

# Gooch & Housego



## OL 458-4F White LED-Based Fixed Luminance Sphere Calibration Standard

### GENERAL

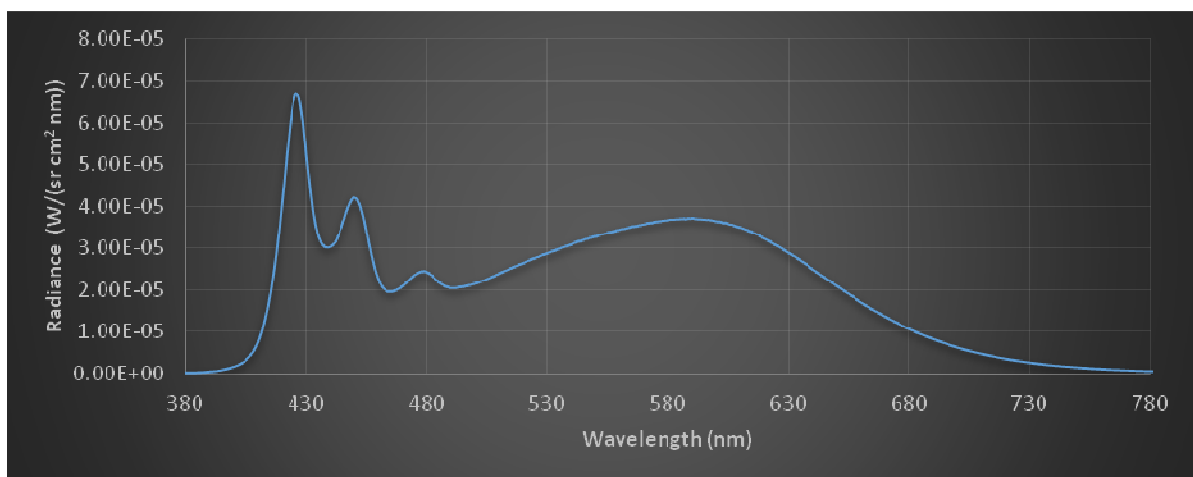
The OL 458-4F is a NIST-traceable integrating sphere calibration standard designed for accurately calibrating micro- and telephotometers, image intensifiers, and imaging photometers and colorimeters for photometric, radiometric, or spectroradiometric response. It serves as a highly accurate, uniform, stable, diffusely radiating source.

The OL 458-4F consists of an optics head and a power supply. This enables remote location of either unit, which facilitates alignment or positioning of the source with respect to the instrument.

### OPTICS HEAD

The optics head has dual input sources with multiple LEDs in each source. The LEDs excite a phosphor allowing for a continuous spectrum across the visible range. The sources feed directly into a 4-inch integrating sphere coated with our proprietary Optolon2 material, providing highly diffuse reflectance over the VIS/NIR wavelength range.

Microprocessor-controlled temperature adjustment maintains each source at a constant 40° C, allowing for extreme stability over long periods of usage.



Contact: [orlandosales@goochandhousego.com](mailto:orlandosales@goochandhousego.com)

[www.GHinstruments.com](http://www.GHinstruments.com)

*As part of our policy of continuous product improvement, we reserve the right to change specifications at any time*

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**OL Series 458-4F**  
**White LED-Based Fixed Luminance**  
**Sphere Calibration Standard**



**POWER SUPPLY**

The OL 458-4F has an integrated constant current supply, which provides a constant 100 milliamps. The analog current supply runs on 48 Volts DC supplied by the provided AC adapter.

SPECIFICATION	
Size .....	5.25 L x 4.50 W x 5.875 H in (13.34 L X 11.43 W x 14.92 H cm)
Weight .....	2 lbs (0.91 kg)
Power Requirements .....	48 Volts DC
AC Input Requirements .....	100 – 240 Volts
PERFORMANCE	
Luminance Uncertainty .....	± 0.5% relative to NIST
Luminance Output .....	>6700fL
Color Temperature .....	5030 K
Color Temperature Uncertainty .....	± 25 K
Luminance Stability	
Short Term .....	TBD
Long Term .....	TBD
Sphere Coating (reflectance) .....	> 98% (350 to 1100 nm)
Uniformity .....	< 0.1%
Other configurations available upon request.	
CALIBRATION OPTIONS	
OL 455-4F .....	luminance, color temperature
OL 455-4F-1 .....	luminance, color temperature, spectral radiance (400 to 780 nm)
OL 455-4F-U .....	uncalibrated

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