Collaborative Testing Services, Inc.

Providing Worldwide Interlaboratory testing since 1971.

Here is a Sample of an Individual Report Sent to a participant in the CTS Color Interlaboratory Testing Program. You can view the Summary Reports of all participants' data on this Web site.

Color Industry Interlaboratory Program
Performance Analysis Report

Cycle #176, 2nd Qtr 2016

Prepared for: ! y ̀e ̀ [l·o ̄

Participant Code: UFFFFA

Need Help?

For guidance on interpreting this report, or assistance with interpreting the statistics and terms used in the report, please refer to the CTS Help Guides located in the Color section of our website www.collaborativetesting.com. As always, you may contact the Program Analyst for assistance with any aspect of the program.

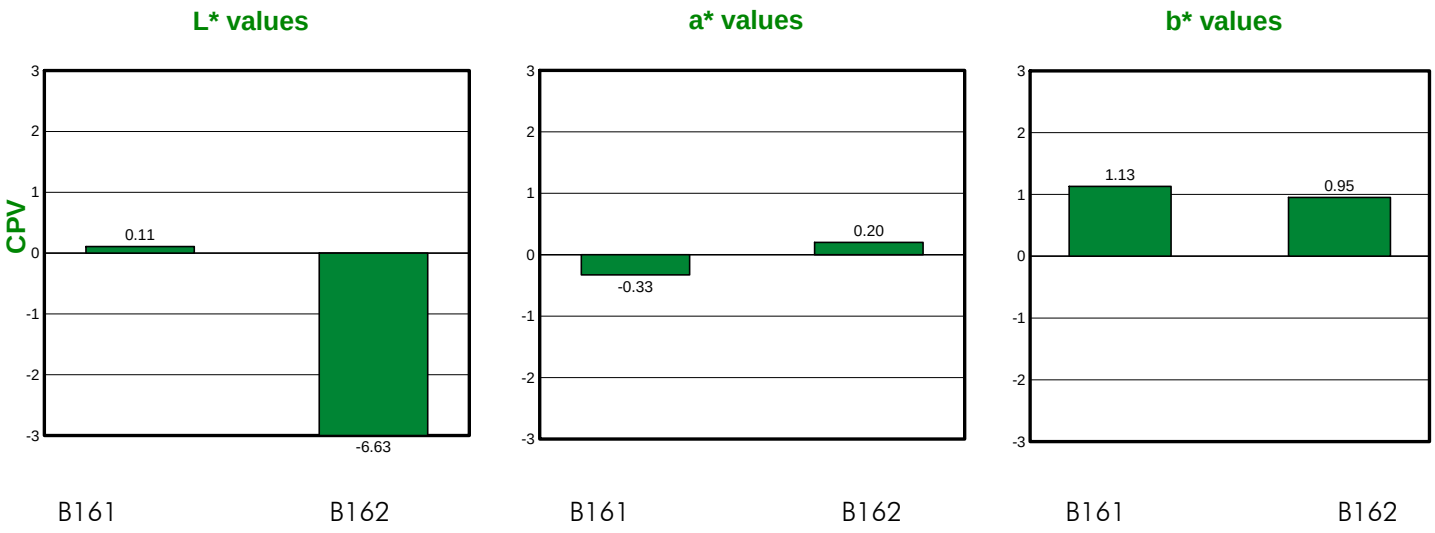
Collaborative Testing Services, Inc

Voice: 571-434-1925
Fax: 571-434-1937

21331 Gentry Drive
Sterling, VA 20166 USA

www.collaborativetesting.com
color@cts-interlab.com

CPV chart of Color Data



Overall Analysis for Current Cycle

WebCode	4ABCDB			
Sample	B161	Main Color	B162	Color Difference
Instrument	ACS-Datacolor 650X			

Action Item! Your performance for this cycle was assigned an X Data Flag. Analyst Comment: Low L values for Sample B162.

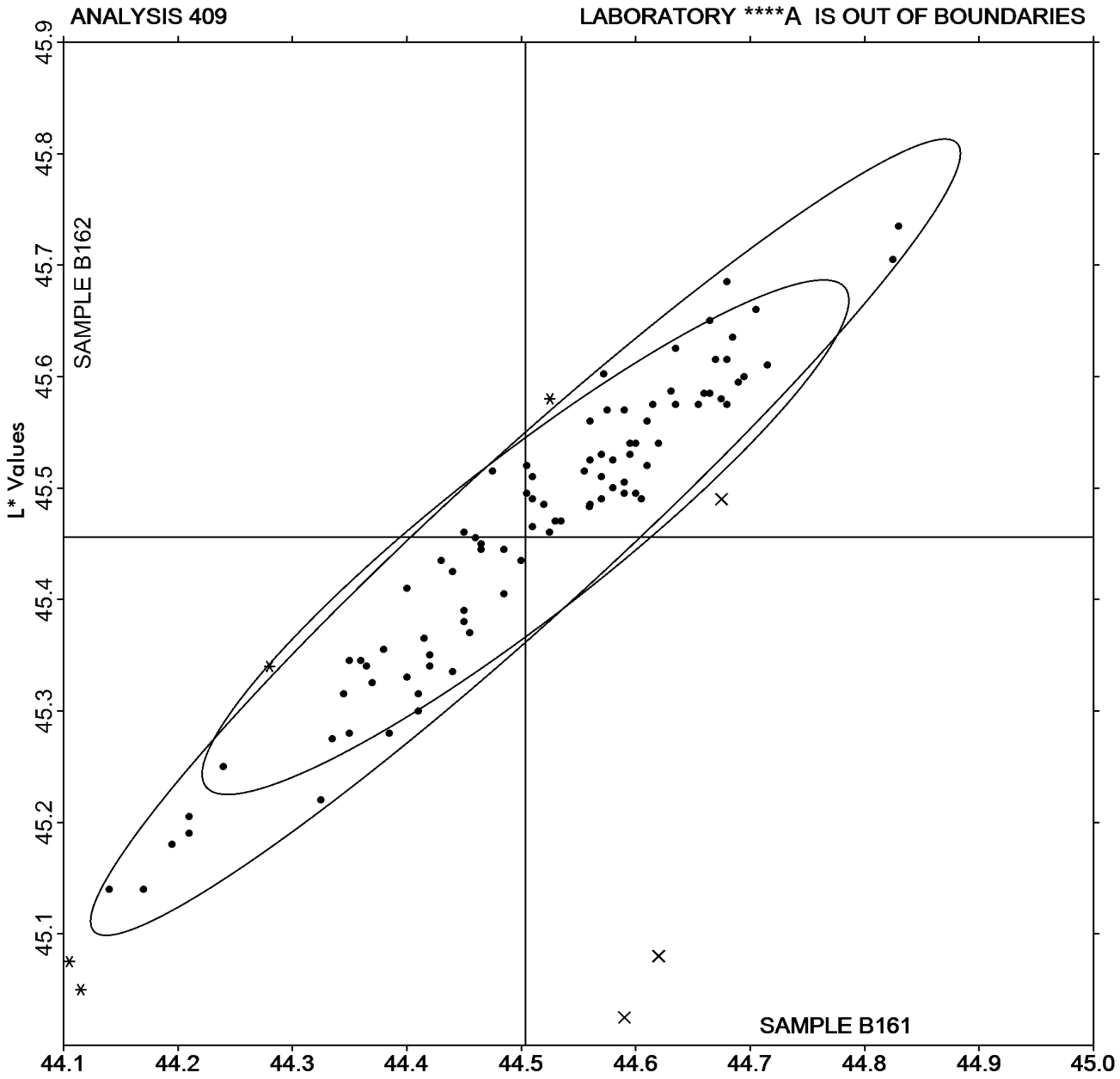
Consensus statistics based on 90 of 103 reporting participants

On the following 3 pages of this Report the individually drawn two ellipses plots show your data (highlighted by a circle) compared to all participants results (bigger ellipse) and your instrument subgroup analysis (smaller ellipse.)

Copyright © 2016 CTS, Inc

		L* Values			dL* Values		
	Samples	Lab Mean(CPV)	Grand Mn	Btwn lab SD	Lab Mean(CPV)	Grand Mn	Btwn lab SD
Main Color	B161	44.52 (0.11)	**44.50**	0.15	-0.01 (-14.45)	**0.94**	0.07
Color Difference	B162	44.51 (-6.63) X	**45.46**	0.14			

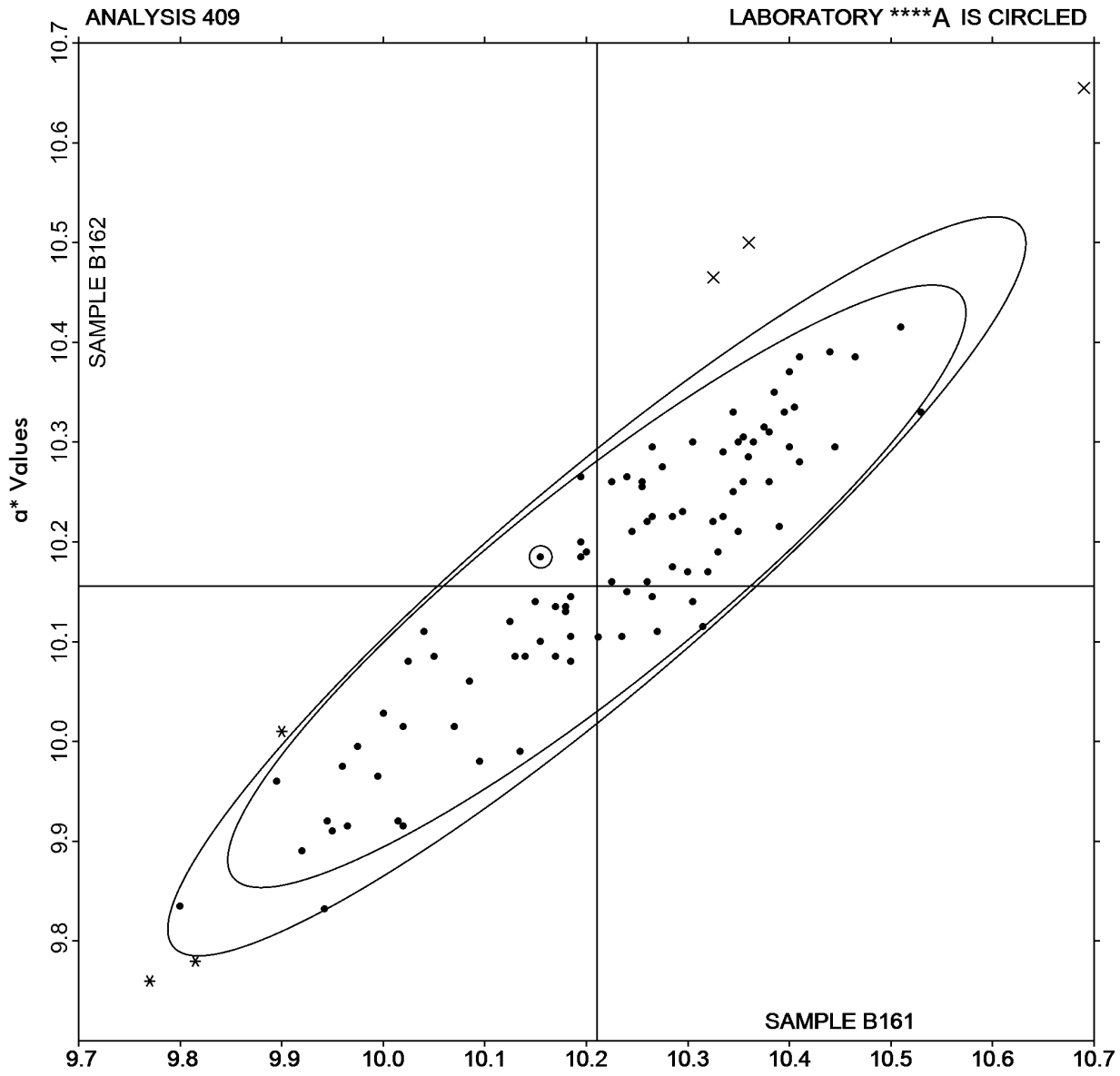
The bigger ellipse on the plot represents the main analysis for all instruments (based on 93 of 103 reported) in the Program. The smaller ellipse reflects the subanalysis of the instruments similar to DataColor Spectraflash 600 (based on 27 of 31 reported).



Copyright © 2016 CTS, Inc

		a* Values			da* Values		
	Samples	Lab Mean(CPV)	Grand Mn	Btwn lab SD	Lab Mean(CPV)	Grand Mn	Btwn lab SD
Main Color	B161	10.16 (-0.33)	**10.21**	0.17	0.03 (1.18)	**-0.05**	0.07
Color Difference	B162	10.19 (0.20)	**10.16**	0.15			

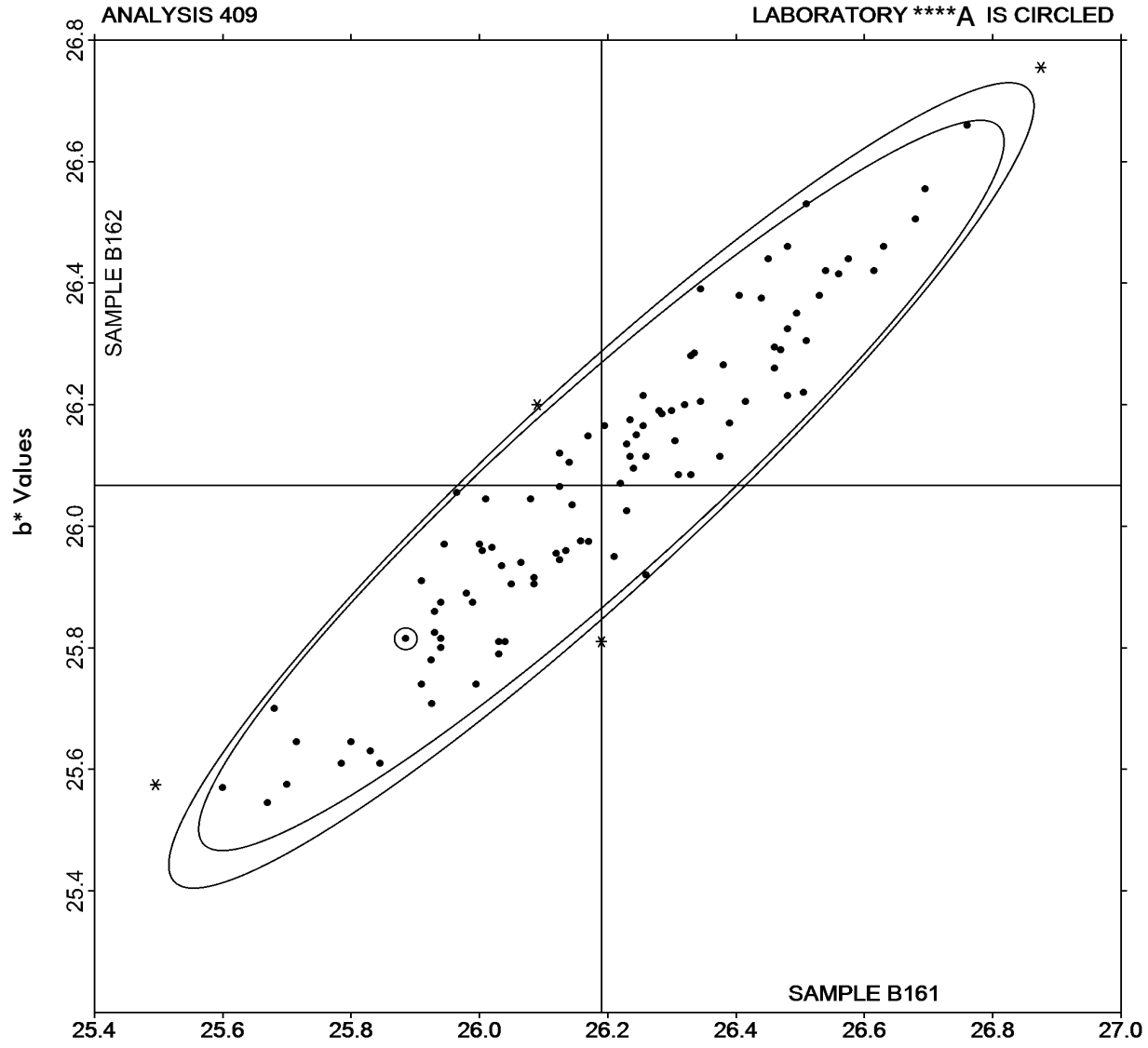
The bigger ellipse on the plot represents the main analysis for all instruments (based on 93 of 103 reported) in the Program. The smaller ellipse reflects the subanalysis of the instruments similar to DataColor Spectraflash 600 (based on 29 of 31 reported).



Copyright © 2016 CTS, Inc

		b* Values			db* Values		
	Samples	Lab Mean(CPV)	Grand Mn	Btwn lab SD	Lab Mean(CPV)	Grand Mn	Btwn lab SD
Main Color	B161	-25.89 (1.13)	**-26.19**	0.27	0.07 (-0.61)	**0.13**	0.09
Color Difference	B162	-25.82 (0.95)	**-26.07**	0.27			

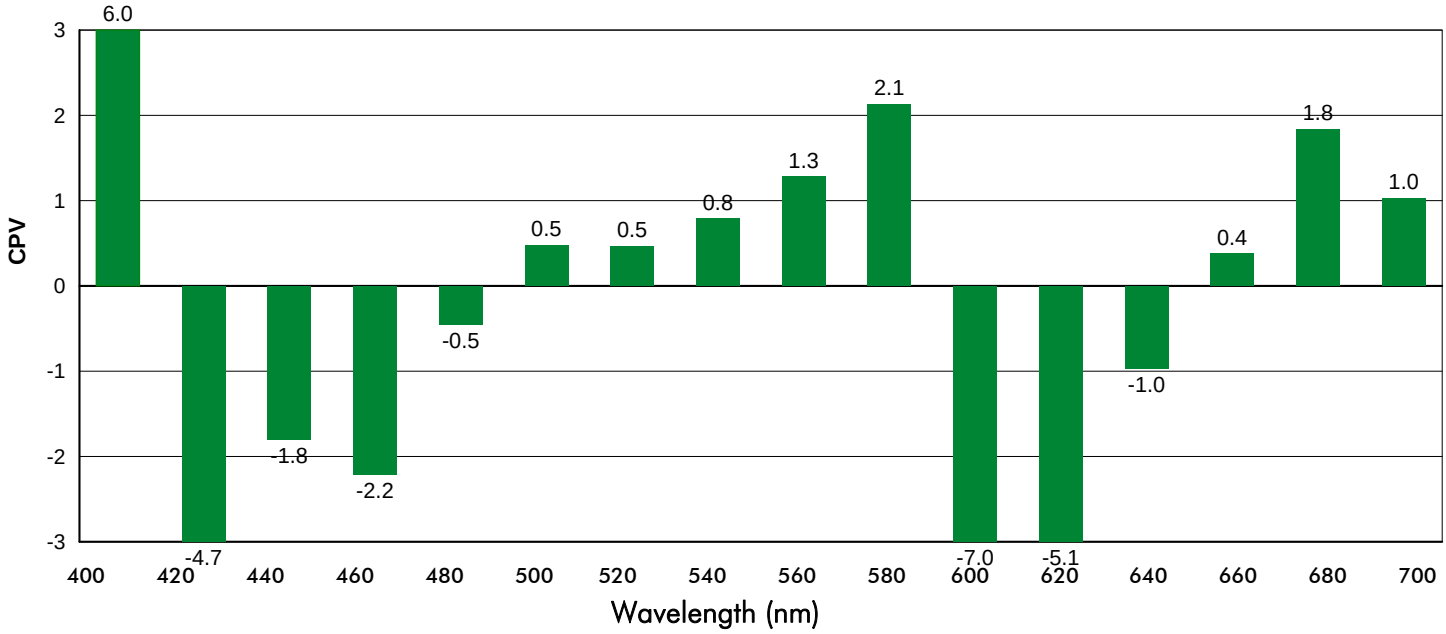
The bigger ellipse on the plot represents the main analysis for all instruments (based on 101 of 103 reported) in the Program. The smaller ellipse reflects the subanalysis of the instruments similar to DataColor Spectraflash 600 (based on 31 of 31 reported).



Plot was created using absolute values

Copyright © 2016 CTS, Inc

CPV's of Spectral Data



Overall Analysis for this Cycle

WebCode 4ABCDB

Sample B161

Instrument BYK-Gardner spectro-guide sphere

Data Flag Assigned: None. Your spectral reflectance data were consistent with the other laboratories.

Your Data for this Cycle

Spectrophotometric Reflectance values (as %) and CPV's at selected wavelengths

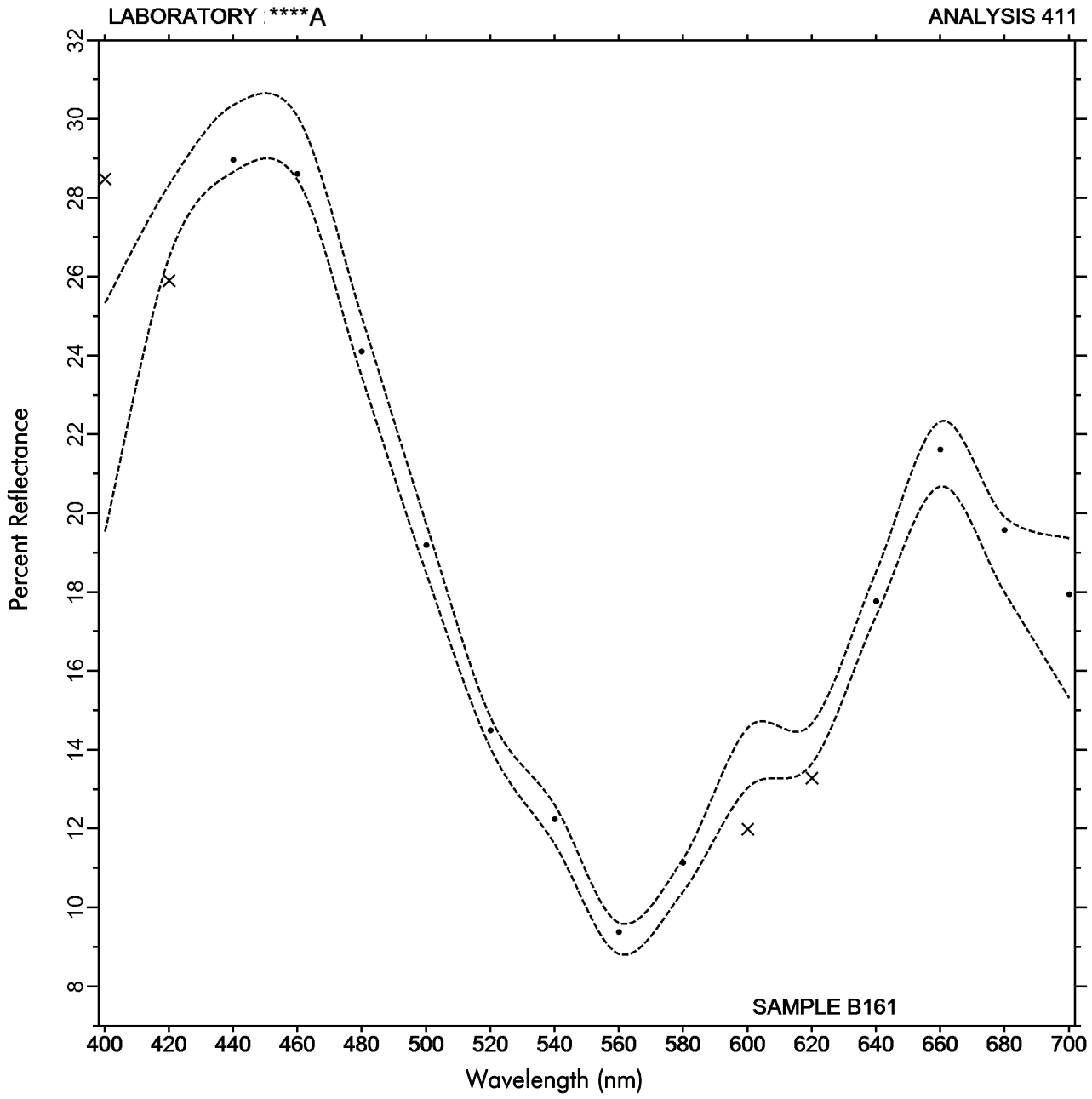
	400	420	440	460	480	500	520	540	560	580	600	620	640	660	680	700
Lab Mean	28.48	25.91	28.98	28.62	24.12	19.21	14.51	12.26	9.39	11.15	12.00	13.30	17.78	21.63	19.59	17.96
CPV	6.03X	-4.70 X	-1.80	-2.21 *	-0.45	0.48	0.47	0.79	1.28	2.13*	-6.97X	-5.11 X	-0.96	0.38	1.84	1.03

Summary Statistics

	400	420	440	460	480	500	520	540	560	580	600	620	640	660	680	700
Grand Mean	22.41	27.44	29.52	29.27	24.23	19.10	14.44	12.12	9.22	10.83	13.82	14.18	17.98	21.52	18.95	17.40
STD	1.01	0.33	0.31	0.29	0.25	0.22	0.14	0.17	0.13	0.15	0.26	0.17	0.20	0.30	0.34	0.54

Consensus statistics based on 91 of 94 reporting participants

Copyright © 2016 CTS, Inc



The Individual Spectral Reflectance Plot - The plot above shows your data at the 16 specified wavelengths and the consensus data as dashed lines. The Grand Mean for reflectance at each wavelength is not shown, instead the distance between the two curves represents the range of acceptable Lab Means at each wavelength. Data falling outside the range is plotted as an X on the plot.

Users are cautioned that the upper and lower limit lines are interpolated between the 16 wavelengths and do not represent actual spectrophotometric curves.

Copyright © 2016 CTS, Inc

Performance Analysis Report - Trend Chart

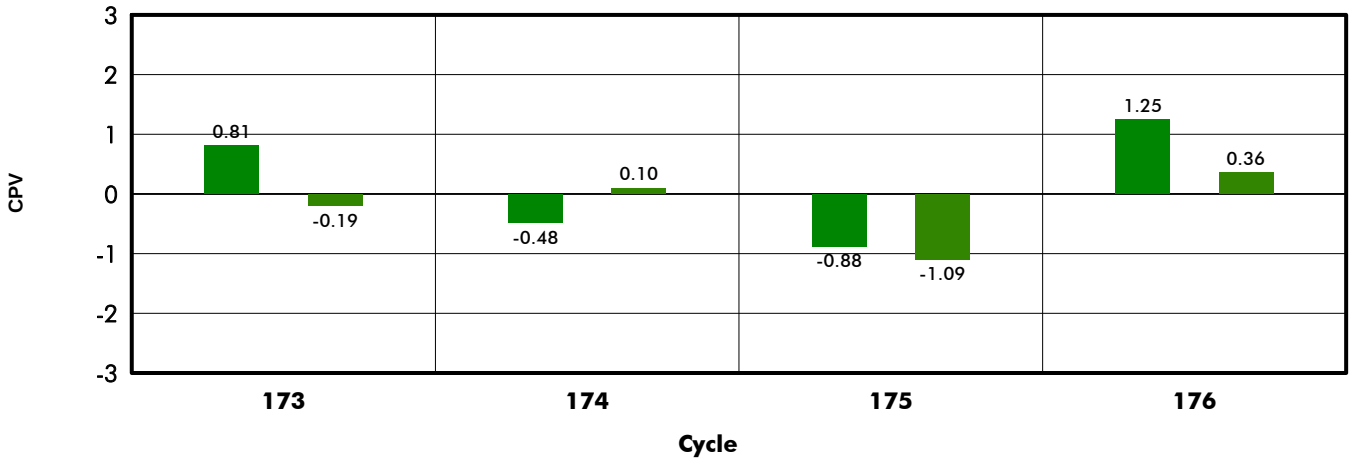
Lab Code: U**A**

Analysis #440: 60 Degree Gloss

Using ASTM Method D 523

Data in units of Gloss Units

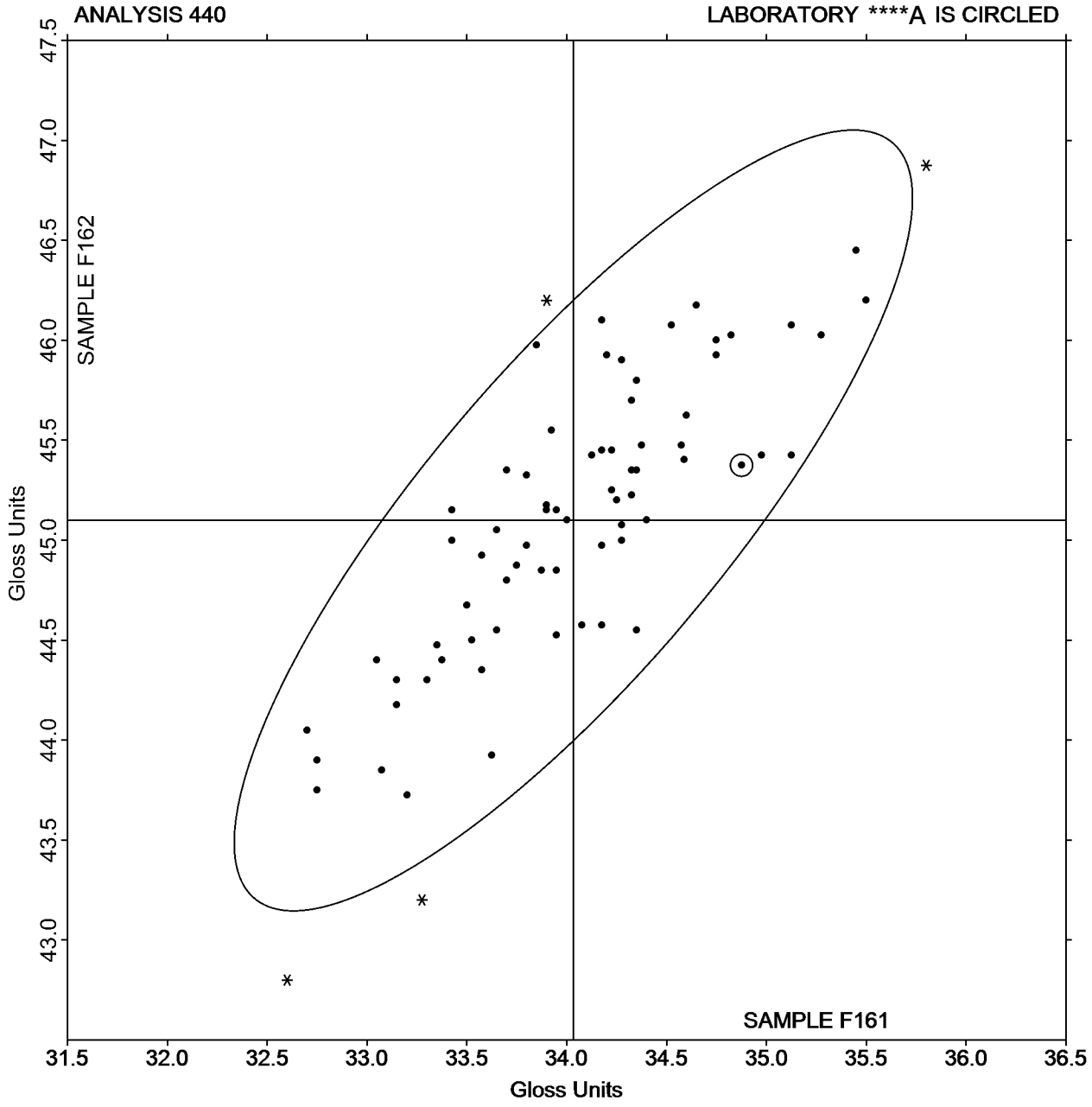
Historical Chart of CPV Results



A maximum of 4 test cycles are printed on this page . If there are fewer sets of bars than the maximum and the laboratory was enrolled for all cycles, then one of the following situations occured: lab did not submit data for a particular test/testing cycle or the data sheets were received late.

WebCode	Test Cycle	Sample Code	Lab Mean	Grand Mean	Between Lab Std Dev	CPV	Data Flag (if assigned)	
KTSG60	173 3rd Qtr 2015	G151 G152	26.30 36.63	25.965 36.708	0.414 0.433	0.81 -0.19		63 of 68 labs included
XYGBH3	174 4th Qtr 2015	H151 H152	43.25 51.58	43.458 51.515	0.434 0.616	-0.48 0.10		61 of 71 labs included
CTS108	175 1st Qtr 2016	E161 E162	28.93 38.15	29.299 38.701	0.427 0.505	-0.88 -1.09		63 of 65 labs included
4ABCDB	176 2nd Qtr 2016	F161 F162	34.88 45.38	34.033 45.099	0.675 0.776	1.25 0.36		74 of 77 labs included

Copyright © 2016 CTS, Inc



WebCode	Data Flag	Sample F161 Lab Mean	Sample F161 Diff from Grand Mean	Sample F161 CPV	Sample F162 Lab Mean	Sample F162 Diff from Grand Mean	Sample F162 CPV
4ABCDB		34.88	0.84	1.25	45.38	0.28	0.36

Consensus Results (all laboratories)

Grand Means	34.033 Gloss Units	45.099 Gloss Units
Btwn Lab Standard Deviation	0.675 Gloss Units	0.776 Gloss Units

Consensus statistics based on 74 of 77 reporting participants

Copyright © 2016 CTS, Inc