

## Wertmarke LED PAR Lamps vs. Halogen / Incandescent Comparisons

Lamp	Lumens	Change	Avg. Lamp Life hrs.	Improvement	Wattage	Savings	Energy Cost	Energy Savings	Sale Price	Combined Lamp & Energy Costs	Savings	Payback @ 4000hrs per Yr.	Payback @ 8760hrs per Yr.
<b>LED PAR vs. Halogen PAR</b>	<b>*1</b>						<b>*2</b>			<b>*3</b>		<b>*4</b>	<b>*5</b>
6 Watt Par 20 LED	230	-36%	50,000	+1900%	6	83%	\$42.00	83%	\$26.25	\$68.25	81%	1.2 years	0.5 year
35 Watt PAR20/HAL/NFL30 120V	360		2,500		35		\$245.00		\$5.67	\$358.40			
7 Watt Par 30 LED	420	-36%	50,000	+1900%	7	86%	\$49.00	86%	\$46.25	\$95.25	78%	1.6 years	0.7 year
50 Watt PAR30/HAL/NFL25 120V	660		2,500		50		\$350.00		\$4.65	\$443.00			
20 Watt Par 38 LED	770	-9%	50,000	+1567%	20	67%	\$140.00	67%	\$66.25	\$206.25	60%	2.4 years	1.1 years
60 Watt PAR38/HAL/FL30 120V	850		3,000		60		\$420.00		\$5.52	\$513.84			
<b>LED PAR vs. Incandescent R / BR</b>													
6 Watt Par 20 LED	230	+64%	50,000	+2400%	6	80%	\$42.00	80%	\$26.25	\$68.25	80%	1.1 years	0.5 year
30 Watt R20 120V	140		2,000		30		\$210.00		\$4.99	\$334.75			
6 Watt Par 20 LED	230	-30%	50,000	+2400%	6	88%	\$42.00	88%	\$26.25	\$68.25	83%	0.9 year	0.4 year
50 Watt R20 120V	330		2,000		50		\$350.00		\$2.38	\$409.50			
7 Watt Par 30 LED	420	-33%	50,000	+2400%	7	89%	\$49.00	89%	\$46.25	\$95.25	81%	1.3 years	0.6 year
65 Watt BR30/FL 120V	620		2,000		65		\$455.00		\$2.00	\$505.00			
20 Watt Par 38 LED	770	+13%	50,000	+2400%	20	73%	\$140.00	73%	\$66.25	\$206.25	66%	1.8 years	0.8 year
75 Watt BR/FL 120V	680		2,000		75		\$525.00		\$3.50	\$612.50			

- Notes:**
- \*1. Lumens are a measurement of light output.
  - \*2. Energy Costs are based on 14 cents / kwh over 50,000 hours.
  - \*3. Combined lamp and energy costs over 50,000 hours; energy costs are based on 14 cents / kwh.
  - \*4. Simple Payback analyses incorporate replacement lamps and energy costs over 4000 hours per year.
  - \*5. Simple Payback analyses incorporate replacement lamps and energy costs over 8760 hours per year (or a full year).