

Comparison Chart: Different Lighting Sources

Technology	Wattage	Fixture Wattage	Life	CRI	Mean Lumens	Mean Pupil Lumens	Lamp Changes in 10 yrs	Energy 10 yrs	Maintenance 10 yrs	Material 10 yrs	Cost of Operations 10 yrs
High Pressure Sodium	70	88	24,000	21	5,670	3,232	3.7	\$927	\$201	\$73	\$1,201
High Pressure Sodium	150	188	24,000	21	14,000	7,980	3.7	\$1,971	\$201	\$73	\$2,245
High Pressure Sodium	250	300	24,000	21	25,600	14,592	3.7	\$3,154	\$201	\$73	\$3,427
High Pressure Sodium	400	464	24,000	21	45,000	25,650	3.7	\$4,878	\$201	\$73	\$5,151
High Pressure Sodium	1000	1,100	24,000	21	126,000	71,820	3.7	\$11,563	\$201	\$224	\$11,988
Induction	40	41	100,000	80	3,400	5,508	0	\$429	\$0	\$0	\$429
Induction	80	82	100,000	80	6,800	11,016	0	\$858	\$0	\$0	\$858
Induction	100	102	100,000	80	8,500	13,770	0	\$1,072	\$0	\$0	\$1,072
Induction	120	122	100,000	80	10,200	16,524	0	\$1,287	\$0	\$0	\$1,287
Induction	200	204	100,000	80	17,000	27,540	0	\$2,144	\$0	\$0	\$2,144
Metal Halide (V)	150	188	15,000	65	11,300	16,837	5.8	\$1,971	\$321	\$187	\$2,479
Metal Halide (V)	175	215	10,000	65	10,000	14,900	8.8	\$2,263	\$482	\$278	\$3,022
Metal Halide (V)	250	295	10,000	65	17,000	25,330	8.8	\$3,101	\$482	\$280	\$3,863
Metal Halide (V)	400	456	10,000	65	28,800	42,912	8.8	\$4,793	\$482	\$280	\$5,556
Metal Halide (V)	1,000	1,070	12,000	65	92,900	138,421	7.3	\$11,248	\$402	\$365	\$12,014
Metal Halide (H)	150	188	11,250	65	10,170	15,153	7.8	\$1,971	\$428	\$249	\$2,648
Metal Halide (H)	175	215	7,500	65	9,000	13,410	11.7	\$2,263	\$642	\$370	\$3,275
Metal Halide (H)	250	295	7,500	65	15,300	22,797	11.7	\$3,101	\$642	\$374	\$4,117
Metal Halide (H)	400	456	7,500	65	25,920	38,621	11.7	\$4,793	\$642	\$374	\$5,810
Metal Halide (H)	1,000	1,070	9,000	65	92,900	138,421	9.7	\$11,248	\$535	\$487	\$12,270
Low Pressure Sodium	180	220	16000	0	26,100	9,918	5.5	\$2,308	\$301	\$345	\$2,954
Low Pressure Sodium	135	178	16000	0	19,140	7,273	5.5	\$1,873	\$301	\$257	\$2,432
Low Pressure Sodium	90	124	16000	0	11095	4,216	5.5	\$1,306	\$301	\$203	\$1,809
Low Pressure Sodium	55	80	18000	0	6655	2,529	4.9	\$838	\$268	\$161	\$1,267
Low Pressure Sodium	35	60	18000	0	4000	1,520	4.9	\$629	\$268	\$161	\$1,057

• Based on 24 hours of on time. • Based upon 0.12 kilowatt/hour. • Based upon 55/hour labor charge.



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GridSmart™ Induction Solar Street Light

We Turn Your Dark Into Light Courtesy Of Our Brilliant Sun®

Now you can incorporate solar lights into the electrical grid and provide years of efficient, maintenance-free lighting. "GridSmart™" combines the reliability and exceptional performance of induction lights with advanced solar power generation. GridSmart provides monitored/measured power to your local utility during the day instead of charging batteries. Excess power (produced minus consumed) can be claimed as carbon credit or solar credits. GridSmart is a unique, Made-in-America product especially designed to meet the demanding performance and lighting needs of roadway engineers, the military, landscape architects, and outdoor lighting professionals.

GridSmart™ features:

- Turn-key - GridSmart™ takes less than an hour to pole mount, no crane is required
- Can be used for retrofit applications
- Standard light wattages range from a 70 to 250 watts
- Operates dusk-to-dawn at full intensity, reduces risk inherent with dim-down systems
- Induction lights is a proven and stable technology, there is no guessing or performance data extrapolations
- UL 1741 compliant DC to AC conversion unit
- Single phase, multi-voltage from 240VAC to 208VAC

Specifications: Grid Smart™ Solar Powered Lamp

GridSmart™ features (continued):

- Remote monitor tracks performance, kWh credits, and Carbon Emissions avoided
- Carbon credit eligibility
- Long bulb lifespan, 70,000 to 100,000 hours, replacement parts are less than \$180
- Cobra head or Shoebox style, other options available
- “Instant-on” capability, allows for security lighting with motion sensor
- UL approved components, designed to meet IESNA standards
- Brilliant Sun™ architectural top of pole mount withstands high winds
- No batteries to maintain
- Mounts on steel and wood poles
- Can be colorized to any PMS color; many structural and cosmetic options available
- High energy conversion efficiency, Ultra-high performance and high lumens per dollar invested

GridSmart™ is an utility-grid-tie Solar induction light. The Cobra head, a roadway level light comes in a single or dual 70watt to 250 watt light. The Shoebox head, a parking lot light, comes in 70 watt to 250 wats.

It is a turn-key assembly that mounts on a Solar Street Lights USA square steel pole or on a customer supplied wood or steel pole. One installer in a bucket truck can safely install each unit on a pole in less than 45 minutes. The assembly includes Brilliant Sun™ top-of-pole mount with solar modules; Cobra head fixture and fixture arm; or a shoebox fixture. The assembly also includes complete set of wiring bundles with spare connectors. Every wiring bundle is color coded and numbered for simple plug-and-play installation. The installation kit comes complete with guides and a compass for proper PV array alignment. Solar Street Light USA's optional pole is pre-drilled and is pre-strung to reduce field time and error. Each solar light assembly is factory tested to ensure fit so that the installer has no surprises in the field.

Every solar lighting system is analyzed for light and system performance and is validated against the customer's application design criteria. The core product is engineered for rugged use and is designed to minimize up-front investment and to reduce maintenance costs and field time. Optional designs are available for deployment into aggressive climatic or physical environments. Each assembly uses heavy gauge material. Steels are hot dipped and galvanized and can be optionally powder coated. This product and it's subcomponents are truly made in America. It is also why Solar Street Lights USA can offer a 10 year warranty.

Note — Entire Assembly (accept module frames) can be optionally powder coated in any PMS color!

Grid Smart System — Base Models include 4 foot light arm. Pole is optional

Base Model No.	Modules	Module Voltage	Light & Grid-Tie Voltage	Lights
GS17500000701	1	24 VDC Nominal	208 and 240 VAC	Single 70 Watt-Type III
GS35000000701	2	24 VDC Nominal	208 and 240 VAC	Single 70 Watt-Type III
GS52500000701	3	24 VDC Nominal	208 and 240 VAC	Single 70 Watt-Type III

Option not listed — Consult with your sales specialist

SSL100S	Upgrade from single 70 watt to 100 watt head/light	SSLArm06	Upgrade from 4' to 6' lighting arm
SSL100D	Upgrade from dual 70 watt to dual 100 watt head/light	SSLArm08	Upgrade from 4' to 8' lighting arm
SSL150S	Upgrade from single 70 watt to 150 watt head/light	SSLArm06	Motion sensor
SSL150D	Upgrade from dual 70 watt to dual 150 watt head/light	SSLAdk01	Class B and class C wood pole adapter kit
SSL200S	Upgrade from single 70 watt to 200 watt head/light	SSLAdk01	Web box
SSL200D	Upgrade from dual 70 watt to dual 200 watt head/light		
SSL250S	Upgrade from single 70 watt to 250 watt head/light		
SSL250D	Upgrade from dual 70 watt to dual 250 watt head/light		
SSL300S	Upgrade from single 70 watt to 300 watt head/light		
SSL300D	Upgrade from dual 70 watt to dual 300 watt head/light		
SSLStdP20	5"x5"x 5/16" wall x 20' pole with tenon and anchor bolts		
SSLStdP18	5"x5"x 5/16" wall x 18' pole with tenon and anchor bolts		
SSLStdP16	5"x5"x 5/16" wall x 16' pole with tenon and anchor bolts		

Specifications: Grid Smart™ Solar Powered Lamp



Light Assembly:

- Comes in 70, 100, 120, 150, 200, or 250 Watt
- Cobra head with Dark Sky Compliant lens
- Optional Shoe box
- Operates at 208 and 240VAC
- Enhanced Cobra head version for highway and optimum distribution
- 4 foot Cobra head arm, 6 foot, 8, foot, 10 foot options.
- Can be powder coated per PMS specification

Solar Panels:

- Standard packages include 175 (minimum) watt Mono-Crystalline solar panel
- Deep framed optional panels for high wind areas
- Optional back shields and bird deterrents
- 25 year warranty

Brilliant Sun™ Top of Pole Mount

- Field adjustable for maximum solar panel performance-latitude and true south
- Heavy gauge 3/16-inch steel frame
- Rated for 150mph, 170mph gusts
- Hot dipped galvanized after fabrication — optional powder coat per PMS specification
- Mount on Solar Street Lights USA's 5" x 5" or 6" x 6" steel pole, other mounts available
- Supports 1 to 4 modules
- Strong but light, only weighs 70 pounds

Wiring Harness:

- 12 gauge UL duplex cable – soft copper stranded core
- Heat shrink type terminal ends at batteries
- Numbered and color coded for easy installation

