

# WIZARD

by ECLATEC



ECLATEC

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## PUBLIC LIGHTING MANAGEMENT

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**Public lighting is a challenge for local authorities that manage the following issues every day:**

- energy consumption with cost control
- ecology
- population safety and well-being
- global Smart City type approaches

Using **its smart WIZARD solution**, ECLATEC supports you in your choice and implementation of the best management strategy for your lighting networks.



## TAKE CONTROL OF YOUR NETWORK!

The **WIZARD remote management system** provides management and remote control of all your public lighting network street lights. This solution operates using a secure web interface which can be accessed from any device connected to the internet: computer, tablet or mobile phone.

WIZARD by ECLATEC makes it possible to improve the quality and reliability of outdoor lighting and to reduce operating and maintenance costs. Its operation is modular and scalable, from a single lighting point, to local networks, up to cubicle-based management.

### ✓ Customised solution

- To meet your specific needs

### ✓ Adaptability

- Compatible with existing installed DALI luminaires

### ✓ Easy maintenance

- Time savings and controlled costs

### ✓ Specific solution

- ECLATEC support and services

### ✓ Secure

- Data only accessible to the managers through their account



# WIZARD

Simple and standardised architecture

The **WIZARD antenna** is fitted directly to the luminaires using a **standardised ZHAGA connector** with a **D4i power supply**.

The luminaires communicate with a **gateway**, which communicates using the **Cloud** using **supervision software**.

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A **WIZARD antenna**



**ZHAGA connector** & A **D4i** power supply

Specific **WIZARD** by ECLATEC solution

A **gateway**

**CLOUD**



# MCD module

## The solution for existing lighting



### A flexible and adaptable solution

The MCD Remote Communication Module lets you connect all your existing on site DALI luminaires to a remotely managed network.

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#### The module includes a WIZARD antenna

In order to make the following compatible:

- **The luminaires already installed on site** with a cabled electronic DALI power supply (LED or conventional)
- **The luminaires fitted with a D4i power supply** that do not have the standardised ZHAGA connector

#### The module can be fitted with a detection system

- **2 infra-red detectors** react to passing pedestrians and/or cyclists moving at moderate speeds.
- **Adhesive covers** are available as an option to reduce detection zones and limit unexpected triggering.



# COMMUNICATING DETECTION

The **communicating detection** solution makes it possible to connect **groups of luminaires** which will switch from low level to high level power when movement is **detected**.

## User comfort

The **WIZARD antennas** provide local communication between several luminaires based on **motion detection** built into the luminaire or located on the pole depending on the case. The number and location of the **sensors** are defined to guarantee optimum detection depending on user movement scenarios, thereby creating **“dynamic lighting sequences”**.

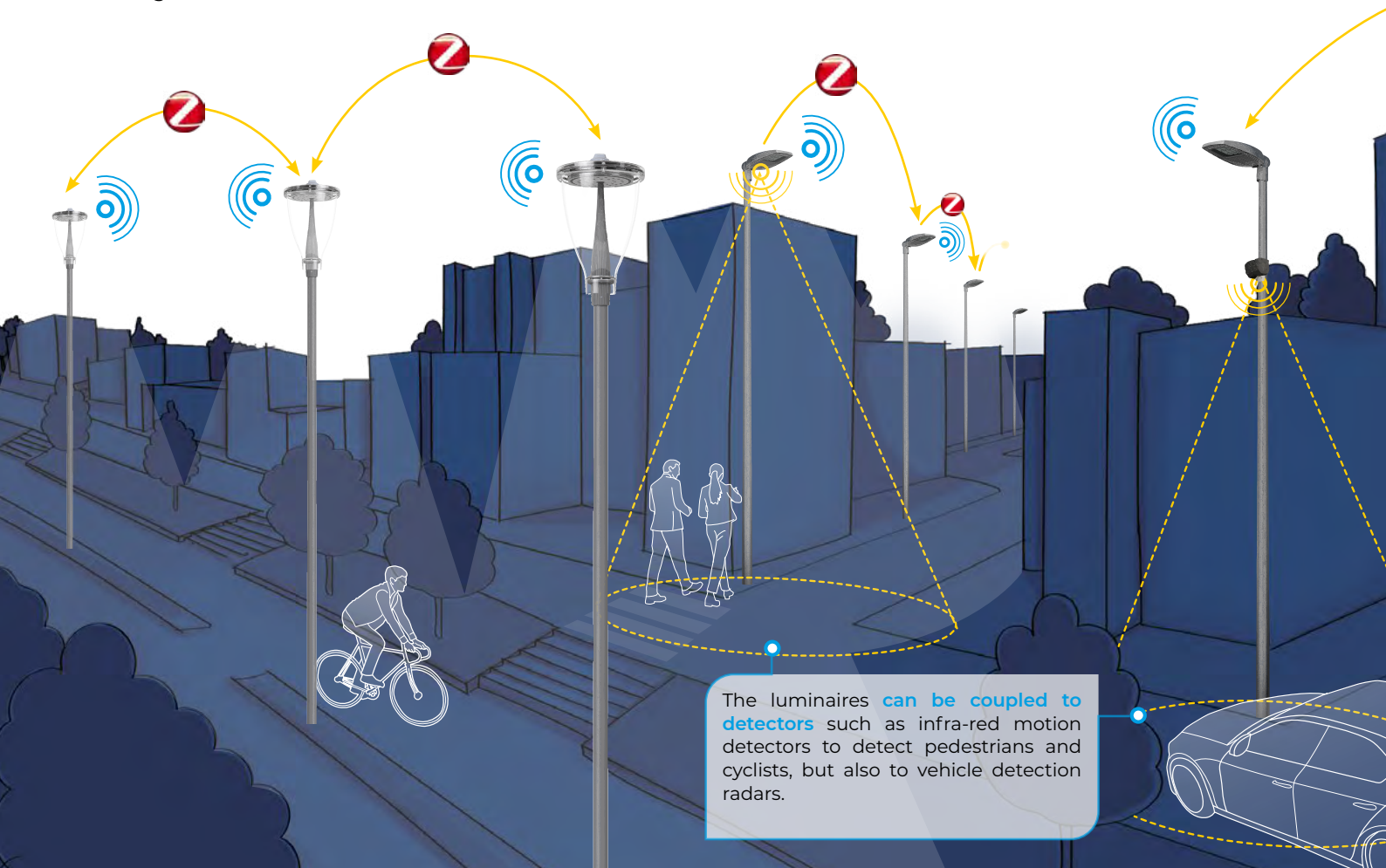
Other detection modes are also possible such as radars, cameras, magnetic loops, push buttons,... every project is the subject of a specific study.

## Energy saving

You regulate your lighting's power and control its light intensity. Different lighting times and lighting levels can be configured on site without requiring an elevator platform using remote management software and a temporary connected gateway.

## A scalable solution

You can very simply upgrade your local network to a remotely managed network without modifying your equipment by adding a permanent gateway. As a result, you can access remote management at low cost.



# REMOTE MANAGEMENT

The **WIZARD remote management system** is based on standard, open technology. The luminaires fitted with an antenna communicate with each other using a permanent gateway connected to the internet, generally placed in a cubicle.

## A global solution

The luminaires communicate with each other by radio-frequency using the open and certified **ZigBee 3.0** protocol. The gateway uses the GSM or Ethernet network to receive and send data to the cloud.

This solution's **two-way communication** makes it possible to:

- configure and control the lighting network in real time.
- have immediate reports on failures, electricity consumption and the other luminaire operating parameters.
- The luminaires can be coupled to detectors and sensors such as pedestrian, cyclist and vehicle detection.

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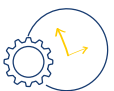
# Cubicle-based management

## the gateway used as an interface



### Communication and connection

- Local ZigBee® communication with the luminaires (for the LoRa protocol, contact us).
- The connection via the cloud uses 3G or 4G (SIM card), or a wired Ethernet connection on an existing network. Upgrade to 5G is possible as well as other network operators.
- Gateway compatible with other hypervisor software using an API (following development)
- Compatible with the TALQ protocol.



### Control and management

- Cubicle power up control using a calendar making it possible to replace the astronomical clock.
- Dry contact input management, for example to open the cubicle door.
- The ModBus RS 485 interface makes it possible to communicate with a meter, for example.



### Forced mode maintenance

- Possibility of adding a dry contact ON/OFF switch.
- Lighting of all the luminaires connected to the gateway using the supervision software control mode.





# Extended functions



**Automatic geolocation** of luminaires and pairing with the network on commissioning using a GPS chip.



**Luminaire control and configuration** using French supervision software to easily control your lighting network.

- Control of lights-on, lights-off, and dimming.
- Calendar programming based on calendars (weekday, weekend management, ...)
- Dynamic lighting configuration using motion sensors and detectors.



**Fault troubleshooting and remote readings** with consumption and electricity parameter reporting. Malfunctions are notified by email.

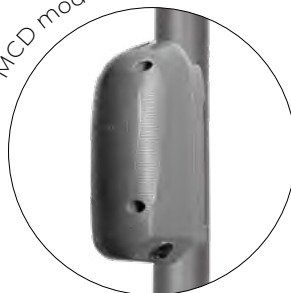
## supplementary equipment

The WIZARD system operates using open protocols that make it possible to add sensors.

Built-in motion detector



MCD module



Illuminations

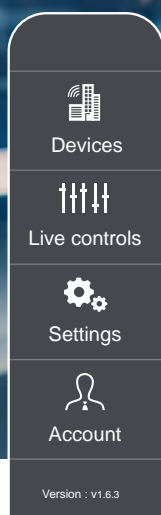


Remote motion detector



Vehicle detection radar



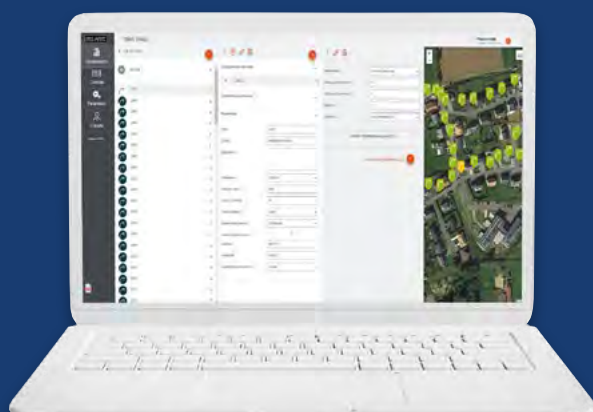


# WIZARD MANAGEMENT SOFTWARE

## simple and functional

You can freely and easily manage your entire lighting network securely using this management and supervision software. Its easy to understand and effective interface makes it easy for you to configure your equipment.

After a study, we can create gateways with other existing hypervisors.



**Viewing & configuration**  
of equipment (groups, sensors, ...)

**Supervision & control**  
with two-way communication

- ✓ **Real time monitoring and data archival**
- ✓ **Electricity consumption measurement**  
Power, voltage, intensity, power factor, consumption and lighting times...
- ✓ **Fault reporting**  
Power supply, antenna, remote management module...When there is a fault, you receive an email indicating the luminaire, the type of malfunction and the link to the supervision software
- ✓ **WIZARD server with secure connection**



## Lighting programmes activated in just a few clicks

Creation of one or more programmes: night time dimming, ...

Type:

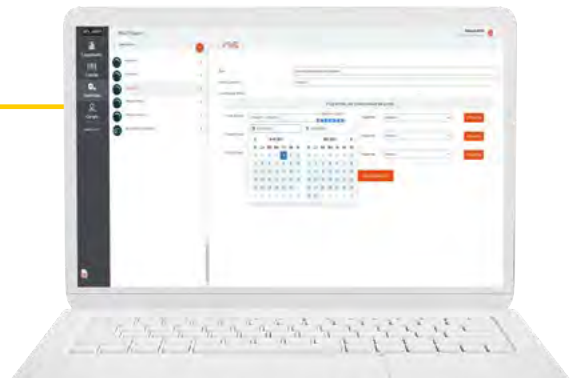
Programme name:

Time slots						
Type	<input type="text" value="Set times"/>	Time	<input type="text" value="19:00"/>	Level (%)	<input type="text" value="100"/>	<input type="button" value="DELETE"/>
Type	<input type="text" value="Set times"/>	Time	<input type="text" value="22:00"/>	Level (%)	<input type="text" value="50"/>	<input type="button" value="DELETE"/>
Type	<input type="text" value="Set times"/>	Time	<input type="text" value="05:00"/>	Level (%)	<input type="text" value="100"/>	<input type="button" value="DELETE"/>

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## Optimum calendar management

Calendar creation makes it possible to apply programmes at variable frequencies.



Programmes in increasing order of priority

Date range:  Mo Tu We Th Fr Sa So

Date range:

April 2021							May 2021						
Su	Mo	Tu	We	Th	Fr	Sa	Su	Mo	Tu	We	Th	Fr	Sa
28	29	30	31	1	2	3	25	26	27	28	29	30	1
4	5	6	7	8	9	10	2	3	4	5	6	7	8
11	12	13	14	15	16	17	9	10	11	12	13	14	15
18	19	20	21	22	23	24	16	17	18	19	20	21	22
25	26	27	28	29	30	1	23	24	25	26	27	28	29
2	3	4	5	6	7	8	30	31	1	2	3	4	5

Programme:

Programme:

Programme:



## Precise sensor configuration

The software allows the creation of many detection scenarios depending on two luminaire selection methods:

- By selecting the luminaires that are to switch to high status one by one when a detection is triggered.
- By defining a luminaire zone.

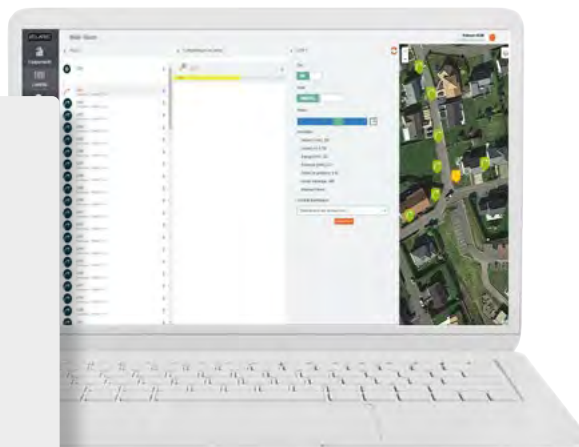
status:  
 ON

Mode:  
 MANUAL

Level:  
 60

Information:  
 Voltage (V rms): 228  
 Current (A): 0.156  
 Energy (kWh): 120  
 Power (Watts): 33.7  
 Power factor: 0.95  
 Lighting time: 2947  
 Error message: 0

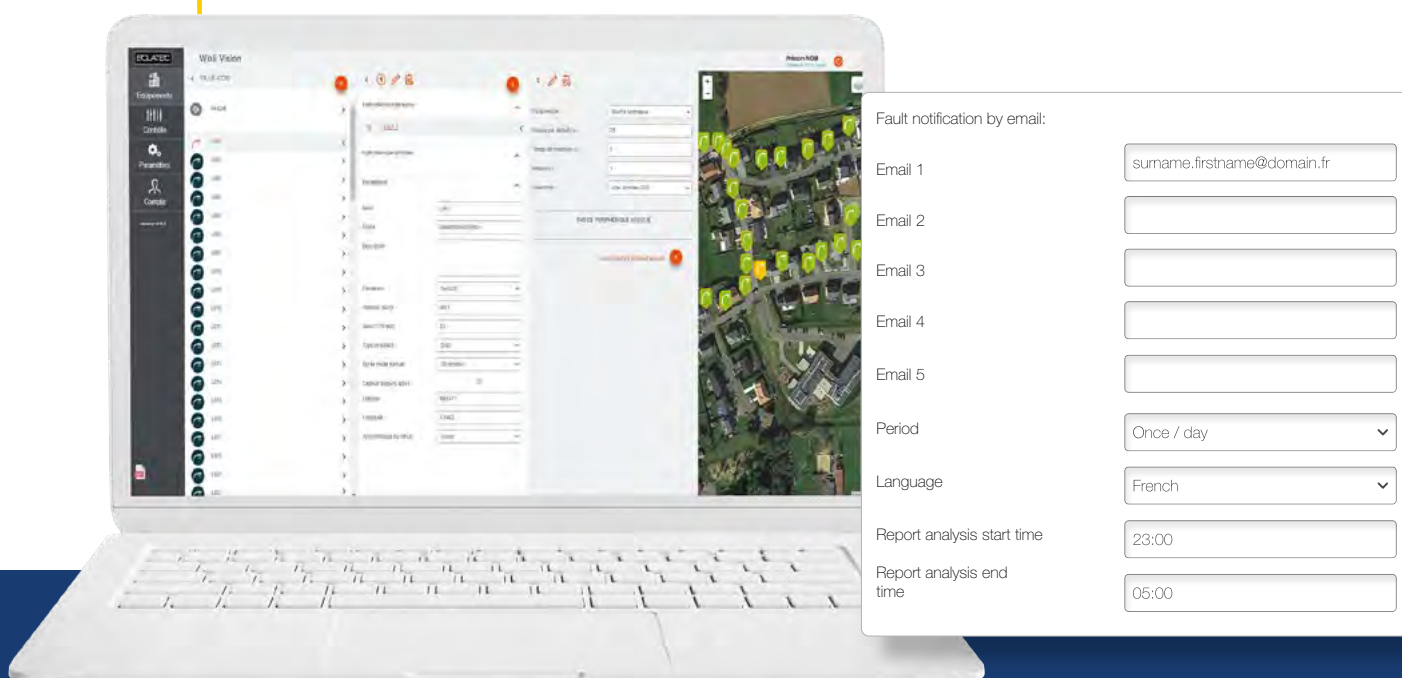
Maintenance action:



## Real time control

You can take action on your lighting network remotely in real time (ON, OFF, lighting level variation, etc.) with data reporting.

## Maintenance tool monitoring and configuration



Fault notification by email:

Email 1

Email 2

Email 3

Email 4

Email 5

Period

Language

Report analysis start time

Report analysis end time

- ✓ **Data recording frequency** on the server 1h-24h, by defining the start time.
- ✓ Email addresses to **send maintenance reports to.**
- ✓ Definition of the **analysis start and end times.**
- ✓ **Choice of report** sending frequency for faults: Once, once/day, Once/week

# Completely autonomous

The WIZARD solution gives you the keys to simply manage your lighting network

**ECLATEC** is by your side to help you set up a customised and effective solution. You can manage your lighting freely or we can offer you our expertise



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+ **150** towns and cities

**WORK WITH US**

their WIZARD network is operational!



Let's work on your project and create your **SMARTCITY!**

[info@eclatec.com](mailto:info@eclatec.com)



Designer Manufacturer

**ECLATEC** has been designing and manufacturing public lighting equipment since 1927. Its teams create effective, efficient solutions compliant with standards to provide quality lighting for the long term.

**ECLATEC** takes into account every link in the lighting chain to limit pollution and puts its know-how at the service of **citizen lighting®**



### IN DESIGN

- ✓ **The type of proposed products** (performance and compliance)
- ✓ **The choice of materials used** (recyclability and RoHS)
- ✓ **The selection of respectful partners**



### IN MANUFACTURE

- ✓ **Local production** favouring short channels
- ✓ **ISO 14001 certification**



### IN IMPLEMENTATION

- ✓ **Studies** compliant with the French light pollution order
- ✓ **Equipment** recyclability



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