



Guide to Updated Lighting Code

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All outdoor lighting on private property in the City of Aspen is subject to the outdoor lighting regulations in Title 26 of the City's Municipal Code. Any fixture that is replaced after December 14th, 2023, must comply with the regulations, regardless of if a permit is required. Lighting trespass and curfew regulations apply beginning December 15th, 2023. After November 14th, 2028, all outdoor lighting fixtures and parcels that do not conform with the regulations shall be replaced or retrofitted to comply with the lighting regulations.

The complete updated outdoor lighting code is in Chapter 26.512 – Outdoor Lighting, found at library.municode.com. All tables referenced in this handout are in Chapter 26.512. The information below is meant to be a guide of the updated chapter.

Lighting Definitions and Terms Overview

Refer to Section 26.512.130 – *Definitions*. Some of the below terms are not defined in Section 26.512.130, rather are general references within the updated chapter.

- Color Rendering Index (CRI): a quantitative measure of artificial light's ability to render an object's natural color.
- Correlated Color Temperature (CCT): a specification for the color appearance of artificial light measured in Kelvin (K).
- City of Aspen Outdoor Lighting Permit Submission Tool: an excel spreadsheet used for submitting lighting plans via the Prescriptive Method. There are two versions of the tool – non-residential and residential. The tools are located in the Building Department Document and Resource Library on the City of Aspen website.

- City of Aspen Outdoor Lighting Compliance Statement: a form that the applicant fills out and signs. This is required at permit submission when using the Performance method and prior to Certificate of Occupancy, regardless of submission method.
- Light trespass: measurable light extending past the property line without permission, causing annoyance, loss of privacy, or other nuisances.
- Lumen: measure of visible light emitted from a light source.
- Lux: measures illuminance - the density of light falling onto a surface. One lux equals one lumen per square meter.
- Shielding (for fixtures):
 - Fully shielded: has a solid barrier at the top of the fixture in which the bulb is located. The bulb is not visible below the barrier; no light is visible at or above the horizontal angle.
 - Partially shielded: has an opaque top and translucent or perforated sides, designed to emit most light downwards. Up to 5% of the light distribution may be at or above the horizontal angle.
 - Unshielded/non-shielded: has no shielding to prevent light emission above the horizontal.

Highlighted Lighting Requirements

Refer to the following Municipal Code Sections for the complete language:

- 26.512.020 – *Lighting Zone Planning and Designations*
- 26.512.050 – *Light Trespass*
- 26.512.060 – *Requirements for All Outdoor Lighting*
- 26.512.070 – *Residential Lighting*
- 26.512.080 – *Non-Residential Lighting*
- 26.512.110 – *Miscellaneous Lighting Types*

Correlated Color Temperature (CCT): Exterior lighting must have a standard CCT of 2700K-3000K. A CCT of 2200 or lower is allowed for non-commercial uses provided that the Color Rendering Index (CRI) is greater than 65. When seasonal lighting is white, it cannot exceed a CCT of 4000K.

Lighting Zones (LZ): Lighting Zones are overlaid on Zone Districts. LZ designations allow for illuminance recommendations based on expected activities in the Lighting Zone. A greater intensity of light is allowed in non-residential zone districts. Planned Developments (PDs) with adopted outdoor lighting regulations do not have an assigned LZ. PDs that do not have adopted outdoor lighting regulations are subject to the underlying zoning and the related LZ. Refer to 26.512.020.e for Lighting Zone designations.

Parcel Lumen Maximums: Each parcel has a maximum allowance for how much light may be emitted from the property. The maximum depends on the use (residential or non-residential) and the assigned Lighting Zone. See Tables 2 (residential) and 4 (non-residential) in Chapter 26.512 for total site lumen allowance maximums by Lighting Zone.

Seasonal Lighting (formerly known as Holiday Lighting) and Festoon Lighting:

Seasonal Lighting is allowed from November 15th to March 1st. Seasonal lighting is now subject to curfew regulations. The seasonal lighting counts towards light lumen limits if it is within 10 horizontal feet of the Hallam Lake Bluff or Stream Margin Environmentally Sensitive Areas. Seasonal lighting is not allowed within these areas. No lighting is allowed to be directed towards the Roaring Fork River and its tributaries. For permanent bistro or ping-pong lighting, see Festoon Lighting.

Festoon Lighting is string lighting intended for permanent installation and year-round use and is allowed when fully shielded or partially shielded. It must be installed over patios, decks, pedestrian plazas, outdoor dining, and other pedestrian walkways where permanent, decorative lighting would be beneficial. Its use is limited to these spaces; it cannot be used to wrap trees or define architectural features. It must be within 12 feet of finished grade or the most adjacent walking surface.

Seasonal Lighting and Festoon Lighting readings are only taken and enforced upon within the hours of curfew and are subject to the curfew requirements.

Shielding: Partially and unshielded fixtures are prohibited except for specific applications listed in Sections 26.512.070.d.-g. (residential) and 26.512.080.c-f. (non-residential): (1) light for orientation and reassurance; (2) light for wayfinding, pathways, and stairs; (3) light for atmosphere and enjoyment. There is a maximum lumen allowance for any individual partially shielded or unshielded fixture to regulate the brightness of those types of lights. See Tables 3 (residential) and 5 (non-residential) in Chapter 26.512 for partially shielded and unshielded luminaire lumen allowances. 20% of the lumen allowance on a site may be used for partially and unshielded fixtures. Previous code allowed for the “frosting” of fixtures in lieu of shielding; frosted glass does not constitute shielding in the updated code.

Trespass and Curfew: Light trespass is the measurable light that extends beyond the boundary of its intended usage area. Total maximum illumination of interior and exterior lighting sources at any point along the property line must not exceed the requirements listed in Table 1 of Chapter 26.512. If the property line borders a public-right-of way the measurements must be taken from 5 feet beyond the actual property line.

Light trespass readings are only taken and enforced upon within the hours of curfew. A property may need to close window shades or turn off or dim lights in order to meet the trespass requirements during hours of curfew. The curfew hours are as follows:

- Residential Uses: Curfew hours are 10pm to 7am.
- Non-Residential Uses: Curfew hours of 10pm to 7am apply to all businesses unless normal operating hours end or begin within the hours of curfew. If so, the curfew applies until one hour after closing or one hour before opening. For example, if a business closes at 11pm, the curfew for that business is 12am to 7am. If a business opens at 6am, the curfew for that business is 10pm to 5am.

Applicability/Triggers

Refer to Section 26.512.030 - Applicability.

All outdoor lighting on private property in the City of Aspen is subject to the outdoor lighting regulations. Any fixture that is replaced must comply with the regulations, regardless of if a permit is required. The entire site must come into compliance if a parcel meets any of the thresholds below. If a parcel does not meet the thresholds, only fixtures that are replaced or added must come into compliance with the chapter.

Thresholds for Whole-site Compliance

- Total lumens of replaced or added fixtures is equal to or more than 40% of the total site lumen allowance listed in Table 2 (residential) or Table 4 (non-residential) of Chapter 26.512.
- Changes that qualify as an IEBC Alteration Level 3 – speak with the building department to determine if the scope meets this alteration level.
- Change in Use or Re-Zoning.
- New development on a vacant lot.
- Meeting the definition of Redevelopment as defined in Title 26 (triggering Demolition on a property)

Submission Requirements

Refer to Section 26.512.040 – Submittal Process.

Scope not requiring a permit

If the applicant is replacing an outdoor light fixture and not triggering a permit per adopted building codes, compliance with the outdoor lighting code is required, but a lighting plan/documentation or permit does not need to be submitted.

Since partially and unshielded fixtures are only allowed for specific applications (reference “Shielding”, page 3) and each parcel has a maximum amount of light that is allowed to be emitted from partially and unshielded fixtures, fully shielded fixtures are recommended when replacing a fixture to ensure compliance with the lighting code. If unshielded and partially shielded fixtures are being replaced in kind, the replacements must meet the updated requirements. See Tables 2 (residential) and 4 (non-residential) for total site lumen allowances and Tables 3 (residential) and 5 (non-residential) for partially shielded and unshielded fixture lumen allowances. An analysis of the light fixtures on the parcel should be performed to confirm that the unshielded or partially shielded fixture is in compliance with Chapter 26.512.

Scope requiring a permit

If the applicant is triggering a building permit per adopted building codes they may choose one of the submission methods below.

Prescriptive Method - 26.512.040.b

Reference Section 26.512.040.b for detailed submission information.

- If the applicant is replacing an existing outdoor light fixture, but not adding any new fixtures, they must provide data sheets for fixtures. Staff may require the Outdoor Lighting Permit Submission Tool (spreadsheet) at their discretion.

- If the applicant is adding new fixtures or triggering an electrical permit the applicant must provide data sheets (including exact luminaires, light distribution plots, fixture BUG ratings, luminaire locations, mounting heights, and aiming directions) for fixtures, Outdoor Lighting Permit Submission Tool, and a lighting plan.

Performance Method - 26.512.040.c

Reference Section 26.512.040.c for detailed submission information.

- The Performance Method involves using industry standard lighting software. Provide a lighting plan created with the software and Outdoor Lighting Compliance Statement.

The Outdoor Lighting Permit Submission Tool and Outdoor Lighting Compliance Statement can be found in the Building Department Document and Resource Library on the City of Aspen website.

Certificate of Occupancy Requirements

Refer to Sections 26.512.040.d and 26.512.040.e – Certificate of Occupancy.

Prior to final zoning inspection the applicant must submit a signed Outdoor Lighting Compliance Statement. If the exterior lighting changed between permit submission and inspection, updated lighting information must be provided with the compliance statement.