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2020 Lighting Energy Cost Calculator

Create and Launch a Beautiful eCommerce Website Quickly with Weebly.

Calculate the electricity costs of a light bulb or light fixture. Enter the number and wattage of the lamps and the average amount of time they are on. Find out how much electricity the light fixtures in your home are using and also estimate the monthly cost per light fixture.

Number of Lamps:	<input type="text" value="22"/>	
Fixture Wattage:	<input type="text" value="100"/>	
Daily Usage:	<input type="text" value="8"/>	Hours
Cost per kWh:	<input type="text" value="\$ 0.12"/>	

note: the average price per kWh is 12 cents

Estimate the cost savings and payback period for an upgrade to LED or CFL lamps (optional)

Replacement Lamp Wattage:	<input type="text" value="60"/>
Cost per Replacement Lamp:	<input type="text" value="\$ 25"/>

CALCULATE

Lighting Energy Cost Estimate:

Electricity Costs

Before Replacing Lamps: \$63.36

After Replacing Lamps: \$38.02

Savings: \$25.34

Payback Timeline

Total Replacement Cost: \$550.00

Payoff Period: 22 months

Electrical Usage

Before Replacing Lamps: 528 kWh

After Replacing Lamps: 316.8 kWh

Savings: 211.2 kWh

[Get Free Electrical Estimates](#) ➤Learn how we calculated this result [below](#).[🔗 Direct Link to Results:](#)https://www.inchcalculator.com/lighting-energy-cost-calculator/?uc_number_of[Add this calculator to your site](#)

TRUMP IS ON A ROLL

February 04, 2020: Trump Ends Another Obama Era Program

If you owe less than \$331,760 on your home and haven't missed a mortgage payment in 6 months, use Congress's mortgage stimulus program for the middle class. You'll be shocked when you see how much you can save.

Select Your Zip Code: [➤](#)

Recalculate Your House Payments

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How to Estimate How Much a Light Bulb Costs

Find out exactly how much it costs to turn on the lights and see if it's worth the upgrade to **cost-saving LED** or fluorescent lighting. The easiest way is to use the calculator above, it takes out all of the math and simplifies the process.

It's also possible to find out how much lights cost to power using a few simple steps. Continue reading to learn a couple easy formulas to estimate lighting electricity costs.



Calculate the Total Wattage of a Light Fixture

The first step is to find the total **wattage** of the lights. Start by finding the wattage of each light bulb. This is often printed right on the light bulb or the original package. The average

A19 incandescent light bulb uses 60 watts of electricity, which is a good starting point if the bulb is inaccessible.

To find the total wattage of a fixture, add the wattage of each light bulb together.

$$\text{fixture watts} = \text{bulb watts} \times \text{bulb quantity}$$

For example, let's find the wattage of a light fixture that uses three 60 W incandescent light bulbs.

$$\text{fixture watts} = 60 \text{ W} \times 3$$

$$\text{fixture watts} = 180 \text{ W}$$

Calculate the Energy Used for Lighting

The next step in estimating lighting costs is to find how much energy the lights consume. Find the energy used in **kilowatt hours** (kWh) by multiplying the total wattage for the fixture by the **hours** per day that the lights are on. Next, divide this by 1,000.

$$\text{kWh} = \text{Power}_{(\text{W})} \times \text{Time}_{(\text{hrs})} \div 1,000$$

To determine the monthly cost, multiply the energy used per day by 30 to get the monthly kilowatt hours used.

$$\text{monthly kWh} = \text{kWh per day} \times 30$$

For example, let's find the kilowatt hours (kWh) used for a fixture with three 60 W light bulbs that is on for 8 hours per day.

$$\text{Watts} = 60 \text{ W} \times 3 = 180 \text{ W}$$

$$\text{kWh} = 180 \text{ W} \times 8 \text{ hrs} \div 1,000$$

$$\text{kWh} = 1.44 \text{ kWh}$$

To find the monthly energy usage, multiply the result by 30.

$$\text{monthly kWh} = 1.44 \text{ kWh} \times 30$$

$$\text{monthly kWh} = 43.2 \text{ kWh}$$

Calculate the Total Electricity Cost for Lights

Calculate the total lighting cost by multiplying the kilowatt-hours used by the cost per kWh.

$$\text{price} = \text{kWh} \times \text{cost per kWh}$$

Every electric company charges a different rate for electricity, and those rates may vary month to month. The national average cost for electricity is \$.12 per kilowatt-hour. Find the exact rate charged on the electric bill sent by the power company.

For example, continuing the previous example of the cost for a light fixture with three bulbs that is on for 8 hours per day, let's find the monthly cost.

$$\text{price} = \text{kWh} \times \text{cost per kWh}$$

$$\text{price} = 43.2 \text{ kWh} \times \$.12$$

$$\text{kWh} = \$5.18$$

That's **over \$5 per month** for a single fixture with three light bulbs. Use our [electricity cost calculator](#) to determine the actual cost of electricity usage.

How Much Money Can You Save Upgrading to LED Light Bulbs?

You're probably surprised by how much it costs to power an incandescent light bulb. Multiply that by an entire home full of lights, and you may be shocked by how much that costs per month.

Enter LED and CFL light fixtures. These light bulbs are becoming very popular for their energy savings and longevity, but they do cost more than an incandescent light fixture. The energy cost calculator can estimate how long it will take to pay for an LED/CFL upgrade based on the amount of usage, electricity costs, and the number of lamps needed.