

ULINE CASE STUDY

Efficiency Revealed // Reduced Energy Use: 28%

SITUATION

Uline is the leading distributor of shipping and packaging solutions to businesses throughout North America. Family-owned for over 40 years, Uline has built its brand on customer service. Order accuracy, quick delivery, and low prices are the core of their promise to their customers. With a robust, 800-page catalog and over 38,000 products, everything in their facilities is expected to contribute to this promise.

And by everything, that means each and every one of the warehouse's 3,014 lights.

Uline's director of Engineering, Mike McConnell, is tasked with finding efficiency wherever it may be hiding, and he understood the strategic importance of optimizing light to improve both operational and financial performance.

Uline needed the lighting at its facilities operating at its best - energy efficient, task tuned to enhance order accuracy and simple to operate. Mike wanted his team focused on moving product, not wrestling with technology. Each day, dozens of tractor trailers carrying tons of product are distributed from their 800,000 square foot Lacey, Washington facility. Uline identified a luminaire that best fit their facility's needs, but they had issues finding a reliable lighting controls provider that

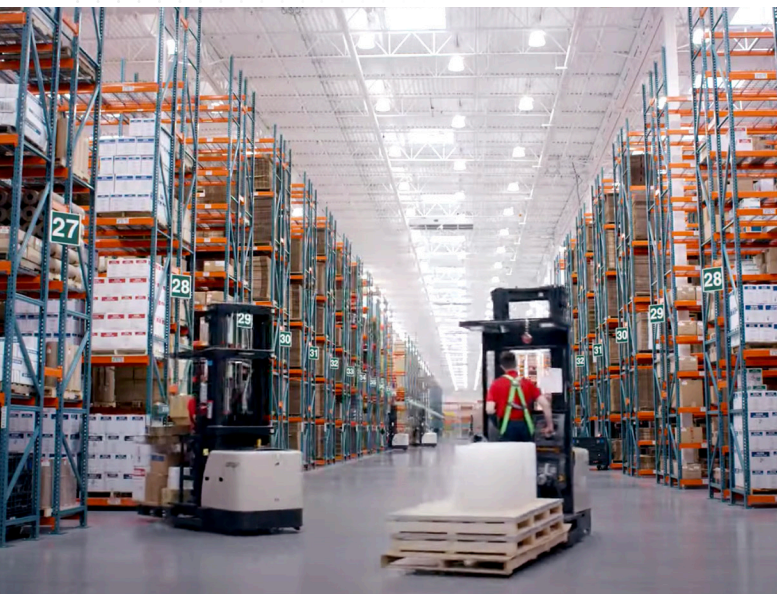
could deliver a solution at this scale to meet stringent energy codes and zoning requirements they needed. A few things were necessary: The lights in the entire facility had to operate as a single system with one interface, they had to adjust to natural lights from the skylights for daylight harvesting, and the technology needed to work with Uline's existing IT systems.

“EVERYTHING THAT WE PUT INTO THESE BUILDINGS HAS TO SPEAK TOWARDS OUR PASSION AND ADVANCE OUR MISSION, WHICH IS TO GET YOU THE RIGHT PRODUCT, AS SOON AS WE CAN, AND AT THE BEST PRICE WE CAN OFFER.”

MIKE MCCONNELL //
Director of Engineering at Uline

The facility consisted of hundreds of aisles, each needing their own independent zone. Having all lights in each zone come on at once was paramount; a facility of this size houses thousands of individual luminaires, and instantaneous light for each zone was top priority. When you're operating at peak efficiency there are several literal tons of product that must get to customers on a daily basis, you've got to be able to see what's in front of you - not in 10 seconds, but right now.

Other providers offered a mix of wired and wireless systems that were complex and cumbersome. The wired systems were hard to install and maintain. The wireless solutions couldn't scale to meet the size of the facility and were slow. None of the other systems could meet Uline's IT requirements, nor deliver the desired user experience of the control system: It needed to be reliable, and it needed to be simple to operate. With mounting energy costs and a bustling workload, Uline needed the Washington facility's lights to light the way. Mike didn't have time (or energy) to waste on complex solutions that didn't deliver optimality.



INSIGHT

“We had the top three lighting control companies in here trying to do wireless mockups. We wanted them to come in and perform, and show us that we could bring these lights on together, and they failed miserably.”

MIKE MCCONNELL // Director Of Engineering At Uline

SOLUTION

Synapse got to work on a smart lighting solution that would meet Uline's logistical needs and impact their bottom line.

3,014 high-bay luminaires were installed at the Uline facility and then integrated with Synapse's SimplySnap wireless controls. SimplySnap, is a scalable wireless platform that can manage multiple locations and single sites up to 10,000 lights. It allows Uline to set up, control, monitor, and manage every light from a single user interface that integrates with Uline's existing building management system (BMS).

The high-bay lights respond instantly without delay (check) and are optimized through SimplySnap's precision controls and scheduling to respond to the natural lights from the warehouse's skylights and enable daylight harvesting (check).

The SimplySnap lighting solution comprises software and hardware components that are adaptable to multiple applications, providing reliable connectivity and control. Our lighting controllers use the secure, and robust Synapse SNAP® mesh network, providing a dependable solution that just works – as promised, all the time. The intuitive control

and interface allowed for the creation of custom settings and schedules, which maximized Uline's savings while giving them complete control of each light, bank, and zone.

The SimplySnap system worked so well at the Lacey, Washington facility that it was chosen as the standard system for all of Uline's future deployments, including parking lots, signage and building lighting.

"I WALKED HIM THROUGH SETTING UP THE CONFIGURATION, AND HE [MIKE] WAS UP AND RUNNING QUICKLY, CONTROLLING THE LIGHTS FROM HIS IPAD."

ROB PADGETT // Field Engineer



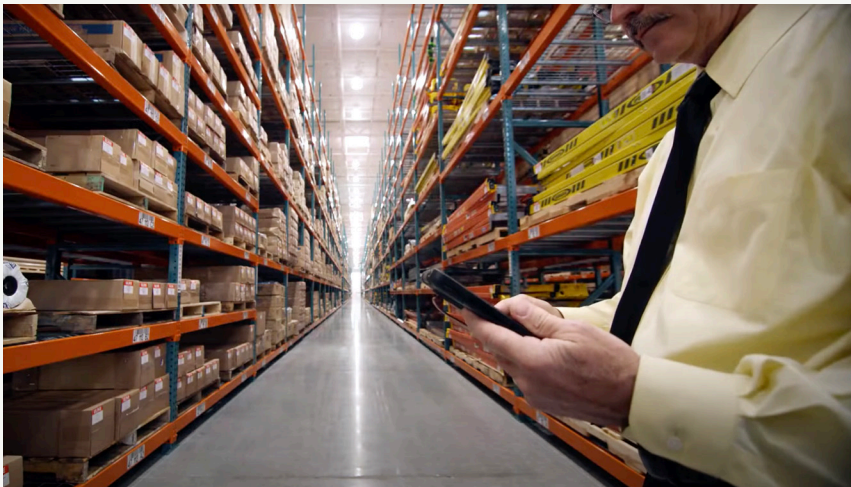
RESULTS

- ✓ **Reduced energy use by 28%** by implementing scheduling and controls strategies.
- ✓ **Met the stringent energy codes** required by the state of Washington
- ✓ Met the performance requirements and **successfully integrated with existing BMS system**
- ✓ **Standardized on SimplySnap** for all new facilities

The SimplySnap solution addressed each of Uline's needs seamlessly: it's cost effective, energy efficient, simple to use and provides a well-lit, optimal working environment for employees.

And that's not all:

The SimplySnap solution also meets the stringent Washington State Energy Codes.



WIN

FOR ULINE
EMPLOYEES

+

WIN

FOR THE
ENVIRONMENT

+

WIN

FOR ULINE'S
BOTTOM LINE.

OUTCOME

 **800,000** SQUARE FEET

 **3,014** LIGHTS

 **221** ZONES

 **563** MOTION SENSORS

BMS INTEGRATION

WASHINGTON ENERGY CODES: **MET**

1 MANAGEMENT PLATFORM - **SIMPLYSNAP**

SYNAPSE CONTROL PRODUCTS

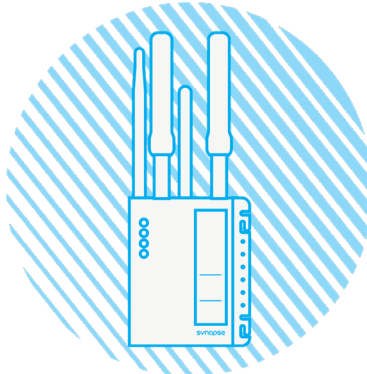
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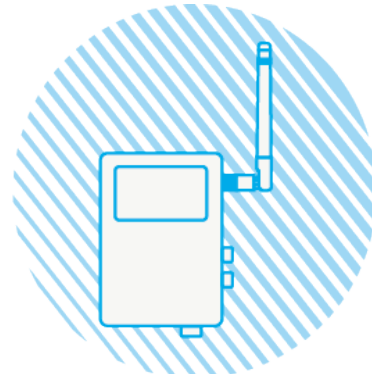
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3



4



1. SimplySnap
2. High-bay luminaire with embedded Synapse Controls
3. SS450 Site Controller
4. BMS Gateway

Visit www.synapsewireless.com to learn more or speak with one of our sales representatives.