

UGRA

Display Analysis & Certification Tool

Report

Basics

Date: 2009-12-14 19:59:07
Report-Version: v1.3.1
Monitor-Name: \\.\DISPLAY2
EDID-Name:
EDID-Serial:
Profile: C:/WINDOWS/system32/spool/.../14.12.09-6500K-22- 80cd-trc.icc
Created: 2009-12-14 19:55
Measurement device: eye-one display 2

Summary

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

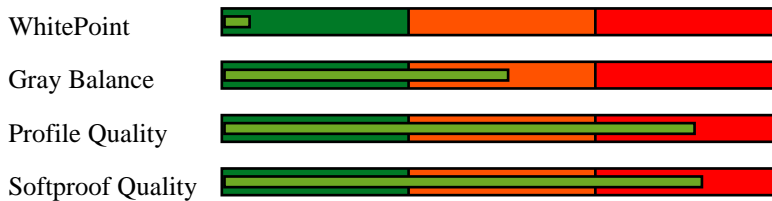
Calibration

White Point	yes
Gray balance	no
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:	111.64 116.97 114.49
XYZ (normalized):	95.44 100.00 97.88
Luminance:	117.0 Cd/m2
Next Temperature:	5817 Kelvin
Assumed Target Whitepoint:	5800 Kelvin
Distance to assumed Target Whitepoint:	0.3 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:	2.5 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	39374	0.16	1.21	2.46	
5	6392	0.68	5.28	1.57	1.82
10	5930	1.96	13.68	0.84	1.83
15	5745	4.04	21.78	0.28	1.80
20	5740	6.71	28.74	0.31	1.80
25	5745	9.61	34.44	0.54	1.82
30	5735	13.37	40.30	0.53	1.82
35	5784	17.61	45.71	0.84	1.82
40	5766	22.56	51.02	0.31	1.81
45	5756	27.76	55.82	0.50	1.81
50	5728	33.39	60.38	0.64	1.82
55	5749	40.08	65.17	0.55	1.80
60	5804	47.20	69.72	0.38	1.79
65	5840	53.74	73.51	0.45	1.81
70	5832	61.85	77.80	0.59	1.80
75	5785	70.08	81.79	0.34	1.79
80	5810	78.50	85.56	0.39	1.80
85	5789	86.98	89.09	0.77	1.85
90	5807	96.52	92.80	0.60	1.86
95	5808	106.19	96.32	0.28	1.92
100	5817	116.97	100.00	0.00	
Average	5788			0.48	1.82
Range				1.37	
Max				0.84	

Tone values = 91.0%

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	1.2 0.4 -2.4	-1.2 -0.4 2.4	2.7
0 0 128	14.1 44.3 -74.2	-6.2 -4.0 4.0	8.4
0 0 255	31.1 65.2 -113.7	-7.5 1.7 -2.7	8.2
0 128 0	45.7 -57.0 38.6	0.1 7.3 -2.0	7.5
0 128 128	49.9 -36.2 -18.5	-3.0 0.6 7.2	7.8
0 170 255	66.4 -22.9 -56.5	-2.9 -1.1 3.0	4.3
0 255 0	78.2 -86.1 63.4	8.2 3.6 -2.7	9.4
0 255 170	82.1 -70.2 6.3	5.1 -2.1 11.2	12.5
0 255 255	85.0 -54.8 -27.7	3.3 -4.3 9.0	10.5
85 85 85	44.2 -0.5 0.7	-8.4 0.5 -0.7	8.4
128 0 0	34.9 57.8 43.7	-5.6 -10.3 0.1	11.7
128 0 128	37.6 64.3 -32.9	-6.2 -10.2 2.5	12.2
128 128 0	57.9 -4.2 52.1	-4.8 -2.9 -5.3	7.8
128 128 128	60.8 0.6 0.5	-6.8 -0.6 -0.5	6.8
128 128 255	65.7 16.4 -54.7	-8.6 4.3 -7.4	12.1
128 255 128	87.7 -51.7 35.6	2.0 -4.9 2.9	6.0
170 0 255	51.5 82.6 -76.8	-5.7 -6.5 -1.8	8.8
170 170 170	75.3 -0.7 0.6	-5.1 0.7 -0.6	5.2
170 255 0	88.4 -39.5 75.0	3.2 -6.5 -6.9	10.0
170 255 255	93.7 -25.6 -11.5	-0.3 -3.9 1.0	4.0
255 0 0	59.0 87.1 77.1	0.2 -8.3 -1.7	8.5
255 0 170	61.6 92.2 -15.3	-1.0 -8.8 7.7	11.7
255 0 255	64.5 96.6 -54.0	-1.8 -7.1 3.6	8.2
255 128 128	75.8 44.9 25.6	-4.1 5.3 2.1	7.0
255 170 0	80.9 26.7 77.0	-1.6 1.1 -5.4	5.8
255 170 255	86.2 33.5 -20.7	-4.7 6.8 -3.2	8.8
255 255 0	95.6 -7.2 85.5	2.8 -4.6 -7.9	9.5
255 255 170	98.1 -5.1 34.0	1.0 -1.7 1.9	2.7
255 255 255	100.0 0.0 0.0	0.0 0.0 -0.0	0.0
170 85 85	56.4 35.7 20.5	-7.4 1.7 0.3	7.6
85 170 85	65.3 -41.2 26.9	-2.8 -0.9 1.8	3.4
85 85 170	47.9 12.8 -42.2	-9.7 2.7 -4.2	10.9
85 170 170	67.8 -30.5 -12.4	-4.2 -0.8 1.8	4.6
170 85 170	59.0 40.8 -23.1	-8.4 3.6 -2.7	9.5
170 170 85	73.4 -6.2 39.5	-4.1 -0.5 -0.6	4.2
Average			7.6
Maximum			12.5

Gamut-Volume

These measurements are only informative.

Gamut-Volume	
ISO	90 %
sRGB	92 %
AdobeRGB	78 %
ECI-RGB v1.0	71 %

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	61.0 -24.5 -48.4	14.0
66.9 -24.7 -37.1	71.4 -25.1 -35.5	4.9
79.7 -12.5 -21.8	83.2 -11.8 -19.8	4.1
48.0 74.0 -3.0	52.6 80.8 -7.6	9.4
60.8 50.6 -6.7	67.4 46.5 -6.3	7.8
76.4 25.8 -6.9	81.3 21.6 -4.8	6.7
89.0 -5.0 93.0	88.3 0.1 79.3	14.7
90.3 -4.7 62.6	90.3 -2.9 65.2	3.2
92.2 -3.5 31.1	92.7 -2.2 29.1	2.5
53.1 37.7 28.9	59.9 35.9 29.0	7.1
41.5 22.7 16.8	49.8 21.8 17.2	8.3
31.9 40.0 24.0	40.1 41.7 22.3	8.5
32.5 44.5 -1.8	40.8 46.7 -2.5	8.6
51.3 1.3 44.5	57.3 2.5 49.1	7.7
34.6 -36.4 13.9	38.9 -41.4 9.5	7.9
36.0 -26.2 -20.9	41.4 -25.4 -25.9	7.4
20.9 9.6 -23.6	30.8 8.9 -22.0	10.0
89.0 0.0 -1.9	91.2 -0.6 -0.8	2.5
82.8 0.0 -1.7	85.8 -0.3 -1.0	3.1
69.3 0.0 -1.4	74.6 -0.4 -0.7	5.3
54.1 0.0 -1.0	60.7 0.4 -0.6	6.6
36.6 0.0 -0.5	45.2 -0.1 -0.6	8.6
16.0 0.0 0.0	25.2 0.7 -0.2	9.2
24.0 22.0 -46.0	34.5 19.2 -42.4	11.5
40.9 17.9 -36.6	50.3 15.4 -33.1	10.4
63.7 10.3 -23.8	70.5 8.2 -20.3	7.9
47.0 68.0 48.0	50.9 77.2 41.9	11.7
58.5 47.1 37.9	64.3 44.6 37.2	6.4
74.2 22.9 21.4	78.4 20.5 20.7	5.0
50.0 -65.0 27.0	51.9 -57.4 24.3	8.3
62.1 -39.8 21.0	65.1 -38.3 18.1	4.4
77.0 -19.1 11.0	79.9 -17.1 9.5	3.9
71.2 18.9 17.3	76.1 16.6 17.0	5.4
71.2 22.1 73.1	74.3 22.9 70.1	4.4
47.7 71.2 16.2	51.9 79.3 10.6	10.7
38.0 55.4 -20.9	45.5 58.3 -21.9	8.2
73.7 -22.8 67.6	75.2 -18.6 65.0	5.1
52.3 -52.3 -20.1	56.6 -37.5 -24.3	16.0
43.3 -17.0 -48.6	49.5 -14.4 -49.8	6.8
95.0 0.0 -2.0	95.6 -0.3 -1.7	0.8
88.5 -0.4 -3.1	90.7 -0.9 -2.3	2.3
82.0 -0.9 -4.1	85.0 -0.8 -3.3	3.2
67.7 -2.0 -4.4	73.2 -2.1 -3.7	5.6
52.2 -2.5 -3.5	59.0 -2.1 -3.4	6.8
37.5 -3.9 -3.1	45.7 -3.9 -3.4	8.2
26.3 -6.8 -3.4	35.0 -6.4 -3.4	8.7
Average		7.2
Gamut-Volume		90 %

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	111.64 116.97 114.49	85 85 170	22.35 19.86 50.83
0 0 0	0.16 0.16 0.33	85 170 170	32.80 44.34 55.17
12 12 12	0.67 0.68 0.77	170 85 170	43.43 31.54 50.80
25 25 25	1.84 1.96 1.89	170 170 85	47.69 53.22 21.37
38 38 38	3.88 4.04 3.94	0 153 222	27.63 34.81 85.25
51 51 51	6.43 6.71 6.51	79 178 232	40.39 50.72 92.67
63 63 63	9.24 9.61 9.41	160 206 240	65.20 73.57 99.55
76 76 76	12.76 13.37 12.87	205 0 128	47.30 23.76 28.70
89 89 89	16.71 17.61 16.93	214 101 164	59.69 43.26 48.58
102 102 102	21.58 22.56 21.95	225 168 204	76.62 68.91 73.71
114 114 114	26.49 27.76 26.84	239 222 0	79.02 84.29 14.21
127 127 127	32.02 33.39 32.42	239 227 75	82.32 89.37 23.20
140 140 140	38.29 40.08 38.78	239 232 163	89.36 95.81 56.52
153 153 153	44.96 47.20 45.91	183 94 79	42.04 32.40 15.12
165 165 165	51.12 53.74 52.49	131 82 73	25.10 21.16 12.74
178 178 178	58.80 61.85 60.26	126 40 45	19.96 12.99 5.89
191 191 191	66.89 70.08 68.19	129 36 86	22.00 13.58 14.55
204 204 204	74.79 78.50 76.46	135 119 25	28.16 29.30 6.51
216 216 216	82.78 86.98 84.22	12 96 54	6.65 12.48 8.81
229 229 229	91.87 96.52 93.80	0 98 118	10.26 14.37 27.88
242 242 242	101.25 106.19 103.56	55 50 89	8.57 7.74 15.54
0 0 128	5.50 2.27 28.88	222 223 226	87.69 92.23 91.41
0 0 255	20.10 8.66 106.34	204 205 208	75.43 79.16 78.82
0 128 0	7.91 17.65 4.34	167 168 170	53.00 55.69 55.25
0 128 128	14.09 21.70 33.03	128 128 130	32.40 33.82 33.58
0 170 255	35.12 42.82 112.43	87 87 88	16.39 17.18 17.08
0 255 0	28.27 62.64 13.43	44 44 44	5.06 5.24 5.17
0 255 170	39.38 71.10 61.49	62 51 132	12.50 9.84 31.17
0 255 255	51.03 78.17 117.88	103 88 160	25.09 22.03 45.94
85 85 85	15.52 16.36 15.71	157 148 199	50.03 48.64 69.69
128 0 0	18.65 9.65 1.25	202 0 45	42.71 21.85 5.74
128 0 128	23.35 11.52 28.36	212 96 77	52.33 38.34 14.90
128 128 0	27.00 29.99 5.97	224 162 141	68.99 62.74 41.01
128 128 128	32.52 33.89 32.83	0 144 55	11.47 23.56 11.32
128 128 255	46.77 41.54 107.57	85 168 102	26.76 40.11 25.70
128 255 128	54.42 83.69 41.72	160 200 163	55.36 66.09 54.06
170 0 255	48.65 23.45 103.78	208 158 141	62.64 58.32 40.84
170 170 170	54.07 56.95 55.15	222 153 0	61.01 54.61 8.85
170 255 0	60.10 85.04 16.10	205 0 96	45.36 22.97 17.38
170 255 255	80.74 99.41 115.62	150 31 130	30.45 17.37 30.20
255 0 0	60.29 30.76 2.11	162 191 0	45.57 56.43 10.93
255 0 170	69.19 34.53 47.82	0 148 157	19.42 29.01 47.76
255 0 255	79.22 39.00 103.14	0 115 187	18.49 21.51 61.80
255 128 128	75.34 57.41 33.48	239 240 244	99.37 104.25 104.73
255 170 0	76.44 67.41 10.27	219 222 228	86.43 90.99 92.45
255 170 255	95.73 79.95 109.53	199 203 211	73.50 77.34 80.00
255 255 0	92.47 103.41 17.04	158 165 172	50.13 53.30 55.96
255 255 170	101.50 110.85 61.32	118 125 130	29.67 31.65 33.49
170 85 85	37.09 28.19 16.32	82 91 94	16.11 17.59 18.89
85 170 85	25.99 40.24 20.60	54 68 69	8.71 9.94 10.89