Schréder
Experts in lightability™

ROAD

Axia 2

owlet® PRO FLEX™

The most comprehensive and economical LED lighting solution

Axia 2 provides the most comprehensive and best value LED solution for lighting any road, street or pedestrian area. It offers all the advantages of LED lighting, without the high cost associated with LEDs.

With its photometric engine providing light distributions adapted to various applications, Axia 2 is one of the highest performing luminaires available on the market to offer a fast return on investment.

Building on the strengths of the ground breaking Axia, this second-generation luminaire, is designed to be the ultimate multi-purpose fixture, providing a cost-effective solution for those looking to reduce their energy costs.

IP 66 | IK 10 | IK 09

IK 08

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

Axia 2 | SUMMARY

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Concept

Axia 2 is composed of a high-pressure, die-cast aluminium body, universal fixation and a polycarbonate protector with integrated lenses. For optimised heat dissipation, the electronical components and the LED engine are in separate compartments and juxtaposed in a horizontal section. The body integrates cooling fins to maintain performance in the long term.

Available in two sizes, Axia 2 is a very efficient LED lighting solution for streets, roads and any other outdoor environments where it is crucial to maximise energy savings.

The complete range is available with a universal fixation adapted for side-entry (Ø32, Ø42, Ø48 or Ø60mm) and post-top (Ø60 or Ø60mm) mounting. The inclination angle can be adjusted on-site in steps of 2.5°.

With its high ingress protection (IP 66) and strong resistance to impacts (IK 08 to IK 10), Axia 2 is built to withstand harsh conditions and to deliver a quality lighting with the minimum power consumption over decades.

Universal fixation for side-entry or post-top mounting with adjustable inclination in steps of 2.5°.

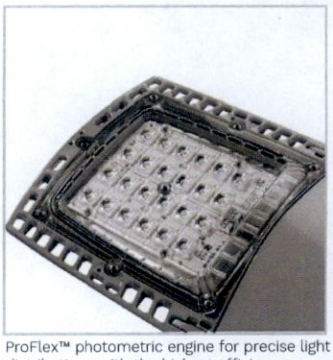
Easy access to the electronical compartment for maintenance.

Types of application

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

Key advantages

- Cost-effective and efficient lighting solution for a fast return on investment
- Smart City connectivity
- Photometric engine with light distributions adapted to various applications
- ThermiX® for long lasting performance
- FutureProof: follows the principles of circular economy
- Universal fixation adapted for side-entry and post-top mounting
- Adjustable inclination in steps of 2.5°

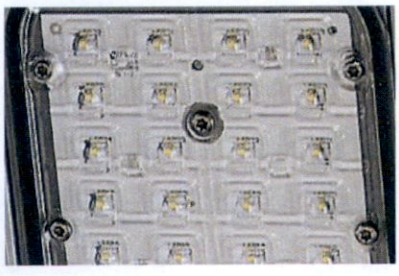


ProFlex™ photometric engine for precise light distributions with the highest efficiency.

Cooling fins for optimised thermal management and long lasting performance.

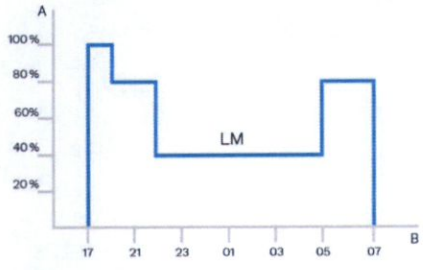
ProFlex™

The ProFlex™ photometric engine integrates the lenses into a polycarbonate protector. This integration increases the output and reduces the reflection inside the optical unit. The polycarbonate used for the ProFlex™ photometric engine offers essential characteristics such as high optical clarity for a superior light transmission,better impact resistance compared to glass and a long life span with UV-stabilisation treatment.The ProFlex™ concept enables a compact design with a thin optical compartment. It provides extensive light distributions so that the spacing between the luminaires can be increased.



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.



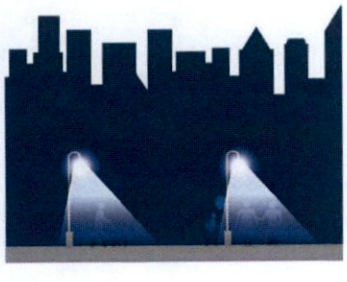
A. Performance | B. Time

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 night fall 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.



Owlet IoT

Owlet IoT remotely controls luminaires in a lighting network, creating opportunities for improved efficiency, accurate real-time data and energy savings of up to 85%.

ALL-IN-ONE

The LUCO P7 CM controller includes the most advanced features for optimised asset management. It also provides an integrated photocell and operates with an astronomical clock for seasonal dimming profile

adaptations.

EASY TO DEPLOY

Thanks to wireless communication, no cabling is needed. The network is not subject to physical constraints or limitations.

From a single control unit to an unlimited network, you can expand your lighting scheme at any time.

With real-time geolocation and automatic detection of luminaire features, commissioning is quick and easy.

USER-FRIENDLY

Once a controller is installed on a luminaire, the luminaire automatically appears with its GPS coordinates on a web-based map.

An easy-to-use dashboard enables each user to organise and customise screens, statistics and reports. Users can gain relevant, real-time insights.

The Owlet IoT web application can be accessed at all times from anywhere in the world with a device connected to the Internet. The application adapts to the device to offer an intuitive and user-friendly experience.

Real-time notifications can be pre-programmed to monitor the most important elements of the lighting scheme.

Plugging the LUCO P7 CM controller onto the 7-pin NEMA socket.

SECURE

The Owlet IoT system uses a local wireless mesh communication networks to control the on-site luminaires combined with a remote control system utilising the cloud to ensure smooth data transfers to and from the central management system.

The system uses encrypted IP V6 communication to protect data transmission in both directions. Using a secure APN, Owlet IoT ensures a high level of protection.

In the exceptional case of a communication failure, the built-in astronomical clock and photocell will take over to switch the luminaires on and off, thus avoiding a complete blackout at night.

EFFICIENT

Thanks to sensors and/or pre-programmed settings, lighting scenarios can be easily adapted to cope with live events, providing the right lighting levels at the right time and in the right place.

The integrated utility grade meter offers the highest accuracy available on the market today, enabling decisions based on real figures.

Accurate real-time feedback and clear reporting ensures that the network operates efficiently and maintenance is optimised.

When LED luminaires are switched on, the inrush current can create problems for the electricity grid. Owlet IoT incorporates an algorithm to preserve the grid at all times.

OPEN

The LUCO P7 CM controller can be plugged onto the standard 7 pin NEMA socket and operates through either a DALI or 1-10V interface to control the luminaire.

Owlet IoT is based on the IPv6 protocol. This method for addressing devices can generate an almost unlimited number of unique combinations to connect non-traditional components to the Internet or computer network.

Through open APIs, Owlet IoT can be integrated into existing or future global management systems.

Axia 2 | CHARACTERISTICS

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GENERAL INFORMATION

Recommended installation height	5m to 10m | 16' to 33'
Driver included	Yes
CE Mark	Yes
ENEC+ certified	Yes
ROHS compliant	Yes
Testing standard	LM 79-08 (all measurements in ISO17025 accredited laboratory)

HOUSING AND FINISH

Housing	Aluminium
Optic	Polycarbonate
Protector	Polycarbonate (with integrated lenses)
Housing finish	Polyester powder coating
Standard colour(s)	RAL 7040 light grey
Tightness level	IP 66
Impact resistance	IK 08, IK 09, 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*
· *IK may be different according to the size/configurations. Please consult us.*

OPERATING CONDITIONS

Operating temperature range (Ta)	-30 °C up to +50 °C / -22 °F up to 122 °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
Power factor (at full load)	0.9
Surge protection options (kV)	10
Electromagnetic compatibility (EMC)	EN 55015 / EN 61000-3-2 / EN 61000-4-5 / EN 61547
Control protocol(s)	1-10V, DALI
Control options	AmpDim, Bi-power, Custom dimming profile, Photocell, Remote management
Socket option(s)	NEMA 3-pin (optional) NEMA 6-pin (optional) NEMA 7-pin (optional)
Associated control system(s)	Owlet Nightshift Owlet IoT
Sensor	PIR (optional)

OPTICAL INFORMATION

LED colour temperature	3000K (Warm White) 4000K (Neutral White)
Colour rendering index (CRI)	>80 (Warm White) >70 (Neutral White)
Upward Light Output Ratio (ULOR)	0%

LIFETIME OF THE LEDS @ TQ 25°C

All configurations	100,000h - L90

Axia 2 | CHARACTERISTICS

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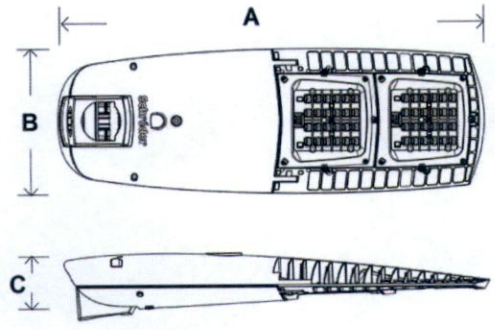
DIMENSIONS AND MOUNTING

AxBxC (mm | inch)	AXIA 2.1 - 650x132x250 | 25.6x5.2x9.8 AXIA 2.2 - 895x132x300 | 35.2x5.2x11.8
Weight (kg | lbs)	AXIA 2.1 - 6.7 | 14.7 AXIA 2.2 - 9.5 | 20.9
Aerodynamic resistance (CxS)	AXIA 2.1 - 0.05 AXIA 2.2 - 0.07
Mounting possibilities	Side-entry slip-over – Ø32mm Side-entry slip-over – Ø42mm Side-entry slip-over – Ø48mm Side-entry slip-over – Ø60mm Post-top slip-over – Ø60mm Post-top slip-over – Ø76mm



Luminaire	Number of LEDs	Current (mA)	Luminaire output flux (lm) Neutral White 740		Luminaire output flux (lm) Warm White 830		Power consumption (W)		Luminaire efficacy (lm/W)	Photometry
			Min	Max	Min	Max	Min	Max	Up to	
AXIA 2.1	4	680	400	1100	300	900	10	10.3	110	
	8	480	600	1600	500	1400	13	13.9	123	
	8	690	800	2300	700	1900	19	20	121	
	8	820	1000	2600	800	2200	22	23.7	118	
	16	390	1000	2800	900	2400	20.9	21.2	134	
	16	480	1300	3300	1100	2900	25.6	25.6	129	
	16	600	1500	4100	1300	3500	31.7	31.8	129	
	16	690	1700	4600	1500	3900	36.5	36.5	126	
	16	760	1900	4900	1600	4200	40	40	122	
	24	490	2000	5100	1700	4400	37.4	37.9	136	
	24	540	2200	5600	1800	4800	41.5	41.5	135	
	24	630	2500	6300	2100	5400	48.5	49	130	
	24	690	2700	6900	2300	5900	53.5	54	129	
	24	750	2800	7300	2400	6300	58.5	58.5	125	
	24	890	3300	8400	2800	7200	69	69.5	122	

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

Axia 2 | PERFORMANCE

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Luminaire	Number of LEDs	Current (mA)	Luminaire output flux (lm) Neutral White 740		Luminaire output flux (lm) Warm White 830		Power consumption (W)		Luminaire efficacy (lm/W)	Photometry
			Min	Max	Min	Max	Min	Max	Up to	
AXIA 2.2	32	690	3600	9200	3100	7900	70	71	131	PRO FLEX
	32	860	4300	11000	3700	9400	86	89	128	PRO FLEX
	32	960	4700	12000	4000	10300	97	100	124	PRO FLEX
	40	370	2600	6700	2200	5700	46	47.5	146	PRO FLEX
	40	410	2900	7300	2500	6200	50.5	52	145	PRO FLEX
	40	450	3100	7900	2700	6800	55.5	57	142	PRO FLEX
	40	480	3300	8400	2800	7200	59	60.5	142	PRO FLEX
	40	760	4900	12500	4200	10700	94	96	133	PRO FLEX
	40	920	5800	14600	4900	12500	115	118	127	PRO FLEX
	40	1000	6200	15600	5300	13300	128	129	122	PRO FLEX
	48	460	3800	9700	3300	8300	67.5	69	144	PRO FLEX
	48	530	4400	11000	3700	9400	77	80	143	PRO FLEX
	48	590	4800	12100	4100	10300	86	89	141	PRO FLEX
	48	660	5300	13300	4500	11400	97	100	137	PRO FLEX
	48	730	5800	14500	4900	12400	108	110	134	PRO FLEX
	48	800	6200	15600	5300	13400	120	121	130	PRO FLEX
	48	890	6800	17100	5800	14600	135	136	127	PRO FLEX
	48	960	7200	18100	6200	15500	146	147	124	PRO FLEX
	48	1000	7400	18700	6400	16000	152	152	123	PRO FLEX

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

Axia 2 | AVAILABLE LIGHT DISTRIBUTIONS

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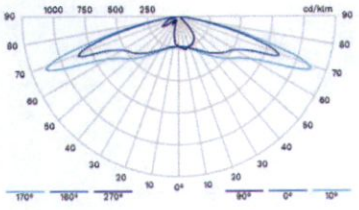
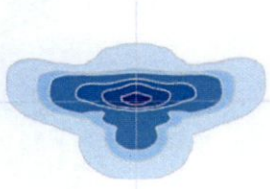
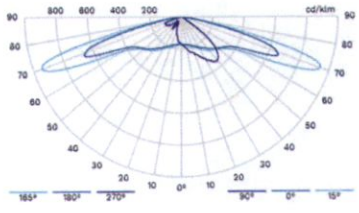
PRO FLEX™ 5165

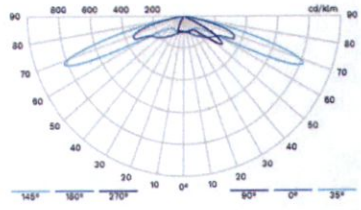




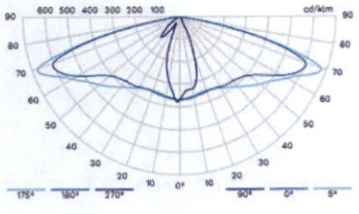
PRO FLEX™ 5166

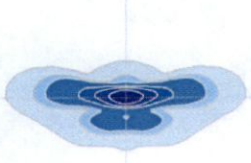


PRO FLEX™ 5167 Back louvers

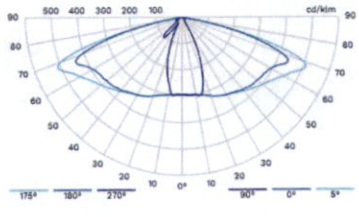


PRO FLEX™ 5177 Front louvers

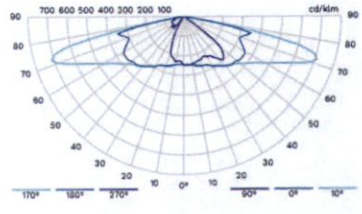


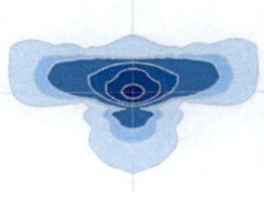


PRO FLEX™ 5178 Front louvers

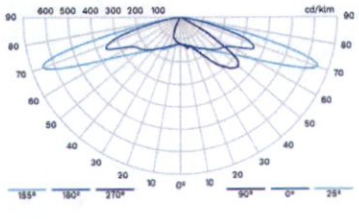


5179

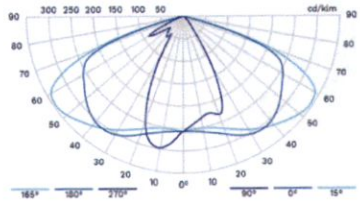


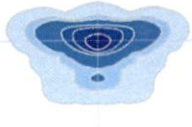


PRO FLEX™ 5187 Back louvers

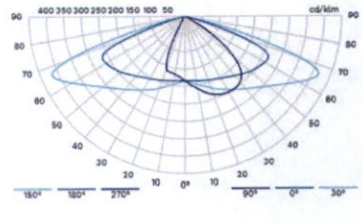


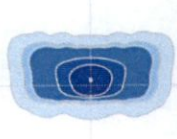
PRO FLEX™ 5221 Front louvers





PRO FLEX™ 5233 Back louvers





PRO FLEX™

5241 Back louvers