



OUTDOOR LIGHTING REGULATIONS

This letter serves to inform you of the amendments made to Article 28, Outdoor Lighting Regulations, within the Santa Cruz County Zoning and Development Code, which have been approved by the Board of Supervisors. These amendments are scheduled to take effect on November 14, 2024.

All applications for development review, and/or building permits shall include lighting plans showing location, type, height, lumen output and amount of all proposed luminaires. The applicant shall provide sufficient information to verify that lighting conforms to the provisions of this Article. The Director shall have the authority to request additional information in order to achieve the purposes of this Article.

Four Lighting Zones are established, causing development standards to vary according to location within the County and land use type. A parcel located in more than one of the described zones shall be subject to the requirements of the most restrictive zone.

1. **LZ0: No Ambient Lighting.** Areas where the natural environment will be seriously and adversely affected by lighting. Impacts include disturbing the biological cycles of flora and fauna and/or detracting from human enjoyment and appreciation of the natural environment. Human activity is subordinate in importance to nature. The vision of human residents and users is adapted to the darkness, and they expect to see little or no lighting. LZ0, No Ambient Lighting. Areas found in P zones and natural open space.
2. **LZ1: Low Ambient Lighting.** Areas where lighting might adversely affect flora and fauna or disturb the character of the area. The vision of human residents and users is adapted to low light levels. Lighting may be used for safety and convenience but it is not necessarily uniform or continuous. After curfew, most lighting should be extinguished or reduced as activity levels decline. LZ1, Low Ambient Lighting Areas found in zones GR-40, GR, SR.
3. **LZ2: Moderate Ambient Lighting.** Areas of human activity where the vision of human residents and users is adapted to moderate light levels. Lighting may typically be used for safety and convenience but it is not necessarily uniform or continuous. After curfew, lighting may be extinguished or reduced as activity levels decline. LZ2, Moderate Ambient Lighting Areas found in zones R1, R2, R3, R4, R5, MF, MH, MFR.
4. **LZ3: Moderately High Ambient Lighting.** Areas of human activity where the vision of human residents and users is adapted to moderately high light levels. Lighting is generally desired for safety, security and/or convenience and it is often uniform and/or continuous. After curfew, lighting may be extinguished or reduced in most areas as activity levels decline. Moderately High Ambient Lighting Areas permitted in zones B1, B2, M1.

An Exterior Lighting Schedule is included in this package for your reference. If exterior lighting is planned then wall-mounted lights must be shown on the electrical plans and pole-mounted lights on the site plans. The lighting on the plans shall correspond to the plan key designations on the schedule. Show the following on the Exterior Lighting Schedule. Show the lamp type as:

- IN = incandescent (including quartz-halogen)
- LPS = low-pressure sodium
- HPS = high-pressure sodium
- MH = metal halide
- FL = fluorescent
- LED = light-emitting diode.

Indicate the maximum wattage for each lamp on the schedule. Table 2800-2 which may be used to determine the initial lumens for different lamp types. Show the number of each type of light and indicate if:

- FS = fully shielded
- U = unshielded

Shielding requirement, unless exempted elsewhere in this section, all luminaires whose initial lumens exceed the following values shall be fully shielded:

- a. LZ0: Zero (0) lumens.
- b. LZ1: Five hundred (500) lumens.
- c. LZ2 and LZ3: One thousand (1,000) lumens.

Fully Shielded: An outdoor luminaire constructed so that in its installed position all of the light emitted by the luminaire is projected below the horizontal plane passing through the lowest light-emitting part of the luminaire. Figure 1 shows the correct configuration of a fully shielded luminaire, indicating the ninety (90) degree angle between the horizontal plane passing through the lowest light-emitting part of the luminaire and the nadir, defined as the local vertical pointing toward the center of the Earth. Figure 2 shows examples of shielded and unshielded luminaires.

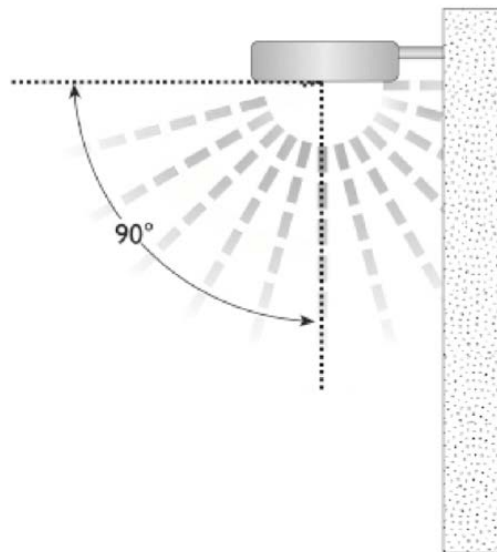
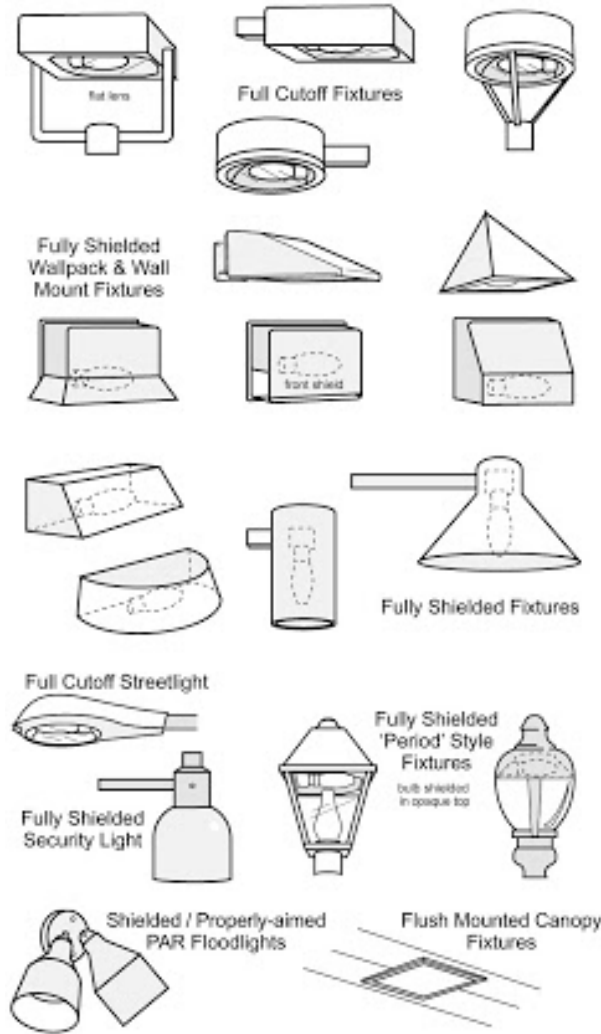


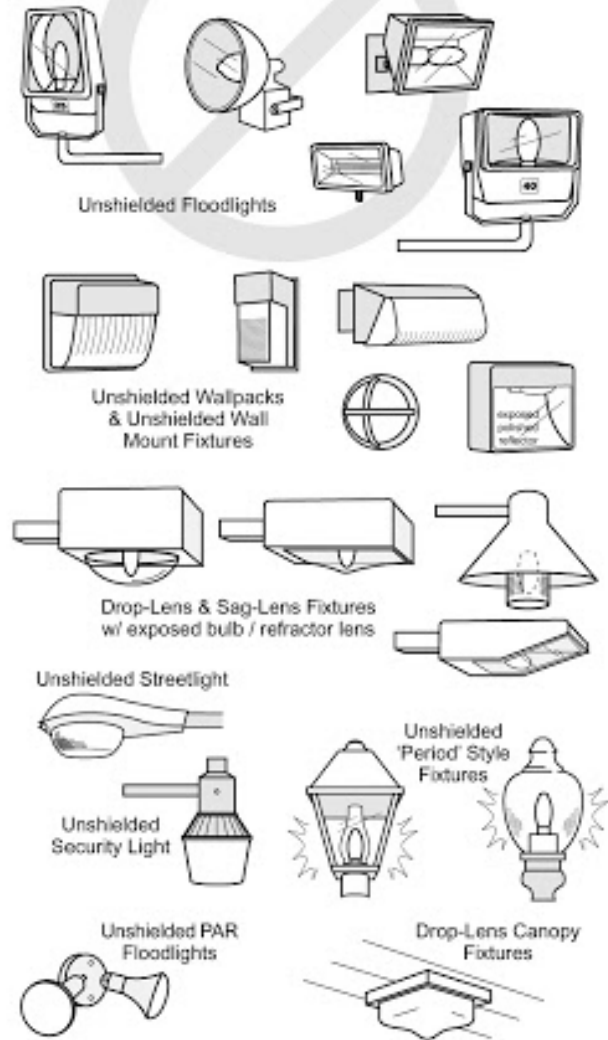
Figure 1.

Examples of Acceptable / Unacceptable Lighting Fixtures

Acceptable
 Fixtures that shield the light source to minimize glare and light trespass and to facilitate better vision at night



Unacceptable / Discouraged
 Fixtures that produce glare and light trespass



BC 1092

Figure 2

Use the following table to determine and lighting zone and calculate the maximum total outdoor light output per parcel.

MAXIMUM TOTAL OUTDOOR LIGHT OUTPUT REQUIREMENTS				
LIGHTING ZONES	ZONING DISTRICT	MAX (U) LUMENS PER LUMINARIE	ALLOWABLE (U) LUMENS PER ACRE	TOTAL ALLOWABLE LUMENS PER ACRE
LZ0	P	0	0	0
LZ1	GR-40, GR, SR	500	1,000	10,000
LZ2	R-1, R-2, R-3, R-4, R-5, MF, MH, MFR	1,000	2,000	20,000
LZ3	B-1, B-2, M-1	1,000	4,000	40,000

Notes:

1. Use the Lighting Zone according to the Zoning District of the subject parcel.
2. A parcel located in more than one of the described zones shall be subject to the requirements of the most restrictive zone.
3. Light trespass prohibited. No luminaire installed within County limits shall create conditions of light trespass.
4. General curfew. In all non-residential zones, all exterior lighting shall be extinguished by 11 P.M. or within 1 hour of the end of normal business hours, whichever occurs later. Businesses whose normal operating hours are 24 hours per day are exempt from this provision.
5. LZ0 restriction. No outdoor lighting shall be installed on public properties zoned as LZ0, or on public properties zoned as LZ1 if within one thousand (1,000) feet of any property zoned LZ0.

PROHIBITIONS

The following types of outdoor lighting are prohibited, except as specifically exempted here or elsewhere in Article 28:

- A. Outdoor floodlighting by projection of light above the horizontal plane running through the lowest light-emitting portion of a luminaire with respect to grade.
- B. Searchlights, skybeams, and similar lighting, except as required by response personnel during emergency conditions.
- C. Lasers.
- D. Any light that dynamically varies its output by intermittently fading, flashing, blinking, or rotating. This type of lighting includes strobe lighting.
- E. Any luminaire that uses mercury vapor lamps.

When submitting plans for additions, plans shall show all existing exterior lighting and these shall be entered on the Exterior Lighting Schedule. The existing lighting lumens shall be added to the proposed lighting lumens to determine if the total site lumens are allowable.

In the following Exterior Lighting Schedule show the total exterior lumens proposed for the site. Circle the lighting zone that you are using and indicate the parcel size.

TABLE 2800 -2 Standards values based on manufacturer's data – to be used unless applicant submits other verified lumen values.

Type	Lamp Wattage	Initial Lumens
Incandescent	25W	150
	40W	460
	60W	890
	75W	1210
	100W	1750
	150W	2880
	300W	6360
	1000W	23800
Compact Florescent	5W	250
	7W	400
	13W	900
	18W	1200
	26W	1800
	32W	2900
Tungsten-Halogen	250W	4700
	500W	10700
	1000W	19000
	1500W	36000
Metal Halide	175W	14000
	250W	20000
	400W	40000
	1000W	115000
PAR (Parabolic Aluminized Floods & Spots)	150W	1740
HPS (High Pressure Sodium)	50W	3300
	70W	5800
	100W	9500
	150W	16000
	200W	22000
	250W	30000
	310W	37000
	400W	50000
1000W	140000	
LPS (Low Pressure Sodium)	18W	1800
	35W	4800
	55W	8000
	90W	13500
	135W	22500
	180W	33000
Fluorescent (Standard Cool White, 1.5- inch tubes)	21W	1190
	30W	2050
	36W	2450
	39W	3000
	50W	3700
	52W	3900
	55W	4600
	70W	5400
	75W	6300



EXTERIOR LIGHTING SCHEDULE

PARCEL NO. _____

PERMIT NO. _____

PLAN KEY*	NO. OF UNITS	LAMP TYPE	WATTAGE	LUMENS PER UNIT	SHIELDING (FS OR U)**	TOTAL LUMENS
A						
B						
C						
D						
E						

LAMP TYPES:

- IN = INCANDESCENT
- LPS = LOW-PRESSURE SODIUM
- HPS = HIGH-PRESSURE SODIUM
- MH = METAL HALIDE
- FL = FLUORESCENT
- LED = LIGHT-EMITTING DIODE.

TOTAL (U) UNSHIELDED LUMENS: _____

TOTAL (FS) FULLY SHIELDED LUMENS: _____

LIGHTING ZONE: LZ0 LZ1 LZ2 LZ3

PARCEL SIZE: _____ ACRES

SHIELDING:

- FS = FULLY SHIELDED
- U = UNSHIELDED

*Plan key must correspond to labeling on plans.
 ** Shielding requirement, unless exempted elsewhere in this section, all luminaires whose initial lumens exceed the following values shall be fully shielded:

- LZ0: Zero (0) lumens.
- LZ1: Five hundred (500) lumens.
- LZ2 and LZ3: One thousand (1,000) lumens.

ALLOWABLE (U) UNSHIELDED LUMENS:
 (From Sec. 2803.C.4) _____

TOTAL ALLOWABLE LUMENS:
 (From Sec. 2803.C.3) _____