

Palm Beach County Lighting Ordinance

Section 5.E.4.E. Outdoor Lighting

E. Outdoor Lighting

1. Purpose and Intent

It is the intent of this Section to preserve, protect, and enhance the lawful nighttime use and enjoyment of any and all property through the use of appropriate lighting practices and systems. Such individual fixtures, luminaries and lighting systems are designed, constructed, and installed to: control glare and light trespass, minimize obtrusive light, eliminate the increase of lighting levels on competing sites, provide safe roadways for motorists, cyclists and pedestrians, conserve energy and resources while maintaining safety, security and productivity, and curtail the degradation of the nighttime visual environment.

2. Applicability

All outdoor lighting shall be subject to the requirements of Table 5.E.4.D - 15, Illumination Levels, and Table 5.E.4.D - 16, Maximum Permitted Luminaire Height, unless exempted or permitted to deviate as described herein. Lighting not specifically listed may be classified by the Executive Director of PZB pursuant to Art. 1.B, Interpretation of the Code. In Addition to the standards in this Section, outdoor lighting shall be consistent with Article 14, Environmental Standards.

a. Conflict

In the case of a conflict between this Section other provisions of this Code, or other applicable codes, the more strict regulation shall apply.

b. Non-conforming Lighting

All luminaries that do not comply with the standards of this Section shall be subject to the limitations on expansion, maintenance, relocation, damage repair and renovations pursuant to Art. 1.F, Non-conformities.

c. Exemptions

The following uses shall be exempt to the extent listed below:

1) Residential

Single-family, townhouses, multi-family dwellings up to two units shall not be subject to the requirements of this Section.

2) Street Lights

Street lights in any public ROW that meet the requirements of the appropriate public utility.

3) Temporary Lighting

The temporary use of low wattage or low voltage lighting for public festivals, celebrations, and the observance of holidays are exempt from regulation except where they create a hazard or nuisance from glare.

4) Landscape and Accent Lighting

Landscape and Accent Lighting fixtures that comply with the Florida Building Code, Chapter 13 Section 13-415.1ABC.2.1 efficacy requirements shall be exempt. All exempt Landscape and Accent Lighting fixtures must have a locking mechanism and a glare shield so that light is aimed, and remains aimed at the surface intended.

d. Prohibited Outdoor Lighting

The following types of outdoor lighting are prohibited in unincorporated PBC:

- 1) Any light that creates glare observable within the normal range of vision onto a street or creates a safety hazard;

- 2) Any light that resembles an authorized traffic sign, signal, or device, or that interferes with, misleads, or confuses vehicular traffic as determined by the Zoning Director or Traffic Director;
- 3) Beacon or searchlights, except for temporary grand openings and special events, as limited by State of Florida or Federal law;
- 4) Any drop lens fixture or fixture that does not meet the IESNA Full-Cutoff classification of 0% of lumens above 90 degrees from nadir. This includes, but is not limited to, parking lot fixtures, building façade fixtures, and other non-landscape lighting fixtures.
- 5) Animated lighting, unless authorized under Art.8, Signage.

e. Deviations

Lighting may vary from this Section to the extent necessary to comply with the following:

- 1) F.S. 655.962, related to ATM lighting;
- 2) F.S.812.173, related to Parking lots for Convenience Businesses;
- 3) Lighting on Public Schools required by FBC Chapter 423, and the SDPBC Electrical Design Criteria;
- 4) Airport Lighting regulated by State or Federal law;
- 5) Lighting for obstructions to air navigation as provide U.S. Department of Transportation, Federal Aviation Administration Advisory Circular 70/7460-1K;
- 6) Lights required on vehicles under state uniform traffic control statutes or for vessels under vessel safety statutes under F.S. 316 and 327;
- 7) Lighting for public health required by F.S. 381;
- 8) Electrical code statute requirements under state building code;
- 9) F.S. 553.963 and F.S. 553.904, Efficiency and Energy Conservation Statutes under Building Code Standards;
- 10) Lighting for outdoor theaters under F.S. 555.07;
- 11) Lighting for communication towers under Art. 4.C.4.Q.2 of the ULDC; and
- 12) Other federal, state and local laws and regulations that may apply.

3. Submittal Requirements

a. Photometric Plan

All building permit applications that include the use of external luminaires, or luminaires visible from the exterior of a structure shall include an outdoor lighting plan and an outdoor security lighting plan showing location, type, and height of all luminaires, and photometrics in foot-candle output of all proposed and existing luminaires on-site. On-site lighting to be included in the calculations shall include, but is not limited to, lighting for parking lot, canopies, recessed lighting along the building and/or overhang. Each plan shall include any calculations or modifications required to comply with items listed in Art. 5.E.4.E.2.e, Deviations. The photometric plans shall include the following:

- 1) A table showing the average, minimum, and maximum foot-candles, average to minimum ratio, and maximum to minimum ratio on the site, and maximum luminaire heights. Maximum photometric calculation grid shall not exceed ten feet.
- 2) Manufacturer's catalog cuts that provide a description of the luminaires, including wattage, lumen output, glare reduction/control devices, lamps, on-off cycle control devices and mounting devices.
- 3) All photometric plans must be signed and sealed by a licensed engineer, architect or Landscape Architect.
- 4) A Certificate of Compliance signed and sealed by a licensed engineer, architect or Landscape Architect, must be submitted prior to the issuance of a Certificate of Occupancy.
- 5) The photometric plan shall not include time averaging or other alternative methods of measurement. A Light Loss Factor (LLF) shall be used for the calculations in a photometric plan. The values of the LLF shall be a maximum value of 0.72 for Metal Halide, 0.81 for High Pressure Sodium and 0.95 for LED, based on manufacturers' initial lamp lumens.

4. Standards

a. Confinement

All outdoor lighting shall utilize full cutoff luminaires per the Illuminating Engineering Society of North America (IESNA) definition of full cutoff which allows for 0% of lumens above 90 degrees from nadir. No luminaires other than landscape lighting exempted per E.2.c.4, shall be directed

upwards to avoid urban sky glow. In the U/S Tier, accent and landscape luminaries not exceeding 100 watts.

b. Light Trespass

The maximum illumination at the property line of an adjoining residential parcel or public ROW is 0.33 horizontal and vertical foot-candles measured at six feet above grade level. Said illumination likewise measured at the property line of an adjoining non-residential parcel, shall not exceed 3.0 horizontal and vertical foot-candles measured at six feet above grade level.

c. Security Lighting and Time Restrictions

1) Full cutoff luminaires shall be used for all security lighting and dusk-to-dawn area lighting.

2) Outdoor illumination, including but not limited to, areas used for outdoor sales and display, eating, parking, assembly, service, storage of equipment and freight, loading and unloading, repair, maintenance, commercial activities, and industrial activities shall not continue after 11:00 P.M., or no more than one hour after active use of the area ceases, whichever is later, except for security lighting. [

3) Security lighting shall be required for all active entrances to buildings, parking lots and access to buildings or parking lots. All security lighting shall maintain an average of 0.75fc, a minimum of 0.3fc and a maximum of 3fc from dusk until dawn.

4) No outdoor recreational facility shall be illuminated after 11:00 P.M. except to conclude a scheduled and sanctioned recreational or sporting event by PBC or other authorized agency in progress prior to 11:00 P.M. The luminaries shall be extinguished after outdoor recreational events are completed and the site has been vacated.

a) Exceptions

Public recreational facilities such as boat ramps, fishing piers, or other similar facilities that operate or are open to the public on a 24 hour basis.

5) Automatic timing devices with a photosensor or an astronomical timeclock, which control the hours of illumination shall be required for all parking lots, car dealerships/outdoor display lots and parking garages. These devices may remain on Eastern Standard Time throughout the year.

d. Illumination Levels

Table 5.E.4.D, Illumination Levels, indicates the minimum and maximum illumination levels for specific site elements, as well as the maximum to minimum, and average to minimum ratios.

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Table 5.E.4.D - Illumination Levels

Outdoor Lighting	Maximum Illumination (1)	Minimum Illumination (1)	Max to Min Ratio	Average to Min Ratio
Buildings and Accessory Structures				
a. Pathway Lighting (2)	5.0 (5)	-	-	-
b. Canopies, Drive-thru and Overhangs	30.0	3.0	10:1	2.5:1
Parking Lots				
a. Multi-family Residential	3.0	0.3	10:1	-
b. All Others	12.0	1.0	12:1	3:1
Parking Structures				
a. Parking Area	10.0	1.0	10:1	4:1
b. Ramps – Day	20.0	2.0	10:1	-
c. Ramps – Night	10.0	1.0	10:1	-
d. Entrance Area – Day	50.0	5.0	10:1	-
e. Entrance Area – Night	10.0	1.0	10:1	-
f. Stairways	-	10.0	-	-
Property Boundary	Refer to Light Trespass			
Specialty Lighting (4)				
a. Golf Courses	Per IESNA Lighting Handbook			
b. Outdoor Entertainment				
c. Parks				
Other Lighting Types				
a. Outdoor Display and Storage for vehicle sales and rental.	15 (3)	1.0	15:1	4:1
b. Other Outdoor Display and Storage Areas.	20	1.0	15:1	4:1
c. Outdoor Work Areas	20	1.0	15:1	4:1
Notes:				
1. Measured in foot-candles.				
2. Building or accessory mounted luminaires used to light parking lots shall comply with Parking Lot illumination levels.				
3. May be increased to 20 foot-candles for the first row of display parking located adjacent, but not more than 100' from a ROW.				
4. Applicable to outdoor recreation areas only, excluding areas such as parking lots, drive isles, pathways, building and landscape lighting.				
5. Fully shielded bollards not greater than 42 inches in height may be permitted up to 20 foot-candles.				

e. Luminaire Heights

Table 5.E.4.D, Maximum Permitted Luminaire Height, identifies the maximum height for any freestanding or structure mounted luminaires.

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Table 5.E.4.D - Maximum Permitted Luminaire Height

Location	Maximum Height	
	U/S Tier	Rural, Exurban and AGR Tiers
Buildings and Accessory Structures		
a. Buildings	25 feet or eave overhang, whichever is lower (unless required by the Florida Building Code)	
b. Accessory Structures	10 feet	8 feet
Parking Lot		
a. Residential	20 feet	15 feet
b. Industrial	40 feet	-
c. Commercial, Civic and Institutional	30 feet, or equal to the height of the building up to a maximum of 40 feet	25 feet
Parking Structures		
a. Luminaires on top parking level.	20 feet or 25 feet (4)	15 feet
Property Boundary		
a. Luminaires within 100 feet of residential (2)	20 feet	15 feet
Specialty Lighting (3)		
a. Golf Courses	Per IESNA Lighting Handbook	
b. Outdoor Entertainment		
c. Parks		
Notes:		
1. For the purposes of this table, residential parcel shall include any residential use, or any vacant parcel with a residential FLU designation.		
2. The height of any lighting luminaire within 100 feet of a parcel with a residential use or FLU designation shall be limited in accordance with the height limitations for Property Boundary, Residential.		
3. Applicable to outdoor recreation areas only, excluding areas such as parking lots, drive isles, pathways, building and landscape lighting.		
4. Minimum setback shall be 45 feet from exterior edge of wall for all luminaries, except luminaries mounted to interior face of perimeter wall, which do not exceed the height of the perimeter wall.		

f. Measurement

- 1) Illumination levels shall be measured in foot-candles with a direct-reading, calibrated, portable light meter. The light meter shall be placed not more than six inches above grade level.
- 2) For the purpose of measuring light trespass, the light meter shall be placed at the property line of the subject parcel six feet above the grade level.