

CW Series ZDNY-SL-CW

Light source introduction



Cosmon White is a kind of revolutionary new light source for outdoor use developed by PHILIPS, it will set off a new trend in outdoor lighting area by its high color rendering white light properties and significant energy saving effect.

Cosmon White system won "the best lighting and electrical appliance" prize of the prestigious British lighting design in 2006, and it was acclaimed by the judges as "replacement model" for road lighting.

Cosmon White, which is with advantage of white light, high luminous efficiency, color rendering index of more than 60, perfect color temperature of 2800 K, smaller size and longer life span, is the most powerful challenger to metal halide lamp, LVD lamp, LED lamp as well as high pressure sodium lamp, and it is an ideal light source to replace high pressure sodium lamp in road lighting project for the time being. When make a replacement, change the original light source and ballast to this new type light source and dimmable energy-saving electronic ballast, no need to replace the original lighting fixture. Thus, it can reduce cost of lighting fixture and other devices, in the meanwhile, it can maximally save energy as well as beautify the environment.

Light Source Characteristics

- ① Provides comfortable white light with much better color rendering (CRI>60Ra), color temperature and light effect, it is more suitable for human vision and not easy to fatigue, thus improves the municipal road lighting quality and safety.
- ② Higher light efficiency, more energy saving, under the same brightness, it can save 49% energy compared to high pressure sodium lamp.
- ③ Longer life span: compared to outdoor ceramic metal halide lamp, Cosmon White's life span is 50% higher.
- ④ Reduce environmental pollution and CO₂ release so as to reach the effect of environmental protection.
- ⑤ Smaller dimension: compared to common high pressure sodium lamp, Cosmon White's dimension is 50% smaller, which is convenient for more flexible design of light fixture.

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Light Pole	Steel structure (hot dip galvanized and plastic-sprayed) 6~10 meters
Solar Panel	80Wp-150Wp Mono or poly crystalline
Battery Capacity	12V/50-200Ah(1 or 2pcs), Maintenance-free lead-acid battery/gel battery
Lighting Source	45W-140W CW, DC12-24V, AC110/220V
Controller	Intelligence control, overcharge protection, overdischarge protection, reverse-connection prevention, light control and timing control
Working Condition	-20°C ~ 50°C
Working Time	The system can continuously supply power for 3-5 days when it is rainy or cloudy

Project Reference



45W CW



140W CW



60W CW



A and B: 140W CW
C and D: High pressure sodium light
E and F: 150W LVD light

Lamp Fixture Structural Feature

- ① Housing cast by 1250T die-casts machine, featuring high strength, compact structure and smooth profile.
- ② Reflector is made of high purity aluminum plate anodized and polished.
- ③ Stainless steel buckle with spring for operation, toplift cover for easy repair and maintenance
- ④ Internal bulb-replacement structure with good airtight, waterproof, mothproof and dustproof performance.
- ⑤ Lamp cover is made by high transparent tempered glass with good translucency and intensity.
- ⑥ With installation height of 6-10m, installation tube size of $\phi 52\text{mm}/\phi 60\text{mm}$ and distributed light source of 45W/60W cosmonwhite. Protection rating: IP 65

CW Technical Datasheet

Model	CW-12-45	CW-12-60	CW-12-90	CW-12-140
	CW-24-45	CW-24-60	CW-24-90	CW-24-140
Parameters				
Input Voltage	DC10 ~ 15V DC20 ~ 30V	DC10 ~ 15V DC20 ~ 30V	DC10 ~ 15V DC20 ~ 30V	DC10 ~ 15V DC20 ~ 30V
Power Supply Efficiency	> 0.9	> 0.9	> 0.9	> 0.9
Rated Power	45W	60W	90W	140W
Luminous Efficiency	> 96LM	> 114LM	> 116LM	> 118LM
Initial Flux Of CW Light	4320LM	6840LM	10440LM	16520LM
Lighting Efficiency	> 90%	> 90%	> 90%	> 90%
Average Luminance	6m High	> 17	> 25	
	7m High	> 15	> 19	> 34
	8m High	> 10	> 15	> 30
	9m High	> 8	> 13	> 28
	10m High	> 6	> 10	> 22
	11m High			
Effective Illuminated Area	6m High	6*20m ²	6*20m ²	
	7m High	7*25m ²	7*25m ²	7*25m ²
	8m High	8*30m ²	8*30m ²	8*30m ²
	9m High	9*35m ²	9*35m ²	9*35m ²
	10m High	10*35m ²	10*35m ²	10*35m ²
	11m High			
	12m High			
Color Temperature	Warm White:2720K-2836K			
CRI	> 75Ra			
Working Environment	Humidity : < 95% ; Environmental Temperature : -20 ~ 50°C			
Life Span	> 30000hrs			
Protection Grade	IP65			

Photometric diagram

