

Cascais Municipality- Urban Park Outeiro da Vela More efficient and less polluting LED lighting design

# GOALS

One of the priorities of the Cascais Municipality is to achieve sustainable development, which guarantees the pursuit of human needs at the economic and social level, always respecting the ecological limits of the planet.

The implementation of this project meets these objectives, also contributing to the lighting quality of the various paths that are part of this Urban Park.

The Mountain Bike Skill Park of Outeiro da Vela, opened on February 15, 2020, in addition of being a Bike Park, also has a cross fit area, children's playground, viewpoint over Cascais bay and amphitheater.

The Parque do Outeiro da Vela is essentially composed of technical paths on dirt with obstacles in wood and stone. In sports terms, it has solutions for all levels of difficulty, allowing it to function both as a learning pole and as a stage for international sports competitions.

The 900-meter network of footpaths, which also function as cycle paths, allows you to walk throughout the area and enjoy a viewpoint overlooking the Cascais Bay, making the Outeiro da Vela Urban Park a new family leisure space.



The Municipality of Cascais was looking for a flexible and versatile solution, which would allow the flow regulation of the luminaires, betting on the objective of greater energy efficiency, reducing costs and preserving the environment.

The implementation of this project responds to the lighting needs of the Urban Park of Outeiro da Vela, namely regarding the lighting quality of all routes.

In total, 40 energy efficient ARQUICITY R1 EFFICIENCY LED luminaires were installed, with the ECCOS STREET lighting flow system, maximizing energy savings and reducing CO<sub>2</sub> emissions.





# LIGHTING FLOW REGULATION SYSTEM MADE BY DESIGN

The ECCOS STREET lighting control system, allows the dimming of the lighting by controlling the luminous intensity of the luminaires, through a pre-programming of suppression sequences and commands via a standardized suppression communication system, commonly known as micro cuts.

#### **OPERATING MODE**

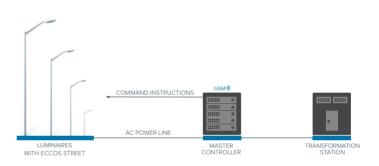
ECCOS STREET consists of a dimming module installed in each luminaire, which receives and executes pre-configured programs.

The supply suppression cycles are understood by the luminaires as commands to change the intensity of the luminous flux, in which the flow regulation for each time period is in accordance with the programmed profile.

In case the controller does not receive commands via the electric line, it starts to work in autonomous mode, using a pre-defined profile that is programmed at the factory and is previously defined by the customer. In this specific project, the ECCOS STREET command is carried out by remote access, via GSM, on the master controller, allowing remote programming by the Municipality, whenever a different operating profile is desired.

#### REMOTE OPERATION MODE

Whenever a remote management master controller is installed on the same electrical circuit as the ECCOS STREET controller, it will obey the master command.



# SPECIFICATIONS

- Equipped with two serial communication ports and one port on each micro cut module
- GSM module
- Digital clock with calendar
- LCD Display
- Four steps of flow regulation: 40%, 60%, 80%, 100%
- Manual module
- Schedule memory and other settings
- System behavior monitoring
- Controls luminaires with light flow regulation according to EDP's DMA<sup>1</sup>

# **ADVANTAGES**

- Additional energy savings
- Easy set-up
- No operating costs
- Time intervals and adjustable lighting flow levels
- Possibility of progressive expansion of the network

<sup>1</sup> EDP (Portuguese electric utilities company) standards and regulations.

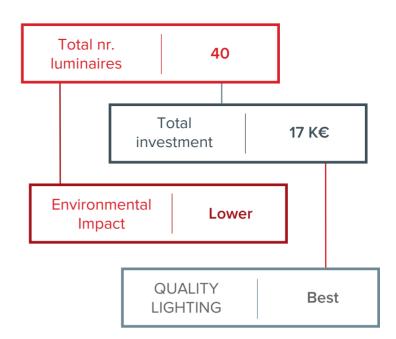


The implementation of the ARQUILED solution allows a quick return on investment for the municipality.

The investment in LED luminaires has several advantages, such as gains in terms of energy efficiency and a substantial reduction in the emission of polluting gases from the environment.

If LED lighting, per se, is synonymous with energy savings, the integration of ECCOS STREET allows to further optimize savings:

- high efficiency and less polluting LED luminaires;
- optimized light flow regulation, tailored to the needs and defined consumption profiles;
- increase the quality of light in all paths.





Arquiled is a general LED lighting manufacturer, specialized in professional luminaires for street lighting, systems and services.

Headquartered in Mora-Alentejo, is a Portuguese industrial company, pioneering the market since 2005, that designs and develops its own products and solutions.

ARQUILED is committed to develop smart management solutions focused on reducing energy consumption and decarbonization, contributing to sustainable urban clusters.

# CONTACTS

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