

UGRA

Display Analysis & Certification Tool

Report

Basics

Date: 2011-12-13 18:51:15
Report-Version: v1.3.1
Monitor-Name: \\.\DISPLAY1
Profile: C:/Windows/system32/spool/drivers/.../13.12.11-5000K-22-160cd-trc.icc
Created: 2011-12-13 18:43
Measurement device: DTP94-LCD mode

Summary

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

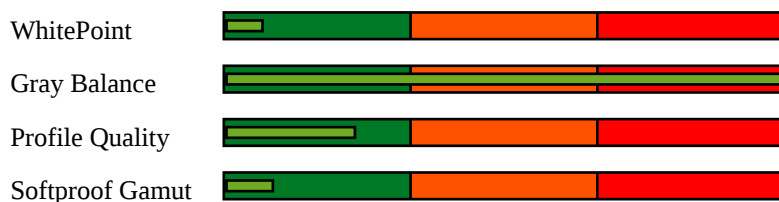
Calibration

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:	154.29 160.10 132.82
XYZ (normalized):	96.37 100.00 82.96
Luminance:	160.1 Cd/m2
Next Temperature:	5025 Kelvin
Assumed Target Whitepoint:	5000 Kelvin
Distance to assumed Target Whitepoint:	0.4 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:	2.2 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	9756	0.30	1.69	2.23	
5	7353	0.50	2.82	2.55	2.21
10	5732	1.30	7.33	1.72	2.22
15	5205	2.80	14.11	0.67	2.20
20	4862	5.00	20.53	1.22	2.19
25	4944	7.80	26.37	0.71	2.21
30	4874	11.60	32.36	1.02	2.20
35	4951	16.00	37.83	0.49	2.21
40	5001	21.90	43.77	1.19	2.20
45	4995	28.00	48.87	0.64	2.20
50	5101	35.20	54.01	0.86	2.20
55	4955	43.30	59.02	0.64	2.20
60	5062	52.20	63.84	0.37	2.20
65	4985	61.80	68.46	0.70	2.21
70	4998	73.20	73.36	1.32	2.23
75	5064	85.20	78.00	0.78	2.21
80	4991	98.70	82.73	0.54	2.19
85	4991	111.70	86.88	0.56	2.24
90	4991	127.40	91.49	0.59	2.20
95	5025	143.10	95.74	0.00	2.19
100	5025	160.10	100.00	0.00	
Average	5001			0.68	2.21
Range				2.33	
Max				1.32	

Tone values = 72.4%

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.

RGB	Lab	deltaLab	deltaE
0 0 0	1.7 -0.0 -2.2	-1.7 0.0 2.2	2.8
0 0 128	11.8 40.8 -66.8	-1.0 2.8 -2.4	3.8
0 0 255	28.8 72.2 -114.1	-0.3 0.2 -0.5	0.6
0 128 0	44.6 -76.9 46.0	0.2 -1.1 1.4	1.8
0 128 128	46.5 -52.3 -10.9	0.0 0.4 -1.3	1.4
0 170 255	63.9 -33.4 -56.4	-0.1 0.5 -0.5	0.7
0 255 0	84.9 -130.6 80.2	-0.1 1.3 -1.6	2.1
0 255 170	86.1 -111.2 22.5	-0.2 1.8 -1.8	2.5
0 255 255	87.7 -87.2 -19.3	-0.1 1.1 -0.9	1.4
85 85 85	36.1 0.8 -0.5	-0.3 -0.8 0.5	1.0
128 0 0	30.0 57.7 42.2	0.2 1.1 4.0	4.2
128 0 128	32.6 64.5 -32.6	0.4 0.9 1.0	1.4
128 128 0	52.4 -10.4 57.7	0.3 0.5 0.4	0.7
128 128 128	54.0 -0.6 0.1	-0.0 0.6 -0.1	0.6
128 128 255	58.5 26.6 -65.4	-0.1 -0.1 0.4	0.4
128 255 128	88.6 -84.4 47.6	-0.1 1.4 -1.8	2.3
170 0 255	48.7 91.0 -81.1	0.1 -0.8 1.0	1.3
170 170 170	70.4 0.0 0.5	-0.2 -0.0 -0.5	0.5
170 255 0	90.6 -67.1 88.7	-0.1 0.5 -2.3	2.4
170 255 255	93.2 -41.3 -10.6	-0.2 0.2 -0.7	0.8
255 0 0	60.8 98.1 82.6	-0.2 -0.7 -2.3	2.4
255 0 170	62.7 102.8 -8.7	-0.1 -0.6 -0.1	0.6
255 0 255	65.1 108.8 -53.1	0.1 -0.3 0.7	0.8
255 128 128	72.7 64.4 30.1	-0.2 -0.3 -0.6	0.7
255 170 0	79.5 37.2 88.7	-0.1 -0.7 -3.1	3.2
255 170 255	82.8 52.1 -25.5	-0.3 -0.3 -0.3	0.5
255 255 0	97.9 -16.1 99.2	-0.1 -0.2 -3.0	3.0
255 255 170	98.9 -9.5 41.4	-0.2 0.1 -0.6	0.7
255 255 255	100.0 0.0 0.0	0.0 -0.0 -0.0	0.0
170 85 85	49.8 48.4 21.7	-0.1 -0.6 0.4	0.7
85 170 85	61.9 -61.8 35.3	-0.2 -0.1 -1.2	1.2
85 85 170	39.4 20.5 -48.4	-0.2 -0.6 -0.1	0.7
85 170 170	63.4 -44.5 -10.3	-0.3 0.2 -1.1	1.2
170 85 170	52.0 56.3 -27.2	-0.2 -0.5 -0.1	0.6
170 170 85	69.2 -9.1 45.8	-0.3 -0.2 -0.6	0.7
Average			1.4
Maximum			4.2

Gamut-Volume

These measurements are only informative.

Gamut-Volume	
ISO	100 %
sRGB	100 %
AdobeRGB	98 %
ECI-RGB v1.0	90 %

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	55.8 -33.2 -47.3	4.8
66.9 -24.7 -37.1	67.0 -24.3 -37.1	0.4
79.7 -12.5 -21.8	80.2 -12.8 -21.2	0.7
48.0 74.0 -3.0	48.3 73.9 -2.6	0.6
60.8 50.6 -6.7	61.0 50.3 -6.9	0.4
76.4 25.8 -6.9	76.6 26.4 -6.7	0.7
89.0 -5.0 93.0	89.0 -4.5 92.4	0.8
90.3 -4.7 62.6	90.5 -3.6 63.5	1.4
92.2 -3.5 31.1	92.6 -3.1 32.2	1.2
53.1 37.7 28.9	53.7 37.4 29.7	1.0
41.5 22.7 16.8	41.6 23.4 16.7	0.7
31.9 40.0 24.0	32.5 39.7 22.9	1.3
32.5 44.4 -1.8	33.0 44.5 -2.0	0.5
51.3 1.3 44.5	51.7 0.2 44.8	1.2
34.6 -36.4 13.9	35.1 -35.6 13.8	1.0
36.0 -26.2 -20.9	36.5 -26.2 -20.2	0.8
20.9 9.6 -23.6	21.9 9.3 -22.7	1.4
89.0 0.0 -1.8	89.3 -0.0 -1.2	0.8
82.8 0.0 -1.7	82.9 0.4 -0.9	0.9
69.3 0.0 -1.4	69.6 -0.4 -1.1	0.6
54.1 0.0 -1.0	54.1 -0.1 -1.9	0.9
36.6 -0.0 -0.5	37.4 0.9 -0.8	1.2
16.0 0.0 0.0	17.3 -0.8 0.2	1.6
24.0 22.0 -46.0	24.9 21.5 -45.1	1.3
40.9 17.9 -36.6	41.2 19.0 -36.3	1.2
63.7 10.3 -23.8	63.7 10.5 -24.1	0.4
47.0 68.0 48.0	47.2 68.3 48.0	0.3
58.5 47.1 37.9	58.7 46.8 38.7	0.9
74.2 22.9 21.4	74.3 22.3 21.2	0.6
50.0 -65.0 27.0	50.0 -63.9 26.9	1.1
62.1 -39.8 21.0	62.3 -39.9 22.1	1.1
77.0 -19.1 11.0	77.3 -19.1 11.7	0.8
71.2 18.8 17.3	71.4 19.2 17.7	0.6
71.2 22.2 73.1	71.2 22.4 74.7	1.6
47.7 71.2 16.2	48.0 71.1 16.0	0.4
38.0 55.4 -20.9	38.3 54.6 -21.4	0.9
73.7 -22.8 67.6	73.7 -23.0 68.4	0.8
52.3 -52.3 -20.2	52.5 -52.8 -18.8	1.5
43.3 -17.0 -48.6	43.8 -18.2 -47.2	1.8
95.0 0.0 -2.0	95.3 -0.5 -1.4	0.8
88.5 -0.4 -3.1	88.7 -0.5 -3.1	0.2
82.0 -0.9 -4.1	82.2 -0.9 -3.6	0.6
67.7 -2.0 -4.4	67.7 -1.2 -4.6	0.8
52.2 -2.5 -3.5	52.5 -3.0 -3.5	0.6
37.5 -3.9 -3.1	37.9 -2.1 -3.0	1.8
26.3 -6.8 -3.4	27.1 -6.8 -2.5	1.2
Average		1.0
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	154.29 160.10 132.82	85 85 170	21.46 17.40 49.46
0 0 0	0.29 0.30 0.44	85 170 170	32.62 51.40 53.04
12 12 12	0.49 0.50 0.63	170 85 170	52.71 32.30 50.14
25 25 25	1.21 1.30 1.20	170 170 85	56.68 63.40 17.15
38 38 38	2.68 2.80 2.41	0 148 216	26.07 38.00 83.22
51 51 51	4.93 5.00 4.19	101 174 227	45.79 58.70 97.23
63 63 63	7.60 7.80 6.51	168 204 237	80.01 91.20 108.54
76 76 76	11.34 11.60 9.55	185 46 121	53.45 27.30 24.25
89 89 89	15.51 16.00 13.18	197 112 159	68.98 46.90 45.29
102 102 102	20.93 21.90 17.67	215 172 201	95.05 81.40 76.34
114 114 114	26.91 28.00 22.87	240 223 0	111.07 118.80 11.59
127 127 127	33.63 35.20 29.22	241 227 104	116.72 124.00 28.84
140 140 140	41.85 43.30 35.46	240 233 172	124.01 131.30 61.84
153 153 153	50.16 52.20 43.45	171 102 81	47.56 34.70 12.29
165 165 165	59.90 61.80 51.41	124 85 74	24.76 19.60 9.34
178 178 178	70.16 73.20 59.41	116 50 45	19.00 11.70 3.72
191 191 191	81.64 85.20 70.49	117 48 82	20.67 12.10 10.75
204 204 204	95.13 98.70 81.10	134 120 47	30.70 31.80 6.18
216 216 216	107.66 111.70 91.79	49 94 60	7.78 13.70 6.82
229 229 229	122.79 127.40 104.69	38 95 116	9.85 14.80 22.48
242 242 242	137.90 143.10 118.72	52 50 86	6.37 5.60 11.36
0 0 128	5.11 2.20 25.04	222 223 226	115.33 119.70 101.21
0 0 255	23.00 9.20 116.19	204 205 208	95.86 99.20 83.60
0 128 0	7.71 22.80 3.32	167 168 170	61.77 64.30 54.55
0 128 128	12.60 25.00 27.68	128 128 130	34.10 35.40 30.79
0 170 255	37.12 52.30 121.47	87 87 88	15.20 15.60 13.26
0 255 0	34.74 105.30 13.68	44 44 44	3.60 3.80 3.13
0 255 170	43.94 109.20 60.15	54 52 126	9.53 7.00 25.64
0 255 255	57.55 114.50 129.26	97 89 155	23.11 19.20 40.81
85 85 85	14.13 14.50 12.21	153 148 195	54.83 52.00 70.04
128 0 0	20.73 10.00 0.82	184 51 42	48.82 25.90 3.77
128 0 128	25.44 11.80 26.20	197 107 79	61.98 42.80 12.16
128 128 0	28.39 32.80 3.63	214 167 144	86.11 75.60 40.43
128 128 128	33.73 35.20 29.12	48 139 71	13.25 29.50 10.89
128 128 255	51.87 42.40 120.96	110 165 111	32.58 49.30 23.91
128 255 128	60.76 117.40 38.84	170 198 167	69.30 83.20 54.98
170 0 255	62.50 27.80 118.72	200 161 143	76.60 68.50 39.04
170 170 170	63.80 66.20 54.40	214 158 31	77.95 68.00 7.20
170 255 0	74.62 124.30 14.28	185 49 91	51.58 26.90 13.96
170 255 255	97.83 133.70 130.80	135 50 124	29.66 16.40 25.24
255 0 0	97.47 46.40 2.04	172 189 45	59.32 74.00 10.65
255 0 170	106.61 50.00 50.00	0 144 156	17.62 33.00 42.60
255 0 255	118.98 54.80 119.27	22 111 181	16.95 21.90 56.37
255 128 128	110.06 71.60 30.81	239 240 244	135.84 141.40 119.95
255 170 0	111.70 89.40 7.29	219 222 227	112.94 117.60 102.61
255 170 255	134.87 99.00 124.83	199 203 210	92.87 97.00 85.70
255 255 0	132.08 151.50 15.24	159 164 171	57.44 60.20 54.85
255 255 170	141.43 155.50 63.86	119 125 129	30.84 33.00 29.91
170 85 85	45.15 29.20 12.81	84 90 93	15.09 16.10 14.68
85 170 85	25.32 48.40 16.07	57 67 69	7.06 8.20 7.52