

# Gooch & Housego



## ***Powered by Experts – Customer Driven: Gooch & Housego's OL 770-NVS***

*Based on expertise gained through serving our customers for 40 years, Gooch & Housego has developed the OL 770-NVS Night Vision Display Test and Measurement System, featuring powerful user-friendly software, precise direct viewing imaging optics, and DSP technology. The system provides fast, multi-channel measurements of spectral radiance, luminance, chromaticity, NVISa and NVISb and provides Pass/Fail results per MIL-L-85762A (now obsolete)/ MIL-STD-3009 requirements.*

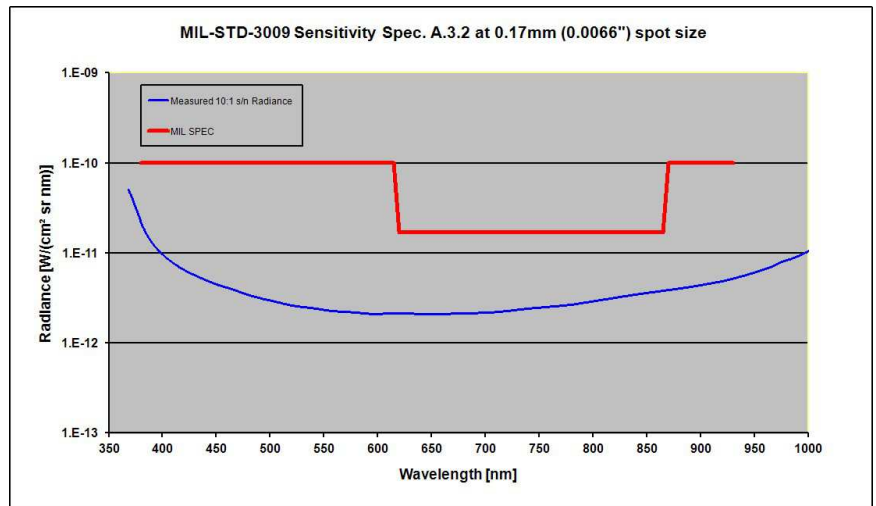
# Features

Compatibility between night vision goggles or imaging systems and crew and cockpit displays and lighting is critical in ensuring the safety of military, security and rescue teams as well as to the successful execution of field operations. Out of specification displays can result in blinding effects, such as blooming, that can lead to disastrous impairment of visibility. MIL-L-85762A and MIL-STD-3009 are the governing standards that prescribe the operating boundary conditions in terms of IR emissions to which all on board light sources must adhere. Spectroradiometers and photometers used to test such performance must conform to rigorous sensitivity and dynamic range criteria that few commercial instruments can meet. Gooch & Housego has led the industry in offering the very best compatibility test solutions for over a decade. The OL 770-NVS addresses the needs of the aerospace lighting industry for quantifying cockpit display NVIS compatibility and aircraft exterior lighting. It features:

- Speed – Multi-channel detection provides more measurements in less time
- Exceeds MIL-L-86762A (now obsolete) Appendix B requirements
- Portable – Lightweight and compact footprint
- Choice of measurement modes - Auto and manual integration modes, continuous and single scans
- Precise Direct Viewing Imaging Optic – The OL 620-NVS CCD Imaging Telescope ensures accurate alignment of the measurement target and eliminates parallax errors
- USB Interface - Powerful Windows<sup>®</sup> 2000/XP-compatible software
- Application software – Provides instantaneous NVIS compatibility Pass/Fail results
- Affordable – Get the right tool for the job and meet your budget
- Measurement of flashing sources – Versatile! Can be used for a variety of other aircraft lighting applications



The OL 770-NVS is your total aerospace lighting solution. The software provides measurement results for not only NVIS compatibility but also exterior aircraft lighting with Pass/Fail chromaticity results per SAE AS8037 and AS25050 requirements.

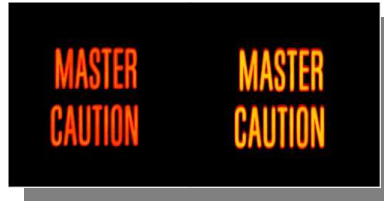


**OL 770-NVS Exceeds MIL-STD-3009 Sensitivity Requirements**

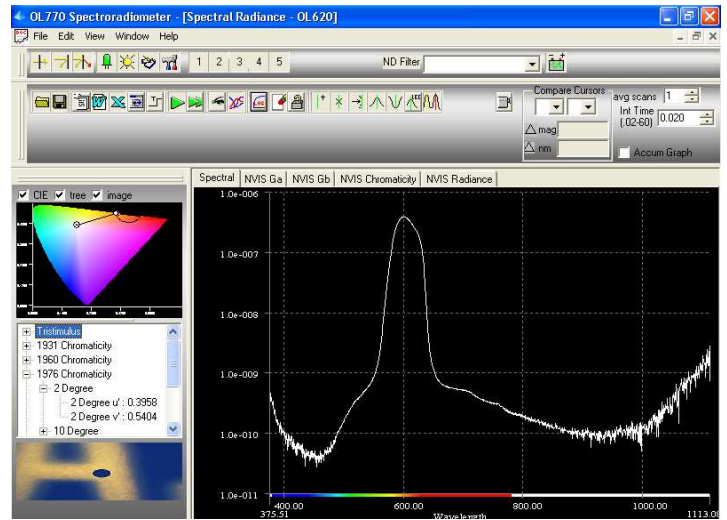
# Software

The OL 770-NVS Application Software allows for turnkey automated operation while providing the user with easy and complete access to the system's full power and capabilities. Software features include:

- Active zoom view CIE diagram with customizable lighting requirement boundaries
- Ability to see all Pass/Fail conditions for all lighting requirements in a specification simultaneously
- Fast access to all NVIS data, even while the instrument is continuously measuring
- Editable NVIS requirements to alter current specification or add new ones
- Built-in support for MIL-L-85762A (now obsolete), AS8037, AS25050, and UK Working Paper
- Direct Excel and Word reporting of NVIS results
- Image of measurement area stored with each scan
- Feedback on what aspect of a DUT failed a lighting requirement
- Easy access to Goggle A and Goggle B response graphs
- Windows XP/2000 OS-compatible



Actual Measurement Data and Display from Master Caution Light



Select Specification	Lighting Component	TYPE I CLASS A	TYPE I CLASS B	TYPE II CLASS A	TY
MIL-L-85762A	Primary	X	X	X	X
	Secondary	X	X	X	X
	Illuminated Controls	X	X	X	X
	Compartment	X	X	X	X
	Utility, Work and Inspection Lights (Green)	X	X	X	X
	Utility, Work and Inspection Lights (White)	X	✓	X	X
	Caution and Advisory Lights	X	X	X	X
	Jump Lights	X	✓	X	X
	Warning Signal	X	✓	X	X
	Master Caution Signal	X	✓	X	X
	Emergency Exit Lighting	X	✓	X	X
	Electronic and Electro-Optical (Mono)	X	X	X	X
	Electronic and Electro-Optical (Color White)	X	X	X	X
	Electronic and Electro-Optical (Color Max)	X	✓	X	X
	HUD Systems	X	X	X	X

Provides Pass/Fail indicators For each lighting component

Report Template Builder!

**Add Items To Word Template**

- File Name
- NVIS Table Values
  - Chromaticity Table
  - Radiance Table
    - Pass / Fail
      - MIL-L-85762A
        - TYPE I
        - TYPE II

Insert Selected Item      Close

# Specifications

## OL 620 CCD Imaging Telescope Specifications

Wavelength Range .....	380 – 1100 nm
Lens .....	achromatic, fixed focus, f/2 objective lens
Objective Lens Magnification .....	3X
Spot Size* .....	< 0.17 mm @ 100 mm focal distance
Mounting Thread .....	(2) 1/4-20 tapped holes on underside of housing
Mounting .....	Tripod (not supplied), OL 622 XYZ Alignment Stage
XYZ Alignment Stage (included) .....	1-inch travel each axis; two (2) adjustable centerline heights, 4.125 - 5.125" or 6.125 - 7.125"
Size .....	3"W (7.62 cm) x 5"H (12.70 cm) x 13.75"L (34.93 cm) (includes objective lens)
Weight .....	5.5 lbs (2.49 kg) (includes objective lens)

\* Other spot size configurations available upon request

## OL 770-NVS Spectroradiometer Specifications

(Typical)

Spectroradiometer Accuracy** .....	< 1%, u'v' < 0.0003
Wavelength Accuracy** .....	< 1.0 nm
Half Bandwidth .....	10 nm
Stray Light (tungsten source) .....	< 2.5E-4
Spectroradiometer Optics** .....	full scale at < 0.1 fL
Polarization Sensitivity** .....	< 1%
Signal Resolution .....	16 bit
Zero Drift (typical)** .....	< 0.01%
Linearity** .....	In scale < 0.5%, between scales < 0.1%

\*\* As defined by MIL-L-85762A



**All Gooch & Housego products are supported by outstanding factory customer service and a worldwide network of representatives and distributors. Put our 40 years of expertise in precision light measurement to work for you. Please visit our website at [www.goochandhousego.com](http://www.goochandhousego.com) for details on our entire line of products and services.**

*Night vision cockpit images used with permission from United Rotocraft. Master caution lights appear courtesy Aerospace Optics, Inc.*

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*

Bulletin 240 / Rev 2-15

