

**CASE STUDY**



**PROJECT SUMMARY**

**Name of the project**

Toyota Boshoku

**Type of Building**

Automotive Component Manufacturer

**The Requirement**

- Automated lighting solution
- Optimize energy usage
- Carbon-neutral building

**Location**

Somain, France

**Solution**

Lumos Controls

**Size of Installation**

500+ Lights

**Project Partner**

Clartee lighting

## BACKGROUND

Toyota Boshoku Corporation is a leading global automotive component manufacturer and a member of the Toyota Group. One of the notable manufacturing units of Toyota Boshoku is in the city of Somain, France. The facility is primarily focused on the production of seats and interior components for the automotive industry and has been operating since 1987, making it an integral part of Toyota Boshoku's history.

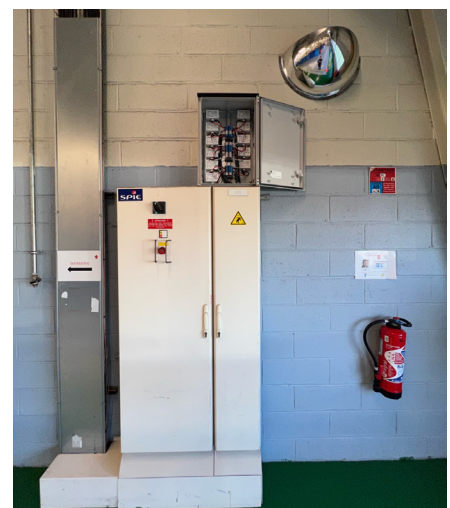
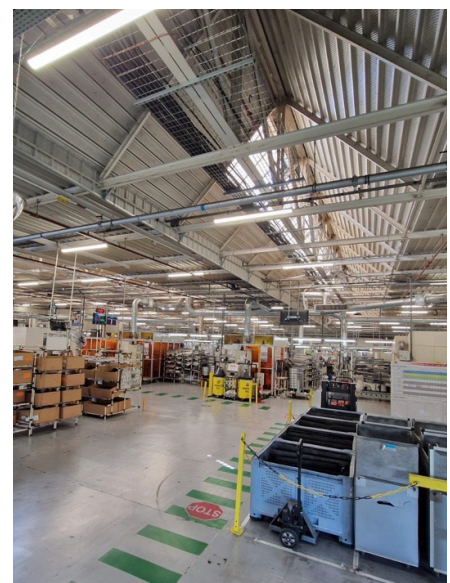
When Toyota Boshoku had the requirement for renovating its manufacturing unit in Somain, France, they sought the expertise of Clartee lighting, a renowned lighting solution provider. Clartee lighting recommended Lumos Controls as the ideal partner for the project. Recognizing Lumos Controls' expertise in advanced lighting systems and their focus on Simplest Lighting Controls for energy efficiency and lighting automation, Toyota Boshoku embraced their recommendation.

## OBJECTIVE

The objective of Toyota Boshoku in the Somain manufacturing unit was to reduce energy consumption and move towards becoming a carbon-neutral building, aiming to decrease their environmental impact without requiring substantial investments. They sought to implement an automated lighting solution to optimize energy usage and minimize manual intervention, particularly during non-operational periods, such as breaks.

## CHALLENGES

Toyota Boshoku faced several challenges in achieving their objectives. Firstly, the facility operated round-the-clock, resulting in significant energy consumption that needed to be effectively managed. Secondly, the initial approach of manually turning off lights during breaks proved to be inefficient and ineffective, requiring a more automated solution. Additionally, the factory's continuous operations posed a challenge to implementing any new lighting installations or systems without disrupting the existing operating conditions. Overcoming these challenges required finding an advanced lighting solution that could seamlessly integrate automation, achieve substantial energy savings, and ensure uninterrupted operations throughout the facility.



# SOLUTION

Lumos Controls provided a wireless lighting control solution that proved instrumental in helping Toyota Boshoku address their challenges. The proposed solution consisted of two key components: the PSC-WCM-450-BLE-WS, a BLE5.2 controllable, single-channel 0-10V room controller, and the Catron AI, a switch interface that can convert any push button, toggle or rotary switches to wireless. It can be easily commissioned, configured and controlled from any mobile device via the app.

By implementing this solution, Toyota Boshoku was able to achieve their energy-saving objectives without the need to modify the existing cable routes for lighting. Given the facility's 24-hour operation, Lumos Controls designed the system with 12 schedules to automatically control the lighting during non-operational periods.

During these breaks, 50% of the lights were automatically turned off, while the other 50% were dimmed to conserve energy. This automated adjustment ensured that lights were used in an optimal and energy-efficient manner. Importantly, the system ensured that all lights returned to full intensity once the break time ended, without requiring any human intervention.

## RESULT

Implementing the lighting control solution, Toyota Boshoku achieved remarkable outcomes. The system enabled them to save **15 MWh** of electricity per year by automatically switching off **50%** of the lights during breaks and implementing dimming capabilities. This significant energy savings not only contributed to their sustainability goals but also resulted in cost savings for the company. Based on the successful implementation and positive outcomes, Toyota Boshoku is now considering extending the lighting control system to other areas of the factory.

## 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 grow and step into a sustainable future.



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