

UGRA

Display Analysis & Certification Tool

Report

Basics

Date: 2011-4-19 15:39:40
Report-Version: v1.3.1
Monitor-Name: \\.\DISPLAY1
Profile: C:/Windows/system32/spool/drivers/color/quato-ip240-hw-ugra.icc
Created: 2011-4-19 15:36
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:	133.79 140.31 137.20
XYZ (normalized):	95.35 100.00 97.78
Luminance:	140.3 Cd/m2
Next Temperature:	5821 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:	0.3 Cd/m2
Chromaticity:	0.6 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	7345	0.28	1.78	0.63	
5	6119	0.78	5.04	0.92	1.87
10	5771	2.43	14.03	0.44	1.81
15	5837	4.85	21.77	0.07	1.81
20	5755	8.07	28.78	0.27	1.80
25	5805	11.59	34.52	0.09	1.82
30	5810	16.04	40.30	0.06	1.82
35	5818	21.34	45.92	0.17	1.80
40	5778	27.11	51.06	0.45	1.80
45	5799	33.50	55.96	0.21	1.80
50	5809	40.30	60.53	0.15	1.81
55	5793	47.75	64.99	0.53	1.81
60	5799	56.23	69.52	0.24	1.80
65	5788	64.35	73.46	0.29	1.82
70	5812	73.89	77.67	0.22	1.81
75	5807	83.58	81.60	0.14	1.81
80	5793	93.80	85.43	0.58	1.80
85	5810	104.55	89.16	0.11	1.82
90	5802	115.76	92.80	0.20	1.83
95	5800	127.76	96.43	0.48	1.80
100	5821	140.31	100.00	0.00	
Average	5800			0.25	1.81
Range				0.75	
Max				0.58	

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	1.8 -0.3 -0.6	-1.8 0.3 0.6	1.9
0 0 128	13.3 51.1 -77.3	-0.9 2.1 -1.7	2.9
0 0 255	26.8 81.0 -120.2	0.1 -0.5 0.6	0.8
0 128 0	51.5 -90.6 56.4	0.1 -1.4 1.6	2.1
0 128 128	53.3 -61.5 -12.1	-0.1 0.2 -0.5	0.5
0 170 255	68.2 -45.4 -51.6	-0.2 0.3 0.0	0.4
0 255 0	86.3 -138.9 88.0	-0.1 -0.1 -0.2	0.3
0 255 170	87.5 -114.5 17.5	-0.1 0.2 -0.3	0.4
0 255 255	88.8 -92.9 -19.0	-0.1 0.3 -0.0	0.4
85 85 85	44.1 0.2 -0.1	-0.1 -0.2 0.1	0.3
128 0 0	33.5 70.4 51.7	-0.2 0.7 2.4	2.5
128 0 128	36.3 78.9 -38.2	-0.1 0.3 -0.0	0.3
128 128 0	59.3 -11.1 68.9	0.1 -0.6 1.0	1.1
128 128 128	60.9 0.1 0.1	-0.2 -0.1 -0.1	0.2
128 128 255	64.1 22.6 -57.9	-0.3 0.6 -0.1	0.7
128 255 128	90.6 -77.4 42.9	-0.1 -0.2 -0.2	0.3
170 0 255	49.3 103.2 -81.5	-0.0 -0.5 0.3	0.6
170 170 170	75.1 0.0 0.3	-0.1 -0.0 -0.3	0.3
170 255 0	92.3 -63.3 97.6	-0.0 -0.2 -0.6	0.7
170 255 255	94.4 -37.3 -9.5	0.0 -0.5 0.1	0.5
255 0 0	58.8 107.8 90.4	-0.2 -0.3 -1.1	1.2
255 0 170	60.8 114.2 -20.2	-0.0 -0.5 0.0	0.5
255 0 255	62.9 120.5 -58.4	0.1 -0.7 0.6	0.9
255 128 128	74.9 61.2 23.3	-0.2 -0.3 0.1	0.4
255 170 0	81.6 31.8 95.9	-0.0 -0.8 -0.9	1.2
255 170 255	84.3 48.1 -23.9	-0.1 0.0 -0.2	0.2
255 255 0	98.1 -17.4 106.8	-0.0 -0.3 -1.1	1.1
255 255 170	98.9 -8.7 36.4	0.0 -0.1 -0.1	0.2
255 255 255	100.0 0.0 0.0	0.0 -0.0 -0.0	0.0
170 85 85	55.2 48.2 18.1	-0.2 -0.3 0.3	0.5
85 170 85	67.6 -60.8 33.4	-0.1 -0.3 0.3	0.4
85 85 170	46.6 18.2 -45.5	-0.2 0.1 -0.1	0.3
85 170 170	69.1 -44.5 -10.1	-0.3 0.2 -0.3	0.4
170 85 170	56.9 56.9 -27.8	-0.2 -0.2 -0.2	0.3
170 170 85	73.9 -9.4 44.0	-0.1 -0.3 -0.0	0.3
Average			0.7
Maximum			2.9

Gamut-Volume

These measurements are only informative.

Gamut-Volume	
ISO	100 %
sRGB	100 %
AdobeRGB	100 %
ECI-RGB v1.0	96 %

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 -33.3 -49.6	3.8
66.9 -24.7 -37.1	67.1 -24.9 -36.9	0.4
79.7 -12.5 -21.8	79.8 -12.4 -21.7	0.2
48.0 74.0 -3.0	48.4 74.1 -3.0	0.4
60.8 50.6 -6.7	61.1 50.5 -6.3	0.5
76.4 25.8 -6.9	76.4 26.1 -7.4	0.6
89.0 -5.0 93.0	89.1 -4.2 93.7	1.1
90.3 -4.7 62.6	90.4 -4.2 62.3	0.6
92.2 -3.5 31.1	92.2 -3.3 31.4	0.3
53.1 37.7 28.9	53.3 37.4 29.2	0.5
41.5 22.7 16.8	41.9 22.8 16.1	0.8
31.9 40.0 24.0	32.3 39.5 23.7	0.7
32.5 44.4 -1.8	32.9 44.2 -1.7	0.4
51.3 1.3 44.5	51.4 2.0 43.5	1.2
34.6 -36.4 13.9	35.0 -36.3 14.0	0.5
36.0 -26.2 -20.9	36.2 -25.3 -20.9	0.9
20.9 9.6 -23.6	21.6 9.0 -22.7	1.3
89.0 0.0 -1.8	89.2 0.3 -1.9	0.4
82.8 0.0 -1.7	82.8 0.4 -2.1	0.6
69.3 0.0 -1.4	69.5 0.2 -0.9	0.5
54.1 0.0 -1.0	54.4 0.3 -1.2	0.5
36.6 -0.0 -0.5	36.8 0.5 -0.8	0.5
16.0 0.0 0.0	17.2 0.2 0.0	1.2
24.0 22.0 -46.0	24.7 21.4 -45.0	1.4
40.9 17.9 -36.6	41.2 17.8 -36.4	0.4
63.7 10.3 -23.8	63.7 11.2 -24.1	1.0
47.0 68.0 48.0	47.1 68.1 47.5	0.5
58.5 47.1 37.9	58.7 47.1 37.7	0.2
74.2 22.9 21.4	74.2 23.6 21.3	0.7
50.0 -65.0 27.0	50.4 -64.6 27.3	0.6
62.1 -39.8 21.0	62.3 -40.2 21.1	0.4
77.0 -19.1 11.0	77.0 -18.9 10.7	0.3
71.2 18.8 17.3	71.4 19.2 17.3	0.5
71.2 22.2 73.1	71.4 22.5 73.5	0.6
47.7 71.2 16.2	48.0 70.8 16.2	0.5
38.0 55.4 -20.9	38.4 55.1 -20.9	0.5
73.7 -22.8 67.6	73.8 -22.8 67.8	0.3
52.3 -52.3 -20.2	52.5 -52.4 -19.9	0.4
43.3 -17.0 -48.6	43.6 -17.7 -48.0	1.0
95.0 0.0 -2.0	95.1 0.4 -2.2	0.5
88.5 -0.4 -3.1	88.6 -0.2 -3.1	0.2
82.0 -0.9 -4.1	82.1 -0.6 -4.0	0.4
67.7 -2.0 -4.4	67.9 -1.9 -4.2	0.3
52.2 -2.5 -3.5	52.3 -2.0 -3.8	0.6
37.5 -3.9 -3.1	37.7 -4.0 -3.2	0.3
26.3 -6.8 -3.4	27.1 -7.2 -2.5	1.3
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	133.79 140.31 137.20	85 85 170	26.78 22.40 62.19
0 0 0	0.26 0.28 0.32	85 170 170	36.41 55.74 65.93
12 12 12	0.76 0.78 0.84	170 85 170	55.29 34.77 62.37
25 25 25	2.34 2.43 2.40	170 170 85	56.76 65.08 23.25
38 38 38	4.62 4.85 4.75	0 128 206	24.10 33.55 88.71
51 51 51	7.72 8.07 7.83	85 158 219	41.33 52.25 100.39
63 63 63	11.05 11.59 11.30	154 193 231	70.04 79.59 112.22
76 76 76	15.30 16.04 15.66	170 45 102	46.22 23.59 25.58
89 89 89	20.38 21.34 20.92	185 99 142	59.93 40.90 46.49
102 102 102	25.97 27.11 26.52	205 160 190	81.88 70.74 79.66
114 114 114	31.93 33.50 32.59	237 216 26	94.01 103.50 11.03
127 127 127	38.41 40.30 39.28	237 221 93	98.16 107.56 30.09
140 140 140	45.73 47.75 46.83	236 228 160	104.91 113.49 63.89
153 153 153	53.72 56.23 54.95	155 87 64	39.95 29.55 12.62
165 165 165	61.39 64.35 62.58	105 69 57	21.38 17.33 10.10
178 178 178	70.40 73.89 72.00	96 39 31	15.98 9.97 3.65
191 191 191	79.77 83.58 81.66	97 38 63	17.62 10.36 10.97
204 204 204	89.79 93.80 91.91	115 101 37	26.10 27.25 6.47
216 216 216	99.72 104.55 102.07	35 74 45	6.54 11.95 6.86
229 229 229	110.51 115.76 113.02	27 75 97	8.91 12.94 23.38
242 242 242	122.19 127.76 125.11	36 36 66	5.54 4.82 11.52
0 0 128	6.95 2.54 36.00	215 216 220	99.99 104.55 105.51
0 0 255	23.50 8.04 125.80	194 195 199	82.98 86.69 87.90
0 128 0	8.17 27.72 3.45	152 153 155	53.68 56.21 55.99
0 128 128	14.80 30.22 38.98	110 110 112	30.05 31.40 31.64
0 170 255	37.03 54.83 131.03	68 68 69	12.69 13.22 13.25
0 255 0	28.01 96.60 10.98	30 30 30	3.14 3.28 3.20
0 255 170	39.22 100.53 71.12	39 38 106	8.73 6.21 26.25
0 255 255	51.36 104.72 136.43	78 72 137	20.50 17.01 42.31
85 85 85	18.69 19.55 19.17	137 132 182	48.64 45.76 72.52
128 0 0	23.86 10.51 0.58	168 47 31	41.09 21.97 3.98
128 0 128	30.63 12.79 36.55	184 94 64	52.73 36.86 12.95
128 128 0	31.93 38.05 3.67	205 154 128	74.24 65.59 41.49
128 128 128	38.96 40.82 39.87	37 119 56	11.40 26.37 11.19
128 128 255	55.70 46.85 129.50	93 147 94	27.79 43.17 25.16
128 255 128	58.67 109.20 47.43	156 185 154	59.39 72.33 57.28
170 0 255	63.52 25.45 126.25	189 148 127	65.83 59.74 40.75
170 170 170	64.75 67.92 66.08	204 145 32	66.30 59.27 7.70
170 255 0	67.76 113.73 11.33	170 47 73	43.98 23.10 14.46
170 255 255	91.24 121.54 136.63	116 42 104	26.16 14.37 26.03
255 0 0	83.24 36.31 1.14	158 175 42	50.17 64.64 10.94
255 0 170	94.20 39.92 61.52	15 124 139	16.07 29.32 45.07
255 0 255	106.21 43.92 127.09	18 92 165	16.00 19.56 59.04
255 128 128	98.04 66.52 40.85	236 237 242	118.05 123.38 124.78
255 170 0	96.47 82.39 6.25	212 215 221	98.00 102.79 105.69
255 170 255	119.56 90.61 131.27	189 193 201	80.71 84.84 88.89
255 255 0	110.70 132.37 11.76	143 149 156	49.90 53.06 56.47
255 255 170	121.61 136.00 72.20	101 106 111	26.87 28.70 30.82
170 85 85	47.28 32.01 19.72	65 72 75	12.67 13.97 15.12
85 170 85	28.25 52.61 23.00	41 50 51	6.13 7.22 7.78