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**From:** Josh Williams  
**Sent:** Monday, February 16, 2015 1:06 PM  
**To:** lighting@energystar.gov  
**Subject:** Comments on Lamps V2.0 Draft 1

Hello Energy Star Staff,

My name is Josh Williams, and I am the Product Manager for Kobi Electric. Kobi Electric is a recent partner, having 2 products on the Energy Star qualified products list, with several more in testing and several in the multi-listing phase. We are encouraged to see EPA as well as DOE helping to standardize the LED lighting industry, which in turn aids and educates consumers on a new and changing technology. However, in the new Lamps V2.0 Draft 1, in Notebox 29, there seems to be a regression of helpfulness for consumers in the area of confusing nomenclature. Light color is already a fairly subjective topic to begin with, but having vague and imprecise terms for CCT only muddies the water even more. The terms associated with Notebox 29 and the proposed CCT nomenclature are attached below.

CCT Descriptor	Lamp packaging should include the corresponding nomenclature as outlined below.
	<ul style="list-style-type: none"><li>• 2700K - Warm White</li><li>• 3000K - Soft White</li><li>• 3500K - Neutral White</li><li>• 4000/4100K - Cool White</li><li>• 5000K - Daylight</li><li>• 6500K - ??</li></ul>

**Notebox 29:** Consistent with the Draft 1 proposal in the ENERGY STAR Luminaires specification V2.0, EPA has introduced specific nomenclature that would be used in conjunction with nominal CCTs to address the inconsistent terminology found in the market. EPA believes consistent terminology for communicating color temperature to consumers across brands will help improve consumer satisfaction and accelerate adoption of ENERGY STAR lighting.

Terms like Soft White, and Daylight, though they have been used by manufacturers in the past, are not helpful terms to describe light color. How is a color Soft? Or, what time of day is the Daylight we are speaking of? In the past, color temperature of light was not something that the consumer had many options to choose from. There was incandescent (warm) and there was fluorescent (cool), and not much else. These days, with advanced phosphor technology as well as LEDs, just about any kelvin temperature can be created in lighting, giving the consumer much more complexity in lighting decisions. Old industry terms for light color are just not cutting it anymore in this market. In Notebox 16 of V2.0 Draft 1, Energy Star is even allowing the option of adding 2200K and 2500K CCT if stakeholders think it is beneficial. What are we going to call these new colors when we don't even have a name for 6500K? Perhaps a more helpful, more precise nomenclature can be found. Consistent terminology is good, but it must also be clear and descriptive.

- 1) A proposed solution would be to break CCT up into sub-sections. Perhaps; Warm, Neutral, and Cool. And then speak of specific CCT as falling under one of these sub-sections, maybe with another descriptor (i.e. Cool Warm (3000K) or in terms of wavelength- Short Neutral (4100K).
- 2) Manufacturers and consumers are now conversing in more precise terms like Kelvin temperature. So, another solution would be to drop nomenclature altogether and just use Kelvin temperature only; it cannot get much more precise than that. And, since consumers are becoming more and more aware of these measurements, having a strong and precise nomenclature up front with a little learning curve is better than one that needs to be scrapped and re-written as more CCTs are added to the pack, which seems to be the way things are going.

The lighting industry needs a CCT nomenclature standard. But the proposed Energy Star nomenclature is just as unhelpful as the current prevailing nomenclature, which is demanding a standard. Please provide something that will help consumers more, not confuse them more.

Thank you again for your hard work in pushing energy efficiency and standardizing the lighting industry, both are much needed.

Kind Regards,

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