

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON, D.C. 20460



OFFICE OF
AIR AND RADIATION

November 30, 2012

Dear ENERGY STAR[®] Lighting Stakeholder:

Since the transition to the new ENERGY STAR Luminaires specification on April 1, 2012, the U.S. Environmental Protection Agency (EPA) has been carefully monitoring its implementation. In response to feedback from partners based on their early experiences with the specification, the Agency is proposing a number of minor changes that will be reflected in a Version 1.2, to clarify requirements and reduce testing burden. We anticipate that these changes and clarifications will improve understanding and use of the ENERGY STAR Luminaires specification moving forward and facilitate greater proliferation of ENERGY STAR certified luminaires. Broader potential changes may be considered in the latter part of 2013, in conjunction with an assessment of the impact this new specification has had on the market at that point.

The purpose of this letter is to outline the proposed changes and provide stakeholders the opportunity to comment prior to adoption. The changes would not impact existing or pending certifications – currently certified models and models currently being tested would not need to be re-certified.

In addition to making certain clarifications and updating test procedure references, EPA is pursuing adjustments that include: deferring the upcoming increase in source efficacy for non-directional luminaires; adjusting minimum light output requirements, exempting SSL products from run-up time testing; and streamlining photometric test requirements for outdoor luminaires. All proposed changes are outlined below.

Changes in Requirements

Source Efficacy for Non-Directional Luminaires

Due to the delayed implementation of ENERGY STAR Luminaires Version 1.1 and IES LM-82-12 (*the Approved Method for the Characterization of LED Light Engines and Integrated LED Lamps for Electrical and Photometric Properties as a Function of Temperature*) taking longer than anticipated to be published, the 70 lumens per watt efficacy requirement scheduled to go into effect September 1, 2013 is being removed, leaving in place the current minimum efficacy requirement at 65 lumens per watt. Increasing efficacy will be reconsidered as part of a Version 2.0 specification change.

Source Minimum Light Output for Non-Directional Luminaires

Further analysis of current market conditions indicates that lower light levels are appropriate for popular decorative luminaires. As such, exceptions to the 800 lumens minimum light output level are being adjusted as follows:

- Ceiling fan light kits with 3 or more heads and outdoor porch lights will be allowed a minimum of 450 lumens per head
- The minimum light output for chandeliers will be changed from 450 to 250 lumens per head
- Decorative pendants and wall sconces will be allowed a minimum of 250 lumens per head

Source Run-up Time for SSL Products

Introduced in Luminaires 1.0 to align with the requirement for other technologies, run up time has not proven to be an issue for solid state lighting, as confirmed by testing results since the specification transition. EPA believes this is an area where testing burden can be reduced without reduction in performance quality and will exempt SSL products from testing to the run up time requirement.

Efficacy, Output and Zonal Lumen Density Requirements for Directional Luminaires

Outdoor wall, porch and pendant mount luminaires are currently only within the scope of the specification as non-directional luminaires or as directional luminaires if a directional post mounted version of the same exact product exists. In response to stakeholder feedback that this approach may not be consistent with manufacturing practices, these types of luminaires are being added to the post-mount luminaire section for directional luminaires to provide a qualification path using luminaire photometry even in the absence of a post-mount version. Directional outdoor wall, porch and pendant mount luminaires will have to meet the same requirements as directional post top luminaires, including the luminaire zonal lumen density requirements. Inseparable outdoor lights would need to either meet the post top performance requirements or the inseparable requirements.

Clarifications

Electromagnetic and Radio Frequency Interference

All FCC requirements and references are being removed from the specification to avoid confusion, because compliance with requirements of the United States Federal Communications Commission is required by law.

Supplemental Guidance for Noise Testing

Supplemental testing guidance is being added to clarify that noise testing results do not need to be reviewed during the ENERGY STAR certification process. Instead, manufacturers must maintain documentation on file demonstrating that certified products meet these requirements, and EPA reserves the right to request this documentation at any time. The Agency intends to work with the U.S. Department of Energy (DOE) to develop a uniform method for noise testing of lighting equipment for future consideration.

Linear Fluorescent Luminaires That Do Not Ship With Lamps

After receiving several stakeholder inquiries concerning luminaires that do not ship with lamps, the Agency issued a Frequently Asked Question (FAQ). Consistent with the FAQ, a clarification has been added that linear fluorescent luminaires that do not ship with lamps must be tested using a lamp model indicated on the luminaire's packaging and must be compliant with ANSI/ANSI C78.81-2010 (for T8) or IEC 60081 data sheets (for T5). In addition, the specification is being adjusted to confirm that if a luminaire is not required to ship with a lamp, but the lamp is shipped with the luminaire, then the lamp must meet Luminaire Version 1.2 performance requirements.

Color Angular Uniformity Testing Guidance for SSL Downlights and Retrofits

Based on feedback concerning colored trims and color angular uniformity testing, EPA issued an FAQ clarifying that color angular uniformity testing for SSL downlights and retrofits may be conducted without the trim in place. The FAQ language is being added to the Version 1.2 specification.

Inseparable SSL Luminaires

Due to confusion, language is being added in the scope, luminaire classification, and ballast/driver replaceability requirements sections of the specification to clarify that inseparable SSL luminaires may be directional and to confirm that inseparable SSL luminaires are exempt from the driver replaceability requirement.

SSL Downlight Retrofits

Due to confusion over allowable electrical connection types for SSL downlight retrofits, the following language will be appended to the definition of SSL downlight retrofits in order to clarify the acceptability of ANSI standard bases: "typically employing an ANSI standard lamp base, either integral or connected to the downlight retrofit by wire leads."

Test Method References for Cold Cathode Compact Fluorescent Luminaires

The test criteria section is being updated to confirm that IES LM-9, LM-65 and LM-66 are applicable for both hot and cold cathode sources.

Updating References

SSL V1.3 Exceptions

The exception that allowed specific types of luminaires to be certified using SSL V1.3 is no longer applicable due to the publication of IES LM-82-12, reference to the Solid State Luminaires V1.3 specification is being removed.

HID Reference Documents for Indoor Application Requirements

There is no industry standard to reference and use to confirm color consistency of HID sources in accordance with the Correlated Color Temperature requirements in the specification, so references to other indoor HID documents are being removed. EPA may revisit the inclusion of HID technology for indoor products in the future when color consistency standards for HID sources become available.

Methods of Measurement and Reference Documents

Test method references are being updated to include the latest publication date. These include IES LM-41, LM-47, LM-65, and LM-82.

In-situ Temperature Method of Measurement Reference

The references to ANSI/UL 1598-2008 in sections 16.1 through 16.16 is being corrected to cite appropriate sections for in-situ temperature testing, specifically sections 19.7 and 19.10-19.16.

As noted above, the changes will not impact existing or pending qualifications – currently certified models and models currently being tested would not need to be re-certified. If you have comments or concerns regarding these changes, please submit them to luminaires@energystar.gov no later than **Friday, December 14, 2012**. Please note that comments received will be posted to www.energystar.gov/luminaires unless marked “Do Not Post.” We expect to post a finalized Luminaires Version 1.2 before the end of the year.

Please contact me at (202) 343-9042 and jantz-sell.taylor@epa.gov or Tanya Hernandez at ICF International at (919) 294-9004 and tanya.hernandez@icfi.com with questions or concerns.

As always, thank you for your support of ENERGY STAR.

Sincerely,



Taylor Jantz-Sell
ENERGY STAR Lighting Program Manager
U.S. Environmental Protection Agency