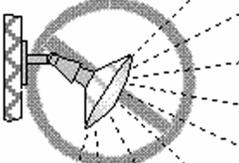
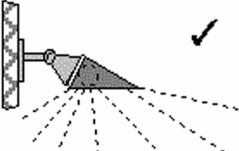
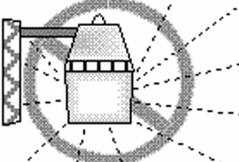
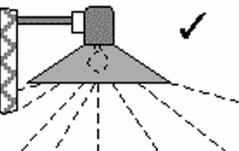
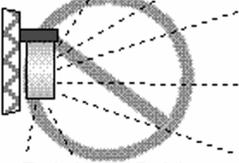
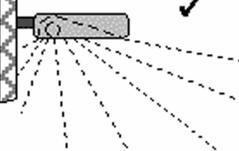
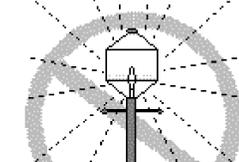
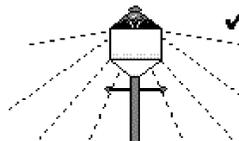
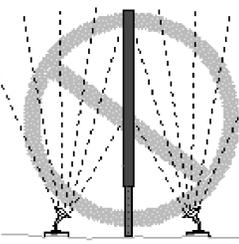
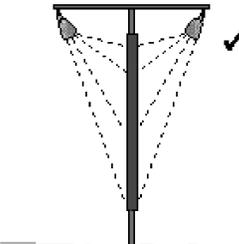


Some Examples of Good and Bad Lighting

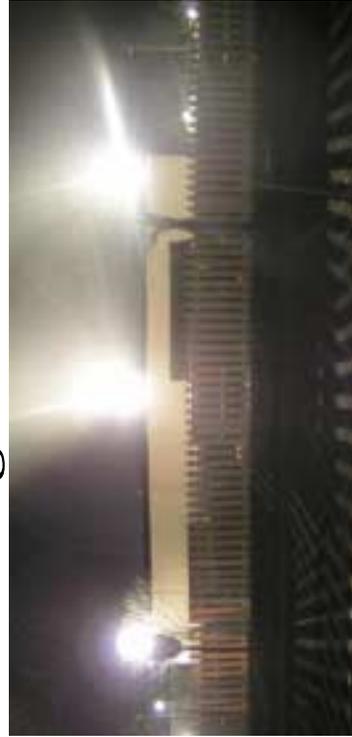
| Bad | Good |
|---|--|
|  <p data-bbox="111 407 258 428">Area Flood Light</p> |  <p data-bbox="390 407 625 428">Area Flood Light with Hood</p> |
|  <p data-bbox="90 618 275 639">Typical "Yard Light"</p> |  <p data-bbox="384 618 638 639">Opaque Reflector (lamp inside)</p> |
|  <p data-bbox="90 829 254 850">Typical "Wall Pack"</p> |  <p data-bbox="365 829 646 850">Typical "Shoe Box" (forward throw)</p> |
|  <p data-bbox="100 1130 302 1174">Post-style Lamp (more than 1,800 lumens)</p> |  <p data-bbox="411 1141 604 1174">Post-style Lamp (lamp set in opaque top)</p> |
|  <p data-bbox="100 1450 275 1494">Ground-mounted Billboard Floodlights</p> |  <p data-bbox="411 1450 590 1494">Top-mounted Billboard Floodlights</p> |



New York State Affiliate of the
International Dark-Sky Association

TO:

Light Pollution:



Railroad crossing sign virtually disappears in glare from misdirected, unshielded floodlights.

What is it?
Why should it be curbed?
How can you help?

What is light pollution?

All of the following are forms of light pollution:

Glare:

Light shining directly into your eyes, causing discomfort and reducing your ability to see.

Light trespass:

Light falling where it is not needed or wanted --for example, spilling over onto your property or into your home.

Waste:

Lighting that's on when it needn't be; lighting that's excessively bright; unshielded lighting that spills out and upward instead of being directed at its intended subject.

Sky glow:

The result of upward-shining light, which is reflected off moisture and dust particles in the atmosphere to illuminate the nighttime sky and wash out all but the brightest stars.

Why should it be curbed?

Wasted light wastes money.

It has been estimated that a third of outdoor lighting spills out and upward, totally wasted; a conservative calculation of the cost comes to around \$4.5 billion annually. Added to that figure is the waste from excessively bright lighting and the 100% waste from lighting that's on when it needn't be. You are paying the price through higher taxes for public lighting and inflated costs for consumer products and services.

Wasted light causes unnecessary air pollution.

Most electricity for lighting is generated by burning coal and oil. Every year this process spills out billions of tons of sulfur dioxide (an ingredient of acid rain), carbon dioxide (a greenhouse gas), and smog-causing nitrogen oxides.

Wasted light squanders irreplaceable natural resources.

The annual waste just from unshielded lighting has been estimated at more than 8 million tons of coal or 30 million barrels of oil.

Light pollution creates unnecessary hazards.

Glare from bad roadway and roadside lighting that blinds a motorist, even momentarily, can be fatal; older Americans are particularly at risk. The eye takes time to adjust from excessive brightness (common at gasoline service stations) to less bright areas (as you pull out onto the darker roadway). Impaired vision during such "transient adaptation" can pose hazards for pedestrians as well.

And while outdoor lighting may reduce the *fear* of crime, it can also attract criminals, illuminating their tasks and creating deep shadows to hide in. In 1977 and again in 1997, investigations by the U.S. Justice Department concluded that there is no meaningful evidence that street lighting affects the level of crime.

Light pollution can harm plants and animals.

All earth's creatures have evolved over thousands of years by adapting to a world that is dark at night. The loss of true darkness can alter the growth cycle of trees, weakening them and making them more susceptible to disease and severe weather. Birds, fish, frogs, moths, and plankton are just some of the animals whose behavior has been shown to be affected by increasing nighttime light--often with disastrous results.

Sky glow is obliterating the stars.

Satellite images show one huge blob of light running down the Eastern seaboard almost solidly from Maine to Virginia; the epidemic of wasted upright has become so severe that two thirds of Americans can no longer see the Milky Way. A *dark* sky full of shimmering stars is a thing of great beauty--a source of inspiration and information to diverse cultures across the centuries. Shouldn't we preserve it for ourselves and for our children?

How can you help?

1. Learn more about the problem. (See information sources below.)
2. It's easy to eliminate any light pollution that may be coming from your property.
 - ☛ If an outdoor light is aimed down and the bulb fully recessed inside a cap or shield, stray rays will not escape into the sky or onto your neighbor's property.
 - ☛ If you have any dusk-to-dawn lighting, a motion-sensor control will save money on your electric bill *and* be more effective at discouraging intruders.
3. Encourage your neighbors and the businesses you deal with to do the same!
4. Contact your state and local government representatives and let them know you support legislation and building code amendments requiring fully shielded lighting.

For additional information:

International Dark-Sky Association
3225 North First Avenue
Tucson, AZ 85719
520/293-3198
www.darksky.org

SELENE is IDA's affiliate in New York State. The word means "moon" in Greek; we use the letters to stand for Sensible and Efficient Lighting to Enhance the Nighttime Environment. Visit us on the Web at www.selene-ny.org.

To obtain additional copies of this leaflet, please e-mail us at info@selene-ny.org.

To easily compare operating costs of different lights, try the online calculator at <http://www.netacc.net/~poulsen/lightcost.html>.