



Healthcare - Upgrade

## Kaiser Permanente Medical Center Fresno, CA

- Annual energy savings of approximately 57 percent
- Drastically reduced maintenance costs
- Five-year payback

**CREE** 



Before



After

**“**This installation will reduce overall energy needs on our campus, while reinforcing the organization's energy reduction strategy. **”**

**Paul Tylar,** Team Manager,  
National Facilities Services

## REMEDY FOR ENERGY SAVINGS – ACHIEVING SUSTAINABILITY COMMITMENT WITH CREE® LED LUMINAIRES

### OPPORTUNITY

Kaiser Permanente (KP) is a leader in the healthcare industry, including conserving energy. For over 20 years the company has worked to reduce energy use and costs — from energy-efficient lighting upgrades, to harnessing renewable and sustainable energy to help power its hospitals, medical offices and other buildings.

Due to their green building efforts, Kaiser Permanente saves more than \$10 million annually through energy conservation strategies. A leader in environmentally sustainable healthcare construction, KP has committed to significantly reducing use of fossil fuels and slowing energy growth over the next 10 years. The company will use sustainable design and construction practices to complete roughly 6.7 million square feet of new construction in the next seven years. Additionally, KP has eliminated the purchase and disposal of 40 tons of harmful chemicals.

In May 2010, KP joined five leading healthcare systems in forming the Healthier Hospitals Initiative to help speed the healthcare sector toward environmental sustainability. The overall goal of this national initiative is to use a coordinated approach to achieve sustainability throughout the healthcare sector, which will prevent environmental-related illness, create environmental benefits and save billions of dollars in healthcare expenses. In 2010, the KP Fresno Medical Center was the recipient of the Partner for Change, with Distinction Award, which recognizes healthcare facilities that are “further along in their path to sustainability.”

### SOLUTION

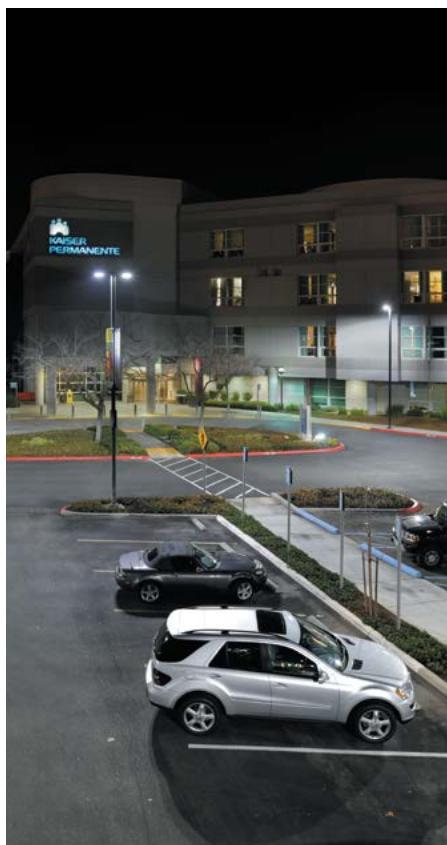
In 1990, the Medical Center installed high intensity discharge (HID) lighting fixtures at an adjacent parking lot. Unfortunately, the 166 HID fixtures were very costly to maintain.

Because of the healthcare system's ongoing commitment to sustainability and controlling operating costs, Kathy Boswell, National Facilities Services (NFS) Staff Project Manager and the Center's Chief Engineer, Bill Lyons, knew it was time for a change in exterior lighting technology. Lyons and Boswell looked into LED luminaires, having read about their tremendous energy savings potential and the opportunity to virtually eliminate maintenance-related expenses. Additionally, they wanted to improve the parking lot's illumination levels and uniformity of light distribution, making it easier for staff and visitors to see.

Boswell and Lyons selected Cree® Edge™ area luminaires to install in the Fresno facility roadways and parking lot. The KP team is pleased with the anticipated annual energy savings of approximately 57 percent over the previous HID system, saving approximately \$20,000 each year in energy costs and realizing a five-year payback.

### BENEFITS

“It is very exciting that Fresno is the first medical center within Kaiser Permanente to replace all existing parking lot lighting with LED luminaires,” said Paul Tylar, NFS Team Manager. “This installation will reduce overall energy needs on our campus, while reinforcing the organization's energy reduction strategy.” Kathy Boswell is equally excited, remarking: “I like what the LED luminaires have done from a pedestrian perspective — the parking lots are well lit, and feel safe and secure.”





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**Kathy Boswell**, Staff Project Manager, National Facilities Services

## 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



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:** Kaiser Permanente  
Fresno Medical Center,  
Fresno, CA

**Engineering Agency:** Kaiser  
Permanente National Facilities  
Services

**Cree Rep Agency:** Neel Lighting &  
Controls, Inc., Santa Paula, CA



## Cree IS LED Lighting

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

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