

June 21, 2010

Alex Baker
United States Environmental Protection Agency
Energy Star Lighting Program
Washington, D.C. 20460

Re: Comments to Draft 1 of the Specifications for Energy Star Qualified Luminaries V1.0

Dear Alex,

Included below are the collective comments from Good Earth Lighting and our associated companies and partners. We would like to take this opportunity to thank you for the opportunity to include our thoughts into the new combined Energy Star specifications for Lighting Luminaries. We consider the items below significant and things which will affect the Energy Star qualified fixtures as to increase costs, increase development times or limit the design creativity such that Energy Star qualified fixtures would lose competitiveness compared to similar fixtures which are not qualified.

1.) Increasing the Luminous Efficacy from 50lm/watt (for 13W and below) or 60lm/watt to 70lm/watt regardless of technology or power ratings.

We feel this is going to significantly increase product cost and development time. While, based on the current listings 43 percent of the Energy Star listed products which may exceed the 70lm/W requirement, if you look into where the shipping volumes are you will find the percentages far lower. The price and availability of the higher efficacy items is far lower than it would seem by only considering what items are listed. We work VERY closely with one of the largest suppliers of the GU24 type products and they are telling us they do not have cost effective 70lm/W GU24 solutions available.

This also applies to the conventional lamp and ballast combinations. The current 13W 4-pin compact fluorescent lamp is only 72 lm/W without the ballast. The 13W ballast would have to be better than 97% efficient to achieve 70lm/W system efficacy which is beyond current ballast technology. A good, efficient ballast can achieve 88% to 93% efficiency so for 13W units an efficacy of 63 to 66 is achievable. For the higher power levels, we suggest an introductory period of one year for 65lm/W and 70 after that time.

2.) Zonal Density Requirements for SSL – Under Cabinet

We believe zonal density requirements will INHIBIT replacement of the least efficient under cabinet lighting category – halogen pucks (see picture below).



The halogen puck is specifically designed to accent small areas. We at Good Earth have been trying to replace inefficient halogen pucks with LED. However, the restrictive zonal lumen density requirements would not allow us to replace this narrow focus, high light output fixture.

Also, the DOE SSL had a Manufacturer's Guide Line addendum which defined or allowed for specification tolerances. The tolerances are not included in this draft and are essential to be able to meet the specifications.

3.) **Adding the fixture level efficacy and zonal requirements to fluorescent under cabinet and pendant fixtures**

This testing for zonal lumen density basic fluorescent under cabinet lights will be extremely expensive and serve little purpose. Fluorescent fixtures have been available for many years as cabinet lights and as long as they meet the lumen per watt requirements there is no valid reason to also do lumen density. Good Earth offers a wide array of fluorescent cabinet lights and these tests will cost us tens of thousands of dollars with no real purpose.

Also, there are many incandescent and halogen directional pendant lighting fixtures on the market today that are primarily decorative. These fixtures can be converted to fluorescent or LED as long as the total light output is comparable to current the inefficient technologies. However, by their very nature, these fixtures cannot meet zonal lumen density tests regardless of the light source. Here are some examples:



These highly popular applications will remain but the additional requirements will direct them to less efficient light sources or non-Energy Star units.

We recommend this requirement be dropped for fluorescent technology light sources. The selection of illumination level from the light fixture should be done by the end user and be appropriate for the end application and user preference. Making sure the light source used in the fixtures is an energy efficient type is what should be specified by the Energy Star specification

4.) Increasing the CRI to >80 for all lamp types

Again, the issue here is product cost. While most compact lamps already comply, most of the standard linear T8 and T12 high volume low cost linear lamps are CRI 78. While the greater than 80 CRI are available they are typically the higher cost types. Introducing the cost increasing specifications as the Energy Star approved light fixtures are becoming much more popular and accepted may stall that momentum and make non-listed or other less efficient technologies more competitive.

5.) Changing the test document requirement for the thermal performance of fluorescent ballasts in fixtures from manufacturer lab to certified labs.

This will not improve the performance or satisfaction level to the end customer. Currently a documented report is required which can be reviewed. This only adds cost and time.

6.) We need clarification on how the NEMA-ALA lamp and ballast matrices will be affected.

Currently, we depend heavily on data published and maintained by NEMA and ALA. There needs to be clarification on how these matrices will be maintained for the future specifications.

7.) We need clarification on how currently listed Energy Star products will be affected.

Good Earth currently offers over 450 Energy Star lighting fixtures. Will they be allowed to maintain their current listing or will they all be required to be tested under the new standards and resubmitted? The costs and time for retest and relist will be very significant, well into the hundreds of thousands of dollars. This will also take a tremendous amount of time. We would ask that product already approved be grandfathered in for at least an extra time period to allow us to spread the cost over a longer period of time.

8.) CCT limited to less than 4100K

We understand the idea here is to try to limit the SSL products from using the higher CCTs to comply with the increased efficacy levels, but currently there are Full Spectrum fluorescent products which consumers like due to the emulation of true daylight color as well as outdoor/security light applications which would benefit from the higher light levels afforded by the higher CCTs. By limiting the CCT to 4100K, there will be quite a number of currently listed products which are desirable which would no longer qualify.

We suggest the specification be either increased to 5000K, eliminated, be separated by light source technology (ie different requirements for SSL, Fluorescent etc.), or as a minimum, have an exception be granted for outdoor applications.

We consider items 1, 2, and 3 above to be very significant and will have significant impact to the market transformation to Energy Star qualified products . We hope you consider these comments seriously and consider amending the draft accordingly. If you need any clarifications, please do not hesitate to contact me.

Best Regards,

Marvin Feig
President
Good Earth Lighting Inc