

Comments of the IALD members to the Study on Light Sources (Lot 8/9/19)

14 July 2015

Introduction & General remarks

The International Association of Lighting Designers (IALD) was founded in 1969 and is an internationally recognised organisation dedicated to the profession of independent, professional lighting designers. The IALD strives to set the global standard for lighting design excellence by promoting the advancement and recognition of professional lighting designer. The IALD Europe office in Brussels works to support, engage and act as the voice of European lighting designers.

Comments

Task 5 - environmental impact

The majority of this study looks solely at lamps and replacements for these rather than consider properly designed LED based light sources and luminaires. As replacement lamps are short to medium term solution for lighting technology change, basing impact assessments and decisions based on these on this type of product is may not deliver the most appropriate results for all sources and luminaries.

No account is taken of the impact of production in China and other areas of Asia. The Ecodesign tool uses EU28 impacts and energy mixes that are may not be appropriate when the bulk of manufacture is not located in the EU28. It would be good to consider using China energy mix for calculating manufacturing energy impacts.

Transport and packaging of sub-components and assemblies particularly for LED products should also be considered. In many cases traditional lamp manufacture has co-located sub manufacture for principle components such as glassware, metal forming etc. so manufacturing inputs to the site will be glass tube or rod, coiled metal sheet and wire etc. With LED in particular and a lesser extent CFLi lamp manufacture is the assembly of part finished components delivered from elsewhere, sometimes a considerable distance i.e. Shanghai to Shenzen or Guangzhou to Shenyang. Some account should be taken of this significant environmental impact. Previously it has been argued that the Ecodesign calculation for transport energy accounted for these excess transport miles; however, the report now applied a correction for this. For continuity we would recommended reversing this correction.

There is very substantial variation in process water requirement in production phase between tables 24, 25 and 26. What is the explanation why Halophosphate T8 lamps require so much less water than T8 triphosphor lamps?

Task 6 - design option

Given the reservations we have expressed particularly on the basis for the LED 2020 projection we are concerned that the design options for Task 6 are potentially giving an overoptimistic expectation. As has been demonstrated with Stage 6 of 244/2009, inaccurate or optimistic target setting results in problems with regulations that exceed the ability of the industry to deliver.

The projections are largely based on assumptions that lamp replacement is the preferred consumer solution. While this may hold true of the residential consumer, our experience is that a commercial consumer is likely to be considerably more sophisticated and plan in the longer term. In the market we operate in luminaire replacement is a preferred choice with few limited exceptions. Frequently these exceptions relate to lamp replacement in relatively new luminaires, less than 10 years old. In many cases the replacement is also a complete LED and gear tray combination. We have also seen some clients significantly oversold LED fluorescent lamp replacement options with extremely exaggerated payback calculations presented. Based on this, the approach of equating lamp replacement with luminaire replacement may not be really adequate. A more thorough assessment of luminaire replacement is necessary specifically for predominantly commercial lamp types: Long Fluorescent and discharge particularly, as well as CFLni where luminaire replacement is the only viable option in a commercial environment.