

### A Bright Idea: Energy Efficiency



[https://www.youtube.com/watch?v=IP\\_KcsVtng0](https://www.youtube.com/watch?v=IP_KcsVtng0)

1. a) What is the meaning of the “Law of Conservation of Energy”?

- b) How does this apply to technological lighting, what happens to the energy that goes into and out of a light bulb?

2. Light bulbs are often labeled based on their wattage; this represents how much power the bulb uses in a circuit. If a light bulb is set up in a circuit with a voltage of 110V and a current intensity of 0.73A what is the power rating of the light bulb?

3. Compact fluorescent and halogen gas light bulbs are more efficient than traditional incandescent lights. Determine which of the two has the best energy efficiency using the information in the table below.

	Compact Fluorescent	Halogen Gas Bulb
Power Use (W)	30 W	80 W
Light Energy (J/s)	5.0 J/s	3.2 J/s
Energy Efficiency	?	?

Answer: \_\_\_\_\_ is more energy efficient.