

# Good Neighbor

# OUTDOOR LIGHTING

PRESENTED BY THE NEW ENGLAND LIGHT POLLUTION ADVISORY GROUP (NELPAG) AND SKY & TELESCOPE.

## What is good lighting?

Good outdoor lights improve visibility, safety, and a sense of security, while minimizing energy use, operating costs, and ugly, dazzling glare.

## Why should we be concerned?

Many outdoor lights are poorly designed or improperly aimed. Such lights are costly, wasteful, and distractingly glaring. They harm the nighttime environment and neighbors' property values. Light directed uselessly above the horizon creates murky skyglow — the "light pollution" that washes out our view of the stars.

**Glare** Here's the basic rule of thumb: If you can see the bright bulb from a distance, it's a bad light. With a good light, you see lit ground instead of the dazzling bulb. "Glare" is light that beams directly from a bulb into your eye. It hampers the vision of pedestrians, cyclists, and drivers.

**Light Trespass** Poor outdoor lighting shines onto neighbors' properties and into bedroom windows, reducing privacy, hindering sleep, and giving the area an unattractive, trashy look.

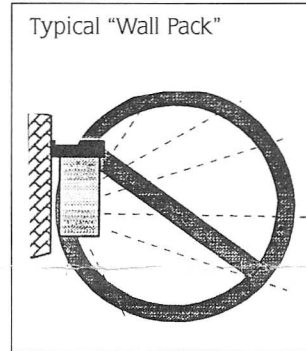
**Energy Waste** Many outdoor lights waste energy by spilling much of their light where it is not needed, such as up into the sky. This waste results in high operating costs. Each year we waste more than a billion dollars in the United States needlessly lighting the night sky.

**Excess Lighting** Some homes and businesses are flooded with much stronger light than is necessary for safety or security.

## How do I switch to good lighting?

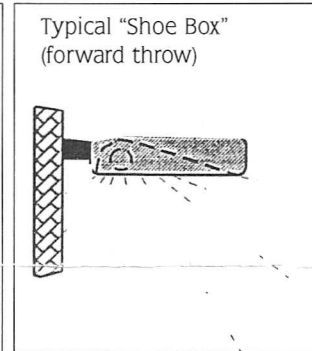
**1** Provide only enough light for the task at hand; don't over-light, and don't spill light off your property. Specifying enough light for a job is sometimes hard to do on paper. Remember that a full Moon can make an area quite bright. Some lighting systems illuminate

## Some Good and Bad Light Fixtures



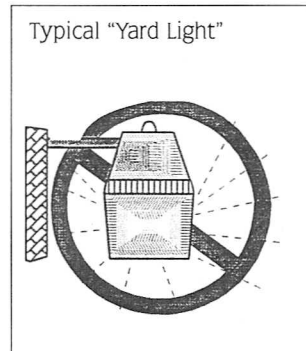
**BAD**

Waste light goes up and sideways



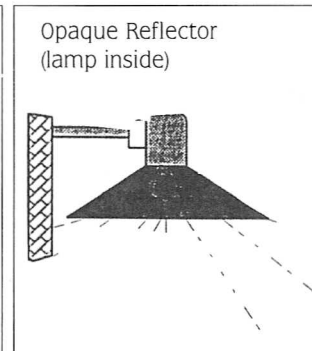
**GOOD**

Directs all light down



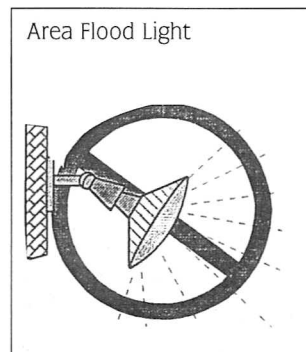
**BAD**

Waste light goes up and sideways



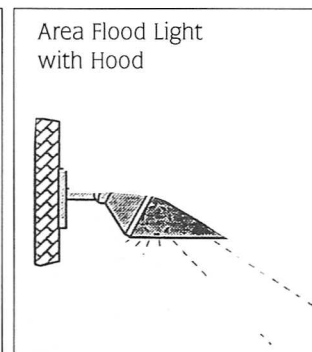
**GOOD**

Directs all light down



**BAD**

Waste light goes up and sideways



**GOOD**

Directs all light down

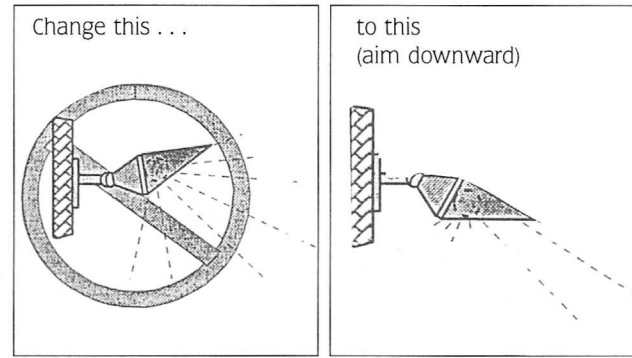
areas 100 times more brightly than the full Moon! More importantly, by choosing properly shielded lights, you can meet your needs without bothering neighbors or polluting the sky.

- 2** Aim lights down. Choose "full-cutoff shielded" fixtures that keep light from going uselessly up or sideways. Full-cutoff fixtures produce minimum glare. They create a pleasant-looking environment. They increase safety because you see illuminated people, cars, and terrain, not dazzling bulbs.
- 3** Install fixtures carefully to maximize their effectiveness on the targeted area and minimize their impact elsewhere. Proper aiming of fixtures is crucial. Most are aimed too high. Try to install them at night, when you can see where all the rays actually go. Properly aimed and shielded lights may cost more initially, but they save you far more in the long run. They can illuminate your target with a low-wattage bulb just as well as a wasteful light does with a high-wattage bulb.
- 4** If color discrimination is not important, choose energy-efficient fixtures utilizing yellowish high-pressure sodium (HPS) bulbs. If "white" light is needed, fixtures using compact fluorescent or metal-halide (MH) bulbs are more energy-efficient than those using incandescent, halogen, or mercury-vapor bulbs.
- 5** Where feasible, put lights on timers to turn them off each night after they are no longer needed. Put home security lights on a motion-detector switch, which turns them on only when someone enters the area; this provides a great deterrent effect!

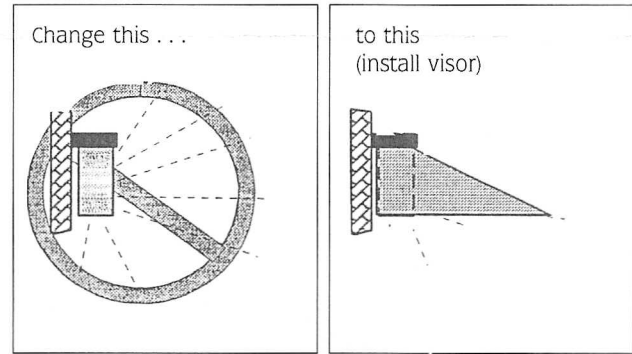
**Replace bad lights with good lights.**

You'll save energy and money. You'll be a good neighbor. And you'll help preserve our view of the stars.

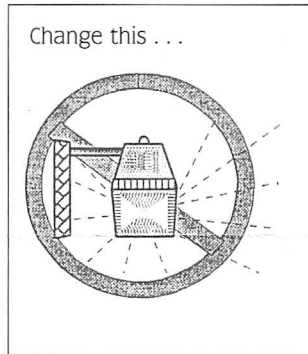
**What You Can Do To Modify Existing Fixtures**



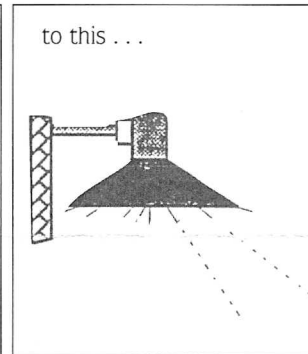
**FLOOD LIGHT**



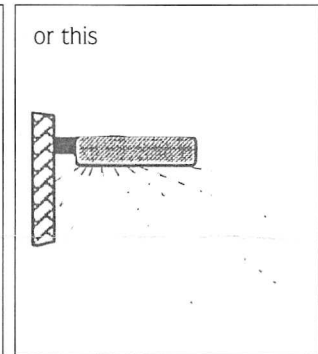
**WALL PACK**



**YARD LIGHT**



**OPAQUE REFLECTOR**



**SHOE BOX**

Presented by the **New England Light Pollution Advisory Group (NELPAG)** (<http://www.nelpag.org>)

and **Sky & Telescope** (<http://SkyandTelescope.com>).

NELPAG and *Sky & Telescope* support the International Dark-Sky Association (IDA) (<http://www.darksky.org>).

We urge all individuals and groups interested in the problems of light pollution and obtrusive lighting to support the IDA and subscribe to its newsletter. IDA membership costs \$30 per year; send your check to IDA, 3225 N. First Avenue, Tucson, AZ 85719, U.S.A.



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