




Energy Efficiency & Energy Costs

Life Span (average)
Watts of electricity used (equivalent to 60 watt bulb).
LEDs use less power (watts) per unit of light generated (lumens).
Kilo-watts of Electricity used (30 Incandescent Bulbs per year equivalent)
Annual Operating Cost (30 Incandescent Bulbs per year equivalent)

	Light Emitting Diodes (LEDs)	Incandescent Light Bulbs	Compact Fluorescents (CFLs)
			
Life Span (average)	50,000 hours	1,200 hours	8,000 hours
Watts of electricity used (equivalent to 60 watt bulb).	6 - 8 watts	60 watts	13-15 watts
LEDs use less power (watts) per unit of light generated (lumens).	6 - 8 watts	60 watts	13-15 watts
Kilo-watts of Electricity used (30 Incandescent Bulbs per year equivalent)	329 KWh/yr.	3285 KWh/yr.	767 KWh/yr.
Annual Operating Cost (30 Incandescent Bulbs per year equivalent)	£39.48/year	£394.2/year	£92.04/year

Environmental Impact

Contains the TOXIC Mercury
RoHS Compliant
Carbon Dioxide Emissions (30 bulbs per year)

Contains the TOXIC Mercury	No	No	Yes - Mercury is very toxic
RoHS Compliant	Yes	Yes	No - contains 1mg-5mg of Mercury
Carbon Dioxide Emissions (30 bulbs per year)	451 pounds/year	4500 pounds/year	1051 pounds/year

Important Facts

Sensitivity to low temperatures	None	Some	Yes - may not work under negative 10 degrees Fahrenheit or over 120 degrees Fahrenheit
Sensitive to humidity	No	Some	Yes
On/off Cycling Switching a CFL on/off quickly, may decrease the lifespan of the bulb.	No Effect	Some	Yes - can reduce lifespan drastically
Turns on instantly	Yes	Yes	No - takes time to warm up
Durability Heat Emitted	Very Durable - LEDs can handle jarring and bumping 3.4 btu's/hour	Not Very Durable - glass or filament can break easily 85 btu's/hour	Not Very Durable - glass can break easily 30 btu's/hour Yes - may catch on fire, smoke, or omit an odor
Failure Modes	Not typical	Some	

Light Output

Lumens	Watts	Watts	Watts
450	4 - 5	40	9 - 13
800	6 - 8	60	13 - 15
1100	9 - 13	75	18 - 25
1600	16 - 20	100	23 - 30
2600	25 - 28	150	30 - 55
2600	25 - 28	150	30 - 55