Lighting for Tomorrow
2012 Competition Awards

LIGHTING for tomorrow

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Dear Readers,

Lighting for Tomorrow presents the winners of the 2012 Solid-State Lighting (SSL) Residential Lighting Products Design Competition. This year's Competition features energy efficient LED lighting fixtures, screw-in replacement lamps, fixture retrofit kits, and lighting controls.

Since 2002, the *Lighting for Tomorrow* competition has recognized the best of the new energy-efficient residential lighting products and especially those with consumer appeal whose installation and use are helping to transform the market for efficient lighting. We've learned that consumers will respond to products which are not only energy efficient, but which also provide the appearance and quality of light appropriate for the application. As a result, the market for both fluorescent and solid-state luminaires has grown substantially and there is now an expanding range of luminaires available for every type of home, room and application.

Moving on from fluorescent light sources, *Lighting for Tomorrow* opened the competition to light emitting diode (LED) technology in 2006 with a focus on four specific niche applications. Those winning products successfully integrated the new white-light LEDs that delivered high quality, white light with application efficiency comparable to standard lighting technologies. Over time the SSL competition has expanded and in 2012 it was open to a variety of LED fixture types, as well as screw-in lamps designed to replace familiar types of household bulbs and for the first time, retrofit kits – products specifically designed to upgrade the performance of existing fixtures without sacrificing appearance, functionality or lighting quality.

Lighting for Tomorrow continues to look for ways to eliminate the other market barriers that slow the adoption and use of energy-efficient residential lighting products. A significant barrier, according to manufacturers, energy organizations and consumers themselves, is the compatibility of fluorescent and LED-powered fixtures with various kinds of lighting controls. In response, *Lighting for Tomorrow* included lighting controls beginning with the 2010 competition and with the thought that, increasingly, residential lighting energy savings will depend upon a systems approach. Tomorrow's savings must involve not only the lamp and luminaire, but also the way that the luminaire is powered and operated.

The LED luminaires, LED retrofit kits, LED replacement lamps, and compatible lighting controls highlighted in this brochure were carefully evaluated and scored by a diverse panel of expert judges based on their performance, quality and design. Some products were judged clear winners since they exceeded the criteria and scored higher than other products in their respective categories. Others were recognized as honorable mentions because they incorporated fresh ideas or promising attributes. For more information regarding the judges and evaluation criteria, please see pages 8 and 9.

Overall, the Organizers are pleased to see that the quality of the entries improved again this year. In particular, the LED products featured in this brochure represent increasing value for the residential consumer even though it is still early in the SSL market development process and we don't yet have long-term experience with white LEDs in general illumination applications. In addition, there are significant challenges with evaluating decorative LED luminaires with current test methods. Please see page 9 and 24 for more details.

We hope you enjoy the products showcased in this brochure and we look forward to supporting the continued development of energy efficient lighting.

Sincerely,
The Lighting for Tomorrow Organizers

Organizers

American Lighting Association
The American Lighting Association (ALA) is the only trade association representing residential lighting manufacturers, showrooms, distributors, manufacturer representatives, component manufacturers and industry-related companies. ALA members, totaling more than 1,200 in the United States, Canada and the Caribbean, are dedicated to providing the public with quality residential lighting.

www.americanlightingassoc.com

Consortium for Energy Efficiency
CEE is an award-winning consortium of efficiency program administrators from the United States and Canada that unifies program approaches across jurisdictions to increase impact in fragmented markets. By joining forces at CEE, individual electric and gas efficiency programs are able to partner not only with each other, but also with other industries, trade associations, and government agencies. Working together, administrators leverage the effect of their ratepayer funding, exchange information on successful practices and, by doing so, achieve greater energy efficiency for the public good.

www.cee1.org

UL, LLC
UL is a global independent safety science company offering expertise across five key strategic businesses: Product Safety, Environment, Life & Health, Knowledge Services and Verification Services. UL has tested and certified lighting products in the global marketplace for over one hundred years. UL provides testing and certification services to industry standards including UL, ANSI, IEC, NEMA, FCC, and IESNA. Additionally, UL is a leading provider of Photometric Performance and EMC testing in support of well-known lighting programs such as ENERGY STAR®, Lighting Facts, and Design Lights Consortium.

www.ul.com

Sponsors

Lighting for Tomorrow would like to thank the following sponsors, who generously supported the competition by providing funding or in-kind contributions in 2012.

BC hydro powersmart

Cape Light Compact

City of Palo Alto Utilities — Inspired by a brighter tomorrow.

ComEd — An Exelon Company

Connecticut Energy Efficiency Fund — www.CTEnergyInfo.com

Connecticut Light & Power — A Northeast Utilities Company

Efficiency Vermont

Hydro Québec

LIPA — We're working for you.

MidAmerican Energy

nationalgrid

Natural Resources Canada

Northwest Energy Efficiency Alliance

NSTAR Electric

nyserda — Energy Innovation Solutions

Pacific Gas and Electric Company

SDGE — A Sempra Energy utility

SMUD — Sacramento Municipal Utility District

Southern California Edison — An Edison International Company

Tacoma Power — Tacoma Public Utilities

Western Massachusetts Electric — A Northeast Utilities Company

focus on energy — Partnering with Wisconsin utilities

Xcel Energy — Responsible by Nature

Sponsors

Across the United States and Canada, energy efficiency programs like the organizations listed provide resources for retailers, builders, and consumers who are interested in making energy efficient lighting choices. These organizations have a mission to help their customers save energy. Some offer educational seminars or training; others offer monetary incentives such as rebates.

If you are interested in learning more, start with your local electric utility or efficiency program provider. Call their customer service or energy efficiency department to ask if they offer educational assistance or incentives for the installation of ENERGY STAR® qualified lighting, such as the award winning Lighting for Tomorrow fixtures highlighted in this publication.

Other sources of information include the ENERGY STAR Web site at www.energystar.gov, where a list of incentives by ZIP code is available. The Consortium for Energy Efficiency also compiles a “Residential Lighting Program Overview,” which provides a list of energy efficiency program offerings for residential lighting. This summary is available at **www.CEE1.org**.

2012 Competition Timeline and Judging Criteria

Competition Timeline

2012 competition announced	International Lighting & Accessories Market – Dallas, TX	January 19 – 23, 2012
Intent-to-submit forms due	See www.lightingfortomorrow.com	April 20, 2012
All entries due	See www.lightingfortomorrow.com	May 18, 2012
Judging Session	UL – Research Triangle Park, NC	June 12-13, 2012
Winners notified	Via phone and email	June 2012

Judging Criteria

The judging panel evaluates entries based on 6 main criteria:

		Considerations
1.	Color Appearance	• Is the color temperature appropriate for the residential application? • Will consumers find it acceptable? • Does the color change when viewed from different angles?
2.	Color Rendering	• Do colors “look right” under the light source? • How does it compare to incandescent/fluorescent references?
3.	Appropriate Illuminance	• Is the quantity of light acceptable for the application? • Is the light distributed appropriately for the task? • Is there glare at typical viewing angles?
4.	Application Efficiency	• Does the fixture deliver the appropriate light levels for the intended task using less wattage than traditional sources?
5.	Value	• Do you think the product provides good value for money? • Does the performance and materials appear to be commensurate with the price range? • Is it likely to meet established price points?
6.	Aesthetic Appearance and Style	• How does the product look? (when off, when on) • Are the materials used compatible with residential use? • Is the luminaire both attractive and functional?

The panel also has the option to award bonus points for entries exhibiting other desirable characteristic such as innovation, dimmability, sustainability, and for outdoor luminaires, being dark-sky friendly.

Judging Panel and Evaluation Process

Judging Panel

The 2012 *Lighting for Tomorrow* judging panel consisted of 7 judges drawn from various areas of the residential lighting community. The judging panel included a diverse cross-section of experts in lighting technology, lighting sales, energy efficiency, lighting design, and communications.

The 2012 judges were:

Randy Allison	***UL***	***RTP, NC***
Tim Beam	***Accuserv***	***New Albany, IN***
Brian Friedman	***BC Hydro***	***Burnaby, BC***
Keith Graeber	***California Lighting Technology Center***	***Davis, CA***
Larry King	***Capital Lighting, Inc.***	***Columbus, OH***
Linda Morley	***Dominion Electric Supply Company, Inc.***	***Arlington, VA***
Maury Wright	***LEDs Magazine***	***San Diego, CA***

Evaluation Process

The judges participated in a two day judging event held on June 12th and 13th in Durham, North Carolina. The judging event was hosted by the Underwriters Laboratories at their new UL University Knowledge Services facility. The judges viewed over 120 installed products and scored them based on the criteria detailed on page 8. Finalists were identified through reviewing the tallied scores and discussing the unique attributes of the high scoring entries as a group. The overall best products were selected to be winners, while good products with special features were chosen to receive honorable mentions.

The lighting performance of all LED products was verified either by manufacturer-provided photometric reports from an accredited NVLAP laboratory or were tested afterwards by an accredited NVLAP laboratory to verify wattage, light output, color temperature, and color rendering. The goal was to have all recognized product meet the ENERGY STAR Luminaire or Integral LED Lamp Specification requirements, however the organizers experienced significant challenges attempting to determine the performance ratings for certain non-directional, decorative lighting fixtures, because of testing procedure limitations.

The decorative, non-directional luminaires were shipped to an accredited laboratory to conduct LM-82 testing on their light engines. Since these luminaires were carefully designed around an LED light source, it was not always possible to remove the light engine for testing. As a result, several of these products are defined as “inseparable luminaires” by ENERGY STAR with a luminaire efficacy requirement of 70 lumens/watt. *Lighting for Tomorrow* recognized that these extremely well designed luminaires using high quality, high efficacy LED chips can not meet this luminaire efficacy requirement. So given the stringency of current efficacy requirements, *Lighting for Tomorrow* has decided to give one of these products special recognition even though it is currently unable to become fully ENERGY STAR qualified. This special recognition is contingent on this product becoming certified to all the other elements in the ENERGY STAR Luminaire Specification. For more information on this testing challenge please see the LED Fixture Special Recognition Section on page 24.

LED Replacement Lamp Winners

Winner: Definity BR30 Bulb
Manufacturer: Lighting Science Group

Luminaire Measurements:

- *Wattage: 13.64 watts*
- *Light Output: 826.7 lumens*
- *Luminaire Efficacy: 60.6 lm/W*
- *CCT: 2736 K*
- *CRI: 80.7*
- *Test Laboratory: Luminaire Testing Laboratory, Inc.*
- *Report Number: 26532*
- *ENERGY STAR® qualification in process*

Model Number:

DFN BR30 NW 120 *DFN BR30 WW 120*
DFN BR30 W27 120 *DFN BR30 CW 120*

Dimensions:

Maximum overall dimensions = 5.6”

Availability: *Currently available*

Contact Information:

Lighting Science Group
1227 South Patrick Drive #2A
Satellite Beach, FL 32937
(321) 779-5520

www.lsgc.com

Lighting Science Definity® BR30 bulb is commercially available in the US and Canada. This new, energy-efficient LED bulb is designed for use in the home and commercial applications as a replacement bulb to higher wattage incandescent light sources that are usually found in recessed ceiling cans. Lighting Science went to great measures to ensure that this BR30 design mimic that of traditional incandescent BR30 type products, so that when installed, it looks and performs like products customers are currently used to purchasing. It offers a smooth flood beam pattern for room filling light, and is available in 2700K, 3000K, 4000K and 5000K color temperature.

LED Honorable Mentions

LED Round Pendant
Manufacturer: MaxLite

Designers:

Pat Treadway, Director of Product Marketing
James Steedly, Product, R&D and Engineering

The contemporary styled 24-inch LED Flat Panel Pendant features a high lumens output and an integral driver, enabling a low profile of less than three inches. Compatible with building controls, motion sensors, timers and daylight harvesting systems for additional energy savings, the 45-watt Pendant, available in 3500K and 5000K CCTs, is constructed with proprietary-binned LEDs with a micro-surface optic incorporated diffuser that reduces glare and offers consistent shadowless light for 50,000 hours. These easily installed fixtures can be hung from ceilings with three strands of adjustable length aircraft-grade cables creating a seamless ceiling canopy; surface mounted fixtures are also available.

Luminaire Measurements:

- *Wattage: 37.5 watts*
- *Light Output: 3294 lumens*
- *Luminaire Efficacy: 87.9 lm/W*
- *CCT: 2870 K*
- *CRI: 80*
- *Test Laboratory: Luminaire Testing Laboratory, Inc.*
- *Report Number: 31870*
- *ENERGY STAR® qualification in process*

Model Number / Dimensions:

MLRP24E4527CH
23.63” x 60”

Availability: *In stock 6/1/12, first sold 7/1/12*

Contact Information:

MaxLite
12 York Avenue
West Caldwell, NJ 07006
(973) 244-7300

www.maxlite.com

FLEX - LED Desk Lamp
Manufacturer: Cielux, a division of DiCon Lighting

Flex is a reinvention of the traditional desk lamp, making advanced lighting technology more accessible. Cielux’s designers created a modern, streamlined structure with a smooth, rounded touch-sensitive base and a flexible arm to enhance the technological advances of this one of a kind LED desk lamp. The Flex is the only desk lamp in its class to feature adjustable color temperature (3000K, 4500K and 6000K) and manual dimming capabilities while still maintaining excellent light quality with high CRI. By using DiCon’s patented Dense Matrix LED platform, Flex’s brilliant light features long life and impressive energy efficiency, consuming only 13 watts of energy. Create the perfect lighting for any task - only with the Cielux Flex.

Luminaire Measurements:

- *Wattage: 12.3 watts*
- *Light Output: 344 lumens*
- *Luminaire Efficacy: 28 lm/W*
- *CCT: 3259 K*
- *CRI: 93*
- *Test Laboratory: Luminaire Testing Laboratory, Inc.*
- *Report Number: 31876*
- *ENERGY STAR® qualification in process*

Dimensions:

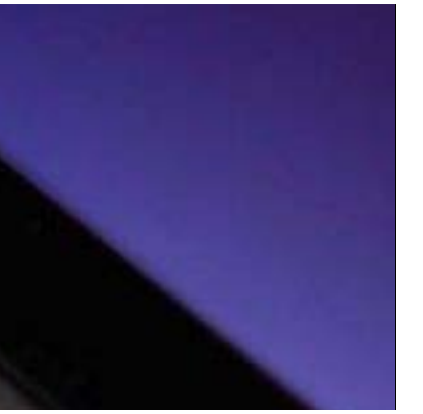
Base Width: 6.81”
Overall Height: 19.29”

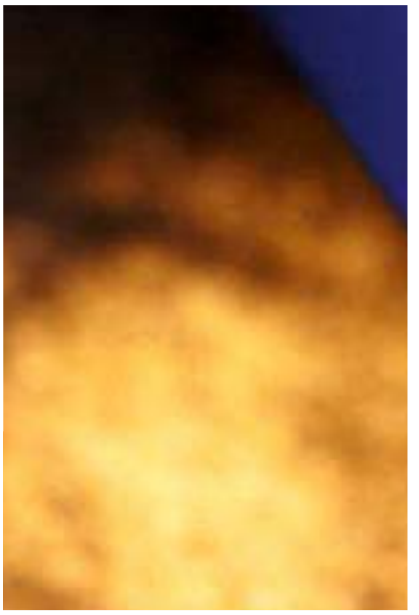
Availability: *Currently available*

Contact Information:

Steve Kelley, CLMR
Sales Manager – Cielux
Cielux, a Division of DiCon Lighting
1689 Regatta Blvd.
Richmond, CA 94804
(510) 620-5118
Orders: cielux@cielux.com

www.cielux.com





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