



Education - Upgrade

Newport News Public School District

Newport News, VA

With new Cree® LED luminaires, the parking lots and outdoor areas at seven district schools now meet the sustainability illumination requirements of each school while substantially reducing energy and maintenance-related costs.

- Estimated annual energy cost savings of 65 percent
- 139,000 kWh saved per year
- Payback in just over three years



A SUSTAINABLE COURSE FOR SCHOOLS

OPPORTUNITY

As the economy forces school districts to slow or even halt capital improvement plans, many are focusing on what can be done to improve the efficiency and environmental quality of existing facilities.

The Department of Energy reports that state and local agencies are planning to invest more than \$60 billion in the next three years to build or renovate schools.

Now is the time for school districts, government and community leaders, and parents to recognize that sustainable products, such as LED luminaires, are a catalyst to significant improvements in energy efficiency in the nation's K-12 schools.

SOLUTION

In 2008, the school district spent \$5.6 million on energy (electric and gas) costs. This figure is declining dramatically as numerous energy-saving projects are implemented such as the newly installed CREE exterior luminaires with BetaLED® Technology at seven district schools; General Stanford Elementary, Greenwood Elementary, Lee Hall Elementary, Palmer Elementary, Crittenden Middle, Booker T. Washington Middle and Denbigh High.

Newport News Public Schools (NNPS) is the first district in the area with a significant LED luminaire installation. NNPS selected Cree Edge™ area luminaires to replace 189 existing high-pressure sodium (HPS) lighting fixtures and about 150 incandescent fixtures at seven district schools.

Cree Edge™ parking structure luminaires brought dramatic results, delivering enhanced color quality, uniformity and optimized illumination performance.

The parking lots at the schools now meet the sustainable illumination requirements of each school while substantially reducing energy and maintenance-related costs for the district and taxpayers.

BENEFITS

Energy-efficient and sustainable Cree Edge™ canopy luminaires illuminate exterior corridors and entryways and Cree Edge™ security luminaires provide increased visibility around the building perimeters.

The improved illumination performance along walkways and perimeters provides a safe and welcoming environment for students, parents and staff during nighttime activities and events.

Additionally, the well-illuminated school buildings make it is easy for patrols to spot potential vandals to the school property.

These combined results for all seven schools exceeded the expectations of Keith Webb, Executive Director of Plant Services for the district.

"These energy efficient lights virtually eliminate maintenance, provide the district with dramatic energy savings and also reflect the community's commitment to sustainability," said Webb.

There are more green improvements the school district is seeking to fund through their capital improvement program and through in-house upgrades. Green schools create healthy environments conducive to learning while saving energy, resources and money.



“These energy-efficient luminaires virtually eliminate maintenance, provide the district with dramatic energy savings and also reflect the community’s commitment to sustainability.”

Keith Webb, *Executive Director of Plant Services, Newport News Public School District*





IN THIS CASE STUDY

Cree Edge™ Series

PATHWAY

- Minimum 70 CRI
- CCT: 4000K (+/-300K), 5700K (+/-500K)
- Utilizes BetaLED® Technology
- UL wet listed
- Two-Level options
- Multiple heights available



Cree Edge™ Series

AREA

- Minimum 70 CRI
- CCT: 4000K (+/-300K), 5700K (+/-500K)
- Utilizes BetaLED® Technology
- UL wet listed
- Two-Level options
- Linear single light module accommodates 20 to 60 LEDs



Cree Edge™ Series

SECURITY

- Minimum 70 CRI
- CCT: 4000K (+/-300K), 5700K (+/-500K)
- Utilizes BetaLED® Technology
- UL wet listed
- Multi-Level options
- Modular, low-profile design



Cree Edge™ Series

PARKING STRUCTURE

- Minimum 70 CRI
- CCT: 4000K (+/-300K), 5700K (+/-500K)
- Utilizes BetaLED® Technology
- UL wet listed
- Two-Level options
- Integrated occupancy sensor
- Modular, low-profile design



Cree BetaLED® Technology uses a total systems approach combining the most advanced LED sources, driver technologies, optics and form into each product. The patented NanoOptic® technology, available in more than 20 distributions, provides a level of optical control and thermal management that traditional light source technology cannot provide. Combined with the DeltaGuard® Finish, the finest industrial-grade finish available, the result is outstanding target illumination, lasting performance and optimum energy efficiency.

PARTICIPANTS

End User: Newport News Public Schools, Newport News, VA

Cree Rep Agency: S&S Sales, Virginia Beach



Cree IS LED Lighting

Learn more at: www.cree.com/lighting | info@cree.com | 800.236.6800