

100w Metal Halide v. 15w LED Bollard	100w MH	15w LED
Lamp or LED Watts	100	15
System Watts	129	17
Hours	10,000	50,000
Mean Hours	4,000	20,000
Initial Light Source Lumens	8,500	2,089
Light Source Lumens at 4,000 Hours	5,500	1,921
Luminaire Efficacy	24%	62%
Luminaire Lumens @ 4,000 Hours	1,320	1,191
Lumens per Watt	10.2	70.1
Energy Cost to Operate per Year**	\$74.82	\$9.86

15w LED Bollard Compared to 100w MH	%	
Emitted Light (measured in delivered lumens)	-129	-10%
Energy (measured in watts)	-112	-87%
Energy Cost to Operate per Year**	-\$64.96	-87%

10 Year Savings per LED Bollard	100w MH	15w LED
Replacement Cost for PSMH Lamps	\$16.70	n/a
Life of Lamp	10,000	50,000
Lamp Replacements Over 10 Years	5	0
Cost of Lamp Replacements	\$83.50	\$0.00
10 Year Operating Cost	\$831.70	\$98.60
10 Year Savings per 17w LED Bollard		\$733.10

**** Based on \$.16/kWh Operating 10 hours/day, 7 days per week**