

Sent: Friday, July 31, 2009 10:27 PM

To: SSL

Subject: Re: Revised Draft Criteria of Outdoor Area and Parking Garage SSL Luminaires

Dear Mr. Karney:

Thank you for providing these revised proposed Energy Star criteria for roadway lighting.

While I appreciate the effort DoE has put into devising the FTE metric, I do not believe the revised proposal is consistent with the stated objectives of the Energy Star program. I therefore fervently request that you return to the simple but effective roadway standard in your original proposal of last August: "Luminaire shall deliver 100% of total lumens within the 0°- 90° zone, with a maximum of 10% of total lumens delivered within the 80°- 90° zone (bilaterally symmetrical)."

This standard has the great advantage of simplicity! Furthermore, it will ensure that all light from a roadway luminaire is directed downward and therefore has at least the possibility of reaching the roadway. What is the purpose of attempting to incorporate BUG ratings with their uplight allowances? It simply defies logic that Energy Star, a program charged with promoting efficient use of energy, would sanction a roadway luminaire that directs light into the sky where it cannot possibly ever reach its supposed target!

In the abstract there would seem to be some value to a metric that would reward a luminaire that did a good job of directing light to its intended target. However, I see several problems in the proposed FTE.

- It introduces a level of complexity that is both unnecessary and undesirable.

- There is a presumption that IES-recommended uniformity levels are valid. What is the evidence for this? Are you aware that the 1993 IES Handbook declared that if energy costs were to double, the Society would surely lower its recommended lighting levels? The fact that no such lowering has occurred (despite soaring energy prices) makes plain that the recommendations are arbitrary and without scientific foundation.

- Even if these uniformity recommendations were valid, it does not seem rational to discard footcandles further down the road on each side of the green area. In a continuous lighting system, will at least some of these not combine with footcandles from the next streetlight to meet the recommended uniformity? FTE would encourage unnecessarily close pole spacing, thereby *wasting* energy.

- Your Overview document states that this measure of efficacy is "independent of any specific project," but this does not appear to be the case. Whether there is any value to backlight from a roadway luminaire is a function of whether the luminaire is also serving to illuminate an adjacent sidewalk. If there is no adjacent sidewalk, all light directed behind the luminaire is wasted. FTE is therefore not in fact a measure of luminaire efficacy.

For all of these reasons, I strongly urge that you drop FTE and the counterproductive BUG ratings and return to your initial standards proposed last August.

Respectfully,

Gail Clyma
Member, IDA and IES