



# Energy-efficient home lighting

## FACT SHEET

1 OF 2



APARTMENT & CONDO EFFICIENCY SERVICES



ENERGY STAR PRODUCTS



HOME PERFORMANCE WITH ENERGY STAR



WISCONSIN ENERGY STAR HOMES

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The familiar pear-shaped incandescent light bulb has been a staple in the lighting fixtures in most of our homes. Yet, the incandescent bulb is actually better at producing heat than light and uses a lot of electricity in the process. ENERGY STAR® compact fluorescent lights (CFLs) save energy and money while providing quality light for your home.

### USE COMPACT FLUORESCENT LIGHT BULBS IN HIGH-USE FIXTURES

Replace standard incandescent bulbs with CFLs in fixtures that are on for three or more hours per day. High-use lighting areas include kitchens, living rooms, recreation rooms and outdoor fixtures.

#### About CFLs

Today's CFLs incorporate the best features of fluorescents—high efficiency and long life—and produce steady, quiet, warm white light. The problems of poor color, flicker and hum that plagued the first bulbs that were introduced in the 1980s have been eliminated. CFLs now come in a variety of shapes and sizes to fit different fixtures. Today there are CFLs that work with dimmer switches and 3-way lamps.

A CFL produces the same amount of light as an incandescent while using less electricity. It also lasts five to twelve times longer than an incandescent bulb so you don't have to replace it as often.

SAVINGS FOR CFLS		
INCANDESCENT BULB	COMPACT FLUORESCENT (approximate equivalent wattage)	LIFETIME SAVINGS
40 watt	15 watt	\$30
60 watt	20 watt	\$42
75 watt	25 watt	\$50
100 watt	30 watt	\$60

BASED ON 10,000-HOUR BULB LIFETIME AT 8¢ PER KWH; 50 CENT REPLACEMENT COST FOR INCANDESCENT BULBS

You spend less money over time when you use CFLs in high-use lighting fixtures. Not only do you buy fewer bulbs, you use less electricity. A 20-watt CFL provides 1,200 lumens and uses 20 watts of electricity. A 75-watt incandescent bulb will provide the same amount of light, but uses more than three and a half times as much electricity as the CFL.



When shopping for a CFL, keep the following guidelines in mind:

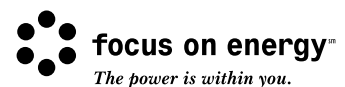
- Look for the ENERGY STAR label for products that meet or exceed government energy efficiency standards.
- Check the size of your light fixture so you buy the correct bulb size. CFLs come in a range of shapes, sizes and wattages.
- Select dimmable bulbs for use with dimmer switches. Not all CFLs are suitable for use with dimmer switches.
- Choose a CFL that uses one-third the wattage of the incandescent bulb you're replacing. For example, replace a 75-watt incandescent with a 25-watt CFL. This will ensure adequate illumination.
- Protect CFLs installed in outdoor fixtures from moisture.

#### COMPACT FLUORESCENT FIXTURES

When purchasing new lighting fixtures, (floor or table lamps, wall or ceiling-mounted fixtures, or outdoor fixtures) look for ENERGY STAR qualified models. These fixtures are available in many styles and sizes and use energy efficient fluorescent bulbs (CFLs or tubes).

#### Torchieres

Compact fluorescent torchiere floor lamps have been available since 1997. They use a compact fluorescent bulb that delivers more lumens per watt than their halogen counterparts and operates more than 600°F cooler. Their higher purchase price is quickly offset by lower operating costs. A 65-watt compact fluorescent torchiere operating four hours a day uses 95 kWh per year, and at 8¢ per kWh, costs less than \$8 a year to operate.



In comparison, halogen torchiere floor lamps' low purchase price masquerade as a good deal, when in reality they are expensive to operate and dangerous to use. Most use 300-watt quartz halogen bulbs that deliver as few as 15 lumens per watt and operate at temperatures in excess of 800° F. These lamps have caused fires when flammable materials such as curtains or drapes have come in contact with the bulb. They can pose a hazard for children or pets. They also use a lot of electricity. A 300-watt torchiere operating for four hours a day uses 438 kWh a year. At a rate of 8¢ per kWh, the operating cost is \$34 per year, more than the cost of the fixture itself.

#### LEARN MORE [energystar.gov](http://energystar.gov)

ENERGY STAR Lighting: This site provides information on energy efficient products that meet ENERGY STAR standards. The lighting product information pages cover CFLs, fixtures and ceiling fans. There is a link to a calculator letting you compare operating costs and energy use of ENERGY STAR qualified products with non-ENERGY STAR products.

#### [focusonenergy.com](http://focusonenergy.com)

Contact Focus to learn more about smart energy choices.

#### SOME DEFINITIONS

**CFLs.** Compact fluorescent light bulbs—low wattage, high lumen output lamp commonly replacing incandescent light bulbs today.

**Fluorescent lighting.** Method of producing light by sending electrical current through a tube of ionized gas.

**Incandescent lighting.** Method of producing light by heating a tungsten or halogen element.

**Lumens.** A measure of brightness of a light source. A 24W CFL and a 75W incandescent both provide about 1200 lumens of brightness.

**Watts.** A measure of electrical power.

Focus on Energy is a public-private partnership offering energy information and services to energy utility customers throughout Wisconsin. The goals of this program are to encourage energy efficiency and use of renewable energy, enhance the environment, and ensure the future supply of energy for Wisconsin. For information about the Focus on Energy services and programs, call 1.800.762.7077 or visit [focusonenergy.com](http://focusonenergy.com).

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