

Email received on June 22, 2010 from Ryan Kelley.

I would hope that you are still taking comments. If so, here are mine.

Overall looks good. It is nice to see the inclusion of other sources. Being SSL promoting was one of our key criticisms of the earlier Energy Star programs for lighting since linear fluorescent and HID can far exceed the energy savings of SSL products in certain situations.

The inclusion of at least three products to test is also nice as it will help to ensure a little reliability in the results. It would be nice to see some requirement for random sample testing or periodic testing to ensure that manufacturers don't just send the best and brightest products to be tested.

In the requirements for Directional Luminaires, the Zonal Lumen Density Requirements are not clear enough. For example, with cove fixtures they mention 35% of lumens in a 120-150 deg zone. It doesn't specify whether these are vertically or horizontal angles. Many coves are asymmetric (bilaterally symmetric), so just specifying vertical angles isn't enough.

In the downlight section, it makes mention of 75% of total lumens within the 0-60 deg zone. Again, no mention if these are vertical or horizontal angles. It also says "(bilaterally symmetrical)" which doesn't make sense for downlights, which are often axially symmetric or quadrilaterally symmetric, but rarely bilaterally symmetric unless they're a wall wash version of a downlight.

It seems like all the angle references could be further clarified by providing horizontal and vertical bounds for the specified zones, as well as more clearly explaining any references to symmetry. Including a simple graphic showing the reference angles would be great.

For Outdoor Post- or Arm- Mounted Decorative luminaires you state that "luminaire must not emit any light above 90deg." This should also be further clarified. For outdoor fixtures the IES used to use Full Cutoff and Cutoff and the only differentiation was if there were candela values at 90 degrees. Since zonal lumens are often determined from a gonio-photometric report, there are candela reported at discrete. It may be that candela are reported at 90deg, but not at 92.5deg. In typical zonal lumen calculations you would calculate some lumens above 90 if the candela at 90 are non-zero. However, this should be clearly explained (perhaps by saying that the luminaire shall not have any reported luminous intensity at 90 degrees or above). By saying just "above 90" its unclear if 90 falls within that region, and so the lack of clarity will lead to different interpretations or the ability to game the system.

Thanks so much,

Ryan Kelley
LTI Optics