
TECEO 1|2
THE GREEN LIGHT
LED
LED
Schréder Group GIE

TECEO LED LIGHTING

Design: Michel Tortel

CHARACTERISTICS – LUMINAIRES

Optical compartment tightness level:		IP 66 (*)
Control gear tightness level:		IP 66 (*)
Impact resistance (glass):		IK 08 (**)
Aerodynamic resistance (CxS):	Teceo 1	0.011m²
	Teceo 2	0.067m²
Nominal voltage:		230V - 50Hz
Electrical class:		I or II (*)
Weight (empty):	Teceo 1	9.6kg
	Teceo 2	17.5kg
Installation height:	Teceo 1	4 - 8m
	Teceo 2	6 - 12m

(*) according to IEC - EN 60598

(**) according to IEC - EN 62262

KEY ADVANTAGES

- Maximised savings in energy and maintenance costs
- Right lighting through LensoFlex2® offering high performance photometry, comfort and safety
- Flexible LED engines with modular quantities of LEDs
- FutureProof: photometric engine and electronic assembly is easy to replace on-site
- ThermiX® and LEDSafe®: preserves performance over time
- Durable and recyclable materials

LIGHTING IN AN EFFICIENT AND SUSTAINABLE MANNER

The Teceo range offers optimised photometrical performance with a minimum total cost of ownership. It offers towns and cities the ideal tool to improve lighting levels, generate energy savings and reduce their ecological footprint.

The Teceo range comes in two sizes.
The Teceo 1 for up to 48 LEDs is ideally suited to lighting residential streets, urban roads, bike paths and car parks while the Teceo 2 for up to 144 LEDs is perfect for large roads, avenues and motorways.
It is equipped with the second generation LensoFlex2® photometric engine which offers a high-performance photometry optimised for each specific application with minimum energy consumption.
The Teceo range offers flexible LED modules, a choice of currents and dimming options to further maximise energy savings and provide the most cost-effective solution.
A rear bracket version of the Teceo luminaire is available so that streets, side streets and large pavements can be lit using the same luminaire design.
The wall bracket allows for the lighting of narrow streets as well as any poorly lit areas.

Colour: AKZO light grey 150 sanded

TECEO THE GREEN LIGHT

≤20mm IP66 ≥70 lm/W Hg <15mg iso 14001

For more details and to follow the progress of the product configurations, please visit our website.

MAXIMUM ENERGY SAVINGS

A minimal total cost of ownership was the driving force behind the development of the Teceo range. It is equipped with LEDs and various dimming and remote management options for a dramatic reduction in energy consumption. It offers a very competitive alternative to luminaires equipped with traditional light sources such as high-pressure sodium lamps.

LENSOFLEX2®

Teceo luminaires are equipped with second generation LensoFlex2® photometric engines that have been specifically developed for lighting spaces where the well-being and safety of people using the environments are essential.
This system is based upon the addition principle of photometric distribution. Each LED is associated with a specific lens that generates the complete photometric distribution of the luminaire. It is the number of LEDs that determines the intensity level of the light distribution.

PERFORMANCE AND FLEXIBILITY

The Teceo luminaires are equipped with photometric engines composed of modular quantities of LEDs so that they can offer a wide range of lumen packages. They can also be equipped with a variety of drivers and dimming options.
The Teceo luminaires can be adjusted on-site for optimal photometric performance. This flexibility ensures that the light distributions are specifically adapted to the real needs of the area to be lit.

FUTUREPROOF

Using state-of-the-art technology, Teceo luminaires have been designed to fulfil the FutureProof concept.
The photometric engine is IP 66 sealed to protect the LEDs and lenses from coming into contact with the outside environment and so maintain photometric performance over time.
The optical unit be easily removed, allowing real on-site replacement at the end of its service life in order to take advantage of future technological developments.
This easy and rapid procedure reduces maintenance costs and contributes to reducing the total cost of ownership.
This FutureProof concept enables any version of the luminaire to be easily upgraded to a LEDSafe® module and to take advantage of potential developments at any stage during the service life.

PHOTOMETRY

TECEO 1

		LENSOFLEX2®					Lifetime residual flux	
Number of LEDs	Neutral white @ t_q = 25°C	16 LEDs	24 LEDs	32 LEDs	40 LEDS	48 LEDs	@60.000h	@100.000h
Current: 350mA	Nominal flux (lm*)	2032	3048	4064	5080	6096	90%	70%
	Ave. power consumption (W)	19	28	37	45	54		
Current: 500mA	Nominal flux (lm*)	2784	4176	5568	6960	8352		
	Ave. power consumption (W)	27	41	53	65	78		
Current: 700mA	Nominal flux (lm*)	3632	5448	7264	9080	10896		
	Ave. power consumption (W)	40	58	75	95	113		

(*) Nominal flux depends on the type of LED used and is likely to change in accordance with the continuous and rapid developments in LED technology. To follow the progress of the luminous efficacy of the LEDs used, please visit our website.
The real flux output of the luminaire depends on environmental conditions (e.g. temperature and pollution) and the optical efficiency of the luminaire.

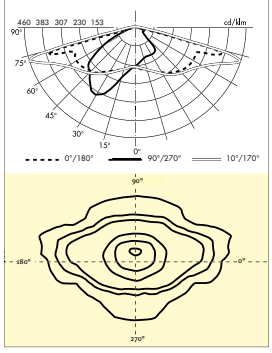
TECEO 2

		LENSOFLEX2®											Lifetime residual flux	
Number of LEDs	Neutral white @ t_q = 25°C	56 LEDs	64 LEDs	72 LEDs	80 LEDs	88 LEDs	96 LEDs	104 LEDs	112 LEDs	120 LEDs	128 LEDs	136 LEDs	144 LEDs	@60.000h	@100.000h
Current 350mA	Nominal flux (lm*)	7112	8128	9144	10160	11176	12192	13208	14224	15240	16256	17272	18288	90%	70%
	Ave. power consumption (W)	63	71	79	87	95	103	118	126	133	142	149	158		
Current 500mA	Nominal flux (lm*)	9744	11136	12528	13920	15312	16704	18096	19488	20880	22272	23664	25056		
	Ave. power consumption (W)	91	103	115	127	139	151	169	181	193	206	218	230		
Current 700mA	Nominal flux (lm*)	12712	14528	16344	18160	19976	21792	23608	25424	27240	29056	30872	32688		
	Ave. power consumption (W)	130	148	173	190	208	226	243	260	277	296	313	0		

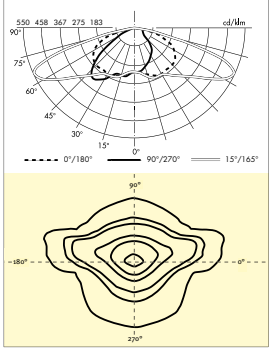
(*) Nominal flux depends on the type of LED used and is likely to change in accordance with the continuous and rapid developments in LED technology. To follow the progress of the luminous efficacy of the LEDs used, please visit our website.
The real flux output of the luminaire depends on environmental conditions (e.g. temperature and pollution) and the optical efficiency of the luminaire.

LIGHT DISTRIBUTIONS

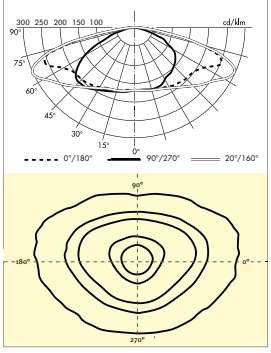
LED optic 5098 – Narrow Road



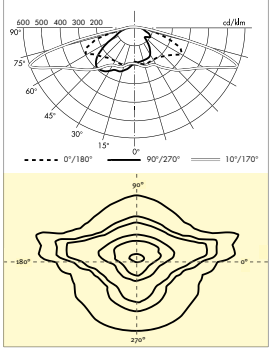
LED optic 5093 – Residential Street



LED optic 5068 – Urban Road



LED optic 5096 – Motorway



CASE STUDIES

Teceo luminaires demonstrate remarkable photometric performance.
The flexibility of the LensoFlex2® photometric engine allows for multiple light distributions to respond better to the requirements of urban lighting.
Furthermore, the options for varying the number of LEDs allows for a precise adaptation to the nominal power of the luminaire according to the area that is to be lit.

- Optic LensoFlex2® “Narrow road” 5098
- For S classification according to CIE 115

- Optic LensoFlex2® “Residential street” 5093
- For M4 classification according to CIE 115
- SR › 50% included

- Optic LensoFlex2® “Urban road” 5068
- For M3 classification according to CIE 115
- SR › 50% included

- Optic LensoFlex2® “Motorway” 5096
- For M3 classification according to CIE 115

Direct access to gear and electronic compartment

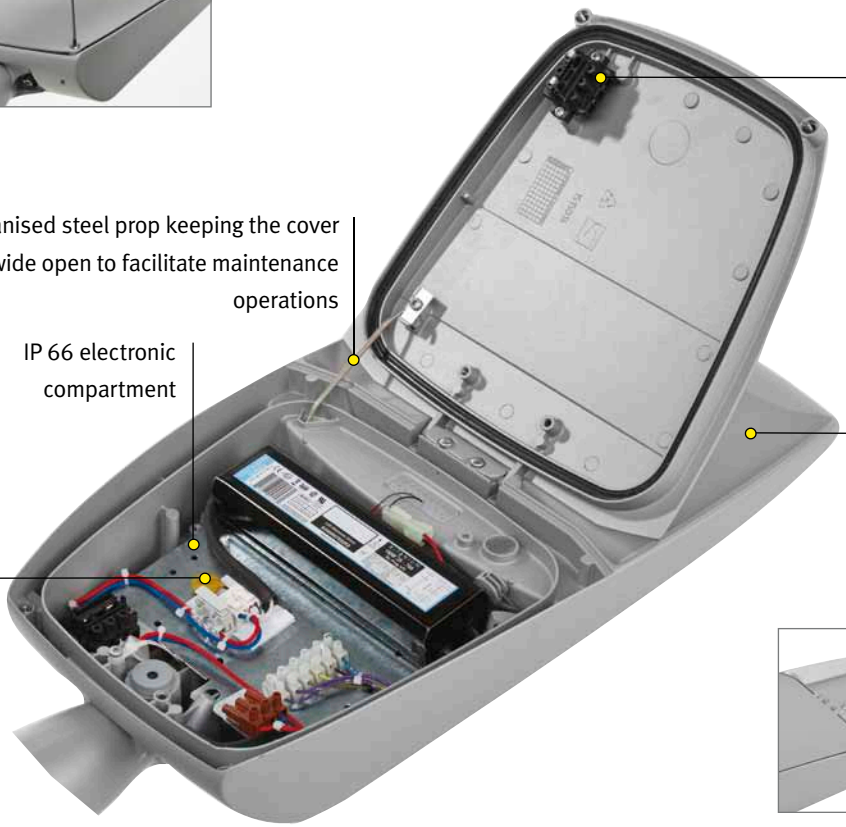
Electrical disconnector (immediate, automatic disconnection of the power supply)

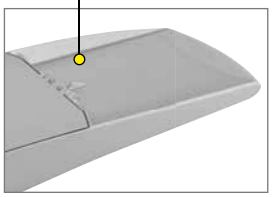
Galvanised steel prop keeping the cover wide open to facilitate maintenance operations

IP 66 electronic compartment

Surge protection up to 10kV

ThermiX®: large surface area for best possible heat extraction





Sustainable and recyclable materials: stainless steel and extra-clear flat glass protector

Modular LED engines for a precise light distribution according to the specific needs of the site to be lit

IP 66 optical compartment sealed by an extra-clear glass protector for an optimal luminous flux

LensoFlex2®: a photometric engine specifically dedicated to offering photometric flexibility and performance. LEDs in neutral white 4100K (warm white and cold white are optional) equipped with Schréder developed lenses

Universal mounting piece

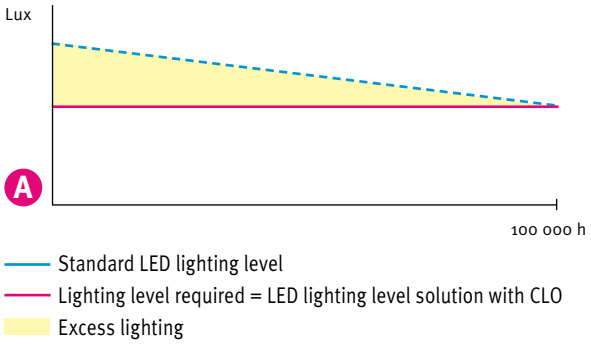
Inclination adjustment system on-site

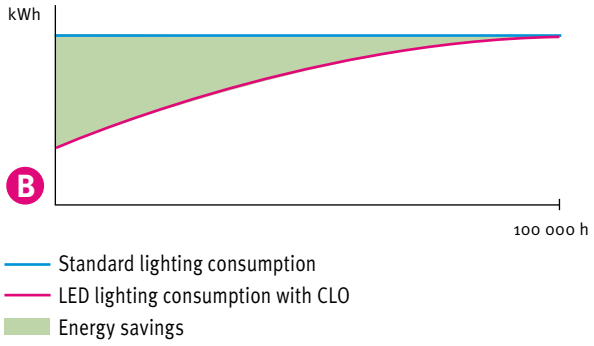
Side-entry or vertical mounting

FutureProof photometric engine, easily removed and replaced on-site to take advantage of future technological developments

MAINTAINING THE LUMINOUS FLUX OVER TIME

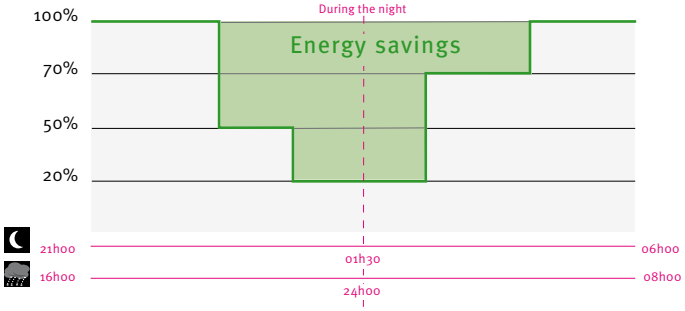
With a conventional solution, the depreciation of the luminous flux over time leads to excess lighting - and thus too much energy consumption - when the luminaires are installed so that the efficiency declines slowly to reach the minimum required level at the end of the installation's service life (graph A).
The Teceo luminaires works differently by operating with a constant luminous flux (Constant Light Output - CLO).
They control precisely and autonomously their energy needs during the luminaire's life cycle to provide the required level constantly - no more and no less – throughout the service life (graph B).
This can generate additional energy savings of up to 10% for a lifetime of 100,000 hours (L70).



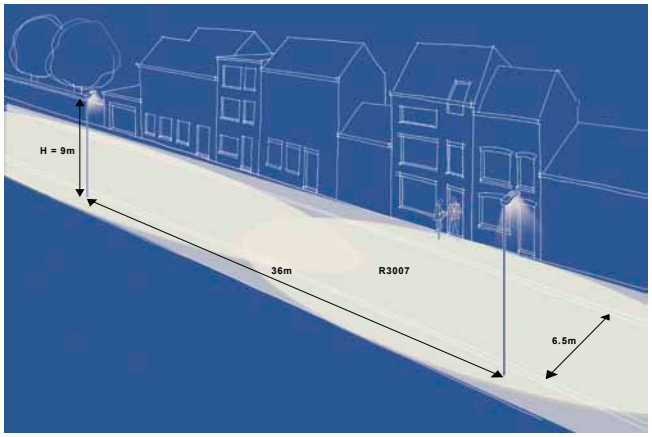


VARIABLE INTENSITY (DIMMING) FOR EFFICIENT AND COMFORTABLE LIGHTING

The right lighting is adapting precisely the quantity of light according to the real needs at a specific time (depending on daylight and more importantly activity in the area).
Dimming systems can generate substantial energy savings.
The Teceo range can be equipped with different dimming and remote management systems.



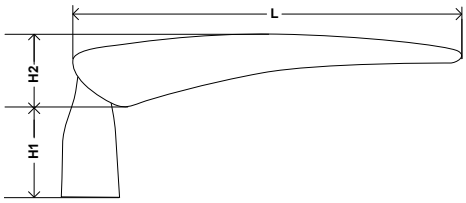
CASE STUDY

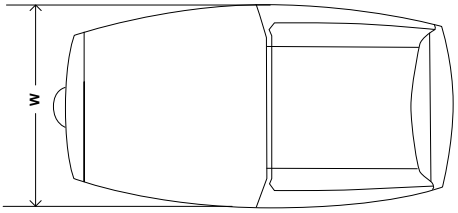


Teceo 1
LensoFlex2® 48 LEDs @350mA
4100K neutral white
54W
MF = 0.8
M5 - classified roadway according to CIE 115
L_{ave} = 0.5cd/m²

By replacing the old luminaires equipped with 70W high-pressure sodium lamps the **power consumption has been reduced by 30%** to 0.23W/m² while maintaining the 0.5cd/m² required (SLEEC-L = 0.46W / cd/m² /m² ‹1 according to CIE 13201).
For 4,000 hours of use per year, for 1km of roadway, this corresponds to a consumption of less than 2.5 kWh/day and emissions lower then 7.9kg eq CO_2 according to the average European equivalent of 0.46kg eq CO_2/kWh.

DIMENSIONS

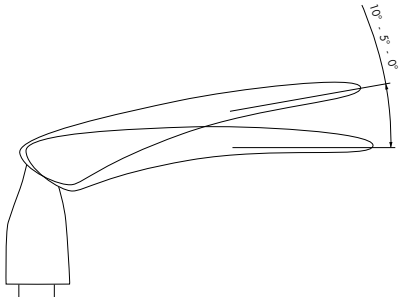




	Teceo 1	Teceo 2
W	318mm	439mm
L	607mm	788mm
H1	141mm	138mm
H2	113mm	119mm

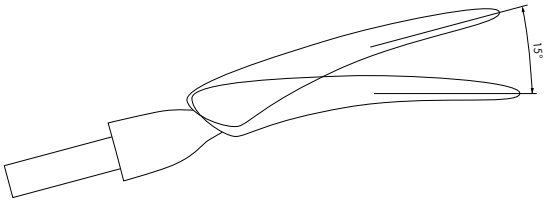
MOUNTING

Vertical position



Ø 60-76mm

Side-entry position



Ø 60-76mm

ITO COLUMNS AND BRACKETS

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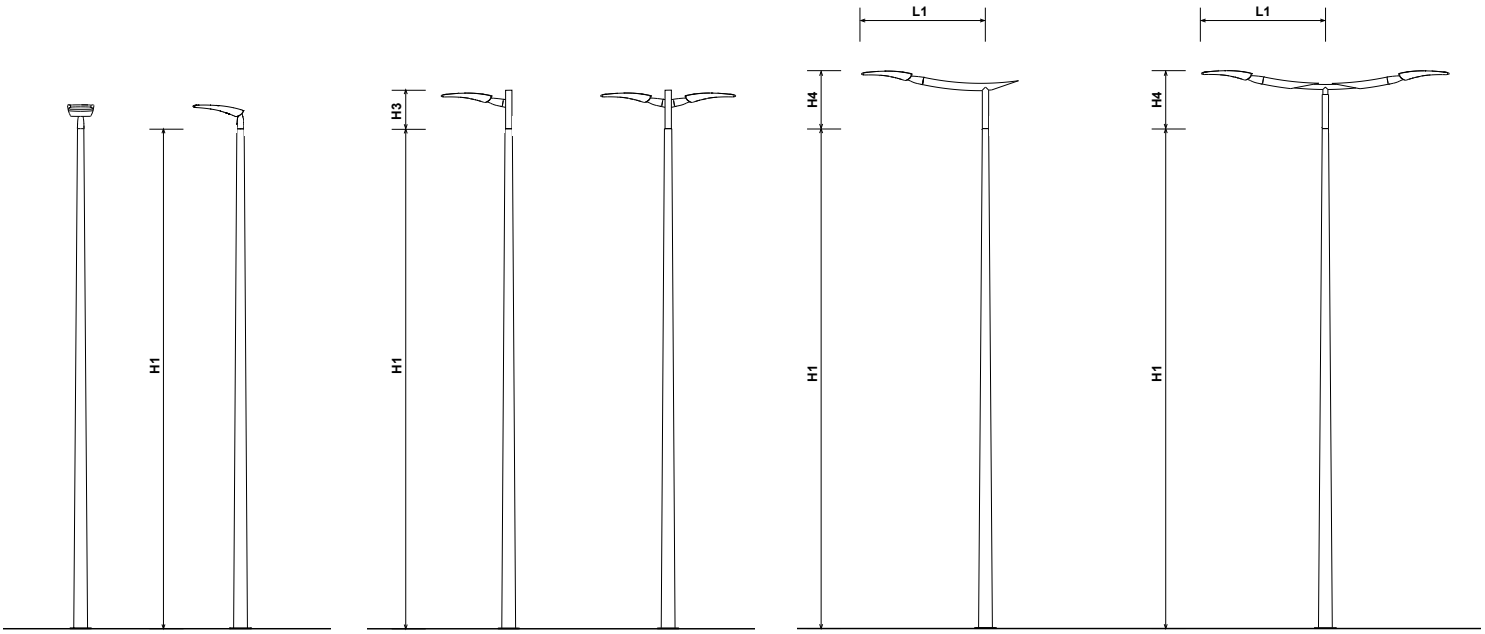
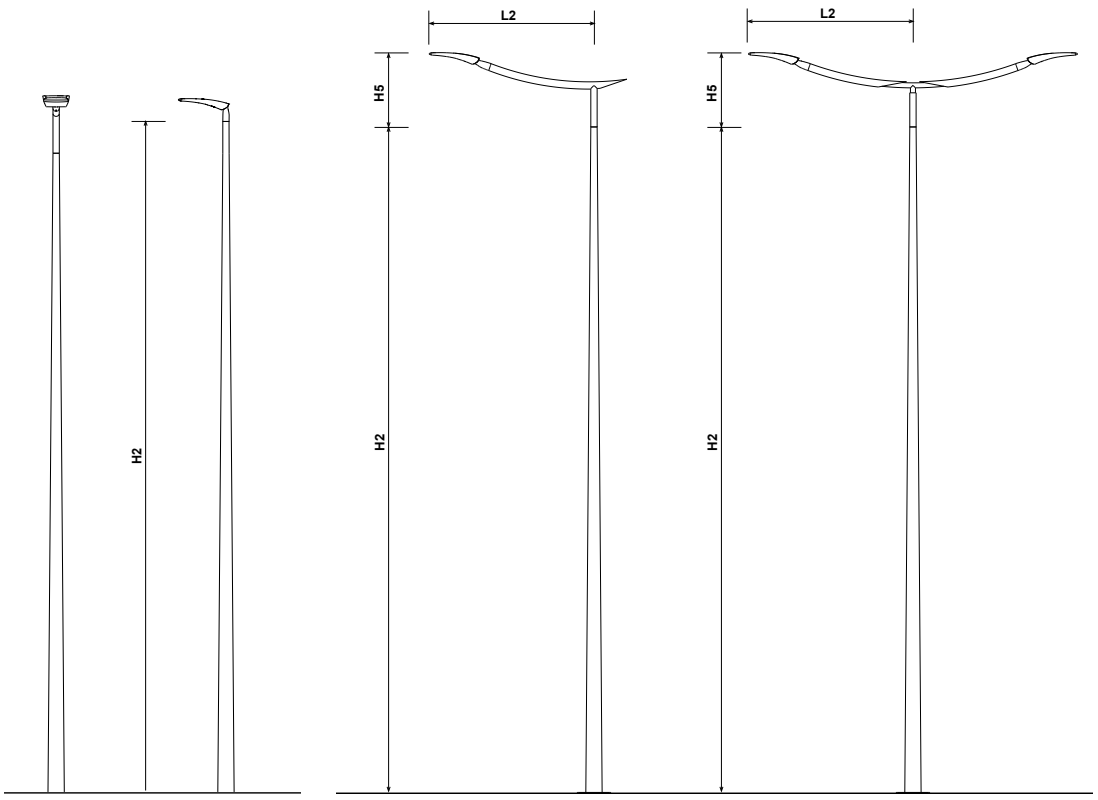
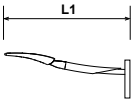
ITO SMALL MODEL



ITO LARGE MODEL



WALL BRACKET



ITO	
H1	4000 - 8000mm
H2	6000 - 12000mm
H3	500mm
H4	720mm
H5	880mm
L1	1200mm
L2	1680mm

PACKS AND OPTIONS

			Economy	Performance	Premium
OPTICS					
LensoFlex2®	No. LEDs	Teceo 1: 16-24-...-48	●	●	●
		Teceo 2: 56-64-...-144	●	●	●
	Photometrical distributions	4	●	●	●
	CCT LED	Neutral White	●	●	●
		Warm White	○	○	○
		Cool White	○	○	○
FutureProof			●	●	●
LEDSafe® module	Pre-installed		X	X	●
Protector	Glass	Extra-clear	●	●	●
		High effiency	X	○	○
ELECTRICAL					
Power range	Driving current	350mA	●	○	○
		500mA	X	●	●
		700mA	X	○	○
Constant Light Output (*)			X	○	○
Dimming/switching control	1-10V		X	●	●
	Bi-Power	50%	X	●	●
	Profile	custom	X	●	●
	Photo cell		○	○	○
	OWLET remote mgt.	LuCo	X	○	○
Electrical Class	Class II		●	●	●
	Class I		○	○	○
Surge protection		10kV	●	●	●
Disconnector		Upon opening	○	○	○
MECHANICS					
Mounting	ø 60mm	2M8 screws	●	●	●
		+ stainless clam	X	○	●
	ø 76mm	2M8 screws	●	●	●
		+ stainless clam	X	○	●
Cover bracket holder			●	●	●
OTHERS					
Gear plate			X	○	○
Pre-cabled		custom length	○	○	○
Colour	Light grey	AKZO 150	●	●	●
	All RAL and AKZO		○	○	○

● included

○ optional

X not available

(*) only for versions equipped with 32 LEDs and more

LED GENERATION

Schréder

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www.schreder.com

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