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



OFFICE OF AIR AND  
RADIATION

June 29, 2023

Dear ENERGY STAR® Lighting Stakeholders:

This letter announces the Environmental Protection Agency's (EPA) release of the second draft of the [ENERGY STAR Recessed Downlights Version 1.0 specification](#) (V1.0), intended to replace the Luminaires Version 2.2 specification (V2.2; the "existing specification") for recessed downlights and recessed downlight retrofit kits.

EPA received formal comment on the first draft of the specification from three EPA-recognized Certification Bodies, two industry associations (jointly), and one brand owner partner which are posted at [www.energystar.gov/luminaires](http://www.energystar.gov/luminaires).

#### **Changes Proposed in This Draft**

EPA's intent remains that eligible models currently certified under Luminaires V2.2 may be reevaluated and recertified without additional testing. In response to the valuable feedback provided by stakeholders, the primary changes proposed in draft 2 are a new approach to certifying product families, simplification of lumen maintenance life requirements, and revised packaging requirements for models destined only for online sales. Please review all note boxes in the draft specification for details. Below is a summary of changes proposed in Draft 2.

#### **(Section 6.1) Product Families**

Based on the feedback received from draft 1 around efficacy and product variations, EPA is proposing a new approach to certifying product families in draft 2. Rather than requiring the testing of all variations or worst-case efficacy scenarios, this proposal focuses on the amount of energy used and requires the tested representative model for a product family to be the variation with the highest input power and highest efficacy. Variations in the product family that reduce light output and thus would have lower luminous efficacy are allowed so long as the applicable minimum initial light output requirement is met. The goal of this approach is for the certification to represent the same energy savings for any product in the family. The result of this approach should be a greater number of models being certified, with less testing. Further, this approach allows for flexibility in serving customer preference while delivering the same benefit to the environment.

#### **(Section 9) Lumen Maintenance and Rated Life Requirements**

In response to concerns about more conservative projections highlighted in the 2022 NEMA white paper (<https://www.nema.org/standards/view/nema-comments-on-updated-ies-tm-21-22-calculator>), EPA is proposing a single light source life requirement for all products, whether the light source is separable or inseparable, of 25,000 hours instead of maintaining the two thresholds of 25,000 and 50,000 hours respectively. With the official release of the ANSI/IES TM-21 Calculator confirmed, EPA is proposing that all products be re-evaluated using the new calculator so that all ENERGY STAR certified recessed downlights under the new specification will be represented consistently. Additionally, EPA proposes to remove the "Option 2" lumen maintenance compliance path and all associated references to LM-84 testing and TM-28 lifetime projections due to the extremely limited use of this certification pathway over the history of the luminaires program.

### **(Section 15.1) Packaging Requirements**

EPA has updated the packaging requirements in response to stakeholder comments that the current packaging requirements were designed for retail sales where consumers make purchasing decisions based on information displayed on a package in a store and are costly and unnecessary for online sales. For models destined exclusively for online sale, EPA proposes that packaging requirements may be fulfilled by providing a supplemental performance summary document for certification and to all online resellers to help ensure that online marketing claims are consistent with the model's certification. Additionally, EPA has removed requirements that were redundant with existing safety standards. Note that this does not impact existing luminaires partner commitments regarding the use of ENERGY STAR marks which will carry over.

### **Additional Changes Proposed**

- The scope has been expanded to allow for alternate mounting configurations (Section 1).
- The Downlight, Accent Light, and Downlight Retrofit definitions are further harmonized and a new Wallwash Distribution definition is introduced (Section 4).
- The expectation that color tunable and multi-output products are to be evaluated at the most consumptive white light setting has been clarified (Section 5.1).
- EPA has clarified that ANSI/IES LM-80-21, IES LM-80-15, or LM-80-08 and its Addendum A are acceptable methods of measurement related to ENERGY STAR lumen and color maintenance requirements. Additionally, ANSI/IES LM-79-19 and IES LM-79-08 are acceptable methods of measurement where applicable (section 7, 8, and 9) as are ANSI C82.77-10-2021 and C82.77-10-2014 for power factor.
- Light source serviceability and driver replaceability requirements are replaced with recommendations whenever possible based on product design (Section 11).

### **Summary**

EPA seeks comments on the second draft via email to [lighting@energystar.gov](mailto:lighting@energystar.gov) by **July 28, 2023**. Please indicate "ENERGY STAR Recessed Downlights V1 Draft 2 Comments" in the subject line. Please note that comments received will be posted to the ENERGY STAR website unless otherwise requested.

On Wednesday **July 12, 2023**, EPA will host a webinar providing an overview of the V1 Draft 2 specification and allow for detailed discussion. Register [here](#) to attend. All documents related to Draft 2 are posted to [www.energystar.gov/luminaires](http://www.energystar.gov/luminaires).

EPA appreciates your contribution to the development of this specification and welcomes inquiries; please contact me with questions, comments or concerns at [jantz-sell.taylor@epa.gov](mailto:jantz-sell.taylor@epa.gov) or [lighting@energystar.gov](mailto:lighting@energystar.gov). Thank you for your support of ENERGY STAR.

Sincerely,



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

Enclosures:

[ENERGY STAR Recessed Downlights Version 1.0 Specification](#)  
[ENERGY STAR Recessed Downlights V1.0 Draft 1 Comment Summary and Response](#)

For more information, visit: [www.energystar.gov](http://www.energystar.gov)

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