



ISO 9680

Dentistry — Operating lights

Médecine bucco-dentaire — Luminaires opératoires

**Fifth edition
2026-05**



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Published in Switzerland

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The procedures used to develop this document and those intended for its further maintenance are described in the ISO/IEC Directives, Part 1. In particular, the different approval criteria needed for the different types of ISO document should be noted. This document was drafted in accordance with the editorial rules of the ISO/IEC Directives, Part 2 (see www.iso.org/directives).

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This document was prepared by Technical Committee ISO/TC 106, *Dentistry*, Subcommittee SC 6, *Dental equipment*, in collaboration with the European Committee for Standardization (CEN) Technical Committee CEN/TC 55, *Dentistry*, in accordance with the Agreement on technical cooperation between ISO and CEN (Vienna Agreement).

This fifth edition cancels and replaces the fourth edition (ISO 9680:2021), which has been technically revised.

The main changes are as follows:

- Clause 4 “Classification” of the fourth edition has been deleted and subsequent clauses have been re-numbered.
- Clause 5 “Requirements and Recommendations” of the fourth edition has been adapted to [Clause 4](#) “Requirements” and technically updated.
- [Clause 6](#) “Testing” has been technically updated.
- Subclause 7.4 “Mechanical tests” of the fourth edition and all subclauses have been deleted.
- [Clause 9](#) “Marking” has been technically updated.
- Annex A “Transformation formulae” of the fourth edition has been deleted.
- A new informative [Annex A](#) on “Additional information for retinal blue light hazard exposure test method” has been added.
- The normative and bibliographic references have been updated.
- Editorial updates have been made.

Any feedback or questions on this document should be directed to the user’s national standards body. A complete listing of these bodies can be found at www.iso.org/members.html.

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This document provides dentists and their staff with means to work with optimum visual ease and comfort in all zones without adversely affecting their perception of colour or causing excessive fatigue or photobiological injury.

In this document, the safety of an operating light is assessed in combination with its power supply. Such power supplies may be incorporated in dental units or dental patient chairs.

Any item of equipment recommended by the manufacturer for use in conjunction with an operating light should not render the equipment unsafe nor affect its qualities adversely.

IEC 60598-1 [\[1\]](#) has been taken into account during the preparation of this document.

IEC 60601-1 [\[2\]](#) specifies requirements pertaining to the basic safety and essential performance of medical electrical equipment and medical electrical systems. IEC 80601-2-60 [\[3\]](#) specifies requirements pertaining to the basic safety and essential performance of dental units, dental patient chairs, dental handpieces and dental operating lights. The requirements of IEC 60601-1 [\[2\]](#) and IEC 80601-2-60 [\[3\]](#) that are applicable to operating lights are not duplicated in this document.