



Right Light Guide

for General Use Bulbs

Today there are more lighting choices than ever before!
 This guide will illuminate the main differences between types of light bulbs, their brightness, and how to read new labels.

STEP 1 Choose a New Bulb

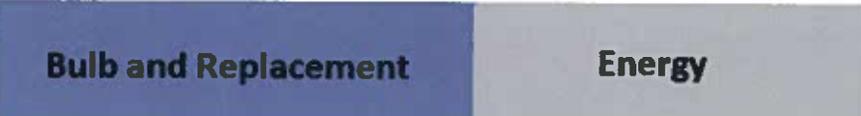
The main new light bulbs are LED, CFL, and halogen.

Which bulb you choose will depend on how much money you want to save, where you'll use the bulb, and other preferences.

The chart below shows the 10-year cost of the different types of bulbs, how many replacement bulbs are necessary over 10 years, and the pros and cons of each.

Hint: Buy Quality Bulbs

With so many new bulbs on the market, quality can vary. **Look for the ENERGY STAR label** when you're buying efficient bulbs to ensure the quality of the light produced by the bulb and make sure it will have a long life.

Bulb	10-Year Cost	Pros and Cons
 LED	 \$40	<ul style="list-style-type: none"> + Saves 85% in energy costs + Longest lasting bulb on the market (10+ years) + Dimmable from 10%-100% + Not sensitive to colder temperatures + Instant-on + Mercury Free - Greater upfront cost - 100W brightness equivalent pending
 CFL	 \$43	<ul style="list-style-type: none"> + Saves 75% in energy costs + Lasts 8 times as long as the incandescent + Comparable cost to the incandescent - Sensitive to colder temperatures - Lesser dimmable range of 20%-90% - Contains mercury-recycling required
 Halogen	 \$110	<ul style="list-style-type: none"> + Same color quality as incandescent + Mercury Free + Comparable cost to the incandescent + Saves 30% in energy costs - Short life span like the incandescent
 Incandescent	 \$160	

10-Year Cost Assumptions: 60W incandescent and efficient equivalents; used 3 hours/day; \$0.1158 kWh; cost includes an estimate to value the time one would spend purchasing and replacing bulbs. **Note:** Non-residential energy rates are generally lower than residential.

STEP 2 Match the Old Bulb

You want your new bulb to shine the same as the old one.

Start by identifying the wattage (like 60W, 75W) of your old incandescent bulb, then convert to lumens.

Wattage (W) is the measure of the bulb's energy consumption, but it doesn't describe how bright a light is. Use the chart below to determine your old bulb's brightness in lumens.

Lumen is the measurement of brightness. Find a bulb that matches in lumens, not watts. For instance, you'll replace an old 60W bulb with one that emits 800 lumens, such as a 13-16W CFL.

Incandescent	Lumen	Halogen	CFLs	LEDs
40W	~450	29W	9-13W	4-5W
60W	~800	43W	13-16W	6-8W
75W	~1100	53W	17-23W	9-11W
100W	~1600	72W	23-30W	11-15W

If in doubt about your old bulb, most household applications use around 800-1100 lumens.

← Least efficient → Most efficient

STEP 3 Find Your New Bulbs

Write down the bulbs you need and head to the store.

Brightness: Match the lumens on the Lighting Facts label with the lumens listed on your shopping list.

Note: The lumen output listed on packages may vary by up to 50-60 lumens, but the difference is insignificant and unnoticeable. For instance, 800 lumen and 860 lumen light bulbs will produce a similar brightness.

Lighting Facts Per Bulb	
Brightness	820 lumens
Estimated Yearly Energy Cost	\$7.49
<small>Based on 3 hrs/day and 11.4 ¢/kWh. Your cost will depend on your rates and use.</small>	
Life In Years	1.4 yrs
<small>Based on 3 hrs/day</small>	
Color Appearance	Warm ————— Cool
	2700 K
Energy Used	60 watts

Hint: Soft White or Warm

For residential general-use lighting, look for a soft white or warm bulb, which will most closely match the color of traditional incandescent bulbs.

MORE Rebates, Resources, and Real People

We encourage you to contact your electric utility to learn more about lighting support they offer.



Learn, ask questions, and recycle CFLs:

<http://Lighting.MnCERTs.org>

CERTs: Helping Minnesota communities determine their clean energy future