#### STREET LIGHTING & AUTOMATION Daimus Poligon, Benifla poligon and Rotova Poligon





#### **PROJECT SUMMARY**

Year of the Project 2022

Location Daimus Poligon, Benifla poligon and Rotova Poligon

Fixtures 500 Lights Project Partner AXOLED Solution Lumos Controls

Products Radiar AF10 (AC powered, 0-10V Fixture Controller), Microwave Sensor (DC powered, High Bay, wired motion Sensor)

Sensor installed at height at 9 meters

Lights installed at height at 9 meters



# BACKGROUND

Local authorities in the municipality of Daimus , Benifla and Rotova, Towns in Valencian province of Spain, approached AXOLED, a company with expertise in LED design, development, manufacturing, and distribution, to optimize and enhance the usage of streetlights. After a thorough evaluation, AXOLED confidently suggested Lumos Controls as the perfect solution for the project, given its advanced lighting controls, energy efficiency, and lighting automation capabilities.

#### **OBJECTIVE**

The Local authorities wanted to enhance the efficiency and automation of streetlight usage, leading to reduced energy consumption. Streetlights often consume more energy than necessary, as they remain at full intensity even when there is no activity or vehicles in their vicinity.

## **CHALLENGES**

Given that the installation takes place outdoors, it is highly probable that the devices might get wet or be exposed to dust. So, for that reason, the sensors were put inside the weather box to protect them from external elements like dust and rain. As for the controllers, it was put inside light casing itself as it was waterproof.

#### THE SOLUTION

The primary objective of this project is to create an automated street lighting system. The system will use motion detectors to activate a group of lights on each street with a specific brightness level, as defined in the high-end trim settings of the app. If there is no movement detected within a set timeframe, the lights will either turn off or dim to a lower brightness level, which will help conserve energy and improve lighting management.

To achieve this goal, we have provided them with 500 0-10V controllers (Radiar AF10) and 190 wired microwave sensors for a total of 500 fixtures each. The Radiar AF10 controllers are installed inside the fixture housing and are responsible for turning on the lights and adjusting their brightness based on triggers received from the motion sensors. These sensors are securely placed in weatherproof boxes and mounted on the exterior of the fixtures. These high bay sensors are designed to detect motion from any moving objects within its' range and subsequently activate the corresponding controller or group of controllers. This seamless integration ensures an efficient and responsive lighting system tailored to the presence of individuals and vehicles in the area.

## RESULT

Approximately 500 streetlights were converted into smart lights, leading to significant energy saving by utilizing motion sensing technology. The essential safety and lighting standards were maintained throughout this process without any compromise.



#### ABOUT LUMOS CONTROLS

Lumos Controls is the world's simplest smart lighting control that allows you to create exceptional lighting experiences for smart enterprises. The ecosystem features controllers, sensors, switches, gateways, mobile and web apps to set up basic to advanced smart controls. Lumos Controls offers you the freedom to decide what to achieve and how to Lumos Controls introduces their latest cutting-edge street lighting technology, the Radiar ZP10. This wireless multi-sensing controller, equipped with BLE5.2 and Zhaga book 18 connectors, promises unparalleled performance and functionality for street lighting systems. Read more about this exciting innovation here.





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