ANSI/IES RP-10-20

Illuminating Engineering Society

RECOMMENDED PRACTICE:
LIGHTING COMMON APPLICATIONS

AN AMERICAN NATIONAL STANDARD

Approved American National Standard ANSI

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CONTENTS

Foreword

This Foreword is not part of ANSI/IES RP-10-20. It is provided for informational purposes only.

This Recommended Practice (RP) does not provide general lighting information that is included in other IES documents. If the reader does not already have this information, it may be obtained as needed from the following IES Standards:

The Lighting Science Series:

- *ANSI/IES LS-1-20, Lighting Science: Nomenclature and Definitions for Illuminating Engineering*
- *ANSI/IES LS-2-20, Lighting Science: Concepts and Language of Lighting*
- *ANSI/IES LS-3-20, Lighting Science: Physics and Optics of Radiant Power*
- *ANSI/IES LS-4-20, Lighting Science: Measurement of Light – The Science of Photometry*
- *ANSI/IES LS-5-20, Lighting Science: Color*
- *ANSI/IES LS-6-20, Lighting Science: Calculation of Light and Its Effects*
- *ANSI/IES LS-7-20, Lighting Science: Vision – Eye and Brain*
- *ANSI/IES LS-8-20: Lighting Science: Vision – Perceptions and Performance*

The Lighting Practice Series:

- *ANSI/IES LP-1-20, Lighting Practice: Designing Quality Lighting for People and Buildings*
- *ANSI/IES LP-2-20, Lighting Practice: Designing Quality Lighting for People in Outdoor Environments*
- *ANSI/IES LP-3-20, Lighting Practice: Designing and Specifying Daylighting for Buildings*
- *ANSI/IES LP-4-20, Lighting Practice: Electric Light Sources – Properties, Selection, and Specification*
- *ANSI/IES LP-6-20, Lighting Practice: Lighting Control Systems – Properties, Selection, and Specification*
- *ANSI/IES LP-7-20, Lighting Practice: The Lighting Design and Construction Process*
- *ANSI/IES LP-8-20, Lighting Practice: The Commissioning Process Applied to Lighting and Control Systems*
- *ANSI/IES LP-9-20, Lighting Practice: Upgrading Lighting Systems in Commercial and Industrial Facilities*
- *ANSI/IES LP-10-20, Lighting Practice: Sustainable Lighting – An Introduction to the Environmental Impacts of Lighting*
- *ANSI/IES LP-11-20, Lighting Practice: Environmental Considerations* for Outdoor Lighting

Guidance for designing lighting for applications not covered in this document may be found in other documents in the IES Recommended Practice Series, including:

- *ANSI/IES RP-1-20, Recommended Practice: Lighting Office Spaces*
- *ANSI/IES RP-2-20, Recommended Practice: Lighting Retail Spaces*
- *ANSI/IES RP-3-20, Recommended Practice: Lighting Educational Facilities*
- *ANSI/IES RP-4-20, Recommended Practice: Lighting Library Spaces*
- *ANSI/IES RP-6-20, Recommended Practice: Lighting Sports and Recreational Areas*
- *ANSI/IES RP-7-20, Recommended Practice: Lighting Industrial Facilities*
- *ANSI/IES RP-8-18, Recommended Practice for Design and Maintenance of Roadway and Parking Facility Lighting*
- *ANSI/IES RP-9-20, Recommended Practice: Lighting Hospitality Spaces*
- *ANSI/IES/ALA RP-11-20, Recommended Practice: Lighting for Interior and Exterior Residential Environments*
- *ANSI/IES RP-28-20, Recommended Practice: Lighting and the Visual Environment for Older Adults and the Visually Impaired*
- *ANSI/IES RP-29-20, Recommended Practice: Lighting Hospital and Healthcare Facilities*
- *ANSI/IES RP-30-20, Recommended Practice: Lighting Museums*
- *ANSI/IES RP-37-20, Recommended Practice: Lighting Airport Outdoor Environments*
- *ANSI/IES/AVIXA RP-38-17, Lighting Performance for Small to Medium Sized Videoconference Rooms*

- *ANSI/IES RP-39-19, Recommended Practice for Off-Roadway Sign Luminance*
- *ANSI/IES RP-40-20, Recommended Practice: Lighting Port Terminals*
- *ANSI/IES RP-41-20, Recommended Practice: Lighting Theater, Auditorium, and Worship Spaces*
- *ANSI/IES RP-42-20, Recommended Practice: Dimming and Control Method Designations*

1.0 Introduction and Scope

1.1 Introduction

There need not be anything commonplace about lighting for applications that are common to many building projects. Some of these applications, such as lobbies, make first impressions. Others, like conferencing and food service, can be the amenities that set one employer apart from others. Lighting for these applications is important and can infuse a facility with uncommon character. Daylighting can be quite effective in addressing illuminances in many of these applications.

1.2 Scope

This Recommended Practice primarily addresses design considerations and illuminance criteria for common areas, which should influence luminaire optical selections, light source choices, and final layouts.

It is important that deliberate thought be given to details beyond the recommended illuminances in this chapter. For example, in **Section 3.6 Food Service**, the vertical illuminance citation does not necessarily demand a uniform array of low-wattage wall washers. Such lighting can be achieved with uplight or downlight in each shelf, a perimeter slot-like detail along the back bar elevation, adjustable accents, the smallest of daylight-slots in the top of the back bar (for at least the daytime condition), or some combination of these. Each of these can achieve the target illuminance, but each has a distinctly different appearance and requires different architectural detailing. Such specific details are not enumerated for all tasks. The design team is responsible for determining and addressing indoor and outdoor lighting and energy criteria set forth by authorities having jurisdiction, which may be different from and supersede IES criteria.

2.0 Project Type and Status

Before any design work, an understanding of the project type and scope is necessary. This will establish the extent to which daylighting can address most or many or some of the lighting goals. New, renovation, and restoration projects each offer varying opportunities. At every opportunity the lighting designer should give every consideration to daylighting as a light source. For some applications and tasks, daylighting can be the primary light source. Daylight demands attention in order to moderate or eliminate glare and balance visible and thermal energy. Additional information may be found in *ANSI/IES LP-3-20, Lighting Practice: Designing and Specifying Daylighting for Buildings* (see **Foreword**).

3.0 Application Types

To develop lighting solutions that meet quality, quantity, and operational criteria, an inventory is made of the common applications space types under consideration and the anticipated occupants, functions, and tasks. Otherwise, lighting cannot be best targeted to the users, their expectations, functions, and tasks.

Space type definitions are required early in the project design in order to track design efforts, which include inventorying the project knowns, anticipated functions and tasks, and calculating lighting, power, and energy compliance. The applications and tasks cited in **Table A-2** (in **Annex A**) should be reviewed against the project knowns and correlated with the space types and functions to establish recommended illuminance criteria. The designer should seek clarification with the client where discrepancies occur between programming information and the available application and task citations in **Table A-2**.