

# 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



005  
certification



URBAN & RESIDENTIAL  
STREETS



BRIDGES



BIKE & PEDESTRIAN  
PATHS



RAILWAY STATIONS &  
METROS



CAR PARKS



SQUARES & PEDESTRIAN  
AREAS



ROADS &  
MOTORWAYS

## Concept

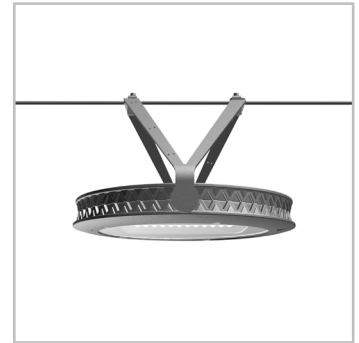
Built with recyclable materials - aluminium and glass - the YOA luminaire is available in two sizes: YOA Midi with up to 48 LEDs and YOA Maxi with up to 96 LEDs. YOA Midi is particularly suited to lighting residential areas, urban roads, parks, squares, pedestrian zones whereas YOA Maxi is ideal for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

To simplify installation and maintenance operations, YOA introduces patented technologies such as the IzyHub compact connection and connectivity module, for quick, error-proof wiring. This connected-ready luminaire offers a realistic platform for smart cities.

YOA also 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
- 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
- Smart-city ready (NEMA) and ZD4i compliant (Zhaga)



Yoa offers a high-quality finish.



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



LensoFlex®2

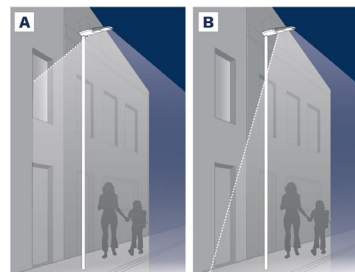
LensoFlex®2 is based upon the addition principle of photometric distribution. Each LED is associated with a specific PMMA lens that generates the complete photometric distribution of the luminaire. The number of LEDs in combination with the driving current determines the intensity level of the light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



Back Light control

As an option, the LensoFlex®2 and LensoFlex®4 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.



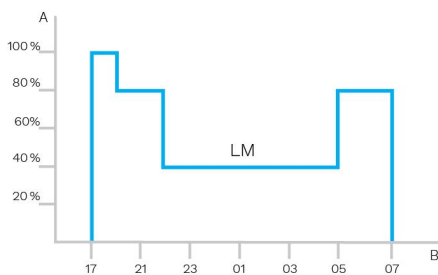
A. Without Back Light control | B. With Back Light control



### 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.

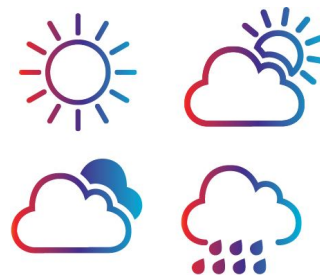


A. Dimming level | B. Time



### 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.

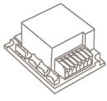


### PIR sensor: motion detection

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 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.





# IzyHub

IzyHub is an innovative device that aims to keep luminaire installation and maintenance hassle-free. This single central connection hub distributes electricity and control information to all parts of the luminaire, ensuring that all components work together and offering reliable, long-term performance.

Its compact size and error-proof connections enable smaller and lighter luminaires that are easier to maintain and upgrade.



## Surge Protection

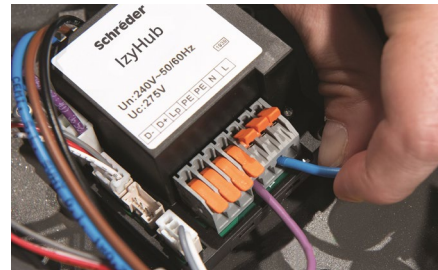
IzyHub features a built-in surge protection device. This prevents electrical surges resulting from lightning strikes and other transient voltages that originate from the mains network from damaging the luminaire, even in the most demanding conditions. The protective device also includes an end-of-life LED warning light, indicating that the luminaire is protected correctly.

## User-friendly

Installing a luminaire has never been easier. IzyHub features tool-free connector as the main connection terminal. It enables 30% shorter installation times compared with standard solutions. Lever actuated spring-loaded electrical connectors provide optimal contact throughout the entire life of the product.

## Easy maintenance

On the rare occasion that a component needs to be replaced in the luminaire, IzyHub makes sure that operations are carried out quickly and easily. Luminaire component connections are keyed so that mixing up electrical connections is physically impossible. Installers do not need to trace wires individually: plug it in, and it works straight away.



## Versions and upgrades

IzyHub has several versions featuring different connectivity options.

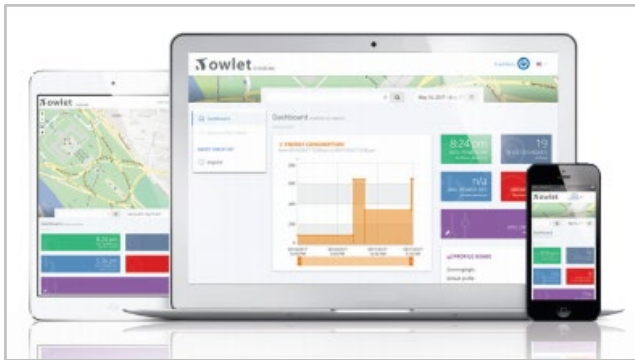
IzyHub can include an SPD, can work with external dimming and operate with all type of control sockets. It is also able to provide bi-power control and to include fuse options.

These options provide flexibility for future upgrades by only having to replace the IzyHub to connect the new equipment. No complicated re-wiring needed.



# 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 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

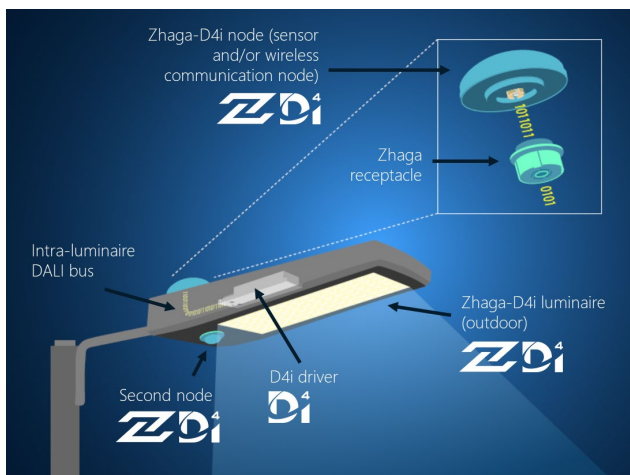
As a founding member of the Zhaga consortium, Schröder has participated in the creation of, and therefore supports, the Zhaga-D4i certification program and the initiative of this group to standardise an interoperable ecosystem. The D4i specifications take the best of the standard DALI2 protocol and adapt 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.





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

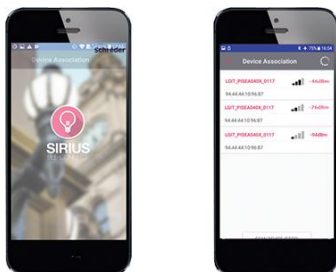


### Easy to use

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.

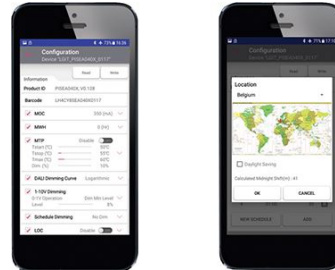
### Quick and easy pairing

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

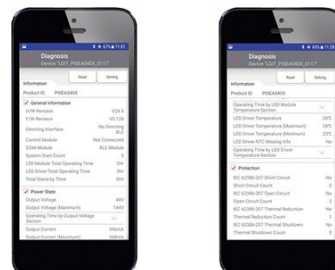
The App enables you to do a manual override to adapt the dimming levels instantly. Simply tap on the "Dimming" button in the main menu and adjust the dimming using the wheel and button. Predefined dimming levels can be applied immediately. The

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 12m   13' to 39'
Driver included	Yes
CE mark	Yes
ENEC certified	Yes
ROHS compliant	Yes
French law of December 27th 2018 - Compliant with application type(s)	a, b, c, d, e, f, g
BE 005 certified	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	Optional Zhaga socket - Zhaga-D4i certified product NEMA 7-pin (optional)
Associated control system(s)	Sirius BLE Owlet Nightshift Owlet IoT
Sensor	PIR (optional)

**OPTICAL INFORMATION**

LED colour temperature	2200K (Warm White 822) 2700K (Warm White 727) 3000K (Warm White 730) 3000K (Warm White 830) 4000K (Neutral White 740)
Colour rendering index (CRI)	>80 (Warm White 822) >70 (Warm White 727) >70 (Warm White 730) >80 (Warm White 830) >70 (Neutral White 740)
Upward Light Output Ratio (ULOR)	0%

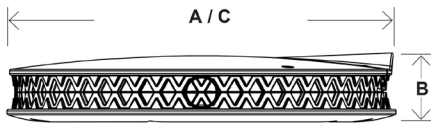
**LIFETIME OF THE LEDS @ TQ 25°C**

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 830		Luminaire output flux (lm) Neutral White 740		Luminaire output flux (lm) Warm White 727		Luminaire output flux (lm) Warm White 730		Luminaire output flux (lm) Warm White 822		Power consumption (W)		Luminaire efficacy (lm/W)	Photometry
			Min	Max	Min	Max	Min	Max	Min	Max	Min	Max	Min	Max		
YOA MIDI	8	350	700	700	800	800	-	-	-	-	-	-	10	10	80	LENSO FLEX <sup>2</sup>
	8	350	700	1000	800	1200	700	1000	800	1200	500	800	8.8	8.8	136	LENSO FLEX <sup>2</sup>
	8	400	800	1200	900	1400	800	1200	900	1300	600	900	11.2	11.2	125	LENSO FLEX <sup>2</sup>
	8	500	1000	1000	1100	1100	-	-	-	-	-	-	14	14	79	LENSO FLEX <sup>2</sup>
	8	500	1000	1400	1100	1700	1000	1400	1100	1600	800	1100	13.7	13.7	124	LENSO FLEX <sup>2</sup>
	8	600	1100	1700	1300	1900	1100	1700	1300	1900	900	1300	16.6	16.6	114	LENSO FLEX <sup>2</sup>
	8	700	1300	1300	1500	1500	-	-	-	-	-	-	19	19	79	LENSO FLEX <sup>2</sup>
	8	700	1200	1900	1400	2100	1200	1900	1400	2100	1000	1500	19.5	19.5	108	LENSO FLEX <sup>2</sup>
	8	800	1400	2100	1600	2400	1400	2100	1600	2300	1100	1700	22.4	22.4	107	LENSO FLEX <sup>2</sup>
	16	221	900	1400	1000	1600	900	1400	1000	1500	700	1100	45	45	36	LENSO FLEX <sup>2</sup>
	16	300	1200	1800	1400	2100	1200	1800	1400	2100	1000	1400	15.6	15.6	135	LENSO FLEX <sup>2</sup>
	16	350	1500	1500	1700	1700	-	-	-	-	-	-	19	19	89	LENSO FLEX <sup>2</sup>
	16	400	1600	2400	1900	2800	1600	2400	1800	2700	1300	1900	20.6	20.6	136	LENSO FLEX <sup>2</sup>
	16	500	2100	2100	2300	2300	-	-	-	-	-	-	26	26	88	LENSO FLEX <sup>2</sup>
	16	500	2000	2900	2300	3400	2000	2900	2200	3300	1600	2300	25.8	25.8	132	LENSO FLEX <sup>2</sup>
	16	600	2300	3400	2700	3900	2300	3400	2600	3800	1800	2700	31	31	126	LENSO FLEX <sup>2</sup>
	16	700	2700	2700	3000	3000	-	-	-	-	-	-	38	38	79	LENSO FLEX <sup>2</sup>
	16	700	2600	3900	3000	4400	2600	3900	2900	4300	2100	3000	35.9	35.9	123	LENSO FLEX <sup>2</sup>
	16	800	2900	4300	3300	4900	2900	4300	3200	4700	2300	3400	41.5	41.5	118	LENSO FLEX <sup>2</sup>
	24	200	1300	1900	1500	2200	1300	1900	1400	2100	1000	1500	15.8	15.8	139	LENSO FLEX <sup>2</sup>
	24	300	1900	2800	2200	3200	1900	2800	2100	3100	1500	2200	23	23	139	LENSO FLEX <sup>2</sup>
	24	350	2300	2300	2600	2600	-	-	-	-	-	-	28	28	93	LENSO FLEX <sup>2</sup>
	24	400	2500	3600	2800	4200	2500	3600	2700	4100	1900	2900	30.4	30.4	138	LENSO FLEX <sup>2</sup>
	24	500	3200	3200	3500	3500	-	-	-	-	-	-	39	39	90	LENSO FLEX <sup>2</sup>
	24	590	3400	5100	4000	5900	3400	5100	3800	5700	2700	4000	44.5	44.5	133	LENSO FLEX <sup>2</sup>
	24	600	3500	5100	4000	5900	3500	5100	3900	5700	2700	4100	45	45	131	LENSO FLEX <sup>2</sup>
	24	700	4100	4100	4500	4500	-	-	-	-	-	-	55	55	82	LENSO FLEX <sup>2</sup>
	24	700	3900	5800	4500	6700	3900	5800	4400	6500	3100	4600	53	53	126	LENSO FLEX <sup>2</sup>
	24	800	4300	6400	5000	7400	4300	6400	4800	7100	3400	5100	60.5	60.5	122	LENSO FLEX <sup>2</sup>
	32	200	1700	2500	1900	2900	1700	2500	1900	2800	1300	2000	20.5	20.5	141	LENSO FLEX <sup>2</sup>

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



Luminaire	Number of LEDs	Current (mA)	Luminaire output flux (lm) Warm White 830		Luminaire output flux (lm) Neutral White 740		Luminaire output flux (lm) Warm White 727		Luminaire output flux (lm) Warm White 730		Luminaire output flux (lm) Warm White 822		Power consumption (W)		Luminaire efficacy (lm/W)	Photometry
			Min	Max	Min	Max	Min	Max	Min	Max	Min	Max	Min	Max		
YOA MIDI	32	300	2500	3700	2900	4300	2500	3700	2800	4200	2000	2900	29.8	29.8	144	LENSO FLEX <sup>2</sup>
	32	350	3100	3100	3400	3400	-	-	-	-	-	-	37	37	92	LENSO FLEX <sup>2</sup>
	32	400	3300	4900	3800	5600	3300	4900	3700	5400	2600	3800	39.5	39.5	142	LENSO FLEX <sup>2</sup>
	32	450	3600	5400	4200	6200	3600	5400	4000	6000	2900	4200	44.5	44.5	139	LENSO FLEX <sup>2</sup>
	32	500	4200	4200	4700	4700	-	-	-	-	-	-	52	52	90	LENSO FLEX <sup>2</sup>
	32	500	4000	5900	4600	6800	4000	5900	4500	6600	3200	4700	49	49	139	LENSO FLEX <sup>2</sup>
	32	600	4700	6900	5400	7900	4700	6900	5200	7700	3700	5400	59.5	59.5	133	LENSO FLEX <sup>2</sup>
	32	700	5500	5500	6100	6100	-	-	-	-	-	-	72	72	85	LENSO FLEX <sup>2</sup>
	32	700	5300	7800	6100	8900	5300	7800	5900	8600	4200	6100	69.5	69.5	128	LENSO FLEX <sup>2</sup>
	32	800	5800	8600	6700	9900	5800	8600	6500	9500	4600	6800	82	82	121	LENSO FLEX <sup>2</sup>
	40	200	2200	3200	2500	3700	2200	3200	2400	3600	1700	2500	25.3	25.3	146	LENSO FLEX <sup>2</sup>
	40	350	3900	3900	4300	4300	-	-	-	-	-	-	44	44	98	LENSO FLEX <sup>2</sup>
	40	350	3600	5400	4200	6200	3600	5400	4100	6000	2900	4300	43	43	144	LENSO FLEX <sup>2</sup>
	40	400	4100	6100	4700	7000	4100	6100	4600	6800	3200	4800	49	49	143	LENSO FLEX <sup>2</sup>
	40	500	5300	5300	5900	5900	-	-	-	-	-	-	64	64	92	LENSO FLEX <sup>2</sup>
	40	500	4900	7300	5700	8400	4900	7300	5500	8100	3900	5800	61.5	61.5	137	LENSO FLEX <sup>2</sup>
	40	600	5700	8500	6600	9800	5700	8500	6400	9400	4500	6700	73	73	134	LENSO FLEX <sup>2</sup>
	40	700	6900	6900	7600	7600	-	-	-	-	-	-	93	93	82	LENSO FLEX <sup>2</sup>
	40	700	6400	9500	7400	10900	6400	9500	7200	10600	5100	7500	87	87	125	LENSO FLEX <sup>2</sup>
	40	800	7000	10400	8100	11900	7000	10400	7800	11500	5600	8200	100	100	119	LENSO FLEX <sup>2</sup>
	48	200	2500	3800	2900	4400	2500	3800	2800	4200	2000	3000	29.6	29.6	149	LENSO FLEX <sup>2</sup>
	48	300	3800	5600	4400	6500	3800	5600	4200	6300	3000	4400	44	44	148	LENSO FLEX <sup>2</sup>
	48	350	4400	6500	5100	7500	4400	6500	4900	7200	3500	5100	51	51	147	LENSO FLEX <sup>2</sup>
	48	400	5000	7300	5700	8500	5000	7300	5500	8200	3900	5800	58.5	58.5	145	LENSO FLEX <sup>2</sup>
	48	500	6000	8900	6900	10300	6000	8900	6700	9900	4800	7000	73	73	141	LENSO FLEX <sup>2</sup>
	48	550	6500	9600	7500	11100	6500	9600	7300	10700	5200	7600	80	80	139	LENSO FLEX <sup>2</sup>
	48	600	7000	10300	8100	11900	7000	10300	7800	11500	5500	8200	89	89	134	LENSO FLEX <sup>2</sup>
	48	700	7900	11700	9100	13400	7900	11700	8800	13000	6300	9200	104	104	129	LENSO FLEX <sup>2</sup>
48	760	8400	12400	9700	14300	8400	12400	9400	13800	6700	9800	110	110	130	LENSO FLEX <sup>2</sup>	

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



Luminaire	Number of LEDs	Current (mA)	Luminaire output flux (lm) Warm White 830		Luminaire output flux (lm) Neutral White 740		Luminaire output flux (lm) Warm White 727		Luminaire output flux (lm) Warm White 730		Luminaire output flux (lm) Warm White 822		Power consumption (W)		Luminaire efficacy (lm/W)	Photometry
			Min	Max	Min	Max	Min	Max	Min	Max	Min	Max	Min	Max		
YOA MAXI	64	200	4200	5300	4800	6100	4200	5300	4700	5900	3300	4200	39.5	39.5	154	
	64	300	6100	7700	7100	8900	6100	7700	6800	8600	4800	6100	58	58	153	
	64	400	7900	10000	9100	11500	7900	10000	8800	11100	6300	7900	77	77	149	
	64	420	8300	10400	9500	12000	8300	10400	9200	11600	6500	8300	81	81	148	
	64	500	9600	12100	11000	13900	9600	12100	10700	13500	7600	9600	99	99	140	
	64	600	11100	14000	12800	16100	11100	14000	12400	15600	8800	11100	118	118	136	
	80	200	5200	6600	6000	7600	5200	6600	5800	7400	4100	5200	48.5	48.5	157	
	80	300	7700	9700	8800	11200	7700	9700	8500	10800	6100	7700	72	72	156	
	80	400	9900	12500	11400	14400	9900	12500	11100	13900	7900	9900	96	96	150	
	80	500	12000	15100	13800	17400	12000	15100	13400	16900	9500	12000	121	121	144	
	80	600	13900	17500	16000	20200	13900	17500	15500	19500	11000	13900	147	147	137	
	96	200	6300	8000	7300	9200	6300	8000	7000	8900	5000	6300	58	58	159	
	96	300	9200	11600	10600	13400	9200	11600	10300	13000	7300	9200	86	86	156	
	96	400	11900	15000	13700	17300	11900	15000	13300	16700	9400	11900	114	114	152	
	96	500	14400	18200	16600	20900	14400	18200	16100	20200	11400	14400	145	145	144	
	96	530	15100	19100	17400	22000	15100	19100	16800	21200	12000	15100	153	153	144	
96	580	15600	19700	18000	22700	15600	19700	17400	22000	12400	15600	164	164	138		

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

