Standards and labelling programme: Efficient lighting component
Scope of technology neutral regulation (...1)

This regulation applies to general lighting, directional and non-directional lamps of all shapes and finishes; using incandescent, halogen, fluorescent, high-intensity discharge, light emitting diode (LED), and other light source technologies; and having:

- One or more input voltages up to 300V of direct current or alternating current with frequency of 50 or 60 Hz;
- Emitting light with a total luminous flux of 60 to 3300 lumens;
Scope of technology neutral regulation (...2)

- Light emission with the **chromaticity coordinates** \((x, y)\) that are within the range: \(0.25 < x < 0.57\) and \(-2.3172 x^2 + 2.3653 x - 0.2400 < y < -2.3172 x^2 + 2.3653 x - 0.1400\);
Scope of technology neutral regulation (...3)

- A lamp base which can be connected to one of the following general service lamp sockets:
  
  1. **Screw base type**
     - E10, E11, E12, E14, E17, E26 or E27
  
  2. **Bayonet base type**
     - B15d or B22d
  
  3. **Pin base type**
     - GX5.3/GU5.3, GU10 or GZ10

and... Alternative base types which can be connected to the above lamp base sockets by using commercially available passive adaptors.
Regulating: Luminous efficacy (lm/watt)

Minimum efficiency levels will be **phased in over time**. *FOR EXAMPLE:*

<table>
<thead>
<tr>
<th>Product type</th>
<th>Minimum efficacy 2020</th>
<th>Minimum efficacy 2023</th>
</tr>
</thead>
<tbody>
<tr>
<td>lamp</td>
<td>Min lm/W for 2020</td>
<td>Min lm/W by 2023</td>
</tr>
</tbody>
</table>

With **correction factors** applied for specified lamp characteristics.

*FOR EXAMPLE:*
- 15% for directional lamps *OR*
- 20% for CFLs

*Minimum efficacy levels to be informed by the Socio-economic Impact / Cost Benefit Study*
Regulating also other aspects, including:

<table>
<thead>
<tr>
<th></th>
<th>Power consumption</th>
<th></th>
<th>Lighting quality</th>
<th></th>
<th>Health &amp; safety</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Power factor</td>
<td>3</td>
<td>Colour rendering index (CRI)</td>
<td>4</td>
<td>Electromagnetic Compatibility (EMC)</td>
</tr>
<tr>
<td></td>
<td>Standby power</td>
<td></td>
<td>Colour consistency</td>
<td></td>
<td>Flicker</td>
</tr>
<tr>
<td>2</td>
<td>Longevity</td>
<td>4</td>
<td>Stroboscopic effect visibility measure (SVM)</td>
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<tr>
<td></td>
<td>Lumens maintenance</td>
<td></td>
<td>Photobiological risk</td>
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<td>Photobiological risk</td>
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<tr>
<td></td>
<td>Lifetime or Survival factor</td>
<td></td>
<td>RoHS compliance</td>
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<td>RoHS compliance</td>
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</tbody>
</table>
Discussion & Questions

MOVING EFFICIENT LIGHTING FORWARD (PLEASE RAISE ANY ADDITIONAL THOUGHTS OR PRIORITIES)