

UGRA

Display Analysis & Certification Tool

Report

Basics

Date: 2013-1-28 04:08:02
Report-Version: v1.3.1
Monitor-Name: \\.\DISPLAY1
Profile: C:/Windows/system32/spool/drivers/color/dell-u2713h-ugra.icc
Created: 2013-1-28 4:05
Measurement device: eye-one pro

Summary

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

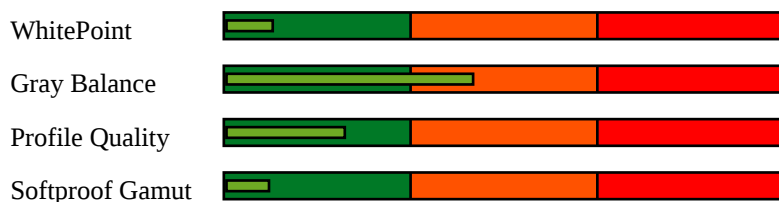
Calibration

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:	133.77 140.58 137.61
XYZ (normalized):	95.15 100.00 97.88
Luminance:	140.6 Cd/m2
Next Temperature:	5847 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:	1.6 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	6649	0.25	1.58	1.61	
5	6237	0.57	3.68	1.11	2.04
10	5592	2.34	13.62	0.82	1.84
15	5952	4.71	21.40	0.34	1.82
20	5813	7.88	28.40	0.29	1.81
25	5782	11.39	34.19	0.39	1.83
30	5849	15.97	40.18	0.36	1.82
35	5785	21.60	46.13	0.49	1.80
40	5797	27.27	51.15	0.59	1.81
45	5807	33.29	55.77	0.59	1.82
50	5871	40.11	60.37	0.33	1.82
55	5811	48.50	65.36	0.34	1.79
60	5807	55.99	69.35	0.65	1.80
65	5828	64.37	73.41	0.42	1.81
70	5816	73.83	77.59	0.27	1.81
75	5797	83.95	81.68	0.58	1.79
80	5834	94.46	85.60	0.34	1.78
85	5824	105.13	89.29	0.47	1.81
90	5831	116.35	92.91	0.30	1.82
95	5818	128.50	96.58	0.53	1.73
100	5847	140.58	100.00	0.00	
Average	5814			0.43	1.82
Range				1.13	
Max				0.82	

Tone values = 92.2%

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	1.6 1.1 -1.1	-1.6 -1.1 1.1	2.2
0 0 128	14.0 47.5 -75.2	-0.7 2.6 -2.1	3.4
0 0 255	28.2 75.9 -117.0	0.1 -0.2 0.0	0.2
0 128 0	50.5 -84.2 54.9	0.8 -1.9 1.8	2.8
0 128 128	52.9 -57.0 -12.2	0.2 -0.0 -0.6	0.7
0 170 255	68.4 -42.5 -50.7	-0.3 1.2 -0.7	1.4
0 255 0	85.5 -130.0 85.5	0.2 -0.2 0.3	0.5
0 255 170	87.1 -107.6 17.3	0.0 0.8 -0.9	1.2
0 255 255	88.5 -86.9 -19.0	-0.0 0.7 -0.4	0.8
85 85 85	44.2 0.6 0.1	-0.2 -0.6 -0.1	0.7
128 0 0	33.3 66.2 51.2	0.2 1.2 3.6	3.8
128 0 128	36.5 74.1 -37.9	0.2 1.1 0.6	1.2
128 128 0	58.5 -9.4 67.9	0.7 -2.0 1.2	2.4
128 128 128	60.5 0.4 -0.4	0.2 -0.4 0.4	0.6
128 128 255	64.0 22.2 -57.5	0.1 0.2 0.2	0.3
128 255 128	90.3 -73.1 42.0	0.0 -0.2 -0.1	0.2
170 0 255	49.9 97.4 -80.0	0.2 -0.1 0.5	0.6
170 170 170	75.2 0.2 0.4	-0.2 -0.2 -0.4	0.5
170 255 0	91.8 -58.9 95.4	0.1 -1.5 -0.1	1.5
170 255 255	94.4 -35.0 -9.4	-0.1 -0.5 -0.2	0.5
255 0 0	58.8 101.9 89.6	0.1 0.1 1.6	1.6
255 0 170	61.2 107.8 -19.6	0.1 0.1 0.6	0.6
255 0 255	63.5 113.8 -57.0	0.3 -0.2 0.6	0.7
255 128 128	74.7 58.2 23.0	0.2 -0.6 0.7	0.9
255 170 0	81.2 30.2 94.5	0.3 -1.1 -0.1	1.2
255 170 255	84.6 45.1 -23.5	-0.1 0.6 -0.1	0.6
255 255 0	97.6 -16.4 104.8	0.2 -0.8 -0.3	0.9
255 255 170	98.8 -8.4 35.9	0.0 -0.2 0.2	0.2
255 255 255	100.0 0.0 0.0	0.0 0.0 -0.0	0.0
170 85 85	55.2 45.9 18.5	-0.1 -0.6 0.1	0.6
85 170 85	67.4 -57.0 33.2	-0.1 -0.7 -0.2	0.7
85 85 170	46.9 17.7 -44.7	-0.2 -0.0 -0.4	0.5
85 170 170	68.9 -41.4 -10.0	-0.2 -0.1 -0.5	0.5
170 85 170	57.2 53.9 -27.3	-0.1 -0.1 -0.1	0.2
170 170 85	73.8 -8.8 43.6	-0.1 -0.6 -0.0	0.6
Average			1.0
Maximum			3.8

Gamut-Volume

These measurements are only informative.

Gamut-Volume	
ISO	99 %
sRGB	100 %
AdobeRGB	100 %
ECI-RGB v1.0	93 %

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	55.7 -30.9 -48.9	6.2
66.9 -24.7 -37.1	67.1 -25.7 -36.3	1.2
79.7 -12.5 -21.8	79.9 -12.9 -21.6	0.4
48.0 74.0 -3.0	48.3 73.9 -3.3	0.4
60.8 50.6 -6.7	61.1 50.8 -7.3	0.6
76.4 25.8 -6.9	76.7 26.2 -6.7	0.5
89.0 -5.0 93.0	89.3 -4.2 94.0	1.4
90.3 -4.7 62.6	90.7 -4.3 62.9	0.7
92.2 -3.5 31.1	92.6 -3.3 31.6	0.6
53.1 37.7 28.9	53.1 38.6 28.4	1.0
41.5 22.7 16.8	41.5 23.2 16.1	0.8
31.9 40.0 24.0	32.5 40.0 23.3	0.8
32.5 44.4 -1.8	32.9 44.3 -2.0	0.5
51.3 1.3 44.5	51.3 1.8 44.1	0.6
34.6 -36.4 13.9	34.7 -35.1 13.4	1.4
36.0 -26.2 -20.9	36.2 -25.5 -20.7	0.7
20.9 9.6 -23.6	21.4 8.9 -23.2	0.9
89.0 0.0 -1.8	89.4 0.3 -1.2	0.8
82.8 0.0 -1.7	82.9 0.0 -1.9	0.3
69.3 0.0 -1.4	69.3 0.4 -1.4	0.4
54.1 0.0 -1.0	54.3 0.6 -0.7	0.7
36.6 -0.0 -0.5	36.6 0.5 -0.9	0.7
16.0 0.0 0.0	16.7 -0.4 0.4	0.9
24.0 22.0 -46.0	24.3 20.4 -45.0	1.9
40.9 17.9 -36.6	41.0 18.0 -36.3	0.3
63.7 10.3 -23.8	63.8 10.7 -23.5	0.5
47.0 68.0 48.0	47.1 68.0 46.9	1.1
58.5 47.1 37.9	58.8 47.4 37.8	0.4
74.2 22.9 21.4	74.2 24.2 21.2	1.2
50.0 -65.0 27.0	49.9 -64.0 26.8	1.0
62.1 -39.8 21.0	62.1 -38.9 20.7	1.0
77.0 -19.1 11.0	77.0 -18.5 11.2	0.5
71.2 18.8 17.3	71.3 19.5 17.3	0.7
71.2 22.2 73.1	71.3 23.0 72.9	0.9
47.7 71.2 16.2	47.9 71.0 16.4	0.3
38.0 55.4 -20.9	38.3 54.4 -20.5	1.1
73.7 -22.8 67.6	73.6 -21.4 67.4	1.4
52.3 -52.3 -20.2	52.5 -51.9 -19.1	1.1
43.3 -17.0 -48.6	43.6 -18.6 -47.7	1.8
95.0 0.0 -2.0	95.1 0.6 -2.3	0.7
88.5 -0.4 -3.1	88.9 -0.5 -2.6	0.6
82.0 -0.9 -4.1	82.2 -0.4 -4.3	0.6
67.7 -2.0 -4.4	67.7 -1.7 -4.5	0.3
52.2 -2.5 -3.5	52.6 -3.1 -2.8	1.0
37.5 -3.9 -3.1	37.7 -3.5 -2.9	0.5
26.3 -6.8 -3.4	26.7 -6.8 -2.8	0.7
Average		0.9
Gamut-Volume		99 %

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	133.77 140.58 137.61	85 85 170	26.94 22.73 61.99
0 0 0	0.27 0.25 0.34	85 170 170	37.24 55.60 65.80
12 12 12	0.57 0.57 0.64	170 85 170	54.48 35.19 62.42
25 25 25	2.27 2.34 2.26	170 170 85	56.81 64.96 23.47
38 38 38	4.46 4.71 4.67	0 129 206	24.90 33.91 88.45
51 51 51	7.53 7.88 7.73	81 159 219	41.01 52.35 99.77
63 63 63	10.89 11.39 11.12	152 193 231	69.91 79.89 112.42
76 76 76	15.25 15.97 15.74	173 39 103	45.97 23.49 25.73
89 89 89	20.54 21.60 20.86	187 96 143	59.97 40.87 47.52
102 102 102	25.89 27.27 26.32	207 159 190	82.55 71.47 79.51
114 114 114	31.60 33.29 32.18	238 217 23	94.43 104.19 11.04
127 127 127	38.05 40.11 39.22	238 222 92	99.00 108.80 30.21
140 140 140	46.14 48.50 47.13	237 228 160	106.03 114.92 64.64
153 153 153	53.55 55.99 54.92	157 85 65	40.07 29.34 12.90
165 165 165	61.44 64.37 63.15	106 68 57	21.05 16.98 9.86
178 178 178	70.31 73.83 71.94	98 38 32	16.18 10.05 3.77
191 191 191	80.20 83.95 82.00	99 36 64	17.67 10.40 11.14
204 204 204	90.08 94.46 92.61	116 101 36	25.92 27.20 6.30
216 216 216	99.91 105.13 102.19	33 74 45	6.53 11.77 6.90
229 229 229	110.63 116.35 113.39	24 76 97	8.88 12.98 23.32
242 242 242	122.68 128.50 125.87	36 35 67	5.47 4.76 11.62
0 0 128	6.90 2.71 35.40	215 216 220	100.54 105.42 105.28
0 0 255	23.71 8.76 124.69	194 195 199	83.00 87.15 88.24
0 128 0	8.43 26.54 3.43	152 153 155	53.40 55.92 56.27
0 128 128	15.30 29.79 38.57	110 110 112	29.94 31.27 31.15
0 170 255	38.14 55.24 130.08	68 68 69	12.55 13.08 13.18
0 255 0	29.57 94.54 11.53	30 30 30	2.96 3.14 3.01
0 255 170	40.87 99.34 70.49	38 37 106	8.43 6.07 25.96
0 255 255	53.31 104.09 135.84	78 71 137	20.41 16.92 42.19
85 85 85	18.82 19.64 19.19	137 132 182	48.60 46.04 72.15
128 0 0	22.67 10.44 0.60	171 43 32	41.20 22.06 4.15
128 0 128	29.47 12.95 36.62	187 92 64	53.01 37.02 13.01
128 128 0	31.46 36.99 3.64	207 153 128	74.43 65.61 41.62
128 128 128	38.49 40.30 39.77	31 120 56	11.14 25.83 11.08
128 128 255	55.36 46.77 128.74	91 148 94	27.97 43.03 25.32
128 255 128	59.90 108.26 47.80	155 186 153	59.48 72.43 56.92
170 0 255	61.98 26.14 125.68	190 147 127	65.62 59.53 40.65
170 170 170	65.04 68.26 66.38	206 144 32	66.36 59.19 7.89
170 255 0	68.92 112.38 11.95	173 42 73	43.91 23.01 14.34
170 255 255	92.77 121.96 137.03	118 39 104	25.86 14.31 25.68
255 0 0	79.89 36.42 1.20	158 176 41	50.50 64.48 11.05
255 0 170	91.29 40.63 61.77	0 125 139	16.13 29.34 44.40
255 0 255	103.33 44.91 126.35	10 92 166	15.78 19.54 58.66
255 128 128	95.61 66.24 40.90	236 237 242	118.27 123.71 125.57
255 170 0	94.42 81.63 6.48	212 215 221	98.70 103.96 106.21
255 170 255	118.37 91.65 131.88	189 193 201	81.09 85.30 89.98
255 255 0	109.85 130.92 12.31	143 149 156	49.76 52.95 56.77
255 255 170	121.47 135.89 72.98	101 107 111	26.92 29.15 30.59
170 85 85	46.41 32.11 19.56	65 72 75	12.73 13.97 15.00
85 170 85	29.10 52.40 23.04	41 50 51	6.00 7.04 7.69