

# Case Study



93%

ENERGY SAVINGS

\$339K

LIFETIME SAVINGS

4YR

ROI

## Schroder Expo Center

The Schroeder Expo Center is a 45,000 ft<sup>2</sup> multi-use exposition hall at the Paducah Convention Center in Kentucky. The space has a large impact on Paducah's economy — regularly bringing up to 35,000 people for events.

*"I'd recommend Lightcloud to anyone, because it's so easy."*

— Michelle Campbell, Executive Director



## Problem

Michelle Campbell, Executive Director at the Paducah Convention Center, was looking to improve the lighting and controls at the Schroeder Expo Center, while reducing costs. “We had a lot of CFLs that were wasting a lot of energy, and it was wasting a lot of time changing all of the lamps. They were just a hassle always burning out.” The center had 234 eight-lamp CFL aluminum domed high bays with Acuity controls. Not only were the CFLs inefficient, it was expensive to maintain. Lifts were required to reach the high ceilings to replace the constantly failing CFLs. In the words of the convention owner, “By the time we finished the group re-lamping and re-ballasting of 234 fixtures, the first fixtures changed were already having failures.” To make matters worse, the CFLs had inconsistent color temperatures. Most of the light was green, which wasn’t flattering.

## Concerns

The Center is used for a large variety of events with very different lighting demands, so controls that are easy to use and precise are paramount. The Acuity controls system in the Expo failed. The controls were over CAT5 cables and were controlled by section rather than individually. When the system worked, it still didn’t have continuous dimming, so you were limited to off, 33%, 66%, and 100%. Acuity stopped supporting the system, so it was impossible to program or replace. Michelle knew the controls for the new space needed to offer a lot more than the old system, be easy to use, and have support that they could count on.

The ability to expand the system was also a must. As they continue to update the rest of the Convention Center, they’d like to stick with one control system for the whole site.

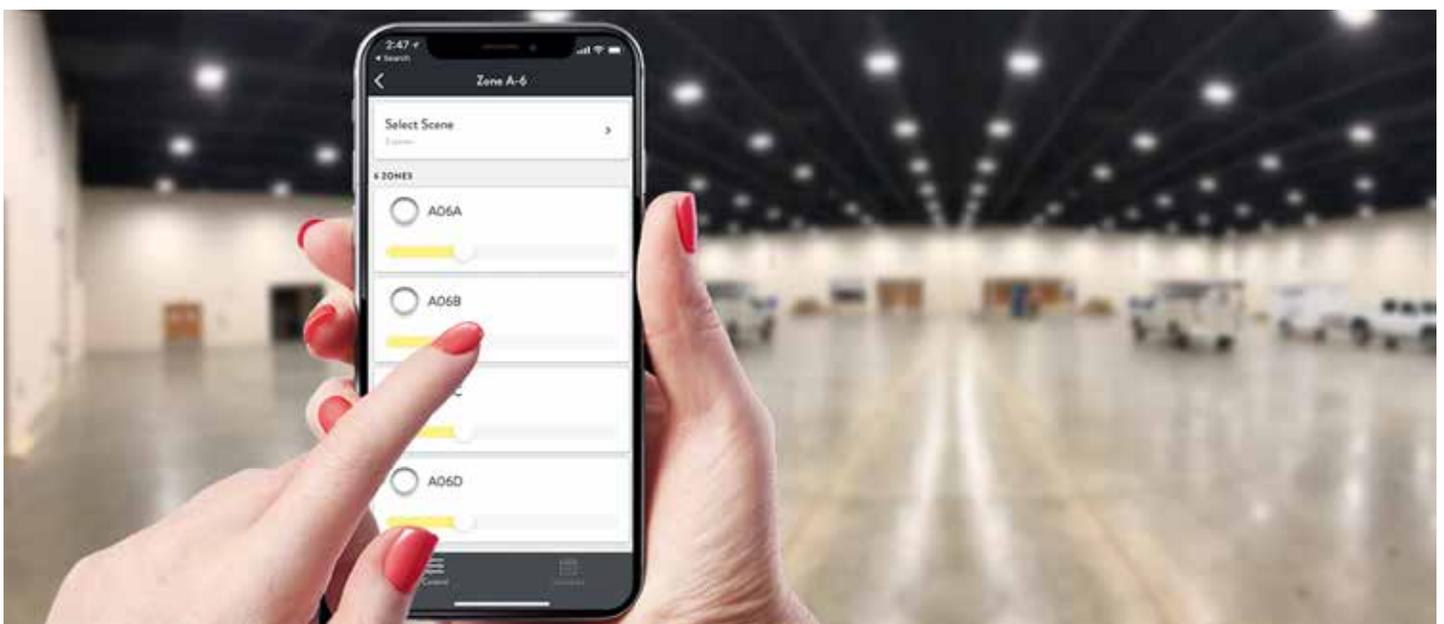
## Solution

For Michelle, the choice was clear, “We looked at other systems, but they were all hard to operate and a poor user experience. Lightcloud is really easy to use – put in on your phone, computer, or Touch and you’re up and running.” The 234 CFL fixtures were replaced with 117 RAB high bay RAILS, which are 73% more efficient. The fixtures have a 100,000-hour lifespan, so they won’t need to be replaced for decades. The 4000K color temperature eliminates the green appearance and makes things look more natural. Each of the fixtures is Lightcloud-Enabled, so each fixture can be controlled on its own or grouped together by Area or Scene. Eighteen of the fixtures have built-in battery backups. The emergency fixtures are controlled just like every other fixture in the system, but in the event of a power failure, the fixture turns on and operates from its backup supply. A Lightcloud Touch was installed with two Dimmers for easy Scene control. The fixtures have a 10-year warranty (5-years for the power supply), and Lightcloud comes with a 10-year warranty and support contract — all of this at no premium.

## Installation

Michelle was really impressed with the installation, “The install went much faster than expected, because the system was so easy to install. We were way ahead of schedule, which was great,” Jesse Norris was the Project Foreman for installation. He has some experience with control systems but had never worked with Lightcloud before. He was really impressed how easy the system was to install, “The installation went very well. Being wireless, it was really easy to install—not having to run any low voltage wires was great.” The fast, easy installation saved the project both time and money. Jesse, “The system was easy to figure out without any training. I just logged in and started using it—creating scenes and organizing devices. It was really easy and straightforward. I’d recommend the system to anyone considering controls, because it’s just so easy.”

*“I just logged in and started using it (Lightcloud)...It was really easy.” — Jesse Norris, Project Foreman*



## Results

Since installing the new system, they've doubled the number of events in the space. Being able to create scenes and schedules enables Michelle to customize the lights for each event. Customers are so impressed with the new lighting they're hosting more events. After a gymnastics competition, the league was so pleased they booked 4 more events. At a Game Show that was hosted in the convention, they were even able to use a single RAIL as a spotlight over the presenter. The whole process just took a couple of clicks in the App.

The energy savings have been huge. Even with more than doubling the use of the space, the energy consumption has gone way down, 93% to be exact! Michelle was amazed by the impact of the lighting on the space, "The system is so much brighter than the old system — you can see things you couldn't see before! I didn't realize how dark the old system was until the new fixtures were installed. We have it dimmed to 30% most of the time, which is plenty bright. There's nothing I don't like about the system. It's sleek, modern and keeps us up to date. It makes us look modern and performs very well."

Between the increased efficiency of the fixtures and additional savings from Lightcloud, the system is going to pay for itself in under four years. That doesn't even include the savings from not replacing the CFLs (renting a lift, labor, and CFLs). After the four years, those energy savings are all savings. That's more money to be spent improving the site and investing in the community. How much? \$339,000 in savings over the life of the system!

## Recent Events



GYMNASTICS



DINOSAURS

## Support

The system works so well and is easy to use, so Michelle said she didn't really need support but is very happy to have it, "Lightcloud support is wonderful. As easy as it is to create Scenes and Schedules, sometimes I don't have time, so I love that I can call support and have them do it for me. This is a big deal for me."

Being unfamiliar with Lightcloud, Jesse was equally pleased that he could rely on support without worrying about any support fees. In the end, the system was so easy he didn't need the support, "RAB was great and willing to do a lot more, but I did a lot of the work myself — it was so easy."

## Moving Forward

Michelle thinks Lightcloud is perfect for any space, "I'd recommend Lightcloud to anyone, because it's so easy," and wishes the whole building were controlled with Lightcloud. The Convention plans to make Michelle's wishes come true and install Lightcloud throughout the rest of the spaces as they continue to update the facilities.

*"Acuity was out...Lightcloud is much easier and more powerful being wireless and not requiring control wires. Ease of expansion was equally important, because there's plans to extend the system to the rest of the center."*

— Jesse Norris, Project Foreman



TRADE SHOWS



MMA

## Installed Fixtures

	NAME	ENERGY SAVINGS	ROI	LIFETIME SAVINGS
	RAIL	73%	< 4 Years	\$168,217.68
<hr/>				
	Gateway	75%	6 Months	\$171,798.98
	Controller			
	Touch			
	Dimmer			
<b>COMBINED SAVINGS</b>		<b>93%</b>	<b>&lt; 4 Years</b>	<b>\$339,016.66</b>

*Energy savings are calculated on \$0.06/kWh.*

## Project Details

**Client:** Paducah Convention Center

**Installer:** Jesse Norris, Spencer's Electric

**Engineers:** Greg McCord, Marcum Engineering

**Distributor:** Todd Swinford, Hannan Supply Co

**Manufacturer's Rep:** Troy Glordan, Summit Sales & Marketing



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