

UGRA

Display Analysis & Certification Tool

Report

Basics

Date: 2010-3-27 17:34:39
Report-Version: v1.3.1
Monitor-Name: \\.\DISPLAY1
EDID-Name: W2443
EDID-Serial:
Profile: C:/Windows/system32/spool/drivers/color/LG W2443T-PF_ugra.icc
Created: 2010-3-27 17:27
Measurement device: DTP94-LCD mode

Summary

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

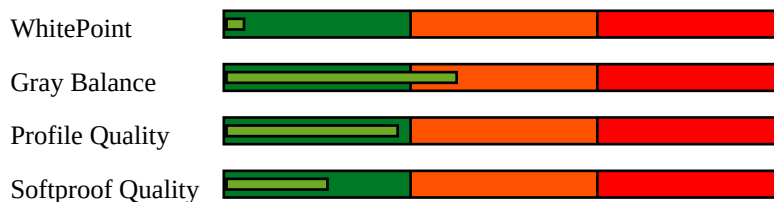
Calibration

White Point	yes
Gray balance	no
Profile quality	yes

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:	116.46 122.00 118.68
XYZ (normalized):	95.46 100.00 97.28
Luminance:	122.0 Cd/m2
Next Temperature:	5783 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:	0.3 Cd/m2
Chromaticity:	1.0 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	5811	0.27	2.00	0.99	
5	5001	0.88	6.52	2.27	1.82
10	5618	2.14	14.14	0.64	1.83
15	5651	4.16	21.62	0.48	1.82
20	5647	6.82	28.35	0.55	1.82
25	5761	9.99	34.37	0.13	1.82
30	5778	13.94	40.29	0.76	1.81
35	5761	18.55	45.91	0.92	1.82
40	5825	23.49	50.98	0.25	1.81
45	5733	28.83	55.72	0.33	1.82
50	5756	34.91	60.44	0.20	1.81
55	5812	41.42	64.92	0.25	1.81
60	5788	48.77	69.45	0.04	1.80
65	5778	56.00	73.48	0.22	1.82
70	5793	63.77	77.44	0.13	1.82
75	5801	72.79	81.66	0.39	1.81
80	5787	81.72	85.50	0.19	1.81
85	5783	90.57	89.03	0.06	1.84
90	5770	100.67	92.80	0.19	1.83
95	5820	111.57	96.60	0.37	1.73
100	5783	122.00	100.00	0.00	
Average	5760			0.32	1.81
Range				1.67	
Max				0.92	

Tone values = 92.7%

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: CAT02

RGB	Lab	deltaLab	deltaE
0 0 0	2.0 0.8 -0.6	-2.0 -0.8 0.6	2.2
0 0 128	13.9 44.2 -71.9	0.6 -1.6 -0.5	1.8
0 0 255	29.4 65.7 -110.7	0.7 -1.3 1.1	1.9
0 128 0	50.7 -63.0 43.3	0.5 1.6 3.5	3.9
0 128 128	52.4 -41.3 -13.5	0.8 0.9 1.1	1.6
0 170 255	67.6 -28.3 -50.6	0.8 0.3 2.3	2.5
0 255 0	85.5 -92.5 72.5	0.1 -0.3 -1.7	1.7
0 255 170	86.8 -75.8 14.1	0.3 -0.6 -0.2	0.7
0 255 255	88.4 -60.8 -19.3	0.3 -0.3 0.6	0.7
85 85 85	44.3 -0.1 0.1	-0.3 0.1 -0.1	0.4
128 0 0	34.2 52.9 45.9	-0.9 1.4 5.3	5.6
128 0 128	37.6 61.6 -32.1	-0.6 -0.2 -2.3	2.4
128 128 0	59.2 -10.9 54.7	-0.2 1.1 3.5	3.7
128 128 128	60.8 0.2 -0.1	-0.1 -0.2 0.1	0.2
128 128 255	64.5 19.7 -54.6	-0.0 -0.3 1.0	1.0
128 255 128	90.4 -53.9 38.4	-0.2 -0.9 -1.5	1.7
170 0 255	51.0 80.7 -74.0	-0.2 -0.4 -0.4	0.6
170 170 170	74.9 0.2 -0.9	0.0 -0.2 0.9	0.9
170 255 0	91.8 -47.0 81.1	-0.2 0.4 -1.4	1.5
170 255 255	94.6 -25.6 -9.2	-0.2 -0.6 0.0	0.7
255 0 0	58.7 82.3 81.2	-0.1 -0.2 -0.6	0.6
255 0 170	61.0 88.6 -15.8	0.3 -1.0 -0.8	1.3
255 0 255	63.7 93.7 -52.2	0.3 -0.8 0.2	0.9
255 128 128	74.7 44.7 22.9	0.1 0.4 -0.3	0.4
255 170 0	81.4 20.5 79.4	-0.1 0.9 1.2	1.5
255 170 255	84.5 35.7 -22.5	0.1 0.5 0.9	1.1
255 255 0	97.7 -15.0 90.6	-0.2 0.1 -2.5	2.5
255 255 170	98.8 -7.3 33.6	-0.0 -0.1 -0.9	0.9
255 255 255	100.0 -0.0 0.0	0.0 0.0 -0.0	0.0
170 85 85	55.5 35.2 17.9	-0.4 0.3 -0.1	0.5
85 170 85	67.1 -43.7 28.1	0.1 0.5 0.9	1.1
85 85 170	47.0 15.9 -42.6	-0.0 -0.6 0.4	0.8
85 170 170	68.6 -30.3 -11.2	0.2 -0.1 1.1	1.1
170 85 170	57.4 43.6 -25.3	-0.2 -0.4 0.1	0.5
170 170 85	73.7 -8.5 38.3	-0.1 0.3 0.8	0.9
Average			1.4
Maximum			5.6

Gamut-Volume

These measurements are only informative.

Gamut-Volume	
ISO	93 %
sRGB	99 %
AdobeRGB	84 %
ECI-RGB v1.0	76 %

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	56.4 -21.5 -47.8	15.8
66.9 -24.7 -37.1	66.3 -24.9 -38.4	1.4
79.7 -12.5 -21.8	79.7 -12.3 -22.9	1.2
48.0 74.0 -3.0	49.1 72.7 -0.1	3.4
60.8 50.6 -6.7	61.0 50.4 -6.5	0.3
76.4 25.8 -6.9	76.5 25.7 -6.9	0.1
89.0 -5.0 93.0	89.3 -5.1 82.4	10.6
90.3 -4.7 62.6	90.3 -5.5 62.4	0.8
92.2 -3.5 31.1	92.3 -4.0 31.7	0.8
53.1 37.7 28.9	53.6 37.8 28.8	0.5
41.5 22.7 16.8	42.3 22.6 17.0	0.8
31.9 40.0 24.0	32.8 38.8 23.1	1.7
32.5 44.4 -1.8	33.2 43.3 -0.4	1.9
51.3 1.3 44.5	51.7 1.3 41.7	2.8
34.6 -36.4 13.9	34.3 -36.3 12.6	1.3
36.0 -26.2 -20.9	35.4 -23.8 -21.3	2.5
20.9 9.6 -23.6	21.2 8.7 -22.0	1.9
89.0 0.0 -1.8	89.0 0.1 -2.1	0.3
82.8 0.0 -1.7	82.7 -0.1 -2.3	0.6
69.3 0.0 -1.4	69.4 0.1 -2.1	0.8
54.1 0.0 -1.0	54.1 0.4 -1.3	0.5
36.6 -0.0 -0.5	36.8 0.2 -1.0	0.6
16.0 0.0 0.0	17.2 -0.8 0.2	1.4
24.0 22.0 -46.0	23.8 22.9 -45.3	1.1
40.9 17.9 -36.6	40.8 18.2 -36.2	0.5
63.7 10.3 -23.8	63.4 11.7 -24.4	1.5
47.0 68.0 48.0	47.8 67.3 46.8	1.6
58.5 47.1 37.9	58.8 46.3 37.6	0.9
74.2 22.9 21.4	74.3 22.9 21.8	0.5
50.0 -65.0 27.0	50.3 -58.1 26.8	6.9
62.1 -39.8 21.0	62.1 -40.5 20.6	0.8
77.0 -19.1 11.0	77.1 -19.2 10.7	0.4
71.2 18.8 17.3	71.2 18.7 17.2	0.1
71.2 22.2 73.1	71.3 21.3 70.2	3.0
47.7 71.2 16.2	48.4 71.0 17.1	1.2
38.0 55.4 -20.9	39.0 55.6 -19.0	2.2
73.7 -22.8 67.6	73.7 -23.9 65.1	2.7
52.3 -52.3 -20.2	53.0 -38.7 -18.7	13.7
43.3 -17.0 -48.6	43.4 -9.9 -48.7	7.1
95.0 0.0 -2.0	95.0 0.2 -2.8	0.8
88.5 -0.4 -3.1	88.5 -0.5 -4.0	0.8
82.0 -0.9 -4.1	82.1 -0.8 -4.4	0.3
67.7 -2.0 -4.4	67.7 -2.2 -4.6	0.3
52.2 -2.5 -3.5	52.5 -3.1 -3.0	0.9
37.5 -3.9 -3.1	37.8 -4.0 -3.3	0.4
26.3 -6.8 -3.4	26.2 -6.2 -3.7	0.7
Average		2.2
Gamut-Volume		93 %

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	116.46 122.00 118.68	85 85 170	23.05 19.86 51.13
0 0 0	0.28 0.27 0.31	85 170 170	35.29 47.54 57.37
12 12 12	0.83 0.88 0.68	170 85 170	43.96 31.01 51.86
25 25 25	2.04 2.14 2.01	170 170 85	49.44 56.06 23.49
38 38 38	3.98 4.16 3.96	0 134 210	24.47 30.37 76.23
51 51 51	6.54 6.82 6.52	55 162 223	34.92 44.20 86.68
63 63 63	9.55 9.99 9.71	143 195 234	60.80 68.99 98.35
76 76 76	13.41 13.94 13.75	192 0 106	40.74 21.26 21.01
89 89 89	17.58 18.55 17.72	202 85 146	51.90 35.45 39.98
102 102 102	22.40 23.49 22.98	216 154 192	71.22 61.71 68.21
114 114 114	27.58 28.83 27.89	242 217 0	81.82 90.24 14.66
127 127 127	33.38 34.91 33.88	241 222 77	84.55 93.23 26.49
140 140 140	39.54 41.42 40.51	238 228 154	91.10 98.83 55.43
153 153 153	46.54 48.77 47.46	169 78 63	35.27 26.00 11.29
165 165 165	53.40 56.00 54.30	113 65 56	18.89 15.36 8.66
178 178 178	60.89 63.77 62.18	107 29 31	14.18 8.96 3.41
191 191 191	69.30 72.79 70.68	108 26 65	15.45 9.23 9.20
204 204 204	77.92 81.72 79.38	119 101 28	22.88 23.99 6.30
216 216 216	86.49 90.57 88.16	17 77 42	5.41 9.93 6.03
229 229 229	96.22 100.67 97.90	0 78 98	7.55 10.78 19.70
242 242 242	106.34 111.57 108.99	36 35 68	4.68 4.10 9.48
0 0 128	5.61 2.38 27.85	215 216 220	86.61 90.58 91.20
0 0 255	19.40 8.33 99.64	194 195 199	71.87 75.26 76.13
0 128 0	10.16 23.11 5.51	152 153 156	46.61 48.75 49.43
0 128 128	15.59 25.25 33.62	110 110 112	25.88 26.98 27.08
0 170 255	36.35 46.67 109.51	68 68 69	11.03 11.51 11.56
0 255 0	36.78 81.44 16.17	30 30 30	2.68 2.85 2.74
0 255 170	46.10 85.16 64.42	39 34 110	7.35 5.11 21.88
0 255 255	56.24 89.65 117.17	79 69 141	17.63 14.58 35.80
85 85 85	16.36 17.16 16.64	138 130 186	41.97 39.33 62.08
128 0 0	17.83 9.69 1.03	190 12 31	36.54 19.82 3.79
128 0 128	23.68 12.07 28.52	202 81 62	45.85 32.25 11.38
128 128 0	27.91 33.01 6.35	217 148 126	64.51 57.22 35.69
128 128 128	33.87 35.43 34.51	0 126 48	10.73 22.72 9.95
128 128 255	47.93 41.51 107.01	74 153 89	23.92 37.23 22.07
128 255 128	60.58 93.80 45.36	148 189 151	51.67 62.95 49.87
170 0 255	49.12 24.17 100.72	199 143 126	56.74 51.62 35.15
170 170 170	56.23 58.79 58.15	217 139 0	57.01 51.27 7.83
170 255 0	65.85 97.38 17.33	192 0 76	39.02 20.57 12.36
170 255 255	86.19 106.07 118.34	130 23 108	23.48 12.96 21.84
255 0 0	60.24 31.82 1.73	153 179 8	43.25 56.05 10.81
255 0 170	69.30 35.45 48.64	0 130 140	16.68 25.94 38.65
255 0 255	79.36 39.88 101.09	0 94 170	15.02 16.84 51.09
255 128 128	75.94 57.68 35.28	236 237 242	102.21 106.81 108.40
255 170 0	77.51 71.33 10.48	211 215 222	85.15 89.34 92.68
255 170 255	96.89 79.52 111.18	188 193 202	70.27 73.93 77.54
255 255 0	97.15 113.90 17.71	142 149 157	43.17 45.95 49.03
255 255 170	106.41 117.63 65.98	100 107 111	23.35 25.21 26.38
170 85 85	37.19 28.26 17.35	64 72 75	11.07 12.19 13.13
85 170 85	28.56 44.82 22.74	38 50 52	5.10 5.90 6.65