

**Lighting for Hospitals
and
Health Care Facilities**

Publication of this Recommended Practice has been approved by the IESNA. Suggestions for revisions should be directed to the IESNA.

**Prepared by:
The IESNA Committee for Health Care Facilities**

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Lighting For Hospitals and Health Care Facilities

PREFACE

This Recommended Practice revises and replaces IESNA RP-29-95, *Lighting for Hospitals and Health Care Facilities*, published in 1995. Additional material on this topic can be found in Chapter 16 of the *IESNA Lighting Handbook*, Ninth Edition.¹

It is hoped that this latest Practice will provide guidelines for good lighting, stimulate the producers of lighting equipment, and inspire the designers of lighting systems so that the sick and infirm will have a more comfortable and enjoyable recovery environment.

The IESNA Committee for Health Care Facilities seeks to continually improve this Practice and welcomes suggestions. Previous publications issued by this Committee had the benefit of input from the late Dr. William C. Beck. This unique medical practitioner also appreciated the art and science of lighting. He applied his effort and imagination to improve hospital lighting. Much of Dr. Beck's research remains in this edition of the Practice, with new information provided by the Committee members listed in the roster and by other IESNA Committees. We cannot rest. We must continually seek ways to introduce new technology development and trends in a timely manner.

1.0 INTRODUCTION

This Practice primarily covers areas that are unique to lighting health care facilities. The wide variety of activities within these facilities make it necessary to describe the patient care they encompass, since lighting needs will vary. Some activities within health care facilities are identical (or similar) to those in other institutions. In these cases, references will be made to other IESNA publications.^{2-7, 31, 32} These include: the gift shop, library, kitchen, cafeteria, business spaces, classrooms, workshops, parking facilities, grounds, and other specific functional units. There will be some locations where recommendations overlap. For example, the patient room may have similar lighting requirements to a hotel room when it is used for minimal-care patients. Yet the lighting must be considered differently when the aged, infirm, or acutely sick are in this same patient room. Refer to **Section 5.0** for criteria and lighting

design procedures including a table of recommended illuminance categories for many common hospital areas and activities.

Since this Practice may be read and used by non-design professionals, and by others unfamiliar with the terminology or the physics of lighting, a detailed glossary is appended and some basic principles of light production and control are covered in the Annexes. For the lighting designer, there is also included an abbreviated glossary of hospital and medical terms.

2.0 TYPES OF FACILITIES

2.1 General

Health care facilities usually include acute (and chronic) care general hospitals, specialized chronic care institutions for the physically and mentally ill, and the extension of services into other facilities which offer more professional care than is typically available at the patient's residence. The latter can serve as halfway stations between the hospital and the home. Outpatient care delivery is a continuing trend because halfway stations can now provide many services once available only in extended stay facilities.

In exercising good lighting practice, the designer should take into account the immediate objectives, the services that might eventually be required, and the future trends of the health care arena. For example, a facility designed to provide extended care in conjunction with an acute care hospital may find its beds recertified for acute care. The reverse is also true. Furthermore, once outside the institution, a full nursing care unit may act as an intermediate care unit or even a custodial unit in a residential environment.

Aging eyes must be considered in all common areas of medical facilities because older people are often employees, visitors, and volunteers. People over age 65 constitute better than 50 percent of the volunteer force helping in medical facilities.⁸ Older people's needs in specific patient care areas must be considered, since the elderly are the heaviest users of health service. On average, people over 65 visit a physician seven times a year, compared to less than four visits by the general population. They spend more than four times longer in the hospital than the younger population and the average stay is 40 percent longer.⁹ The lighting designer should know the age group served by each medical specialty and address any appropriate age-related lighting requirements as described in **Section 3.2** and **Section 4.30**.