



# Smart lighting

## Alexia

Product sheet



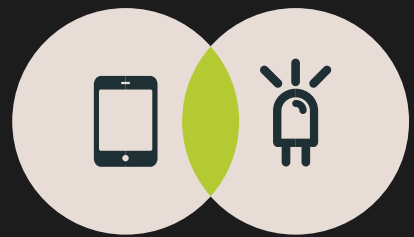
Sustainer 

# Sustainer

## An innovative company with experience

Sustainer is an innovative Dutch company that develops, manufactures and supplies intelligent public lighting and smart-city solutions to local authorities, businesses and other clients across Europe. Our company combines the production expertise of a former Philips luminaire factory, with intelligent public lighting systems from Dazzletek.

Sustainer LED luminaires are designed with the future in mind. We understand what you need to create a smart city, and we offer solutions that will last for years. Treating each lamppost as a central hub, and the area around it as the defining criteria, we can help you to create a sustainable, safe and healthy society.



### A new generation of LED luminaires

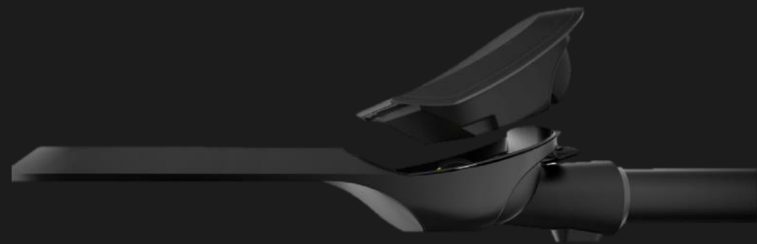
Sustainer is introducing a new generation of advanced LED lighting and luminaires. Developed from our vision of the future, their modular concept and open architecture make them ready now for whatever developments tomorrow will bring. By using LED-technology, sensors and smart software, the energy consumption of Sustainer luminaires is minimized, whilst CO<sub>2</sub> emissions are also reduced.

### Luminaire description

Alexia by Sustainer is an all-round, future-proof luminaire. Choosing this luminaire gives you all the current smart-lighting possibilities – and ensures you are prepared for future developments and opportunities. Via an API, this energy-saving LED luminaire can be connected online to any back-office or other system for remote control and monitoring. The luminaire comes equipped with various sensors which make installation easier, reduce maintenance costs and extend service life. And thanks to a unique cassette system, it is also possible to easily extend the luminaire's capabilities in the future. Just add new sensors to the cassette and turn the luminaire into an advanced smart city hub.

### Advantages

- Energy efficient LED.
- Standard remote control and monitoring through built-in connectivity.
- Easy to expand with sensors and smart applications by simply replacing the cassette.
- No tooling required for cassette replacement, minimizing replacement times and traffic hindrance.
- Smart applications are inconspicuous by design, preventing any unrest from the public.



# The Sustainer **concept**

Our mission is to transform the public lighting network into a sustainable, future-proof and smart infrastructure.



Our **modular cassette** system makes it possible to use the public lighting infrastructure as locations for **sensors** and communication.


We believe in fully **open** technology to enable the city of the future:

- Open hardware (24V / 230V)
- Open API
- Open standards



The cassette, including electronics, makes **maintenance** and **installation** very easy:

- No tooling required
- Quick cassette replacements
- Automatic error reporting and configuration



# Ready for the future, today

## Standard functionality



GPS



Mesh RF



Temp IN



Power Meter



Accelerometer



AMB Light

## Optional functionality\*



Humidity



Camera



Counter



Sound



Gas



Movement



Temp OUT



CO<sub>2</sub>



Wifi



Ethernet



2G/3G/4G



NB-IoT



Fiber

*\*Optional functionalities are custom developed with our clients.*

## Back-office connectivity

The luminaire is exceptionally easy to control and manage via any back-office system for public lighting. Use an API to hook it up to your platform for immediate and optimum control.

## Luminaire features

- Energy-saving LED technology reduces CO<sub>2</sub> emissions.
- Dimmable.
- Constant light output (CLO) throughout full life of the LEDs (100,000 hours).
- Cassette system supports addition of further sensors in the future.

## Luminaire management and maintenance

Thanks to its open architecture, the luminaire can be connected to all back-office systems, using an API. This in turn supports remote monitoring and control that enables you to:

- Configure each luminaire remotely after installation.
- Change configurations remotely.
- Map and monitor your installed base using GPS positioning.
- Monitor the performance of each luminaire remotely.
- Measure the actual energy use of each luminaire.
- Receive errors and defects on luminaire level.

## Applications

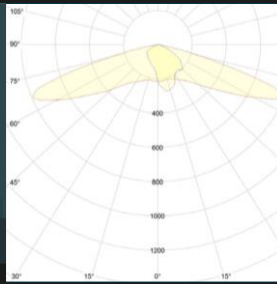
- Urban areas: city centres, squares, parks and car parks.
- Roads: through roads, roundabouts and cycle paths.
- Residential areas: streets, shopping centres, cycle paths, footpaths, playgrounds and car parks.
- Large sites: industrial parks, ports, airports and stations.

## Quality marks

The luminaire is CE, ENEC, RoHS and DEKRA LED Performance certified.

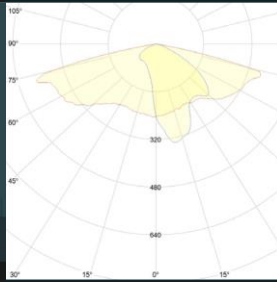


### Bike path



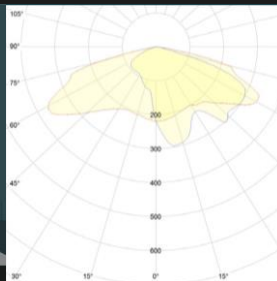
stal 1

### Street symmetrical



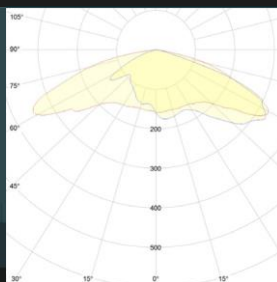
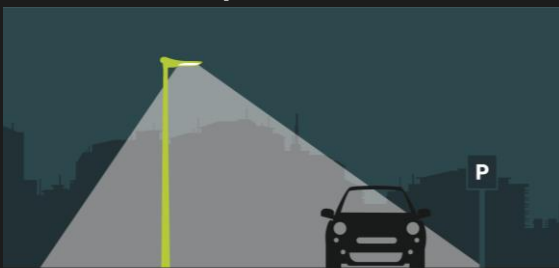
stal 2

### Street asymmetrical



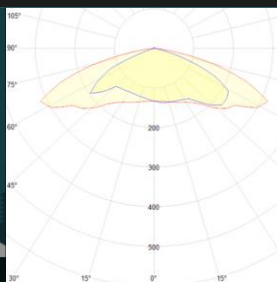
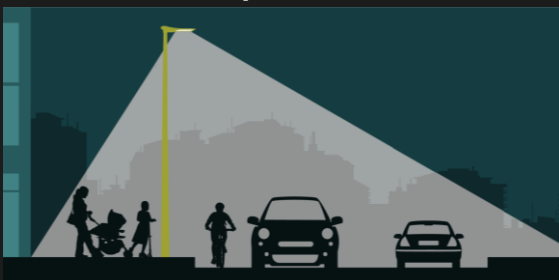
stal 3

### Wide street symmetrical / Area



stal 4

### Wide street asymmetrical / Area



stal 5

Optional: shades for reduction of 'backlight'.

# Sustainer Alexia

## Technical specifications

Lumen/power with standard sensors and RF-module			Typical luminaire output (lm) – Excl. CLO <sup>1,2</sup>			
#LEDs	Driver	Power	2200K	3000K	4000K	5700K
24 LED	25W	7 – 23W	800 – 2.700	800 – 2.800	800 – 2.800	900 – 2.900
	40W	24 – 37W	2.800 – 4.300	2.900 – 4.400	2.900 – 4.400	3.000 – 4.600
	60W	38 – 54W	4.400 – 6.200	4.500 – 6.500	4.500 – 6.500	4.700 – 6.800
32 LED	90W	55 – 92W	6.300 – 10.600	6.600 – 11.000	6.600 – 11.000	6.900 – 11.500
Maintenance						
LED			L90 F10 up to 100.000 hrs @ Ta = 25°C			
Driver			up to 100.000 hrs @ Tc = 70°C			
Lighting Classes (EN 13201)						
Conflict areas			C0 – C5			
Motorway			M4 – M6			
Residential areas			P1 – P7			
Color Rendering Index						
CRI			>70			
Mains Voltage						
AC			90 .. 305 V ac			
Net Frequency			47 .. 63 Hz			
Safety Class			I or II			
Surge Protection						
			10 kV			
LED Driver						
Dimmable			30 .. 100%			
Wireless Mesh Communication						
Frequency			869.525 MHz +/-30 ppm			
Output power			16 dBm			
Sensitivity			-105 dBm			
Baudrate			130 kb/s			
RF Range			121 dB			
Material						
Housing			Die-cast aluminum LM6-quality non-corrosive			
Guard			Glass			
Cassette			PC			
Color			Standard: NOIR2100 or GRIS2150 / Optional: any RAL color			

<sup>1</sup>Communicated values are subject to tolerances in technology. For example, the initial flux and power consumption of the luminaire are indicative values and valid for 25°C ambient temperature. The real flux output depends on environmental conditions (such as temperature) and may vary with specific configurations. For more information please check [www.sustainer.com](http://www.sustainer.com).

<sup>2</sup>Bi-color options are also available. Please contact Sustainer for more information.

Specifications may change and should be treated as an indication only. You are welcome to contact us about your needs.

# Sustainer Alexia

## Technical specifications

Environmental	
Operating temperature	-40 .. +50°C
IP rating	IP66
IK rating Housing / Guard	IK10 / IK08

Installation	
Spigot diameter	60 or 76 mm
Height	4 .. 12 m
Side entry	-20° .. +10° (in steps of 5°)
Post top	0° .. +30° (in steps of 5°)

Cable	
Cable gland	M20
Cable clamping range	6 .. 11 mm

Dimensions	
Length (excl. Spigot)	605 mm
Width	300 mm
Height (excl. Spigot)	134 mm
Weight	7.5 kg

### Sensors

Power meter	
Resolution	0.5 W
Accuracy 1 .. 5 W	0.5W
Accuracy 5 .. 90W	±5.0%

Temperature (for internal temperature)	
Measurement range	-25 .. 100°C
Accuracy	±1.0°C

Accelerometer (tilt detection)	
Resolution	0.22 degrees
Accuracy	±0.5 degrees

Ambient Light	
Measurement range	1 .. 100k lux

GNSS (Location – Position on map)	
Signals	GPS, Beidou
Accuracy	CEP50 ≤ 2.5m

Motion sensor	
Optional integrated in spigot	

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## Contact

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