

UGRA

Display Analysis & Certification Tool

Report

Basics

Date: 2010-5-18 15:40:36
Report-Version: v1.3.1
Monitor-Name: \\.\DISPLAY1
Profile: C:/Windows/system32/spool/drivers/color/ugra_grey.icm
Created: 2010-5-18 15:37
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:	133.06 139.43 135.56
XYZ (normalized):	95.43 100.00 97.22
Luminance:	139.4 Cd/m2
Next Temperature:	5784 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:	0.5 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	5394	0.54	3.52	0.91	
5	5516	1.15	7.45	1.13	1.82
10	5690	2.68	15.07	0.55	1.81
15	5672	5.06	22.40	0.40	1.81
20	5755	8.22	29.14	0.41	1.80
25	5760	11.80	34.93	0.40	1.81
30	5772	16.44	40.89	0.18	1.80
35	5769	21.71	46.40	0.09	1.79
40	5774	27.61	51.61	0.37	1.79
45	5785	33.63	56.21	0.35	1.80
50	5772	40.48	60.81	0.25	1.80
55	5742	48.29	65.46	0.61	1.79
60	5769	56.68	69.93	0.44	1.78
65	5793	64.44	73.69	0.09	1.80
70	5771	73.66	77.77	0.20	1.80
75	5762	83.44	81.75	0.20	1.80
80	5741	94.12	85.76	0.56	1.78
85	5768	104.17	89.26	0.51	1.82
90	5782	115.50	92.94	0.19	1.80
95	5787	127.45	96.58	0.08	1.75
100	5784	139.43	100.00	0.00	
Average	5760			0.31	1.80
Range				0.69	
Max				0.61	

Tone values = 99.6%

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	3.5 -0.4 0.8	-0.4 0.3 -0.8	1.0
0 0 128	15.7 45.0 -74.1	-0.4 -0.6 0.8	1.0
0 0 255	29.3 70.8 -113.9	0.0 0.3 0.1	0.4
0 128 0	51.7 -87.2 52.3	-0.5 0.9 -0.6	1.2
0 128 128	53.6 -58.7 -12.9	-0.5 0.7 -0.0	0.9
0 170 255	68.3 -44.3 -50.3	-0.4 0.9 -0.5	1.1
0 255 0	85.5 -132.4 79.4	-0.2 0.0 0.5	0.6
0 255 170	86.9 -108.9 14.4	-0.3 -0.2 0.7	0.7
0 255 255	88.4 -89.0 -19.6	-0.3 0.4 -0.1	0.5
85 85 85	44.8 -0.2 0.0	-0.5 0.1 -0.1	0.5
128 0 0	34.7 66.7 52.1	-0.4 -0.2 -1.6	1.6
128 0 128	37.7 74.0 -35.2	-0.3 -0.4 -0.3	0.6
128 128 0	59.7 -11.0 64.8	-0.4 -0.1 -0.6	0.7
128 128 128	61.1 -0.1 0.1	-0.4 -0.1 -0.2	0.5
128 128 255	64.4 20.8 -55.3	-0.3 0.5 -0.8	1.0
128 255 128	90.0 -73.4 39.4	-0.1 -0.7 0.4	0.9
170 0 255	50.8 95.0 -76.3	-0.1 0.4 -0.9	1.0
170 170 170	74.9 0.2 0.0	-0.1 -0.4 -0.1	0.4
170 255 0	91.5 -59.7 88.7	-0.0 -0.8 0.9	1.2
170 255 255	94.0 -36.0 -9.5	-0.1 -0.4 -0.2	0.4
255 0 0	59.3 101.4 87.0	0.0 0.4 -1.2	1.3
255 0 170	61.7 106.7 -17.2	0.0 0.5 -0.3	0.6
255 0 255	64.2 111.7 -53.3	-0.1 0.8 -0.9	1.2
255 128 128	75.1 57.5 23.9	-0.2 0.3 -0.3	0.4
255 170 0	81.5 29.9 89.1	-0.0 -0.2 0.5	0.5
255 170 255	84.5 45.3 -22.2	-0.0 0.2 -0.6	0.6
255 255 0	97.5 -16.3 97.5	-0.0 -0.5 1.4	1.5
255 255 170	98.6 -8.2 34.7	-0.0 -0.3 0.2	0.4
255 255 255	100.0 0.0 0.0	-0.3 -0.3 -0.1	0.4
170 85 85	55.5 45.1 18.4	-0.1 0.3 0.1	0.3
85 170 85	67.2 -57.4 30.8	-0.1 -0.7 0.5	0.9
85 85 170	47.2 16.5 -43.6	-0.3 0.2 -0.3	0.5
85 170 170	68.6 -42.0 -10.8	-0.1 -0.4 0.2	0.4
170 85 170	57.5 53.0 -26.0	-0.2 0.3 -0.3	0.5
170 170 85	73.7 -8.8 41.4	-0.1 -0.5 0.5	0.7
Average			0.8
Maximum			1.6

Gamut-Volume

These measurements are only informative.

Gamut-Volume	
ISO	100 %
sRGB	100 %
AdobeRGB	99 %
ECI-RGB v1.0	92 %

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 -32.2 -48.9	5.0
66.9 -24.7 -37.1	67.2 -25.1 -36.6	0.7
79.7 -12.5 -21.8	80.0 -12.1 -21.6	0.5
48.0 74.0 -3.0	48.2 74.6 -3.3	0.7
60.8 50.6 -6.7	61.3 50.1 -6.1	1.0
76.4 25.8 -6.9	76.9 25.7 -6.5	0.6
89.0 -5.0 93.0	89.4 -5.2 91.8	1.3
90.3 -4.7 62.6	90.7 -4.4 61.9	0.8
92.2 -3.5 31.1	92.6 -3.2 30.4	0.9
53.1 37.7 28.9	53.6 37.3 29.4	0.8
41.5 22.7 16.8	41.9 22.9 17.3	0.7
31.9 40.0 24.0	32.2 40.2 25.2	1.3
32.5 44.5 -1.8	33.1 45.3 -1.2	1.2
51.3 1.3 44.5	51.9 1.3 45.8	1.5
34.6 -36.4 13.9	35.3 -38.2 14.9	2.2
36.0 -26.2 -20.9	36.6 -26.4 -21.5	0.9
20.9 9.6 -23.6	21.2 10.0 -24.3	0.9
89.0 0.0 -1.9	89.4 -0.4 -1.7	0.6
82.8 0.0 -1.7	83.3 -0.2 -1.3	0.7
69.3 0.0 -1.4	69.9 0.0 -0.9	0.8
54.1 0.0 -1.0	54.8 -0.2 -0.9	0.6
36.6 0.0 -0.5	36.8 -0.1 -0.4	0.3
16.0 0.0 0.0	16.0 -0.3 0.5	0.6
24.0 22.0 -46.0	24.2 22.7 -47.2	1.4
40.9 17.9 -36.6	41.3 17.8 -36.5	0.4
63.7 10.3 -23.8	64.3 10.2 -23.2	0.8
47.0 68.0 48.0	47.1 68.3 49.4	1.4
58.5 47.1 37.9	59.0 47.0 38.7	1.0
74.2 22.9 21.4	74.8 22.9 22.0	0.8
50.0 -65.0 27.0	50.6 -65.6 27.3	0.9
62.1 -39.8 21.0	62.6 -39.7 20.7	0.5
77.0 -19.1 11.0	77.3 -18.5 10.6	0.8
71.2 18.9 17.3	71.6 18.6 17.5	0.5
71.2 22.1 73.1	71.7 22.1 73.5	0.7
47.7 71.2 16.2	48.0 71.3 15.8	0.5
38.0 55.4 -20.9	38.3 56.3 -21.2	1.0
73.7 -22.8 67.6	74.0 -22.7 68.3	0.8
52.3 -52.3 -20.1	52.8 -52.8 -19.8	0.7
43.3 -17.0 -48.6	43.8 -17.9 -48.5	1.0
95.0 0.0 -2.0	95.3 -0.3 -1.6	0.6
88.5 -0.4 -3.1	88.7 -0.3 -2.7	0.4
82.0 -0.9 -4.1	82.2 -1.0 -3.9	0.4
67.7 -2.0 -4.4	68.0 -1.6 -4.2	0.5
52.2 -2.5 -3.5	52.5 -2.1 -3.5	0.4
37.5 -3.9 -3.1	37.8 -4.2 -3.2	0.5
26.3 -6.8 -3.4	26.6 -7.0 -3.4	0.4
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	133.06 139.43 135.56	85 85 170	26.74 22.84 60.38
0 0 0	0.50 0.54 0.46	85 170 170	36.45 54.57 65.19
12 12 12	1.08 1.15 1.03	170 85 170	54.35 35.44 60.70
25 25 25	2.55 2.68 2.53	170 170 85	56.28 64.08 24.35
38 38 38	4.84 5.06 4.84	0 129 208	24.72 34.05 87.93
51 51 51	7.81 8.22 7.89	83 159 221	41.20 52.19 99.15
63 63 63	11.23 11.80 11.35	154 193 233	70.06 79.39 110.98
76 76 76	15.67 16.44 15.91	172 37 103	45.91 23.28 25.29
89 89 89	20.72 21.71 21.06	186 96 143	59.67 40.89 45.95
102 102 102	26.28 27.61 26.65	207 159 191	82.40 71.44 78.56
114 114 114	32.01 33.63 32.54	238 218 1	93.77 103.71 11.85
127 127 127	38.58 40.48 39.17	239 223 88	98.48 107.89 30.45
140 140 140	45.99 48.29 46.38	238 229 159	105.53 113.90 65.04
153 153 153	53.97 56.68 54.72	156 85 63	40.13 29.72 12.59
165 165 165	61.46 64.44 62.68	105 67 55	21.25 17.19 9.51
178 178 178	70.26 73.66 71.37	96 36 29	15.97 9.85 3.32
191 191 191	79.66 83.44 80.85	98 34 63	17.90 10.42 10.75
204 204 204	89.78 94.12 90.64	116 101 32	26.44 27.77 6.04
216 216 216	99.22 104.17 100.59	32 74 42	6.44 12.10 6.68
229 229 229	110.13 115.50 112.07	23 75 97	8.95 13.17 23.93
242 242 242	121.65 127.45 124.04	34 33 66	5.47 4.66 11.79
0 0 128	7.32 3.12 36.34	216 217 221	99.69 104.65 104.55
0 0 255	23.22 9.23 120.56	195 196 199	83.38 87.43 86.91
0 128 0	8.73 27.83 4.32	153 153 155	54.11 56.68 56.07
0 128 128	15.46 30.40 39.66	110 110 112	30.18 31.66 31.46
0 170 255	37.18 54.64 127.21	67 67 68	12.54 13.16 12.98
0 255 0	28.89 93.66 14.03	27 27 27	2.78 2.94 2.78
0 255 170	40.15 98.08 72.98	36 34 107	8.63 5.98 26.93
0 255 255	51.85 102.68 134.38	77 70 138	20.45 16.98 42.07
85 85 85	19.11 20.07 19.50	137 132 183	48.89 46.43 71.75
128 0 0	24.17 11.31 0.71	170 41 28	41.05 21.89 3.61
128 0 128	30.74 13.77 35.59	186 91 62	52.99 37.10 12.60
128 128 0	32.44 38.48 4.63	207 153 127	74.66 66.34 41.22
128 128 128	39.07 40.97 39.70	33 120 53	11.33 26.44 11.16
128 128 255	54.96 47.03 123.89	92 148 92	28.16 43.39 25.44
128 255 128	59.07 106.54 49.34	156 186 153	59.91 72.63 57.40
170 0 255	61.95 26.94 119.59	190 147 126	65.60 59.79 40.39
170 170 170	64.17 67.16 65.27	206 144 24	66.55 59.61 7.78
170 255 0	67.80 110.68 14.59	172 40 73	43.88 22.91 14.39
170 255 255	90.56 119.57 133.90	117 36 105	26.18 14.18 25.77
255 0 0	80.51 37.02 1.48	159 177 33	50.54 64.88 10.82
255 0 170	91.47 41.24 58.99	2 125 139	16.11 29.45 44.95
255 0 255	103.24 45.89 119.96	10 91 167	16.00 19.60 59.25
255 128 128	95.80 66.68 40.07	237 238 242	117.49 123.27 122.92
255 170 0	94.55 81.70 8.10	213 215 222	97.73 102.54 104.23
255 170 255	117.16 90.46 126.87	190 194 202	80.34 84.66 88.02
255 255 0	109.40 129.62 15.42	144 149 156	49.97 52.95 56.00
255 255 170	120.31 133.88 72.87	101 106 111	26.87 28.72 30.44
170 85 85	46.37 32.30 19.64	64 71 74	12.59 13.90 14.95
85 170 85	28.64 51.55 23.99	39 48 50	5.91 6.93 7.68