



Healthcare - Upgrade

# Advocate BroMenn Medical Center

Normal, IL

Medical center parking structure upgrades lighting with Cree® 304 Series™ LED luminaires taking it from costly aggravation to superior illumination.

- Over 65-percent less energy use anticipated annually
- \$33,000 savings in annual energy costs
- \$13,000 reduction in yearly maintenance costs



# UPGRADE VISIBILITY. DOWNGRADE ENERGY USE.

## OPPORTUNITY

Advocate BroMenn Medical Center located in Bloomington-Normal, Ill. has been serving and caring for the people of central Illinois for 115 years. When it was time to improve the condition of the facility's parking garage, owners looked for the best LED technology that would provide extended luminaire life with no compromise in the quality of the illumination performance.

The six-deck garage serving Advocate BroMenn was illuminated around-the-clock with metal halide lighting that director of facilities management, Dwight Hill, said was high maintenance and expensive to operate. Hill was replacing bulbs as often as twice a year motivating him to find an LED system that would lower energy consumption and reduce maintenance.

## SOLUTION

The Cree 304 Series™ LED luminaires were selected to upgrade the parking structure with a versatile design that can be configured to achieve target efficacy and lumen maintenance for significant reduction in energy use. Over 250 metal halide fixtures that consumed 205-watts each were replaced with 71-watt Cree 304 Series LED luminaires. Additional energy savings are achieved from use of two daylight sensors ensuring the luminaires are on only when needed. One sensor triggers the luminaires on the outer perimeter of each floor to go on as daylight fades. Another sensor covers the building's inner perimeter where there is less exposure to natural light. An estimated annual energy reduction of 325,660 kilowatt-hours will save an anticipated 65 percent in energy use and roughly \$33,000 every year.

The low-profile 304 Series LED parking structure luminaires have a modular design created for confined-space applications such as this and include mounting options for application versatility and ease of installation. An optional integrated multi-level dimming occupancy sensor provides opportunities to further lower energy use.

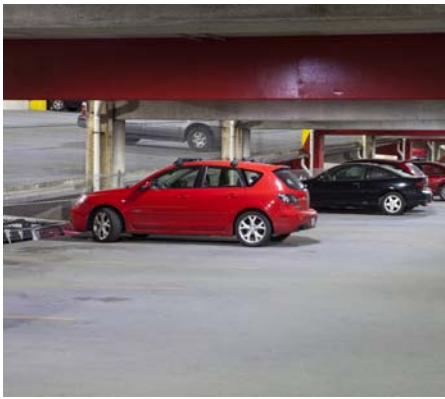
## BENEFITS

By upgrading the existing metal halide system with Cree 304 Series LED luminaires patients and staff enjoy the newly renovated structure that provides dramatically improved visibility. In addition to superior illumination performance, facility owners appreciate the energy and maintenance savings delivered by the Cree LED lighting solution.

The project's payback period was reduced by six months through use of a \$23,000 incentive offered by local utility company Ameren Illinois and its ActOnEnergy® program. Plus, the long-lasting LED lighting will save more than \$13,000 every year in reduced maintenance costs. With more than a decade of virtually maintenance-free performance, the LED lighting will lighten the load on hospital maintenance staff and ensure a more secure and consistent customer experience for Advocate BroMenn patients. According to Hill, the quality of light is better and more attractive than what the metal halide fixtures produced.

“ Our metal halide lighting was expensive to operate and maintain, so I saw an opportunity for a lighting upgrade. We were replacing our bulbs as often as twice a year. With a lifetime design of eleven years, the LED lighting will lighten the load on hospital maintenance staff. ”

**Dwight Hill**, *Director, Facilities Management, Advocate BroMenn*



## IN THIS CASE STUDY

### 304 Series™

#### PARKING STRUCTURE LUMINAIRE

- Minimum 70 CRI
- CCT: 4000K (+/-300K), 5700K (+/-500K)
- UL wet listed
- Two-Level options
- Integrated occupancy sensor
- 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:** Advocate BroMenn  
Medical Center, Normal, IL

**Utility Company:** Ameren Illinois

**Lighting & Design:** Springfield  
Electric, Bloomington, IL

**Engineering & Architecture:**  
Farnsworth Group, Normal, IL



## Join the LED Lighting Revolution.

Learn more at: [www.cree.com/lighting](http://www.cree.com/lighting) | [info@cree.com](mailto:info@cree.com) | 800.236.6800

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