### Choosing a Replacement for the Standard Incandescent Light Bulb

With the standard incandescent light bulb now phased out under new energy efficiency lighting regulations, how do you decide which replacement bulb is best for your home and budget?

### Follow these 3 easy steps...

- Choose bulbs based on how bright you need them to be. Brightness is measured in lumens. The higher the lumens, the brighter the light.
- Determine which bulb has the lowest estimated energy cost per year. These will save you the most money.
- Choose the additional features you prefer, such as service life and colour temperature.

	You used to buy			Your choices now				
LEAST EFFICIENT				MOST EFFICIENT				
		Standard Incandescents	<b>→</b>	New Halogen Incandescents	CFLs TO BE PHASED OUT	LEDs		
ESS BRIGHT	450 lumens	40 Watts	÷	29 Watts \$4.56/yr	10 Watts	6 Watts \$0.94/yr	ENERGY USE ENERGY COST PER YEAR*	
	800 lumens	60 Watts	<b>→</b>	43 Watts \$6.77/yr	13 Watts	8 Watts \$1.26/yr	ENERGY USE ENERGY COST PER YEAR*	
▼ MOR	1100 lumens	75 Watts	<b>→</b>	53 Watts \$8.34/yr	16 Watts	11 Watts \$1.73/yr	ENERGY USE ENERGY COST PER YEAR*	
MORE BRIGHT	1600 lumens	100 Watts	<b>→</b>	72 Watts \$11.33/yr	23 Watts	14 Watts \$2.20/yr	ENERGY USE ENERGY COST PER YEAR*	
		BULB LIFE = 1 YEAR*		BULB LIFE = 2-3 YEARS*	BULB LIFE = 6-8 YEARS*	BULB LIFE = 10 YEARS*		

<sup>\*</sup>Rated life and energy cost per year based on 3 hours of use per day (energy cost per year based on Maritime Electric residential first block energy charge of \$0.1437/kWh).

# Where can I find this information?

Most light bulb packages in Canada now have labels that tell you how bright the bulb is and how much energy it will use. Look on the light bulb package to match the lumens information and energy cost per year to the table above.

### Front of package

- Brightness
- 2 Estimated energy cost per year



### Back of package

3 Other features

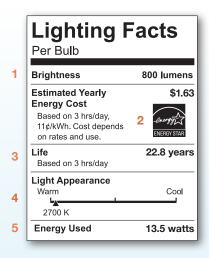
Lighting Facts Per Bulb							
Brightness	800 lumens						
Estimated Yearly Energy Cost Based on 3 hrs/day, 11¢/kWh. Cost depends on rates and use.	\$1.63						
Life Based on 3 hrs/day	22.8 years						
Light Appearance Warm 2700 K	Cool						
Energy Used	13.5 watts						



### Why are light bulbs changing?

In both the United States and Canada, new energy efficiency regulations require improved energy efficiency for general purpose light bulbs. You can still buy incandescent bulbs (halogen incandescents) that look and operate like the ones you are used to – the new ones just use less electricity. Most light bulb packages in Canada will include a Lighting Facts label such as the one shown below.

#### Example of new bulb labels



- **Brightness** Tells you how much light the bulb provides.
- ENERGY STAR® Logo Indicates which CFLs and LEDs meet ENERGY STAR® requirements for efficiency, lifetime and quality.
- **Life** Estimates in years how long the bulb will last. A longer bulb life means less frequent replacement and faster payback on your lighting investment.
- **Light Appearance** Tells you the colour temperature of light, expressed in degrees Kelvin. Incandescents produce warm white light - between 2700 K and 3000 K. Bulbs that produce cooler or more bluish light will have a higher rating, such as 4000 K to 6500 K. Most buyers prefer the warm white colour compared to daylight or bright white bulbs.
- **Energy Used** (Watts) Measures bulb energy use, not brightness.

## Which bulbs cost the least to purchase and operate over the long run?

While an incandescent bulb may be the cheapest to buy, the overall cost of both purchasing and powering the bulb will be far higher than an LED bulb. Over the longer life of an LED, savings can exceed \$50 per bulb. The following table helps to illustrate why more efficient LED bulbs are the best bargain overall.

Bulb Types (all approx. 800 lumens)	Bulb Life	Costs	Year 1	Annual Cost	Total Costs over 10 years
Halogen Incandescent	3 years	Bulb Cost	\$2.50 \$6.77	\$0.00 \$6.77	\$7.50 \$67.66
43 Watt		Energy Cost	* -	<b>,</b> -	\$67.66
		Total Cost	\$9.27	\$6.77	\$75.16
150	10 years	Bulb Cost	\$5.00	\$0.00	\$5.00
LED 11 Watt		Energy Cost	\$1.26	\$1.26	\$12.59
		Total Cost	\$6.26	\$1.26	\$17.59

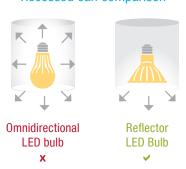
<sup>\*</sup>Rated life and energy cost per year based on 3 hours of use per day (energy cost per year based on Maritime Electric residential first block energy charge of \$0.1437/kWh)

#### Table lamp comparison



In table and floor lamps, you want the lights to shine in all directions, so look for Energy Star®-labeled bulbs that are omnidirectional

### Recessed can comparison



For down lights and recessed cans, install Energy Star® reflector  $\bar{\text{LED}}$  bulbs. The light going upward from the omnidirectional bulbs can be wasted inside this fixture.



