



Interior Lighting Campaign – Manufacturer’s Guide

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Overview

- DOE's Better Buildings Alliance
 - Related DOE Lighting Campaign Initiative - LEEP
- Interior Lighting Campaign
 - Technical product requirements
 - What's in it for you
 - How manufacturers/distributors can get involved
- Questions and answers

Better Buildings Initiative

Goals:

- Make commercial, industrial buildings & multifamily housing 20%+ more efficient in 10 years
- Save more than \$80B+ for US organizations
- Create American jobs; improve energy security
- Mitigate impacts of climate change

How:

- ✓ Leadership
- ✓ Results
- ✓ Transparency
- ✓ Best Practice Models
- ✓ Recognition
- ✓ Catalyzing Action



Launched 2011, Now 250+ Partners & Allies

Commercial, Industrial, Public, Private

Represent:

3.5+ Billion Square Feet

\$5+ Billion Private Financing

650+ Manufacturing plants

\$4 B Federal Commitment

Better Buildings Alliance: How is it organized?



Commercial Real Estate



Food Service, Retail & Grocery



Healthcare



Hospitality



Higher Education

Technology Solutions Teams



Lighting



Space Conditioning



Plug & Process Loads



Refrigeration



Energy Information Systems



Renewables Integration

Market Solutions Team



Financing Strategies



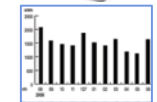
Leasing & Tenant Engagement



Training / Workforce



Appraisals & Valuation



Data Access

Related Lighting Campaign - LEEP

Lighting Energy Efficiency in Parking (LEEP)



- www.LEEPCampaign.org
- *Join as a Supporter!*
- High Efficiency Parking Lots & Structures
- Lighting & lighting controls technology
- Recognition & awards for exemplary performance
- Close to 500 MSF of high performance lighting to date
- 2016 goal – 750 MSF
- 2016 awards: IPI Conference & Expo, May 17-20, 2016

Interior Lighting Campaign

About the Campaign

The Interior Lighting Campaign (ILC) is a recognition and guidance program designed to help facility owners and managers take advantage of savings opportunities from high efficiency interior lighting solutions.

- **First year focus: troffer lighting**
 - Tremendous potential for energy savings
 - Average site annual savings potential: ~4,000 kWh
 - National annual savings potential: ~60 million kWh
 - High efficiency troffers
 - Up to 60% savings on a one-for-one basis
 - Up to 75% with use of controls
- **Campaign goal**
 - 1 million high efficiency troffers planned, replaced, or newly installed by May 2016
 - Goal will achieve savings equivalent to the annual electricity use in 5,500 homes

Interior Lighting Campaign Troffer Requirements

- ILC fixture/luminaire efficacy minimum requirement: 85 lm/W
- ILC also encourages application of the [BBA specification](#):
 - Requires 110 lm/W – higher performance requirement than ILC minimum
 - Decisions regarding the following are at customer's discretion:
 - Lumen output
 - Color quality
 - Warranty



High Efficiency Troffer Performance Specification

Version: 5.0

17 APRIL 2015

U.S. DEPARTMENT OF
ENERGY

Interior Lighting Campaign Participants & Supporters

■ Participants

- Entities that are end users are eligible to be participants
 - Examples: building owners, building managements, and tenants

■ Supporters

- Anyone not directly related to the operation / management of the lighting
 - Examples: **manufacturers, distributors**, utilities, energy efficiency program providers, designers, engineers, architects, energy efficiency organizations

Interior Lighting Campaign A Few of Our Supporters



Interior Lighting Campaign

Benefits & Features – Supporters – Manufacturers

- Be recognized on the ILC website [Supporter Page](#)
 - Show your company supports the campaign goals
 - Includes link to your website (main page or ILC specific page)
 - ILC encourages manufacturers to develop a microsite or landing page for ILC participants to quickly identify troffer products that meet ILC requirements for their projects
- Inform participants and customers
 - Help convince customers that high efficiency troffer lighting solutions are viable now by providing success stories and case studies featuring your products
 - Manufacturers can assist participants with selecting the best troffer products and control solutions for their lighting projects
 - [Lighting Project Evaluator](#) can help you and your customers estimate potential savings
- Help your customers gain recognition for their troffer projects
 - Your products will be recognized if your customer receives an award for exemplary performance
- Work with ILC Organizers on a customized outreach strategy

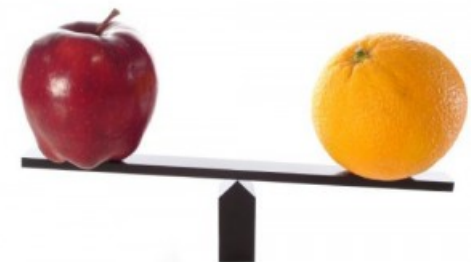
Interior Lighting Campaign Manufacturers – What You Can Do

- Help promote the ILC
 - Inform your clients about the ILC and your role in it
 - Website button (available upon request)
 - Include on website and marketing collateral
 - Presentation slides
 - Appended to this presentation
 - Include in your own presentations to customers
- Encourage customers to join the Campaign as participants
 - Your products may be featured in future case studies and/or awards



Interior Lighting Campaign Manufacturers – What You Can Do

- Facilitate participants' access to product information
 - Provide the ILC a direct link to your troffer-related products
 - You may also create a landing page and provide a link to that instead
 - Inform ILC you wish to make your contact information available to participants who request it
 - Don't worry, your personal contact information will not be posted
- Inform customers of high efficiency troffer benefits
 - Case Studies
 - Product Comparisons



ILC Slides for Manufacturer Presentations

Instructions:

- Next four slides are intended for use by ILC supporters
- Use one or more slides in your organization's presentations
- Copy/paste slides or export as image (do not alter content)
- To request slides, send an e-mail to felipe.leon@pnnl.gov

Troffer Lighting Options

Standard Fluorescent Troffers

- Pros
 - Ubiquitous
 - Ease of specification
 - Readily available
- Cons
 - Low system efficacy*
 - Control performance
 - Lamp replacements

High Efficiency Troffer Solutions

- Pros
 - Efficiencies 50-100% higher than standard troffers
 - Excellent controllability
 - Low/no maintenance costs
- Cons
 - First cost (decreasing rapidly)
 - Seemingly infinite options (how to choose)
 - Installation/performance concerns on some retrofit solutions

14 * Compared with current high efficiency options.

Why High Efficiency Troffers?

- **Measureable benefits**
 - Up to 60% savings potential
 - Control savings potential – up to 75%
 - Reduced maintenance costs
 - Incentives that may be available to retrofit
- **Why replace now – because non-energy benefits being realized:**
 - Intangible benefits have been attributed to lighting
 - Increased worker productivity*
 - Increase in sales volume*
 - Generally not considered in financial cost-benefit analyses
 - Corporate image as environmental steward
 - Achieve “green” targets and/or certifications



About Controls (some food for thought)

- **Save more!**
 - U.S. GSA Green Proving Ground*
 - Demonstrated ~33% energy savings via advanced controls alone
 - One site demonstrated 69% overall savings via advanced controls and replacing fluorescent luminaires with LED fixtures
- **No longer your parents' controls**
 - Advanced lighting controls
 - Sensors being embedded in luminaire
 - Wireless/networked luminaires
- **New paradigms**
 - Use controls for building security and occupant safety
 - Wayfinding, heat sensing for HVAC, and other...



Better Buildings Alliance's (BBA) Interior Lighting Campaign (ILC)

- **BBA**
 - Promotes energy efficiency in U.S. commercial buildings
- **ILC**
 - Recognition and guidance program
 - Help facility owners and managers take advantage of savings opportunities from high efficiency interior lighting solutions
- **Join the campaign**
 - Let others know about your high efficiency project
 - <http://www.interiorlightingcampaign.org>



Participants (partial list)

- Kohl's Department Stores
- Macy's
- MGM Resorts International
- Stanford University School of Medicine
- Target
- U.S. General Services Administration
- Yamaha Motor Corporation

Interior Lighting Campaign Join today!

Visit <http://www.interiorlightingcampaign.org/>

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Question & Answer Panelists

- Felipe Leon, PNNL
 - ILC Technical Support
- Michael Myer, PNNL
 - ILC Technical Support
- Andrew Mitchell, U.S. Department of Energy
 - ILC Project Manager

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