

Competition comparison-LED chip

No	Type of lamp	Comparison item	Trismart's product		Peer product	Remark
			model	value		
1	All-in-one solar led street light	Specification of led chip	SZG553	3030	3030	
		Brand of led chip		Philips	Epistar/Bridgelux /Osram	
		Luminous efficiency of led chip (lm/W)		220 lm/W @40mA	200~210 lm/W @40mA	
				200 lm/W @80mA	180~190 lm/W @80mA	
				190 lm/W @120mA	170~180 lm/W @120mA	
				175 lm/W @150mA	150~165 lm/W @150mA	
		Light efficiency of luminaire (lm/W)		≥180 lm/W	130~150 lm/W	At the same power, the illuminance is 20~40% higher.
		Working current of led chip (mA)		35mA	80~120mA	
Thermal resistance of led chip (°C)	3 °C	6~10 °C	Under the same working environment, the chip temperature is 3~7°C lower and the light decay is slower.			



2	Led floodlight	Specification of led chip	SZG307	3030	3030	
		Brand of led chip		Philips	Epistar/Bridgelux /Osram	
		Luminous efficiency of led chip (lm/W)		220 lm/W @40mA	190~200 lm/W @40mA	
				200 lm/W @80mA	170~180 lm/W @80mA	
				190 lm/W @120mA	160~170 lm/W @120mA	
				175 lm/W @150mA	140~150 lm/W @150mA	
				≥160 lm/W	120~140 lm/W	At the same power, the illuminance is 15~30% higher.
		Light efficiency of luminaire (lm/W)				
		Working current of led chip (mA)		80mA	120~150mA	
		Thermal resistance of led chip (°C)		6 °C	10~15 °C	Under the same working environment, the chip temperature is 4~9°C lower and the light decay is slower.
Maximum temperature of PCB pad (°C)	≤80 °C	90~95 °C				
Maximum case temperature (°C)	≤90 °C	100~110 °C	According to the original factory specifications, the maximum temperature of led is 100°C. The higher the led temperature, the faster the light decay and the shorter the lifespan.			



3	Led high bay light	Specification of led chip	SZG102	3030	3030	
		Brand of led chip		Philips	Epistar/Bridgelux /Osram	
		Luminous efficiency of led chip (lm/W)		220 lm/W @40mA	190~200 lm/W @40mA	
				200 lm/W @80mA	170~180 lm/W @80mA	
				190 lm/W @120mA	160~170 lm/W @120mA	
				175 lm/W @150mA	140~150 lm/W @150mA	
				≥150 lm/W	120~140 lm/W	At the same power, the illuminance is 10~25% higher.
		Light efficiency of luminaire (lm/W)				
		Working current of led chip (mA)		120mA	120~150mA	
		Thermal resistance of led chip (°C)		9~10 °C	10~15 °C	Under the same working environment, the chip temperature is 1~5°C lower and the light decay is slower.
Maximum temperature of PCB pad (°C)	≤80 °C	90~95 °C				
Maximum case temperature (°C)	≤90 °C	100~110 °C	According to the original factory specifications, the maximum temperature of led is 100°C. The higher the led temperature, the faster the light decay and the shorter the lifespan.			



4	Led street light	Specification of led chip	SZG500	3030	3030	
		Brand of led chip		Philips	Epistar/Bridgelux /Osram	
		Luminous efficiency of led chip (lm/W)		220 lm/W @40mA	190~200 lm/W @40mA	
				200 lm/W @80mA	170~180 lm/W @80mA	
				190 lm/W @120mA	160~170 lm/W @120mA	
				175 lm/W @150mA	140~150 lm/W @150mA	
				≥155 lm/W	120~140 lm/W	At the same power, the illuminance is 15~25% higher.
		Light efficiency of luminaire (lm/W)				
		Working current of led chip (mA)		80mA	120~150mA	
		Thermal resistance of led chip (°C)		6 °C	10~15 °C	Under the same working environment, the chip temperature is 4~9°C lower and the light decay is slower.
Maximum temperature of PCB pad (°C)	≤80 °C	90~95 °C				
Maximum case temperature (°C)	≤90 °C	100~110 °C	According to the original factory specifications, the maximum temperature of led is 100°C. The higher the led temperature, the faster the light decay and the shorter the lifespan.			



5	Led explosionproof light	Specification of led chip	SEF380	3030	3030	
		Brand of led chip		Philips	Epistar/Bridgelux /Osram	
		Luminous efficiency of led chip (lm/W)		220 lm/W @40mA	190~200 lm/W @40mA	
				200 lm/W @80mA	170~180 lm/W @80mA	
				190 lm/W @120mA	160~170 lm/W @120mA	
				175 lm/W @150mA	140~150 lm/W @150mA	
				≥150 lm/W	120~140 lm/W	At the same power, the illuminance is 10~25% higher.
		Light efficiency of luminaire (lm/W)				
		Working current of led chip (mA)		120mA	120~150mA	
		Thermal resistance of led chip (°C)		9~10 °C	10~15 °C	Under the same working environment, the chip temperature is 1~6°C lower and the light decay is slower.
Maximum temperature of PCB pad (°C)	≤80 °C	90~95 °C				
Maximum case temperature (°C)	≤90 °C	100~110 °C	According to the original factory specifications, the maximum temperature of led is 100°C. The higher the led temperature, the faster the light decay and the shorter the lifespan.			