

RP-8-00 ERRATA

If you, as a user of IESNA's *American National Standard Practice for Roadway Lighting*, believe you have located an error not covered by the following revisions, you should e-mail your information to Don Mennie at: dmennie@iesna.org or send a letter to: Don Mennie, Technical Editor, IESNA, 120 Wall Street 17th Floor, New York, NY 10005. Additions will be posted to this list as they become available. This errata list is also included with the published document (when purchased). It was revised and re-posted to the IESNA web page on **October 24, 2007**.

Please confine your comments to specific typographical errors or misstatements of fact in the document's text and/or graphics. Do not attempt general revisions of RP-8-00.

- **Page 23 (Annex A, Section A8).** This section describes a ten-step process for calculating Small Target Visibility (STV). In the *fourth step*, at the bottom of the right-hand column on page 23, the equation given for "AZ" is incorrect. The correct equation is shown below:

$$AZ = \frac{\sqrt{(AA)^2 + (AL)^2}}{2.1}$$

- **Page 24 and 25 (Annex A, Section A9, Section A9.1, and Figure A4).** Replace Section A9 (introductory paragraph), Section A9.1, Figure A4, and the caption for Figure A4 with the following:

A9 Selection of a Grid and Luminaire Location Geometry for Calculation or Measurement

Different procedures are required when selecting a grid for straight roadway sections, for curves, and for traffic conflict areas. While exact rules can not be specified for all situations this discussion is intended to illustrate principles that should be followed in selecting grids and luminaire locations for calculations or measurements.

A9.1 Straight Roadway Areas

A9.1.1 Determination of the Number of Luminaires and Luminaire/Point Combinations to Use in Calculations

The luminaire location geometry for luminance calculations is based upon the angular bounds of the r-tables. As such, the luminance calculation methodology shall be used to

determine the number of luminaires needed until the luminaires are at such a distance to create a luminaire/point combination that results in a zero r-value. When a luminaire/point combination results in a zero r-value, it should not be used for luminance calculations.

Luminaires shall be added away from the grid of points until the luminaire/point combination yields a zero r-value. Luminaires shall be added towards the observer all the way to the observer position, even if this exceeds the angular bounds of the r-table, to properly calculate veiling luminance. Luminaires in this range should not be used for luminance calculations if the luminaire/point combination yields a zero r-value.

For illuminance and veiling luminance calculations the luminaire/point combinations shall be included as long as the calculated result is non-zero.

A9.1.2 Determination of Calculation Point Locations

The grid of calculation points shall be selected so that, for straight roadway sections between traffic conflict areas, the area of all grid cells is identical. A grid cell is defined as the area bounded by an imaginary line that is equidistant from all adjacent grid intersections and touches the edge of traveled way (Figure A4). There should be two grid lines per lane located one-quarter ($1/4$) of the distance from the edge of each lane. In the event that the roadway varies in number of lanes (e.g., left turn lanes added before intersections), the grid shall be based on the number of lanes for the majority of the length of the roadway. In the event that the roadway width and number of lanes change, then a revised grid shall be used for the new width of the roadway. In the longitudinal direction there shall be at least ten points, not more than 5 meters on center, between the luminaires. The starting point for the grid lines shall not be located directly under the luminaire, but the grid shall start at a point one-half ($1/2$) of the grid cell size from the luminaire. In the event that the luminaire location geometry is constant, the length of the gridded portion of the roadway need be no longer than the spacing between luminaires.

Luminaire location geometry refers to the spacing, mounting, height, overhang, tilt, and orientation of the luminaire. In the event that the luminaire geometry is not uniform along the length of the roadway, the gridded portion should continue until it has reached the point where the luminaire geometry remains constant.

Contributed values from a luminaire to a calculation point shall be included in the luminance calculations only when the luminaire/point combination has an r-value that is non-zero.

A9.1.3 Location of Observer

For luminance and veiling luminance calculations, the observer is located 83.07 meters upstream from each calculation point (even though this may place the observer off the road) and 1.45 meters above the road, looking at the calculation point in the grid. This creates a 1-degree downward viewing angle. The observer moves with the points parallel to the roadway with a constant relation between observer and the calculation point on the road. [observer height = 1.45 meters; line of sight = 1 degree down over a longitudinal distance of 83.07 meters].

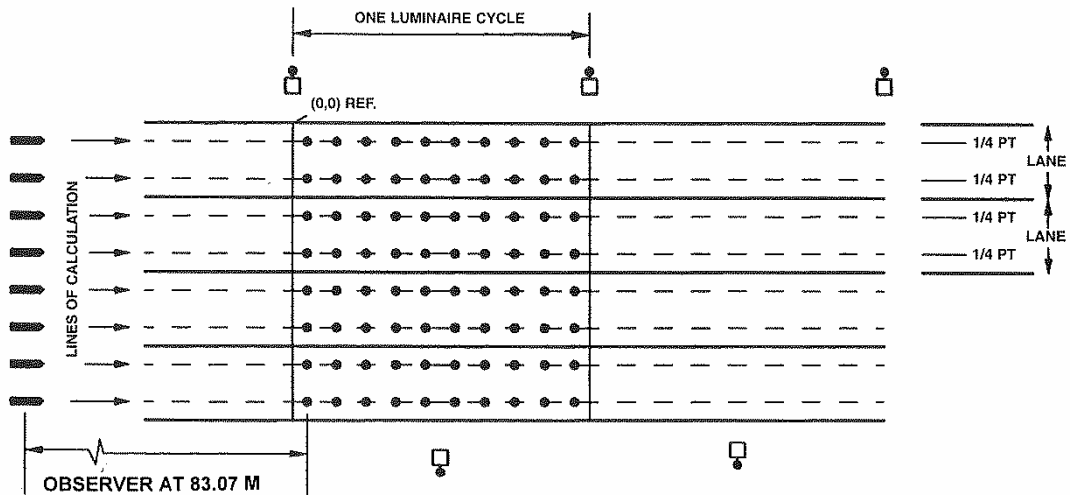


Figure A4. Location of calculation points, luminaires, and observer for illuminance, luminance, and veiling luminance calculations on roadways. (a) Area and points are typical as shown: two transverse points per lane at each longitudinal point along one luminaire cycle. Longitudinally, calculation points shall be placed so there are at least 10 points along the road not more than 5 meters on center. (b) for luminance calculations the observer moves with the points parallel to the roadway [observer height = 1.45 meters; line of sight = 1 degree down over a longitudinal distance of 83.07 meters] and shall include the contribution of all luminaire/point combinations with a non-zero r-value. (c) for illuminance calculations, any luminaire/point combination that results in a non-zero value shall be used. (d) for veiling luminance calculations, the observer is at the same location as the luminance observer. The installation shall include all luminaires used in items (b) and (c) above as well as additional luminaires added all the way to the observer position.