

**Email received on November 2, 2010 from Ronald Weber.**

Attached below are Tyco Electronics' comments on the second ENERGY STAR draft.

- The definition for Class II LED Driver calls out a Canadian Electrical Code requirement. Is this indeed what is intended? If this the case, this will limit output voltages to lower levels called out by Canadian Standards C22.1 No 66.1. Energy Star is a US standard.
- Suggest expanding the definition of a "Lamp" to "LED Array, LED Module" and "LED Package" since lamp is used numerous times in the document text when . By definition "LED Array or Module" and "LED Package" definition include the driver if integral?
- "Solid State Light Engine" needs to be defined since it is being used in this document and may cause confusion with "LED Array, LED Module" or "LED Package".
- Lumen per watt definition refers to "total lamp power output". While this is fine when referring to fluorescent, incandescent or halogen sources, there may be some confusion when using this with LED sources due to the various packaging levels available. As a result, when relating to LED sources, further definition is needed: is the "total lamp power output" the LED Array or Module, or the LED Package? With or without integral drivers?
- Need to be more consistent in the nomenclature when referring to color temp. Use one common reference: Kelvins, Kelvin, degrees kelvin, K, or °K but not all.
- IES should be referenced as IESNA since this is the body issuing the standards.
- What is an "Inseparable fixture"? This needs further definition
- What is an "ssl retrofit"? Is this intended to be an edison base style ssl retrofit or an "old-work" style retrofit that requires an entire fixture replacement?
- CRI is indicated as the only color reference. While CRI is important for comparing new lamps to old, it has serious deficiencies. CQS makes more sense for SSL and future sources from a consumer standpoint as it provides a more accurate and comparable reference number.
- 
- While warranty is mentioned, there is no reference as to the terms of the warranty. What good is energy star if the fixture only has a short life span? TE would advocate to have an energy star label, the fixture should carry a minimum of 3 year warranty.
- One issue that needs to be addressed is the ability to accommodate abbreviated recertification. If a fixture implements a process improvement or incorporates a newer version of the same light source (as is now possible with LEDs), the fixture manufacturer should not have to recertify the fixture.