

§ 7.8

LIGHTING.

7.8.1

Purpose. The outdoor **lighting** standards of this Section are intended to enhance the safety of areas designated for pedestrian and traffic use during evening hours, provide security, conserve energy, protect the night sky consistent with the Night Sky Protection Act (NMSA 1978, section 74-12-1 et seq.), and prevent spillover, nuisance or hazardous effects of **light** and glare on adjacent locations and uses of land. These standards shall not apply to County maintained public street **lights** but shall apply to all other outdoor **lighting** including, but not limited to:

7.8.1.1

Buildings and structures;

7.8.1.2

Recreational facilities;

7.8.1.3

Parking lot **lighting**;

7.8.1.4

Road **lighting**; and

7.8.1.5

Other outdoor **lighting**.

7.8.2

General Standards. All outdoor **lighting** fixtures shall be designed, installed, located and maintained to conform to the standards of this Section. Glare onto adjacent properties or roads shall not be permitted.

7.8.2.1

Fixtures (electrical luminaries). All outdoor **light** sources shall be concealed within cut-off fixtures, except as otherwise specified herein. Fixtures shall be mounted in such a manner that their cones of **light** are directed down or toward a surface, but never towards an adjacent residence or public road.

7.8.2.2

Lamp (Light Source or Bulb) and Shielding Requirements. Lamps, **light** sources or bulbs shall be shielded and shall comply with the **light** source and shielding

requirements of Table 7-3. Spillover of lighting onto adjacent properties shall not exceed 0.50 footcandle measured at any point on a property line. No outdoor lighting shall be directed towards any adjacent residential use or public road.

Table 7-3: Shielding Requirements

Lamp Type	Shielding	Special Requirements
LED	Full	None
Metal halide	Full with translucent filter	Subject to timing devices or restricted hours of operation. Limited to recreational facilities, sporting events, and special displays.
Fluorescent and quartz	Full	None
Any light 900 lumens or less	None	None, unless a group of such lamps produce cumulative lighting levels in excess of the levels set forth in Section 7.8.3.6 [Section 7.8.2.6] and Table 7-4.
Halogen	Full with translucent filter	For outdoor display of merchandise or sporting events; may be subject to timing devices or restricted hours of operation. Limited to recreational facilities, sporting events, and
Other sources	As approved by Planning Commission	May be conditioned as part of development approval/agreement or Temporary Use Permit.

7.8.2.3

Fixture (electrical luminaries). All outdoor light sources shall be concealed within cut-off fixtures, except as otherwise specified herein.

1.

Fixtures shall be mounted in such a manner that their cones of light are directed down or toward a surface.

2.

Spillover of **lighting** to adjacent properties shall not exceed 0.50 footcandle measured at any point on a property line.

3.

No outdoor **lighting** shall be directed towards any adjacent residential use or public road.

7.8.2.4

Fixture Height. The lowest fixture height that can serve the **lighting** purpose shall be used in all cases; **lighting** specifically focused on paths and other items needing illumination shall be preferred to broadcast floodlighting over large areas. Maximum fixture height above adjacent grade for all fixtures shall be as follows:

1.

Any pole-mounted **lighting** shall have a maximum height of twenty-five (25) feet. In or within thirty-five (35) feet of any residential zoning district and all **light** fixtures shall not exceed sixteen (16) feet in height.

2.

Building-mounted **light** fixtures shall be attached only to walls and the top of the fixture shall not be higher than the top of the parapet or roof, whichever is higher. Said **lights** shall be shielded and directed downward.

3.

Street **light** standards (upright supports) on a two-lane road shall not exceed the height limitations of the zoning district.

7.8.2.5

Uses with Special **Lighting** Needs (outdoor sporting events, arenas, jails). Such **lighting** shall only be permissible if a Conditional Use Permit is granted and that the proposed height is the minimum required to achieve the purpose of this Section including even **lighting**. Spillover onto adjacent property is prohibited.

7.8.2.6

Illumination Levels. **Light** illumination levels shall not exceed the limits established in Table 7-4. Seasonal decorations in place between Thanksgiving and January 15 are not counted toward these limits. The values in the following tables are

upper limits and not design goals; design goals should be the lowest levels that meet the requirements. In order to provide uniform lighting in pedestrian and parking areas, outdoor lighting shall have an average-to-minimum uniformity ratio of 3:1.

Table 7-4: Illumination Levels		
Zoning Districts	Maximum Allowable Total Lumen Output	Maximum Allowable Unshielded Lumens
Agricultural/Rural/Rural Fringe	50,000 lumens/acre or 5,500 lumens/residential unit	4,000 lumens/acre of surface to be lit
Residential Zoning Districts	50,000 lumens/acre or 5,500 lumens/residential unit	10,000 lumens/acre of surface to be lit
Mixed-use Residential Zoning Districts	100,000 lumens/acre or 5,500 lumens/residential unit	10,000 lumens/acre of surface to be lit
Industrial Zoning Districts	200,000 lumens/acre or 5,500 lumens/residential unit	10,000 lumens/acre of surface to be lit

7.8.3

Non-Road Lighting.

7.8.3.1

Pedestrian Way, Loading and Service Illumination. Fully shielded decorative lamps housing an incandescent lamp of 160W or less for hanging under portals are permitted for pedestrian use, loading or service illumination. All other lamps (bulbs) and light sources designated for pedestrian use, loading or service illumination shall be recessed into any canopy structure, unless a suitable alternative is submitted to and approved by the Administrator.

7.8.3.2

Building Illumination. So that there is no spillover beyond the building facade, building facades within nonresidential districts may be illuminated with:

1.

Ground flood lamps installed close to the structure; or

2.

Wall-mounted flood lamps shielded so that the light source is not visible.

7.8.3.3

Outdoor Storage, Display and Recreational Facilities. Control of the distribution of illumination for outdoor recreation areas, outdoor storage areas or outdoor display of merchandise shall be subject to installation of automatic timing devices to turn off **lighting** between specified hours.

7.8.3.4

Recreational Facilities. Any **light** source permitted by this Section, that complies with height restrictions as specified in the applicable zoning district, may be used for **lighting** of outdoor recreational facilities (public or private), such as, but not limited to, football fields, soccer fields, baseball fields, softball fields, tennis courts, auto racetracks, horse racetracks, or show arenas, consistent with the illumination standards specified in Table 7-4, provided that all fixtures used for event **lighting** shall be fully shielded, or shall be designed or provided with sharp cut-off capability.

7.8.3.5

Laser and search **lights**. Whether stationary or sweeping, laser-source **lights** and search **lights** are prohibited for all but emergency purposes.

7.8.3.6

Moving **lights**. Flashing, flickering, strobing, moving or otherwise animated **lighting** shall not be used other than for seasonal holiday **lighting**.

7.8.3.7

Mercury vapor and low pressure sodium **lighting**. The installation and use of mercury vapor or low pressure sodium **lighting** is prohibited.

7.8.4

Road **Lighting**.

7.8.4.1

When Required. Street **lights** are required; [at] an intersection of any road with a highway or arterial; and where necessary to protect the safety of motorists and pedestrians due to the particular characteristics or location of a site.

7.8.4.2

Street **Light** Standards. All street **lights** shall comply with the following standards:

1. Street **lighting** shall comply with standards established in the Illuminating Engineering Society (IES) **Lighting** Handbook, latest revision, and the standards set forth in this Section;
2. Spacing of **lights** shall be governed by the New Mexico Standard Specifications for Highway and Bridge Construction, latest edition;
3. LED **lighting** shall be used;
4. Street **lights** shall be located and designed to enhance the safety of motorists and pedestrians, and shall create a transition from unlit areas to illuminated areas, continuity and uniformity of **lighting**, and avoid blind spots or dark shadows; and
5. Street **lights** shall be designed with their power lines installed underground.

7.8.4.3

Operation and Maintenance. Payments for the operation and maintenance of street **lights** within subdivisions, multifamily developments or nonresidential developments shall be the responsibility of the developer or the developer's designee. The disclosure statement, homeowners' association or voluntary development agreement shall set forth an acceptable method for paying for operation and maintenance of the street **lights**.

7.8.5

Specific Outdoor **Lighting** Standards.

7.8.5.1

Residential **lighting**. No permit is required for outdoor **lights** that are installed at one- and two-family dwellings and that are rated at 1,200 initial lumens or less per lamp, as long as the maximum lumen output per dwelling set by Table 7-4 (5,500 initial lumens) is not exceeded. Floodlights rated less than 1,200 initial lumens are included in this exception;

7.8.5.2

Emergency lighting. No permit is required for temporary emergency lighting used by the fire, police, and public works departments or other emergency service agencies.

7.8.5.3

Security lighting. All night lighting for security surveillance will be minimized. The use of motion-activated lights and alarms will be encouraged as an alternative. All applications for discretionary permits that propose security lighting shall include a security plan which delineates the area/s to be illuminated for security purposes and outlines the need for and purposes of the security lighting.

Additionally:

1.

Security lighting is subject to all standards, including shielding, light orientation, etc. established in this Section on lighting.

2.

Security lighting designed to illuminate a perimeter (such as along a fence) shall include motion sensors designed to stay off unless triggered by an intruder located within 5 feet of the perimeter. Pole-mounted security lighting shall be installed no more than 10 feet from the perimeter of the designated area being illuminated, and poles cannot be located outside the parcel boundaries.

7.8.5.4

Gas station canopies and convenience stores. Reserved.

7.8.5.5

Parking lot lighting. Parking lot lighting shall be designed to provide the minimum lighting necessary to ensure adequate vision and safety, and to prevent glare or direct illumination onto adjacent properties or public ways.

1.

All lighting serving parking lots shall be fully shielded;

2.

Parking area illumination shall be reduced by at least 75% within 1/2 hour of the close of the business(es) the parking area serves. This reduced lighting level can be achieved by automatic controls that reduce lighting by 75%. This standard does not require that lighting levels be reduced below 0.2 footcandles as measured horizontally at finished grade level.

7.8.5.6

Lighting levels. Illumination levels in parking areas shall meet the requirements set forth for each **Lighting** Zone in Table 7-4.1.

Table 7-4.1: Maximum Average Illumination and Uniformity Ratios Required for Parking Lots in each Zoning District			
Zoning District	Average Illumination* shall not exceed:	Uniformity Ratio^ shall not exceed	Maximum Illumination of any point shall not exceed
Agricultural/Rural/ Rural Fringe	Parking lot illumination discouraged	Parking lot illumination discouraged	Parking lot illumination discouraged
Residential Zoning Districts	1.0 footcandles	20:1	5.0 footcandles
Mixed-Use Residential Zoning Districts	1.0 footcandles	20:1	5.0 footcandles

*Average illumination shall be measured horizontally at grade level, computed

^The uniformity ratio is a measure of the consistency of **light** levels across a given maximum:minimum illumination levels.

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