

Texte zu den geplanten neuen EU-Regelungen zur umweltgerechten Produktgestaltung und zur Energieverbrauchs-kennzeichnung in der Beleuchtung – Zusammenstellung ^[1] des Umweltbundesamtes (UBA), Deutschland



Diskussion über eine künftige Änderungsverordnung (Produktgestaltung)

Anhang III Nummer 3 Buchstabe w):
Ausnahmen für bestimmte Weißlichtquellen:
Stellungnahme des Herstellerverbandes LE ^[2]
vom 5. August 2019

Hinweis: Bitte beachten Sie, daß der angehängte Text nur in Englisch verfaßt ist.

EN: Information on the coming EU Lighting Regulations – Ecodesign and Energy Labelling – Compilation ^[1] of the Federal Environment Agency (UBA), Germany

Discussion of a future amending regulation (Product Design)

**Annex III.3 (w): Exemptions for certain white light sources:
Comments by the Industry Association LE ^[2] as of 5 August 2019**

FR: Informations sur les futures réglementations de l'UE concernant l'éclairage – l'écoconception et l'étiquetage énergétique – Compilation ^[1] de l'Agence Fédérale de l'Environnement (UBA), Allemagne

Discussion d'un futur règlement modificatif (Conception des produits)

Annexe III, point 3 w :
Exceptions pour certaines sources de lumière blanche :
Commentaires de l'association de producteurs LE ^[2] de 5 août 2019

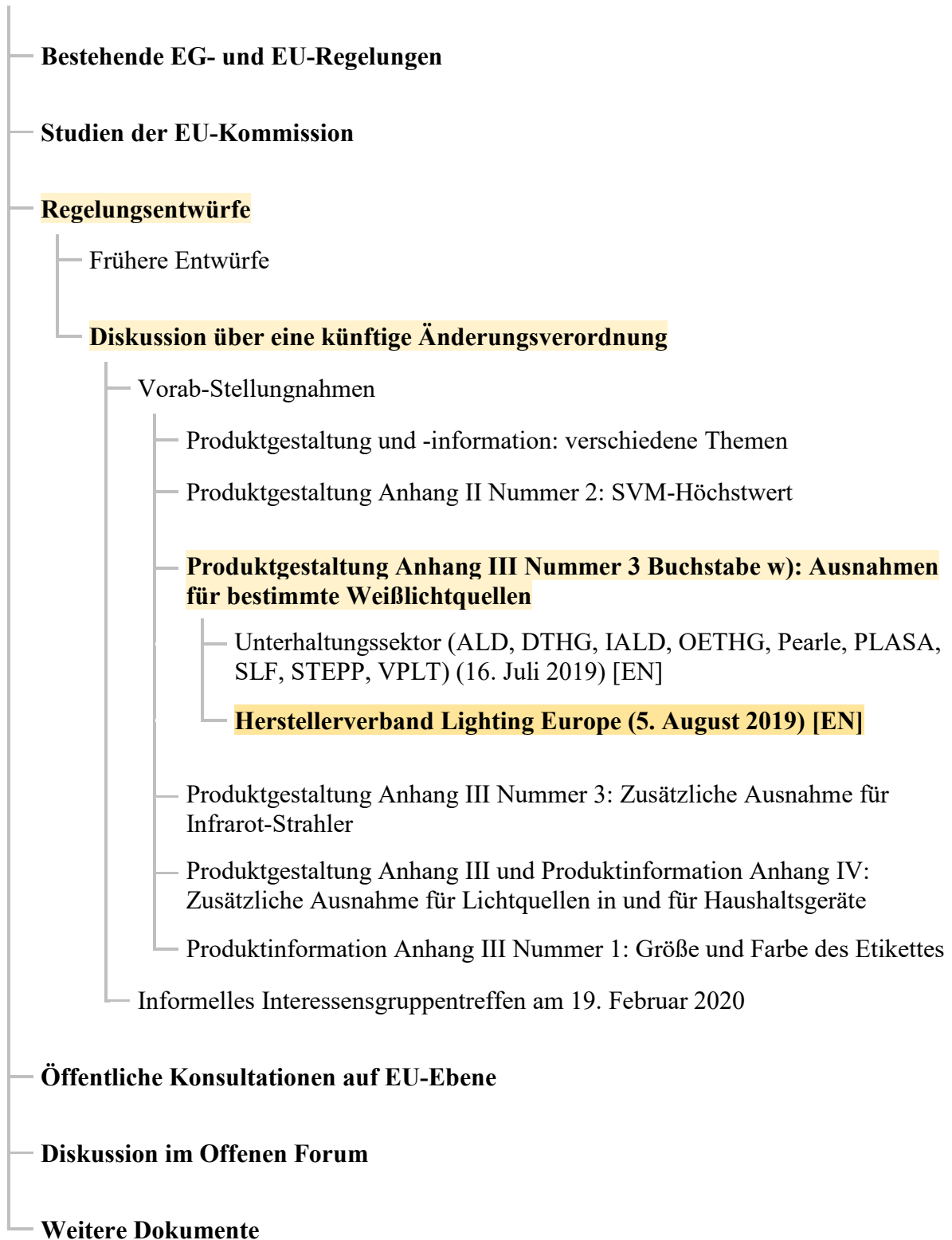
Indication : Veuillez noter que le présent texte n'est disponible qu'en anglais.

^[1] <https://www.eup-network.de/de/eup-netzwerk-deutschland/offenes-forum-eu-regelungen-beleuchtung/dokumente/texte/>

^[2] LE = Lighting Europe; <http://www.lightingeurope.org/>

Texte im Offenen Forum

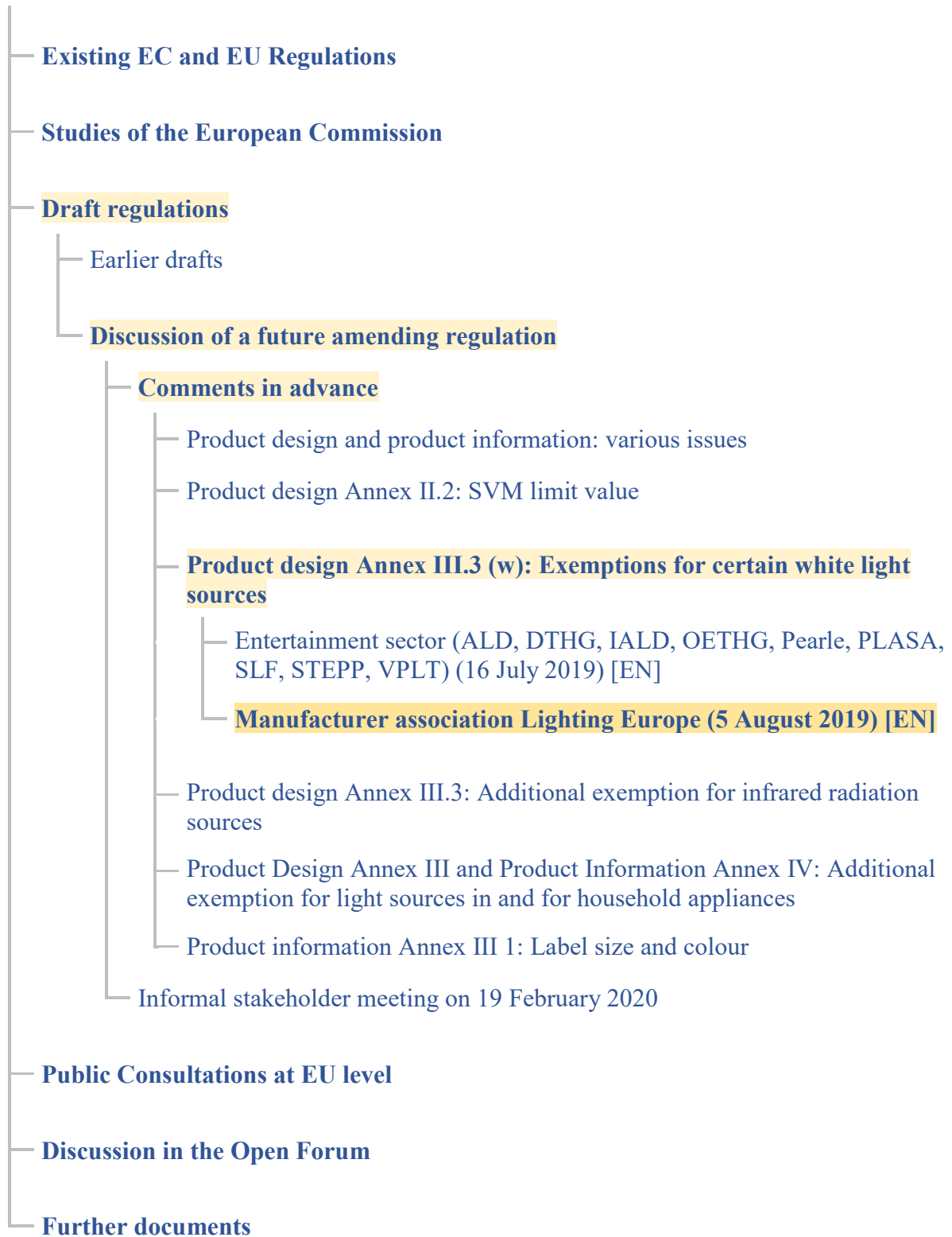
(abc = vorliegender Text)



Abkürzungen: • EG = Europäische Gemeinschaft • EU = Europäische Union • SVM : Maß für die Sichtbarkeit des Stroboskopeffektes

Documents in the Open Forum

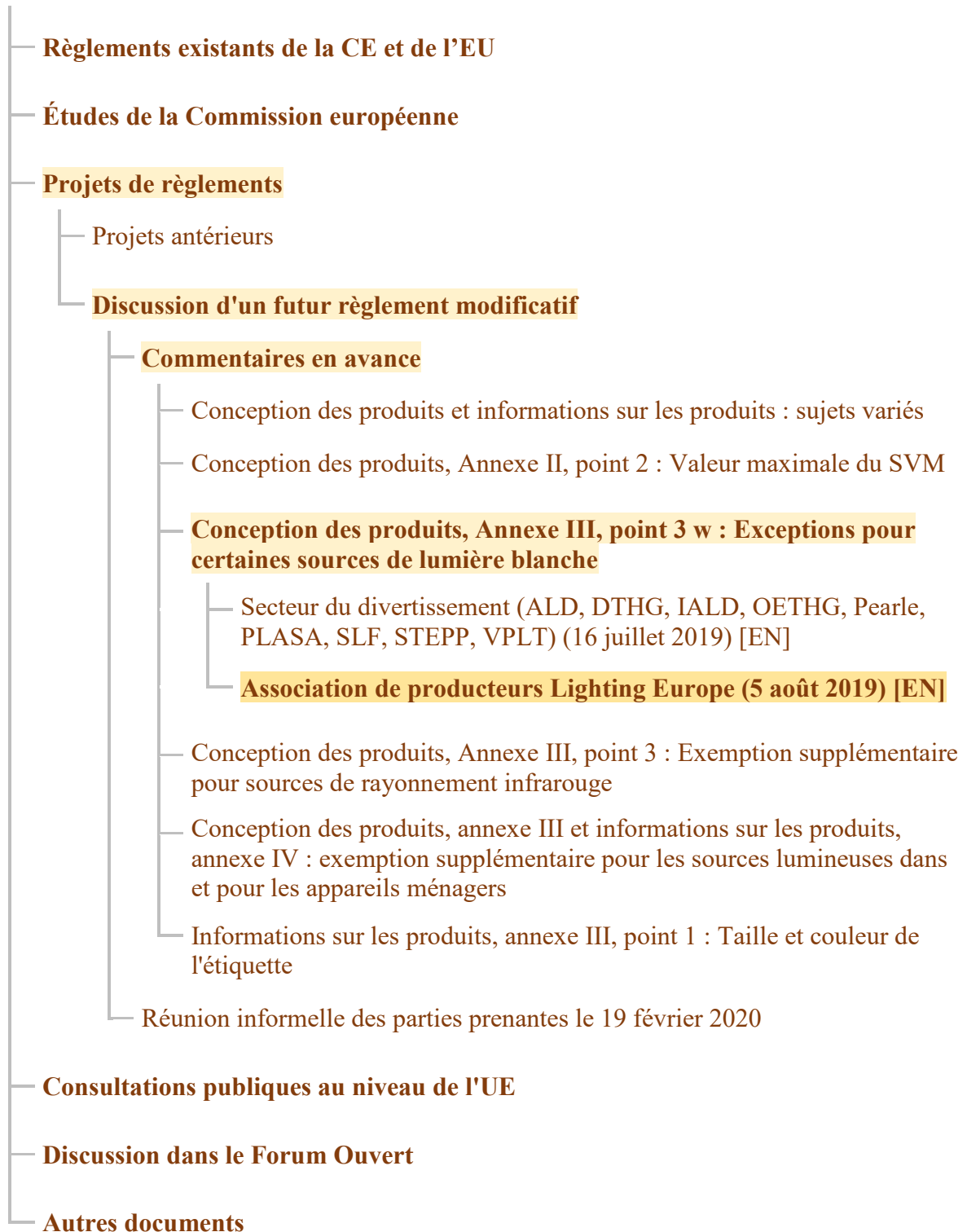
(abc = text at hand)



Abbreviations: ● EC = European Communities ● EU = European Union ● SVM = Stroboscopic Visibility Measure

Documents dans le forum ouvert

(abc = présent document)



Abréviations : ● CE = Communauté européenne ● SVM : mesure de la visibilité stroboscopique ● UE = Union européenne

Es folgt ein unveränderter Originaltext.

EN: The following is an unmodified original text.

FR: Ce qui suit est un texte original.

Annex III.3(w) and III.4

Amendment to stage lighting
exemption requirements

5 August 2019

Annex III.3(w)

Annex III.3

Any light source or separate control gear within the scope of this Regulation shall be exempt from the requirements of this Regulation, with the exception of the information requirements set out in point 3(e) of Annex II , if they are specifically designed and marketed for their intended use in at least one of the following applications:

(w) white light sources which

- 1) are designed and marketed specifically for scene-lighting use in film-studios, TV-studios and locations, and photographic-studios and locations, or for stage-lighting use in theatres, during concerts or other entertainment events;
and which:
- 2) provide two or more of the following specifications:
 - a) LED with high CRI > 90;
 - b) GES/E40, K39d socket with changeable Colour Temperature down to 1800 K (undimmed), used with low voltage power supply;
 - c) LED rated at 180W and greater and arranged to direct output to an area smaller than the light emitting surface;
 - d) DWE lamp type which is a tungsten lamp defined by its wattage (650 W) voltage (120 V) and terminal type (pressure screw terminal);
 - e) white bi-colour LED sources;
 - f) fluorescent tubes: Min BI Pin T5 and Bi Pin T12 with CRI \geq 85 and CCT 2 900, 3 000, 3 200, 5 600 or 6 500 K.

- Current exemption: fulfil at least Annex III.3(w)(1) and at two specifications from Annex III.3(w)(2)
- **LightingEurope position:** only one specification from Annex III.3(w)(2)

Annex III.3(w) | Issue 1

Annex III.3

(...)

2) provide two or more of the following specifications:

- a) LED with high CRI > 90;
- b) GES/E40, K39d socket with changeable Colour Temperature down to 1800 K (undimmed), used with low voltage power supply;
- c) LED rated at 180W and greater and arranged to direct output to an area smaller than the light emitting surface;
- d) DWE lamp type which is a tungsten lamp defined by its wattage (650 W) voltage (120 V) and terminal type (pressure screw terminal);
- e) white bi-colour LED sources;
- f) fluorescent tubes: Min BI Pin T5 and Bi Pin T12 with CRI \geq 85 and CCT 2 900, 3 000, 3 200, 5 600 or 6 500 K.

- **Non-LEDs cannot fulfil more than one requirement in case of (b), (d), or (f)**
- Example: GES/E40 can fulfil (b) but not (a)-(c)-(e) for LED, (d) for DWE lamp, (f) for fluorescence tube
- Annex III.3.(w) will never be fulfilled by GES/E40, DWE lamp type, or fluorescent tubes despite being referred clearly, and **this makes Annex III.3.(w)(b)(d)(f) useless**

Annex III.3(w) | Issue 2

Annex III.3

(...)

2) provide two or more of the following specifications:

- a) LED with high CRI > 90;
- b) GES/E40, K39d socket with changeable Colour Temperature down to 1800 K (undimmed), used with low voltage power supply;
- c) LED rated at 180W and greater and arranged to direct output to an area smaller than the light emitting surface;
- d) DWE lamp type which is a tungsten lamp defined by its wattage (650 W) voltage (120 V) and terminal type (pressure screw terminal);
- e) **white bi-colour LED sources;**
- f) fluorescent tubes: Min BI Pin T5 and Bi Pin T12 with CRI ≥ 85 and CCT 2 900, 3 000, 3 200, 5 600 or 6 500 K.

- Definition of “white bi-colour LED sources” is missing; possible interpretations:
 - 1) A light source formed by two coloured LEDs, creating a white light as in Art. 2
 - 2) A light source formed by LED of two whites, as described in Art. 2, and creating a white light as in Art. 2 → in this case, the criteria to distinguish a white colour point from another must be introduced

Assuming that “white bi-colour LED sources” will be defined, what if it is including “white tri-colour LED sources?” Is it still valid? What about more?

Annex III.3(w) | Issue 3

Annex III.3

(...)

2) provide two or more of the following specifications:

a) LED with high CRI > 90;

(...)

- Addressing the LED and not the light source creates ambiguity. This could be interpreted as having at least one LED with CRI > 90 in a light source, eventually having other LEDs of other colours or CRI value. How much this CRI 90 LED is contributing on the light source output flux is not stated, leaving the possibility of keeping it marginal.
- Additionally, CRI > 90 with higher efficiency could be obtained with different combinations of LEDs (phosphor converted solutions combined with direct emitting red): focusing on LEDs, this options would be excluded by current exemption.

Since it is focused on entertainment applications in (w).1, this criteria shall focus merely on “the emitted white light source” having CRI > 90

Annex III.3(w) | Issue 4

Annex III.3

(...)

2) provide two or more of the following specifications:

- a) LED with high CRI > 90;
- b) GES/E40, K39d socket with changeable Colour Temperature down to 1800 K (undimmed), used with low voltage power supply;
- c) LED rated at 180W and greater and arranged to direct output to an area smaller than the light emitting surface;
- d) DWE lamp type which is a tungsten lamp defined by its wattage (650 W) voltage (120 V) and terminal type (pressure screw terminal);
- e) white bi-colour LED sources;
- f) fluorescent tubes: Min BI Pin T5 and Bi Pin T12 with CRI \geq 85 and CCT 2 900, 3 000, 3 200, 5 600 or 6 500 K.

- Touring market (e.g., concerts) needs to extract as much brightness as possible from the light source: light sources in white moving heads are almost all based on single white LEDs in CRI 70
- Criterion (c) could be fulfilled, while (a) and (e) most likely not
- Touring market cannot fulfil two or more specifications of point (w).2, only one, i.e., (c)

Annex III.3(w) | Amendment

Annex III.3

(...)

2) provide two or more of the following specifications:

a) LED based and rated above 150W

b) ~~LED~~ light sources with light output with high CRI > 90;

c) ~~GES/E40, K39d socket with changeable Colour Temperature down to 1800-K (undimmed), used with low voltage power supply;~~

d) ~~LED rated at 180W and greater~~ and arranged to direct output to an area smaller than the light emitting surface;

e) DWE lamp type which is a tungsten lamp defined by its wattage (650 W) voltage (120 V) and terminal type (pressure screw terminal);

f) white ~~bi-colour LED-multi-colour~~ sources;

g) ~~fluorescent tubes: Min BI Pin T5 and Bi Pin T12 with CRI ≥ 85 and CCT 2,900, 3,000, 3,200, 5,600 or 6,500 K.~~
or which

3) are fluorescent tubes: Min BI Pin T5 and Bi Pin T12 with CRI ≥ 85 and CCT 2,900, 3,000, 3,200, 5,600 or 6,500 K.

Reference to Annex III 3.(w) 2) f) – (LED only)

While multi-colour sources shall be intended as light sources made of at least one white colour

AND at least one non-white colour

OR at least two non-white colour

OR **At least two white colours** where white and non-white colours are defined by Art. 2 and

- datasheets shall be referenced to state that each used white point is distinct and
- datasheets shall be referenced to state that each used non-white colour point is distinct

Annex III.4 | Amendment

4. CLS and CSCG designed and marketed specifically for scene-lighting use in film-studios, TV-studios and locations, and photographic studios and locations, or for stage-lighting use in theatres, discos and during concerts or other entertainment events, for connection to high speed control networks (utilising signalling rates of 250,000 bits per second and higher) in always-listening mode, shall be exempt from the requirements on standby (P_{sb}), and on networked standby (P_{net}) of points 1(a) and 1(b) of Annex II; **in the case of declared output power of the control gear, of 1(b) of Annex II, $P_{cg} > 150$ W, then also P_{cg} of 1(b) of Annex II shall be exempted.**



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