



Planning Commission Staff Report

DATE: July 9, 2014

PUBLIC HEARING

SUBJECT: CITY OF PALM SPRINGS TO AMEND PALM SPRINGS ZONING CODE (PSZC) SECTION 93.21.00 RELATING TO OUTDOOR STANDARDS IN ITS ENTIRETY TO ADD INFORMATION AND ILLUSTRATIONS REGARDING THE MOST RECENT TECHNOLOGY (CASE 5.1344 ZTA). (MW)

FROM: Department of Planning Services

SUMMARY

Section 93.21 of the Palm Springs Zoning Code regarding Outdoor Lighting Standards is proposed to be updated to conform to current standards and best practices.

RECOMMENDATION:

Recommend approval to the City Council.

BACKGROUND:

The current ordinance was adopted in 2000. Only one amendment has been made since that time, an urgency ordinance to allow LED lighting.

This is a complete rewrite.

ENVIRONMENTAL ANALYSIS:

This action is a project as defined by CEQA that is a Class 5 categorical exemption (Minor Alteration) in land use limitations of the Guidelines for the Implementation of the California Environmental Quality Act and that the proposed amendment does not result in any changes in land use or density

NOTIFICATION

A public hearing notice was published. The Planning Department has not received correspondence regarding this issue.



M. Margo Wheeler, FAICP
Director of Planning Services

Attachments:

1. Draft Resolution

RESOLUTION NO. _____

A RESOLUTION OF THE PLANNING COMMISSION OF THE CITY OF PALM SPRINGS, CALIFORNIA, RECOMMENDING THAT THE CITY COUNCIL AMEND PALM SPRINGS ZONING CODE (PSZC) SECTION 93.21.00 RELATING TO OUTDOOR LIGHTING STANDARDS IN ITS ENTIRETY TO ADD INFORMATION AND ILLUSTRATIONS REGARDING THE MOST RECENT TECHNOLOGY (CASE 5.1344 ZTA).

WHEREAS, the Palm Springs Zoning Ordinance is establishing regulations for outdoor lighting standards in its entirety to add information and illustrations regarding the most recent technology; and

WHEREAS, on July 9, 2014, the Planning Commission conducted duly noticed public hearings on the proposed amendment, at which hearings the Commission carefully reviewed and considered all of the evidence presented in connection with the project, including but not limited to the staff report and all written and oral testimony presented; and

WHEREAS, the Planning Commission hereby determines that the proposed Zoning Ordinance text amendment is Categorically Exempt under Section 15305 – Minor Alterations in Land Use Limitations – of the Guidelines for the Implementation of the California Environmental Quality Act and that the proposed amendment does not result in any changes in land use or density; and therefore

THE PLANNING COMMISSION OF THE CITY OF PALM SPRINGS DOES HEREBY RESOLVE AS FOLLOWS;

Section 1: The Planning Commission hereby finds that adoption of the proposed Zoning Text Amendment would:

- A. Replace Section 93.21.00 in its entirety and replace with Exhibit A.

NOW, THEREFORE, BE IT RESOLVED that, based upon the foregoing, the Planning Commission hereby approves Case Number 5.1344-ZTA.

ADOPTED this 9th day of July, 2014.

AYES:

NOES:

ABSENT:

ABSTAIN:

ATTEST:

CITY OF PALM SPRINGS, CALIFORNIA

M. Margo Wheeler, FAICP
Director of Planning Services

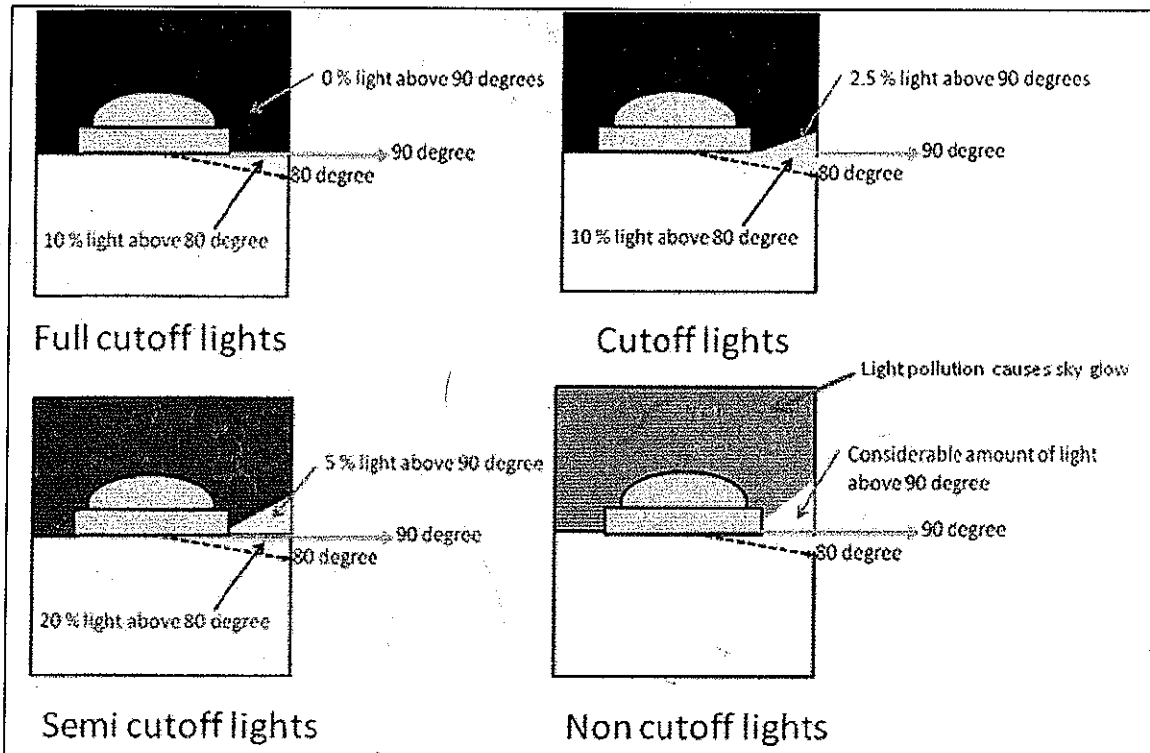
EXHIBIT A

93.21.00 Outdoor lighting standards.

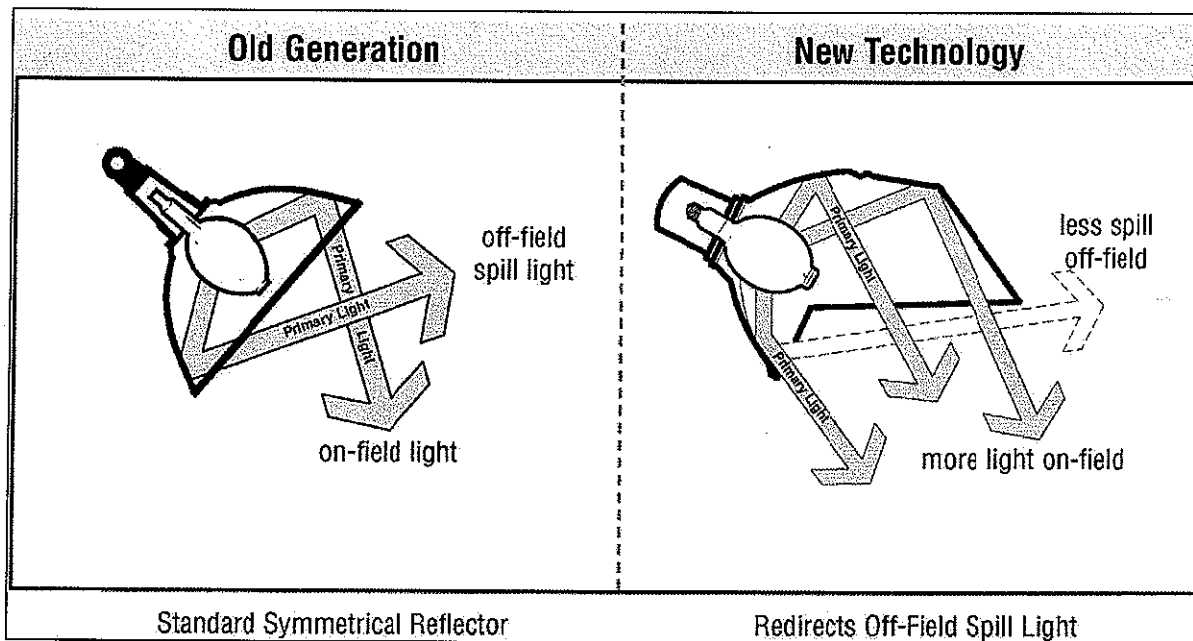
A. Intent, Purpose and Luminaire Requirements

These regulations are intended to maintain ambient lighting levels as low as possible in order to enhance the city's community character and charm and maintain dark skies. Area lighting should provide good visibility, minimum glare and minimum spillage onto other properties or into the sky. It is the intent of this section to encourage, through the regulation of the types, kinds, construction, installation and uses of outdoor electrically powered illuminating devices, lighting practices and systems to conserve energy without decreasing safety, utility, security and productivity while enhancing nighttime enjoyment of property and night skies. These regulations are intended to be consistent with the requirements of the electrical code, as adopted by the city under Palm Springs Municipal Code Section 8.04.055, except where a different standard is provided based on the local climactic, geological or topographical conditions of the city of Palm Springs.

1. Exterior lighting fixtures shall be architecturally integrated with the character of the associated structures, site design and landscape.
2. Pole mounted and wall mounted lighting fixture used for parking lot, area lighting and security lighting shall be full cutoff luminaires shielded or constructed so that all of the light rays emitted by the fixture are projected below a horizontal plane passing through the lowest point on the fixture from which light is emitted. Drop or sag lensed type fixtures are not be allowed. IESNA classification that describes a luminaire having a light distribution in which zero candela intensity (visible light) 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. Figure 1.



3. Lighting sources (lamps) approved in the City of Palm Springs for commercial and residential zones; High Pressure Sodium (HPS), Light Emitting Diodes (LED), Light Emitting Plaza (LEP), Compact Fluorescent Lamps (CFL) and Multifaceted Reflector halogen lamps (MR)
4. Lighting sources approved for public or municipal outdoor recreation facilities; High Pressure Sodium (HPS), Light Emitting Diodes (LED), Light Emitting Plaza (LEP) and Metal Halide (MH).
5. Low Pressure Sodium lighting is not approved in the City of Palm Springs.
6. All luminaries with total lamp Mean lumens above 4800 shall be full-cutoff type except for the following uses:
 - a. Outdoor advertising displays or signage; Lamp lumens for shielded signs shall no exceed 100 lumens per square foot.
 - b. Public or Municipal Outdoor Recreational Facilities. Lighting fixtures for sports facilities shall be provided with glare control devices to provide for more light on-field as noted in Figure 2.

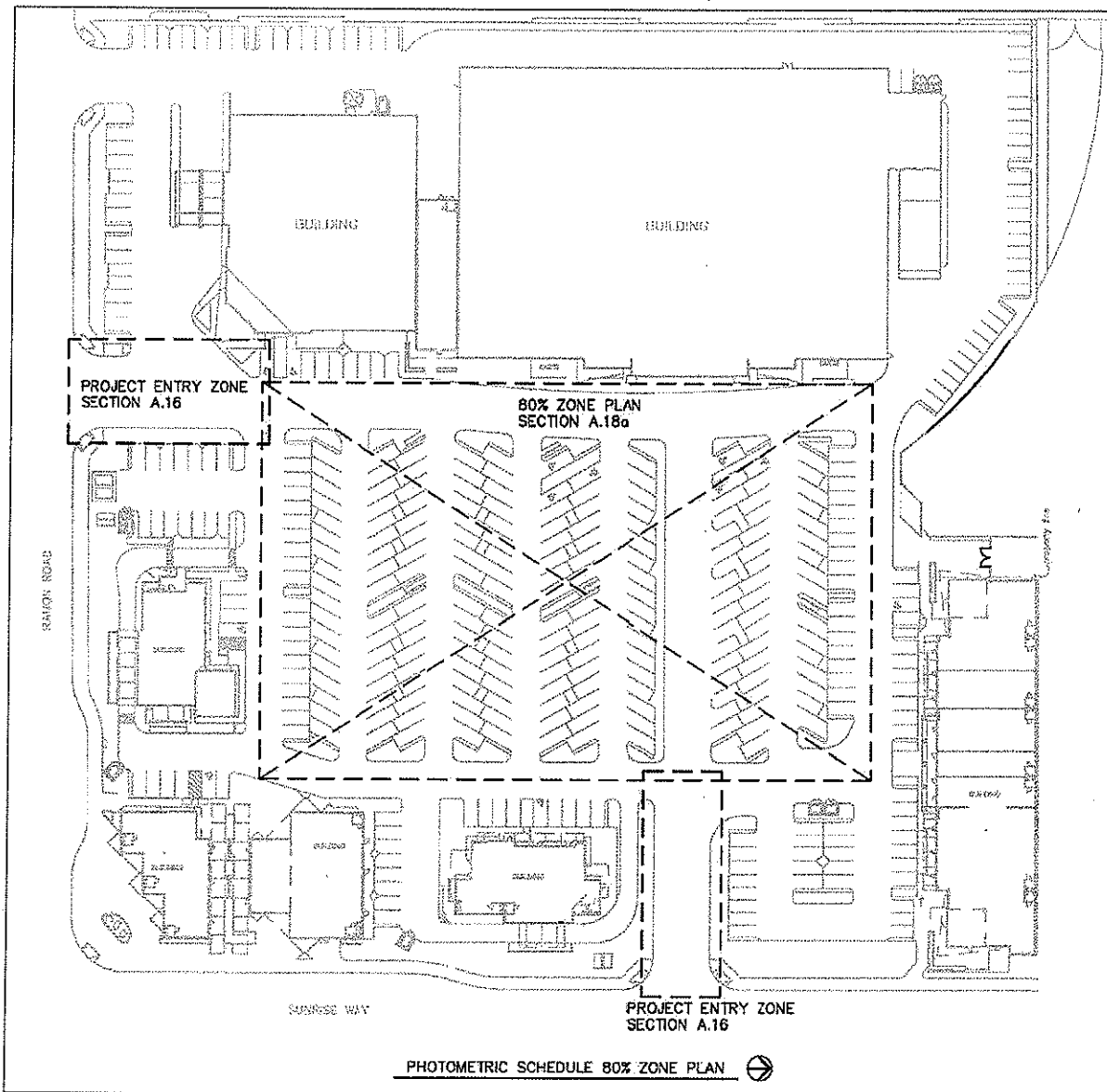


7. Lighting fixtures shall not produce sufficiently greater luminance (light) in an area resulting in reduced visual performance and visibility. This is known as Disability Glare.
8. Lighting fixtures shall not produce sufficiently greater luminance (light) in an area which causes discomfort but does not necessarily diminish visual performance. This is known as Disability Glare.
9. Lighting fixtures that produces illumination off the subject project site is considered an undesirable condition in which exterior lights produce illumination in an area where it is not wanted. This is known as Light Trespass.

10. Lighting fixtures that produces an unwanted effect of manmade outdoor lighting that contributes to the effect of sky glow, light trespass and/or glare. This is known as Light Pollution.
11. Lighting used to highlight architectural features, landscape, building facades, fountains etc. is acceptable and shall be adjusted and aimed during the night to insure light is focused on the designated object.
 - a. Lighting luminaries intended to be directional as described in paragraph 6 above shall be furnished with total lamp lumens of less than 4000 and must be furnished with shields, louvers and/or lenses to insure that the direct view of the lamp source is reduced. An internal fixture reflector system with a clear lens that distributes in a specific direction is designed to promote glare control. Refractors are not a recommended to shield the lamp source.
 - b. Landscape lighting fixtures intended to be directional onto landscape features with a total lamp lumens of less than 1,000 must be furnished with shields, louvers and/or lenses to insure that the direct view of the lamp source is reduced.
12. Pedestrian scale post top luminaries with total lamp lumens of less than 6000 may be non-cutoff if the fixture meets the requirements to prevent direct view of the lamp source by shielding the source with louvers and/or opaque lens. Internal fixture reflector with a clear lens that distributes the light out of the fixture in a manner that promotes glare control may also be allowed. Refractors are not a recommended to shield the lamp source.
13. Low level lighting (bollards, step lights etc.) with total lamp lumens of less than 3500 may be non-cutoff if the fixture meets the requirements to prevent direct view of the lamp source by shielding the source with louvers and/or opaque lens. Internal fixture reflector with a clear lens that distributes the light out of the fixture in a manner that promotes glare control may also be allowed.
14. All full-cutoff type luminaries shall be mounted horizontal. Cut-off lighting fixtures with tilting capabilities are not an approved.
15. Multi-family residential and nonresidential developments shall provide glare-free light fixtures at project site entrances, building entrances and exits.
16. Non-residential developments shall provide for lighting at all vehicle and pedestrian entrances to the project site from public roadways. Entrance lighting may not exceed a height of ten (10) feet and may be high pressure sodium (HPS) or light emitting diodes (LED). The footcandle levels approximately twice the average illumination of the adjacent parking area or the adjoining street In order to promote entrance visibility and safety.

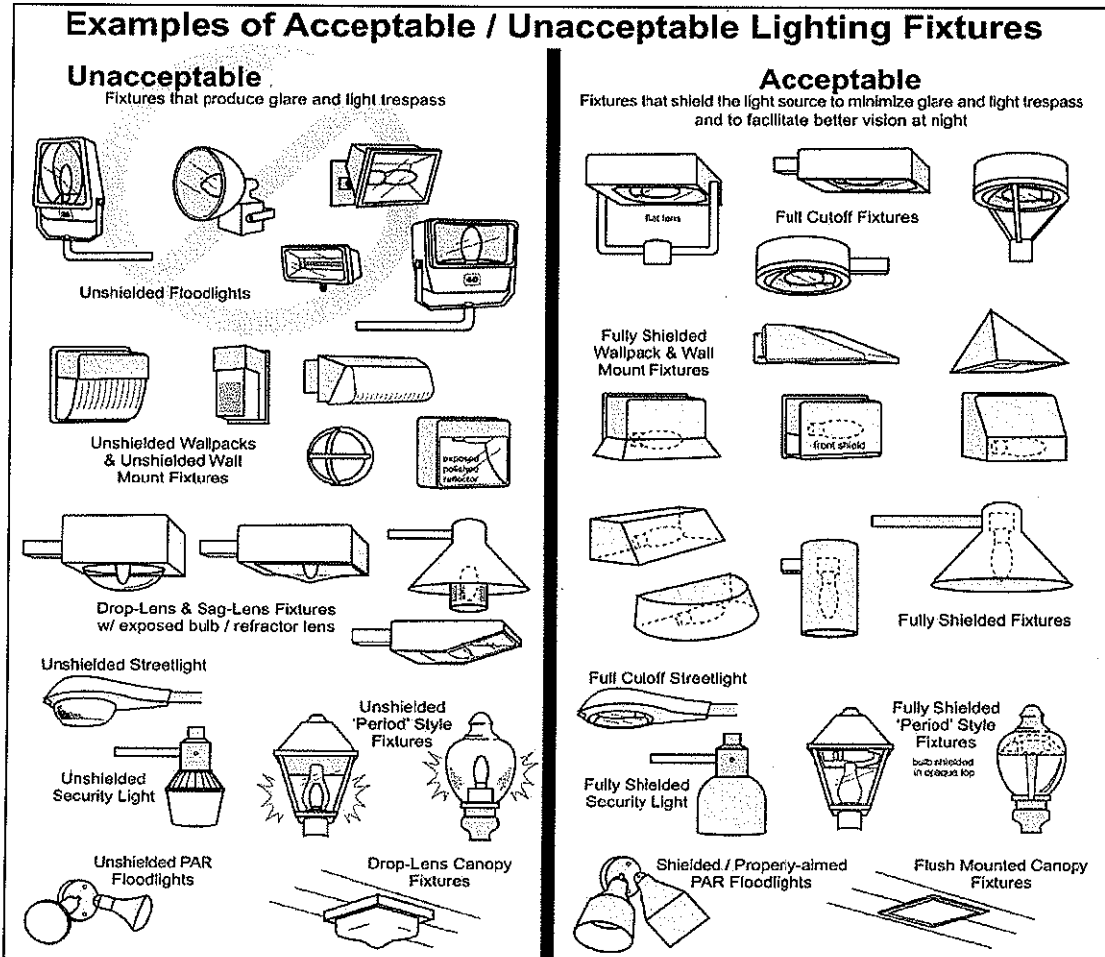
17. Lighting fixture maximum pole heights shall be as follows:
- a. Residential Zones: maximum of eighteen high (18'0") in residential zones. The lamp lumens shall be 15,000 or less and provide for full-cutoff features.
 - b. Commercial Zones: maximum of twenty five feet high (25'0") in commercial zones. The lamp lumens shall be 50,000 or less and be provided with full-cutoff features.
 - c. Pedestrian pole lighting fixtures shall have a maximum height of 10'0" above finished grade in residential and commercial zones. The lamp lumens shall be 6,000 or less and be provided with lamp shielding as described in paragraph 9 above.
18. All site lighting plans for residential, nonresidential and multifamily developments is subject to approval of architectural review and Planning Commission as follows:
- a. Submit a photometric lighting plan prepared by the project engineer showing point-by-point lighting levels for the entire lot and ten foot (10'0") beyond the project property lines.
 - b. The point by point photometric plan shall provide lighting levels at a maximum of ten foot (10'0") intervals.
 - c. The photometric schedule shall represent the lighting and calculations in an area equal to of eighty percent (80%) of the useable parking area. Figure 4
 - d. The photometrics calculations shall be scheduled on the plan to illustrate the following; Figure 3
 - 1. Average to Minimum
 - 2. Maximum to Minimum
 - 3. Average Foot-candles
 - 4. Minimum Foot-candles

Statistics							
Description	Symbol	Avg	Max	Min	Max/Min	Avg/Min	Avg/Max
80% Zone Photometrics	+	2.0 fc	6.3 fc	0.4 fc	15.8:1	5.0:1	0.3:1



19. Commercial architectural decorative wall mounted lighting luminaries with total LED lamp lumens of less than 14 lumens per inch (total size of the wall light fixture face in inches) but to exceed 4000 lumens total may be non-cutoff if the fixture meets the requirements to prevent direct view of the lamp source by shielding the source with louvers and/or opaque lens. Internal fixture reflector with a clear lens that distributes the light out of the fixture in a manner that promotes glare control may also be allowed. Refractors are not a recommended to shield the lamp source.
20. Residential architectural decorative wall mounted lighting luminaries with total lamp lumens of less than 1,800 may be non-cutoff if the fixture meets the requirements to prevent direct view of the lamp source by shielding the source with louvers and/or opaque lens. Internal fixture reflector with a clear lens that distributes the light out of the fixture in a manner that promotes glare control may also be allowed. Refractors are not a recommended to shield the lamp source.

21. Security pole and wall pack lighting fixtures in commercial and residential zones shall only be allowed if the fixture lumens and shielding meets the requirements outlined. The following types of fixtures are no approved in any application. Figure 5



22. Lighting fixtures and advertising signs, boards and/or banners shall not in all zones and types shall be blink, flash or be of unusually high intensity or brightness.
23. Lighting Hours of Operation: All exterior lighting fixtures shall comply with the adopted State of California Title 24 requirements for controls and switching, the adopted building and electrical codes. Final certificate of occupancy are subject to permit requirements and site inspection.
24. Tennis court lighting provisions can be found in Section 93.01.01, Tennis Courts.

25. The following is not subject to the provisions of article 93.21.00 Outdoor lighting standards;
 - a. All outdoor light fixtures existing and legally installed prior to the effective date of this section except.
 - b. Decorative holiday lighting fixtures and decorations shall use light emitting diodes (LED) sources during the designated holiday season.
 - c. Portable temporary lighting used by law enforcement or emergency services personnel to protect life or property.
 - d. Lighting associated with a special event as described in Palm Springs Municipal Code Chapter 6.12.
26. Street lights erected on public or private right-of-way. Street light design is to be in compliance with city standards. The following criteria shall be used to evaluate requests for street lighting.
 - a. Intersections in residential districts;
 - b. Mid-block on residential street greater than eight hundred feet (800'0") in length;
 - c. At the ends of cul-de-sacs greater than three hundred feet in length;
 - d. All intersections in commercial and industrial districts;
 - e. Bus stops;
 - f. Other locations and/or spacing of lighting as determined by the city engineer.

B. Illumination Levels and Requirements

1. Light Emitting Diode (LED) and Light emitting Plasma (LEP) lighting for parking lots and area lighting shall be designed to the following standards:
 - a. Minimum footcandles shall be 1.0 foot-candle.
 - b. Average maintained light level of 1.0 footcandles to 3.0 foot-candles.
 - c. Average-to-minimum uniformity ratio shall not exceed four to one (4:1).
 - d. Maximum to Minimum uniformity ration shall no exceed 16:1.
2. The lighting system using High Pressure Sodium (HPS) shall be designed to the following standards:
 - a. Minimum footcandles shall be 2.0 foot-candle.
 - b. Average maintained light level of 2.0 footcandles to 3.0 foot-candles.
 - c. Average-to-minimum uniformity ratio shall not exceed four to one (4:1).
 - d. Maximum to Minimum uniformity ration shall no exceed 16:1.
3. Only high pressure sodium (HPS), light emitting diode (LED) or light emitting plasma (LEP) sources shall be used for parking lot and area lighting.
 - a. Exception: Metal Halide (MH) or other high color rendering sources may be allowed for outdoor retail such as a car dealership.

C. Definitions

Decorative lighting - means lighting products used for decorative effects versus lighting performance. Examples of decorative lighting include, but are not limited to, fountain lighting, lighting fixtures (pole, post or bollard style) creating a visual effect with low lumen output, led commercial outdoor string lighting, building wall sconce and chandelier lighting with low lumen lamp sources.

Full-cutoff - means outdoor light fixtures shielded or constructed so that all of the light rays emitted by the fixture are projected below a horizontal plane passing through the lowest point on the fixture from which light is emitted. Drop or sag lensed type fixtures are not be allowed. IESNA classification that describes a luminaire having a light distribution in which zero candela intensity (visible light) 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.

Mounting Height - means the distance from the finished grade to the top of the lighting fixtures including any lighting fixture foundation.

IESNA - means Illuminating Engineering Society of North America.

Light pollution - An unwanted effect of manmade outdoor lighting that contributes to the effects of sky glow, light trespass, and/or glare.

Disability Glare - Glare resulting in reduced visual performance and visibility. It is often accompanied by discomfort

Discomfort Glare - Glare that produces discomfort, but does not necessarily diminish visual performance

Light trespass - An undesirable condition in which exterior light is cast where it is not wanted

Sky Glow or Urban Sky Glow - Any adverse effect of manmade light that produces direct lighting into the sky from the lamp compartment that is not shielded.

Lumen - A unit measurement of a light bulb, arc tube or light emitting diodes (LED) light output expressed as initial Lumens or lumen output.

Footcandle - One foot-candle is one lumen per square foot. This simply means the amount of light which hits one square foot.

Luminaire - A complete lighting unit consisting of a lamp or lamps and the parts designed to distribute the light, to position and protect the lamp(s), and to connect the lamp(s) to the power supply. (Also referred to as fixture)

The complete lighting unit, including the lamp, the fixture, and other parts

Pedestrian scale - means a luminaire mounted at no more than ten feet above finished grade and intended to illuminate a walking path or small pedestrian area.

Recreational facilities - means public, municipal or private facilities designed and equipped for the conduct of sports, leisure time activities, and other customary and usual recreational activities. Outdoor recreational facilities include, but are not limited to, fields or stadiums for softball, baseball, football, soccer, golf courses, driving ranges and other "field sports," and courts for tennis, basketball, volleyball, handball and other "court sports."

Ambient light - General lighting levels not subject to this ordinance.

Contrast - Is the difference between the luminaire luminous brightness and the brightness of the surrounding area.

Brightness - Strength of the sensation that results from viewing surfaces from which the light comes to the eye

HID lamp - In a discharge lamp, the emitted energy (light) is produced by the passage of an electric current through a gas. High-intensity discharge (HID) includes mercury, metal halide, and high pressure sodium lamps. Other discharge lamps are LPS and fluorescent. Some such lamps have internal coatings to convert some of the ultraviolet energy emitted by the gas discharge into visual output.

High-Pressure Sodium (HPS) lamp - is a gas-discharge lamp that uses sodium in an excited state to produce light. There are two varieties of such lamps: *low pressure* and *high pressure*. Low-pressure sodium lamps are the most efficient electrical light sources, but their yellow light restricts applications to outdoor lighting such as street lamps. High-pressure sodium lamps have a broader spectrum of light than the low pressure, but still poorer color rendering than other types of lamps. Low pressure sodium lamps only give monochromatic yellow light and so inhibit color vision at night.

Plasma Lighting (LEP) - Plasma lamps are a type of gas discharge lamp energized by radio frequency (RF) power which produces high illuminance for exterior applications such as streets, large big box parking lots and sports lighting applications. The LEP lamps have a life ranging from 30,000 to 50,000 hours, a CRI of 95. Their LEP lamp is able to operate up to 50% more efficiently than conventional HID (High-intensity discharge lamp) lamps while generating the same maintained lumens as a conventional 400 watt system at about half the energy. The technology also allows the lamp to be dimmed to 50% of the rated lamp lumen output.

Induction Lighting - The internal electrode less lamp or induction light is a gas discharge lamp in which the power required to generate light is transferred from outside the lamp envelope to the gas inside via an electric or magnetic field, in contrast with a typical gas discharge lamp that uses internal electrodes connected to the power supply by conductors that pass through the lamp envelope

Incandescent lamp - Light is produced by a filament heated to a high temperature by electric current. These lamps include MR Lamps, Tungsten Halogen Lamps, Par and R lamps.

Mercury lamp - The mercury vapor lamp is a high intensity discharge lamp. It uses an arc through vaporized mercury in a high pressure tube to create very bright light directly from its own arc. Mercury lamps are not approved in the City of Palm Springs.

Metal-halide lamp - This type of lamp is also known as an 'MH' lamp. It is an HID lamp (High Intensity Discharge), which means it provides most of its light from the electric arc within a small discharge tube. It is becoming increasingly popular due to its good quality white light and good efficiency. The most prominent use of the MH lamp is in stadiums and sports fields. It is also used widely for parking lots and street lighting in urban areas.

Light-emitting diode (LED) – Is an electronic semi-conductor that emits light. They are considerably more efficient than traditional light bulbs and provide for long lamp life. LEDs are used in many applications such as flat-screen video displays, indoor and exterior lighting fixtures.