



City of Coral Gables Planning and Zoning Staff Report

Applicant: City of Coral Gables
Application: **Zoning Code Text Amendment – Lighting**
Public Hearing: Planning and Zoning Board
Date & Time: November 13, 2024; 6:00 – 9:00 p.m.
Location: City Commission Chambers, City Hall,
405 Biltmore Way, Coral Gables, Florida 33134

1. APPLICATION REQUEST

The City of Coral Gables is requesting review and consideration of the following:

An Ordinance of the City Commission of Coral Gables, Florida, providing for text amendments to the City of Coral Gables official Zoning Code pursuant to Zoning Code Article 2, "Zoning Districts," and Article 12, "Ambience Standards," Section 12-100, "Lighting," and Article 16, "Definitions," to provide for illumination standards and definitions; providing for repealer provision, severability clause, codification, and providing for an effective date.

The request requires three public hearings, including review and recommendation by the Planning and Zoning Board, and 1st and 2nd Reading before the City Commission.

2. BACKGROUND INFORMATION

The City of Coral Gables emphasizes environmental responsibility and energy efficiency in its planning, policies, and services, with a commitment to minimizing the negative impacts of urban lighting. The Coral Gables 2010 Comprehensive Plan already encourages "Dark Skies" lighting strategies to reduce light pollution and enhance nighttime visibility. In line with these policies, the City Commission adopted regulations on February 9, 2021, requiring multi-family and mixed-use buildings to conform to Dark Skies standards. The City prides itself with its efforts to maintain low ambient lighting and minimizing light overspill onto adjacent properties, particularly in residential neighborhoods.

To further this environmental goal, the City is proposing amendments to the lighting code to reduce light pollution, prevent over-lighting at night, and encourage the use of energy-efficient, warm-toned lighting in residential neighborhoods. As requested by a member of the City Commission, Staff prepared a Zoning Code text amendment that update and enhance provisions to reflect changing technologies and practices and to align with the International Dark Skies Association (IDA)'s and the Illuminating Engineering Society's minimum standards.

Staff has researched how other municipalities regulate lighting within their codes:

- **Naples** regulates external lighting to not exceed 3.0 foot-candles on public sidewalks and 5.0 foot-candles on private property. It also sets a lighting temperature range between 2700 and 4000 Kelvin, restricting lighting to the first floor of buildings.

- The **City of Miami** imposes maximum foot-candle limits for average lighting levels at building frontages in different zones. All exterior lighting over 40 feet above finished grade must have a color temperature of 3000K or less.
- **Fairfax County, VA** requires full cut-off lighting fixtures and restricts all light sources (except for signs) to a maximum color temperature of 3000K. The county also has specific height and location requirements for light fixtures and requires dimming for non-residential lighting.
- **Kansas City, Missouri** has proposed converting some of its streetlights to dimmable 3000K LEDs as part of its lighting upgrades.
- **Los Angeles, California** has been a pioneer in LED streetlight adoption, promoting energy-efficient lighting across the city.
- **Austin, Texas** has replaced approximately 35,000 high-pressure sodium streetlights with LEDs, including 3000K options, as part of its energy efficiency initiatives.

This research demonstrates the growing emphasis on sustainability and lighting efficiency in various municipalities, providing valuable insights for Coral Gables' own lighting regulations.

To further the city's commitment to environmental sustainability, staff researched bird-friendly building design standards to reduce the negative impact of excessive artificial lighting on birds, which can disrupt their natural circadian rhythms. Based on ordinances from multiple municipalities and guidelines from environmental organizations, four major strategies have been identified to protect birds from collision: (a) Low color temperature lighting to reduce sky glow and minimize circadian disruptions; (b) Low intensity lighting to save energy and reduce glare; (c) Proper directionality of shielded light fixtures to limit light pollution; and (d) Reduced lighting exposure during spring and fall migration periods to decrease risks to birds. The proposed changes, in combination with current requirements in the Florida Building Code, align with these protective strategies to foster a more environmentally friendly environment.

The proposed general requirements aim to further enhance lighting standards across the City to apply to any new lighting installation on new or existing buildings. These include ensuring that fixtures with multiple bulbs are appropriately spaced to maintain low ambient lighting, and limiting redundant light on private properties adjacent to existing street lighting. The illumination of building tops for mixed-use buildings will require approval from the Board of Architects. Additionally, light color temperature will be limited to 3000 Kelvin within or adjacent to residential neighborhoods, and restrictions will be placed on the heights and setbacks of light poles on residential properties. Lumen maximums will be established for various types of lighting fixtures, including fully shielded, partly shielded, unshielded, and low voltage options. The illumination of non-residential buildings, such as mixed-use and office buildings, will be restricted to the ground level and the building top. Furthermore, light reduction will be required after work hours for parking lots and rooftop parking areas and for non-residential building tops after midnight to minimize unnecessary illumination.

The proposed code amendment promotes energy-efficient lighting and reduces excessive nighttime illumination to protect the character and tranquility of residential areas. By regulating light intensity, color temperature, fixture placement, and establishing lumen limits, the amendments support eco-friendly development and enhance residents' quality of life. Additionally, restrictions on light pole heights, setbacks, and after-hours lighting ensure a balanced, well-lit environment that aligns with the City's

aesthetic and environmental goals.

The text amendment was approved at City Commission on September 24th, 2024 for first reading (vote: 5 to 0).

Exterior lighting of non-residential buildings was discussed with the Board of Architects (BOA) on November 7, 2024. The Board discussed the even color or tone of 3000 Kelvin, but agreed to regulate it only within residential neighborhoods. Additionally, the Board suggested that the façade base and any architectural features should be illuminated. Members of the BOA emphasized the importance of designing exterior lighting that is appropriate to the design style and character of the building. In general, the Board desired to review and approve building illumination for non-residential/commercial buildings to ensure that the proposed lighting is consistent with the building’s design style and character. The Board’s suggestions have been incorporated into the proposed text amendment.

3. PROPOSED ZONING CODE TEXT AMENDMENT

The proposed Zoning Code text amendments are provided below in ~~striketrough~~/underline format.

Article 2. Zoning Districts

Section 2-102. Multi-Family 1 Duplex (MF1) District.

D. Performance standards. The following performance standards shall govern the general development of structures in the District. All duplexes shall have the exterior appearance of a single-family house. Where there are specific standards for properties that are specifically set forth in Appendix A. Site Specific Zoning Regulations, the regulations in Appendix A shall apply.

9. Architecture. Architecture requirements shall be as per Article 5, Architecture, and as follows:

- c. Lighting. External illumination and lighting of buildings shall be as per Article 12, Lighting conform to dark skies standards and shall require City Commission approval.

Section 2-103. Multi-Family 2 (MF2) District.

D. Performance standards. The following performance standards shall govern the general development of structures in the District. Where there are specific standards for properties that are specifically set forth in Appendix A. Site Specific Zoning Regulations, the regulations in Appendix A shall apply.

9. Architecture. Architecture requirements shall be as per Article 5, Architecture, and as follows:

- c. Lighting. External illumination and lighting of buildings shall be as per Article 12, Lighting conform to dark skies standards and shall require City Commission approval.

Section 2-104. Multi-Family 3 (MF3) District.

D. Performance standards. The following performance standards shall govern the general development of structures in the District. Where there are specific standards for properties that are specifically set forth in Appendix A. Site Specific Zoning Regulations, the regulations in Appendix A shall apply.

9. Architecture. Architecture requirements shall be as per Article 5, Architecture, and as follows:

- c. Lighting. External illumination and lighting of buildings shall be as per Article 12, Lighting ~~conform to dark skies standards and shall require City Commission approval.~~

Section 2-104. Multi-Family 4 (MF4) District.

D. Performance standards. The following performance standards shall govern the general development of structures in the District. Where there are specific standards for properties that are specifically set forth in Appendix A. Site Specific Zoning Regulations, the regulations in Appendix A shall apply.

9. Architecture. Architecture requirements shall be as per Article 5, Architecture, and as follows:

- c. Lighting. External illumination and lighting of buildings shall be as per Article 12, Lighting ~~conform to dark skies standards and shall require City Commission approval.~~

Section 2-201. Mixed Use 1, 2, and 3 (MX1, MX2, and MX3) District.

D. Performance standards.

9. Architecture. Architecture requirements shall be as per Article 5, Architecture.

- c. Lighting (building). External illumination and lighting of buildings shall be as per Article 12, Lighting ~~conform to dark skies standards and shall require City Commission approval.~~

Article 12. Ambience Standards

Section 12-100. Lighting.

Section 12-101. General requirements for all outdoor light.

A. Purpose and applicability.

1. It is the purpose of this Article to establish minimum standards for the provision and use of outdoor lighting in order to provide for the safe and secure night time use of public and private property while at the same time protecting adjacent land uses from intrusive light conditions.
2. These outdoor lighting standards are established to maintain the following objectives:
 - a. Reduce adverse impacts of lighting, such as overspill of lighting and obtrusive light.
 - b. Limit light pollution and improve the nighttime environment.
 - c. Promote the protection of the natural environment from the adverse effects of night lighting from electric sources.

- d. Conserve energy and resources to the greatest extent possible.
- 3. The following are exempt from the requirements of this Article:
 - a. Outdoor light fixtures required by federal, state, or county agencies for streetlights or required by law for emergency or construction work.
 - b. Motion-activated light fixtures that extinguish within five (5) minutes, if directed within the property and not toward the windows of abutting or adjacent properties.

B. General outdoor lighting standards.

- 1. Partly shielded or unshielded light fixtures with multiple bulbs shall provide the appropriate spacing between bulbs to maintain the desired low ambient lighting levels of the residential neighborhood.
- 2. Existing or proposed street lighting and any other light source within the right-of-way shall be considered when evaluating lighting provided on private property.
- 3. Proposed lighting for non-residential or residential buildings shall enhance rather than obscure the architectural features.

Section 12-102. Residential outdoor lighting.

A. Purpose. The purpose of the provisions of this section is to provide low ambient lighting levels to protect the nighttime character of residential neighborhoods.

B. Outdoor lighting standards for residential properties.

- 1. All light sources shall not exceed a Correlated Color Temperature (CCT) of 3000 Kelvin. Reports of certified results of lighting tests or specifications of light fixtures may be required to confirm compliance.
- 2. Fully shielded outdoor light fixtures shall be controlled and directed to the object intended to be illuminated. The maximum allowed lumen output for shielded fixtures shall not exceed 2,000 lumens. The direct glare of shielded flood lighting shall not be visible from adjacent properties.
- 3. Partly shielded or unshielded light fixtures shall not exceed 1,000 lumens at the main entrance. All other partly shielded or unshielded light fixtures shall be limited to 500 lumens.
- 4. Low voltage landscape lighting shall be directed away from abutting or adjacent properties and not exceed 1,000 lumens.
- 5. Maximum pole height shall be fourteen (14) feet. Light poles greater than seven (7) feet are subject to zoning setbacks, as set forth in Article 2.

Section 12-103. Non-Residential Outdoor lighting ~~permitted with standards.~~

A. Purpose. The purpose of the provisions of this section is to provide moderate lighting levels within non-residential districts while also protecting adjacent residential neighbors.

B. Outdoor lighting standards for non-residential properties.

Outdoor lighting for areas such as but not limited to, tennis courts, golf courses, sporting grounds, outside lighting for security purposes and night lighting of commercial non-residential buildings, ~~any of which abut residential areas~~ shall be permitted under the following conditions:

- 1. A. A permit for outdoor lighting may be issued if, after review of the plans and after consideration of the adjacent area and residential uses, the proposed lighting and direct glare will be deflected,

- shaded and focused away from adjacent properties and will not be a nuisance to such adjacent properties.
2. B. Outdoor lighting shall be designed shielded from any abutting or adjacent residential property so that any overspill of lighting onto abutting or adjacent properties shall not exceed one-half (½) foot-candle (vertical measured at 30" above finished grade) and one-half (½) foot candle (horizontal measured at ground level) illumination on abutting or adjacent properties.
 3. Illumination of the building exterior shall be limited to the building façade base (e.g. storefronts, building entrances, parking podium, and other pedestrian level spaces) and the building façade top (e.g. building eave or roof overhang, architectural features, penthouse, and other elements at the roof), unless approved by the Board of Architects to be consistent with the design style and character of the building.
 4. All light sources on properties abutting or adjacent to residential may not exceed a Correlated Color Temperature (CCT) of 3000 Kelvin. Reports of certified results of lighting tests or specifications of light fixtures may be required to confirm compliance.
 5. Proposed illumination of the façade top of non-residential buildings shall require approval by the Board of Architects.
 6. Illumination of non-residential building facades, displays, sculptures, signs, and other specific objects shall be lit from above, unless the light fixture does not exceed 3,500 lumens. Potential glare from below shall be avoided.
 7. All outdoor lighting lumens, except the ground floor, shall be reduced by at least thirty percent (30%) after midnight. All non-residential surface parking lots and unenclosed parking areas shall reduce the lighting level to the minimum allowed by Miami-Dade County Code Sec. 8C-3 within thirty (30) minutes after close of business. Reduced lighting may be achieved by extinguishing certain light poles, dimming lighting levels, or a combination of the above.

Article 16. Definitions

Correlated color temperature means the measure of the color appearance of the light emitted by a light source.

Glare means lighting entering the eye directly from luminaires or indirectly from reflective surfaces that cause visual discomfort or reduced visibility.

Lumen means the unit of measure used to qualify the amount of light produced by a lamp or emitted from a luminaire.

Shielded light fixture means a luminaire constructed and installed in a manner that all light emitted is projected below the horizontal plane of an opaque top (fully shielded), part of the light is emitted above the horizontal plane (partly shielded), or all light is emitted in all directions (unshielded).

4. REVIEW TIMELINE / PUBLIC NOTICE

City Review Timeline

The submitted applications have undergone the following City reviews:

REVIEW COMMITTEES AND BOARDS	DATE
City Commission 1 st Reading	09.24.24
Board of Architects	11.07.24
Planning and Zoning Board	11.13.24
City Commission 2 nd Reading	TBD

The following has been completed to solicit input and provide notice of the Application:

PUBLIC NOTICE	DATE
Legal advertisement	09.23.24
Posted agenda and Staff report on City web page/City Hall	10.04.24
Legal advertisement	11.01.24
Posted agenda and Staff report on City web page/City Hall	11.08.24

5. FINDINGS OF FACT

In accordance with Section 14-212.5 of the Zoning Code, the Planning and Zoning Board shall not recommend adoption of, and the City Commission shall not adopt, text amendments to these land Zoning Code unless the text amendment:

Standard	Staff Evaluation
a. Promotes public health, safety, and welfare.	By establishing regulations on light intensity and fixture placement, the amendment helps to create safer and more comfortable environments for pedestrians and residents during nighttime. By limiting light color temperature to 3000 Kelvin in or near residential areas, the amendment ensures that lighting is less harsh and more conducive to a restful environment, reducing potential sleep disruption and enhancing overall well-being for residents. Limiting glare and unnecessary light spillover contributes to better visibility, reducing potential hazards for drivers and improving overall safety. Additionally, the use of energy-efficient lighting and reduced illumination in parking lots after hours enhances environmental sustainability, while supporting a healthy and balanced urban living experience for the community.
b. Does not permit uses the Comprehensive Plan prohibits in the area affected by the text amendment.	The proposed amendment does not affect any uses permitted in the Comprehensive Plan.
c. Does not allow densities or intensities in excess of the densities and intensities	The proposed text amendment does not allow densities or intensities in excess of what are permitted by the future

<p>which are permitted by the future land use categories of the affected property.</p>	<p>land uses.</p>
<p>d. Will not cause a decline in the level of service for public infrastructure which is the subject of a concurrency requirement to a level of service which is less than the minimum requirements of the Comprehensive Plan.</p>	<p>The proposed text amendment will not affect the level of service for public infrastructure.</p>
<p>e. Does not directly conflict with any objective or policy of the Comprehensive Plan.</p>	<p>The proposed amendment does not directly conflict with any objective or policy of the Comprehensive Plan. The proposed amendments meet Goal GRN-1., Policy GRN-1.3.3, Policy FLU-1.11.1., Objective FLU-1.12., Policy FLU-1.12.1., Policy HOU-1.2.6., and Policy DES-1.1.2.</p>

Staff comments: Staff finds that all five of these criteria are **satisfied**.

Consistency Evaluation of the Comprehensive Plan (CP) Goals, Objectives and Policies

The Planning and Zoning Division has reviewed the CP and finds the following CP Goals, Objectives and Policies are applicable. Consistent CP Goals & Objectives and Policies are as follows:

Ref. No.	CP Goal, Objective and Policy	Basis for Consistency
1.	Objective FLU-1.11.1 Maintain and enforce effective development and maintenance regulations through site plan review, code enforcement, and design review boards and committees.	Complies
2.	Objective FLU-1.12. The City shall enforce the recently adopted Zoning Code which maintains the high aesthetic community design standards.	Complies
3.	Policy FLU-1.12.1. Maintain and enforce effective development and maintenance regulations.	Complies
4.	Policy DES-1.1.2. Provide for rigorous design guidelines, standards, and review processes via the City’s Zoning Code that ensure high quality design of buildings and spaces.	Complies
5.	Policy HOU-1.2.6. New development shall be compatible with adjacent established residential areas.	Complies
6.	Goal GRN-1. The City of Coral Gables will take measurable steps towards becoming a “sustainable” community by providing a healthy setting for residents, workers, property owners and visitors and increase awareness of green development practices and ways to have a significant impact on the City’s environment including the following: protecting the quality of air, water, land and other natural resources; conserving native vegetation, fish, wildlife and worldwide ecosystems; minimize the carbon footprint; and reduce greenhouse emissions.	Complies

Ref. No.	CP Goal, Objective and Policy	Basis for Consistency
7.	<p>Policy GRN-1.3.3. By 2011, the City will research and develop provisions within Zoning Code that will encourage development of LEED (or similar) certified buildings including but not limited to the examination of the following: Heat Island reduction via the following: Reduction in building heat gain through the use of green roofs that will encourage planting trees and plants on roof top gardens. White roofs (white reflective roofing). Increased open space. Use of local materials, certified sustainable wood products and/or highly recycled content products. Energy efficient equipment/fixtures. Water saving fixtures. Solar and wind energy provisions. Waste management and recycling. Rainwater harvesting. Pervious paver alternatives. Building orientation overhangs. “Dark skies” lighting strategies.</p>	Complies

The proposed amendment promotes energy-efficient lighting, limits excessive nighttime illumination, and encourages the use of warm-toned lighting with controlled intensity to preserve the character and tranquility of residential neighborhoods. Additionally, the amendment updates Article 16 of the Zoning Code by defining relevant lighting terminology to ensure clarity and consistency.

Per Objective FLU-1.11.1. and DES-1.1.2., the City aims to “Maintain and enforce effective development and maintenance regulations through site plan review, code enforcement, and design review boards and committees” and “Provide for rigorous design guidelines, standards, and review processes via the City’s Zoning Code that ensure high quality design of buildings and spaces.” By implementing these lighting standards, the City ensures that new developments not only meet aesthetic and design expectations but also contribute to environmental sustainability. This approach supports the City’s broader goals of reducing light pollution, improving energy efficiency, and enhancing the overall quality of life for residents while preserving the character of Coral Gables.

The text amendment aligns with Goal GRN-1 and Policy GRN-1.3.3., reflecting the City’s commitment to environmental-friendly development practices that prioritize energy efficiency, sustainability, and adherence to the Comprehensive Plan. Addressing light pollution is a growing initiative in cities across the United States and globally, aimed at promoting sustainability and reducing environmental impact. By adopting these practices, the City is reinforcing its dedication to minimizing its ecological footprint and fostering a greener future.

The proposed text amendment also supports Policy HOU-1.2.6, ensuring that new development remains compatible with adjacent established residential areas. By regulating light intensity, color temperature, and placement, the amendment protects the character and tranquility of residential neighborhoods, preventing intrusive or disruptive lighting from affecting nearby homes. The use of warm-toned, energy-efficient lighting ensures that new developments enhance the quality of life for residents while maintaining harmony with the surrounding residential environment. These measures help to preserve the residential atmosphere and ensure that new projects complement existing neighborhood conditions.

6. STAFF RECOMMENDATION

The Planning and Zoning Division recommends **approval**.

7. ATTACHMENTS

- A. Legal advertisement.
- B. PowerPoint Presentation.

Please visit the City's webpage at www.coralgables.com to view all Application plans and materials, notices, applicable public comments, minutes, etc. The complete Application and all background information also is on file and available for examination during business hours at the Planning and Zoning Division, 427 Biltmore Way, Suite 201, Coral Gables, Florida 33134.

Respectfully submitted,



Jennifer Garcia, AICP, CNU-A
Assistant Director of Development Services
for Planning and Zoning
City of Coral Gables, Florida

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Public Notice - Local Planning Agency/Planning and Zoning Board Notice of Public Hearing

Coral Gables | Publish Date: Nov 1, 2024


PUBLIC NOTICE is hereby given that the City of Coral Gables, Florida, Local Planning Agency (LPA)/ Planning and Zoning Board (PZB) will conduct Public Hearing on Wednesday, November 13, 2024, at 6:00 p.m.



Exterior Lighting

Zoning Code Text Amendment

PLANNING AND ZONING BOARD
NOVEMBER 13, 2024



1

CURRENT REGULATIONS

Article 2. ZONING DISTRICTS
Section 2-201. Mixed Use 1, 2 And 3 (MX1, MX2 And MX3) Districts.

9. Architecture. Building architecture shall be as per [Article 5, Architecture](#).

a. Pursuant to [Section 5-100, Review Standards](#), the Board of Architects shall review applications for aesthetic design and compatibility. The Board of Architects shall have the authority to deny proposed designs that do not comply with aesthetic standards. Applicants are required to submit and describe the proposed architectural style, with adequate documentation of precedents and aesthetic goals. The Board of Architects may approve minor adjustments for aesthetic purposes to the design regulations in order to enhance building design.

b. Facades in excess of one hundred and fifty (150) feet in length shall incorporate design features with the use of the following items:

- i. Breaks, stepbacks or variations in bulk/massing at an average of one hundred (100) feet intervals.
- ii. Use of architectural relief and elements.

c. Lighting (building). External illumination and lighting of buildings shall conform to dark skies standards and shall require City Commission approval.

ARTICLE 12. AMBIENCE STANDARDS

Section 12-100. Lighting

Section 12-101. Purpose and applicability.
 It is the purpose of this Article to establish minimum standards for the provision and use of outdoor lighting in order to provide for the safe and secure night time use of public and private property while at the same time protecting adjacent land uses from intrusive light conditions.

Section 12-102. Outdoor lighting permitted with standards.
 Outdoor lighting for areas such as but not limited to, tennis courts, golf courses, sporting grounds, outside lighting for security purposes and **night lighting of commercial buildings**, any of which abut residential areas shall be permitted under the following conditions:

A. A permit for outdoor lighting may be issued if, after review of the plans and after consideration of the adjacent area and residential uses, **proposed lighting will be deflected, shaded and focused away from adjacent properties and will not be a nuisance to such adjacent properties.**

B. Outdoor lighting shall be designed so that any overspill of lighting onto adjacent properties shall **not exceed one-half (½) foot-candle (vertical) and one-half (½) foot candle (horizontal) illumination on adjacent properties.**

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CURRENT REGULATIONS

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Chapter 8C - BUILDING SECURITY MEASURES⁽¹⁾

Footnotes:

— (1) —

Editor's note—Ord. No. 03-214, § 1, adopted Oct. 7, 2003, amended chapter 8C by changing its title from "Parking Lots Illumination and Public Swimming Pools, Spas, and Hot Tub Barriers" to "Building Security Measures."

Editor's note—Ord. No. 01-196, § 1, adopted Nov. 20, 2001, added a new chapter 8C, sections 8C-1—8C-4. Former chapter 8C, pertaining to intrusion and burglary security was repealed by Ord. No. 96-171, § 4, adopted Nov. 19, 1996 and derived from Ord. No. 76-18, § 1, adopted Feb. 3, 1976 and Ord. No. 79-114, § 1, adopted Dec. 4, 1979.

Sec. 8C-1. - Provisions for parking lots illumination, air conditioning condenser unit security, and public swimming pools, spas and hot tub barriers and installation of guardrails and other traffic barriers for parking lots to be set forth in this chapter and the Florida Building Code.

This chapter prescribes requirements for illumination for open parking lots, alleys and access thereto and parking under or within buildings for all buildings and structures, air conditioning condenser unit security and barriers for new construction of public swimming pools, spas and hot tubs and installation of guardrails and other traffic barriers for parking lots abutting bodies of water.

(Ord. No. 01-196, § 1, 11-20-01; Ord. No. 03-214, § 2, 10-7-03; Ord. No. 12-84, § 1, 10-2-12)

Sec. 8C-2. - Application, enforcement, and exemptions.

The provisions of this chapter, except where otherwise provided, shall apply to the incorporated and unincorporated areas of Miami-Dade County. It is provided, however, that the municipalities may enact more restrictive regulations than set forth in this chapter. The enforcement of this chapter shall be the responsibility of the local building official. Except for certain exemptions for government facilities as expressly provided, [Section 8C-3](#) below shall apply to existing occupancies as well as those constructed subsequent to the effective date of this chapter.

Every new and existing building for the purpose of this Chapter shall be classified in accordance with [Chapter 3](#), "Occupancy Classification" of the Florida Building Code. Whenever there is any uncertainty as to the classification of a building, the Building Official for purposes of this chapter shall have the authority to make the determination of the classification within which it falls.

(Ord. No. 01-196, § 1, 11-20-01; Ord. No. 12-84, § 2, 10-2-12)

Sec. 8C-3. - Illumination for open parking lots, alleys and access thereto and parking and nonenclosed areas under or within buildings.

(a) Generally:

- (1) This section applies to new construction and all existing buildings.
- (2) Open parking lots, alleys, and access thereto shall be illuminated as set forth below. For purposes of this paragraph, alley is defined as a narrow vehicular thoroughfare up to twenty-five (25) feet in width upon which service entrances or buildings abut and not generally used as a thoroughfare for general traffic; provided, however, alleys shall not include public rights-of-way.

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CURRENT REGULATIONS

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Codes / Florida / 2023 Florida Building Code, Energy Conservation, Eighth Edition ▾

Chapter 4 [CE] Commercial Energy Efficiency

C405.2.7.2 Building facade and landscape lighting.

Building facade and landscape lighting shall automatically shut off from not later than one hour after business closing to not earlier than one hour before business opening.

C405.2.7.3 Lighting setback.

Lighting that is not controlled in accordance with Section C405.2.7.2 shall comply with the following:

1. Be controlled so that the total wattage of such lighting is automatically reduced by not less than 50 percent by selectively switching off or dimming luminaires at one of the following times:
 - 1.1. From not later than midnight to not earlier than 6 a.m.
 - 1.2. From not later than one hour after business closing to not earlier than one hour before business opening.
 - 1.3. During any time where activity has not been detected for 15 minutes or more.
2. Luminaires serving outdoor parking areas and having a rated input wattage of greater than 78 W and a mounting height of 24 feet (7315 mm) or less above the ground shall be controlled so that the total wattage of such lighting is automatically reduced by not less than 50 percent during any time where activity has not been detected for 15 minutes or more. Not more than 1,500 W of lighting power shall be controlled together.

C405.2.7.4 Exterior time-switch control function.

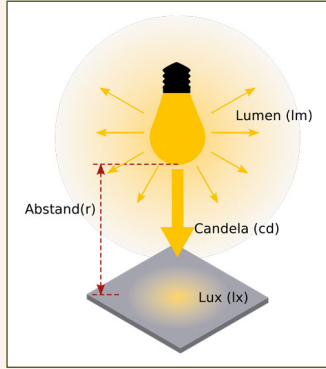
Time-switch controls for exterior lighting shall comply with the following:

1. They shall have a clock that is not less than 7 days.
2. They shall be capable of being set for seven different day types per week.
3. They shall incorporate an automatic holiday setback feature.
4. They shall have program backup capabilities that prevent the loss of program and time settings for not less than 10 hours, if power is interrupted.

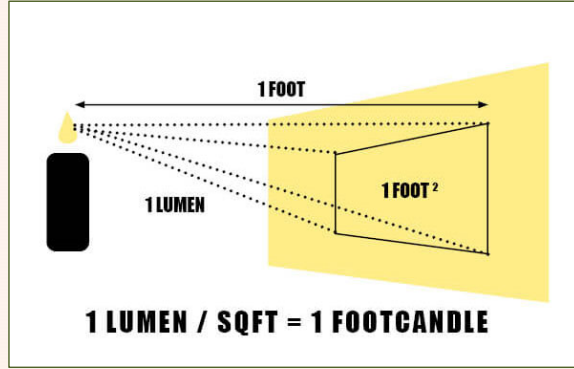
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REGULATING LIGHT



Lumen: the unit of the perceived power of visible light



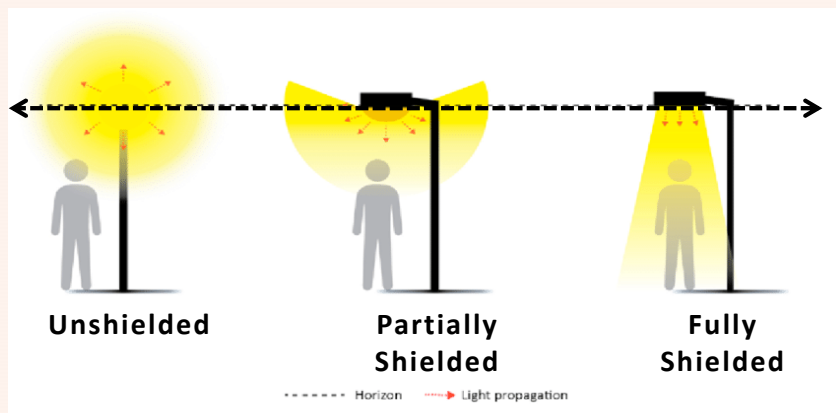
Foot-candle: one lumen per square foot

A non-SI unit of illuminance (lux, by SI) or light intensity (candela, by SI).

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REGULATING LIGHT



Shielding: a fixture light distribution where no light intensity, some light intensity, or all light intensity is emitted at or above a horizontal plane drawn through the bottom of the fixture

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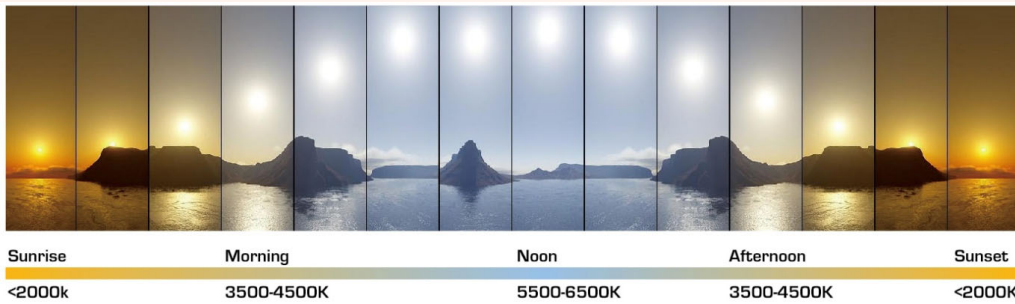
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REGULATING LIGHT

Correlated Color Temperature (CCT) describes the relative proportions of red and orange (low frequency) and blue and violet (high frequency) in white light. And is measured in *kelvin (K)*

Kelvin measures the color or warmth of white light, with lower temperatures indicating warmer colors

Commercial and residential lighting uses temperatures between **2000 - 6500 K**



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REGULATING LIGHT

Municipalities that use LEDs with *lower color temperatures* to mitigate the potential negative effects of higher temperature lights on both the *environment* and *human health*:

- **Kansas City, MO:** actively converting the “cobra head” fixtures to dimmable **3000K LEDs in residential** areas, and **4000K on wider, arterial roads**
- **Los Angeles, CA:** completing the world’s largest LED replacement; incorporating **3000K LEDs in some areas**
- **Austin, TX:** replaced with LEDs with 4000K, with *optional 3000K*

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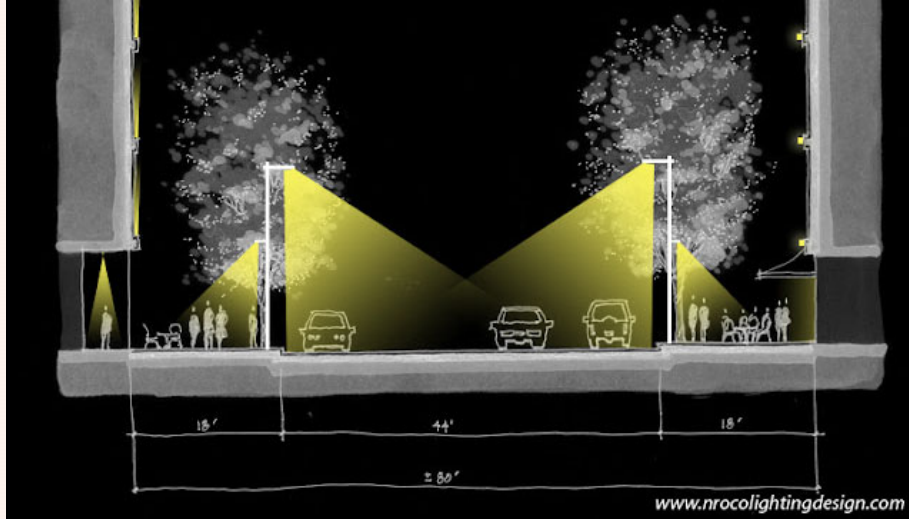
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REGULATING LIGHT

Building
Illumination

Street
lighting

Building
Illumination




www.nrocolightingdesign.com


10

10

REGULATING LIGHT



Illuminating
ENGINEERING SOCIETY



ida
INTERNATIONAL
DARK SKY
ASSOCIATION

JOINT IDA - IES

**MODEL
LIGHTING
ORDINANCE
(MLO)**

with **USER'S GUIDE**

June 15, 2011

Table D Performance Method Allowed Total Initial Site Lumens

May be used on any project.

Lighting Zone	LZ 0	LZ 1	LZ 2	LZ 3	LZ 4
Allowed Lumens Per SF	0.5	1.25	2.5	5.0	7.5
Allowed Base Lumens Per Site	0	3,500	7,000	14,000	21,000

Table G - Residential Lighting Limits

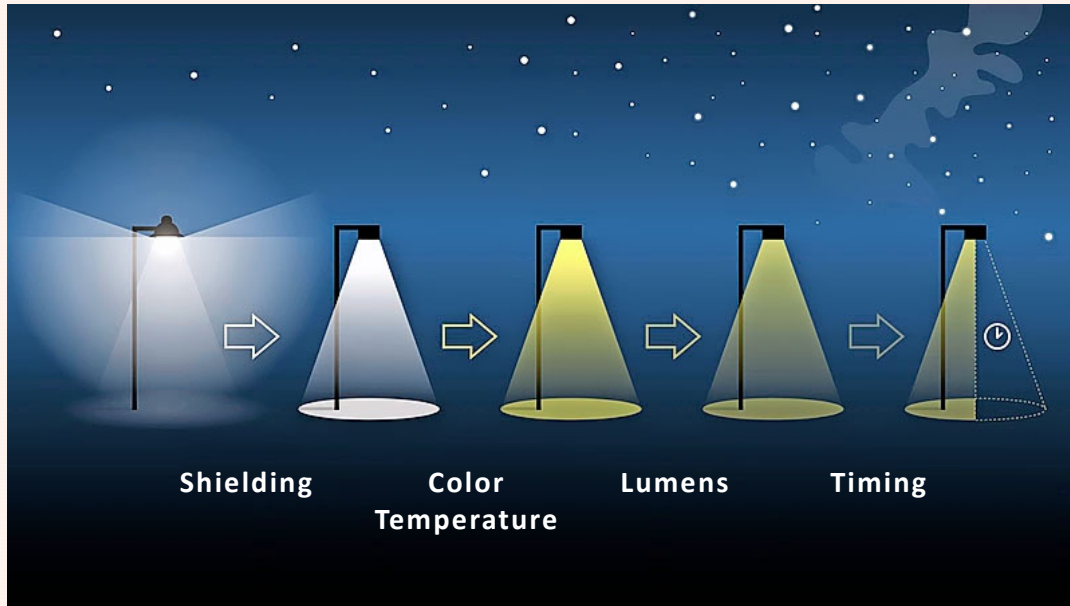
Lighting Application	LZ 0	LZ 1	LZ 2	LZ 3	LZ 4
Row 1 Maximum Allowed Luminaire Lumens* for Unshielded Luminaires at one entry only	Not allowed	420 lumens	630 lumens	630 lumens	630 lumens
Row 2 Maximum Allowed Luminaire Lumens* for each Fully Shielded Luminaire	630 lumens	1,260 lumens	1,260 lumens	1,260 lumens	1,260 lumens
Row 3 Maximum Allowed Luminaire Lumens* for each Unshielded Luminaire excluding main entry	Not allowed	315 lumens	315 lumens	315 lumens	315 lumens
Row 4 Maximum Allowed Luminaire Lumens* for each Landscape Lighting	Not allowed	Not allowed	1,050 lumens	2,100 lumens	2,100 lumens
Row 5 Maximum Allowed Luminaire Lumens* for each Shielded Directional Flood Lighting	Not allowed	Not allowed	1,260 lumens	2,100 lumens	2,100 lumens
Row 6 Maximum Allowed Luminaire Lumens* for each Low Voltage Landscape Lighting	Not allowed	Not allowed	525 lumens	525 lumens	525 lumens

* Luminaire lumens equals Initial Lamp Lumens for a lamp, multiplied by the number of lamps in the luminaire

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PROPOSED LIGHTING REQUIREMENTS



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PROPOSED GENERAL REQUIREMENTS

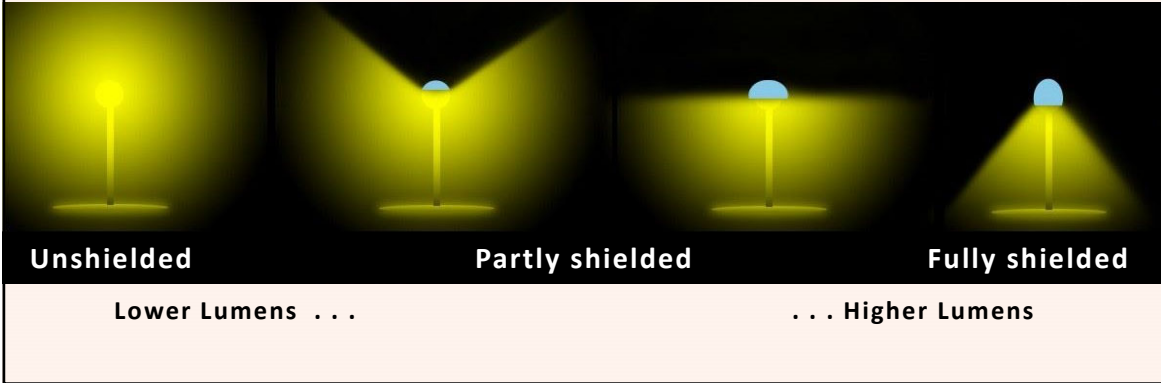
- Require that fixtures with multiple **bulbs** to be appropriately spaced to maintain low ambience;
- **Limit redundant light** on private property adjacent to existing street lighting;
- Limit the light color temperature to **3000 Kelvin** within or adjacent to residential neighborhoods;



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PROPOSED RESIDENTIAL REQUIREMENTS

- Limit **heights and setbacks of light poles** in residential properties;
- Provide for **lumen maximums** for certain types of lighting fixtures (fully shielded, partly shielded, unshielded, low voltage, etc);



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PROPOSED NON-RESIDENTIAL REQUIREMENTS

- Limit the illumination of non-residential buildings (mixed-use, office, etc) to the **ground level and the building facade top**;
- Require **Board of Architects approval** for illumination of the building tops of mixed-use buildings;
- Require **light reduction** after work hours for parking lots and rooftop parking, and for non-residential building façade tops after midnight

Sec. 8C-3. - Illumination for open parking lots, alleys and access thereto and parking and nonenclosed areas under or within buildings.

(a) Generally:

(1) This section applies to new construction and all existing buildings.

(2) Open parking lots, alleys, and access thereto shall be illuminated as set forth below. For purposes of this paragraph, alley is defined as a narrow vehicular thoroughfare up to twenty-five (25) feet in width upon which service entrances or buildings abut and not generally used as a thoroughfare for general traffic; provided, however, alleys shall not include public rights-of-way.

(b) Groups A (Assembly), D (Day Care) and E (Educational) occupancies:

(1) Open parking lots and access thereto shall be provided with a maintained minimum of 1 foot-candle on the parking surface from dusk until dawn; provided, however, the lighting level may be reduced by fifty (50) percent on non-business days and commencing thirty (30) minutes after the termination of business on each operating day. The uniformity ratio shall not exceed a twelve to one ratio (12:1) maximum to minimum foot-candles. This provision shall not apply to governmental facilities not generally open to the public, and shall apply to those governmental facilities that are generally open to the public only during the dusk-to-dawn hours such facilities are open.



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Exterior Lighting

Zoning Code Text Amendment

PLANNING AND ZONING BOARD
NOVEMBER 13, 2024

