

Linearity Test

Serial Number **FLMS00416**

Tech: Zunilda.Acevedo

Linearity: **99.87624**

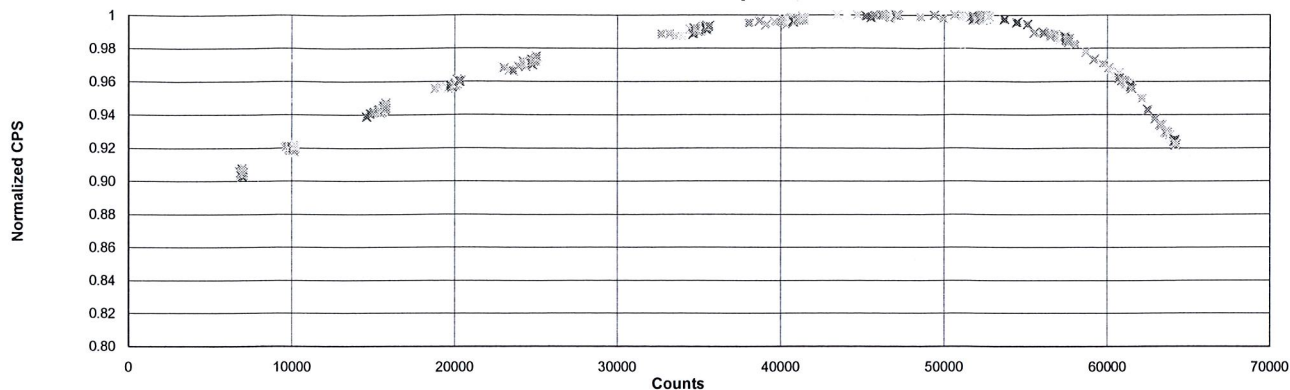
Tested: 2/26/15

Test # 120,477.00

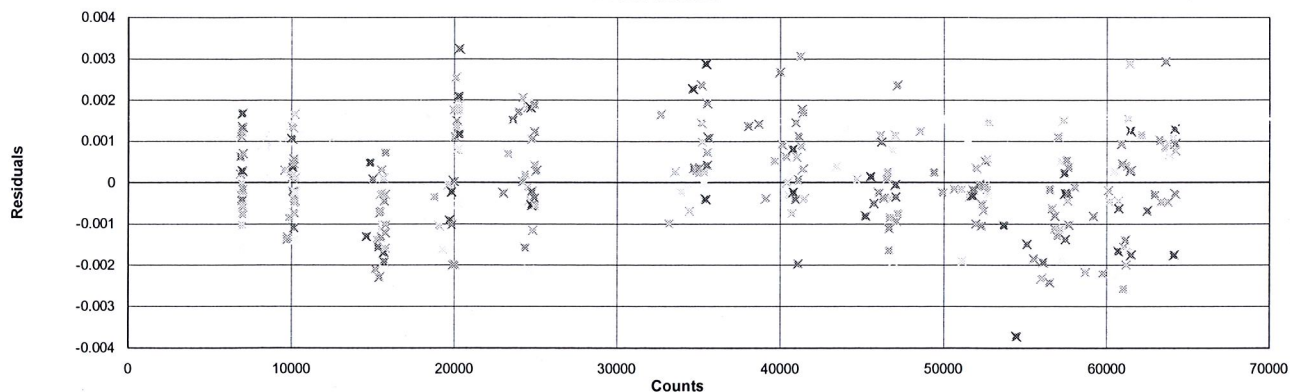
Intercept 0.864123
Coefficient 1 6.5517e-006
Coefficient 2 -1.06531e-010
Coefficient 3 4.70652e-016
Coefficient 4 5.4788e-020
Coefficient 5 -3.1291e-024
Coefficient 6 6.61022e-029
Coefficient 7 -4.88409e-034



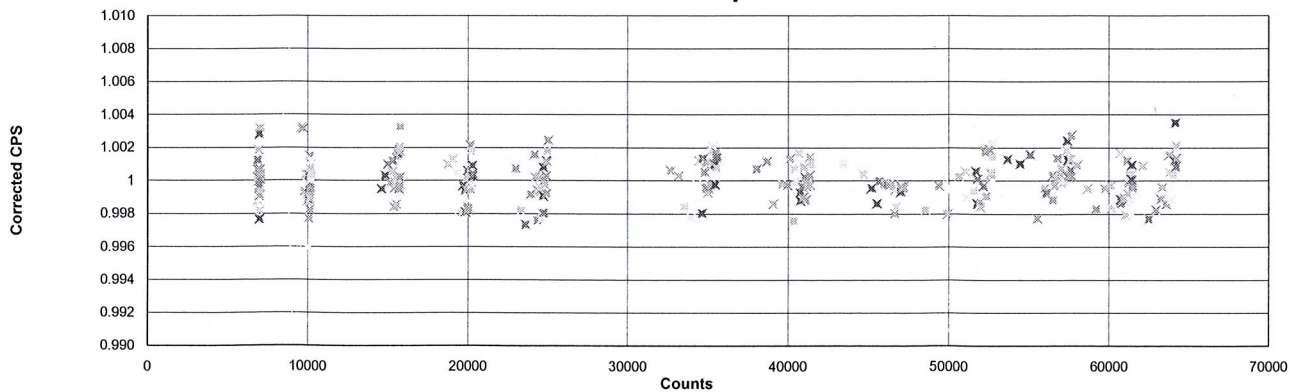
Normalized Output



Residuals



Linearized Output



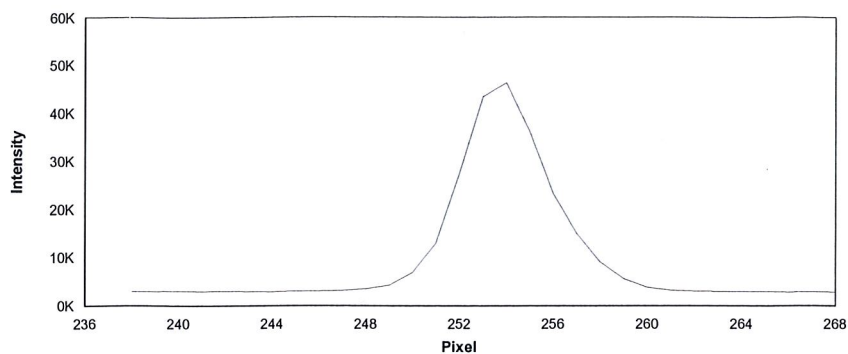
Max 1.00351381

Min 0.99595416

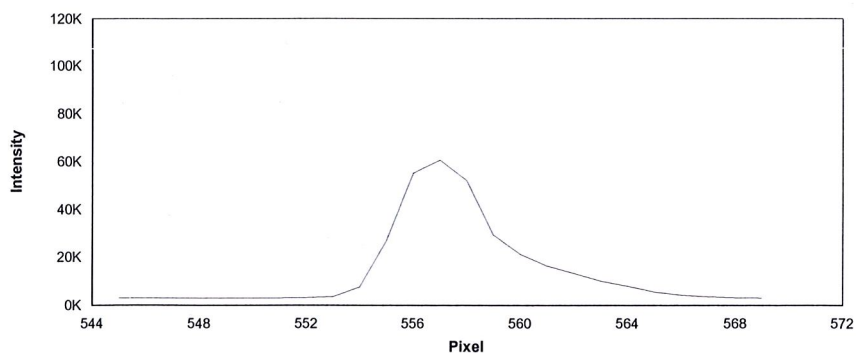
Resolution and Accuracy for FLMS00416



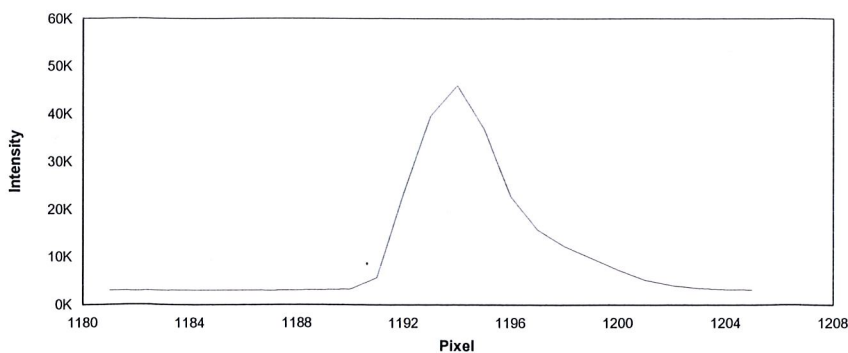
<u>Result</u>	<u>FWHM in Pixels</u>	<u>Delta</u>	<u>Wavelength</u>	<u>Peak Source</u>	<u>Date</u>
Passed	4.10	-0.01	435.83	HG-1	7/10/15 8:52 am



<u>Result</u>	<u>FWHM in Pixels</u>	<u>Delta</u>	<u>Wavelength</u>	<u>Peak Source</u>	<u>Date</u>
Passed	3.72	0.01	546.07	HG-1	7/10/15 8:52 am



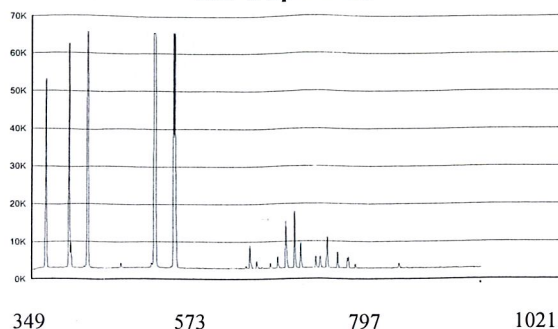
<u>Result</u>	<u>FWHM in Pixels</u>	<u>Delta</u>	<u>Wavelength</u>	<u>Peak Source</u>	<u>Date</u>
Passed	3.83	-0.04	763.51	Ar	7/10/15 8:52 am





Wavelength Calibration Data Sheet

HG-1 Spectrum



Built for:
 Order Number:
 Model: **FLAME-S-VIS-NIR-ES**
 Grating: GRATING_#3 - 600 Lines Blazed at 500 nm
 Bandwidth: 349 - 1021 nm
 Options: DET2B-350-1000 Detector, L2Lens, INTSMA-025 Slit,

Serial Number: **FLMS00416**

λ	Pixel #	Predicted λ	$\Delta\lambda$
361.051	54	361.059	-0.008
365.015	65	365.076	-0.061
404.656	170	404.543	0.113
435.834	254	435.821	0.013
472.216	352	472.225	-0.009
479.992	374	479.994	-0.002
481.053	377	481.034	0.019
546.074	557	546.078	-0.004
557.029	588	557.013	0.016
576.959	644	576.955	0.004
585.249	667	585.270	-0.021
587.091	673	587.092	-0.001
594.483	694	594.465	0.018
607.434	731	607.406	0.028
614.306	751	614.298	0.008
626.649	786	626.650	-0.001
630.479	797	630.452	0.027
643.847	836	643.845	0.002
659.895	883	659.878	0.017
671.704	918	671.683	0.021
692.947	981	692.943	0.004
696.543	991	696.586	-0.043
706.722	1022	706.711	0.011
717.394	1054	717.397	-0.003
727.294	1084	727.308	-0.014
738.398	1117	738.451	-0.053
743.890	1134	743.867	0.023
750.387	1154	750.441	-0.054
760.155	1184	760.134	0.021
763.510	1194	763.508	0.002
772.421	1222	772.454	-0.033
785.482	1262	785.480	0.002
794.318	1289	794.325	-0.007
794.817	1291	794.830	-0.013
811.531	1343	811.498	0.033
826.452	1391	826.420	0.032
852.144	1472	852.015	0.129
912.297	1671	912.451	-0.154

This is a sample of calibration peaks used as there were more than can be shown on this page

Calibration Coefficients

First Coefficient: 0.3814834952
 Second Coefficient: -2.11083e-005
 Third Coefficient: -1.36844e-009
 Intercept: 340.44631958
 Regression Fit: 0.9999993443

Stray Light Measurements (AU)

Holmium Oxide (444nm): 2.63
 Yellow Dye: 2.19
 Blue Dye: 2.96
 Molybdate: N/A
 OG550 Filter: 2.69
 RG850 Filter: 3.19
 FG3 Filter: 1.30

Cielo Gonzalez

Calibrated By: Luis.Delgado
 Calibrated: 10-July-2015