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ENERGY STAR Luminaires First Draft Comments
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Thank you for the opportunity to comment on the first draft for the Energy Star Luminaires v1.0 specifications. We were pleased to see the integration of many of the topics discussed at the roundtable in March. As the scope of product coverage expands, this becomes an increasingly complicated standard. Thank you for the detailed focus on these specifications and for conducting the web meeting to review the intent.

The following comments include input from Acuity Brands Lighting compiled from our technical staff, residential products, commercial downlights and controls.

1. Testing – because testing was discussed in the recent webcast, we would like to reiterate comments previously provided by NEMA. Manufacturers have made significant investments in in-house laboratories that are accredited by a third-party government agency with the NVLAP certification. This accreditation is very stringent and includes on-site third-party inspection. NVLAP ensures that the laboratory has implemented quality processes. This criterion is not required of independent laboratories, so a NVLAP laboratory may have a higher caliber of quality control than an independent lab. If the Energy Star program does not allow manufacturer laboratories who have demonstrated a quality program that is third-party accredited, there will not be sufficient capacity to perform the necessary testing for the thousands of products seeking qualification. In addition, the costs of the Energy Star qualification will increase dramatically and will be passed on to the consumer making Energy Star products less desirable.
2. General comment - GU24 is referred throughout the document as a CFL lamp, however there are some SSL products that utilize a GU24 adapter. The GU24 definition refers to the base, but not the light source. We believe that the references to GU24 are specific to CFL products and that a SSL with a GU24 adapter would be required to meet the SSL requirements. There may need to be clarification regarding this issue.
3. Page 1 - Directional & Non-directional applications – there is some confusion about the classifications of directional applications and non-directional applications.
    - A residential post top decorative luminaire seems to be covered under directional applications", however a direct lighting is defined a "lighting involving luminaires that distribute 90-100 percent of the emitted light in the general direction of the surface to be

illuminated." There is a non-directional application for residential defined as outdoor security.
    - Residential pendants seem to be covered under directional "downlight (recessed, surface, pendant)" as well as non-directional "pendant mounted". Commercial pendant is listed as both commercial directional and commercial non-directional downlight. We recommend that any pendant commercial or residential that serves a decorative purpose without internal reflectors would be non-directional. A cylinder pendant with internal reflectors would be directional.
4. Page 4 – We would like clarification of inseparable luminaires. There are a number of SSL downlighting solutions where the solid state lighting componentry is contained in a unit that installs into the downlight rough-in frame. We contend that this type of product is separable because the solid state lighting componentry can be replaced if it fails or can be upgraded to a more efficient component in the future.
5. Page 10, Luminous Efficacy & Output Requirements for Non Directional Luminaires - 70 LPW – Linear fluorescent lamps less than four feet are often used for strip lights, undercabinets and wraparounds will not meet this LPW requirement, but are an energy efficient solution. We propose language specific to lower wattage / shorter length lamps: "Greater than and equal to 60 lumens per watt for all lamps that are less than and equal to 24" in length and below 30 listed watts."
6. Page 10, Luminous Efficacy & Output Requirements for Non Directional Luminaires - 70 LPW for self ballasted compact (GU24) with Exception of covered and dimmable GU24 based integrated lamps. We appreciate the data presented during the webcast regarding the availability of high LPW GU24 and relative costs. Some of the most common 13 watt GU24 lamps are between 65 and 70 LPW. Higher LPW lamps are available, but typically at an increased cost or limited supply. Because products using this type of light source still compete with incandescent or halogen lighting and are already a premium cost, we are concerned with the price sensitivity of the consumer facing an even higher cost for these products. We are also concerned that the most commonly used 13w GU24 lamps are 65 to 69 LPW but higher LPW wattage lamps are available at higher cost. We are also concerned that the exception for covered versions of a GU24 lamp would encourage manufacturers to use a less efficient covered lamp to be exempt from the source efficacy requirement. We recommend that the requirement for GU24 lamps be reduced to 65 LPW to encourage this efficient solution and avoid a potential loophole that would make these products less efficient.
7. Page 10 - Concern with 9 month transition to recertify products if all existing Energy Star listed products have to be recertified. If a luminaire that is currently listed doesn't meet the source efficacy requirements, would it need to be recertified if the only modification is to use an

approved source on the lamp matrix? Will EPA be able to respond quickly to product recertification if nearly all products have to be relisted?

8. Page 13 – Outdoor Post- or Arm- Mounted Decorative Luminaires. While we have encouraged the inclusion of the zonal lumen requirements, our customers have expressed concerns about the aesthetics of products that would meet this requirement. We recommend that these requirements should exempt products that produce less than 2000 lumens or for products that incorporate an integral motion sensor.
9. Page 15 - Solid state lighting life requirements – we understand the EPA approach, but we are concerned that limiting the claim for source life, manufacturers who have incorporated improved thermal management to ensure longer life cannot be distinguished from poorer quality products.
10. Page 17 - SSL component performance - There is a significant concern that testing SSL luminaires for 6,000 hours will delay introduction of Energy Star SSL products, especially if the LED components have already been tested for 6,000 hours. We recommend keeping both options. This issue also reinforces the need to allow NVLAP accredited laboratories to perform testing in our own laboratories.
11. Page 18 - SSL CCTs – We recommend that 4100k be added to the list of acceptable color temperatures. It is often desirable to match the color of sources in installations that include 4100k fluorescent.
12. Page 21 – Lamp Shipment Requirements for Directional and Non-Directional Luminaires – It states that all luminaires must be shipped with a lamp for each lamp holder with the exception of 1. Linear fluorescent luminaires 2. Solid State luminaires 3. Outdoor luminaires with E26 lamp holder. Does the exception include LED lamps?
13. Page 24 - We agree with the removal requiring photosensors except halogen. We have received comments regarding installation problems and agree that removing this requirement would reduce cost and expand the number of qualified luminaires available to consumers.
14. Page 27 – Off-State Power Consumption Requirements – There have been many improvements in lighting controls, including the off-state power. However, a product in off-state will result in dramatic energy savings and we are concerned that the off-state power may limit some very essential control technologies from being recognized by Energy Star. We recommend that luminaires with integral motion sensors, photosensors or individually addressable luminaires with external control and intelligence should consume no more than 1.0 watts in the off state. We would support reducing this to 0.5 watts in a future update.
15. Page 31 – Min Operating Temp for Directional & Non-Directional Outdoor Luminaires - Recommend minimum starting temperature of -18C/0F. This is the current industry standard and meets the intent of the performance requirement.
16. Page 30/31 - SSL thermal testing needs to include option for “any laboratory registered with UL” to perform this test. This makes the requirement consistent with testing for traditional light sources.

17. Page 34 – Product Labeling & Packaging requirements – Listing information such as minimum lowest starting temperature, dimming capability and compatibility should be adequate if included on the instruction sheet for the product rather than listing this information on the carton.
18. Page 35- Lighting Toxics Reduction – RoHS. While we support the removal of substances of concern, we have been working with vendors on this issue for over 2 years. Vendors in North America are simply not prepared at this time to certify components or materials due to the levels of vendors or processes in the supply chain for lighting products which commonly include dozens of components and materials in a single product. We believe this would be an important criterion in the future, but manufacturers of the end use products will not be able to certify products within the time frame for this version 1 specification. As a first step, this criterion could define a limit on mercury, but would need to address each light source.
19. Page 35 – Energy Star Labeling of Luminaire – Adding the Energy Star label to the fixture itself would add cost and does not add any additional value to the consumer. The packaging already has the Energy Star logo and the model number on the fixture can be verified on Energy Star website if necessary.
20. Page 36 – Warranty Requirements – Luminaire Warranty is 3 Years except for luminaires with GU24 base integrated and SSL that can be manually replaced with a screwdriver, where the warranty is just 2 years. We would like to remove the SSL from the exceptions, it should be warranted for 3 years to be consistent with all other SSL. Lamps which are not self ballasted are not included in the warranty. We would like to add the GU24 self ballast lamps to this exclusion because these lamps are rated for 10,000 hrs @ 3hr a day operation but when operated for more than 3 hrs a day the lamps cannot be warranted for 2 years.
21. Page 39 –Energy Star requires GU24 self ballast lamps to be warranted for a minimum of 2 years, from date of purchase based on no less than 3 hr per day of use. We like to remove “no less than” so the statement reads “ 2 years, from date of purchase based on 3 hour per day of use” because these lamps would not last 2 years if used continuously.

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