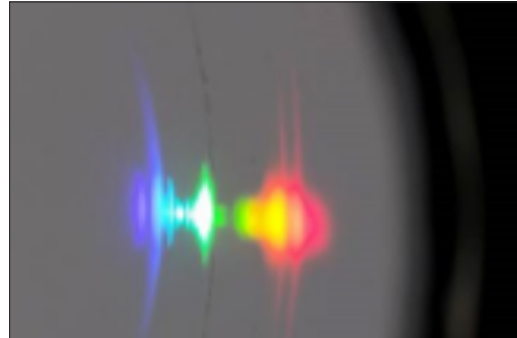


# SpectrALL Digital Polychromator Light Engine

Unmatched programmable high resolution spectral outputs



**Labsphere's new SpectrALL Digital Polychromator Light Engine delivers unprecedented levels of flexibility and speed to a wide range of scientific and technical applications.**

Building on our experience with solid-state tunable light sources, the SpectrALL light engine uses a continuous-spectrum light source and polychromator technology to offer incomparable control over generated spectral waveforms. The SpectrALL light engine can reproduce complex spectral features with a precision that enables high-resolution simulation of standard illuminants as well as natural or synthetic sources and emissions. SpectrALL can be adapted to an integrating sphere to create a uniform source for flat-fielding applications, or to optical light guides and collimators for remote sample spectral illumination.

SpectrALL is capable of producing a near-perfect match to almost any target spectral waveform in the visible-light region by using a sophisticated spectral matching algorithm. It can render narrow-band targets on the order of 10 nm full-width half-max, broad VIS spectra and complex shapes.

## Features

- Controllable variable light output levels
- Fast switching and settling time
- Digital performance feedback
- User-friendly software interface

## Benefits

- Unmatched programmable high resolution spectral outputs
- Spectral reproduction over the visible range
- Unlimited user programmable spectra
- Spectrally pure, avoid channel cross talk in multicoloring imaging
- Low heat
- Traceable calibrations

## Applications

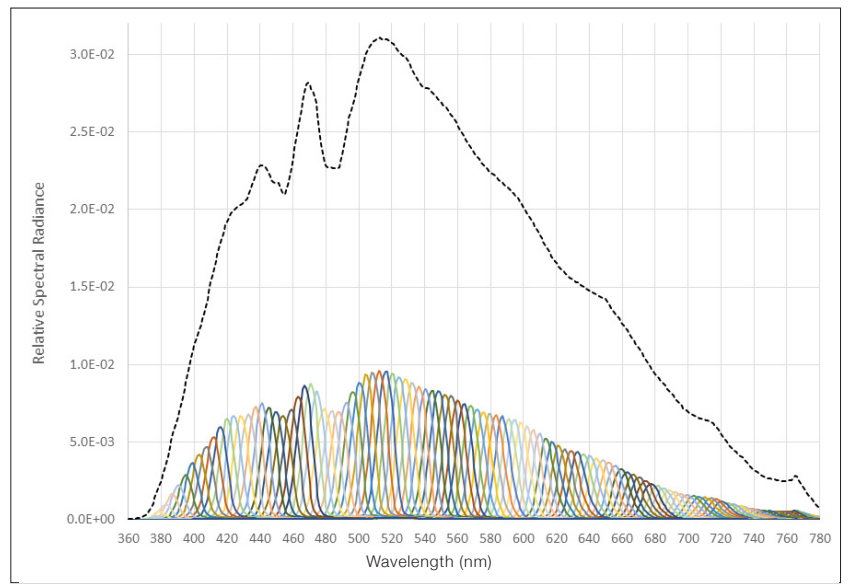
- Colorimeter Calibrations
- Digital Pathology
- Endoscopy
- Fluorescence Microscopy
- Forensics and Biosciences Imaging
- Instrument/Detector Spectral Response Calibration
- Life Sciences
- RGB Sensor Response
- Sensor Quantum Efficiency
- Spectrometer Response Calibrations

# Specifications

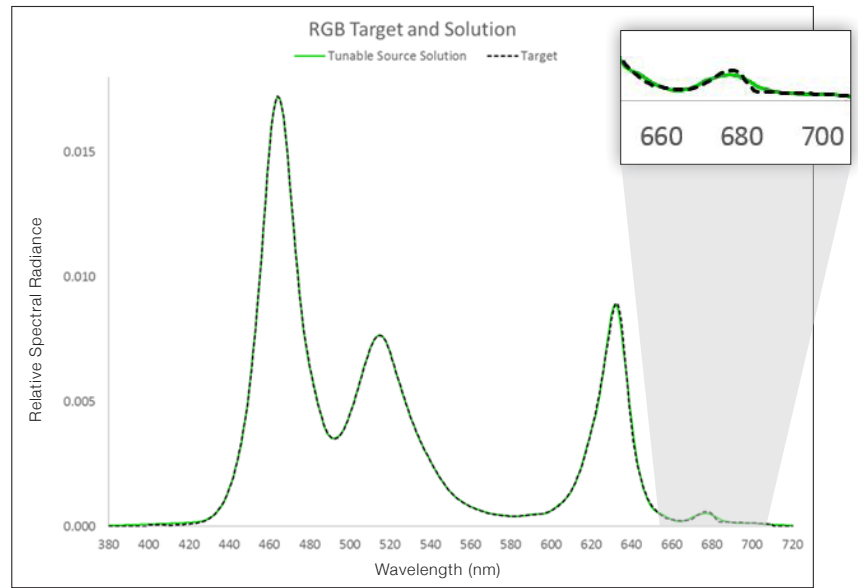
Max Output Power in Visible Range:*	1500 cd/m <sup>2</sup>
Minimum FWHM:**	10 nm +/- 2 nm
Spectral Range:	400 nm – 700 nm
Spectral Accuracy:	< 0.5 nm
Light Control Levels:	0.2 cd/m <sup>2</sup> from 50 cd/m <sup>2</sup> to 1500 cd/m <sup>2</sup> max
Max Spectral Scan Rate:	<1.0 spectra/sec
Settling Time:	1.0 sec
Source:	Continuous wave
Out of Band Rejection:	5 cd/m <sup>2</sup>
Optical Options:	Integrating sphere or fiber and lightguide
Triggering:	Software
Voltage Input:	12 V, 300 W through 110/220 VAC converter
Control Interface:	Ethernet
Size:	8" (20 cm) H 12" (30.5 cm) W 13" (33.0 cm) D
Weight:	15 lbs (7 kg)
Operating System:	Windows 10

\*with 200 um slit into 3.5" (9 cm) integrating sphere

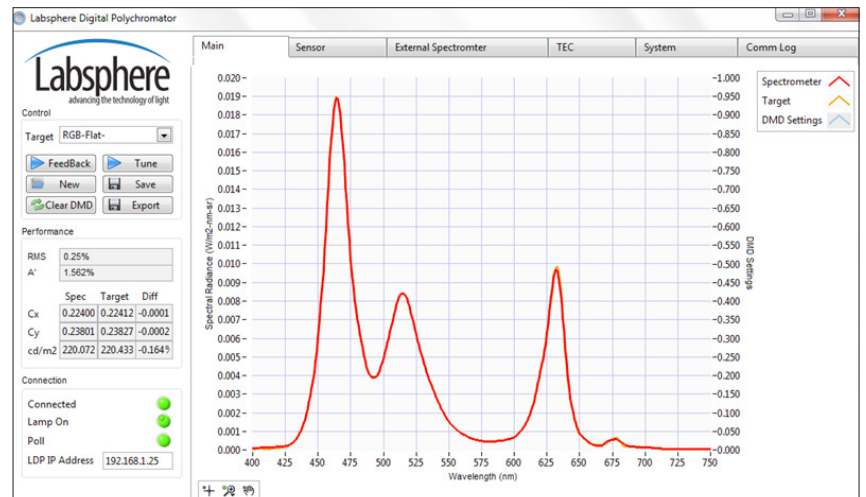
\*\*with 200 um slit



Example of 10 nm FWHM Peak Power



Spectral Matching Fidelity of RGB Target Spectra



Control Software User Interface