

UGRA

Display Analysis & Certification Tool

Report

Basics

Date: 2011-10-25 19:03:08
Report-Version: v1.3.1
Monitor-Name: \\.\DISPLAY2
Profile: C:/Windows/system32/spool/drivers/color/benq_EW2730V_ugra.icc
Created: 2011-10-25 18:58
Measurement device: eye-one pro

Summary

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

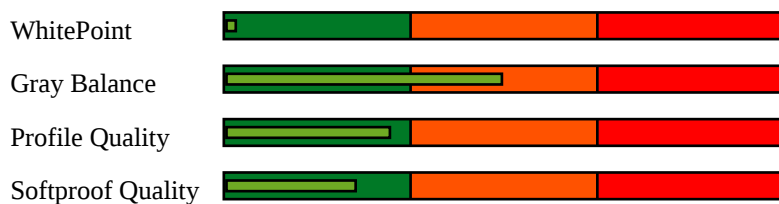
Calibration

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:	113.04 118.56 115.48
XYZ (normalized):	95.35 100.00 97.41
Luminance:	118.6 Cd/m2
Next Temperature:	5802 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:	0.3 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	5345	0.26	2.00	1.08	
5	5714	1.00	7.64	0.29	1.68
10	5761	2.17	14.58	0.11	1.79
15	5786	4.04	21.59	0.26	1.81
20	5767	6.73	28.57	0.14	1.80
25	5805	9.76	34.46	0.20	1.82
30	5857	13.42	40.12	0.67	1.82
35	5811	17.86	45.72	0.45	1.81
40	5803	22.81	50.96	0.08	1.81
45	5777	27.96	55.67	0.16	1.82
50	5834	33.71	60.28	0.40	1.82
55	5829	40.43	65.05	0.35	1.81
60	5795	47.56	69.55	0.23	1.79
65	5821	54.45	73.50	0.31	1.81
70	5823	62.11	77.51	0.20	1.81
75	5800	70.53	81.56	0.52	1.82
80	5820	79.52	85.54	0.16	1.79
85	5805	88.02	89.04	0.10	1.83
90	5809	97.61	92.72	0.24	1.84
95	5826	108.16	96.51	0.25	1.77
100	5802	118.56	100.00	0.00	
Average	5807			0.25	1.80
Range				1.17	
Max				0.67	

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: Bradford

RGB	Lab	deltaLab	deltaE
0 0 0	2.0 -0.6 0.9	-2.0 0.6 -0.9	2.3
0 0 128	12.5 56.1 -78.6	-0.6 1.5 -1.8	2.4
0 0 255	26.2 87.1 -121.6	0.0 -0.0 0.1	0.1
0 128 0	53.3 -52.8 63.9	0.1 1.3 2.1	2.5
0 128 128	54.6 -31.0 -9.7	0.2 0.7 0.4	0.8
0 170 255	69.7 -15.4 -49.4	0.2 0.6 0.9	1.1
0 255 0	89.2 -78.0 100.0	-0.2 0.1 -0.1	0.3
0 255 170	90.1 -61.5 23.0	-0.1 0.0 0.2	0.2
0 255 255	91.3 -46.0 -14.5	-0.1 0.0 0.4	0.4
85 85 85	44.2 0.2 -0.1	-0.2 -0.2 0.1	0.3
128 0 0	30.5 51.0 38.6	-0.9 0.6 5.2	5.3
128 0 128	33.2 64.9 -43.8	-0.3 -0.0 -1.1	1.1
128 128 0	59.6 -13.0 69.5	-0.2 0.3 2.9	3.0
128 128 128	60.8 -0.1 -0.2	-0.1 0.1 0.2	0.2
128 128 255	63.6 25.3 -59.3	0.0 -0.1 0.6	0.6
128 255 128	92.8 -48.4 47.9	-0.4 0.0 -0.1	0.5
170 0 255	45.9 90.3 -88.4	-0.3 -0.2 -0.3	0.5
170 170 170	75.1 -0.1 -0.2	-0.2 0.1 0.2	0.3
170 255 0	93.8 -44.6 104.2	-0.2 -0.3 0.6	0.7
170 255 255	95.8 -20.3 -7.5	-0.2 -0.5 0.5	0.7
255 0 0	53.0 77.8 68.2	0.0 0.1 0.1	0.1
255 0 170	55.2 88.7 -30.5	0.3 -0.3 -0.4	0.6
255 0 255	57.7 98.3 -68.1	0.2 -0.2 0.2	0.3
255 128 128	72.3 38.4 18.8	-0.2 1.0 -0.7	1.3
255 170 0	80.3 12.5 92.7	-0.3 1.2 -0.0	1.2
255 170 255	82.8 34.4 -27.6	-0.1 0.8 0.1	0.8
255 255 0	98.3 -19.5 110.3	-0.2 0.2 -0.8	0.8
255 255 170	99.1 -9.7 37.2	-0.1 0.1 -0.2	0.3
255 255 255	100.0 0.0 -0.0	0.0 0.0 0.0	0.0
170 85 85	53.4 31.4 14.2	-0.3 -0.4 0.0	0.5
85 170 85	69.0 -38.5 37.1	-0.1 0.5 0.5	0.7
85 85 170	46.2 20.5 -46.3	0.1 -0.6 0.1	0.6
85 170 170	70.1 -23.8 -8.0	0.0 0.2 0.3	0.4
170 85 170	55.0 43.6 -31.9	-0.2 -0.7 -0.3	0.8
170 170 85	74.1 -10.3 44.2	-0.2 -0.2 0.7	0.7
Average			0.9
Maximum			5.3

Gamut-Volume

These measurements are only informative.

Gamut-Volume	
ISO	91 %
sRGB	100 %
AdobeRGB	75 %
ECI-RGB v1.0	70 %

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	59.0 -12.9 -43.7	25.3
66.9 -24.7 -37.1	67.2 -22.1 -36.7	2.7
79.7 -12.5 -21.8	79.6 -12.4 -22.5	0.8
48.0 74.0 -3.0	48.6 73.8 -2.1	1.1
60.8 50.6 -6.7	61.2 50.7 -6.1	0.8
76.4 25.8 -6.9	76.6 25.5 -6.3	0.6
89.0 -5.0 93.0	89.0 -5.4 92.1	1.0
90.3 -4.7 62.6	90.4 -4.7 62.3	0.3
92.2 -3.5 31.1	92.0 -2.9 30.8	0.7
53.1 37.7 28.9	53.5 38.2 28.7	0.7
41.5 22.7 16.8	42.0 22.4 16.6	0.6
31.9 40.0 24.0	32.6 40.0 22.2	2.0
32.5 44.4 -1.8	33.3 44.3 -1.2	1.0
51.3 1.3 44.5	51.7 0.8 43.5	1.2
34.6 -36.4 13.9	35.2 -31.2 14.1	5.2
36.0 -26.2 -20.9	37.4 -17.0 -18.8	9.5
20.9 9.6 -23.6	21.6 9.6 -22.9	1.0
89.0 0.0 -1.8	89.1 -0.0 -1.9	0.2
82.8 0.0 -1.7	82.9 0.3 -2.0	0.5
69.3 0.0 -1.4	69.5 0.1 -1.3	0.3
54.1 0.0 -1.0	54.2 0.3 -1.1	0.3
36.6 -0.0 -0.5	36.7 0.5 -1.2	0.8
16.0 0.0 0.0	17.2 0.4 -0.1	1.3
24.0 22.0 -46.0	24.5 21.7 -45.0	1.1
40.9 17.9 -36.6	40.8 18.1 -36.2	0.4
63.7 10.3 -23.8	63.8 10.0 -23.7	0.3
47.0 68.0 48.0	47.6 67.5 46.9	1.4
58.5 47.1 37.9	58.9 46.8 37.7	0.5
74.2 22.9 21.4	74.4 22.8 22.0	0.6
50.0 -65.0 27.0	52.2 -45.6 29.5	19.7
62.1 -39.8 21.0	62.3 -40.8 20.5	1.1
77.0 -19.1 11.0	77.0 -19.2 10.5	0.6
71.2 18.8 17.3	71.5 18.4 17.4	0.6
71.2 22.2 73.1	71.7 21.9 72.3	1.0
47.7 71.2 16.2	48.2 70.8 16.8	0.8
38.0 55.4 -20.9	38.4 55.3 -20.6	0.5
73.7 -22.8 67.6	73.9 -23.2 66.5	1.2
52.3 -52.3 -20.2	55.5 -28.8 -14.9	24.3
43.3 -17.0 -48.6	45.5 -4.2 -44.9	13.5
95.0 0.0 -2.0	95.4 -0.0 -1.6	0.5
88.5 -0.4 -3.1	88.6 -0.5 -2.9	0.2
82.0 -0.9 -4.1	82.0 -0.9 -4.2	0.1
67.7 -2.0 -4.4	67.9 -2.2 -4.3	0.4
52.2 -2.5 -3.5	52.5 -2.7 -2.9	0.7
37.5 -3.9 -3.1	37.6 -3.4 -3.6	0.7
26.3 -6.8 -3.4	26.7 -6.5 -3.6	0.5
Average		2.8
Gamut-Volume		91 %

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	113.04 118.56 115.48	85 85 170	22.75 18.59 52.52
0 0 0	0.23 0.26 0.19	85 170 170	38.28 48.71 55.24
12 12 12	0.96 1.00 0.98	170 85 170	39.29 27.24 53.32
25 25 25	2.07 2.17 2.11	170 170 85	47.87 55.28 19.61
38 38 38	3.84 4.04 3.89	0 136 206	28.44 32.55 74.98
51 51 51	6.42 6.73 6.53	0 164 219	35.80 44.23 84.45
63 63 63	9.32 9.76 9.55	126 196 231	58.68 66.69 94.90
76 76 76	12.85 13.42 13.32	215 14 100	39.26 20.14 21.22
89 89 89	17.09 17.86 17.55	222 89 141	50.88 34.70 39.08
102 102 102	21.73 22.81 22.19	228 156 189	69.24 60.12 66.10
114 114 114	26.68 27.96 27.14	250 213 32	78.58 87.19 9.76
127 127 127	32.19 33.71 33.12	248 219 95	82.63 90.82 25.34
140 140 140	38.44 40.43 39.37	242 226 161	88.43 95.40 54.06
153 153 153	45.43 47.56 46.42	186 78 63	34.24 25.16 10.94
165 165 165	51.96 54.45 53.33	122 65 56	17.99 14.65 8.36
178 178 178	59.20 62.11 60.72	119 30 30	13.82 8.59 3.41
191 191 191	67.06 70.53 68.31	121 29 62	15.20 8.96 9.26
204 204 204	75.76 79.52 77.61	124 100 37	22.10 23.36 5.58
216 216 216	83.96 88.02 85.86	0 76 46	6.06 10.19 5.82
229 229 229	93.16 97.61 95.38	0 79 97	9.03 11.67 19.64
242 242 242	103.08 108.16 105.75	36 36 66	4.73 4.08 9.78
0 0 128	5.99 1.99 30.22	214 216 220	84.26 88.31 88.74
0 0 255	20.49 6.52 106.50	194 195 199	70.19 73.41 74.10
0 128 0	12.95 25.26 2.30	152 153 155	45.40 47.54 47.51
0 128 128	18.82 26.98 32.83	110 110 112	25.11 26.25 26.28
0 170 255	42.12 48.51 110.83	68 68 69	10.67 11.10 11.23
0 255 0	46.02 88.21 7.12	30 30 30	2.68 2.79 2.73
0 255 170	55.75 91.03 58.69	37 39 106	7.33 5.19 21.97
0 255 255	66.36 94.39 114.42	79 72 136	17.00 14.04 34.93
85 85 85	15.82 16.55 16.17	138 133 182	40.81 38.82 60.75
128 0 0	14.06 7.45 1.06	213 19 26	35.33 19.09 3.62
128 0 128	19.75 9.10 30.98	223 82 62	44.75 31.38 11.02
128 128 0	26.89 32.62 3.10	231 148 127	62.66 55.72 34.62
128 128 128	32.74 34.36 33.58	0 124 59	13.61 24.14 9.76
128 128 255	47.24 38.85 109.90	46 151 96	23.37 36.49 21.52
128 255 128	66.04 97.78 38.93	138 187 155	50.06 61.11 48.46
170 0 255	43.62 18.54 107.93	210 143 127	55.41 50.61 34.29
170 170 170	54.72 57.44 56.11	234 137 32	56.43 50.68 6.96
170 255 0	68.93 100.08 8.30	215 17 70	37.37 19.65 12.02
170 255 255	89.50 106.43 115.77	144 30 103	22.13 12.14 21.75
255 0 0	46.73 24.31 1.95	150 176 46	42.58 54.96 9.76
255 0 170	56.30 27.15 52.31	0 130 140	20.17 28.00 38.08
255 0 255	66.97 30.60 108.07	0 97 165	17.10 18.05 49.86
255 128 128	65.81 51.88 34.41	235 237 241	100.09 104.93 104.79
255 170 0	68.80 67.13 5.44	210 215 221	82.76 87.01 88.93
255 170 255	89.04 73.25 112.17	186 193 201	67.85 71.51 74.88
255 255 0	92.85 112.56 8.85	140 150 156	42.10 44.90 47.69
255 255 170	102.53 115.35 60.14	98 107 111	22.68 24.39 25.55
170 85 85	32.25 25.12 16.92	62 72 75	10.75 11.75 12.83
85 170 85	31.32 46.66 18.74	35 50 52	5.09 5.91 6.62