

# Technical Specification

### ISO/TS 5733

First edition

2024-09

## Plastics — Test method of exposure to white LED lamps

Plastiques — Méthode d'essai d'exposition aux lampes à LED blanches

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Reference number ISO/TS 5733:2024(en)

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This document was prepared by Technical Committee ISO/TC 61, *Plastics*, Subcommittee SC 6, *Ageing, chemical and environmental resistance*.

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#### Introduction

Fluorescent lamps and incandescent lamps have long been used in homes, offices, retail outlets, factory and commercial facilities. Recently, these facilities have begun changing to white LED (Light Emitting Diode) lamps. White LED lamps are now in wide use. White LED lamps emit no UV radiation, but can cause degradation of some materials. This effect is reported in "Study on conservation aspects using LED technology for museum lighting" [7] and "Study of the light stability of colour photographic reflection prints under LED lighting" [8]. Coloured and uncoloured plastics are used in many places, such as homes, offices and factories. Different plastics can experience different degradation when exposed to white LED lamps as compared to when exposed to fluorescent and incandescent lamps. Therefore, a test method to estimate a product life under white LED lamp is important. This document provides such a test method and also provides some information about the result between this test method and a test method using a xenon-arc lamp (see Annex A).

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