A Legacy of Lighting Industry Leadership

2002 • National Lighting Fixture Design Competition
2003 • National Lighting Fixture Design Competition
2004 • National Lighting Fixture Design Competition
2005 • Lighting for tomorrow
2006 • Lighting for tomorrow
2007 • Lighting for tomorrow
2008 • Lighting for tomorrow
2009 • Lighting for tomorrow
2010 • Lighting for tomorrow
2011 • Lighting for tomorrow
2012 • Lighting for tomorrow
2013 • Lighting for tomorrow
2014 • Lighting for tomorrow
2015 • Lighting for tomorrow
2016 • Lighting for tomorrow

2017 • Competition Awards • lightingfortomorrow.com
What We Learned in 2017

- Connected
- New Directions in Artistry
- Thinner Optics
- Filament Bulbs
- Layers of Light
2017 Award Winners

Check out the LFT site for more details!
Competition Sponsors
LFT continues to monitor developments in the connected lighting space, and will consider the types of product criteria that would help yield the most benefit to consumers and DSM programs alike.
Residential Lighting Specifications

Upcoming Changes and Developments

Eileen Eaton
Senior Program Manager
September 28, 2017
Minneapolis, MN
Upcoming Changes to Lamp Specs

- ENERGY STAR® Lamp Criteria Version 2.1 becomes effective on Oct 1, 2017
- CEE Board of Directors approved corresponding changes to the CEE Spec for Integral Replacement Lamps Sold at Retail
CEE Integral Lamp Spec

- CEE has reduced the lifetime requirements for directional lamps to 15,000 hours
- BUT still encourages higher quality products in the market through CEE performance tiers

CEE Tier 1

CEE Tier 2
CEE Advanced Tier

25,000 hours
# CEE Integral Lamp Specification
Revised – effective October 1, 2017

<table>
<thead>
<tr>
<th>Tier</th>
<th>Initial Efficacy (lm/W) CRI≥80</th>
<th>Initial Efficacy (lm/W) CRI≥90</th>
<th>Correlated Color Temperature (K)</th>
<th>Rated Life (hours)</th>
<th>Power Factor</th>
<th>Dimming*</th>
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<tbody>
<tr>
<td>Tier 1</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>Omnidirectional*</td>
<td>≥ 80</td>
<td>≥ 70</td>
<td>≤ 6500</td>
<td>≥15,000</td>
<td>≤ 10W, ≥ 0.6, &gt; 10W, ≥ 0.7</td>
<td>Not required</td>
</tr>
<tr>
<td>Directional*</td>
<td>≥ 70</td>
<td>≥ 61</td>
<td>≤ 6500</td>
<td>≥15,000</td>
<td>≥ 0.7</td>
<td>Not required</td>
</tr>
<tr>
<td>Decorative*</td>
<td>≥ 65</td>
<td>≥ 65</td>
<td>≤ 6500</td>
<td>≥15,000</td>
<td>≥ 0.7</td>
<td>Not required</td>
</tr>
<tr>
<td>Tier 2</td>
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<tr>
<td>Omnidirectional</td>
<td>≥ 95</td>
<td>≥ 80</td>
<td>≤ 5000</td>
<td>≥25,000</td>
<td>≥ 0.7</td>
<td>≤20%</td>
</tr>
<tr>
<td>Directional</td>
<td>≥ 85</td>
<td>≥ 70</td>
<td>≤ 5000</td>
<td>≥25,000</td>
<td>≥ 0.7</td>
<td>≤20%</td>
</tr>
<tr>
<td>Decorative</td>
<td>≥ 80</td>
<td>≥ 70</td>
<td>≤ 5000</td>
<td>≥15,000</td>
<td>≥ 0.7</td>
<td>≤20%</td>
</tr>
<tr>
<td>Advanced Tier</td>
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<td></td>
<td></td>
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<tr>
<td>Omnidirectional</td>
<td>≥ 90</td>
<td>≥ 80</td>
<td>≤ 5000</td>
<td>≥25,000</td>
<td>≥ 0.9</td>
<td>≤10%</td>
</tr>
<tr>
<td>Directional</td>
<td>≥ 80</td>
<td>≥ 80</td>
<td>≤ 5000</td>
<td>≥25,000</td>
<td>≥ 0.9</td>
<td>≤10%</td>
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<td>≥25,000</td>
<td>≥ 0.9</td>
<td>≤10%</td>
</tr>
</tbody>
</table>

* Performance as determined by the ENERGY STAR® testing requirements for all lamps marked as dimmable. Categories for "omnidirectional", "directional", and "decorative" lamps are defined by ENERGY STAR.
Programs Supporting the CEE Integral Lamp Spec

At least two CEE members are evaluating the program design around the CEE Integral Lamp Spec
Industry Response to the CEE Spec

One manufacturer improved a previously designed lamp to meet the CEE advanced tier.

As a result, CEE has updated the product submission process:

- In addition to obtaining data from the ENERGY STAR product finder
- CEE will now accept direct manufacturer submissions of ENERGY STAR certified lamps
Contact

Eileen Eaton
Senior Program Manager
(617) 337-9263
eeaton@cee1.org
Industrial SEM Program Summary
Coming Soon!

Number of Industrial Facilities Served by SEM Programs To Date

Source: CEE SEM Program Summary Data
Commercial Kitchens

Expanding Refrigeration Opportunities

Laura Thomas
Program Manager
September 28, 2017
Minneapolis, MN
Why Refrigeration?

REFRIGERATION

16%

LIGHTING

17%

Total Electricity Consumption (trillion BTU) in Commercial Buildings

670

724
What’s Been Done?

- ≤ 5.0 kWh/day
- ≤ 3.31 kWh/day
- ≤ 3.25 kWh/day
- ≤ 2.29 kWh/day

2001
2010
2015
2017

Saves 1,004 kWh per year more

more
Building on Success

Rising Federal Minimum Standards

Revision of ENERGY STAR Criteria

Decrease Savings for Current Programs

Need to Target New Product Types
What Equipment Now?

- Refrigerated Vending
- Self Contained Door Units
- Remote Condensing Units
- Open Display Cases
- Walk-in Coolers and Freezer
- Chef Bases
- Prep Tables
Help Drive the Way!
Contact Me to Join the Effort

Laura Thomas
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