

From: Chris Roy [mailto:croy@ledroadwaylighting.com]
Sent: Friday, September 05, 2008 1:37 PM
To: SSL
Subject: Category A Expansion

Good Afternoon,

Regarding the proposed category "A" additions to the ENERGY STAR Program Requirements for Solid State Lighting Luminaires. The suggested criteria for the outdoor pole/arm-mounted area and roadway luminaires requires that the maximum candela point occur at a vertical angle between 55 °and 65°. This would limit the types of IES distributions that would be eligible to qualify for ENERGY STAR to only those in the short classification.

From the IESNA Lighting Handbook 9th Ed. pg 22-5:

"A luminaire is classified as having a medium light distribution when it's maximum intensity point lies in the M zone of the grid, which is from the 2.25-MH TRL up to the 3.75-MH TRL."

"A luminaire is classified as having a long light distribution when it's maximum intensity point lies in the L zone of the grid, which is from the 3.75-MH TRL up to the 6.0-MH TRL."

For a medium distribution this would correspond to a vertical angle range between 66.0° and 75.1°. For a long distribution this would correspond to a vertical angle range between 75.1° and 80.5°. The criteria as is would immediately make a large proportion of potential designs ineligible for the ENERGY STAR program. This would limit the opportunities for an ENERGYSTAR SSL fixture to replace current roadway luminaires. Additionally, if luminaires are limited to short distributions, then pole spacing will have to be kept short to meet IES roadway luminance and illuminance standards. This will increase the total number of fixtures required for installations and will hence increase power consumption.

In order to include more potential distributions in the ENERGYSTAR program it would be desirable to see the range of values for the maximum candela vertical angle to be increased to 55° to 80° in order to accommodate the medium and long distributions as well.

Best Regards,

Chris Roy
Product Researcher & Developer
LED Roadway Lighting Ltd.

35 Ash Lake Court
Bayers Lake Business Park
Halifax, NS B3S 1B7

Phone: (902) 450-0555
Cell: (902) 489-3133
Fax: (902) 450-0179
e-mail: croy@ledroadwaylighting.com