AS/NZS 5341:2021

Australian/New Zealand Standard™

LED lamps — Test methods — Energy and functional performance

AS/NZS 5341:2021

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Electrical Compliance Testing Association of Australia
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LED lamps — Test methods — Energy and functional performance

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Preface

This Standard was prepared by the joint Standards Australia/Standards New Zealand Committee EL-041, Lamps and Related Equipment.

The objective of this document is to specify test methods for key performance attributes of LED lamps for residential, commercial and industrial applications in Australia and New Zealand.

This document may be referenced in energy efficiency regulation. Minimum energy performance standards for LED lamps are specified in Australia in a determination under the *Greenhouse and Energy Minimum Standards Act 2012.* In New Zealand product energy efficiency performance and labelling requirements are set out in the *Energy Efficiency (Energy Using Products) Regulations 2002*.

The terms “normative” and “informative” are used in Standards to define the application of the appendix to which they apply. A “normative” appendix is an integral part of a Standard, whereas an “informative” appendix is only for information and guidance.

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LED lamps — Test methods — Energy and functional performance

Section 1 Scope and general

1.1 Scope

This document specifies the test methods and conditions for inorganic light emitting diode (LED) lamps, including non-directional and directional lamps, for residential, commercial and industrial applications in Australia and New Zealand.

This document applies to those lamps intended to replace general service, decorative, reflector incandescent and linear fluorescent lamps.

The test methods and conditions specified in this document are applicable to the lighting functions of multifunctional lamps that contain non-lighting parts.

This document applies to LED lamps of all voltages and wattages irrespective of the type of lamp cap.

This document does not apply to LED lamps for automotive and signalling applications.

The requirements of this document are in addition to the safety requirements specified in AS/NZS 62560 and AS/NZS 62838.

1.2 Normative references

The following documents are referred to in the text in such a way that some or all of their content constitutes requirements of this document:

NOTE Documents for informative purposes are listed in the Bibliography.

AS/NZS 61000.4.7, *Electromagnetic compatibility (EMC), Part 4-7: Testing and measurement techniques — General guide on harmonics and interharmonics measurements and instrumentation, for power supply systems and equipment connected thereto*

AS/NZS IEC 62471, *Photobiological safety of lamps and lamp systems*

IEC 60050-845, *International Electrotechnical Vocabulary — Part 845: Lighting*

IEC 61000-3-2, *Electromagnetic compatibility (EMC) — Part 3-2: Limits — Limits for harmonic current emissions (equipment input current ≤ 16 A per phase)*

IEC 62612, *Self-ballasted LED lamps for general lighting services with supply voltages > 50 V — Performance requirements*

IEC 62717, *LED modules for general lighting — Performance requirements*

IEC 63103, *Lighting equipment — Non-active mode power measurement*

IEC 63129, *Determination of inrush current characteristics of lighting products*

IEC TR 61547-1, *Equipment for general lighting purposes — EMC immunity requirements — Part 1: An objective light flickermeter and voltage fluctuation immunity test method*

IEC TR 62778, *Application of IEC 62471 for the assessment of blue light hazard to light sources and luminaires*

IEC TR 63158, *Equipment for general lighting purposes — Objective test method for stroboscopic effects of lighting equipment*

EN 13032-4, *Light and lighting — Measurement and presentation of photometric data of lamps and luminaires — LED lamps, modules and luminaires*