

DMMS IEC 62612:2013+AMD1:2015+AMD2:2018 CSV Consolidated version - Self-ballasted LED lamps for general lighting services with supply voltages > 50 V - Performance requirements

Scope

This International Standard specifies the performance requirements, together with the test methods and conditions, required to show compliance of LED lamps with integral means for stable operation, intended for domestic and similar general lighting purposes, having:

- a rated power up to 60W;
- a rated voltage of > 50 V a.c. up to 250 V a.c.;
- a lamp cap as listed in IEC 62560.

These performance requirements are additional to the safety requirements in IEC 62560. The only feature provided by this standard, when applied for replacement purposes, is information on maximum lamp outlines. The requirements of this standard relate to type testing. This standard covers LED lamps that intentionally produce white light, based on inorganic LEDs. Recommendations for whole product testing or batch testing are under consideration. The life time of LED lamps is in most cases much longer than the practical test times. Consequently, verification of manufacturer's life time claims cannot be made in a sufficiently confident way, because projecting test data further in time is not standardised. For that reason the acceptance or rejection of a manufacturer's life time claim, past an operational time as stated in 7.1, is out of the scope of this standard. Instead of life time validation, this standard has opted for lumen maintenance codes at a defined finite test time. Therefore, the code number does not imply a prediction of achievable life time. The categories, represented by the code, are lumen-depreciation character categories showing behaviour in agreement with manufacturer's information, provided before the test is started. In order to validate a life time claim, several methods of test data extrapolation exist. A general method of projecting measurement data beyond limited test time is under consideration. The pass/fail criterion of the life time test as defined in this standard is different from the life time metrics claimed by manufacturers. For explanation of recommended life time metrics, see Annex E. NOTE When lamps are operated in a luminaire the claimed performance data can deviate from the values established via this standard due to e.g. luminaire components that impact the performance of the lamp. It can be expected that self-ballasted LED lamps, which comply with this standard will start and operate satisfactorily at voltages between 92 % and 106 % of rated supply voltage and at an ambient air

temperature between $-20\text{ }^{\circ}\text{C}$ and $40\text{ }^{\circ}\text{C}$ and in a luminaire complying with IEC 60598-1. If a supplier claims suitability for operation at different conditions (for instance, at higher voltage, temperature or humidity) then: IEC 62612:2013+AMD1:2015 +AMD2:2018 CSV IEC 2018

- a) Lamps shall be tested under claimed different conditions; and
- b) Lamps shall start and operate satisfactorily under claimed different conditions; and
- c) Lamps shall meet the performance claims under the claimed different conditions, which may differ from the general conditions for measurement specified in A.1.

Public Comment Use Only