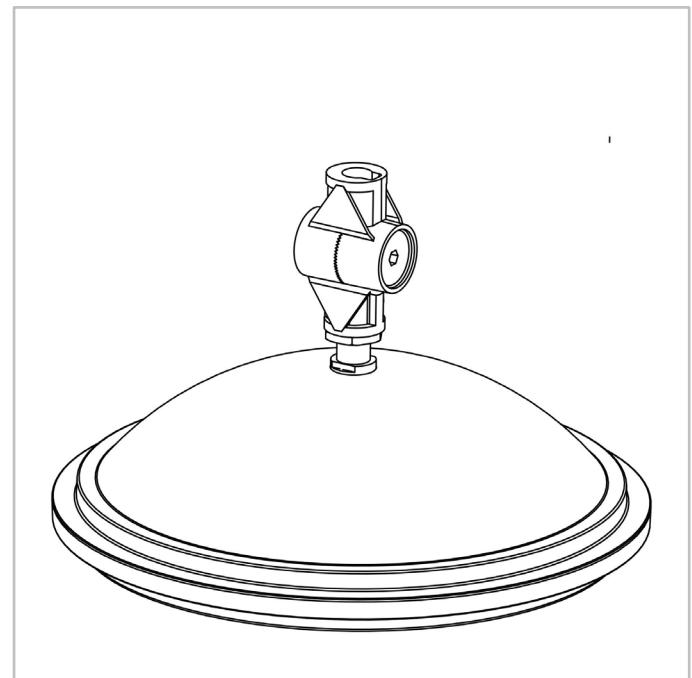
CITEA GEN3 | Suspended with knuckle joint 1" gas male mounting (S4)
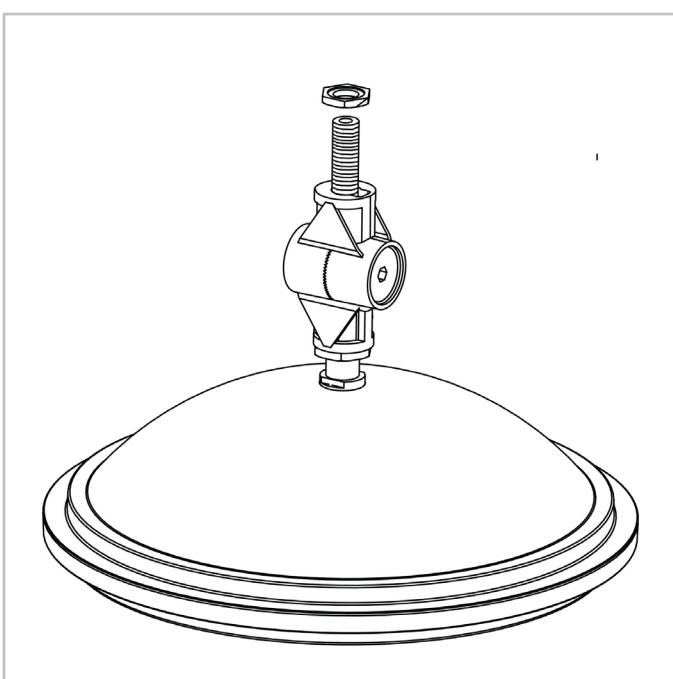
CITEA GEN3 | Suspended with fixed 1" gas female enclosing mounting (S3)

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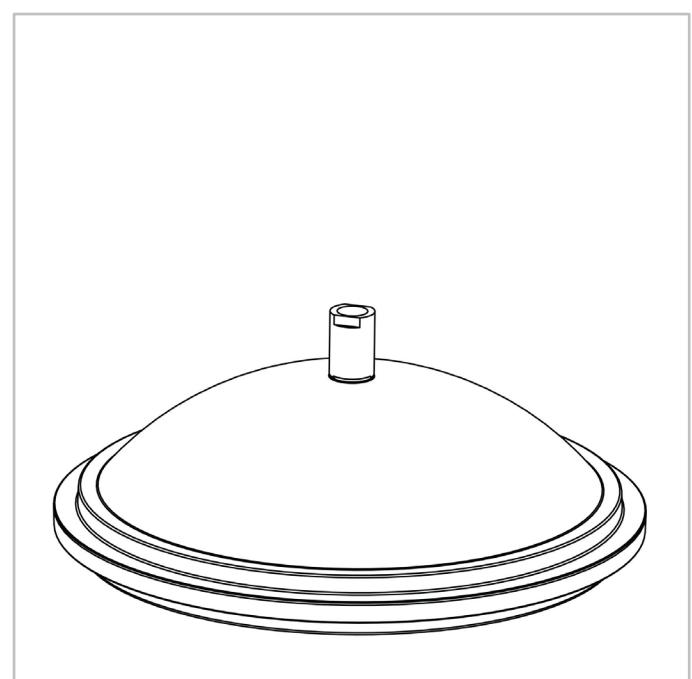
**CITEA GEN3 |** Suspended with fixed 1" gas male mounting (S2)
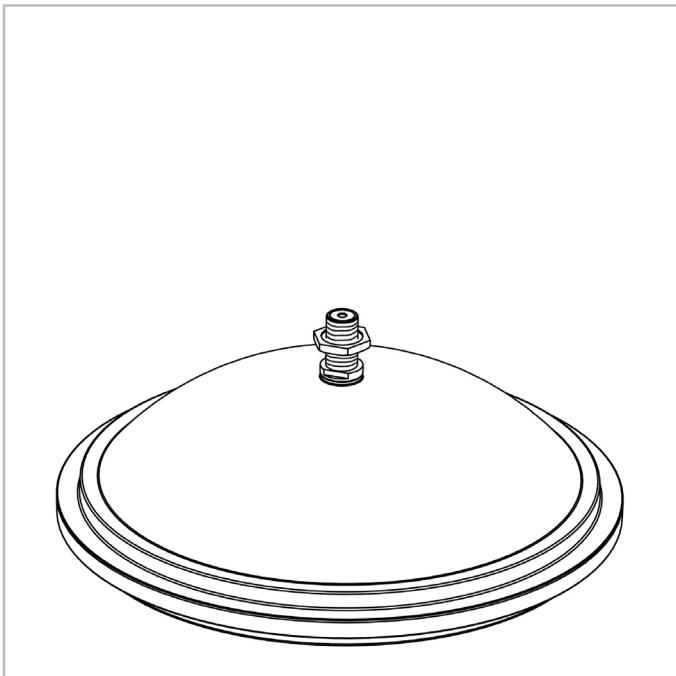
CITEA GEN3 | Suspended with fixed 3/4" gas male mounting (S6)
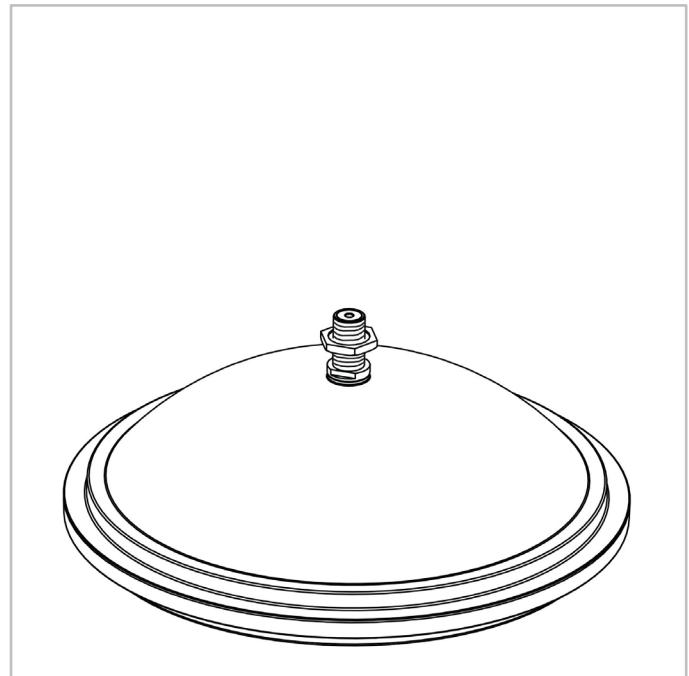
**CITEA GEN3 |** Suspended and knuckle joint squared mounting (SB)
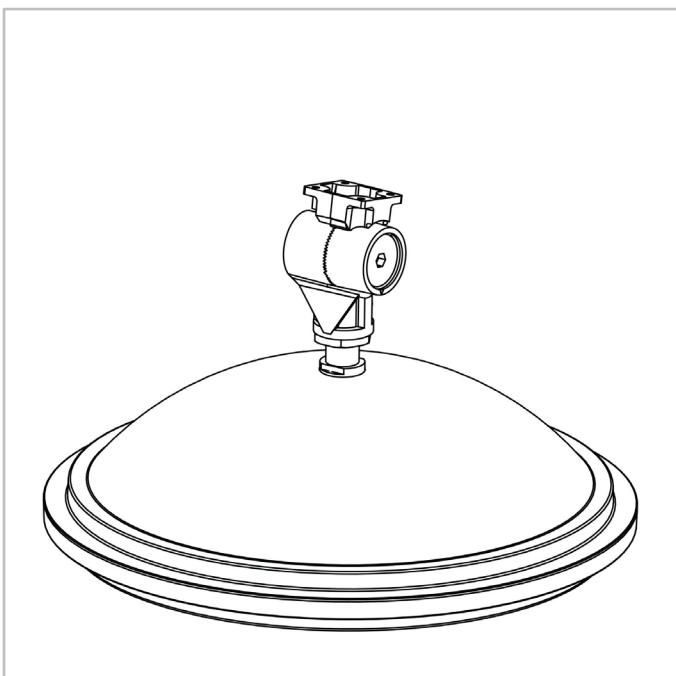
CITEA GEN3 | Suspended with fixed mounting (VDP type) (SD)

CITEA GEN3 MIDI

Photometry

LENSO FLEX™ 4
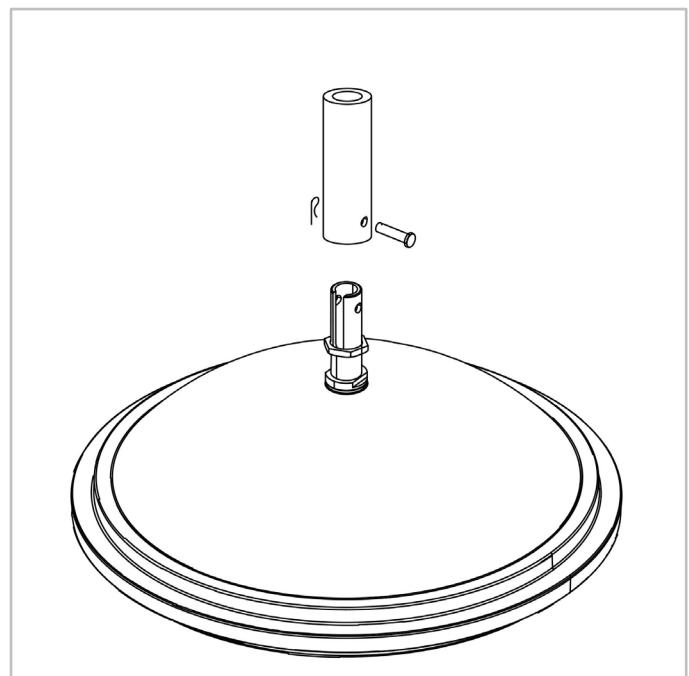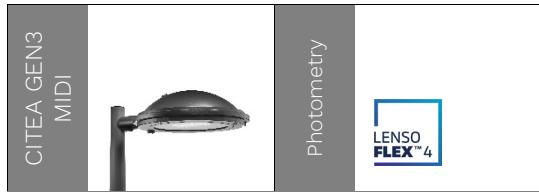
	Luminaire output flux (lm)										Power consumption (W)		Luminaire efficacy (lm/W)
	Warm White WW 722		Warm White WW 727		Warm White WW 730		Warm White WW 830		Neutral White NW 740				
Number of LEDs	Min	Max	Min	Max	Min	Max	Min	Max	Min	Max	Min	Max	Up to
10	600	3100	600	3400	700	3700	600	3400	700	4000	10	34	151
20	800	6300	900	6900	900	7400	900	6900	1000	8100	13	64	164
30	1200	9000	1300	9900	1400	10600	1300	9900	1500	11500	19	87	169
40	1600	12100	1800	13300	1900	14200	1800	13300	2100	15400	25	115	171
50	2000	15100	2200	16600	2400	17700	2200	16600	2600	19200	31	143	172
60	2400	18100	2700	19900	2900	21300	2700	19900	3100	23100	37	169	176
70	2900	15600	3100	17200	3400	18300	3100	17200	3700	19900	42	127	177
80	3300	20100	3600	22100	3900	23600	3600	22100	4200	25600	46	171	185

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

Schréder

LensoFlex4

5300 — Ultra-Narrow

5301 — Narrow

5303 — Medium

5305 — Medium

5306 — Medium

5392 — Medium

5399 — Medium

50006 — Medium Symmetrical

5307 — Wide

5308 — Wide

5366 — Extra-Wide

50004 — Extra-Wide Symmetrical

5393 — Ultra-Wide

50008 — Ultra-Wide Symmetrical

5370 — Zebra Left

5369 — Zebra Right