

Lighting Performance Comparisons for Typical AC Home Applications					
	Incandescent	Halogen	CFL	LED	Units
Efficiency	10-17	10-12	40-64	32-75	lumens/W
Max Power	150	250	200	5	W
Max Intensity	1750	3,600	10,000	375	lumens
Average Lifetime	600-10,000	1500-4500	6,000-12,000	30,000	hours
Cost/W	0.0075-0.01	0.05	0.30-2.50	8-10	\$
Cost/lumen	0.06-0.09	0.3	0.075-0.25	10-15	cents
Spectrum	2800-3300	2850, 3000	2250, 2600,2700,5000	3000, 5500	Kelvin temperature
Edison Screw Size	E26, E12	E26	E26, E12	E26	
Shape-Diameter	A19, 21	PAR14,16,20,30,38	Spiral; R20,25,30,40	PAR 20, 30, 38	Number of 1/8 inches
	C11; G25		PAR 20,30,38; P38		
			A19; C11; G25		

Notes:

1. Shape: A = standard incandescent bulb, C - candelabra; G = baseball; spiral = standard CFL
R = Reflector (for tract lighting); PAR = Parabolic Aluminized Reflector (focused track lighting)
2. Multiply number after shape type by 1/8 to get the maximum diameter of the bulb, e.g., R20 is 2.5 inches in diameter.
3. Spectrum refers to the wavelength of the emitted light; incandescent covers a broad spectrum, while CFL and LED are designed to emit around a given frequency. The higher the temperature, the "cooler" the light, which is better for visual tasks, "warmer" light is for most general lighting purposes.
4. The actual efficiency and lifetime of any given technology depends on the design, the materials, the operating voltage, and the operating temperature.
5. Maximum intensity is typical for most residential applications, higher intensities are available.
6. Incandescents as resistive loads can be readily dimmed, some CFL and LED lamps can be dimmed.

Lighting Cost Comparisons for 10 Years of a Single Location

	Incandescent 1	Incandescent 2	CFL 1 (5000K)	CFL 2 (5000K)	Units
Power rating	60	52	12	14	Watts
Light rating	520	700	820	820	Lumens
Average Lifetime	5000	1000	10,000	8,000	hours
Individual Cost	\$0.54	\$1.64	\$3.46	\$4.23	\$
Electricity Cost per kWh	\$0.11	\$0.11	\$0.11	\$0.11	\$
Use in a year	1000	1000	1000	1000	Hours
Bulb cost for 10 years	\$1.08	\$16.40	\$3.46	\$8.46	\$
Electricity Cost for 10 years	\$66.00	\$57.20	\$13.20	\$15.40	\$
Total Cost	\$67.08	\$73.60	\$16.66	\$23.86	\$