

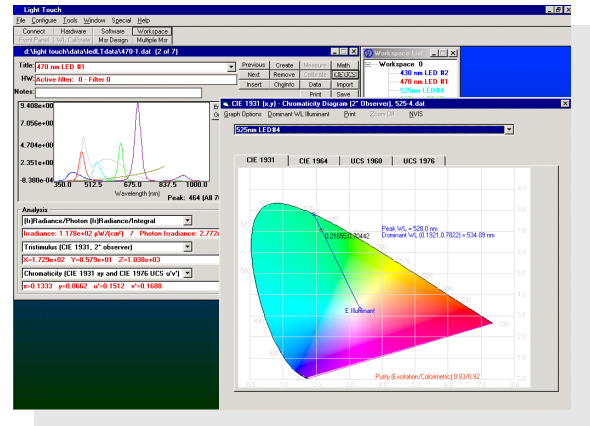
# Light Touch Spectral Analysis Software

## PRODUCT SUMMARY

Light Touch™ is an interactive Windows 2000/XP spectral analysis software program. The program controls any of Gamma Scientific's Spectroradiometer Systems, and can also be used as a stand-alone data analysis package.

Photometric values are given for all common units (English, CGS & MKS). Colorimetric quantities such as tristimulus values, chromaticity coordinates, color space CIE & UCS (includes graphical display). Color temperature and color rendering index are also automatically calculated and shown in a measurement workspace.

Complete file mathematics, file editing and related subroutines, as well as blackbody curve generations are included in the software package. Microsoft Excel direct-link capability lets you import and export data both during and after measurement. The user can specify what data is exported from a list of all measured and calculated values.



## FEATURES

- Spectral measurement of a wide range of devices over any radiation spectrum using any of Gamma Scientific's spectroradiometer systems.
- File generation and editing, storage and recall capability.
- File mathematics.
- System self-calibration to NIST-traceable standards, allowing multiple calibration files for different system configurations. None of our spectroradiometer systems have to be returned to the factory for recalibration.
- Full radiometric, photometric, and colorimetric analysis of measurement data, including ANVIS analysis specifications to MIL-L-85762A.
- Multiple file-viewing capability.
- Direct data link to Excel for user-defined spectral data and colorimetric analysis results.



# GAMMA SCIENTIFIC

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# Light Touch Spectral Analysis Software

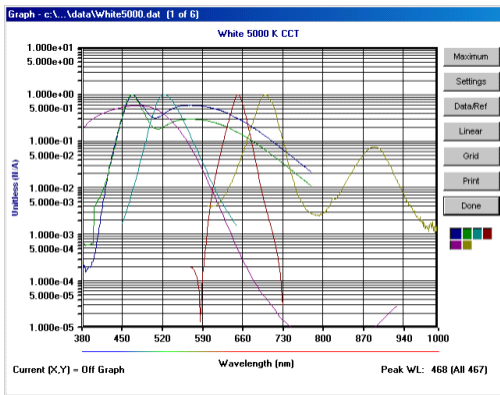
## SPECIFICATIONS

### Minimum Computer System Requirements

- Windows 98, NT 4.0, 2000, or XP
- SVGA Video Card (800x600 minimum)
- Minimum RAM is 16MB, recommend at least 32MB
- Minimum hard disk space 25MB, recommended 100MB
- CD-ROM drive for software installation
- 3.25" floppy disk drive for software registration

### Systems Controlled by Light Touch

- Any Gamma Scientific GS-4100 or GS-3100 based scanning grating system (includes both single-grating and double-grating)
- Any Gamma Scientific GS-1271 RadOMA diode-array spectroradiometer system (GS-1200 Series)



Sample Logarithmic Plot

NVIS Analysis - D303.dat

Component	Paragraph	Low	High	IL	NRb	Pass/Fail
Primary	3.10.9.1	none	1.7e-10	0.1	7.876e-11	Pass
Secondary	3.10.9.2	none	1.7e-10	0.1	7.876e-11	Pass
Illuminated Controls	3.10.9.3	none	1.7e-10	0.1	7.876e-11	Pass
Compartment	3.10.9.4	none	1.7e-10	0.1	7.876e-11	Pass
Utility, work, and inspecti	3.10.9.5	none	1.7e-10	0.1	7.876e-11	Pass
Caution and advisory light	3.10.9.6	none	1.7e-10	0.1	7.876e-11	Pass
Jump lights	3.10.9.7	1.6e-8	4.7e-8	5.0	3.938e-09	Fail
Warning signal	3.10.9.8	4.7e-8	1.4e-7	15.0	1.181e-08	Fail
Master Caution Signal	3.10.9.8	4.7e-8	1.4e-7	15.0	1.181e-08	Fail
Emergency Exit Lighting	3.10.9.8	4.7e-8	1.4e-7	15.0	1.181e-08	Fail
Electronic and electro-opt	3.10.9.9.1	none	1.6e-10	0.5	3.938e-10	Fail
Electronic and electro-opt	3.10.9.9.2	none	2.2e-9	0.5	3.938e-10	Pass
Electronic and electro-opt	3.10.9.9.2	none	1.1e-8	0.5	3.938e-10	Pass
HUD systems	3.10.9.10	1.6e-9	4.7e-9	5.0	3.938e-09	Pass

NVIS Specification: MIL-L-85762A, 26 August 1988  
Luminance = 2.349e+00  
UCS 1976: u' = 0.1023 v' = 0.4627  
Unscaled NVISb Radiance = 1.850e-09  
Scaled to 0.1 IL, NVISb Radiance = 7.876e-11

Sample ANVIS Analysis Screen

Light Touch

File: c:\...AD300.dat [5 of 6]

Title: BG7B FILTER TRANSMISSION  
HW: 2020-31Q 200-170nm,NM-7DH 290-1110nm,DC-51C 200-1010n

Notes: Dominant WL = 491.5 Peak WL = 500, E Illuminant

Analysis:

(I) Luminance: No luminance or illuminance value.

Correlated Color Temperature/MPCD: 6.155e+02 Mk<sup>-1</sup> 1.625e+03 Kelvin / 717.9 MPCDs (Exceeds normal MPCD's limit)

Chromaticity [CIE 1931 xy and CIE 1976 UCS u'v']  
x=0.1537 y=0.2204 u'=0.1152 v'=0.3716

Correlated Color Temperature/MPCD: 5.861e+01 Mk<sup>-1</sup> 1.706e+04 Kelvin / 247.4 MPCDs (Exceeds normal MPCD's limit)

Chromaticity [CIE 1931 xy and CIE 1976 UCS u'v']  
x=0.1767 y=0.3552 u'=0.1023 v'=0.4627

Workspace List:

- page 0: White 5000 K CCT, White 9200 K CCT, Green normalized, Red normalized, BG7B FILTER TRANSMISSION, 700nm LED Mean norm
- page 1: Cockpit Display Panel Output

Light Touch Software with two separate workspaces open, each containing multiple files



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