



## Federal Trade Commission Protecting America's Consumers

### Facts for Consumers

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## Shopping for light bulbs? Learning about *lumens* is a bright idea

Light bulbs are getting better. Newer bulbs — like halogen incandescents, CFLs and LEDs — last longer and use less energy than traditional incandescent bulbs, saving you money on your energy bills. In fact, beginning in 2012, everyday light bulbs have to meet new Department of Energy standards for how much energy they use. Bulbs that don't will be phased out over the next couple of years.

Along with this move to more efficient bulbs comes a new way to shop for them.

### What Are Lumens?

For years, people have chosen light bulbs by the watt, learning over time about how bright a typical 40-watt or 60-watt bulb is. But wattage tells you only how much energy a bulb uses — not how bright it is.

With newer light bulbs designed to use less energy, wattage is no longer a reliable way to gauge a light bulb's brightness. That takes lumens.

lumens = brightness  
watts = energy

Lumens measure brightness. A standard 60-watt incandescent bulb, for example, produces about 800 lumens of light. By comparison, a CFL bulb produces that same 800 lumens using less than 15 watts.

### How Bright a Light?

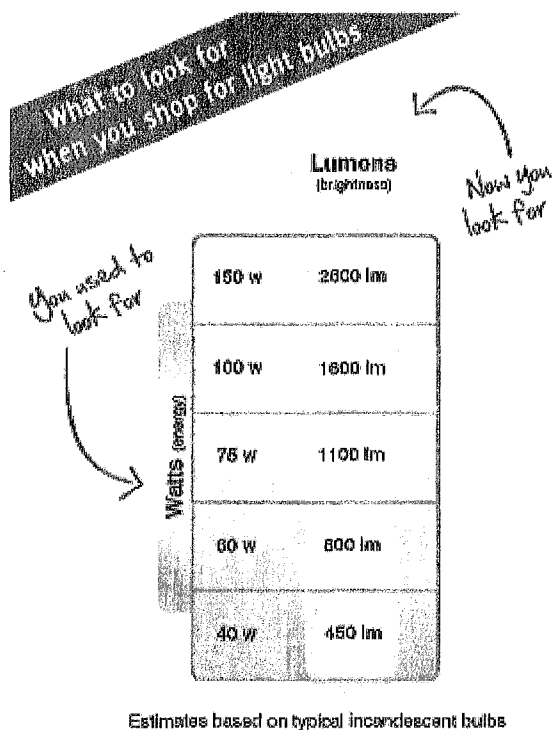
This chart shows the number of lumens produced by common incandescent bulbs. If you're looking to buy a bulb that will give you the amount of light you used to get from a 60-watt bulb, you'll now look for 800 lumens.

You can use lumens to compare the brightness of any bulb, regardless of the technology behind it, and regardless of whether it's a halogen incandescent, CFL or LED. Using lumens helps you compare "apples to apples" when you shop for light bulbs. Once you know how bright a bulb you want, you can compare other factors, like the yearly energy cost.

What to look for when you shop for  
light bulbs

| Watts<br>(energy) | Lumens<br>(brightness) |
|-------------------|------------------------|
| 150 w             | 2600 lm                |
| 100 w             | 1600 lm                |
| 75 w              | 1100 lm                |
| 60 w              | 800 lm                 |
| 40 w              | 450 lm                 |

### A Label to Help You Shop



| Lighting Facts Per Bulb  |                 |
|--|-----------------|
| Brightness   | 820 lumens      |
| Estimated Yearly Energy Cost   | \$7.23          |
| <small>Based on 3 hrs/day, 11c/kWh<br/>Cost depends on rates and use</small> |                 |
| Life   | 1.4 years       |
| <small>Based on 3 hrs/day</small>  |                 |
| Light Appearance   | Warm _____ Cool |
|  | 2700 K          |
| Energy Used  | 60 watts        |

When you shop for light bulbs, you'll also want to think about light appearance, or color temperature. Light appearance ranges from warm to cool. Warmer light looks more yellow, like the light from a traditional incandescent bulb, cooler light appears more blue.

To find out the light appearance of a light bulb, look at the Lighting Facts label on the package. The Lighting Facts label gives you information you need to compare different bulbs. It tells you:

- Brightness (in lumens)
- Yearly estimated energy cost
- Expected bulb life (in years)
- Light appearance (how warm or cool the light will look)
- Wattage (the energy used)

- If the bulb contains mercury



The label may include the Energy Star logo if the bulb meets the energy efficiency and performance standards of the Environmental Protection Agency and the Department of Energy's Energy Star program. For more on Energy Star standards, visit [energystar.gov](http://energystar.gov).

Lighting Facts labels will be on most everyday household light bulbs starting in 2012.

### On the Bulb

The number of lumens will be printed on the bulb. If the bulb is a CFL, it may be on the bulb's base. CFLs also will include a web address, [epa.gov/cfl](http://epa.gov/cfl), for information on safe recycling and disposal. CFLs contain mercury, so cleanup and disposal require some care and attention.

### For More Information

Learn more about shopping for light bulbs at [energysavers.gov/lighting](http://energysavers.gov/lighting).

Watch a video on lumens and the Lighting Facts label at [ftc.gov/lightbulbs](http://ftc.gov/lightbulbs).

To get free information on consumer issues, visit [ftc.gov](http://ftc.gov) or call toll-free, 1-877-FTC-HELP (1-877-382-4357); TTY: 1-866-653-4261.

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