



Wavelength Calibration Data Sheet

Built For: **US Naval Academy**
 Order Number: **27805**
 Model: **USB2000**
 Description: **Fiber Optic Spectrometer**
 Grating: **600 Lines Blazed at 750 nm**
 Bandwidth: **530 - 1100 nm**
 Options Installed: **10um Slit, OG515 Filter**
 Serial Number: **USB2E1835** **Master**

λ	Pixel #	Predicted λ	$\Delta\lambda$
546.074	78	546.098	-0.024
576.959	168	577.089	-0.130
579.065	174	579.142	-0.077
593.456	215	593.119	0.337
696.543	526	696.529	0.014
706.722	558	706.907	-0.185
750.387	694	750.466	-0.079
763.510	735	763.424	0.086
772.421	764	772.541	-0.120
794.817	835	794.693	0.124
842.465	991	842.517	-0.052
866.794	1071	866.590	0.204
877.670	1108	877.621	0.049
912.297	1226	912.362	-0.065
922.450	1261	922.538	-0.088
965.778	1412	965.771	0.007

Calibration Coefficients

First Coefficient: 0.350225689
 Second Coefficient: -2.39118E-05
 Third Coefficient: 0
 Intercept: 518.9262416
 Regression Fit: 0.999999498

Stray Light Measurements (AU)

Holmium Oxide (444nm): N/A
 Yellow Dye: N/A
 Blue Dye: 3.03
 Molybdate: N/A
 OG550 Filter: 2.27
 RG850 Filter: 4.00
 FG3 Filter: 1.20

08/03/01

Sara Manney



Wavelength Calibration Data Sheet

Built For: **US Navel Academy**
 Order Number: **44526**
 Model: **USB2000**
 Description: **USB Fiber Optic Spectrometer**
 Grating: **600 Lines Blazed at 400 nm**
 Bandwidth: **200 - 850 nm**
 Options Installed: **UV2/OFLV-4 Detector, L2 Lens, 10um Slit**
 Serial Number: **USB2G902** **Master**

λ	Pixel #	Predicted λ	$\Delta\lambda$
253.652	200	253.535	0.117
296.728	317	296.709	0.019
313.155	362	313.193	-0.038
334.148	420	334.337	-0.189
365.015	505	365.112	-0.097
404.656	615	404.558	0.098
407.781	624	407.766	0.015
435.835	703	435.798	0.037
546.074	1020	545.892	0.182
576.959	1112	577.098	-0.139
696.543	1474	696.437	0.106
706.722	1506	706.712	0.010
727.294	1570	727.123	0.171
738.398	1606	738.523	-0.125
750.387	1644	750.491	-0.104
763.510	1686	763.642	-0.132
772.421	1714	772.364	0.057
794.817	1787	794.929	-0.112
800.616	1806	800.760	-0.144
810.370	1837	810.238	0.132
826.452	1890	826.335	0.117
840.820	1938	840.796	0.024

Calibration Coefficients

First Coefficient: 0.377257836
 Second Coefficient: -1.53304E-05
 Third Coefficient: -1.57445E-09
 Intercept: 178.7093258
 Regression Fit: 0.999999845

Stray Light Measurements (AU)

Holmium Oxide (444nm): 1.38
 Yellow Dye: 3.57
 Blue Dye: 3.54
 Molybdate: 2.23
 OG550 Filter: 2.74
 RG850 Filter: 4.00
 FG3 Filter: 1.24

09/15/03

Vis #2



Wavelength Calibration Data Sheet

Built For: US Naval Academy
Order Number: 33855
Model: USB2000
Description: USB Fiber Optic Spectrometer
Grating: 600 Lines Blazed at 500 nm
Bandwidth: 350 - 1000 nm
Options Installed: OFLV-3 Detector, 10um Slit
Serial Number: USB2E3787 Master

Table with 4 columns: lambda, Pixel #, Predicted lambda, and Delta lambda. It lists calibration data points for various wavelengths and pixel numbers.

Calibration Coefficients

First Coefficient: 0.379598292
Second Coefficient: -1.93521E-05
Third Coefficient: -1.59515E-09
Intercept: 339.5465101
Regression Fit: 0.99999987

Stray Light Measurements (AU)

Holmium Oxide (444nm): 1.32
Yellow Dye: 2.21
Blue Dye: 3.12
Molybdate: N/A
OG550 Filter: 2.58
RG850 Filter: 3.85
FG3 Filter: 1.18

06/21/02 [Signature]