



Sedona Land Development Code Article 9 Development Standards, 911 Outdoor Lighting.

911.01 Purpose and Intent. It is the purpose and intent of this Code to balance the goals of the Sedona Community Plan to maintain its small-town character with the need to provide for safe lighting practices and to minimize light pollution for the enjoyment of Sedona's citizens and visitors.

A. The use of outdoor lighting is often necessary for adequate nighttime safety and utility, but common lighting practices can also interfere with other legitimate public concerns. Principles among these concerns are:

1. The degradation of the nighttime visual environment by production of unsightly and dangerous glare;
2. Lighting practices that interfere with the health and safety of Sedona's citizens and visitors;
3. Unnecessary waste of energy and resources in the production of too much light or wasted light;
4. Interference in the use or enjoyment of property which is not intended to be illuminated at night, and the loss of the scenic view of the night sky due to increased urban sky-glow.

B. The concerns of safety, utility and aesthetic appearance need not compete. Good modern lighting practices can provide adequate light for safety and utility without excessive glare or light pollution. In nearly all cases, careful attention to when, where and how much nighttime lighting is needed will lead to better lighting practices.

C. The topography and atmospheric conditions in northern Arizona are uniquely suited for government, military, commercial, and private astronomical observation in the area. Unnecessary or excessive uses of outdoor nighttime lighting have an adverse impact on astronomical observation even at relatively distant observatories.

D. Accordingly, it is the intent of this Code to require lighting practices and systems which will minimize light pollution, glare, light trespass, and conserve energy while maintaining nighttime safety, utility, security and productivity.

911.02 Conflict Regulations. Where any provision of federal, state, county, or city statutes, codes, or laws conflicts with any provision of this Code, the most restrictive shall govern unless otherwise regulated by law.

911.03 Definitions. See Article 2 SLDC for definitions pertaining to outdoor lighting.

911.04 Applicability.

A. New Uses, Buildings and Major Additions or Modifications. If the total cumulative increase in floor area is greater than 50% for single-family residential or greater than 25% for all other uses, or if the total cumulative cost of any exterior modification, alteration or repair is greater than 25% of the valuation of the building as determined by the Director, then all outdoor lighting fixtures shall meet the requirements of this Code for the entire site, including previously installed and any new outdoor lighting. Cumulative modification or replacement of outdoor lighting constituting 25% or more of the permitted lumens for the parcel, no matter the actual amount of lighting already on a nonconforming site, shall constitute a major addition for purposes of this section.

B. Minor Additions. If the total cumulative increase in the floor area is 50% or less for single-family residential or 25% for all other uses, or if the total cumulative cost of any exterior modification, alteration or repair is less than 25% of the valuation of the building as determined by the Director, then full conformance of the existing portion of the building or structure is not required. However, such projects shall require the submission of a complete inventory and Site Plan detailing all existing and any proposed new outdoor lighting.

C. New Lighting. Any new lighting on the site shall meet the requirements of this Code with regard to shielding and lamp type; the total outdoor light output after the modifications are complete shall not exceed that on the site before the modification, or that permitted by this Code, whichever is larger.

D. Resumption of Use after Abandonment. If a property or use with nonconforming lighting is abandoned as defined in Article [12](#) SLDC, Nonconforming Situations, then all outdoor lighting shall be reviewed and brought into compliance with this Code before the use is resumed.

E. Public Roadways. In general this Code does not apply to city and state rights-of-way. However, all such street lights must be fully shielded.

911.05 Outdoor Lighting Standards.

A. Low Pressure Sodium Lighting. Due to their high energy efficiency, long life and spectral characteristics, low pressure sodium (LPS) lamps are the preferred illumination source throughout the city. Their use is to be encouraged, when not required, for outdoor illumination whenever its use would not be detrimental to the use of the property. Ten percent white light added to LPS light permits nearly normal color perception.

1. Class 1 Lighting. Low pressure sodium (LPS) lamps are not required. Businesses who chose to use LPS as their primary lamps are eligible to apply for an additional 10% increase in the lumens per acre allowed for their site.

2. Class 2 Lighting. Low pressure sodium (LPS) lamps are required. Up to 10% of the total lumens per acre allowed may be white light.

B. Light Trespass Standard. All light fixtures, including security lighting, shall be aimed and shielded so that the direct illumination shall be confined to the property boundaries of the source. Particular care is to be taken to assure that the direct illumination does not fall onto or across any public or private street or road. Motion sensing light fixtures shall be fully shielded and properly adjusted, according to the manufacturer's instructions, to turn off when detected motion ceases.

C. Lamp and Shielding. All light fixtures are required to be fully shielded and shall be installed in such a manner that the shielding complies with the definition of fully shielded light fixtures for all uses, including single-family and multifamily residential uses, except as provided below.

1. All lamp types above 2,000 lumens shall be fully shielded.

2. Partially shielded light fixtures may be permitted subject to the approval of the Director. Partially shielded light fixtures are limited to a maximum of 5,500 lumens per net acre and shall not exceed 2,000 per lamp (see subsection [911.05\(D\)](#) of this section).

D. Total Outdoor Light Output Standards – Nonresidential and Multifamily Uses.

1. Total outdoor light output shall not exceed 100,000 lumens per net acre for all development except single-family residential uses. This cap is not intended to be achieved in all cases or as a design goal. Instead, design goals should be the lowest levels of lumens necessary to meet the lighting requirements of the site. Partially shielded light fixtures are limited to a maximum of 5,500 lumens per net acre and are counted towards the 100,000 lumens per net acre cap.

2. Seasonal decorations, permitted between Thanksgiving and January 15, are not counted toward these limits. Lighting used for external illumination of signs is counted.

E. Total Outdoor Light Output Standards – Single-Family Residential Uses.

1. Outdoor lighting for single-family residential uses is not subject to a lumens per net acre cap.

2. Outdoor lighting for single-family residential uses is subject to the lamp fixture and shielding requirements.

F. Parking Lot Standards. Parking lots shall be considered Class 2 lighting. Parking lot lighting poles shall be sized in such a manner that the top of any luminary does not exceed 12 feet above adjacent grade.

G. Lighting Time Limitations.

1. Class 1 lighting, including but not limited to sales, service, commercial, assembly, repair, maintenance, and industrial areas, may only continue in operation until 11:00 p.m. or for as long as the area is in active use but once off remain off during nonbusiness hours.

2. Class 2 lighting shall have no time restrictions except as specified by any conditions of approval. Uses

that do not require all-night illumination are encouraged to turn off their outdoor lighting during night hours whenever possible.

3. Class 3 lighting, except for flagpole lighting, must be extinguished after 11:00 p.m. or when the business closes, whichever is later, except that low-wattage holiday decorations may remain on all night from Thanksgiving to January 15.

4. Multi-class lighting, except for security lighting, must conform to the time limitations of the strictest class.

H. Multi-Class Lighting Standard. Multi-class lighting must conform to the shielding and timing restrictions, if any, that apply to the most restrictive included class.

I. Class 3 Lighting Standards.

1. All Class 3 lighting must be selected, designed, installed, and aimed so that there is a minimum amount of spill beyond the area intended to be lighted.
2. Permanent exposed string lighting is not permitted.
3. All Class 3 lighting must comply with the light trespass standards as described in subsection [911.05\(B\)](#) of this section.
4. All Class 3 lighting shall comply with the lamp and shielding standards as described in subsection [911.05\(C\)](#) of this section.
 5. a. Subject to the approval of the Director, uplighting or ground-mounted lighting may be allowed to accent unique features of a building and/or surrounding landscaping (such as outstanding architectural features, specimen trees with dense year-round foliage or large native shrub masses). Uplighting or ground-mounted lighting shall be designed and installed in such a manner as to minimize glare with special consideration in areas where there is vehicle and pedestrian traffic.
 - b. All lighting which is directed upwards shall be placed in such a manner that the angle of the lamp shall not be greater than 45 degrees measured from a horizontal plane to a line projected through the center of the lamp, and fixtures shall be fully shielded to contain and direct the light onto the feature to be lighted.

J. Signs. See Article [11](#) SLDC, Sign Regulations.

K. Mercury vapor light bulbs and fixtures in use for outdoor lighting on the effective date of the ordinance codified in this Code shall not be used after July 1, 2006.

L. Searchlights, floodlights, laser source lights, strobe or flashing lights, illusion lights or any similar high intensity light shall not be permitted except in emergencies by police and fire personnel at their direction. Spot lights are permitted and must be directed downward 45 degrees from any neighboring property.

M. On projects where an engineer or architect is required, the developer shall verify in writing to the city that all outdoor lighting was installed in accordance with the approved plans.

911.06 Special Uses.

A. Recreational Facilities.

1. Lighting for outdoor athletic fields, courts or tracks shall be considered Class 1.
2. Lighting allowed in this subsection shall be subject to approval. When the proposed lumens per acre exceed the lumens per net acre limits, the installation shall be designed to achieve no greater than the minimum illuminance levels for the activity as recommended by the Illuminating Engineering Society of North America (IESNA).
3. Every such lighting system design shall be certified by an Arizona registered engineer as conforming to all applicable restrictions of this Code.
4. Such lighting shall not include any light trespass as determined by the Director.
5. All events shall be scheduled so as to complete all activity and lights turned off by 10:00 p.m.

6. Fully shielded lighting shall be required for fields designed for amateur, recreational or nonprofessional sports activity. For professional level sports facilities where fully shielded fixtures are not utilized, acceptable luminaries shall include those which:

- a. Are provided with internal or external glare control louvers, or both, and installed so as to minimize uplight and off-site light trespass as determined by the Director; and
- b. Are installed and maintained with aiming angles that permit no greater than 2% of the light emitted by each fixture to project above the horizontal.

B. Outdoor Display Lots. Light for outdoor display lots shall be considered Class 1, and shall conform to the lumens per net acre limits except as follows:

1. All such lighting shall utilize fully shielded luminaries that are installed in a fashion that maintains the fully shielded characteristics.
2. When the proposed lumens exceed the per acre limits, the installation shall be designed to achieve no greater than the minimum illuminance levels for the activity as recommended by the Illuminating Engineering Society of North America (IESNA).
3. Such lighting shall not include any light trespass as determined by the Director.
4. Every such lighting system design shall be certified by an Arizona registered engineer as conforming to all applicable restrictions of this Code.
5. Lighting Time Limitations. Outdoor display lot lighting shall conform to the hours of operation as established under Class 1 lighting standards. Any lighting on after the time limitations shall be considered Class 2 lighting and shall conform to all restrictions of this Code applicable to this class.

C. Service Station Canopies.

1. Class 2. Lighting for service station canopies shall be considered Class 2 lighting.
2. Shielding. All luminaries shall be flush with the lower surface of canopies and utilize flat glass or plastic covers.
3. Total Under-Canopy Output. The total light output used for illuminating service station canopies, defined as the sum of under-canopy initial bare-lamp outputs in lumens, shall not exceed 40 lumens per square foot of canopy. All lighting mounted under the canopy, except internally illuminated signs, shall be included in the total. Fifty percent of the total lumen output of all lamps mounted within or under a canopy shall be included in the lumen per acre cap.

D. Other Lighting on Parcels with Special Uses. All site lighting not directly associated with the special uses as permitted shall conform to all lighting standards described in this Code.

911.07 Plan Submittal and Evidence of Compliance.

A. Plan Submittal. Whenever a person is required to obtain a permit for outdoor lighting or signage, a conditional use permit, subdivision approval or any development plan approved by the city, including all city projects, or whenever a person requests a rezoning, the applicant shall, as part of the application process, submit sufficient information to enable the Director to determine whether proposed lighting complies with this Code. All applications may be subject to review and action by the Planning and Zoning Commission at the discretion of the Director.

B. Applications. All applications shall include the following:

1. A Site Plan indicating the location of all lighting fixtures, both proposed and any already existing on the site.
2. A description of each illuminating device, fixture, lamp, support and shield, both proposed and existing. The description shall include, but is not limited to, manufacturer's catalog cuts and illustrations (including sections where required); lamp types, wattages and initial lumen outputs.
3. Such other information that the Director may determine is necessary to ensure compliance with this Code.

C. Plan Approval. If the Director determines that any proposed lighting does not comply with this Code, the permit shall not be issued or the plan approved.

D. Lamp or Fixture Substitution. Should any outdoor light fixture or the type of light source therein be changed after the permit has been issued, a change request must be submitted to the Director for approval, together with adequate information to assure compliance with this Code, which must be received prior to substitution.

E. Certification of Installation. For all projects where the total initial output of the proposed lighting equals or exceeds 100,000 lamp lumens, certification that the lighting, as installed, conforms to the approved plans shall be provided by a certified engineer before the Certificate of Occupancy is issued. Until this certification is submitted, approval for use of a Certificate of Occupancy shall not be issued for the project.

911.08 Approved Materials and Methods of Construction or Installation/Operation – Approval of Alternatives. The provisions of this Code are not intended to prevent the use of any design, material, or method of installation or operation not specifically prescribed by this Code, provided any such alternate has been approved by the Director. The Director may approve any such proposed alternate providing that it:

A. Provides at least approximate equivalence to that applicable specific requirement of this Code.

B. Is otherwise satisfactory and complies with the intent of this Code.

911.09 Exemptions and Nonconforming Lights.

A. All nonconforming outdoor light fixtures lawfully installed prior to and operable on the effective date of the ordinance codified in this Code are exempt from all requirements of this Code. However, there shall be no change in use or lamp type, or any replacement (except for same-type and same-output lamp replacement) or structural alteration made, without conforming to all applicable requirements of this Code.

B. In the event that an outdoor lighting fixture is abandoned or is damaged to the point of requiring repairs for safe operation, the repaired or replacement fixture shall comply with the provisions of this Code.

C. Emergency lighting, used by police, firefighting, or medical personnel, or at their direction, is exempt from all requirements of this Code for as long as the emergency exists.

D. Swimming Pool and Decorative Water Fountain Lighting. Underwater lighting used for the illumination of swimming pools and decorative water fountains is exempt from the lamp type and shielding standards, though they must conform to all other provisions of this Code.