
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 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

(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](#).

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—
 - (i) supplier’s name or trade mark;
 - (ii) supplier’s address;

(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](#)).

- (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;
- (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;

(10) EUR 2017/1369.

(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.

CHAPTER 2

ECODESIGN FOR LIGHT SOURCES AND SEPARATE CONTROL GEARS

Application

3.—(1) Subject to paragraph (2) and regulation 5, this Chapter applies to—

- (a) light sources; and
- (b) separate control gears,

placed on the market or put into service on or after 1st October 2021, including light sources and separate control gears placed on the market or put into service in a containing product.

(2) The requirements of this Chapter do not need to be met in relation to a light source or separate control gear which—

- (a) is placed on the market or put into service before 1st November 2021; and
- (b) complies with (insofar as relevant)—
 - (i) [Commission Regulation \(EC\) No 244/2009](#);
 - (ii) [Commission Regulation \(EC\) No 245/2009](#); or
 - (iii) [Commission Regulation \(EC\) No 1194/2012](#).

Ecodesign requirements

4.—(1) A light source or separate control gear must conform to the ecodesign requirements set out in Schedule 3 when it is placed on the market or put into service.

(2) Manufacturers, authorised representatives and importers of light sources or separate control gears must comply with paragraphs 4 to 8 and 10 of Schedule 3 (information requirements).

Exemptions

5. Schedule 4 specifies exemptions from the requirements of this Chapter.

Removal of light sources and separate control gears

6.—(1) Manufacturers, authorised representatives and importers of containing products must ensure that light sources and separate control gears can be replaced with the use of commonly available tools and without permanent damage to the containing product.

(2) Paragraph (1) does not apply where a technical justification related to the functionality of the containing product is provided in the technical documentation⁽¹¹⁾ explaining why the replacement of light sources and separate control gear is not appropriate.

(3) Manufacturers, authorised representatives and importers of containing products must ensure that light sources and separate control gears can be removed without being permanently damaged for verification purposes by the market surveillance authority, and the technical documentation must provide instructions on removal for this purpose.

(4) Manufacturers, authorised representatives and importers of containing products must provide information about the replaceability or non-replaceability of light sources and control gears by—

- (a) end-users; or
- (b) professional repairers,

⁽¹¹⁾ See paragraph 1(2) of Schedule 1A to the 2010 Regulations for the meaning of “technical documentation”. Schedule 1A was inserted by [S.I. 2019/539](#).

without permanent damage to the containing product.

(5) The information referred to in paragraph (4) must be—

- (a) available on a website which is accessible to the public without charge; and
- (b) for products sold directly to end-users—
 - (i) on the packaging, at least in the form of a pictogram; and
 - (ii) in the user instructions.

(6) Manufacturers, authorised representatives and importers of containing products must ensure that—

- (a) light sources and separate control gears can be dismantled from containing products at end of life; and
- (b) dismantling instructions are available on a website which is accessible to the public without charge.

(7) For purposes of paragraph (4), “professional repairer” means a person who provides services of repair and professional maintenance of light sources and separate control gears.

Conformity assessment

7.—(1) For the purposes of the assessment procedure referred to in Schedule 1A to the 2010 Regulations(12), a manufacturer assessing whether a product model conforms with these Regulations must use either—

- (a) the internal design control procedure set out in Part 1 of that Schedule; or
- (b) the management system procedure set out in Part 2 of that Schedule.

(2) The technical documentation required for the conformity assessment of a product model must contain—

- (a) the details and results of the measurements and calculations made in accordance with paragraphs 1 to 3 of Schedule 3, and Schedule 5;
- (b) the information specified in paragraph 9 of Schedule 3; and
- (c) the details and results of any measurements or calculations carried out in accordance with regulation 9.

Verification procedure for market surveillance purposes

8. The market surveillance authority(13) must use the verification procedure set out in Schedules 2 and 5 when verifying the conformity of a product model with the requirements of these Regulations.

Measurements and calculations

9.—(1) The measurements and calculations required by this Chapter, or necessary for demonstrating or measuring conformity with this Chapter, must be made in accordance with designated standards(14), where available.

(12) Schedule 1A was inserted by [S.I. 2019/539](#).

(13) The meanings of “market surveillance” and “market surveillance authority” are set out in Article 2(17) and (18) respectively of Regulation (EC) No 765/2008 of the European Parliament and of the Council of 9 July 2008 setting out the requirements for accreditation and market surveillance relating to the marketing of products (RAMS) (EUR 2008/765, as amended by [S.I. 2019/696](#)). Definitions in RAMS are applied to the 2010 Regulations by regulation 2(2) of those Regulations (as amended by [S.I. 2019/539](#)).

(14) 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 “designated standard”.

- (2) Where designated standards are not available, the measurements and calculations referred to in paragraph (1) must be made in accordance with methods which—
- (a) can be demonstrated to be reliable, accurate, and reproducible by the person deploying them; and
 - (b) take into account the generally recognised state of the art.

Circumvention and software updates

10.—(1) The manufacturer, authorised representative and importer must not place on the market products designed to be able to detect they are being tested (for example by recognising the test conditions or test cycle) and to react specifically by automatically altering their performance during the test with the aim of reaching a more favourable level for any of the parameters in the technical documentation or included in any documentation provided.

(2) The energy consumption of the product and any of the other declared parameters must not deteriorate after a software or firmware update when measured with the same test standard originally used for the declaration of conformity, except with the explicit consent of the end-user prior to the update.

(3) The performance of a product must not change as a result of rejecting a software update.

(4) A software update must not 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.

CHAPTER 3

ENERGY LABELLING OF LIGHT SOURCES

Application

11.—(1) Subject to paragraphs (2) and (3), this Chapter applies to light sources placed on the market, with or without integrated control gears, and includes light sources placed on the market in a containing product.

(2) Where a light source is placed on the market before 1st October 2021, the requirements of this Chapter, except the requirements in regulation 17(2) and (3)—

- (a) do not apply in relation to the light source until the existing label on, or displayed in relation to, the light source is replaced with a rescaled label⁽¹⁵⁾ in accordance with regulation 17(2); and
- (b) are subject to the modifications in regulation 17(4).

(3) Schedule 6 specifies exemptions from the requirements of this Chapter.

Obligations of suppliers

12.—(1) Suppliers⁽¹⁶⁾ must ensure that—

- (a) each light source which is placed on the market as an independent product and in packaging is supplied with a label, printed on the packaging, in the format as set out in Schedule 7;
- (b) the product information sheet, as set out in Schedule 8, is made available on a publicly accessible website, free of charge and on a page of the website that does not contain any other information;

⁽¹⁵⁾ See Article 2(21) of the Framework Regulation for the meaning of “rescaled label”.

⁽¹⁶⁾ See Article 2(14) of the Framework Regulation, as substituted by [S.I. 2019/539](#), for the meaning of “supplier”.

- (c) the information set out in paragraph 4 of Schedule 8 is displayed on the supplier’s website in accordance with that paragraph;
 - (d) if specifically requested by the dealer(17), the product information sheet is made available in printed form;
 - (e) the content of the technical documentation(18) set out in Schedule 9 is made available for inspection in accordance with Article 4(2) of the Framework Regulation;
 - (f) any visual advertisement for a specific model of light source contains—
 - (i) the energy efficiency class; and
 - (ii) the range of energy efficiency classes available, on the label, in accordance with Schedules 10 and 11;
 - (g) any technical promotional material concerning a specific model of light source, including material on the internet, includes—
 - (i) the energy efficiency class of that model; and
 - (ii) the range of energy efficiency classes available, on the label, in accordance with Schedule 10;
 - (h) an electronic label in the format and containing the information set out in Schedule 7, is made available to dealers for each light source model;
 - (i) an electronic product information sheet, as set out in Schedule 8, is made available to dealers for each light source model;
 - (j) customers are able to access the product information sheet in accordance with Schedules 10 and 11.
- (2) Suppliers of containing products must—
- (a) provide information on the contained light source, in accordance with paragraph 3 of Schedule 8;
 - (b) ensure that the technical documentation clearly identifies the contained light source, including the energy efficiency class;
 - (c) upon request by the market surveillance authority, provide information on how the light source can be removed for verification without permanent damage to the light source.
- (3) For the purposes of this regulation, a light source is an independent product if it is not in a containing product.
- (4) The energy efficiency class must be determined in accordance with Schedule 12.

Obligations of dealers

13. Dealers must ensure that—

- (a) at the point of sale, each light source which is placed on the market and is not in a containing product bears the label provided by the supplier in accordance with regulation 12(1)(a);
- (b) each light source which is placed on the market and is not in a containing product is displayed in such a way that the label (or where paragraph 1(8) of Schedule 7 applies, the arrow) is clearly visible to prospective customers at the point of sale;
- (c) in the case of distance selling, the label and product information sheet are provided in accordance with Schedules 10 and 11;

(17) See Article 2(13) of the Framework Regulation for the meaning of “dealer”.

(18) See Article 4(7) of the Framework Regulation, inserted by [S.I. 2019/539](#), for the meaning of “technical documentation”.

- (d) any visual advertisement for a specific model of light source, including any advertisement on the internet, contains—
 - (i) the energy efficiency class; and
 - (ii) the range of energy efficiency classes available, on the label in accordance with Schedules 10 and 11;
- (e) any technical promotional material concerning a specific model of light source which describes its specific technical parameters, including material available on the internet, includes—
 - (i) the energy efficiency class of that model; and
 - (ii) the range of energy efficiency classes available, on the label in accordance with Schedule 10;
- (f) customers are able to access the product information sheet in accordance with Schedules 10 and 11.

Obligations of internet hosting platforms

14. Where a hosting service provider as referred to in regulation 19 of the Electronic Commerce (EC Directive) Regulations 2002⁽¹⁹⁾ allows the direct selling of light sources through its internet site, the service provider must—

- (a) enable the showing of the electronic label and electronic product fiche sheet provided by the dealer on the display mechanism in accordance with the provisions of Schedule 11; and
- (b) inform the dealer of the obligation to display them.

Measurement methods

15.—(1) The measurements and calculations required by this Chapter must be made in accordance with—

- (a) Schedule 12, and
- (b) designated standards⁽²⁰⁾, where available.

(2) Where designated standards are not available, the measurements and calculations referred to in paragraph (1) must be made in accordance with methods which—

- (a) can be demonstrated to be reliable, accurate, and reproducible by the person deploying them; and
- (b) take into account the generally recognised state of the art.

Verification procedure for market surveillance purposes

16. The market surveillance authority⁽²¹⁾ must use the verification procedure set out in Schedule 13 when verifying the conformity of a product model with the requirements of these Regulations.

⁽¹⁹⁾ S.I. 2002/2013.

⁽²⁰⁾ See Article 2(18) of the Framework Regulation, as substituted by S.I. 2019/539, for the meaning of “designated standard”.

⁽²¹⁾ See Article 2(28) of the Framework Regulation for the meanings of “market surveillance” and “market surveillance authority”. Point (28) was inserted by S.I. 2019/539, as amended by S.I. 2020/1528.

Light sources placed on the market before 1st October 2021

17.—(1) The requirements in paragraphs (2) and (3) apply in relation to light sources which are placed on the market before 1st October 2021.

- (2) Dealers must ensure that, before 1st April 2023—
 - (a) existing labels on light sources at points of sale are replaced by rescaled labels in such a way as to cover the existing label, including when the label is printed on or attached to the packaging; and
 - (b) in the case of distance selling, existing labels displayed in relation to light sources are replaced by rescaled labels.
- (3) Suppliers must ensure that, upon request by dealers—
 - (a) in the case of any light sources marketed through a point of sale, a rescaled label containing the information set out in Schedule 7 is provided for each light source in the form of a printed sticker in a size that permits it to cover the existing label; and
 - (b) in the case of light sources marketed through a point of sale or distance selling, the following are made available for each light source model to which the light sources belong—
 - (i) a rescaled electronic label in the format and containing the information set out in Schedule 7; and
 - (ii) an electronic product information sheet, as set out in Schedule 8.
- (4) The modifications to this Chapter referred to in regulation 11 are—
 - (a) regulation 12 is to be read as if paragraph (1)(a), (h) and (i) were omitted;
 - (b) regulation 13 is to be read as if—
 - (i) in paragraph (a), for “regulation 12(1)(a)” there were substituted “regulation 17(3)(a)”;
 - (ii) paragraph (b) were omitted;
 - (c) paragraph 1 of Schedule 7 is to be read as if—
 - (i) sub-paragraphs (1), (2), (4) and (6) were omitted;
 - (ii) in sub-paragraph (7), the words “and the arrow” were omitted;
 - (iii) sub-paragraph (8) and Figure 2 were omitted;
 - (d) Schedule 11 is to be read as if—
 - (i) in paragraph 2(1), for “regulation 12(1)(h)” there were substituted “regulation 17(3)(b)(i)”;
 - (ii) in paragraph 5(1), for “regulation 12(1)(i)” there were substituted “regulation 17(3)(b)(ii)”.