

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY  
WASHINGTON, D.C. 20460



OFFICE OF  
AIR AND RADIATION

September 29, 2008

Mr. Donald S. Clark, Secretary  
Federal Trade Commission  
Office of the Secretary, Room H-135 (Annex N)  
600 Pennsylvania Avenue, NW  
Washington, DC 20580

Dear Mr. Clark:

The U.S. Environmental Protection Agency's ENERGY STAR Program submits the following comments in regards to the Advanced Notice of Proposed Rulemaking, Lamp Labeling, Project No. P084206.

As consumers and businesses make the transition away from relatively simple inefficient lighting technologies such as incandescent lamps towards more efficient, phosphor-based light sources such as compact fluorescent or light emitting diodes, the need to impart clear, concise product information becomes more and more apparent. As a result of our promotion efforts around ENERGY STAR qualified CFLs, EPA has learned a great deal about consumers' experiences using them. Much of what has been learned involves the information available to consumers at the point of purchase, particularly the information conveyed to them, or lack of information, on the product packaging. There is clearly much still to be done to educate consumers about lamp light output, the primary function of the product they are purchasing, as well as energy consumption, life expectancy, color, and proper selection and application. EPA submits the following recommendations as FTC considers the effectiveness of current lamp labeling requirements and potential revisions to the same:

- **Light output:** EPA supports a change from labeling lamp light output as a function of wattage to labeling light output (the amount of light) in terms of the number of lumens emitted. The former has been a counterintuitive system from its inception, basing output on input power consumed. Consumers would be better served by clear information on the amount of light generated by the lamp they are considering. We support a gradual transition
- **Efficacy:** EPA believes that a straightforward expression of lamp efficacy would be valuable and informative to the consumer as well. Lumens per watt (LPW) could ultimately serve the same function MPG does for purposes of comparing cars. Also, including lumens and wattage (power consumption) on the front panel of lamp packaging would allow consumers to easily compare energy consumption and efficiency. Note that such an approach would be complementary to ENERGY STAR in that the ENERGY

STAR lighting program uses luminous efficacy as the key performance criterion for qualification. An example of such a labeling scheme is illustrated below for a product that would qualify for the ENERGY STAR.


<b>Efficacy</b>	60 lm/W	
<b>Light Output</b>	1200 Lumens (lm)	
<b>Energy Input</b>	÷ 20 Watts (W)	
<b>Life</b>	10,000 Hours	

Figure 1: Incorporation of luminous efficacy into lamp labeling scheme, borrowing from the example provided in the ANPR. “Consumption” has been changed to “input”, to educate consumers. The ENERGY STAR mark would be incorporated as appropriate. Exaggeration of the division symbol may be useful to emphasize the comparison drawn between light output and energy input.

- **Life:** EPA believes that including lamp life is an important part of providing consumer with complete information on the lamp. EPA believes it is fully appropriate for lamp life to be expressed, in hours, on the front face of product packaging. If life is expressed in terms of years, a standard set of assumptions should be employed for all products (e.g. based on operation for 3 hours per day).
- **Life:** FTC should also be aware that the life of halogen lamps, the sales of which will likely increase because of their higher efficacy relative to standard incandescent, is affected by dimming applications. When dimmed, the halogen regenerative cycle which provides for extended lamp life relative to standard incandescent lamps can fail to function, reducing life below the stated value. In the interest of full disclosure, FTC may wish to consider noting “Life may be reduced when dimmed” on tungsten halogen lamp packaging; further discussion with lamp manufacturers is warranted.
- **Color:** EPA strongly supports the development and implementation of a standardized visual color communication system. Convention currently is to label lamps and/or their packaging with the correlated color temperature (e.g. 2700 K or 2700 Kelvin) or with standardized color descriptors (e.g. warm white, white, cool white, natural, daylight). Neither labeling scheme is fully effective; color temperatures measured in units of Kelvin are overly scientific for consumers and require extensive explanation, and color descriptors are not universally understood. Consumer dissatisfaction with CFLs is often the result of a lack of understanding about how to select the desired color, and can result in negative sentiments toward this energy efficient alternative to incandescent lamps. We encourage the FTC to examine the work conducted by the Lighting Research Center and funded by EPA, DOE and National Electrical Manufacturers Association which proposes a visual color communication system and evaluates consumer understanding of the same; this work is available online at <http://www.lrc.rpi.edu/programs/lightingTransformation/colorCommunication/index.asp>
- **Application:** For any given lamp there are certain applications which are not appropriate. This holds true across all lighting technologies. EPA recommends that FTC also consider a requirement that lamps or lamp packaging clearly state those applications for which a given lamp is not appropriate. For example, the majority of CFLs on the market today will not function correctly on a dimming circuit; consumer dissatisfaction has been

caused by misapplication of CFLs in dimming circuits. Another example is the installation of bare spiral CFLs in recessed can applications. The majority of these lamps are not designed for this particular high-heat operating environment. These misapplications result from a lack of information, and lead some consumers to reject this energy saving alternative even in appropriate applications.

As we have done in the past, EPA strongly discourages FTC from adopting any kind of categorical labeling scheme, particularly one involving stars. The ENERGY STAR label is well established as the easy way to identify high efficiency lighting products that meet performance expectations. Overlaying a more complex evaluation system would be labor intensive and potentially confusing.

EPA encourages FTC to use consumer focus groups and other methods to assess consumer understanding of any changes made to lamp labeling requirements, and requests continued coordination with the ENERGY STAR Program's product labeling efforts.

We thank you for the opportunity to comment, and remain available to answer any questions you have and provide other input. Please feel free to contact me any time at (202)343-9272 or [baker.alex@epa.gov](mailto:baker.alex@epa.gov).

Sincerely,

Alex Baker  
Lighting Program Manager, ENERGY STAR  
US EPA