

Lighting Research Center

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Cc: Ron Lewis – Department of Energy
Susan Gardner – D&R International

From: Lighting Research Center

Date: September 15, 2003

Re: Comments on the Third Draft of the **ENERGY STAR**[®] Program Requirements for CFLs

Per the request of the Department of Energy (DOE), this memo is a submission of comments from the Lighting Research Center (LRC) concerning the 8/26/03 draft of **ENERGY STAR**[®] Program requirements for CFLs. The LRC would like to thank DOE for reviewing and incorporating some of the recommendations from the second draft of this program requirement. One particular parameter that still needs to be addressed is correlated color temperature and is described in more detail below. This parameter has received much attention through this revision process.

Correlated Color Temperature (CCT)

The current proposed **ENERGY STAR**[®] requirement states:

“Average of 10 samples (rounded to the nearest 50K) tested must fall into one of the following discreet temperature ranges:

2500-2699K: Warm White
2700-3099K: Soft white
3100-4199K: White
4200-5000K: Cool White
6500K (or greater): Daylight

The temperature and temperature terminology must be displayed on the packaging to aid in consumer education. CFL models that are available in multiple correlated color temperatures must be individually tested for ENERGY STAR qualification.”

Recommendation: At this time DOE mentions that other methods for characterizing color will be researched for future versions of the Program Requirements for CFLs. With that said, the LRC recommends that the requirements for correlated color temperature criterion item remain as they are under the current specification (8/9/01) until this research has been completed and a better method for determining if a product meets the requirement has been developed. We believe the intent of this new requirement is to provide some bounds on the variability and predictability of color characteristics of

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CFLs. Compared to the current specification (8/9/01) which has a range of 300K, the requirements proposed in this draft have wider CCT ranges, up to 1199K. These changes will not improve color reliability and variability of CFLs because it only acts as color “bins” to determine which category the CFLs fit into; it does not help consumers select color better, nor does it guarantee color matching of two lamps rated as having the same CCT.

In sum, the LRC believes that, at this point, there seems to be no interim steps that could be taken to lead to better color performance of CFLs. Any changes to the current specification would likely result in more confusion to the general public and unnecessary onus to manufacturers (e.g., changes in packaging), and would still not lead to an improvement in CFLs color characteristics.