

UGRA

Display Analysis & Certification Tool

Report

Basics

Date: 2011-2-28 23:21:48
Report-Version: v1.3.1
Monitor-Name: \\.\DISPLAY1
Profile: C:/Windows/system32/spool/.../PA246Q_UGRA_STANDARD.icc
Created: 2011-2-28 23:18
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:	131.19 137.59 133.99
XYZ (normalized):	95.35 100.00 97.39
Luminance:	137.6 Cd/m2
Next Temperature:	5800 Kelvin
Assumed Target Whitepoint:	5800 Kelvin
Distance to assumed Target Whitepoint:	0.1 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:	1.1 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	8574	0.22	1.47	1.13	
5	6432	0.89	5.85	1.69	1.77
10	5909	2.35	13.87	0.92	1.81
15	5794	4.85	22.02	0.07	1.79
20	5923	7.99	28.93	0.93	1.79
25	5766	11.30	34.43	0.38	1.82
30	5823	15.95	40.56	0.12	1.80
35	5848	20.67	45.67	0.45	1.82
40	5776	26.61	51.08	0.30	1.80
45	5839	32.24	55.51	0.30	1.82
50	5849	39.19	60.33	0.35	1.82
55	5907	46.93	65.05	0.90	1.81
60	5822	54.70	69.30	0.17	1.81
65	5800	63.03	73.42	0.89	1.83
70	5810	72.15	77.54	0.42	1.82
75	5833	82.15	81.68	0.29	1.79
80	5815	92.48	85.61	0.24	1.78
85	5807	101.74	88.90	0.40	1.85
90	5812	113.25	92.71	0.28	1.86
95	5849	124.75	96.27	0.50	1.88
100	5800	137.59	100.00	0.00	
Average	5831			0.42	1.81
Range				1.80	
Max				0.93	

Tone values = 96.6%

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	1.5 0.2 -1.1	-1.5 -0.2 1.1	1.8
0 0 128	12.4 51.7 -76.6	-0.6 2.6 -2.2	3.5
0 0 255	25.9 82.0 -118.9	0.1 0.2 -0.3	0.4
0 128 0	51.2 -85.3 51.5	0.2 -1.5 1.4	2.1
0 128 128	52.8 -57.7 -12.4	0.2 -0.1 -0.4	0.4
0 170 255	67.6 -42.1 -50.9	0.1 0.2 -0.3	0.3
0 255 0	86.1 -131.1 80.1	-0.1 -0.1 -0.0	0.1
0 255 170	87.2 -108.4 16.1	-0.1 0.5 -0.5	0.7
0 255 255	88.5 -88.1 -18.9	-0.2 0.8 -0.5	1.0
85 85 85	44.0 0.1 0.1	-0.0 -0.1 -0.1	0.1
128 0 0	33.5 66.0 48.9	0.2 1.4 4.2	4.4
128 0 128	36.1 75.5 -37.0	0.4 0.7 0.3	0.9
128 128 0	59.2 -11.3 63.7	0.3 -0.3 0.9	1.0
128 128 128	60.7 -0.3 -0.2	-0.0 0.3 0.2	0.4
128 128 255	63.5 22.8 -56.9	0.1 0.3 0.0	0.3
128 255 128	90.4 -74.2 40.5	0.0 0.3 -0.2	0.4
170 0 255	49.0 99.8 -79.6	0.3 0.1 0.3	0.5
170 170 170	75.0 -0.1 0.0	-0.1 0.1 -0.0	0.2
170 255 0	92.2 -60.7 89.5	-0.1 -0.2 -0.3	0.3
170 255 255	94.3 -35.9 -9.3	-0.0 0.1 -0.2	0.2
255 0 0	59.1 101.7 84.0	0.1 0.3 0.9	0.9
255 0 170	61.0 108.7 -18.4	0.2 0.1 0.1	0.3
255 0 255	63.0 115.4 -55.9	0.3 -0.1 0.3	0.5
255 128 128	75.0 57.8 23.1	-0.0 -0.0 0.4	0.4
255 170 0	81.7 29.4 88.9	0.1 -0.4 -0.3	0.5
255 170 255	84.3 46.0 -23.1	0.1 0.2 0.0	0.2
255 255 0	98.0 -17.2 98.3	0.1 -0.3 -0.5	0.6
255 255 170	99.0 -8.8 34.7	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 45.4 18.5	-0.1 0.1 0.1	0.2
85 170 85	67.5 -58.1 31.9	-0.1 -0.1 -0.2	0.2
85 85 170	46.3 18.3 -44.6	-0.1 0.0 -0.3	0.3
85 170 170	68.6 -41.9 -10.2	0.0 -0.1 -0.2	0.2
170 85 170	56.9 54.3 -27.0	-0.0 0.2 0.1	0.2
170 170 85	74.0 -9.6 42.2	-0.0 0.0 -0.1	0.1
Average			0.7
Maximum			4.4

Gamut-Volume

These measurements are only informative.

Gamut-Volume	
ISO	100 %
sRGB	100 %
AdobeRGB	99 %
ECI-RGB v1.0	91 %

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	55.5 -30.9 -49.2	6.1
66.9 -24.7 -37.1	67.1 -25.7 -36.4	1.2
79.7 -12.5 -21.8	79.6 -12.7 -21.7	0.2
48.0 74.0 -3.0	48.0 72.9 -2.9	1.1
60.8 50.6 -6.7	60.9 49.7 -6.8	0.9
76.4 25.8 -6.9	76.7 26.0 -7.0	0.4
89.0 -5.0 93.0	88.6 -4.3 91.1	2.1
90.3 -4.7 62.6	90.3 -4.4 62.5	0.3
92.2 -3.5 31.1	91.9 -2.7 30.5	1.0
53.1 37.7 28.9	53.2 37.6 28.7	0.2
41.5 22.7 16.8	41.8 22.6 16.4	0.5
31.9 40.0 24.0	32.3 38.6 23.0	1.7
32.5 44.4 -1.8	32.8 42.9 -2.0	1.6
51.3 1.3 44.5	51.3 0.9 43.4	1.2
34.6 -36.4 13.9	34.9 -34.6 13.6	1.9
36.0 -26.2 -20.9	36.3 -25.7 -20.6	0.7
20.9 9.6 -23.6	21.9 8.5 -22.2	2.1
89.0 0.0 -1.8	88.8 0.1 -2.0	0.3
82.8 0.0 -1.7	82.7 0.0 -2.1	0.4
69.3 0.0 -1.4	69.3 -0.5 -1.0	0.6
54.1 0.0 -1.0	54.1 0.4 -1.4	0.6
36.6 -0.0 -0.5	37.0 0.7 -0.7	0.8
16.0 0.0 0.0	16.8 -0.2 -0.2	0.8
24.0 22.0 -46.0	24.7 20.7 -44.6	2.1
40.9 17.9 -36.6	41.2 17.8 -36.1	0.6
63.7 10.3 -23.8	64.0 9.3 -23.0	1.4
47.0 68.0 48.0	47.1 67.3 47.7	0.8
58.5 47.1 37.9	58.4 47.0 37.3	0.6
74.2 22.9 21.4	74.1 22.8 21.3	0.2
50.0 -65.0 27.0	50.1 -63.7 26.3	1.5
62.1 -39.8 21.0	62.1 -39.5 21.1	0.3
77.0 -19.1 11.0	77.2 -19.3 11.1	0.3
71.2 18.8 17.3	71.4 18.4 17.4	0.6
71.2 22.2 73.1	71.2 22.8 72.9	0.6
47.7 71.2 16.2	47.7 70.6 16.0	0.7
38.0 55.4 -20.9	38.4 54.0 -20.2	1.6
73.7 -22.8 67.6	73.7 -22.9 66.9	0.6
52.3 -52.3 -20.2	52.3 -51.4 -20.2	0.9
43.3 -17.0 -48.6	43.4 -17.4 -47.6	1.1
95.0 0.0 -2.0	94.8 -0.1 -2.5	0.5
88.5 -0.4 -3.1	88.5 -0.6 -3.0	0.2
82.0 -0.9 -4.1	82.1 -1.0 -4.2	0.2
67.7 -2.0 -4.4	67.5 -2.1 -4.6	0.4
52.2 -2.5 -3.5	52.3 -2.3 -3.2	0.3
37.5 -3.9 -3.1	37.8 -3.8 -3.4	0.4
26.3 -6.8 -3.4	27.4 -6.5 -3.0	1.2
Average		1.0
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	131.19 137.59 133.99	85 85 170	25.88 21.65 59.05
0 0 0	0.22 0.22 0.31	85 170 170	35.92 53.80 63.69
12 12 12	0.87 0.89 1.00	170 85 170	53.03 34.07 59.90
25 25 25	2.27 2.35 2.39	170 170 85	55.64 63.85 23.90
38 38 38	4.62 4.85 4.71	0 130 208	24.23 33.00 86.32
51 51 51	7.51 7.99 7.76	82 160 221	40.15 51.17 97.19
63 63 63	10.83 11.30 11.04	153 193 232	68.03 77.53 108.85
76 76 76	15.20 15.95 15.58	172 40 103	44.29 22.76 24.55
89 89 89	19.61 20.67 20.13	186 97 143	58.02 39.83 45.55
102 102 102	25.34 26.61 25.73	207 159 190	80.89 69.98 77.83
114 114 114	30.73 32.24 31.62	237 215 0	90.96 100.15 11.50
127 127 127	37.33 39.19 38.45	238 221 87	95.80 105.07 29.10
140 140 140	44.43 46.93 46.02	237 227 158	102.50 110.40 62.82
153 153 153	52.11 54.70 53.40	157 85 63	39.04 28.78 12.44
165 165 165	59.77 63.03 60.74	106 68 56	20.81 16.91 9.68
178 178 178	68.60 72.15 70.02	97 37 31	15.44 9.73 3.66
191 191 191	78.26 82.15 80.37	98 36 64	16.97 10.13 10.77
204 204 204	88.23 92.48 90.42	116 101 33	25.29 26.69 6.34
216 216 216	97.19 101.74 99.56	34 74 44	6.58 11.69 6.80
229 229 229	107.80 113.25 110.17	25 76 98	8.77 12.81 22.82
242 242 242	118.79 124.75 122.32	36 36 67	5.53 4.87 11.29
0 0 128	6.41 2.26 33.29	215 216 220	96.91 101.47 102.08
0 0 255	22.16 7.38 117.60	194 195 199	80.91 84.78 85.68
0 128 0	8.57 26.83 4.24	152 153 155	52.03 54.75 54.41
0 128 128	14.80 29.00 37.61	110 110 112	29.06 30.32 30.55
0 170 255	36.30 52.50 124.40	68 68 69	12.61 13.10 13.05
0 255 0	29.56 94.04 13.99	30 30 30	2.95 3.11 3.06
0 255 170	40.16 97.70 70.61	38 38 108	8.49 6.12 25.44
0 255 255	51.69 101.74 131.87	78 72 138	20.09 16.68 41.12
85 85 85	18.17 19.05 18.51	137 133 183	47.32 45.32 69.91
128 0 0	22.37 10.36 0.80	171 42 29	40.17 21.64 3.89
128 0 128	28.73 12.37 34.39	186 91 62	51.25 35.79 12.65
128 128 0	31.23 37.25 4.62	206 153 127	72.11 64.08 40.37
128 128 128	37.86 39.83 38.92	33 120 54	11.13 25.50 11.09
128 128 255	53.54 44.96 122.80	92 148 92	27.24 42.05 24.36
128 255 128	58.68 106.44 48.39	156 186 153	58.47 71.42 55.98
170 0 255	59.93 24.58 118.79	190 147 126	64.00 58.47 39.57
170 170 170	63.35 66.50 64.71	206 143 23	64.78 57.73 7.62
170 255 0	67.92 111.51 14.64	173 41 73	42.57 22.33 13.95
170 255 255	90.06 118.90 132.86	118 40 105	25.32 14.08 24.96
255 0 0	78.92 36.12 1.71	158 175 33	49.20 63.36 11.01
255 0 170	89.60 39.57 58.42	0 125 140	15.75 28.47 43.98
255 0 255	100.90 43.21 119.55	12 93 167	15.46 18.89 56.58
255 128 128	94.50 65.66 40.29	236 237 242	114.57 120.09 121.57
255 170 0	93.59 81.26 8.21	212 215 221	95.58 100.51 102.82
255 170 255	115.59 88.78 126.56	189 193 201	78.90 83.22 87.22
255 255 0	108.73 129.74 15.25	143 149 156	48.19 51.33 54.93
255 255 170	119.55 133.62 72.97	101 107 111	26.22 28.11 29.65
170 85 85	45.52 31.61 19.20	65 72 75	12.50 13.74 14.88
85 170 85	28.42 51.48 23.33	41 50 52	6.21 7.21 7.89