

Chapter 15

LIGHTING REQUIREMENTS

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10-15-1: PURPOSE AND INTENT:

It is the intent of this chapter to define practical and effective measures to evaluate and limit off-site lighting impacts which result in glare and light pollution while preserving a safe environment, security, and the nighttime use and enjoyment of property.

10-15-2: APPLICABILITY:

- (A) Commercial, Industrial and Multiple-Family Residential: New construction, renovation or redevelopment that is either subject to a site development plan review by the City of Littleton or exterior renovations which includes the replacement of exterior lighting shall meet the requirements of this chapter. Exterior lighting on all other existing commercial, industrial and multiple family residential developments shall be considered nonconforming and subject to the provisions for nonconforming uses as stated in Section 10-10-1 of the city code.
- (B) Single Family Residential: All new single family residential development must comply with the requirements of this chapter. Exterior lighting on existing single family residential development shall be considered nonconforming and subject to the provisions for nonconforming uses as stated in Section 10-10-1 of the city code.

(C) Outdoor Advertising Signage: All new or renovated signage shall meet the requirements of this chapter. All other existing signage shall be considered nonconforming and subject to the provisions for nonconforming uses as stated in Section 10-10-1 of the city code.

(D) Prohibitions: The following are prohibited:

1. Laser source lights or similar high intensity light used for outdoor advertising or entertainment when projected above a line horizontal with the light source.
2. Search lights.
3. Flashing lights.

(E) Exemptions: The following are exempted from these regulations:

1. Roadway lighting on public roads and streets.
2. Temporary construction lighting by public entities, utilities, light rail transit or railroad companies.
3. Holiday lighting including Christmas tree sales lots within the following time limits:
 - (a) Christmas and other December holiday lighting shall be allowed from Thanksgiving through January 20th.
 - (b) All other holiday lights shall be allowed from one month prior to the specific holiday through one week after that holiday.
4. Illumination of American and state flagpoles, public art and monuments.
5. Underwater lighting at swimming pools and fountains.
6. Lighting on designated historic buildings or structures or districts as defined in Section 10-15-6.
7. Emergency lighting as defined in Section 10-15-6.
8. Strings of lighting which produce low levels of illumination over outdoor eating areas, plazas, roof-top decks or other outdoor seating areas shall be allowed as approved by the Director of Community Development. Such lighting shall be completely turned off at close of business.

10-15-3: LIGHTING STANDARDS:

(A) Shielding Standards: All outdoor lighting fixtures having initial output greater than or equal to two thousand (2,000) lumens shall be fully shielded. All outdoor lighting fixtures having an initial output less than two thousand (2,000) lumens need not be fully shielded, but shall not be aimed more than forty five degrees (45°) from the surface upon which the fixture is mounted when the source is visible from any off site residential property or public roadway. All outdoor lighting shall be subject to the provisions of subsection (B) of this section. Architectural and landscape accent lighting for commercial, industrial and multiple family residential uses and decorative fixtures for residential uses with less than four dwelling units may be allowed to exceed the 45° restriction provided the following standards are met:

1. The light output for each individual fixture shall not exceed 800 lumens.
2. The lighting shall be subject to the provisions of subsection (B) of this section relating to light trespass.
3. The lighting is completely turned off at a time determined by the city if a curfew is deemed appropriate.

(B) Light Trespass Standards: All light fixtures shall be located, aimed or shielded so as to minimize stray light trespassing across all property boundaries.

1. Single Family Residential: Any lamp installed on single family residential property and visible from any other single family residential property must be shielded such that light trespass on the other residential property does not exceed 0.1 foot-candle at the property line.
2. Commercial, Industrial and Multiple-Family Residential: No more than 0.1 foot-candle of light should be allowed, measured at a point ten feet (10') beyond any property line, as a direct result of onsite lighting regardless of what type or types of outdoor lighting fixtures are used. When like commercial, industrial, or multiple-family residential uses abut each other the Director of Community Development may waive this requirement if the light trespass will not reach any residential use.
3. Traffic and pedestrian hazards. Light fixtures shall not impede pedestrian or vehicular travel. Neither direct nor reflected light from any light source, including signage, shall create a traffic hazard to operators of motor vehicles on public streets.

(C) Lighting Curfews: Lighting curfews may be imposed in order to limit the adverse impacts of lighting if deemed necessary by the city.

(D) Outdoor Advertising Signs

1. Externally Illuminated Sign Standards: External illumination for signs shall conform to the shielding and light trespass standards of Section 10-15-3 of this chapter.
2. Internally Illuminated Sign Standards: Internally illuminated panels or decorations not considered being signage according to [title 4, chapter 3](#) of this code (such as illuminated canopy margins, light bands or building faces) shall comply with the shielding and light trespass standards of Section 10-15-3 of this chapter.
3. Signage for Discontinued Uses: Sign illumination shall be permanently extinguished within 24 hours if the business is no longer in operation.

10-15-4: SUBMITTAL REQUIREMENTS AND REVIEW PROCESS:

- (A) The requirements of this section shall not apply to any single family residential lot. In addition, the requirements of this section shall not apply to any commercial, industrial and/or multiple family residential development existing at the time this ordinance is adopted. However, the property owner may be required to submit information as deemed necessary by the city to evaluate glare and light trespass if complaints concerning the exterior lighting are received by the city.
- (B) Submittal requirements for commercial, industrial and multiple family residential developments: At the time of final site development plan review or building permit review, whichever is applicable, the applicant shall provide, as required by the city, information to adequately determine that the proposed development will comply with the provisions of this chapter. Such information may include, but not be limited to, light fixture information and/or a photometric plan to determine light levels and glare which may project beyond the property lines of the site.
- (C) For all projects where a lighting plan has been approved, a certificate of installation by an electrical engineer or equivalent shall be provided before a certificate of occupancy can be issued.

10-15-5: MODIFICATIONS:

There are certain sites and uses that present unique lighting issues that cannot be easily addressed with the requirements of Section 10-15-3. The following are

examples of typical scenarios which will require evaluation on a case by case basis to determine the most appropriate lighting design which will meet the intent of this chapter.

(A) Uses:

1. Parking lot lighting within Downtown.
2. Parking structures.
3. Illuminated areas located more than 20 vertical feet above street level or adjacent property.
4. Outdoor recreational facilities including, but not limited to, playing fields, driving ranges and tennis courts.
5. Special event lighting.
6. Temporary lighting associated with construction or repair.
7. Images or signs projected onto a surface such as a wall or sidewalk.
8. Other uses that, at the discretion of the Director of Community Development, cannot adequately be addressed using the criteria within this chapter.
9. New technologies that meet the intent of this chapter, but are not applicable to the specific requirements of this chapter.

(B) Procedures for review: The above described uses and other unique site situations shall be reviewed by the Director of Community Development. The Director may authorize modifications to the requirements of this chapter. It shall be at the Director's discretion to consult with the Development Review Committee (DRC) as needed to determine if a modification meets the intent of the chapter. Curfews may be required to better achieve conformance with the intent of the chapter. If applicable, a plan to bring the property into compliance with this chapter within a stated and agreed upon time frame may be required. Approval or denial of a modification shall be based on the following criteria:

1. The lighting meets the intent of this chapter.
2. The lighting is used only when and where needed.
3. The light levels are limited to that which supports a safe environment.

4. Off site impacts of brightness or glare are mitigated in such a way that the lighting conforms to the intent of Section 10-15-3 relating to shielding and light trespass.

10-15-6: DEFINITIONS:

As used in this chapter, unless the context clearly indicates otherwise, certain words and phrases shall mean the following:

ARCHITECTURAL ACCENT LIGHTING: Lighting used to highlight or enhance a specific architectural element, feature or symbol without providing a wash of light over an entire wall or façade.

CURFEW: The time determined on a case by case basis at which outdoor lighting is reduced or extinguished.

DESIGNATED HISTORIC BUILDINGS OR STRUCTURES AND DISTRICTS: Those buildings or structures designated as historic landmarks by state, local and/or federal agencies and buildings or structures included within historic districts which contribute to the historical character of the district.

DIRECTOR OF COMMUNITY DEVELOPMENT: The city's director of community development, or his/her designee.

DOWNTOWN: The pedestrian oriented downtown of Littleton bounded on the west by South Santa Fe Drive, on the north by West Belleview Avenue, on the east by the railroad tracks and on the south by West Church Avenue.

EMERGENCY LIGHTING: Temporary lighting provided by emergency responders or the City of Littleton used to illuminate activities related to fire, traffic accidents, emergency repair to infrastructure, natural disasters, or crime or terrorist scenes.

FIXTURE: The complete lighting unit assembly consisting of a lamp, or lamp and ballast, reflectors, lens, diffusers and exterior casing or housing.

FOOT-CANDLE: A unit of illuminance on a surface that is everywhere one foot from a uniform point source of light of one candle and equal to one lumen per square foot.

FULLY SHIELDED LIGHT FIXTURE: A luminaire constructed and installed in such a manner that all light emitted by the luminaire, either directly from the lamp or a diffusing element, or indirectly by reflection or refraction from any part of the luminaire, is projected below the horizontal plane through the luminaire's lowest light-emitting part.

GLARE: Light directly visible to the human eye causing visual discomfort or reduced visibility.

GOVERNMENTAL REGULATIONS: Regulations by the federal, state or local government that have specific lighting requirements such as, but not limited to, lighting for aviation, railroads and mines.

IESNA: The Illuminating Engineering Society of North America.

ILLUMINANCE: The amount of light falling onto a unit area of surface measured in lumens per square meter (lux) or lumens per square foot (foot-candles).

INTERNALLY ILLUMINATED PANELS: Internally illuminated panels or decorations not considered signage in Title 4, Chapter 3 of this code including, but not limited to, illuminated canopy margins, light bands, or panels located on a building, post or private monument.

LAMP: A generic term for a source producing light. Lamps are sometimes referred to as bulbs or tubes and include both traditional light sources that generate light by a glowing filament or gas-discharge source (metal halide, high pressure sodium, incandescent, fluorescent and induction, neon, argon, mercury or other gases) and solid state lighting.

LIGHT POLLUTION: Any adverse effect of manmade light.

LIGHT TRESPASS: The amount of light directly illuminating adjacent property or uses.

LUMEN: The amount of light energy emitted from a lamp or light source.

LUMINAIRE: See definition for **FIXTURE**.

MONUMENT: A statue, column, war memorial or other commemorative structure, as defined by the Director of Community Development, located on public property.

OUTDOOR EATING AREA: The outdoor area associated with a restaurant or eating establishment, including roof-top dining areas, as allowed by all applicable codes and ordinances.

PUBLIC ART: Artwork located on public property.

ROADWAY: Roads, streets and alleys owned and controlled by the City of Littleton, or the Counties of Arapahoe, Jefferson, or Douglas, or the State of Colorado.

SAFE ENVIRONMENT: An environment where threatening behavior can be seen or identified in time to react or seek safety. This means one can see into and through the illuminated area well enough to see activity and people but does not require enough light to read or identify details.

SEARCHLIGHT: A lighting assembly designed to direct the output of a contained lamp in a specific tightly focused direction (a beam) with a reflector located external to the lamp, and with a swiveled mount to allow the assembly to be easily redirected. Such lights are commonly used to sweep the sky for advertisement purposes.

SEASONAL/ HOLIDAY LIGHTING: Temporary lighting on buildings, landscaping or poles which are associated with a specific holiday.

SIGN, EXTERNALLY ILLUMINATED: A sign illuminated by an independent light source aimed at the sign for the purpose of lighting the signage.

SIGN, INTERNALLY ILLUMINATED: A sign illuminated by light sources enclosed entirely within the sign cabinet and not directly visible from outside the sign.

SOLID STATE LIGHTING (SSL): A form of lighting that uses semi-conductor materials to emit light, rather than using glowing filaments or gas-discharge sources including, but not limited to, LEDs (light-emitting diodes) and OLEDs (organic light-emitting diodes).

UP-LIGHT: Light emitted above the lens of a fixture or luminaire as defined in the luminaire classification system.