



**CERT**  
CLEAN ENERGY RESOURCE TEAMS

# Right Light Guide

## for General Use Bulbs

There's an efficient LED bulb for every fixture and room, at every brightness, and in every color! Use this guide to learn about bulbs, and our app to find the right ones.

### STEP 1

## Decide How Much Light You Need

**Focus on Brightness.** Different amounts of light are needed for different uses. Instead of thinking about light bulbs based solely on the amount of energy they use, focus on their brightness level.

**Lumen** is the measurement of brightness. Higher lumen bulbs produce brighter light.

**Watt (W)** is the measure of power consumption. Lower wattage bulbs can lower your electric bills.

If you like your bulb's current brightness, choose an LED with similar lumens to reduce your energy use. You may also consider a bulb that is less bright to save more.

*Note:* Lumen output listed on packages may vary. Light bulbs listing anywhere from 800 to 860 lumens are similarly bright, for instance.



Brightness	Incandescent	CFL	LED
<b>450 lumens</b> ☀	40W	9-13W	4-8W
<b>800 lumens</b> ☀	60W	13-16W	8-13W
<b>1100 lumens</b> ☀	75W	17-23W	11-15W
<b>1600 lumens</b> ☀	100W	23-28W	16-20W

Least Efficient

Most Efficient

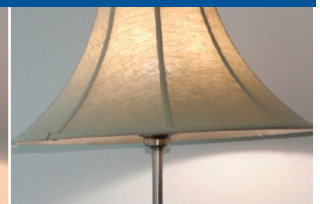
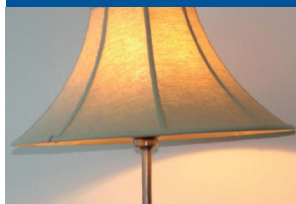
### STEP 2

## Decide What Color Light You Want

**Choose Light Appearance.** You'll be pleased with your new bulb by choosing a light appearance that you like. All of these colors are available for LEDs, and at most brightness levels.

*Note:* Choose warm or soft white (2700-3000 K) to match the color of incandescent bulbs.

### Different Colors, Same Brightness



**Soft White, Warm White**  
Living Room,  
Bedroom

**Bright White, Cool White**  
Kitchen, Bathroom,  
Dining Room

**Natural, Daylight**  
Office, Laundry,  
Workshop, Garage

← Warm Color

Light Appearance

→ Cool Color →

2700K

3000K

3500K

4100K







5000K

6500K

# STEP 3


# Think About Costs and Benefits

**Compare Types of Light Bulbs.** You can think about product, replacement, and energy costs over 20 years for different bulb types. Why 20 years? Because LEDs can last that long. Many incandescent bulbs have been phased out, and CFLs are becoming less popular. The pros and cons below will help you pick a bulb that is right for you, and so will the Right Light App at the bottom.

Cost Over 20 Years	Bulb(s)	Energy	Pros (+) and Cons (-)
<b>LED</b>	 1 bulb in 20 years	 <b>\$35 total cost</b>	<ul style="list-style-type: none"> <li>+ Saves 85% of energy use over incandescent</li> <li>+ Lasts 25 times longer than incandescent</li> <li>+ Great for dimmed, recessed, or enclosed fixtures</li> <li>+ Performs well in cold temperatures</li> <li>- Higher bulb cost</li> </ul>
<b>CFL</b>	 3 bulbs in 20 years	 <b>\$54 total cost</b>	<ul style="list-style-type: none"> <li>+ Saves 75% of energy use over incandescent</li> <li>+ Lasts 10 times longer than incandescent</li> <li>- Recessed &amp; enclosed fixtures reduce bulb life</li> <li>- Performs poorly in cold temperatures</li> <li>- Contains mercury (recycling required)</li> </ul>
<b>Incandescent</b>	 22 bulbs in 20 years	 <b>\$284 total cost</b>	

*Note:* Cost comparison is based on a 20-year life and takes into account power consumption, hours of use per day, residential electric cost, bulb cost, and replacement cost. For detailed cost calculations and a full pro/con list, visit <http://Lighting.MnCERTs.org>.

**Buying High-Quality Bulbs.** The *Lighting Facts* label on all bulb packaging clearly shows light appearance and brightness. The label also includes the ENERGY STAR® logo when a bulb meets the required certification levels for high efficiency, performance, and reliability.

Lighting Facts Per Bulb	
<b>Brightness</b>	800 lumens
<b>Estimated Yearly Energy Cost</b>	\$1.14
Based on 3 hrs/day, 11¢/kWh Cost depends on rates and use	
<b>Life</b>	22.8 years
Based on 3 hrs/day	
<b>Light Appearance</b>	Warm <span style="float:right">Cool</span>
	
<b>Energy Used</b>	9.5 watts



## Find Bulbs & Get Rebates

**There's an app for that!**  
The Right Light App helps you choose the right energy efficient LED bulb for you, from bulb and fixture types to color and brightness suggestions! Access the app from any device at [rightlightapp.org](http://rightlightapp.org).



**Get utility rebates.**  
Contact your electric utility to learn about lighting rebates.