

UGRA

Display Analysis & Certification Tool

Report

Basics

Date: 2009-9-23 18:59:40
Report-Version: v1.2.1
Monitor-Name: HP LP2475w
Profile: /Library/ColorSync/Profiles/23.09.09-5000K-L-120cd.icc
Created: 2009-9-23 18:56
Measurement device: eye-one pro

Summary

The monitor has passed the certification according to the UGRA DACT specifications.

Calibration

White Point	yes
Gray balance	yes
Profile quality	yes

Softproofing

MultiColor, HighBody	yes
Offset/Gravure Paper Type 1/2	yes
Offset on uncoated paper	yes
Newspaper Printing	yes
Layout	yes

Diagram



Whitepoint

The whitepoint should be as close as possible to the black body curve and the calibration target. The maximum allowed distance to the target whitepoint is DeltaE %3.1.

XYZ:	123.17 127.14 106.46
XYZ (normalized):	96.87 100.00 83.73
Luminance:	127.1 Cd/m2
Next Temperature:	5011 Kelvin
Assumed Target Whitepoint:	5000 Kelvin
Distance to assumed Target Whitepoint:	1.3 deltaE

Blackpoint

Luminance:	0.3 Cd/m2
Chromaticity:	1.3 Chroma (Lab)

Gray balance

Average and maximum calculation will respect measurements with 1% minimum luminance only. The maximum allowed deviations to comply with this test are an average of DeltaC 1.0 and a range of DeltaC 2.0.

%	Kelvin	Cd/m2	L	Chroma	Gamma
0	6674	0.33	2.32	1.28	
5	5314	0.95	6.74	2.22	1.76
10	4872	1.52	10.55	0.44	2.04
15	4977	2.58	15.62	0.44	2.14
20	5089	4.06	20.80	0.44	2.20
25	5042	5.66	25.12	0.43	2.29
30	5027	8.22	30.55	0.35	2.31
35	5061	10.97	35.26	0.87	2.37
40	5056	14.55	40.31	0.71	2.40
45	5035	18.55	45.06	0.43	2.43
50	5033	23.43	50.01	0.54	2.46
55	5091	29.43	55.23	0.76	2.46
60	4994	36.09	60.24	0.51	2.47
65	4967	43.30	65.01	1.12	2.53
70	5005	51.35	69.74	0.23	2.55
75	4966	61.13	74.88	0.47	2.56
80	5017	72.14	80.03	0.12	2.55
85	5025	83.26	84.73	0.28	2.62
90	5001	96.34	89.75	0.51	2.67
95	4981	110.64	94.75	0.53	2.70
100	5011	127.14	100.00	0.00	
Average	5013			0.48	2.39
Range				1.55	

Tone values = 89.9%

Profile Quality

This test displays and measures RGB values and compares them with the transformation of the profile. The maximum allowed deviations to comply with this test are an average of DeltaE 3.0 and a maximum of DeltaE 6.0.

RGB	Lab	deltaLab	deltaE
0 0 0	2.3 -0.3 -1.2	-2.3 0.3 1.2	2.7
0 0 128	10.3 38.5 -63.1	-1.4 3.3 -3.1	4.7
0 0 255	27.9 73.1 -115.5	-0.2 -0.0 -0.5	0.6
0 128 0	41.6 -78.6 42.1	0.0 -1.2 2.1	2.5
0 128 128	43.5 -53.8 -10.9	-0.3 -0.2 -0.7	0.8
0 170 255	61.0 -30.5 -61.6	0.0 -0.7 0.2	0.7
0 255 0	85.4 -140.1 77.9	-0.3 0.3 -0.4	0.6
0 255 170	86.3 -122.2 26.5	-0.3 1.0 -1.6	1.9
0 255 255	88.0 -95.0 -20.2	-0.3 0.3 -0.3	0.5
85 85 85	33.8 -0.8 0.4	-0.5 0.8 -0.4	1.0
128 0 0	27.9 57.6 40.8	-0.3 1.7 3.5	3.9
128 0 128	30.4 63.9 -29.7	-0.3 1.3 -0.4	1.3
128 128 0	49.1 -9.3 53.9	-0.1 0.2 1.2	1.2
128 128 128	50.6 -0.4 -0.2	-0.4 0.4 0.2	0.5
128 128 255	55.5 29.1 -70.4	-0.5 0.4 -0.2	0.7
128 255 128	88.6 -95.2 49.6	-0.4 0.1 -0.6	0.7
170 0 255	46.8 92.1 -84.4	-0.3 -0.0 0.6	0.6
170 170 170	66.8 0.4 0.3	-0.2 -0.4 -0.3	0.5
170 255 0	90.4 -76.2 85.7	-0.4 -0.1 -0.7	0.8
170 255 255	92.9 -49.0 -12.5	-0.4 -0.4 -0.0	0.6
255 0 0	60.7 103.6 86.5	-0.3 0.4 0.3	0.5
255 0 170	62.3 108.0 -3.9	-0.2 -0.1 0.5	0.6
255 0 255	65.1 114.6 -53.6	-0.2 -0.4 0.9	1.0
255 128 128	71.2 72.7 32.6	-0.4 0.5 0.9	1.2
255 170 0	77.7 46.6 87.0	-0.1 -0.7 -0.5	0.9
255 170 255	80.9 60.5 -28.8	-0.3 -0.1 0.4	0.5
255 255 0	98.2 -16.1 97.7	-0.3 0.1 -1.2	1.3
255 255 170	99.1 -10.0 45.7	-0.4 0.1 -0.3	0.5
255 255 255	100.0 0.0 0.0	0.0 -0.0 0.0	0.0
170 85 85	47.3 48.8 21.9	-0.6 0.7 0.1	0.9
85 170 85	58.7 -63.5 32.5	-0.1 -0.7 0.4	0.8
85 85 170	36.9 18.4 -46.3	-0.5 0.8 -1.1	1.4
85 170 170	60.1 -46.3 -10.9	-0.2 -0.5 -0.2	0.6
170 85 170	49.2 56.1 -25.8	-0.5 0.8 -0.8	1.3
170 170 85	65.7 -8.3 43.6	-0.2 -0.6 0.3	0.7
Average			1.1
Maximum			4.7

Gamut

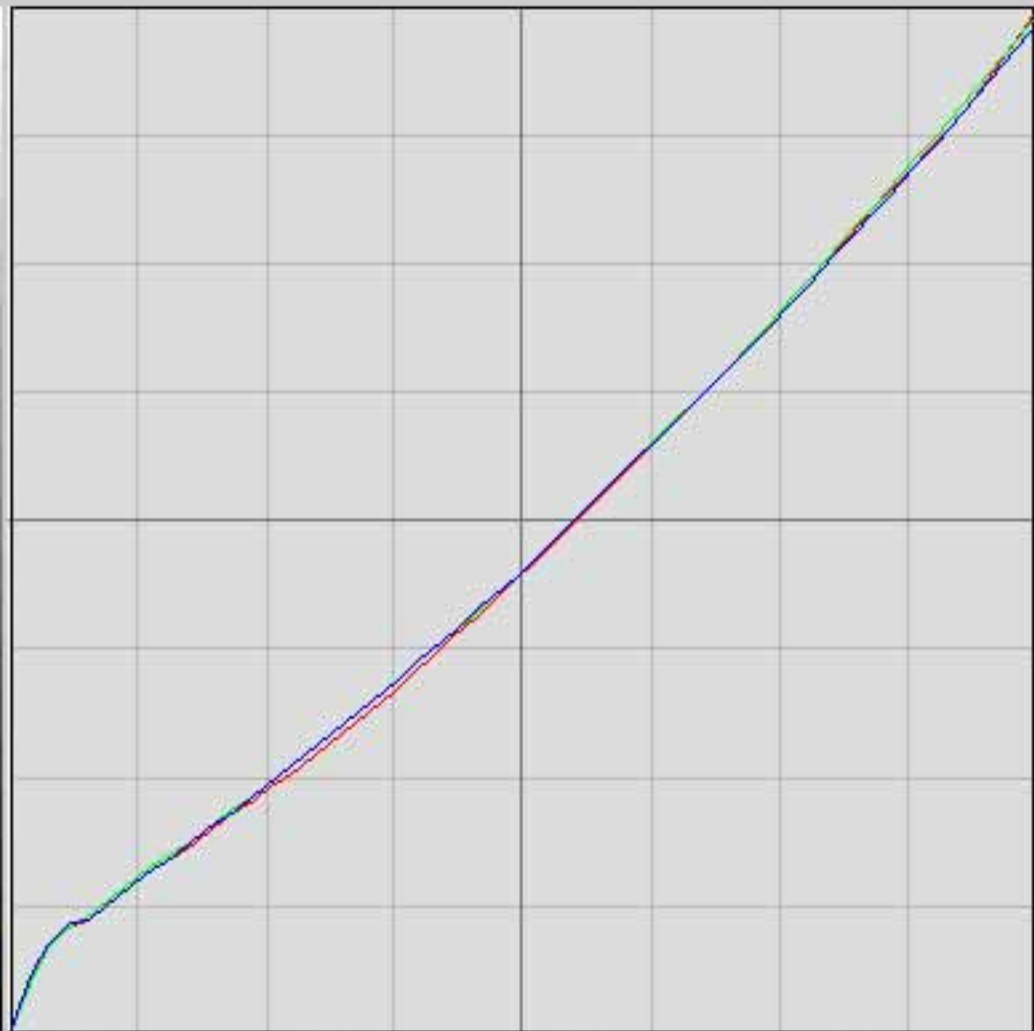
This test displays and measures Lab values and compares them with the reference. The maximum allowed deviations to comply with this test are an average of DeltaE 4.0 and a minimum Gamut volume of 90% for ISOcoated.

Reference	Lab	deltaLab
55.0 -37.0 -50.0	55.4 -35.9 -49.4	1.3
66.9 -24.7 -37.1	67.4 -24.9 -36.4	1.0
79.7 -12.5 -21.8	79.9 -12.3 -21.6	0.3
48.0 74.0 -3.0	48.4 73.8 -3.5	0.7
60.8 50.6 -6.7	61.3 50.3 -6.3	0.6
76.4 25.8 -6.9	76.8 25.1 -7.2	0.9
89.0 -5.0 93.0	89.3 -5.4 90.4	2.7
90.3 -4.7 62.6	90.5 -4.0 61.9	1.0
92.2 -3.5 31.1	92.4 -4.1 31.1	0.7
53.1 37.7 28.9	53.6 37.1 28.8	0.8
41.5 22.7 16.8	42.1 21.3 17.1	1.5
31.9 40.0 24.0	32.8 39.2 23.3	1.3
32.5 44.5 -1.8	33.3 43.5 -1.1	1.4
51.3 1.3 44.5	51.6 1.6 44.6	0.4
34.6 -36.4 13.9	35.4 -36.2 13.3	1.1
36.0 -26.2 -20.9	36.7 -25.9 -19.9	1.2
20.9 9.6 -23.6	21.8 9.1 -23.0	1.2
89.0 0.0 -1.9	89.1 0.4 -2.2	0.5
82.8 0.0 -1.7	83.0 0.2 -2.0	0.5
69.3 0.0 -1.4	69.6 0.1 -1.4	0.4
54.1 0.0 -1.0	54.7 -0.1 -1.6	0.9
36.6 0.0 -0.5	37.2 -1.2 0.0	1.5
16.0 0.0 0.0	17.5 -0.3 0.5	1.6
24.0 22.0 -46.0	24.8 22.0 -45.6	0.9
40.9 17.9 -36.6	41.8 16.8 -34.8	2.3
63.7 10.3 -23.8	64.3 11.0 -24.0	0.9
47.0 68.0 48.0	47.3 67.2 47.3	1.1
58.5 47.1 37.9	59.2 46.6 37.4	1.0
74.2 22.9 21.4	74.6 23.0 20.5	0.9
50.0 -65.0 27.0	50.7 -64.4 26.9	0.9
62.1 -39.8 21.0	62.5 -39.1 20.8	0.9
77.0 -19.1 11.0	77.4 -19.5 11.4	0.7
71.2 18.9 17.2	71.6 18.6 16.4	1.0
71.2 22.1 73.1	71.6 22.2 73.4	0.5
47.7 71.2 16.2	48.4 70.8 15.7	1.0
38.0 55.4 -20.9	38.7 54.7 -21.0	0.9
73.7 -22.8 67.6	74.0 -22.3 67.8	0.6
52.3 -52.3 -20.1	52.7 -52.8 -19.3	1.1
43.3 -17.0 -48.6	44.1 -17.1 -47.6	1.3
95.0 0.0 -2.0	95.1 0.3 -3.0	1.0
88.5 -0.4 -3.1	88.8 -0.7 -3.4	0.5
82.0 -0.9 -4.1	82.3 -1.0 -4.4	0.5
67.7 -2.0 -4.4	68.3 -1.6 -4.3	0.7
52.2 -2.5 -3.5	52.8 -2.8 -3.8	0.7
37.5 -3.9 -3.1	38.3 -4.3 -3.1	0.9
26.3 -6.8 -3.4	27.0 -7.4 -2.9	1.1
Average		1.0
Gamut-Volume		100 %

Measurement Data

This table lists all RGB measurements. The XYZ values represent the values from the measurement device.

RGB	XYZ	RGB	XYZ
255 255 255	123.17 127.14 106.46	85 85 170	14.75 12.07 34.64
0 0 0	0.31 0.33 0.36	85 170 170	22.06 35.93 38.24
12 12 12	0.95 0.95 0.93	170 85 170	37.74 22.57 35.10
25 25 25	1.49 1.52 1.24	170 170 85	40.06 44.40 12.22
38 38 38	2.48 2.58 2.11	0 156 221	19.83 29.68 68.38
51 51 51	3.90 4.06 3.41	115 182 231	36.97 47.33 77.93
63 63 63	5.45 5.66 4.71	179 209 239	63.61 71.89 87.05
76 76 76	7.93 8.22 6.83	190 55 131	42.83 21.80 20.04
89 89 89	10.52 10.97 9.07	202 124 169	55.51 37.57 36.17
102 102 102	13.97 14.55 12.08	218 182 208	75.63 65.06 62.19
114 114 114	18.00 18.55 15.70	241 228 0	88.77 95.02 10.07
127 127 127	22.58 23.43 19.49	242 231 113	92.94 98.51 24.05
140 140 140	28.31 29.43 24.76	241 236 180	97.81 103.70 50.25
153 153 153	35.11 36.09 30.39	178 112 87	37.67 27.41 10.06
165 165 165	41.79 43.30 35.46	132 93 78	19.78 15.98 7.63
178 178 178	49.82 51.35 43.10	123 53 43	15.31 9.46 3.00
191 191 191	59.38 61.13 50.87	124 50 88	16.50 9.73 8.46
204 204 204	69.90 72.14 60.53	143 129 45	24.77 25.16 4.96
216 216 216	80.50 83.26 69.65	51 101 62	6.27 11.06 5.69
229 229 229	93.17 96.34 80.08	40 102 125	8.02 11.91 18.08
242 242 242	107.53 110.64 92.61	51 49 92	5.01 4.39 9.11
0 0 128	3.46 1.49 17.00	226 227 230	91.87 94.59 82.06
0 0 255	17.81 6.90 93.01	210 211 214	76.67 79.01 68.53
0 128 0	4.82 15.58 2.50	176 177 179	49.57 51.15 44.08
0 128 128	8.20 17.16 19.47	138 138 140	27.89 28.83 25.12
0 170 255	26.98 37.19 97.74	93 93 94	11.72 12.30 10.29
0 255 0	25.77 84.85 12.11	41 41 41	2.95 3.07 2.50
0 255 170	31.96 87.32 44.85	55 51 136	7.64 5.54 20.77
0 255 255	43.46 91.63 105.61	105 97 164	18.56 15.75 32.36
85 85 85	9.66 10.08 8.34	163 158 202	44.82 42.13 56.97
128 0 0	14.80 6.88 0.50	188 60 40	38.70 20.63 3.13
128 0 128	18.13 8.14 17.57	201 119 86	50.15 34.58 10.44
128 128 0	19.66 22.45 2.64	218 177 154	69.56 60.50 33.20
128 128 128	23.17 24.01 20.20	56 148 75	10.93 24.15 9.09
128 128 255	37.82 29.78 96.66	122 173 119	26.47 39.48 20.04
128 255 128	44.26 93.14 29.68	180 204 176	55.37 66.35 44.61
170 0 255	47.08 20.20 95.20	205 172 153	61.34 54.84 32.55
170 170 170	45.02 46.32 38.53	217 169 26	62.85 54.66 6.20
170 255 0	55.16 98.17 12.45	190 58 99	41.68 21.76 11.55
170 255 255	73.17 105.13 106.76	143 54 133	24.12 13.30 20.34
255 0 0	80.57 36.71 1.27	181 196 42	48.11 59.31 8.87
255 0 170	87.03 39.06 35.59	27 152 165	14.20 26.43 34.77
255 0 255	98.49 43.42 96.31	30 119 189	13.94 17.66 45.97
255 128 128	88.87 53.98 21.68	241 242 246	108.57 111.84 98.06
255 170 0	90.08 67.01 5.51	224 226 231	90.41 93.75 83.02
255 170 255	107.86 74.22 100.17	206 209 216	74.35 77.32 69.88
255 255 0	106.40 121.35 12.98	169 174 180	46.68 48.83 44.61
255 255 170	113.07 124.07 47.35	129 134 139	24.96 26.50 24.40
170 85 85	32.81 20.67 8.85	90 97 101	11.93 13.02 12.04
85 170 85	17.01 33.93 11.87	58 70 72	5.57 6.50 6.10



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