



BSI Standards Publication

Aerospace series - Spectral quality of LED luminaires used with photoluminescent marking systems

National foreword

This British Standard is the UK implementation of EN 4731:2018.

The UK participation in its preparation was entrusted to Technical Committee ACE/6, Aerospace avionic electrical and fibre optic technology.

A list of organizations represented on this committee can be obtained on request to its secretary.

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Amendments/corrigenda issued since publication

Date	Text affected
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English Version

Aerospace series - Spectral quality of LED luminaires used with photoluminescent marking systems

Série aérospatiale - Qualité spectrale des luminaires à
diodes électroluminescentes appliquées aux systèmes
de marquage photoluminescents

Luft- und Raumfahrt - Spektrale Qualität von LED
Leuchten zur Verwendung mit langnachleuchtenden
Markierungssystemen

This European Standard was approved by CEN on 20 November 2017.

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European foreword

This document (EN 4731:2018) has been prepared by the Aerospace and Defence Industries Association of Europe - Standardization (ASD-STAN).

After enquiries and votes carried out in accordance with the rules of this Association, this Standard has received the approval of the National Associations and the Official Services of the member countries of ASD, prior to its presentation to CEN.

This European Standard shall be given the status of a national standard, either by publication of an identical text or by endorsement, at the latest by November 2018, and conflicting national standards shall be withdrawn at the latest by November 2018.

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Introduction

Photoluminescent marking systems are commonly used in passenger airplanes to provide visual guidance in emergency events. Those marking systems need to be charged by ambient light during cabin preparation and/ or aircraft operation as to be operational if, at any phase of a flight, an emergency occurs.

While the certification regulations require photoluminescent marking system to be sufficiently charged solely by cabin interior lighting, i.e. without accounting for daylight entering the cabin through windows, only certain portions of the visual light spectrum emitted by a cabin interior luminaire are stored by the photoluminescent pigment and thus contribute to charging.