

UGRA

Display Analysis & Certification Tool

Report

Basics

Date: 2010-5-6 21:30:06
Report-Version: v1.3.1
Monitor-Name: \\.\DISPLAY1
Profile: C:/Windows/system32/spool/drivers/color/LG_w2220p_ugra.icc
Created: 2010-5-6 21:23
Measurement device: DTP94-LCD mode

Summary

The monitor has not passed the certification according to the UGRA DACT specifications.

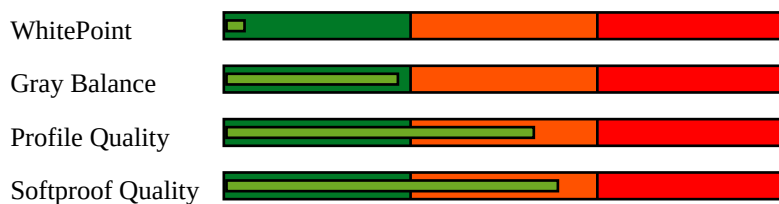
Calibration

White Point	yes
Gray balance	yes
Profile quality	no

Softproofing

MultiColor, HighBody	no
Offset/Gravure Paper Type 1/2	no
Offset on uncoated paper	no
Newspaper Printing	no
sRGB	no
AdobeRGB	no
ECI-RGB	no

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 2.0.

XYZ:	114.47 120.10 117.32
XYZ (normalized):	95.31 100.00 97.69
Luminance:	120.1 Cd/m2
Next Temperature:	5820 Kelvin
Assumed Target Whitepoint:	5800 Kelvin
Distance to assumed Target Whitepoint:	0.2 deltaE

Blackpoint

The blackpoint is not defined in ISO 12646. Therefore UDACT does only measure but not assess it.

Luminance:	0.2 Cd/m2
Chromaticity:	1.7 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	15182	0.16	1.20	1.71	
5	6749	0.55	4.14	1.06	1.93
10	5758	2.00	13.62	1.26	1.84
15	5627	3.99	21.29	1.00	1.83
20	5954	6.68	28.28	1.22	1.82
25	5815	9.67	34.09	0.60	1.83
30	5785	13.46	39.93	0.42	1.83
35	5853	18.15	45.79	0.19	1.81
40	5844	23.09	50.95	0.14	1.81
45	5844	27.92	55.33	0.15	1.83
50	5818	34.09	60.23	0.41	1.83
55	5802	40.81	64.95	0.14	1.81
60	5858	47.49	69.14	0.28	1.82
65	5814	54.58	73.18	0.32	1.84
70	5789	62.45	77.28	0.57	1.83
75	5812	71.25	81.47	0.22	1.82
80	5837	80.17	85.38	0.66	1.83
85	5812	88.46	88.76	0.46	1.87
90	5854	98.73	92.67	0.36	1.85
95	5849	108.96	96.30	0.35	1.87
100	5820	120.10	100.00	0.00	
Average	5818			0.46	1.84
Range				1.85	
Max				1.26	

Tone values = 96.7%

Through the calibration of a display tone values can be lost. A display for the printing industry should show at least 95% of the incoming tone values.

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.

The assumed chromatic adaptation is: von Kries

RGB	Lab	deltaLab	deltaE
0 0 0	1.2 0.1 -1.7	-1.2 -0.1 1.7	2.1
0 0 128	12.1 32.6 -62.9	3.5 0.5 -4.2	5.4
0 0 255	26.9 50.1 -96.0	4.9 0.1 -5.5	7.3
0 128 0	44.4 -49.2 44.0	6.5 -0.7 -0.7	6.6
0 128 128	49.5 -33.5 -11.3	3.7 -0.5 1.0	3.8
0 170 255	66.2 -27.7 -39.5	2.6 2.8 -4.2	5.7
0 255 0	76.4 -75.8 68.6	8.8 0.4 -3.1	9.4
0 255 170	81.1 -62.9 11.9	5.8 -0.2 2.9	6.5
0 255 255	83.8 -52.1 -15.7	4.8 0.6 0.2	4.8
85 85 85	43.9 0.2 -0.7	0.1 -0.2 0.7	0.7
128 0 0	28.7 47.5 34.4	4.7 0.5 -1.4	4.9
128 0 128	35.2 53.1 -32.5	2.1 -0.4 -0.2	2.2
128 128 0	55.6 -8.2 51.8	3.3 0.6 -2.9	4.4
128 128 128	60.7 -0.2 -0.3	0.0 0.2 0.3	0.4
128 128 255	66.7 12.0 -41.5	-1.8 3.1 -7.9	8.6
128 255 128	86.8 -40.7 30.3	3.1 -4.6 4.4	7.1
170 0 255	49.7 68.5 -65.1	2.0 -1.0 -4.5	5.0
170 170 170	74.9 -0.4 0.5	0.0 0.4 -0.5	0.6
170 255 0	86.1 -36.5 74.2	5.2 -1.7 -4.3	7.0
170 255 255	93.4 -19.1 -7.4	1.0 -3.3 -0.1	3.4
255 0 0	52.3 71.7 54.8	6.3 0.8 -4.9	8.0
255 0 170	58.1 76.3 -21.1	3.6 -0.2 3.5	5.0
255 0 255	61.8 80.1 -48.2	2.9 -0.5 -1.3	3.2
255 128 128	74.6 34.0 15.1	0.1 5.3 2.8	6.0
255 170 0	77.7 15.7 68.9	3.3 3.6 -5.1	7.1
255 170 255	86.3 26.3 -16.8	-1.5 4.4 -3.6	5.9
255 255 0	93.0 -12.7 79.6	4.2 1.1 -5.6	7.1
255 255 170	97.3 -5.2 25.7	1.3 -0.6 3.5	3.7
255 255 255	100.0 -0.0 0.0	0.0 0.0 -0.0	0.0
170 85 85	54.7 26.7 11.3	0.3 4.2 2.8	5.0
85 170 85	64.5 -31.6 24.2	2.5 -4.1 3.2	5.8
85 85 170	48.5 9.6 -32.3	-1.2 2.3 -6.6	7.1
85 170 170	67.5 -22.7 -7.4	1.3 -3.0 -0.9	3.4
170 85 170	58.5 31.7 -20.2	-1.1 5.0 -3.7	6.3
170 170 85	71.8 -6.0 29.9	1.6 -0.3 4.5	4.7
Average			5.0
Maximum			9.4

Gamut-Volume

These measurements are only informative.

Gamut-Volume	
ISO	84 %
sRGB	83 %
AdobeRGB	68 %
ECI-RGB v1.0	63 %

ISO-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	55.9 -21.0 -40.0	18.9
66.9 -24.7 -37.1	65.3 -24.5 -32.9	4.5
79.7 -12.5 -21.8	79.6 -10.5 -19.2	3.3
48.0 74.0 -3.0	47.3 65.7 -4.7	8.5
60.8 50.6 -6.7	61.1 44.9 -6.7	5.7
76.4 25.8 -6.9	77.3 22.2 -6.3	3.8
89.0 -5.0 93.0	85.3 -5.4 73.9	19.4
90.3 -4.7 62.6	87.2 -5.7 59.0	4.8
92.2 -3.5 31.1	90.6 -3.3 26.6	4.9
53.1 37.7 28.9	51.9 33.4 24.4	6.3
41.5 22.7 16.8	40.9 19.4 13.5	4.7
31.9 40.0 24.0	30.1 35.2 19.8	6.5
32.5 44.4 -1.8	31.2 40.8 -4.6	4.8
51.3 1.3 44.5	48.4 0.1 46.8	3.9
34.6 -36.4 13.9	31.6 -32.9 11.9	5.0
36.0 -26.2 -20.9	34.5 -20.8 -18.1	6.2
20.9 9.6 -23.6	22.3 8.1 -19.1	5.0
89.0 0.0 -1.8	88.8 0.9 -2.5	1.1
82.8 0.0 -1.7	82.5 0.1 -1.2	0.6
69.3 0.0 -1.4	69.1 -0.3 -1.6	0.4
54.1 0.0 -1.0	53.8 0.8 -1.0	0.9
36.6 -0.0 -0.5	36.3 0.9 -0.4	1.0
16.0 0.0 0.0	17.0 -1.3 1.7	2.3
24.0 22.0 -46.0	25.7 17.6 -38.3	9.1
40.9 17.9 -36.6	41.9 15.1 -31.4	5.9
63.7 10.3 -23.8	64.7 9.2 -20.2	3.9
47.0 68.0 48.0	43.0 62.8 46.7	6.7
58.5 47.1 37.9	56.6 41.6 33.6	7.2
74.2 22.9 21.4	73.9 19.4 18.8	4.4
50.0 -65.0 27.0	46.8 -46.5 25.6	18.8
62.1 -39.8 21.0	59.2 -35.8 17.6	6.0
77.0 -19.1 11.0	75.6 -16.2 9.0	3.8
71.2 18.8 17.3	70.9 15.6 15.0	3.9
71.2 22.2 73.1	68.5 18.7 62.2	11.8
47.7 71.2 16.2	45.9 64.4 12.5	8.0
38.0 55.4 -20.9	36.3 53.9 -20.8	2.3
73.7 -22.8 67.6	69.7 -21.0 62.4	6.7
52.3 -52.3 -20.2	52.0 -32.7 -15.5	20.1
43.3 -17.0 -48.6	43.4 -12.6 -39.8	9.9
95.0 0.0 -2.0	94.6 0.0 -2.2	0.4
88.5 -0.4 -3.1	88.5 -0.3 -2.9	0.2
82.0 -0.9 -4.1	81.8 -1.2 -3.4	0.8
67.7 -2.0 -4.4	67.8 -2.3 -3.5	1.0
52.2 -2.5 -3.5	51.9 -1.4 -3.1	1.2
37.5 -3.9 -3.1	37.5 -3.2 -2.9	0.7
26.3 -6.8 -3.4	26.5 -6.1 -2.3	1.3
Average		5.6
Gamut-Volume		84 %

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	114.47 120.10 117.32	85 85 170	22.53 20.62 43.31
0 0 0	0.16 0.16 0.28	85 170 170	35.34 44.84 50.85
12 12 12	0.52 0.55 0.62	170 85 170	40.85 31.83 48.21
25 25 25	1.87 2.00 1.85	170 170 85	46.54 52.14 26.33
38 38 38	3.79 3.99 3.72	0 135 220	23.32 28.67 64.65
51 51 51	6.25 6.68 6.46	31 164 232	32.92 41.47 76.08
63 63 63	9.28 9.67 9.56	136 196 239	60.11 67.24 91.32
76 76 76	12.89 13.46 13.19	205 0 101	35.68 19.47 21.66
89 89 89	17.29 18.15 17.82	214 74 143	49.38 35.21 39.92
102 102 102	21.99 23.09 22.62	223 150 192	70.33 62.55 68.57
114 114 114	26.59 27.92 27.35	242 220 0	71.33 79.96 14.98
127 127 127	32.40 34.09 33.10	241 224 47	75.54 84.46 24.61
140 140 140	38.93 40.81 39.79	238 230 145	85.85 93.27 57.06
153 153 153	45.19 47.49 46.58	178 72 51	31.40 24.07 11.67
165 165 165	51.93 54.58 53.08	118 62 51	16.85 14.19 8.90
178 178 178	59.77 62.45 61.13	113 22 22	11.59 7.52 3.11
191 191 191	68.01 71.25 69.68	115 14 63	13.39 8.06 9.32
204 204 204	76.09 80.17 77.95	120 102 0	19.09 20.57 3.89
216 216 216	84.54 88.46 86.72	0 80 42	4.58 8.31 5.06
229 229 229	94.06 98.73 96.99	0 80 102	7.22 9.91 17.05
242 242 242	103.84 108.96 107.01	38 33 71	4.93 4.33 9.04
0 0 128	3.96 1.72 20.30	215 216 221	85.09 88.60 90.16
0 0 255	14.10 6.11 72.08	194 195 199	70.14 73.48 73.33
0 128 0	8.15 16.94 3.18	152 153 156	45.07 47.36 47.77
0 128 128	14.33 21.66 28.12	110 110 112	25.12 26.12 26.17
0 170 255	33.36 42.76 87.27	68 68 69	10.62 11.00 10.89
0 255 0	29.04 60.72 10.92	30 30 30	2.56 2.77 2.48
0 255 170	40.70 70.53 55.11	42 30 115	7.50 5.58 19.61
0 255 255	50.21 76.62 97.14	82 66 146	17.63 14.96 33.20
85 85 85	15.79 16.52 16.45	140 128 190	42.28 40.39 59.25
128 0 0	12.48 6.83 1.13	202 0 0	28.78 15.74 2.45
128 0 128	19.34 10.31 25.84	213 73 43	40.25 29.39 11.26
128 128 0	24.04 28.19 5.37	224 146 118	61.15 55.89 37.10
128 128 128	32.98 34.66 34.12	0 131 47	9.97 19.09 8.29
128 128 255	47.36 43.46 91.40	57 157 87	21.53 32.72 20.64
128 255 128	58.41 83.55 46.47	141 191 150	49.38 59.14 48.44
170 0 255	41.85 21.74 83.10	204 141 119	53.97 50.46 35.93
170 170 170	54.97 57.86 56.00	224 137 0	50.24 46.40 8.55
170 255 0	58.05 81.95 15.50	205 0 65	33.12 18.19 12.26
170 255 255	85.22 100.82 110.49	139 0 108	20.23 10.95 19.99
255 0 0	44.30 24.43 3.66	148 183 0	37.45 48.45 9.12
255 0 170	57.34 31.19 48.39	0 134 146	16.51 24.24 34.34
255 0 255	67.49 36.14 88.92	0 94 178	14.08 16.16 42.16
255 128 128	69.57 57.13 41.23	235 237 242	99.44 104.20 105.28
255 170 0	66.08 63.33 11.70	211 215 223	83.69 87.85 90.07
255 170 255	94.23 82.29 105.68	187 193 203	68.18 71.98 74.64
255 255 0	84.93 99.69 18.66	141 150 158	42.50 45.33 47.52
255 255 170	102.07 111.93 71.68	99 107 112	22.68 24.08 25.44
170 85 85	33.17 27.18 19.87	63 72 75	10.78 11.76 12.62
85 170 85	28.13 40.14 22.07	37 51 52	5.11 5.92 6.35