

UGRA

Display Analysis & Certification Tool

Report

Basics

Date: 2010-5-26 22:10:18
Report-Version: v1.3.1
Monitor-Name: \\.\DISPLAY1
Profile: C:/Windows/system32/spool/DRIVERS/COLOR/ZR24w_ugra.icc
Created: 2010-5-26 22:06
Measurement device: eye-one pro

Summary

The monitor has not passed the certification according to the UGRA DACT specifications.

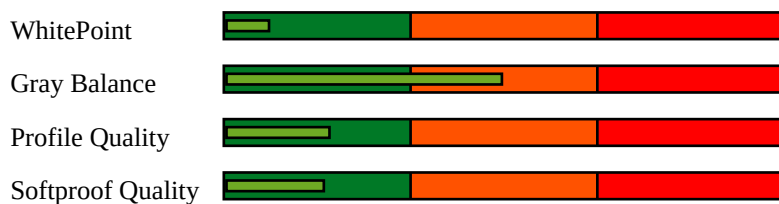
Calibration

White Point	yes
Gray balance	no
Profile quality	yes

Softproofing

MultiColor, HighBody	no
Offset/Gravure Paper Type 1/2	no
Offset on uncoated paper	no
Newspaper Printing	no
sRGB	no
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:	124.06 130.24 127.71
XYZ (normalized):	95.25 100.00 98.06
Luminance:	130.2 Cd/m2
Next Temperature:	5846 Kelvin
Assumed Target Whitepoint:	5800 Kelvin
Distance to assumed Target Whitepoint:	0.5 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:	1.5 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	13788	0.19	1.28	1.54	
5	5566	0.72	4.98	0.96	1.85
10	5624	2.22	13.86	0.76	1.82
15	5824	4.39	21.47	0.34	1.82
20	5868	7.41	28.62	0.62	1.79
25	5835	10.68	34.40	0.73	1.81
30	5800	14.83	40.22	0.56	1.82
35	5778	19.54	45.64	0.60	1.81
40	5766	25.27	51.15	0.60	1.80
45	5780	30.95	55.85	0.56	1.81
50	5771	37.10	60.33	0.52	1.82
55	5807	44.65	65.18	0.45	1.80
60	5740	52.40	69.64	0.86	1.80
65	5795	59.81	73.50	0.61	1.82
70	5806	68.58	77.67	0.45	1.81
75	5764	77.60	81.61	0.74	1.82
80	5824	87.32	85.53	0.64	1.78
85	5790	96.21	88.86	0.57	1.87
90	5796	107.15	92.69	0.53	1.86
95	5802	118.23	96.32	0.57	1.95
100	5846	130.24	100.00	0.00	
Average	5790			0.56	1.83
Range				1.31	
Max				0.86	

Tone values = 91.2%

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: CAT02

RGB	Lab	deltaLab	deltaE
0 0 0	1.3 -0.1 -1.6	-1.3 0.1 1.6	2.0
0 0 128	16.3 33.1 -69.8	0.1 0.5 -0.9	1.0
0 0 255	32.3 51.8 -108.1	0.7 -1.1 1.1	1.7
0 128 0	51.0 -52.7 52.6	0.4 -0.9 0.6	1.2
0 128 128	53.5 -36.4 -10.9	0.3 -0.1 -0.3	0.5
0 170 255	69.5 -26.8 -47.7	0.1 0.0 0.2	0.3
0 255 0	86.2 -81.2 82.9	-0.2 0.1 -2.5	2.5
0 255 170	87.9 -67.9 18.5	-0.1 0.4 -1.6	1.6
0 255 255	89.7 -55.6 -16.3	-0.1 0.5 -0.7	0.8
85 85 85	44.2 -0.5 0.2	-0.2 0.5 -0.2	0.6
128 0 0	32.2 52.6 44.9	-0.1 0.5 3.3	3.3
128 0 128	36.5 57.2 -36.8	0.0 -0.0 0.1	0.1
128 128 0	58.5 -6.9 63.1	0.2 -1.2 -0.2	1.2
128 128 128	60.9 -0.1 0.6	-0.2 0.1 -0.6	0.6
128 128 255	65.3 15.7 -54.1	-0.2 0.1 0.1	0.2
128 255 128	90.6 -48.5 41.8	-0.2 -0.3 -1.4	1.4
170 0 255	50.7 73.1 -77.4	0.5 -0.8 1.2	1.5
170 170 170	75.2 -0.2 0.6	-0.2 0.2 -0.6	0.7
170 255 0	91.7 -40.9 90.4	-0.2 -0.2 -2.5	2.5
170 255 255	94.9 -23.9 -8.1	-0.0 -0.2 -0.2	0.3
255 0 0	56.7 80.4 75.3	0.0 -0.1 -0.2	0.2
255 0 170	59.9 83.9 -21.2	0.2 -0.5 0.6	0.8
255 0 255	63.1 87.2 -56.4	0.4 -0.7 0.9	1.2
255 128 128	74.2 44.3 21.2	-0.3 -1.3 -0.3	1.4
255 170 0	80.5 23.1 86.9	-0.2 -1.8 -2.4	3.0
255 170 255	84.6 34.2 -22.8	-0.2 -1.0 -0.2	1.1
255 255 0	97.0 -12.2 98.0	-0.0 -0.1 -2.9	2.9
255 255 170	98.5 -6.1 34.6	-0.1 0.0 -0.8	0.8
255 255 255	100.0 -0.0 0.0	-0.0 0.0 -0.0	0.0
170 85 85	54.5 33.5 16.6	-0.2 0.3 -0.1	0.3
85 170 85	67.4 -37.9 32.4	-0.1 -0.5 -0.6	0.7
85 85 170	47.6 12.0 -42.3	-0.0 0.4 -0.2	0.5
85 170 170	69.2 -27.5 -8.8	0.0 -0.2 -0.4	0.4
170 85 170	57.0 39.5 -26.7	-0.1 0.3 -0.2	0.3
170 170 85	73.3 -6.5 41.2	-0.0 -0.3 -0.3	0.4
Average			1.1
Maximum			3.3

Gamut-Volume

These measurements are only informative.

Gamut-Volume	
ISO	94 %
sRGB	96 %
AdobeRGB	78 %
ECI-RGB v1.0	74 %

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	57.8 -20.7 -45.1	17.3
66.9 -24.7 -37.1	66.7 -24.6 -37.2	0.3
79.7 -12.5 -21.8	79.7 -11.9 -21.4	0.7
48.0 74.0 -3.0	48.7 71.5 -1.9	2.8
60.8 50.6 -6.7	60.9 50.2 -6.5	0.4
76.4 25.8 -6.9	76.5 25.4 -6.5	0.6
89.0 -5.0 93.0	88.9 -4.4 91.2	1.9
90.3 -4.7 62.6	90.3 -4.1 63.6	1.2
92.2 -3.5 31.1	92.1 -3.2 31.5	0.5
53.1 37.7 28.9	52.9 37.6 28.9	0.2
41.5 22.7 16.8	41.7 22.4 16.0	0.8
31.9 40.0 24.0	32.3 39.2 23.6	1.0
32.5 44.4 -1.8	32.5 44.5 -1.8	0.1
51.3 1.3 44.5	51.3 1.6 44.4	0.4
34.6 -36.4 13.9	34.6 -34.5 14.4	2.0
36.0 -26.2 -20.9	36.5 -22.1 -18.6	4.7
20.9 9.6 -23.6	21.1 9.3 -22.7	1.0
89.0 0.0 -1.8	89.0 0.1 -1.0	0.9
82.8 0.0 -1.7	82.7 0.5 -1.7	0.5
69.3 0.0 -1.4	69.6 0.3 -0.7	0.7
54.1 0.0 -1.0	54.0 0.5 -0.7	0.6
36.6 -0.0 -0.5	36.4 0.3 -0.2	0.5
16.0 0.0 0.0	17.1 -0.6 0.8	1.5
24.0 22.0 -46.0	24.0 21.2 -45.4	1.0
40.9 17.9 -36.6	40.7 18.2 -36.6	0.4
63.7 10.3 -23.8	63.8 10.5 -23.3	0.5
47.0 68.0 48.0	47.1 68.3 47.5	0.6
58.5 47.1 37.9	58.8 46.7 37.4	0.7
74.2 22.9 21.4	74.2 23.7 21.3	0.8
50.0 -65.0 27.0	51.3 -49.1 30.2	16.3
62.1 -39.8 21.0	61.9 -39.2 21.1	0.7
77.0 -19.1 11.0	77.0 -18.7 12.0	1.0
71.2 18.8 17.3	71.4 19.0 17.7	0.4
71.2 22.2 73.1	71.1 22.9 74.4	1.5
47.7 71.2 16.2	48.0 70.5 16.7	0.8
38.0 55.4 -20.9	37.8 55.6 -21.1	0.3
73.7 -22.8 67.6	73.9 -22.5 69.0	1.5
52.3 -52.3 -20.2	54.7 -35.0 -15.4	18.1
43.3 -17.0 -48.6	44.1 -10.4 -46.3	7.1
95.0 0.0 -2.0	95.0 -0.2 -1.3	0.7
88.5 -0.4 -3.1	88.3 -0.1 -3.3	0.4
82.0 -0.9 -4.1	82.0 -1.0 -3.4	0.7
67.7 -2.0 -4.4	67.6 -1.1 -4.3	0.8
52.2 -2.5 -3.5	52.1 -2.1 -3.1	0.6
37.5 -3.9 -3.1	37.6 -3.7 -2.7	0.5
26.3 -6.8 -3.4	26.5 -7.3 -3.8	0.6
Average		2.1
Gamut-Volume		94 %

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	124.06 130.24 127.71	85 85 170	24.32 21.84 55.79
0 0 0	0.17 0.19 0.31	85 170 170	39.46 51.97 60.32
12 12 12	0.71 0.72 0.72	170 85 170	44.79 32.66 56.67
25 25 25	2.12 2.22 2.08	170 170 85	52.65 58.97 23.02
38 38 38	4.17 4.39 4.25	0 131 209	27.76 34.21 81.44
51 51 51	7.11 7.41 7.39	46 160 222	37.85 47.86 92.53
63 63 63	10.26 10.68 10.62	140 194 233	64.96 73.67 103.32
76 76 76	14.08 14.83 14.32	201 0 104	42.51 22.36 23.41
89 89 89	18.74 19.54 19.15	210 83 144	55.19 37.79 42.98
102 102 102	24.07 25.27 24.40	221 153 191	75.81 65.97 73.00
114 114 114	29.47 30.95 29.94	239 221 0	86.42 95.30 11.81
127 127 127	35.46 37.10 36.10	239 225 84	90.59 99.28 27.61
140 140 140	42.49 44.65 43.37	237 230 157	96.84 104.75 59.40
153 153 153	50.03 52.40 50.55	174 78 63	36.59 26.98 11.69
165 165 165	56.92 59.81 57.97	116 65 56	19.47 15.85 9.28
178 178 178	65.30 68.58 66.69	111 29 31	14.78 9.26 3.44
191 191 191	74.06 77.60 75.17	113 24 64	16.08 9.40 9.93
204 204 204	83.52 87.32 85.93	119 102 32	24.00 25.18 5.93
216 216 216	91.95 96.21 93.90	0 78 44	6.04 10.80 6.19
229 229 229	102.36 107.15 104.62	0 78 98	8.80 12.26 20.74
242 242 242	112.60 118.23 114.91	38 33 67	5.01 4.34 10.39
0 0 128	5.99 3.15 31.46	215 216 220	92.10 96.59 96.19
0 0 255	20.74 10.64 111.52	194 195 199	76.73 80.21 81.00
0 128 0	12.50 24.94 4.03	152 153 155	49.93 52.30 52.03
0 128 128	18.47 28.24 35.59	110 110 112	27.40 28.61 28.55
0 170 255	41.95 53.16 118.27	68 68 69	11.49 12.01 11.84
0 255 0	44.03 88.53 13.14	30 30 30	2.85 3.03 2.85
0 255 170	53.95 93.62 66.13	43 30 108	7.81 5.57 23.84
0 255 255	64.84 99.34 124.75	83 66 139	18.73 15.48 38.65
85 85 85	17.26 18.23 17.76	141 129 184	44.89 42.60 66.27
128 0 0	17.14 9.12 0.91	198 13 29	38.30 20.46 3.75
128 0 128	23.18 12.20 32.89	209 82 62	48.93 34.38 12.34
128 128 0	29.81 34.12 4.55	221 149 127	68.82 60.81 38.67
128 128 128	36.17 38.01 36.79	0 127 53	13.54 25.40 10.15
128 128 255	51.12 45.77 116.95	62 154 92	25.59 39.48 23.27
128 255 128	67.54 100.80 45.93	143 190 152	55.08 67.10 52.17
170 0 255	49.19 25.60 113.32	202 144 126	60.74 55.30 37.60
170 170 170	60.14 63.24 61.28	221 141 19	61.04 54.36 7.11
170 255 0	72.72 103.49 14.10	201 0 73	40.66 21.44 13.14
170 255 255	93.57 114.17 126.29	137 17 106	23.84 13.01 23.62
255 0 0	59.27 31.28 2.14	147 182 29	46.72 60.07 10.29
255 0 170	69.14 36.24 56.06	0 130 140	20.01 29.79 41.27
255 0 255	79.85 41.72 114.13	0 91 168	16.51 18.66 53.70
255 128 128	79.49 60.54 38.73	236 237 242	108.53 114.00 114.08
255 170 0	81.73 74.02 8.27	211 215 222	90.36 94.80 98.09
255 170 255	102.62 85.19 120.67	188 193 201	74.50 78.69 81.79
255 255 0	103.12 119.30 14.88	142 149 157	46.17 48.83 52.22
255 255 170	113.27 124.70 69.10	99 107 111	24.62 26.36 27.93
170 85 85	37.72 29.01 18.55	63 72 75	11.71 12.88 13.75
85 170 85	32.40 48.33 22.21	37 50 52	5.44 6.42 7.30