

UGRA

Display Analysis & Certification Tool

Report

Basics

Date: 2009-6-4 13:26:48
Report-Version: v1.3.1
Monitor-Name: \\.\DISPLAY1
EDID-Name:
EDID-Serial:
Profile: C:/WINDOWS/System32/spool/.../NEC2690-ugra-140cd-trc.icc
Created: 2009-6-4 13:21
Measurement device: DTP94-LCD mode

Summary

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

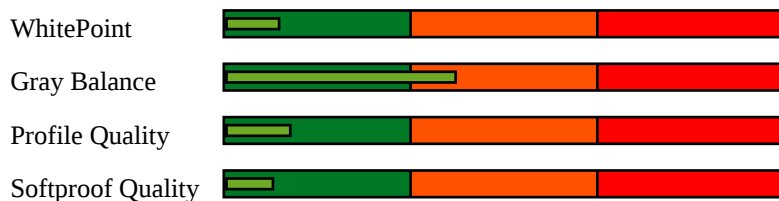
Calibration

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:	133.54 139.74 137.24
XYZ (normalized):	95.56 100.00 98.21
Luminance:	139.7 Cd/m2
Next Temperature:	5822 Kelvin
Assumed Target Whitepoint:	5800 Kelvin
Distance to assumed Target Whitepoint:	0.6 deltaE

Blackpoint

The blackpoint is not defined in ISO 12646. Therefore UDACT does only measure but not assess it.

Luminance:	0.1 Cd/m2
Chromaticity:	1.2 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	13276	0.15	0.97	1.18	
5	6112	0.71	4.59	0.99	1.88
10	5827	2.26	13.34	1.89	1.84
15	5786	4.68	21.39	1.54	1.82
20	5681	7.72	28.18	0.76	1.81
25	5938	11.21	34.03	0.61	1.83
30	5918	15.84	40.14	0.63	1.82
35	5876	20.88	45.55	0.48	1.82
40	5762	26.96	51.03	0.38	1.80
45	5771	32.91	55.64	0.34	1.82
50	5821	40.09	60.51	1.26	1.82
55	5888	47.71	65.08	1.07	1.81
60	5872	55.66	69.35	0.53	1.81
65	5795	63.81	73.33	0.28	1.82
70	5832	73.66	77.70	0.94	1.81
75	5823	83.36	81.65	1.03	1.82
80	5827	94.23	85.72	1.15	1.80
85	5803	103.50	88.95	0.18	1.85
90	5786	115.00	92.71	0.48	1.85
95	5846	127.07	96.38	0.26	1.83
100	5822	139.74	100.00	0.00	
Average	5825			0.73	1.82
Range				2.48	
Max				1.89	

Tone values = 98.6%

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	1.0 0.0 -1.2	-1.0 -0.0 1.2	1.5
0 0 128	12.8 49.6 -76.5	0.2 -0.1 -0.7	0.8
0 0 255	27.6 76.4 -117.6	0.2 -1.6 0.7	1.8
0 128 0	51.6 -81.8 54.0	0.3 0.1 1.8	1.8
0 128 128	53.5 -56.0 -11.1	0.0 0.9 -0.7	1.2
0 170 255	68.5 -40.5 -50.7	0.1 -0.2 0.6	0.7
0 255 0	86.7 -123.7 83.5	-0.1 0.2 0.9	0.9
0 255 170	87.8 -102.8 18.0	0.0 0.5 -0.6	0.8
0 255 255	89.1 -83.0 -18.4	0.1 -0.3 0.5	0.6
85 85 85	43.9 -0.5 -0.0	0.1 0.5 0.0	0.5
128 0 0	32.9 66.9 50.2	-0.3 1.6 1.1	1.9
128 0 128	35.9 75.0 -37.9	-0.1 0.8 -0.5	0.9
128 128 0	59.3 -11.1 65.7	0.0 0.1 0.8	0.8
128 128 128	60.8 -0.9 0.8	-0.1 0.9 -0.8	1.2
128 128 255	64.2 21.3 -56.7	-0.2 0.4 -0.1	0.5
128 255 128	90.9 -70.8 42.3	-0.1 0.0 -0.4	0.4
170 0 255	49.2 97.7 -80.8	-0.1 0.1 0.3	0.3
170 170 170	74.9 0.4 0.1	0.0 -0.4 -0.1	0.4
170 255 0	92.6 -58.1 92.4	-0.2 -0.3 0.3	0.5
170 255 255	94.7 -34.4 -9.0	-0.1 -0.3 0.2	0.3
255 0 0	57.9 102.7 84.4	-0.4 0.8 -1.9	2.1
255 0 170	60.2 108.9 -21.3	-0.2 0.2 0.1	0.4
255 0 255	62.5 114.5 -58.0	-0.2 0.1 -0.1	0.2
255 128 128	74.4 57.1 22.5	-0.2 0.5 -0.4	0.7
255 170 0	81.2 29.0 90.1	-0.0 0.1 -0.2	0.2
255 170 255	84.1 45.0 -24.0	-0.1 0.3 0.0	0.3
255 255 0	98.0 -16.8 100.7	-0.1 0.2 -0.1	0.3
255 255 170	99.0 -8.3 35.2	-0.0 -0.0 0.2	0.2
255 255 255	100.0 0.0 0.0	0.0 0.0 -0.0	0.0
170 85 85	54.8 45.0 17.8	-0.2 0.4 -0.3	0.6
85 170 85	67.6 -56.2 32.7	0.1 0.5 0.3	0.6
85 85 170	46.5 17.0 -44.8	0.1 0.2 0.1	0.2
85 170 170	68.9 -40.7 -9.9	0.1 0.2 0.2	0.3
170 85 170	56.7 53.5 -27.7	-0.1 0.1 -0.3	0.4
170 170 85	73.8 -9.2 42.6	-0.0 0.1 0.1	0.2
Average			0.7
Maximum			2.1

Gamut-Volume

These measurements are only informative.

Gamut-Volume	
ISO	99 %
sRGB	100 %
AdobeRGB	99 %
ECI-RGB v1.0	89 %

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	55.6 -29.5 -48.7	7.7
66.9 -24.7 -37.1	66.7 -24.6 -37.7	0.7
79.7 -12.5 -21.8	79.9 -13.8 -21.4	1.3
48.0 74.0 -3.0	48.4 73.3 -2.8	0.8
60.8 50.6 -6.7	61.0 50.0 -6.4	0.7
76.4 25.8 -6.9	76.5 25.6 -6.7	0.3
89.0 -5.0 93.0	89.1 -4.9 92.9	0.2
90.3 -4.7 62.6	90.4 -4.8 62.5	0.1
92.2 -3.5 31.1	92.2 -3.7 30.8	0.4
53.1 37.7 28.9	53.2 37.7 28.9	0.1
41.5 22.7 16.8	41.7 22.1 17.3	0.9
31.9 40.0 24.0	32.4 38.7 24.5	1.4
32.5 44.5 -1.8	32.9 43.5 -1.5	1.1
51.3 1.3 44.5	51.5 0.8 44.7	0.5
34.6 -36.4 13.9	34.5 -36.4 14.1	0.3
36.0 -26.2 -20.9	36.0 -26.7 -20.1	0.9
20.9 9.6 -23.6	20.9 10.1 -24.8	1.2
89.0 0.0 -1.9	89.0 0.2 -2.3	0.5
82.8 0.0 -1.7	82.9 -0.7 -1.8	0.7
69.3 0.0 -1.4	69.3 -0.6 -1.5	0.6
54.1 0.0 -1.0	54.2 0.2 -1.3	0.4
36.6 0.0 -0.5	36.4 -0.3 -1.3	0.9
16.0 0.0 0.0	16.6 -1.1 1.0	1.6
24.0 22.0 -46.0	24.3 21.4 -45.2	1.1
40.9 17.9 -36.6	40.7 17.6 -37.0	0.6
63.7 10.3 -23.8	63.7 9.6 -23.8	0.8
47.0 68.0 48.0	47.3 67.5 48.8	1.0
58.5 47.1 37.9	58.7 46.8 38.6	0.8
74.2 22.9 21.4	74.3 22.4 21.8	0.7
50.0 -65.0 27.0	50.3 -66.0 27.4	1.1
62.1 -39.8 21.0	62.2 -40.6 21.1	0.8
77.0 -19.1 11.0	77.2 -20.8 11.5	1.8
71.2 18.9 17.3	71.4 18.2 17.9	0.9
71.2 22.1 73.1	71.4 21.7 73.5	0.7
47.7 71.2 16.2	48.0 71.1 16.3	0.3
38.0 55.4 -20.9	38.4 54.4 -20.7	1.1
73.7 -22.8 67.6	73.9 -23.8 67.3	1.1
52.3 -52.3 -20.1	52.6 -49.6 -19.4	2.8
43.3 -17.0 -48.6	42.9 -16.7 -48.6	0.6
95.0 0.0 -2.0	95.0 0.5 -3.0	1.1
88.5 -0.4 -3.1	88.6 -0.6 -3.4	0.4
82.0 -0.9 -4.1	82.1 -1.7 -4.5	0.9
67.7 -2.0 -4.4	67.7 -3.0 -5.1	1.3
52.2 -2.5 -3.5	52.2 -2.4 -4.0	0.5
37.5 -3.9 -3.1	37.6 -5.1 -3.9	1.5
26.3 -6.8 -3.4	26.5 -7.9 -3.9	1.2
Average		1.0
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	133.54 139.74 137.24	85 85 170	26.24 22.18 61.11
0 0 0	0.15 0.15 0.25	85 170 170	37.44 55.23 65.49
12 12 12	0.65 0.71 0.67	170 85 170	53.19 34.28 61.64
25 25 25	2.08 2.26 2.07	170 170 85	56.41 64.42 24.00
38 38 38	4.38 4.68 4.38	0 128 207	25.12 33.57 87.71
51 51 51	7.47 7.72 7.55	79 158 221	40.88 51.39 100.85
63 63 63	10.63 11.21 11.08	151 193 232	69.34 79.39 111.74
76 76 76	15.02 15.84 15.62	176 42 103	45.75 23.50 25.47
89 89 89	19.85 20.88 20.51	189 98 143	59.38 40.63 46.46
102 102 102	25.85 26.96 26.34	208 160 190	81.65 70.73 78.92
114 114 114	31.54 32.91 32.18	238 217 8	93.33 103.01 11.30
127 127 127	37.97 40.09 38.69	238 222 89	97.59 107.17 29.95
140 140 140	45.18 47.71 46.65	236 228 159	104.29 112.82 64.52
153 153 153	52.96 55.66 54.75	159 86 64	39.71 29.22 12.64
165 165 165	61.11 63.81 62.59	107 69 56	20.94 17.07 9.53
178 178 178	69.98 73.66 71.68	99 39 31	15.86 9.98 3.53
191 191 191	79.20 83.36 80.97	100 37 64	17.43 10.34 10.91
204 204 204	89.47 94.23 91.51	116 102 34	25.83 27.27 6.20
216 216 216	99.00 103.50 101.46	31 74 44	6.29 11.55 6.59
229 229 229	110.23 115.00 112.80	22 76 97	8.62 12.77 22.72
242 242 242	121.39 127.07 125.28	36 35 67	5.39 4.56 11.89
0 0 128	6.55 2.41 34.62	215 216 220	99.27 103.62 105.59
0 0 255	23.18 8.43 123.64	194 195 199	82.58 86.77 87.98
0 128 0	9.38 27.64 3.94	152 153 155	52.90 55.59 56.27
0 128 128	15.97 30.39 38.50	110 110 112	29.63 30.92 31.39
0 170 255	38.90 55.03 130.04	68 68 69	12.27 12.87 13.20
0 255 0	33.13 97.07 13.21	30 30 30	2.89 3.10 2.89
0 255 170	43.85 100.81 71.02	39 37 107	8.55 6.05 26.06
0 255 255	56.05 105.10 136.34	78 71 138	19.99 16.56 42.23
85 85 85	18.26 19.22 18.90	137 132 183	47.92 45.63 72.14
128 0 0	22.35 10.15 0.62	174 46 29	41.23 22.20 3.83
128 0 128	28.92 12.48 35.68	189 93 62	52.45 36.72 12.58
128 128 0	31.93 37.93 4.33	208 154 127	73.55 65.48 41.11
128 128 128	38.40 40.52 39.12	25 120 55	11.15 26.21 11.10
128 128 255	55.20 46.86 127.65	89 148 93	27.58 42.90 25.05
128 255 128	62.18 109.36 48.41	154 186 153	58.74 72.44 56.78
170 0 255	60.58 25.27 124.56	191 148 126	64.97 59.35 40.08
170 170 170	64.44 67.25 65.98	207 145 26	65.82 59.12 7.71
170 255 0	71.12 114.15 13.84	176 44 73	43.94 22.99 14.36
170 255 255	93.79 122.17 137.03	120 40 105	25.85 14.30 25.84
255 0 0	77.94 34.97 1.52	157 176 37	49.88 64.63 11.20
255 0 170	89.07 38.91 61.45	0 124 140	16.68 29.33 44.79
255 0 255	100.90 43.24 124.93	0 91 167	15.60 18.79 58.26
255 128 128	93.89 65.30 40.75	236 237 242	117.56 122.54 126.02
255 170 0	93.35 81.07 7.72	212 215 221	97.58 102.39 106.31
255 170 255	116.50 89.82 130.97	189 193 201	80.09 84.65 89.92
255 255 0	110.78 131.64 14.44	143 149 156	49.09 52.52 57.21
255 255 170	121.79 135.47 73.88	101 106 111	26.58 28.44 30.83
170 85 85	45.28 31.43 19.55	65 72 75	12.37 13.80 15.32
85 170 85	29.54 52.37 23.44	40 50 52	5.80 6.90 7.89