

Light Bulb Comparison

Life Cycle Costs

Characteristic	LED*	CFL	Incandescent
Projected Life, hours	50,000	10,000	1,200
Watts , 60W equiv	9.5	13	60
Cost per bulb	\$3	\$2	\$0.50 existing stock only - no longer manufactured
kWh electricity used over 50,000 hours	475	650	3000
50,000 hour cost of electricity \$0.16 (per kWh)	\$76	\$104	\$480
Bulbs needed for 50,000 hours	1	5	42
Cost for bulbs	\$3	\$10	\$21
Total cost for 50,000 hours (current costs)	\$79	\$114	\$501
Household cost for 25 bulbs and electricity	\$2,050	\$2,850	\$12,525

Characteristic	LED	CFL	Incandescent
Frequent on/off cycling	no effect	shortens lifespan	some effect
Turns on instantly	yes	slight delay gradual to peak	yes
Durability	durable	fragile	fragile
Heat emitted	low 3 btu/hr	medium 30 btu/hr	high 85 btu/hr
Temperature sensitivity	no	yes	small
Hazardous materials	no	5 mg mercury/bulb	none
Dimmable	yes	yes, higher cost	yes
Dimmer comments vs incandescent	less range	less range, special dimmer bulb required	ultimate range
Color as dimmed	unchanged	moderate color change	color changes with dimming

* Based on Cree 9.5W 800-lumen A-type LED available through NHSaves.com for \$2.97. Also available from Home Depot, currently \$12.97.