



Alex Baker
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Office of Air and Radiation
United States Environmental Protection Agency
Washington, D.C. 20460

San Francisco, California and Barneveld, The Netherlands, December 3rd, 2010

By email

Dear Mr. Baker,

We are writing to you to formally object to your intention to remove section 6, "Non-Standard Lamps", from the ENERGY STAR Integral Lamp specification, as notified in your letter of November 15, 2010.

We very much agree with your stated objective "to ensure positive customer experiences", and to "avoid the problems associated with early compact fluorescent lamps". As a pioneer and category leader, with well over 2 million LED-based A19 lamps sold worldwide since 2006, our company, Lemnis Lighting, cares deeply about the rapid development of the LED category, and we very much recognize that informed and satisfied customers are key to the long-term success of our industry. Our 60 lumens/Watt lamps have been leaders in efficiency, and we are continuing to set ambitious efficiency targets for ourselves. ENERGY STAR certification, Lighting Facts and CALIPER are absolutely critical for the industry, and we have been an early supporter of all of those initiatives.

Regretfully, we believe that a process that first established section 6, and then removed it, is flawed, and while certainly well intentioned, we believe that the course you are proposing might do damage to the development of the LED category in the US, the value of the ENERGY STAR certification, and the credibility of the government agency you represent as the manager of the ENERGY STAR certification. In addition, we believe that deleting section 6 might cause damage to STAR partners on procedural grounds. We outline our arguments in detail below.

On policy grounds, our key objection is that we believe that for consumers, ENERGY STAR fundamentally stands as a certification of efficiency, not of photometric performance or adherence to ANSI standards (but we do agree that certain photometric performance criteria are important).



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We believe that many LED bulbs developed to date fail to meet the specifications for the omnidirectional category on two grounds: first, they fail to meet the prescribed Luminous Intensity Distribution, and second, many do not narrowly adhere to ANSI physical dimension specifications, due to the presence of a heat sink which makes it difficult or undesirable to create a shape as per traditional A19 incandescents.

Prescribing a light distribution for qualification for ENERGY STAR is arguably arbitrary: it ignores the fact that consumers have used omnidirectional bulbs since their invention in a wide range of applications, ranging from directional (a typical example would be the very common desk lamp fixture that requires an E26/A19 lamp), to omnidirectional. All industry participants with entries in the LED “omnidirectional” category are developing lamps with broadly omnidirectional characteristics, and consequently the customer should be clearly informed of the light distribution of a particular lamp - this would be a valuable addition to the Lighting Facts program, or could be a labeling requirement under ENERGY STAR, but should not be an absolute criteria for qualification.

We believe that an approach that arbitrarily decides what constitutes enough omnidirectionality, and denies consideration for an ENERGY STAR to all lamps that do not fit this particular photometric measure, is misguided. For instance, an A19 lamp that does not meet the requirement to distribute at least 5% of its light to the back sector is actually BETTER suited in a typical desk lamp fixture than a lamp that does meet this requirement, as it clearly fits that specific (directional) application better.

Unless one could prove that consumers ONLY use omnidirectional lamp shapes in purely omnidirectional applications - which is clearly not supported by current evidence - then the specifications for ENERGY STAR should focus on reliably informing the consumer about what the light distribution of a specific (omnidirectional) lamp is, and guide the consumer towards suitable applications, rather than making an unsupported blanket assumption that all omnidirectional lamps are used in purely omnidirectional applications. The fact that there are many directional applications for omnidirectional lamps creates significant doubt that light distribution is an absolute performance criteria, and the resulting assertion that a lamp with a slightly different light distribution would lead to “customer disappointment” cannot hence be universally applicable. On the other hand, information on light distribution is indeed highly desirable, should be standardized, clearly displayed on packaging, and should be required under ENERGY STAR requirements.

Furthermore, ANSI physical dimension measurement standards are in our experience equally without meaning to most customers: with more than 2 million of our A19 lamps sold, we have not logged a single complaint from customers that our lamp did not physically fit their specific application. If there is any evidence that end customers experienced “disappointment” with the physical dimensions of non-ANSI compliant lamps, we would love to see it; otherwise, labeling requirements can reliably inform the customer, e.g. “Fits all medium screw/E26 lamp sockets; lamp diameter is x wider than ANSI specifications”.

The proposed changes risk damaging the ENERGY STAR label in multiple ways. The stated objective of ENERGY STAR is to certify Energy Efficiency; in addition, “Qualified products must deliver the features and performance demanded by consumers, [...]”. Some of the photometric requirements are departures from these guidelines by substituting arbitrary measures, as opposed to “the features and performance demanded by customers”. By stipulating arbitrary measures (such as a presumed “desirable” or reference light distribution, or “desirable” physical measurements beyond basic standardization such as an E26 base) entire product categories are removed from consideration for ENERGY STAR, and hence ENERGY STAR offers the customer less choice and less sorely needed guidance. ENERGY STAR partners that cannot meet the above arbitrary measure (or chose to offer a different tradeoff because of their unique insights of what the actual end-customer demands) are now left entirely outside the guidelines of ENERGY STAR, giving rise to presumably more misleading claims and resulting customer confusion. Worse, because of the economic and reputational advantages of ENERGY STAR, product development is now being directed into a direction that is not necessarily supported by market demand, but rather by an arbitrary perception (unsupported by evidence, as in universal customer preference) of what features the end customer requires.

In addition, we object to the proposed change on procedural grounds: by first creating a category, and then eliminating it, all ENERGY STAR partners entering products under section 6 have incurred substantial costs which are now unwarranted. Lemnis Lighting currently has two A19 bulbs in US labs for qualification towards ENERGY STAR under section 6. Those parties, including Lemnis, are being further damaged by having been shown a path to ENERGY STAR, which would now be removed, with grave implications for those parties’ product roadmaps. This is likely to contribute to undermining manufacturers’ faith in ENERGY STAR, and the EPA’s role in directing the program. The argument could also be made that the EPA interfered in the market by (unintentionally) favoring those parties entering products in the omnidirectional category, which will no longer see competition from products which would have qualified for an ENERGY STAR under section 6. We think it is likely that the above procedural issues will lead to legal action, which would unfortunately further undermine the ENERGY STAR label.

While we are passionately in agreement that the emerging LED market needs clear rules, transparent communication and clear leadership, we intend to strongly oppose the proposed action in every public forum available, since if it was adopted, ENERGY STAR would exclude some of the most efficient LED products, in one of the largest product categories, from consideration.

We kindly request that you reinstate section 6, or at least allow products which have already entered the certification process to continue on towards certification. Much better, we’d like to see ENERGY STAR loosen the specifications for the omnidirectional category, to acknowledge the fact that omnidirectional lamps are being used in a very wide variety of applications. The general principle should be one where the consumer is first informed clearly, and then given a choice; and not one where ENERGY STAR makes blanket assumptions about customer preferences unsupported by actual evidence.



If you let section 6 stand, and it then turned out that ENERGY STAR products qualified under section 6 receive stronger customer reception than those under the omnidirectional category, this could then pave the way for an evidence-based broadening of the omnidirectional category.

We would very much welcome a conversation with you; as stated at the outset, we are deeply convinced that ENERGY STAR and customer education are critical for the development of our industry, and we believe that you and your agency have a major role in the development of our industry, and are acting with the best intention.

With best regards,

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