

LED for Solid State Lighting

OSRAM Opto Semiconductors strives for innovative, trend-setting technologies for illumination, visualization and sensing. Its LEDs offer light designers and architects a freedom of design due to their high flexibility. LEDs have minimal dimensions, a small mounting depth and are so versatile that they can be used to create a vast array of impressive lighting systems. Their illumination are reliably for up to 50,000 hours and are suitable for all kinds of solid state lighting applications.



LED at a Glance

↑ Brightness and Input Power	Product Family	OSRAM Product Series	Brightness (lm)	Wattage (W)	Current
	OSTAR Lighting		200 - 1000	12 - 18	700 mA
	OSTAR SMT		460 (typ.)	17	700 mA
	Diamond DRAGON		150 - 300	5	1.4A
	Platinum DRAGON		50 - 150	3	700 mA
	Golden DRAGON Plus		39 - 130	1	350 mA
	Golden DRAGON Plus with Lens		45 - 97	1	350 mA
	Golden DRAGON		39 - 97	1	350 mA
	Advanced Power TOPLED		8 - 31	0.5	140 mA
	Power TOPLED		2.3 - 7.9	0.1	30 mA
	MULTILED		Red: 280 - 900mcd Green: 450-1400 mcd Blue: 112-560 mcd	R: 0.195 G: 0.21 B: 0.21	20 mA

Solid State Lighting – LED Application Selection Guide

Applications	OSTAR Lighting	OSTAR SMT	Diamond DRAGON	Platinum DRAGON	Golden DRAGON Plus	Golden DRAGON Plus with Lens	Golden DRAGON	Advanced Power TOPLED	Power TOPLED	MULTILED
Accent Lighting					•		•	•	•	
Bicycle Lights	•		•	•	•		•	•		
Bulb Retrofits	•	•	•	•	•		•	•		
Can Lights (Recessed)	•	•	•	•	•	•	•			
Channel Letters					•	•	•	•	•	
Colored Mood Lighting			•	•	•		•	•	•	•
Contour (Strip) Lighting				•	•		•	•	•	
Cove Lighting			•	•	•		•	•	•	
Down Light		•			•	•	•			
Emergency Lighting	•		•	•	•		•	•		
Exit Signs					•		•	•	•	
Flashlights	•		•	•	•		•	•		
Flood Lights	•		•	•	•		•	•		
Headlights (Wearable)	•			•	•		•	•		
High Bay Lighting (Factory)	•	•	•	•	•		•			
In Ground Lighting	•				•		•			
Landscape Lighting	•		•	•	•		•	•	•	
Street Lighting		•			•	•	•			

• Primary Selection • Secondary Selection • Alternative Selection

Golden DRAGON Plus Specification

	Ultra White	White	Warm White
Part No.	LUW W5AM	LW W5AM	LCW W5AM
Color Temp (K)	5500 - 7000K	4500 - 5500K	2700 - 4500K
Current (mA)	350-1000		
Lens Type	Silicone		
Viewing Angle (q)	170		
Luminous Flux (lm)	71-82, 82-97, 97-112, 112-130	61-71, 71-82, 82-97	52-61, 61-71, 71-82, 82-97

Golden DRAGON Plus Specification – Color Portfolio

	Blue	True Green	Amber	Red	Yellow	Deep Blue
Part No.	LB W5AM	LT W5AM	LA W5AM	LR W5AM	LY W5AM	LD W5AM
Brightness (Typ.)	~ 20lm@350mA	~80lm@350mA	~60lm@400mA	~53lm@400mA	~48lm@400mA	~419mW@350mA
Wavelength (Typ.)	470nm	527nm	617nm	625nm	590nm	449nm
Viewing Angle (q)	170					

Golden DRAGON Plus is Your Best Choice!

The Golden DRAGON Plus is designed for below applications, in which high brightness and low space requirements are necessary.



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1. Architectural



Available in a full range of white color temperature plus an extensive choice of different colors, Golden DRAGON Plus is the perfect LED solution for color changing / mixing applications.

2. Channel Letters



Golden DRAGON Plus with 170° wide viewing angle is ready for backlighting applications

3. Consumer Portable



Golden DRAGON Plus in 110 lm/W is the best solution for long battery life applications. It can have an exceptional lifetime of more than 50,000 hours, depending on its operating condition.

4. Retail Display



Golden DRAGON Plus Warm White CRI > 80 and high color saturation are crucial for indoor lighting

5. Residential



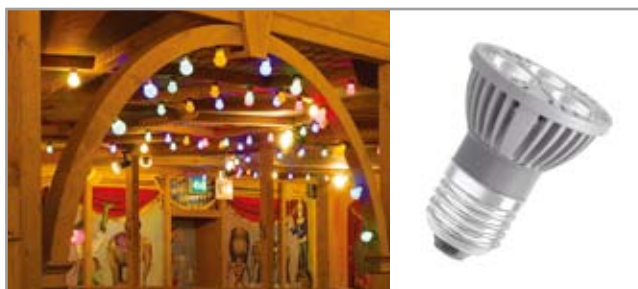
With its high efficiency 110 lm/W, Golden DRAGON Plus is your first choice for energy saving retrofits.

6. Outdoor



Golden DRAGON Plus & Oval meet global street lighting illumination standards.

7. Retrofits



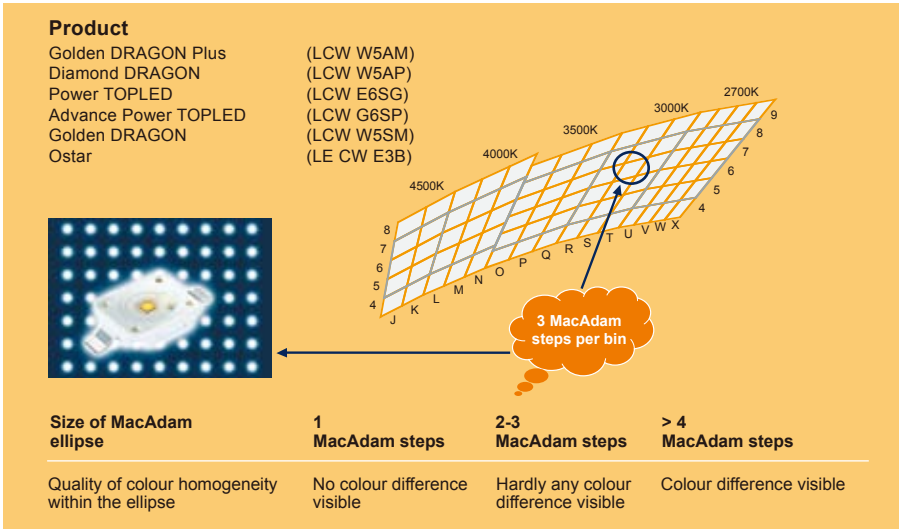
Replacing Halogen 50W PAR20 by Golden DRAGON Plus LED 7W PAR20, customers can save 85% energy consumption.

Benefits of High Power LED

1. Best Quality of Light

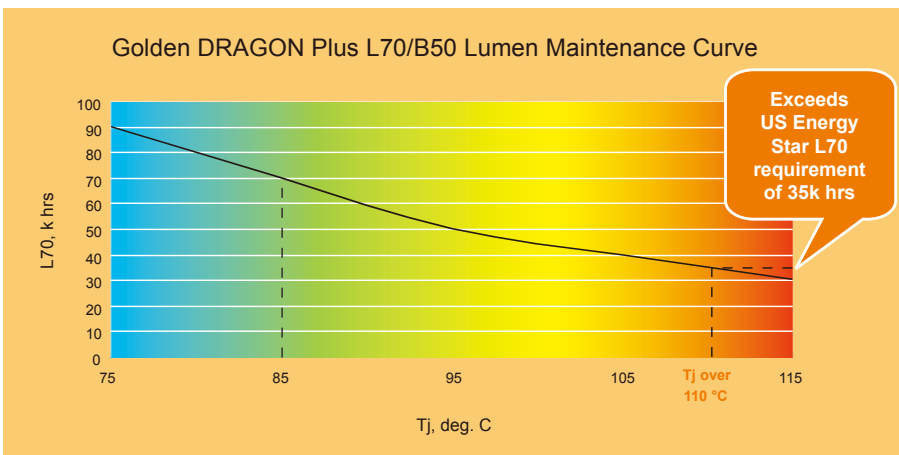
OSRAM Warm White Fine Binning with 3 MacAdam Steps Per Bin

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2. Superior Long Lasting Lumen Maintenance

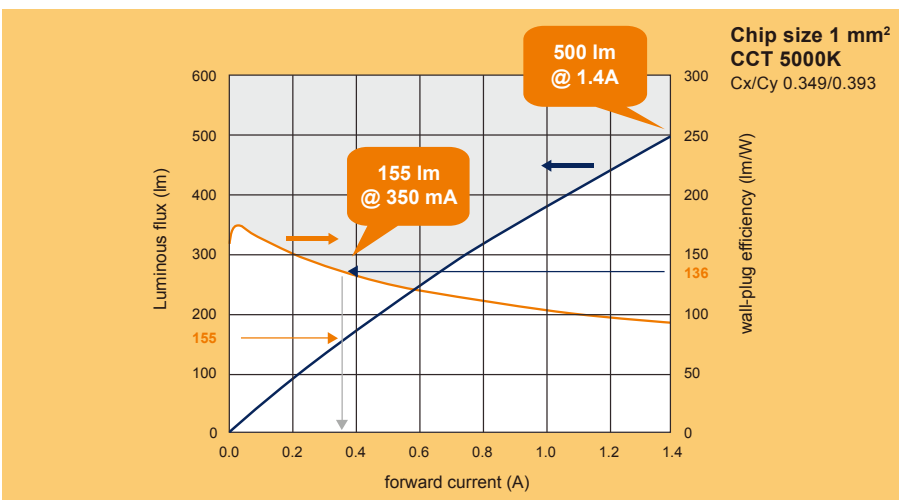
Golden DRAGON Plus Estimated Median Lifetime L70/B50 Illustration



The failure criteria is 50% of the initial luminous intensity. The numbers above represent estimations based on extrapolations. The actual value can differ depending on, but not limited to selected brightness binning, temperature at the LED, forward current, production variations and specific application conditions. Resulting, these values cannot be guaranteed.

3. New Efficacy Records

High Performance White LED Component



Golden DRAGON Plus for Street Lighting Application

Benefits of High Power LED

1. Energy savings
2. Pole cost saving
3. Wire cost saving
4. Maintenance cost saving
5. Improved sense of security
6. Evenly lit roads and sidewalks
7. Reduced glare and improved visibility
8. No light pollution to night sky

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