AXIA 2

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 | BIKE & PEDESTRIAN PATHS | RAILWAY STATIONS & METROS | CAR PARKS | LARGE AREAS | SQUARES & PEDESTRIAN AREAS | ROADS & MOTORWAYS

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.

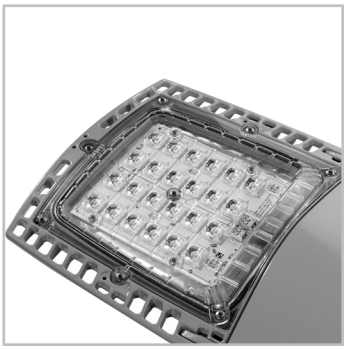
Available in two sizes, AXIA 2 is a very efficient LED lighting solution for streets, roads and any other outdoor environments where it is crucial to maximise energy savings.

The complete range is available with a universal fixation adapted for side-entry (Ø32, Ø42, Ø48 or Ø60mm) and post-top (Ø60 or Ø76mm) mounting. The inclination angle can be adjusted on-site in steps of 2.5°.

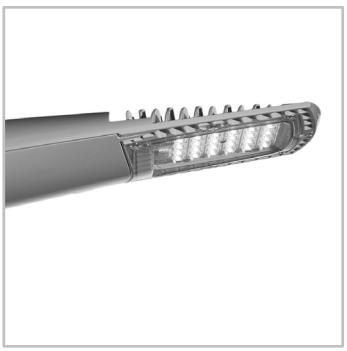
With its high ingress protection (IP 66) and strong resistance to impacts (IK 08 to IK 10), AXIA 2 is built to withstand harsh conditions and to deliver a quality lighting with the minimum power consumption over decades.

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.



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



Cooling fins for optimised thermal management and long lasting performance.

TYPES OF APPLICATION

- URBAN & RESIDENTIAL STREETS
- 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°

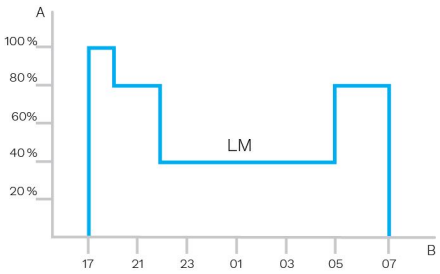
ProFlex™

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.

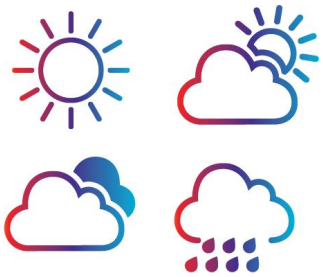
The period between switching on and switching off is used to activate the preset dimming profile. The customised dimming system generates maximum energy savings while respecting the required lighting levels and uniformity throughout the night.



A. 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.

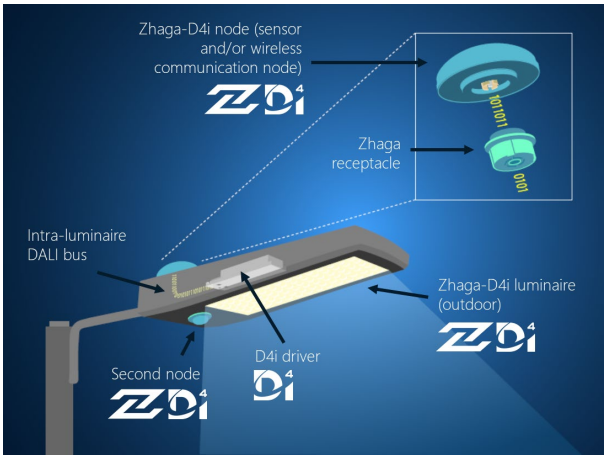
The Zhaga consortium joined forces with the DiiA and produced a single Zhaga-D4i certification that combines the Zhaga Book 18 version 2 outdoor connectivity specifications with the DiiA's D4i specifications for intra-luminaire DALI.

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.

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.

GENERAL INFORMATION

Recommended installation height	5m to 10m | 16' to 33'
Driver included	Yes
CE mark	Yes
ENEC certified	Yes
ENEC+ certified	Yes
ROHS compliant	Yes
Zhaga-D4i certified	Yes
French law of December 27th 2018 - Compliant with application type(s)	a, b, c, d, e, f, g
Testing standard	LM 79-08 (all measurements in ISO17025 accredited laboratory)
RCM mark	Yes

HOUSING AND FINISH

Housing	Aluminium
Optic	Polycarbonate
Protector	Polycarbonate (with integrated lenses)
Housing finish	Polyester powder coating
Standard colour(s)	RAL 7040 window 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	Zhaga (optional) NEMA 3-pin (optional) NEMA 6-pin (optional) NEMA 7-pin (optional)
Associated control system(s)	Schréder EXEDRA
Sensor	PIR (optional)

OPTICAL INFORMATION

LED colour temperature	2700K (WW 727) 3000K (WW 830) 3000K (WW 730) 4000K (NW 740)
Colour rendering index (CRI)	>70 (WW 727) >80 (WW 830) >70 (WW 730) >70 (WW 740)
ULOR	0%
ULR	0%

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

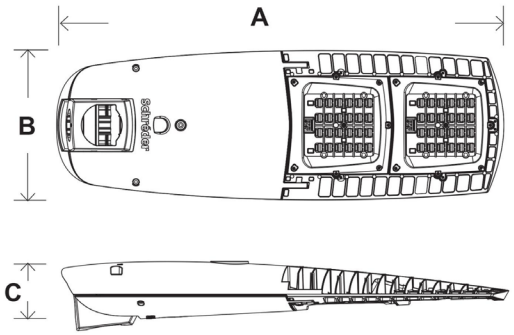
· ULR may be different according to the configuration. Please consult us.

LIFETIME OF THE LEDS @ TQ 25°C

All configurations	100,000h - L90

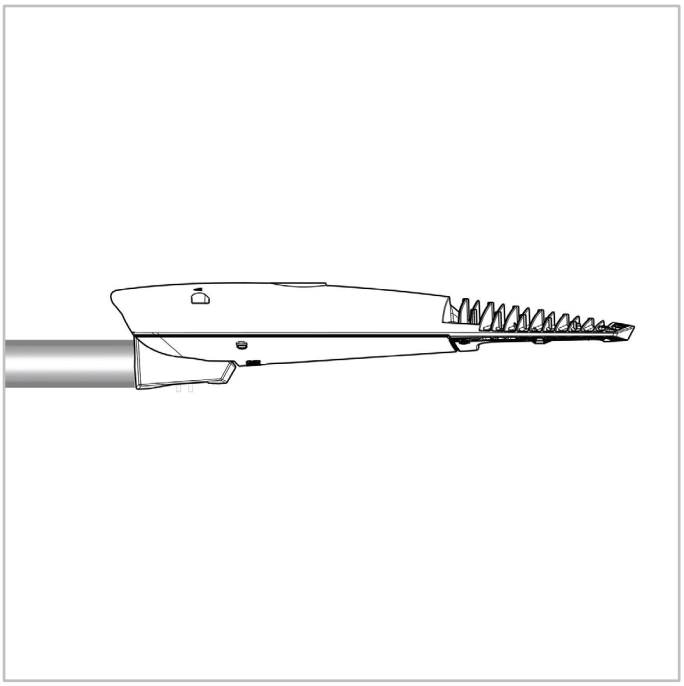
DIMENSIONS AND MOUNTING

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



AXIA 2 | Post-top - Slip-over mounting for Ø60 or Ø76mm spigot - 2xM10 screws

AXIA 2 | Side-entry - Slip-over mounting for Ø32 (with accessory) or Ø42-60mm spigot - 2xM10 screws



			Luminaire output flux (lm) Warm White 727		Luminaire output flux (lm) Warm White 730		Luminaire output flux (lm) Warm White 830		Luminaire output flux (lm) Neutral White 740		Power consumption (W)	Luminaire efficacy (lm/W)	
Luminaire	Number of LEDs	Current (mA)	Min	Max	Min	Max	Min	Max	Min	Max		Up to	Photometry
AXIA 2.1	4	300	200	500	200	500	200	500	200	600	5	120	PRO FLEX™
	4	350	200	600	200	600	200	500	200	600	5.7	105	PRO FLEX™
	4	400	200	600	200	700	200	600	300	700	6.4	109	PRO FLEX™
	4	500	300	800	300	800	300	700	300	900	7.8	115	PRO FLEX™
	4	600	300	900	400	1000	300	900	400	1100	9.2	120	PRO FLEX™
	4	680	400	1000	400	1100	400	1000	500	1200	10.3	117	PRO FLEX™
	8	300	400	1000	400	1000	400	1000	400	1200	9	133	PRO FLEX™
	8	350	400	1200	500	1200	400	1100	500	1300	10.3	126	PRO FLEX™
	8	400	500	1300	500	1400	500	1300	600	1500	11.6	129	PRO FLEX™
	8	500	600	1600	700	1700	600	1500	700	1900	14.2	134	PRO FLEX™
	8	600	700	1900	800	2000	700	1800	900	2200	17	129	PRO FLEX™
	8	700	900	2100	900	2300	800	2100	1000	2500	19.7	127	PRO FLEX™
	8	820	1000	2400	1000	2600	900	2400	1100	2800	23.1	121	PRO FLEX™
	16	300	800	2000	900	2100	800	2000	900	2400	15.9	151	PRO FLEX™
	16	350	900	2400	1000	2500	900	2300	1100	2700	18.2	148	PRO FLEX™
	16	400	1100	2700	1100	2800	1000	2600	1200	3100	20.6	150	PRO FLEX™

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

Luminaire	Number of LEDs	Current (mA)	Luminaire output flux (lm) Warm White 727 Min	Luminaire output flux (lm) Warm White 727 Max	Luminaire output flux (lm) Warm White 730 Min	Luminaire output flux (lm) Warm White 730 Max	Luminaire output flux (lm) Warm White 830 Min	Luminaire output flux (lm) Warm White 830 Max	Luminaire output flux (lm) Neutral White 740 Min	Luminaire output flux (lm) Neutral White 740 Max	Power consumption (W)	Luminaire efficacy (lm/W) Up to	Photometry
AXIA 2.1	16	500	1300	3300	1400	3400	1300	3100	1500	3800	26.1	146	PRO FLEX™
	16	600	1500	3800	1600	4000	1500	3700	1800	4400	31	142	PRO FLEX™
	16	700	1800	4300	1800	4600	1700	4200	2000	5000	36.1	139	PRO FLEX™
	16	760	1900	4600	2000	4900	1800	4500	2200	5400	39.2	138	PRO FLEX™
	24	200	800	2100	900	2200	800	2000	1000	2400	15.3	157	PRO FLEX™
	24	300	1200	3100	1300	3200	1200	3000	1400	3600	22.4	161	PRO FLEX™
	24	350	1400	3600	1500	3700	1400	3400	1700	4100	26	158	PRO FLEX™
	24	400	1600	4000	1700	4200	1600	3900	1900	4600	29.7	155	PRO FLEX™
	24	500	2000	4900	2100	5100	1900	4700	2300	5700	37.2	153	PRO FLEX™
	24	540	2100	5200	2200	5500	2100	5100	2500	6100	40.5	151	PRO FLEX™
	24	600	2300	5700	2400	6000	2300	5600	2700	6600	45.5	145	PRO FLEX™
	24	700	2700	6500	2800	6900	2600	6300	3100	7500	53	142	PRO FLEX™
	24	800	3000	7300	3100	7600	2900	7100	3400	8400	61	138	PRO FLEX™
	24	890	3200	7900	3400	8300	3100	7700	3700	9100	68	134	PRO FLEX™

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

Luminaire	Number of LEDs	Current (mA)	Luminaire output flux (lm) Warm White 727 Min	Luminaire output flux (lm) Warm White 727 Max	Luminaire output flux (lm) Warm White 730 Min	Luminaire output flux (lm) Warm White 730 Max	Luminaire output flux (lm) Warm White 830 Min	Luminaire output flux (lm) Warm White 830 Max	Luminaire output flux (lm) Neutral White 740 Min	Luminaire output flux (lm) Neutral White 740 Max	Power consumption (W)	Luminaire efficacy (lm/W)	Photometry
												Up to	
AXIA 2.2	32	300	3900	4100	4100	4300	3800	4000	4500	4800	29.4	163	PRO FLEX™
	32	350	4500	4800	4700	5000	4400	4600	5200	5500	34.3	160	PRO FLEX™
	32	400	5100	5400	5400	5600	4900	5200	5900	6200	39.3	158	PRO FLEX™
	32	500	6200	6500	6500	6900	6000	6300	7200	7500	49.5	152	PRO FLEX™
	32	600	7300	7700	7600	8000	7100	7400	8400	8800	59.5	148	PRO FLEX™
	32	700	8300	8700	8700	9100	8000	8400	9600	10100	67.5	150	PRO FLEX™
	32	800	9200	9700	9700	10200	8900	9400	10600	11200	78	144	PRO FLEX™
	32	900	10100	10600	10600	11200	9800	10300	11700	12300	88	140	PRO FLEX™
	32	960	10600	11200	11100	11700	10300	10800	12300	12900	94	137	PRO FLEX™
	40	300	4900	5200	5200	5400	4800	5000	5700	6000	36	167	PRO FLEX™
	40	350	5700	6000	5900	6300	5500	5800	6500	6900	42	164	PRO FLEX™
	40	400	6400	6700	6700	7100	6200	6500	7400	7800	48	162	PRO FLEX™
	40	500	7800	8200	8200	8600	7500	7900	9000	9400	59	159	PRO FLEX™
	40	600	9100	9600	9600	10100	8800	9300	10500	11100	71	156	PRO FLEX™
	40	700	10400	10900	10900	11400	10000	10600	12000	12600	84	150	PRO FLEX™
	40	800	11500	12100	12100	12700	11200	11800	13300	14000	97	144	PRO FLEX™
	40	900	12700	13300	13300	14000	12300	12900	14600	15400	110	140	PRO FLEX™
	40	1000	13700	14400	14400	15100	13300	14000	15800	16600	124	134	PRO FLEX™
	48	200	4100	4300	4300	4500	3900	4100	4700	4900	28.6	171	PRO FLEX™
	48	300	5900	6200	6200	6500	5700	6000	6800	7200	42.5	169	PRO FLEX™
	48	350	6800	7200	7100	7500	6600	6900	7900	8300	50	166	PRO FLEX™
	48	400	7700	8100	8100	8500	7400	7800	8900	9300	57	163	PRO FLEX™
	48	500	9300	9800	9800	10300	9100	9500	10800	11300	71	159	PRO FLEX™
	48	600	10900	11500	11500	12100	10600	11200	12600	13300	86	155	PRO FLEX™
	48	700	12400	13100	13100	13700	12100	12700	14400	15100	100	151	PRO FLEX™
	48	800	13900	14600	14500	15300	13400	14100	16000	16800	117	144	PRO FLEX™
	48	900	15200	16000	15900	16800	14700	15500	17500	18400	132	139	PRO FLEX™
	48	1000	16500	17400	17300	18200	16000	16800	19000	20000	148	135	PRO FLEX™

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

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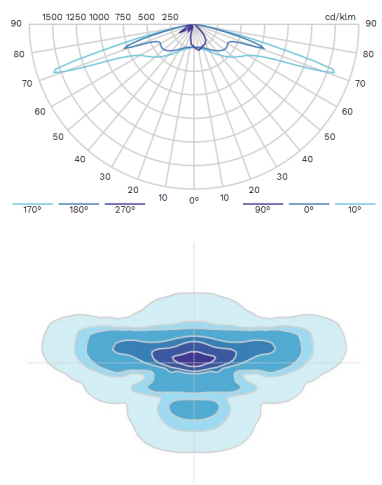

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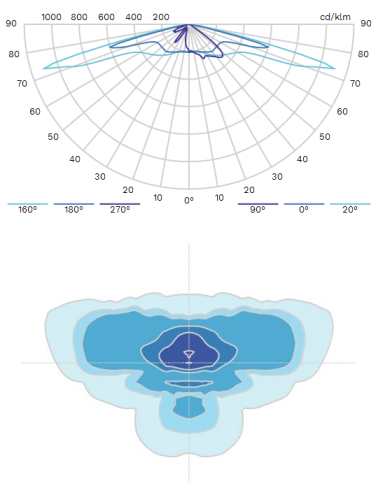
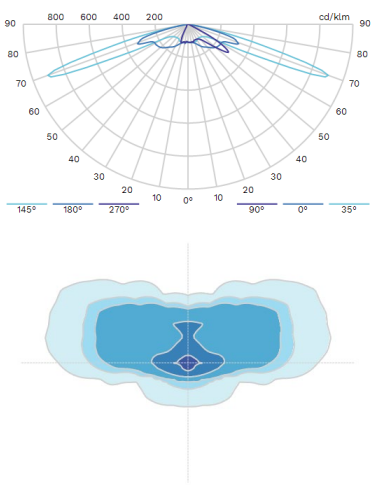
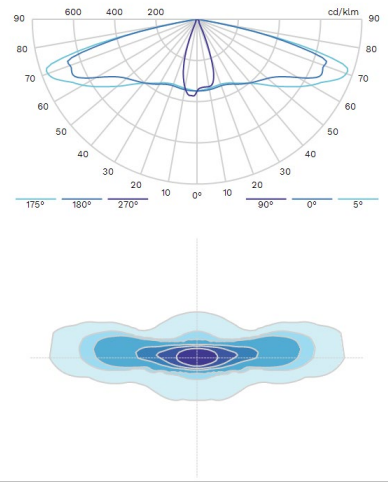


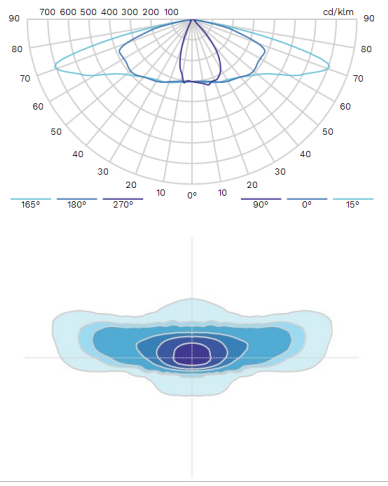
5167 Rear louvers



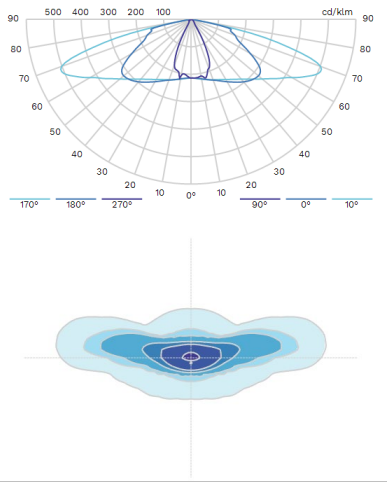
5177 Front-Rear louvers



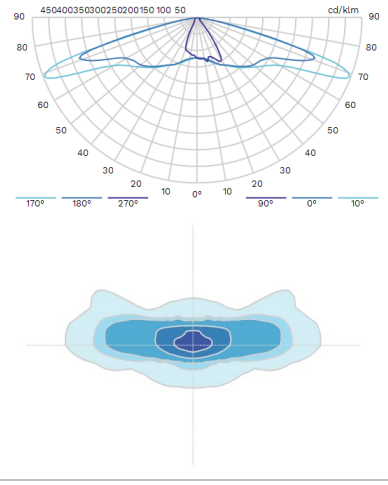
5178 Rear louvers



5179 Front-Rear louvers



5187 Front-Rear louvers



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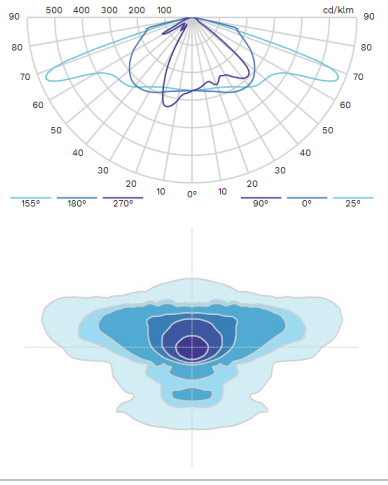

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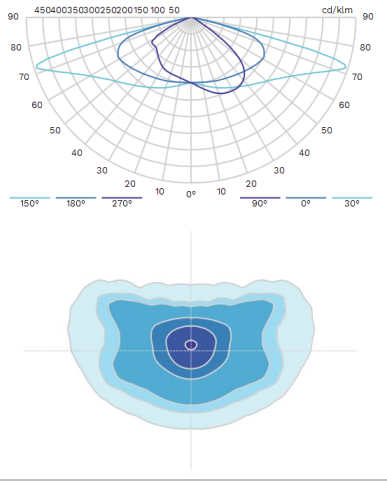

PRO FLEX™

5241 Rear louvers