

Exterior Lighting Code Handbook

2024 Edition

A reference guide for Title 9, Chapter 12: Exterior Lighting



TOWN OF
BRECKENRIDGE

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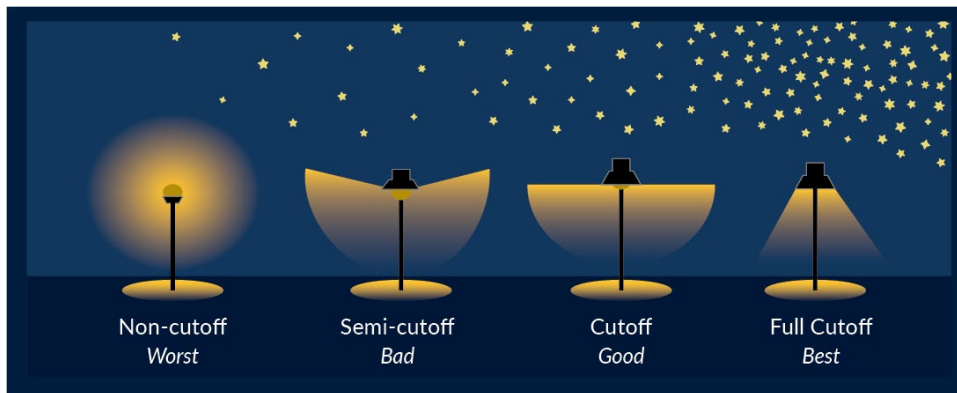
This handbook is intended to highlight key information in the Exterior Lighting Code and break it down to a more manageable level. This handbook is not necessarily representative of all information contained in the Exterior Lighting Code and should be used as a reference guide only. Each page lists the relevant code section at the bottom of the page to allow reference back to the Exterior Lighting Code.

For parking lot lighting requirements see Sections 9-3-8 and 9-3-9 of the Breckenridge Town Code

Why Dark Skies are Important

As Breckenridge evolves, it's crucial to balance development with the preservation of our natural environment. While growth brings new infrastructure and improved lighting, it's equally important to retrofit existing light fixtures to protect our view of the night sky. Breckenridge is committed to preserving our night skies by seeking Dark Sky Community certification.

Studies have shown that reduced and responsibly managed artificial lighting at night leads to better sleep patterns. Dark skies provide environmental benefits that promote natural wildlife movement patterns and ecosystem integrity. Many birds that migrate at night are disrupted by artificial light. Additionally, decreasing light pollution by installing improved fixtures and eliminating unneeded sources of artificial light leads to energy savings. Dark skies are important for the health and safety of humans, plants, and animals alike.



In our pursuit to protect the star-filled skies for future generations, it's important to consider the impact of our lighting choices. By doing so, we not only save our view of the night sky but also reinforce our commitment to preserving the beauty and integrity of Breckenridge's natural environment.

2024 Primary Code Changes

- Portions of Airport Rd moved Lighting Zones (LZ). Moved from LZ-3 to LZ-2.
- Colored decorative lighting (aka holiday lighting) is allowed in all Lighting Zones.
- All lamps shall not exceed 3,000 kelvins on all properties.
- Commercial and mixed use properties' illumination levels shall not exceed more than 10% of the values recommended by the Illuminating Engineering Society (IES) for new construction.
- Decorative lighting is only permitted from November 1st through April 1st of the following year.
- Amount of decorative lighting is limited to **two** of the **four** listed features. (See page 11)
 - Roof eave line
 - Window trim
 - Columns
 - Railings
- Decorative lighting bulbs may not be larger than 3 inches.
- Decorative lighting must be turned off at 2 a.m. for commercial use in LZ-1 and 11 p.m. for all others in all lighting zones.
- Residential properties are limited to two fixtures per entrance plus six additional fixtures to be placed on and around the residence for new construction.
- Lighting for signage, not addresses, must be turned off an hour after sunset or within half an hour of business close. (Compliance date: February 13, 2033)

Lighting Compliance

All non-compliant light fixtures must come into compliance by July 1, 2025.

This compliance date was passed in a previous code update in 2007 to give residents and businesses 17 years to prepare for the compliance date and was based on the I.R.S. amortization schedule for the life of a fixture.

- Non-compliant light fixtures installed before July 1, 2007 may be retrofitted into compliance.
- All other light fixtures must be replaced with compliant fixtures.

Key Definitions:

Non-compliant Fixture: A fixture that does not follow the requirements defined in the Exterior Lighting Code fixture requirements. Summarized on page 6.

Retrofit Fixture: A legal nonconforming fixture that has a permanent opaque lining applied to it which extends to the lowest portion of the bulb or lower, or other permanent modification to the fixture approved by the director that brings such fixture and light source into compliance with the requirements of this section.



Visit [Breckdarksky.com](https://breckdarksky.com) for more information on lighting compliance.

Lighting Zones

LZ-1: High Ambient Lighting Zone

- Semi-opaque and opaque fixtures are allowed.
- Bistro lighting is permitted for commercial and residential use.
- Overhead walkway lighting is permitted.
- Decorative lighting must be turned off at 2 a.m. for commercial use and 11 p.m. for residential use.
- Pole lights are limited to two fixtures.
- Commercial and mixed use properties may not have incident lighting greater than 1 foot-candle at the property line.

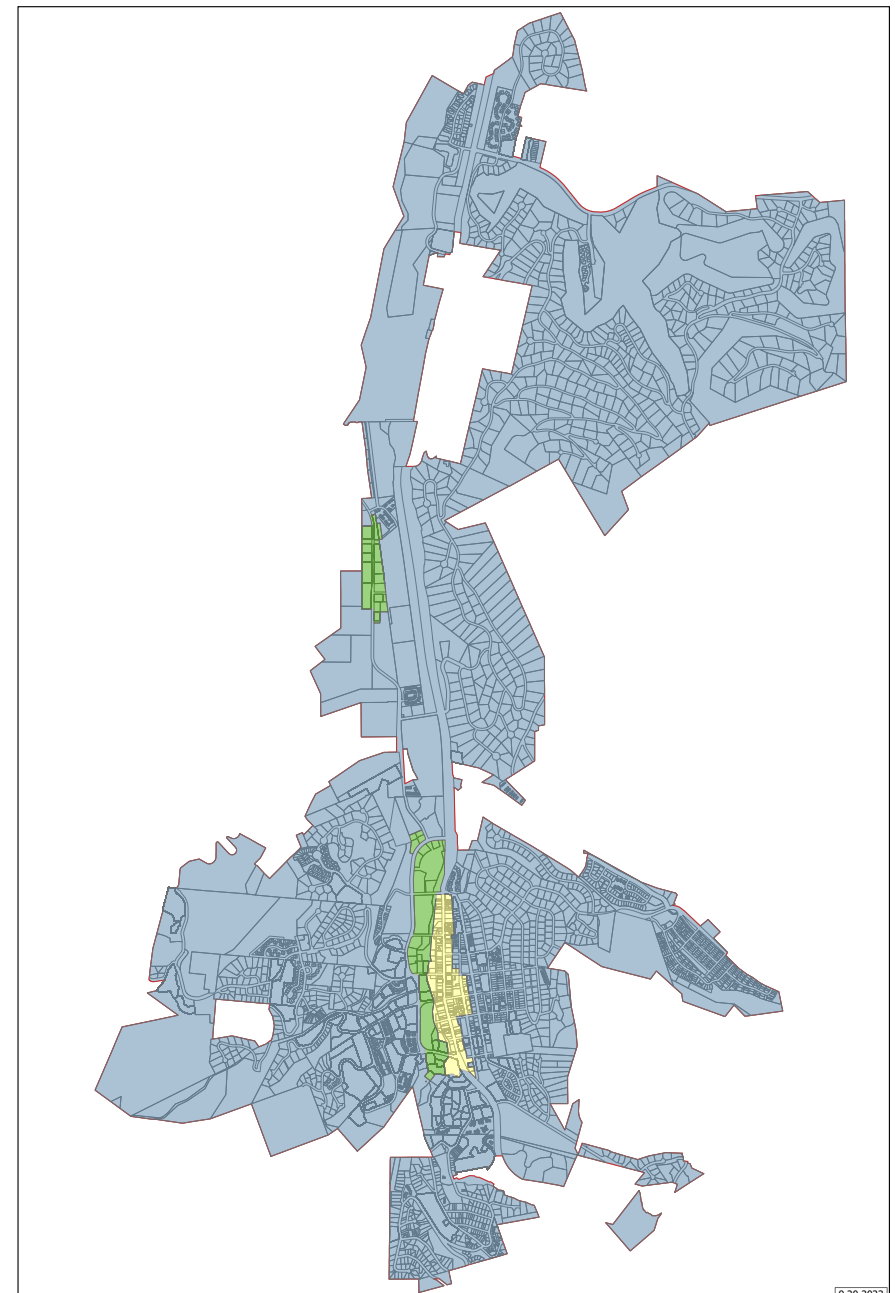
LZ-2: Medium Ambient Lighting Zone

- Opaque fixtures are allowed.
- Bistro lighting is permitted for commercial and residential use.
- Overhead walkway lighting is permitted.
- Decorative lighting must be turned off at 11 p.m.
- Pole lights are limited to two fixtures.
- Commercial and mixed use properties may not have incident lighting greater than 0.5 foot-candles at the property line.
- Setbacks from the property line shall be equal to the light fixture height.*

LZ-3: Low Ambient Lighting Zone

- Opaque fixtures are allowed.
- Bistro lighting is permitted for residential use only over a maximum area of 150 square feet.
- Overhead walkway lighting is not permitted.
- Decorative lighting must be turned off at 11 p.m.
- Pole lights are limited to one fixture.
- Commercial and mixed use properties may not have incident lighting greater than 0.2 foot-candles at the property line.
- Setbacks from the property line shall be equal to the light fixture height.*

*Parking facility lighting follows setbacks defined in [Section 9-3-9](#)



Proposed Lighting Zones
Town of Breckenridge

Red line: Town Boundary
Thin black line: Property Lines
Yellow: Lighting Zone 1: High Ambient Lighting

Green: Lighting Zone 2: Medium Ambient Lighting
Blue: Lighting Zone 3: Low Ambient Lighting

TOWN OF BRECKENRIDGE
COMMUNITY DEVELOPMENT

9.20.2023



Fixture Regulations

- Must be fully shielded and downcast.
- Only opaque light fixtures are allowed.*
- All lamp types must be a white color.
- No more than 3,000 kelvins on all properties.

Regulations By Lamp Type:

LED:

- Maximum 950 lumens per fixture.

Fluorescent:

- Maximum 15 W per fixture.
- Must be ENERGY STAR rated.

Incandescent:

- Maximum 60 W per fixture.
- Only for building mounted or signage fixtures.

All other lamp types:

- Maximum 950 lumens per fixture.
- Must be ENERGY STAR rated.

Key Definitions:

Downcast: A lighting fixture that directs light downwards, towards the ground to minimize light pollution and glare.

Fully Shielded: An outdoor light fixture constructed so that in its installed position all of the light emitted by the fixture is projected below the horizontal plane passing through the lowest light emitting part of the fixture.

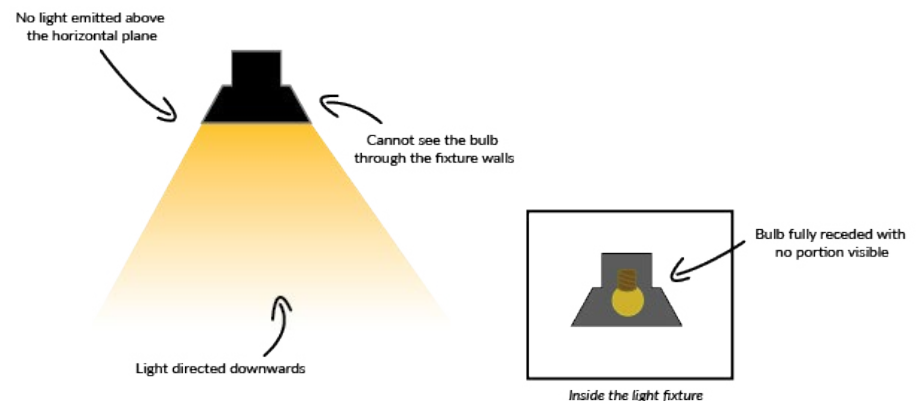
Opaque Light Fixture: An outdoor light fixture whose walls that house the light source are comprised of a solid material, unable to be permeated by light. Glass is not considered opaque however, glass on a fixture is acceptable if the glass is flat, horizontal, and does not allow any light to be emitted above the horizontal plane.

Fixture Height Maximums

| | |
|-------------------------------|---------------------------------------------------------|
| Residential | 15 feet |
| Commercial | 18 feet |
| Pedestrian Pathways | 10 feet |
| Upper Story Decks | 7 feet above deck floor |
| Eave Overhangs (e.g. soffits) | 10 feet plus 1 foot for every 5 feet from edge of eave* |
| Bistro Lights | 15 feet above grade or 8 feet above rooftop deck |

*For example, for a 20 foot high eave with a 10 foot overhang, a fixture may be 12 feet high as measured from grade or from an upper level deck (10 feet + 2 feet).

A Fully Shielded Downcast Opaque Light Fixture



*In LZ-1 semi-opaque light fixtures are also allowed.

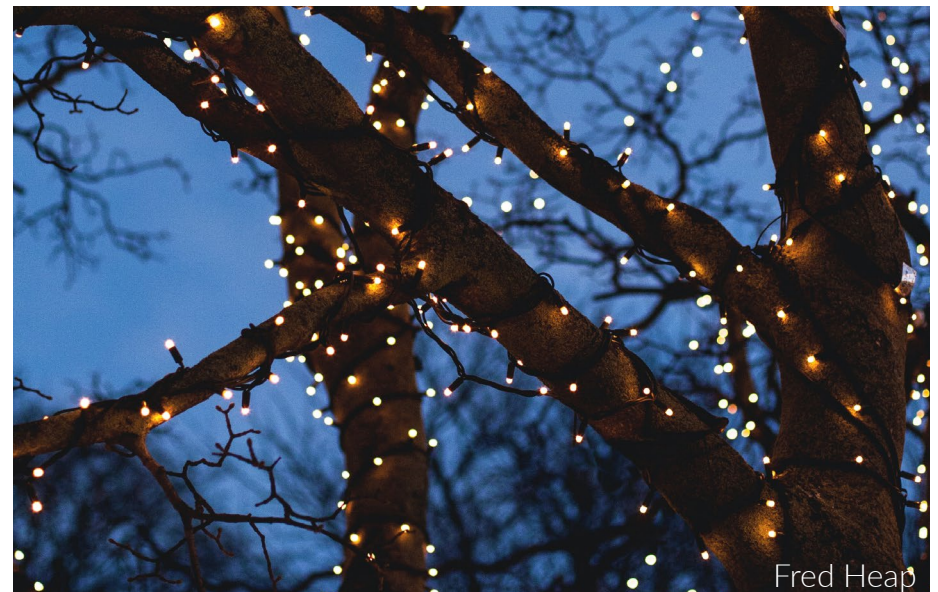
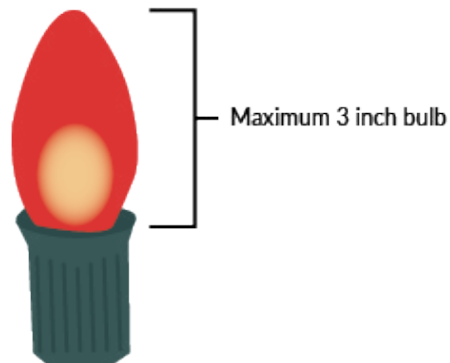
Single Family Residential

- Lighting on and around a residence, including recessed cans/soffit lights, shall be limited to the total amount equal to 2 light fixtures per entry to the structure plus an additional 6 fixtures
- Example: A house with three entrances could have a total of 10 light fixtures on and around the house (2 per entry x 3 entries + 6 additional = 10 total fixtures)
- For information on address lighting see page 12.



Decorative Lighting

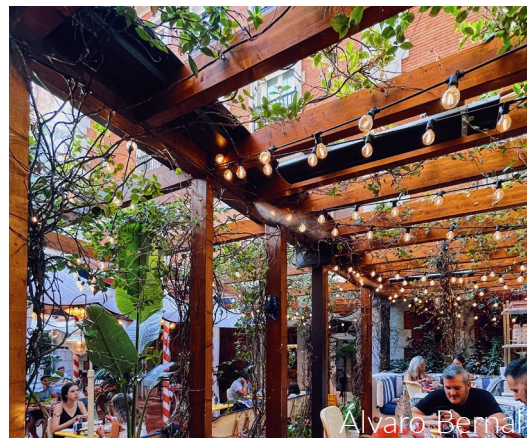
- Allowed November 1st to April 1st of the following year.
- Colored lighting is allowed in all Lighting Zones.
- Must be turned off at 2 a.m. for commercial use in LZ-1, must be turned off at 11 p.m. for all other use in all lighting zones.
- Allowed on trees.
- Limited on a building to **two** of the **four** following features:
 - Roof eave line
 - Window trim
 - Columns
 - Railings
- Shall not protrude from roof or upper wall plane when outlining a structure.
- Shall be a single strand when placed along eaves, window trim, or railings.
- Shall not blink or rotate.



Bistro & Overhead Walkway Lighting

Bistro Lighting:

- Must be fully shielded and downcast.
- Allowed over exterior food and beverage area in LZ-1 and LZ-2.
- Allowed for residential use over a patio or deck with a maximum of 150 square feet of coverage in LZ-3.
- Allowed from May 1st to October 31st.
- Must be warm white LED bulbs.
- Bulb color must not exceed 2,800 kelvins.
- Shall be extinguished by 10:00 pm or within a half hour after business close, whichever is later.
- Shall not be visible from right-of-way when located on a commercial rooftop and must be set back 5 feet from the rooftop edge.



Overhead Walkway Lighting:

- Must be fully shielded and downcast.
- Must be white LED bulbs not exceeding 3,000 kelvins.
- Used for providing light for safe pedestrian traffic through a publicly owned corridor.
- Not allowed over a public street or alley.
- Only allowed in LZ-1 and LZ-2.
- Shall not blink, flash, or rotate.

LED Strip Lighting

- Must be fully shielded and downcast.
- Must be white LED bulbs not exceeding 2,800 kelvins.
- No more than 1.5 watts per linear foot.
- Cannot be installed higher than 4 feet off the ground or floor directly below.
- Shall not blink, flash, or rotate.



Signage & Security Lighting

Signage Lighting:

- Fixtures must be mounted at the top of the sign structure and aimed downward.
- Must be fully shielded.
- Luminance shall not exceed 9 foot candles or 100 nits during the first hour after sunset.
- Must be extinguished 1 hour after sunset or within a half hour of the end of business hours, whichever is later. (Compliance date: February 13, 2033)

Security Lighting:

- Must be fully shielded and downcast.
- Use the lowest possible illumination to be effective.
- Motion sensors, timers, and photocells are preferred.
- Photocells are only permitted at primary entrances and must be fully shielded.
- Illuminance levels shall be a maximum of 10 foot candles.



Exempt Lighting

Lighting of Flags:

- A maximum of two fixtures allowed.
- No more than 75 lumens per linear foot of pole height.
- Poles of greater than 20 feet must be lit from above with 800 lumens or less.

Lighting of Public Art:

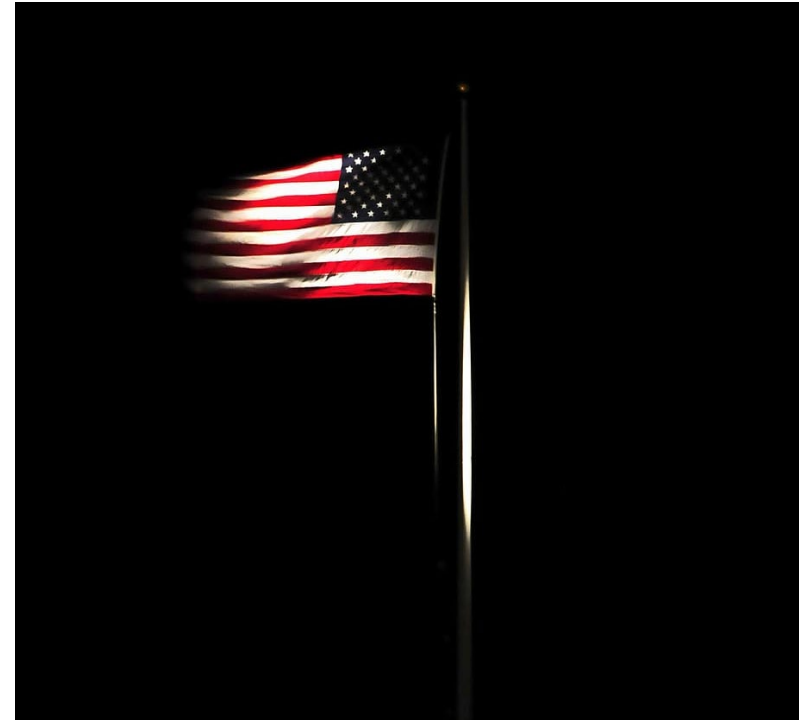
- No more than 75 lumens per linear foot of structure height.
- Structures of greater than 20 feet must be lit from above with 800 lumens or less.

Architectural Accent Lighting:

- Fixtures must be fully shielded and downcast.
- Lamp color must be warm white, not exceeding 3,000 kelvins.
- Must be aimed or shielded to prevent lighting of the night sky.
- Maximum of one fixture or LED light strip per feature.
- No more than 900 lumens per property.
- Uplighting is permitted if:
 - The illumination is effectively contained within an overhanging architectural element.
 - A maximum of one fixture.
 - No more than 800 lumens.

Address Lighting:

- Must be fully shielded and downcast.
- Lamp color must be warm white, not exceeding 3,000 kelvins.
- Maximum 950 lumens per fixture.



Gas Stations & Recreational Facilities

Gas Stations:

- Canopy fixtures must be mounted on underside of canopy and must be recessed to be fully shielded with a flat lens.
- Lighting shall not exceed 20 foot candles on the ground.
- Areas outside of the canopy coverage area shall not exceed 10 foot candles on the ground.

Recreational Facilities:

- Lighting for fields, courts, ice rinks, or tracks shall not exceed the Illuminating Engineering Society (IES) standard.
- Exterior playing areas shall only be illuminated for scheduled events and lighting must be turned off within a half an hour after the end of the final event.
- Facility lighting for exterior playing areas must be turned off by 10 p.m.. Security lighting is exempted.
- The illumination level of exterior playing areas shall be determined by the IES standards for the sport of play and illumination shall be reduced for sports requiring less than the maximum available lighting.



To read further on any code section and for the exact wording on any requirement see the [Exterior Lighting Code, Chapter 12 of Title 9 of the Town Code](#).

For questions on lighting requirements contact the Community Development Department.

The Community Development Department is located in Town Hall
150 Ski Hill Rd Breckenridge, CO 80424
Monday-Thursday 8:00 am-5:00 pm, Friday 8:00 am-12:00 pm
970-453-3160
websitecommdev@townofbreckenridge.com

