

UGRA

Display Analysis & Certification Tool

Report

Basics

Date: 2007-3-26 18:31:02
Report-Version: v1.2.1
Monitor-Name: \\.\DISPLAY2
Profile: C:/WINDOWS/System32/spool/DRIVERS/COLOR/26.03.07-5800K-18-150cd.icc
Created: 2007-3-26 18:13
Measurement device: eye-one display 2

Summary

The monitor has passed the certification according to the UGRA DACT specifications.

Calibration

White Point	yes
Gray balance	yes
Profile quality	yes

Softproofing

MultiColor, HighBody	yes
Offset/Gravure Paper Type 1/2	yes
Offset on uncoated paper	yes
Newspaper Printing	yes
Layout	yes

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 .

XYZ:	142.68 149.86 146.40
XYZ (normalized):	95.20 100.00 97.69
Luminance:	149.9 Cd/m2
Next Temperature:	5832 Kelvin
Assumed Target Whitepoint:	5800 Kelvin
Distance to assumed Target Whitepoint:	0.4 deltaE

Blackpoint

Luminance:	0.3 Cd/m2
Chromaticity:	1.4 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	11210	0.25	1.53	1.44	
5	6200	0.87	5.22	0.66	1.85
10	5714	2.50	13.64	1.38	1.82
15	5506	5.20	21.83	1.83	1.80
20	5867	8.49	28.56	0.36	1.80
25	5875	12.18	34.25	0.19	1.83
30	5796	17.01	40.16	0.32	1.82
35	5786	22.66	45.80	0.29	1.81
40	5796	29.13	51.20	0.57	1.79
45	5874	35.63	55.86	0.35	1.80
50	5791	43.18	60.61	0.28	1.80
55	5830	51.34	65.17	0.27	1.80
60	5843	60.05	69.52	0.24	1.79
65	5847	68.78	73.48	0.33	1.81
70	5794	78.99	77.70	0.66	1.79
75	5804	89.34	81.63	0.70	1.79
80	5829	100.72	85.61	0.13	1.78
85	5756	111.40	89.08	0.86	1.83
90	5790	123.65	92.80	0.42	1.85
95	5824	136.75	96.51	0.13	1.80
100	5832	149.86	100.00	0.00	
Average	5798			0.49	1.81
Range				1.95	

Tone values = 98.6%

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	1.5 -0.3 -1.4	-1.5 0.3 1.4	2.1
0 0 128	16.9 31.4 -69.8	-0.4 0.8 -0.8	1.2
0 0 255	33.2 49.0 -107.2	-0.1 -0.4 0.5	0.6
0 128 0	49.3 -80.9 50.7	0.3 -0.4 0.8	1.0
0 128 128	52.1 -57.3 -13.7	-0.0 0.4 -0.2	0.5
0 170 255	67.8 -46.5 -50.6	-0.0 0.4 0.2	0.5
0 255 0	83.1 -123.8 78.7	-0.0 1.1 -0.8	1.3
0 255 170	85.1 -104.4 13.9	-0.1 1.4 -0.9	1.7
0 255 255	87.0 -86.8 -21.0	-0.1 0.9 -0.0	0.9
85 85 85	44.2 -0.1 0.0	-0.1 0.1 -0.0	0.1
128 0 0	35.5 62.0 49.4	-0.1 0.4 1.3	1.4
128 0 128	39.6 64.9 -32.5	-0.1 -0.1 0.3	0.3
128 128 0	58.6 -6.9 63.4	0.2 -0.9 -0.4	1.0
128 128 128	61.0 0.2 0.1	-0.2 -0.2 -0.1	0.3
128 128 255	65.5 15.1 -54.0	-0.3 -0.1 0.2	0.3
128 255 128	88.7 -67.5 38.1	-0.1 -0.0 -0.3	0.3
170 0 255	54.1 80.6 -72.2	0.1 -0.7 1.0	1.2
170 170 170	75.0 0.3 -0.4	-0.1 -0.3 0.4	0.5
170 255 0	90.2 -52.7 88.4	-0.0 -0.3 -1.5	1.5
170 255 255	93.7 -34.5 -10.3	-0.1 -0.0 0.1	0.1
255 0 0	61.6 95.0 79.7	0.1 -0.7 -2.6	2.7
255 0 170	64.6 97.0 -14.4	0.1 -0.9 0.9	1.2
255 0 255	67.6 98.3 -49.7	0.2 -0.3 1.1	1.1
255 128 128	76.3 54.6 24.0	-0.0 -0.2 0.3	0.4
255 170 0	81.7 31.4 87.9	0.3 -0.8 -2.0	2.2
255 170 255	85.9 40.6 -21.2	0.0 -0.0 0.4	0.4
255 255 0	96.8 -11.5 97.4	0.1 -0.3 -2.1	2.2
255 255 170	98.4 -5.6 33.6	0.1 -0.2 0.3	0.3
255 255 255	100.0 0.0 0.0	-0.0 0.0 0.0	0.0
170 85 85	56.4 43.4 19.1	-0.1 -0.5 0.1	0.5
85 170 85	66.0 -53.4 30.1	-0.0 0.2 -0.3	0.3
85 85 170	47.8 12.1 -42.9	-0.2 -0.2 0.5	0.5
85 170 170	68.0 -40.8 -11.6	-0.1 0.0 0.4	0.4
170 85 170	59.0 47.9 -24.6	-0.1 -0.5 0.6	0.8
170 170 85	73.4 -6.1 41.1	-0.0 -0.4 -0.3	0.5
Average			0.9
Maximum			2.7

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
55.2 -39.9 -50.7	55.8 -34.4 -50.0	5.6
67.6 -27.1 -36.5	67.6 -27.1 -36.6	0.1
80.8 -13.8 -21.0	81.0 -14.0 -21.0	0.2
47.2 75.9 -3.8	47.5 76.2 -4.2	0.5
60.7 52.2 -7.1	60.9 52.6 -7.4	0.6
77.0 26.2 -7.7	77.1 26.6 -8.3	0.8
89.7 -4.5 94.7	89.6 -3.8 91.5	3.2
91.3 -4.6 63.1	91.3 -4.4 63.6	0.5
93.3 -3.3 30.6	93.3 -3.2 30.4	0.2
53.5 38.4 28.8	53.5 38.9 28.9	0.5
41.4 23.1 16.6	41.5 23.5 16.5	0.4
32.4 40.3 21.9	32.7 40.3 21.5	0.5
32.6 44.6 -1.8	33.0 44.6 -1.8	0.4
51.3 1.9 44.3	51.4 2.0 44.5	0.2
34.0 -40.9 14.5	34.1 -39.7 13.7	1.4
36.2 -30.6 -20.6	36.2 -29.9 -21.1	0.9
21.2 3.4 -23.0	21.6 3.7 -23.7	0.9
89.8 0.3 -3.5	89.7 0.6 -4.6	1.1
83.6 0.2 -3.7	83.5 0.8 -5.2	1.6
70.2 0.0 -3.7	70.3 0.6 -5.3	1.7
55.1 0.0 -3.1	55.4 -0.4 -3.8	0.9
37.5 0.1 -2.1	37.4 -0.1 -2.7	0.6
16.9 0.4 -0.4	17.6 0.7 -1.1	1.0
24.4 16.2 -47.1	24.9 17.3 -47.2	1.2
41.2 16.0 -36.5	41.2 16.1 -37.0	0.5
64.6 9.3 -23.6	64.6 9.6 -24.1	0.6
47.3 69.0 45.1	47.5 69.7 44.9	0.7
58.9 47.7 37.0	58.9 48.5 37.5	1.0
75.0 23.2 20.3	75.0 23.1 20.5	0.3
48.6 -67.5 28.0	48.8 -67.8 28.0	0.3
62.5 -41.7 22.4	62.5 -41.7 22.4	0.0
77.9 -19.6 11.3	78.0 -19.7 11.0	0.3
72.0 19.1 16.5	72.1 19.6 16.4	0.5
72.2 22.1 73.2	72.1 22.7 74.5	1.5
47.5 72.3 15.3	47.8 73.0 15.3	0.7
37.5 56.5 -21.1	37.7 56.5 -21.8	0.7
74.1 -22.1 69.3	74.0 -21.5 69.8	0.8
52.3 -55.2 -20.1	52.5 -53.9 -19.6	1.5
43.9 -20.9 -49.8	43.8 -20.4 -50.2	0.7
96.0 0.5 -3.3	96.0 0.3 -3.9	0.6
89.5 -0.1 -3.7	89.6 0.3 -4.4	0.8
83.0 -1.1 -4.3	83.0 -0.5 -5.5	1.3
68.6 -2.7 -4.0	68.7 -2.9 -5.2	1.2
53.0 -5.1 -2.3	53.3 -6.0 -3.3	1.4
37.8 -8.1 -0.9	37.7 -9.7 -1.8	1.9
25.9 -13.3 -2.2	26.4 -13.2 -2.8	0.8
Average		0.9
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	142.68 149.86 146.40	85 85 170	28.26 25.31 65.66
0 0 0	0.23 0.25 0.38	85 170 170	38.63 57.46 70.16
12 12 12	0.83 0.87 0.91	170 85 170	58.85 40.36 66.92
25 25 25	2.45 2.50 2.52	170 170 85	60.97 68.14 26.16
38 38 38	5.12 5.20 5.09	0 129 211	25.84 36.38 96.23
51 51 51	8.11 8.49 8.40	84 161 223	44.03 56.79 108.13
63 63 63	11.58 12.18 11.97	156 197 235	76.58 88.12 122.13
76 76 76	16.26 17.01 16.63	172 0 102	48.58 24.14 27.07
89 89 89	21.63 22.66 22.07	188 86 143	64.53 43.28 50.36
102 102 102	27.90 29.13 28.57	209 156 194	89.51 77.23 88.22
114 114 114	33.93 35.63 35.10	238 224 0	102.01 112.15 13.09
127 127 127	41.19 43.18 42.00	239 229 86	107.08 117.66 32.26
140 140 140	48.97 51.34 50.33	239 234 161	115.25 124.74 71.91
153 153 153	57.23 60.05 58.91	158 82 63	43.41 31.74 13.73
165 165 165	65.57 68.78 67.57	105 66 55	22.50 18.09 10.36
178 178 178	75.57 78.99 77.32	98 34 33	17.57 10.90 4.48
191 191 191	85.46 89.34 87.61	99 29 64	19.02 11.16 11.84
204 204 204	95.97 100.72 98.49	115 103 32	27.89 29.16 6.65
216 216 216	106.64 111.40 108.36	27 77 42	6.16 12.10 6.94
229 229 229	117.83 123.65 120.05	20 78 98	8.94 13.89 25.16
242 242 242	130.17 136.75 133.34	32 36 67	5.44 5.18 12.76
0 0 128	6.95 3.73 37.26	217 218 227	108.77 113.62 119.49
0 0 255	23.88 12.52 130.33	196 197 206	90.80 94.66 101.05
0 128 0	8.78 26.78 4.11	154 155 163	59.15 61.69 66.85
0 128 128	15.67 30.75 41.27	111 113 118	33.26 35.01 37.42
0 170 255	38.35 57.65 136.15	69 70 73	13.97 14.67 15.59
0 255 0	30.40 93.76 13.57	31 31 32	3.51 3.63 3.75
0 255 170	41.69 99.92 75.03	35 34 111	8.99 6.78 30.02
0 255 255	54.14 106.40 143.25	78 68 139	21.51 18.20 45.85
85 85 85	19.88 20.90 20.39	139 132 186	52.89 50.57 79.56
128 0 0	25.59 12.76 1.15	172 29 31	45.19 23.91 4.98
128 0 128	32.65 16.39 38.86	187 87 62	57.45 39.77 14.15
128 128 0	34.51 39.51 4.88	208 154 130	80.90 71.94 46.46
128 128 128	41.73 43.75 42.63	22 122 49	10.55 26.20 10.53
128 128 255	58.74 52.79 135.37	89 154 90	29.39 46.47 26.12
128 255 128	63.37 110.27 52.22	157 192 155	65.08 79.78 62.88
170 0 255	66.56 33.49 132.48	192 148 129	71.97 65.29 45.53
170 170 170	69.14 72.45 71.31	207 147 19	72.46 64.84 8.28
170 255 0	73.49 114.78 14.84	173 21 73	47.38 24.34 15.65
170 255 255	97.22 127.49 145.10	118 22 104	27.45 14.75 27.52
255 0 0	88.44 43.57 3.04	158 182 27	54.47 69.52 11.00
255 0 170	99.96 49.52 66.58	0 128 140	16.85 31.34 47.80
255 0 255	111.57 55.79 133.96	8 92 172	16.78 21.10 66.19
255 128 128	104.25 74.52 45.21	240 240 248	128.97 135.04 139.94
255 170 0	102.89 88.23 9.30	216 218 226	108.06 113.08 118.61
255 170 255	126.79 101.35 139.89	192 196 205	88.64 93.25 100.14
255 255 0	118.74 136.91 16.15	145 152 158	54.37 58.35 63.17
255 255 170	130.32 143.11 79.83	100 110 111	28.67 31.95 33.78
170 85 85	50.52 35.95 21.64	62 74 72	12.48 14.89 15.38
85 170 85	30.30 53.01 24.94	35 51 49	5.63 7.37 8.01

Uniformity

This informative-only test shows the luminance (in %) and color deviations (in DeltaC) on the entire screen area based on 9 measurements.

Region	Cd/m2	%	Chroma
1	153.05	103%	2.22
2	157.00	106%	3.61
3	156.19	105%	1.75
4	149.13	100%	3.03
5	148.63	100%	0.00
6	150.90	102%	1.96
7	143.77	97%	2.28
8	146.07	98%	4.20
9	147.65	99%	3.01

	Av	Max
Luminance Deviation	2%	6%
Chroma Deviation	2	4