



# CELMA

*Federation of National Manufacturers Association for  
Luminaires and Electrotechnical Components for  
Luminaires in the European Union*

21<sup>st</sup> September 2011

## **CELMA replies to Commission questions on**

**ENERGY LABELLING and ECODESIGN  
WORKING DOCUMENT  
for discussion on 23 September 2011**

### **ADDENDUM**

**Questions to the Technical Subgroup of the Ecodesign Consultation Forum  
on the draft energy labelling and draft ecodesign regulations discussed on 5 July 2011**

**General note: the CELMA replies cover the questions related to luminaires and electrotechnical components for luminaires and the lighting system approach. For the lamps related questions, please see the answers from the European Lamp Companies Federation.**

CELMA is the Federation of National Manufacturers Associations for Luminaires and Electrotechnical Components for Luminaires in the European Union. CELMA represents 19 Manufacturers Associations from 13 EU countries, over 1,000 companies (majority of small and medium-sized enterprises), 107,000 people employed in Europe and generates 15 billion euros annual turnover in Europe. For more information about CELMA please visit [www.celma.org](http://www.celma.org).

**For more information about this CELMA document** please contact Stéphanie Mittelham, CELMA Managing Director ([stephanie.mittelham@celma.org](mailto:stephanie.mittelham@celma.org)). Thank you.

## **11. Supplementary questions**

### **11.1. Removability of LED modules**

We would like to have a requirement for LED modules to be always removable for independent testing. Should the requirement be set on LED luminaires ("their LED modules shall be removable"), or on LED modules ("should be available for independent testing, even if they are placed on the market integrated into luminaires")? How to define removability for testing purposes in practical terms? E.g. "Can be removed without permanently damaging the luminaire"?

#### **CELMA reply:**

CELMA strongly rejects any requirement for LED modules to always be removable for independent testing. Such a provision is unfeasible. It infringes on the freedom of design and would seriously limit patterns of research and development.

The EU Ecodesign Regulation shall only cover end-user replaceable LED modules without forbidding other construction.

### **11.2. Return on investment on infrared coated halogen production facilities**

One of the options is to require as a minimum that halogen bulbs are of infraredcoated efficiency, at least for those lamps that are low voltage. However, this would mean that industry would have to invest into mass-producing this IRC-coated technology. As everybody expects that LEDs will be the dominant technology in a few years' time, does it make sense to require industry to invest into a technology that is likely to be marginalised in the very near future? To what extent is there a risk that industry's search for a return on investment under a short time span would drive the price of IRC-coated bulbs too high for affordability / life cycle cost savings?

### **11.3. Colour requirement complementary to colour rendering for LEDs**

Would it make sense to include an additional colour rendering requirement that the light should have a red component, ie  $R9 > 0$ ? It would exclude those cases when the skin looks greyish or greenish even with lamps of a high colour rendering. A CRI=80  $R9 > 0$  lamp would satisfy most consumers, there may not even be a need to go above 90 CRI in a household setting (which makes the lamp more expensive and less efficient).

### **11.4. Colour maintenance for LEDs**

Do we need any requirement on colour maintenance (that the colour of the light does not change as the lamp ages)? If, yes what should that be?

### **11.5. Angular colour uniformity for directional LEDs**

Do we need any requirement on angular colour uniformity for directional LEDs (the extent to which the colour of the light can change across the beam)? If, yes what should that be?

### **11.6. Parameter for LED colour consistency**

Should we not measure colour consistency in Du'v' deviation in a rectangular mask rather than in Macadam ellipse? The previous approach fits better with the binning procedure in the production of LEDs. The elliptic approach is certain to result in chips that are not conform to the allowed deviation and that will have to be discarded or used in other products.

#### **11.7. Power factor / harmonic distortion requirement for extra low voltage LEDs**

Do you agree that if a power factor or harmonic distortion requirement is set at all, it should not apply to extra low voltage LED retrofits, because the transformer will interfere with the values?

#### **11.8. Compatibility of LEDs with dimmers**

How to address the question of appropriate consumer information on the conditions in which the lamp will operate optimally (e.g. compatibility with particular dimmers)? Would it be possible and would it make sense to extend the ecodesign regulation to dimmers, and require particular features from dimmers that would make them compatible with all LED technologies that are claimed as dimmable? If yes, what features should be required from dimmers?

#### **CELMA reply:**

Some lamp producers already provide information on appropriate consumer information on the conditions in which the lamp (e.g. LED, CFLi) will operate optimally (e.g. compatibility with particular dimmers). Provision of this information shall be made mandatory on the websites of the lamp manufacturers. However, it shall only be obligatory for lamp manufacturers to provide information on which dimmers are applicable for the respective lamp.

It is NOT possible and would make no sense to extend the ecodesign regulation to dimmers, and require particular features from dimmers that would make them compatible with all LED technologies that are claimed as dimmable for the following reasons:

- It is not possible for the dimmer manufacturers to anticipate what kind of loads will be connected to the dimmers
- Similarly it is technically impossible for LED manufacturers to make their light sources and control gears compatible to all the currently installed and available dimmers.
- It is probably not technically possible or economically profitable to ensure full compatibility between the electronics of the dimmers and the electronics of the lamps of all types of both currently available

The dimmer / lamp / module compatibility for future systems is under discussion in IEC (between TC 23 and TC 34). No compatibility standards are available at the moment.

#### **11.9. Verification procedure for premature failure rates**

What would be the verification procedure for testing the 2% failure rate after 10% of the lifetime? Testing 50 lamps simultaneously? Is that not too expensive and disproportionate, considering that the standard verification procedure requires a sample batch of 20 lamps?