maxLED by MaxLite

WELCOME

WHAT IS THE DIFFERENCE BETWEEN ENERGY STAR®, DLC AND THE CSD?

12/19/13 Webinar

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TODAY'S TOPICS

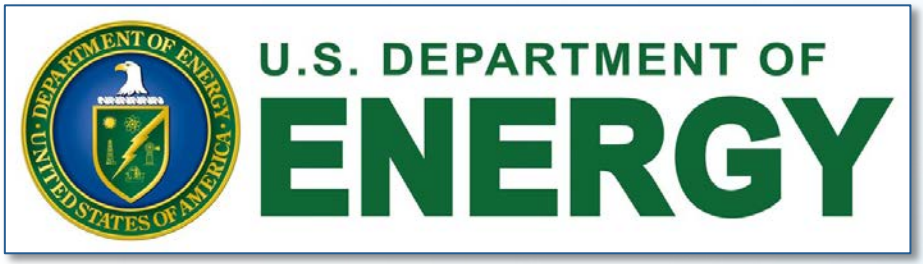
- ENERGY STAR®
- The CSD List – Certified (Lighting) Subcomponent Database
- The DLC – Design Lights Consortium

ENERGY STAR® HISTORY (PART 1)

- ENERGY STAR is a U.S. Environmental Protection Agency (EPA) voluntary program that helps businesses and individuals save money and protect our climate through superior energy efficiency. The ENERGY STAR program was established by EPA in 1992, and directs the Administrator to **"conduct a basic engineering research and technology program to develop, evaluate, and demonstrate non–regulatory strategies and technologies for reducing air pollution."**

ENERGY STAR® HISTORY (PART 2)

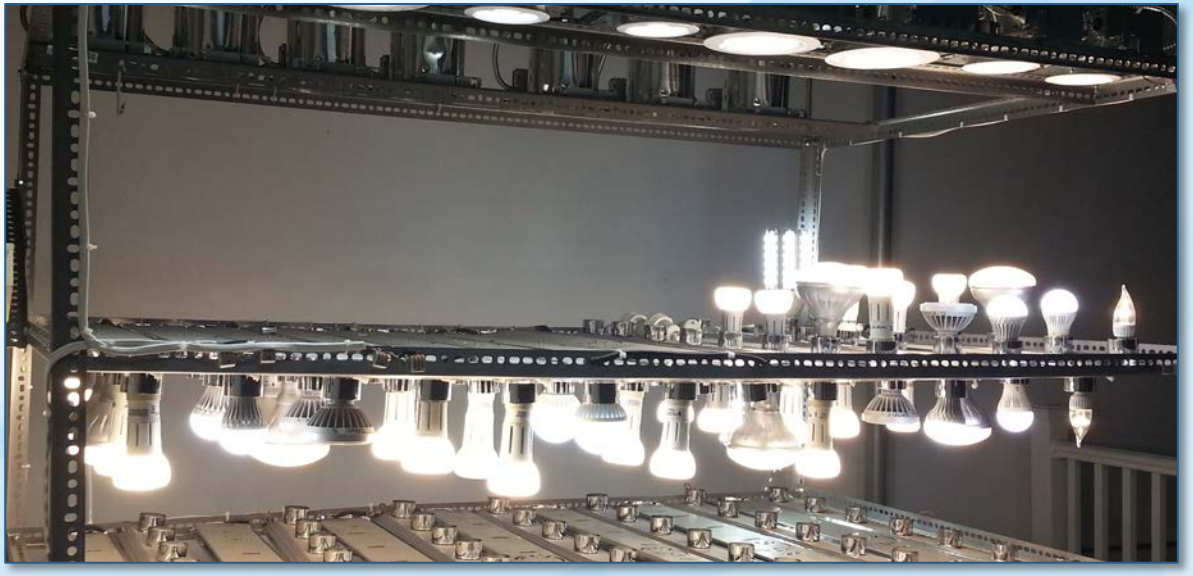
- In 2005, Congress enacted the Energy Policy act and **"established at the Department of Energy and the Environmental Protection Agency a voluntary program to identify and promote energy–efficient products and buildings in order to reduce energy consumption, improve energy security, and reduce pollution through voluntary labeling of or other forms of communication about products and buildings that meet the highest energy efficiency standards."**



ENERGY STAR® INTEGRITY

- To maintain consumer trust and improve the oversight of ENERGY STAR certified products, homes, and commercial facilities, EPA has implemented third–party certification requirements and testing.

- **For Products:** **In order to earn the label, ENERGY STAR products must be third-party certified based on testing in EPA-recognized laboratories. In addition to up-front testing, a percentage of all ENERGY STAR products are subject to "off–the–shelf" verification testing each year. The goal of this testing is to ensure that changes or variations in the manufacturing process do not undermine a product's qualification with ENERGY STAR requirements.**



ENERGY STAR® PARTNERSHIP & MARKET IMPACT

- A broad range of **18,000 partners** across every sector of the economy drive the ENERGY STAR program's success from manufacturers and trade associations, to retailers and efficiency program providers, to home builders and small businesses. ENERGY STAR has grown to represent products in more than **65 different categories**, with more than **4.5 billion sold over the past 20 years.** **EPA has evolved the ENERGY STAR program to serve as a national platform and a catalyst to deliver real energy efficiency by addressing market barriers.**

THE CERTIFIED LIGHTING SUBCOMPONENT DATABASE (CSD)

- The Certified Subcomponent Database (CSD) supports qualification of ENERGY STAR Luminaires by providing certified performance data for lighting subcomponents
- **The use of the CSD is optional for luminaire manufacturers.** It is intended to streamline the qualification process; subcomponents are not required to be listed on the CSD to be employed in an ENERGY STAR qualified luminaire.
- The CSD is designed to contain certified performance data for: **lamps, ballasts, fluorescent lamp-ballast platforms, GU24 based self-ballasted compact fluorescent lamps and HID lamps, GU24 based LED lamps, and LED light engines.**
- The CSD is similar in purpose and function to the NEMA/ALA Lamp and Ballast Platform Matrix, but provides certified performance data required for qualification of ENERGY STAR luminaires. The CSD can streamline the process of luminaire qualification by providing manufacturers' makes, models and certified performance data of subcomponents. Depending on the type of luminaire, the subcomponents listed here may or may not meet the applicable requirements. In most instances, this approach to luminaire qualification significantly reduces the luminaire manufacturer's testing burden, such that only limited additional testing is needed at the luminaire level (e.g., in situ temperature measurements and electrical safety testing).
- LED arrays/modules, LED drivers and LED power supplies will not be individually listed in the database, as no industry standard methods of measurement currently exist for measuring the performance of LED drivers.

LISTING SUBCOMPONENTS ON THE CSD: PROCESS

Performance for subcomponents listed on the CSD has been certified to meet relevant requirements for use in ENERGY STAR qualified luminaires.

Subcomponents in this database **are not ENERGY STAR qualified** as a result of being listed. Subcomponents only certified for purposes of the CSD:

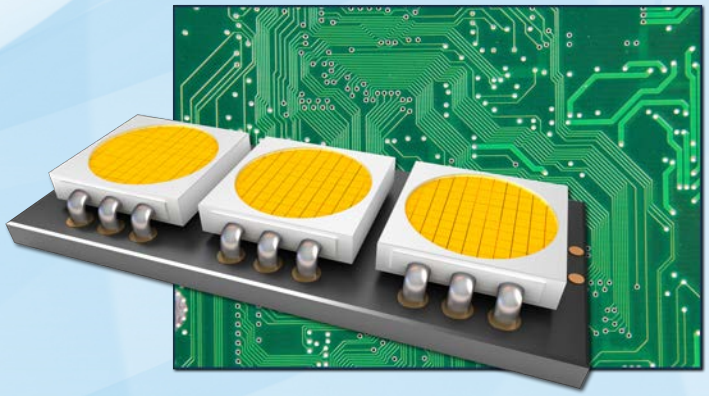
- May not carry any of the Program's certification or promotional marks on the products, on product packaging, or in associated literature either printed or electronic.
- May not be referred to as ENERGY STAR qualified, certified, rated, or approved.

Note: GU24-based integrated lamps that are ENERGY STAR qualified may appear on both the CSD and the lamps qualified product list.

CSD: CERTIFICATION BODIES

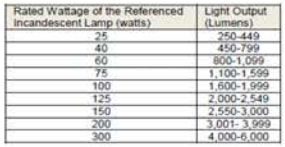
- CBs should submit certified product performance data to EPA for listing on the CSD
- CBs must review subcomponent data from the CSD when reviewing a luminaire for certification to determine that it meets the requirements for the specific type of luminaire to be certified.
- **Lifetime Testing:** The luminaires specification allows for initial (conditional) qualification of luminaires based on completion of minimum lamp lifetime testing requirements. This provision requires that full lamp lifetime testing be completed, and requirements met, for full qualification. In all instances where, subsequent to an initial CSD listing of a lamp or an initial luminaire qualification, a certification body (CB) receives lifetime testing results indicating that the product fails to meet rated lifetime (as indicated on product packaging), the CB is required within 2 business days to report this information as a subcomponent (lamp) or luminaire testing failure to enforcement@energystar.gov.
- In order to list a subcomponent on the CSD, the CB shall ensure that all subcomponents listed in the database have met the following luminaire requirements for the specific subcomponent, where applicable:

  - Transient protection testing;
  - Electrical safety as tested by an OSHA NRTL;
  - Electromagnetic and radio frequency interference;
  - Lighting toxics reduction;
  - Labeling language for mercury content; and
  - Warranty



ENERGY STAR VS. CSD

			
	ENERGY STAR Qualified	**EPA Certified for use in ENERGY STAR Qualified Luminaires (CSD)**	Notes
Typical Products Included	Screw-base CFLs, LED lamps	GU24 CFLs, GU24 LED Lamps, LED Light Engines	GU24 Lamps on CSD can also be simultaneously Qualified. Screw Base Qualified Lamps can NOT be CSD, LED Light Engines can NOT be Qualified
Specifications that must be met	**ENERGY STAR Lamps** (current version is ENERGY STAR Lamps V1.0, released 8/28/13, effective 9/30/14 but now available for early certification)	**ENERGY STAR Luminaires** (current version is ENERGY STAR Luminaires V1.2, released 11/30/12)	Qualified lamps appear on the Qualified Products List (QPL) EPA Certified lamps/engines appear on the Certified Subcomponent Database (CSD)
Target Market	Retail, Consumer	Lighting Fixture Manufacturers intending to sell ENERGY STAR Qualified luminaires	CSD lamps are typically shipped with the light fixtures
Product shows ENERGY STAR Mark	Yes	No	
Lifetime requirement	CFL: None. Lamp shall maintain ≥ 90% of initial lumen output at 1000-hours; and ≥ 80% of initial lumen output at 40% of rated life LED: 15,000hrs min.	CFL: 10K hrs min. LED: 25K hrs (resi indoor), 35K hrs (resi outdoor and commercial grade) min.	

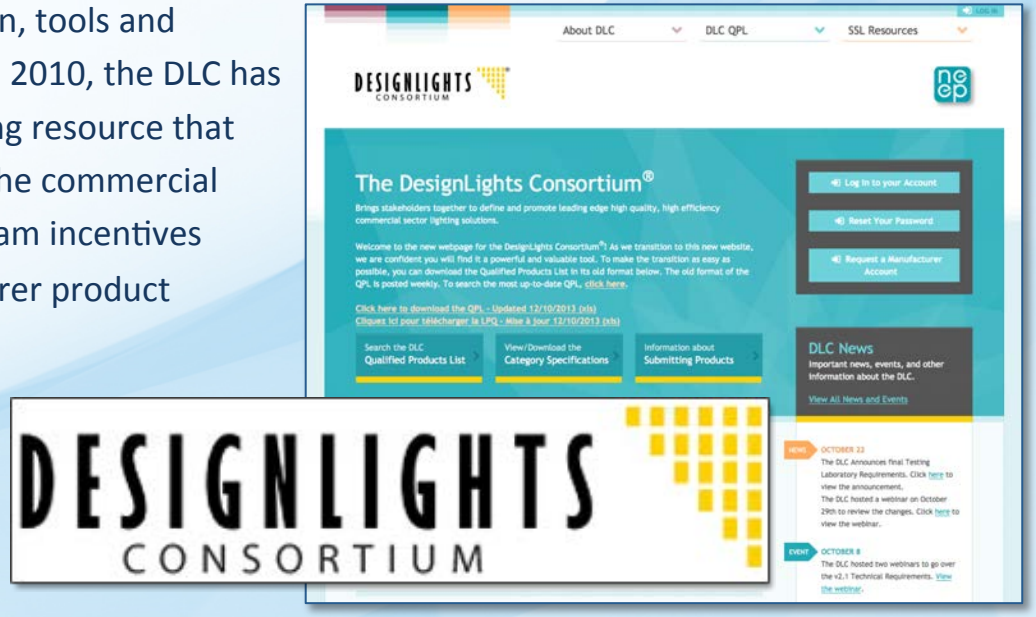
			
	ENERGY STAR Qualified	**EPA Certified for use in ENERGY STAR Qualified Luminaires (CSD)**	Notes
Warranty	<15,000hrs life = 2yrs >=15,000hrs life = 3yrs	3 yrs	
Min. Efficacy	Omnidirectional: <15W 55lpw, for >=15W 65lpw	65lpw	
Light Output		800 lumens minimum (some exceptions apply to multi-head and decorative chandelier and pendant products)	
Photometric Performance Testing Required	LM-79 (output at room temperature)	LM-82 (output as a function of temperature)	

Rated Wattage of the Referenced Incandescent Lamp (watts)	Light Output (Lumens)
25	250-449
40	450-799
60	800-1,099
75	1,100-1,599
100	1,600-1,999
125	2,000-2,549
150	2,550-3,000
200	3,001- 3,999
300	4,000-6,000

ABOUT THE DLC

The DesignLights Consortium® (DLC) is a project of Northeast Energy Efficiency Partnerships (NEEP), a regional non-profit founded in 1996 whose mission is to serve the Northeast and Mid-Atlantic to accelerate energy efficiency in the building sector through public policy, program strategies and education. The DLC promotes quality, performance and energy efficient commercial sector lighting solutions through collaboration among its federal, regional, state, utility, and energy efficiency program members; luminaire manufacturers; lighting designers and other industry stakeholders throughout the U.S. and Canada.

Over its 14 year history the DLC program has driven the lighting market towards innovation by providing information, education, tools and technical expertise for cutting edge technologies. Since 2010, the DLC has administered the Qualified Products List (QPL), a leading resource that distinguishes quality, high efficiency LED products for the commercial sector. Today, the QPL sets the bar for efficiency program incentives across the U.S. and Canada while informing manufacturer product development.



HISTORY OF THE DLC (PART 1)

NEEP began the DLC commercial lighting initiative in 1998. The initial working group was made up of energy efficiency program managers who recognized that many energy efficiency projects fall short on lighting quality. Knowing that, the DLC project developed the knowhow series™ , a set of lighting design guides for individual commercial spaces such as office, retail, and warehouse, aimed at electrical contractors and lighting equipment distributors. The guides highlighted up-to-date and efficient equipment, best design practices and codes and standards for commercial lighting. The knowhow series™ was embraced by architects and engineers alike, as an instructional tool to promote services and to distinguish themselves against their competitors. The DLC guides were widely used, until advanced building energy codes and new equipment innovations rendered them obsolete.

In 2006, NEEP engaged middle-market players through the DesignLights Consortium® in a new commercial lighting opportunity for High Performance T8 (HPT8) fluorescent lighting. DLC created a HPT8 program to educate lighting distributors throughout the Northeast about HPT8 equipment and the utility program requirements, and to encourage them to stock qualifying HPT8 equipment. Within two years the Northeast's lighting distributors became fully practiced at stocking HPT8 equipment. On the heels of the HPT8 program's success, the lighting industry saw the beginning of a major new development which posed yet another opportunity for energy efficiency programs.

HISTORY OF THE DLC (PART 2)

In 2008, LED lighting for general illumination became commercially available and the energy efficiency community was anxious to reap LEDs' energy savings benefits. ENERGY STAR®, along with the DOE Solid State Lighting(SSL) team, created a qualification process for consumer focused LED lighting products to avoid the market introduction pitfalls compact fluorescent light bulbs (CFL) underwent in the early 1990's.This assured high quality and performance within the emerging LED technologies. Soon it became obvious that similar needs existed for the commercial LED sector and program managers in the Northeast turned to NEEP and the DesignLights Consortium® project to create a similar resource for commercial-grade LED luminaires.

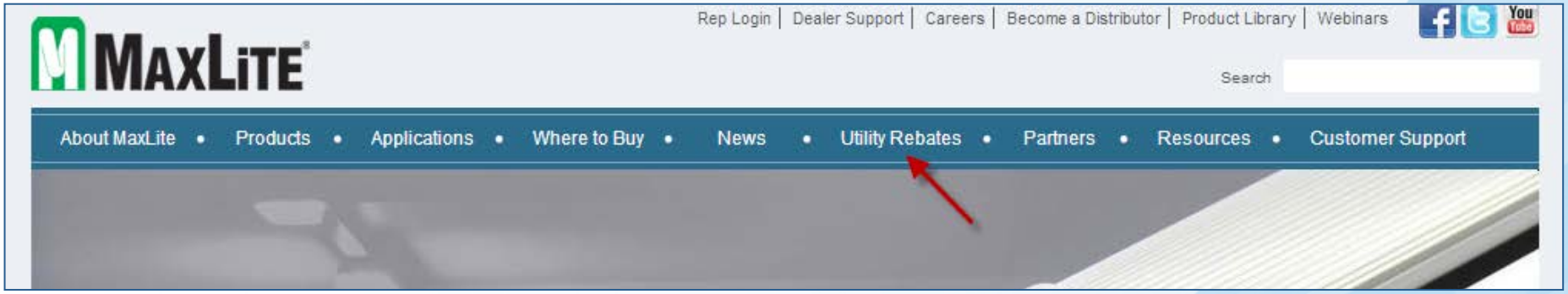
In 2010, NEEP launched the DesignLights Consortium® Qualified Products List of commercial grade LED luminaires. Within a few months, programs from beyond the NEEP region asked to participate in the effort as DLC members and to use the resource. Today DLC members include utility, state and regional energy efficiency programs from over 30 states in the U.S. and three Canadian provinces. As of December 2012, the list contained over 18,000 luminaires from more than 250 manufacturers and continues to grow. To date, the DLC provides a platform for collaboration among energy efficiency program members and drives the lighting market towards innovation by providing information, education, tools and technical expertise for cutting edge technologies.

Recently, NEEP received the LED Lighting Facts Partner award from the DOE Lighting Facts program and the award for Outstanding Achievement in Energy Program Design Implementation from the Association of Energy Service Professionals (AESP). These Accomplishments demonstrate not only the value that the DLC project brings to the energy efficiency community, but also the partnerships that are built within the industry because of it.

ENERGY STAR VS. DLC

Organization	Voluntary / Mandatory	Purpose	Information	Lighting Products Covered	Logo or Certification Mark	Contacts
ENERGY STAR® U.S. Environmental Protection Agency	Voluntary	To help consumers save money and protect the environment through energy efficient products and practices.	Labels products in more than 60 categories that meet strict energy efficiency guidelines set by the EPA and DOE. Requires third-party testing and certification.	Residential • CFL light bulbs • LED light bulbs • Residential Luminaires • Decorative Light Strings • Ceiling Fans with light kits	Logo use guidelines in place	www.energystar.gov For questions regarding ENERGY STAR lighting products, please contact: luminaires@energystar.gov lamps@energystar.gov
The DesignLights™ (DLC) Consortium A collaboration of utility companies and regional energy efficiency organizations	Voluntary	DLC is committed to raising awareness of the benefits of efficient lighting in commercial buildings.	Products not generally covered under the ENERGY STAR program. Requires third party testing and fee to list products.	Commercial Products not generally covered under the ENERGY STAR program such as: • Roadway • Parking Garage	Logo use guidelines in place	www.designlights.org

MaxLite Utility Rebate Finder



- Covers 200+ utility rebate programs across US
- 2013 program updates have been completed

Visit: http://www.maxlite.com/utility-rebate-programs

ROI Calculator

ROI Calculator

Compare and Save

The easy-to-use ROI calculator will help you navigate through the switch to MaxLite's LED and other energy efficient lighting products for your retrofit project. Calculate the time to payback and savings over the life of your new lamp or fixture by filling in your existing and new MaxLite product and the corresponding application details.

If you have any questions or comments

Factors	Existing	MaxLite
Type *	Please Select	
	Existing Type	MaxLite Type
Wattage *	Existing Wattage	MaxLite Wattage
Custom Wattage		
Product *	Existing Product	MaxLite Product

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The department function is to train and provide product training material for all MaxLite representatives, customers and employees. The goal of the department is to educate the staff and rep network to a full and complete understanding of our products, technologies, marketplace, and business environments. We endeavor to educate how and why lighting functions, repair and replacement, as well as compare to competitors or listing requirements. We will accomplish this by providing the tools and services proactively and as needed to supplement.

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Email Greg Murphy at gmurphy@maxlite.com for more info!

THANKS FOR ATTENDING!

QUESTIONS/ANSWERS

Thank you everyone for your attention! Please feel free to use this opportunity to ask any questions you may have about MaxLite or the products/topics discussed in this presentation.

FOR MORE INFORMATION ABOUT OTHER MAXLITE PRODUCTS, OR FOR LIGHTING QUESTIONS IN GENERAL; PLEASE CONTACT:

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