Illuminating
ENGINEERING SOCIETY

ANSI/IES RP-7-21
+ERRATA 1

RECOMMENDED PRACTICE:
LIGHTING INDUSTRIAL FACILITIES

AN AMERICAN NATIONAL STANDARD

Approved American National Standard
ANSI

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ANSI/IES RP-7-21 ERRATA

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Please confine your comments to specific typographical errors or misstatements of fact in the document's text and/or graphics. Do not attempt revisions of ANSI/IES RP-7-21.

Additions will be posted to this list online as they become available. This errata list was last updated **June 30, 2021.**

Additions are shown in **bold face.** Deletions are shown as ~~strikeout~~.

In Annex A, under General Notes bullet "a," add new item:
v. The letter code in the CAT column refers to the recommended illuminance categories found in Table A-2 of *ANSI/IES RP-10-20, Recommended Practice: Lighting Common Applications*.

ANSI/IES RP-7-21

RECOMMENDED PRACTICE: LIGHTING INDUSTRIAL FACILITIES

AN AMERICAN NATIONAL STANDARD

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

Prepared by
The IES Industrial Lighting Committee

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Prepared by the IES Industrial Lighting Committee

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Foreword

This Foreword is not part of ANSI/IES RP-7-20. 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

A well-designed lighting system can make an important contribution to the success of an industrial facility. The success of the well-lighted industrial environment can affect productivity, employee performance, safety, energy efficiency, health, maintenance costs, and the number of errors and lost-time accidents. Many features of a lighting system other than the quantity of light provided can make a significant contribution to the efficiency and safety of the industrial worker.

In the design of lighting for industrial environments, horizontal illuminance has commonly been the only consideration. However, many industrial tasks take place in planes with various orientations and in areas with overhead obstructions. Placement of the luminaires is critical to providing light of the proper quality, as well as quantity and direction, to allow fast, easy recognition of operations. These operations may be taking place at high speeds in areas of the production machinery or industrial products where ambient light cannot easily penetrate.

Selection of the luminaire and its photometric distribution can be important to rendering the visual task properly when that task is multidimensional rather than flat, and when the task occurs in a plane other than horizontal. The operation of the lighting system should be understood to ensure that the proper light sources are selected. Improper light source choice can result in difficult and potentially dangerous conditions caused by long warm-up periods, shadows, or stroboscopic effects created where rotating parts are involved. The ability of the light to render colors accurately can have an effect