

Texte zu EU-Regelungen zur umweltgerechten Produktgestaltung und zur Energieverbrauchskennzeichnung in der Beleuchtung – Zusammenstellung <sup>[1]</sup> des Umweltbundesamtes (UBA), Deutschland



## Diskussion über künftige Änderungsverordnungen (Produktgestaltung und information)

Diskussionstext der EU-Kommission vom 20. Mai 2020:  
**Stellungnahme des Herstellerverbandes LE <sup>[2]</sup>**  
**vom 29. Mai 2020**

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

**EN:** Information on EU Lighting Regulations – Ecodesign and Energy Labelling – Compilation <sup>[1]</sup> of the Federal Environment Agency (UBA), Germany

Discussion of future amending regulations  
(Product Design and Product Information)

**The EU Commission's discussion text as of 20 May 2020:  
Comments by the Industry Association LE <sup>[2]</sup> as of 29 May 2020**

**FR:** Informations sur réglementations de l'UE concernant l'éclairage – l'écoconception et l'étiquetage énergétique – Compilation <sup>[1]</sup> de l'Agence Fédérale de l'Environnement (UBA), Allemagne

Discussion sur les futurs règlements modificatifs  
(Conception des produits et informations relatives aux produits)

**Texte de discussion de la Commission européenne du 20 mai 2020 :  
Commentaires de l'association de producteurs LE <sup>[2]</sup> de 29 mai 2020**

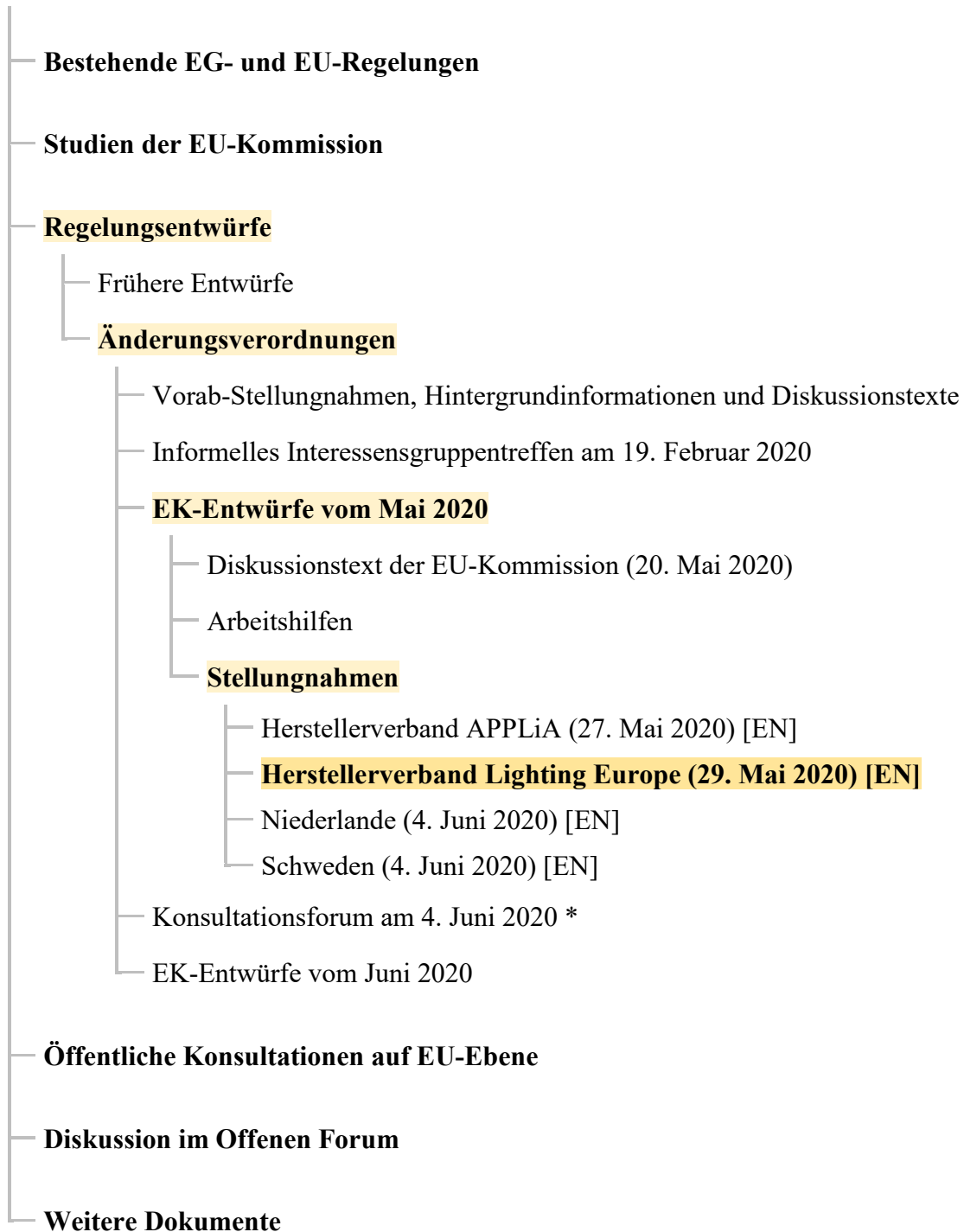
*Indication : Veuillez noter que le présent texte n'est disponible qu'en anglais.*

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

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

Texte im Offenen Forum

(abc = vorliegender Text)



\* Stand 15. Juni 2020: Dieser Text steht noch nicht zur Verfügung.

**Documents in the Open Forum**

(abc = text at hand)

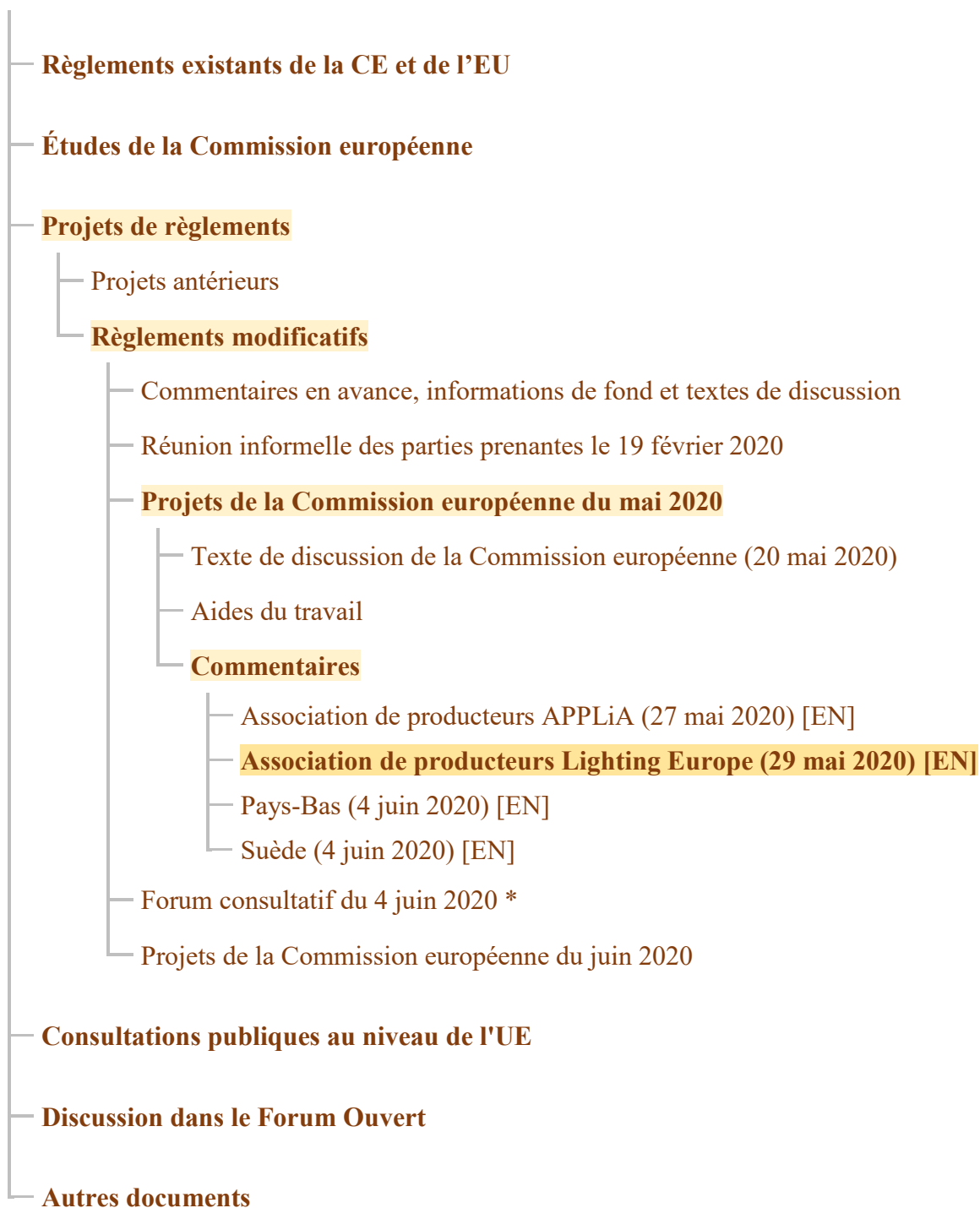


\* Status as of 15 June 2020: This text is not yet available.

Abbreviations: ● EC = European Communities ● EU = European Union

## Documents dans le forum ouvert

(abc = présent document)



\* État au 15 juin 2020 : Ce texte n'est pas encore disponible.

Abréviations : ● CE = Communauté européenne ● UE = Union européenne

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Es folgt ein unveränderter Originaltext.

**EN:** The following is an unmodified original text.

**FR:** Ce qui suit est un texte original.

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**Declared vs measured values (same proposals for all product legislations)**

Reg. 2019/2015 and Reg. 2019/2020	Commission proposal	LightingEurope comments
<p><b>Preamble of Reg. 2019/2015</b> [NEW RECITAL IN PREAMBLE]</p>	<p><b>Preamble of Reg. 2019/2015</b> Technical documentation should be sufficient to allow market surveillance authorities to check the values published on the label and in the product information sheet. In accordance with Article 12 of Regulation 2017/1369, values for the measured and calculated parameters of the model should be entered into the product database.</p>	
<p><b>Art. 3(1)(b) of Reg. 2019/2015</b> the parameters of the product information sheet, as set out in Annex V, are entered into the product database;</p>	<p><b>Art. 3(1)(b) of Reg. 2019/2015</b> <b>the values of</b> the parameters <del>of</del> <b>included in</b> the product information sheet, as set out in Annex V, are entered into <b>the public part of</b> the product database;</p>	
<p><b>Annex I.42 of Reg. 2019/2015</b> 'declared value' for a parameter means the value given by the supplier in the technical documentation pursuant to Article 3(3) of Regulation (EU) 2017/1369;</p>	<p><b>Annex I.42 of Reg. 2019/2015</b> <del>'declared value' for a parameter means the value given by the supplier in the technical documentation pursuant to Article 3(3) of Regulation (EU) 2017/1369;</del> <b>'declared values' means the values provided by the supplier for the stated, calculated or measured technical parameters, in accordance with Article 3(1)(d) and Annex VI, for the verification of compliance by the Member State authorities;</b></p>	
<p><b>Annex VI.1(e) of Reg. 2019/2015</b> the declared and measured values for the following technical parameters:</p>	<p><b>Annex VI.1(e) of Reg. 2019/2015</b> the declared <del>and measured</del> values for the following technical parameters; <b>these values are considered as the declared values for</b></p>	

	<b>the purpose of the verification procedure in Annex IX;</b>	
<b>Annex IX of Reg. 2019/2015</b> [NEW 1 <sup>st</sup> SENTENCE]	<b>Annex IX of Reg. 2019/2015</b> The verification tolerances set out in this Annex relate only to the verification by Member State authorities of the declared values and shall not be used by the supplier as an allowed tolerance to establish the values in the technical documentation.	
<b>Preamble, Recital 20 of Reg. 2019/2020</b> To improve the effectiveness of this Regulation and to protect consumers, products that automatically alter their performance in test conditions to improve the declared parameters should be prohibited.	<b>Preamble, Recital 20 of Reg. 2019/2020</b> To <del>improve</del> <b>ensure</b> the <b>effectiveness and credibility</b> of this Regulation and to protect consumers, products that automatically alter their performance in test conditions to improve <b>with the objective of reaching a more favourable level for any of the</b> <del>declared</del> parameters <b>specified in this Regulation</b> should <del>be prohibited</del> <b>not be allowed to be placed on the market.</b>	
<b>Annex I.52 of Reg. 2019/2020</b> 'declared value' for a parameter means the value given by the manufacturer or importer in the technical documentation pursuant to point 2 of Annex IV to Directive 2009/125/EC;	<b>Annex I.52 of Reg. 2019/2020</b> <del>'declared value' for a parameter means the value given by the manufacturer or importer in the technical documentation pursuant to point 2 of Annex IV to Directive 2009/125/EC;</del> <b>'declared values' means the values provided by the supplier for the stated, calculated or measured technical parameters in accordance with Article 4.2, for the verification of compliance by the Member State authorities;</b>	
<b>Annex IV of Reg. 2019/2020</b> [NEW 1 <sup>st</sup> SENTENCE]	<b>Annex IV of Reg. 2019/2020</b> The verification tolerances defined in this Annex relate only to the verification by Member State authorities of the declared values and shall not be used by the	



	<p>manufacturer, importer or authorised representative as an allowed tolerance to establish the values in the technical documentation or in interpreting these values with a view to achieving compliance or to communicate better performance by any means.</p>	
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**Proposals for Reg. 2019/2015 on energy labelling for lighting**

<b>Reg. 2019/2015</b>	<b>Commission proposal</b>	<b>LightingEurope comments</b>
<p><b>Preamble of Reg. 2019/2015</b> [NEW RECITAL IN PREAMBLE]</p>	<p><b>Preamble of Reg. 2019/2015</b> The relevant product parameters should be measured or calculated using reliable, accurate and reproducible methods. Those methods should take into account recognised state-of-the-art measurement methods including, where available, harmonised standards adopted by the European standardisation bodies, as listed in Annex I to Regulation (EU) No 1025/2012 of the European Parliament and of the Council.</p>	
<p><b>Art. 2(3) of Reg. 2019/2015</b> 'containing product' means a product containing one or more light sources, or separate control gears, or both.</p> <p>Examples of containing products are luminaires that can be taken apart to allow separate verification of the contained light source(s), household appliances containing light source(s), furniture (shelves, mirrors, display cabinets) containing light source(s). If a containing product cannot be taken apart for verification of the light source and</p>	<p><b>Art. 2(3) of Reg. 2019/2015</b> 'containing product' means a <del>product</del> containing <b>product for one or more</b> light sources <b>or a containing product for</b> separate control gears or both.</p> <p><b>'containing product for light sources' means a product containing one or more light sources, from which all contained light sources can be removed for verification.</b></p> <p><b>'containing product for separate control gears' means a product containing one or</b></p>	<p>The proposed changes lead to confusion on the definition for light sources. The proposal states that products with built-in light sources are not seen as containing products, but as the light source cannot be removed from the product itself it is also not considered a light source for testing. As far as this definition is concerned, a luminaire with non-removable light sources or control gear is treated the same as a fridge.</p> <p><b>Therefore, LightingEurope absolutely does not accept the change in definition (both the additions and removals). Any</b></p>

<p>separate control gear, the entire containing product is to be considered a light source;</p>	<p><b>more separate control gears, from which all contained separate control gears can be removed for verification.</b></p> <p>Examples of 'containing products for light sources' are luminaires that can be taken apart to allow separate verification of the contained light source(s), household appliances containing light source(s), furniture (shelves, mirrors, display cabinets) containing light source(s). <del>If a containing product cannot be taken apart for verification of the light source and separate control gear, the entire containing product is to be considered a light source</del></p>	<p>exemption for specific product groups should be managed through the list of exemptions (e.g., by referring to the product scope of specific legislation), and not by adjusting the general definitions with far-reaching unintended consequences for the complete lighting sector.</p> <p>By following the Diagram 1 on p. 17 of our <a href="#">Guidelines</a> on energy labelling for lighting, there are no contradictions or issues in terms of scope unclarities.</p>
<p><b>Annex III.1 of Reg. 2019/2015</b> The label shall be:</p> <ul style="list-style-type: none"> <li>- for the standard-sized label at least 36 mm wide and 75 mm high;</li> <li>- for the small-sized label (width less than 36 mm) at least 20 mm wide and 54 mm high.</li> </ul>	<p><b>Annex III.1 of Reg. 2019/2015</b> The label shall be:</p> <ul style="list-style-type: none"> <li>- for the standard-sized label at least 36 mm wide and <del>75</del> <b>72</b> mm high;</li> <li>- for the small-sized label (width less than 36 mm) at least 20 mm wide and 54 mm high.</li> </ul>	
<p><b>Annex IV.1(a) of Reg. 2019/2015</b> in radiological and nuclear medicine installations, as defined in Article 3 of Council Directive 2009/71/Euratom <sup>(1)</sup>;</p> <p>(<sup>1</sup>) Council Directive 2009/71/Euratom of 25 June 2009 establishing a Community framework for the nuclear safety of nuclear installations (OJ L 172, 2.7.2009, p. 18).</p>	<p><b>Annex IV.1(a) of Reg. 2019/2015</b> in radiological and nuclear medicine installations, <del>as defined in Article 3 of that</del> <b>are subject to radiation safety standards as set out in</b> Council Directive <del>2009/71</del><b>2013/59</b>/Euratom <sup>(1)</sup>;</p> <p>(<sup>1</sup>) Council Directive <del>2009/71</del><b>2013/59</b>/Euratom of <del>25 June 2009</del> <b>5 December 2013</b> <del>establishing a Community framework for the nuclear safety of nuclear installations (OJ L 172, 2.7.2009, p. 18)</del> <b>laying down basic safety standards for protection against the dangers arising</b></p>	

	<b>from exposure to ionising radiation (OJ L 13, 17.1.2014, p. 1).</b>			
<b>Annex V.1, Table 3 of Reg. 2019/2015</b> Energy consumption in on-mode (kWh / 1,000 h)	<b>Annex V.1, Table 3 of Reg. 2019/2015</b> Energy consumption in on-mode (kWh / 1,000 h), <b>rounded up to the nearest integer</b>			
<b>Annex V.1, Table 3 of Reg. 2019/2015</b> Correlated colour temperature (...) [x/x...x]	<b>Annex V.1, Table 3 of Reg. 2019/2015</b> Correlated colour temperature (...) [x/x...x/x or x (or x...)]			
<b>Annex V.1, Table 3 of Reg. 2019/2015</b> [NEW ROW]	<table border="1"> <tr> <td><b>Annex V.1, Table 3 of Reg. 2019/2015</b> Lifetime (L<sub>70</sub>B<sub>50</sub>) expressed in hours</td> <td>x</td> </tr> </table>	<b>Annex V.1, Table 3 of Reg. 2019/2015</b> Lifetime (L <sub>70</sub> B <sub>50</sub> ) expressed in hours	x	<p>This change is acceptable, as long as it is specified that it only applies to LED and OLED.</p> <p>The LightingEurope Guidelines (p. 64) explain how lifetime can be expressed in L<sub>90</sub>B<sub>50</sub> values as well, as L<sub>70</sub>B<sub>50</sub> is not ideal. <b>Therefore, we propose to add a line that lifetime values higher than L<sub>70</sub> are also acceptable.</b></p> <p>The LightingEurope Guidelines on ecodesign measures for lighting mention on p. 64: <i>In January 2018, LightingEurope published a guideline on evaluating the performance of LED-based luminaires. This document elaborates on the L70B50 lifetime for LED and OLED light sources. The guideline is available online.</i></p> <p><i>LED lifetimes based on characteristics better than L70B50 provided by the manufacturer (e.g., L90B50) are accepted without additional qualification (so long as the manufacturer complies with the required</i></p>
<b>Annex V.1, Table 3 of Reg. 2019/2015</b> Lifetime (L <sub>70</sub> B <sub>50</sub> ) expressed in hours	x			

		<i>minimum lumen maintenance based on the L70B50 declared life). This is because the claimed lifetime will always be less than what would be achieved using the less onerous L70B50 rating.</i>
<b>Annex V.1, Table 7 of Reg. 2019/2015</b> Rated light source luminous flux $\Phi$ (lm)	<b>Annex V.1, Table 7 of Reg. 2019/2015</b> <del>Rated light</del> <b>Light</b> source luminous flux $\Phi$ (lm)	
<b>Annex VI.1(e) of Reg. 2019/2015</b> [NEW TEXT]	<b>Annex VI.1(e) of Reg. 2019/2015</b> (4a) peak luminous intensity in cd for directional light sources (DLS);  (7a) R9 colour rendering index value for LED and OLED light sources;  (7b) survival factor for LED and OLED light sources;  (7c) lumen maintenance factor for LED and OLED light sources;  (7d) lifetime L <sub>70</sub> B <sub>50</sub> for LED and OLED light sources;	
<b>Annex VI.1(e)(5) of Reg. 2019/2015</b> correlated colour temperature (CCT) in K for FL and HID light sources;	<b>Annex VI.1(e)(5) of Reg. 2019/2015</b> correlated colour temperature (CCT) in K <del>for FL and HID light sources;</del>	
<b>Annex IX of Reg. 2019/2015</b> [NEW TEXT]	<b>Annex IX of Reg. 2019/2015</b> Where a model has been designed to be able to detect it is being tested (e.g. by recognising the test conditions or test cycle), and to react specifically by automatically altering its performance during the test with the objective of reaching a more favourable level for any of the parameters specified in this Regulation or included in the technical documentation or included in any of the	

		documentation provided, the model and all equivalent models shall be considered not compliant.													
<b>Annex IX.1, 2<sup>nd</sup> sent. of Reg. 2019/2015</b> The Member State authorities shall verify 10 units of the light source model for point 2(c) of this Annex. The verification tolerances are laid down in Table 6 of this Annex.		<b>Annex IX.1, 2<sup>nd</sup> sent. of Reg. 2019/2015</b> The Member State authorities shall verify 10 units of the light source model for point 2(c) of this Annex. The verification tolerances are laid down in Table 6 9 of this Annex.													
<b>Annex IX, Table 9 of Reg. 2019/2015</b> Flicker [ $P_{st}^{LM}$ ] and stroboscopic effect [SVM] (...) The determined value shall not exceed the declared value by more than 10 %.		<b>Annex IX, Table 9 of Reg. 2019/2015</b> Flicker [ $P_{st}^{LM}$ ] and stroboscopic effect [SVM] (...) The determined value shall not exceed the declared value by more than <del>10%</del> <b>0.1</b> .	The SVM round-robin test (RRT) deviations show that at least a tolerance of 0.3 is necessary for Flicker and SVM. A lower tolerance value can only be feasible if a higher SVM value is adopted.												
<b>Annex IX, Table 9 of Reg. 2019/2015</b> <table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 30%;">Lumen maintenance factor (for FL and HID)</td> <td style="width: 10%; text-align: center;">10</td> <td style="width: 60%;">The determined value shall not be less than 90 % of the declared value.</td> </tr> <tr> <td>Survival factor (for FL and HID)</td> <td style="text-align: center;">10</td> <td>The determined value shall not be less than the declared value.</td> </tr> </table>	Lumen maintenance factor (for FL and HID)	10	The determined value shall not be less than 90 % of the declared value.	Survival factor (for FL and HID)	10	The determined value shall not be less than the declared value.		<b>Annex IX, Table 9 of Reg. 2019/2015</b> <table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 30%;"><del>Lumen maintenance factor (for FL and HID)</del></td> <td style="width: 10%; text-align: center;"><del>10</del></td> <td style="width: 60%;"><del>The determined value shall not be less than 90 % of the declared value.</del></td> </tr> <tr> <td><del>Survival factor (for FL and HID)</del></td> <td style="text-align: center;"><del>10</del></td> <td><del>The determined value shall not be less than the declared value.</del></td> </tr> </table>	<del>Lumen maintenance factor (for FL and HID)</del>	<del>10</del>	<del>The determined value shall not be less than 90 % of the declared value.</del>	<del>Survival factor (for FL and HID)</del>	<del>10</del>	<del>The determined value shall not be less than the declared value.</del>	
Lumen maintenance factor (for FL and HID)	10	The determined value shall not be less than 90 % of the declared value.													
Survival factor (for FL and HID)	10	The determined value shall not be less than the declared value.													
<del>Lumen maintenance factor (for FL and HID)</del>	<del>10</del>	<del>The determined value shall not be less than 90 % of the declared value.</del>													
<del>Survival factor (for FL and HID)</del>	<del>10</del>	<del>The determined value shall not be less than the declared value.</del>													
<b>Annex IX, Table 9 of Reg. 2019/2015</b> Luminous peak intensity [cd]		<b>Annex IX, Table 9 of Reg. 2019/2015</b> <del>Luminous peak</del> <b>Peak luminous</b> intensity [cd]													

**Proposals for Reg. 2019/2020 on ecodesign for lighting**

Reg. 2019/2020	Commission proposal	LightingEurope comments
<b>Art. 2(4) of Reg. 2019/2020</b> 'containing product' means a product containing one or more light sources, or separate control gears, or both.  Examples of containing products are luminaires that can be taken apart to allow	Art. 2(4) of Reg. 2019/2020 'containing product' means a <del>product</del> containing <b>product for one or more</b> light sources <b>or a containing product for</b> separate control gears or both.	This text is not aligned with what has been proposed for Reg. 2019/2015, so LightingEurope proposes to remove the highlighted part for consistency within this Article and between Regs. 2019/2015 and 2019/2020.

<p>separate verification of the contained light source(s), household appliances containing light source(s), furniture (shelves, mirrors, display cabinets) containing light source(s). If a containing product cannot be taken apart for verification of the light source and separate control gear, the entire containing product is to be considered a light source;</p>	<p><b>‘containing product for light sources’ means a product containing one or more light sources, from which all contained light sources can be removed for verification, such as . luminaires that can be taken apart to allow separate verification of the contained light source(s), household appliances containing light source(s), furniture (shelves, mirrors, display cabinets) containing light source(s).</b></p> <p><b>‘containing product for separate control gears’ means a product containing one or more separate control gears, from which all contained separate control gears can be removed for verification.</b></p> <p>Examples of containing products are luminaires that can be taken apart to allow separate verification of the contained light source(s), household appliances containing light source(s), furniture (shelves, mirrors, display cabinets) containing light source(s). <del>If a containing product cannot be taken apart for verification of the light source and separate control gear, the entire containing product is to be considered a light source;</del></p>	<p>The proposed changes lead to confusion on the definition for light sources. The proposal states that products with built-in light sources are not seen as containing products, but as the light source cannot be removed from the product itself it is also not considered a light source for testing. As far as this definition is concerned, a luminaire with non-removable light sources or control gear is treated the same as a fridge.</p> <p><b>Therefore, LightingEurope absolutely does not accept the change in definition.</b> Any exemption for specific product groups should be managed through the list of exemptions (e.g., by referring to the product scope of specific legislation), and not by adjusting the general definitions with far-reaching unintended consequences for the complete lighting sector.</p> <p>By following the Diagram 1 on p. 17 of our Guidelines on energy labelling for lighting, there are no contradictions or issues in terms of scope unclarities.</p>
<p><b>Article 7 of Reg. 2019/2020</b> The manufacturer, importer or authorised representative shall not place on the market products designed to be able to detect they are being tested (e.g. by recognising the test conditions or test cycle), and to react specifically by automatically altering their</p>	<p><b>Article 7 of Reg. 2019/2020</b> The manufacturer, importer or authorised representative shall not place on the market products designed to be able to detect they are being tested (e.g. by recognising the test conditions or test cycle), and to react specifically by automatically altering their</p>	

<p>performance during the test with the aim of reaching a more favourable level for any of the parameters declared by the manufacturer, importer or authorised representative in the technical documentation or included in any of the documentation provided.</p> <p>The energy consumption of the product and any of the other declared parameters shall not deteriorate after a software or firmware update when measured with the same test standard originally used for the declaration of conformity, except with explicit consent of the end-user prior to the update.</p>	<p>performance during the test with the aim of reaching a more favourable level for any of the parameters declared by the manufacturer, importer or authorised representative in the technical documentation or included in any of the documentation provided.</p> <p>The energy consumption of the product and any of the other declared parameters shall not deteriorate after a software or firmware update when measured with the same test standard originally used for the declaration of conformity, except with explicit consent of the end-user prior to the update. <b>No performance change shall occur as result of rejecting the update.</b></p> <p><b>A software update shall never have the effect of changing the product's performance in a way that makes it non-compliant with the ecodesign requirements applicable for the declaration of conformity.</b></p>					
<p><b>Annex II.2, Table 4 of Reg. 2019/2020</b></p> <table border="1" data-bbox="215 1043 775 1380"> <tr> <td data-bbox="215 1043 409 1380">Stroboscopic effect for LED and OLED MLS</td> <td data-bbox="409 1043 775 1380">SVM ≤ 0,4 at full-load (except for HID with <math>\Phi_{use} &gt; 4 \text{ klm}</math> and for light sources intended for use in outdoor applications, industrial applications or other applications where lighting standards allow a CRI &lt; 80)</td> </tr> </table>	Stroboscopic effect for LED and OLED MLS	SVM ≤ 0,4 at full-load (except for HID with $\Phi_{use} > 4 \text{ klm}$ and for light sources intended for use in outdoor applications, industrial applications or other applications where lighting standards allow a CRI < 80)	<p><b>Annex II.2, Table 4 of Reg. 2019/2020</b></p> <table border="1" data-bbox="831 1043 1379 1350"> <tr> <td data-bbox="831 1043 1025 1350">Stroboscopic effect for LED and OLED MLS</td> <td data-bbox="1025 1043 1379 1350">SVM ≤ <del>0,4</del> <b>0,9</b> at full-load (except <del>for HID with <math>\Phi_{use} &gt; 4 \text{ klm}</math> and</del> for light sources intended for use in outdoor applications, industrial applications or other applications where</td> </tr> </table>	Stroboscopic effect for LED and OLED MLS	SVM ≤ <del>0,4</del> <b>0,9</b> at full-load (except <del>for HID with <math>\Phi_{use} &gt; 4 \text{ klm}</math> and</del> for light sources intended for use in outdoor applications, industrial applications or other applications where	<p><b>LightingEurope does not agree with the limit values</b> proposed by the European Commission and refers to the LightingEurope proposal on SVM, which proposes steps to lower the SVM limit to ≤ 1.0.</p> <p>We agree with the removal of the HID reference in the requirements.  <b>We absolutely cannot accept the SVM values</b> that are not in line with the outcomes of the SVM RRT nor based on science.</p>
Stroboscopic effect for LED and OLED MLS	SVM ≤ 0,4 at full-load (except for HID with $\Phi_{use} > 4 \text{ klm}$ and for light sources intended for use in outdoor applications, industrial applications or other applications where lighting standards allow a CRI < 80)					
Stroboscopic effect for LED and OLED MLS	SVM ≤ <del>0,4</del> <b>0,9</b> at full-load (except <del>for HID with <math>\Phi_{use} &gt; 4 \text{ klm}</math> and</del> for light sources intended for use in outdoor applications, industrial applications or other applications where					

	<p>lighting standards allow a CRI &lt; 80)</p> <p><b>From 1 September 2023: SVM ≤ 0,4 at full-load (except for light sources intended for use in outdoor applications, industrial applications or other applications where lighting standards allow a CRI &lt; 80)</b></p>	<p>To avoid loopholes, we propose to <b>remove bracket exemptions as well.</b></p> <p>LightingEurope fully supports the need for an adequate and good quality of light. To this end, as already outlined in Art. 9 of this regulation, the metrics and threshold values might best be worked out during the review process of this regulation during the next few years. This review should ideally be based on scientific research and standards.</p>
<p><b>Annex II.3(d)(1) of Reg. 2019/2020</b> The information specified in point 3(c)(2) of this Annex shall also be contained in the technical documentation file drawn up for the purposes of conformity assessment pursuant to Article 8 of Directive 2009/125/EC.</p>	<p><b>Annex II.3(d)(1) of Reg. 2019/2020</b> The information specified in point 3(c)(<del>2</del><b>1</b>) of this Annex shall also be contained in the technical documentation file drawn up for the purposes of conformity assessment pursuant to Article 8 of Directive 2009/125/EC.</p>	
<p><b>Annex III.1(c) of Reg. 2019/2020</b> in radiological and nuclear medicine installations, as defined in Article 3 of Council Directive 2009/71/Euratom <sup>(1)</sup>;</p> <p>(<sup>1</sup>) Council Directive 2009/71/Euratom of 25 June 2009 establishing a Community framework for the nuclear safety of nuclear installations (OJ L 172, 2.7.2009, p. 18).</p>	<p><b>Annex III.1(c) of Reg. 2019/2020</b> in radiological and nuclear medicine installations, <del>as defined in Article 3 of that</del> <b>are subject to radiation safety standards as set out in</b> Council Directive <del>2009/71</del><b>2013/59</b>/Euratom <sup>(1)</sup>;</p> <p>(<sup>1</sup>) Council Directive <del>2009/71</del><b>2013/59</b>/Euratom of <del>25 June 2009</del> <b>5 December 2013</b> <del>establishing a Community framework for the nuclear safety of nuclear installations (OJ L 172, 2.7.2009, p. 18)</del> <b>laying down basic safety standards for protection against the dangers arising from exposure to ionising radiation (OJ L 13, 17.1.2014, p. 1).</b></p>	



<p><b>Annex III.2 of Reg. 2019/2020</b> [NEW EXEMPTION]</p>	<p><b>Annex III.2 of Reg. 2019/2020</b> (f) separate control gears specifically used in: refrigerating appliances as defined in Commission Regulation (EU) 2019/2019 <sup>(16a)</sup>, dishwashers as defined in Commission Regulation (EU) 2019/2022 <sup>(16b)</sup>, washing machines and washer-dryers as defined in Commission Regulation (EU) 2019/2023 <sup>(16c)</sup>, refrigerating appliances with a direct sales function as defined in Commission Regulation (EU) 2019/2024 <sup>(16d)</sup>, domestic ovens, hobs and range hoods as defined in Commission Regulation (EU) No 66/2014 <sup>(16e)</sup>.</p> <p><sup>(16a)</sup> Commission Regulation (EU) 2019/2019 of 1 October 2019 laying down ecodesign requirements for refrigerating appliances pursuant to Directive 2009/125/EC of the European Parliament and of the Council and repealing Commission Regulation (EC) No 643/2009 (OJ L 315, 5.12.2019, p. 187).</p> <p><sup>(16b)</sup> Commission Regulation (EU) 2019/2022 of 1 October 2019 laying down ecodesign requirements for household dishwashers pursuant to Directive 2009/125/EC of the European Parliament and of the Council amending Commission Regulation (EC) No 1275/2008 and repealing Commission Regulation (EU) No 1016/2010 (OJ L 315, 5.12.2019, p. 267).</p> <p><sup>(16c)</sup> Commission Regulation (EU) 2019/2023 of 1 October 2019 laying down ecodesign</p>	
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	<p>requirements for household washing machines and household washer-dryers pursuant to Directive 2009/125/EC of the European Parliament and of the Council, amending Commission Regulation (EC) No 1275/2008 and repealing Commission Regulation (EU) No 1015/2010 (OJ L 315, 5.12.2019, p. 285).</p> <p>(<sup>16d</sup>) Commission Regulation (EU) 2019/2024 of 1 October 2019 laying down ecodesign requirements for refrigerating appliances with a direct sales function pursuant to Directive 2009/125/EC of the European Parliament and of the Council (OJ L 315, 5.12.2019, p. 313).</p> <p>(<sup>16e</sup>) Commission Regulation (EU) No 66/2014 of 14 January 2014 implementing Directive 2009/125/EC of the European Parliament and of the Council with regard to ecodesign requirements for domestic ovens, hobs and range hoods (OJ L 29, 31.1.2014, p. 33).</p>	
<p><b>Annex III.3(s) of Reg. 2019/2020</b> halogen light sources with blade contact-, metal lug-, cable-, litz wire- or non-standard customised electrical interface, specifically designed and marketed for industrial or professional electro-heating equipment (e.g. stretch blow-moulding process in PET-Industry, 3D-printing, gluing, inks, paint and coating hardening);</p>	<p><b>Annex III.3(s) of Reg. 2019/2020</b> <del>Halogen Incandescent</del> light sources with blade contact-, metal lug-, cable-, litz wire- or non-standard customised electrical interface, specifically designed and marketed for industrial or professional electro-heating equipment (e.g. stretch blow-moulding process in PET-Industry, 3D-printing, <b>photovoltaic and electronic manufacturing processes, drying or</b></p>	

	<p><b>hardening of adhesives, <del>gluing,</del> inks, paint and or coatings <del>hardening</del>);</b></p>	
<p><b>Annex III.3(w) of Reg. 2019/2020</b> white light sources which</p> <p>(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;</p> <p>and which:</p> <p>(2) provide two or more of the following specifications:</p> <ul style="list-style-type: none"> <li>(a) LED with high CRI &gt; 90;</li> <li>(b) GES/E40, K39d socket with changeable Colour Temperature down to 1 800 K (undimmed), used with low voltage power supply;</li> <li>(c) LED rated at 180W and greater and arranged to direct output to an area smaller than the light emitting surface;</li> <li>(d) DWE lamp type which is a tungsten lamp defined by its wattage (650 W) voltage (120 V) and terminal type (pressure screw terminal);</li> <li>(e) white bi-colour LED sources;</li> <li>(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.</li> </ul>	<p><b>Annex III.3(w) of Reg. 2019/2020</b> <del>white</del> light sources <del>which that</del></p> <p>(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;</p> <p>and <del>which that</del>:</p> <p>(2) <del>provide two or more</del> <b>meet at least one</b> of the following specifications:</p> <ul style="list-style-type: none"> <li>(a) LED with <b>power ≥ 180 W</b> and high CRI &gt; 90;</li> <li>(b) GES/E40, K39d socket with changeable Colour Temperature down to 1 800 K (undimmed), used with low voltage power supply;</li> <li>(c) LED <del>rated at</del> <b>with power ≥ 180W</b> and greater and arranged to direct output to an area smaller than the light emitting surface;</li> <li>(d) <del>DWE lamp type which is a tungsten lamp defined by its wattage (650 W) voltage (120 V) and terminal type (pressure screw terminal)</del> <b>Incandescent light source that is DWE type and has 650 W power, 120 V voltage and pressure screw terminal;</b></li> </ul>	

	<p>(e) <del>white bi-colour LED sources</del> LED with power <math>\geq 180</math> W that allows the user to set different correlated colour temperatures for the emitted light;</p> <p>(f) <del>fluorescent tubes: Min BI Pin T5 and Bi Pin T12</del> LFL T5 with G5 cap and LFL T12 with G13 cap, with CRI <math>\geq 85</math> and CCT 2 900, 3 000, 3 200, 5 600 or 6 500 K.</p>	
<p><b>Annex III.3(x) of Reg 2019/2020</b> [NEW POINT 3(x)]</p>	<p><b>Annex III.3(x) of Reg 2019/2020</b> incandescent DLS fulfilling all of the following conditions: E27 cap, clear envelope, power <math>\geq 100</math> W and <math>\leq 400</math> W, CCT <math>\leq 2 500</math> K, specifically designed and marketed for infrared heating.</p>	
<p><b>Annex IV, Table 6 of Reg. 2019/2020</b> Flicker [<math>P_{st}^{LM}</math>] and stroboscopic effect [SVM] (...) The determined value shall not exceed the declared value by more than 10 %.</p>	<p><b>Annex IV, Table 6 of Reg. 2019/2020</b> Flicker [<math>P_{st}^{LM}</math>] and stroboscopic effect [SVM] (...) The determined value shall not exceed the declared value by more than <del>10%</del> <b>0.1</b>.</p>	<p>The SVM RRT deviations show that a tolerance of at least 0.3 is necessary for Flicker and SVM. A lower tolerance value can only be feasible if a higher SVM value is adopted.</p>