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American National Standard/
American Dental Association
Specification No. 89

Dental Operating Lights

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AMERICAN NATIONAL STANDARD/AMERICAN DENTAL ASSOCIATION SPECIFICATION NO. 89 FOR DENTAL OPERATING LIGHTS

The Council on Scientific Affairs of the American Dental Association has approved American Dental Association Specification No. 89 for Dental Operating Lights. This and other specifications for dental materials, instruments and equipment are being formulated by working groups of the ADA Standards Committee on Dental Products (formerly Accredited Standards Committee MD156 for Dental Materials, Instruments and Equipment). The Committee has representation from all interests in the United States in the standardization of materials, instruments and equipment in dentistry. The Council has adopted the specifications, showing professional recognition of their usefulness in dentistry, and has forwarded them to the American National Standards Institute with a recommendation that the specifications be approved as American National Standards. The American National Standards Institute granted approval of ADA Specification No. 89 as an American National Standard on July 3, 2008.

The Council thanks the working group members and the organizations with which they were affiliated at the time the specification was developed: Wayne Wozniak (Chairman), American Dental Association, Chicago, IL; Josephine Esquivel-Upshaw, University of Texas Health Science Center, San Antonio, TX; P.L. Fan, American Dental Association, Chicago, IL; B. Keith Moore, Indiana University, Indianapolis; Charles Schoenfeld, Den-Mat Corp., Chicago, IL; George Szalony, Pelton and Crane, Charlotte, NC; Jeff Zawada, A-Dec, Inc., Newberg, OR; and Bill Zulauf, Midmark Corp., Versailles, OH.

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FOREWORD

(This foreword is not part of the American National Standard ANSI/ADA Specification No. 89 for Dental Operating Lights).

This revised specification is an identical adoption of ISO 9680-2007, Dentistry – Operating lights. ADA SCDP Working Group 6.37 examined the ISO standard and found it acceptable for adoption as revised ANSI/ADA Specification No. 89.

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1 INTRODUCTION

The aim of this specification is to provide the dentist and his staff with means to enable them to work with optimum visual ease and comfort, i.e., a visual acuity of 90 % to 100 % according to zone, without adversely affecting their perception of color or causing excessive fatigue.

In this specification, 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.

In preparing this specification account has been taken of IEC 60598-1.

This specification refers to IEC 60601-1, the basic standard on safety of medical electrical equipment, wherever relevant, by stating the respective clause numbers of IEC 60601-1. This specification takes priority over IEC 60601-1 as specified in its individual clauses.

Only the specifications laid down in this specification are applicable.

2 SCOPE

This specification specifies requirements and test methods for operating lights used in the dental office and intended for illuminating the oral cavity of patients. It also contains specifications on manufacturers' instructions, marking and packaging.

This specification applies to operating lights that are intended to be permanently fixed to the ceiling, or to the wall or to the floor. Excluded are auxiliary light sources, e.g., from dental handpieces and dental headlamps.

Also excluded are dental luminaires, which are specifically designed for use in a dental surgery.

3 NORMATIVE REFERENCES

The following referenced documents are indispensable for the application of this document. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

ISO 554, *Standard atmospheres for conditioning and/or testing — Specifications*

ISO 1942¹, *Dentistry — Vocabulary*

ISO 9687, *Dental equipment — Graphical symbols*

ISO 15223, *Medical devices — Symbols to be used with medical device labels, labelling and information to be supplied*

ISO 21530, *Dentistry — Materials used for dental equipment surfaces — Determination of resistance to chemical disinfectants*

IEC 60050-845, *International Electrotechnical Vocabulary. Lighting*

IEC 60598-1:2006, *Luminaires — Part 1: General requirements and tests*

¹To be published. (Replaces ISO 1942, parts 1 to 5)