



PERMANENT DOCUMENT

EPRS 001

ENEC+ Requirement Sheet 001

LED modules for general lighting – Performance

Application of EN 62717:2017

Approved by:	MCCB General Meeting 18 April 2018	Nr of pages: 4
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Supersedes:	PD EPRS 001 – January 2015	Page 1 of 4

Application of **EN 62717:2017** for the granting of the **ENEC+ Mark** within the **European Certification System (ECS)**

Table of change

Revision	Reason to change
April 2014	Initial version
January 2015	Addition of new paragraphs 100 and 200, addition of the reference to the TRF document Change from IEC/PAS to IEC standard
May 2018	Main reference standard updated from IEC 62717:2014 to EN 62717:2017 throughout this document. Text modified / added in red

~~0~~ — **Transition period**

1 Introduction

This Permanent Document details the application of **EN 62717** with respect to the specifications use for the granting of the **ENEC+ Mark** for LED modules for general lighting.

Because of the very rapid development of LED technology and the long test times specified for some requirements of **EN 62717**, variations from the precise test conditions are specified by this PD. This is to allow the practical application of the specification for third party certification, under the scope of the **ENEC+ Mark**. This PD details the test and certification variations that may be applied.

The prescribed variations are justified on the basis that the use of **EN 62717** for **ENEC+** certification is always accompanied with a system of on-going quality assurance applied by the manufacturer and supervised by the CB.

This PD will be kept under review as standardised techniques for the acceleration and extrapolation of LED performance test data become better evolved.

2 Variations

The following variations, compared to **EN 62717:2017** shall be applied:

Variation 1 – Clause 6.1 General Test Conditions

The scope of the **ENEC+ Scheme** with respect to this standard is limited to the verification of initial performance data claimed by the manufacturer and endurance testing to demonstrate robust construction. Life testing to verify maintained performance data is not required. It is expected that requirements for maintained performance verification will be added under the scope of this scheme as practical techniques for deriving these characteristics become better defined and evolved.

Consequently the requirements of the standard are to be applied as summarised by Table A:

Table A – Application of EN 62717 (Limited to Initial Performance Data and Endurance Tests)

Clause	Requirement	Notes for application
4.1 & 4.2	Mandatory marking & Additional marking	Not required for characteristics and ratings associated with maintained performance – E.g. Lumen maintenance code, abrupt failure value, maintained chromaticity coordinate, etc.
5	Dimensions	No variation – Initial data only
6	Test conditions	To be amended according to Variation 1 of this PD
7	LED Module power	No variation – Initial data only
8	Light output	No variation – Initial data only
9	Chromaticity coordinates, correlated colour temperature and colour rendering	Limited to verification of initial performance data only
10	LED module life	To be applied as detailed for 10.2, 10.3
10.2	Lumen maintenance	Not applicable – No requirement
10.3	Endurance tests:	All tests to be applied as detailed below:
10.3.2	Temperature cycling test	No variation
10.3.3	Supply switching test	No variation
10.3.4	Accelerated operation life test	No variation
11	Verification	Sample size to be amended according to Variation 2 of this PD
12	Information for luminaire design	No variation

Variation 2 – Test Sample Sizes

For the purposes of type testing under the scope of the ENEC+ certification scheme the test sample sizes detailed by Table 7 may be reduced to ONE sample in all cases.

Note: Type testing conducted for the purpose of this ENEC+ Scheme is to demonstrate capability of conformity for the product design. The type test does not justify the control of possible production and manufacturing batch variations. For the ENEC scheme these aspects are controlled by separate quality system requirements and procedures applied to the manufacturing process.

3 Additional guidance

The test report shall be provided according to the available TRF document.

4 Licence requirement information text

The following requirement information shall be stated on the ENEC+ licence.

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Based on EN 62717:2017

100 Initial acceptance of a MPL

In the application of clause 7.2 from OD ENEC 312, only photometric measurements will be performed on the same sample by the TL in order to monitor the outcome. Endurance tests will be assessed by the CB at the MPL testing facility

200 Additional data to be shown on the ENEC+ licence

In addition to the common data for all EPRS listed in the document OD ENEC 321, the ENEC+ Licence for this EPRS shall contain at least the following data:

- (r 11) Supply Current/Voltage
- (r 12) Max Operating temperature (tp)
- (r 13) Luminous Flux
- (r 14) Correlated colour temperature (CCT)
- (r 15) Colour rendering index (CRI)
- (r 16) Power
- (r 17) Efficacy
- (r 18) Ambient temperature Range