

UGRA

Display Analysis & Certification Tool

Report

Basics

Date: 2012-10-21 23:06:20
Report-Version: v1.3.1
Monitor-Name: \\.\DISPLAY1
Profile: C:/Windows/system32/spool/drivers/color/cg246-ugra.icc
Created: 2012-10-21 23:03
Measurement device: eye-one pro

Summary

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

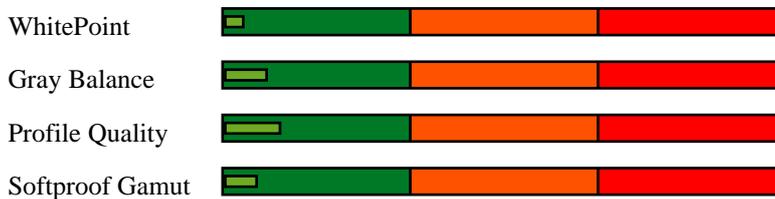
Calibration

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:	133.47 139.89 136.01
XYZ (normalized):	95.40 100.00 97.22
Luminance:	139.9 Cd/m2
Next Temperature:	5786 Kelvin
Assumed Target Whitepoint:	5800 Kelvin
Distance to assumed Target Whitepoint:	0.2 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:	0.9 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	6917	0.24	1.54	0.89	
5	5649	0.79	5.08	0.81	1.88
10	5796	2.42	13.98	0.11	1.81
15	5741	4.84	21.79	0.22	1.80
20	5727	7.98	28.65	0.26	1.80
25	5749	11.52	34.47	0.24	1.82
30	5738	16.08	40.41	0.28	1.81
35	5784	21.18	45.82	0.05	1.81
40	5769	27.10	51.12	0.12	1.80
45	5762	33.17	55.80	0.16	1.81
50	5773	40.05	60.45	0.11	1.81
55	5763	47.64	65.00	0.17	1.81
60	5764	55.76	69.37	0.17	1.81
65	5766	63.78	73.28	0.17	1.83
70	5758	73.05	77.41	0.25	1.83
75	5762	83.03	81.48	0.22	1.82
80	5762	93.48	85.42	0.25	1.82
85	5759	103.66	88.97	0.26	1.85
90	5753	115.27	92.75	0.32	1.85
95	5751	127.59	96.50	0.38	1.83
100	5786	139.89	100.00	0.00	
Average	5761			0.20	1.82
Range				0.45	
Max				0.38	

Tone values = 100.0%

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	1.5 0.4 -0.8	-1.5 -0.4 0.8	1.8
0 0 128	12.6 52.6 -79.2	-0.9 0.9 -0.1	1.3
0 0 255	26.0 81.3 -120.5	-0.1 -0.4 0.5	0.6
0 128 0	52.4 -86.6 54.0	-0.8 0.0 0.4	0.9
0 128 128	53.6 -58.5 -12.8	-0.6 0.2 0.1	0.6
0 170 255	67.9 -42.9 -51.5	-0.3 0.2 -0.1	0.3
0 255 0	86.4 -131.1 82.4	-0.2 0.1 -0.0	0.2
0 255 170	87.4 -108.6 16.2	-0.1 0.1 0.2	0.3
0 255 255	88.6 -88.5 -19.4	-0.1 0.3 0.1	0.3
85 85 85	44.2 0.1 0.1	-0.3 0.0 -0.1	0.3
128 0 0	34.0 68.8 53.5	-0.5 -0.5 0.3	0.8
128 0 128	36.7 77.2 -37.6	-0.5 -0.4 0.2	0.7
128 128 0	60.0 -11.4 66.7	-0.5 0.1 -0.3	0.6
128 128 128	60.8 -0.0 0.1	-0.1 -0.0 -0.0	0.2
128 128 255	63.4 22.9 -57.8	0.1 -0.3 0.3	0.4
128 255 128	90.6 -74.4 41.5	-0.0 0.3 -0.3	0.4
170 0 255	49.1 100.5 -80.5	-0.1 -0.4 0.2	0.4
170 170 170	74.9 0.1 0.2	-0.1 0.0 -0.0	0.1
170 255 0	92.4 -60.7 92.0	-0.1 -0.1 -0.4	0.5
170 255 255	94.4 -36.3 -9.5	-0.0 0.1 0.0	0.1
255 0 0	59.0 103.6 88.5	-0.1 -0.1 -0.5	0.5
255 0 170	61.0 110.2 -19.1	-0.0 -0.3 0.4	0.5
255 0 255	63.0 116.6 -56.8	0.0 -0.4 0.2	0.4
255 128 128	74.8 58.9 23.8	0.0 -0.3 -0.3	0.4
255 170 0	81.9 29.7 91.5	-0.2 0.3 -0.7	0.8
255 170 255	84.2 46.9 -23.7	-0.0 -0.1 0.1	0.1
255 255 0	98.3 -17.2 101.0	-0.1 0.1 -0.6	0.6
255 255 170	99.1 -8.6 35.9	-0.0 -0.0 -0.1	0.1
255 255 255	100.0 0.0 0.0	0.0 0.0 -0.0	0.0
170 85 85	55.3 46.3 18.7	-0.2 -0.2 -0.2	0.4
85 170 85	67.6 -58.3 32.5	-0.3 0.3 -0.3	0.5
85 85 170	46.4 18.0 -45.2	-0.2 -0.1 0.3	0.4
85 170 170	68.8 -42.4 -10.4	-0.2 0.2 0.1	0.3
170 85 170	56.8 55.0 -27.3	-0.2 -0.3 0.2	0.4
170 170 85	74.0 -9.2 43.1	-0.2 0.0 -0.4	0.5
Average			0.5
Maximum			1.8

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	56.0 -32.5 -49.2	4.7
66.9 -24.7 -37.1	67.1 -25.2 -37.0	0.5
79.7 -12.5 -21.8	79.9 -12.7 -21.4	0.4
48.0 74.0 -3.0	48.2 74.1 -3.1	0.2
60.8 50.6 -6.7	61.1 50.8 -6.8	0.4
76.4 25.8 -6.9	76.5 26.1 -6.9	0.3
89.0 -5.0 93.0	89.2 -4.6 93.7	0.8
90.3 -4.7 62.6	90.4 -4.3 63.1	0.7
92.2 -3.5 31.1	92.3 -3.5 31.5	0.4
53.1 37.7 28.9	53.4 37.8 29.6	0.8
41.5 22.7 16.8	41.8 23.1 17.2	0.6
31.9 40.0 24.0	32.5 40.0 24.4	0.7
32.5 44.4 -1.8	33.0 44.3 -1.8	0.5
51.3 1.3 44.5	51.8 1.5 45.4	1.0
34.6 -36.4 13.9	35.3 -36.0 14.3	1.0
36.0 -26.2 -20.9	36.5 -26.2 -20.6	0.6
20.9 9.6 -23.6	21.6 8.9 -23.2	1.1
89.0 0.0 -1.8	89.0 0.2 -1.6	0.3
82.8 0.0 -1.7	82.9 -0.4 -1.4	0.5
69.3 0.0 -1.4	69.3 0.0 -1.5	0.1
54.1 0.0 -1.0	54.2 0.4 -1.1	0.4
36.6 -0.0 -0.5	37.2 -0.7 -0.0	1.0
16.0 0.0 0.0	17.1 -0.1 0.1	1.1
24.0 22.0 -46.0	24.6 21.8 -45.9	0.6
40.9 17.9 -36.6	41.0 17.9 -36.7	0.2
63.7 10.3 -23.8	63.8 10.1 -24.1	0.4
47.0 68.0 48.0	47.4 68.4 49.0	1.2
58.5 47.1 37.9	58.7 47.4 38.3	0.6
74.2 22.9 21.4	74.3 22.7 21.6	0.4
50.0 -65.0 27.0	50.8 -65.5 27.1	1.0
62.1 -39.8 21.0	62.4 -40.2 21.0	0.5
77.0 -19.1 11.0	77.1 -18.9 11.0	0.2
71.2 18.8 17.3	71.3 19.3 17.3	0.5
71.2 22.2 73.1	71.6 21.9 73.6	0.7
47.7 71.2 16.2	48.0 71.7 16.8	0.8
38.0 55.4 -20.9	38.3 56.1 -21.0	0.8
73.7 -22.8 67.6	74.1 -22.9 68.4	0.9
52.3 -52.3 -20.2	53.1 -52.2 -20.2	0.7
43.3 -17.0 -48.6	44.0 -17.6 -48.3	0.9
95.0 0.0 -2.0	95.1 0.3 -1.9	0.3
88.5 -0.4 -3.1	88.5 -0.3 -3.2	0.1
82.0 -0.9 -4.1	82.1 -1.1 -4.1	0.3
67.7 -2.0 -4.4	68.0 -1.9 -4.2	0.3
52.2 -2.5 -3.5	52.5 -2.8 -3.2	0.6
37.5 -3.9 -3.1	37.9 -4.1 -3.1	0.5
26.3 -6.8 -3.4	27.1 -6.7 -3.3	0.8
Average		0.7
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	133.47 139.89 136.01	85 85 170	26.34 22.08 60.83
0 0 0	0.24 0.24 0.30	85 170 170	36.58 54.97 65.13
12 12 12	0.73 0.79 0.71	170 85 170	54.15 34.56 61.09
25 25 25	2.31 2.42 2.36	170 170 85	56.79 64.93 23.69
38 38 38	4.61 4.84 4.66	0 130 208	24.72 34.16 88.65
51 51 51	7.62 7.98 7.68	83 160 221	41.07 52.09 99.75
63 63 63	10.99 11.52 11.11	154 194 232	69.78 79.47 110.79
76 76 76	15.35 16.08 15.51	172 42 103	45.79 23.33 25.22
89 89 89	20.20 21.18 20.57	187 98 144	59.97 40.84 46.59
102 102 102	25.86 27.10 26.27	207 160 191	81.83 70.73 78.35
114 114 114	31.67 33.17 32.13	237 216 6	93.84 103.42 10.99
127 127 127	38.21 40.05 38.84	237 221 89	98.00 107.37 29.32
140 140 140	45.48 47.64 46.17	236 228 159	104.77 113.35 63.27
153 153 153	53.25 55.76 54.08	157 86 64	40.22 29.63 12.47
165 165 165	60.89 63.78 61.84	106 68 56	21.19 17.10 9.51
178 178 178	69.73 73.05 70.70	97 38 31	16.19 10.04 3.55
191 191 191	79.26 83.03 80.43	98 37 64	17.70 10.41 10.96
204 204 204	89.21 93.48 90.50	116 101 34	26.41 27.69 6.11
216 216 216	99.00 103.66 100.44	34 74 44	6.69 12.10 6.84
229 229 229	110.10 115.27 111.59	26 76 97	8.95 13.16 23.35
242 242 242	121.83 127.59 123.37	36 36 67	5.55 4.84 11.66
0 0 128	6.76 2.36 36.19	215 216 220	99.07 103.64 103.49
0 0 255	22.53 7.56 122.56	194 196 199	82.49 86.68 86.32
0 128 0	9.19 28.71 4.18	152 153 156	53.20 55.72 55.79
0 128 128	15.59 30.58 39.80	110 110 112	29.75 31.05 31.01
0 170 255	37.14 53.96 128.47	68 69 69	12.78 13.51 13.14
0 255 0	30.44 96.41 13.38	30 30 30	3.08 3.24 3.13
0 255 170	41.08 99.85 71.89	39 38 107	8.70 6.14 26.55
0 255 255	52.63 103.70 135.23	78 72 138	20.27 16.80 41.98
85 85 85	18.72 19.59 19.00	137 133 184	48.13 45.70 71.95
128 0 0	24.03 10.87 0.50	171 44 30	41.71 22.31 3.78
128 0 128	30.48 13.02 36.23	186 92 63	52.79 36.80 12.60
128 128 0	32.75 39.03 4.34	206 154 128	73.82 65.65 41.05
128 128 128	38.72 40.60 39.41	32 120 55	11.51 26.77 11.41
128 128 255	54.30 45.51 125.82	91 148 93	27.90 43.27 25.16
128 255 128	59.92 108.71 48.39	156 186 154	59.43 72.33 56.68
170 0 255	61.48 25.10 122.51	190 147 127	65.33 59.20 40.13
170 170 170	64.22 67.28 65.20	205 144 27	66.32 59.49 7.70
170 255 0	69.46 113.85 13.81	173 43 73	44.17 23.00 14.04
170 255 255	91.48 121.06 135.46	118 40 105	26.27 14.28 25.81
255 0 0	81.25 36.63 1.31	158 176 36	50.76 65.27 10.87
255 0 170	91.90 40.13 59.94	1 125 140	16.51 29.92 45.96
255 0 255	103.49 43.99 123.18	16 93 167	16.24 19.83 59.61
255 128 128	96.12 66.21 39.84	236 237 242	117.46 122.83 122.97
255 170 0	95.77 82.95 7.59	212 215 222	97.64 102.43 104.93
255 170 255	117.88 90.01 129.31	189 194 202	80.26 84.66 88.35
255 255 0	111.39 132.76 14.40	144 150 157	49.95 53.10 56.20
255 255 170	121.87 136.02 72.59	101 107 111	26.81 28.86 30.35
170 85 85	46.59 32.09 19.34	65 72 75	12.74 14.06 15.04
85 170 85	28.99 52.54 23.42	41 50 52	6.16 7.19 7.93