Illuminating
ENGINEERING SOCIETY

ANSI/IES RP-29-16

Lighting for Hospitals and Healthcare Facilities

Approved American National Standard
ANSI

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Lighting for Hospitals and Healthcare Facilities

Publication of this Standard has been approved by IES. Suggestions for revisions should be directed to IES.

Prepared by:
The IES Healthcare Facilities Committee

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Contents

1.0 INTRODUCTION

Fifty years ago, the Illuminating Engineering Society recognized that healthcare facilities have unique and specialized illumination needs, resulting in the publication of the first version of this recommended practice. In the fifty years that have passed since the inaugural RP-29 publication, and in the ten years that have elapsed since the previous version, the only constant in both the healthcare and lighting arenas has been change. Technological advances (both within the lighting industry and within the medical equipment industry), changing regulations and guidelines, clinical breakthroughs, and philosophical shifts in healthcare delivery models have created a theme of "Health for Life" for this rewriting of ANSI/IES RP-29-06.

The mission of healthcare facilities is to save lives, enhance lives, and facilitate life's transitions. Whether as a patient, supportive visitor, caregiver or resident, an encounter with a care environment is almost inevitable in one's lifetime, and experiences within these settings can be intimidating or joyous, despondent or hopeful. Operationally, there are also considerations of the life and longevity of the physical infrastructure, fiscally responsible practices for owning long-term real estate, and sustainable practices. Designers working on healthcare projects have a unique opportunity to positively influence the lives of thousands of people who are in need of help, comfort, and care. The distinctly important nature of designing healthcare facilities places a tremendous responsibility on the practitioner, but it also presents an invaluable chance to make a profound contribution through informed facility design. The authors of this document, therefore, emphatically encourage healthcare designers to unleash their creativity, immerse themselves in relevant subject matter, adopt innovative, evidence-based design approaches and, above all, embrace the opportunities to make a difference, because their work truly matters.

Healthcare facilities are, arguably, the most complex of architectural facility types (see **Figure 1**). They house the entire human drama, from birth to death. People are at their best, their worst, and certainly their most vulnerable within these buildings. There are a variety of occupancy types, such as public spaces, areas that are restricted to staff only, and patient care areas. Numerous people form the caregiving team that supports each patient both directly and indirectly. Examples of direct caregivers include physicians, nurses, residents and therapists, as well as friends and family. Examples of indirect caregivers include maintenance, pharmacy, food service, laundry and administrative personnel.

The objective of this document is to provide context, define challenges, and identify recommended lighting design practices for healthcare specific environments. This document is not prescriptive but is intended to provide guidance and to inspire by identifying possibilities that enable designers to develop the appropriate solutions for complex situations and spaces.

This document is organized to complement other authoritative references, such as the *Guidelines for Design and Construction of Health Care Facilities* by the Facility Guidelines Institute (FGI).[1] Part I of this document addresses the many design considerations important for healthcare facilities, while Part II identifies specific room types that have unique lighting needs. These room names and the chapter organization follow the format found in the FGI *Guidelines*. Utilizing a common language and approach helps foster integrated, collaborative project teams that include architects, medical planners, interior designers, engineers and lighting designers.

1.1 Types of Facilities

The FGI categorizes healthcare facilities as acute care, ambulatory care, or long-term care. The Center for Health Design has published a working paper on consumer perceptions of the healthcare environment.[2] This report identifies how important factors vary by facility type, some of which are excerpted and summarized in **Table 1**. While the needs of the facility often vary by category, seven

Figure 1. Hospitals face multiple complexities and challenges. (©iStockphoto)