

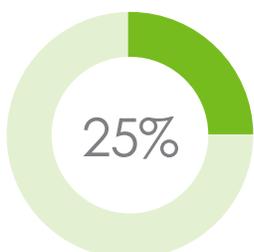


## Lighting Control and a Surprising Reduction in Wiring and Installation Costs in a New Warehouse

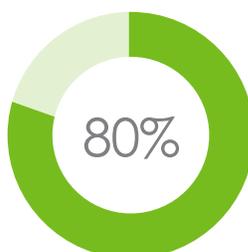
One of the country's top providers of integrated logistics solutions, Saddle Creek delivers warehousing, transportation and contract packaging services at facilities strategically located across the country, helping manufacturers, distributors and retailers cut costs and gain a competitive edge.

It's an industry of constant change, focused on supporting its customers' business growth, seasonal fluctuations, special promotions and other specialized warehousing needs. To accommodate its growing base of customers, Saddle Creek constructed a new 325,000 square foot expansion on its campus located in Harrisburg, North Carolina.

### Cost Reduction



CONTRACTOR CONSTRUCTION



NEW CONSTRUCTION WIRING

#### Tom Nepute

OPERATIONS INDUSTRIAL  
ENGINEERING MANAGER,  
SADDLE CREEK CORPORATION

“You can be as creative as you want to be with how you control your systems.”

## CHALLENGES

While the warehouse would typically be in use for 8 to 14 hours per day, it would serve multiple customers with varying needs and requirements. Different parts of the building would be used at different times on different days of the week. That constantly changing work flow meant that the first priority was a lighting control system that would provide maximum flexibility. It also had to be easy to use and able to quickly adapt to new requirements. Another priority was reducing energy usage. Even though warehouses usually have lower illumination requirements than other building types, nearly 68 percent of the energy is typically used by the lighting system. Saddle Creek also needed to ensure that the system was compatible with the RF and other warehouse management systems they employ in all their warehouse operations.

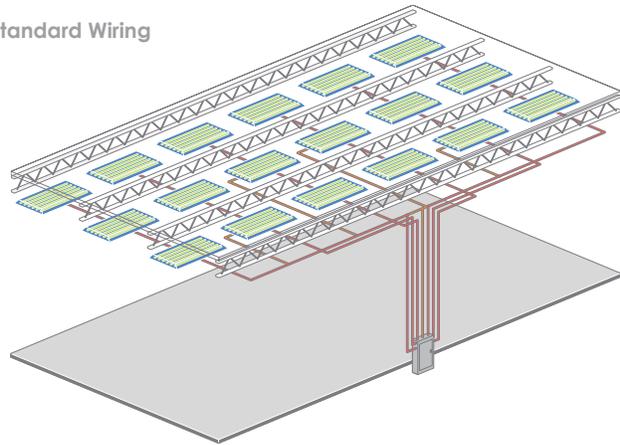
## SOLUTION

With the help of LimeLight, the Saddle Creek operations team and managers understand what's needed for the new building, and designed the wireless infrastructure to provide the flexibility to support the flow of warehouse operations. "You want to make sure you take advantage of what the system can do," said Tom Nepute, Operations Industrial Engineering Manager for Saddle Creek. "How do you really want to operate your facility? How creative do you want to be? With LimeLight, it's a whole different way of thinking about it. Especially from a new construction aspect." In new construction, the LimeLight wireless control system allows more fixtures per circuit, and eliminates the need for dedicated circuits, reducing the cost of wiring installation and panel equipment by up to 80 percent. LimeLight saves on installation time as well. "On a five week project, it was common for us to add an extra week to do nothing but get up on a scissor lift and tweak sensors with a screwdriver," said Nepute. "With LimeLight, you program the sensor from a computer screen at your desk." LimeLight is based on the ZigBee® standard—802.15.4—so it is proven, reliable and secure. Each node is scalable, with the capacity to integrate and control other building systems and devices. In the future, Saddle Creek will be able to add any applications they need, such as monitoring hi-lo batteries or controlling heating and cooling, as they become available.

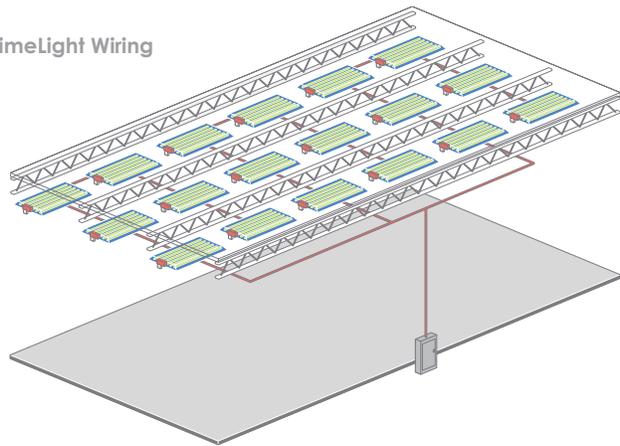
## RESULTS

LimeLight enabled Saddle Creek to reduce electrical home-runs and wiring for each zone within the warehouse, saving over 25% of the electrical contractor construction costs. "We understood that there would be an additional investment to install the LimeLight wireless mesh network," said Nepute, "but when we saw the construction cost savings we could get, that was the clincher. There's a significant ROI." LimeLight also saves money over time, by enabling Saddle Creek to adjust quickly to accommodate the variety of schedules within the building. If the footprint of an account needs to shift to a different part of the building, they can change the lighting as they move it. "With LimeLight's web-based dashboard, I can do it here in Lakeland," said Nepute, "or they can do it up in North Carolina. It's a pretty slick system." Nepute is also looking forward to the innovation that's coming down the road. "I just think as LimeLight gets more creative," he said, "we'll tag along with it and see what's there."

Standard Wiring



LimeLight Wiring



LimeLight wiring reduces installation costs by up to 80 percent

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