

# **ALPD® Laser Light Source**

**Christie Platforms** 

### INNOVATION DRIVING THE VISUAL WORLD

Any question, please feel free to contract us.

E m a i l: ALPDCINEMA@appotronics.cn

Website: https://en.appotronics.com/ALPDcinema/

# **About ALPD® Laser Light Source**

ALPD® laser light source is built upon the Advanced Laser Phosphor Display (ALPD®) technology. It is mainly used to replace the xenon light source in digital projectors to increase the projection quality. It also exhibits the following characteristics:





Better image quality after using DCI certified ALPD  $^{\! \rm B}$  laser light source.



More energy-efficient and environment friendly compared with xenon lamps.



Long service life of 30,000 hours.



No need to replace xenon light source, free of bulb explosion risks and easy to maintain.



Improve the brightness to prolong the projectors' lifetime.

With the promotion of laser projection technologies, the ALPD<sup>®</sup> laser projection technology has been widely used globally. By November 2023, more than 35,500 sets of ALPD<sup>®</sup> laser light sources have been used in more than 7,000 cinemas in the world.

## **SPECIFICATIONS**

Light Output (typical)	10,000 lumens		15,000 lumens		20,000 lumens
Product Model	X10-C2308	X10-C2210	X15-C2210	X15-C2215	X20-C2220
Adapting Projector Model	Solaria I CP2208 CP2308	CP2210	CP2210	CP2215	CP2220、CP4220 CP2420、CP4420
Projector Color Gamut Standard	98.5% of the Rec.2020.				
Laser Technology	ALPD 4.0				
Laser Projector Contrast	2000: I		2400:I		
Wall Plug Efficiency (Im/W)	12.5 lm/W				
Cooling Technology	Air Cooling				
Dimensions Package (LxWxH)	770*450*475mm		890*810*535mm		880*750*410mm
Weight In Package	35kg ; (77.16 lbs)		53.5kg ; (117.95 lbs)		40.6kg ; (89.51 lbs)
Power Consumption	1000W		1400VV		1760W
Power Requirements	200-240V 20A				
Operation Ambient Temperature	10~35°C				
Storage Ambient Temperature	-15-60°C				
Air Humidity	5-85% (No dew formation)				
Laser Light Source Lifetime	30,000hours				
	White:x=0.3140±0.006;y=0.3510±0.006				
Projector Light Output Color (typical)	Red: x=0.680±0.01; y=0.32±0.01				
	Green: x=0.2650±0.02; y=0.690±0.02				
	Blue: x=0.150+0.01/-0.03; y=0.06 +0.02/-0.04				
Communication	RJ45 Internet port、Serial RS232 (DB-9)				

For the most current specification information, please contact us.

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## **SPECIFICATIONS**

Light Output (typical)	25,000 lumens	28,500	lumens	33,000 lumens	
Product Model	X25-C2220	X28-C2220	X28-C2230	X35-C2230	
Adapting Projector Model	CP2220 CP2420 CP4220 CP4420	CP2220 CP2420 CP4220 CP4420	CP2230 CP4230	CP2230 CP4230	
Projector Color Gamut Standard	98.5% of the Rec.2020.				
Laser Technology	ALPD 4.0				
Laser Projector Contrast	2400:1				
Wall Plug Efficiency (Im/W)	12.5 lm/W				
Cooling Technology	Air Cooling				
Dimensions Package (LxWxH)	880*750*410mm	1130*440*690mm		1130*440*690mm	
Weight In Package	40.6kg ; (89.51 lbs)	59kg ; (130.07 lbs)		67.8kg ; (149.47 lbs)	
Power Consumption	1860W	2500W	2850W	3100VV	
Power Requirements	200-240V 20A				
Operation Ambient Temperature	10~35°C				
Storage Ambient Temperature	-15-60°C				
Air Humidity	5-85% (No dew formation)				
Laser Light Source Lifetime	30,000hours				
Projector Light Output Color (typical)	White:x=0.3140±0.006;y=0.3510±0.006				
	Red: x=0.680±0.01; y=0.32±0.01				
	Green: x=0.2650±0.02; y=0.690±0.02				
	Blue: x=0.150+0.01/-0.03; y=0.06 +0.02/-0.04				
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INNOVATION DRIVING THE VISUAL WORLD

# CGV Cinemas Deployed Over 600 Sets of ALPD® Laser Light Source for High-Quality Projection

——CGV Cinemas

Cinema Name	CGV Cinemas		
Hall Conditions and Effects :			
Upgrade Time	2021		
Upgrade Scale ▶	More than 600 Cinema Halls		



Projection quality has always been the foundation of cinemas. ALPD® laser light source upgrade is considered as the most convenient and effective means to this aim. In 2021, CGV Cinemas, which is quite influential in the cinema industry, carried out ALPD® laser light source upgrades to over 600 Chinese cinema halls, almost achieving full laser projection and improving the viewing quality in an all-round way.

### ALPD® Laser Light Sources Have Been Deployed in Batches By CGV Cinemas.

CGV Cinemas is a subsidiary of South Korea's CJ Group and is mainly engaged in cinemas operation. As an internationally famed professional cinema chain operator and high-end cinema brand, it has 530 high-end cinemas and over 3,900 high-quality screens around the world. By the end of May 2022, CGV has more than 100 cinemas in China.



To provide better projection quality for moviegoers, CGV took the lead in deploying the ALPD® laser light source upgrade as early as 2016. With good user experience, CGV decided to upgrade its more than 600 projectors in 2021. As of May 2022, the entire upgrade has been mostly completed.

Regarding the use of the ALPD® laser light source, the relevant person in charge of CGV said: "We have actually used the ALPD® laser light source for many years and it has indeed brought us a lot of convenience in terms of use. Besides better image quality, it's also easy to maintain. The cinema technicians no longer need to replace the xenon lamps on a regular basis as before, which has greatly helped us reduce the workload and improve work efficiency."

Based on the unique characteristics of ALPD® laser light source, its service life can reach up to 30,000 hours. Within the past six years, the recognition of the ALPD® laser light source by CGV is also a sound proof to the quality of ALPD®.





# Christie Projection Platform Exhibits Outstanding Effects After ALPD® Upgrade

—— Jinan Empire of Film (Saibo Division)

Cinema Name	Jinan Empire of Film (Saibo Division)		
Upgrade Status 🕨	Christie CP2230 with E35 ALPD® Laser Light Source		
Cinema Conditions & Effects:			
Screen Width National 13.5m			
2D Brightness Before Upgrade : 23.1 FL			
2D Brightness After Upgrade : 60.8 FL			
3D Brightness Before Upgrade : 6.32 FL			
3D Brightness After Upgrade : 17.8FL			



#### **Application Highlights**

ALPD® laser light source has a wide range of platform compatibility and can cover many projector platforms on the current market. Pursuing high projection quality and standard, Jinan Empire of Film (Saibo Division) chose ALPD® light source to replace its Xenon lamp of Christie projector. The 2D/3D brightness after upgrade approaches to nearly 3 times of the brightness before, not only providing movie fans with more satisfying projection effects, but also helping the cinema to achieve better operations.

#### The Brightness Increased Nearly Twice After Upgrade

Significant improvement has been achieved after the upgrade. The screen width of the upgraded cinema hall is 13.5m. Before the upgrade, the 2D/3D projection brightness was 23.1FL and 6.32FL, respectively. Although reaching the domestic 2D/3D projection standard, the cinema will never be satisfied. After the ALPD® laser upgrade, the 2D/3D brightness of the cinema becomes 60.8FL and 17.8FL, respectively, which is nearly three times of the former, and the viewing effect has been well received by the audience.

In this regard, the relevant person in charge of the cinema said: "Large-and-medium-sized cinema hall have higher requirements for both projection quality and operating costs. After this laser-based upgrade, the projection effect is obviously enhanced, providing a refreshing experience to the audience. In addition, from the perspective of operating costs, compared to traditional xenon lamps, ALPD® laser light source is more energy-saving and easier to maintain with no need to replace light sources, bringing great convenience to the cinema."



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