

# Sierra la Rana Lighting Guidelines

## Purpose and Intent

- (A) It is the purpose of these Guidelines to preserve, protect, and enhance the nighttime use and enjoyment of any and all property; reduce problems created by improperly designed and installed outdoor lighting; and minimize adverse effects on residents, vehicle operators and pedestrians, the natural environment, and astronomical observations.
- (B) It is the intent of this ordinance to encourage “good neighbor” lighting practices and systems that attempt to minimize light trespass and glare from shining onto abutting properties or into street traffic.

## Section 1.0

**1.1. Definitions:** For the purposes of these Lighting Guidelines, terms used shall be defined as follows:

**Direct light** - light emitted directly from the lamp, off of the reflector diffuser, or through the refractor or diffuser lens, of a luminary.

**Fully Shielded / Full Cutoff (FCO)** – describes a luminaire emitting no light above the horizontal plane.

**Footcandle** - a unit of light measurement equal to one lumen per square foot.

**Fully Shielded** – a lighting fixture constructed in such a manner that all light emitted by the fixture is projected below the horizontal plane.

**Glare** – intense and blinding light. Causes visual discomfort or disability.

**Grandfathered luminaries** - Luminaries that were in place at the time these guidelines became effective and did not conform to this code.

**Illuminance** - the quantity of light arriving at a surface measured in lux or footcandles.

**Intermittent lighting** – luminaries that do not remain on for an extended period of time.

**Lumen** - a unit of luminous flux. One footcandle is one lumen per square foot. For the purpose of this regulation, the lumen-output values shall be the initial lumen output ratings of a lamp. The lumen rating associated with a given lamp is generally indicated on its packaging or may be obtained from the manufacturer.

**Luminary** - a complete lighting unit consisting of a lamp or lamps together with the parts designed to distribute the light, to position and protect the lamps and to connect the lamps to the power supply.

**Outdoor lighting** – night-time illumination of an outside area or object by any man-made device that is located outdoors and produces light.

**Temporary outdoor lighting** – lighting for a specific unusual purpose of an outside area or object by any man-made device that produces light for a period of less than 7 days, with at least 30 days passing before being used again.

**Trespass lighting (Spill Lighting)** – light from a lighting fixture that falls outside of the boundaries of the property on which it is located. Usually results in obtrusive light.

## **1.2. Generally**

All outdoor lighting installed in Sierra la Rana shall be in conformance with the requirements established by these Guidelines.

- (A) Lighting may be used to emphasize architectural features and to light roads, parking areas, walkways, bikeways, pathways, parks and gardens.
- (B) Outdoor lighting fixtures and accent lighting must be shielded and aimed downward. The shield must mask the direct horizontal surface of the light source. The light must be aimed to insure that the illumination is only pointing downward onto the ground surface, with no escaping direct light permitted to contribute to light pollution by shining upward into the sky.
- (C) All streetlights, if any, shall be Dark Sky Compliant Streetlights.
- (D) Lighting shall follow the outline of Acceptable Fixtures below, which illustrates the types of acceptable outdoor lighting that are approved under these guidelines.

## **1.3. Control of Glare**

- (E) All lighting fixtures shall be located, aimed, or shielded so as to minimize visible glare and stray light trespassing across property boundaries where the luminaire is installed.

## **1.4. Residential Lighting**

- (F) All outdoor lighting fixtures and accent lighting shall be designed, installed, located and maintained such that there is no light trespass, with the exception of intermittent lighting.
- (G) Intermittent lighting shall be of the “motion sensor” type that stays on for a period of time not to exceed five minutes and has a sensitivity setting that allows the luminary to be activated only when motion is detected on the site.
- (H) All outdoor lighting shall be full cutoff.
- (I) Lighting used to emphasize architectural features must be full cut off lighting directly aimed at the architectural feature and focused such as to cause no direct light from the luminary to be directed toward residential buildings on adjacent or nearby land, or to create glare perceptible to persons operating motor vehicles on public ways. Lighting used to emphasize architectural features is limited to 50 watts per fixture per 150 sq. ft. of area (as measured in a horizontal plane).
- (J) There is a wide selection of night sky friendly and neighbor friendly outdoor lighting available from Green Earth Lighting <http://www.greenearthlighting.com> and Starry Night Lights <http://www.starrynightlights.com> to name a few of the more popular night sky friendly lighting suppliers.

**1.5. Temporary Outdoor Lighting - Reserved**

**Section 2.0**

**2.1. Effective Date and Grandfathering of Nonconforming Luminaries**

- (K) These guidelines shall take effect immediately upon approval by the Sierra la Rana HOA. These guidelines shall supersede and replace all previous ordinances pertaining to outdoor lighting.
- (L) All luminaries in place prior to the effective date of these guidelines shall be grandfathered.
- (M) Any provision to the contrary herein notwithstanding, all non-conforming lighting (“grandfathered luminaries”) shall come into compliance with this ordinance as follows:
  - a) October 1, 2009, if the cause of excess illumination beyond the property is caused by the wattage of the lamp;
  - b) January 1, 2012, if the cause is the design or placement of the fixture.
- (N) The Developer has agreed to pay for the replacement of all non-conforming exterior fixtures and/or bulbs installed prior to August 1, 2009.

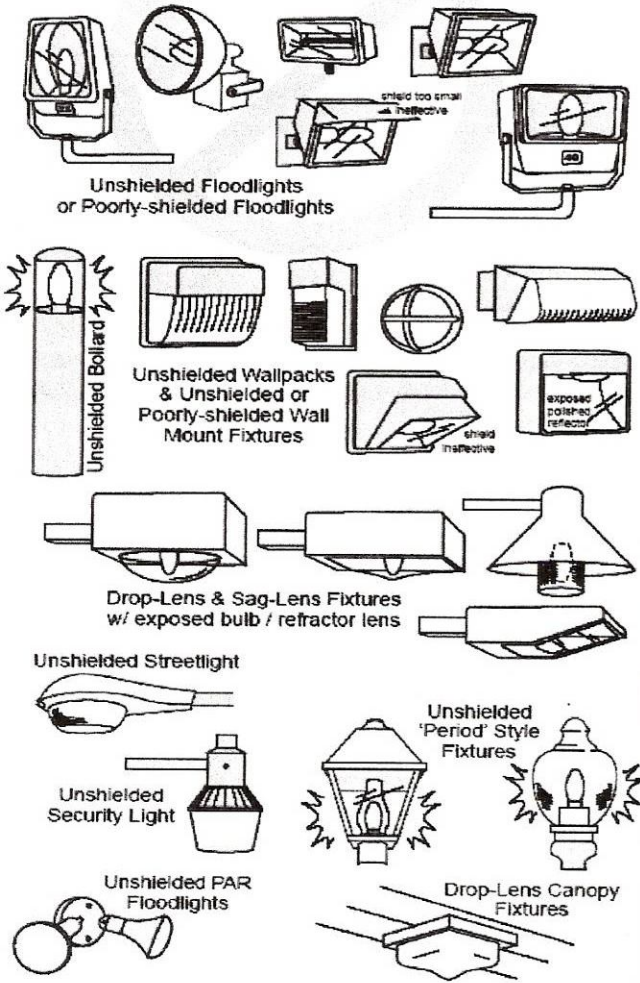
# Exhibit "A"

## Acceptable Fixtures

In general terms, all outdoor lighting shall be in compliance with the outdoor lighting illustrated under the "Acceptable Fixtures" column in the above graphic. No outdoor lighting shall illuminate as illustrated in the "Unacceptable Fixtures" column.

### Unacceptable Fixtures

Fixtures that produce glare and light trespass



### Acceptable Fixtures

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

