



RECOMMENDED PRACTICE:
LIGHTING RETAIL SPACES
AN AMERICAN NATIONAL STANDARD

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ANSI/IES RP-2-20

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LIGHTING RETAIL SPACES**
AN AMERICAN NATIONAL STANDARD

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

Prepared by
The IES Retail Lighting Committee



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Approved by the IES Standards Committee February 13, 2020 as a Transaction of the Illuminating Engineering Society.

Approved April 21, 2020 as an American National Standard.

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Published by the Illuminating Engineering Society, 120 Wall Street, New York, New York 10005

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Printed in the United States of America.

ISBN# 978-0-87995-385-0

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AMERICAN NATIONAL STANDARD

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Foreword

This Foreword is not part of ANSI/IES RP-2-20. 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*

1.0 Introduction and Scope

1.1 Introduction

This Recommended Practice is a revision of IES RP-2-17. It includes information on current lighting techniques and new lighting technology introduced since that date.

This Recommended Practice was written for designers with varying levels of experience in retail lighting design. The study of this Recommended Practice, including the references and annexes found at the back should serve as a foundation for good retail and merchandise lighting. For optimum success in lighting retail spaces (or where specialized merchandise lighting is required), the services of a professional specializing in retail merchandise lighting design is recommended. Ideally, this lighting professional should join the design team during the early stages of project development.

Various energy codes are referenced in this document. Although these codes are periodically updated, jurisdictions may choose to delay the adoption of the latest versions. Likewise, many jurisdictions make their own modifications to these codes. The adopted energy code in the project's jurisdiction as well as its dated version should be identified at the beginning of the project.

Careful consideration should be given to visual cues, which will establish brand identity and convey the image a store wishes to project (see **Figure 1-1**). The lighting system should be designed to create a pleasant and secure environment for conducting business. When security is of particular concern for any given exterior environment, *IES G-1-16, Security Lighting for People,*



Figure 1-1. The lighting elements create a unified lighting design to enhance the store's image and set the stage for a shopping experience. (© Scott Beale/laughingsquid.com)

*Property, and Critical Infrastructure,*¹ is an excellent resource covering security lighting principles.

Sophisticated consumers and the deployment of fewer trained sales personnel make it essential to present various types of products and merchandise under lighting that will help increase sales. Thus, attention should be given to the quality, quantity, and effectiveness of lighting in rendering the color and detail of displayed merchandise or the task area. It is also important to have the right lighting to help address the traffic pattern and support the overall space circulation.

New, more efficient light sources, innovative luminaire designs and updated controls equipment provide the designer with a vast array of tools to meet the ever-changing requirements of the retail world to promote brand identity while reducing operating costs and addressing energy and sustainability issues. The criteria and techniques presented in this Recommended Practice serve as a foundation for how to use these new tools.

1.2 Scope

As in the previous version, ANSI/IES RP-2-20 emphasizes lighting quality and energy efficiency and provides an in-depth discussion of the system and the criteria essential for lighting merchandise displays in a variety of retail applications. Specifically, lighting quality metrics appear in **Tables 4-1** and **4-2 (Section 4.1)**. Horizontal and vertical illuminance, along with uniformity recommendations, can be found in **Table 4-3 (Section 4.2)**.



2.0 Store Classification and Retail Lighting Goals

2.1 Type of Stores

Stores may be classified by type, quality, price point, and sales and/or service methods (refer to **Section 6** for detailed discussion regarding lighting techniques). For example:

- **Warehouse/Factory Outlet:** Deals in factory overstocks, discontinued goods, and irregular items. The merchandise is sold at closeout prices, sometimes below cost. Basic (minimal) interior materials, store fixtures, and lighting are in evidence. Often, only one type of light source is used (see **Figure 2-1**), and frequently supplemented by daylight from skylights.
- **Mass Merchandiser:** Sells brand name and house-brand merchandise in high volume at discounted prices. Includes “big-box retail” stores. Features unpretentious store design with a “shopping cart” atmosphere and a self-service attitude. (See **Figure 2-2**.)
- **Department Store:** Sells brand name and house-brand merchandise with added service to customers. Includes stores with many departments that meet multiple needs for the shopper. Provides increased point-of-sale service. Can have a mixture of low, medium and high priced choices with their respective service levels. Usually lighted with an ambient level accentuated by targeted focal lighting (see **Figure 2-3**).