

AXIA 2



FEATURES

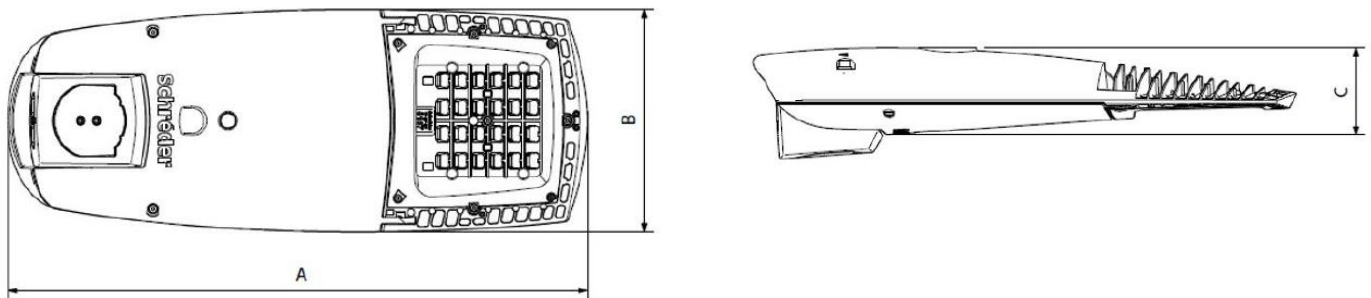
The most comprehensive & economical LED solution

- Energy savings of up to 75% compared with traditional light sources
- Cost-effective and efficient lighting solution for a fast return on investment
- Designed to incorporate Owlet range of control solutions: stand-alone (PIR, photocell...), autonomous network and interoperable network
- Integrated lenses for performing photometry adapted to various applications
- ThermiX® for long lasting performance
- IP 66 tightness level
- FutureProof: smart upgradability
- 2 sizes for flexibility
- Surge protection 10kV
- Universal fixation

TYPES OF APPLICATION

- Urban roads and streets
- Residential streets
- Squares and pedestrian areas
- Roundabouts
- Bridges
- Parks
- Car parks
- Bike paths
- Railways station and metros

DIMENSION DRAWING



DIMENSIONS AND CHARACTERISTICS

	AX 2.1 (AXIA 2.1)	AX 2.2 (AXIA 2.2)
Length (mm)	650	895
Width (mm)	250	300
Height (mm)	132	132
Weight (kg)**	7	11
Tightness level*	IP 66	
Impact resistance*	IK 08	
Electrical class*	Class I EU	
Aerodynamic resistance (CxS)	0.054 m ²	0.071 m ²

* According to IEC-EN60598 and IEC-EN62262

** Average weight. The max weight is +/- 10% more but for the exact weight according to the configuration, please contact us.

SUMMARY

CONCEPT

Luminaire specifically designed for LEDs

Recommended installation height: between 5-8m for AXIA 2.1 and 6-10m for AXIA 2.2

For optimal heat dissipation, the driver and LED engine are in separate compartments and juxtaposed in a horizontal section

HOUSING & FINISH

- Housing in high-pressure, die-cast aluminium, polyester powder coated, with a flat area for a photoelectric cell.
- Housing is surrounded by lateral cooling fins for optimal heat extraction.
- Colour: RAL grey 7040 or black RAL 9005.

INSTALLATION

- Incorporated universal fixation with adjustable inclination in 2.5° steps
- Fixation with tiltable clamp and 2 Allen grub screws M8x45 in stainless steel
- Post-top 60 & 76mm and 76mm spigot at 5° inclination, allows tilt on a vertical pole from 0 to +10° by 2.5° steps
- Lateral mounting on 32 (with sleeve), 42, 48 or 60mm spigot at 0°, allows tilt on horizontal spigot from +5° to -10° by 2.5° steps
- Cover opens via 2 stainless screws positioned on the lower side of the housing to prevent dirt and corrosion build up

OPTICAL UNIT

- Flatbed PCB with polycarbonate lens overlay principle offering various photometric distributions from narrow, medium to wide road; the IP 66 level allows long lasting performance
- CRI > 70
- ULOR: 0%
- Lifetime residual flux @ Tq=25°C @ 100.000 hrs: 90%

Axia 2 Product Sheet - 08/03/2016 - To make sure this is the most recent revision, please consult www.schreder.com.

ELECTRICAL

- Class I or Class II (size 2 only)
- Input voltage: 230V ± 10% - 50-60Hz
- Power factor > 85% at full load
- 10kV, 10kA surge protection

STANDARDS & CERTIFICATIONS

- CE
- ENEC
- LM79-80
- ROHS
- All measurements in ISO17025 accredited laboratory

OPTIONS

- Other RAL or AKZO colours
- Owllet remote management
- Custom dimming profile; Constant Light Output (CLO); Dali; 0-10V
- Photocell
- Presence detection
- External light control louvres
- Supplied pre-cabled for easy installation

CONCEPT

1. Thermix® for long lasting performance

Thermal management of LEDs is crucial for a luminaire's reliability.

To maximise effectiveness and maintain flux over time, several parameters are optimised:

- Thermal compartmentalisation between the LEDs and the control gear
- Direct conduction by minimising the path between the heat source and the outside
- Optimised design of the external heat exchange surface.

2. Integrated lenses

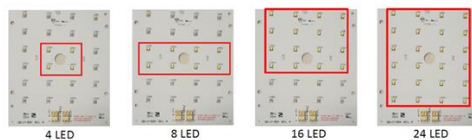
The lenses protector is made of polycarbonate to offer a high tightness level (IP 66) and high impact resistance (IK 08 minimum) for long-lasting performance.

This concept is based upon the addition principle of photometric distribution. Each LED is associated with a specific lens that generates the complete photometric distribution.

It is the number of LEDs in combination with the driving current that determines the intensity level of the light distribution of the luminaire.



AXIA 2.1



AXIA 2.2



To perfectly meet the needs of each kind of place to be lit, Schröder has designed a large selection of lenses with specific photometries. This Lens concept provides significant energy savings and offers flexibility both in terms of performance and control while ensuring a long lifespan.

3. FutureProof: Smart Upgradability

Since LED technology is constantly evolving, both the photometric engine and the gears can be upgraded or replaced at the end of the LEDs' lifespan to take advantage of future technological developments

OPTIONS

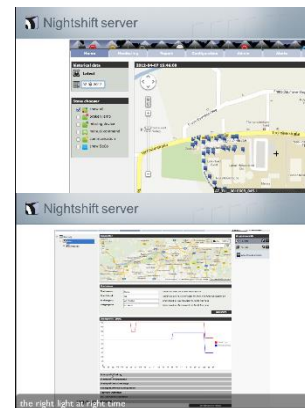


1. OWLET wireless remote management dimming & control system

The luminaires are pre-programmable, wireless programmable or remotely programmable and controllable. Each individual light point can be switched off/on or dimmed at any time. Operating state, energy consumption and failures are reported and stored in a database with the exact timestamp and geographical location. Owlet helps lighting managers to assure the right lighting level while reducing operating costs and maintaining a sustainable outdoor lighting scheme. The wireless Luminaire Controllers LUCO exist in different types, all of them are compatible with each other.

System features / Graphical User Interface (GUI):

1. Shows status of all light points per zone, per street...
2. Defines dimming profiles automatically/manually
3. Produces reports automatically/manually (operating & consumption)
4. Alarm schemes (failures, faults, consumption via SMS, phone, email)
5. Connects to 3rd party systems
6. Data exchange with other servers
7. Data management
8. Energy measurement (utility grade)



Available Luminaire Controllers:

LUCO P7: Wireless Individual Luminaire Controller with integrated photocell that is mounted on top of the luminaire. Connected to the driver via a 7 pin NEMA socket.

The luminaire controller can control an individual luminaire or clusters of luminaires. They build a bi-directional mesh network amongst each other to the Segment Controller (one SECO per 100/150 light points).

The above mentioned LUCO's, are commissioned semi automatically in the web GUI (Graphical User Interface) via the use of an integrated GPS antenna that allows automatic geo-positioning in the Owlet NightShift GUI.

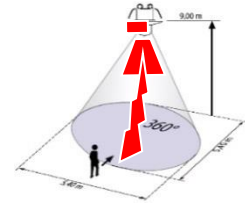
*Segment controller & Antenna + cable order number:

Equipment	Order no.	Description
Segment Controller	00-05-921	Segment Control
Segment Controller Cable + Antenna GSM/UMTS + Zigbee 2,4GHz	00-05-922	Cable 1m
	00-05-924	Cable 2m
	00-05-927	Cable 3m
	00-05-925	Cable 5m
	00-05-923	Cable 7m
	00-05-926	Cable 10m



2. Motion and/or presence detection

Motion detection is compatible with any type of control or dimming system. It will enhance the efficacy of the installation by only increasing the light level when a vehicle or a pedestrian is detected.



2.1 Stand-alone luminaire

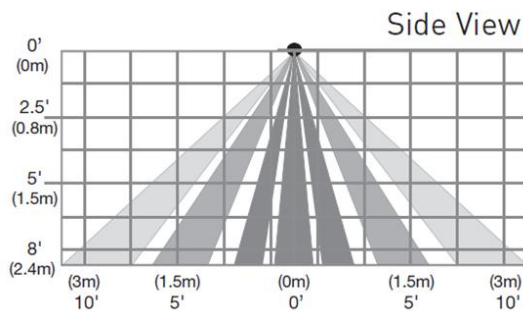
This solution needs to be integrated in each luminaire if the installation is equipped with regular dimming without remote wireless connection.

2.2 Remote wireless solutions (interoperable)

For installations with remote wireless solutions, the motion and presence detectors can also be located on one, on a selection of luminaires, on all luminaires or in a remote location to detect the arrival of people in the most optimum way. The LUCO P7 will in that case play the role of the communication node. This option combines the functionality of the stand-alone network with remote wireless control.

2.3 Presence detection capabilities

The detection capabilities depend on the height of the installation and the type of sensor.



The settings of the luminaire will determine:

- The temporisation: the length of time a luminaire is switched on when a presence is detected
- When the sensor is idle or in detection mode
- The inclination of the luminaire influences the scope of the detection zone

The integration of sensors into round luminaires, needs to be synchronised and oriented according to the photometry and the motion path. Our staff is happy to help you with this analysis.

2.4 Presence detection capabilities

A stand-alone unit to integrate into a wireless Owlet control network; either autonomous or interoperable and equipped w/o PIR sensor:

Equipment	Order no.	Description
Moov-Box	P6010000003beu	P6010 MOOVBOX WITH SENSOR LuCo-NXP
Moov-Box	P6010000004beu	P6010 MOOVBOX NO SENSOR LuCo-NXP



3. Photocell

The photocell will switch on the luminaire as soon as daylight has reached a certain level. The photocell is compatible with regular or programmable drivers. Our photocell catalogue is at your disposal should you require a particular photocell according to your regional requirements and regulations.

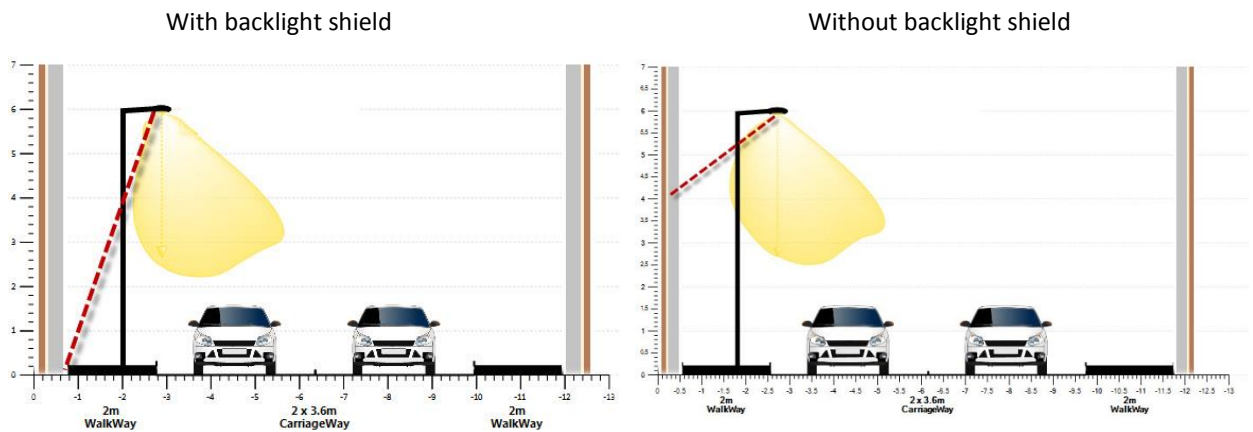
Note: the LUCO P7 has an integrated photocell



4. Advanced Photometry

5.1 Back Light control

Back Light control will prevent light spill from the back of the luminaire by additional backlight shield



5. Other colours available

Other RAL or AKZO colours are available on request.

LUMEN AND POWER DETAILS

Typical data for NVSL219CT Neutral White (NW) (4000 K, CRI min. 70) at Tq 25° C.

Model	Acronym	Colour temp.	Flux code	Typical luminaire output (lm)	Luminaire power (W)	Luminaire efficacy (lm/W)	Current (mA)	Typical led flux (lm)	LED Count
AXIA 2.1	AXG2S1	NW	001D0	1100	10	113	680	1200	4
AXIA 2.1	AXG2S1	NW	001D1	1600	13	121	480	1800	8
AXIA 2.1	AXG2S1	NW	002D2	2200	18	120	690	2400	8
AXIA 2.1	AXG2S1	NW	002D3	2500	22	115	820	2800	8
AXIA 2.1	AXG2S1	NW	002D4	2700	20	138	390	3000	16
AXIA 2.1	AXG2S1	NW	003D5	3200	24	135	480	3500	16
AXIA 2.1	AXG2S1	NW	003D6	3900	30	132	600	4300	16
AXIA 2.1	AXG2S1	NW	004D7	4300	34	127	690	4800	16
AXIA 2.1	AXG2S1	NW	004D8	4700	37	126	760	5200	16
AXIA 2.1	AXG2S1	NW	004D9	4900	37	133	490	5400	24
AXIA 2.1	AXG2S1	NW	005DA	5300	40	132	540	5900	24
AXIA 2.1	AXG2S1	NW	006DB	6000	46	131	630	6700	24
AXIA 2.1	AXG2S1	NW	006DC	6500	50	131	690	7300	24
AXIA 2.1	AXG2S1	NW	006DE	6900	55	126	750	7700	24
AXIA 2.1	AXG2S1	NW	007DF	7900	65	121	890	8900	24
AXIA 2.2	AXG2S2	NW	006D0	6200	46	135	370		40
AXIA 2.2	AXG2S2	NW	006D1	6800	51	134	410		40
AXIA 2.2	AXG2S2	NW	007D2	7400	56	133	450		40
AXIA 2.2	AXG2S2	NW	007D3	7800	60	131	480		40
AXIA 2.2	AXG2S2	NW	008D4	8600	68	126	690		32
AXIA 2.2	AXG2S2	NW	009D5	9000	68	131	460		48
AXIA 2.2	AXG2S2	NW	010D6	10200	79	129	530		48
AXIA 2.2	AXG2S2	NW	010D7	10300	85	121	860		32
AXIA 2.2	AXG2S2	NW	011D8	11200	95	118	960		32
AXIA 2.2	AXG2S2	NW	011D9	11200	88	128	590		48
AXIA 2.2	AXG2S2	NW	011DA	11600	94	123	760		40
AXIA 2.2	AXG2S2	NW	012DB	12300	98	125	660		48
AXIA 2.2	AXG2S2	NW	013DC	13400	109	123	730		48
AXIA 2.2	AXG2S2	NW	013DE	13600	114	119	920		40
AXIA 2.2	AXG2S2	NW	014DF	14400	124	116	1000		40
AXIA 2.2	AXG2S2	NW	014DG	14500	119	122	800		48
AXIA 2.2	AXG2S2	NW	015DH	15800	132	119	890		48
AXIA 2.2	AXG2S2	NW	016DI	16800	143	118	960		48
AXIA 2.2	AXG2S2	NW	017DJ	17300	149	116	1000		48

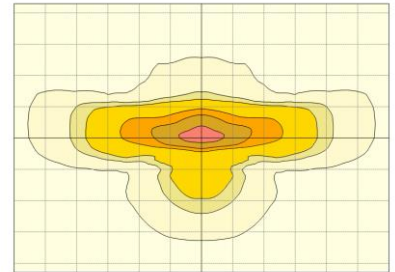
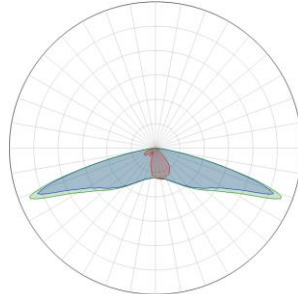
Note: The flux is an indicative average and may vary with the different optics and types of protector. Tolerance on LED flux is $\pm 7\%$ and on total luminaire power $\pm 5\%$.

The precise flux and corresponding matrix for each configuration are available on www.schreder.com

PHOTOMETRY

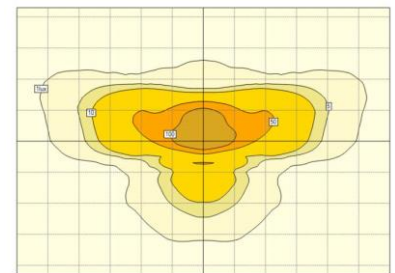
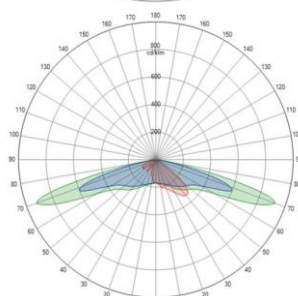
5165AS

Road lighting
S/P Class Narrow,
Illuminance



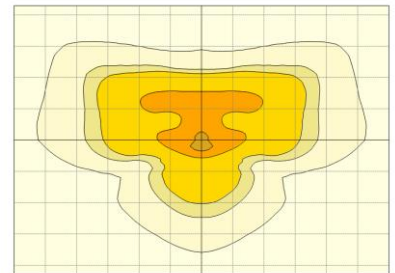
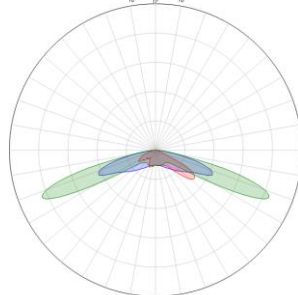
5166AS

Road lighting
S/P Class Medium
Illuminance



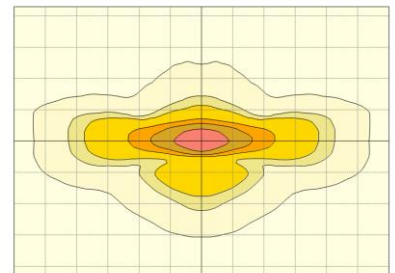
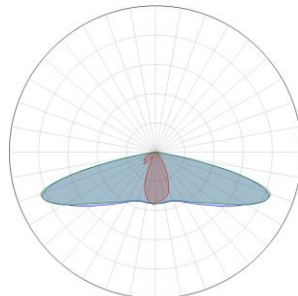
5167AS

Road lighting
S/P Class Wide
Illuminance



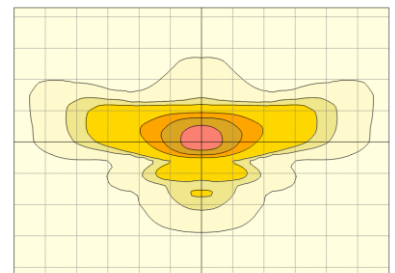
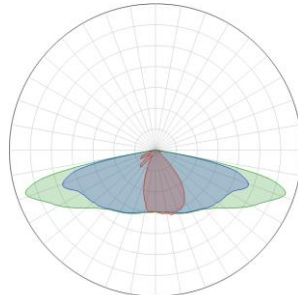
5177AS

Road lighting
M/ME Class Narrow
Luminance



5178AS

Road lighting
M/ME Class Medium
Luminance

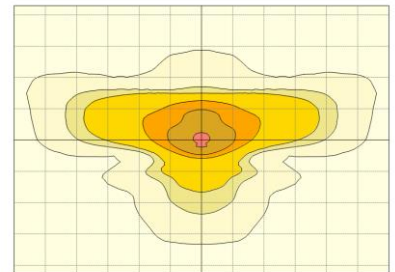
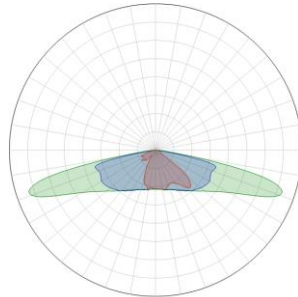


5179AS

Road lighting

M/ME Class Wide

Luminance

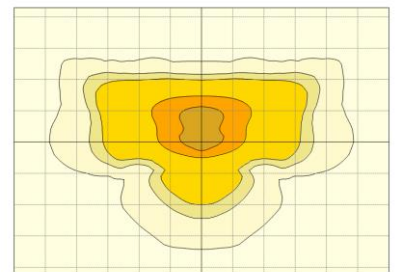
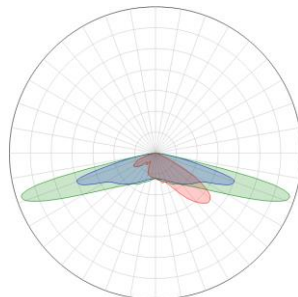


5187AS

Road lighting

S/P Class Wide

Illuminance



HOW TO CREATE A VALID ORDERING CODE ?

1 Go to the Ordering Data page(s) and compose your solution by choosing one code per column in order to specify the **PRODUCT ID, COUNTRY** (of installation), **OPTICAL BLOCK, GEARS, CONTROLS, FIXATIONS** and **COLOUR**. You may choose several **OPTIONS**.

ID	COUNTRY	OPTICAL BLOCK		GEARS		CONTROLS [4]		FIXATIONS		OPTIONS		COLOUR				
PRODUCT ID	COUNTRY OF INSTALLATION [1]	COLOUR TEMP	FLUX CODE [2]	PHOTOMETRY TYPE [3]	PROTECTOR	VOLTAGE & EL. CLASS	DIMMING	ELECTR. PROTECTION	POWER CABLE	CABLE TYPE	CONTROLLER	PHOTO CELL	SENSOR	FIXATIONS	OPTIONS [5]	COLOUR
PRODXX	AO Angola	NW Neutral White	5068AS	GL01 Flat Glass	V01 120V CLI	D00 No Dimming	S3 10W - no Fuse	C0 No Cable	00 No Cable	C0 No Controller	0 No Photocell	0 No Sensor	U2 Universal 32mm	N0 No Options	06 RAL 3004 T	
PRODXX	AR Argentina	WW Warm White	5098AS	GL04 Flat Glass + self-cleaning	V02 230V CLI	D01 0 - 10V	S5 15W + Fuse 5x20mm Time Lag SA	CH Cable length: 4m	2C 2x1.5'	C1 LuCo-NXP	8 Home Socket	1 PIR Presence	U5 Universal 42-48mm	A0 Toolless	08 RAL 3004 T	

2 Configure your solution easily: most of the proposed options do not require any additional information and are briefly explained below the code (refer to the footnotes to check compatibility between the selected options).

COUNTRY	OPTICAL BLOCK	GEARS	CONTROLS [4]	FIXATIONS	OPTIONS
COUNTRY OF INSTALLATION [1]	COLOUR TEMP	VOLTAGE & EL. CLASS	DIMMING	FIXATIONS	OPTIONS [5]
AO Angola	NW Neutral White	V01 120V CLI	D00 No Dimm	U2 Universal 32mm	N0 No Options
AR Argentina	WW Warm White	V02 230V CLI	D01 0 - 10V	U3 Universal 42-48mm	A0 Toolless

3 Choose your **Flux, Photometry** and **Control** codes by referring to more detailed information included in the Product Sheet.

FLUX CODE *

▶

Flux temp.	Flux code	Typical luminaire output (lm)	Power (W)
001A0	1000	10	10
001A1	1400	14	100
001A2	1800	19	95
002A3	2000	18	70
002A4	2700	26	70
003A5	3000	30	70

PHOTOMETRY TYPE **

▶

CONTROLLER

▶

Available Luminaire Controllers:

LuCo-PD: Wireless Individual Luminaire Control or control of luminaire clusters. Acts as per 100/150 light points.

LuCo-NX: Wireless Individual Luminaire Control of luminaire clusters. Requires a Segma map in the Owllet user interface NightShift.

Depending on your choice of colour temperature, please refer to the corresponding table to find the **flux code** for the typical lumen package you require^(*). Please check the **Product ID** to make sure that the lumen package you need is available with the size you have chosen.

To choose the **photometry**, refer to the 4 digit codes beside the curves and diagrams^(*). AS = asymmetrical, SY = symmetrical and BL = Back Light control.

^(*) The precise flux and corresponding matrix for each configuration are available on www.schreder.com

To configure the ideal solution between the features you need and the available **controllers**, refer to the description in the Product sheet.

EXAMPLES OF VALID ORDERING CODES

ONLY WITH STANDARD FEATURES

WITH CUSTOMISED REQUESTS

PRODXX - 00 - NW008AH - 5118BL - GL01 - V02D03S3 - C000 - C201 - U4 - A1 - A6 - 0L											
Product ID (6 digits)	Universal (2 digits)	Colour temperature + Flux code (7 digits)	Photometry type (6 digits)	Protector type (2 digits)	Voltage & elec. class + Dimming + Elec. protection (8 digits)	Power cable type (4 digits)	Controller + Photocell + Sensor (4 digits)	Fixation (2 digits)	Options (2 digits each)	Colour (2 digits)	Specific RAL colour (8 digits)
	ISO 3166 country code (2 digits)		Custom photometry		Voltage & elec. class + Custom dimming + Elec. protection (8 digits)	Custom power cable (4 digits)	Custom contr., Photocell & Sensor (4 digits)		Customised options (Photometry, Dimming, Cables, Control & Photocell) for which you will receive a specific code (4 digits each)		
PRODXX - AT - NW008AH - CUSTOM - GL04 - V02D0453 - CJZZ - ZZZZ - U4 - PXXX - DXXX - CXXX - SXXX - TXXX - RAL3005M											



ID	PRODUCT	COUNTRY		OPTICAL BLOCK		GEARS		CONTROLS [4]				FIXATIONS		OPTIONS [5]	COLOUR													
		OF INSTALLATION [1]	TEMP	FLUX CODE [2]	PHOTOM ETRY TYPE [3]	PROTECTOR	VOLTAGE & EL. CLASS	DIMMING	ELECTR. PROTECTION	POWER CABLE	CABLE TYPE	CONTROLLER	PHOTO CELL			SENSOR												
AXG251		00	Universal Standard	NW	Neutral White											0B	RAL 3004 T											
AXG252		GB	United Kingdom of Great Britain	5165AS		PR00	No Protector										0C	RAL 6005 T										
		AO	Angola	5166AS														0D	RAL 6009 B									
		AR	Argentina	5167AS															0E	RAL 7016 B								
		...		5176AS																0F	RAL 7035 B							
				5177AS																	0G	RAL 7040 B						
				5178AS																		0H	RAL 7040 T					
				5179AS																			0I	RAL 9005 B				
																								0J	RAL 9006 B			
																									0K	RAL 9011 T		
																										0L	AKZO 150 GS	
																											0M	AKZO 200 BS
																											0N	AKZO 900 GS
																											0O	RAL 7038 B
																											0P	

