

Induction Lighting

The basic technology for induction lamps is not particularly new. The principle of Induction was introduced to the world by the scientist Nicola TESLA in the 1800's. TESLA once lit 200 lamps without wires from 25 miles away.

Induction lights are similar to fluorescent lights in that they use gasses, which once 'excited', react with the phosphor that coats the tubes to produce white light. Unlike fluorescent lamps, induction systems are rated at 100,000 hours. This is because fluorescent lamps must use electrodes, which degrade with time, to 'excite' the gasses inside of the tube. Induction Lamps do not use electrodes but instead uses the principle of Induction (the transmission of energy by way of magnetic field). Think of it as wireless lighting.

Benefits of Induction Lighting

- Long Life - 100,000 hours
- Color rendering – 85 CRI
- Color Temperature – 2,700K-6,500K
- Energy Efficient – 85+ Lumens per Watt
- Lumen maintenance - 70% of its light output at 100,000 hours
- Maintenance costs – go 10 years with out a change out
- Instant on Capability – Can be used with photocell or motion sensor
- High Output – 70W to 400W
- No flickering, No Strobing, No Noise
- Minimal Color shifting
- Starting temperatures as low as -40 degrees Fahrenheit

Technical Data

Technology	Wattage	Fixture Wattage	Life	CRI	Mean Lumens	Mean Pupil Lumens
High Pressure Sodium	70	88	24,000	21	5,670	3,232
High Pressure Sodium	150	188	24,000	21	14,000	7,980
High Pressure Sodium	250	300	24,000	21	25,600	14,592
High Pressure Sodium	400	464	24,000	21	45,000	25,650
High Pressure Sodium	1000	1,100	24,000	21	126,000	71,820
Induction	40	41	100,000	80	3,400	5,508
Induction	80	82	100,000	80	6,800	11,016
Induction	100	102	100,000	80	8,500	13,770
Induction	120	122	100,000	80	10,200	16,524
Induction	200	204	100,000	80	17,000	27,540
Metal Halide (V)	150	188	15,000	65	11,300	16,837
Metal Halide (V)	175	215	10,000	65	10,000	14,900
Metal Halide (V)	250	295	10,000	65	17,000	25,330
Metal Halide (V)	400	456	10,000	65	28,800	42,912
Metal Halide (V)	1,000	1,070	12,000	65	92,900	138,421
Metal Halide (H)	150	188	11,250	65	10,170	15,153
Metal Halide (H)	175	215	7,500	65	9,000	13,410
Metal Halide (H)	250	295	7,500	65	15,300	22,797
Metal Halide (H)	400	456	7,500	65	25,920	38,621
Metal Halide (H)	1,000	1,070	9,000	65	92,900	138,421
Low Pressure Sodium	180	220	16,000	0	26,100	9,918
Low Pressure Sodium	135	178	16,000	0	19,140	7,273
Low Pressure Sodium	90	124	16,000	0	11,095	4,216
Low Pressure Sodium	55	80	18,000	0	6,655	2,529
Low Pressure Sodium	35	60	18,000	0	4,000	1,520

Operation Costs “est”

Technology	Wattage	Lamp changes in 10 year	Energy 10 Year	Maintenance 10 Year	Material 10 Year	Cost of operation 10 Year
High Pressure Sodium	70	3.7	\$927	\$201	\$73	\$1,201
High Pressure Sodium	150	3.7	\$1,971	\$201	\$73	\$2,245
High Pressure Sodium	250	3.7	\$3,154	\$201	\$73	\$3,427
High Pressure Sodium	400	3.7	\$4,878	\$201	\$73	\$5,151
High Pressure Sodium	1000	3.7	\$11,563	\$201	\$224	\$11,988
Induction	40	0	\$429	\$0	\$0	\$429
Induction	80	0	\$858	\$0	\$0	\$858
Induction	100	0	\$1,072	\$0	\$0	\$1,072
Induction	120	0	\$1,287	\$0	\$0	\$1,287
Induction	200	0	\$2,144	\$0	\$0	\$2,144
Metal Halide (V)	150	5.8	\$1,971	\$321	\$187	\$2,479
Metal Halide (V)	175	8.8	\$2,263	\$482	\$278	\$3,022
Metal Halide (V)	250	8.8	\$3,101	\$482	\$280	\$3,863
Metal Halide (V)	400	8.8	\$4,793	\$482	\$280	\$5,556
Metal Halide (V)	1,000	7.3	\$11,248	\$402	\$365	\$12,014
Metal Halide (H)	150	7.8	\$1,971	\$428	\$249	\$2,648
Metal Halide (H)	175	11.7	\$2,263	\$642	\$370	\$3,275
Metal Halide (H)	250	11.7	\$3,101	\$642	\$374	\$4,117
Metal Halide (H)	400	11.7	\$4,793	\$642	\$374	\$5,810
Metal Halide (H)	1,000	9.7	\$11,248	\$535	\$487	\$12,270
Low Pressure Sodium	180	5.5	\$2,308	\$301	\$345	\$2,954
Low Pressure Sodium	135	5.5	\$1,873	\$301	\$257	\$2,432
Low Pressure Sodium	90	5.5	\$1,306	\$301	\$203	\$1,809
Low Pressure Sodium	55	4.9	\$838	\$268	\$161	\$1,267
Low Pressure Sodium	35	4.9	\$629	\$268	\$161	\$1,057

Based on 24/7 Operations.
 Based upon 0.12 kilowatt/hour.
 Based upon 55/hour labor charge.