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# Roadway Lighting

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# **ANSI / IESNA RP-8-00**

ANSI Approval Date 6/27/00

## **American National Standard Practice for Roadway Lighting**

Publication of this Committee  
Report has been approved  
by the IESNA. Suggestions for  
revisions should be directed  
to the IESNA.

**Prepared by:**

**The Standard Practice Subcommittee of  
the IESNA Roadway Lighting Committee**

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*Approved by the IESNA Board of Directors, August 8, 1999, as a Transaction of the Illuminating Engineering Society of North America.*

*Approved June 27, 2000 by the American National Standards Institute, Inc.*

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Published by the Illuminating Engineering Society of North America, 120 Wall Street, New York, New York 10005.

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ISBN # 0-87995-160-5

*Printed in the United States of America.*

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## FOREWORD

(This Foreword is not part of the American National Standard Practice for Roadway Lighting, ANSI/IESNA RP-8-2000, but is included for informational purposes only.)

This American National Standard Practice for Roadway Lighting has been approved under the rules of procedure of the American National Standards Institute and under the sponsorship of the Illuminating Engineering Society of North America (IESNA). This document has been revised from the 1993 Practice and introduces the concept of Visibility Level (VL) (refer to **Annex A** and **Annex F**) and its measurement means, Small Target Visibility (STV). The illuminance and luminance (reflected light) methods have been retained from the 1993 practice.

During the 70-year existence of the IESNA Committee on Roadway Lighting, the night use of public ways has grown greatly. Traffic has changed in speed and density. Studies have established a substantial relationship between good fixed lighting and traffic safety. In addition, understanding of the principles of good lighting has advanced. The following earlier publications of the committee reflect progress of the roadway lighting technique through the years.

• <i>Principles of Streetlighting</i>	1928
• <i>Code of Streetlighting</i>	1930
• <i>Code of Streetlighting</i>	1935
• <i>Code of Streetlighting</i>	1937
• <i>Recommended Practice of Streetlighting</i>	1940
• <i>Recommended Practice of Street and Highway Lighting</i>	1945
• <i>American Standard Practice for Street and Highway Lighting</i>	1947
• <i>American Standard Practice for Street and Highway Lighting</i>	1953
• <i>American Standard Practice for Roadway Lighting</i>	1963
• <i>American Standard Practice for Roadway Lighting</i>	1972
• <i>American Standard Practice for Roadway Lighting</i>	1977
• <i>American Standard Practice for Roadway Lighting</i>	1983
• <i>American Standard Practice for Roadway Lighting (reaffirmed)</i>	1993

The present Practice has evolved from these earlier documents, and considers the latest research, inter-

national standards, experience, and equipment technology.

An American National Standard represents the consensus of all groups having an essential interest in the provisions of the Standard Practice. The IESNA, as a sponsor, must have the viewpoints of groups interested in roadway lighting represented on the Roadway Lighting Committee.

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## 1.0 INTRODUCTION

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### 1.1 Purpose of this Standard Practice

The primary purpose of this Standard Practice is to serve as the basis for design of fixed lighting for roadways, adjacent bikeways, and pedestrian ways. The Standard Practice deals entirely with lighting and does not give advice on construction. Its purpose is to provide recommended practices for designing new continuous lighting systems for roadways. It is not intended to be applied to existing lighting systems until such systems are redesigned. It has been prepared to advance the art, science, and practice of roadway lighting in North America. Roadway lighting includes pedestrian and bikeway lighting when it is associated with the public right-of-way (**see Figure 2**).

The decision to provide or upgrade roadway lighting at a particular location should be made on the basis of a study of local conditions. Once a decision has been made to provide lighting, this publication provides the basis for designing an appropriate system.

### 1.2 Purpose of Roadway Lighting

The principal purpose of roadway lighting is to produce quick, accurate, and comfortable visibility at night. These qualities of visibility may safeguard, facilitate, and encourage vehicular and pedestrian traffic. Every designer should provide for those inherent qualities required by the user. A very important consideration is that of making streets and highways useful during hours of darkness as well as during the daytime. Where good visibility is provided through lighting, efficient night use can be made of the large investments in roadways and motor vehicles. Thus, the proper use of roadway lighting as an operative tool provides economic and social benefits to the public including:

- (a) Reduction in night accidents, attendant human misery, and economic loss
- (b) Aid to police protection and enhanced sense of personal security
- (c) Facilitation of traffic flow