With a Cree® LED solution now installed in two four-story parking garages, Florida Atlantic University is projecting to save $2 million in energy and maintenance costs.
Opportunity

The primary impetus for a lighting upgrade of two four-story parking garages on the Florida Atlantic University campus in Boca Raton was to reduce maintenance costs.

Florida Atlantic is a member of the 12-campus State University System of Florida, and being sound stewards of state revenues is an everyday objective.

The garages are about a decade old, and the original lighting — metal halides — was still installed.

“They were hard to keep up with,” says Michael Dipple, the university’s director of engineering utilities and energy management. Lights were constantly burning out. And even when they weren’t, the quality of the lighting was less than top-notch.

The garages are primarily for student parking, and see pretty steady traffic from 8 in the morning until 10 in the evening. The lights remain on 24 hours a day.

“So in considering an upgrade, we were looking for a solution with longevity,” Dipple says, “and then we started thinking about energy savings — all of which led us pretty quickly to LEDs.”

According to Stacy Volnick, Vice President of Administrative Affairs and Chief Administrative Officer, “This project was a joint initiative between Facilities and Parking & Transportation. As we looked at ROI projections for the job, I became convinced that Florida Atlantic University would see substantial energy and maintenance cost reductions.”

As a result, the university elected to go with Cree, a global leader in the industry.

Solution

“It all ended up coming together very nicely,” Dipple attests of the LED installation. The lights were installed in August, just in time for the students’ return for the fall semester.

More than 700 lamps were installed in the garage interiors. The university elected to go with Cree® VG Series LED parking structure luminaires. The VG Series is designed to deliver optimal, low-glare illumination with a revolutionary optical system. With the 10-year limited warranty, the VG Series eliminates the need for spot or group re-lamping.

For the garages’ upper decks, FAU installed Cree OSQ™ Series area lighting. The OSQ luminaires provide advanced thermal management and a clean, modern housing with versatile mounting options.

And in the stairwells, the Cree® LS Series linear luminaire offers a slim design with flexible mounting options.

All three Cree fixtures are easy to install and virtually maintenance free.

“We’re seeing a two-thirds reduction in kilowatt hours, which is significant.”

Michael Dipple  |  Director of Engineering Utilities and Energy Management, Florida Atlantic University
"The installation was very straightforward," says Dan Fitoiu, FAU’s Electrical Maintenance Manager. "The contractor had no issues at all." The entire job was completed in under four weeks.

"They really zipped right through it," Dipple says. The effects were immediate. "You could see the difference on the power graphs when the lights started to go online."

**Benefits**

"When you drive up, the improvement is obvious," Dipple avows. "It’s just a better quality of light."

And the savings are considerable. The university is anticipating savings of $93,000 in maintenance and $104,000 in energy consumption each year for the expected 10-year life of the solution.

That’s right at $2 million in total savings.

Referring to those power graphs, Dipple says, "In November 2015, we were using 550 to 600 kilowatt hours per day. In November 2016, we were using around 200 per day."

"So we’re seeing a two-thirds reduction in kilowatt hours, which is significant, and is right at what we had projected."

Dipple says FAU will also be avoiding the recycling of 9,300 lamps over the course of the project.

"We’re expecting payback for the project in just over two years," he says. "My goal was between three and five years."

"We also really like the flexibility the sensors give us," Fitoiu says. "We can keep the lights at 30 percent all the time and the sensors will kick in when somebody walks by."

"And that primary goal of zero maintenance has thus far been achieved," he adds. "No servicing; no work orders."

Dipple points out that, beyond the savings in materials, he’s now able to reassign his staff to other tasks. "These savings go to the university, and it allows us to better allocate manpower resources."

Further, FAU received a rebate from Florida Power & Light, which cited the VG Series as offering energy savings, longevity, durability and more.

"That was pretty cool," Dipple acknowledges. "The administration felt good about that."

As a result of the success of this project, he says, FAU is now aiming to replace more than 200 overhead roadway lights with LEDs.

Universities across the country, Dipple notes, are increasingly converting to LEDs. Florida Atlantic University offers compelling proof as to why.

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**“Our primary goal of zero maintenance has thus far been achieved. No servicing, no work orders.”**

Dan Fitoiu | Electrical Maintenance Manager, Florida Atlantic University
Cree® LED Lighting Used

- VG Series
- OSQ™ Series Area
- LS Series

Participants

End User: Florida Atlantic University
Distributor: Grainger

Visit lighting.cree.com or contact a Cree lighting representative to learn more.

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