



Save Energy Illuminating Your Outdoors

Q: *After some break-ins in my neighborhood, I decided to install outdoor security lighting, which can also be used when entertaining. What are my options and which are most efficient?*

A: Installing outdoor lighting is one method to reduce the possibility of nighttime break-ins. Talk with your local police department about what types of lighting they recommend for your home. The police can also recommend the right on-time for your security lights. Obviously, the less time they are on, the less electricity you pay for.

Outdoor lighting should be used in moderation. It consumes large amounts of electricity.

When comparing lights and determining how many you need, compare their light output lumens ratings. This is listed on the packaging. The wattage refers to how much electricity a bulb uses, not its light output. The actual light intensity on your house or the ground is rated in lux (lumens per square meter).

The keys to energy and environmentally efficient outdoor lighting is selecting the proper bulb, light fixture design and shortest on-time period.

Using just two 150-watt floodlights at night can

increase your electric bills by up to \$100 per year. With several fixed floodlights around your house, would-be thieves can often figure a way to get around them without being seen.

In areas where you will not need lighting for entertaining, install motion-sensing fixtures or add-on motion-sensing switches. Motion-sensing lights greatly reduce the amount of on-time and increase the bulb life.

Where you want outdoor lighting for both security and entertaining, select fixtures that direct lighting downward in the specific areas needed. This minimizes light pollution in the night sky and may allow you to use lower wattage bulbs to save on electricity.

As you would do indoors, use fluorescent tubes and compact fluorescent lights (CFLs) in your outdoor fixtures. Some may not operate well at very cold temperatures, so check with the manufacturer.

Fluorescent lights are four times more energy efficient than standard incandescent bulbs and last 10 times longer. The light quality from newer CFLs is similar to standard incandescent bulbs. For whiter light, select full-spectrum CFLs.

Although halogen bulbs are not as efficient as CFLs, they are still 15



When installing outdoor security/decorative lighting, always follow local electric codes. This fixture uses rigid aluminum conduit. Photo by James Dulley.

percent more efficient than standard incandescent bulbs. Halogen bulbs produce a very white light. They can get very hot, so pay attention to the maximum wattage allowed for each light fixture.

Mercury vapor bulbs also have a pleasing light.

Although they are substantially more expensive to install, low pressure

sodium (LPS) outdoor lighting fixtures are very energy efficient. They use less than 15 percent as much electricity as incandescent bulbs. The drawbacks are they take a short time to heat up to full brightness and the light is a monochromatic yellow.

Some of the newest fixtures use clusters of white light-emitting diodes (LEDs). These are solid state devices, not actual bulbs, which produce a white/bluish light.

LEDs are extremely efficient and last almost forever, up to 100,000 hours. The brightness of the light output is limited, so they are best for lighting a specific small area.

The following companies offer efficient outdoor lighting:

- *Adjusta-Post*
(800) 321-2132,
www.adjustapost.com
- *Energy Focus*
(800) 327-7877,
www.energyfocusinc.com
- *Hadco*
(800) 331-4185,
www.hadcolighting.com
- *Idaho Wood*
(800) 635-1100,
www.idahowood.com
- *Kim Lighting*
(626) 968-5666,
www.kimlighting.com. ■



To ask a question, write to James Dulley, Energy Report, 6906 Royalgreen Drive, Cincinnati, Ohio 45244, or check his Web page at www.dulley.com.