

ORDINANCE NO. 2015-018

AN ORDINANCE OF THE CITY OF COCONUT CREEK, FLORIDA, AMENDING CHAPTER 13 OF THE CODE OF ORDINANCES, ENTITLED "LAND DEVELOPMENT CODE," BY AMENDING ARTICLE III, ENTITLED "ZONING REGULATIONS," BY AMENDING DIVISION 4, ENTITLED "ACCESSORY USES AND STRUCTURES," BY AMENDING SUBDIVISION I, ENTITLED "IN GENERAL," BY AMENDING SECTION 13-374, ENTITLED "LIGHTING STANDARDS AND REQUIREMENTS BY REPEALING IT IN ITS ENTIRETY AND REPLACING IT WITH A NEW SECTION 13-374, ENTITLED, "OUTDOOR LIGHTING" TO PROVIDE FOR UPDATED STANDARDS AND REGULATIONS PERTAINING TO OUTDOOR LIGHTING CONSISTENT WITH DARK SKY PRINCIPLES; PROVIDING FOR CODIFICATION; PROVIDING FOR SEVERABILITY; PROVIDING FOR CONFLICT; AND PROVIDING AN EFFECTIVE DATE.

WHEREAS, the City desires to amend Chapter 13 of the Code of Ordinances, Article III, Division 4 entitled "Accessory Uses and Structures," by amending Subdivision I entitled "In General," by amending Section 13-374, entitled "Outdoor Lighting;" and

WHEREAS, this amendment addresses lighting standards that will minimize glare, light trespass, and skyglow; conserve energy while maintaining nighttime safety, security, and productivity; protect the privacy of residents; minimize disturbance of wildlife; enhance the ambiance of the community; and ensure optimal viewing of night skies above the City; and

WHEREAS, the Planning and Zoning Board has reviewed this amendment at a duly noticed hearing on April 8, 2015, and recommended its adoption; and

WHEREAS, the City Commission finds and determines that the Outdoor Lighting standards and requirements in need of amendment to address the principles of "Dark Sky".

NOW, THEREFORE, BE IT ORDAINED BY THE CITY COMMISSION OF THE CITY OF COCONUT CREEK, FLORIDA:

Section 1: That the foregoing recitals, findings of fact, and staff reports and documents are true and correct, and are hereby incorporated by reference.

Section 2: That Chapter 13 of the City’s Code of Ordinances entitled, “Land Development Code”, is hereby amended by amending Article III, entitled “Zoning Regulations,” by amending Division 4, entitled “Accessory Uses and Structures,” by amending Subdivision I entitled “In General,” by repealing Section 13-374, entitled “Lighting Standards and Requirements” and enacting a new Section 13-374, entitled “Outdoor Lighting” to read as follows:

ARTICLE III. ZONING REGULATIONS

DIVISION 4. ACCESSORY USES AND STRUCTURES

Sec. 13-374. OUTDOOR LIGHTING

(1) Definitions

The following words, terms and phrases when used in this division, shall have the meanings ascribed to them in this section, except where the context clearly indicates a different meaning:

Artificial light or artificial lighting: the light emanating from any manmade device.

"Bug" type bulb: any yellow or other light bulb specifically designed to reduce the attraction of insects to the light.

Bulb or lamp: **the component of a luminaire that produces the actual light.** To be distinguished from the whole assembly (see luminaire).

Direct light: light emitted directly from the lamp, off of the reflector or reflector diffuser, or through the refractor or diffuser lens, of a luminaire.

CODING: Words in ~~struck through~~ type are deletions from existing text.
Words in underscored type are additions to existing text.
A line of *** indicates existing text not shown.

Fixture: colloquially used to define the assembly that houses the lamp or lamps and can include all or some of the following parts: A housing, a mounting bracket or pole socket, a lamp holder, a ballast, a reflector or mirror, and/or a refractor or lens. (see luminaire).

Flood or spot light: any fixture or lamp that incorporates a reflector or a refractor to concentrate the light output into a directed beam.

Full cutoff fixture: IESNA classification that describes a fixture or luminaire having a light distribution in which zero candela intensity occurs at or above an angle of 90° above nadir. Additionally, the candela per 1000 lamp lumens does not numerically exceed 100 (10%) at or above a vertical angle of 80° above nadir. This applies to all lateral angles around the luminaire. Colloquially used to define a luminaire that does not emit any light, either directly or by reflection or diffusion, above a horizontal plane running through the lowest part of the fixture.

Glare: Light emanating directly from a light source, lamp, reflector or lens that creates visual discomfort or momentary blindness when viewed.

Hardscape: Permanent hardscape improvements to the site including parking lots, drives, entrances, curbs, ramps, stairs, steps, medians, walkways and non-vegetated landscaping that is 10 feet or less in width. Materials may include concrete, asphalt, stone, gravel, etc.

HPS: High Pressure Sodium.

Hardscape Area: The area measured in square feet of all hardscape. It is used to calculate the Total Site Lumen Limit.

IESNA: Illuminating Engineering Society of North America.

Lamp or bulb: the component of a luminaire that produces the actual light. To be distinguished from the whole assembly (see luminaire).

LED: Light-Emitting Diode.

Light trespass: light from an artificial light source that is intruding into an area where it does not belong, such as an adjoining or nearby property.

LPS: Low Pressure Sodium.

Luminaire: the assembly that houses the lamp or lamps and can include all or some of the following parts: A housing, a mounting bracket or pole socket, a lamp holder, a ballast, a reflector or mirror, and/or a refractor or lens. (see fixture).

Outdoor lighting: the nighttime illumination of an outside area or object by any fixed luminaire. Vehicle lights and flashlights are not included in this definition.

Skyglow: illumination of the sky from artificial sources.

Uplighting: any luminaire that directly or indirectly projects light above a horizontal plane passing through its lowest point.

Wallpacks: luminaires placed along the outer walls of buildings.

Wall wash: any luminaire that is directly or indirectly used to light the exterior or draw attention to the exterior of a structure.

Wildlife-Friendly Lighting: bulbs in the visible spectrum (four hundred (400) to seven hundred (700) nanometers).

(2) General Provisions.

- a. *Purpose and intent.* The purpose of this section is to set outdoor lighting standards that will minimize glare, light trespass, and skyglow; conserve energy while maintaining nighttime safety, security, and productivity; protect the privacy of residents; minimize disturbance of wildlife; enhance the ambiance of the community; and ensure optimal viewing of spectacular night skies above the City of Coconut Creek. It is the intent of this section that all luminaires in the City be brought into compliance with the standards of this section in accordance with the conditions established in subsection 13-374(2)f.2. To encourage the replacement of nonconforming outdoor light fixtures, the issuance of a permit, solely for outdoor light fixtures, does not trigger compliance with code requirements unrelated to outdoor lighting. Further, the issuance of a permit for any purpose other than outdoor lighting will not require the replacement or removal of existing nonconforming outdoor lighting as a condition of authorizing such permit, except in accordance with the conditions in subsection 13-374(2)f.2.
- b. The current edition of the "IES Lighting Handbook," published by the Illumination Engineering Society of North America is the standard to be used by the architect or engineer as a guide for the design and testing of parking facility lighting. The standards contained therein shall apply unless standards developed and adopted by this section or subsequent amendments are more severe, in which case the more restrictive standards shall apply.
- c. *Applicability.*
 1. All residential uses, (regardless of structure type) and non-residential land uses. All new luminaires must comply with the standards of this section.

2. A permit is not required to reposition or switch out a fixture for a like-style fixture; however, all other electrical work is subject to compliance with the Florida Building Code, as may be amended from time to time.
 3. Renovation or reconstruction does not require compliance with this code unless over fifty percent (50%), as noted in Subsection 13-374(2)f.2.
- d. *Standards.* In addition to the standards for outdoor lights established in this subsection, there are setback standards and height limitations for outdoor lights provided in Section 13-238, "**Streetlights**" and 13-443 (7) f. "**Landscape**".
1. **Multi-family land uses in the City shall have a lumen limit of five (5.0) lumens per square feet (SF) of hardscape. Commercial/office land uses in the City shall have a lumen limit of seven and a half (7.5) per square feet of hardscape. See table below.**

TOTAL LUMENS ALLOWED PER SITE	
Hardscape Area (SF)	50,000
Allowed Lumens per SF of Hardscape	5.0
Site allowed Total Lumens <i>(lumens per SF x hardscape)</i>	250,000

2. Parking lot lights for nonresidential land uses shall, individually and in aggregation with other outdoor lights, not exceed a maximum site illumination of ten (10) footcandles, measured at **three (3)** feet above ground.
3. All exterior lighting in all districts shall be designed and installed to prevent glare and light trespass. Light shall not be allowed to cause glare affecting motorists, bicyclists, or other users of roads, driveways, and bicycle paths.
4. Light from a property in any district shall not trespass over property lines.
5. Full cutoff fixtures must be used. Flood **or spot** lights **and wallpacks** are prohibited. **Wall wash as a lighting tool is prohibited.** All outdoor lighting, including display, sign, building, parking lot, and aesthetic lighting, must use full cutoff fixtures **or equivalent.**
6. Functional equivalents allowed. Lights that are properly installed in an architectural space (such as under a porch roof or a roof overhang) which provides the functional equivalence of a full cutoff fixture, need not use full cutoff fixtures.

7. Mercury vapor lighting is prohibited. Energy efficient lighting (high/low pressure sodium, LED) is recommended and encouraged.
8. Wildlife-Friendly lighting is encouraged for all land uses.
9. In all residential districts, pedestrian scale lighting shall be used with a maximum twelve feet (12') overall height, excluding parking areas.
10. In residential and commercial settings, motion-detecting security lighting is permitted and encouraged in order to maximize safety, minimize overall illumination, and conserve energy.
11. All non-residential land uses shall reduce site illumination to a maximum of one (1) footcandle within one (1) hour of the close of business hours. This includes parking, building, landscape, and any specialty lighting.
12. In no case shall a bulb be exposed beyond the luminaire housing.
13. Multi-story garage structures shall adhere to the maximum footcandle criteria set forth in this section. Consideration will be given for increased lighting if "green screens" are planned for the project to minimize light emitting from the structure.
14. Solar power is encouraged in all districts to further the energy saving goals of this ordinance.
15. Low-Voltage uplighting may be permitted upon review of overall site photometric design.

e. *Exemptions.* The following are exempt from the requirements of this section:

1. All temporary emergency lighting needed by the police or fire departments or other emergency services, as well as all vehicle luminaires.
2. Lighting for public streets, roads, and rights-of-way, including greenways.
3. All hazard warning luminaires required by federal or state regulatory agencies are exempt from the requirements of this subsection. Unless otherwise mandated, all luminaires used must be yellow/amber and must be shown to be as close as possible to the federally or state required minimum lumen output requirement for the specific task.
4. Holiday lighting.
5. Football, baseball, soccer fields (and the like), except that steps shall be taken to minimize glare and light trespass.

6. Swimming pool in-water lighting.

f. *Nonconforming luminaires.* The following categories of outdoor lights must be brought into compliance with the standards of this section in accordance with the criteria provided.

1. Upon the effective date of this ordinance, all luminaires that direct light toward streets, bicycle paths, or parking lots that cause glare to motorists or cyclists shall be either shielded or redirected so that the luminaires do not continue to cause a potential hazard.

2. All luminaires, not identified in Subsection 13-374(2)f.1. above, shall be permitted to remain until the building permit value of a site renovation or improvement (building additions, renovation of existing buildings or site, and building space) exceeds fifty percent (50%) of the replacement cost of the building or building space. At such time, all outdoor lights shall be brought into compliance with the standards of this section. However, any luminaire that replaces a lawfully existing luminaire, or any lawfully existing luminaire that is moved, must meet the standards of this section.

(3.) Interpretation.

a. Where any of the provisions of this section appear to be in conflict with state or federal laws preempting local authority, including the Florida Building Code, they shall not take effect until such time as the preemption is withdrawn.

b. Where any of the provisions of this section appear to be in conflict with another provision of this division or another provision of this Land Development Code, the provision providing the greatest protection against glare, light trespass and sky glow shall apply.

(4.) Enforcement.

At any time the City is made aware of a possible compliance issue, City Staff will take site illumination measurements. Should the site fail inspection, a notice will be given to the property owner in accordance with normal code enforcement procedures.

(5.) Photometric Plans.

a. A "point to point" lighting plan signed and sealed by an engineer registered in the state of Florida shall be submitted with any site plan application.

1. The lighting plan shall include all visible exterior lighting for the project, including lighting for parking, landscape, building (architectural, safety, interior), and signage. It is the responsibility of the design engineer to meet the lumen and footcandle requirements listed in Subsection 13-374(2)d. 1. and 2, and to adequately convey this on the photometric plans. Approved

plans do not constitute approval of the final design by the City if field measurements exceed the maximum noted requirements. Additionally, photometric plans shall include the following table:

LIGHTING COMPLIANCE CHART*			
Lamp Descriptions	QTY	Luminaire Lumens	Total
18w LED	24	1,020	24,480
150w HPS	10	15,800	158,000
70w LPS	5	12,600	63,000
TOTAL LUMINAIRE LUMENS			245,480
**Site allowed Total Lumens (lumens per SF x hardscape)			250,000
PROJECT IS COMPLIANT?			YES

*lamp type, quantity, lumens, and allowed lumens are examples only

** Allowable lumens calculations per Subsection 13-374(2)d.1.

b. The lighting system shall not be placed in permanent use until the design engineer has certified in writing that the system has been field tested and has been installed and is functioning per the approved plans and specifications.

c. Final Certificate of Occupancy of the project is contingent on the site passing the photometric lighting requirements set forth in this section.*****

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Section 3: That in the event any provision or application of this Ordinance shall be held to be invalid, it is the legislative intent that the other provisions and applications hereof shall not be thereby affected.

Section 4: That the provisions of this Ordinance shall be codified within the Code of Ordinances of the City of Coconut Creek, Florida, and any paragraph or section may be renumbered to conform with the Code of Ordinances.

Section 5: That all ordinances or parts of ordinances in conflict herewith are to the extent of said conflict, hereby repealed.

Section 6: That this Ordinance shall take effect immediately upon its passage

and adoption.

PASSED FIRST READING THIS 28 DAY OF May, 2015.

PASSED SECOND READING THIS 23rd DAY OF July, 2015.

Rebecca A. Tooley, Mayor

Attest:

Leslie Wallace May, MMC
City Clerk

	<u>1st</u>	<u>2nd</u>
Tooley	<u>Aye</u>	<u>Aye</u>
Belvedere	<u>Aye</u>	<u>Aye</u>
Sarbone	<u>Aye</u>	<u>Aye</u>
Welch	<u>Aye</u>	<u>Aye</u>
Rydell	<u>Aye</u>	<u>Aye</u>

WSS:jw

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