



Illuminating
ENGINEERING SOCIETY

RECOMMENDED PRACTICE:
LIGHTING ROADWAY AND
PARKING FACILITIES

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**Recommended Practice:
Lighting Roadway and Parking Facilities**

Publication of this Recommended Practice
has been approved by the IES.

Suggestions for revisions
should be directed to IES.

**Prepared by:
The Roadway Lighting Committee**



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Introduction to This Recommended Practice

This Recommended Practice is a compilation of lighting design techniques and criteria, all offered for quality roadway lighting solutions. Each chapter should not be taken in isolation but used as a whole for quality lighting design for roadways and other environments where vehicles are present, such as tunnels, intersections, and parking lots.

A lighting designer will often simplify the design criteria to lighting level and uniformity. However, impacts on visual quality go beyond these simple criteria and encompass minimizing glare and providing spectral contrast on pedestrians, hazards, and other vehicles. All design criteria are important in order to achieve these goals:

1. Improve motorist visual quality
2. Provide quality light and increased contrast for seeing hazards
3. Illuminate conflict areas
4. Minimize environmental impacts of light at night
5. Employ lighting systems that are easily maintained and minimize energy use

This document was prepared with the objective of providing lighting design guidance for most kinds of roadway and roadway-related applications. The recommendations contained in this document, however, may not reflect specific local factors or situations that are not typical and require special treatment. The contents of this Standard are based upon consensus of roadway lighting experts. It has no legislative authority unless adopted by an authority having jurisdiction. This Recommended Practice is not intended to establish a basis for civil liability.

This document is intended to be a single source of reference for roadway lighting; however, additional documents such as electric codes, transportation design guides and other codes and standards are often required design references.

History of the Document

This Recommended Practice is a compilation by the IES staff and the Roadway Lighting Committee's Special Task Group of efforts from several lighting organizations and authorities and was first published in 2018. This document updates the 2018 version.

The majority of the topics covered are from 12 previously separate roadway lighting documents of the Illuminating Engineering Society, along with the Transportation Association of Canada (TAC) *Guide for the Design of Roadway Lighting*, and the TAC *Roadway Lighting Efficiency & Power Reduction Guide*. During the review and compilation, the Roadway Lighting Committee revisited practices on design, installation and maintenance methods of roadway lighting systems. The team incorporated new or revised methodologies, design concepts and procedures, and included advancements in international research on lighting concepts.

In preparing this document the team sourced standards from around the world and applied the most applicable proven practices. It is important to note that new innovative design methods and products are being developed and will affect the future of roadway lighting. Some of these new design concepts and products are touched on in this document. Because much change is anticipated in the roadway design and technology, it is the responsibility of lighting designers and administrators to stay current with new technologies and concepts.