



EUROPEAN COMMISSION
DIRECTORATE-GENERAL FOR ENERGY

Directorate C - New and renewable sources of energy, Energy efficiency & Innovation
C.3 - Energy efficiency of products & Intelligent Energy – Europe

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**MANDATE TO CEN, CENELEC AND ETSI FOR STANDARDISATION IN THE FIELD OF
FLUORESCENT LAMPS, HIGH-INTENSITY DISCHARGE LAMPS, AND BALLASTS AND
LUMINAIRES ABLE TO OPERATE SUCH LAMPS**

1. BACKGROUND

1.1. Legal Basis of the mandate

This mandate relates to Directive 2009/125/EC of the European Parliament and of the Council (formerly Directive 2005/32/EC), and to a measure implementing this Directive for which (a) Harmonised Standard(s) should be developed to cover measurement methods.

1.2. The aim of the Mandate

The Commission adopted on 18 March 2009 Regulation (EC) N° 245/2009 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 operate such lamps, and repealing Directive 2000/55/EC of the European Parliament and of the Council. The Regulation requires that the measurement methods for establishing the energy consumption and other parameters of the targeted products are reliable, accurate and reproducible, and take into account the generally recognised state of the art, in order to ensure comparable measurements and fair competition, and to facilitate market surveillance activities. Commission Regulation (EU) N° 347/2010 of 21 April 2010 amended Commission Regulation (EC) N° 245/2009 with respect to the requirements set on certain parameters to be measured. The Commission published a list of transitory measurement methods for the parameters of the Regulation¹, which should be taken into account in the standardisation work under this mandate.

The aim of this mandate is to create (a) harmonised European standard(s) which cover(s) the requirement for measurement methods.

¹ *Commission communication in the framework of the implementation of Commission Regulation (EC) No 245/2009 implementing Directive 2009/125/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 operate such lamps, and repealing Directive 2000/55/EC of the European Parliament and of the Council, OJ C92, 10.4.2010, p. 11.*

2. DESCRIPTION OF THE MANDATED WORK

The Commission requests CEN, CENELEC and ETSI to elaborate (a) reliable, accurate and reproducible European standard(s), which take(s) into account the generally recognised state of the art, and/or adopt or adapt existing European and International standards for the targeted products, laying down procedures and methods of measuring the following product parameters:

- (1) for fluorescent and high-intensity discharge lamps, the spectral radiation, the luminous flux, the power consumption, the lamp lumen maintenance factor, the lamp survival factor, the chromaticity, the correlated colour temperature, the colour rendering, the specific effective radiant ultraviolet power, the lamp caps and the total mercury content;
- (2) for ballasts able to operate fluorescent and high-intensity discharge lamps, the input power of the lamp-ballast circuit, including when the operated lamps do not emit any light in normal operating conditions;
- (3) for luminaires able to operate fluorescent and high-intensity discharge lamps, the power consumption when the operated lamps do not emit any light in normal operating conditions, the ingress protection grading, the CEN flux code and the photometric file;
- (4) for luminaires for office lighting, the luminaire maintenance factor;
- (5) for luminaires for street lighting, the luminaire maintenance factor, the utilisation factor and the Upward Light Output Ratio.

The standard(s) has / have also to include the necessary definitions of the parameters to be measured, taking into account the definitions provided in the Regulation (EC) N° 245/2009 amended by Regulation (EU) N°347/2010.

The standardisation tasks covered by this mandate are as follows.

Procedures and methods for measuring the required parameters for fluorescent and high-intensity discharge lamps (spectral radiation, luminous flux, power consumption, lamp lumen maintenance factor, lamp survival factor, chromaticity, correlated colour temperature, colour rendering, specific effective radiant ultraviolet power, caps and total mercury content), for ballasts able to operate such lamps (the input power of the lamp-ballast circuit, including when the operated lamps do not emit any light in normal operating conditions), for luminaires able to operate such lamps (the power consumption when the operated lamps do not emit any light in normal operating conditions, the ingress protection grading, the CEN flux code and the photometric file), for luminaires for office lighting (the lumen maintenance factor) and for luminaires for street lighting (the luminaire maintenance factor, the utilisation factor and the Upward Light Output Ratio):

- (1) to ensure that the prospective harmonised standard(s) provide(s), where appropriate and taking into account the definitions of Regulation (EC) N° 245/2009 amended by Regulation (EU) N°347/2010, revised and/or new definitions for at least the appliances and parameters included in the Regulation;
- (2) to ensure that the prospective harmonised standard(s) provide(s) procedures and methods to measure at least the spectral radiation, luminous flux, photometric data, power consumption, lamp lumen maintenance factor, lamp survival factor, chromaticity, correlated colour temperature, colour rendering, specific effective

radiant ultraviolet power, the geometric characteristics of lamp caps and total mercury content for fluorescent and high-intensity discharge lamps as included in Regulation (EC) N° 245/2009 amended by Regulation (EU) N°347/2010;

- (3) to ensure that the prospective harmonised standard(s) provide(s) procedures and methods to measure at least the input power of the lamp-ballast circuit, including when the operated lamps do not emit any light in normal operating conditions, for ballasts able to operate fluorescent and high-intensity discharge lamps as included in Regulation (EC) N° 245/2009 amended by Regulation (EU) N°347/2010;
- (4) to ensure that for the purpose of measuring the input power of the lamp-ballast circuit for ballasts able to operate fluorescent lamps, as included in Regulation (EC) N° 245/2009 amended by Regulation (EU) N°347/2010, the prospective harmonised standard(s) require(s) that the total input power measured shall be corrected to a ballast lumen factor of 0,95 for inductive non-high frequency control gear and of 1,00 for high frequency (HF) electronic control gear, and that additionally, tolerances of reference lamps shall be compensated;
- (5) to ensure that the prospective harmonised standard(s) provide(s) procedures and methods to measure at least the power consumption when the operated lamps do not emit any light in normal operating conditions, the ingress protection grading, the CEN flux code and the photometric file for luminaires able to operate fluorescent and high-intensity discharge lamps as included in Regulation (EC) N° 245/2009 amended by Regulation (EU) N°347/2010;
- (6) to ensure that for the purpose of measuring the input power of the lamp-ballast circuit including when the operated lamps do not emit any light in normal operating conditions for ballasts able to operate fluorescent and high-intensity discharge lamps as included in Regulation (EC) N° 245/2009 amended by Regulation (EU) N°347/2010, the prospective harmonised standard(s) exclude(s) the power consumed by sensors, network connections and other auxiliary loads;
- (7) to ensure that for the purpose of measuring the power consumption when the operated lamps do not emit any light in normal operating conditions for luminaires able to operate fluorescent and high-intensity discharge lamps as included in Regulation (EC) N° 245/2009 amended by Regulation (EU) N°347/2010, the prospective harmonised standard(s) exclude(s) the power consumed by sensors, network connections and other auxiliary loads;
- (8) to ensure that the prospective harmonised standard(s) provide(s) procedures and methods to measure at least the luminaire maintenance factor for luminaires for office lighting as included in Regulation (EC) N° 245/2009 amended by Regulation (EU) N°347/2010;
- (9) to ensure that the prospective harmonised standard(s) provide(s) procedures and methods to measure at least the luminaire maintenance factor, the utilisation factor and the Upward Light Output Ratio for luminaires for street lighting as included in Regulation (EC) N° 245/2009 amended by Regulation (EU) N°347/2010;
- (10) to ensure that the prospective harmonised standard(s) include(s) a procedure that avoids an appliance being programmed to recognize the test cycles, and reacting

specifically to them, with the exclusion of test cycle recognition that is active only during the manufacturing of the appliance;

- (11) to ensure that the prospective harmonised standard(s) takes into account improved test conditions and test materials to better reflect user behaviour and the state of the art of measurement methods at European and international level;

Verification procedure for market surveillance purposes:

- (12) to ensure that the prospective harmonised standard(s) identifies and controls the sources of variability to be considered for market surveillance purposes;
- (13) to provide values for measurement uncertainties for the purposes of the verification procedure for the measured parameters taking into account the different sources of variability to be considered when a specific product is taken from the market and measured for market surveillance purposes;
- (14) to verify if, in order to reduce the impact of variability to the system, the standard(s) should include specific criteria to be met by laboratories involved in the verification of the declared data (e.g. quality management system, qualification system, personnel training...)

Template for test report:

- (15) to define a template for a test report indicating the information to be declared by the manufacturers to fulfil at least the ecodesign requirements set out by Regulation (EC) N° 245/2009 amended by Regulation (EU) N°347/2010.

The transitory measurement methods for the implementation of Regulation (EC) N° 245/2009 amended by Regulation (EU) N°347/2010, the references thereof are published in the OJ for information², may be taken into account for the mandated work.

3. EXECUTION OF THE MANDATE

CEN, CENELEC and ETSI are requested to communicate to the Commission, within 2 month of the acceptance of this mandate, a work plan for the execution of the above mentioned standardisation tasks, indicating the standard(s) requiring revision or amendment, and the new standard(s) that would need to be developed, if any.

CEN, CENELEC and ETSI are requested to communicate to the Commission after 7 months from the acceptance of this mandate an interim report on the progress of the tasks set out in this mandate, indicating any eventual difficulties encountered and communicating details of any Standard(s) that has been taken into consideration and modified to answer to the needs of the Mandate.

CEN, CENELEC and ETSI are requested to provide, in the three working languages of the ESOs, a copy of the standard(s) developed under this mandate within **12 months** of the acceptance of the mandate, with the exception of the standard(s) developed for measuring the input power of the lamp-ballast circuit including when the operated lamps do not emit any light in normal operating conditions for high-frequency ballasts able to

² OJ C 92, 10.04.2010, p. 11.

operate high-intensity discharge lamps, where the aforementioned copies of the standard(s) should be provided within **18 months** of the acceptance of the mandate.

CEN, CENELEC and ETSI are requested to forward the titles of the standard(s) developed or adapted under this mandate in all the official languages of the European Union.

CEN, CENELEC and ETSI are requested to draw up the work plan and execute the above mentioned tasks in close cooperation in order to ensure consistency and avoid overlapping standards.

Wherever possible the tasks should be executed within the framework of the Vienna and Dresden Agreements with a view to duly take into consideration the activities already done or in process at international level.

CEN, CENELEC and ETSI are requested to indicate the relationship between the clauses of the standard(s) and the essential requirements covered.

Acceptance by CEN, CENELEC and ETSI, as applicable, of this mandate starts the standstill period referred to in Article 7 of the Directive 98/34/EC of 22 June 1998 (of N° L 204/37 of 21 July 1998).

4. BODIES TO BE ASSOCIATED

As appropriate, CEN, CENELEC and ETSI will invite the representative organisations of consumers' interests (ANEC), environmental protection (ECOS), workers (ETUI-REHS) and small and medium-size enterprises (NORMAPME) to take part in the standardisation work. CEN, CENELEC and ETSI are also requested to consult with the European Commission DG Joint Research Centre in order to explore if the Commission's research institutes dispose of specific competence to support the standardisation work.