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INTERNATIONAL STANDARD

Horticultural lighting - Luminaires for horticultural lighting - Safety

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IEC 63545 has been prepared by IEC technical committee 34: Lighting. It is an International Standard.

The text of this International Standard is based on the following documents:

Draft	Report on voting
34/1419/FDIS	34/1432/RVD

Full information on the voting for its approval can be found in the report on voting indicated in the above table.

The language used for the development of this International Standard is English.

This document was drafted in accordance with ISO/IEC Directives, Part 2, and developed in accordance with ISO/IEC Directives, Part 1 and ISO/IEC Directives, IEC Supplement, available at www.iec.ch/members_experts/refdocs. The main document types developed by IEC are described in greater detail at www.iec.ch/publications.

This document is to be used in conjunction with the relevant corresponding document of the IEC 60598-2 series for general lighting purpose, as follows:

- IEC 60598-2-1 Fixed general purpose luminaires, or
- IEC 60598-2-2 Recessed luminaires, or
- IEC 60598-2-4 Portable general purpose luminaires, or
- IEC 60598-2-5 Floodlights, or
- IEC 60598-2-20 Lighting chains, or
- IEC 60598-2-21 Rope lights.

Note that for each particular use case and for the purposes of this document, one single relevant reference document from the IEC 60598-2 series shall be applied, and no mixing between the various documents in the IEC 60598-2 series shall occur.

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INTRODUCTION

This document acknowledges the need for safety specifications for horticultural luminaires, which are considered as additional requirements or different requirements when comparing with the similar type of luminaires used for general lighting purposes.

Compared with the safety requirements for general lighting purpose luminaires, the differences for horticultural luminaires are mainly derived based on the following considerations:

- change of environmental conditions for the application: Horticultural luminaires are normally used indoors, but with the purpose of horticulture cultivation, the environmental conditions are normally severe.
- change of application purpose from vision sensation to horticulture use. Photobiological safety requirements and UV resistance requirements are developed based on this change in application purposes.

The provisions in this document represent the technical knowledge of experts from the field of horticultural lighting and are developed in close context with IEC 60598-1 and the corresponding document of the IEC 60598-2 series.

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