

Outdoor Lighting Policy: DRAFT 12.5.24

This policy applies to Cambria Community Services District (CCSD) outdoor lighting for:

1. District property, facilities and infrastructure
2. The installation, maintenance and operation of CCSD community street lighting

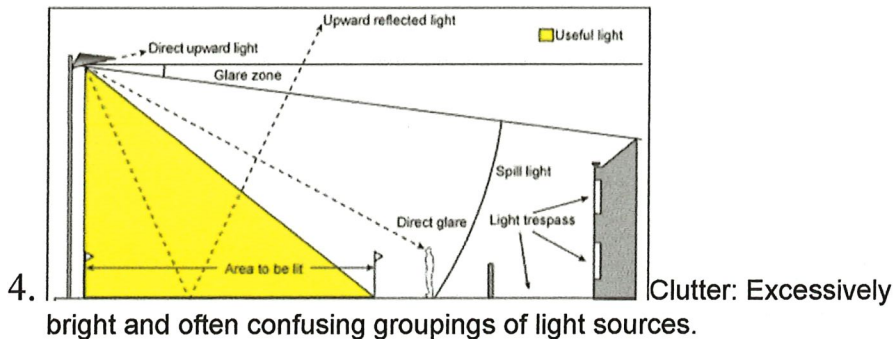
CSD best practices outdoor lighting policy:

1. Outdoor lighting should only be used when and where needed
2. Be no brighter than necessary
3. Minimize blue light emissions
4. Adopt fully shielded light sources

Lighting shall avoid or mitigate:

1. Glare: Bright lighting that creates visual discomfort
2. Skyglow: Lighting that brightens the night sky in inhabited areas
3. Light Trespass: Light falling where it is not intended or needed

Figure 2. Example of useful light and light pollution from a typical pole-mounted outdoor luminaire



Drawing credit IES

Why is such a policy needed?

Roadway and outdoor parking luminaires account for over 80 percent of all outdoor lighting on a per-lumen basis (Navigant study, 2012) and need to be limited.

Installation and retrofit street and parking lot lighting shall incorporate smart network lighting with integral Kelvin and Correlated Color Temperature (CCT) control technologies to modify the luminaire's light output to dim or turn off luminaires when not needed.

- To provide illumination for nighttime safety, utility and security.

- To conform to current applicable IES, CIE and CZLUO 23.04.320 ordinances.
- To reduce district expenses through the use of energy efficient and equitable lighting.
- Decorative lighting does not follow CSD lighting standards
- To reduce carbon that contributes to greenhouse gas (GHG) emissions.
- To protect the health, safety and welfare of residents and visitors.
- To minimize adverse impacts on the nocturnal wildlife, environment and ecosystems while preserving Cambria's rural village character.

When properly designed and installed, park friendly outdoor lighting has many benefits, including but not limited to:

- Improves energy efficiency and Reduces carbon footprint
- Preserves night skies and Enhances wilderness character
- Provides for basic human safety and enhances human health
- Enhances historic authenticity and reduces operational and cyclic maintenance costs
- Minimizes impacts to wildlife and visitors
- Provides opportunities for economic development through astronomy-based tourism

Consider designating lighting zones (LZ):

LZ0 typically includes undeveloped areas of open space, wilderness parks and preserves, areas near astronomical observatories, or any other area where the protection of a dark environment is critical. Special review should be required for any permanent lighting in this zone. Some rural communities may choose to adopt LZ0 for residential areas.

• *Recommended default zone for wilderness areas, parks and preserves, and undeveloped rural areas*

• Includes protected wildlife areas and corridors

• **LZ1: Low ambient lighting**

• *Recommended uses or areas:*

• Lighting zone 1 pertains to areas that desire low ambient lighting levels. These typically include areas with single- and two-family residential domiciles; rural town centers; business parks; and other commercial, industrial, or storage areas, typically with limited nighttime activity. It may also include the developed areas in parks and other natural settings.

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Prescriptive application

New and replacement lamps shall be $\leq 2400\text{K}$ (Kelvin). Existing East Village lantern style streetlights shall be replaced with 2200K LED lamps to help avoid glare and coordinate with existing high pressure sodium luminaires. Maximum correlated color temperature (CCT) of 2400K

No night lighting is allowed on Fiscalini Ranch Preserve. Use sky tubes for lighting building interiors. (They provide more light than a 100W luminaire).

Lighting BUG (backlight, uplight and glare) guidelines:

Uplight:

U1 = 20 lumens or less uplight in the commercial district of Cambria

U0 = zero lumens or no uplight in residential areas, parks, Environmentally Sensitive Habitat Area (ESHA) and preserves

The Dark Sky International Model Lighting Ordinance (MLO) prohibits any uplight whatsoever (an uplight rating of U0) and glare ratings of G10 in business districts and G0 in residential areas, parks, Environmentally Sensitive Habitat Area (ESHA) and preserves. 10 lumens is roughly equivalent to the light output of a 5-watt incandescent lamp.

(Suggest researching and categorizing lighting zones LZ-0 and LZ-1 to more clearly outline policy guidelines.)

Below are five common attributes:

Shielding: Internal or external opaque components used to block or deflect light

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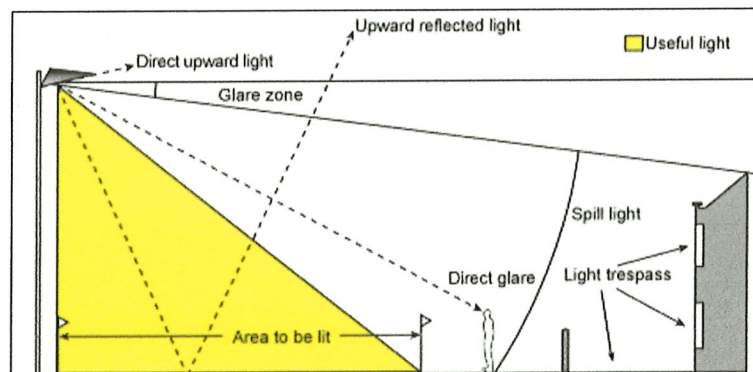
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3. Light Trespass: Light falling where it is not intended or needed
4. Clutter: Excessively bright and often confusing groupings of light sources.

Figure 2. Example of useful light and light pollution from a typical pole-mounted outdoor luminaire



Drawing credit IES

