

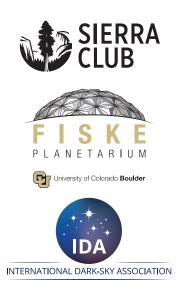
Good Lighting for All Properties

(as recommended by the International Dark-Sky Association darksky.org)

- No fixture should emit any light above horizontal
- No light source (bulb, lamp, or frosted cover) should be visible from the property line
- Light should be the minimum intensity needed, only in the locations needed
- "Security Lights" should be motionactivated
- By Boulder's Voluntary Outdoor Lighting Curfew of 11 PM, lighting should be reduced by at least 30%
- No lights should have a color temperature of over 3,000 degrees Kelvin
 - This is listed on most light fixture packaging
 - Lights of 3,000 degrees Kelvin are usually called "warm white," and are similar to the color of an indoor incandescent bulb
 - High-color-temperature lights are often called "daylight white." These include most outdoor LED lights (there are 3,000-degree versions available, for no additional cost).

Light Output (Lumens) Watts Lumens per Watt (Efficacy)	395 44. 8
Color Accuracy Color Rendering Index (CRI)	8
Light Color Cometated Color: Temperature (CCT) 4295 (B	Bright White
Warm White Bright White 2730K 3000K 4500K Warranty**	Daylight 650 Ye
Altresults, except LED Lumen Montenance, are according to B Approved Alathod for the Electronic and Altertometric Federal of 5 The U.S. Department of Energy (DOE) vanishing product local data	Total-State Lighting
** See www.lightingfacts.com/products for d	letails.

Packaging for most new lighting is required to have a "lighting facts" label. The light represented here would not be legal anywhere in Boulder (the color temperature is too high, 4295 degrees Kelvin, and the total light output is too high, 3954 lumens).



Homeowner's Guide to Boulder's Outdoor Lighting Ordinance

Guidelines for complying with the City of Boulder's ordinance, effective November 15, 2018

Light pollution affects human health, wildlife, safety

Unneeded lighting wastes electricity

Save energy and enjoy the night sky!

www.clantonassociates.com

Boulder's Outdoor Lighting Ordinance

Relevant to homeowners (Residential Zone); from the City of Boulder Charter, Title 9, Chapter 9, Section 9-9-16 - "Lighting, Outdoor" all provisions are in effect after Nov. 15, 2018

Table 9-11: Zoning District Requirements[for Residential Zones]

"Maximum lumen rating for an unshielded light fixture:

"900 lumens"; [the lamp or bulb cannot be visible from the property line].

"Controls:

"Unshielded lighting that emits more than 900 lumens but less than or equal to one thousand two hundred lumens is permitted provided that it is activated by a motion sensor \dots " [(d)(5)(A)]

"(f) Prohibitions

- (5) "Any upward oriented lighting . . ."
- (8) "Any lamp or bulb, except for seasonal displays and landscape ornamental lighting, which is visible beyond the property line . . ."
- (9) "After November 15, 2018, any lamp or bulb [installed] with a correlated color temperature (CCT) that exceeds 3,000 degrees Kelvin."
- [The City may grant a variance for some lighting on a historic landmark (see the ordinance for details)]
- [Allowed: strings of lights (in residential zones) and low-voltage landscape lighting]

"Figure 9-15: Fully Shielded Fixtures



- Examples of Acceptable/Unacceptable Lighting Fixtures

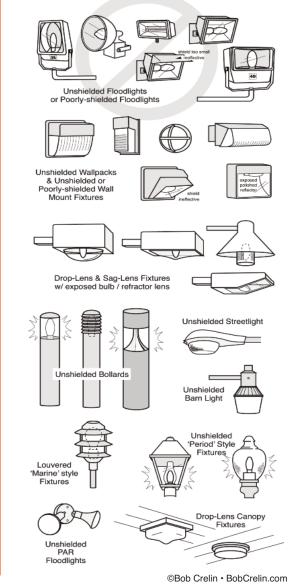
Acceptable/Compliant

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



Unacceptable/Not Compliant

Fixtures that produce glare and light trespass



"Examples of fully shielded light fixtures: Sconce, Pole, Canister, and Canopy. In each case the fixture has a solid housing with a flat lens or bottom and the bulb is fully within the housing." [Note that these have a solid housing, so the bulb would not be visible.]

from City of Boulder Outdoor Lighting Ordinance