

Efficient outdoor lighting means that we all can save energy and money and still provide a safe and secure night time environment. Controlled, effective, and economical lighting at home or at a business will offer the same safety, security, and visibility you are use to, while saving you money and reducing wasted energy.

The Problem with Outdoor Lighting

When outdoor lighting is not well designed or properly installed, it can cause many problems ranging from extensive costs, inefficient energy use, glare and harm to the night time environment. Four of the major consequences of poor outdoor lighting are:

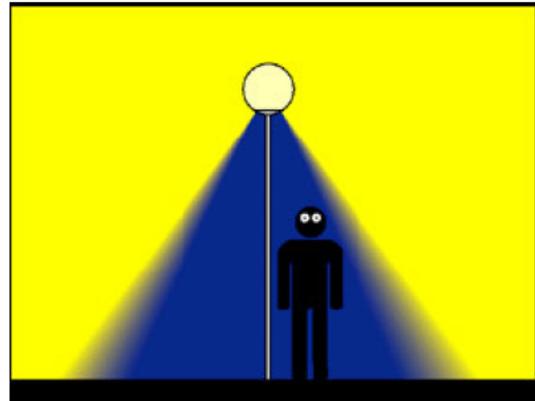
- Glare
- Light Trespass
- Energy Waste
- Sky Glow

How to Improve Your Own Light Fixtures

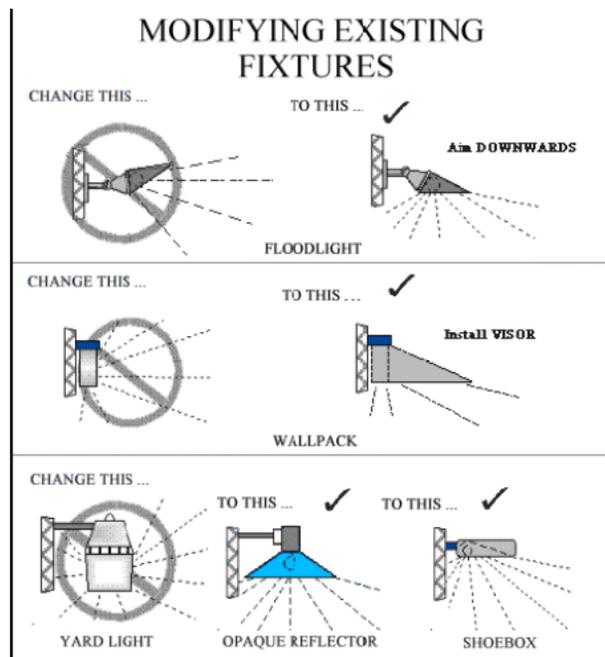
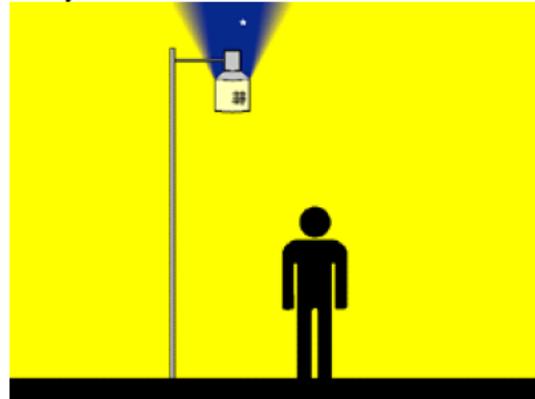
You can improve your light fixtures by refocusing the light away from areas where it is not needed. This can be done by repositioning the light or simply by adding a hood or visor to the light in order to shift where the light is shining.

Example of the effects of poor lighting

Everywhere **except** where it should be directed.

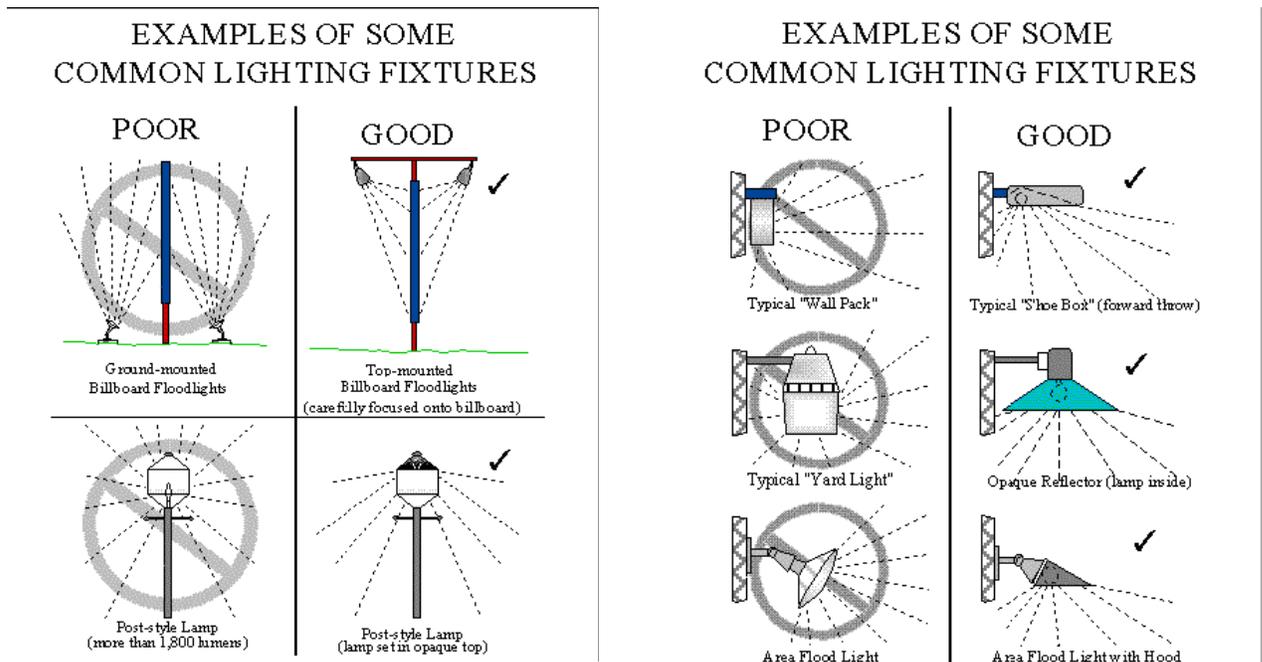


Everywhere it **shouldn't** be directed.



Efficient Alternatives

Good outdoor lighting means that we can save money, energy and enhance the surrounding environment. Many common fixtures inefficiently waste light and energy by distributing light where it is unnecessary and not useful.



When developing your Lighting Plan for a project, the plan should include the following information:

- A photometric site plan, drawn to scale, showing all buildings and parking areas, mounting and pole height, and including all proposed exterior lighting fixtures and foot candle spread.
- Design specifications for all proposed lighting fixtures to include photometric data, cutoff fixtures, bulb wattage/type, and other descriptive information.
- Outside parking lot lighting shall be no more than 1.5 foot candle per IES minimum lighting standards at the property line, and shall be designed to minimize glare and spillover onto adjacent properties.
- Wall packs on buildings may be used at entrances to a building to light unsafe areas. Wall packs are not intended to draw attention to the building or provide general building or site lighting. Wall packs must be fully shielded to direct the light downward.
- Building and aesthetic lighting must be shielded to prevent direct glare and/or light trespass in excess of 1.5 foot candle at the property line. The lighting must also be, as much as physically possible, contained to the site area.

Helpful Explanations

Foot-candles (or Candelas) are a measurement of light at an illuminated object. One foot-candle of light is the amount of light that candle generates one foot away.

Candlepower is a rating of light output at the source, not at the object to be lit.

A **Lumen** is the metric unit equivalent of measurement of light to foot-candles. One Lumen is equal to one foot-candle falling on one square foot of area and measured at the object you want to illuminate.

Note: This handout is for informational purposes only.