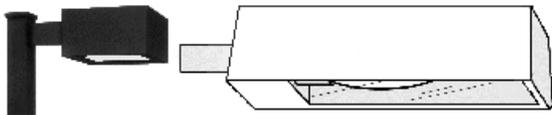


This kind of reflective shielding improves the efficiency of this kind of light fixture to the point where you can replace the 100-watt high-pressure sodium vapor bulb with a 70-watt bulb and get nearly the same amount of light on the ground.

With two shielded 70-watt high pressure sodium vapor bulbs, mounted at a height of 30 feet, you could light an area the size of a football field. With low-pressure sodium fixtures, you could light the same area with far less electricity.

What does a shielded light look like?

Laramie merchants do sell some shielded lighting. How can you tell which is which? A shielded light is one that is usually designed to be mounted vertically, so the light is pointed straight down. It is more difficult to shield lights which are not aimed straight down. The closer to horizontal the light is aimed, the more likely it will cause light trespass. The bulb, lens and reflecting or refracting elements of a fully-shielded light are housed inside the fixture and should not protrude below the shielding. Below are two examples:



To get a copy of the regulations, contact the Albany County Planning Office. A full copy of the outdoor lighting regulations is

also available on the Internet at <http://www.lariat.org/LASSO/7-03-03regs.html> Outdoor advertising regulations can be found at the county planning office, or at: <http://www.lariat.org/LASSO/signs.html> This brochure with more links is online at: <http://www.lariat.org/LASSO/countyregs.html>

Hubbell Sky Caps are available (along with other non-glare fixtures) from Outdoor Lighting Associates, Inc., 1208 Wilson Ave., Ames, Iowa, 50010-5426, phone 515 233-0117, e-mail, OutdoorLtg@aol.com, on the web at:

<http://members.aol.com/outdoorltg/ola.html>
For more examples of good and bad outdoor lighting, see the following web site: <http://www.darksky.org/infoshts/is122.html>

For instructions on how to make your own low cost light shields, see this site: <http://members.aol.com/ctstarwchr/shielding.htm>

For photos of many kinds of shielded lights and a large list of dealers, see: <http://www.darksky.org/fixtures/res.html>



Albany County Outdoor Lighting Regulations

Albany County Planning Department

**1002 South Third Street
(307)721-2568
Laramie, WY 82070**

The purpose of the rules is to reduce light trespass, glare, and light pollution, to reduce energy costs, promote public safety and preserve the county's pristine night sky.

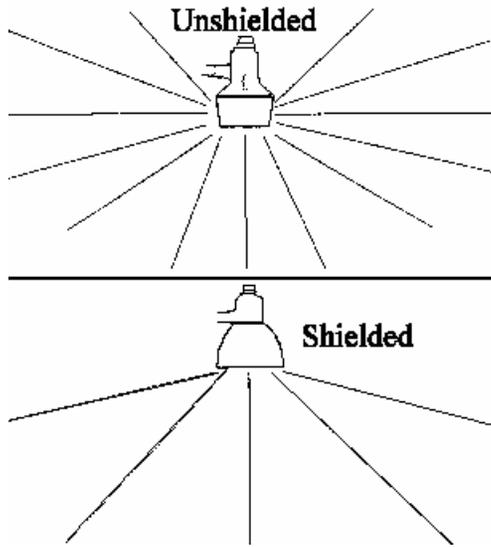
“Light trespass” is defined as light projected onto a property or roadway from a light source located on a different property

“Glare” is defined as the sensation produced by light that is sufficiently greater than the light to which the eyes are adapted to cause annoyance, discomfort, or loss in visual performance or visibility.

“Light pollution” means light that is emitted into the atmosphere that alters the appearance of the night sky or interferes with astronomical observation.

These outdoor lighting regulations apply to all new construction and to the replacement of existing light fixtures. The primary method for compliance with these regulations is shielding outdoor lights so that the direct light
(Continued on back page)

from the fixture is directed downward and does not cross property lines. This can be achieved by purchasing lights which are labeled as being “full cutoff,” “cutoff,” or “fully shielded.” See illustration:



The above illustration shows a typical dusk to dawn sodium vapor light of the type often mounted on utility poles or outbuildings. The top light is a standard fixture which scatters the light in all directions.

The bottom light is the same light, retrofitted with a Hubbell Sky Cap reflective aluminum shield, to reflect the light toward the ground. The top light loses 45 percent of its light horizontally or skyward. The bottom light puts twice as much light on the ground up to 45 feet distance horizontally from the light when the light is mounted at least 25 feet above the ground.

UW astronomy areas:

Within three mile radiuses of the University of Wyoming observatories at Red Buttes and Jelm Mountain, outdoor light fixtures shall utilize low pressure sodium lights. Existing non-conforming light fixtures may be continued until the light fixture is replaced or until September 2, 2010, whichever comes first.

Prohibitions

Searchlights, laser lights or similar high intensity light used for outdoor advertising or entertainment are prohibited.

Exceptions:

The following types of lighting are exempted from these regulations:

Seasonal lighting displays; ornamental landscape lighting; illumination of United States flags as long as the light source is shielded and not visible from any adjacent property; customary agricultural practices, such as calving operations and government-required lighting.

Variations and Temporary

Exemptions:

The planning director may grant a variance from these provisions if the planning director finds there are special circumstances which are peculiar to the property, buildings or use for which the exception is sought. The variance must not be injurious to the neighborhood or to the public welfare.

A temporary lighting permit may be issued for up to 30 days by the planning director for fairs, concerts, and other events, as long as the lighting is designed in such a manner as to minimize light trespass, glare and light pollution as much as feasible.

State Lighting Law

On July 1, 2003, a state law went into effect which requires utility companies which sell outdoor lighting services to their customers, such as utility pole-mounted dusk-to-dawn lighting, must provide shielded lighting for those customers who request it. This type of lighting is different than normal ranch or home lighting in that the lighting apparatus is owned and maintained by the electric utility company, even though it may be located on the customer's property.

Advantages of Shielded lights

Among the advantages of shielded lighting are better visibility, less glare and more energy efficiency. Standard lighting fixtures can waste 50 percent or more of their light. The light may travel horizontally above the ground, or up into the sky. Glare from the bright light makes it hard to see at night.

A typical dusk-to-dawn light with a standard prismatic shield wastes 45 percent of its light skyward. That means your unshielded light is wasting 45 cents of every dollar to spend to power it. A shield, such as a Hubbell Sky Cap, redirects this stray light back to the ground. **(Continued on back page)**