LIGHTING CHALLENGE 142

Transportation

TekDek[™] Luminaires & TekLink[™] TL1000 Controls

Helping Virginia Commonwealth University Provide Uniform Lighting and Lower Energy Costs



"Our goals were to reduce power consumption and provide uniform lighting. [TekDek's] uniformity is very good – that's what really sold us."

 Keith Van Inwegen, Project Manager with VCU Design and Construction

PROJECT SUMMARY

Challenge: Reduce power consumption, provide uniform lighting and safeguard patrons and property in a six-story parking deck on the campus of Virginia Commonwealth University.

Solution: Replace outdated metal halide and induction lamps with TekDek[™] TD17 LED luminaires controlled by TekLink[™] TL1000 cloud-based lighting controls.

Benefit: Increased uniformity throughout the space provides safety and security for parking garage patrons. LED luminaires' 150,000 hour LED lifetime (L70) significantly reduces maintenance; lighting and controls designed and manufactured by one company simplifies purchasing and ensures that the whole system—luminaires and controls—works seamlessly.





TekDek[™] with TekLink[™] Controls Provides Safety, Security and Savings in University Parking Garage



Virginia Commonwealth University (VCU), located in downtown Richmond, Virginia, has a student body of more than 31,000 students and is one of the fastest growing universities in the state. Despite its expansion, VCU has committed to be carbon-neutral (net zero) by 2050. Reducing electricity usage is a major goal, as purchased electricity accounts for half of the University's greenhouse gas (GHG) emissions.

In 2008, VCU built the Jefferson Street parking deck, which adjoins the Cary & Belvedere Residential Colleges. Although the structure is relatively new, the facilities management staff is constantly improving existing structures to reduce VCUs carbon footprint. So when the time came to update the deck's lighting, Keith Van Inwegen, Project Manager with VCU Design and Construction, wanted uniform lighting to ensure the safety and security of garage patrons, but also needed to reduce the energy used in the 689-space garage.

After evaluating installed LED luminaire samples from three manufacturers, Van Inwegen decided to replace the existing high pressure sodium lamps (10% of which had already been re-lamped with LED bulbs) with TekDek[™] TD17 LED luminaires by Kenall.

"[TekDek's] uniformity is very good – that's what really sold us," said Van Inwegen. Further reinforcing VCU's purchase decision was a trip to a parking garage outside Richmond to see a completed TD17 installation, and Kenall's ten-year warranty. In addition to the 273 TekDek TD17 luminaires, VCU installed TekLink[™] TL1000 lighting controls, a cloud-based control system with robust scheduling and reporting capabilities. The controls further reduce power consumption by allowing VCU to trim the lighting during periods when the garage is unoccupied. They are also able to closely monitor energy usage and adjust system settings by way of a simple user interface accessed on an iPad[®]^{*}.

VCU's energy cost savings in the first six months of use have steadily increased from 44.4% the first month to 55% as the TekLink control system became fully operational.

VCU has been very pleased with the TekDek/TekLink installation and is already installing the system in their larger Broad Street parking deck, which is open to the public. Van Inwegen says, "I can already see a big difference in the floors that are complete versus the ones not yet done." In addition, VCU officials have provided a tour for colleagues at the University of Virginia. "This project will be a benchmark for our future parking deck projects," said Van Inwegen.

"I can already see a big difference in the floors that are complete versus the ones not yet done."

Keith Van Inwegen
 Project Manager,
 VCU Design and Construction



Above: Cloud-based TekLink[™]TL1000 controls helps VCU boost energy savings and track usage.

Kenall TekDek Features:

- Outstanding uniformity for heightened safety and security of garage patrons
- Highest efficacy rating—over 150 LPW in the USDOE's Lighting Facts program for optimal efficiency
- DLC Qualified Products List; assists in qualifying for rebates and incentives
- Reduced maintenance costs due to long life LEDs (150,000 hours)
- Ingress Protection (IP65) rated and Wet Location listed; ideal for challenging parking environments
- Vandal-resistant design; ideal for use in public spaces
- Lifetime Peace of Mind Guarantee[®]

Benefits for VCU:

- Safety and security of parking garage patrons
- Over 50% reduction in energy costs
- Custom, cloud-based reporting enhances energy savings
- Rugged fixtures resist adverse weather conditions, dirt, dust and attempts at vandalism—making them ideal for use in public areas
- Specialized optics reduce disabling glare and optimize driver and pedestrian safety

*iPad is a registered trademark of Apple, Inc.

For more information, please visit us on the web at www.kenall.com



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