

# SUNPOLE C

STAND-ALONE LIGHTING SOLUTION



ECLATEC





Residential area

# SUNPOLE C

The result of the French leader in public lighting's research and development, SUNPOLE C is a reliable and efficient solar offer, made in France. It features:

- a high-performance LED luminaire that can be used in a large number of applications thanks to its wide range of light distributions,
- a factory-programmable time-controlled dimming function for optimum lighting adapted to the use of the location.
- an efficient and safe LITHIUM battery,
- a high-efficiency photovoltaic panel,
- a personalized implementation study conducted directly by ECLATEC, which is used to specify the photometric specifications and the operating autonomy.





Roads



Industrial estates

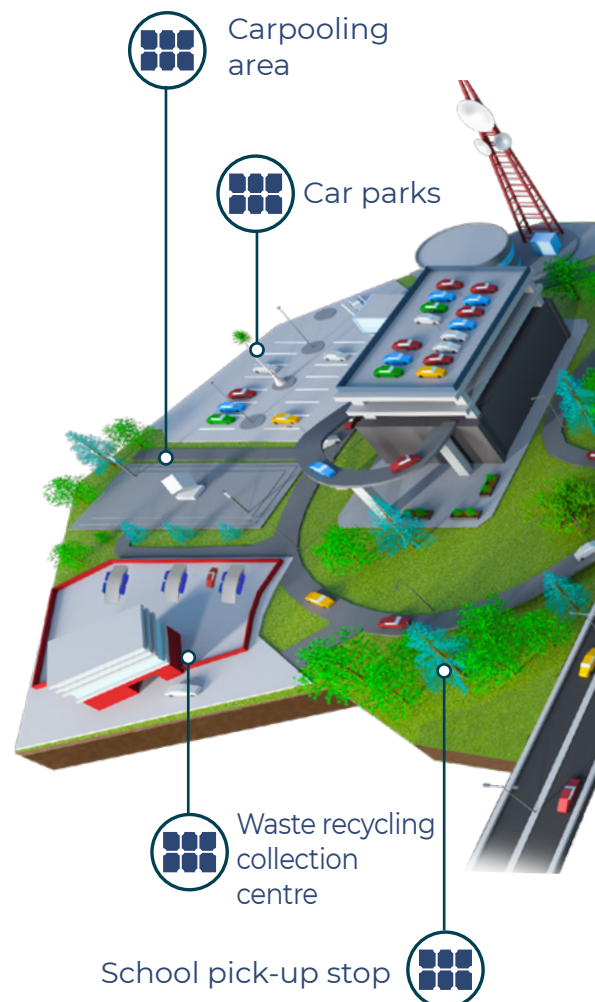




# BECAUSE LIGHTING REQUIREMENTS NEED A LIGHTING SPECIALIST SOLUTION

**A solar lighting system captures energy, stores it and uses it when needed. This means:**

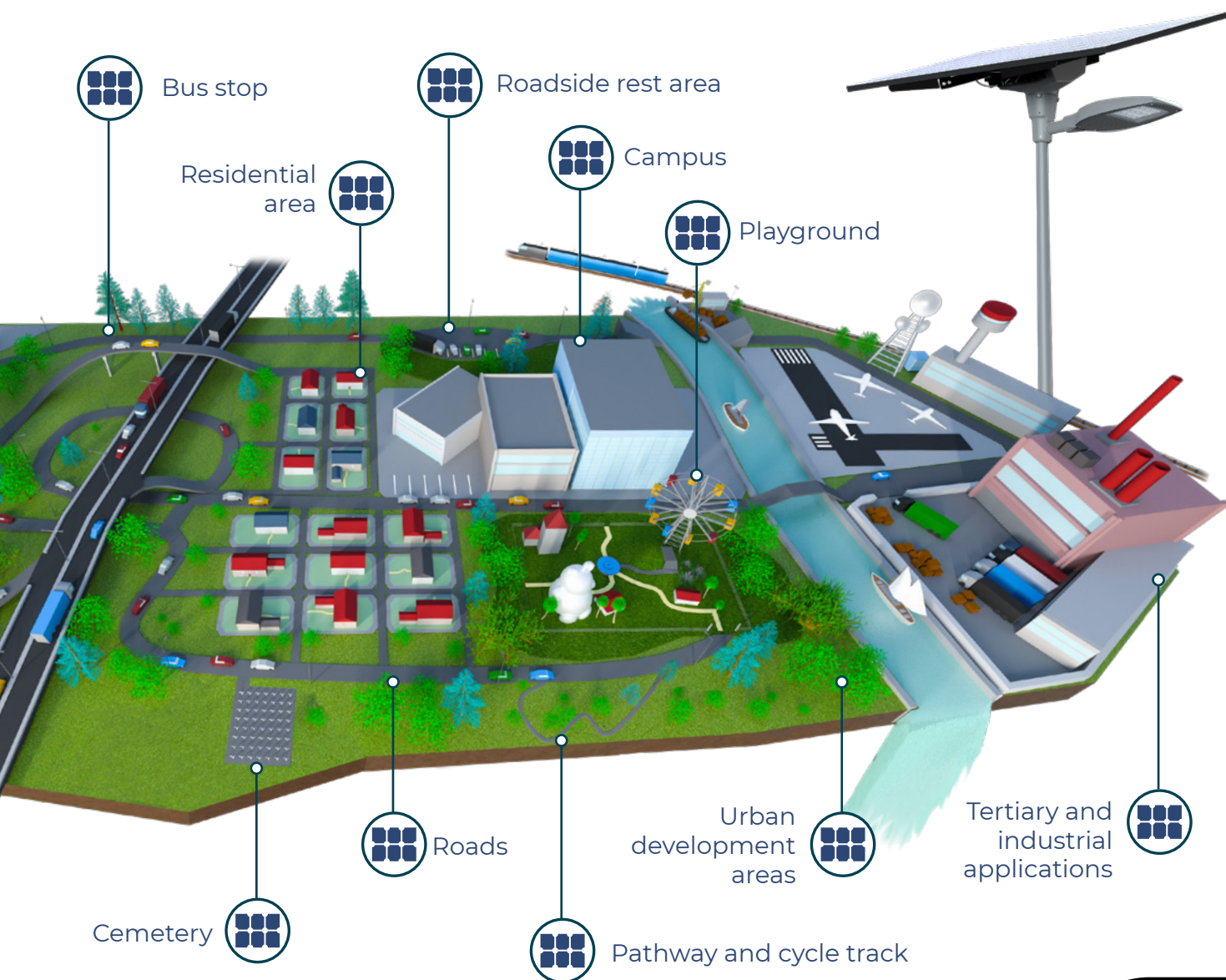
- Control of the light, which is the need, using a high-performance luminaire that complies with applicable standards and regulations
- A smart management system for adapted and economic lighting
- A high-performance battery to provide lighting over the long term
- A high-efficiency photovoltaic panel
- A robust mechanical structure that complies with applicable standards
- A personalised implementation study and diagnosis to determine the required photometric specifications and operating autonomy.





- ✓ **Economic**
  - proven return on investment outside the grid
- ✓ **Stand-alone**
  - no connections
- ✓ **Eco-responsible**
  - self-sufficient
- ✓ **Positive image**
  - visible environmental protection policy

All living spaces must be lit to provide users safety and comfort:





# SUNPOLE C

## Elegant, functional architecture

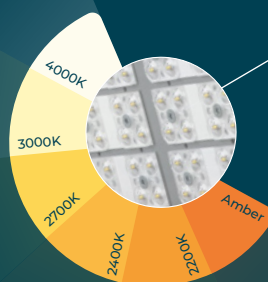
### Removable cartridge

- Battery compartment
- Electronic compartment
- Easy access & maintenance
- Locking screws
- IP 66 protection rating

### LED luminaire Tweet Neo S1

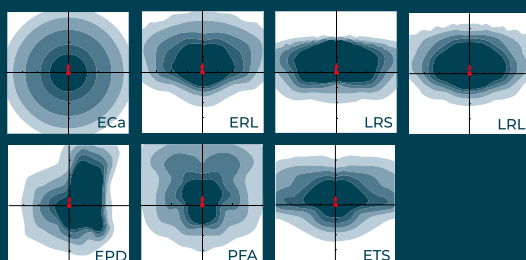
- Die-cast aluminium
- IK 10, IP 66
- Side mount
- Pre-set 2° pitch
- In accordance with the French "Light pollution" decree of 27 December 2018

### High performance LED



### Photometric distributions ECLATEC \*

- Optimised and adapted to the different uses (illuminance, luminance, projection, asymmetrical, symmetrical, ...)

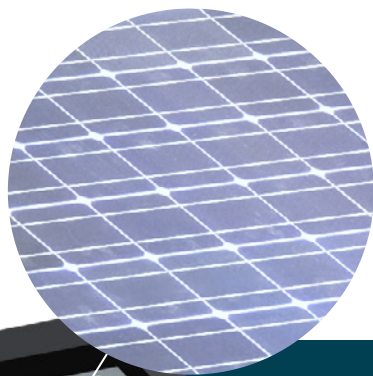


### Delivery & installation



- Factory tested and programmed
- Optimised packaging
- User-friendly assembly
- Quick commissioning

\* Partial list of distributions



### Photovoltaic panel

- 400 Wc
- 360° directional
- Fixed 20° pitch



Sleeve  
single &  
double light

# SUNPOLE C

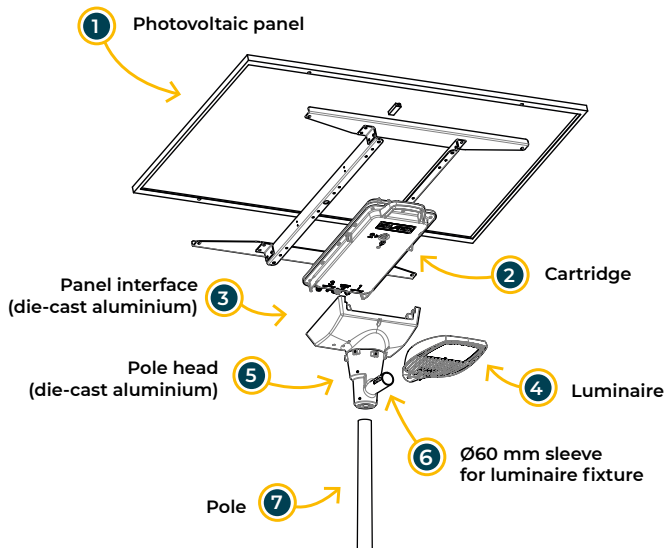
Design: ECLATEC

## Technical specifications



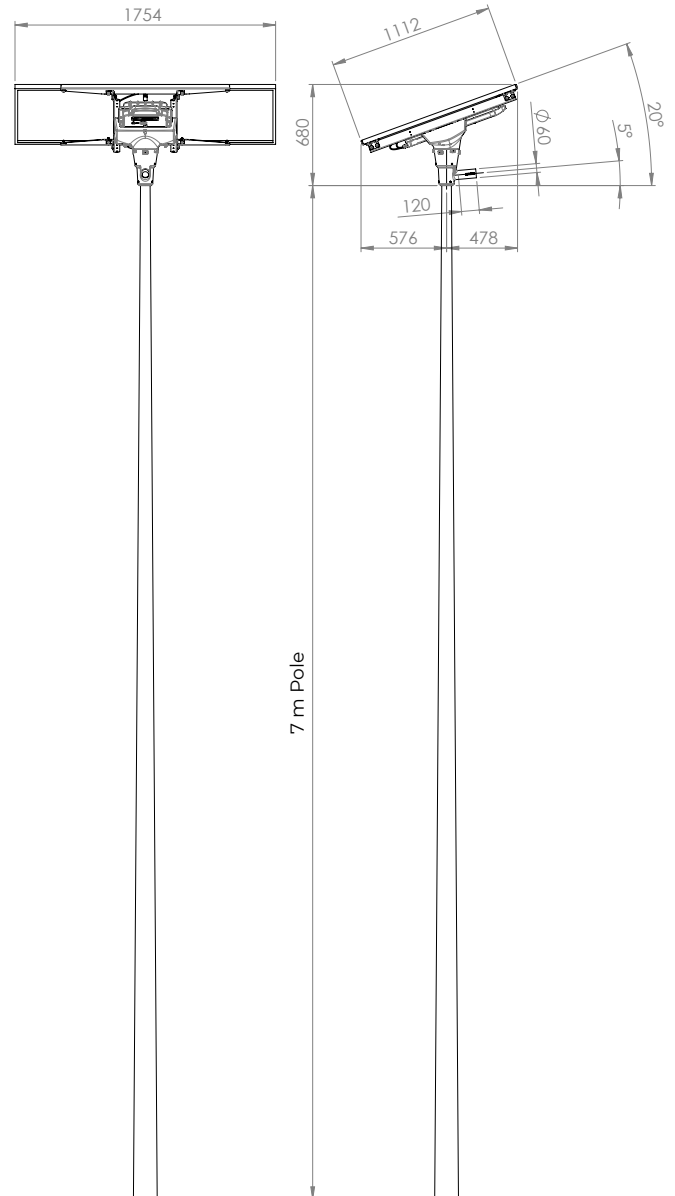
### DESCRIPTION

Photovoltaic lighting column featuring:



- ▶ **Single light (SUNPOLE C1) or double light (SUNPOLE C2) with the TWEET Neo S1 luminaire**, other luminaires following a study
  - ▶ power and configuration adjusted to the case and its sizing
- ▶ **Cylindrical-conical powder coated galvanised steel pole**, without doors.  
Lighting heights: 4 to 8 m  
Base plate 400 x 400 mm, spacing 300 x 300 mm
- ▶ **400 Wc solar panel**, 360° directional, 20° fixed pitch
- ▶ **Removable F6 or F12 battery pack** mounted on slides, IP 66 protection rating, containing Lithium Iron Phosphate technology cells
  - ▶ F6 battery: total capacity 584 Wh
  - ▶ F12 Battery: total capacity 1167 Wh
- ▶ **BMS module** (Battery Management System) used to:
  - ▶ provide electric and thermal protection for the battery cells
  - ▶ access to all battery performance, state, health and history data
- ▶ **An MPPT module** that optimally manages the charging and discharging of the batteries and optimises their service life

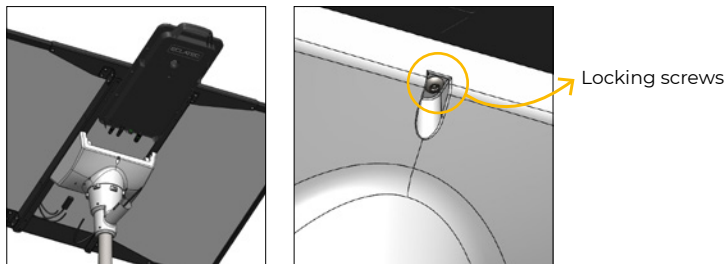
### HARD WIRED



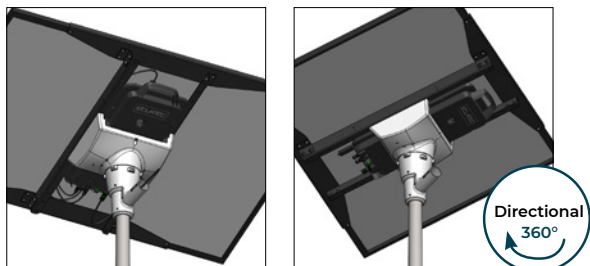


## INSTALLATION

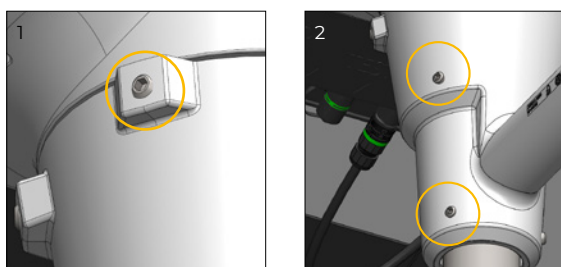
Removable battery cartridge



The "panel + battery" assembly is 360° directional  
(2 die-cast aluminium parts)



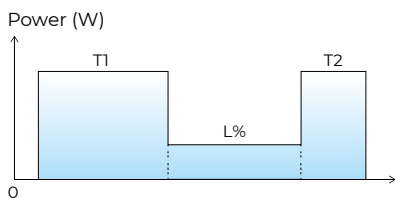
The panel rotation is stopped by 2 rows of 3 pressure screws. {1}  
The assembly is fixed to the pole by 2 rows of 3 pressure screws at 120°. {2}



## OPERATING CYCLE

The operating cycle is of the CA2 type, i.e. determined by:

- ▷ T1: duration of high level power lighting after dark
- ▷ L%: Percentage of current at night.
- ▷ T2: duration of high level power lighting before sunrise



A cycle of T1=4h / T2=2h / L%=30%  
is a classic cycle in mainland France

## LUMINAIRE

Service life	100,000 h at 80% flux
Battery	20 years at 80% of the initial capacity
Solar panel	25 years at 80% of the initial production

## CE CERTIFICATIONS

Pole	EN 40
Luminaire	EN 60598
Battery	UN 38.3 and EMC



Carpooling area



Isolated bus shelter

# ECLATEC, A WINNING PARTNERSHIP!

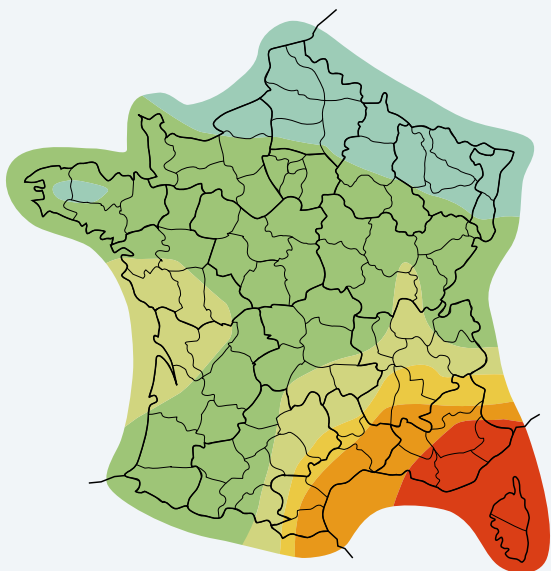


## Because your project is unique

### 1 Photometric requirements:

- ▶ Zone / surface area to be lit
- ▶ Compliance with applicable standards
- ▶ Definition of the appropriate power and photometric distribution

### 2 Available solar energy:



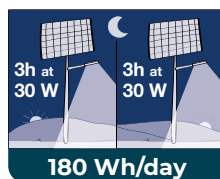
The amount of energy typically produced by panels varies depending on the region in which they are located.

### 3 Following a study, your project sizing is implemented

## Dimming to **light at the right time!**

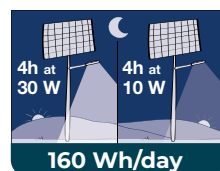
A photovoltaic solution coupled with dimming makes it possible to capitalise the stored energy by using it when needed.

### For example:



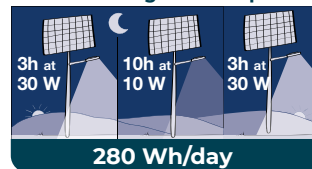
Constant 30 W lighting for 3 hours in the evening and 3 hours in the morning will require the following energy:  
 $30 \times (3+3) = 180 \text{ Wh/d.}$

### ✦ Dimming option



30 W lighting for 4 h and then 10 W for 4 h will require the following energy:  
 $(30 \times 4) + (10 \times 4) = 160 \text{ Wh/d.}$

### One winter night from 4pm



30 W lighting for 3 hours and then 10 W for 10 hours and 30 W for 3 hours, will require the following energy:  
 $(30 \times 3) + (10 \times 10) + (30 \times 3) = 280 \text{ Wh/d.}$

## Responsible **design**

ECLATEC's strong societal values include the notions of eco-design and circularity in its product development cycle.

Our research teams select high quality technical components for all our solutions.



# ECLATEC

## French leader in public lighting



ECLATEC is a **Designer-Manufacturer** of lighting solutions based in Nancy since 1927.

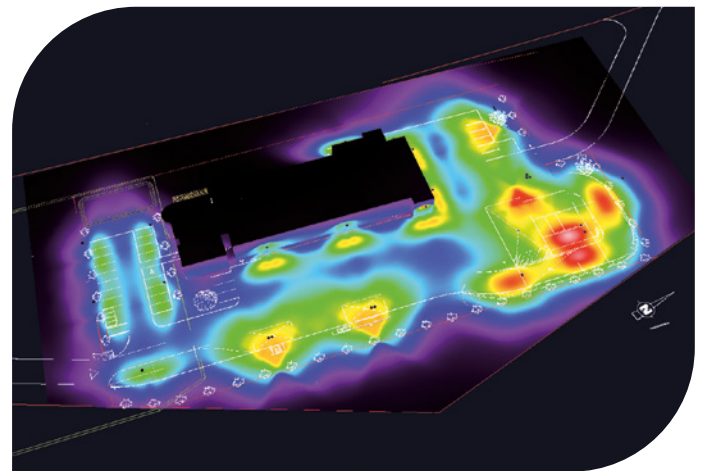
We offer a wide range of LED luminaires and smart solutions. Whether stand-alone or connected to a grid, they are designed to fulfil every photometric need.

Our values and technical expertise are at the service of your projects. We therefore define a lighting solution adapted to the uses and configuration of the surface areas to be lit.

**“To light properly”**, is ECLATEC’s permanent objective for the design of its lighting solutions.

Energy savings, compliance with standards and adapted lighting levels all require high quality equipment and solutions.

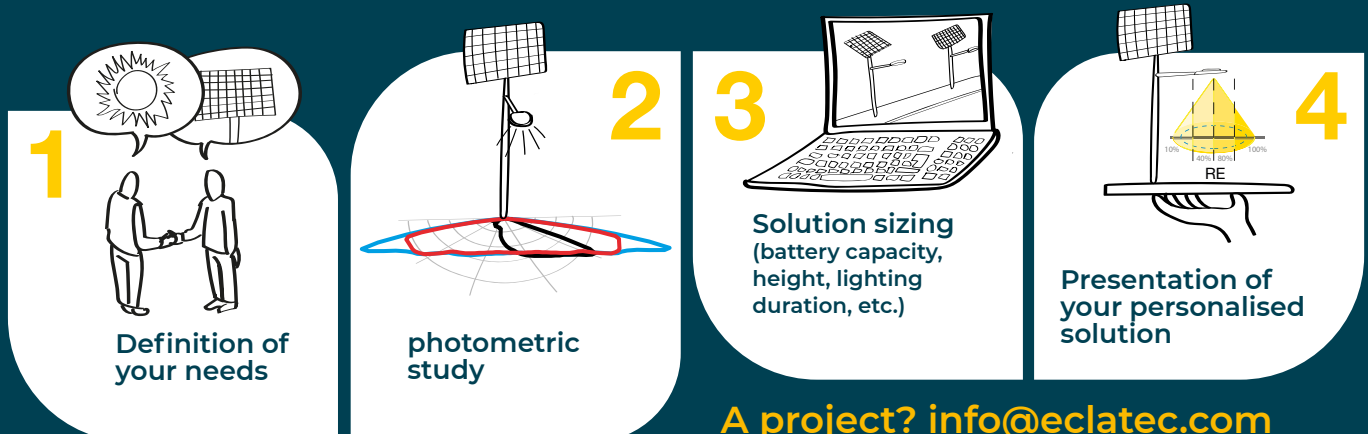
The careful study of their implementation conditions is an important source of energy optimisation: in every case, ECLATEC’s Lighting Consultancy department recommends the best lighting solution, the best spacing, the best power or the best settings.



False colour rendering of a photometric study

## A personalised study

ECLATEC supports and advises decision-makers on their projects by following these 4 principles:



A project? [info@eclatec.com](mailto:info@eclatec.com)

# ECLATEC

41 rue Lafayette, CS 20069 Maxéville  
54528 Laxou cedex, France  
Phone: +33 (0)3 83 39 38 00  
[www.eclatec.com](http://www.eclatec.com)



Reproduction of this document is prohibited without the prior written permission of ECLATEC - Copyright ECLATEC - Document and photos not contractually binding. The description of the appliances and the measurements given are only an indication and cannot be construed as a binding commitment from our company, which reserves the right to make any changes it seems fit without prior notice. Service Communication Eclatec - Photo credits: ©Eclatec, ©iStock

Edition  
**04/2023**