Smart Warehouse

150,000 sq.ft warehouse with a primitive lighting system is retrofit-ted to a most modern automated lighting system with energy efficiency and human-centricity within 1.5 months.

Project Summary

Customer
Ebara Corporation

Area
150,000 sq.ft

Solution
Lumos Controls

Devices Used
Wireless Controlled Light and Motion Sensors
Single-Channel Dimming Control Devices
Energy saving switches
Gateways

Time for completion
1.5 months

Energy savings over
60%
Summary

The Objective
Upgrade 150,000 sq. ft facility by introducing automatic lighting controls making it smart, human-centric, and energy-efficient.

What We did?
- WiSilica implemented Lumos Controls, intelligent wireless lighting control solution
- Renovated the lighting system with smart controllers and enabled Mesh network
- Designed and Developed Mobile and Web Interfaces to sensors

Benefit

<table>
<thead>
<tr>
<th>Zero</th>
<th>60%</th>
<th>Remote</th>
<th>Web dashboard</th>
</tr>
</thead>
<tbody>
<tr>
<td>Downtime for Firmware updates</td>
<td>Energy savings</td>
<td>Lighting controls</td>
<td>with heat-map and Occupancy status</td>
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</tbody>
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The STORY

The Customer
EBARA Corporation, the leading environmental and industrial machinery manufacturer based in California has contacted WiSilica to improve the lighting efficiency of their warehouse which is spread across 150,000 sq.ft with more than 900 lighting devices. The customer wanted automated lighting controls with human centricity for the wellbeing, and performance of their employees besides energy efficiency.
The Course of Action

In a short span, WiSilica implemented Lumos Control solution for wireless device controls and smart lighting. The lighting controllers were upgraded to mesh networking making the facility illuminate with smart devices. To make the system interaction easy and effortless, customized web and mobile interfaces were developed. A web dashboard with heat-map and occupancy status was developed to track the energy efficiency and resources utilized.

The warehouse is now fully equipped with an automated lighting system that can remotely control and track the luminaires. The activation and adjusting of luminaires became easy, fast, and interactive with lighting sensors and voice controls. The gateways allow the collection of data from the connected ecosystem/network and transmit them to Cloud. These data are used to analyze performance metrics and to collect analytics from third-party solutions.

The Solutions

After a detailed study, WiSilica decided to implement LUMOS Lighting Controls. The devices used are Wireless Controlled Light and Motion Sensors, Single-Channel Dimming Control Devices, Energy Saving Switches, and Gateway. With these devices, WiSilica ensured multi-level controls (Switches, Mobile Devices, and Web) and cloud-connectivity for energy efficiency reports.
Today, EBARA is happy to have an energy efficient and smart warehouse. Over the last one year, the solution has resulted in around 60% reduction in energy bills and given the facility access to cloud based reports which show energy usage and occupancy in the facility.

About WiSilica
WiSilica is a smart environment IoT platform and solutions provider that bridges objects, locations, and people in real-time. ARIXA, WiSilica’s location-aware IoT platform provides complete cloud-to-device solutions for intelligent wireless lighting controls (Lumos Controls) and real-time location solutions (TRAK). The company also provides customized end-to-end IoT solutions (ORION) to OEMs developing new smart solutions. WiSilica with its expanding partnerships with global tier1 companies is committed to extending its leadership in human-centric lighting, energy efficiency, space management, and AI-powered analytics.