

UGRA

Display Analysis & Certification Tool

Report

Basics

Date: 2005-2-25 18:30:09
Report-Version: v1.3.1
Monitor-Name: \\.\DISPLAY1
EDID-Name: L227W
EDID-Serial:
Profile: C:/WINDOWS/System32/spool/.../COLOR/lg_1227wtp_ugra1.icc
Created: 2005-2-25 18:09
Measurement device: DTP94-LCD mode

Summary

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

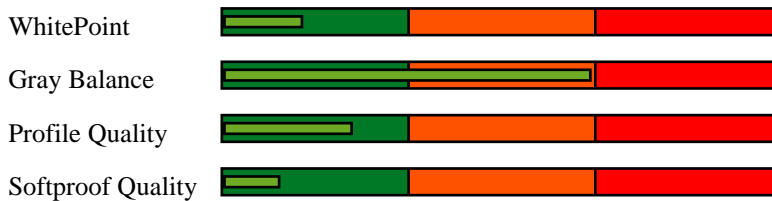
Calibration

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:	114.38 119.62 117.93
XYZ (normalized):	95.62 100.00 98.59
Luminance:	119.6 Cd/m ²
Next Temperature:	5837 Kelvin
Assumed Target Whitepoint:	5800 Kelvin
Distance to assumed Target Whitepoint:	0.8 deltaE

Blackpoint

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

Luminance:	0.1 Cd/m ²
Chromaticity:	1.6 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/m ²	L	Chroma	Gamma
0	18278	0.15	1.13	1.61	
5	6629	0.69	5.21	1.03	1.81
10	6080	2.04	13.86	0.90	1.81
15	5929	4.12	21.74	1.37	1.81
20	5700	6.87	28.76	0.83	1.80
25	5886	9.94	34.62	0.40	1.81
30	5796	13.85	40.54	0.60	1.81
35	5844	18.53	46.30	0.34	1.79
40	5678	23.27	51.21	1.04	1.80
45	5762	28.38	55.81	1.19	1.82
50	5782	33.96	60.24	0.46	1.82
55	5700	41.01	65.19	1.35	1.81
60	5851	47.70	69.38	0.16	1.80
65	5824	54.80	73.42	0.74	1.83
70	5765	62.83	77.59	0.89	1.83
75	5778	70.79	81.39	0.73	1.82
80	5774	80.34	85.59	0.91	1.81
85	5743	89.06	89.14	0.99	1.85
90	5793	98.81	92.84	0.67	1.85
95	5804	108.97	96.45	0.33	1.83
100	5837	119.62	100.00	0.00	
Average	5807			0.73	1.82
Range				2.03	
Max				1.37	

Tone values = 88.4%

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: Bradford

RGB	Lab	deltaLab	deltaE
0 0 0	1.1 -0.2 -1.6	-1.1 0.2 1.6	2.0
0 0 128	11.7 55.0 -76.8	0.2 -1.0 -2.0	2.2
0 0 255	27.1 79.7 -117.0	-1.0 1.9 -2.1	3.0
0 128 0	49.6 -78.3 50.5	1.3 1.7 2.3	3.2
0 128 128	52.0 -51.6 -12.2	0.4 1.9 -1.6	2.5
0 170 255	67.1 -35.0 -51.6	-0.0 1.2 -0.6	1.3
0 255 0	84.9 -114.5 82.1	0.2 -1.3 -2.1	2.5
0 255 170	86.2 -93.5 17.3	0.0 -1.0 -2.9	3.1
0 255 255	87.7 -74.0 -19.4	-0.2 -1.2 -1.4	1.8
85 85 85	44.4 0.2 0.7	-0.4 -0.2 -0.7	0.8
128 0 0	34.7 57.3 50.4	0.0 1.4 3.9	4.1
128 0 128	37.2 68.3 -35.3	0.2 0.1 -0.1	0.2
128 128 0	58.6 -9.9 63.6	0.8 -1.7 1.7	2.5
128 128 128	60.6 0.4 0.3	0.1 -0.4 -0.3	0.5
128 128 255	64.0 22.9 -56.9	-0.4 0.2 -0.1	0.5
128 255 128	90.0 -64.1 41.6	-0.2 -1.9 -1.9	2.7
170 0 255	50.7 90.6 -77.8	-0.3 0.9 0.1	1.0
170 170 170	74.8 0.8 0.2	0.1 -0.8 -0.2	0.9
170 255 0	91.8 -53.5 92.1	-0.0 -2.0 -2.5	3.2
170 255 255	94.3 -29.3 -9.3	-0.4 -1.7 -0.8	1.9
255 0 0	60.3 88.7 89.4	0.5 0.1 -3.5	3.6
255 0 170	62.3 97.1 -17.0	0.5 -0.8 0.9	1.3
255 0 255	64.7 103.5 -54.2	0.1 0.1 0.8	0.8
255 128 128	75.1 50.4 24.0	0.6 -0.0 0.6	0.9
255 170 0	81.0 25.0 90.7	1.3 -1.1 -0.8	1.9
255 170 255	84.6 41.0 -23.4	0.3 0.6 0.9	1.1
255 255 0	97.7 -17.6 102.0	0.4 0.0 -3.3	3.3
255 255 170	98.8 -8.4 35.7	0.2 -0.3 -0.5	0.7
255 255 255	100.0 0.0 0.0	-0.0 0.0 -0.0	0.0
170 85 85	56.1 39.6 19.9	-0.2 0.1 -0.5	0.5
85 170 85	66.6 -51.5 31.2	0.4 -0.5 0.1	0.6
85 85 170	46.6 18.7 -43.8	-0.3 -0.5 -1.1	1.3
85 170 170	67.9 -35.5 -10.9	0.3 -0.8 -0.3	0.9
170 85 170	57.7 49.3 -25.3	-0.2 -0.3 -0.7	0.8
170 170 85	73.6 -8.9 42.3	0.3 -0.7 -0.0	0.7
Average			1.7
Maximum			4.1

Gamut-Volume

These measurements are only informative.

Gamut-Volume	
ISO	98 %
sRGB	100 %
AdobeRGB	97 %
ECI-RGB v1.0	87 %

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	56.0 -29.1 -46.0	8.9
66.9 -24.7 -37.1	66.8 -24.9 -36.6	0.5
79.7 -12.5 -21.8	79.7 -12.3 -21.1	0.7
48.0 74.0 -3.0	47.9 73.7 -2.9	0.3
60.8 50.6 -6.7	61.0 50.7 -5.6	1.2
76.4 25.8 -6.9	76.2 26.8 -6.9	1.0
89.0 -5.0 93.0	88.2 -4.3 93.2	1.1
90.3 -4.7 62.6	90.1 -4.8 63.0	0.5
92.2 -3.5 31.1	92.0 -3.4 31.3	0.3
53.1 37.7 28.9	53.0 38.0 28.4	0.5
41.5 22.7 16.8	41.5 23.0 17.0	0.4
31.9 40.0 24.0	32.4 39.5 23.4	0.9
32.5 44.5 -1.8	33.3 44.2 -1.1	1.1
51.3 1.3 44.5	51.4 1.1 44.4	0.3
34.6 -36.4 13.9	34.5 -37.9 14.1	1.5
36.0 -26.2 -20.9	35.9 -26.9 -19.6	1.4
20.9 9.6 -23.6	21.6 8.9 -23.0	1.1
89.0 0.0 -1.9	88.9 0.3 -0.9	1.0
82.8 0.0 -1.7	82.3 0.8 -1.6	0.9
69.3 0.0 -1.4	69.1 0.3 -0.8	0.7
54.1 0.0 -1.0	54.2 0.2 -0.1	0.9
36.6 0.0 -0.5	36.4 0.3 -0.8	0.5
16.0 0.0 0.0	16.9 -0.5 0.8	1.3
24.0 22.0 -46.0	24.1 21.1 -44.1	2.1
40.9 17.9 -36.6	40.9 17.8 -35.0	1.6
63.7 10.3 -23.8	63.5 10.8 -23.4	0.7
47.0 68.0 48.0	46.9 67.4 47.4	0.8
58.5 47.1 37.9	58.3 47.1 37.7	0.3
74.2 22.9 21.4	74.2 22.7 22.4	1.1
50.0 -65.0 27.0	49.2 -66.2 26.3	1.6
62.1 -39.8 21.0	62.1 -39.9 22.3	1.3
77.0 -19.1 11.0	76.4 -18.5 10.5	1.0
71.2 18.9 17.3	71.1 19.5 17.7	0.8
71.2 22.1 73.1	70.8 22.2 73.2	0.5
47.7 71.2 16.2	47.8 70.9 16.2	0.3
38.0 55.4 -20.9	38.3 55.1 -19.5	1.5
73.7 -22.8 67.6	73.0 -22.4 67.4	0.8
52.3 -52.3 -20.1	52.2 -48.5 -16.9	5.0
43.3 -17.0 -48.6	43.2 -16.5 -46.1	2.6
95.0 0.0 -2.0	95.1 0.2 -1.5	0.6
88.5 -0.4 -3.1	88.4 0.2 -2.1	1.2
82.0 -0.9 -4.1	81.6 -0.2 -3.3	1.1
67.7 -2.0 -4.4	67.6 -2.1 -3.7	0.7
52.2 -2.5 -3.5	52.1 -1.7 -3.1	0.9
37.5 -3.9 -3.1	37.4 -3.5 -3.7	0.7
26.3 -6.8 -3.4	26.4 -6.7 -3.0	0.4
Average		1.2
Gamut-Volume		98 %

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	114.38 119.62 117.93	85 85 170	22.98 19.09 51.69
0 0 0	0.14 0.15 0.27	85 170 170	32.34 45.62 55.51
12 12 12	0.65 0.69 0.75	170 85 170	45.69 30.68 52.48
25 25 25	1.91 2.04 2.03	170 170 85	48.12 54.82 20.58
38 38 38	3.85 4.12 3.96	0 135 207	21.95 29.24 72.91
51 51 51	6.55 6.87 6.56	74 163 221	34.95 44.04 85.16
63 63 63	9.45 9.94 9.79	150 196 232	59.75 67.65 95.21
76 76 76	13.19 13.85 13.45	178 19 104	38.67 19.71 21.52
89 89 89	17.66 18.53 18.18	192 89 144	51.11 34.78 39.26
102 102 102	22.31 23.27 22.35	210 156 191	69.95 60.02 67.46
114 114 114	26.98 28.38 27.28	239 214 0	78.20 86.00 9.12
127 127 127	32.60 33.96 33.38	239 220 88	82.69 90.83 25.06
140 140 140	39.17 41.01 39.28	237 227 158	88.93 96.04 54.53
153 153 153	45.62 47.70 47.18	161 79 64	33.85 24.83 10.93
165 165 165	52.18 54.80 53.48	108 65 56	17.92 14.44 8.18
178 178 178	60.00 62.83 60.94	100 31 32	13.69 8.52 3.20
191 191 191	68.04 70.79 69.68	102 30 64	15.33 9.05 9.43
204 204 204	76.70 80.34 78.01	117 100 34	22.12 23.28 5.38
216 216 216	85.25 89.06 86.40	29 76 44	5.26 9.90 5.67
229 229 229	94.38 98.81 96.41	18 78 97	7.31 10.86 19.16
242 242 242	104.36 108.97 107.08	36 36 67	4.75 4.12 10.00
0 0 128	5.66 1.86 28.67	215 216 220	84.85 88.54 88.57
0 0 255	20.08 7.00 104.00	194 195 199	70.13 72.89 73.97
0 128 0	7.48 21.64 3.42	152 153 155	45.31 47.25 47.32
0 128 128	13.33 24.35 31.89	110 110 112	25.37 26.49 26.19
0 170 255	33.21 44.87 109.43	68 68 69	10.58 11.01 11.16
0 255 0	28.85 78.86 10.76	30 30 30	2.57 2.72 2.57
0 255 170	38.34 82.34 58.75	38 38 107	7.19 5.10 21.53
0 255 255	49.08 86.36 114.59	78 72 138	17.23 14.26 34.83
85 85 85	16.20 16.91 16.35	137 132 183	41.06 38.67 60.99
128 0 0	18.77 9.75 0.74	177 23 31	34.69 18.62 3.40
128 0 128	24.52 11.53 30.41	191 83 63	44.46 30.99 10.93
128 128 0	26.90 31.60 3.89	210 149 127	62.84 55.77 34.65
128 128 128	32.98 34.38 33.67	18 123 54	8.92 21.32 9.26
128 128 255	47.57 39.82 109.35	87 151 92	23.66 36.59 20.79
128 255 128	54.47 91.29 40.97	153 187 153	49.86 60.41 48.37
170 0 255	51.65 23.18 106.40	193 144 127	55.65 50.30 34.20
170 170 170	55.21 57.37 56.41	209 139 25	55.41 49.49 6.41
170 255 0	61.46 95.61 11.50	179 21 74	37.27 19.49 12.28
170 255 255	82.00 103.24 116.90	122 31 105	22.22 12.18 21.47
255 0 0	64.97 33.12 1.19	157 176 34	41.95 53.79 9.11
255 0 170	74.85 36.25 52.11	0 129 139	14.13 24.65 35.92
255 0 255	85.39 40.19 107.27	0 96 167	13.57 16.33 48.16
255 128 128	78.51 57.35 34.82	236 237 242	100.80 105.23 106.14
255 170 0	77.41 69.09 6.39	212 215 221	83.65 87.32 89.06
255 170 255	98.47 77.92 112.63	189 193 201	68.11 71.25 74.48
255 255 0	93.66 111.88 11.66	143 150 156	42.15 44.77 47.57
255 255 170	103.75 115.50 62.60	101 107 111	22.84 24.26 25.84
170 85 85	38.78 28.41 16.82	65 72 75	10.70 11.67 12.94
85 170 85	25.42 43.21 20.03	40 50 52	5.04 5.87 6.52