

Why LED's: LED's (light emitting diodes) are solid-state semiconductor devices that can convert electrical energy directly into light.

Features and Benefits of LED's:

1. **Save money and energy.** Generally, a LED consumes less than 0.1 watts to operate. This low power consumption means you save on your energy costs.
2. **Low heat output.** LEDs can convert almost all the energy used into light creating a highly efficient light source. In contrast, today's incandescent bulbs emit a lot of energy in the infrared spectrum which can't be seen. We know this wastes energy as the heat today's bulbs give off.
3. **Long life time.** GREENGEN Low Power LEDs can last up to 50,000 hours. In comparison an incandescent lifetime is about 1,000 hours and a halogen is about 2,000 hours.
4. **Environmentally safe.** LEDs are made from non-toxic materials unlike fluorescents which contain Sodium and Mercury. It can also be recycled and no carbon emission.
5. **Durable.** No loose or moving parts.
6. **LED Light Colour.** Many believe that LED light bulbs are only available in the bright blue color associated with them. A variety of colors have been engineered to create the perfect hue for any room. From a "cool" white light used for the task lighting needed for a workshop to a "warm" light for the social rooms of your home, a variety of colors are available. GREENGEN Energy Services can help you find the best LED bulb to suit all type of your needs.

Lumens for LED Lights

Historically light bulbs have been purchased based on wattage, a unit of power. However, a lumen is a unit of perceived brightness and isn't directly related to power or energy. Many consumers are unsure of how many lumens they need for their replacement for LED Light Bulbs. For your convenience, we've posted the following chart. See below how GREENGEN LED light bulbs use less wattage to reach a higher lumen level than other LED bulbs, making them more energy-efficient.



Incandescent Watts	CFL Watts	LED Watts	Lumens*
40	8-12	4-8	450
60	13-18	9-17	890
75-100	18-22	11-20	1210
100	23-50	16-25	1750
150	30-55	26-40	2780

Lumens: Unit of perceived brightness and isn't directly related to power or energy.

* Minimum light output of a new bulb.