
STATUTORY INSTRUMENTS

2021 No. 1095

The Ecodesign for Energy-Related Products and Energy Information (Lighting Products) Regulations 2021

PART 2

ECODESIGN AND ENERGY LABELLING FOR LIGHT SOURCES AND SEPARATE CONTROL GEARS

CHAPTER 1

GENERAL

Interpretation

Meaning of “light source”

2.—(1) In these Regulations “light source” means, subject to paragraphs (4) to (6), an electrically operated product—

- (a) intended to emit light; or
- (b) in the case of a non-incandescent light source, intended to be possibly tuned to emit light; or
- (c) intended to do both (a) and (b);

which has the optical characteristics specified in paragraph (2) and meets the conditions specified in paragraph (3).

(2) The optical characteristics referred to in paragraph (1) are—

- (a) chromaticity coordinates x and y in the range—

$$0.270 < x < 0.530 \text{ and}$$

$$-2.3172 x^2 + 2.3653 x - 0.2199 < y < -2.3172 x^2 + 2.3653 x - 0.1595;$$

- (b) a luminous flux < 500 lumen per mm^2 of projected light-emitting surface area as defined in Schedule 1;
- (c) a luminous flux between 60 and 82,000 lumen; and
- (d) a colour rendering index (CRI) > 0 .

(3) The conditions referred to in paragraph (1) are that the product—

- (a) uses incandescence, fluorescence, high-intensity discharge, LED or OLED, or any combinations of these, as lighting technology; and
- (b) can be verified as a light source according to the procedure in Schedule 2.

(4) For the purposes of these Regulations “light source” does not include—

- (a) LED dies or LED chips;

- (b) LED packages;
 - (c) a product containing a light source from which the light source can be removed for verification as a light source according to the procedure in Schedule 2;
 - (d) light-emitting parts contained in a light source from which these parts cannot be removed for verification as a light source according to the procedure in Schedule 2.
- (5) High-pressure sodium (HPS) light sources are not required to meet the characteristic in paragraph (2)(a) to be classed as light sources for the purposes of these Regulations.
- (6) A light-emitting device which is intended to be used directly in an LED luminaire is to be classed as a light source for the purposes of these Regulations.

Meaning of “control gear”

- (7) In these Regulations “control gear” means, subject to paragraph (9), one or more devices which—
- (a) may or may not be physically integrated in a light source; and
 - (b) is intended to prepare the mains for the electric format required by one or more specific light sources, within boundary conditions set by electric safety and electromagnetic compatibility.
- (8) The function of a control gear may include any of the following—
- (a) transforming the supply and starting voltage;
 - (b) limiting operational and preheating current;
 - (c) preventing cold starting;
 - (d) correcting the power factor;
 - (e) reducing radio interference.
- (9) For the purposes of these Regulations “control gear” does not include—
- (a) power supplies within the scope of Commission Regulation (EU) 2019/1782 of 1 October 2019⁽¹⁾ laying down ecodesign requirements for external power supplies pursuant to [Directive 2009/125/EC](#) of the European Parliament and of the Council;
 - (b) lighting control parts and non-lighting parts (as defined in Schedule 1), although such parts may be physically integrated with a control gear or marketed together as a single product;
 - (c) equipment for power supply and data handling which is installed between the mains and office equipment and/or light sources for the purpose of data transfer and power supply (known as “Power over Ethernet” switch).

Interpretation of other terms

- (10) In these Regulations—
- “the 2010 Regulations” means the Ecodesign for Energy-Related Products Regulations 2010⁽²⁾;
- “[Commission Regulation \(EC\) No 244/2009](#)” means [Commission Regulation \(EC\) No 244/2009](#) of 18 March 2009 implementing [Directive 2005/32/EC](#) of the European Parliament and of the Council with regard to ecodesign requirements for non-directional household lamps⁽³⁾;
- “[Commission Regulation \(EC\) No 245/2009](#)” means [Commission Regulation \(EC\) No 245/2009](#) of 18 March 2009 implementing [Directive 2005/32/EC](#) of the European Parliament

(1) EUR 2019/782, as amended by [S.I. 2020/1528](#).

(2) [S.I. 2010/2617](#).

(3) EUR 2009/244, as amended by [S.I. 2019/539](#).

and of the Council 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, and repealing [Directive 2000/55/EC](#) of the European Parliament and of the Council(4);

“[Commission Regulation \(EU\) No 874/2012](#)” means Commission Delegated [Regulation \(EU\) No 874/2012](#) of 12 July 2012 supplementing [Directive 2010/30/EU](#) of the European Parliament and of the Council with regard to energy labelling of electrical lamps and luminaires(5);

“[Commission Regulation \(EU\) No 1194/2012](#)” means [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(6);

“chromaticity” means the property of a colour stimulus defined by its chromaticity coordinates (x and y);

“colour rendering index” (“CRI”)—

- (a) means a metric quantifying the effect of an illuminant on the colour appearance of objects by comparison with their colour appearance under the reference illuminant as defined in standards produced by an international standardising body(7); and
- (b) is the average Ra of the colour rendering for the first 8 test colours (R1-R8) defined in standards produced by an international standardising body;

“containing product” means a product containing—

- (a) one or more light sources; or
- (b) separate control gears; or
- (c) both of the above,

and includes luminaires that can be taken apart to allow separate verification of the contained light source, household appliances containing light sources, and furniture containing light sources (for example display cabinets);

“display mechanism” means any screen, including tactile screen, or other visual technology used for displaying internet content to users;

“end-user” means a natural person buying or expected to buy a product for purposes which are outside their trade, business, craft or profession;

“equivalent model” means—

- (a) for the purposes of Chapter 2, a model with the same technical characteristics relevant to the ecodesign requirements, but which is placed on the market or put into service(8) by the same manufacturer or importer as another model with a different model identifier;
- (b) for the purposes of Chapter 3, a model with the same technical characteristics relevant to the label and with the same product information sheet, but which is placed on the market(9) by the same supplier as another model with a different model identifier; except that the following items in the product information sheet are not to be taken into account for the purposes of determining whether this definition is met—

(4) EUR 2009/245, as amended by [S.I. 2019/539](#).

(5) EUR 2012/874, as amended by [S.I. 2019/539](#).

(6) EUR 2012/1194, as amended by [S.I. 2019/539](#).

(7) See regulation 2A of the 2010 Regulations, as amended by paragraph 4 of Schedule 4 to the European Union (Future Relationship) Act 2020 (c. 29), for the meaning of “international standardising body”. Regulation 2A was inserted by [S.I. 2019/539](#).

(8) See regulation 2 of the 2010 Regulations for the meaning of “place on the market” and “put into service”.

(9) See the definition of “placing on the market” in Article 2(8) of the Framework Regulation (substituted by [S.I. 2019/539](#), as amended by [S.I. 2020/1528](#)).

- (i) supplier's name or trade mark;
- (ii) supplier's address;
- (iii) model identifier;
- (iv) outer dimensions;

“fluorescence” means a phenomenon where light is produced by a gas discharge of the low-pressure mercury type in which most of the light is emitted by one or more layers of phosphors excited by the ultraviolet radiation from the discharge;

“fluorescent light source” (“FL”)—

- (a) means a light source which uses fluorescence as its lighting technology;
- (b) may have one (“single-capped”) or two (“double-capped”) connections (“caps”) to their electricity supply;
- (c) includes magnetic induction light sources;

“the Framework Regulation” means Regulation (EU) 2017/1369 of the European Parliament and of the Council⁽¹⁰⁾ setting a framework for energy labelling;

“gas discharge” means a phenomenon where light is produced, directly or indirectly, by an electric discharge through a gas, plasma, metal vapour or a mixture of gases and vapours;

“halogen light source” means an incandescent light source with a threadlike conductor made from tungsten surrounded by gas containing halogens or halogen compounds;

“HID light sources” means the following types of light source—

- (a) metal halide;
- (b) high-pressure sodium;
- (c) high-pressure mercury vapour;

“high intensity discharge” (“HID”) means a gas discharge in which—

- (a) the light-producing arc is stabilised by wall temperature; and
- (b) the arc chamber has a bulb wall loading in excess of 3 watts per square centimetre;

“high-pressure sodium light source” (“HPS”) means a high intensity discharge light source—

- (a) in which the light is produced mainly by radiation from sodium vapour operating at a partial pressure of the order of 10 kilopascals;
- (b) with one (“single-ended”) or two (“double-ended”) connectors to its electricity supply;

“incandescence” means the phenomenon where light is produced from heat, and in light sources is typically produced through a threadlike conductor (“filament”) which is heated by the passage of an electric current;

“LED” refers to inorganic light-emitting diodes, and means a technology in which—

- (a) light is produced from a solid state device embodying a p-n junction of inorganic material; and
- (b) the junction emits optical radiation when excited by an electric current;

“LED die” or “LED chip” means a small block of light-emitting semiconducting material on which a functional LED circuit is fabricated;

“LED package”—

- (a) means a single electric part comprising principally at least one LED die;

(10) EUR 2017/1369.

- (b) does not include a control gear or parts of a control gear, a cap or active electronic components;
- (c) is not connected directly to the mains voltage;
- (d) may include one or more of the following—
 - (i) optical elements;
 - (ii) light converters (phosphors);
 - (iii) thermal, mechanical and electric interfaces;
 - (iv) parts to address electrostatic discharge concerns;

“light” means electromagnetic radiation with a wavelength between 380 nm and 780 nm;

“luminous flux” or “flux” (Φ), expressed in lumen (lm)—

- (a) means the quantity derived from radiant flux (radiant power) by evaluating the electromagnetic radiation in accordance with the spectral sensitivity of the human eye;
- (b) refers to the total flux emitted by a light source in a solid angle of 4π steradians under conditions (for example current, voltage, temperature) specified in standards produced by an international standardising body;
- (c) refers to the initial flux for the undimmed light source after a short operating period, unless it is clearly specified that the flux in a dimmed condition or the flux after a given period of operation is intended;
- (d) for light sources that can be tuned to emit different light spectra or different maximum light intensities, refers to the flux in the reference control settings;

“mains” or “mains voltage” (“MV”) means the electricity supply of 230 (\pm 10%) volt of alternating current at 50 Hz;

“model identifier” means the code, usually alphanumeric, which distinguishes a specific product model from other models with the same trade mark or the same manufacturer’s or importer’s name;

“OLED” refers to organic light-emitting diodes, and means a technology in which—

- (a) light is produced from a solid state device embodying a p-n junction of organic material; and
- (b) the junction emits optical radiation when excited by an electric current;

“point of sale” means a physical location where the product is displayed or offered for sale, hire or hire-purchase to the customer;

“reference control setting” (“RCS”)—

- (a) means—
 - (i) a control setting; or
 - (ii) a combination of control settings,that is used to check whether a light source conforms to these Regulations;
- (b) applies to light sources which allow the end-user to control the luminous intensity, colour, correlated colour temperature, spectrum, or beam angle of the emitted light; and
- (c) is set in accordance with paragraph 11 of Schedule 3;

“separate control gear” means a control gear that is not physically integrated with a light source and is placed on the market as a separate product or as a part of a containing product.

(11) Further terms are defined in Schedule 1.

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