

Integrated Array of 21 Powerful Solid-State Light Sources

Lumencor's MAGMA Light Engine delivers unprecedented performance by integrating 21 individually selectable solid-state light sources under the control of an onboard microprocessor. The outputs of 21 spectrally discrete light sources ranging from 365 nm to 1050 nm are merged into a common optical train directed to the light output port on the front panel. The light output port has a built-in adapter for connection to microscopes and other analytical instruments through a liquid light guide (LLG) or optical fiber. All these capabilities are assembled in a compact bench top device with a 145 mm x 340 mm footprint.

The MAGMA features an advanced control system based around an onboard microprocessor with ethernet connectivity and an embedded command library. These commands give access not only to color channel selection, light output on/off switching and output intensity adjustment, but also to extended control features including:

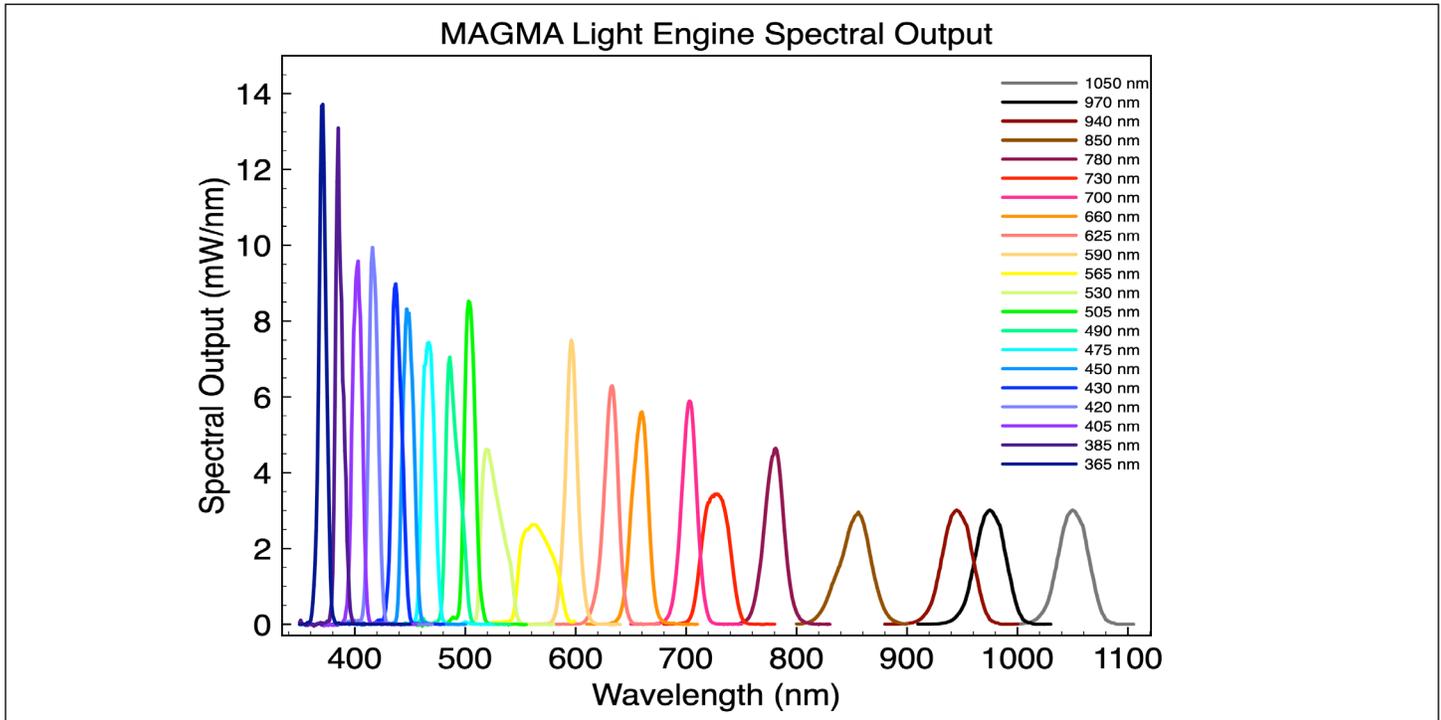
- Feedback regulation of light output power
- Cumulative run-time monitoring
- Real time light output power monitoring
- Real time electrical power consumption monitoring
- Linearized output power control

A GUI resident on the onboard computer and viewed using a web browser via a LAN connection provides convenient access to the command library functions. A command library API is available for users needing implementation of Light Engine commands in their own operating software. TTL trigger inputs are provided for all 21 light output color channels for applications requiring fast (<100 microseconds) switching.

MAGMA Light Engines can be operated as ethernet-connected ensembles under the control of a host computer. Light Engines deployed at multiple stations in a manufacturing or inspection process can be centrally controlled and monitored. These capabilities facilitate large scale lighting installations that are coordinated for operational efficiency but also scalable and readily reconfigured to meet changing demands.

As with all Lumencor products, OEM customization is available upon request.

For more information on the [MAGMA Light Engine](#), please contact us at info@lumencor.com. To receive a purchase quotation for a MAGMA Light Engine, please submit our online [quotation request form](#).



Features and Operating Characteristics:

Features	Details
Sources	21 solid state sources including LEDs and proprietary luminescent light pipes. No lasers. [1]
Wavelength Range	365 nm – 1050 nm[1]
Output Power	5–100 mW per color band [2]
Light Delivery	Customizable output adapter for fiber bundle based on users need [3]
Operational Control	Onboard microprocessor with embedded command library
Control Interfaces	Source selection, light output on/off and intensity via serial interface (RS-232/USB or TCP). Source selection and light output on/off via TTL.
Software	Onboard GUI or PC-based image acquisition software
Optional Accessories	21-channel breakout cable for TTL triggering
Power Requirements	220 W (24 V/9.2 A) DC power supply included
Warranty	24 months
Dimensions (W x L x H)	145 mm x 340 mm x 203 mm (5.7 in x 13.4 in x 8.0 in)
Weight	8.7 kg /19.1 lbs

[1] Requests for customization of a number of light sources and wavelength range may be submitted via our quote request form.
 [2] Power outputs for each Light Engine are recorded on the Certificate of Conformance attached to the shipping document e-mailed to the customer. Output is anticipated to remain above 70% of these values during the service lifetime of the Light Engine.
 [3] Output adapter is built-in. Ensure output adapter dimensions are correctly specified when ordering.