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PSR – SPECIFIC RULES FOR LUMINAIRES

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IEC 63629 has been prepared by IEC technical committee 34: Lighting. It is a Publicly Available Specification.

It is based on the PSR0014 document entitled “PSR – Specific rules for luminaires” (PSR 0014-ed2.0-EN-2023 07 13) and was submitted as a PAS document.

The text of this Publicly Available Specification is based on the following documents:

Draft	Report on voting
34/1303/DPAS	34/1318/RVDPAS

Full information on the voting for its approval can be found in the report on voting indicated in the above table.

The language used for the development of this Publicly Available Specification is English.

The structure and editorial rules used in this publication reflect the practice of the organization which submitted it.

This document was developed in accordance with ISO/IEC Directives, Part 1 and ISO/IEC Directives, IEC Supplement, available at www.iec.ch/members_experts/refdocs. The main document types developed by IEC are described in greater detail at www.iec.ch/publications.

The committee has decided that the contents of this document will remain unchanged until the stability date indicated on the IEC website under webstore.iec.ch in the data related to the specific document. At this date, the document will be

- reconfirmed,
- withdrawn, or
- revised.

NOTE In accordance with ISO/IEC Directives, Part 1, IEC PASs are automatically withdrawn after 4 years.

INTRODUCTION

The environmental impact of lighting products and systems has become increasingly important to interested parties like customers and regulators.

In addition to qualitative approaches such as environmentally conscious design, there is an increased demand for quantitative information about the potential environmental impact throughout the full life cycle of products and systems. This has generated the need for globally harmonized rules for the underlying Life Cycle Assessment (LCA) to provide robust and consistent quantitative environmental information about lighting products and systems.

To support this quantification, ISO 14025 “Environmental labels and declarations – Type III environmental declarations – Principles and procedures” offers a high-level method for the specification of Product Category Rules (PCR), which sets minimum quality standards for LCA to create an Environmental Product Declaration (EPD). For Electrical and Electronic Products and Systems (EEPS), IEC 63366 ED1 “Product category rules for life cycle assessment of electrical and electronic products and systems” is under development by IEC/TC 111 to serve as a horizontal standard for PCR.

Internationally standardized Product Specific Rules (PSR) are needed for lighting products and systems to complement the PCR specified in IEC 63366 ED1. Since the development of such PSR standards may take up to 3 years, it has been proposed that existing non-IEC publications should be published as IEC PAS documents to close the time gap and guide stakeholders until international standards have become available.

One document identified as an IEC PAS candidate is the PEPecopassport® publication PSR0014 as it contains elements that can serve as a reference for the development of PSRs. Although elements of PSR0014 are regional in nature, its overall approach is globally applicable.

This PAS is a copy of the PSR0014 document entitled “PSR – Specific rules for luminaires” (PSR 0014-ed2.0-EN-2023 07 13). Since this document also references product category rules specified in document PCR-ed4-EN-2021 09 06 “PCR – Product Category Rules for Electrical, Electronic and HVAC-R Products”, this document is added to the PAS for completeness.

PEP ecopassport® PROGRAM

PSR

SPECIFIC RULES FOR LUMINAIRES

PSR-0014-ed2.0-EN-2023 07 13
According to PSR-modele-ed2-EN-2021 11 18

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1. Introduction

This reference document complements and explains the Product Environmental Profile (PEP) Drafting Rules defined by the PEP ecopassport® program (PEP-PCR-ed4-EN-2021 09 06), available at www.pep-ecopassport.org.

It defines the additional requirements applicable to luminaires. Compliance with these requirements is necessary to:

- Qualify the environmental performance of these products on an objective and consistent basis.
- Publish PEPs compliant with the PEP ecopassport® program and international referencestandards.[1]

This reference document was drawn up in compliance with the open, transparent rules of the PEP ecopassport® program with the support of stakeholders and professionals in the luminaire market, and the interested parties.

	www.pep-ecopassport.org
PSR reference	PSR-0014-ed2.0 EN 2023 07 13
Critical review	The third-party Critical review was carried out by Tim Osmond. The declaration of conformity published on JJ MM 2023 can be found in the Appendices
Availability	The critical review report is available on request from the P.E.P. Association contact@pep-ecopassport.org
Scope of validity	The critical review report and the declaration of conformity remain valid within 5years or until the PEP Drafting Rules, or the normative reference texts to which they refer, are modified.

[1] ISO 14025, ISO 14040 and ISO 14044 standards

2. Scope

In accordance with the general instructions of the PEP ecopassport® program (PEP-General instructions- ed4.1-EN-2017 10 17) and additional to the PCR, Product Category Rules (PCR) of the PEP ecopassport® environmental product declaration (EPD) program (PEP-PCR-ed4-EN-2021 09 06), this document sets out the specific rules for luminaires and defines the product specifications to be adopted by manufacturers in the development of their Product Environmental Profiles (PEP) particularly with regard to:

- the technology and its type of application,
- the conventional typical lifetime taken into account for the Life Cycle Assessment (LCA),
- the conventional use scenarios to be adopted during the product use stage.

Except from the « Self-contained Emergency Electrical Equipment » covered by specific rules presented in « PSR-0007- », this reference document applies to all "luminaires" intended to be connected to the power grid, regardless of their manufacturing location or destination market.

This document describes the rules for PEPs under the Type III Environmental Declaration Program to be properly developed and communicated with verifiable, comparable and non-misleading information on the environmental aspects of products.

This reference document is primarily intended for:

- environment and/or product managers,
- LCA experts in companies, in charge of PEP development,
- verifiers in charge of PEP conformity assessment in accordance with the defined rules.

PEP ecopassport® PROGRAM

PCR

Product Category Rules for Electrical, Electronic and HVAC-R Products

PCR-ed4-EN-2021 09 06

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Product Category Rules are © PEP Ecopassport® Program property, if nothing else has been specified (e.g. the cross-publication of PCR from other programs). The use of the PCR for any other purpose than to develop PSRs and register PEPs in the International PEP Ecopassport® Program are subject to approval by the General Secretariat, which may be contacted at: contact@pep-ecopassport.org

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1. Introduction

1.1. Scope

The specifications provided in this document are part of the Type III environmental declaration program, entitled PEP Ecopassport®, that provides an international reference framework for environmental declaration.

They constitute the Product Category Rules (PCR) of the program and define the rules for the development of Product Environmental Profiles (PEP) in compliance with ISO 14025 standard[1].

This PCR applies to Electrical, Electronic and Heating Ventilation Air Conditioning-Refrigeration (HVAC-R) products covered by the program, and include (but not limited to):

- Wires, cables, and accessories for energy, signalling, telecommunications, data and precision,
- Solutions for electrical installations and home automation,
- Opening and closure management systems, heating, air conditioning and lighting equipment,
- Electronic material for persons and building security,
- Self-contained emergency lighting systems,
- Routing and cable protection equipment,
- Process and industrial automation,
- Indoor, outdoor and public lighting,
- Equipment for renewable energy production,
- Electric heating equipment and electric water heaters,
- Heating and air conditioning equipment,
- Equipment for domestic hot water production,
- Ventilation and air handling equipment,
- Electric vehicle charging infrastructures,
- Photovoltaic equipment.

[1] ISO 14025:2006. Environmental labels and declarations - Type III environmental declarations - Principles and procedures.

It describes the required rules to ensure that PEPs created in the context of this Type III environmental declaration program are correctly drawn up and published with verifiable, comparable and non-misleading information.

Drawing up a PEP requires a product Life Cycle Assessment (LCA) which has been carried out in accordance with the rules described in EN 50693[2], ISO 14040[3] and ISO 14044[4] standards.

This reference document is mainly intended for:

- Product & Environment managers,
- Company LCA experts responsible for drawing up PEPs,
- Auditors entitled to assessing PEP and LCA report conformity according to the rules defined in this reference document.

Three types of PEP are covered by this PCR:

- Unitary product declaration – a declaration performed for a single commercial reference.
- Products family declaration – a declaration performed for several commercial references belonging to the same product family for a single manufacturer. Definition of an homogeneous product family is provided in 2.6Rule(s) for extrapolation to a homogeneous environmental family
- Joint declaration – a declaration performed for several products across multiple manufacturers. Conditions to perform a joint declaration is provided in 2.7 and detailed in Appendix A.

This document is the fourth version of the PCR that has been developed by the PEP ecopassport® program since 2009. To the best of our knowledge, at the time this PCR was published, no other Type III environmental declaration program exclusively covering electrical, electronic and HVAC-R products exists.

1.2. Contents of the document

This document includes the following parts:

- Common Rules for conducting Life Cycle Assessments

This part describes the common LCA rules to comply with for all the categories of products covered by the PEP Ecopassport® program. It also specifies the requirements regarding data selection and quality.

[2] EN 50693: 2019. Product category rules for life cycle assessments of electronic and electrical products and systems.

[3] ISO 14040: 2006. Environmental management – Life cycle assessment – Principles and framework.

[4] ISO 14044: 2006. Environmental management – Life cycle assessment – Requirements and guidelines.

- Description of the contents of LCA report

This part specifies the information that shall be included in the LCA report, which brings together all the necessary data to successfully complete the LCA and draft the PEP.

- Editorial rules for drafting a Product Environmental Profile

This part describes the editorial guidelines to draw up PEPs, i.e. the sections to be completed and the information to be provided.

- Appendices:
    A. Definition of the framework of validity for a joint declaration,
    B. Diagram of the system boundaries for the LCA,
    C. Specificities for drawing up the Product Environmental Profile within the French regulatory framework,
    D. Example of calculation of Module D,
    E. Data Quality Requirement (DQR),
    F. Alignment with ISO/TS 14067:2017,
    G. Terms and definitions,
    H. Bibliography,
    I. Recommended impact categories and indicators according to EN 50693,
    J. Critical review certificate.

The PCR is supplemented, if necessary, by additional Product-Specific Rules (PSR) defined for each product category that at least specifically present the functional units and additional information in relation to the common rules (e.g. use scenario). PSR are publicly available on PEP Ecopassport program website[5], their development, review and publication align with ISO/TS 14027:2017 Principles. The Procedure for the development and adoption of PSRs are available on the AP 0017 document, publicly available in PEP Ecopassport website.

Consequently, for a given product category, all the common rules and additional specific rules constitute a PCR for this category, as defined in ISO 14025 standard (see Figure 1).

[5] http://www.pep-ecopassport.org/find-a-pep/



Figure 1: Composition of PCR (common rules + PSRs) in the PEP ecopassport® program

For products not covered by PSRs issued by the PEP ecopassport® program, the PCR rules will apply.

However, it is recommended that the PEP ecopassport® program authorities be contacted to determine if there is a need to develop a PSR for the product category targeted and to identify the processes to be followed. Paragraph 6.4 PCR Preparation in ISO/TS 14027[6] shall be considered during the development of new PSRs, in particular the decision-making process in paragraph 6.4.3 Adaptation of existing PCR.

The PCR as well as the different PSRs are available from the PEP ecopassport® program. Additional information on PSR procedure are available on the AP0017 document of the PEP ecopassport® program.

[6] ISO/TS 14027:2017. Environmental labels and declarations - Development of product category rules.