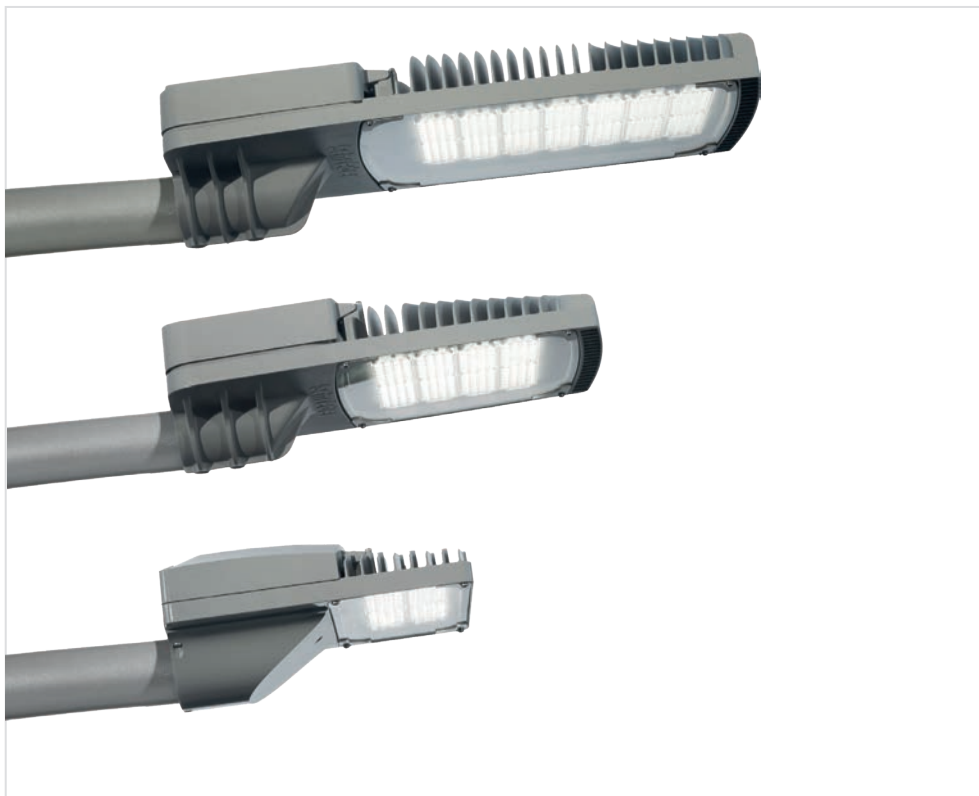


# AVENTO



## Delivering high efficacy at an affordable price

Compact but powerful, light but robust, affordable but highly efficient, the Avento provides the fastest return on investment in road and area lighting.

The Avento offers a superior lumen/watt ratio to deliver a high-performing, energy efficient, lighting solution at an affordable price for various landscapes including pedestrian zones, streets, roads, car parks and motorways.

The Avento is available in three sizes to provide a consistent solution in terms of the right lumen package and light distribution for a broad range of environments. It ensures that the lighting meets the real needs of the place to be lit.

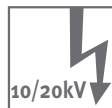
The Avento is the ideal tool to shorten the payback time of an LED lighting installation and to provide the best return on investment.



IP 66

IK 09

IK 10



MOTORWAY



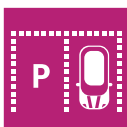
URBAN ROAD

RESIDENTIAL  
ROADSQUARE  
AND PARK

BIKE PATH



ROUNDAABOUT



CAR PARK

TRAIN  
STATION



## CONCEPT

The Avento range combines the energy efficiency of LED technology with the photometric performance of the MidFlex™ concept developed by Schröder. This photometric engine provides the highest efficiency in a very compact optical compartment. It offers scalable lumen packages with modular quantities of LEDs and various driving currents.

The Avento luminaires are composed of two parts in painted die-cast aluminium. The luminaire is equipped with two silicone gaskets, one for the gear compartment and one for the optical unit, to ensure a high tightness level and maintain performance over time.

Avento 1 and Avento 2 is delivered with a covered mounting part while Avento S is available with an optional black polypropylene accessory to cover the mounting part. The Avento is designed for side-entry mounting with a universal fixation for spigots from 42 to 60mm (1.5" to 2"). The Avento S also provides on-site adjustment in 5° angles (-10° to +5°).

To ease maintenance operations, Avento 1 and Avento 2 offer a tool free access to the gear compartment.

As an option, the Avento can be equipped with a standard NEMA 7-pin receptacle, enabling easy entry to the digital era of lighting while ensuring compatibility with advanced lighting features that plan, monitor and control outdoor lighting networks.



Avento 1 and Avento 2 provide a tool free access to the gear compartment.



Avento includes a universal Ø42-60mm fixation part for side entry-mounting.

## TYPES OF APPLICATION

- Road and motorway
- Urban road and street
- Residential street
- Square and pedestrian area
- Roundabout
- Bike path
- Car park
- Train station

## KEY ADVANTAGES

- Cost-effective and efficient lighting solution
- Superior efficacy: from 125 to 130lm/W, depending on the model
- Accelerated return on investment
- 3 sizes for flexibility and consistency when lighting P1 to P6 and M1 to M6 applications in accordance with CIE 115
- Easy and fast installation
- Wide temperature operating range: Ta from -40°C (-40°F) up to +55°C (+131°F)
- Dark sky compliant: ULOR = 0%, no up-light
- Ready for Smart City connectivity with NEMA 7-pin socket



To ensure an optimal thermal management in hot conditions, Avento incorporates large cooling fins.



The Avento can be delivered with a shorting cap to add IoT features at any time in the future.



**MidFlex™**

The MidFlex™ photometric engine is based on the same principle as LensoFlex®2: each LED is associated with a specific lens that generates the complete photometric distribution of the luminaire. The glass protector guarantees an IP 66 tightness level for the optical compartment, providing long lasting performance. The main difference is the type of LEDs fitted in the luminaire.

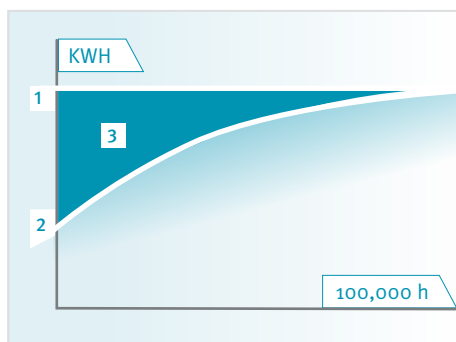
MidFlex™ takes advantage of the maturity of mid-power LEDs for professional applications. The MidFlex™ photometric engines are based on the combination of several modules of 48 mid-power LEDs tightly positioned to maximise the LED density. This concept provides high lumen packages with a limited product footprint. The MidFlex™ photometric engines offers excellent efficiency for a sustainable performance.





## Constant Light Output (CLO)

This system compensates for the depreciation of luminous flux to avoid excess lighting at the beginning of the installation's service life. Luminous depreciation over time must be taken into account to ensure a predefined lighting level during the luminaire's useful life. Without a CLO feature, this simply means increasing the initial power upon installation in order to make up for luminous depreciation. By precisely controlling the luminous flux, the energy needed to reach the required level can be maintained throughout the luminaire's life.

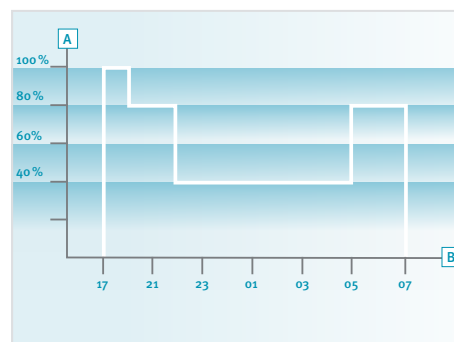


1. Standard lighting level
2. LED lighting consumption with CLO
3. Energy savings



## 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.

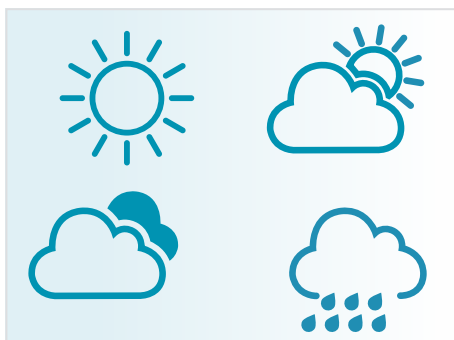


- A. Performance
- B. Time



## Daylight sensor / photocell

Photocell or daylight sensors switch the luminaire on as soon as 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 night fall so as to provide safety and comfort in public spaces.





## 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%.



Plugging the LUCO P7 CM controller onto the 7-pin NEMA socket

### 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.



## GENERAL INFORMATION

Recommended installation height	4m to 12m   13' to 40'
FutureProof	Easy replacement of the photometric engine and electronic assembly on-site
Driver included	Yes
CE mark	Yes
ENEC certified	Yes
ROHS compliant	Yes
Testing standard	LM 79-80 (all measurements in ISO17025 accredited laboratory)

## HOUSING AND FINISH

Housing	High-pressure die-cast aluminium
Optic	PMMA
Protector	Glass
Top cover	Avento S: polypropylene Avento 1: aluminium Avento 2: aluminium
Mounting cover (Avento S)	Polypropylene
Housing finish	Polyester powder coating
Colour	RAL 7040 light grey Any other RAL or AKZO colour upon request
Tightness level	IP 66
Impact resistance	IK 09 (Avento S and Avento 1) IK 10 (Avento 2)
Vibration standard	Compliant with modified IEC 68-2-6 (0.5G)
Access for maintenance	Direct access to the gear compartment by pinching stainless steel spring lock on the top cover (Avento 1 and Avento 2) or by unscrewing 2 screws

## DIMENSIONS AND MOUNTING

AxBxC (mm   inch)	<b>Avento S</b> – 85x335x308   3.3x13.2x12.1 <b>Avento 1</b> – 114x485x310   4.5x19x12.2 <b>Avento 2</b> – 159x655x359   6.2x25.8x14.1
Weight (kg   lbs)	<b>Avento S</b> – 5   11 <b>Avento 1</b> – 8.1   17.6 <b>Avento 2</b> – 11.7   25.8
Aerodynamic resistance (CxS)	<b>Avento S</b> – 0.062 <b>Avento 1</b> – 0.037 <b>Avento 2</b> – 0.061
Standard mounting	Universal side-entry Ø42-60mm (1.25"-2")
Optional mounting	Post-top adaptors Ø42mm (1.25") or Ø60mm (2")

## ELECTRICAL INFORMATION

Electrical class	<b>Avento S:</b> EU class I or II <b>Avento 1:</b> EU class I <b>Avento 2:</b> EU class I
Nominal voltage	220-240V – 50-60Hz
Power factor	> 90% at full load
Surge protection	10/20kV
Electromagnetic compatibility (EMC)	EN 55015 / EN 61000-3-2 / EN 61000-3-3 / EN 61547
Control options	No dimming, custom dimming, CLO, DALI or 0-10V
NEMA socket	7-pin (optional)

## OPTICAL INFORMATION

LED colour temperature	3000K (Warm white) 4000K (Neutral white)
Colour rendering index (CRI)	> 70
Upward Light Output Ratio (ULOR)	0%

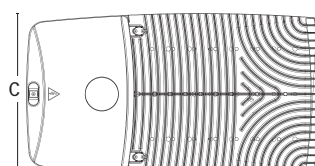
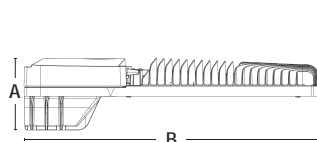
## OPERATING CONDITIONS

Operating temperature range (Ta)	-40 °C up to +55 °C (*) -40 ° F up to 131 ° F (*)
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(\*) Depending on the luminaire configuration. For more details, please contact us.

## LIFETIME OF THE LEDS @ TQ 25°C

Avento S	100,000h – L80B10
Avento 1 & 2	100,000h – L85B10





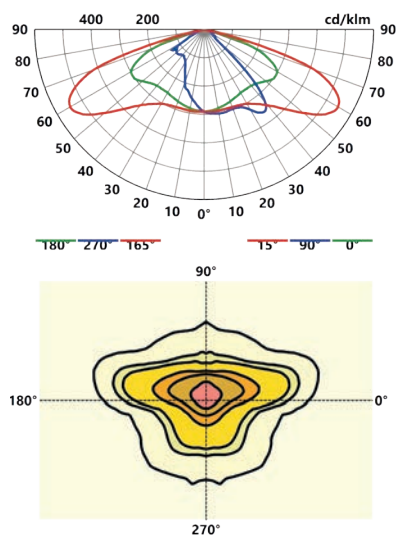
Luminaire	Number of LEDs	Current (mA)	Luminaire output flux (lm) Warm White (3000K) - CRI 70		Luminaire output flux (lm) Neutral White (4000K) - CRI 70		Power consumption (W)		Luminaire efficacy (lm/W)	Photometry
			Min	Max	Min	Max	Min	Max		
AVENTO S	48	83	3100	3200	3200	3300	26.4	26.4	128	
	48	100	3600	3700	3800	3900	32	32	123	
	48	117	4100	4200	4300	4400	37.1	37.1	120	
	48	133	4500	4700	4700	4900	41.5	41.5	119	
	48	143	4800	4900	5000	5200	44.5	44.5	117	
	48	150	4900	5100	5200	5300	48	48	112	
	96	83	6200	6400	6500	6700	50	50	135	
	96	100	7200	7500	7600	7800	61.5	61.5	128	
	96	117	8200	8500	8600	8900	72	72	124	
AVENTO 1	96	116	8300	8600	8700	9000	71	71	128	
	144	116	12500	13100	13100	13700	108	108	127	
	192	116	16700	17400	17500	18200	142	142	129	
AVENTO 2	240	116	20900	22000	21800	23100	179	179	129	
	288	116	25100	26400	26200	27600	213	213	130	
	336	116	29200	30600	30600	32000	249	249	129	

Tolerance on LED flux is  $\pm 7\%$  and on total luminaire power  $\pm 5\%$

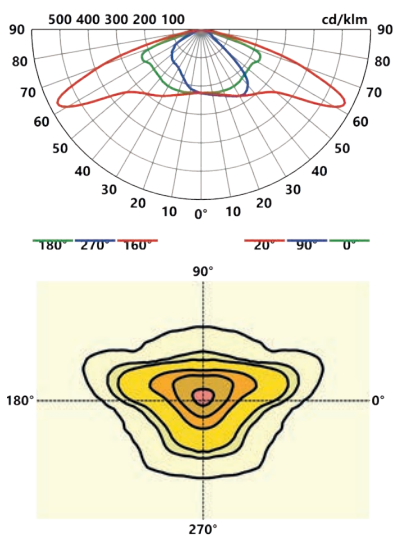




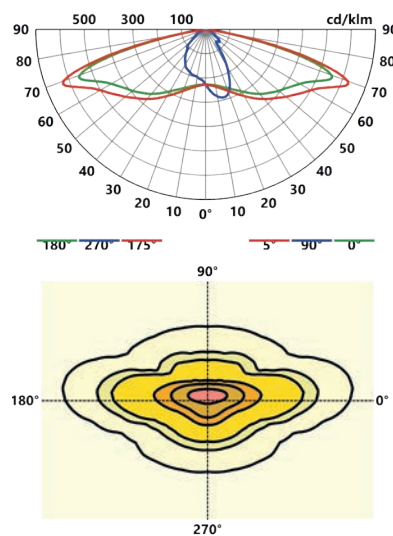
5195 ASY



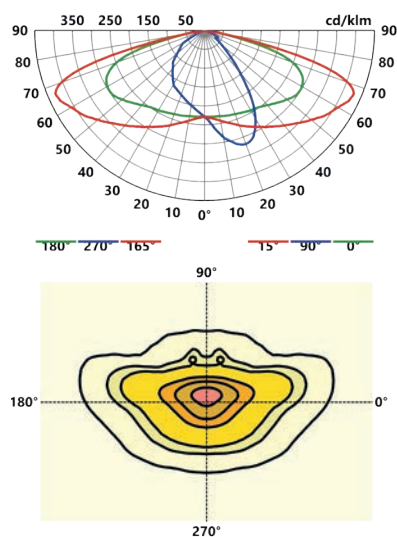
5196 ASY



5256 ASY



5259 ASY



5261 ASY

