



CHELAN COUNTY  
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# Light up the Holidays



## Use Light Emitting Diode (LED) holiday lights

Many Americans love to decorate during the holidays with strings of lights, and most people use standard incandescent C7 lights or mini-lights. LED lights are a cost-effective, energy-efficient alternative.

## Benefits of LEDs include:

- Energy-efficient – 0.08 watts per LED C7 multicolor bulb (compared with 0.48 watts for an incandescent mini-light and 6.0 watts for a standard incandescent C7 bulb.)
- Long life span – up to 100,000 hours or more used indoors, half that outdoors, and some manufacturers provide a limited lifetime warranty.
- Safety – no chance of combustion since the bulbs are cool to the touch, regardless of how long they are left on.
- Sturdy bulbs – the epoxy lenses are virtually indestructible.

LED lights have a different appearance from the familiar incandescent models. They may appear to shimmer with movement as the light passes through the faceted bulbs, and side-by-side with an incandescent bulb they do not emit equal light. In spite of the differences, these lights can be used for beautiful and affordable holiday decorating.

## Safety First

- Don't overload outlets
- Keep holiday greenery fresh and safe with frequent waterings
- Inspect all cords for damage or fraying and place them where they will not be stepped on
- Turn off lights and blow out candles before leaving the house



## Where to See LED Lights

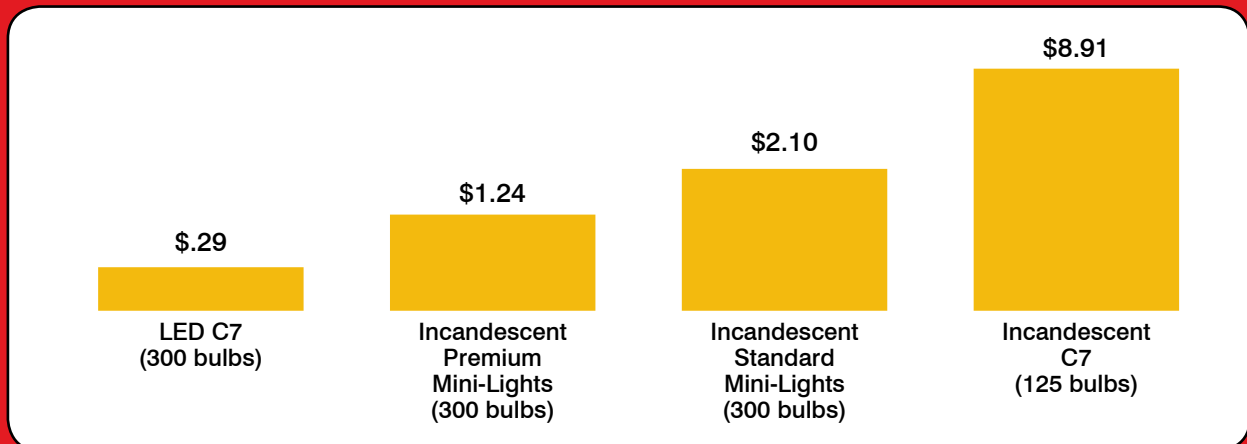
The decorative stars and arches that greet visitors to downtown Chelan are LED lights. The downtown association used Chelan County PUD's Resource\$mart program to help buy energy-efficient lighting. In Chelan, total annual energy savings equal what seven average homes in Chelan County use in a year.

In 2011, the Leavenworth Chamber of Commerce, with help from Chelan County PUD, finished converting all downtown park lighting to energy efficient LED bulbs. The change is saving the city about 110,000 kilowatt hours of electricity per year — enough to light about five homes.

## Cheaper in the long run

Despite a higher initial cost, LEDs are a clear winner over incandescent C7 lights when you compare the cost to purchase and operate a system for five years (and beyond).

## Energy Cost of Comparable Options



### Assumptions:

Lighting for an 8-foot tree for one season (12 hours per day for 30 days.)

Because standard incandescent bulbs are much brighter, fewer are needed for a display.

Wattages: LED C7 multicolor 300 bulbs = 24 watts; Incandescent premium (energy-saving) 300 mini-lights = 104 watts; Incandescent standard 300 mini-lights = 177 watts; Incandescent C7 125 bulbs = 750 watts (6 watts per bulb).

Energy costs calculated at 3.3 cents per kWh.