# AURA light engine®
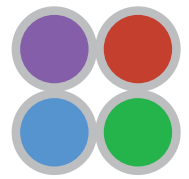
Flexible Light Source Configuration with Performance that Shines



## Super Bright Solid-State Light Sources + Advanced Electronic Control Systems = Unequaled Performance

Lumencor's AURA light engine is an ideal platform for manufacturers seeking to integrate the brightest and most dependable solid-state illumination into new bioanalytical instruments. Key features of the AURA light engine include:

- Up to 5 independently controlled (on/off and intensity) light source channels

- 200 – 1000 mW output per source channel

- Source spectral outputs refined using integrated bandpass filters

- Onboard microprocessor with server/client architecture and embedded command library

- Optical power stabilization for exceptional reproducibility and quantitative accuracy

- Integral output adapter for liquid light guide or optical fiber delivery
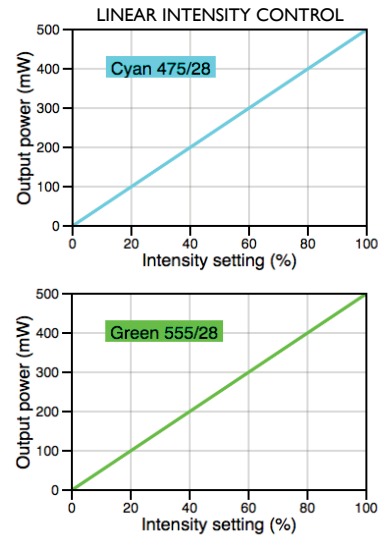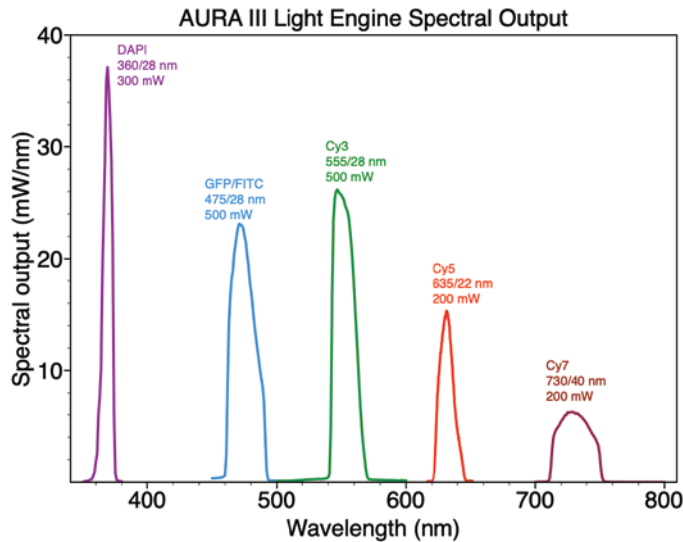
The AURA light engine is designed to allow the spectral output to be customized according to application-specific requirements. The AURA features an advanced control system based around an onboard microprocessor with an embedded command library. This allows control using simple and intuitive text string commands sent to the light engine via USB/RS-232 or TCP serial protocols. A GUI resident on the onboard microprocessor and viewed using a web browser via a LAN connection provides an easily accessible implementation of the command library. The command library is extensive, providing access to advanced control and monitoring functions in addition to the basic control functions of light source selection, on/off switching and output intensity adjustment. An onboard photodiode array monitors the light output and provides continuous power readings displayed by the resident GUI or other control software. The photodiode array also generates reference signals that can be applied to the light sources in a feedback loop to maintain constant light output over time.

For more information on the AURA light engine please contact us at Lumencor, Inc. at info@lumencor.com.

# AURA light engine®
## Ideal OEM Illumination Platform for Bioanalysis and Metrology



AURA III Light Engine Spectral Output

DAPI 360/28 nm 300 mW
GFP/FITC 475/28 nm 500 mW
Cy3 555/28 nm 500 mW
Cy5 635/22 nm 200 mW
Cy7 730/40 nm 200 mW



LINEAR INTENSITY CONTROL

Cyan 475/28

Green 555/28

## Features and Operating Characteristics:

| Features | Details |
|---|---|
| Light Sources | Up to 5 independently selectable solid-state light sources[1] |
| Filters | Integrally installed bandpass filters for spectral output refinement[2] |
| Output Power | 200 – 500 mW per source channel (dependent on filter bandpass and light guide diameter)[3,4] |
| Light Delivery | Liquid light guide (LLG) or optical fiber |
| Safety Interlocks | Manual (key) and remote (electronic) light output safety interlocks |
| Control Interfaces | Serial (RS-232/USB), ethernet and TTL ports. RJ45 ethernet and USB A-to-USB B control cables included |
| Software | Onboard GUI or PC-based image acquisition software |
| Speed | TTL-triggered source channel switching up to 10 kHz |
| Optional Accessories | Light engine control pod[5]. DB15 to BNC breakout cable for TTL source triggering |
| Warranty | 18 months |
| Power Requirements | 220 W (24 V/9.2 A) DC power supply included |
| Dimensions (W x L x H) | 145 mm x 263 mm x 203 mm (5.7 in x 10.4 in x 8.0 in) |
| Weight | 6.5 kg / 14.3 lbs |

[1] Light sources may include LEDs, luminescent light pipes and lasers depending on output wavelength and power requirements. [2] Specify bandpass filters when ordering. AURA light engines may also be ordered without filters. Filters are not field-exchangeable. [3] Power outputs for each light engine are recorded on the Certificate of Conformance attached to the shipping documents e-mailed to the customer. Output is anticipated to remain above 70% of these values during the service lifetime of the light engine. [4] Higher power outputs available via customization. [5] Control pod connects to light engine USB port and controls source selection, light output on/off and intensity settings.

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