

# Case Study



68%

ENERGY SAVINGS

\$8,000

UNDER BUDGET

10<sub>YR</sub>

WARRANTY & SERVICE

## North Burlington High School

North Burlington High School serves over 1300 students in grades nine through twelve in Burlington County, New Jersey including children of USAF personnel at McGuire Air Force Base. North Burlington excels in both academics and sports.

*"The system is great; it's working well!"*

— Will McKee, Director of Facilities





## The Problem

Facilities Director, Will McKee, was looking for an alternative to the existing timeclock and low-efficiency metal halide fixtures surrounding North Burlington High School. The old timeclock was complicated and required manual adjustment for daylight savings. Adjusting the schedule was anything but intuitive and required Will to break out the manual to ensure the schedule was set properly. The process was tedious and a waste of Will's time.

North Burlington has a rapidly growing faculty, and a number of staff need access to lighting controls. Each time staff needed access, Will had to repeat the same process of getting out the timeclock manual, going to the school, making adjustments, and hoping the device was properly set. The old, inefficient metal halide fixtures were wasting energy.

## Concerns

Will was concerned about safety, ease of use, and energy savings. As more people were needing access to the lights, the risk of a dark parking lot from an oversight or slight misunderstanding increased. This was magnified by the complexity of the timeclock. Energy savings were important to reduce monthly expenses as well as justify a new system.

*"I was impressed by the potential energy savings, ease of use, and cost effectiveness of Lightcloud®."*

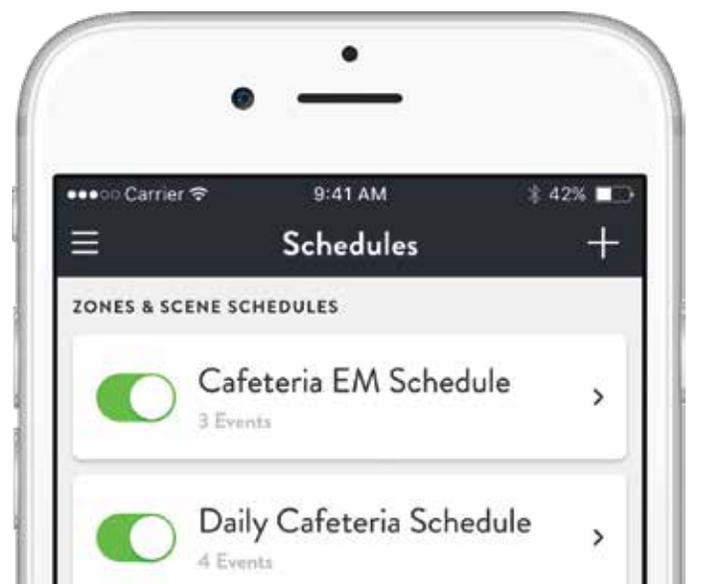
— Will McKee, Director of Facilities

## The Solution

Will worked with Peter Knowles, Outside Sales, from United Electric and Mike Briggs, Manufacturer's Rep, from Pollart Electrical to develop a complete fixture and controls system that made sense for the district.

The system was designed with two zones, Parking Lot Lights and Walkway Lights, to keep controls as straightforward as possible; the Lightcloud system always has the flexibility to add or remove zones easily. The initial schedule was set to make sure the lights are on whenever people would be using the outdoor space and sufficient natural light isn't available, and remain off the rest of the time.

A collection of RAB's high-quality and high-efficiency fixtures were chosen to maximize energy savings and improve light coverage and quality.



## Installation

Wayne Brewin, Master Electrician of 24 years, from Northeast Electrical had experience with wireless control systems and worked with Mike for the installation. Wayne found the entire installation extremely straightforward, which differentiated Lightcloud from other wireless systems. The simplicity drastically reduced the installation time and saved \$8,000 in labor costs!

***“Installation was problem free!  
Went like it should!”***

— Wayne Brewin, Master Electrician of 24 years

Wayne noted what a big help Mike was during the install and was impressed by the high quality of RAB fixtures. Wayne recommends Lightcloud to his colleagues.

## Installed Fixtures

NAME	FIXTURE TYPE	ENERGY SAVINGS
 ALED3T125/480 — Replaced 400W Metal Halide ALED3T150 — Replaced 250W Metal Halide ALED3T78 — Replaced 250W Metal Halide	Area Lights	66%
 ALED5S78/D10 — Replaced 250W Metal Halide	Area Light	69%
 VANLED20 — Replaced 150W Metal Halide	Canopy Light	85%
 FXLED150SF — Replaced 250W Metal Halide FXLED150T — Replaced 250W Metal Halide	Floodlights	66%
 WP3LED55 — Replaced 125W Metal Halide	Wallpack	76%
 WP2LED37 — Replaced 125W Metal Halide	Wallpack	70%
 ENTRA12 — Replaced 125W Metal Halide	Wallpack	89%
 WPLED26 — Replaced 125W Metal Halide	Wallpack	54%

## Results

With the new system, Will is able to throw out the time clock manual, and doesn't need to drive to the high school to make changes to the schedule—adjustments are handled right on Will's phone through the Lightcloud App. If lights need to be turned on for a special event, Will opens the Lightcloud App and turns the lights on without affecting the schedule.

As the school continues to grow and more people need access to the lights, users with various permission levels can be created to ensure there's never a dark area when light is needed. Best of all, the system will pay for itself thanks to a calculated energy savings of 68%!

## Moving Forward

Having completed the exterior of the North Burlington High School, Will plans to implement similar Lightcloud systems in the middle school, and retrofit the entire interior of the high school with Lightcloud and RAB fixtures before the end of the year.

## Installed Lightcloud Devices



### Gateway

120-277 VAC, 50/60 HZ

The Gateway is the brain of a Lightcloud system. It communicates with RAB's servers via a private 3G cellular connection, so no internet access is required. Plus, it features an Uninterruptible Power Supply for added peace of mind.

*“Exterior of the high school is done. Next up is the middle school... then, the entire interior of the school with RAB fixtures and Lightcloud before the end of the year.”*

— Will McKee, Director of Facilities



### Controller

120-277 VAC, 50/60 HZ

The Controller is the basic building block of the Lightcloud system. Use it for switching and 0-10V dimming. Deploy it for power management. Or, simply use it to extend the range of your Lightcloud mesh network.

## Project Details

**Client:** Will McKee, North Burlington School District

**Installer:** Wayne Brewin, Northeast Electrical Services

**Distributor:** Peter Knowles, United Electric

**Manufacturer's Rep:** Mike Briggs, Pollart Electrical