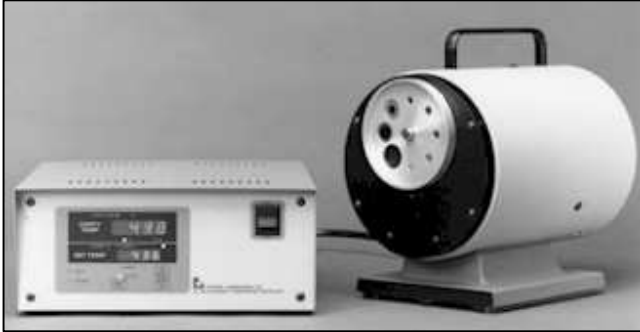


# Gooch & Housego



## OL 480 Blackbody Calibration Standard

The OL 480 Blackbody Calibration Standard provides an accurate, high temperature (100° to 1200°C) source of infrared radiation. It is specifically designed for calibrating infrared radiometric and spectroradiometric measurement systems.

The blackbody features a unique, uniformly heated recessed cone cavity with an emissivity of  $0.99 \pm 0.01$ . Accuracy of calibration is ensured by the use of a NIST-traceable platinum vs. platinum 10% rhodium thermocouple. An 8-position aperture wheel provides a convenient means of controlling the flux radiated by the blackbody (Table 1). The small aperture sizes enable the source to be used as a point source target at a finite working distance, while the larger apertures allow direct calibrations for radiance.

A convenient microprocessor-based, self-tuning digital PID controller holds the selected temperature to within  $\pm 0.05\%$  of full scale. The controller has dual displays with the lower display indicating the desired set point and the upper display indicating the actual blackbody source temperature.

The OL 480 features:

- Digital Controller
- Direct Mount Modulators Available
- 16 Interval Ramp and Hold from Front Panel
- Two (2) Customer Configured Alarm Relays
- One (1) Year Warranty
- RS-232C/422A/485 or IEEE-488 (optional)

SPECIFICATIONS	
<b>SOURCE</b>	
Temperature Range	50° to 1200° C 50° to 1050° C (optional)
Accuracy	$\pm 0.2\% \pm 1$ digit
Resolution	0.1° C
Overall System Stability	$\pm 0.02\%$ of full scale per 24 hour period
Cavity Opening	1.0" (25mm)
Cavity Type	Recessed 20° cone
Emissivity	$0.99 \pm 0.01$
Sensing Element	Type S Thermocouple Platinum/Platinum-10% Rhodium special 0.01% tolerance, matched to sensing T/C
Max. Aperture Temp Rise	30° C
Max. Housing Temp Rise	20° C
Dimensions	11.75" X 8" X 11.4"
Net Weight	17 lbs.
<b>CONTROL MODULE</b>	
Dimensions	5.1" X 12" X 13.4"
Net Weight	9 lbs.
Warm-Up time (ambient to 1200°C)	50 minutes
Operating temperature	0 - 50° C
Controller	Digital Auto-Tune PID
Cooling	Fan cooled
Power req.	110 - 120vac, 50/60Hz, 1 Phase 5.0 amp max 220 vac option available (installed internally)

Contact: orlandosales@goochandhousego.com

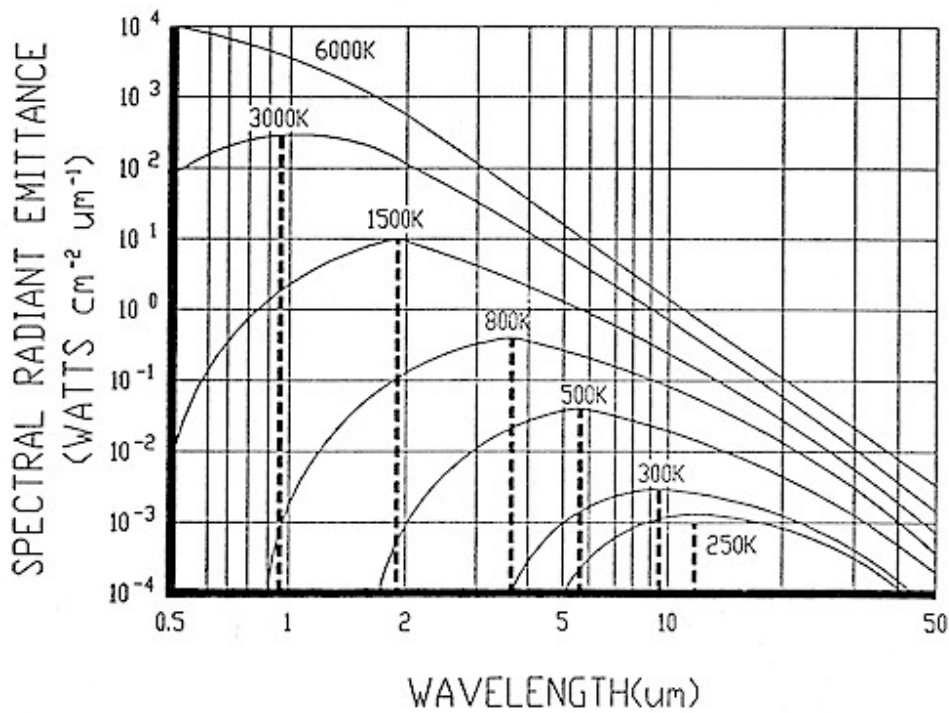
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*As part of our policy of continuous product improvement, we reserve the right to change specifications at any time*

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Table 1 Aperture Sizes	
Inches	Millimeters
1.000*	25.40*
0.600	15.2
0.400	10.2
0.200	5.1
0.100	2.5
0.050	1.3
0.025	0.6
0.0125	0.4
*Cavity Opening	



### Blackbody Spectral Radiant Emittance At Various Temperatures

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

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