

Australian Standard[®]

**THE INSTALLATION, MAINTENANCE
AND OPERATION OF**

**SOLARIA FOR
COSMETIC PURPOSES**

This Australian standard was prepared by Committee CS/64, Solaria. It was approved on behalf of the Council of the Standards Association of Australia on 17 May 1983 and published on 4 July 1983.

The following interests are represented on Committee CS/64:

Australian Consumers Association
Australian Federation of Consumer Organizations Inc.
Confederation of Australian Industry
Consumer Affairs Bureau, Victoria
Department of Consumer Affairs, New South Wales
Department of Industrial Relations, New South Wales
Health Commission of Victoria
National Health and Medical Research Council
Division of Applied Physics, CSIRO
Royal Prince Alfred Hospital
Solarium Association of Australia
The Australasian College of Dermatologists

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PREFACE

This standard was prepared by the Association's Committee on Solaria at the request of the Consumer Affairs Council of the Australian Capital Territory.

The need for this standard arose from concern that the ultraviolet irradiation of human skin is an acknowledged harmful practice and that there was no standardization or formal regulation of equipment performance and day-to-day procedures in the large number of commercial solarium establishments operating within Australia. The standard was prepared with a view to acknowledging this concern by establishing requirements for installing, maintaining and operating one or more solaria for the purpose of administering cosmetic tanning treatment. Although the general import of the standard suggests its application to commercial establishments only, some of the operational requirements set out in the standard are equally applicable as a guide to the domestic use of artificial tanning equipment. However, this standard is not intended for application to the therapeutic administration of ultraviolet treatment by registered members of the medical profession.

Basically, this standard provides a first set of requirements for installing and maintaining solaria, and a second set of requirements covering the operation of solaria. The operational requirements include prescribed formats for warning notices and individual printed advice to clients of commercial establishments. Appendices set out a method for determining compliance with irradiance and exposure requirements, as well as a method for calibrating the necessary apparatus.

Since widespread opinion within the medical profession condemns intentional exposure to ultraviolet radiation as a dangerous and unnecessary practice, endorsement of such a practice is not the object of this standard. However, the standard does acknowledge the continuing popularity of intentional exposure to ultraviolet radiation and seeks to regulate this practice by setting out requirements which, if complied with, establish for the purpose of cosmetic tanning a less dangerous situation than that which accompanies uncontrolled tanning practices.

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STANDARDS ASSOCIATION OF AUSTRALIA

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for

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FOREWORD

The requirements set out by this standard are divided into two categories. Section 2 sets out requirements for installing and maintaining solarium, and Section 3 sets out requirements covering the operation of solarium. Section 3 includes requirements for the content of warning notices and the issue of individual printed advice to clients of commercial establishments, the format of which is set out in Appendix A. Appendix B sets out a method for determining compliance with the irradiance limitations set out in Section 2 and the exposure time limitations set out in Section 3, and Appendix C provides an acceptable method for calibrating the radiometer necessary to the performance of Appendix B.

During the course of preparation of this standard, consideration was given to the significance of the infrared component of the emission of ultraviolet lamps. However, it was considered that the magnitude of any infrared emission from a predominantly ultraviolet emitting lamp would be too small to cause any discomfort to a user of a solarium which complies with the ultraviolet irradiance limitations set by this standard.

Although common practice may seem to favour the division of the ultraviolet band into three discrete spectral regions identified as UV-A, UV-B and UV-C, investigations carried out during the early stages of preparation of this standard revealed a significant variation in the specific wavelengths used by different organizations to define the boundaries of each of the three spectral regions. Accordingly, the standard avoids any possible confusion, which might arise from the use of discrete spectral regions, by making reference to specific wavelength ranges where necessary. Additionally, it has been found that the use of specific wavelength ranges permits the ultraviolet

irradiance limitations set by the standard to more accurately account for the erythral response weighted emission characteristics of the fluorescent ultraviolet lamps which were assessed in connection with the preparation of the standard.

The preparation of this standard necessitated the collection and appraisal of a large number of fluorescent ultraviolet lamps representing most of the different types and brands currently available in Australia. In order for the lamp appraisals to have any practical value for the purpose of preparing the standard, it was necessary to make use of published erythral response data to establish various weightings against which lamp emission characteristics could be properly evaluated with respect to the effect upon human skin of different discrete spectral regions of the ultraviolet band. An elaboration of this area of background work for the standard is contained in an article entitled 'Recommended UV Exposure Limits for Tanning Equipment, and Spectral Irradiances of Solarium Lamps, Sunlamps and Daylight' by F.J. Wilkinson, Division of Applied Physics, Commonwealth Scientific and Industrial Research Organization. The article is published in the journal *Australasian Physical and Engineering Sciences in Medicine*, Vol. 6, No.1 (January—March 1983). The article makes reference to this standard and, in part, draws from the background work performed by the committee responsible for the preparation of the standard. Conversely, the measurement of emission characteristics of fluorescent ultraviolet lamps, which was essential to the background work for this standard, was performed by the Commonwealth Scientific and Industrial Research Organization, and the assistance thereby received is gratefully acknowledged by the Association.