UGRA
Display Analysis & Certification Tool
Report

Basics

Date:	2011-10-13 20:56:41
Report-Version:	v1.3.1
Monitor-Name:	\\.\DISPLAY2
Profile:	C:/Windows/system32/spool/drivers/color/IPS235V_ugra.icc
Created:	2011-10-13 20:52
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	no
Offset/Gravure Paper Type 1/2	yes
Offset on uncoated paper	yes
Newspaper Printing	yes
sRGB	yes
AdobeRGB	no
ECI-RGB	no

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:	113.20 118.73 116.12
XYZ (normalized):	95.34 100.00 97.80
Luminance:	118.7 Cd/m2
Next Temperature:	5823 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:	0.3 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	5792	0.27	2.02	0.34	
5	5364	0.88	6.72	1.47	1.78
10	5951	2.06	14.01	0.44	1.82
15	5846	4.18	22.02	0.08	1.80
20	5829	6.87	28.88	0.47	1.79
25	5846	9.86	34.61	0.11	1.81
30	5789	13.75	40.54	0.50	1.81
35	5807	18.10	45.97	0.13	1.81
40	5805	22.93	51.05	0.33	1.80
45	5824	27.88	55.56	0.31	1.82
50	5814	33.89	60.38	0.25	1.82
55	5800	40.33	64.94	0.37	1.81
60	5819	47.17	69.27	0.33	1.81
65	5833	54.14	73.28	0.17	1.83
70	5809	62.26	77.54	0.17	1.82
75	5822	70.47	81.49	0.10	1.82
80	5805	79.46	85.47	0.28	1.81
85	5813	88.03	88.99	0.24	1.85
90	5802	97.98	92.80	0.47	1.85
95	5808	108.07	96.42	0.33	1.87
100	5823	118.73	100.00	0.00	
Average	5823			0.27	1.82
Range				0.96	
Max				0.50	

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	2.0 0.3 -0.2	-2.0 -0.3 0.2	2.0
0 0 128	16.2 39.8 -70.8	-0.2 0.7 -1.4	1.5
0 0 255	32.4 61.1 -109.0	0.1 0.1 -0.2	0.2
0 128 0	51.8 -52.2 58.1	0.2 -0.4 1.9	2.0
0 128 128	54.3 -33.6 -9.3	-0.0 0.2 -0.6	0.6
0 170 255	70.2 -21.5 -46.9	-0.1 0.5 -0.1	0.5
0 255 0	87.1 -79.7 90.8	-0.2 0.1 -0.0	0.2
0 255 170	88.7 -64.7 21.3	-0.1 0.3 -1.0	1.0
0 255 255	90.5 -50.8 -14.7	-0.2 0.3 -0.3	0.4
85 85 85	44.4 -0.1 0.3	-0.4 0.1 -0.3	0.5
128 0 0	31.1 51.5 39.1	-0.2 0.8 3.5	3.6
128 0 128	35.4 59.0 -39.6	0.0 0.2 -0.2	0.3
128 128 0	58.5 -9.8 65.4	0.2 -0.4 1.1	1.2
128 128 128	60.7 -0.0 0.1	-0.0 0.0 -0.1	0.1
128 128 255	65.2 19.2 -55.0	-0.1 0.3 -0.2	0.4
128 255 128	91.2 -48.2 44.3	-0.2 -0.2 -0.3	0.4
170 0 255	49.7 77.4 -80.2	0.2 0.0 0.2	0.3
170 170 170	74.9 0.0 0.2	0.0 -0.0 -0.2	0.2
170 255 0	92.2 -42.6 95.9	-0.1 -0.2 -0.1	0.2
170 255 255	95.3 -22.3 -7.2	-0.1 -0.1 -0.2	0.2
255 0 0	55.0 79.2 65.1	-0.1 -0.1 -0.2	0.2
255 0 170	58.3 84.9 -25.5	0.1 -0.4 -0.1	0.4
255 0 255	61.7 89.9 -60.4	0.1 -0.3 0.1	0.3
255 128 128	73.0 41.4 18.4	0.0 -0.2 0.3	0.4
255 170 0	79.7 18.5 86.1	0.2 -0.5 -0.3	0.6
255 170 255	83.9 33.5 -24.9	-0.0 0.2 -0.1	0.2
255 255 0	97.1 -15.3 101.5	-0.0 -0.1 -0.8	0.8
255 255 170	98.5 -7.5 35.1	-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	53.9 32.3 14.9	-0.2 0.2 -0.1	0.3
85 170 85	67.9 -38.0 34.6	-0.0 -0.0 0.1	0.1
85 85 170	47.6 15.0 -42.6	-0.2 0.4 -0.8	0.9
85 170 170	69.7 -25.7 -7.7	0.0 0.1 -0.4	0.5
170 85 170	56.4 40.2 -28.6	-0.1 0.3 -0.5	0.6
170 170 85	73.3 -8.2 42.0	0.0 -0.2 0.2	0.3
Average			0.6
Maximum			3.6

Gamut-Volume

These measurements are only informative.

Gamut-Volume	
ISO	92 %
sRGB	99 %
AdobeRGB	77 %
ECI-RGB v1.0	71 %

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	58.6 -16.4 -43.5	21.9
66.9 -24.7 -37.1	66.9 -25.5 -36.1	1.3
79.7 -12.5 -21.8	79.8 -13.1 -21.0	0.9
48.0 74.0 -3.0	48.4 72.8 -2.7	1.3
60.8 50.6 -6.7	61.0 50.4 -6.6	0.3
76.4 25.8 -6.9	76.4 26.0 -6.6	0.4
89.0 -5.0 93.0	88.9 -4.6 92.8	0.5
90.3 -4.7 62.6	90.3 -4.7 62.1	0.5
92.2 -3.5 31.1	92.3 -3.1 30.9	0.4
53.1 37.7 28.9	53.2 37.7 27.9	1.1
41.5 22.7 16.8	41.7 22.2 16.6	0.6
31.9 40.0 24.0	32.4 39.1 22.5	1.8
32.5 44.4 -1.8	32.9 43.7 -1.8	0.9
51.3 1.3 44.5	51.2 1.1 43.2	1.3
34.6 -36.4 13.9	35.1 -32.4 14.2	4.1
36.0 -26.2 -20.9	37.2 -19.1 -18.4	7.6
20.9 9.6 -23.6	21.7 9.5 -22.7	1.2
89.0 0.0 -1.8	88.9 -0.2 -1.6	0.3
82.8 0.0 -1.7	82.7 0.0 -1.5	0.2
69.3 0.0 -1.4	69.2 0.0 -1.2	0.2
54.1 0.0 -1.0	54.0 0.5 -1.2	0.6
36.6 -0.0 -0.5	36.9 0.1 -0.4	0.3
16.0 0.0 0.0	16.8 -0.4 -0.1	0.9
24.0 22.0 -46.0	24.4 21.8 -45.3	0.9
40.9 17.9 -36.6	41.1 17.7 -36.1	0.6
63.7 10.3 -23.8	63.6 10.3 -23.4	0.3
47.0 68.0 48.0	47.1 67.4 46.4	1.7
58.5 47.1 37.9	58.6 46.8 37.5	0.5
74.2 22.9 21.4	74.0 23.3 21.1	0.5
50.0 -65.0 27.0	51.9 -46.8 29.6	18.5
62.1 -39.8 21.0	61.9 -39.5 21.0	0.4
77.0 -19.1 11.0	77.0 -19.0 11.1	0.1
71.2 18.8 17.3	71.1 19.1 16.8	0.5
71.2 22.2 73.1	70.9 22.6 72.0	1.2
47.7 71.2 16.2	47.8 71.0 15.5	0.8
38.0 55.4 -20.9	38.1 54.8 -20.5	0.8
73.7 -22.8 67.6	73.6 -22.8 66.4	1.1
52.3 -52.3 -20.2	55.3 -31.4 -14.8	21.8
43.3 -17.0 -48.6	45.3 -7.1 -44.6	10.9
95.0 0.0 -2.0	95.1 -0.2 -1.7	0.4
88.5 -0.4 -3.1	88.5 -0.6 -2.3	0.8
82.0 -0.9 -4.1	81.8 -1.1 -3.6	0.5
67.7 -2.0 -4.4	67.5 -1.4 -4.4	0.6
52.2 -2.5 -3.5	52.2 -2.2 -3.3	0.4
37.5 -3.9 -3.1	37.8 -4.0 -2.9	0.4
26.3 -6.8 -3.4	26.6 -6.6 -3.7	0.5
Average		2.5
Gamut-Volume		92 %

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	113.20 118.73 116.12	85 85 170	22.83 19.83 51.44
0 0 0	0.26 0.27 0.27	85 170 170	37.12 48.09 54.48
12 12 12	0.83 0.88 0.76	170 85 170	40.09 28.85 52.51
25 25 25	1.96 2.06 2.06	170 170 85	47.44 53.88 20.15
38 38 38	3.98 4.18 4.10	0 133 208	27.14 32.10 74.17
51 51 51	6.59 6.87 6.80	13 162 221	34.56 43.99 83.53
63 63 63	9.40 9.86 9.68	133 195 232	58.87 67.28 93.72
76 76 76	13.07 13.75 13.27	208 0 100	38.71 20.00 21.51
89 89 89	17.26 18.10 17.64	216 85 141	50.43 34.43 39.37
102 102 102	21.93 22.93 22.48	225 154 189	69.18 59.82 66.38
114 114 114	26.64 27.88 27.39	245 218 8	78.93 87.11 9.51
127 127 127	32.27 33.89 33.00	243 223 89	82.65 90.87 25.55
140 140 140	38.57 40.33 39.50	240 229 159	89.00 96.15 54.61
153 153 153	45.07 47.17 46.29	180 78 62	33.76 24.88 11.11
165 165 165	51.64 54.14 53.10	119 65 55	17.77 14.50 8.28
178 178 178	59.34 62.26 60.70	115 30 29	13.51 8.46 3.30
191 191 191	67.15 70.47 68.84	117 26 62	14.80 8.77 9.30
204 204 204	75.72 79.46 77.35	121 102 34	21.76 22.93 5.49
216 216 216	83.86 88.03 85.79	0 77 45	5.93 10.16 5.79
229 229 229	93.29 97.98 95.18	0 78 98	8.74 11.62 19.43
242 242 242	102.95 108.07 105.21	37 34 67	4.76 4.11 9.81
0 0 128	5.95 2.77 29.43	214 216 220	83.64 87.80 88.14
0 0 255	20.58 9.45 104.01	194 195 199	69.79 73.15 73.45
0 128 0	12.07 23.69 2.78	152 153 155	44.87 47.02 47.10
0 128 128	18.08 26.68 32.34	110 110 112	25.01 26.08 26.28
0 170 255	40.89 49.51 108.70	68 68 69	10.77 11.29 11.19
0 255 0	42.31 83.30 8.94	30 30 30	2.55 2.70 2.65
0 255 170	52.07 87.71 58.36	40 33 107	7.33 5.17 22.17
0 255 255	62.87 92.69 113.26	81 68 138	17.26 14.34 35.48
85 85 85	15.93 16.73 16.20	139 130 183	40.66 38.58 60.40
128 0 0	14.57 7.72 1.10	205 16 23	34.61 18.61 3.57
128 0 128	20.48 10.36 30.81	216 82 59	44.46 31.15 11.03
128 128 0	26.58 31.28 3.49	226 149 126	62.20 55.06 34.98
128 128 128	32.77 34.38 33.54	0 126 57	13.19 23.84 9.58
128 128 255	47.52 41.27 107.89	55 153 94	23.34 36.07 21.01
128 255 128	63.02 93.63 39.86	141 189 154	50.21 61.21 48.14
170 0 255	44.76 22.07 105.74	206 144 126	54.94 49.89 34.33
170 170 170	54.53 57.20 55.71	227 140 22	55.33 49.36 6.71
170 255 0	66.68 95.86 10.22	208 5 70	37.03 19.38 12.37
170 255 255	87.34 105.34 114.65	140 22 103	21.78 11.97 21.50
255 0 0	50.63 26.51 2.81	149 180 39	42.26 54.44 9.63
255 0 170	60.39 30.86 52.87	0 130 141	19.49 27.83 37.92
255 0 255	71.05 35.76 107.17	0 93 167	16.45 17.90 49.43
255 128 128	68.70 53.10 35.79	235 237 242	99.26 104.21 104.67
255 170 0	70.47 65.85 6.88	211 215 221	82.63 86.96 88.38
255 170 255	91.35 75.85 111.45	187 193 201	67.45 71.21 74.22
255 255 0	92.58 109.28 11.34	141 149 156	41.81 44.28 47.36
255 255 170	102.59 113.85 61.84	99 107 111	22.59 24.18 25.65
170 85 85	33.20 25.73 17.13	62 72 75	10.77 11.87 12.73
85 170 85	30.11 44.87 19.12	36 50 52	5.07 5.91 6.69