

# CSE-EQ-99-VIS

## Chromatiq Spectral Engine™

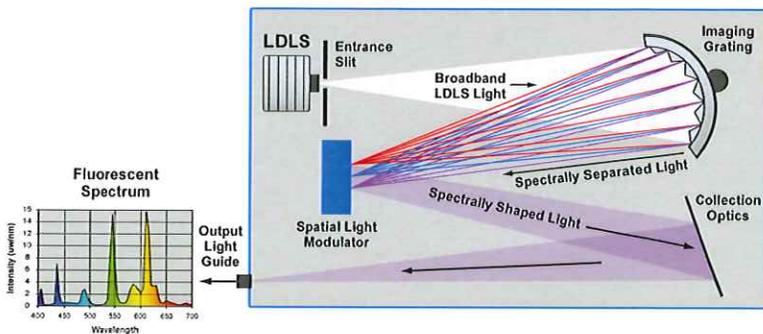


### Overview

The Chromatiq Spectral Engine™ (CSE) is a system-level light source providing precision control over the spectral content of emitted light. Users can emulate real-world lighting conditions, combine spectra from multiple sources and shape custom spectra to meet specific test and calibration needs.

The CSE offers unparalleled spectral match accuracy, repeatability, and speed to optimize optical testing and calibration procedures in the production environment. Spectra can be switched in less than  $\leq 10$  ms to save time and increase process throughput.

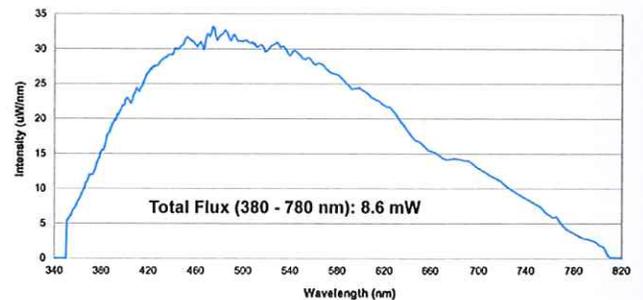
### Principle of Operation



### Properties

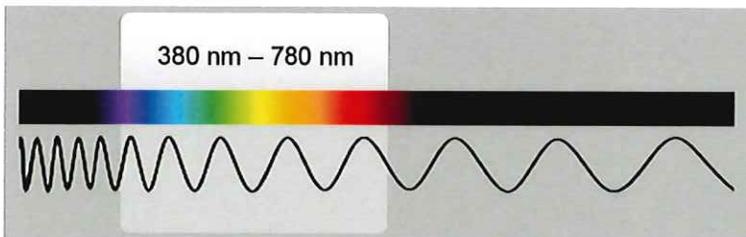
Wavelength Range	380 nm – 780 nm
Spectral Resolution (FWHM)	$\leq 5$ nm
Switching Time (TTL trigger)	$\leq 10$ ms
Output Type	Liquid Light Guide (6.5 mm diameter)
Bulb Lifetime	10,000 hours
Laser Class	Class 1 (IEC 60825: 2014)

### System Throughput

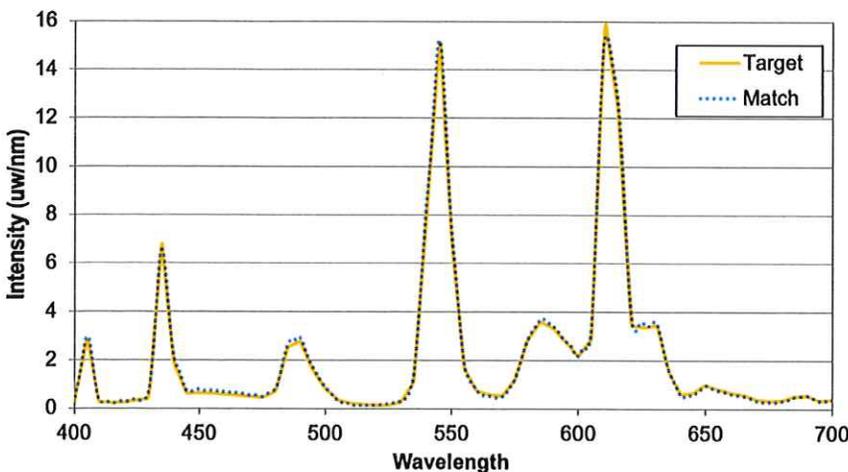


Performance data is typical - not intended for system design use.

### Wavelength Range



### Example Spectral Match – CIE F12



	Target	Match	Abs. Err.
CCT	3009.150	3059.930	50.780
u	0.2504	0.2488	0.0016
v	.3476	0.3465	0.0011
x	0.4368	0.4326	0.0042
y	0.4043	0.4016	0.0027
Duv	0.0001	0.0004	0.0003
Du'v'	0.0001	0.0005	0.0004
Flux		775 uW	

Performance data is typical - not intended for system design use.

## Models

The recommended service interval is 10,000 hours.

Part Number	Description	Wavelength Range
CSE-EQ-99-VIS	Chromatiq Spectral Engine, Visible	380 nm – 780 nm

## Accessories

Part Number	Description
CSE-LLG-65-1M	Liquid Light Guide, 6.5 mm diameter, 1 m length
CSE-LLG-65-3M	Liquid Light Guide, 6.5 mm diameter, 3 m length
CSE-HM-GR-13	Glass Rod Homogenizer

## User Interface

The CSE host application includes automated spectrum matching algorithms and a flexible user interface that enables system configuration, spectrum matching, creation of custom spectra, and definition of trigger sequences.

The CSE Host application runs on a standard PC with the Microsoft Windows operating system.

## Facility Requirements

Electrical	100-240 VAC, single phase, 50/60 Hz 390 W max.
Nitrogen Purge	Recommended. Grade 4.8 or higher, filtered to 5 µm; 0.14 MPa pressure
Ambient Temperature	15-35°C

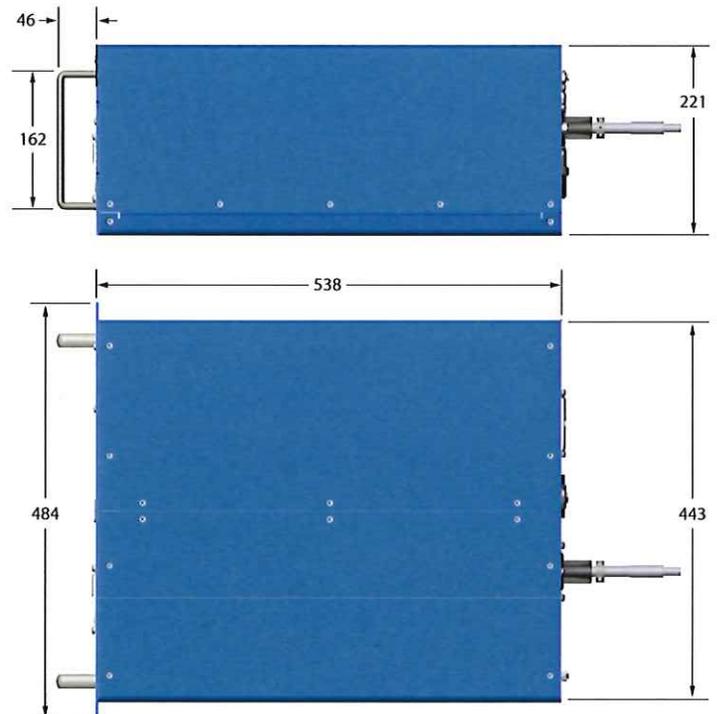
## Physical Specifications

Lamphead Dimensions (H x W x D)	221 x 484 x 538 mm
System Weight	7.6 kg



## Chromatiq Spectral Engine Dimensions (Unit: mm)

Drawings are for reference only and are not to scale.  
STEP-File available.



[www.energetiq.com/patents](http://www.energetiq.com/patents)



Energetiq Technology, Inc.  
205 Lowell Street  
Wilmington, MA 01887

Phone: +1 781-939-0763  
Email: [info@energetiq.com](mailto:info@energetiq.com)  
[www.energetiq.com](http://www.energetiq.com)

Specifications are typical and  
subject to change without notice.  
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