

Sec. 16-276. - Outdoor lighting.

- (a) All outdoor lighting fixtures shall be designed to comply with the performance standards relative to glare of the zoning district in which such area is located.
- (1) All uses, operations and activities shall be conducted so as to comply with the performance standards governing glare prescribed in table 16-1.
 - (2) Illumination levels shall be measured with a photoelectric photometer having a spectral response similar to that of the human eye, following the standard spectral luminous efficiency curve adopted by the International Commission on Illumination.
 - (3) Uses subject to group I and group II standards shall not produce glare so as to cause illumination in any R district in excess of one-half footcandles. Flickering or bright sources of illumination shall be controlled so as not to be a nuisance in any R district.
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- (4) Uses subject to group I and group II standards shall limit the use of light sources and illuminated surfaces which are located in or are within 500 feet of and visible within any R district so as to comply with the light intensities indicated in Table 16-1 as follows:

**TABLE 16-1
MAXIMUM INTENSITY OF LIGHT SOURCES**

<i>Source</i>	<i>Intensity</i>	
	<i>Group I</i>	<i>Group II</i>
Bare incandescent bulbs	15 watts	40 watts
Mercury vapor bulbs	not allowed	not allowed
Illuminated buildings	15 footcandles	30 footcandles
Backlighted or luminous background signs	150 footlamberts	250 footlamberts
Outdoor illuminated signs and poster panels	25 footcandles	50 footcandles
Any other unshielded sources, intrinsic brightness	50 candela per square centimeter	50 candela per square centimeter

TABLE 16-2
 REQUIRED PERFORMANCE STANDARDS
 (GROUP I OR II)

	All PD and R Districts	C-1, P-O R&D	C-2, C-3	W-1, W-2 P-L	M-1, M-2
Group	I	I	II	I	II

- (b) Neither the direct nor reflected light may create a hazard to operators of motor vehicles.
- (c) No lights that resemble traffic-control devices may be used.
- (d) No beacon lights or blinking, flashing or fluttering or other illuminating devices which have a changing light intensity, brightness or color may be used or displayed in any district, except holiday decorations.
- (e) Recognizing that outdoor lighting is an important component of the nighttime ambiance of the community and acknowledging that the night skies are a valuable natural resource which should be protected, the community lighting goals shall be to keep outdoor lighting to a safe minimum and to eliminate or reduce, to the maximum extent feasible, light pollution and light trespass, noting that the International Commission on Lighting (CIE) Environmental Zone E1 ("Areas with intrinsically dark landscapes", the most sensitive zone) may be applicable to R and PD districts near Tribal, National Forest, Bureau of Land Management or other open or designated recreational lands, and specifically includes residential areas that have requested this designation.
- (f) Commercial outdoor lighting, private outdoor lighting which is part of a designated private utility improvement and public outdoor lighting, including but not limited to roadway, parking lot, walkway, bikeway, park, and outdoor sports lighting, shall in addition be subject to the following:
 - (1) Definitions for section 16-276(f).

Study of local conditions. A study of the impact of lighting at a given level which at the minimum considers the purpose for which lighting is provided, the community lighting goals stated in section 16-276(e), and any unusual local conditions which might affect the need for nighttime lighting. When related to the purpose for which lighting is provided or impacted by the lighting, the study shall also consider nighttime vehicular and pedestrian traffic volumes, nighttime accident rates, nighttime crime rates, and allowed uses in the zoning district.

Public safety hazard. A lighting system design shall be considered to create a public safety hazard when a study of local conditions indicates that the nighttime accident rate exceeds by a standard deviation the daytime accident rate, which for a roadway shall be the vehicular accident rate based on proportional vehicular miles of travel. For a proposed design the accident rates for an existing system with comparable local conditions shall be used.

Full IESNA design. A lighting system designed with the average luminance or illuminance equal to the Illuminating Engineering Society of North America's (IESNA) recommended minimum and the ratio of maximum illuminance to minimum illuminance equal to the IESNA recommended ratio, and as-built nowhere on the IESNA recommended measurement grid exceeding the greater of the maximum IESNA recommended illuminance or twice the IESNA

recommended average illuminance, and nowhere on the IESNA recommended measurement grid below the IESNA recommended minimum illuminance.

Half IESNA design. A lighting system designed with the average luminance or illuminance one-half IESNA recommended minimum and the ratio of maximum illuminance to minimum illuminance twice the IESNA recommended ratio, and as-built nowhere on the IESNA recommended measurement grid exceeding one-half the greater of the maximum IESNA recommended illuminance or twice the IESNA recommended average illuminance.

- (2) Outdoor lighting systems shall not exceed full IESNA design light levels. Half IESNA designs shall be allowed and encouraged when consistent with the purpose for which lighting is provided, especially in CIE-E1 zones; provided, however, council has not accepted a study of local conditions indicating that a half IESNA design would provide a public safety hazard, in which case the minimum light levels found necessary by that study in order to mitigate the public safety hazard, not to exceed full IESNA design, shall be used.
- (3) Roadway lighting shall in addition be subject to:

- a. Public or private roadway lighting shall be designed to the IESNA recommended practices for a small mountain community for one of the following county-designated roadway lighting design categories (RLDC):

RLDC-1. Unlighted roadway.

RLDC-2. Roadway with partial lighting.

RLDC-3. Roadway with lighted intersections.

RLDC-4. Roadway with lighted intersections and partial lighting between intersections.

RLDC-5. Continuously lighted roadway (IESNA RP-8).

Partial lighting for the purpose of RLDC-2 and RLDC-4 means the additional lighting needed for a specific designated section of roadway where one or more streetlights would substantially improve public safety but local conditions do not indicate the need for lighting based on a higher RLDC.

When a half IESNA design is used, the RLDC designation shall be modified to include 'A' (e.g., RLDC-4A). Half IESNA design is encouraged when traffic volume and speeds are low.

These design categories specify only the target light levels for the lighting system design and are not intended to prevent a reasonable variation from the design criteria necessitated by public safety or the details of the topography of the roadway for which the lighting system is being designed.

- b. The RLDC category for a roadway shall be determined by council upon advice of the county engineer. The county engineer's RLDC category recommendation for a given roadway, or portion thereof, shall occur only after a study of local conditions and shall take into account the community lighting goals stated in section 16-276(e) including minimizing light pollution and light trespass, especially in R and PD districts and CIE-E1 zones.
- c. RLDC-5 shall be considered the highest category of lighting and shall be used for any portion of any roadway only when its use, utility and necessity are demonstrated by a study of local conditions accepted by council for the roadway section for which this RLDC is proposed. In R and PD districts and CIE-E1 zones the Small Target Visibility Method for determining IESNA compliance shall be used when feasible.
- d. New roadway lighting systems shall be designed to the lowest RLDC consistent with the lighting goals of the neighborhood or subdivision in which it is to be installed, but shall not

be a lower light level than the minimum RLDC needed for public safety as indicated by a study of local conditions; said study shall be provided by the designers of any new roadway lighting system.

- e. Existing private roadway lighting which is part of a designated private utility improvement and which must be substantially rebuilt or redesigned beyond normal repair and maintenance shall be considered to be a new roadway lighting system; however, if the RLDC-category determination for that roadway lighting system is less than five years old, the county engineer may waive the requirement to provide a new study of local conditions.
- f. Existing public roadway lighting systems which must be substantially rebuilt or redesigned beyond normal repair and maintenance, including public roadway lighting destroyed in a declared disaster, shall be rebuilt to the RLDC which most closely matches the preexisting light locations, which for a declared disaster shall be the light locations one day prior to the official onset of the disaster; provided, however, council has not accepted a study of local conditions indicating that lighting to the RLDC which most closely matches the preexisting light locations would provide a public safety hazard and provided there is no petition to council by the affected property owners to use a different RLDC, which petition council shall have the authority to accept and direct the alternate RLDC be used if said petition is presented to council no later than 45 days after the initial design plan including maps showing the proposed light locations is presented to the public; upon direction by council to use the alternate RLDC the county engineer shall have thirty (30) days to accept the new RLDC for the roadways indicated in the petition or provide a study of local conditions which is accepted by council indicating that the petitioned for RLDC would present a public safety hazard and a determination based on that local study of the lowest safe RLDC consistent with local conditions. Recognizing that private property values can vary with exact position of a streetlight or other roadway light, independent of the RLDC used to rebuild or redesign the roadway lighting system, to the extent feasible the preexisting light locations shall be used; except where the majority of property owners within 400 feet of a proposed streetlight have agreed to an alternate location, which shall include addition and removal of a proposed streetlight, and that alternate location is feasible and does not create a public safety hazard, and the property owners requesting that change agree to bear the additional estimated cost incurred for that design change, said estimated cost to be provided by the county engineer upon a request for information.
- g. The county shall comply with requests supplied to the county traffic department to install, move, or remove a publicly owned streetlight when that request is signed by the majority of property owners within 400 feet of that streetlight and that request is feasible and does not create a public safety hazard, and the property owners requesting that change agree to bear the estimated cost of installing, moving, or removing that streetlight, said estimated cost to be provided by the county engineer upon a request for information.

(Ord. No. 85-210, § 3, 1994; Code 1985, § 17.40.060; Ord. No. 02-029, §§ 3—5, 6-24-2003)