



# Ohio School System Takes Control of Its Lights

With Keystone SmartLoop, staffers can adjust lighting to meet their needs

## The Challenge:

The lighting at Circleville City Schools appeared to be haunted.

Hallway fixtures would randomly turn on and off. Classrooms would suddenly go dark. Sometimes, the school would be ablaze with light in the middle of the night.

The cause, however, wasn't supernatural. It was more mundane: The control system wasn't doing the job.

There were other issues, too. Many of the fixtures at the three district schools, all built in 2014, were outdated fluorescents. Moreover, the gym lighting consisted of metal halides that put out a "dull, dark look," in the words of Circleville High School/Middle School Athletic Director Brandon Wright.

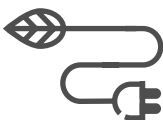
To rectify the issues, the district, located about 25 miles south of Columbus, turned to Energy Optimizers, USA, an Ohio-based energy services company. The schools decided to upgrade its legacy lighting to LED, and more importantly, change the dysfunctional control system to something that was able to handle daylight harvesting, occupancy sensing, and scheduling.

But the cost of replacing the products with the legacy brand's newest control units was going to be far more than Circleville Facility Director Jay Darland had budgeted. Still, based on his needs, he thought he didn't have another option.

Then Energy Optimizers, USA, suggested Keystone. Keystone checked all the boxes.

"Keystone and Energy Optimizers, USA, blew everybody out of the water on price point," he said. "I did a lot of research on past projects, customer references, and Keystone's product performance, and they all received excellent reviews. Keystone was a no-brainer."

### Strong **Energy Savings**



With the lower energy usage of LED and the efficiency of SmartLoop controls, the school district estimates it will **save almost \$30,000** in yearly electricity costs over what it paid before.

### Reduced **Maintenance Expenses**



The dependability and longevity of Keystone LED lamps and fixtures is estimated to **save more than \$15,000** per year.

### Easy **Customized Environments**



With the SmartLoop app and keypad, classrooms and athletic facilities **can be adjusted by individual staffers** to suit their needs.

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## The Keystone Solution:

Starting in December 2022, the contractors went to work. The fluorescent lighting in the classrooms and public areas was replaced by Keystone T5 LED tubes and their compatible LED drivers, and the gym lighting was upgraded with Keystone LED linear high bays.

For lighting control, the district opted for Keystone SmartLoop, a full portfolio of wireless solutions. Circleville's installation included screw-in Bluetooth mesh wireless SmartPort LED controllers for SmartLoop with integrated daylight and PIR motion sensors.

***"That mindset of I can do whatever I want with this thing—that's exciting," said Athletic Director Brandon Wright, who did a great deal of his own programming. "I just dove in."***

In the classrooms, to control light levels by row, three fixture controllers were mounted above the ceiling in each classroom and commissioned via the SmartLoop mobile app, allowing for grouping—customizing certain lights to turn on with a push of the scene button—and scheduling. Additionally, each classroom features a remote mountable daylight PIR and motion sensor on the ceiling. Finally, every classroom got a SmartLoop dimmer switch/keypad so teachers could adjust the light to suit their pedagogical needs.

"SmartLoop has been very easy to use," said Darland. "The teachers love it. A number of teachers have set up zones in their own classrooms. It flowed very easily for us."



*Teachers can control the lighting in their classrooms with a SmartLoop keypad.*

"The interface is great," said Energy Optimizers, USA's, Zac Lentz, the lead install technician. "Every teacher that I've talked to, once I explained the system to them, got it immediately—and that's important, because if they don't know how to work the system, it becomes a hassle."

With SmartLoop, the switches are locally controlled, without the headache of a proprietary centralized system. Touch the keypad's Auto button and sensors read a room's light levels and adjust lighting accordingly, and three scenes can be saved on the Scene switch, with even more saved in the SmartLoop mobile app.

In the high school gym, the district decided on Keystone LED linear high bays with SmartLoop sensors added. Wright, the athletic director, uses the SmartLoop app on his phone and tablet, and has made the most of the possibilities: for the National Anthem, he turns a solitary light on the flag; for team introductions, he has a

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setting that spotlights the bench; for a wrestling match, he turned out all the lights except the ones above the wrestling mat.

He's even found a hack for a light show.

"When you save a new scene, it resets and the lights flash on and off. It looks cool," he said. "When we win a basketball game, in the last 30 seconds, I'll create a new scene and click 'save,' and it looks like a light show."



*Circleville used a variety of Keystone products, including LED tubes and LED high bay fixtures, to upgrade lighting quality and save on energy usage.*

## The Result:

Installation and commissioning were straightforward, Lentz said. "The products worked straight out of the box and setup was super simple. I trained a lot of guys on how to do it with zero hassle—just adding things to different groups on the smartphone app, and reassigning the different controls," he said.

Darland praises the whole project.

"It's been a great experience for us. Of all the projects I've done the last couple years, this has been by far the best," he said.

And Wright notes that Circleville's gym has never looked better: bright, bold, and fun.

He's expressed his joy so often that he was given a coffee mug by the girls' volleyball team. On it are seven words: "My gym lights are better than yours."

"I love how our lights look," he said. "We've got a good product now."



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## Product Solutions:



### Linear High Bays

KT-HBLED115-1.5F-850-VDIM-P/ G2

KT-HBLED155-2F-850-VDIM-P/G2

### Downlights

KT-RDLED18PS-6A-8CSG-VDIM



### SmartLoop Bluetooth Mesh Controls:

#### Dimmer Switch/Keypad

KTSL-WS1-B-SG

#### Fixture Controller with Remote Mount Sensor

KTSL-FC1-UV-KO

KTSL-FC1-UV-KO-PIR

#### Screw-in Controller and Sensor

KTSL-FC3-12V-PKO-PIR



### LED Tubes & Bulbs

KT-LED94P-V-8CSI-S

KT-LED8T5HE-24G-840-E

KT-LED12T5HE-48G-840-E

KT-LED16T5HO-36GC-840-DX2

KT-LED12T5HE-48G-840-E

### LED Drivers

KTLD-2LT5HE-UV-8C-VDIM

KTLD-4LT5HE-UV-12C-VDIM

KTLD-2LT5HE-UV-12C-VDIM

For complete information, check out Keystone's full Catalog of Products:

