

Yoa



Designer : Michel Tortel



Efficiency and style throughout the city

The Yoa range offers a complete solution to light urban spaces with the same efficiency and the same astonishing elegance throughout the city. From large avenues to narrow streets and squares, the various configurations (side-entry, post-top and catenary solutions) provide aesthetic ensembles to create a distinctive identity for the city landscape.

The Yoa luminaire is equipped with the second generation LensoFlex®2 photometric engine, which offers a high-performance photometry optimised for each specific application with minimum energy consumption.



IP 66	IK 10	IK 08
	CE	

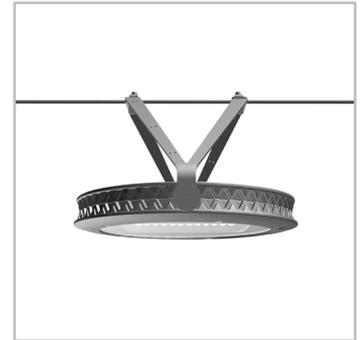


Concept

Built with recyclable materials - aluminium and glass - the Yoa luminaire is available in two sizes: Yoa Midi with up to 48 LEDs and Yoa Maxi with up to 96 LEDs. Yoa Midi is particularly suited to lighting residential areas, urban roads, parks, squares, pedestrian zones whereas Yoa Maxi is ideal for large avenues and main roads.

The Yoa range offers flexible combinations of LED modules, driving currents and dimming options to provide a cost-effective solution while improving comfort and safety for people. Yoa offers various mounting possibilities: side-entry for Ø48mm or Ø60mm spigots, post-top or side-entry with a double bracket or catenary (Yoa Midi only).

To offer complete aesthetic solutions, Yoa is available with three ranges of dedicated brackets (Tressa, Lucea and Lyre).



Yoa offers numerous mounting options: post-top, side-entry and catenary.



Yoa is available with Tressa, Lucea and Lyre brackets.

Types of application

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

Key advantages

- Maximised savings in energy and maintenance costs
- LensoFlex®2 offering high performance photometry, comfort and safety
- High-end aesthetic finish
- Flexible number of LED modules and photometry
- ThermiX® for long lasting performance
- Designed to incorporate the Owlet range of control solutions



Yoa offers a high-quality finish.



Yoa can be fitted with a Back Light Control system to prevent intrusive light.



LensoFlex®2

LensoFlex®2 is based upon the addition principle of photometric distribution. Each LED is associated with a specific PMMA lens that generates the complete photometric distribution of the luminaire. The number of LEDs in combination with the driving current determines the intensity level of the light distribution.

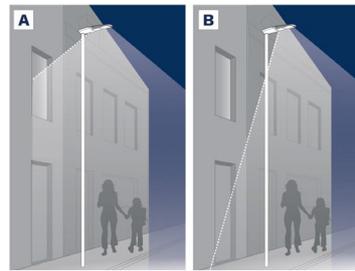
The proven LensoFlex®2 concept includes a glass protector to seal the LEDs and lenses into the luminaire body.



Back Light control

As an option, the LensoFlex®2 modules can be equipped with a Back Light control system.

This additional feature minimises light spill from the back of the luminaire to avoid intrusive light towards buildings.



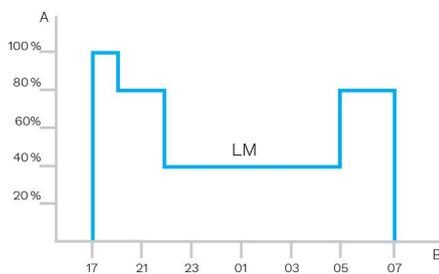
A. Without Back Light control | B. With Back Light control



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.

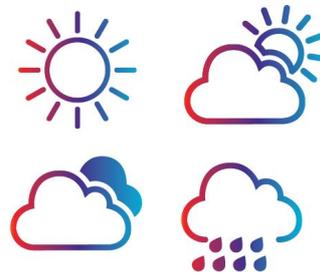


A. Performance | B. Time



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 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.



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.



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.

The Schröder Bluetooth solution consists of 3 main components:

- A Bluetooth dongle plugged into the modular driver of the luminaire (BLE transceiver)
- A Bluetooth antenna fitted on the luminaire
- A smartphone application called Sirius BLE



Easy to use

The Schröder Bluetooth solution is ideal for the on-site configuration of individual outdoor luminaires using Bluetooth. From the ground, the user is able to switch the luminaire on or off, adapt the dimming curve, read diagnostic data and much more. A user-friendly application called Sirius BLE provides an easy and secure access to the control and configuration functions.

Whether you are managing a lighting network in an urban or a residential area, this solution will make it easy to control your outdoor luminaires while simply standing by the pole.

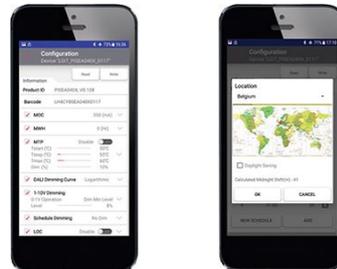
Quick and easy pairing

Get the Sirius App from Schröder. Go to the menu. Press the “SCAN DEVICE (START)” button, to search for the surrounding BLE modules. They will be displayed with a bar graphic (signal intensity) to indicate the closest and the most distant one you can reach. Click on the device you want to connect to and enter your personal access key to control the luminaire.



Defining the settings

Once you are connected to a luminaire, you can set various parameters such as the maximum output current, minimum dimming level and custom dimming profile.



Manual dimming control

The App enables you to do a manual override to adapt the dimming levels instantly. Simply tap on the “Dimming” button in the main menu and adjust the dimming using the wheel and button. Predefined dimming levels can be applied immediately. The corresponding value is displayed on the wheel. This enables you to test the ON / OFF and dimming features of the luminaire paired to the smartphone.



On-site diagnostic

When a luminaire is paired, you can access various diagnostic information: total number of power up events, operation time of LED module and driver, total energy consumption of LED driver... etc. You can also track operating events (short circuits, thermal shutdowns...). The diagnostic values may be the current state or values accumulated to date.



GENERAL INFORMATION

Recommended installation height	4m to 10m 13' 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	PMMA
Protector	Tempered glass Polycarbonate
Housing finish	Polyester powder coating
Standard colour(s)	AKZO grey 900 sanded
Tightness level	IP 66
Impact resistance	IK 08, IK 10
Vibration test	Compliant with modified IEC 68-2-6 (0.5G)

OPERATING CONDITIONS

Operating temperature range (Ta)	-30 °C up to +40 °C / -22 °F up to 104°F
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· 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)	Bluetooth, 1-10V, DALI
Control options	AmpDim, Bi-power, Custom dimming profile, Photocell, Remote management
Socket	Low voltage socket (optional) NEMA 7-pin (optional)
Associated control system(s)	Sirius BLE Owlet Nightshift Owlet IoT
Sensor	PIR (optional)

OPTICAL INFORMATION

LED colour temperature	2700K (Warm White 727) 3000K (Warm White 730) 3000K (Warm White 830) 4000K (Neutral White 740) 5700K (Cool White 757)
Colour rendering index (CRI)	>70 (Warm White 727) >70 (Warm White 730) >80 (Warm White 830) >70 (Neutral White 740) >70 (Cool White 757)
Upward Light Output Ratio (ULOR)	0%

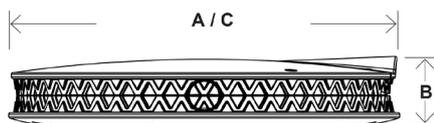
LIFETIME OF THE LEDS @ TQ 25°C

All configurations	100,000h - L90
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DIMENSIONS AND MOUNTING

AxBxC (mm inch)	YOA MIDI - 500x92x500 19.7x3.6x19.7 YOA MAXI - 650x92x650 25.6x3.6x25.6
Weight (kg lbs)	YOA MIDI - 13 28.6 YOA MAXI - 20 44.0
Aerodynamic resistance (CxS)	YOA MIDI - 0.02 YOA MAXI - 0.02
Mounting possibilities	Side-entry slip-over - Ø48mm Side-entry slip-over - Ø60mm Post-top slip-over - Ø76mm Catenary

· Only Yoa Midi is available for a catenary mounting





Luminaire	Number of LEDs	Current (mA)	Luminaire output flux (lm) Warm White 727		Luminaire output flux (lm) Warm White 730		Luminaire output flux (lm) Neutral White 740		Power consumption (W)		Luminaire efficacy (lm/W) Up to	Photometry
			Min	Max	Min	Max	Min	Max	Min	Max		
YOA MIDI	8	300	600	900	700	1000	700	1000	8.7	8.7	115	
	8	400	800	1200	900	1300	900	1400	11.1	11.1	126	
	8	500	900	1400	1100	1600	1100	1600	13.7	13.7	117	
	8	600	1100	1600	1200	1800	1300	1900	16.6	16.6	114	
	8	700	1200	1900	1400	2100	1400	2100	19.4	19.4	108	
	8	800	1400	2000	1500	2300	1600	2300	22.2	22.2	104	
	8	940	1500	2200	1700	2500	1700	2600	25.7	25.7	101	
	16	200	800	1300	900	1400	1000	1500	11	11	136	
	16	300	1200	1800	1400	2100	1400	2100	15.8	15.8	133	
	16	400	1600	2400	1800	2700	1900	2800	20.8	20.8	135	
	16	500	1900	2900	2200	3200	2200	3300	25.9	25.9	127	
	16	600	2300	3300	2500	3700	2600	3900	31.1	31.1	125	
	16	700	2500	3800	2800	4200	2900	4300	36.4	36.4	118	
	16	850	2900	4300	3200	4800	3300	4900	44.5	44.5	110	
	24	200	1300	1900	1400	2100	1500	2200	15.4	15.4	143	
	24	300	1900	2800	2100	3100	2200	3200	22.5	22.5	142	
	24	400	2500	3600	2700	4100	2800	4200	29.9	29.9	140	
	24	590	3400	5000	3800	5600	3900	5800	44.5	44.5	130	
	24	600	3400	5000	3800	5600	3900	5800	45.5	45.5	127	
	24	700	3800	5700	4300	6300	4400	6500	53.5	53.5	121	
	24	800	4200	6200	4700	6900	4800	7100	61.5	61.5	115	
	24	900	4500	6700	5000	7400	5200	7700	69.5	69.5	111	
	24	1000	4800	7000	5300	7800	5500	8100	78	78	104	

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		Luminaire output flux (lm) Warm White 730		Luminaire output flux (lm) Neutral White 740		Power consumption (W)		Luminaire efficacy (lm/W)	Photometry
			Min	Max	Min	Max	Min	Max	Min	Max	Up to	
YOA MIDI	32	200	1700	2500	1900	2800	2000	2900	20	20	145	
	32	300	2500	3700	2800	4200	2900	4300	29.6	29.6	145	
	32	450	3600	5400	4000	6000	4200	6200	45.5	45.5	136	
	32	500	3900	5800	4400	6500	4500	6700	50	50	134	
	32	600	4600	6800	5100	7500	5300	7800	60	60	130	
	32	700	5100	7600	5700	8400	5900	8700	70	70	124	
	32	800	5600	8300	6200	9200	6500	9500	80	80	119	
	40	200	2200	3200	2400	3600	2500	3700	24.5	24.5	151	
	40	350	3600	5400	4100	6000	4200	6200	42.5	42.5	146	
	40	400	4100	6100	4600	6800	4700	7000	48.5	48.5	144	
	40	500	4900	7300	5500	8100	5700	8400	61	61	138	
	40	600	5700	8500	6400	9400	6600	9800	73	73	134	
	40	700	6400	9500	7200	10600	7400	10900	85	85	128	
	40	800	7000	10400	7800	11500	8100	11900	98	98	121	
	48	200	2600	3800	2900	4300	3000	4400	28.9	28.9	152	
	48	300	3800	5600	4300	6300	4400	6500	43	43	151	
	48	400	5000	7300	5500	8200	5700	8500	57.5	57.5	148	
	48	550	6400	9500	7200	10600	7400	11000	80	80	138	
	48	600	6900	10200	7700	11300	7900	11700	86	86	136	
	48	700	7700	11400	8600	12700	8900	13100	101	101	130	
48	800	8400	12400	9400	13900	9700	14300	116	116	123		

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Luminaire	Number of LEDs	Current (mA)	Luminaire output flux (lm) Warm White 727		Luminaire output flux (lm) Warm White 730		Luminaire output flux (lm) Neutral White 740		Power consumption (W)		Luminaire efficacy (lm/W) Up to	Photometry
			Min	Max	Min	Max	Min	Max	Min	Max		
YOA MAXI	64	200	4300	5400	4800	6000	5000	6300	38	38	166	
	64	300	6200	7700	6900	8600	7100	8900	56.5	56.5	158	
	64	420	8200	10200	9100	11300	9400	11700	80	80	146	
	64	500	9300	11600	10400	13000	10700	13400	95	95	141	
	64	600	10600	13300	11900	14800	12300	15300	114	114	134	
	64	700	11800	14700	13100	16400	13600	16900	134	134	126	
	80	200	5400	6800	6100	7600	6300	7800	47	47	166	
	80	300	7700	9700	8600	10800	8900	11100	70	70	159	
	80	400	9800	12200	10900	13600	11300	14100	94	94	150	
	80	500	11700	14500	13000	16200	13400	16800	118	118	142	
	80	600	13300	16600	14800	18500	15300	19100	142	142	135	
	80	700	14700	18400	16400	20500	17000	21200	167	167	127	
	96	200	6500	8200	7300	9100	7500	9400	56.5	56.5	166	
	96	300	9300	11600	10400	12900	10700	13400	84	84	160	
	96	350	12800	12800	14300	14300	14700	14700	98	98	150	
	96	400	11800	14700	13100	16400	13600	16900	112	112	151	
	96	500	14000	17500	15600	19500	16100	20100	141	141	143	
	96	530	14700	18400	16400	20500	17000	21100	150	150	141	
96	600	16000	19900	17800	22200	18400	22900	170	170	135		

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



