

November 14, 2014

US Environmental Protection Agency
ENERGY STAR Lighting Program
Attention: Taylor Jantz-Sell, Program Manager
Re: ENERGY STAR Luminaires V2.0 Specification Discussion Document – October 2014

Submitted via email: jantz-sell.taylor@epa.gov

Acuity Brands Comments on ENERGY STAR Luminaires V2.0 Specification Discussion Document

Dear Ms. Jantz-Sell,

Thank you for the continued opportunity to participate in the development of the ENERGY STAR Luminaires Specification and for holding the specification revision workshop on October 30, 2014, at the conclusion of the ENERGY STAR Product Partner Meeting in Phoenix, AZ. Acuity Brands offers the following comments regarding the specification proposals:

Start Time: Although there are high Start Time passing rates reported during luminaire verification testing, manufacturers recognize that excessive start times will be unacceptable to consumers. The Start Time testing burden is relatively small, and there is little benefit to eliminating a requirement that has the potential to become a complaint if not regularly verified.

Recommendation: Maintain the Start Time requirement at the maximum value of 1 second, allowing manufacturers to differentiate their products with shorter start times.

Zonal Lumen Density (ZLD) Requirements: Historically, manufacturers have expertly designed luminaires for performance demanded by the design community, and the same holds true today. Although ENERGY STAR's well intentioned effort to specify minimum light distribution metrics for products like undercabinet luminaires, cove lighting, and downlights has resulted in products in the marketplace that satisfy consumers, this effort has also limited manufacturers' ability to innovate and create products that are eligible for the program with more desirable performance. **Recommendation:** Maintain the zonal lumen density requirements for directional luminaires and allow an alternate certification path for luminaires that don't conform to the ZLD requirements through the use of pictorial graphics that clearly illustrate the distribution performance at the point of sale, i.e. on the packaging or web marketing materials.

Worst-case Electrical and Photometry Testing: It is encouraging that the U.S. Environmental Protection Agency (EPA) is considering simplifying the luminaire program requirements by allowing an integrating sphere test to cover the photometry for directional luminaires that are the same basic construction but vary in wattage and light output. This could easily be accomplished through the expansion of the "Allowable Variation" section of the specification, and would reduce manufacturers' testing burden, eliminating the need for testing

an entire family when there are obvious worst-case model(s). **Recommendation:** Expand the Allowable Variation section to include wattage and photometry.

Changes to Efficacy Levels: LEDs are already a very efficient light source, and as efficacy continues to increase, this fact will not be the motivation to attract new adopters. New adopters will respond to decreases in price and increases in product light quality, and these two factors almost always play against efficacy. For example, the recent push by regulators for 90 CRI products because it is seen as a “higher quality” light source, results in an unavoidable reduction in efficacy. Also, designing luminaires with appropriate cut-off angles and diffusion to mitigate the proliferation of “glare bombs,” also lowers efficacy. **Recommendation:** Maintain existing efficacy levels and allow manufacturers to differentiate their products by price, light quality and/or efficacy.

Changes to Product Category Scope (Dynamic color and color tunable): The design community, as well as consumers are gravitating to lighting solutions that can be controlled via smart phone and adjusted to accommodate their color preferences. As the market for these products have increased, there is a strong need for industry standards for certification purposes. These designs include dim to warm, color temperature tunable and dynamic color changing. **Recommendation:** Incorporate luminaires with these features into the Luminaire specification, providing best practice guidelines for testing and certifying them in the program.

Changes to Product Category Scope (Fixtures that ship without a light source): The Agency’s intention to require all ENERGY STAR certified luminaires to ship with a light source has the potential to remove virtually all linear fluorescent luminaires from the program. Because these highly efficient sources are regulated by the US Department of Energy, they can be used to satisfy the mostly photometric specification requirements for luminaires without being shipped with the luminaires. Also, requiring manufacturers to ship linear fluorescent lamps with the luminaire can present universal waste concerns, including increase solid waste from the increased packaging to minimize lamp breakage risks, and the disposal of hazardous materials at the jobsite if lamp breakage occurs during shipping. **Recommendation:** Maintain the allowance for luminaires with linear fluorescent lamps to be shipped without the light source.

Thank you for the opportunity to provide this input. Acuity Brands is anxious to help promote solutions to achieve greater energy savings with high quality lighting solutions. Please feel free to contact me with any questions.



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