



Color & Appearance Testing Program

Summary Report # 152 - 2nd Q 2010

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Analysis **Analysis Name**

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[409](#) [Color & Color Difference \(Paint Chips\) Sphere](#)

[411](#) [Spectrophotometric \(Paint Chips\) - Sphere](#)

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ABOUT THE PROGRAM

The Collaborative Reference Program for Color & Appearance is operated and maintained by Collaborative Testing Services, Inc. (CTS), with technical guidance and advice provided by representatives from various instrument manufacturers. The program allows laboratories to compare periodically the performance of their testing with that of other laboratories.

Paint chip samples, which have been custom-made specifically for Collaborative Testing Services by Munsell Color, X-Rite Inc., Grand Rapids, MI, are distributed four times per year to participating laboratories. Gloss participants test two pairs of paint chip samples at different gloss levels, approximately 5-10 units apart. Color & Color Difference participants measure a set of two opaque color paint chips, selected from throughout the full color spectrum, consisting of a nonmetameric match with small color differences. These data are analyzed in two separate tables based on the conditions of measurement used. Laboratories that also participate in the Spectrophotometric analyses measure one of the opaque color chips for % reflectance at 16 wavelengths.

Please refer to each test's 'Key' for definitions of terms used in the tables and graphs and guidelines to interpreting the results. Also shown are notes concerning specific laboratory results, as well as significant findings related to instrument types or other testing variations.

ABOUT CTS

Founded in 1971, CTS is a privately-owned company that specializes in interlaboratory tests for a wide variety of industries, including rubber, plastics, fasteners and metals, containerboard, paper, color, and wine as well as proficiency tests for forensic laboratories. All of the tests are designed to assist organizations in achieving and maintaining quality control objectives. Labs from the U.S., as well as more than 50 countries, currently participate in the CTS programs.

If there are any questions on the report or testing program, please contact:

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Key for Color Program Web Summary Report

WebCode	Assigned laboratory identification number (temporary) used to ensure lab confidentiality while permitting a lab to locate its data in the Color Report published on the CTS web site. The Web Code for each analysis can be found in the Performance Analysis Report mailed to each participant.
Lab Mean	The average of the 2 test results obtained by the participant for CIE L*,a*,b* color space values.
Grand Mean	The average of the LAB MEANS for all included participants. Laboratories flagged with an X or an M (see DATA FLAG column) are excluded from the GRAND MEAN.
Between-Lab Standard Deviation	An indication of the precision of measurement between the laboratories. The greater the spread of the LAB MEANS about the GRAND MEAN, the larger the BETWEEN-LAB STANDARD DEVIATION (and vice versa).
Comparative Performance Value	An indication of how well a laboratory's results agree with the other participants. The CPV is a ratio indicating the number of standard deviations from the GRAND MEAN. The closer a laboratory's COMPARATIVE PERFORMANCE VALUE is to zero, the more consistent its results are with the other participants' data (and vice versa). The critical value for each CPV will vary depending on the number of labs participating in a test.
Graphs	For each laboratory, the LAB MEAN for the first sample is plotted against the LAB MEAN for the second sample with each point representing a laboratory. The horizontal and vertical axes are the GRAND MEANS for each sample. For each test there are three plots: L*2 vs L*1, a*2 vs a*1 and b*2 vs b*1. The a* and b* plots are created using absolute values.
Inst Code	A code indicating the manufacturer of the instrument used to perform the test (see separate INSTRUMENT CODE LIST for each test section).
Data Flag	DATA FLAGS are assigned based on the simultaneous analysis of both samples tested. Refer to the following chart for an explanation of each symbol:

<u>DATA FLAG</u>	<u>STATISTICALLY INCLUDED/EXCLUDED</u>	<u>ACTION REQUIRED</u>
*	INCLUDED	CAUTION - review testing procedure and monitor future results. Results fall outside 95% ellipse but within a 99% ellipse that is calculated but not drawn.
X	EXCLUDED	STOP - immediate review of data and/or testing procedure is required. Results fall outside the 99% ellipse and one or more CPV are greater than critical value. See specific notes following each table for more information on why the data is excluded. It is also possible to have an "X" for individual color coordinate (L*, a* or b*) without overall "X" flag. It means that results fall outside the 99% ellipse for particular coordinate but have no CPV flags. Those results will not require any action.
M	EXCLUDED	PROCEED - lab was unable to report data for at least one sample. However, a lab receiving two of more M flags for a test may need to stop and review its testing procedures.

Key for Spectrophotometric Web Summary Report

WebCode	Assigned laboratory identification number (temporary) used to ensure lab confidentiality while permitting a lab to locate its data in the Color Report published on the CTS web site. The Web Code for each analysis can be found in the Performance Analysis Report mailed to each participant.
Grand Mean	The average of the LAB MEANS for all included participants. Laboratories flagged with an X or an M (see DATA FLAG column) are excluded from the GRAND MEAN.
Between-Lab Standard Deviation	An indication of the precision of measurement between the laboratories. The greater the spread of the LAB MEANS about the GRAND MEAN, the larger the BETWEEN-LAB STANDARD DEVIATION (and vice versa).
Inst Code	A code indicating the manufacturer of the instrument used to perform the test (see separate INSTRUMENT CODE LIST for each test section).
Data Flag	DATA FLAGS are assigned based on the simultaneous analysis of both samples tested. Refer to the following chart for an explanation of each symbol:

<u>DATA FLAG</u>	<u>STATISTICALLY INCLUDED/EXCLUDED</u>	<u>ACTION REQUIRED</u>
*	INCLUDED	CAUTION - review testing procedure and monitor future results. Results fall outside 95% ellipse but within a 99% ellipse that is calculated but not drawn.
X	EXCLUDED	STOP - immediate review of data and/or testing procedure is required. See specific notes following each table for more information on why the data is excluded.

In addition to the DATA FLAG column, it is also possible to have an X on individual wavelength values as follows:

- X - The laboratory's mean for that wavelength is greater than a 95% deviation from the GRAND MEAN.

Key for Color Program (Gloss) Web Summary Report

WebCode Assigned laboratory identification number (temporary) used to ensure lab confidentiality while permitting a lab to locate its data in the Color Report published on the CTS web site. The Web Code for each analysis can be found in the Performance Analysis Report mailed to each participant.

Lab Mean The average of the test results obtained by the participant.

Grand Mean The average of the LAB MEANS for all included participants. Laboratories flagged with an X or an M (see DATA FLAG column) are excluded from the GRAND MEAN.

Difference from Grand Mean The difference of the LAB MEAN from the GRAND MEAN.

Between-Lab Standard Deviation An indication of the precision of measurement between the laboratories. The greater the spread of the LAB MEANS about the GRAND MEAN, the larger the BETWEEN-LAB STANDARD DEVIATION (and vice versa).

Comparative Performance Value An indication of how well a laboratory's results agree with the other participants. The CPV is a ratio indicating the number of standard deviations from the GRAND MEAN. The closer a laboratory's COMPARATIVE PERFORMANCE VALUE is to zero, the more consistent its results are with the other participants' data (and vice versa). The critical value for each CPV will vary depending on the number of labs participating in a test.

Inst Code A code indicating the manufacturer of the instrument used to perform the test (see separate INSTRUMENT CODE LIST for each test section).

Graphs For each laboratory, the LAB MEAN for the first sample (x-axis) is plotted against the LAB MEAN for the second sample (y-axis) with each point representing a laboratory. The horizontal and vertical cross-hairs are the GRAND MEANS for each sample. When 20 or more laboratories are in the statistics, an ellipse is also drawn so that 95% of the time a randomly selected laboratory will be included inside the ellipse. Plotted data flags are explained above.

Data Flag DATA FLAGS are assigned based on the simultaneous analysis of both samples tested. Refer to the following chart for an explanation of each symbol:

<u>DATA FLAG</u>	<u>STATISTICALLY INCLUDED/EXCLUDED</u>	<u>ACTION REQUIRED</u>
*	INCLUDED	CAUTION - review testing procedure and monitor future results. Results fall outside 95% ellipse but within a 99% ellipse that is calculated but not drawn.
X	EXCLUDED	STOP - immediate review of data and/or testing procedure is required. Results fall outside the 99% ellipse. See specific notes following each table for more information on why the data is excluded.
M	EXCLUDED	PROCEED - lab was unable to report data for at least one sample. However, a lab receiving two of more M flags for a test may need to stop and review its testing procedures.

Interlaboratory Testing Program for Color & Appearance

Analysis 408

Color and Color Difference - Paint Chips - 45-0 Geometry Instruments
 CIE L*a*b* Color Space - Illuminant D65 - CIE 1964 (10 Degree) Observer

WebCode	Flag	Samples	CIE L* a* b* Color Values			Color Difference Values				InstrCode
			L*	a*	b*	ΔL^*	Δa^*	Δb^*	ΔE^*	
2EEKFL		B101	41.59	13.30	-12.09	1.02	0.05	-0.51	1.14	MQ
		B102	42.61	13.35	-12.60					
3DXF77		B101	41.68	14.07	-11.43	1.14	0.01	-0.41	1.21	TN
		B102	42.82	14.08	-11.84					
4GHE6M		B101	42.20	13.41	-11.87	0.96	0.05	-0.51	1.09	GH
		B102	43.16	13.46	-12.38					
7DW836	X	B101	42.32	13.62	12.01	0.95	0.07	0.51	1.07	XN
		B102	43.27	13.69	12.52					
8CVBV2		B101	41.92	13.14	-12.33	0.90	0.09	-0.52	1.04	GU
		B102	42.82	13.23	-12.85					
CFKU3L		B101	42.24	13.40	-11.93	0.98	0.10	-0.57	1.14	XU
		B102	43.22	13.50	-12.49					
DV4PUH		B101	41.51	13.56	-12.20	1.03	0.01	-0.50	1.14	AE
		B102	42.54	13.56	-12.69					
FECYZD		B101	42.13	13.45	-12.02	0.99	0.05	-0.49	1.10	XV
		B102	43.12	13.50	-12.51					
GF3C6G	X	B101	96.38	0.80	-7.19	0.01	-0.05	0.06	0.08	HW
		B102	96.39	0.75	-7.13					
GQZUK6		B101	42.10	13.72	-12.02	1.01	0.04	-0.52	1.13	XT
		B102	43.11	13.76	-12.53					
HJXQ3Q		B101	42.14	13.49	-11.87	0.92	0.04	-0.52	1.06	XP
		B102	43.06	13.52	-12.39					
HK7EBN		B101	42.23	13.63	-11.56	0.99	0.06	-0.55	1.13	GH
		B102	43.22	13.69	-12.10					
HR9LQR	X	B101	41.42	13.28	-12.72	1.23	0.00	-0.40	1.29	GU
		B102	42.65	13.28	-13.11					
HRR9NA		B101	42.28	13.57	-11.99	0.96	0.05	-0.50	1.08	XN
		B102	43.24	13.62	-12.49					

Interlaboratory Testing Program for Color & Appearance

Analysis 408

Color and Color Difference - Paint Chips - 45-0 Geometry Instruments
 CIE L*a*b* Color Space - Illuminant D65 - CIE 1964 (10 Degree) Observer

WebCode	Flag	Samples	CIE L* a* b* Color Values			Color Difference Values				InstrCode
			L*	a*	b*	ΔL^*	Δa^*	Δb^*	ΔE^*	
K9NJ33		B101	41.88	13.55	-11.74	1.20	0.16	-0.66	1.38	XN
		B102	43.08	13.71	-12.39					
KGJ3HH		B101	42.10	13.77	-11.60	1.00	0.04	-0.48	1.11	HW
		B102	43.10	13.80	-12.07					
LCMTQF		B101	42.52	13.62	-11.65	1.00	0.05	-0.53	1.13	GD
		B102	43.52	13.67	-12.18					
M3WCV		B101	42.27	13.64	-11.89	1.05	0.03	-0.53	1.17	XO
		B102	43.31	13.67	-12.42					
N9CGXJ		B101	42.33	13.48	-12.09	0.97	0.07	-0.40	1.05	XO
		B102	43.29	13.55	-12.49					
NGPZ8P		B101	41.95	13.13	-11.87	1.03	0.06	-0.51	1.15	HK
		B102	42.98	13.18	-12.38					
PQXD2J		B101	42.00	13.42	-12.00	0.96	-0.01	-0.47	1.07	GA
		B102	42.96	13.41	-12.47					
Q6QE66		B101	42.20	13.53	-11.88	0.97	0.04	-0.46	1.07	XM
		B102	43.17	13.57	-12.33					
Q7FXRN		B101	42.04	14.07	-11.73	1.10	0.04	-0.50	1.21	MG
		B102	43.13	14.10	-12.23					
QGK6VX		B101	42.17	13.77	-11.67	0.99	0.05	-0.50	1.11	HW
		B102	43.16	13.82	-12.17					
QGP7W4		B101	41.93	13.21	-12.10	0.94	0.08	-0.48	1.05	XR
		B102	42.86	13.29	-12.58					
RW9VE		B101	42.12	13.70	-12.17	0.95	0.06	-0.50	1.07	XK
		B102	43.07	13.76	-12.67					
T8PYY2		B101	42.12	13.77	-11.69	1.01	0.06	-0.49	1.12	HW
		B102	43.13	13.82	-12.18					
T9XUDJ		B101	42.20	13.35	-11.99	0.98	0.09	-0.54	1.12	XU
		B102	43.17	13.44	-12.52					

**Interlaboratory Testing Program for Color & Appearance
Analysis 408**

Color and Color Difference - Paint Chips - 45-0 Geometry Instruments
CIE L*a*b* Color Space - Illuminant D65 - CIE 1964 (10 Degree) Observer

WebCode	Flag	Samples	CIE L* a* b* Color Values			Color Difference Values				InstrCode
			L*	a*	b*	DL*	Da*	Db*	DE*	
TJHHFT		B101	42.24	13.14	-11.74	1.01	0.03	-0.46	1.11	HK
		B102	43.25	13.17	-12.20					
TM4QWL		B101	42.28	13.68	-11.84	0.93	0.08	-0.51	1.06	HW
		B102	43.21	13.76	-12.35					
WKKJPF		B101	42.17	13.58	-11.86	0.97	0.07	-0.51	1.10	HW
		B102	43.14	13.64	-12.37					
WLDYB		B101	42.17	13.76	-11.85	0.94	0.04	-0.49	1.06	HW
		B102	43.11	13.80	-12.34					
WYH4DC		B101	42.15	13.66	-11.72	0.93	0.07	-0.52	1.06	HW
		B102	43.07	13.73	-12.23					
XWRPF9		B101	41.96	13.33	-12.06	1.05	0.06	-0.54	1.18	GE
		B102	43.01	13.38	-12.60					
YWLK9F		B101	42.30	13.78	-11.73	0.87	0.05	-0.48	0.99	HW
		B102	43.17	13.83	-12.21					

Summary Statistics

Samples	L*	a*	b*	DL*	Da*	Db*	DE*
Grand Means							
B101	42.07	13.54	-11.88	0.99	0.05	-0.50	1.11
B102	43.07	13.59	-12.38				
Stnd Dev Btwn Labs							
B101	0.24	0.24	0.20	0.07	0.03	0.04	0.07
B102	0.21	0.24	0.21				

Statistics based on 32 of 35 reporting participants

Comments assigned on Data Flags for Test #408

7DW836(X) - It appears that the lab may have forgotten to include the negative sign when reporting "b*" values.

GF3C6G(X) - Apparently measured back of the samples.

HR9LQR(X) - Low "L*" values for Sample B101 and low "b*" values for both samples.

Interlaboratory Testing Program for Color & Appearance

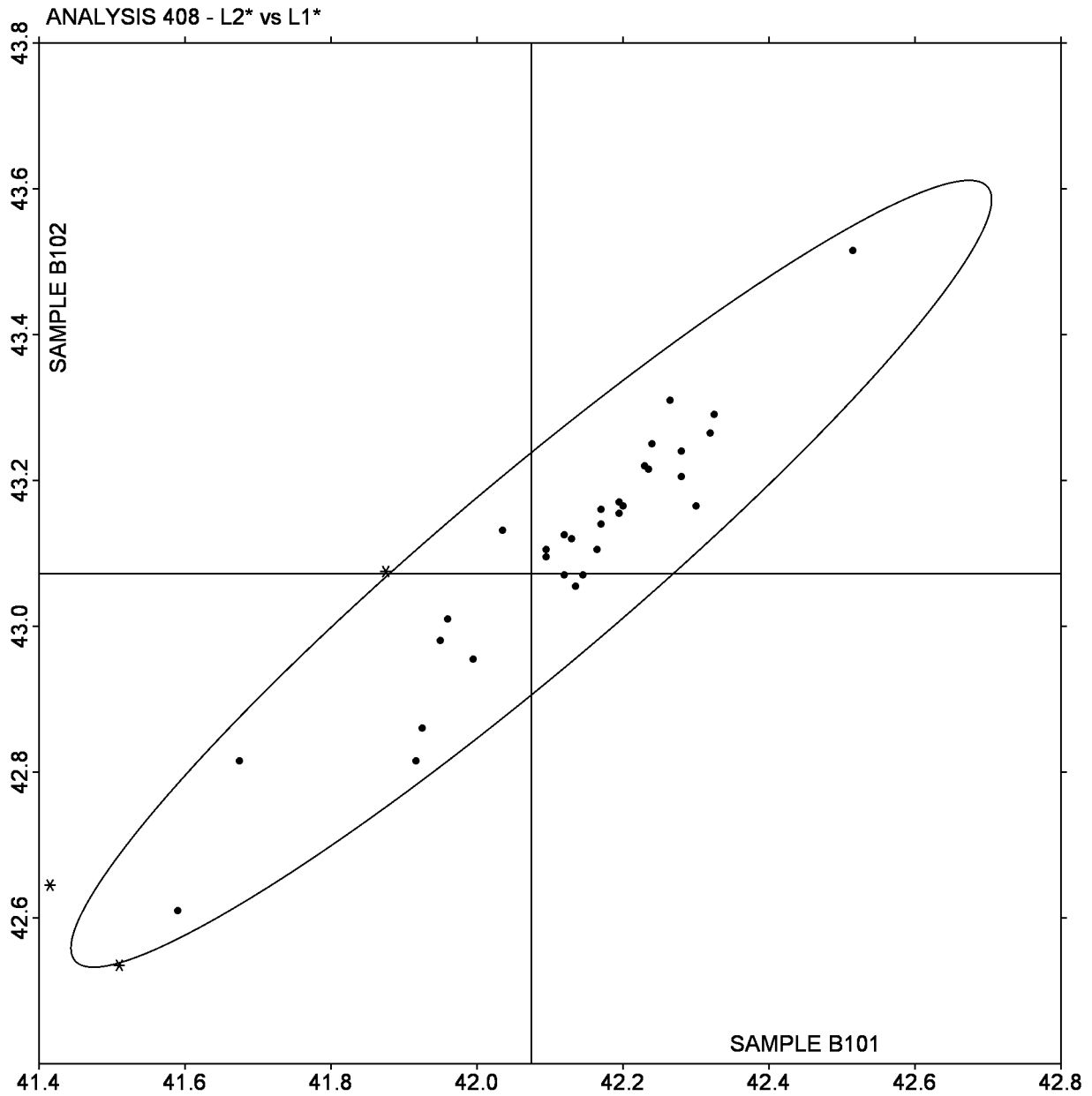
Analysis 408

Color and Color Difference - Paint Chips - 45-0 Geometry Instruments
CIE L*a*b* Color Space - Illuminant D65 - CIE 1964 (10 Degree) Observer

L2* vs L1*

SAMPLE B101 = 42.07

SAMPLE B102 = 43.07



Interlaboratory Testing Program for Color & Appearance

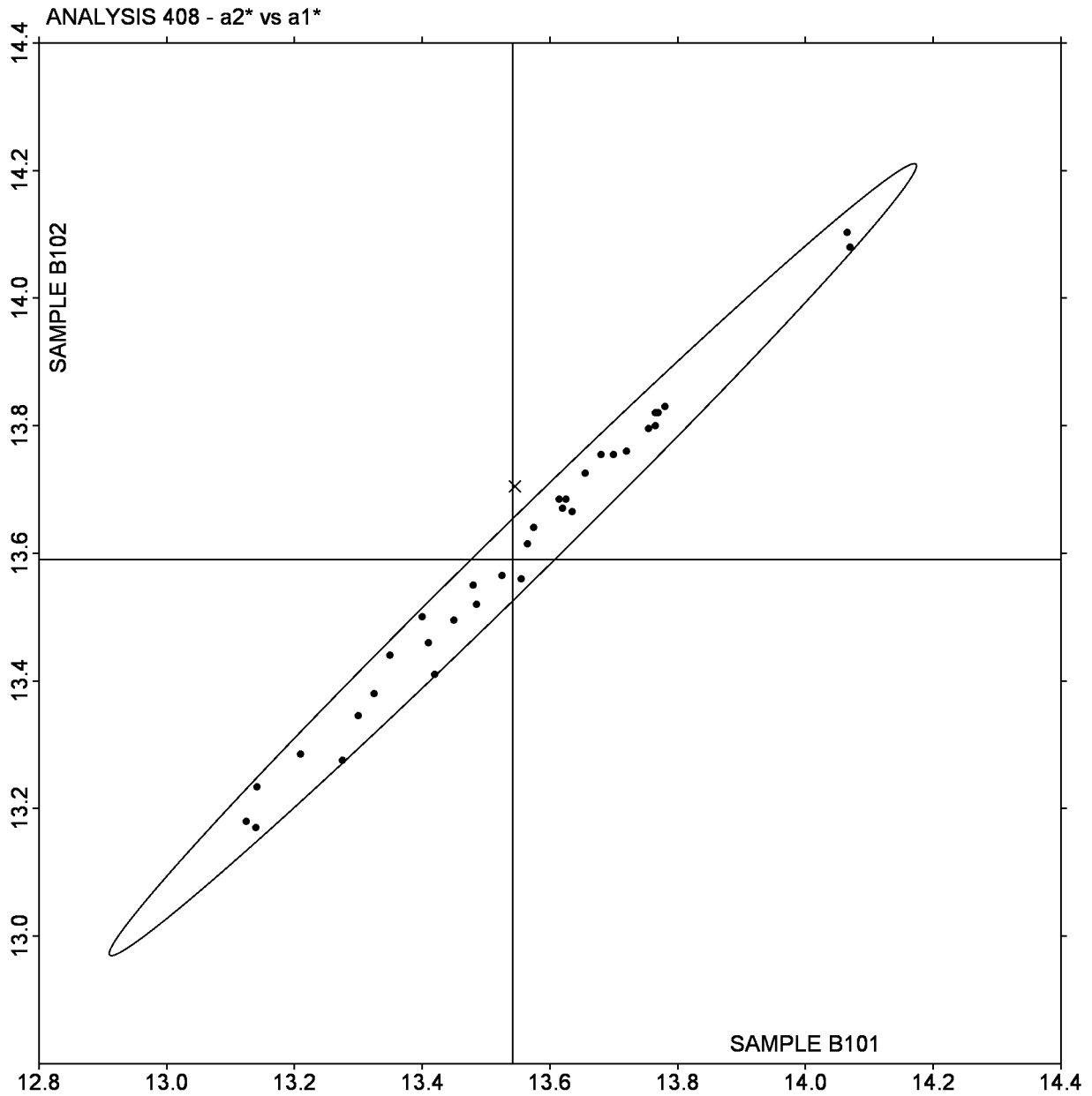
Analysis 408

Color and Color Difference - Paint Chips - 45-0 Geometry Instruments
CIE L*a*b* Color Space - Illuminant D65 - CIE 1964 (10 Degree) Observer

a2* vs a1*

SAMPLE B101 = 13.54

SAMPLE B102 = 13.59



Interlaboratory Testing Program for Color & Appearance

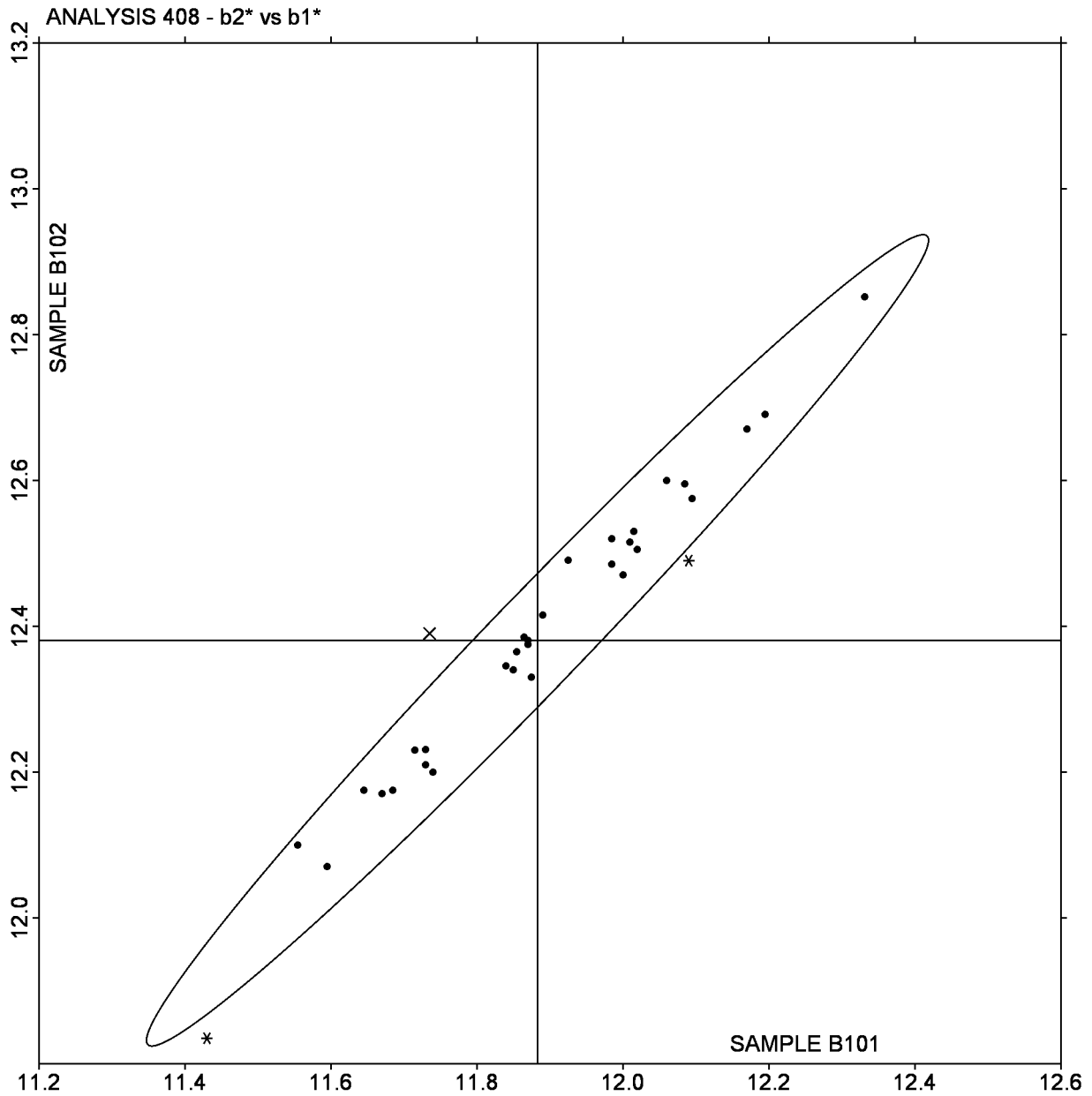
Analysis 408

Color and Color Difference - Paint Chips - 45-0 Geometry Instruments
CIE L*a*b* Color Space - Illuminant D65 - CIE 1964 (10 Degree) Observer

b2* vs b1*

SAMPLE B101 = -11.88

SAMPLE B102 = -12.38



Plot created using absolute values.

Interlaboratory Testing Program for Color & Appearance

Analysis 409

Color and Color Difference - Paint Chips - Sphere Geometry Instruments
 CIE L*a*b* Color Space - Illuminant D65 - CIE 1964 (10 Degree) Observer

WebCode	Flag	Samples	CIE L* a* b* Color Values			Color Difference Values				InstrCode
			L*	a*	b*	ΔL^*	Δa^*	Δb^*	ΔE^*	
2R6YCE		B101	42.71	13.22	-12.11	0.98	0.08	-0.46	1.09	GG
		B102	43.69	13.30	-12.57					
2YQRQY		B101	42.64	13.35	-12.25	0.94	0.03	-0.48	1.06	AM
		B102	43.58	13.38	-12.73					
2ZL4RU		B101	42.54	13.35	-12.07	0.96	0.03	-0.46	1.06	MM
		B102	43.50	13.38	-12.52					
34RXNV		B101	42.62	13.25	-12.28	1.01	0.06	-0.52	1.14	AM
		B102	43.63	13.30	-12.79					
394D4R		B101	42.65	13.26	-12.21	0.97	0.04	-0.50	1.09	MV
		B102	43.61	13.30	-12.70					
3AFKH2		B101	42.44	13.34	-12.08	0.97	0.02	-0.46	1.07	MK
		B102	43.41	13.35	-12.53					
3BDE9Y		B101	42.78	13.18	-12.05	0.91	0.03	-0.42	1.00	MM
		B102	43.69	13.20	-12.47					
3CAPBU		B101	42.69	12.92	-11.87	0.94	0.04	-0.48	1.05	MM
		B102	43.63	12.95	-12.34					
3MRN7K		B101	42.64	13.17	-12.35	0.94	0.05	-0.50	1.07	AM
		B102	43.58	13.22	-12.85					
3XNYC7		B101	42.50	13.34	-12.10	1.01	0.02	-0.46	1.11	MM
		B102	43.50	13.36	-12.56					
4KTANK		B101	42.47	13.22	-12.28	1.05	0.00	-0.46	1.14	CA
		B102	43.52	13.23	-12.74					
4ZBF2P		B101	42.70	13.41	-11.69	0.79	0.11	-0.50	0.93	XO
		B102	43.49	13.52	-12.19					
69FUA6		B101	42.50	13.35	-12.31	0.95	0.05	-0.45	1.05	AJ
		B102	43.45	13.39	-12.76					
6MF477		B101	42.63	13.22	-12.21	0.97	0.06	-0.51	1.09	MV
		B102	43.59	13.28	-12.72					

Interlaboratory Testing Program for Color & Appearance

Analysis 409

Color and Color Difference - Paint Chips - Sphere Geometry Instruments
 CIE L*a*b* Color Space - Illuminant D65 - CIE 1964 (10 Degree) Observer

WebCode	Flag	Samples	CIE L* a* b* Color Values			Color Difference Values				InstrCode
			L*	a*	b*	ΔL^*	Δa^*	Δb^*	ΔE^*	
6YAEJJ		B101	42.50	13.34	-12.28	0.98	0.05	-0.52	1.10	AJ
		B102	43.48	13.39	-12.80					
7P4FKM		B101	42.48	13.00	-12.06	1.03	0.04	-0.44	1.12	MJ
		B102	43.50	13.04	-12.50					
7Y9DKK		B101	42.73	13.28	-12.21	1.00	0.04	-0.49	1.11	MV
		B102	43.73	13.32	-12.69					
8NNUCT		B101	42.57	13.23	-12.29	1.06	-0.01	-0.42	1.14	MV
		B102	43.63	13.22	-12.71					
8ZYQNN		B101	42.52	13.16	-12.13	0.95	0.02	-0.48	1.06	MV
		B102	43.47	13.18	-12.60					
9CQDXB		B101	42.37	13.51	-11.61	0.93	0.06	-0.44	1.03	MH
		B102	43.29	13.57	-12.05					
9PD7GW		B101	42.33	13.36	-11.86	1.06	0.10	-0.51	1.18	XO
		B102	43.39	13.46	-12.37					
9QAHJR		B101	42.59	13.32	-12.22	1.02	0.01	-0.44	1.11	MV
		B102	43.61	13.33	-12.66					
9ZWXBV		B101	42.50	13.41	-12.33	0.94	0.02	-0.48	1.05	AM
		B102	43.43	13.43	-12.80					
A4UZFM		B101	42.47	13.31	-11.87	0.99	0.10	-0.48	1.10	XO
		B102	43.45	13.41	-12.35					
ADYC4H		B101	42.61	13.33	-12.07	1.06	0.05	-0.51	1.18	MK
		B102	43.67	13.38	-12.58					
AM4JH		B101	42.69	13.29	-12.02	0.94	0.05	-0.45	1.05	MK
		B102	43.63	13.34	-12.47					
ANC9RG		B101	42.39	12.86	-12.11	1.07	0.00	-0.44	1.16	MJ
		B102	43.46	12.86	-12.55					
AQ4MDQ		B101	42.64	13.44	-12.47	1.04	0.00	-0.47	1.14	AM
		B102	43.68	13.44	-12.94					

Interlaboratory Testing Program for Color & Appearance

Analysis 409

Color and Color Difference - Paint Chips - Sphere Geometry Instruments
 CIE L*a*b* Color Space - Illuminant D65 - CIE 1964 (10 Degree) Observer

WebCode	Flag	Samples	CIE L* a* b* Color Values			Color Difference Values				InstrCode
			L*	a*	b*	ΔL^*	Δa^*	Δb^*	ΔE^*	
AVYHU6		B101	42.61	13.25	-12.13	1.06	0.03	-0.49	1.16	AJ
		B102	43.66	13.28	-12.62					
B2FG2N		B101	42.62	13.29	-12.20	1.08	0.03	-0.50	1.19	AM
		B102	43.70	13.32	-12.70					
BF4CJA		B101	42.53	13.31	-12.24	1.04	0.02	-0.49	1.15	MV
		B102	43.57	13.33	-12.73					
BRXVYF		B101	42.50	13.20	-12.24	0.99	0.02	-0.48	1.10	AL
		B102	43.49	13.22	-12.72					
BX7WHX		B101	42.53	13.48	-11.89	0.92	0.03	-0.47	1.03	MI
		B102	43.45	13.51	-12.35					
CJVMVE X		B101	42.47	13.37	-11.61	0.99	0.08	-0.64	1.18	XU
		B102	43.46	13.44	-12.25					
CQ2JWK		B101	42.63	13.36	-12.03	0.84	0.09	-0.50	0.98	MM
		B102	43.47	13.45	-12.53					
CRCEHC		B101	42.67	13.29	-12.06	0.93	0.03	-0.47	1.04	MM
		B102	43.60	13.32	-12.53					
D2RW6F		B101	42.45	13.25	-12.21	1.02	0.04	-0.52	1.14	MV
		B102	43.47	13.29	-12.73					
DUVZLJ X		B101	42.92	12.43	-12.04	0.97	0.05	-0.44	1.06	XX
		B102	43.88	12.48	-12.47					
DZWATC		B101	42.68	13.26	-12.34	0.93	0.06	-0.48	1.05	AM
		B102	43.61	13.32	-12.82					
E29PQ6		B101	42.70	13.29	-12.16	1.01	0.02	-0.50	1.13	MM
		B102	43.71	13.31	-12.66					
EDZCWZ		B101	42.64	13.27	-12.17	0.92	0.07	-0.51	1.06	MM
		B102	43.57	13.34	-12.68					
EEY6MX		B101	42.66	13.36	-12.22	0.98	0.06	-0.50	1.10	AJ
		B102	43.64	13.41	-12.72					

Interlaboratory Testing Program for Color & Appearance

Analysis 409

Color and Color Difference - Paint Chips - Sphere Geometry Instruments
 CIE L*a*b* Color Space - Illuminant D65 - CIE 1964 (10 Degree) Observer

WebCode	Flag	Samples	CIE L* a* b* Color Values			Color Difference Values				InstrCode
			L*	a*	b*	ΔL^*	Δa^*	Δb^*	ΔE^*	
ELVTMB	X	B101	42.96	13.18	-12.13	1.04	0.01	-0.50	1.15	GG
		B102	44.00	13.19	-12.63					
EQPYW7		B101	42.76	13.26	-12.34	0.94	0.02	-0.46	1.05	AJ
	B102	43.70	13.28	-12.80						
F4V8EP		B101	42.57	13.44	-12.34	0.99	0.03	-0.44	1.08	AJ
	B102	43.56	13.47	-12.78						
FGYN7C		B101	42.68	13.19	-12.41	0.93	0.03	-0.50	1.05	AM
	B102	43.60	13.22	-12.91						
FMALY6		B101	42.63	13.30	-12.08	0.98	0.06	-0.53	1.11	AJ
	B102	43.60	13.35	-12.61						
FQMZ7Q		B101	42.29	13.40	-11.90	1.05	0.02	-0.50	1.16	GD
	B102	43.34	13.42	-12.40						
FUNEN2N	X	B101	42.49	12.71	-12.02	1.01	0.02	-0.43	1.10	HW
		B102	43.50	12.72	-12.45					
FX6TUN		B101	42.44	13.04	-12.12	1.10	-0.02	-0.43	1.18	MJ
	B102	43.54	13.03	-12.55						
G2HFME		B101	42.46	13.30	-12.26	0.97	-0.01	-0.43	1.06	MV
	B102	43.42	13.30	-12.69						
G9GJQW		B101	42.31	13.25	-12.19	0.94	0.05	-0.48	1.05	AJ
	B102	43.24	13.30	-12.67						
G9XCCL		B101	42.70	13.33	-12.23	1.02	0.04	-0.53	1.14	A0
	B102	43.71	13.36	-12.76						
HD66X6		B101	42.56	13.34	-12.27	1.02	0.03	-0.51	1.14	XX
	B102	43.58	13.37	-12.78						
HE2FZY		B101	42.64	13.36	-12.26	0.97	0.03	-0.45	1.07	AJ
	B102	43.61	13.39	-12.70						
HJGJVN		B101	42.40	13.31	-11.97	1.32	0.11	-0.56	1.43	XQ
	B102	43.71	13.41	-12.53						

Interlaboratory Testing Program for Color & Appearance

Analysis 409

Color and Color Difference - Paint Chips - Sphere Geometry Instruments
 CIE L*a*b* Color Space - Illuminant D65 - CIE 1964 (10 Degree) Observer

WebCode	Flag	Samples	CIE L* a* b* Color Values			Color Difference Values				InstrCode
			L*	a*	b*	ΔL^*	Δa^*	Δb^*	ΔE^*	
HRCCCU		B101	42.44	13.35	-12.32	0.98	0.07	-0.51	1.11	AJ
		B102	43.42	13.41	-12.83					
J4Y2MK		B101	42.68	13.31	-12.40	0.96	0.03	-0.46	1.06	AM
		B102	43.64	13.34	-12.86					
J6BXR		B101	42.63	12.91	-12.09	1.01	0.01	-0.40	1.08	HF
		B102	43.63	12.92	-12.49					
J6VCNE		B101	42.62	13.37	-12.21	1.01	0.02	-0.46	1.11	XI
		B102	43.63	13.39	-12.66					
JDKQ87		B101	42.74	13.23	-12.28	0.99	0.05	-0.52	1.11	AJ
		B102	43.73	13.27	-12.80					
JFQR64		B101	42.66	13.47	-12.28	1.01	0.04	-0.48	1.11	AM
		B102	43.66	13.51	-12.76					
JG4EMH		B101	42.57	13.22	-11.94	1.04	-0.03	-0.45	1.13	MG
		B102	43.61	13.19	-12.39					
JJBNDM		B101	42.48	13.28	-12.30	1.09	0.03	-0.51	1.20	MX
		B102	43.57	13.31	-12.80					
JRLDH9		B101	42.47	13.45	-12.48	1.08	0.03	-0.53	1.20	AM
		B102	43.54	13.48	-13.00					
KCBE72	X	B101	43.09	12.80	-11.80	0.97	0.06	-0.51	1.09	HW
		B102	44.05	12.86	-12.30					
KUU9W	X	B101	42.43	13.52	11.83	0.99	0.03	0.45	1.09	XO
		B102	43.42	13.55	12.28					
L6LJEW		B101	42.65	13.10	-12.15	1.03	0.02	-0.49	1.14	MM
		B102	43.68	13.12	-12.64					
LJLWJE	X	B101	42.46	12.91	-12.92	1.01	0.05	-0.52	1.13	AO
		B102	43.47	12.97	-13.44					
LRWY6F	X	B101	42.50	12.92	-12.91	0.99	0.02	-0.52	1.11	AO
		B102	43.48	12.94	-13.43					

Interlaboratory Testing Program for Color & Appearance

Analysis 409

Color and Color Difference - Paint Chips - Sphere Geometry Instruments
 CIE L*a*b* Color Space - Illuminant D65 - CIE 1964 (10 Degree) Observer

WebCode	Flag	Samples	CIE L* a* b* Color Values			Color Difference Values				InstrCode
			L*	a*	b*	ΔL^*	Δa^*	Δb^*	ΔE^*	
LTDGFT		B101	42.65	13.36	-12.09	0.96	0.03	-0.45	1.06	AJ
		B102	43.61	13.39	-12.53					
LTT3PV		B101	42.48	13.28	-12.31	0.98	0.04	-0.49	1.09	HP
		B102	43.46	13.31	-12.80					
M63CYK		B101	42.34	13.18	-11.92	0.97	0.06	-0.51	1.09	MG
		B102	43.31	13.24	-12.43					
MTLBAJ		B101	42.44	13.26	-11.98	1.03	0.05	-0.53	1.15	MI
		B102	43.47	13.31	-12.51					
N229KP		B101	42.62	13.20	-11.99	1.01	0.04	-0.48	1.12	XI
		B102	43.63	13.24	-12.47					
N8ZCCM		B101	42.58	13.37	-12.11	0.99	0.06	-0.50	1.11	MV
		B102	43.57	13.42	-12.61					
NMFD9D		B101	42.31	13.02	-12.06	1.05	-0.01	-0.59	1.20	HF
		B102	43.36	13.01	-12.64					
NTHKNG		B101	42.54	13.36	-12.09	0.93	0.03	-0.48	1.05	MM
		B102	43.47	13.39	-12.57					
NUEM9		B101	42.46	12.81	-11.62	1.01	0.02	-0.48	1.12	MJ
		B102	43.47	12.82	-12.10					
NY6XHU		B101	42.68	13.04	-11.82	1.04	0.03	-0.53	1.17	AD
		B102	43.72	13.07	-12.35					
P7MQ8Y		B101	42.58	13.30	-12.09	0.92	0.05	-0.46	1.03	XI
		B102	43.50	13.35	-12.54					
P7PR7Y		B101	42.62	13.26	-12.33	0.94	0.12	-0.57	1.10	AO
		B102	43.56	13.38	-12.90					
PCDZGX		B101	42.64	13.19	-12.25	0.85	0.09	-0.50	0.98	AM
		B102	43.49	13.27	-12.74					
PV72CZ		B101	42.83	13.42	-11.84	1.07	0.04	-0.48	1.17	MZ
		B102	43.89	13.46	-12.32					

Interlaboratory Testing Program for Color & Appearance

Analysis 409

Color and Color Difference - Paint Chips - Sphere Geometry Instruments
 CIE L*a*b* Color Space - Illuminant D65 - CIE 1964 (10 Degree) Observer

WebCode	Flag	Samples	CIE L* a* b* Color Values			Color Difference Values				InstrCode
			L*	a*	b*	ΔL^*	Δa^*	Δb^*	ΔE^*	
Q686Y4	X	B101	41.11	16.20	-11.99	0.98	0.17	-0.56	1.14	MV
		B102	42.08	16.36	-12.55					
QKNCH2		B101	42.48	13.41	-11.76	0.96	0.02	-0.48	1.07	XU
	B102	43.43	13.43	-12.24						
QN3V2P		B101	42.73	13.36	-11.92	0.99	0.01	-0.45	1.09	MK
	B102	43.72	13.37	-12.37						
QVJQFC		B101	42.61	13.15	-12.32	1.00	0.04	-0.48	1.11	AJ
	B102	43.61	13.19	-12.80						
R7CBXA	X	B101	45.03	12.67	-11.27	0.90	0.05	-0.48	1.01	GG
		B102	45.92	12.72	-11.75					
R8VU63		B101	42.54	13.33	-11.96	1.00	0.02	-0.46	1.09	MK
	B102	43.53	13.34	-12.41						
R96GF8		B101	42.74	13.27	-12.40	0.97	0.06	-0.54	1.11	A0
	B102	43.70	13.33	-12.93						
RGFAPW		B101	42.38	13.16	-12.31	1.01	0.02	-0.50	1.12	HP
	B102	43.39	13.18	-12.81						
RJM4HF		B101	42.74	12.95	-11.87	0.93	0.02	-0.56	1.09	GF
	B102	43.67	12.97	-12.43						
RKX2VX		B101	42.59	13.35	-12.08	0.93	0.05	-0.48	1.05	MM
	B102	43.52	13.39	-12.56						
RVZ77Y		B101	42.81	13.26	-12.16	0.94	0.06	-0.48	1.05	AJ
	B102	43.74	13.32	-12.63						
RZT87T		B101	42.32	13.04	-12.32	1.09	0.05	-0.49	1.19	HG
	B102	43.40	13.09	-12.81						
TKELY8		B101	42.60	13.29	-12.23	1.04	0.04	-0.51	1.16	AM
	B102	43.64	13.32	-12.74						
TP8NY2		B101	42.52	13.29	-11.99	1.00	0.03	-0.51	1.12	MK
	B102	43.52	13.32	-12.49						

Interlaboratory Testing Program for Color & Appearance

Analysis 409

Color and Color Difference - Paint Chips - Sphere Geometry Instruments
 CIE L*a*b* Color Space - Illuminant D65 - CIE 1964 (10 Degree) Observer

WebCode	Flag	Samples	CIE L* a* b* Color Values			Color Difference Values				InstrCode
			L*	a*	b*	ΔL^*	Δa^*	Δb^*	ΔE^*	
TXEA6F		B101	42.24	13.57	-12.48	1.07	-0.01	-0.43	1.15	CA
		B102	43.31	13.56	-12.91					
U2WJTT		B101	42.58	13.37	-12.10	0.99	0.03	-0.46	1.09	MM
		B102	43.57	13.40	-12.57					
U49D2T		B101	42.52	13.30	-12.27	0.95	0.03	-0.47	1.06	MT
		B102	43.46	13.33	-12.74					
UK8UK		B101	42.69	13.02	-11.71	1.06	0.03	-0.49	1.16	HW
		B102	43.74	13.05	-12.20					
UL47MR		B101	42.72	13.31	-12.29	0.86	0.07	-0.53	1.01	AJ
		B102	43.58	13.38	-12.82					
UTX22V		B101	42.61	13.29	-12.36	1.01	0.09	-0.54	1.15	AQ
		B102	43.62	13.38	-12.90					
V674ZY	X	B101	43.16	13.43	-12.46	1.17	-0.05	-0.49	1.26	AJ
		B102	44.33	13.39	-12.95					
V72F3T		B101	42.45	13.00	-12.47	1.04	0.04	-0.53	1.17	HP
		B102	43.49	13.04	-12.99					
V9WN6N	X	B101	42.93	13.13	-12.07	1.09	-0.02	-0.45	1.17	HH
		B102	44.02	13.11	-12.52					
VE2XJQ		B101	42.72	13.30	-12.35	0.95	0.01	-0.44	1.04	AM
		B102	43.67	13.30	-12.79					
VEJAGG		B101	42.56	13.33	-11.95	0.99	0.05	-0.52	1.12	MI
		B102	43.55	13.38	-12.47					
W4WMP		B101	42.64	13.28	-12.30	1.00	0.06	-0.51	1.12	AJ
		B102	43.64	13.34	-12.80					
W97MKC		B101	42.55	13.25	-12.27	1.00	0.05	-0.49	1.11	MV
		B102	43.54	13.30	-12.76					
WWC7X		B101	42.59	13.27	-12.27	1.02	0.03	-0.47	1.12	AM
		B102	43.60	13.30	-12.73					

Interlaboratory Testing Program for Color & Appearance

Analysis 409

Color and Color Difference - Paint Chips - Sphere Geometry Instruments
 CIE L*a*b* Color Space - Illuminant D65 - CIE 1964 (10 Degree) Observer

WebCode	Flag	Samples	CIE L* a* b* Color Values			Color Difference Values				InstrCode
			L*	a*	b*	ΔL^*	Δa^*	Δb^*	ΔE^*	
X2KU7R		B101	42.54	13.29	-12.18	1.01	0.04	-0.51	1.13	AM
		B102	43.55	13.33	-12.68					
X97ARV		B101	42.57	13.29	-12.23	0.99	0.07	-0.51	1.11	AM
		B102	43.55	13.35	-12.73					
X9M3DK		B101	42.66	12.73	-12.29	1.00	0.05	-0.52	1.12	HP
		B102	43.65	12.78	-12.80					
XC3799		B101	42.30	12.95	-12.21	0.98	0.08	-0.51	1.11	PE
		B102	43.28	13.03	-12.71					
XHTFH8		B101	42.31	12.73	-12.11	1.00	0.03	-0.48	1.12	MJ
		B102	43.32	12.77	-12.59					
XTTWHA		B101	42.67	13.21	-12.23	1.04	0.02	-0.50	1.15	AJ
		B102	43.71	13.23	-12.73					
XWDT3U		B101	42.79	12.93	-11.81	0.86	0.05	-0.47	0.97	HX
		B102	43.64	12.98	-12.27					
Y63WQM		B101	42.48	12.99	-12.36	0.91	0.06	-0.53	1.05	HP
		B102	43.39	13.05	-12.89					
YKDHAD		B101	42.52	13.06	-12.12	1.06	0.00	-0.48	1.16	MK
		B102	43.58	13.06	-12.60					
YKV7CM		B101	42.69	13.33	-11.95	0.98	0.09	-0.52	1.11	XR
		B102	43.67	13.42	-12.47					
Z44MZX		B101	42.57	13.23	-12.36	0.93	0.04	-0.50	1.06	AM
		B102	43.50	13.26	-12.86					
ZAAJX		B101	42.52	13.30	-12.29	1.01	0.02	-0.51	1.13	AJ
		B102	43.53	13.32	-12.80					
ZAR84D		B101	42.66	13.12	-12.29	0.89	0.07	-0.51	1.03	AJ
		B102	43.55	13.18	-12.80					
ZCZ4NM		B101	42.60	13.09	-12.38	0.94	0.09	-0.55	1.09	AJ
		B102	43.54	13.18	-12.93					

Interlaboratory Testing Program for Color & Appearance

Analysis 409

Color and Color Difference - Paint Chips - Sphere Geometry Instruments
 CIE L*a*b* Color Space - Illuminant D65 - CIE 1964 (10 Degree) Observer

WebCode	Flag	Samples	CIE L* a* b* Color Values			Color Difference Values				InstrCode
			L*	a*	b*	ΔL*	Δa*	Δb*	ΔE*	
ZXE88K		B101	42.60	13.46	-12.43	0.99	0.02	-0.46	1.09	AJ
		B102	43.59	13.48	-12.88					

Summary Statistics

Samples	L*	a*	b*	ΔL*	Δa*	Δb*	ΔE*
Grand Means							
B101	42.57	13.23	-12.15				
B102	43.56	13.27	-12.64	0.99	0.04	-0.49	1.10
Std Dev Btw Labs							
B101	0.13	0.16	0.19				
B102	0.12	0.17	0.20	0.06	0.03	0.03	0.06

Statistics based on 115 of 127 reporting participants

Comments assigned on Data Flags for Test #409

- CJVMVE(X) - Large replication difference for "b*" values on Sample B101. High be value for Sample B101.
- DUVZLJ(X) - Low "a*" values. It appears that the lab may have forgotten to include the negative sign when reporting "b*" values.
- ELVTMB(X) - High "L*" values.
- FUNE2N(X) - Low "a*" values.
- KCBE72(X) - High "L*" values.
- KUU9WQ(X) - It appears that the lab may have forgotten to include the negative sign when reporting "b*" values.
- LJLWJE(X) - Low "b*" values.
- LRWY6F(X) - Low "b*" values.
- Q686Y4(X) - High "a*" values and low "L*" values.
- R7CBXA(X) - High "L*" and "b*" values and low "a*" values.
- V674ZY(X) - High "L*" values.
- V9WN6N(X) - High "L*" values.

Interlaboratory Testing Program for Color & Appearance

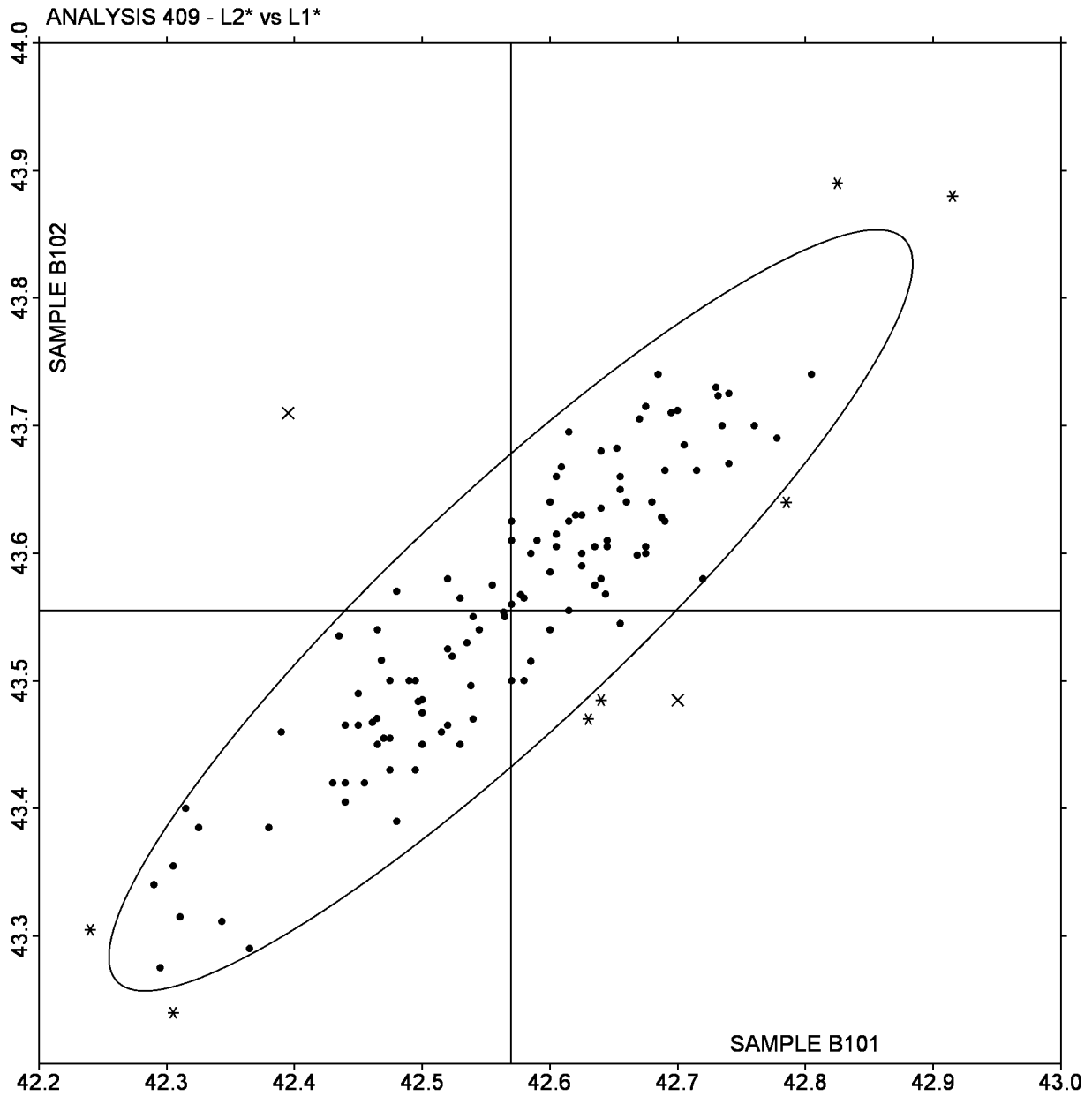
Analysis 409

Color and Color Difference - Paint Chips - Sphere Geometry Instruments
CIE L*a*b* Color Space - Illuminant D65 - CIE 1964 (10 Degree) Observer

L2* vs L1*

SAMPLE B101 = 42.57

SAMPLE B102 = 43.56



Interlaboratory Testing Program for Color & Appearance

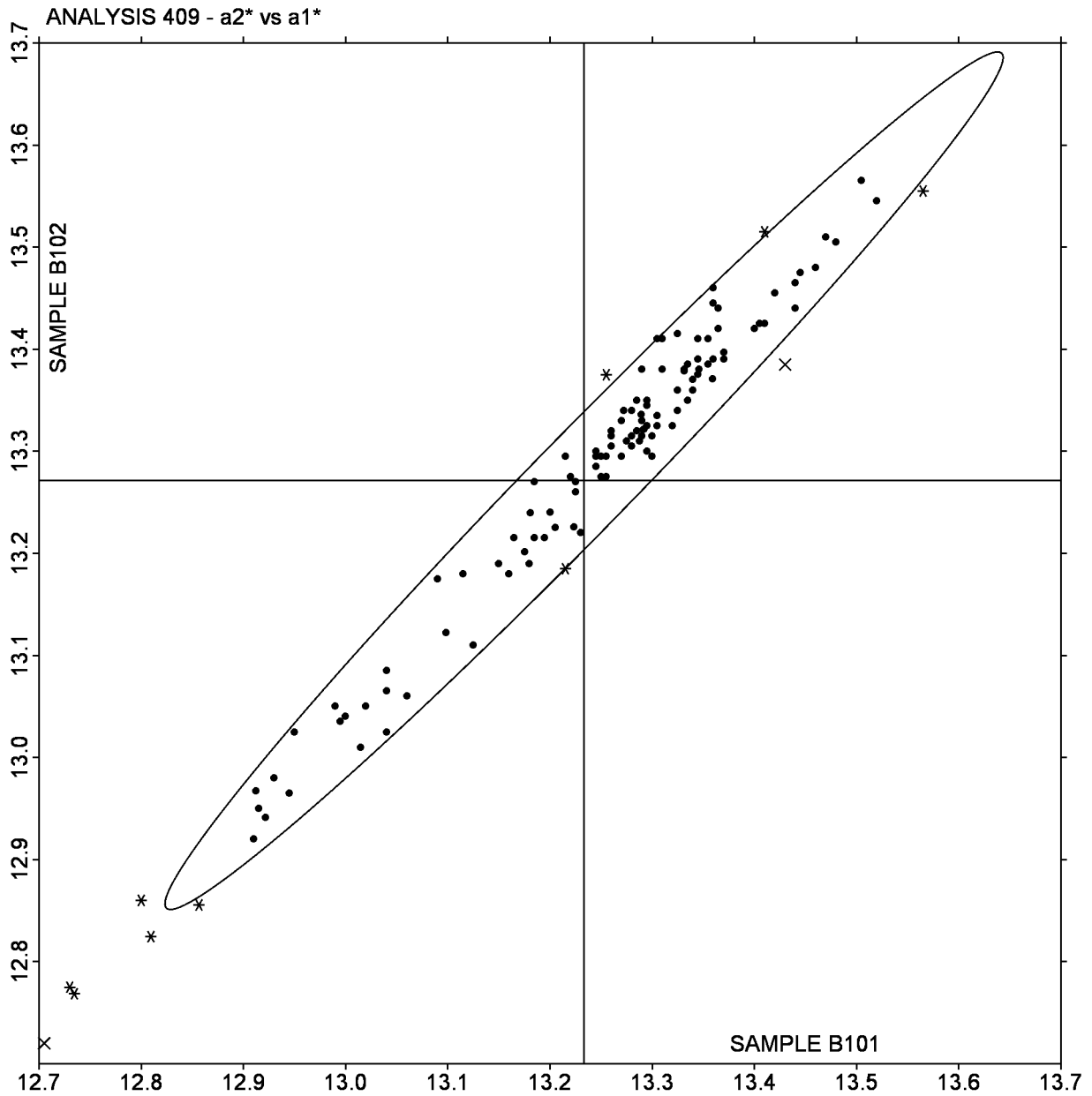
Analysis 409

Color and Color Difference - Paint Chips - Sphere Geometry Instruments
CIE L*a*b* Color Space - Illuminant D65 - CIE 1964 (10 Degree) Observer

a2* vs a1*

SAMPLE B101 = 13.23

SAMPLE B102 = 13.27



Interlaboratory Testing Program for Color & Appearance

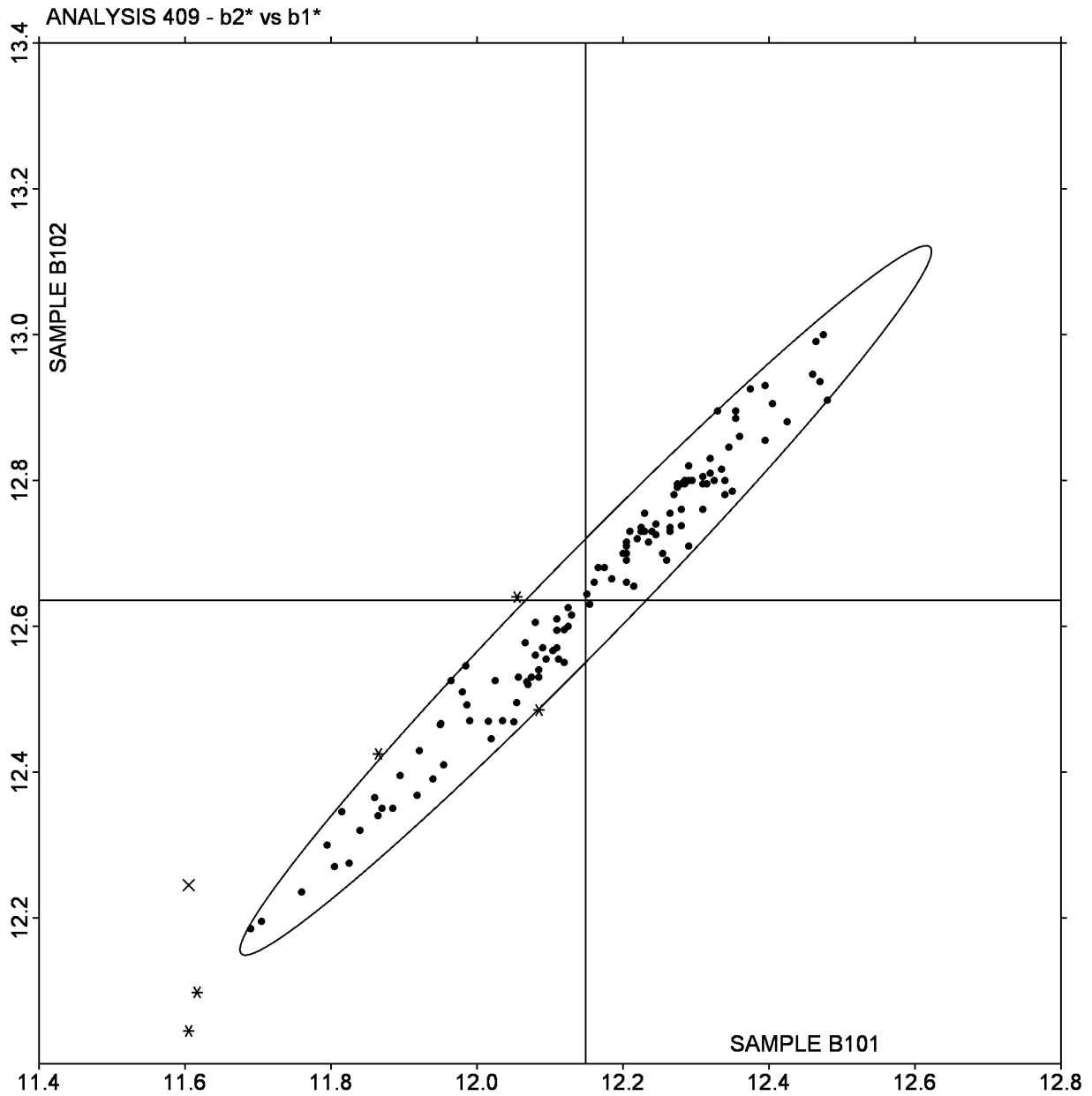
Analysis 409

Color and Color Difference - Paint Chips - Sphere Geometry Instruments
CIE L*a*b* Color Space - Illuminant D65 - CIE 1964 (10 Degree) Observer

b2* vs b1*

SAMPLE B101 = -12.15

SAMPLE B102 = -12.64



Plot created using absolute values.

Interlaboratory Testing Program for Color & Appearance

Analysis 411

Spectrophotometric - Sphere Geometry Instruments

Reflectance at 16 Selected Wavelengths

WebCode	Data Flag	Spectrophotometric Reflectance values (as %)at selected wavelengths															Instr Code	
		400	420	440	460	480	500	520	540	560	580	600	620	640	660	680		700
Sample B101																		
2LZZ2N		17.61	19.62	19.19	18.27	16.62	13.92	11.33	10.14	10.23	12.20	16.44	15.50	17.29	27.33	40.67	52.22	MV
2PYADC		17.30	19.31	18.97	18.08	16.43	13.82	11.32	10.13	10.24	12.18	16.19	15.38	17.58	27.67	40.61	52.12	XI
2TZBE9		17.32	19.16	18.81	17.84	16.17	13.55	11.03	9.97	10.14	12.12	16.18	15.24	17.70	27.88	40.56	51.92	XO
2XAC2J		17.80	19.51	19.01	18.10	16.47	13.78	11.29	10.12	10.24	12.36	15.99	15.60	17.94	27.71	40.89	52.27	XR
3AZP7M		17.64	19.47	19.07	18.14	16.52	13.80	11.31	10.10	10.24	12.15	16.29	15.47	17.60	27.54	40.35	51.90	MM
3X87RG		18.76X	19.26	18.80	17.95	16.41	13.75	11.26	9.97	9.99	11.78	15.88	15.32	17.07	26.58	39.41	51.21	HG
43YMPT		17.02	19.32	19.00	18.10	16.45	13.86	11.42	10.18	10.30	12.22	15.75	15.68	17.95	27.38	39.87	51.33	MM
4LPKPE		17.63	19.56	19.15	18.21	16.59	13.87	11.35	10.13	10.24	12.12	16.26	15.47	17.69	27.73	40.57	52.26	MM
4NHRA		17.70	19.74	19.23	18.28	16.57	13.87	11.32	10.10	10.22	12.12	16.23	15.49	17.52	27.88	41.27	50.99	AM
66GHE6		17.58	19.50	19.04	18.08	16.47	13.74	11.23	10.02	10.15	12.06	16.16	15.37	17.31	27.30	40.23	51.67	AJ
6BLAPN		17.32	19.41	18.93	18.02	16.41	13.70	11.18	9.97	10.09	11.92	16.34	15.26	16.86	27.01	40.08	51.80	MV
6CZCKH		17.64	19.54	19.15	18.19	16.59	13.82	11.29	10.17	10.26	12.08	16.30	15.46	17.29	27.09	40.80	51.27	AO
6GUHBY		17.79	19.33	18.86	17.94	16.31	13.73	11.27	10.06	10.22	12.21	16.44	14.89X	16.09X	25.08X	38.77X	50.09	HW
6T7DG6		17.54	19.50	19.02	18.13	16.52	13.82	11.25	10.00	10.13	12.00	16.41	15.30	16.97	27.23	40.37	52.10	MV
72V2QH		17.50	19.40	19.00	18.06	16.45	13.74	11.27	10.10	10.21	12.11	16.20	15.43	17.66	27.62	40.49	52.19	MM
7BZW2B		17.89	19.44	19.05	18.11	16.47	13.73	11.20	10.00	10.13	11.86	16.15	15.40	17.04	27.24	40.30	52.03	HP
7GLNWP		17.40	19.23	18.81	17.87	16.27	13.59	11.14	10.02	10.19	12.14	16.20	15.21	17.55	27.61	40.64	51.88	XO
7NRLXV		17.85	19.58	19.15	18.21	16.58	13.88	11.42	10.21	10.31	12.23	16.20	15.63	17.72	27.41	40.07	51.62	MM
82BLBF		17.58	19.61	19.20	18.17	16.52	13.88	11.29	10.09	10.21	12.10	16.21	15.48	17.41	27.57	40.61	50.20	AJ
89DRPJ		17.44	19.41	18.98	18.10	16.48	13.77	11.25	10.02	10.12	11.97	16.11	15.45	17.23	27.10	40.09	51.76	AL
8BGFJM		17.57	19.28	18.90	17.99	16.38	13.70	11.23	10.01	10.16	12.06	16.23	15.31	17.45	27.52	40.48	52.11	MK
8EDVHG		17.62	19.49	19.03	18.07	16.45	13.74	11.24	10.02	10.16	12.06	16.14	15.38	17.32	27.29	40.39	52.11	AJ
8EMT92		17.34	19.28	18.84	17.95	16.29	13.61	11.19	10.02	10.21	12.19	16.22	15.40	17.65	27.71	40.60	51.96	MI
9AU3WG		17.81	19.68	19.20	18.18	16.56	13.82	11.30	10.16	10.31	12.06	16.36	15.38	17.28	27.22	41.24	51.95	AO
9C46TD		17.67	19.59	19.20	18.19	16.59	13.88	11.34	10.21	10.28	12.08	16.18	15.45	17.35	27.37	40.95	51.58	AM

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Spectrophotometric - Sphere Geometry Instruments

Reflectance at 16 Selected Wavelengths

WebCode	Data Flag	Spectrophotometric Reflectance values (as %)at selected wavelengths															Instr Code	
		400	420	440	460	480	500	520	540	560	580	600	620	640	660	680		700
Sample B101																		
9EJNAJ		17.65	19.14	18.73	17.85	16.11	13.69	11.05	10.03	10.12	12.05	16.17	15.34	17.59	27.70	40.69	52.06	XU
9EUM7D		17.56	19.41	19.02	18.15	16.45	13.79	11.21	10.03	10.11	12.00	16.29	15.28	17.17	27.33	40.42	52.24	MT
9KLUNL		17.68	19.38	18.95	18.03	16.42	13.72	11.22	10.02	10.14	12.02	16.26	15.36	17.48	27.52	40.47	52.11	MM
9M6B3E		17.54	19.43	19.00	18.09	16.44	13.75	11.24	10.04	10.15	12.13	16.17	15.30	17.78	27.92	40.65	52.19	MM
ABWB2Z		17.51	19.46	19.11	18.17	16.44	13.86	11.30	10.06	10.19	12.04	16.19	15.47	17.40	27.75	41.05	50.71	AM
AE8XKQ		17.63	19.80	19.36	18.36	16.66	13.90	11.28	10.66X	10.17	11.90	15.94	15.11	16.97	26.75	39.51	50.14	AQ
AECZ6A		17.54	19.46	19.06	18.08	16.43	13.84	11.30	10.04	10.21	12.07	16.21	15.49	17.54	27.70	41.01	51.53	AJ
AJQJMR		17.92	19.62	19.12	18.15	16.41	13.87	11.27	10.16	10.29	12.12	16.29	15.44	17.36	27.52	41.25	51.93	AM
ANXAM		17.49	19.57	19.10	18.20	16.47	13.89	11.30	10.08	10.23	12.11	16.14	15.44	17.41	27.80	40.72	49.79	AM
B4N7AL		17.53	19.56	19.13	18.17	16.56	13.85	11.33	10.07	10.19	12.03	16.14	15.48	17.34	27.18	40.10	51.64	AJ
B933DG		17.66	19.66	19.22	18.28	16.62	13.89	11.36	10.20	10.33	12.09	16.20	15.52	17.36	27.55	40.95	51.10	AM
BCDYGC		17.82	19.48	19.11	18.14	16.50	13.76	11.30	10.05	10.08	11.81	16.16	15.31	16.42X	26.36	39.75	51.58	HP
BDUE7R		17.82	19.70	19.24	18.27	16.59	13.89	11.33	10.21	10.31	12.10	16.24	15.51	17.43	27.57	41.32	51.67	AM
BEPP9M		17.37	19.43	19.06	18.18	16.56	13.87	11.31	10.07	10.17	12.09	16.17	15.49	17.77	27.86	40.69	52.14	XI
BPM8NB		17.83	19.66	19.25	18.24	16.64	13.88	11.35	10.23	10.24	12.20	16.43	15.44	17.40	27.57	40.86	52.05	AM
BT7PYL		17.64	19.40	19.00	18.06	16.48	13.78	11.29	10.10	10.23	12.16	16.34	15.40	17.63	27.72	40.51	51.88	MM
BUFCEU		17.62	19.39	18.99	18.03	16.39	13.70	11.22	10.02	10.16	12.06	16.20	15.36	17.52	27.52	40.35	51.94	MM
CBGMF	X	18.32	20.15X	19.69X	18.68X	16.91X	14.28X	11.64X	10.37X	10.50X	12.46X	16.69	15.86X	17.89	28.12	41.50	53.25	AJ
CD6AUQ		17.42	19.26	18.86	17.93	16.38	13.65	11.17	10.00	10.13	12.01	16.13	15.32	17.48	27.40	40.19	51.85	MK
CFVNRU		17.48	19.38	18.98	17.99	16.42	13.74	11.15	10.03	10.22	12.22	16.04	15.46	17.60	27.73	40.45	51.74	XQ
CMXV8		17.77	19.35	18.92	17.99	16.37	13.57	11.01	9.79	9.91X	11.78	16.27	15.04	16.94	27.10	40.27	52.06	CA
D3PEGC		17.15	19.33	18.80	17.97	16.33	13.72	11.20	10.03	10.10	11.96	15.74	15.31	17.23	26.65	39.38	50.72	MJ
ETVTNJ		17.65	19.51	19.04	18.08	16.49	13.78	11.32	10.03	10.17	12.03	16.19	15.39	17.30	27.32	40.40	51.99	AJ
EZCENB		17.67	19.65	19.25	18.26	16.61	13.89	11.36	10.25	10.36	12.18	16.39	15.51	17.31	27.43	40.62	50.99	AJ
F7WGZQ		17.42	19.18	18.81	17.93	16.40	13.65	11.14	9.89	10.01	11.76	16.21	15.16	16.76	26.69	39.78	51.71	PE

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WebCode	Data Flag	Spectrophotometric Reflectance values (as %) at selected wavelengths															Instr Code	
		400	420	440	460	480	500	520	540	560	580	600	620	640	660	680		700
Sample B101																		
FQJ4Q7		17.55	19.61	19.16	18.19	16.50	13.84	11.28	10.11	10.23	12.21	16.30	15.45	17.64	27.81	40.99	51.00	AM
FZRLFQ		18.04	19.51	19.00	18.08	16.44	13.84	11.12	10.02	10.07	11.95	16.41	15.36	16.84	27.03	40.60	52.15	MX
G6KQ29		18.09	19.46	19.37	18.45	16.75	14.01	11.45	10.32	10.39	12.35	16.52	15.66	17.59	27.44	40.16	51.78	GG
G8NQVD		17.87	19.39	18.95	18.07	16.50	13.85	11.26	10.04	10.17	11.99	16.31	15.47	17.00	26.80	40.12	51.45	MV
GELMEA		17.45	19.34	18.96	18.18	16.59	13.92	11.43	10.23	10.34	12.11	16.39	15.59	17.31	27.13	39.96	51.24	HX
GWQ6U4		17.17	18.83X	18.45X	17.66X	16.10	13.50X	11.04	9.87	10.01	11.95	16.03	15.10	18.24	27.64	40.19	51.38	MH
H39WJ9		17.58	19.46	19.06	18.11	16.51	13.80	11.31	10.14	10.28	12.25	16.33	15.49	17.78	27.86	40.69	52.35	MK
J428VM		17.65	19.34	18.67	17.71X	16.03X	13.55	11.06	9.85	9.98	11.91	15.80	15.20	17.00	26.96	39.91	50.91	GD
J789TJ		18.20	19.34	18.82	17.97	16.33	13.75	11.22	10.01	10.18	12.10	15.88	15.32	17.34	26.85	39.46	50.76	MJ
JA382M		17.37	19.16	18.81	17.90	16.30	13.66	11.20	10.03	10.16	12.03	16.10	15.29	17.47	27.50	40.13	51.60	MI
JHXMVF		18.24	19.52	19.08	18.16	16.56	13.82	11.29	10.03	10.15	12.00	16.42	15.34	16.99	27.38	40.48	52.26	MV
JUBJ2K		17.75	19.52	19.17	18.22	16.60	13.87	11.29	10.22	10.29	12.17	16.36	15.56	17.40	27.44	40.69	52.13	AO
KLQ3LF		17.66	19.80	19.38	18.38	16.69	13.90	11.28	10.07	10.18	11.92	15.97	15.12	16.99	26.79	39.54	50.06	AQ
KRFMPV		17.86	19.62	19.14	18.16	16.52	13.83	11.31	10.12	10.24	12.15	16.25	15.47	17.49	27.56	40.63	52.23	AJ
LQJCMZ		17.83	19.44	19.06	18.07	16.52	13.79	11.27	10.04	10.17	12.08	16.20	15.44	17.46	27.60	40.70	52.04	XX
LXZ3TT		17.54	19.51	19.10	18.18	16.57	13.82	11.31	10.08	10.22	12.11	16.21	15.44	17.61	27.54	40.29	51.78	MM
M9CUP2		17.69	19.41	18.99	18.07	16.54	13.73	11.17	9.95	10.10	11.92	16.43	15.24	17.04	27.16	40.31	52.10	CA
MGBEX		17.54	19.54	19.06	18.14	16.54	13.90	11.29	10.04	10.16	12.09	16.39	15.38	17.16	27.27	40.32	51.90	MV
MGE6KQ		17.52	19.48	19.07	18.16	16.45	13.82	11.26	10.07	10.23	12.13	16.36	15.50	17.47	27.70	40.68	50.88	AJ
MGT2W7		17.59	19.51	19.05	18.14	16.51	13.82	11.27	10.16	10.24	12.04	16.29	15.41	17.27	27.38	41.11	51.50	AM
MUHLC		17.58	19.37	18.95	18.03	16.31	13.69	11.18	10.12	10.19	12.18	16.21	15.22	17.43	27.38	39.99	50.96	MG
NJC8G7		18.06	19.58	19.08	18.18	16.57	13.87	11.29	10.06	10.18	12.12	16.43	15.40	17.16	27.52	40.55	52.12	MV
NT3Z4J		17.47	19.10	18.72	17.79	16.18	13.57	11.14	9.91	10.11	11.99	16.09	15.11	17.12	26.97	39.59	50.71	MG
NVX6W		17.77	19.71	19.25	18.36	16.59	13.95	11.38	10.20	10.35	12.13	16.37	15.44	17.34	27.43	40.64	51.80	AO
PHGGW		18.01	19.55	19.13	18.24	16.60	13.94	11.44	10.16	10.27	11.93	16.32	15.52	16.17X	26.14	39.66	51.56	HP

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WebCode	Data Flag	Spectrophotometric Reflectance values (as %)at selected wavelengths															Instr Code	
		400	420	440	460	480	500	520	540	560	580	600	620	640	660	680		700
Sample B101																		
PHZQ4R		17.63	19.49	19.08	18.17	16.58	13.87	11.37	10.11	10.25	12.06	16.16	15.48	17.43	27.26	40.10	51.67	MM
PPFJZA		17.52	19.56	19.01	18.18	16.49	13.81	11.23	10.04	10.14	12.04	16.50	15.33	17.04	27.34	40.51	52.34	MV
PW2CEU		18.13	19.50	19.04	18.11	16.49	13.80	11.19	10.00	10.14	12.04	16.39	15.23	17.09	27.48	40.57	52.30	MV
Q74FZY		17.41	19.46	19.01	18.06	16.35	13.75	11.23	10.04	10.17	12.04	16.11	15.41	17.34	27.61	40.49	50.59	AM
Q9MPRB		18.36	19.65	19.22	18.26	16.57	13.86	11.33	10.16	10.29	12.30	16.41	15.48	17.54	27.45	40.23	51.76	GG
QHXV62		17.64	19.57	19.10	18.12	16.45	13.75	11.23	9.99	10.12	12.02	16.02	15.41	17.38	28.33	41.28	50.65	AM
RH6UCF		17.35	19.29	18.93	18.00	16.39	13.70	11.23	10.03	10.16	12.06	16.18	15.34	17.50	27.50	40.35	52.00	MM
RKJEKB		17.64	19.58	19.17	18.20	16.60	13.85	11.29	10.15	10.24	11.98	16.23	15.48	17.14	27.07	40.31	51.82	AJ
RQ83FF		17.51	19.52	19.14	18.20	16.59	13.91	11.33	10.12	10.26	12.19	16.30	15.44	17.33	27.55	40.45	50.57	AJ
RVGWZ		17.94	19.12	18.85	17.84	16.07X	13.67	11.05	10.04	10.12	12.07	16.15	15.32	17.53	27.62	40.50	51.89	XU
TB9GAC		17.21	18.99X	18.68	17.83	16.12	13.49X	11.02	9.94	10.09	12.04	16.01	15.20	17.38	27.53	40.24	51.86	XO
TCH4PK		17.70	19.58	19.17	18.21	16.63	13.90	11.34	10.16	10.26	12.03	16.24	15.48	17.17	27.21	40.82	51.56	AJ
TGCNNF		17.78	19.48	19.06	18.07	16.47	13.85	11.41	10.06	10.29	12.13	16.24	15.38	16.73	27.23	40.36	51.13	HF
TLMB87		17.11	19.50	19.05	18.23	16.49	13.94	11.33	10.09	10.19	12.05	16.15	15.67	17.37	27.31	40.39	50.04	AM
U82JBP		17.99	19.77	19.37	18.27	16.70	13.95	11.47	10.27	10.34	12.40	16.82X	15.35	16.95	27.20	40.85	51.99	HH
URUK8R		17.55	19.41	19.06	18.11	16.53	13.85	11.32	10.02	10.17	11.76	15.96	15.52	17.10	26.69	39.57	51.48	HP
UUHW7		17.65	19.43	19.03	18.10	16.45	13.74	11.26	10.07	10.20	12.12	16.27	15.37	17.56	27.63	40.47	52.05	MK
UUTC4Q		17.59	19.70	19.21	18.18	16.49	13.83	11.28	10.05	10.22	12.12	16.19	15.44	17.61	28.08	41.38	50.10	AJ
UVCMA		16.87	19.18	18.69	17.85	16.20	13.69	11.19	10.00	10.14	12.00	15.77	15.31	17.31	26.88	39.67	50.99	MJ
UVML7L		17.96	19.55	19.11	18.22	16.54	13.87	11.31	10.15	10.25	12.20	16.32	15.45	17.49	27.44	40.20	51.69	GG
VXPJZ8		17.57	19.45	19.02	18.09	16.36	13.79	11.21	10.01	10.14	12.00	16.15	15.43	17.46	27.84	40.81	50.58	AM
WAL8T8		17.18	19.41	18.88	17.99	16.32	13.73	11.23	10.04	10.18	12.07	15.83	15.39	17.38	26.99	39.80	51.01	MJ
WK4UV		17.41	19.29	18.85	17.86	16.27	13.59	11.10	9.91	10.03	11.93	15.98	15.18	17.19	27.09	39.94	50.06	AJ
WPBUY		17.60	19.44	19.01	18.10	16.48	13.82	11.23	10.03	10.14	12.05	16.38	15.42	17.12	27.52	40.55	52.33	MV
WPV2EP		17.42	19.68	19.30	18.36	16.67	13.97	11.40	10.14	10.27	12.14	16.33	15.57	17.49	27.69	41.21	51.21	AJ

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WebCode	Data Flag	Spectrophotometric Reflectance values (as %) at selected wavelengths																Instr Code
		400	420	440	460	480	500	520	540	560	580	600	620	640	660	680	700	
Sample B101																		
X7QRBP		18.05	19.38	18.93	18.04	16.39	13.69	11.21	9.95	10.05	11.78	16.25	15.36	16.58	26.28	39.89	51.68	HP
X8CJN2		17.91	19.48	19.13	18.15	16.54	13.84	11.30	10.15	10.38	12.43X	16.53	15.45	17.74	28.22	41.10	52.82	MZ
XET6M8		16.70X	19.20	18.72	17.91	16.32	13.71	11.22	10.01	10.06	11.82	15.63X	15.36	17.07	26.33	38.95X	50.26	MJ
XZNH6		17.62	19.43	18.93	18.01	16.36	13.70	11.17	9.94	10.07	11.94	16.26	15.27	16.97	27.13	40.05	51.66	MV
YBAMT		17.67	19.45	19.06	18.13	16.51	13.82	11.32	10.11	10.25	12.17	16.29	15.43	17.66	27.78	40.70	52.34	MK
YC6YUN		17.39	19.55	19.12	18.27	16.61	13.92	11.37	10.06	10.19	11.95	16.09	15.50	17.27	27.29	40.65	50.77	AJ
YPPLXU	X	15.59X	16.17X	16.27X	17.10X	18.23X	19.79X	21.47X	22.92X	24.77X	26.95X	27.93X	28.08X	28.08X	27.94	27.75X	27.51X	XO
YRERF7		17.60	19.55	19.08	18.15	16.49	13.77	11.26	10.07	10.22	12.09	16.15	15.44	17.50	27.73	40.71	50.90	AJ
Z3U2JP		17.77	19.61	19.27	18.25	16.57	13.94	11.36	10.18	10.33	12.24	16.44	15.57	17.50	27.50	40.50	50.75	AJ
ZGQDX		17.63	19.67	19.22	18.26	16.53	13.93	11.36	10.16	10.30	12.19	16.27	15.56	17.52	27.84	40.70	51.55	AJ
ZLKGGR		17.50	19.44	19.04	18.13	16.53	13.80	11.27	10.04	10.17	12.05	16.15	15.45	17.51	27.75	40.92	51.45	AJ
ZYVNP		17.70	19.62	19.16	18.27	16.59	13.88	11.34	10.20	10.30	12.11	16.26	15.47	17.45	27.65	40.76	51.41	AM

Summary Statistics

Grand Means																	
	17.63	19.46	19.03	18.10	16.46	13.79	11.26	10.07	10.19	12.07	16.21	15.39	17.33	27.36	40.41	51.53	
Std Dev Btwn Labs																	
	0.29	0.17	0.16	0.14	0.14	0.11	0.09	0.11	0.09	0.13	0.18	0.13	0.33	0.45	0.49	0.66	

Comments assigned on Data Flags for Test #411

CBGMFH (X) - High data for most wavelengths.

YPPLXU (X) - High and low data at various wavelengths.

Interlaboratory Testing Program for Color & Appearance

Analysis 440

60 Degree Gloss - Paint Chips

ASTM Method D 523

WebCode	Data Flag	Sample F101			Sample F102			Instr Code
		Lab Mean	Difference from Grand Mean	Comparative Performance Value	Lab Mean	Difference from Grand Mean	Comparative Performance Value	
2AKHFR		57.43	0.15	0.21	68.00	0.54	0.70	GL
2B4TMT	X	52.55	-4.73	-6.47	62.16	-5.30	-6.82	MR
2MDRU7		57.98	0.70	0.96	67.98	0.52	0.66	GN
2N94VZ	X	63.00	5.73	7.85	74.08	6.62	8.52	GK
2RJXGH		57.58	0.30	0.42	67.40	-0.06	-0.08	GK
2VL7R2	*	58.10	0.83	1.13	66.98	-0.48	-0.62	HP
2WJW6P		58.13	0.85	1.17	67.48	0.02	0.02	GL
428R3K		57.70	0.43	0.59	67.83	0.37	0.47	GK
4AW2B9		57.95	0.68	0.93	67.93	0.47	0.60	PA
66WTDX	*	56.55	-0.72	-0.99	68.03	0.57	0.73	GK
68T4ER		57.40	0.13	0.18	67.63	0.17	0.21	GN
6DR88Q	X	60.40	3.13	4.29	71.48	4.02	5.17	GL
76DLYM		57.75	0.48	0.66	68.15	0.69	0.89	GL
7863A2		56.50	-0.77	-1.06	66.98	-0.48	-0.62	GN
7ABPHY		55.78	-1.50	-2.05	65.78	-1.68	-2.17	BT
7G8PTL		58.00	0.73	1.00	68.03	0.57	0.73	GL
7GNN4X		58.03	0.75	1.03	67.75	0.29	0.37	GN
89XF8D		58.30	1.03	1.41	68.10	0.64	0.82	GL
8JTPT2		56.78	-0.50	-0.68	67.98	0.52	0.66	GS
8TVKDD		56.58	-0.70	-0.95	66.65	-0.81	-1.04	RA
AJ7C8G	*	59.10	1.83	2.50	69.80	2.34	3.01	GL
AYG6RD		57.03	-0.25	-0.34	67.33	-0.13	-0.17	GN
AZN3XK		57.08	-0.20	-0.27	67.50	0.04	0.05	GN
B4CR4J		58.10	0.83	1.13	67.90	0.44	0.57	GK
BP8BBV		56.30	-0.97	-1.33	66.53	-0.93	-1.20	GL
BYCLHL		55.60	-1.67	-2.29	65.80	-1.66	-2.14	XX
BZM3FE		57.53	0.25	0.35	66.70	-0.76	-0.98	GL
C8NEDW		56.95	-0.32	-0.44	67.78	0.32	0.41	GK
CENJZR		57.58	0.30	0.42	68.23	0.77	0.99	GL
CJETAP		56.33	-0.95	-1.30	66.40	-1.06	-1.36	GX
CKB6CK		57.45	0.18	0.24	67.58	0.12	0.15	DM
EDGTP9		58.00	0.73	1.00	68.00	0.54	0.70	GL
EWX6QR		56.85	-0.42	-0.58	66.38	-1.08	-1.40	GL
F6RHGJ		56.78	-0.50	-0.68	66.70	-0.76	-0.98	GK
FEQUDR	X	59.93	2.65	3.63	70.23	2.77	3.56	GL
FKH6MQ		56.90	-0.37	-0.51	67.20	-0.26	-0.33	GN
G4NEZD		57.65	0.38	0.52	68.58	1.12	1.44	GL
GVVTT9		57.70	0.43	0.59	67.28	-0.18	-0.24	GZ
H2CLGD		57.10	-0.17	-0.23	67.20	-0.26	-0.33	GN
HZJV4P		57.63	0.35	0.48	66.80	-0.66	-0.85	GL
J4GNNU		57.53	0.25	0.35	67.25	-0.21	-0.27	GK
J7JPQC		57.63	0.35	0.48	68.30	0.84	1.08	GN
JBYJ4H		56.65	-0.62	-0.85	66.75	-0.71	-0.91	GK
KFNW7C		58.93	1.65	2.26	68.70	1.24	1.60	GX
KHTXPX		56.93	-0.35	-0.47	67.75	0.29	0.37	GL

Interlaboratory Testing Program for Color & Appearance

Analysis 440

60 Degree Gloss - Paint Chips

ASTM Method D 523

WebCode	Data Flag	Sample F101			Sample F102			Instr Code
		Lab Mean	Difference from Grand Mean	Comparative Performance Value	Lab Mean	Difference from Grand Mean	Comparative Performance Value	
KTX XVV		56.50	-0.77	-1.06	67.05	-0.41	-0.53	GL
L7HUFQ		57.23	-0.05	-0.06	67.70	0.24	0.31	GL
LXKA84		57.08	-0.20	-0.27	67.38	-0.08	-0.11	GL
MA96RV		57.13	-0.15	-0.20	67.20	-0.26	-0.33	GL
N7TKDZ		56.85	-0.42	-0.58	67.10	-0.36	-0.46	GL
P98MQH	*	55.53	-1.75	-2.39	65.33	-2.13	-2.75	GL
QWWH9U		57.35	0.08	0.11	68.63	1.17	1.50	XX
R4CCUP		56.55	-0.72	-0.99	67.25	-0.21	-0.27	GL
R9PYXV		57.68	0.40	0.55	68.05	0.59	0.76	GK
RM7KYU		56.75	-0.52	-0.71	66.83	-0.63	-0.82	GN
RZ87AW		56.65	-0.62	-0.85	67.38	-0.08	-0.11	SJ
T8A7DC		58.18	0.90	1.24	68.13	0.67	0.86	GL
UV4ERA	X	59.08	1.80	2.47	70.50	3.04	3.91	GK
UXJX9F		57.80	0.53	0.72	67.83	0.37	0.47	GL
V7QY6Z		56.03	-1.25	-1.71	66.40	-1.06	-1.36	GX
VDMYFL		57.75	0.48	0.66	67.60	0.14	0.18	GK
VMA2E9		57.03	-0.25	-0.34	66.60	-0.86	-1.11	GK
VWWP6N		56.98	-0.30	-0.41	67.48	0.02	0.02	GL
VZZ8GY		57.13	-0.15	-0.20	67.45	-0.01	-0.01	GK
W9PWQD		57.28	0.00	0.01	67.73	0.27	0.34	GL
WN2BAV	X	55.10	-2.17	-2.97	66.75	-0.71	-0.91	MR
XEP88P		57.80	0.53	0.72	67.23	-0.23	-0.30	GQ
XG24BM		56.98	-0.30	-0.41	67.00	-0.46	-0.59	GL
Y9ZREB		56.95	-0.32	-0.44	67.63	0.17	0.21	GN
YLMKXW		58.05	0.78	1.07	68.25	0.79	1.02	GL
YMJVYR		58.03	0.75	1.03	68.58	1.12	1.44	MR
YTB3HZ		56.78	-0.50	-0.68	67.13	-0.33	-0.43	XX
YXHWAB		56.18	-1.10	-1.50	65.90	-1.56	-2.01	GL
Z3PNVT		57.80	0.53	0.72	67.50	0.04	0.05	GL
ZMXJCL		58.23	0.95	1.31	68.63	1.17	1.50	GK

Summary Statistics

Grand Means	57.27	Gloss Units	67.46	Gloss Units
Std Dev Btwn Labs	0.73	Gloss Units	0.78	Gloss Units
Statistics based on 68 of 75 reporting participants				

Interlaboratory Testing Program for Color & Appearance
Analysis 440
60 Degree Gloss - Paint Chips
ASTM Method D 523

Comments on assigned Data Flags for Test #440

2B4TMT(X) - Data for both samples are low. Possible systematic error.

2N94VZ(X) - Data for both samples are high. Possible systematic error.

6DR88Q(X) - Data for both samples are high. Possible systematic error.

FEQUDR(X) - Data for both samples are high. Possible systematic error.

UV4ERA(X) - Inconsistent in testing between samples, data for Sample F102 are high.

WN2BAV(X) - Inconsistent in testing between samples, data for Sample F101 are low.

Interlaboratory Testing Program for Color & Appearance

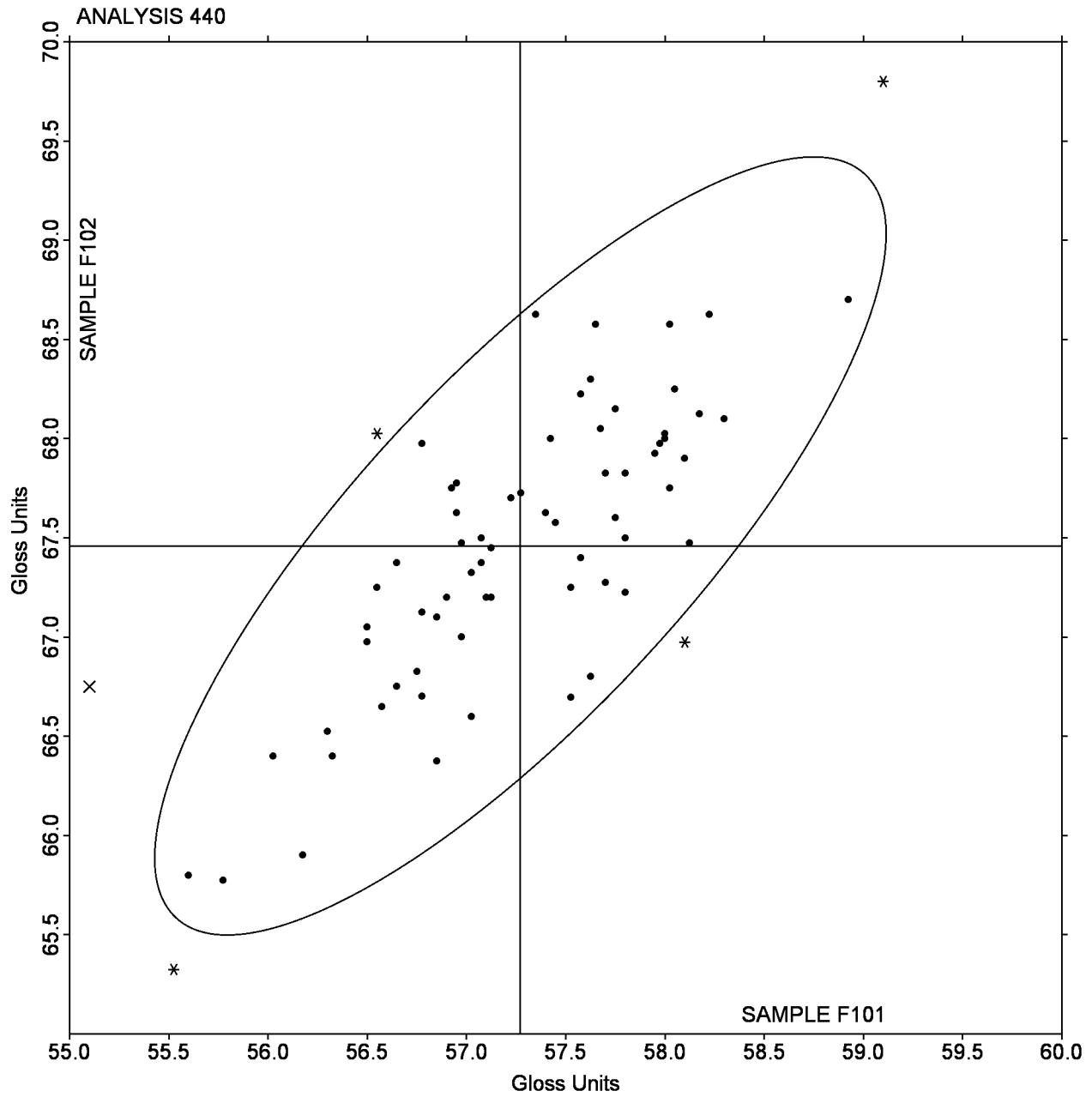
Analysis 440

60 Degree Gloss - Paint Chips

ASTM Method D 523

SAMPLE F101 = 57.27 Gloss Units

SAMPLE F102 = 67.46 Gloss Units



Interlaboratory Testing Program for Color & Appearance

Analysis 442

85 Degree Gloss - Paint Chips

ASTM Method D 523

WebCode	Data Flag	Sample K101			Sample K102			Instr Code
		Lab Mean	Difference from Grand Mean	Comparative Performance Value	Lab Mean	Difference from Grand Mean	Comparative Performance Value	
2Y4GTC		12.13	-1.12	-1.68	16.33	-1.58	-1.64	HQ
6M3ATR		13.98	0.73	1.10	18.40	0.50	0.52	GN
7MB79F		13.43	0.18	0.28	18.23	0.32	0.33	GL
7YN76A		13.05	-0.19	-0.29	17.23	-0.68	-0.70	GN
CYQQDJ		13.33	0.08	0.13	18.55	0.65	0.67	GN
EX9XU7		13.78	0.53	0.80	17.93	0.02	0.02	GL
F3ERP9		13.18	-0.07	-0.10	17.88	-0.03	-0.03	GL
FBCRFF		14.40	1.16	1.74	19.88	1.97	2.05	GL
HEF3AZ		12.28	-0.97	-1.46	17.10	-0.80	-0.83	MH
JXVYJ6		12.78	-0.47	-0.70	17.38	-0.53	-0.55	GL
KHFEJC		13.58	0.33	0.50	18.28	0.37	0.39	GL
PJW26M		13.28	0.03	0.05	18.65	0.75	0.78	GL
QHBLQQ		12.93	-0.32	-0.48	16.90	-1.00	-1.04	GN

Summary Statistics

Grand Means	13.24 Gloss Units	17.90 Gloss Units
Std Dev Btwn Labs	0.66 Gloss Units	0.96 Gloss Units
Statistics based on 12 of 13 reporting participants		

Analysis Notes for Test #442

No "X" data flags were assigned for this analysis.

Interlaboratory Testing Program for Color & Appearance

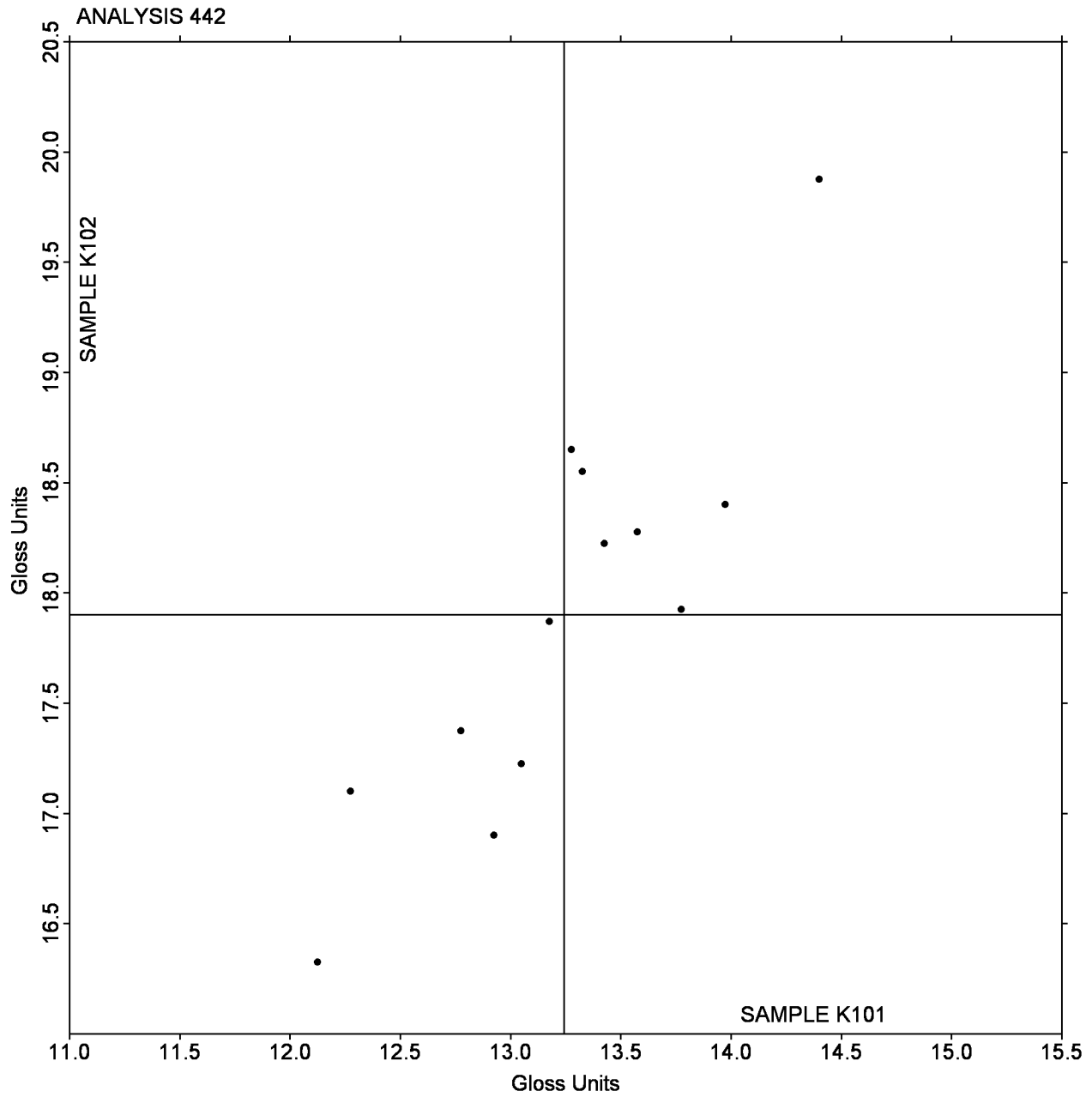
Analysis 442

85 Degree Gloss - Paint Chips

ASTM Method D 523

SAMPLE K101 = 13.24 Gloss Units

SAMPLE K102 = 17.90 Gloss Units



Instrument Code List - Report# 152

Instrument information as provided by laboratories

<u>Analysis</u>	<u>Analysis Name</u>
440	Gloss 60 Degree (Paint Chips)

Instrument code and description

BT	BYK-Chemie (was BYK-Labotron) Tri-Gloss
DM	Dr. Lange Refo 3
GK	BYK-Gardner micro-gloss (60)
GL	BYK-Gardner micro-TRI-gloss
GN	BYK-Gardner new micro-TRI-gloss
GQ	BYK-Gardner haze-gloss
GS	BYK-Gardner Glossgard II
GX	BYK-Gardner (model not specified)
GZ	Gardco Statistical Novo-Gloss (60)
HP	Hunter PRO-3 Glossmeter
MR	Macbeth Novo-Gloss (20/60/85)
PA	Photovolt micro-TRI-gloss G3
RA	Rhopoint Novo-Gloss Glossmeter
SJ	Sheen Minigloss 101
XX	Instrument make/model not specified by lab

442	Gloss 85 Degree (Paint Chips)
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Instrument code and description

GL	BYK-Gardner micro-TRI-gloss
GN	BYK-Gardner new micro-TRI-gloss
HQ	Hunter D48 Glossmeter (85)
MH	X-Rite/Macbeth Color-Eye XTH

Instrument Code List - Report# 152

Instrument information as provided by laboratories

Analysis Analysis Name

408 Color & Color Difference (Paint Chips) - 45-0

Instrument code and description

AE	ACS Chroma-Sensor CS-3
GA	BYK-Gardner Color Guide (45/0)
GD	BYK-Gardner The Color Machine
GE	BYK-Gardner spectro-guide (45/0)
GH	BYK-Gardner Color-View
GU	Gretag Spectrolino Spectrophotometer
HK	Hunter MiniScan XE (45/0)
HW	Hunter LabScan XE
MG	Macbeth 1500/PLUS or 2025+ Color Eye
MQ	Minolta CM-503c Spectrophotometer
TN	Topcon SR-1 Spectroradiometer
XK	X-Rite MA100 Multi-Angle SpectroPhotometer
XM	X-Rite MA58 Multi-Angle SpectroPhotometer
XN	X-Rite MA68 Multi-Angle SpectroPhotometer
XO	X-Rite MA68 II Multi-Angle SpectroPhotometer
XP	X-Rite 962 SpectroPhotometer
XR	X-Rite 968 Portable SpectroPhotometer
XT	X-Rite 948 SpectroColorimeter
XU	X-Rite 964 Portable SpectroPhotometer
XV	X-Rite 939 SpectroDensitometer

409 Color & Color Difference (Paint Chips) Sphere

Instrument code and description

AD	ACS Chroma-Sensor CS-5	MM	Macbeth Color-Eye 7000a
AJ	ACS-Datascolor Intl. Spectraflash 600	MT	Minolta CM-2600d
AL	ACS-Datascolor Intl. Dataflash 100	MV	Minolta CM-3000d Series Spectrophotometer
AM	ACS-Datascolor Intl. Spectraflash 600 Plus	MX	Minolta CM-508d Spectrophotometer
AO	ACS-Datascolor Intl. Spectraflash 650X	MZ	Minolta CM-2002 Spectrophotometer
AQ	ACS-Datascolor Intl. Spectraflash 600X	PE	Perkin Elmer Spectrophotometer
CA	Cary 5000	XI	X-Rite Color i7
GD	BYK-Gardner spectro-guide sphere	XO	X-Rite SP64 Portable Sphere Spectrophotometer
GF	BYK-Gardner The Color Sphere (TCS)	XQ	X-Rite SP68 Portable Sphere Spectrophotometer
GG	BYK-Gardner TCS II	XR	X-Rite SP78 Portable Sphere Spectrophotometer
HF	Hunter ColorFlex Diffuse	XU	X-Rite Color Premier 8200 Spectrophotometer
HG	Hunter ColorQUEST	XX	Instrument make/model not specified by lab
HH	Hunter ColorQUEST XE		
HP	Hunter UltraScan PRO		
HW	Hunter UltraScan XE		
HX	Hitachi C-2000S Spectrophotometer		
MG	Macbeth 2180 Color Eye		
MH	Macbeth Color-Eye XTH		
MI	Macbeth Color i 5		
MJ	Macbeth Color-Eye 3000		
MK	Macbeth Color-Eye 7000		

Instrument Code List - Report# 152

Instrument information as provided by laboratories

Analysis Analysis Name

411 Spectrophotometric (Paint Chips) - Sphere

Instrument code and description

A J ACS-Datcolor Intl. Spectraflash 600
A L ACS-Datcolor Intl. Dataflash 100
AM ACS-Datcolor Intl. Spectraflash 600 Plus
AO ACS-Datcolor Intl. Spectraflash 650X
AQ ACS-Datcolor Intl. Spectraflash 600X
CA Cary 5000
GD BYK-Gardner spectro-guide sphere
GG BYK-Gardner TCS II
HF Hunter ColorFlex Diffuse
HG Hunter ColorQUEST
HH Hunter ColorQUEST XE
HP Hunter UltraScan PRO
HW Hunter UltraScan XE
HX Hitachi C-2000S Spectrophotometer
MG Macbeth 2180 Color Eye
MH Macbeth Color-Eye XTH
MI Macbeth Color i 5
MJ Macbeth Color-Eye 3000 Spectrophotometer
MK Macbeth Color-Eye 7000 Spectrophotometer
MM Macbeth Color-Eye 7000a
MT Minolta CM-2600d
MV Minolta CM-3000d Series Spectrophotometer
MX Minolta CM-508d Spectrophotometer
MZ Minolta CM-2002 Spectrophotometer
P E Perkin Elmer Spectrophotometer
X I X-Rite Color i7
X O X-Rite SP64
X Q X-Rite SP68 Portable Sphere SpectroPhotometer
X R X-Rite SP78 Portable Sphere Spectrophotometer
X U X-RiteColor Premier 8200 Spectrophotometer
X X Instrument make/model not specified by lab