
Changes to legislation: *There are outstanding changes not yet made to Commission Regulation (EU) No 1194/2012. Any changes that have already been made to the legislation appear in the content and are referenced with annotations. (See end of Document for details) [View outstanding changes](#)*

Commission Regulation (EU) No 1194/2012 of 12 December 2012 implementing Directive 2009/125/EC of the European Parliament and of the Council with regard to ecodesign requirements for directional lamps, light emitting diode lamps and related equipment (Text with EEA relevance)

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ANNEX III

Ecodesign requirements

1. ENERGY EFFICIENCY REQUIREMENTS

1.1. Energy efficiency requirements for directional lamps

The energy efficiency index (EEI) of the lamp is calculated as follows and rounded to two decimal places:

$$EEI = P_{cor} / P_{ref}$$

where:

P_{cor} is the rated power measured at nominal input voltage and corrected where appropriate in accordance with Table 1. The correction factors are cumulative where appropriate.

TABLE 1

Correction factors

Scope of the correction	Corrected power (P_{cor})
Lamps operating on external halogen lamp control gear	$P_{rated} \times 1,06$
Lamps operating on external LED lamp control gear	$P_{rated} \times 1,10$
Fluorescent lamps of 16 mm diameter (T5 lamps) and 4-pin single capped fluorescent lamps operating on external fluorescent lamp control gear	$P_{rated} \times 1,10$
Other lamps operating on external fluorescent lamp control gear	$P_{rated} \times \frac{0,24\sqrt{\Phi_{use}} + 0,0103\Phi_{use}}{0,15\sqrt{\Phi_{use}} + 0,0097\Phi_{use}}$
Lamps operating on external high-intensity discharge lamp control gear	$P_{rated} \times 1,10$
Compact fluorescent lamps with colour rendering index ≥ 90	$P_{rated} \times 0,85$
Lamps with anti-glare shield	$P_{rated} \times 0,80$

P_{ref} is the reference power obtained from the useful luminous flux of the lamp (Φ_{use}) by the following formula:

For models with $\Phi_{use} < 1\,300$ lumen:

$$P_{ref} = 0,88\sqrt{\Phi_{use}} + 0,049\Phi_{use}$$

For models with $\Phi_{use} \geq 1\,300$ lumen:

$$P_{ref} = 0,07341\Phi_{use}$$

Φ_{use} is defined as follows:

- directional lamps with a beam angle $\geq 90^\circ$ other than filament lamps and carrying a warning on their packaging in accordance with point 3.1.2(j) of this Annex: rated luminous flux in a 120° cone (Φ_{120°)

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— other directional lamps: rated luminous flux in a 90° cone (Φ_{90°).

The maximum EEI of directional lamps is indicated in Table 2.

TABLE 2

Application date	Maximum energy efficiency index (EEI)			
	Mains-voltage filament lamps	Other filament lamps	High-intensity discharge lamps	Other lamps
Stage 1	If $\Phi_{\text{use}} > 450$ lm: 1,75	If $\Phi_{\text{use}} \leq 450$ lm: 1,20 If $\Phi_{\text{use}} > 450$ lm: 0,95	0,5	0,5
Stage 2	1,75	0,95	0,5	0,5
Stage 3	0,95	0,95	0,36	0,2

Stage 3 for mains-voltage filament lamps shall apply only if no later than 30 September 2015, evidence is produced by the Commission through a detailed market assessment and communicated to the Consultation Forum that there are mains-voltage lamps on the market that are:

- compliant with the maximum EEI requirement in stage 3;
- affordable in terms of not entailing excessive costs for the majority of end-users;
- broadly equivalent in terms of consumer-relevant functionality parameters to mains-voltage filament lamps available on the date of entry into force of this Regulation, including in terms of luminous fluxes spanning the full range of reference luminous fluxes listed in Table 6;
- compatible with equipment designed for installation between the mains and filament lamps available on the date of entry into force of this Regulation according to state-of-the-art requirements for compatibility.

1.2. Energy efficiency requirements for lamp control gear

As from stage 2, the no-load power of a lamp control gear intended for use between the mains and the switch for turning the lamp load on/off shall not exceed 1,0 W. As from stage 3, the limit shall be 0,50 W. For lamp control gear with output power (P) over 250 W, the no-load power limits shall be multiplied by P/250 W.

As from stage 3, the standby power of a lamp control gear shall not exceed 0,50 W.

As from stage 2, the efficiency of a halogen lamp control gear shall be at least 0,91 at 100 % load.

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Changes and effects yet to be applied to :

- Regulation revoked by [S.I. 2021/1095 reg. 19\(d\)](#)

Changes and effects yet to be applied to the whole legislation item and associated provisions

- Signature words omitted by [S.I. 2019/539 Sch. 2 para. 16\(6\)](#)
- Annex 1 para. 1 words substituted by [S.I. 2019/539 Sch. 2 para. 16\(7\)](#)
- Annex 1 para. 2 words substituted by [S.I. 2019/539 Sch. 2 para. 16\(7\)](#)
- Annex 3 para. 2.3(b) words substituted by [S.I. 2019/539 Sch. 2 para. 16\(8\)\(a\)](#)
- Annex 3 para. 3.1.3(o) words substituted by [S.I. 2019/539 Sch. 2 para. 16\(8\)\(b\)](#)
- Annex 4 s. 3 words omitted by [S.I. 2019/539 Sch. 2 para. 16\(9\)\(f\)\(i\)](#)
- Annex 4 s. 3 words omitted by [S.I. 2019/539 Sch. 2 para. 16\(9\)\(f\)\(ii\)](#)
- Annex 4 s. 1 words substituted by [S.I. 2019/539 Sch. 2 para. 16\(9\)\(d\)](#)
- Annex 4 s. 2 words substituted by [S.I. 2019/539 Sch. 2 para. 16\(9\)\(e\)\(i\)](#)
- Annex 4 s. 2 words substituted by [S.I. 2019/539 Sch. 2 para. 16\(9\)\(e\)\(ii\)](#)
- Annex 4 s. 2(3) words substituted by [S.I. 2019/539 Sch. 2 para. 16\(9\)\(e\)\(iii\)\(aa\)](#)
- Annex 4 s. 2(3) words substituted by [S.I. 2019/539 Sch. 2 para. 16\(9\)\(e\)\(iii\)\(bb\)](#)
- Annex 4 s. 2(4) words substituted by [S.I. 2019/539 Sch. 2 para. 16\(9\)\(e\)\(iv\)](#)
- Annex 4 s. 1 words substituted in earlier amending provision [S.I. 2019/539, Sch. 2 para. 16\(9\)\(d\)](#) by [S.I. 2020/1528 reg. 6\(3\)reg. 6\(4\)\(b\)\(xv\)](#)
- Annex 4 s. 2 words substituted in earlier amending provision [S.I. 2019/539, Sch. 2 para. 16\(9\)\(e\)\(i\)](#) by [S.I. 2020/1528 reg. 6\(3\)reg. 6\(4\)\(b\)\(xv\)](#)
- Annex 4 s. 2 words substituted in earlier amending provision [S.I. 2019/539, Sch. 2 para. 16\(9\)\(e\)\(ii\)](#) by [S.I. 2020/1528 reg. 6\(3\)reg. 6\(4\)\(b\)\(xv\)](#)
- Annex 4 s. 2(3) words substituted in earlier amending provision [S.I. 2019/539, Sch. 2 para. 16\(9\)\(e\)\(iii\)\(aa\)](#) by [S.I. 2020/1528 reg. 6\(1\)reg. 6\(2\)\(b\)\(xv\)](#)
- Annex 4 s. 2(3) words substituted in earlier amending provision [S.I. 2019/539, Sch. 2 para. 16\(9\)\(e\)\(iii\)\(bb\)](#) by [S.I. 2020/1528 reg. 6\(1\)reg. 6\(2\)\(b\)\(xv\)](#)
- Annex 4 s. 2(4) words substituted in earlier amending provision [S.I. 2019/539, Sch. 2 para. 16\(9\)\(e\)\(iv\)](#) by [S.I. 2020/1528 reg. 6\(1\)reg. 6\(2\)\(b\)\(xv\)](#)