Hello Lighting Team,

Thank you for the opportunity to provide comments and feedback on the ENERGY STAR® Luminaires V2.0 Draft 1 specification. Please find our comments below.

1. Section 8 – Shipping with ENERGY STAR® Certified Lamps: Non-Directional
   a. UL suggests that an in-situ temperature test be added to verify the LED temperature and measured drive current support the lumen maintenance claims while being operated in the submitted luminaire.
   b. UL suggests this approach to be used in a directional luminaire as well. The luminaire and lamp tested as a system for Light Output, Efficacy, Zonal Lumen Requirements, in-situ, and Angular Uniformity requirements. The electrical data like start time, transient, operating frequency, and power factor would all come from the Lamp QPL.

2. Section 9.2 – Directional Luminaires
   a. For the performance testing of the SSL Downlight Retrofit category it was discussed at the January meeting that the retrofit kit should be installed into a “worst case” downhill housing to determine whether the retrofit meets the applicable requirements. UL requests that an approved housing list be made available to the laboratories so that all testing is done in a consistent manner. This approach has been successfully implemented in other energy efficiency programs.
   b. In the supplemental testing guidance section on page 15 there remains some text that calls out a 3 luminaire sample size but the requirement is for only 1 luminaire to be tested. The text is “For downlights, one trim ring and one reflector may be used with the three luminaire samples”. UL requests this text be removed for clarity.
   c. For the Under Cabinet category, UL requests that under the Luminaire Zonal Lumen Density Requirement section that there should be a clarification to how the 12.5% of total lumens in the 60°-90° zone aimed toward the backsplash is evaluated. We have heard from numerous manufacturers that not all certification bodies are evaluating it the same way. UL requests that a defined process be developed and implemented for consistency.

3. Section 9.3 – CCT
   a. In the supplemental testing guidance section on page 18 there remains some text that calls out a 3 luminaire sample size but the requirement is for only 1 luminaire to be tested. The text is “For downlights, one trim ring and one reflector may be used with the three luminaire samples”. UL requests this text be removed for clarity.

4. Section 9.4 – CRI
   a. In the supplemental testing guidance section on page 19 there remains some text that calls out a 3 luminaire sample size but the requirement is for only 1 luminaire to be tested. The text is “For downlights, one trim ring and one reflector may be used with the three luminaire samples”. UL requests this text be removed for clarity.

5. Section 11.2 – Source Run-Up Time
   a. In the supplemental testing guidance section on page 24 there is some text calling out LED packages and arrays but LED’s are exempt. UL requests this text be removed for clarity.

Thanks,
Jeff