

# CITEA NG2



## The iconic urban lighting luminaire gets a makeover

The CITEA NG2 luminaires are keeping their renowned pure urban design and getting a complete technical makeover to integrate the latest photometric and connectivity technology.

CITEA NG2 is equipped with brand new LensoFlex® photometric engines, specifically developed to provide high visual performance while considerably reducing energy consumption. CITEA NG2 is also a connected-ready lighting solution, available with various connectivity options to bring urban lighting into the smart technology era and ease lighting management.

Following their predecessors' philosophy, the CITEA NG2 luminaires are designed to efficiently light various spaces where the safety and well-being of those using the environment are essential.



## Concept

CITEA NG2 is composed of a high-pressure die-casted aluminium body and a glass protector. It has been designed to incorporate the latest generation of LEDs and optics, in multiple configurations, to always provide the best performance adapted to the needs of the place.

CITEA NG2 is available in two sizes: Mini and Midi. The Mini is ideal for lighting residential streets, urban roads, and car parks, while the Midi is perfect for main roads, avenues, and squares. With suspended or side-entry mounting options, it is available with a large selection of brackets (single, double, wall) and columns for perfect integration into any landscape.

The CITEA NG2 luminaires are compatible with a circular economy. The door containing all of the electronic components can be fully removed and replaced in a few simple steps to integrate future technologies.



CITEA NG2 is equipped with the latest photometric engines to provide the best performance.



CITEA NG2 benefits from a large range of mounting options and brackets.

## TYPES OF APPLICATION

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

## KEY ADVANTAGES

- Timeless and elegant design for rural and urban environments
- Two sizes available: Mini and Midi
- Protector in extra-clear tempered glass for high-performance
- Wide range of mounting options and brackets
- Low energy consumption
- FutureProof: photometric engine and electronic assembly are easy to replace on-site
- Connected-ready for your future Smart city requirements
- Zhaga-D4i certified



CITEA NG2 door can be fully removed to easily integrate any future technologies.



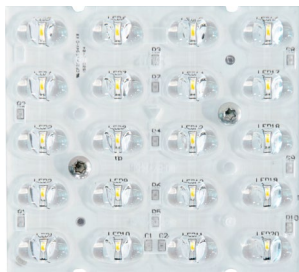
CITEA NG2 is a connected-ready luminaire integrating the latest connectivity options.



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.



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%.

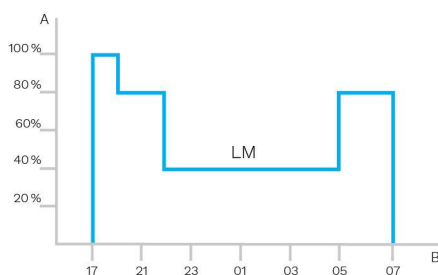




### Custom dimming profile

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.

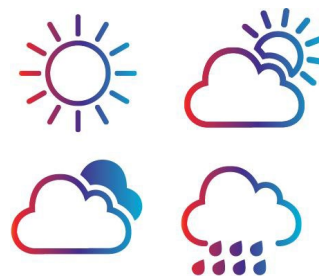


A. Dimming level | B. Time



### 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.

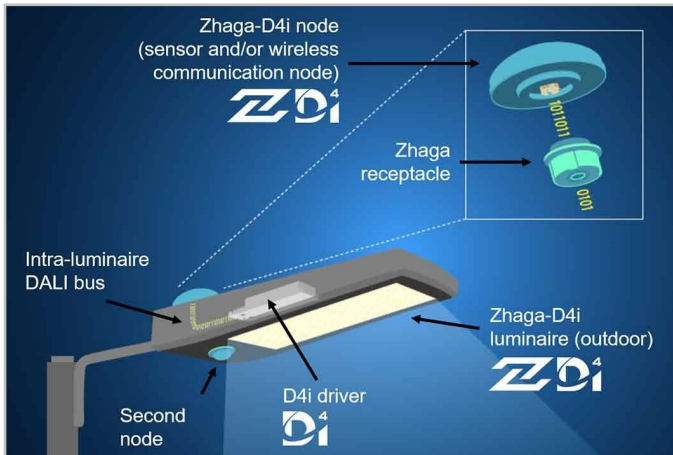


The Zhaga consortium joined forces with the DiiA and produced a single Zhaga-D4i certification that combines the Zhaga Book 18 version 2 outdoor connectivity specifications with the DiiA's D4i specifications for intra-luminaire DALI.

## 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

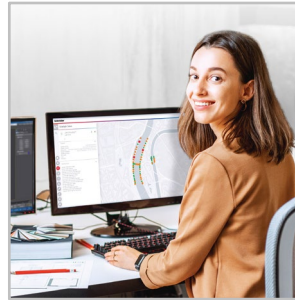
With EXEDRA, Schröder has taken a technology-agnostic approach: we rely on open standards and protocols to design an architecture able to interact seamlessly with third-party software and hardware solutions. Schröder EXEDRA is designed to unlock complete interoperability, as it offers the ability to:

- 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

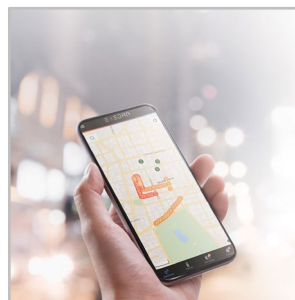
Data is gold. Schröder EXEDRA brings it with all the clarity managers need to drive decisions. The platform collects massive amounts of data from end devices and, aggregates, analyses and intuitively displays them to help end-users take the right actions.

## Protected on every side



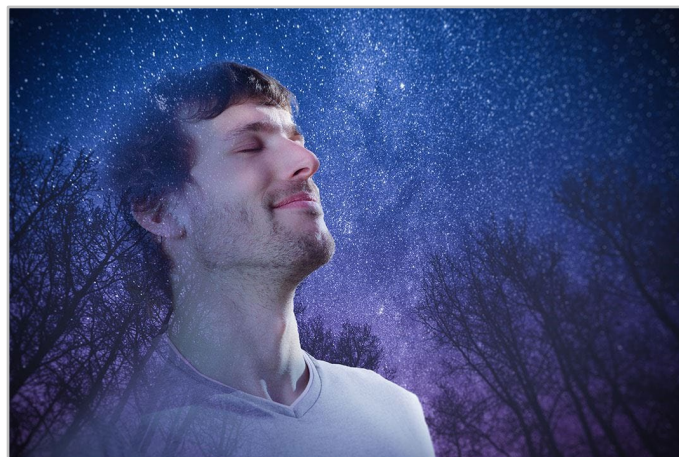
Schröder EXEDRA provides state-of-the-art data security with encryption, hashing, tokenisation, and key management practices that protect data across the whole system and its associated services. The whole platform is ISO 27001 certified. It demonstrates that Schröder EXEDRA meets the requirements for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

## Mobile App: any time, any place, connect to your street lighting

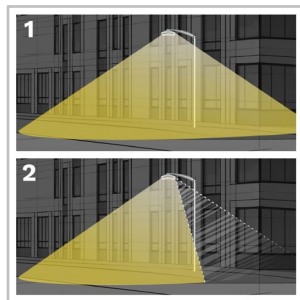


The Schröder EXEDRA mobile application offers the essential functionalities of the desktop platform, to accompany all types of operator on site in their daily effort to maximise the potential of connected lighting. It enables real-time control and settings, and contributes to effective maintenance.

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.



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



1. Without backlight  
2. With backlight

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.

### 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
Circle Light label	Score $\geq 90$ - The product fully meets circular economy requirements
Driver included	Yes
CE mark	Yes
ENEC + certified	Yes
UL certified	Yes
Dark Sky friendly lighting (IDA certification)	Yes
Zhaga-D4i certified	Yes
RCM mark	Yes
UKCA marking	Yes

· Meets IDA Dark Sky requirements when equipped with a fixed mounting option.

## 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
Vibration test	Compliant with modified IEC 68-2-6 (0.5G)
Access for maintenance	By loosening screws on the bottom cover

## OPERATING CONDITIONS

Operating temperature range (Ta)	-30°C up to +50°C / -22°F up to 122°F with wind effect
----------------------------------	--

· 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
Surge protection options (kV)	10 20
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%

· 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 - L95
--------------------	----------------

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



## DIMENSIONS AND MOUNTING

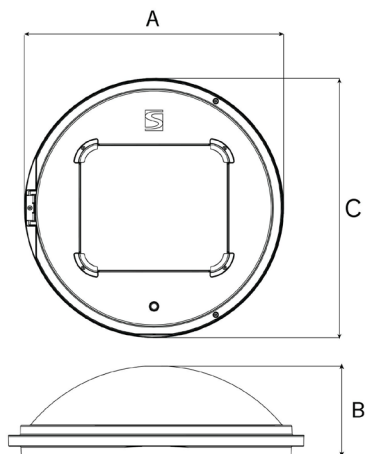
AxBxC (mm | inch) CITEA NG2 MINI : 500x160x500 | 19.7x6.3x19.7  
 CITEA NG2 MIDI : 595x185x595 | 23.4x7.3x23.4

Weight (kg | lbs) CITEA NG2 MINI : 12.0 | 26.4  
 CITEA NG2 MIDI : 15.0 | 33.0

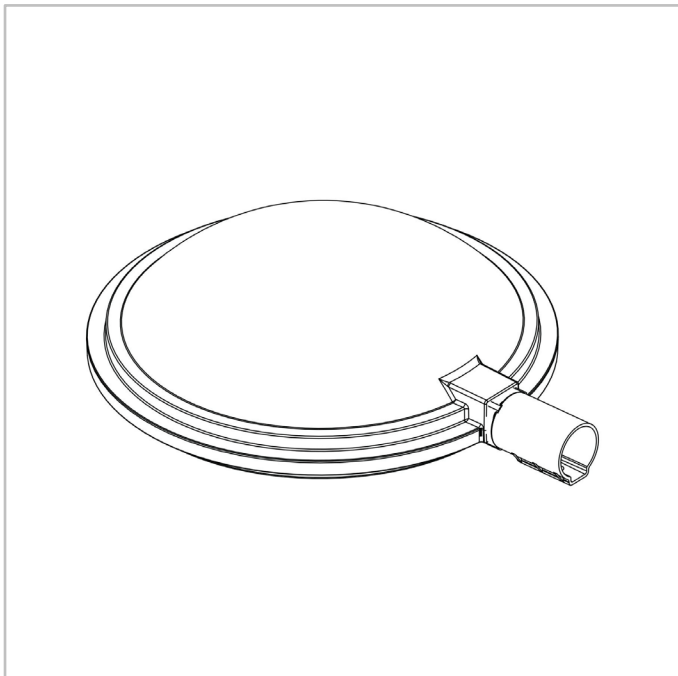
Aerodynamic resistance (CxS) CITEA NG2 MINI : 0.06  
 CITEA NG2 MIDI : 0.08

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

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



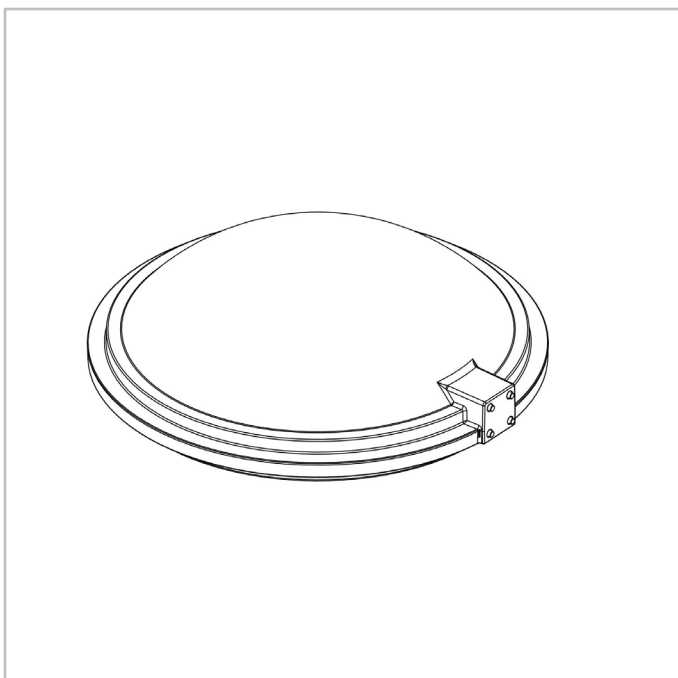
CITEA NG2 | Side-entry enclosing  $\varnothing 60\text{mm}$  mounting (L2)



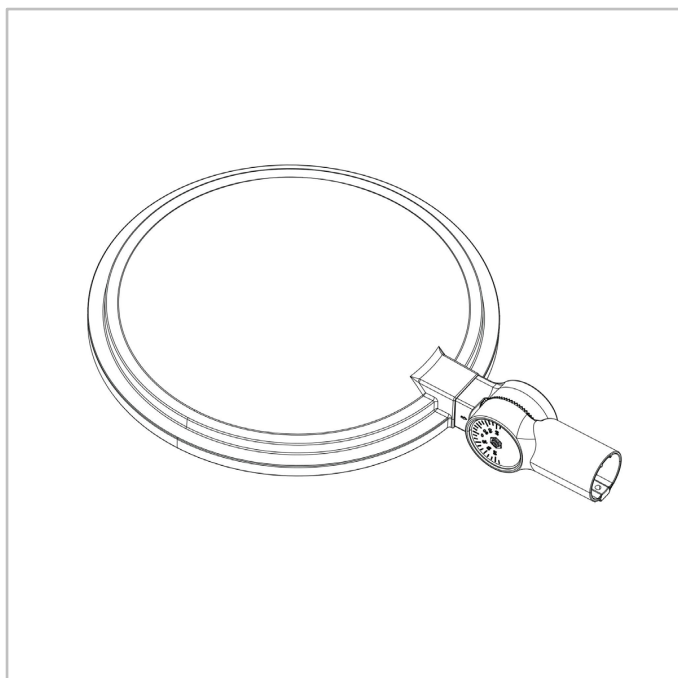
CITEA NG2 | Side-entry penetrating spigot  $\varnothing 48\text{mm}$  (L3)



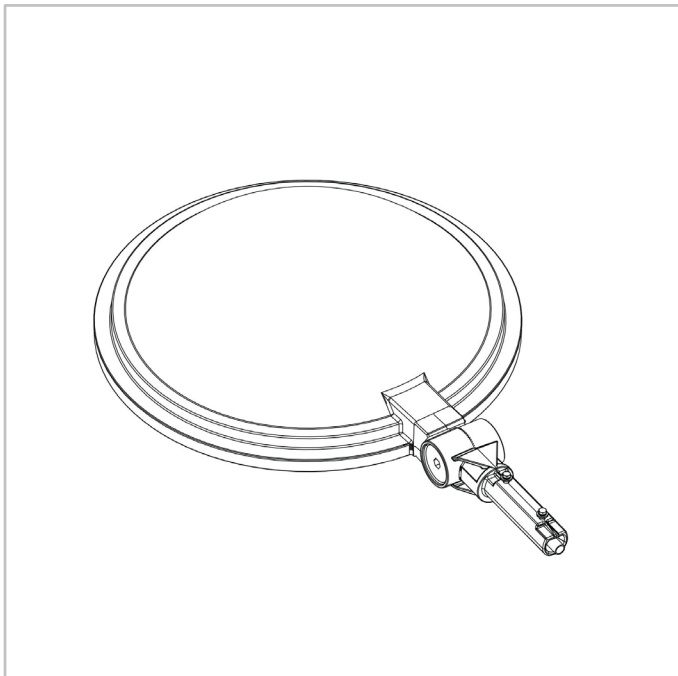
CITEA NG2 | Side-entry 40X40 square direct mounting (E1)



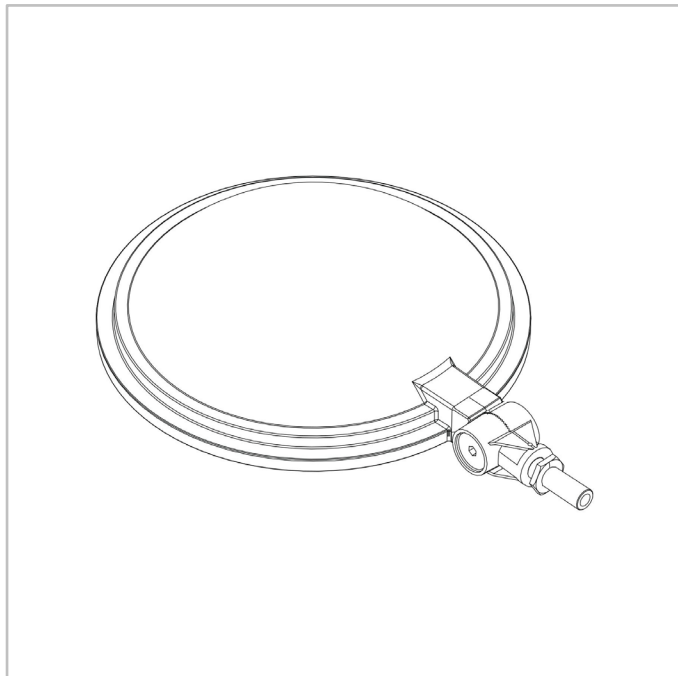
CITEA NG2 | Knuckle joint side-entry enclosing  $\varnothing 60\text{mm}$  mounting (A6)



CITEA NG2 | Knuckle joint side-entry penetrating Ø48mm spigot (A5)



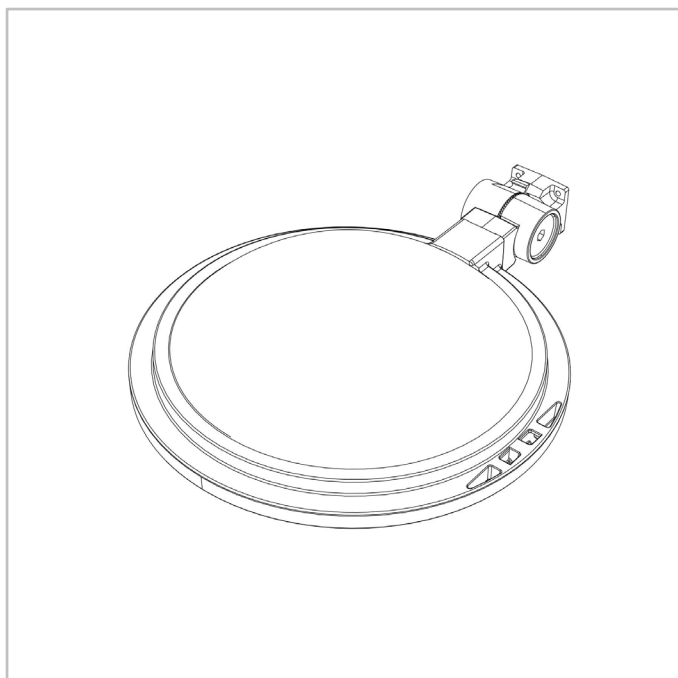
CITEA NG2 | Knuckle joint 1" gas male side-entry mounting (A3)



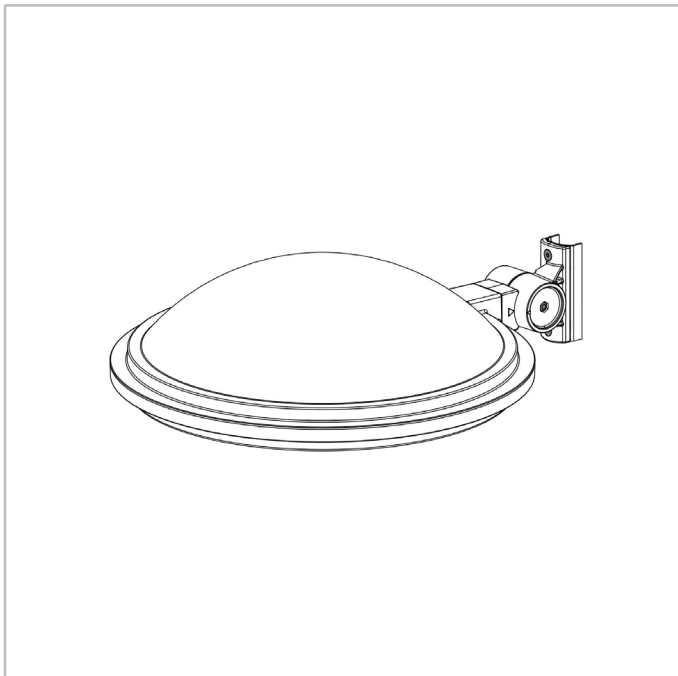
CITEA NG2 | Knuckle joint 1" gas female side-entry mounting (A4)



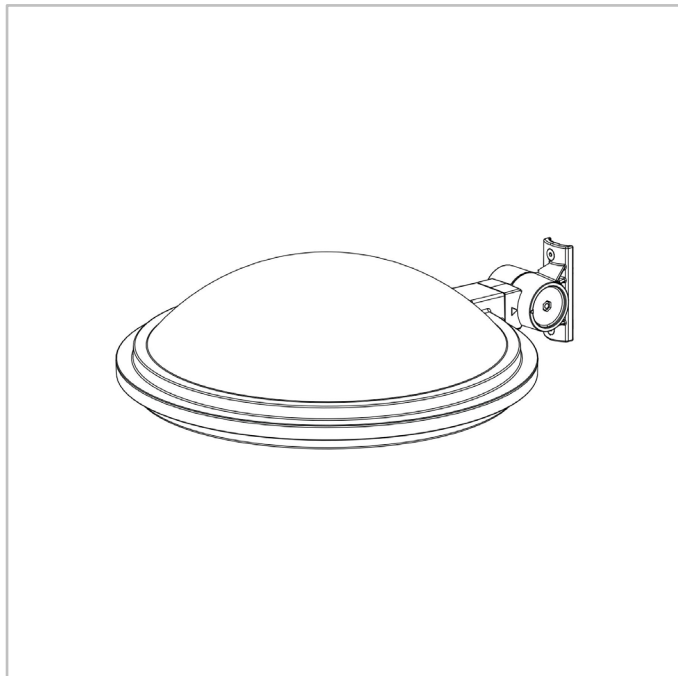
CITEA NG2 | Knuckle joint side-entry 60X50 square mounting (A2)



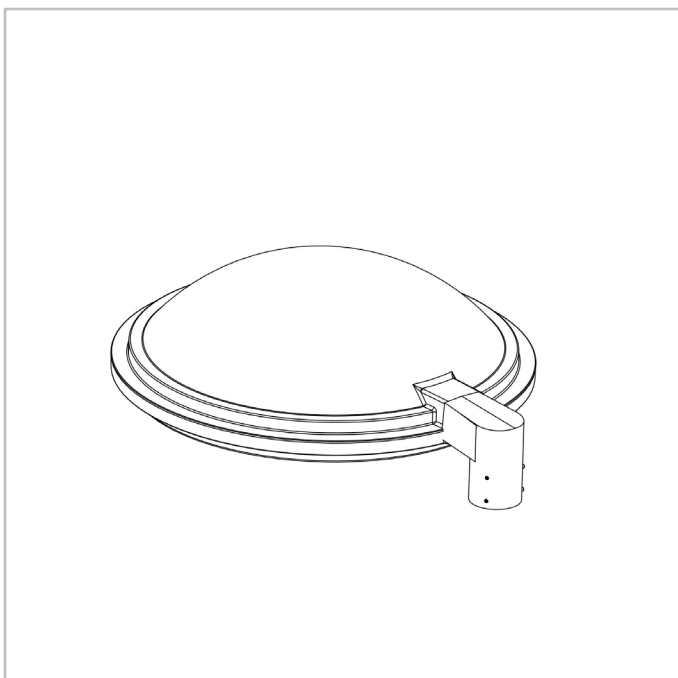
CITEA NG2 | Knuckle joint surface mounting (WB)



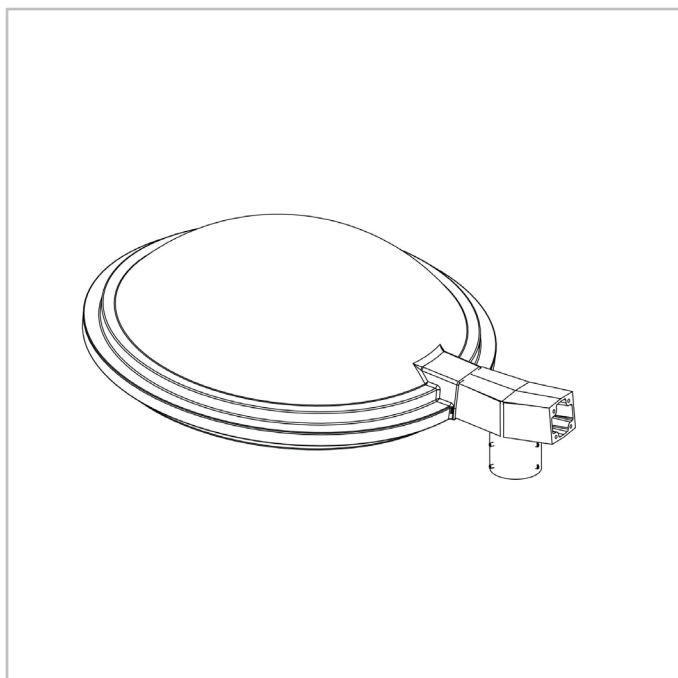
CITEA NG2 | Knuckle joint rear bracket mounting (WM)



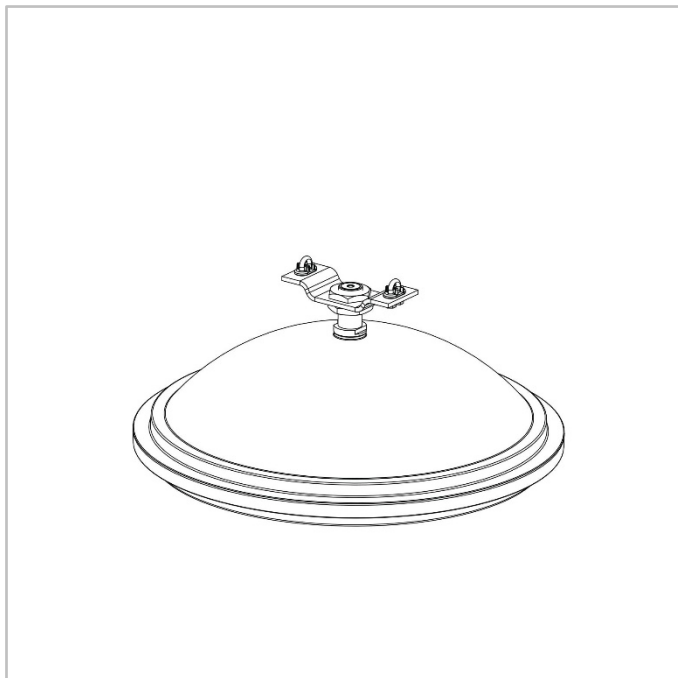
CITEA NG2 | Post-top Ø60mm single mounting (P1)



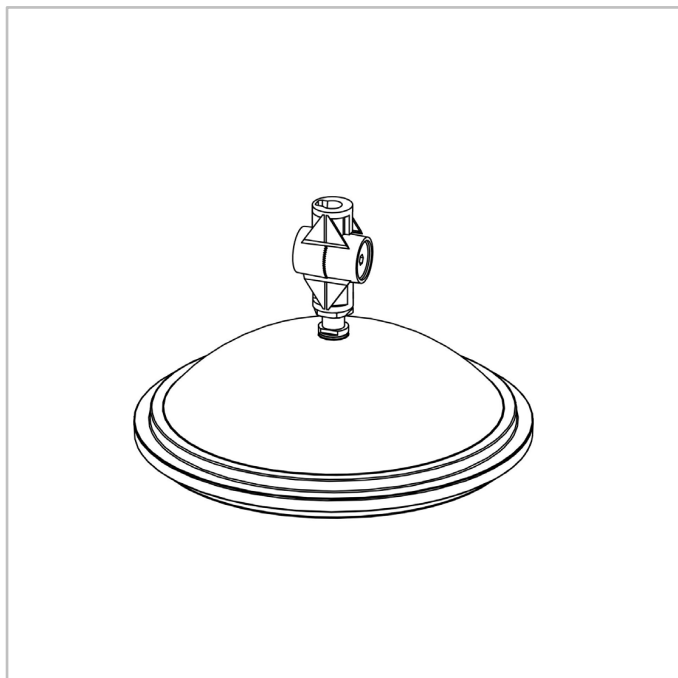
CITEA NG2 | Post-top Ø60mm double mounting (PD)



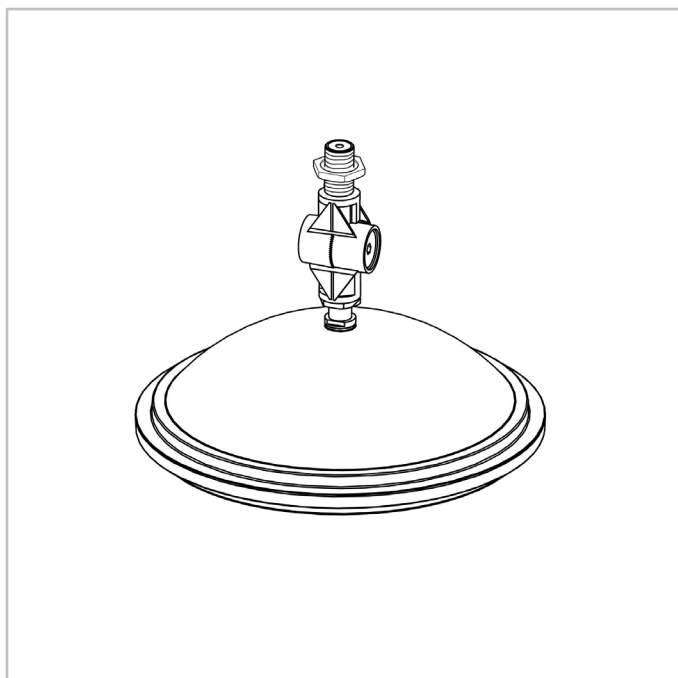
CITEA NG2 | Catenary fixed mounting (S8)



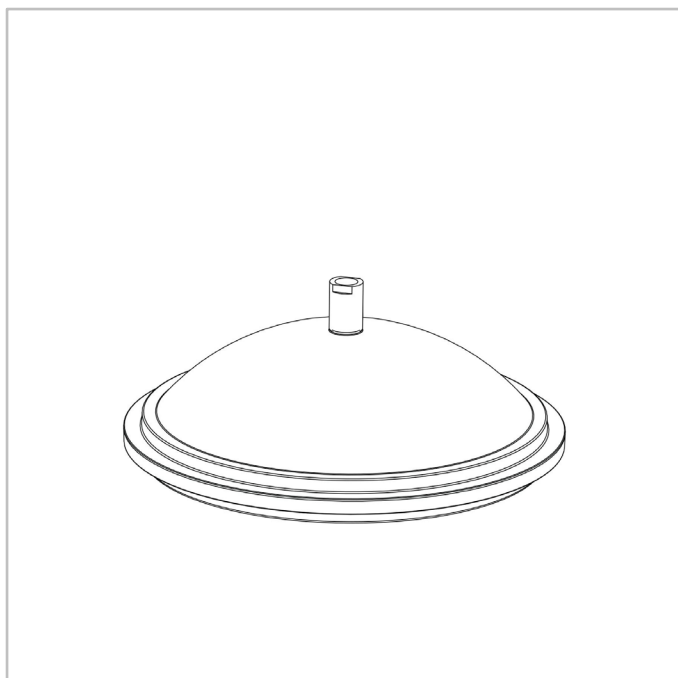
CITEA NG2 | Suspended and knuckle joint 1" gas female enclosing mounting (S5)



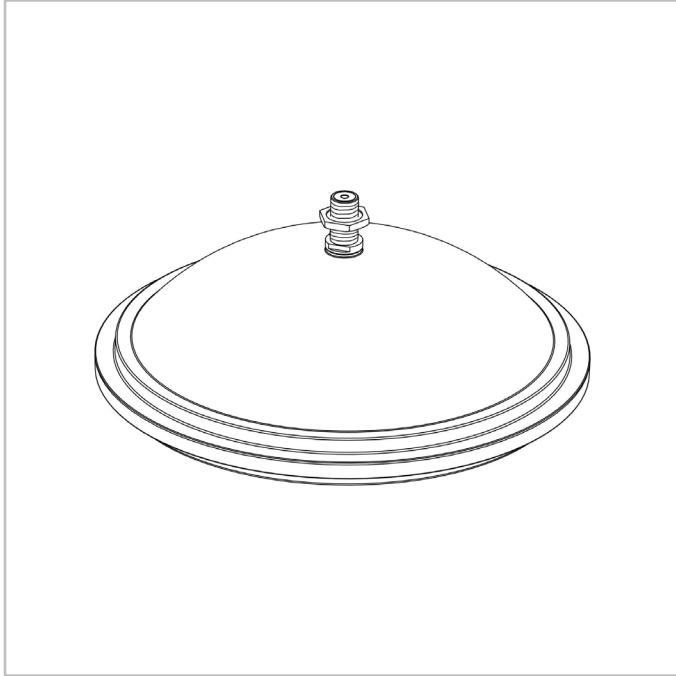
CITEA NG2 | Suspended with knuckle joint 1" gas male mounting (S4)



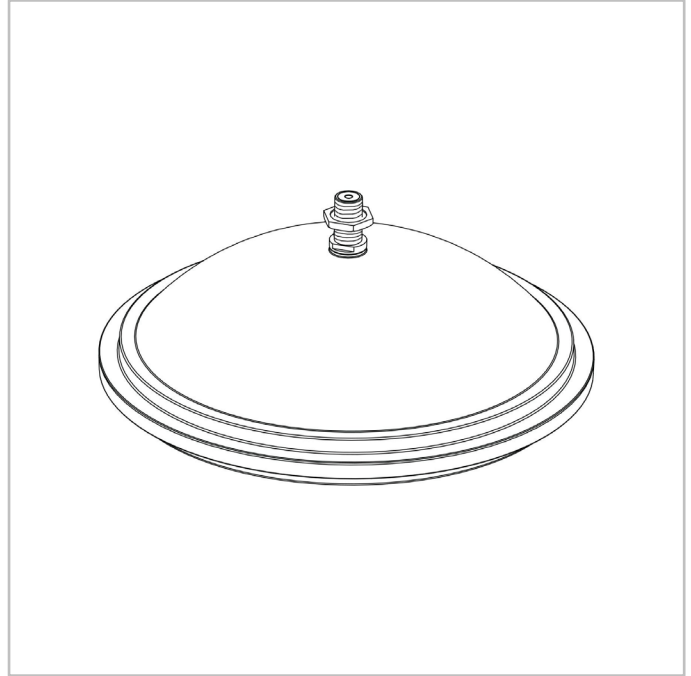
CITEA NG2 | Suspended with fixed 1" gas female enclosing mounting (S3)



CITEA NG2 | Suspended with fixed 1" gas male mounting (S2)



CITEA NG2 | Suspended with fixed 3/4" gas (S6)





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	Up to
10	900	3400	1000	3800	1100	4100	1000	3800	1200	4400	10	35	148
20	1300	6700	1400	7500	1500	8000	1400	7500	1600	8700	13	66	160
30	1900	9100	2100	10200	2300	11000	2100	10200	2500	11900	19	90	163
40	2600	12000	2900	13400	3100	14400	2900	13400	3300	15600	25	117	165
50	3200	15100	3600	16900	3900	18200	3600	16900	4200	19700	31	146	172
60	3900	17900	4300	20000	4700	21600	4300	20000	5000	23300	36	173	173

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



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				
	Min	Max	Min	Max	Min	Max	Min	Max	Min	Max	Min	Max	Up to
10	900	3300	1000	3700	1100	4000	1000	3700	1200	4300	10	35	148
20	1300	6400	1400	7200	1500	7700	1400	7200	1600	8400	13	66	161
30	1900	8900	2200	10000	2300	10700	2200	10000	2500	11600	19	90	166
40	2600	11700	2900	13000	3100	14000	2900	13000	3400	15200	25	117	168
50	3200	14800	3600	16500	3800	17800	3600	16500	4200	19200	31	146	172
60	3900	17500	4300	19500	4700	21000	4300	19500	5000	22700	36	173	174
70	4500	18500	5100	20700	5500	22200	5100	20700	5900	24000	42	172	175
80	5200	19000	5800	21300	6200	22900	5800	21300	6700	24700	46	176	181

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



