

Using LED Lighting Facts to Determine Qualified LED Products

Energy Smart Awareness Brown Bag
September 14, 2011

Bonneville Power Administration

LED Lighting Facts Brown Bag Agenda

- Using DOE LED Lighting Facts to determine qualified LED products overview
 - Craig Ciranny
- Q&A
- LED Lighting Facts overview
 - Mary Matteson Bryan
- LED Lighting Facts demonstration
 - Mary Matteson Bryan
- Q&A

Determining Qualified LED Products Overview: Craig Ciranny

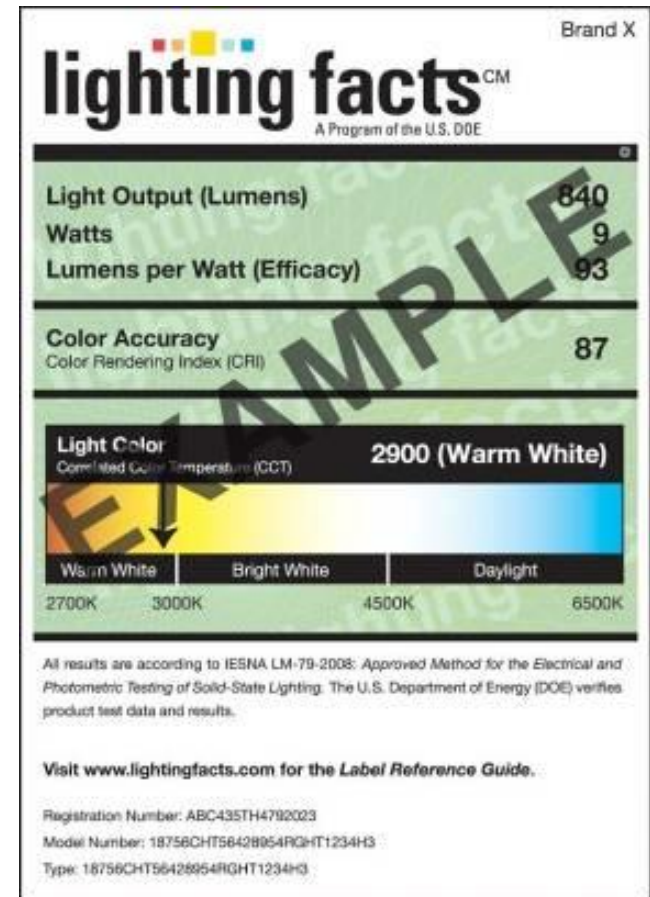
Why DOE LED Lighting Facts? Challenges Facing Market Introduction

- LED products rapidly coming to market
 - Some are good, many do not perform as claimed
- Lessons learned from market introduction of CFLs
 - Credible information is key
 - Collaboration reduces confusion
 - Focus on applications where LEDs can meet or exceed expectations
- DOE role: Provide unbiased information and education
 - Ensures return on DOE SSL R&D investment, benefits for our nation



DOE LED Lighting Facts™

- “Nutrition Label” for SSL
- Joint effort with DOE and NGLIA (Next Generation Lighting Industry Alliance)
- Web-based product performance reporting initiative
- Voluntary program for retailers, distributors, manufacturers and lighting pros
- Cost to participate = \$0



Lighting Facts Products

Advanced Product Search Tool

Lighting Facts® Products Search Tool

Show only fixture type: Recessed downlight

Light Output between 0 and 29800 lm

Watts between 0 and 500 W

Lumens per Watt between 60 and 200 lm/W

Color Accuracy (CRI) between 0 and 100 (CRI)

Light Color (CCT) between 0 and 8900 K

Search Within Your Criteria:

Search Results Show 10 results per page

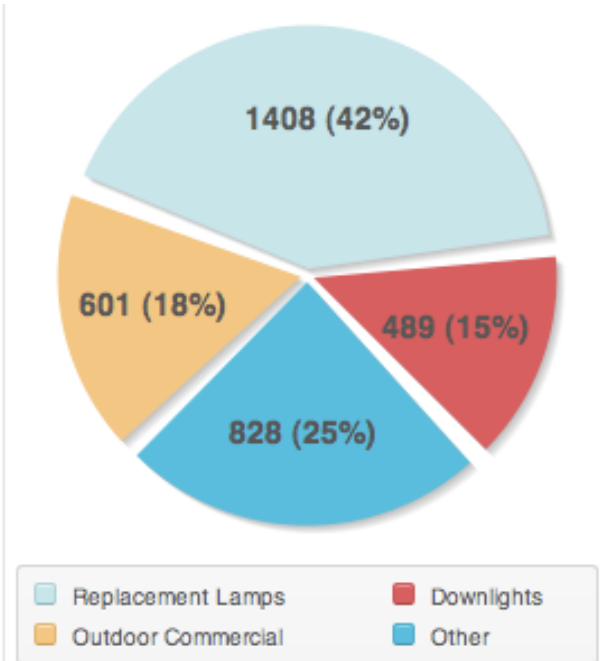
Organization	Brand	Fixture Type	Model Number
Lunera Lighting	Lunera Lighting, Inc	Recessed downlight	1200-4000K
Qualifications: <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/>	Performance Specs:	3490 lm 50 W 70 lm/W 85 (CRI) 4000 K	
Lunera Lighting	Lunera Lighting, Inc	Recessed downlight	1200-3500
Qualifications: <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/>	Performance Specs:	3520 lm 53 W 67 lm/W 83 (CRI) 3540 K	

As of 9/7/2011

3,326 products listed

- Largest verified database of LED product performance

Product Type Distribution



Verified Performance Data

- Manufacturer reported performance data is checked against LM-79 test reports from independent labs.

Five Mandatory Metrics

- Lumens
- Watts
- Efficacy (lumens/watt)
- CCT
- CRI

Ten Optional Metrics

- Certifications (DLC/Energy Star)
- Zonal Lumen Density (0-60o)
- Zonal Lumen Density (60-90o)
- Zonal Lumen Density (90-120o)
- Zonal Lumen Density (120-180o)
- Center Beam Candle Power
- Input Voltage
- Power Factor
- Power Type (AC/DC)
- Beam Angle

Product Performance Verification Testing

- Aim to test 10% approved products every year
- Products procured through normal market channels
- 5 samples tested, 4 out of 5 must meet tolerances
- Products performing outside allowable tolerances will have opportunity to change claims or appeal
- Online product list will indicate tested products and results

Search products: [Show Advanced Search](#)

Organization	Brand	Type	Model Number	Labeled Product Performance Verification Status
A Lighting Manufacturer	Lighting Manufacturer LEDs	Canopy light	LED Canopy ADF153	
A Lighting Manufacturer	Lighting Manufacturer LEDs	Portable Desk Lamp	LED Desk UFY937	
A Lighting Manufacturer	Lighting Manufacturer LEDs	Recessed Downlight	LED Downlight TLW296	

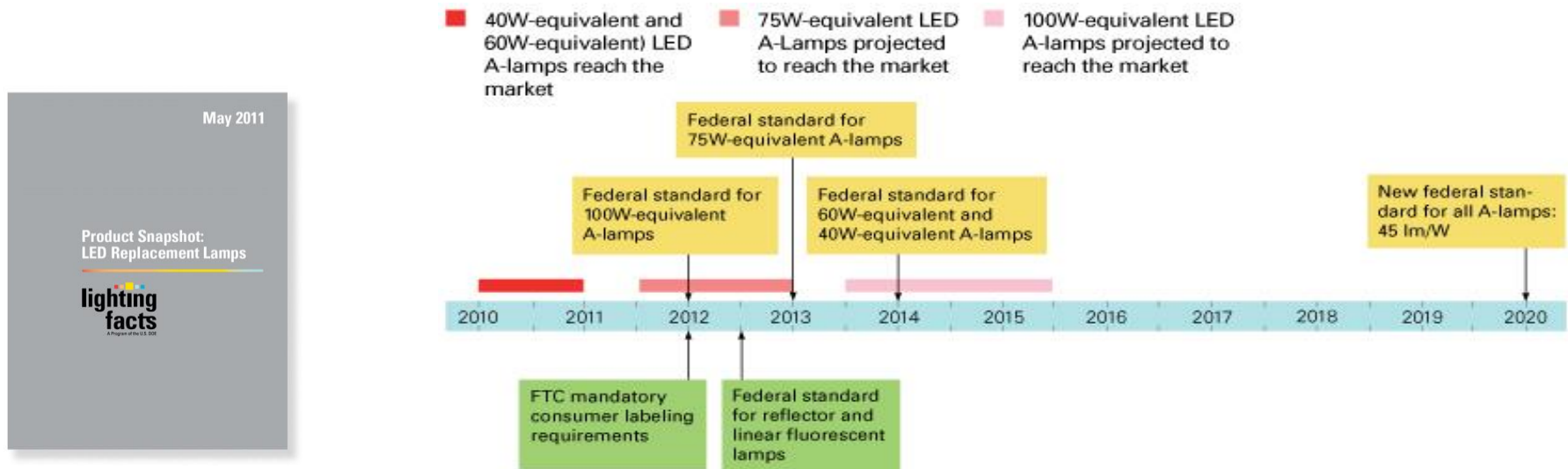
Passed

Failed, updated claims

Failed, did not update claims

Analysis: LED Product Snapshot

- Draws from the Lighting Facts database to gain insight into the changing industry
- Published twice a year
 - First two editions focus on replacement lamps
 - *Fall 2011 edition will focus on luminaires*



Analysis and figure: D&R International

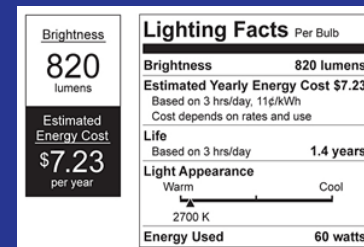
DOE Lighting Facts and FTC Label

Key Differences

DOE Lighting Facts Label



FTC Lighting Facts label Mandatory January 1, 2012



Front

Back

All fixture and lamp types

Medium screw base light bulbs only

SSL only

SSL, fluorescent, incandescent, and halogen

Voluntary

Mandatory

Not required on packaging

Required on packaging

Label for buyers and utilities

Label for Consumers

Lifetime not listed

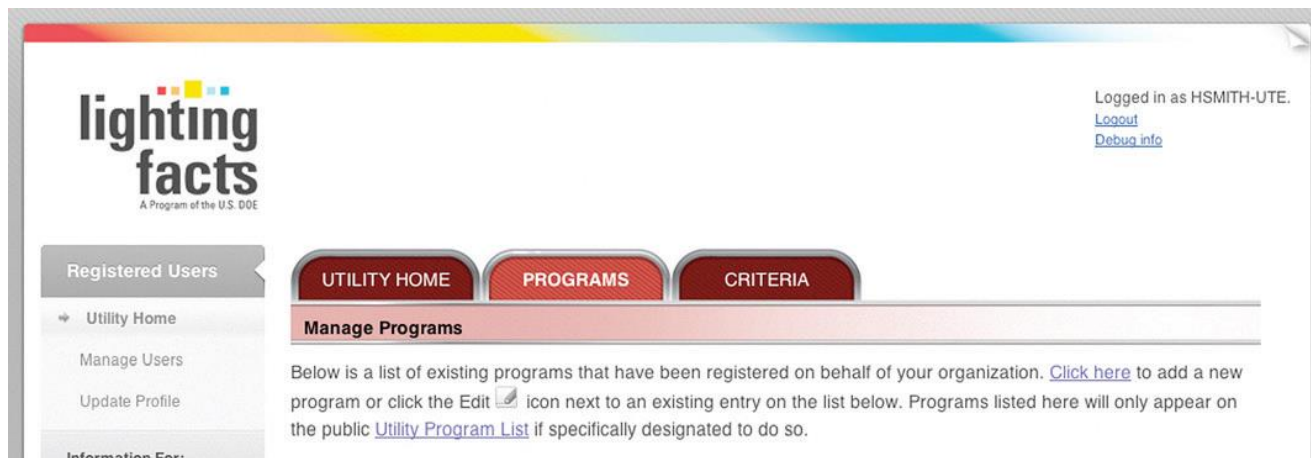
Lifetime listed

LM-79 testing required, claims verified by DOE, and ongoing QA

No lifetime testing specified, Manufacturer reported claims

Energy Efficiency Partner Resource

- The Energy Efficiency Partner Resource was designed to help Lighting Facts utility, Lighting Pro and efficiency sponsor partners manage, support and promote LED lighting incentive programs.
- This effort is part of the Department of Energy's (DOE) commitment to support partner efforts to evaluate and choose quality LED products for incentive programs.



NW LED Product Specifications

- Developed by NW utilities.
- Currently the LDL maintains the qualified products list.
- Why transition to LED Lighting Facts?
 - Large database of products
 - Validated LM-79 metrics
 - Automated notice of new products that meet criteria
 - Easily accessible, central location for QPL
- Lighting Facts Qualified Product List (QPL) will still require maintenance and qualification of non LM-79 metrics (i.e. warranty, UL).

Function Overview

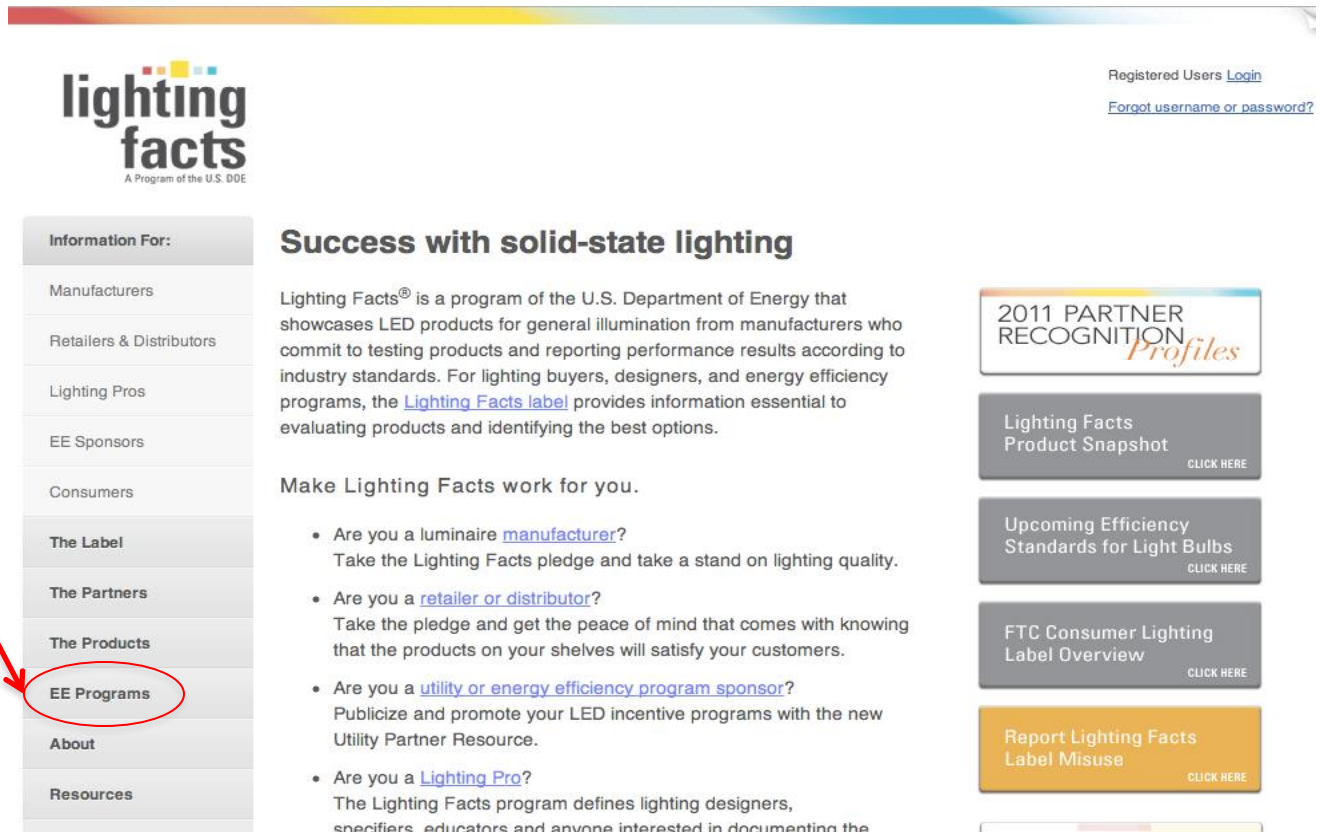
Qualified Products Set up and Management

- Password protected area available only to registered users.
- Key Functions
 - Establish product specifications.
 - Search for eligible products and qualify.
 - Establish programs and qualified product lists (QPL) available to the public.

BPA has performed initial set up!

Demonstration: Finding Qualified Products

- Step 1: Go to www.lightingfacts.com
- Click on EE Programs



The screenshot shows the Lighting Facts website homepage. The left sidebar contains a menu with the following items: Information For: Manufacturers, Retailers & Distributors, Lighting Pros, EE Sponsors, Consumers, The Label, The Partners, The Products, EE Programs (circled in red), About, and Resources. The main content area features a header with the Lighting Facts logo and a navigation bar. The main content area is titled 'Success with solid-state lighting' and contains a paragraph about the program. Below this, there is a section titled 'Make Lighting Facts work for you.' with a list of bullet points. On the right side, there are several buttons: '2011 PARTNER RECOGNITION Profiles', 'Lighting Facts Product Snapshot', 'Upcoming Efficiency Standards for Light Bulbs', 'FTC Consumer Lighting Label Overview', and 'Report Lighting Facts Label Misuse'. A red arrow points from the 'EE Programs' link in the left sidebar to the 'EE Programs' link in the main content area.

lighting facts
A Program of the U.S. DOE

Registered Users [Login](#)
[Forgot username or password?](#)

Information For:

- Manufacturers
- Retailers & Distributors
- Lighting Pros
- EE Sponsors
- Consumers
- The Label
- The Partners
- The Products
- EE Programs
- About
- Resources

Success with solid-state lighting

Lighting Facts® is a program of the U.S. Department of Energy that showcases LED products for general illumination from manufacturers who commit to testing products and reporting performance results according to industry standards. For lighting buyers, designers, and energy efficiency programs, the [Lighting Facts label](#) provides information essential to evaluating products and identifying the best options.

Make Lighting Facts work for you.

- Are you a luminaire [manufacturer](#)?
Take the Lighting Facts pledge and take a stand on lighting quality.
- Are you a [retailer or distributor](#)?
Take the pledge and get the peace of mind that comes with knowing that the products on your shelves will satisfy your customers.
- Are you a [utility or energy efficiency program sponsor](#)?
Publicize and promote your LED incentive programs with the new Utility Partner Resource.
- Are you a [Lighting Pro](#)?
The Lighting Facts program defines lighting designers, specifiers, educators and anyone interested in documenting the

2011 PARTNER RECOGNITION Profiles

Lighting Facts Product Snapshot [CLICK HERE](#)

Upcoming Efficiency Standards for Light Bulbs [CLICK HERE](#)

FTC Consumer Lighting Label Overview [CLICK HERE](#)

Report Lighting Facts Label Misuse [CLICK HERE](#)

DOE LED Lighting Facts Q&A

Thank you!

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