Municipal - Upgrade

Minneapolis Public Housing Authority
Minneapolis, MN

The Minneapolis Public Housing Authority upgrades pedestrian and parking lot area lighting with Cree® LED luminaires helping residents feel safer.

- Improved light levels
- Reduced energy usage
- Virtually zero maintenance with no relamping necessary
ARRA-FUNDED LED UPGRADE REDUCES ENERGY, IMPROVES LIGHTING PERFORMANCE

OPPORTUNITY

The Minneapolis Public Housing Authority (MPHA) manages and maintains nearly 6,000 housing units in Minneapolis, including 753 scattered sites (individual homes), 184 family development units, and almost 5,000 apartments in 41 highrises. Providing for more than 10,000 residents makes the agency a significant consumer of utilities. In fact, the enormous quantity of electricity and water used each year by MPHA residents is enough to supply a small city.

“Saving energy is critical to the effort of preserving these vital resources located in Minneapolis. MPHA’s preservation process includes pioneering storm water runoff mitigation methods, installing LED lighting, new appliances and implementing cutting-edge ‘green’ initiatives, such as utilizing solar tubes,” said Emilio Bettaglio, MPHA Deputy Executive Director. “These improvements enable MPHA to make the 20th century structures remain affordable homes for the 21st century,” he stated.

SOLUTION

As part of its green initiative to reduce energy use, MPHA upgraded exterior campus lighting at The Cedars, a large highrise complex that houses 500 residents, predominantly senior citizens. One 25-story and three 10-story buildings share common green space with walking paths and parking lots on a seven-acre site at Cedar Avenue and 6th Street.

Funding from the American Recovery and Reinvestment Act (ARRA) was used to replace high pressure sodium luminaires with energy efficient Cree® LED luminaires. MPHA received $18.2 million in ARRA funds which were added to MPHA’s Capital Fund Formula Grant. MPHA allocated $3.2 million of these funds to the Cedars Improvement Project. Approximately 97 percent of the MPHA’s funding is provided through federal subsidies and rents. The remaining three percent is provided by the City of Minneapolis.

MP Consultants, an electrical engineering consulting firm based in Plymouth, Minn. specified 68 Cree® area luminaires with BetaLED® Technology; 27 installed on 30-foot poles for parking lot lighting and 41 installed on 12-foot poles for pedestrian pathway lighting. The upgrade provides a reduction in energy use, virtually zero maintenance with no relamping necessary, and dramatically improved illumination. According to Jerry Welf, MPHA project manager, residents at The Cedars say they feel safer walking through parking lots and pathways after dark since the Cree® luminaires were installed.

BENEFITS

“The new lighting looks incredible. There’s a significant contrast to light in the surrounding areas that look orange by comparison. Installing an energy efficient lighting system was an important component of the retrofit project and the improved lighting has made a difference for our residents.”

Jerry Welf, Project Manager, Minneapolis Public Housing Authority

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The project went beyond a lighting installation and included a $5 million hard surfaces site reconstruction to parking lots and walkways. Two-thirds of the project was completed in 2009 with the last third of the installation completed in summer 2010. MPHA also successfully competed for and received approximately $32 million for three additional initiatives:

- 48-unit Memory Care Development
- 69,000 square foot Senior Health and Wellness Center
- Scattered Site ‘Green Initiative’ for making significant energy improvements to MPHA’s 733 Scattered Site Resident Homes
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Emilio Bettaglio, MPHA Deputy Executive Director

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IN THIS CASE STUDY

Cree Edge™ Series
AREA LUMINAIRE

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

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- Multiple height options

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: Minneapolis Public Housing Authority, Minneapolis, MN

Cree IS LED Lighting
Learn more at: www.cree.com/lighting | info@cree.com | 800.236.6800

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