

October 1st 2009

Ecodesign Directive (2005/32/EC)

Comments on the

Working document on a possible Commission regulation amending Commission regulation (EC) No 245/2009 of 18 March 2009 with regard to ecodesign requirements for fluorescent lamps without integrated ballast, for high intensity discharge lamps, and for ballasts and luminaires able to operate such lamps

1. Introduction

The proposed changes to Commission regulation (EC) No 245/2009 show again, that unfortunately the entire regulation had to be based on a rather segmented data base, which differentiates lamp data on an empirical basis to lamp techniques, shapes and diameters. Such a regulation concept needs to be overcome as far as possible in future reviews.

BAM and UBA see a need for changes or further discussion regarding the following aspects.

Colours have the following meaning:

Red – changes proposed by ELC/CELMA

Blue – changes proposed by BAM/UBA

2. Proposed changes in Annex I

Annex I, 1d)

The wording “peak of the radiation” might be ambiguous, because a lamp’s spectrum consists of several peaks or bands. We ask for a clarification whether this means the highest intensity peak or band of the spectrum. It would be clearer to use the same wording as in point c) “x % of total radiation” with an appropriate value for x qualifying a lamp as a special purpose lamp for UV irradiation (pet care etc.).

Annex I, 2.d

The rationale given by ELC/CELMA for the general exemption of ballasts for emergency lighting is, that they are not able to fulfil the standby requirements of Annex III 2.1. As emergency lights need to be ready to switch to battery operation in case of power failure, we agree to exempt them from the standby requirement or even better to set separate standby requirements. However, those ballasts shall be able to fulfil the energy efficiency requirements of Annex III 2.1, therefore we do not agree to exempt them in general. Another solution would be only to exempt ballasts for battery powered emergency lighting.

3. Proposed changes in Annex III

Table 6

As mentioned in the consultation forum, a deduction percentage for lamps with extra long lifetime may be necessary to keep these lamps for certain applications. A definition of “extra-long-life lamps” would have to be added, with a rated lifetime of 40.000 burning hours or more as a technical parameter, along with appropriate LLMF and LSF values. The following line could then be added to table 6.

Lamp parameter	Deduction from luminous efficacy at 25°C
Extra-long-life lamps	- 5 %

Table 8

The corrections of the headings should be consistent for table 7 and table 8 as follows:

Table 7 – Rated minimum efficacy values for high pressure sodium lamps [with Ra ≤ 60](#)

Table 8 – Rated minimum efficacy values for Metal Halide Lamps [with Ra ≤ 80](#) [and for high pressure sodium lamps with Ra > 60](#)

C. Third stage requirements

Although we support the aim to force the exchange of conventional luminaires for those with electronic ballast, we think that the proposed way is not appropriate. First of all, the technical solution to guarantee that lamps are only compatible with electronic ballast might be difficult to implement. If it could be only done by a change in dimension, all respective luminaires would need to be exchanged, even those that already use efficient electronic ballasts.

Although luminaires need to be compatible with electronic ballast already at the second stage, magnetic ballasts are excluded just at the third stage. Therefore it would not be appropriate to require at the same time that lamps shall not anymore be compatible with magnetic ballasts. Such a timing would lead to luminaires available in shops for which the consumer could not buy a lamp, as luminaires last longer and sell more slowly than lamps.

We propose to use the wording “Fluorescent lamps without integrated ballast shall be able to operate on high-frequency ballasts of at least efficiency class A2 according to Annex III.2.2, while attaining at least the efficacy required for these lamps in Annex III, 1.1”

This requirement would avoid phasing out lamps just because they can be operated also on old ballasts while ensuring that they have to work well on new efficient ballasts that can be used with advanced control gear. Lamps that were designed primarily for magnetic ballasts and would perform poorly on electronic ones would be phased out here.

Table 11

We do not agree to divide line 2 – double-capped fluorescent lamps on high frequency ballast with warmstart – into different diameters. What is the physical reason, that those lamps can

not fulfil the same requirements? At least lamps with diameter 16 mm (T5) and 26 mm (T8) should be treated equally. Furthermore we do not agree with some of the changes because data by industry¹ from 2005 prove that the average of investigated lamps can reach a better performance. According to those data the values should be lowered not more than suggested below in blue colours. We have no data to assess the appropriateness of the values for circular lamps. However one need to have in mind, that circular lamps – at least those operating on non-high frequency ballasts – are worst in their performance than required by regulation 244/2009 for compact fluorescent lamps (at least at stage 5).

Table 11 - Lamp lumen maintenance factors for single and double capped fluorescent lamps - Stage 2

Lamp lumen maintenance factor	Burning hours					
	2000	4000	5000	8000	12000	16000
Lamp types						
Double-Capped Fluorescent lamps operating on non-high frequency ballasts	0.95	0.92	n.a.	0.90	-	-
T8 Double-Capped Fluorescent lamps on high frequency ballast with warmstart <u>(at least for 16 mm (T5) and 26 mm (T8))</u>	0.97 <u>0.96</u> <u>0.96</u>	0.95 <u>0.92</u> <u>0.95</u>	n.a.	0.92 <u>0.91</u> <u>0.92</u>	n.a.	0.90
Other Double-Capped Fluorescent lamps on high frequency ballast with warmstart	<u>0.95</u>	<u>0.92</u>	n.a.	<u>0.90</u>	n.a.	<u>0.90</u>
	Data should be provided to prove that lamps, which in the second stage have to fulfil the efficiency requirements like 26 mm (T8) lamps can not fulfil the same LLMF.					
Circular Single-Capped Fluorescent lamps operating on non-high frequency ballasts	<u>0.80</u>	<u>0.74</u>	<u>0.72</u>	-	-	-
Circular Single-Capped Fluorescent lamps operating on high frequency ballasts	<u>0.85</u>	<u>0.83</u>	n.a.	<u>0.80</u>	<u>0.75</u>	-
Other Single-Capped Fluorescent lamps operating on non-high frequency ballasts	0.95 <u>0.85</u> <u>0.92</u>	0.90 <u>0.78</u> <u>0.86</u>	n.a.	0.80 <u>0.75</u> <u>0.80</u>	-	-
Other Single-Capped Fluorescent lamps on high frequency ballast with warmstart	0.97 <u>0.90</u> <u>0.92</u>	0.90 <u>0.84</u> <u>0.88</u>	n.a.	0.80 <u>0.81</u> <u>0.81</u>	n.a.	<u>0.78</u>

Table 11 b: We support that lamps with high colour rendering and/or high colour temperature need to be available. We would like to ask for an explanation, why higher colour rendering or higher colour temperature induce lower lamp lumen maintenance factors.

¹ ZVEI – Electric Lamps: Life behaviour of discharge lamps for general lighting, 2005.

Table 12

We have no data to assess the appropriateness of the values for circular single-capped fluorescent lamps. However one needs to have in mind, that circular lamps – at least those operating on non-high frequency ballasts – are worst in their performance than required by regulation 244/2009 for compact fluorescent lamps (at least at stage 5).

The data we know prove that the proposed stricter values for the other single-capped fluorescent lamps are possible to reach. However data from industry² show that for other single-capped fluorescent lamps on non-high frequency ballast the value for 4000 h doesn't need to be lowered from 0.92 to 0.90.

Table 13

We support the proposal of the commission to apply deduction percentages for high pressure sodium lamps with $R_a > 60$ instead of exempting them altogether from the requirements of lamp lumen maintenance factor and lamp survival factor. Thereby also a deduction for high pressure sodium retrofit lamps designed to operate on high pressure mercury vapour lamp control gear may be discussed, instead of the exemption for 6 years.

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² ZVEI – Electric Lamps: Life behaviour of discharge lamps for general lighting, 2005