

LightingEurope Position on Compatibility requirements for the luminaire label



# Luminaire labelling and lamps included with the luminaire

LightingEurope understanding on compatibility requirements for the luminaire label and the impact this has on included lamps, based on the text of Reg. 874/2012:

"Recital 5

(5) Luminaires are often sold with incorporated or accompanying lamps. This Regulation should ensure that <u>consumers are informed about the compatibility of the luminaire with energy-saving lamps and about the energy efficiency of the lamps included with the luminaire</u>. At the same time, this Regulation should not impose a disproportionate administrative burden on luminaire manufacturers and retailers, nor should it discriminate between luminaires as regards the obligation to provide consumers with information on energy efficiency.

and

Annex V

2. VERIFICATION PROCEDURE FOR LUMINAIRES INTENDED TO BE MARKETED OR MARKETED TO THE END-USER

The luminaire shall be considered to comply with the requirements laid down in Articles 3 and 4 if it is accompanied by the required product information, and if it is found to be compatible with any lamps with which it is claimed to be compatible according to point 2.2(IV)(a) and (b) of Annex I, applying state-of-the-art methods and criteria for assessing compatibility."

is the following:

Primarily this discussion concerns GU10 lamps but in the future this will expand to other types (E27, E14, B22, B15D, MR16, MR11, G9, G4, etc).

The main issue concerns the definition of *"state-of-the-art requirements for compatibility"* and the practical meaning of this. Our understanding is that this can cover parameters such as lumen output, physical size, dimmability, CRI, thermal related life issues with LED lamps in enclosed/semi-enclosed luminaires etc. Some of these parameter are covered by European Standards (lumen output, CRI) but others such a dimmer compatibility are not yet covered.

It is the responsibility of the luminaire manufacturer to determine if their luminaire is compatible with lamps on the market based on *state-of-the-art requirements for compatibility* but different approaches can be taken leading to different lamps being allowed to be included.

The explanation below details the Regulation requirements and then the options that LightingEurope consider are possible for a luminaire manufacturer.

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The requirements are split between Regulation 874/2012 covering luminaire labelling and 1194/2012 covering ERP Ecodesign.

The first step is to define the luminaire label under Regulation 874/2012.

### Luminaire Label

Regulation 874/2012 requires the luminaire label to show which classes of lamps the luminaire is compatible with based on *"state-of-the-art requirements for compatibility"*.

The relevant text from Regulation 874/2012 is below:

#### 874/2012 Annex I Clause 2, IV - Applies from 1st March 2014

IV. the range of energy-efficiency classes according to part 1 of this Annex, accompanied by the following elements, as applicable:

(a) a 'bulb' pictogram indicating the classes of user-replaceable lamps with which the luminaire is compatible according to state-of-the-art requirements for compatibility,

(b) a cross over the classes of lamps with which the luminaire is not compatible according to state-of-the-art requirements for compatibility,

. . . . . . .

## **Included Lamps**

Regulation 1194/2012 then requires any lamps included with the luminaire to be one of the two highest classes for which the luminaire is labelled as compatible.

The relevant text from Regulation 1194/2012 is below:

#### 1194/2012 Annex III Clause 2.3 - Applies from 1st September 2014

When a luminaire is placed on the market and intended to be marketed to the end-users, and lamps that the end-user can replace are included with the luminaire, these lamps shall be of one of the two highest energy classes, according to Commission Delegated Regulation (EU) No 874/2012, with which the luminaire is labelled to be compatible.

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## Approach 1)

 A luminaire manufacture could decide that there are not sufficient LED lamps on the market fulfilling state-of-the-art requirements for compatibility:



- Compatibility is not limited to the physical size and lamp fitting, but also taken into account are elements like lumen output, light distribution, dimmability, life issues, thermal, etc.
- Luminaires are often designed to the light distribution of a certain lamp technology. Therefore the luminaire manufacturer must be able to deliver the appropriate (sometimes lower energy efficiency) lamps.
  - In this case the luminaire manufacturer shall label the luminaire showing compatibility only with the less energy efficient lamps.
  - The CE technical documentation shall detail the claimed compatibility. Legislation does not require detailing the non-compatibility.
- On the other hand, often lower efficiency lamps are excluded (noncompatible) due to thermal management in the luminaire
- We also believe that a luminaire manufacturer must be able to deliver products that are (as much as possible) compatible with installed electrical installation (e.g. dimmers, PIRs, ...) in end-users home. This means that delivering luminaires with lower efficiency lamps ((eco) halogen lamps) must be possible.
- In all cases, all lamps included with a luminaire have to meet the ErP requirements. Luminaire manufacturers should allow these categories of lamps.
- The term "compatibility" is too vague and can have different interpretations

## Approach 2)

- The luminaire manufacturer could decide that there are sufficient LED lamps on the market fulfilling *state-of-the-art requirements for compatibility*.
- The luminaire manufacturer would label the luminaire to show LED lamp compatibility (possibly Classes A+ and below).
- The CE Technical documentation file should detail a compatible lamp (brand, wattage etc.) that is available.
- If a lamp is included with the luminaire then the lamp shall be of the top 2 classes (possibly Class A+ or A).
- All lamps included with a luminaire have to meet the ERP requirements.

## CONCLUSIONS

In the absence of the harmonized standard it is the responsibility of the luminaire manufacturer to determine if their luminaire is compatible with lamps on the market based on state-of-the-art requirements for compatibility.



Third parties (e.g. dealers) cannot impose on luminaire manufacturers to declare a luminaire compatibility with top energy classes based on the lamp cap compatibility only.

It is the task of market surveillance authorities to verify the validity of the application of the labelling. In the absence of harmonized standards the only verification possible is a check on availability of lamps (as documented in technical documentation files) that meets the luminaire label and if the lamps included are of the top two energy classes mentioned on the luminaire label.