

FOR IMMEDIATE RELEASE

CCS Releases PFBR-600SW2 Series Ultra-High Power Light Source Unit

1.4x brighter*¹ than other products for manufacturers using xenon flashlamps in fast inspections



PFBR-600SW2-LL

Kyoto, Japan, September 29, 2022 – CCS Inc. has renewed its PFBR-600SW Series light source unit, released as the PFBR-600SW2 Series. It is bright enough to replace xenon flashlamps, with stable light emission and easy maintenance.

LEDs are the preferred light source for inspecting electronic components and liquid-crystal panels. Nevertheless, some manufacturers use xenon flashlamps and metal-halide lamps because of their higher brightness. But they come at a cost: frequent lamp replacement, light emission errors, and jitter. As a result, there is high demand for products without these limitations.

In 2018, CCS developed and released the PFBR-600SW Series in response to these needs. Many electronics manufacturers have adopted these products in high-speed production lines that require high-definition images of small components. Its laser diode-based white light source module is eight times brighter*² compared to conventional products at the time. At 14 million lux*¹, the PFBR-600SW2 Series is 1.4 times brighter than its predecessor.

*¹ Based on comparison between the PFBR-600SW-LL and the PFBR-600SW2-LL.

Actual comparison values measured at 50 mm from end of fiber at 100% intensity mounted with a straight light guide (length: 1,000 mm, bundle diameter: 8 mm).

*² Based on comparison between the PFBR-150SW LED light source unit and the PFBR-600SW-LL on continuous emission.

Fast response time of less than 1 μ s

The light turns on and off in less than 1 μ s in response to an external trigger. Conventional xenon flashlamps are difficult to control for high-speed lighting above 10 kHz and are prone to light loss.

Light quantity feedback control function

This function ensures stable brightness output over a long period. For example, setting the light at 70% of the maximum light quantity stabilizes output for 13,000 hours. The maximum stabilization time is 23,000 hours at 50% output. (Estimated value)

Dedicated strobe model (Custom)

The PFBR-600SW2-LL-XF dedicated strobe model provides ultra-high output to replace xenon flashlamps. It does not require a dedicated light guide and maintains the same high output using the

existing resin light guide. It has a long life of more than 50,000 hours*³, reducing the man-hours for lamp replacement.

*³ Operating environment: Clean room at 25°C, Emission condition: Duty 1%.

Lifetime is the time until the radiant quantity is reduced by half under our measurement conditions.

Filter-changer model

The PFBR-600SW2-LLCF includes interchangeable filters that transmit specific wavelengths: red, blue, green, cyan, magenta, or yellow.

Specifications

Model Name	PFBR-600SW2-LL PFBR-600SW2-LLCF Filter-changer model PFBR-600SW2-LL-XF Dedicated strobe model (Custom)
Dimensions	L 175 mm × D 270 mm × H 215 mm
Compatible Fiber Bundle Diameter	Φ6 to Φ14 mm
Emitting Color	White (Correlated color temperature 5500 K)
Uses	Inspection of electronic components, LCD panels, film, paper, etc.
Release Date	September 30, 2022

From 1993, CCS advanced the machine vision industry by developing LED lighting for inspection that Created Customer Satisfaction for both manufacturers and their consumers, who demanded safe, high-quality goods. Today, CCS leads the machine vision world in innovation with thousands of products including lights, controllers, and accessories. CCS's global network of employees is dedicated to helping manufacturers capture the most important details in an inspection, so that their customers never receive anything less than their highest quality.

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