

UGRA

Display Analysis & Certification Tool

Report

Basics

Date: 2010-4-22 21:49:06
Report-Version: v1.3.1
Monitor-Name: \\.\DISPLAY1
Profile: C:/Windows/system32/spool/.../22.04.10-SX2462WH_ugra.icc
Created: 2010-4-22 21:44
Measurement device: eye-one pro

Summary

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

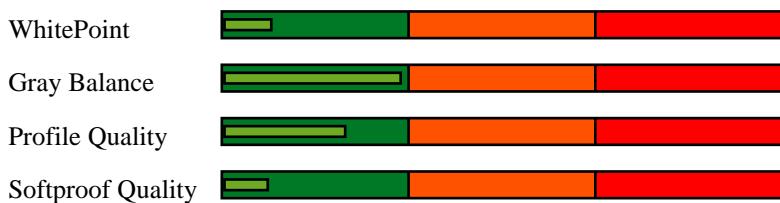
Calibration

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
sRGB	yes
AdobeRGB	yes
ECI-RGB	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 2.0.

XYZ:	131.27 137.37 134.75
XYZ (normalized):	95.56 100.00 98.10
Luminance:	137.4 Cd/m2
Next Temperature:	5816 Kelvin
Assumed Target Whitepoint:	5800 Kelvin
Distance to assumed Target Whitepoint:	0.5 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:	1.4 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	7166	0.33	2.16	1.41	
5	6461	0.96	6.30	1.76	1.79
10	6155	2.37	13.97	1.26	1.82
15	5885	4.72	21.72	0.53	1.82
20	5839	7.74	28.46	0.43	1.82
25	5852	11.08	34.13	0.66	1.84
30	5751	15.58	40.15	0.41	1.83
35	5831	20.65	45.68	0.41	1.82
40	5824	26.33	50.89	0.35	1.81
45	5787	32.05	55.41	0.46	1.84
50	5804	39.00	60.24	0.50	1.83
55	5806	46.50	64.85	0.46	1.83
60	5804	54.70	69.34	0.72	1.82
65	5818	62.76	73.34	0.56	1.83
70	5833	71.51	77.32	0.19	1.84
75	5850	81.30	81.39	0.30	1.83
80	5816	91.97	85.48	0.63	1.82
85	5852	101.29	88.80	0.43	1.88
90	5872	112.75	92.61	0.68	1.88
95	5790	124.57	96.28	0.37	1.95
100	5816	137.37	100.00	0.00	
Average	5841			0.49	1.84
Range				1.90	
Max				1.26	

Tone values = 98.3%

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	2.2 0.6 -1.2	-2.2 -0.6 1.2	2.6
0 0 128	14.2 44.9 -73.2	-0.6 2.7 -2.6	3.8
0 0 255	28.8 71.7 -114.3	-0.0 0.3 -0.4	0.5
0 128 0	50.5 -87.0 51.1	0.4 -1.5 1.5	2.1
0 128 128	52.7 -59.3 -12.0	0.1 0.1 -1.2	1.2
0 170 255	67.7 -44.1 -50.9	0.1 -0.0 -0.1	0.1
0 255 0	85.3 -133.7 79.6	-0.0 -0.1 0.0	0.1
0 255 170	86.8 -111.0 16.6	-0.1 0.9 -1.8	2.0
0 255 255	88.2 -90.0 -19.4	-0.1 0.6 -0.5	0.8
85 85 85	44.0 0.3 -0.4	-0.0 -0.3 0.4	0.5
128 0 0	33.9 66.3 50.6	0.1 1.3 3.7	3.9
128 0 128	36.9 73.5 -34.9	0.4 0.9 -0.6	1.2
128 128 0	58.9 -10.6 64.0	0.3 -0.2 1.0	1.1
128 128 128	60.6 -0.3 0.4	0.1 0.3 -0.4	0.5
128 128 255	64.2 21.2 -56.1	-0.0 0.1 -0.0	0.1
128 255 128	90.1 -74.1 39.9	-0.1 -0.3 -0.2	0.4
170 0 255	50.4 95.4 -78.2	0.4 0.3 1.2	1.3
170 170 170	74.8 0.2 0.2	0.1 -0.2 -0.2	0.3
170 255 0	91.7 -60.2 89.3	-0.1 -0.3 -0.1	0.4
170 255 255	94.2 -36.5 -9.5	-0.0 0.1 -0.2	0.2
255 0 0	59.4 101.9 86.7	0.3 0.4 1.0	1.1
255 0 170	61.8 107.3 -17.6	0.3 0.2 0.7	0.8
255 0 255	64.2 112.5 -54.7	0.4 0.1 1.0	1.1
255 128 128	75.2 58.5 23.9	0.0 -0.2 0.1	0.2
255 170 0	81.4 31.1 89.8	0.3 -0.8 -0.2	0.9
255 170 255	84.6 45.9 -22.7	0.2 -0.2 0.2	0.3
255 255 0	97.7 -16.1 98.8	0.0 -0.2 -0.5	0.6
255 255 170	98.8 -8.2 35.1	0.0 0.0 -0.3	0.3
255 255 255	100.0 0.0 -0.0	0.0 0.0 -0.0	0.0
170 85 85	55.3 45.3 18.6	0.2 0.6 0.3	0.7
85 170 85	66.9 -57.7 30.8	0.2 -0.9 0.5	1.0
85 85 170	46.6 16.6 -43.6	0.1 0.2 -0.6	0.6
85 170 170	68.3 -42.7 -10.4	0.2 -0.1 -0.4	0.4
170 85 170	57.1 53.0 -25.9	0.3 0.7 -0.2	0.8
170 170 85	73.5 -8.5 41.7	0.2 -0.5 0.3	0.6
Average			0.9
Maximum			3.9

Gamut-Volume

These measurements are only informative.

Gamut-Volume	
ISO	100 %
sRGB	100 %
AdobeRGB	99 %
ECI-RGB v1.0	93 %

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	55.4 -32.4 -48.9	4.7
66.9 -24.7 -37.1	67.0 -25.0 -36.5	0.7
79.7 -12.5 -21.8	79.7 -12.5 -21.1	0.6
48.0 74.0 -3.0	47.8 72.9 -3.0	1.1
60.8 50.6 -6.7	60.6 49.7 -6.0	1.2
76.4 25.8 -6.9	76.5 24.9 -6.1	1.2
89.0 -5.0 93.0	88.6 -5.2 91.7	1.4
90.3 -4.7 62.6	90.1 -5.2 62.3	0.6
92.2 -3.5 31.1	91.9 -4.2 31.0	0.8
53.1 37.7 28.9	53.0 37.9 28.7	0.3
41.5 22.7 16.8	41.5 22.8 16.9	0.1
31.9 40.0 24.0	32.1 39.2 23.1	1.2
32.5 44.4 -1.8	32.8 43.0 -0.9	1.7
51.3 1.3 44.5	51.2 1.3 43.6	0.9
34.6 -36.4 13.9	34.7 -35.1 13.3	1.5
36.0 -26.2 -20.9	35.9 -25.5 -20.1	1.1
20.9 9.6 -23.6	21.4 8.2 -22.1	2.1
89.0 0.0 -1.8	88.7 -0.2 -2.0	0.4
82.8 0.0 -1.7	82.6 -0.2 -1.8	0.3
69.3 0.0 -1.4	69.3 -0.4 -0.6	0.9
54.1 0.0 -1.0	54.0 -0.0 -0.4	0.6
36.6 -0.0 -0.5	36.5 0.2 -0.4	0.3
16.0 0.0 0.0	16.6 0.5 -0.9	1.2
24.0 22.0 -46.0	24.3 20.7 -45.0	1.7
40.9 17.9 -36.6	40.9 17.4 -35.5	1.2
63.7 10.3 -23.8	63.8 9.8 -22.8	1.1
47.0 68.0 48.0	46.8 67.4 46.9	1.2
58.5 47.1 37.9	58.2 47.2 37.3	0.7
74.2 22.9 21.4	74.1 22.7 21.2	0.2
50.0 -65.0 27.0	50.0 -64.0 26.7	1.1
62.1 -39.8 21.0	62.3 -39.6 21.3	0.4
77.0 -19.1 11.0	76.9 -18.9 11.2	0.2
71.2 18.8 17.3	71.1 18.3 17.2	0.6
71.2 22.2 73.1	71.1 22.2 72.7	0.5
47.7 71.2 16.2	47.8 70.1 16.0	1.2
38.0 55.4 -20.9	38.0 53.7 -20.3	1.8
73.7 -22.8 67.6	73.2 -22.1 66.7	1.2
52.3 -52.3 -20.2	52.3 -52.2 -19.3	0.8
43.3 -17.0 -48.6	43.3 -17.3 -47.9	0.8
95.0 0.0 -2.0	94.7 -0.1 -2.2	0.3
88.5 -0.4 -3.1	88.5 -0.7 -2.6	0.6
82.0 -0.9 -4.1	81.8 -1.3 -3.7	0.5
67.7 -2.0 -4.4	67.6 -2.2 -3.6	0.8
52.2 -2.5 -3.5	52.2 -2.8 -3.2	0.4
37.5 -3.9 -3.1	37.7 -3.5 -3.2	0.4
26.3 -6.8 -3.4	26.7 -6.9 -3.1	0.5
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	131.27 137.37 134.75	85 85 170	25.82 21.95 58.91
0 0 0	0.34 0.33 0.43	85 170 170	35.30 53.14 63.60
12 12 12	0.94 0.96 1.08	170 85 170	52.79 34.27 59.30
25 25 25	2.28 2.37 2.49	170 170 85	55.31 62.80 23.83
38 38 38	4.47 4.72 4.61	0 129 208	23.74 32.70 85.78
51 51 51	7.35 7.74 7.53	84 159 221	40.37 50.98 97.78
63 63 63	10.50 11.08 10.77	154 193 232	68.36 77.59 108.74
76 76 76	14.89 15.58 15.09	171 38 103	43.92 22.52 24.51
89 89 89	19.79 20.65 20.43	185 96 143	57.35 39.26 44.47
102 102 102	25.23 26.33 26.00	206 159 190	79.84 69.49 76.55
114 114 114	30.56 32.05 31.13	237 217 0	90.15 99.74 11.22
127 127 127	37.16 39.00 37.94	237 222 87	94.67 104.27 29.11
140 140 140	44.32 46.50 45.29	236 228 158	101.57 110.27 62.56
153 153 153	52.06 54.70 53.11	156 85 64	38.82 28.51 12.38
165 165 165	59.76 62.76 61.18	106 68 56	20.53 16.59 9.40
178 178 178	68.24 71.51 70.19	97 37 31	15.42 9.61 3.62
191 191 191	77.57 81.30 80.04	98 36 64	16.94 10.09 10.42
204 204 204	87.58 91.97 89.62	116 102 34	25.25 26.50 6.25
216 216 216	96.53 101.29 99.53	35 75 44	6.44 11.52 6.82
229 229 229	107.29 112.75 110.90	26 76 97	8.58 12.50 22.21
242 242 242	119.00 124.57 121.51	36 35 67	5.31 4.68 11.00
0 0 128	6.56 2.70 33.37	215 216 220	96.51 101.06 102.46
0 0 255	22.77 8.87 118.96	194 195 199	80.64 84.43 85.53
0 128 0	7.98 25.93 4.09	152 153 155	52.08 54.66 54.25
0 128 128	14.48 28.85 37.31	110 110 112	28.84 30.18 29.87
0 170 255	36.06 52.75 125.67	68 68 69	12.24 12.76 12.71
0 255 0	27.84 91.64 13.64	30 30 30	2.95 3.05 3.15
0 255 170	38.58 96.14 69.20	38 36 108	8.30 5.94 25.41
0 255 255	50.58 100.76 132.68	78 71 138	19.74 16.41 40.30
85 85 85	18.24 19.01 18.85	137 132 183	47.16 44.87 69.64
128 0 0	22.87 10.61 0.72	169 42 30	39.68 21.27 3.94
128 0 128	29.18 12.98 34.02	185 91 63	50.91 35.41 12.56
128 128 0	31.00 36.67 4.45	206 153 127	72.06 63.94 40.59
128 128 128	37.66 39.53 38.45	35 121 54	11.07 25.40 10.98
128 128 255	54.17 46.04 124.02	93 149 92	27.48 42.33 24.62
128 255 128	58.06 105.13 48.67	156 186 153	58.00 70.50 55.54
170 0 255	60.77 26.20 121.31	189 147 126	63.29 57.73 39.49
170 170 170	63.10 65.93 64.41	205 144 24	64.23 57.40 7.65
170 255 0	66.97 109.58 14.32	171 41 73	42.48 22.39 14.08
170 255 255	89.50 118.34 133.69	117 38 105	24.79 13.75 24.65
255 0 0	79.75 36.55 1.52	158 176 34	48.57 62.11 10.78
255 0 170	90.68 40.71 59.23	10 125 140	15.64 28.42 43.39
255 0 255	102.42 45.23 121.82	16 92 167	15.49 18.80 57.14
255 128 128	95.30 65.91 40.06	236 237 242	114.25 119.56 121.29
255 170 0	93.66 80.21 7.79	212 215 221	95.62 100.43 102.83
255 170 255	116.51 89.51 127.50	189 193 201	78.21 82.46 86.35
255 255 0	108.55 128.45 14.82	143 149 156	48.30 51.39 54.28
255 255 170	119.30 132.66 72.33	101 107 111	26.00 27.94 29.71
170 85 85	45.36 31.47 19.14	65 72 75	12.49 13.65 14.81
85 170 85	27.78 50.16 23.44	41 50 52	5.87 6.86 7.61