

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



OFFICE OF
AIR AND RADIATION

October 1, 2010

Dear ENERGY STAR Lighting Partner, Stakeholder or Other Interested Party:

With this letter, the U.S. Environmental Protection Agency (EPA) announces the release of Draft 2 of the ENERGY STAR Luminaires specification and requests feedback towards the further refinement of the document. Please note that the Residential Light Fixtures (RLF, V4.2) and Solid State Lighting (SSL, V1.1) specifications (the “existing specifications”) remain in effect until the Luminaires specification is finalized, and effective in 2011.

On May 10, 2010, EPA released Draft 1, intended to replace the existing specifications. The Agency would like to thank partners and stakeholders for their thorough review of Draft 1, and the extensive comments received, which have been posted for your review on the Luminaires specification development web [page](#), along with a document summarizing those comments.

Following the release of Draft 1, EPA held a webinar providing further detail on the Agency’s rationale for the content of the first draft, along with a question and answer session. Slides from that webinar are available on the above web page. EPA has also met with industry representatives in person and over the phone on several occasions to discuss key topics in greater detail.

Concurrent to these events, EPA has been engaged in the revision of ENERGY STAR Program Requirements for all product categories in preparation for the planned December 31, 2010 implementation of ENERGY STAR Enhanced Testing and Verification. Details of those changes, including Revised Partner Commitments for Residential Light Fixture and Solid State Lighting Luminaire manufacturers can be found at www.energystar.gov/testingandverification. Several important changes have been made to the style and formatting of the Luminaires specification as a result of this program-wide effort.

The draft distributed today reflects changes resulting from the Draft 1 comments, subsequent industry discussions, and the Enhanced Testing and Verification updates. Important modifications from Draft 1 to Draft 2 include:

- The specification scope and luminaire classification system has been further refined, with some additional luminaire types added. Ceiling and ventilation fan light kits are now included in this specification, as new versions of those specifications will refer to the Luminaires specification for all lighting requirements.
- The efficacy requirement for non-directional luminaires has been revised to 65 lm/W, with a planned increase to 70 lm/W scheduled to take effect two years later. The change

was made to include what is expected to be broadly accessible and cost effective as of this specification's effective date in 2011.

- Requirements for and the definition of inseparable SSL luminaires have been revised to distinguish these luminaires from those featuring a replaceable LED light engine, and to distinguish from those directional luminaire types for which performance requirements are otherwise detailed in the specification.
- Throughout the specification, requirements for high intensity discharge sources have been revised to allow for qualification of indoor luminaires using these source types so long as they are capable of meeting the performance requirements. With this change EPA seeks to ensure that the ENERGY STAR specification does not present a barrier to technological innovation which may make one or more of these technologies more attractive to consumers. In some instances the specification does not recognize industry established performance standards, as they are inconsistent with ENERGY STAR performance requirements.
- Solid state lumen maintenance requirements have retained both options 1 and 2 until such time as an industry standard is available for luminaire lumen maintenance measurement and projection, and until industry has developed more experience with this method of measurement.
- Correlated color temperature values have been expanded to allow 5000 Kelvin for commercial luminaire types only. EPA is concerned that with the increased efficacy requirements, allowing CCTs above the 4100 Kelvin residential limit may lead manufacturers to shift residential products towards high CCTs which more easily achieve compliance with efficacy requirements, but are generally less preferred by consumers.
- Color maintenance requirements for SSL have been revised, with the requirement now pertaining to only the 6,000 hours of testing as required by IES LM-80-08 (rather than a lifetime requirement). Passing test requirements have also been revised.
- The photosensor requirement for outdoor luminaires has been removed, except for halogen incandescent luminaires which derive the bulk of their energy savings potential from luminaire-level time-limiting devices. In addition, language inadvertently missing from Draft 1 regarding motion sensor manual override features has been inserted, with reactivation requirements set for 6 hours, based on revisions made to California Title 24 in 2008.
- Power factor requirements have been entered specifically for commercial fluorescent luminaires. Requirements for residential fluorescent luminaires remain unchanged based on review of laboratory and field studies conducted around the world which have not demonstrated detrimental effects resulting from the use of low power factor CFLs. Further details – including literature references – are included in the specification note box.
- Ballast/Driver Replaceability Requirements have been revised based on stakeholder feedback from Draft 1. EPA seeks industry input on specific solid state directional luminaire types which could not reasonably meet this requirement.
- The NEMA/ALA lamp and ballast matrices and the EPA Platform Database will be discontinued in favor of a next-generation system for third-party certification of luminaire subcomponents, including lamps, ballasts, and lamp-ballast platforms. The system will fully conform to the ENERGY STAR program's Enhanced Testing and Verification requirements, requiring testing and certification of subcomponents by EPA-recognized laboratories and certification bodies.

- Requirements specific to GU24 lamps (Appendix A) have been removed. Manufacturers of GU24 lamps should consider the applicable performance requirements within the specification for purposes of lamps to be used by luminaire manufacturers seeking to meet this specification. Soon, EPA will begin development of the ENERGY STAR Lamps specification, which will encompass lamps with ANSI bases, including GU24.

EPA anticipates finalizing the Luminaires V1.0 specification in November, and is proposing an effective date of September 1, 2011. The Agency will publish a final draft prior to finalizing the specification.

As always, the exchange of ideas and information among EPA, ENERGY STAR partners and stakeholders is critical to the success of ENERGY STAR. Manufacturers are strongly encouraged to submit comments on the Draft 2 Version 1.0 specification to luminaires@energystar.gov by Friday, October 29, 2010. Please note that comments received will be posted to www.energystar.gov/luminaires unless marked "Do Not Post".

All materials related to the Agency's progress developing the Luminaires specification will continue to be posted at the above link. Please feel free to contact me with questions, comments or concerns at (202) 343-9272 or baker.alex@epa.gov, and again I thank you for your support of ENERGY STAR.

Sincerely,

A handwritten signature in black ink, appearing to read "Alex Baker", with a stylized flourish at the end.

Alex Baker
Lighting Program Manager, ENERGY STAR
U.S. Environmental Protection Agency