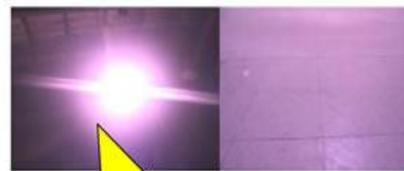


Comparison between the Induction Lamp and high pressure sodium lamps

Item compared	Induction lamp	Metal halide	High pressure sodium lamp	High pressure mercury lamp
Use term	Compact: 60,000 hrs Separate category: 100,000 hrs	6,000~20,000hrs The change in physical conditions in electrode hot operation leads to an increasingly serious mismatching with ballast and shortens the use term.	24,000 hrs The reason for short use term is similar with metal halide	3,000~6,000 hrs The reason for short use term is similar with metal halide
Power saving performance	Advantages	Poor, higher power consumption	Poor, higher power consumption	Poorer, high power consumption
Efficient light effect	Reach > 75 lm/W	> 80 lm/W	> 85 lm/W	> 40 lm/W
Light degradation(%)	very small, 5%(2000hrs)	bigger, 40%(2000hrs)	Big, 30%(2000hrs)	Very big, 45%(2000hrs)
Light temperature	Very low, <90°C, save air-conditioning power consumption	High, >250 °C, increase air-conditioning power consumption	High, >300 °C, increase air-conditioning power consumption	Very high, >300 °C, increase air-conditioning power consumption
Color rendering	>80, excellent	65~90, good	60, poor	45, poorer
warm start	Instant start	No	No	No
stroboscopic	No	Yes	Yes	Yes
Dazzle	No	Yes	Yes	Yes
environmental protection	No wasted lamp recycling, no mercury pollution	Resolved wasted lamp recycling problem	Resolved wasted lamp recycling problem	Resolved wasted lamp recycling and mercury pollution issue



Induction lamp
Visually bright and clean, clear and natural lighting (Picture I).
No flash, natural and clear visual at small objects, bright and comfortable lighting for good working efficiency



Metal halide lamp
Gloomy and deviated color (purple) (Picture II)).
Flash effect, indistinct visual result at small object, dazzling lighting with oppressive working environment

Comparison for Induction Lamp and Traditional Lighting Source

Light source	Color Temperature (K)	CRI	Lighting efficiency (Lm/W)	Average lifetime (h)
Incandescent lamp	2800	100	15	1,000
Quartz-Halogen Lamp	3000	100	15	2,000-3,000
Normal fluorescent lamp	Full range	70	70	8,000
Tri-phosphor fluorescent lamp	Full range	80-98	96	10,000
High pressure MV lamp	3300/4300	45	50	3,000-6,000
LPS	1700	44	150-200	14,000-28,000
HPS	2200	23	90-120	12,000-24,000
MH	3000/4500/5600	65-90	75-95	6,000-20,000
Induction lamp	Full range	≥80	70-90	100,000

Comparison Between Induction Lamp and HID lamp

Items	Induction lamp	MH lamp	HPS lamp
Average lifespan	100K hours	15K hours	24K hours
Average operating lifespan	>60K hours	Approx 8K hours	Approx 10K hours
Gear	Electronic	Magnetic ballast, igniter, capacitor (Too many parts resulting in inconvenient maintenance and assembly)	Magnetic ballast, igniter, capacitor (Too many parts resulting in inconvenient maintenance and assembly)
Dimmable function	Low pressure discharge lamp; The lighting efficiency, color temperature and color rendering index do not change or change very little.	High pressure discharge lamp; The lighting efficiency, color temperature, the color rendering index are based on a certain temperature and these performances change a lot when the arc discharge condition changes at dimming condition.	High pressure discharge lamp; The lighting efficiency, color temperature, the color rendering index are based on a certain temperature and these performances change a lot when the arc discharge condition changes at dimming condition.
System wattage	400W: System wattage at 420w 100w: System wattage at 105w	400W: System wattage at 445w 100W: System wattage at 115w	400W: System wattage at 445w 100W: System wattage at 115w
Starting current	400W: ≤1.95A; 100W: ≤0.49A The low starting current reduces size of the cable and the power distribution cubicle.	400W: ≤5.7A; 100W: ≤2.4A	400W: ≤7.5A; 100W: ≤2.4A

Power factor	≥ 0.98	0.43 (≥ 0.85 after power factor correction)	0.43 (≥ 0.85 after power factor correction)
System lighting efficiency	> 80 lm/w	> 80 lm/w	> 85 lm/w
CRI (Color rendering index)	> 80 (Easy and clear identification for vehicles and pedestrians)	60-70	23
Color temperature	2700K to 6500K	4000K	2200K
Flash effect	No flash and dizzy light	Obvious flash and dizzy light	Obvious flash and dizzy light
Hot restart performance	Instant on	10 to 15 minutes (Negative to the lamp life at hot restart)	5-10 minutes (Negative to the lamp life at hot restart)
Output wattage	Constant output wattage	Variation as per voltage fluctuation	Variation as per voltage fluctuation
Voltage VS lamp power	$\pm 20\%$ / $\pm 3\%$	$\pm 10\%$ / $\pm 20\%$	$\pm 10\%$ / $\pm 20\%$