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Sea Gull Lighting Products, LLC
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Richard H. Karney, P.E.
ENERGY STAR Product Manager
US Department of Energy

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RE: Sea Gull Lighting Products, LLC. Comments to ENERGY STAR® Solid State Lighting Luminaires Program Requirements Eligible Criteria – Version 1.0 using “Draft: 12/20/06”.

Dear Mr. Karney:

Sea Gull Lighting has been an active stakeholder in the ENERGY STAR Residential Lighting Fixture (RLF) Program since its inception in 1992. We have made a significant financial investment in ENERGY STAR which has resulted in a highly successful residential lighting fixture business unit for the company. This success has positioned the company to expand its decorative offering to include Solid State Lighting (SSL) technology.

Understanding this, Sea Gull Lighting strongly encourages ENERGY STAR to maintain the infrastructure that is in place with the current EPA RFL Program, Version 4.0. If there is a change to this infrastructure it will incur significant costs to Sea Gull Lighting financially and it will result in confusion to our current ENERGY STAR Lighting Showrooms, Electrical Distributor and Builder Partners. Additionally, Sea Gull Lighting is concerned about the varying level of specifications set for different technologies under the ENERGY STAR guidelines. Under the proposed V1.0 LED specification, the draft levels are less stringent than the current V4.0 levels that lends an edge for LEDs over current technology which Sea Gull Lighting has also heavily invested in. Sea Gull Lighting would like to see one specification which addresses all technologies equally.

Fixture Categories.

Sea Gull Lighting recognizes this current specification includes specification requirements for the following lighting fixture categories:

- Under-cabinet kitchen lighting and shelf-mounted task lighting
- Portable desk task lights
- Outdoor wall-mounted porch lights, step lights and pathway lights
- Recessed down lights

Sea Gull Lighting is developing and expanding its SSL offering to include:

- Bath bars, Pendants and Chandeliers (decorative products).

QUESTION: Sea Gull Lighting needs to understand how to present data for these additional categories.

Device Requirements:

Sea Gull Lighting accepts that the device must have a CCT of 2700K to 6500K and fall within the 7-step quadrangles of the ANSI MacAdam ellipse. We further accept the variation of chromaticity in different directions shall be within a 4-step ANSI MacAdam Ellipse; the change of chromaticity over the life of the product shall be within a 7-step ANSI MacAdam ellipse and the device have average rated lumen maintenance of at least 70% of the initial device lumens at 35,000 hours.

A Quality Home Brands Company





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Useful Life – A full term test will take long time. Sea Gull Lighting encourages ENERGY STAR to allow manufacturers published life test data be accepted as is the case in the current RLF Program.

Luminaire Requirements:

Sea Gull Lighting accepts the three (3) year warranty from date of purchase for the Luminaire housing, device, optics, trim and electronics. Sea Gull Lighting takes exception to this and requires glass components be removed from this requirement.

Sea Gull Lighting will adhere to device manufacturer guidelines for thermal management.

Driver Requirements.

Power Factor.

Sea Gull Lighting takes exception to a .90 power factor because it is virtually impossible to meet for the following reasons:

- 0.9 a problem with low power LED system that run on DC, stepping up 120VAC to run fluorescent ballast is not an issue, stepping down is
- 0.9 is ok for fluorescent which is higher power and higher voltage and can accept the swings of incoming AC voltage
- a Capacitor on the input of the power driver is necessary to meet EMI suppression specified in Fcc47 so therefore it cannot meet 0.9 power factor.

Sea Gull Lighting proposes the following scale:

>40 Watts 0.85 power factor

>30 Watts 0.75 power factor

>20 Watts 0.65 power factor

<20 Watts 0.50 power factor

Note: Under the current ENERGY STAR V4.0 RLF specification, the power factor is .5 or less.

Lower the power factor requirement from 0.9 to >0.5 to match that of the present CFL energy star listing.

Using a 0.90 PF significantly increases size and adds to the cost of the driver

Other Proposed Comments.

Luminaire Testing.

Sea Gull Lighting strongly encourages ENERGY STAR allow the use of a “Platform” Test for “like fixtures” rather than providing IES testing of every fixture. ENERGY STAR must attempt to keep the testing procedures for the luminaries simple. Such as simple FIXTURE electrical efficiency (>80%) ratings, simple light output ratings (LUX). Currently there are some proposed specs such as L70, efficacy, color temperature and CRI which should be specified and tested by the component manufacturer. NOT THE LIGHTING MANUFACTURER.

The goal is to make it easier to get a LED fixture ENERGY STAR rated. This would enable a SERIES of LED fixtures using an ENERGY STAR approved platform, similar to the UL Recognized program, to be listed versus individual fixtures each time separately



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Color Rendering Index (CRI).

Sea Gull Lighting takes exception to the requirement for 80 CRI in certain applications and recommends a 75 CRI be established as an acceptable baseline. By lowering this to 75 there are many more low cost reliable LED components available and it will accelerate the adoption of energy efficient technologies in the market place.

Life.

Sea Gull Lighting acknowledges that typical SSL Manufacturers use a Laboratory Test to measure the life of the LED light source and is not a test of the LED with the driver. Sea Gull Lighting encourages ENERGY STAR allow the manufactures data. Or, adopts a standard Dept of Defense accelerated testing standard for qualifying the system. For example a test run at 85C and 90% humidity for 1000 hours on a system with less than X failures in lot of 10 devices would qualify. This will eliminate a lot of poorly designed short life fixtures and ensure the quality of the ENERGY STAR brand.

Lumen Maintenance

Replace LUMEN ratings of fixture specs with LUX or foot candles.

It is easier and more meaningful for a fixture manufacturer to test for LUX or foot candles versus raw LUMENS. The equipment and lab cost associated with running such a test would be cost prohibitive in some of the largest accepting markets of LEDs.

Temperature.

Sea Gull Lighting encourages ENERGY STAR to accept the manufacturers' recommendations for acceptable temperature ranges. Or, recommends that the fixtures comply with temperature requirements in UL1598 which more than adequately cover any temperature ranges that would put LED fixtures into thermal runaway and shortened life/light output.

NOISE – is the rating for driver only or driver inside the fixture?

Sea Gull Lighting requests a meeting Tuesday afternoon on January 23rd to discuss the above comments in DOE's offices.

Cordially,

Jeff Beiter
Director, Business Development
Energy Efficient Products Group