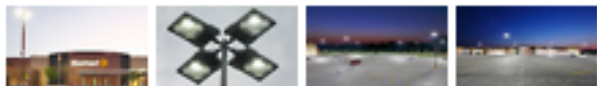




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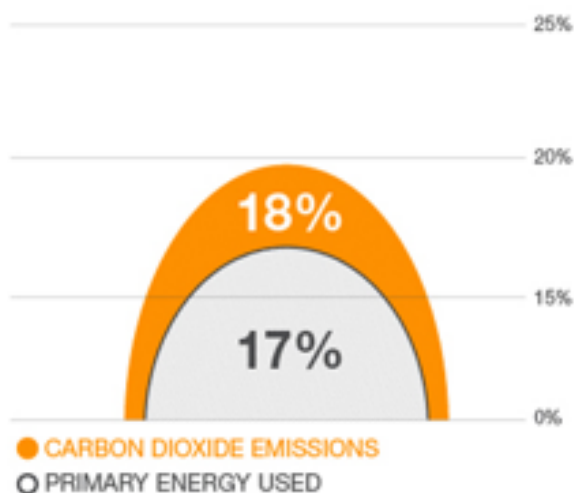
Submitted Date: October 31, 2011



Save Money and Energy With LED Lighting:

- Get details on the [LED Site Lighting Performance Specification](#) or [read the fact sheet](#).
- Learn about DOE's [CBEAs](#).
- Become an [REA](#) member.
- Read about DOE's work in [Solid-State Lighting](#).
- Install more [efficient light bulbs](#) at home or in your office.

Lighting Uses the Most Energy in U.S. Commercial Buildings:



LEDs and Specification for Parking Lots Lighten Energy Load Walmart Commits to Energy Efficiency with the Building Technologies Office

An often-overlooked yet integral part of our communities' landscapes, parking lots influence how we live, work, and play. Parking lots also require substantial energy and money to operate. Business owners have long recognized the potential of light-emitting diode (LED) technology in parking lot lighting—to save energy, reduce maintenance costs, and improve environmental sustainability.

LEDs have been shown to save energy in limited applications, but are they ready for wide-scale adoption?

Walmart responds with a resounding "yes." The company's experience with the U.S. Department of Energy's (DOE) Building Technologies Office (BTO) in implementing LEDs paves the way for other parking lots, exhibiting how efficient lighting technology and design positively impacts business goals and community needs. DOE estimates that using the LED site lighting specification will reduce parking lot energy use over 50% compared to typical code. Sites should also see reduced maintenance costs due to the long expected life of the LED system and deferred maintenance.

Developing a Comprehensive, Cost-Effective Solution

To validate the energy and cost-savings potential of LED lighting for retail parking lots, BTO collaborated with industry members of the [Retailer Energy Alliance](#) (REA). One of BTO's [Commercial Building Energy Alliances](#) (CBEAs), REA has active retail members of all sizes from across the United States including Target, Whole Foods, and McDonalds.

REA representatives worked with researchers at Pacific Northwest National Laboratory to develop a set of criteria retailers could follow to implement LED parking lot lighting and realize energy savings and reliability. The LED Site Lighting Specification (Specification) provides information about both luminaire, or light fixture, performance and how the site should be lighted. For instance, the Specification outlines how lighting needs vary across the different parts of the parking lot. The Specification optimizes the performance of sites, satisfying more than pure lighting needs. Business concerns such as site aesthetics, branding, and customer safety also come into play.

Additionally, the Specification recognizes the potential risks businesses face in adopting new technologies, including reliability and maintenance costs. To address these, the Specification requires that manufacturers guarantee product performance with a five-year minimum warranty for LED luminaires.

World's Biggest Retailer Sees the Light

REA member Walmart actively participated in building and testing the specification. The world's largest retailer, Walmart operates more than 4,300 facilities in the United States—including Walmart supercenters, discount stores, Neighborhood Markets, and Sam's Club warehouses—and encompasses over 699-million-square-feet of floor space.

Walmart leverages its size and distribution network to drive energy efficiency throughout its operations and into its supply chain, making it a