SensyCity®

SENSING ECOSYSTEM
FOR OUTDOOR LIGHTING

City
LACROIX

Maximise energy savings while maintaining safety & the nighttime environment

SensyCity®

- Pedestrian zone
- Park, municipal park
- Bicycle path
- Residential area
- Drop-off zone
- Parking
- Traffic

SENSYCITY IS THE 1ST COMMUNICATING SENSING ECOSYSTEM FOR OUTDOOR LIGHTING

Intelligent and **standalone**, it adjusts the lighting to the activity and the user's need.

COMFORT & WELL-BEING
Guarantee service quality and safety

SUSTAINABLE DEVELOPMENT
Reduce carbon impact and light pollution

CONTROL ENERGY CONSUMPTION
Outdoor lighting represents up to **40%** of city electricity expenses

Lighting comparison
on these areas

Up to **80%** energy savings

	100% LIGHTING	0% LIGHTING	SENSYCITY LIGHTING
Savings	🔴	🟢	🟢
Safety	🟢	🔴	🟢
Light pollution	🔴	🟢	🟢
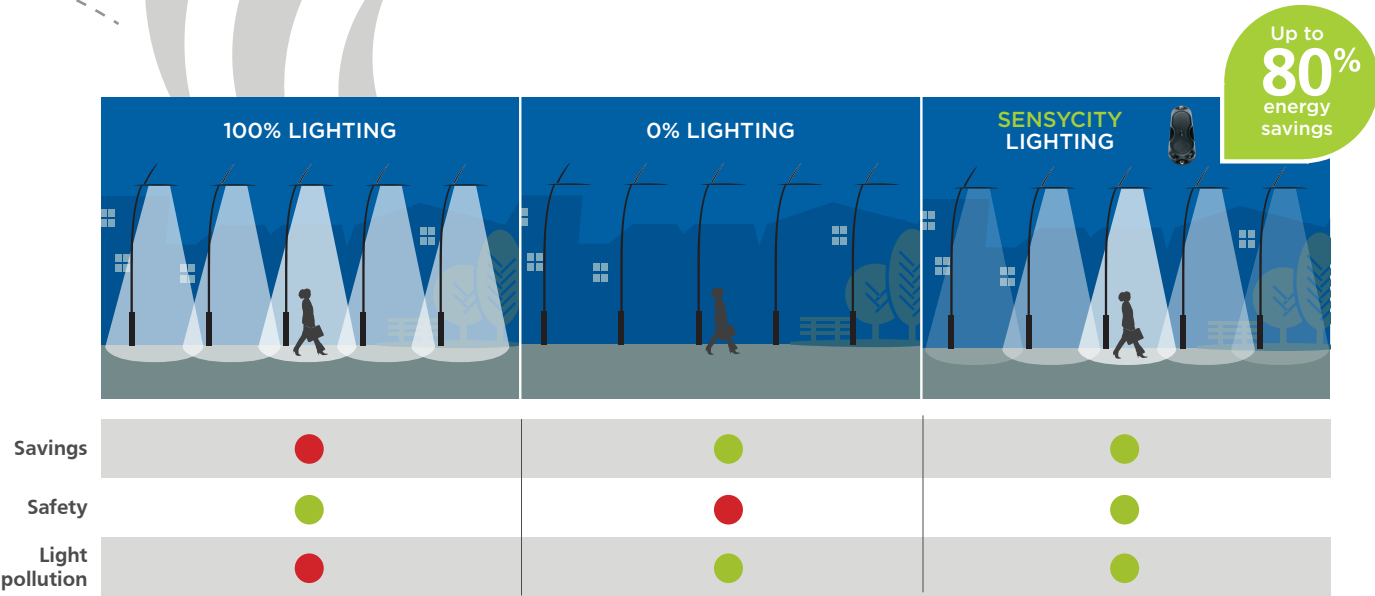
SensyCity, the outdoor lighting solution best suited to meet the needs of municipalities.

Savings: energy savings at night (mainly during low activity periods).
Safety: for people and goods in the street at night.
Light pollution: citizens, plants and animals that could be disturbed by light pollution.

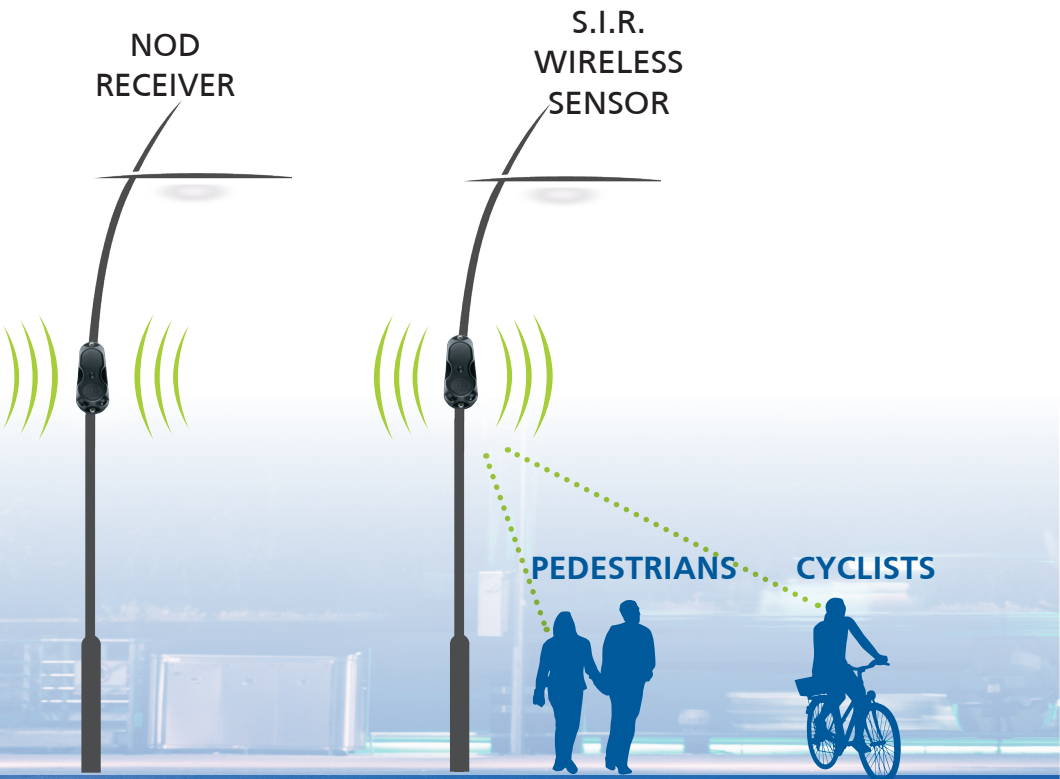# SensyCity, communicating ecosystem to adjust light
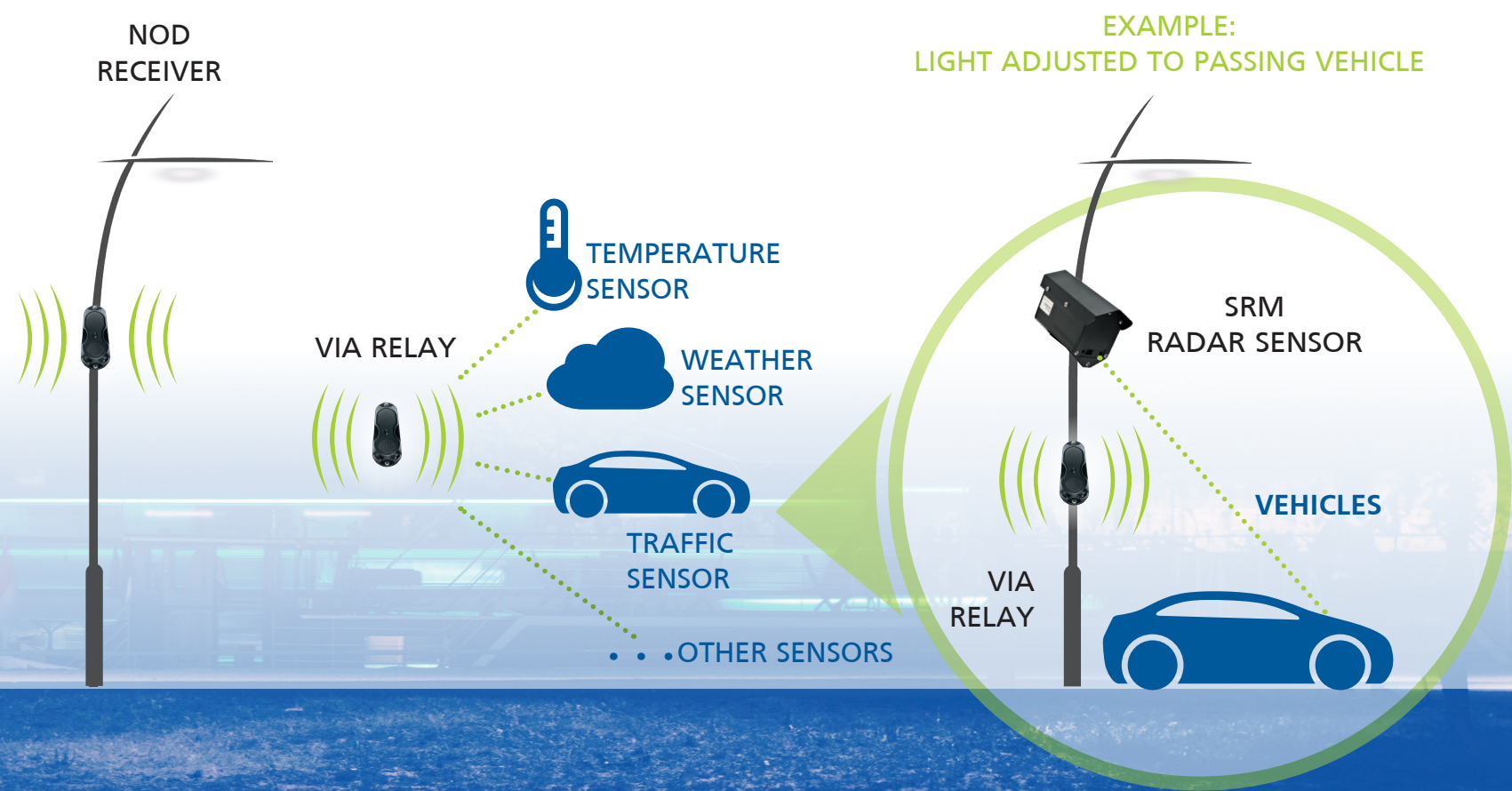
INNOVATIVE SOLUTION

SensyCity allows light to be adjusted thanks to local, **real time** wireless communication between lighting points.
Open to the various sensors of the city, SensyCity is highly **interoperable.**

SensyCity®

Detection of pedestrians and bicycles

NOD RECEIVER

S.I.R. WIRELESS SENSOR

PEDESTRIANS   CYCLISTS

Detection through various sensors

NOD RECEIVER

EXAMPLE:
LIGHT ADJUSTED TO PASSING VEHICLE

VIA RELAY

TEMPERATURE SENSOR

WEATHER SENSOR

TRAFFIC SENSOR

• • • OTHER SENSORS

SRM RADAR SENSOR

VIA RELAY

VEHICLES

SensyCity, dedicated sensing system for outdoor lighting
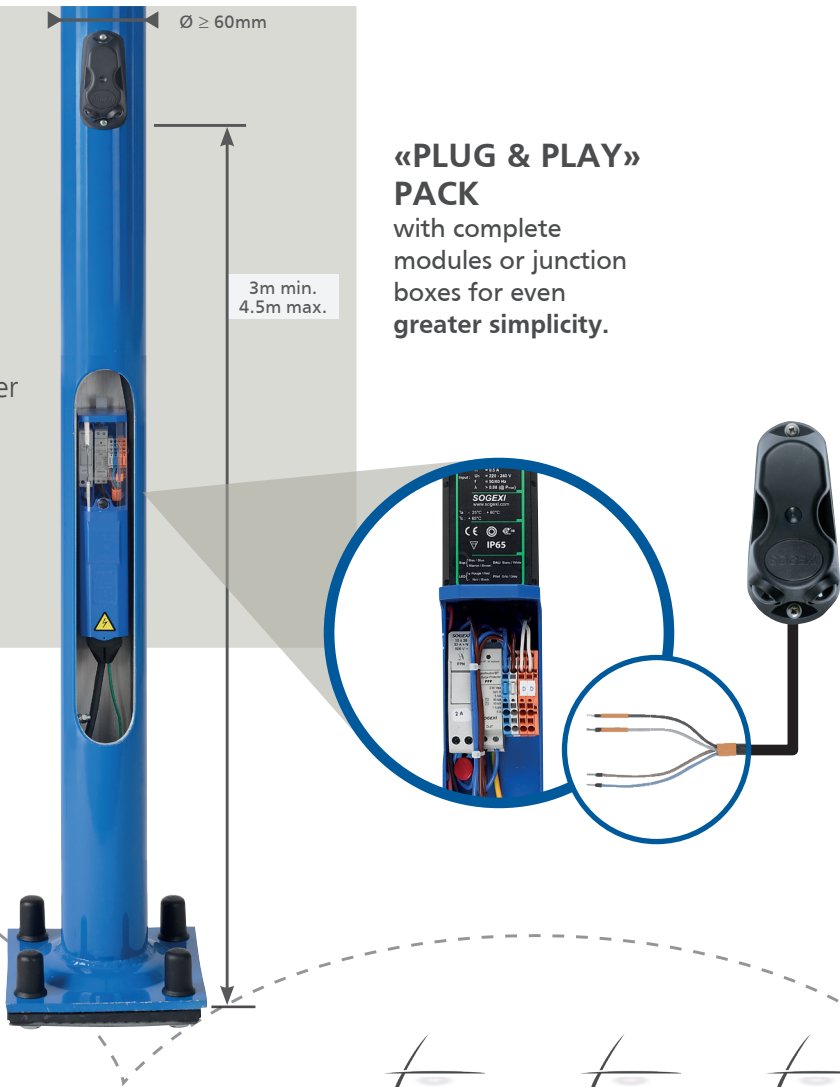
EASY to install

Easy to implement: wireless long-range communication avoids complex wiring on all existing installations.

Mounting on any shape of pole, any diameter ≥60mm, or on facade.

Simple connection at the bottom of the pole, pre-cabled (5 metres).

Integrated **230V mains.**

Ø ≥ 60mm

3m min.
4.5m max.

«PLUG & PLAY» PACK
with complete modules or junction boxes for even **greater simplicity.**

DESIGNED for urban environments

Efficient: detection area perfectly adapted for street lighting with its 2 PIR sensors.

Standards: compliant with lighting standard EN 61 347-2-11.

Robust: IK08 housing and protective flange for the 2 sensors.

Discreet: compact, it integrates perfectly into the urban landscape.
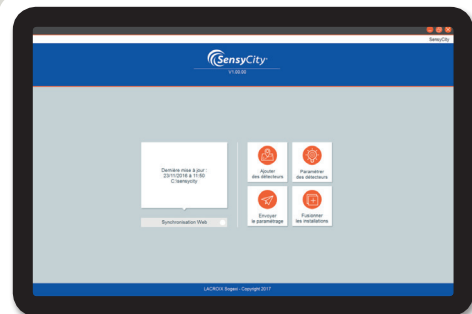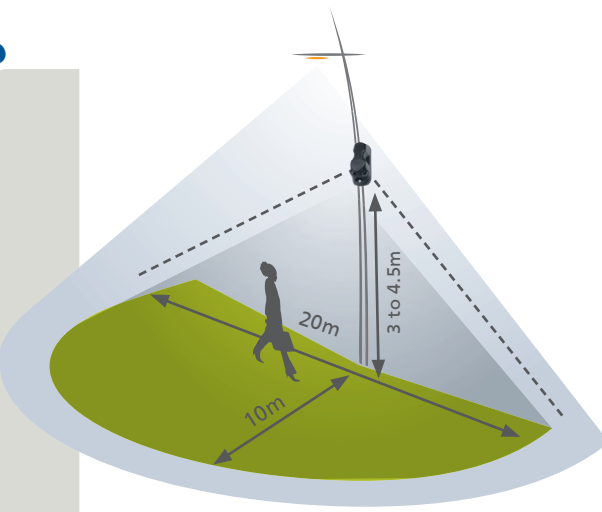
PATENTED

20m
10m
3 to 4.5m

EASY to program

SensyCity intuitive client interface: group light points and configure them in just a few clicks.

Wireless setup of the entire installation.

Quick and easy implementation of dynamic detection.

Web backup: shared and secure access to every SensyCity installation setup.

FUTURE-PROOF towards tomorrow's city

Open on the smart city: VIA wireless relay is the link to adjust and optimise outdoor lighting with various sensors.

Interoperable with any new or existing LED lights as it is installed on the pole.

Future-proof, installations could be reconfigured and extended to meet your needs.

Enables an Energy Efficiency Certificate to be obtained RES-EC-03.

SensyCity: the offer

SensyCity®

## S.I.R. WIRELESS: communicating motion sensor

Intelligent system based on motion sensors for pedestrians and cyclists.

When no activity is detected in the area, light is dimmed down to a minimum level, offering only guidance.
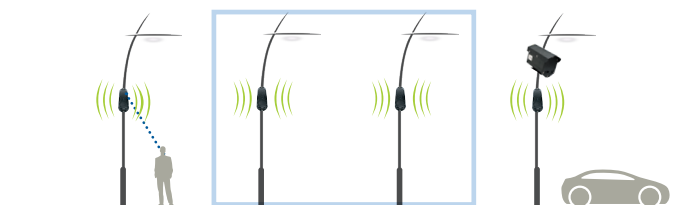
The slightest movement:
- immediately restores brightness thanks to priority instructions to the LED driver (level and time adjustable).
- sends wireless information to surrounding light points equipped with S.I.R. Wireless sensors, NOD receivers or VIA relays.

Dimming scenarios configurable in the S.I.R. Wireless with the SensyCity application.
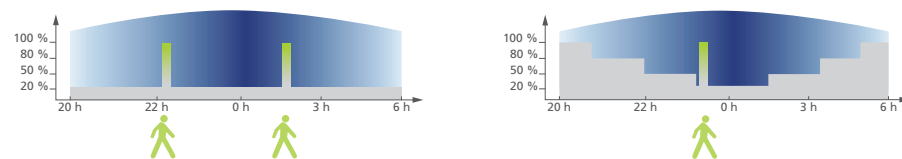
NOD: receiver

Device receiving the radio information coming from a S.I.R. Wireless sensor or a VIA relay.

The NOD immediately restores the light level when receiving the radio information through a priority instruction sent to the LED driver (level and time adjustable).

Dimming scenarios configurable in the NOD using the SensyCity application.

VIA: relay

Device allowing the city's various professions to link with the SensyCity ecosystem to adjust and optimise light based on a variety of information.

The VIA relay receives the information as soon as a sensor is activated (vehicle radar sensor, traffic sensor, weather sensor, etc.) and sends it immediately via radio to the light points equipped with NOD receivers or S.I.R. Wireless.
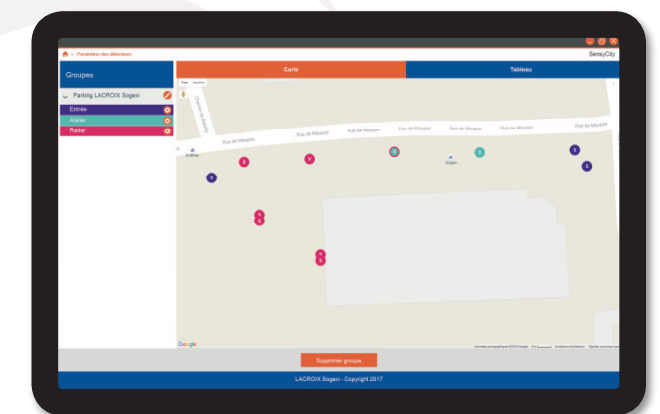
CONFIGURATION APP

The SensyCity configuration application enables highly intuitive use of the sensing ecosystem and allows you to upgrade your installations easily.

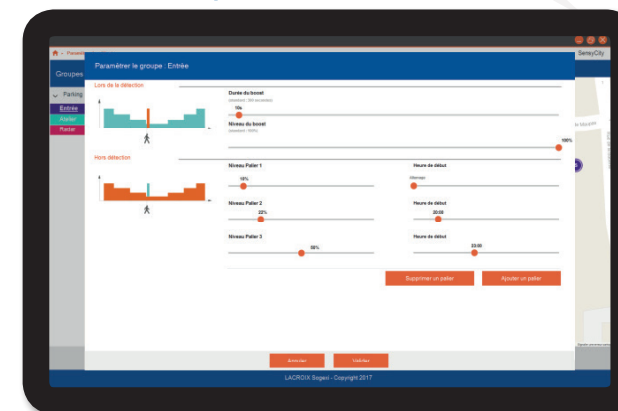Here are some illustrated examples of the SensyCity application's functions:

MAIN MENU
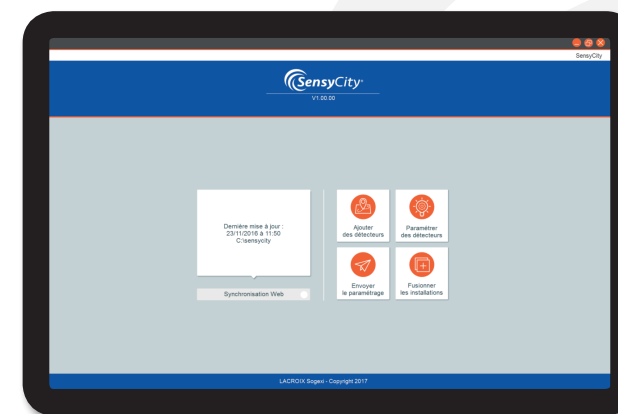
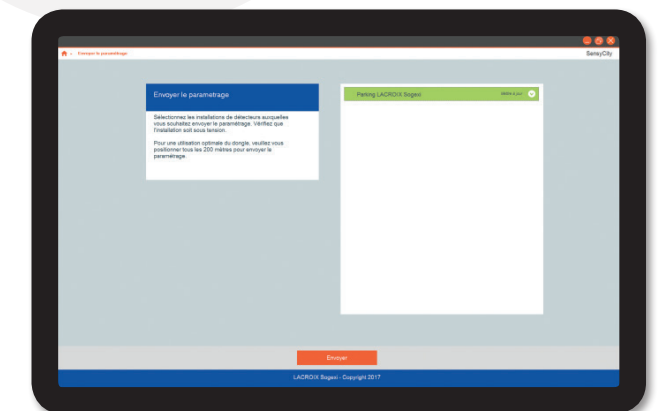**CREATE GROUPS ON GOOGLE MAPS**

CONFIGURE LEVELS, TIME AND NIGHT PROFILES

SEND THE SETTINGS TO THE INSTALLATION

DONGLE

Plugged into the USB port of a laptop or a tablet, it allows **the ecosystem' devices (S.I.R., NOD, VIA)** installed on the light points **to be localised and registered.**

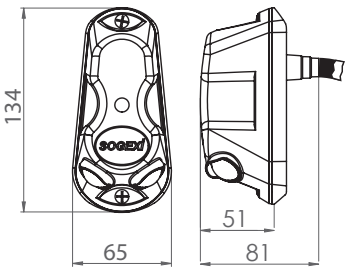The dongle enables **configuration or wireless re-configuration of all your SensyCity installations.**

Technical specifications

SIR Wireless

Communication		
Communication between light points	Secured LoRa wireless	
Output (driver control)	DALI	Dry contact
Input	na	

Electrical specifications		
Mains (integrated)	220-240V$_{AC}$ / 50-60 Hz	
Power consumption	< 1W	
Electrical class	Class 2	
Overvoltage resistance	4kV	

Mechanical specifications		
Mechanical resistance	IK08 casing	
IP level	IP54	
Material	Housing: Polypropylene IP gasket: Thermoplastic elastomer	
Colour	Black	

Installation		
Operating temperature	-20°C to +60°C	
Min. difference of temperature with the target	+/- 4 °C	
Cabling	Pre-cabled 5m (4 conductors)	
	Mains: 2 conductors	Mains: 2 conductors
	DALI: 2 conductors	Dry contact: 2 conductors
Mounting	3 holes / 2 M4 screws	
Advised mounting height	From 3m to 4.5m	
Detection area	On the ground: 180° with 10m around the sensor	

Installation setting on the field		
Configuring software on-site	SensyCity App	
On-site tool configuration	Wireless dongle	
Settings that can be adjusted on-site	Setting light point group(s)	
	Light level when sensing activity (≤ 100%)	na
	Boost duration (≥ 3 sec.)	
	Light level when no activity (≥ 10%)	na
	Dimming scenario (1 to 5 steps)	na

Standards & certifications		
Product standards	NF EN 60529	
	NF EN 61347-2-11 (outdoor lighting)	
Certifications	CE	

NOD / VIA

	NOD		VIA	
Communication				
Communication between light points	Secured LoRa wireless		Secured LoRa wireless	
Output (driver control)	DALI	Dry contact	na	DALI
Input	na		Dry contact	
Electrical specifications				
Mains (integrated)	220-240V$_{AC}$ / 50-60 Hz		220-240V$_{AC}$ / 50-60 Hz	
Power consumption	< 1W		< 1W	
Electrical class	Class 2		Class 2	
Overvoltage resistance	4kV		4kV	
Mechanical specifications				
Mechanical resistance	IK08 casing		IK08 casing	
IP level	IP54		IP54	
Material	Housing: Polypropylene IP gasket: Thermoplastic elastomer		Housing: Polypropylene IP gasket: Thermoplastic elastomer	
Colour	Black		Black	
Installation				
Operating temperature	-20°C to +60°C		-20°C to +60°C	
Min. difference of temperature with the target	na		na	
Cabling	Pre-cabled 5m (4 conductors)		Pre-cabled 5m (4 conductors)	Pre-cabled 5m (5 conductors)
	Mains: 2 conductors	Mains: 2 conductors	Mains: 2 conductors	Mains: 2 conductors
	DALI: 2 conductors	Dry contact: 2 conductors	Dry contact: 2 conductors	Dry contact & DALI: 3 cond.
Mounting	3 holes / 2 M4 screws		3 holes / 2 M4 screws	
Advised mounting height	From 3m to 4.5m		From 3m to 4.5m	
Detection area	na		na	
Installation setting on the field				
Configuring software on-site	SensyCity App		SensyCity App	
On-site tool configuration	Wireless dongle		Wireless dongle	
Settings that can be adjusted on-site	Setting light point group(s)		Setting light point group(s)	
	Light level when sensing activity (≤ 100%)	na	na	Light level when sensing activity (≤ 100%)
	Boost duration (≥ 3 sec.)		na	Boost duration (≥ 3 sec.)
	Light level when no activity (≥ 10%)	na	na	Light level when no activity (≥ 10%)
	Dimming scenario (1 to 5 steps)	na	na	Dimming scenario (1 to 5 steps)
Standards & certifications				
Product standards	NF EN 60529		NF EN 60529	
	NF EN 61347-2-11 (outdoor lighting)		NF EN 61347-2-11 (outdoor lighting)	
Certifications	CE		CE	

134
65
51
81

Dongle

Dimensions
- 63 x 50 x 25mm

Connection specifications
- Connection on PC or tablet: USB plug
- Communication with S.I.R., NOD & VIA: Wireless

Software setup
- 'SensyCity' App
- Hard drive space required: 50 MB
- Operating systems: Windows 7 or higher
- User guide can be downloaded from LACROIX City website

Radar SRM

Technology
- Ultra high frequency 24.125Ghz

Mechanical characteristics
- Dimensions: 180 x 100 x 70mm
- Weight: 1.2kg
- Housing: IP65 with thermal protection / Painting & anodising

Electrical characteristics
- Switched power
  Resistive load: 110 V$_{AC}$ 0.3A - 24 V$_{DC}$ 0.3A
  Inductive load: 110 V$_{AC}$ 0.2A - 24 V$_{DC}$ 0.3A
- Supply voltage: 220 V$_{AC}$ +/- 10% 48/62 Hz - fuse protection
- Consumption < 1.5 VA

Installation
- Radar range: 150m for light vehicles
- Operating temperature: -40°C to +75°C
- Connecting: 1 IP68 7-pin connector pre-wired 5m

Settings
- Mode: One-way incoming flow / Two way
- Configured using the switch on the front panel
- Display: High-performance red LED on front panel

Standards
- Compliant with CE standards
- Fulfils the requirements of directive R/TTE 1999/5/EG

LACROIX City Street Lighting,
solutions and equipments for outdoor lighting

City
LACROIX

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