

Energy - Docket Optical System

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California Energy Commission

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Comments regarding Draft 2013 Residential Compliance Manual:

High-efficacy lighting for LEDs is defined by Joint Appendix JA8, which states in the proposed revisions in Section (d):
"Shall be capable of providing a minimum Color Rendering Index (CRI) of 90."

I suggest removing the requirement for 90 CRI minimum in section (d) of JA8. There are many reasons why requiring 90 CRI is a bad idea:

- **Increased energy usage:** The main purpose of the Building Energy Efficiency Standards is Energy Efficiency. This requirement for 90 CRI is not directly related to energy efficiency. In fact, this would have a **NEGATIVE** effect on energy usage, since the lumens per watt of a 90 CRI luminaire is typically lower than the lumens per watt of an 80 CRI luminaire. This means you would need more wattage to achieve the same light level.
- **Limited customer choice:** There are fewer luminaires available that have 90 CRI, and some of these will not meet the efficacy requirements of Title 24 (although the 80 CRI version possibly **WOULD** meet the Title 24 requirements). Why prevent people from using a product that meets the new efficacy requirements, just because it is not 90 CRI?
- **Higher Price:** 90 CRI products are typically more expensive than 80 CRI products, because of the more rare phosphors used. By having this requirement for 90 CRI in the code, you are leading people towards products that are more expensive, with worse performance (in terms of energy usage).

I am not saying that a 90 CRI LED is a bad product. But why not let the customer decide which is more important for the specific job: a higher efficiency 80 CRI product, or a lower efficiency 90 CRI product? As long as both meet the efficacy requirements set by Title 24, both should be considered "high efficacy" by the California standards.

Regards,

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