

Notes

The fixtures in this booklet are examples. No endorsement of specific products is intended beyond any implied by the International Dark Sky Association.

The good fixture examples are from the Good Fixtures section of the International Dark Sky Association (IDA) Website.

<http://www.nexttrionet.com/mc/page.do?sitePageId=56423&orgId=idsa>

The IDA has a certification program for good fixtures that is shown by this seal.



Produced by Teton Dark Skies

<http://home.silverstar.com/~jackl/darksky.html>



A resident's guide to
Victor's
Lighting
requirements

Why use good light fixtures?

Skyglow that interferes with astronomers and with everyone's stargazing is small but growing here in Teton Valley, where it is still possible to see the stars and the Milky Way, unlike most of the industrialized world. This fact has spotlighted other lighting issues that have been largely unnoticed.

Many people are so used to glare from poor lights that they aren't aware of how much it interferes with night vision and makes driving at night more dangerous.

People who sleep in a bedroom with light from outside are so used to it. They don't know how it disturbs sleep and, according to mounting evidence, is bad for one's health.

People have often heard that more light means more security. They don't think about how bright light can make dark shadows where bad guys can hide, and draws people looking for something to do, even if it's wrong.

Good lighting means choosing good light fixtures, not over-lighting, and lighting only what needs to be lighted.

Manufacturers don't make it easy to find good fixtures. Most lights on sale in stores are bad for eyes and skies. Thus towns that want good lights must make rules and provide help in choosing them. Then demand will produce better choices. This booklet is a guide to Victor's ordinance and an aid in making good choices.

Cover: The cover shows skyglow from satellite measurements: See P. Cinzano, F. Falchi, and C.D. Eldredge, <http://www.lightpollution.it/dmsp/artbri.html>

View: Google Earth



A typical cone light. Yellowstone Park staff has established that these lights are historically accurate for the Park and will be using lights of this type.



This fixture is acceptable if no brighter than a 60 watt light bulb because it is frosted and diffuses the light to reduce glare. For the stars, it is bad. It shines almost as much light up as down. It should be used only under an overhang.



Shield for glaring reflector floods. Yellowstone Park is giving these a try for their bare floodlights. [Parshield @ http://www.parshield.com/](http://www.parshield.com/)



This is a typical "light bulb in a glass box" light that looks good in the day and in the store, but looks like a bare light bulb at night. Victor's ordinance allow these if the bulb is no brighter than a 60 w bulb if the glass is frosted or smoked. A better solution is to put a R20 or R30 reflector floodlight in a down-facing socket as these have, so that the light goes down and the bulb isn't in people's eyes.

Residential lights

Because there are widespread residential lights that are not fully shielded, frosted glass light fixtures that diffuse the glare from a bare bulb are however permitted on houses. Fully shielded lights are shown below. These are examples of good residential lights from the Dark Sky Association



An excellent floodlight, even better when used with a motion detector. Manufacturer: [Lighting by Branford](#) Model: The Glare Buster GB-1000. True Full Cutoff, Light Pollution Information in Box , Bronze GB-1000 #3194883 and White #3194876 below. Try [TheGlare-Buster.com](#) or Ace Hardware.



This is a typical fully shielded wall pack. This is the type that should be used rather than the glary ones that everyone sells. This fixture is like the ones on Broulim's store in Driggs. Manufacturer: [Kim Lighting](#) Model: Wall Director WD14, WD18 Lamp/Wattage: HPS/250-400 MH/250-400 Notes: Fully Shielded ,



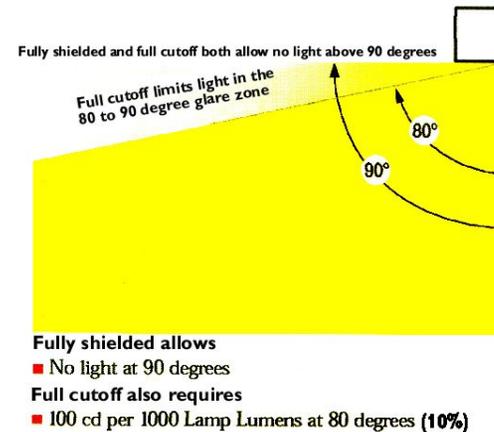
This is a typical quarter-sphere sconce light. Manufacturer: [Regent](#) Model: Model DSSC Wall Sconce Style Lamp/Wattage: Medium-base socket (A lamps) INC, CFL, Halogen / to 75W Notes: Fully Shielded "Dark Sky" Available at [Lowe's](#), as Item 66527 and at Ace Hardware



A typical cylinder or can lamp. Manufacturer: [Kichler Lighting](#) Model: 9236AZ, 9236WH (Search for Part Number on Kichler site) Lamp/Wattage: Medium-base socket (A lamps) INC, CFL, Halogen / to 60W

Good lights

The Victor lighting ordinance requires “**fully shielded**” lights. This means that no light shines upward from the fixture. **If your eyes are at the level of the fixture, you should not be able to see light coming directly from the fixture.**



An even better design is **Full Cutoff. FCO** lights have no up-light, so they meet the “fully shielded” requirement. They also limit light in the 10 degrees

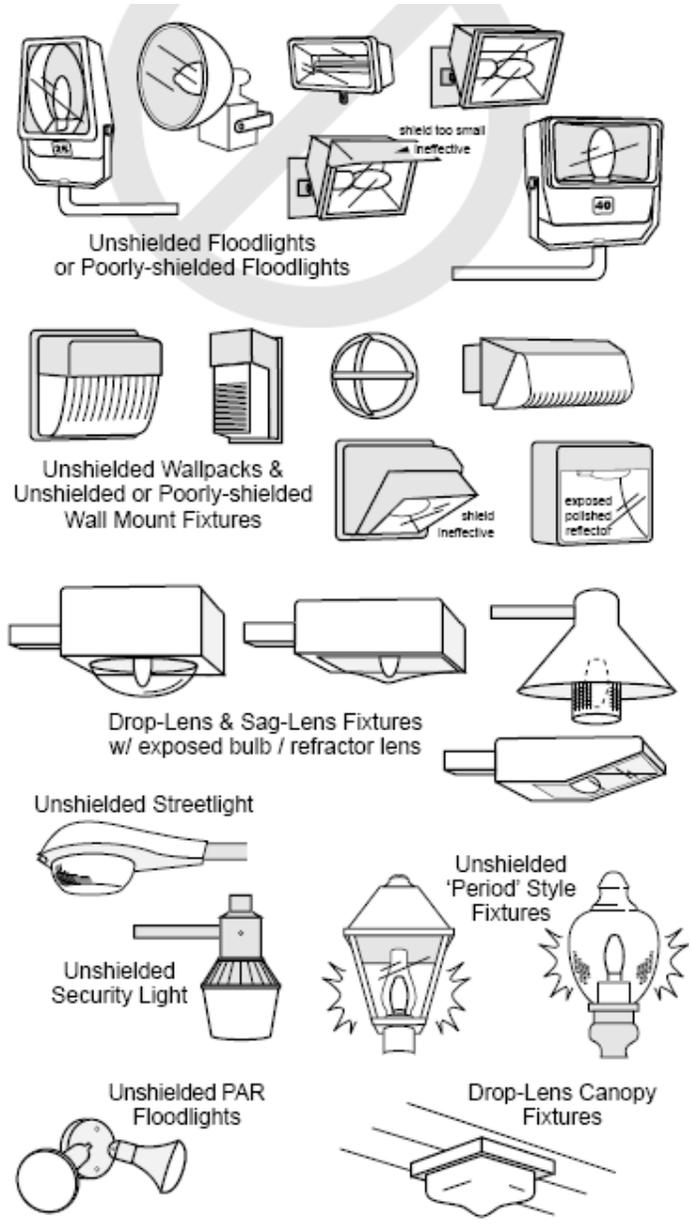
below horizontal, the glare zone. Almost all manufacturers of area lights will provide such information.

You can look for manufacturers’ full cutoff or fully shielded designation. Another source of information is the International Dark Sky Association light fixtures web pages, which describe fully shielded fixtures and lights that they certify.

<http://www.darksky.org/>

Poor light fixtures

Fixtures with glare and light trespass



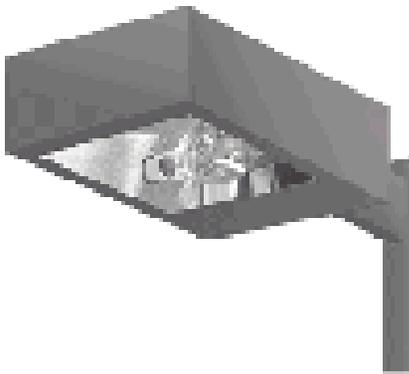
These are some variations on the basic shoebox that have more style



Parking lot or area lights

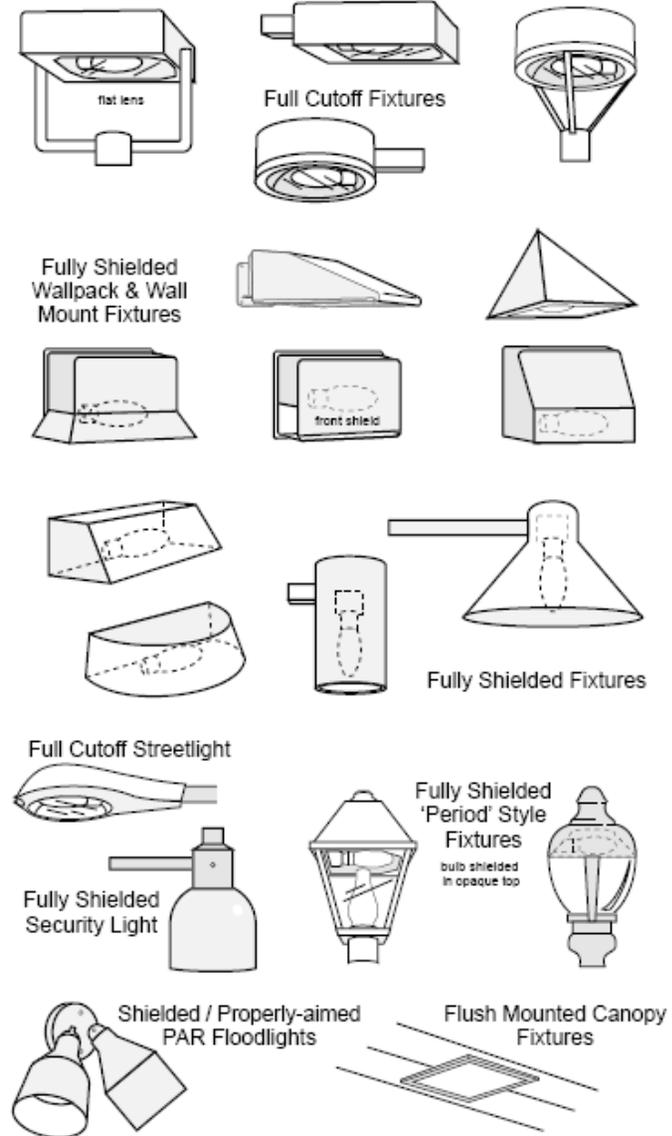
These are examples of Full Cutoff lights for parking lots and area lighting. The planned Victor streetlights are another example.

“Shoebox” lights on this page are the most common parking lot lights. Broulims and the Victor Ward Church are examples. They are full cutoff, light well, and are kind to the neighbors.



and good light fixtures

Fully shielded and Full Cutoff fixtures with no direct uplight and limited glare



Victor street lighting

PLANNED NEW STREET LIGHTS



These fully shielded lights have no uplight and a flat lens on the bottom. No light goes directly up. From more than a short distance, there is no glare in drivers' or pedestrians' eyes. These fully shielded lights have no up-

light. Gold, high-pressure-sodium light is specified to avoid the more bluish, glarier, and more sleep-disruptive "white" light. The chosen design for new street lights is expected to be used by all subdivisions for uniformity and attractiveness.

EXISTING MAIN STREET LIGHTS

The existing lights on Main Street have lamps that are recessed into the top, which reduces uplight. The frosted glass diffuses some light upward, but keeps glare from drivers' and pedestrians' eyes."



Victor Lighting Ordinance

The general provisions of the ordinance are

1. Fully shielded lights. This booklet gives examples
2. No light trespass, light shining where it is not required. The purpose is to keep lights out of neighbors' eyes and bedrooms — to allow them to use their own property in comfort and safety. There are exceptions for holiday lights, emergency and aircraft safety lighting, ball fields, and US or Idaho flags.
3. Low light levels in parking lots and area lighting.

Residential lights have relaxed rules partly because manufacturers produce so few well designed lights (although good examples are in the booklet). Only lights brighter than a 60 bulb are limited.* Those lights have to be shielded so there is no uplight, such as under eaves, and the lamps must be behind a frosted glass, for example, so that glary light doesn't shine in peoples eyes or bedrooms.

Traditionally brightly lit, glary canopies like the ones in gas stations must have flush mounted lights and their brightness is limited, although they are allowed to be much brighter than parking lots, for example.

* The "light output" listed on the package should be less than 1000 lumens.