



Jujia Lighting Co., Ltd

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HPS VS LED

Items	HPS Lamp	LED Road Lamp	Remark
Photometric characteristics	bad	Good	The effective light emitted, Led is better than HPS.
Road surface illuminance uniformity	bad	Excellent	Led is better than HPS.
Thermal performance	bad	Excellent	Led building cooling module design
Electrical properties	Easy to get an electric shock	Safety	Led is more safe than HPS, because Led is working in the low voltage power supply
Service life	Short ($\leq 5000\text{H}$)	Very long ($\geq 50000\text{H}$)	LED solid state lighting, theory of life up to 100000 hours
Working voltage range	Narrow ($\pm 7\%$)	Wide ($\pm 20\%$)	Led AC input range can even reach 100-264V
Power waste	huge	small	
Starting speed	Very slowly (over 10 minutes)	rapid (2S)	LED don't need preheating
Brightness control	bad	Excellent	Led can be through the controller and the software realization of different gray scale brightness
Strobe	yes (AC drive)	No (DC drive)	The naked eye can not distinguish in Led.
Light efficiency	Low ($< 60\%$)	High ($> 90\%$)	The light source and technology is different.
Color / identification	bad ($R_a < 40$)	Good ($R_a > 75$)	Led illuminated objects bright colors, true, which makes people feel comfortable
Color temperature	Color temperature is very low (yellow or orange, not comfortable)	Excellent	
Undesirable glare	Glare very strong (dazzling)	No bad glare	
Light pollution	Strong	No	HPS haven't irradiation place will be forcibly irradiation
emit heat	high ($> 300^\circ\text{C}$)	Low ($< 65^\circ\text{C}$)	
Lamp cover easy become dirt	yes	not	Led have anti-static measures
Lamp cover easy become aging and yellow	Very soon	not	
Seismic performance	bad	Good	HPS is fragile and easily broken glass filament, Led without glass and filament
Environmental pollution	Lead pollution & mercury pollution	not	
Maintenance cost	expensive	cheap	Led long life
The product volume	Large	Small	
Product weight	similar		
Cost of power supply system	expensive	cheap	
Cost performance	bad	best	
Comprehensive performance	bad	best	

Remark: The above information is for your reference.