

UGRA

Display Analysis & Certification Tool

Report

Basics

Date: 2011-7-10 14:32:54
Report-Version: v1.3.1
Monitor-Name: LCD2690WUXi2
EDID-Name: LCD2690WUXi2
EDID-Serial: 98200749ZB
Profile: /Library/ColorSync/Profiles/10.07.11-6500K-22-140cd-trc-14h20m.icc
Created: 2011-7-10 14:19
Measurement device: DTP94-LCD mode

Summary

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

Calibration

White Point	no
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:	140.08 137.99 148.88
XYZ (normalized):	101.52 100.00 107.89
Luminance:	138.0 Cd/m2
Next Temperature:	5714 Kelvin
Assumed Target Whitepoint:	5700 Kelvin
Distance to assumed Target Whitepoint:	12.8 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:	1.6 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/m2	L	Chroma	Gamma
0	12915	0.26	1.70	1.59	
5	8425	0.39	2.55	1.34	2.33
10	6035	1.13	7.40	0.56	2.21
15	5730	2.42	14.14	0.62	2.21
20	5487	4.33	20.59	1.18	2.19
25	5564	6.66	26.23	0.53	2.22
30	5529	9.95	32.28	0.69	2.21
35	5564	14.02	38.13	0.64	2.20
40	5549	18.88	43.77	0.77	2.19
45	5609	24.09	48.83	0.68	2.21
50	5685	30.36	54.03	0.83	2.21
55	5681	37.47	59.12	0.75	2.20
60	5703	45.23	63.98	0.24	2.20
65	5755	53.23	68.44	0.37	2.22
70	5696	63.30	73.46	0.94	2.21
75	5656	73.51	78.04	0.43	2.20
80	5621	84.62	82.55	0.83	2.20
85	5698	96.40	86.93	0.13	2.22
90	5749	109.58	91.42	0.62	2.21
95	5672	123.85	95.89	0.45	2.16
100	5714	137.99	100.00	0.00	
Average	5648			0.59	2.21
Range				2.00	
Max				1.18	

Tone values = 97.8%

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	1.7 -0.6 -1.5	-1.7 0.6 1.5	2.4
0 0 128	11.7 42.0 -68.2	-0.4 0.1 -0.9	1.0
0 0 255	28.6 73.5 -116.0	0.7 -3.8 1.4	4.1
0 128 0	44.9 -83.7 48.0	0.1 3.3 1.3	3.6
0 128 128	46.9 -56.9 -11.7	-0.1 2.9 -0.4	2.9
0 170 255	64.0 -36.8 -57.5	0.3 1.4 0.4	1.5
0 255 0	84.8 -139.9 82.0	0.3 6.8 -0.3	6.8
0 255 170	86.0 -118.7 21.8	0.3 5.7 -0.3	5.7
0 255 255	87.7 -93.8 -20.2	0.3 4.3 0.1	4.4
85 85 85	36.3 0.7 0.3	-0.5 -0.7 -0.3	0.9
128 0 0	30.3 61.2 46.0	-0.6 0.3 2.3	2.4
128 0 128	33.1 68.1 -32.3	-0.3 -0.7 -0.2	0.8
128 128 0	52.9 -10.2 60.5	-0.3 0.6 0.3	0.7
128 128 128	54.5 -0.8 0.4	-0.5 0.8 -0.4	1.0
128 128 255	58.8 26.6 -65.8	-0.2 -0.8 0.2	0.8
128 255 128	88.7 -88.7 47.2	0.1 3.3 -0.1	3.3
170 0 255	48.7 94.2 -82.0	-0.0 -2.6 0.8	2.7
170 170 170	70.4 -0.3 0.2	-0.2 0.3 -0.2	0.5
170 255 0	90.5 -70.3 91.1	0.2 2.2 -0.9	2.4
170 255 255	93.0 -43.5 -11.8	0.2 0.8 0.5	1.0
255 0 0	60.4 102.7 91.4	-0.7 -0.6 -1.4	1.6
255 0 170	62.5 107.6 -9.9	-0.5 -1.5 0.1	1.6
255 0 255	65.2 114.2 -54.2	-0.4 -2.5 0.4	2.5
255 128 128	72.7 67.2 30.3	-0.6 -0.3 -0.4	0.8
255 170 0	79.4 39.5 92.6	-0.4 -0.9 -1.9	2.1
255 170 255	82.7 54.8 -26.4	-0.3 -1.5 -0.1	1.6
255 255 0	97.8 -15.8 102.7	-0.1 -0.1 -1.9	1.9
255 255 170	98.8 -9.4 42.2	-0.2 0.3 -0.4	0.5
255 255 255	100.0 0.0 0.0	0.0 0.0 -0.0	0.0
170 85 85	49.8 50.3 22.1	-0.5 -0.4 0.3	0.7
85 170 85	61.9 -65.3 35.0	-0.1 1.6 0.2	1.7
85 85 170	39.6 20.6 -48.9	-0.3 -1.2 -0.0	1.3
85 170 170	63.5 -47.3 -11.4	-0.2 1.3 0.1	1.3
170 85 170	52.0 58.3 -27.8	-0.4 -0.9 -0.3	1.0
170 170 85	69.0 -9.7 46.6	-0.2 0.5 -0.0	0.6
Average			1.9
Maximum			6.8

Gamut-Volume

These measurements are only informative.

Gamut-Volume	
ISO	100 %
sRGB	100 %
AdobeRGB	100 %
ECI-RGB v1.0	94 %

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	55.5 -34.6 -49.5	2.5
66.9 -24.7 -37.1	67.1 -25.5 -36.9	0.9
79.7 -12.5 -21.8	79.7 -12.5 -22.1	0.4
48.0 74.0 -3.0	48.7 74.9 -3.0	1.2
60.8 50.6 -6.7	61.4 51.1 -6.5	0.8
76.4 25.8 -6.9	76.8 25.9 -6.9	0.4
89.0 -5.0 93.0	89.2 -4.5 94.5	1.5
90.3 -4.7 62.6	90.7 -5.0 63.1	0.7
92.2 -3.5 31.1	92.2 -3.5 31.3	0.2
53.1 37.7 28.9	53.5 37.7 29.2	0.5
41.5 22.7 16.8	42.0 23.3 16.9	0.8
31.9 40.0 24.0	32.6 40.1 23.6	0.8
32.5 44.4 -1.8	33.2 44.5 -1.5	0.7
51.3 1.3 44.5	51.6 0.6 44.0	0.9
34.6 -36.4 13.9	34.8 -35.7 13.0	1.1
36.0 -26.2 -20.9	36.4 -26.7 -21.0	0.7
20.9 9.6 -23.6	21.7 10.9 -23.9	1.6
89.0 0.0 -1.8	89.4 -0.7 -1.9	0.8
82.8 0.0 -1.7	83.0 0.0 -2.0	0.4
69.3 0.0 -1.4	69.5 -0.8 -1.7	0.9
54.1 0.0 -1.0	54.4 -0.8 -1.2	0.9
36.6 -0.0 -0.5	37.3 0.6 -0.5	0.9
16.0 0.0 0.0	17.0 0.2 0.1	1.1
24.0 22.0 -46.0	24.5 22.9 -45.4	1.2
40.9 17.9 -36.6	41.4 19.0 -36.5	1.2
63.7 10.3 -23.8	63.8 10.4 -23.9	0.2
47.0 68.0 48.0	47.5 68.2 48.0	0.6
58.5 47.1 37.9	59.1 47.4 38.6	1.0
74.2 22.9 21.4	74.5 23.2 21.3	0.4
50.0 -65.0 27.0	50.2 -67.0 26.8	2.0
62.1 -39.8 21.0	62.3 -40.5 20.5	0.9
77.0 -19.1 11.0	77.0 -20.4 11.0	1.3
71.2 18.8 17.3	71.4 19.5 17.1	0.7
71.2 22.2 73.1	71.6 22.3 73.7	0.7
47.7 71.2 16.2	48.3 71.8 16.3	0.8
38.0 55.4 -20.9	38.6 55.8 -20.7	0.8
73.7 -22.8 67.6	73.8 -23.9 67.9	1.2
52.3 -52.3 -20.2	52.4 -54.6 -20.2	2.3
43.3 -17.0 -48.6	43.5 -17.6 -48.9	0.7
95.0 0.0 -2.0	95.2 0.1 -2.7	0.7
88.5 -0.4 -3.1	88.7 -1.5 -4.0	1.4
82.0 -0.9 -4.1	82.1 -0.6 -4.9	0.9
67.7 -2.0 -4.4	67.7 -2.5 -5.6	1.3
52.2 -2.5 -3.5	52.8 -3.2 -3.5	1.0
37.5 -3.9 -3.1	37.9 -3.7 -3.7	0.7
26.3 -6.8 -3.4	27.0 -7.4 -4.2	1.2
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	140.08 137.99 148.88	85 85 170	21.14 15.72 56.93
0 0 0	0.25 0.26 0.43	85 170 170	30.24 44.44 60.98
12 12 12	0.39 0.39 0.55	170 85 170	48.64 28.32 57.26
25 25 25	1.14 1.13 1.27	170 170 85	49.55 53.85 18.19
38 38 38	2.43 2.42 2.56	0 146 215	25.84 32.88 96.38
51 51 51	4.49 4.33 4.69	103 173 226	43.91 51.25 109.27
63 63 63	6.81 6.66 7.11	169 203 236	73.70 77.95 122.34
76 76 76	10.17 9.95 10.54	184 53 122	48.49 24.27 28.28
89 89 89	14.28 14.02 14.85	196 114 159	63.04 41.36 51.33
102 102 102	19.25 18.88 19.98	214 173 201	86.22 70.92 86.83
114 114 114	24.45 24.09 25.52	240 224 20	97.48 101.62 11.16
127 127 127	30.65 30.36 32.26	240 228 108	102.23 106.27 31.93
140 140 140	37.87 37.47 39.88	239 233 173	109.37 111.49 69.17
153 153 153	45.86 45.23 48.60	170 104 82	41.68 29.64 13.85
165 165 165	53.87 53.23 57.49	124 86 74	22.28 17.20 10.63
178 178 178	63.92 63.30 67.43	115 53 46	16.84 10.18 4.10
191 191 191	74.71 73.51 78.73	116 51 82	18.54 10.63 12.08
204 204 204	86.37 84.62 90.83	133 120 50	26.99 27.06 6.88
216 216 216	97.89 96.40 103.79	50 93 61	6.95 11.49 7.63
229 229 229	110.80 109.58 118.04	40 95 116	9.50 12.79 25.73
242 242 242	125.72 123.85 132.68	52 50 85	6.11 4.84 13.15
0 0 128	5.65 2.23 29.29	222 223 226	104.64 103.44 115.17
0 0 255	25.39 9.47 134.85	204 205 208	87.23 85.83 95.83
0 128 0	6.35 19.59 3.10	167 168 170	55.84 55.29 61.76
0 128 128	11.91 21.97 32.21	128 128 130	31.13 30.86 34.30
0 170 255	36.92 46.09 139.54	87 87 88	13.71 13.40 14.70
0 255 0	28.26 88.67 12.76	44 44 44	3.25 3.19 3.43
0 255 170	38.52 92.74 67.11	55 51 125	9.42 6.19 28.80
0 255 255	53.37 98.40 146.41	97 89 154	22.07 17.07 46.51
85 85 85	12.96 12.67 13.53	153 148 194	50.92 45.37 78.82
128 0 0	18.99 8.80 0.64	182 58 45	43.02 22.71 4.40
128 0 128	24.58 10.85 30.12	196 110 81	55.35 37.43 13.97
128 128 0	25.42 28.51 3.36	214 168 145	77.55 65.45 45.46
128 128 128	31.16 30.93 33.02	50 138 72	11.71 25.24 12.06
128 128 255	51.02 38.22 138.53	111 164 112	29.30 42.07 27.62
128 255 128	53.16 100.04 42.81	170 197 168	61.55 70.70 61.66
170 0 255	61.02 25.71 136.64	200 162 144	68.59 59.01 44.39
170 170 170	57.74 57.02 61.23	213 160 42	68.80 58.82 8.16
170 255 0	63.74 104.93 13.18	184 56 92	46.11 23.69 15.91
170 255 255	89.31 114.52 148.21	135 53 123	27.57 14.71 28.51
255 0 0	86.37 39.61 1.43	172 189 52	51.84 63.10 11.46
255 0 170	97.07 43.53 57.71	20 142 155	16.92 28.37 49.06
255 0 255	112.32 49.08 137.87	29 110 180	17.25 19.13 65.10
255 128 128	98.59 61.76 34.41	239 240 244	123.75 121.65 136.78
255 170 0	98.43 76.21 6.47	219 222 227	102.22 101.42 116.90
255 170 255	124.20 85.97 142.17	200 203 210	84.64 83.49 98.19
255 255 0	115.32 128.54 13.78	159 164 171	51.82 51.87 62.67
255 255 170	125.68 132.90 69.57	120 125 129	28.46 28.83 33.95
170 85 85	40.50 25.29 14.29	84 90 93	13.51 13.87 16.79
85 170 85	22.06 41.22 17.73	57 67 69	6.40 7.02 8.95