JOINT CANADA-UNITED STATES
NATIONAL STANDARD

ANSI/CAN/UL 8803:2023

STANDARD FOR SAFETY

Portable UV Germicidal Equipment With Uncontained UV Sources

ANSI/UL 8803-2023

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UL Standard for Safety for Portable UV Germicidal Equipment With Uncontained UV Sources, ANSI/CAN/UL 8803

First Edition, Dated November 17, 2023

Summary of Topics

This is the First Edition of ANSI/CAN/UL 8803, Standard for Portable UV Germicidal Equipment With Uncontained UV Sources, dated November 17, 2023. These requirements apply to portable germicidal equipment intended to expose the air and surfaces within an unoccupied area with uncontained ultraviolet (UV) energy.

The new requirements are substantially in accordance with Proposal(s) on this subject dated November 25, 2022 and August 25, 2023.

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ANSI/UL 8803-2023

NOVEMBER 17, 2023

ANSI/CAN/UL 8803:2023

Standard for Portable UV Germicidal Equipment With Uncontained UV Sources

First Edition

November 17, 2023

This ANSI/CAN/UL Safety Standard consists of the First Edition.

The most recent designation of ANSI/UL 8803 as an American National Standard (ANSI) occurred on November 17, 2023. ANSI approval for a standard does not include the Cover Page, Transmittal Pages, Title Page, Preface or SCC Foreword.

This standard has been designated as a National Standard of Canada (NSC) on November 17, 2023.

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Preface

This is the First Edition of ANSI/CAN/UL 8803, Standard for Portable UV Germicidal Equipment With Uncontained UV Sources.

UL is accredited by the American National Standards Institute (ANSI) and the Standards Council of Canada (SCC) as a Standards Development Organization (SDO).

This Standard has been developed in compliance with the requirements of ANSI and SCC for accreditation of a Standards Development Organization.

This ANSI/CAN/UL 8803 Standard is under continuous maintenance, whereby each revision is approved in compliance with the requirements of ANSI and SCC for accreditation of a Standards Development Organization. In the event that no revisions are issued for a period of four years from the date of publication, action to revise, reaffirm, or withdraw the standard shall be initiated.

In Canada, there are two official languages, English and French. All safety warnings must be in French and English. Attention is drawn to the possibility that some Canadian authorities may require additional markings and/or installation instructions to be in both official languages.

Comments or proposals for revisions on any part of the Standard may be submitted to ULSE at any time. Proposals should be submitted via a Proposal Request in the Collaborative Standards Development System (CSDS) at http://csds.ul.com.

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This Edition of the standard has been formally approved by the Technical Committee (TC) on Ultraviolet (UV) Germicidal Equipment And Systems, TC 8802.

This list represents the TC 8802 membership when the final text in this Standard was balloted. Since that time, changes in the membership may have occurred.

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International Classification for Standards (ICS): 91.160.10

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This Standard is intended to be used for conformity assessment.

The intended primary application of this standard is stated in its scope. It is important to note that it remains the responsibility of the user of the standard to judge its suitability for this particular application.

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INTRODUCTION

1 Scope

1.1 These requirements apply to portable germicidal equipment intended to expose the air and surfaces within an unoccupied area with uncontained ultraviolet (UV) energy. These requirements address equipment intended to remain stationary while in operation, and intended for use by ordinary persons. The equipment may also produce visible light.

1.2 In this Standard, the UV overexposure risk is addressed via the following integral safeguards:

a) Motion detection as a critical control function; and

b) Activation cycle requirements and operating time limits. Additional safeguards may optionally be included by the manufacturer.

1.3 These requirements do not cover:

a) Hand-held equipment;

b) Equipment that does not use a motion detection function as a safeguard;

c) Equipment that uses a wireless or remote control (i.e., a control not physically part of the same device) to initiate or extend an operating cycle; or

NOTE: Wireless/remote controls are still allowed to terminate an operating cycle.

d) Devices intended for sterilization of equipment covered by other standards, such as UL 8802, Standard for UV Germicidal Equipment and Systems.

1.4 In the United States, products generating ultraviolet radiation are intended for use in accordance with Title 21 Code of Federal Regulations (CFR) Parts 1000 through 1004, and section 1005.25.

NOTE: These regulations include reporting of Accidental Radiation Occurrences, notification to FDA and customers of a radiation safety defect and corresponding plan for corrective action for FDA approval, and designation of a U.S. agent for imported lamps.

1.5 This Standard does not apply to UV germicidal equipment covered by other standards. Products not covered by this Standard include:

a) Laboratory and health care equipment with UV emitters covered by UL 61010-1 and CSA C22.2 No. 61010-1;

b) UV germicidal equipment and systems covered by UL 8802, Standard for UV Germicidal Equipment and Systems.

1.6 These requirements address risk of personal injury due to overexposure to UV emissions. To address other safety considerations (e.g., risk of fire or electric shock, or personal injury risks besides UV) this Standard shall be used in conjunction with CSA C22.2 No. 250.4 / UL 153, Standard for Portable Luminaires. All construction, performance and marking requirements in those standards apply unless specifically exempted or superseded by a requirement in this Standard.

1.7 Equipment that emit electromagnetic energy with wavelengths outside of the 200 – 400 nm range are not fully addressed by this Standard, and may require an additional evaluation.

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