

**DRAFT LIGHTING ORDINANCE – PLANNING COMMISSION – OPTION 2:
SUBSTANTIAL ALTERATIONS & ADDITIONS**

**ORDINANCE NO. ____
SERIES 2023**

**AN ORDINANCE AMENDING LOUISVILLE MUNICIPAL CODE TITLE 17 – ZONING, BY
THE ADDITION OF A NEW CHAPTER 17.26 TITLED OUTDOOR LIGHTING**

WHEREAS, the City of Louisville is a Colorado home rule municipal corporation duly organized and existing under laws of the State of Colorado and the City Charter; and

WHEREAS, pursuant to such home rule authority and state law, including but not limited to C.R.S. § 31-23-301 et seq., the City has adopted procedures and standards pertaining to the regulation of outdoor lighting within the; Design Handbook for Downtown Louisville; the Mixed Use Development Design Standards and Guidelines; the Commercial Development Design Standards and Guidelines; and the Industrial Development Design Standards and Guidelines; and

WHEREAS, the City Council desires to adopt and incorporate into the Louisville Municipal Code a new outdoor lighting code that includes standards and guidelines for all outdoor lights in the City; and

WHEREAS, in connection therewith, the City Council desires to make corresponding amendments to the Design Handbook for Downtown Louisville; the Mixed Use Development Design Standards and Guidelines; the Commercial Development Design Standards and Guidelines; and the Industrial Development Design Standards and Guidelines; and

WHEREAS, the City has conducted public outreach to discuss and gather feedback and comments on the outdoor lighting code; and

WHEREAS, after a duly noticed public hearing, where evidence and testimony were entered into the record, the Louisville Planning Commission has recommended that the City Council adopt the outdoor light code; and

WHEREAS, the City Council has reviewed the recommendation of the Louisville Planning Commission and desires to adopt the outdoor lighting code; and

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WHEREAS, City Council has provided notice of a public hearing on said ordinance by publication as provided by law and held a public hearing as provided in said notice.

NOW, THEREFORE, BE IT ORDAINED BY THE CITY COUNCIL OF THE CITY OF LOUISVILLE, COLORADO:

Section 1. Title 17 of the Louisville Municipal Code is hereby amended by the addition of a new Chapter 17.26 to read as follows:

Title 17 – Zoning

**Chapter 17.26
Outdoor Lighting**

Sec. 17.26.010. Purpose.

The purpose of this ordinance is to provide regulations for outdoor lighting that will:

- A. Protect and enhance human and environmental health;
- B. Promote nighttime safety and visibility through purposeful and directed lighting;
- C. Increase the effectiveness of natural areas like Open Space in providing sanctuary for wildlife;
- D. Support citywide sustainability efforts by limiting the use of energy resources to the greatest extent possible;
- E. Minimize the adverse impacts of lighting, such as light trespass, glare, artificial night glow, and obtrusive light;
- F. Encourage quality lighting design and implementation;
- G. Effectively manage lighting throughout the city; and
- H. Increase access to and enjoyment of the night sky.

Sec. 17.26.020. Definitions.

The following definitions shall apply to this ordinance:

Backlighting. Lighting directed behind the luminaire.

Correlated Color Temperature (CCT). A metric to evaluate the color appearance of a light source, as measured by the absolute temperature of a blackbody whose chromaticity most nearly resembles that of the light source.

Downtown. The area encompassing the Westerly Portion of Downtown as defined in Section 17.08.591 of the LMC.

Footcandle. The unit of measure expressing the quantity of light received on a surface. One footcandle is one lumen per square foot.

Fully-shielded. 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 lowest light-emitting part. A luminaire that is full cutoff meets the fully-shielded requirement.

Examples of Code-Compliant and Non-Compliant Lighting Fixtures



Glare. Intense and blinding light that reduces visibility. A light within the visual field that is sufficiently greater than the brightness to which the eyes are adapted to cause annoyance, discomfort, or loss in visual performance or visibility.

Human-activity areas. Areas such as driveways, parking lots, walkways, decks, porches, seating areas, entryways, and other outdoor spaces with such improvements that facilitate gathering and/or transportation.

Installation. Art, monuments, or any other outdoor features, whether owned publicly or privately, that are meant for public enjoyment and are visible from a public right-of-way or public access easement.

Light trespass (or “trespass”). The encroachment of light, typically across property boundaries, measured in foot-candles at ground level.

Lighting. Electric, manufactured, or artificial lighting.

Lighting plan. A document(s) (site plan, schedule, et cetera) and accessory materials (specification sheet(s), et cetera) that contains sufficient evidence demonstrating compliance with all of the relevant provisions of this ordinance including, but not limited to, light source, height, fixture, footcandle, and lumens.

Lumen. The unit of measure used to quantify the amount of light produced by a lamp or emitted from a luminaire (as distinct from “watt,” a measure of power consumption).

Luminaire. A complete lighting unit consisting of a light source and ballast(s) or driver(s) (when applicable), together with the parts designed to distribute the light, to position and protect the light source(s), and to connect the light source(s) to the power supply.

Luminous elements. The lamp (light bulb), any diffusing elements, and surfaces intended to reflect or refract light emitted from the lamp individually or collectively comprise the luminous elements of a luminaire.

Nonresidential. Properties with commercial, industrial, mixed-use, and/or multi-family buildings of seven (7) dwellings or more.

Outdoor lighting. Lighting installed within the property line and outside the building envelopes, whether attached to poles, building structures, the earth, or any other location; and any associated lighting control equipment.

Outdoor recreation facilities. Outdoor areas with playing surfaces that are accessible to the public or are used for private commercial purposes.

Residential. Single-family homes, duplexes, row houses, and multi-family buildings of six (6) dwellings or fewer.

Substantial Addition. Building additions or new structures comprising 50% or more of the existing building(s) footprint on a parcel or lot.

Substantial Alteration. Changes to 50% or more of the exterior wall area or materials (excluding roofing) of a building.

Uplighting. Lighting element which directs light above a horizontal plane running through the lowest point of the luminous elements.

Sec. 17.26.030. Applicability & Scope.

- A. The provisions of this ordinance are applicable to all outdoor lighting unless included in the exceptions outlined in Section 17.26.080.
- B. **New and replacement lighting.** Except as described below, all outdoor lighting installed after the effective date of this ordinance shall comply with these requirements. This includes, but is not limited to, new lighting, replacement lighting, or any other lighting whether attached to structures, poles, the earth, or any other location, including lighting installed by any third party.
- C. **Nonconforming status.** All existing outdoor lighting that was legally installed before the effective date of this Chapter, that does not conform to the standards specified within, shall be considered nonconforming. Nonconforming outdoor lighting is allowed to remain and be maintained in good repair until required to be replaced pursuant to the terms of this ordinance.
 - 1. **Substantial additions.** If a substantial addition occurs on a property, outdoor lighting for the entire property shall comply with the requirements of this ordinance, except that outdoor lighting on poles used to illuminate parking lots, drive aisles, and other automobile-related hardscape are exempt from the height requirement of 20' and illuminated safety bollards used to exclude vehicles are exempt.
 - 2. **Substantial alterations.** If a substantial alteration occurs on a building, lighting for the entire building shall comply with the requirements of this ordinance.
- D. **Waiver Criteria for Nonresidential Uses.** Any request for a waiver from the standards of this Chapter for nonresidential development shall follow the procedures and criteria set forth in Chapter 17.28 for approval of a final Planned Unit Development.
 - 1. In addition to the criteria outlined in Chapter 17.28, the City Council must find that all of the following requirements, insofar as applicable, have been satisfied:
 - i. That there is a specific need for illumination that cannot be achieved through compliance with this ordinance or through non-illuminated design elements.
 - ii. That the waiver, if granted, is a minimum waiver that will afford relief and is the least modification of the provisions of this ordinance.
 - iii. That the proposed lighting does not negatively impact adjoining properties and is appropriate with the character of the area.
 - iv. That the waiver will not result in an increase to the restrictions on light trespass in Section 17.26.070.

2. Any request for a waiver shall include a lighting plan and supporting documentation to demonstrate compliance with the waiver criteria.

E. Variance Criteria for Residential Uses. Any request for a variance from the standards of this Chapter for residential development shall follow the procedures and criteria set forth in Chapter 17.48 for the granting of a variance by the Board of Adjustment.

1. In addition to the criteria outlined in Chapter 17.48, the Board of Adjustment must find that all of the following requirements, insofar as applicable, have been satisfied:
 - i. That there is a specific need for illumination that cannot be achieved through compliance with this ordinance or through non-illuminated design elements.
 - ii. That the variance, if granted, is a minimum waiver that will afford relief and is the least modification of the provisions of this ordinance.
 - iii. That the proposed lighting does not negatively impact adjoining properties and is appropriate with the character of the area.
 - iv. That the variance will not result in an increase to the restrictions on light trespass in Section 17.26.070.
2. Any request for a variance shall include a lighting plan and supporting documentation to demonstrate compliance with the waiver criteria.

Sec. 17.26.040. General Regulations.

All outdoor lighting is subject to the general regulations below except where stated otherwise in this chapter.

- A. **Fully shielded.** All outdoor lighting shall be fully shielded, as defined in Section 17.26.020.
- B. **Color.** All outdoor lighting shall have a Correlated Color Temperature (CCT) of 3000 Kelvin or lower.
- C. **Prohibitions.** The following lighting is prohibited:
 1. Lighting that may be confused with warning, emergency, or traffic signals.
 2. Mercury vapor lamps.
 3. Aerial lasers, such as are intended to be directed upward or for extended distances.
 4. Blinking or flashing lights except as allowed in Section 17.26.080.
 5. Searchlights, floodlights, or spotlights, except as required by county,

state, or federal law; or as used for police, firefighting, emergency management, or medical personnel at their discretion as long as the emergency exists.

6. Uplighting.
7. Lighting at or above twenty (20) feet above grade, except lighting affixed to a building that is used to illuminate second-story and above human-activity areas, such as decks and rooftop patios.

D. *Additional Criteria for Nonresidential Planned Unit Developments (PUDs).*

The lighting plan in a nonresidential PUD shall meet each of the following criteria, insofar as applicable.

1. Multi-family residential developments with seven (7) dwellings or more and mixed-use developments containing residential uses shall limit the impact of lighting on residents through such means as height limitations, low CCT, shielding, and lighting directed away from dwellings, above and beyond the scope required by this ordinance.
2. Developments containing public parks, plazas, or other outdoor public spaces of .5 acres or more, or that designated property for Open Space shall design lighting to eliminate light trespass onto Open Space and other public outdoor lands and incorporate other design elements to further limit the impact of lighting through the use of shielding, lower mounting heights, and lower CCT than required by this Chapter.
3. Lighting for outdoor recreation facilities shall meet the following requirements:
 - i. Luminaires shall be fully shielded or shielded to the greatest extent practical to eliminate uplighting and limit illumination of all other non-targeted areas.
 - ii. Lighting is subject to trespass standards for Nonresidential in Section 17.26.070.
 - iii. Lighting shall have a nominal CCT of no greater than 5700 Kelvin.
 - iv. Lighting controls shall provide local or remote manual control with at least two (2) preset light levels.
 - v. Lights shall be automatically extinguished by one (1) hour after the end of play or when not in use.

Sec. 17.26.050. Residential Uses.

In addition to the General Requirements of Section 17.46.040, residential uses shall meet the following:

- A. ***Lumens cap.*** All outdoor lighting shall have a cap of 2000 lumens per luminaire.
- B. ***Lighting plans.*** Building permits for new construction and substantial

additions and alterations must include lighting plans that demonstrate compliance with the outdoor lighting code.

- C. **Replacement Lighting.** Replacement lighting that does not require a building permit and that is not part of a substantial addition or alternation, such as new bulbs and fixtures, must be compliant with the regulations in this ordinance.

Sec. 17.26.060. Nonresidential Uses.

In addition to the General Requirements of Section 17.46.040, nonresidential uses shall meet the following:

A. **Lumens cap.**

1. All outdoor lighting used to illuminate parking lots, drive aisles, and other automobile-related hardscape shall have a cap of 20,000 lumens per luminaire, except lighting for gas station canopies, which shall have a cap of 10,000 lumens per luminaire.
2. All other outdoor lighting shall have a cap of 5000 lumens per luminaire.

- B. **Downtown.** Downtown is limited to the following restrictions and exempt from the other restrictions in this section.

1. All outdoor lighting in downtown is subject to the General Requirements in Section 17.26.040.
2. All outdoor lighting shall have a cap of 2000 lumens per luminaire excepting parking lot lights, which are capped at 10,000 lumens per luminaire.
3. Downtown properties are not subject to uniformity standards.

C. **Uniformity & Illumination for Human-Activity Areas**

1. Uniformity standards do not have to be met when the areas regulated by these standards are not in use and lights are turned off.
2. Outdoor lighting that illuminates human-activity areas shall meet the following requirements for light levels when fully illuminated:

Illuminated Surface	Min. Light Level	Max. Light Level
Auto Dealerships:		
Front Row & Featured Displays	---	15.0 footcandles
Other Merchandise Areas	---	10.0
Parking Lots	.2 footcandles	4.5
Vehicular Entrances from Right-of-Way	1	4.5
Automobile Service-Station Pumping Areas (under canopy)	--	15.0

Drive-In/Drive-Through	---	5.0
Building Entrance and Exit	1	5.0
Pedestrian Walkways and Common Areas	--	3.0
Automatic Teller Machines (ATMs)	--	15.0 footcandles
Stairways and Steps	1	5.0
The Zoning Administrator has the authority to assign a category if the correct category is not readily apparent.		

¹ Within a 10-foot radius from the ATM measured from the center face of the ATM and extends a total of 180 degrees.

3. The minimum-to-maximum light level ratio on the illuminated surface of any human-activity areas shall not exceed four-to-one (4:1) when fully illuminated.

Sec. 17.26.070. Light Trespass

Regulations in this section apply to outdoor lighting in all use zones.

- A. Light emitted from outdoor lighting on any property shall not cause the light level along any property line, as measured at grade, to exceed the following limits:

Emitting Use	Impacted Use	Max. Light Level
Residential	Open Space (OS) and Agricultural (A) zone districts, and public parks, plazas, or other outdoor public spaces of .5 acres or larger	0.1 footcandles measured at the property line.
Nonresidential (except Downtown)	Residential uses, Open Space (OS), and Agricultural (A) zone districts	
Downtown nonresidential	Residential	Not subject to trespass restrictions.
Residential	Residential	
Commercial	Commercial	

Sec. 17.26.080. Exceptions.

- A. The following outdoor lighting applications are exempt from all requirements of this ordinance:
1. Decorative lighting provided by a flame source, except that gas-fired lighting appliances are prohibited.
 2. Underwater lighting used for the illumination of swimming pools and other water features.
 3. Lighting solely for the purpose of the internal or external lighting of signage in compliance with Section 17.24.010.
 4. Portable lighting temporarily used for maintenance or repair.
 5. Emergency lighting used for police, firefighting, emergency

management, or medical personnel at their discretion as long as the emergency exists.

6. Temporary lighting required for road construction or other public improvements.
 7. Lighting within public right-of-way for the principal purpose of illuminating streets or roads. No exemptions shall apply to any lighting within the public right-of-way when the purpose of the luminaire is to illuminate areas outside the public right-of-way.
 8. Lighting required by county, state, or federal law.
 9. Outdoor luminaires for holiday décor with a maximum of 180 lumens per luminaire. Blinking or flashing holiday decorations are prohibited on nonresidential properties.
 10. Lighting for temporary events such as carnivals, circuses, festivals, fairs, civic events, approved through a Temporary Use Permit pursuant to Chapter 17.60 or a Special Event Permit pursuant to Chapter 14.16 and may be subject to conditions of approval, including but not limited to restrictions on shielding and uplighting, and establishment of curfews. Uplighting is prohibited during peak migratory wildlife seasons, currently during the months of May and September.
- B. The following outdoor lighting applications are exempt from the shielding requirements of this ordinance provided that they are turned off by 11 PM for residential properties or turned off thirty (30) minutes after closing or the completion of activities for nonresidential properties:
1. For residential uses, outdoor luminaires with a maximum output of up to eighty (80) lumens per luminaire, regardless of the number of bulbs. Luminaires of this type shall be limited to the illumination of human-activity areas defined in Section 17.26.020.
 2. For nonresidential uses, outdoor luminaires with a maximum output of up to 180 lumens per luminaire, regardless of the number of bulbs. Luminaires of this type shall be limited to the illumination of human-activity areas defined in Section 17.26.020. No part of this exception may be construed as applying to the illumination of surfaces primarily used for automobile uses, such as parking lots.
- C. Lighting of flagpoles and installations, as defined in Section 17.26.020, are not subject to height restrictions in Section 17.26.040(C) provided that the lighting is a top-down and shielded to illuminate only the flag(s) or installation(s).
- D. Motion-activation lighting if not illuminated for more than five (5) minutes upon activation and does not exceed 2000 lumens per luminaire, subject to the light trespass requirements in Section 17.26.080.

Section 3. Sections 8.1 to 8.7 of the City of Louisville Commercial Development Design Standards and Guidelines are hereby repealed and reenacted to read as follows:

8.1 Compliance with Outdoor Lighting Code.

Outdoor lighting shall comply with the Chapter 17.26 of the Louisville Municipal Code, as amended from time to time.

Section 4. Sections 8.1 to 8.5 of the City of Louisville Industrial Development Design Standards and Guidelines are hereby repealed and reenacted to read as follows:

8.1 Compliance with Outdoor Lighting Code

Outdoor lighting shall comply with the Chapter 17.26 of the Louisville Municipal Code, as amended from time to time.

Section 5. Any reference to outdoor lighting not in right-of-way is hereby repealed in the Design Handbook for Downtown Louisville. A new section L1 shall be added to Page 15 to read as follows:

L1. Compliance with Outdoor Lighting Code

Outdoor lighting shall comply with the Chapter 17.26 of the Louisville Municipal Code, as amended from time to time.

Section 6. Chapter 14. Exterior Site Lighting in the Mixed Use Development Design Standards and Guidelines is hereby repealed and reenacted to read as follows:

14. Compliance with Outdoor Lighting Code

Outdoor lighting shall comply with the Chapter 17.26 of the Louisville Municipal Code, as amended from time to time.

Section 7. If any portion of this ordinance is held to be invalid for any reason such decisions shall not affect the validity of the remaining portions of this ordinance

The City Council hereby declares that it would have passed this ordinance and each part hereof irrespective of the fact that any one part be declared invalid.

Section 8. The repeal or modification of any provision of the Municipal Code of the City of Louisville by this ordinance shall not release, extinguish, alter, modify, or change in whole or in part any penalty, forfeiture, or liability, either civil or criminal, which shall have been incurred under such provision, and each provision shall be treated and held as still remaining in force for the purpose of sustaining any and all proper actions, suits, proceedings, and prosecutions for the enforcement of the penalty, forfeiture, or liability, as well as for the purpose of sustaining any judgment, decree, or order which can or may be rendered, entered, or made in such actions, suits, proceedings, or prosecutions.

Section 9. All other ordinances or portions thereof inconsistent or conflicting with this ordinance or any portions hereof are hereby repealed to the extent of such inconsistency or conflict.

INTRODUCED, READ, PASSED ON FIRST READING, AND ORDERED

PUBLISHED this XX day of _____, 2023

_____, Mayor

ATTEST:

_____, City Clerk

APPROVED AS TO FORM:

City Attorney