
Abel
Smart Solar
Lighting
Photo
Light®

Today, we are all aware of the problems due to climate change. Preserving the earth and its resources to ensure greater balance tomorrow is a priority for which **ABEL** acknowledges the measures to be taken.

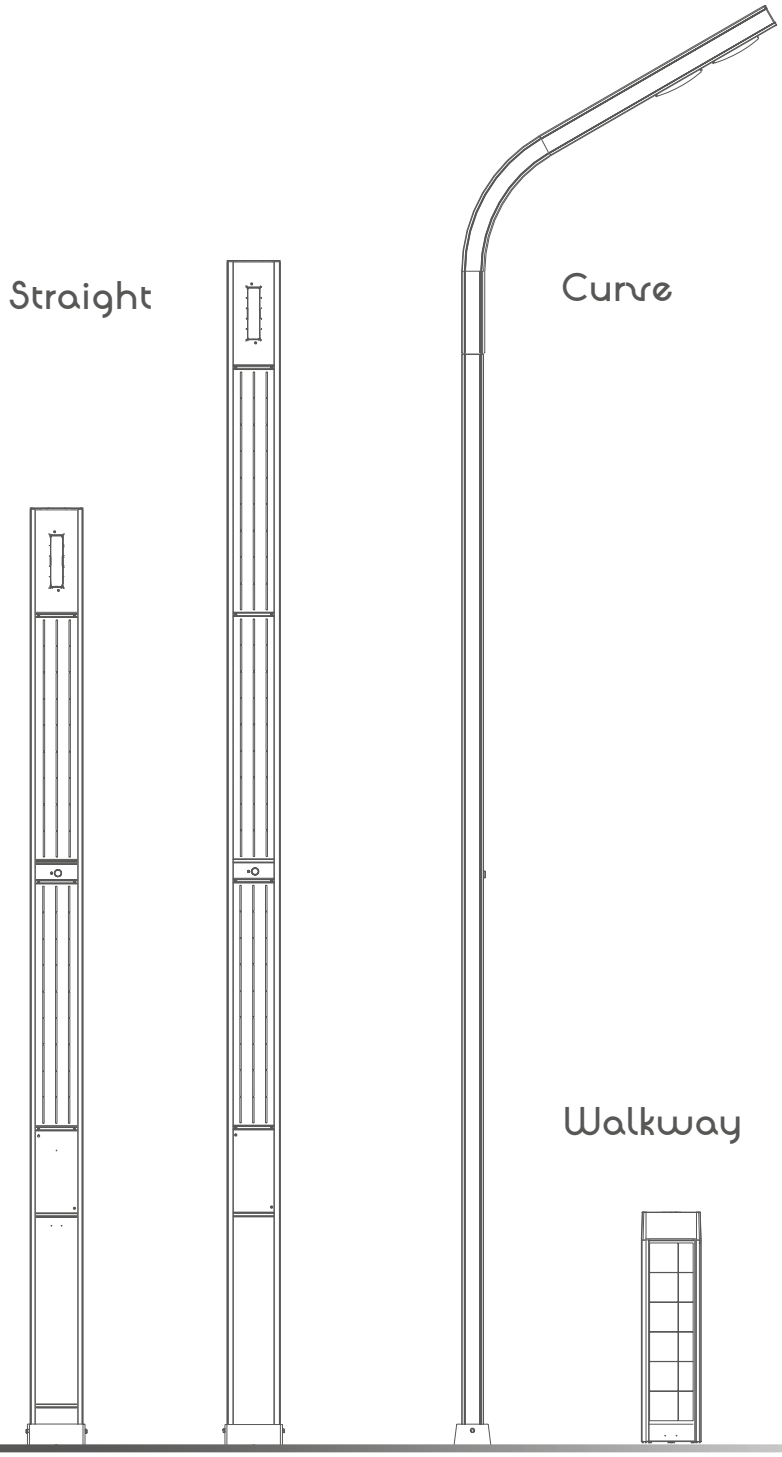
By choosing photovoltaic, **ABEL** is committed to reduce impacts on the environment and proposes with the **PhotoLight®** range a new, energy saving and ecological lighting concept.

The **PhotoLight®** solar solutions give out a self-sufficient and smart lighting, in phase with global energy transition goals (COP22, Paris Agreement on the climate).

The production of **PhotoLight®** is managed in France, in Brive - Corrèze, and integrated within the production lines dedicated to public lighting for over 6 decades.

PhotoLight® Range

The design of the **PhotoLight®** range sets itself apart by its simple and congruous shapes, more harmonious than arm and joint solar designs.



The solar lamp is 100% stand alone.

The assembled photovoltaic cells on the vertical panels capture solar energy and transform it into electricity. It is stocked during the day in the batteries, then used at night by the high efficiency LED.

Between 3 and 7 photovoltaic panels are used to produce a power level adapted according to the luminaire size.

The electronic regulator controls the charging and discharging of the batteries as well as the automatic operating mode of the lighting. The maintenance free batteries are integrated within the mast or underground.

Not being connected to the electric network offers the possibility of installing the columns in various activity areas: roads, parking lots, parks, isolated or difficult to access sites.

THE SUN, a clean, sustainable and free energy

Before the end of this century, global energy consumption will exceed the regenerative capacity of the planet.

In the field of outdoor lighting, **PhotoLight®** offers sustainable alternatives to provide a same service while conserving resources.

The achievement of **PhotoLight®** is to ally the quality of a functional or decorative lighting to the capacity of optimizing the use of the batteries.

Thanks to the sun, **PhotoLight®** does not need electricity to operate[1]

Smart Lum
Program flexibility for the 'right lighting'

Installation is made easy
No wiring, no trenching, no control cabinets[1]

Low maintenance costs
Stand alone, LED durability

No CO_2 emissions
thanks to an eco-responsible solar design[1]

Design and aesthetic
Vertical voltaic panels resistant to residual dirt deposits

[1]except Hybrid range

ACCOMPLISHING your solar project

The instalment of solar columns is possible **on sites adequately exposed to the sun.**

We advise **an estimated feasibility evaluation of solar potential and a lighting simulation** so as to correctly dimension the installation and ensure continuity of a year-round service.

1
PROJECT DEFINITION

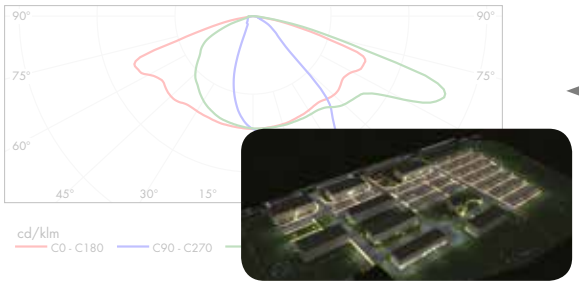
Economic issue, aesthetic choice, operating facility, environmental aspect…

2
ILLUMINATION SCENARIO

According to the geographic area, determination of sunlight hours, self-sufficiency, power variation, presence sensor, …

3
PHOTOMETRIC STUDIES

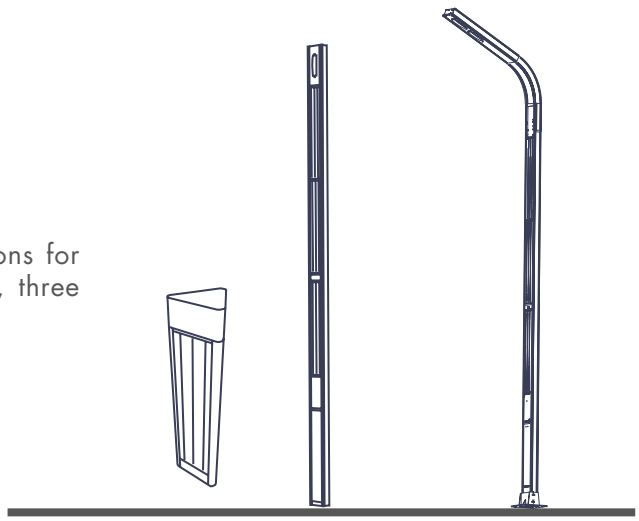
Customized photometric study



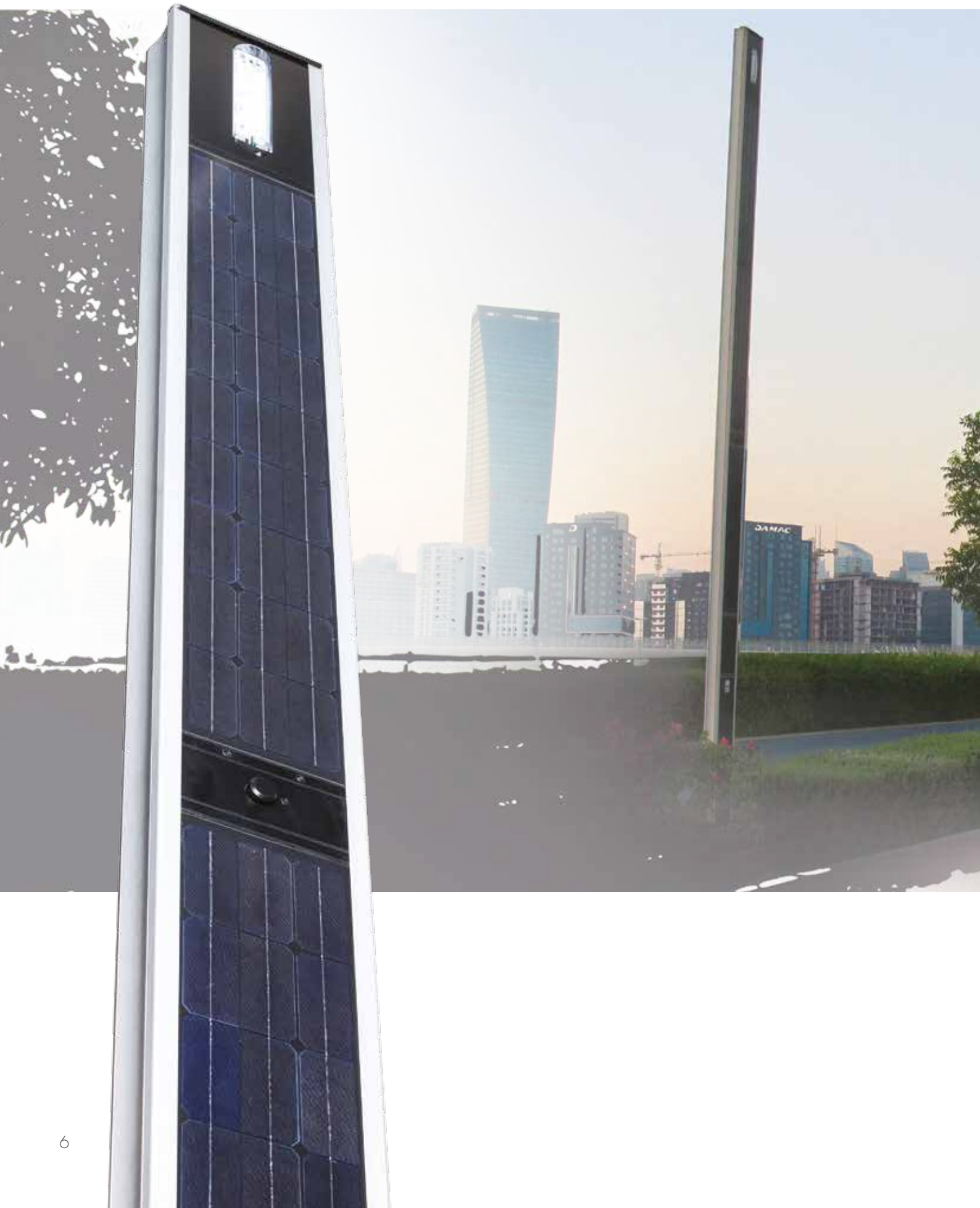
4
MODEL VALIDATION

Validation of the appropriate solar and its options for urban, residential, industrial or private lighting, three distinct sets form the **PhotoLight®** solar range:

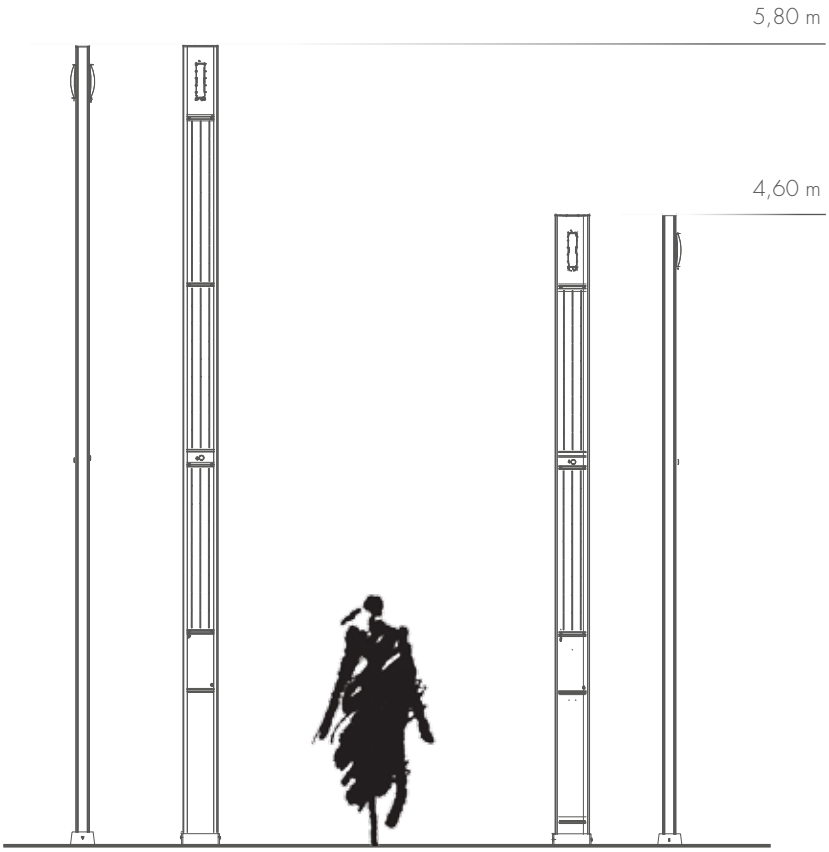
Straight, Curve et Walkway.



Character and modernity of a slim solar design



Straight



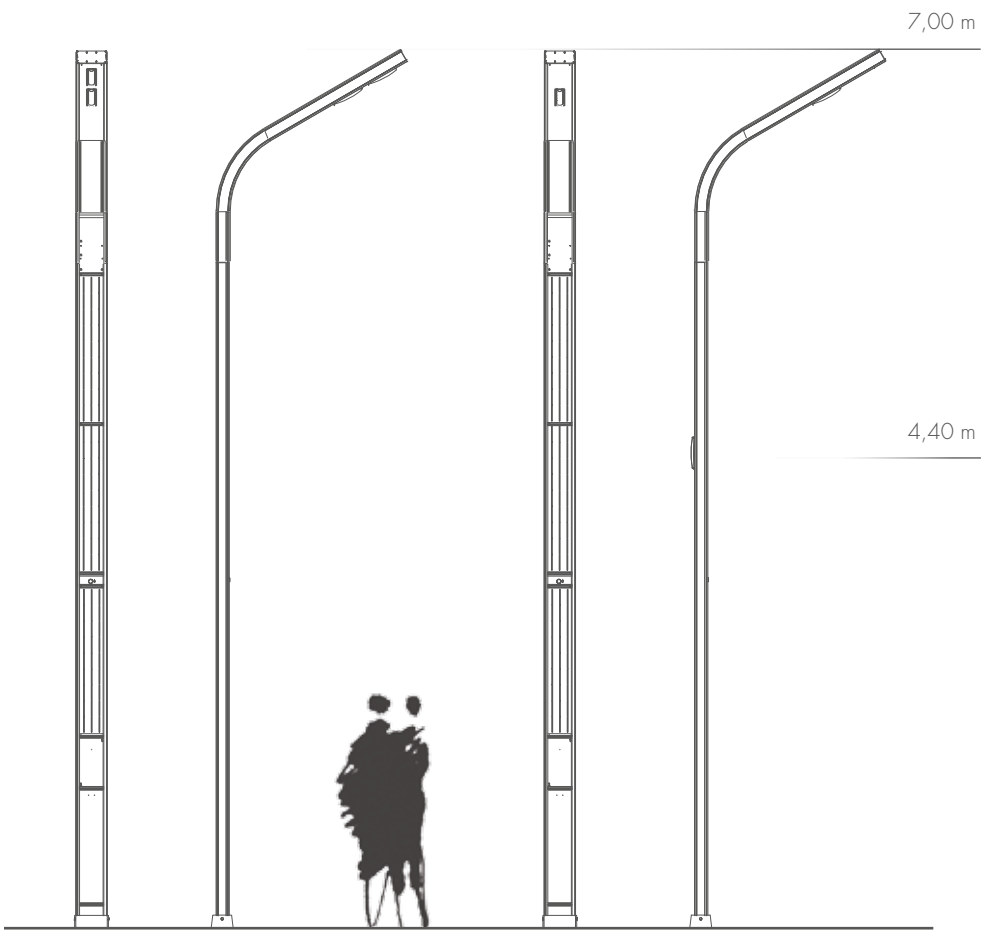
4 to 6 solar monocrystalline silicon cell panels
One or two LED modules IP67
With lenses and optical diffuser in polycarbonate with UV protection
Luminous flux of up to 4,200 lumen
Colour temperature 4000K

Height 4.60 m: 1 LED module, or 2 LED modules distributed on both sides.
Height 5.80 m: 1 LED module, or 2 LED modules on 1 side, or 2 LED modules distributed on both sides.
Motion sensor: detection up to 7m
Optional: USB socket.

Solar innovation supported by a streamlined design

7 solar monocrystalline silicon cell panels
2 IP67 LED modules with lenses and optical diffuser in polycarbonate with UV protection
Luminous flux of up to 4,200 lumen
Colour temperature 4000K

Curve



It can be configured with the 2 LED modules street-side lighting, or 1 LED module street-side and 1 LED module LED pavement-side (height 4.40 m).
Optional: CCTV camera, USB socket.
Height 7 metres
Motion sensor: detection up to 7m.
Optional: CCTV camera, USB socket.

Triangular stand alone bollard

Walkway

3 solar monocrystalline silicon cell solar panels
1 IP67 LED module with lenses and 360° optical diffuser in polycarbonate with UV protection
Luminous flux of up to 4,200 lumen
Colour temperature 4000K
Recommended for walkways and private gardens
Height 1 metre

HYBRID OPERATION: an alternative idea of solar energy

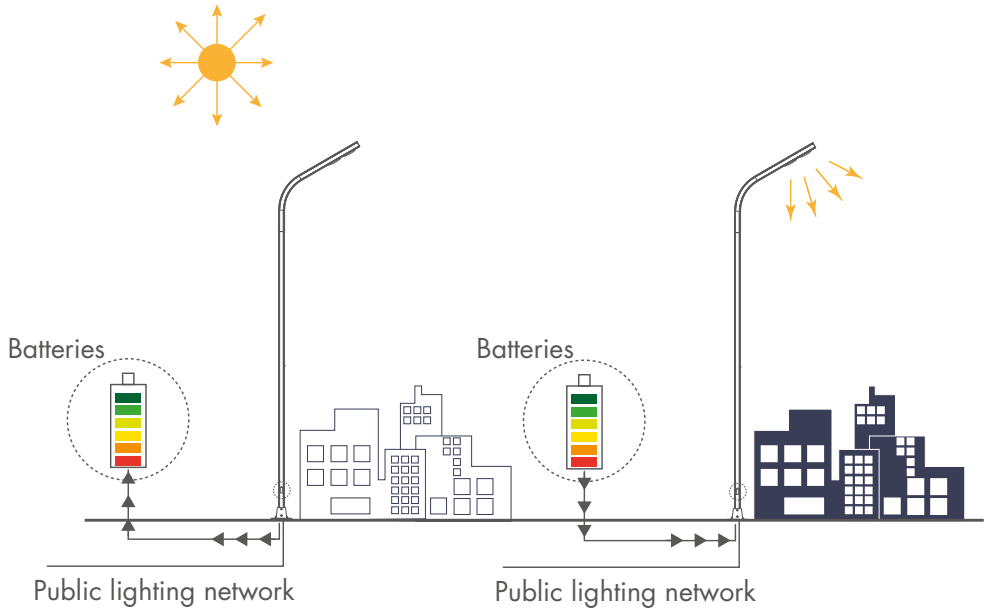
Without grid connection to the electricity network, the solar product must have accumulated enough light to be able to restore it whatever the weather or time of day. The immediate surroundings of the luminaires must be taken into account before setting up a stand-alone installation.

To provide a consistent performance level, **PhotoLight®** can operate in a hybrid version.

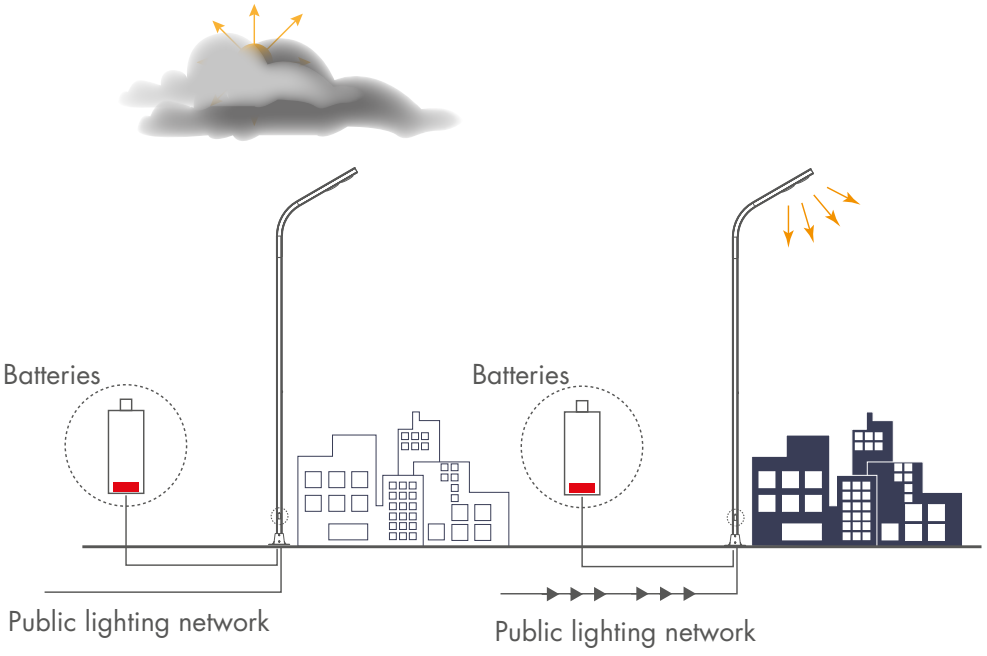
If the installation site does not allow sufficient sunlight, solar power is completed with a grid connection to the public lighting network.

This option guarantees the functioning of the luminaire if the battery voltage is too low.

External power does not recharge the batteries.



If **sufficient sunlight** to charge the batteries -> lighting operates thanks to the batteries

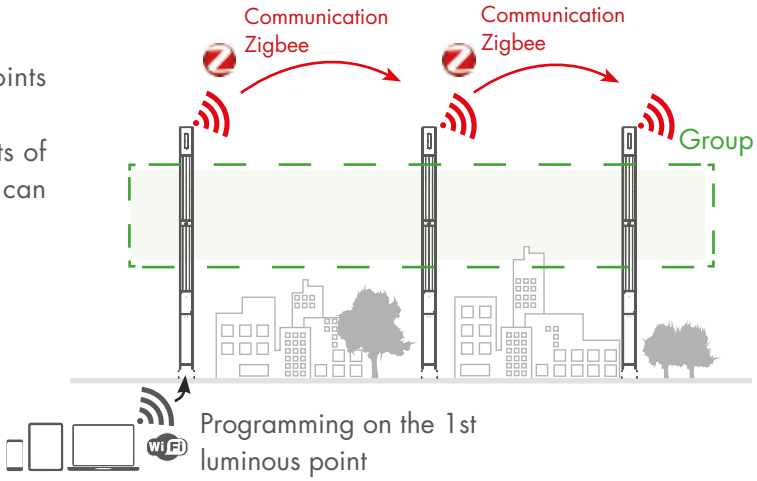


If **insufficient sunlight** to charge the batteries ->
the public lighting network takes over and directly powers the lighting

SMART LUM : smart lighting

Stand-alone group
All luminaires assigned to the same group of light points are configurable to have identical settings.
As from the first installed column, all other light points of a same group retrieve the same programming and can therefore be modified from a single luminaire.

Time scheduling
The time is automatically scheduled by GPS.
Adjustments can also be made manually with a choice of the correct time zone.



Lighting programs

1. Autonomous = *Stand-alone*
The luminaire lights up at twilight and turns off at sunrise.

2. Cycle = *Schedule*
Power consumption by the LED module can be defined hourly.

3. *Crepuscular sensor*
In Schedule mode, it's possible to connect hourly programming to the twilight sensor to turn the luminaire on.

4. P-Adjust = *Smart dimming*
This function automatically diminishes the level of lighting according to battery capacity, so as to last throughout the night.

5. Detect = *Motion sensor*
Lighting transfers to a preset level when a person approaches the luminaire.
Detection : 7 m.

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