

# UGRA

## Display Analysis & Certification Tool

### Report

#### Basics

Date: 2009-9-14 16:21:05  
Report-Version: v1.2.1  
Monitor-Name: LCD2690WUXi2  
EDID-Name: LCD2690WUXi2  
EDID-Serial: 95301557ZB  
Profile: /Library/ColorSync/Profiles/14.09.09-5800K-22-120cd-lut  
Created: 2009-9-14 16:16  
Measurement device: eye-one pro

#### Summary

WARNING: You are using a LookUpTable-Profile. Some applications do not support LUT-Profiles correctly. The monitor has passed the certification according to the UGRA DACT specifications.

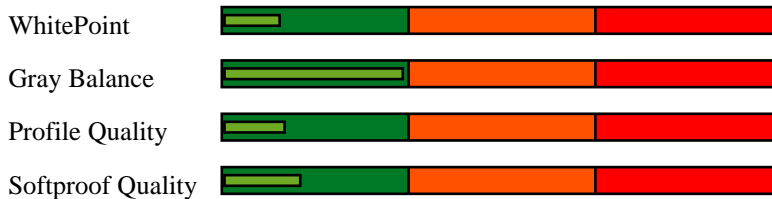
#### Calibration

White Point	yes
Gray balance	yes
Profile quality	yes

#### Softproofing

MultiColor, HighBody	yes
Offset/Gravure Paper Type 1/2	yes
Offset on uncoated paper	yes
Newspaper Printing	yes
Layout	yes

#### 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

XYZ: 113.63 119.31 117.32  
XYZ (normalized): 95.24 100.00 98.34  
Luminance: 119.3 Cd/m2  
Next Temperature: 5862 Kelvin  
Assumed Target Whitepoint: 5900 Kelvin  
Distance to assumed Target Whitepoint: 0.6 deltaE

# Blackpoint

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	11887	0.30	2.27	2.18	
5	8797	0.45	3.43	2.04	2.26
10	6572	1.06	8.01	1.71	2.22
15	5701	2.21	14.70	0.44	2.19
20	5632	3.73	20.55	1.05	2.21
25	5869	5.69	26.06	0.24	2.24
30	5851	8.57	32.22	0.49	2.22
35	5605	11.93	37.84	1.25	2.22
40	5821	15.95	43.31	0.83	2.23
45	5831	20.29	48.27	1.11	2.25
50	5808	25.91	53.73	0.90	2.23
55	5681	32.00	58.81	1.21	2.22
60	5768	38.90	63.84	0.69	2.21
65	5858	45.75	68.28	0.57	2.23
70	5876	54.00	73.06	0.63	2.22
75	5915	63.09	77.80	0.47	2.21
80	5840	72.57	82.28	0.61	2.23
85	5833	82.68	86.65	0.60	2.25
90	5860	94.17	91.20	0.17	2.25
95	5865	106.25	95.60	0.33	2.23
100	5862	119.31	100.00	0.00	
Average	5804			0.64	2.23
Range				1.93	

Tone values = 98.6%

# 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	2.3 -0.9 -2.1	-1.2 -0.8 -0.4	1.5
0 0 128	12.0 38.3 -65.8	-0.9 0.5 0.6	1.2
0 0 255	28.6 69.5 -113.6	0.0 0.8 -1.2	1.4
0 128 0	44.9 -78.9 45.0	-0.7 1.2 0.2	1.4
0 128 128	46.9 -54.2 -10.8	0.3 -0.4 -0.3	0.6
0 170 255	64.0 -36.0 -56.4	-0.2 0.1 -0.0	0.3
0 255 0	85.2 -132.4 77.6	0.1 -0.5 0.4	0.6
0 255 170	86.4 -113.9 22.4	-0.2 -0.1 0.4	0.4
0 255 255	88.1 -90.8 -18.9	-0.1 0.7 -1.3	1.5
85 85 85	35.9 1.1 0.6	0.4 -1.1 -0.7	1.4
128 0 0	29.7 59.7 43.5	-0.4 -0.1 1.3	1.4
128 0 128	32.6 66.1 -31.3	0.2 0.4 -0.8	1.0
128 128 0	52.4 -9.4 56.7	0.5 0.2 0.8	0.9
128 128 128	54.1 -0.5 0.8	0.1 0.5 -0.7	0.9
128 128 255	58.5 25.4 -64.8	-0.2 0.4 0.6	0.8
128 255 128	88.9 -85.6 46.7	-0.3 0.2 -0.1	0.4
170 0 255	48.2 91.3 -80.9	-0.2 -0.1 0.2	0.3
170 170 170	70.2 0.4 -0.4	0.1 -0.4 0.6	0.7
170 255 0	90.7 -67.5 86.6	-0.3 0.0 -0.4	0.5
170 255 255	93.3 -43.2 -11.0	-0.2 -0.4 0.0	0.5
255 0 0	59.7 101.3 87.9	0.3 0.6 1.3	1.5
255 0 170	61.7 105.8 -9.3	-0.1 -0.1 0.7	0.7
255 0 255	64.5 111.7 -53.3	0.2 0.3 0.2	0.4
255 128 128	72.1 66.5 30.5	-0.3 -0.1 -0.1	0.4
255 170 0	78.9 39.3 88.3	-0.2 0.3 -0.5	0.7
255 170 255	82.2 53.2 -26.0	-0.2 0.2 -0.2	0.4
255 255 0	97.7 -15.1 97.9	0.1 -0.7 -0.4	0.8
255 255 170	98.7 -9.2 41.4	-0.1 0.2 1.1	1.1
255 255 255	100.0 0.0 -0.0	0.0 -0.0 0.0	0.0
170 85 85	49.3 49.5 22.7	0.5 -0.8 -1.7	2.0
85 170 85	61.9 -62.9 34.7	0.2 0.8 -1.6	1.8
85 85 170	39.3 19.4 -48.5	0.7 -1.0 1.4	1.9
85 170 170	63.4 -45.7 -11.3	0.2 -0.0 0.6	0.7
170 85 170	51.4 57.4 -27.8	0.4 -1.0 0.8	1.3
170 170 85	68.8 -8.9 46.0	0.2 0.1 -1.4	1.4
Average			0.9
Maximum			2.0

# 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
55.2 -39.9 -50.7	55.9 -32.3 -50.3	7.6
67.6 -27.1 -36.5	67.8 -27.7 -37.2	0.9
80.8 -13.8 -21.0	80.7 -13.1 -21.0	0.7
47.2 75.9 -3.8	46.6 76.7 -2.7	1.5
60.7 52.2 -7.1	60.6 52.3 -7.1	0.1
77.0 26.2 -7.7	77.0 26.6 -7.7	0.4
89.7 -4.5 94.7	89.9 -4.1 92.1	2.6
91.3 -4.6 63.1	91.4 -4.5 61.7	1.4
93.3 -3.3 30.6	93.4 -2.7 29.7	1.1
53.5 38.4 28.8	53.3 39.2 30.6	1.9
41.4 23.1 16.6	40.8 23.6 17.9	1.5
32.4 40.3 21.9	31.9 41.9 24.6	3.2
32.6 44.6 -1.8	32.3 45.2 -0.1	1.8
51.3 1.9 44.3	50.8 1.8 46.6	2.4
34.0 -40.9 14.5	33.8 -40.1 16.0	1.8
36.2 -30.6 -20.6	35.7 -30.7 -19.8	0.9
21.2 3.4 -23.0	21.2 4.9 -22.2	1.7
89.8 0.3 -3.5	89.9 0.5 -4.5	1.0
83.6 0.2 -3.7	83.3 0.9 -4.6	1.2
70.2 0.0 -3.7	70.2 0.9 -5.0	1.6
55.1 0.0 -3.1	54.8 -0.3 -3.0	0.4
37.5 0.1 -2.1	37.4 0.6 -0.9	1.3
16.9 0.4 -0.4	17.5 2.9 1.1	3.0
24.4 16.2 -47.1	23.6 18.1 -47.7	2.2
41.2 16.0 -36.5	40.5 16.2 -37.3	1.1
64.6 9.3 -23.6	64.8 10.1 -23.6	0.8
47.3 69.0 45.1	46.8 69.9 48.9	4.0
58.9 47.7 37.0	58.6 48.4 38.6	1.8
75.0 23.2 20.3	75.0 23.5 20.0	0.4
48.6 -67.5 28.0	48.3 -68.2 29.7	1.8
62.5 -41.7 22.4	62.0 -42.3 23.6	1.5
77.9 -19.6 11.3	77.7 -19.7 11.5	0.3
72.0 19.1 16.5	71.8 19.2 16.5	0.2
72.2 22.1 73.2	72.3 22.5 75.4	2.2
47.5 72.3 15.3	47.0 73.2 17.5	2.4
37.5 56.5 -21.1	36.9 56.9 -19.9	1.4
74.1 -22.1 69.3	73.8 -22.3 71.2	1.9
52.3 -55.2 -20.1	52.0 -52.9 -20.2	2.4
43.9 -20.9 -49.8	43.6 -17.5 -51.6	3.9
96.0 0.5 -3.3	95.7 0.4 -4.3	1.1
89.5 -0.1 -3.7	89.3 -0.1 -4.3	0.7
83.0 -1.1 -4.3	82.5 -1.1 -5.4	1.2
68.6 -2.7 -4.0	68.5 -2.2 -5.0	1.1
53.0 -5.1 -2.3	52.8 -5.8 -1.8	0.9
37.8 -8.1 -0.9	37.7 -8.8 0.2	1.3
25.9 -13.3 -2.2	26.2 -13.8 -1.4	1.0
Average		1.6
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	113.63 119.31 117.32	85 85 170	16.49 13.19 43.77
0 0 0	0.26 0.30 0.45	85 170 170	24.25 38.61 47.67
12 12 12	0.39 0.45 0.56	170 85 170	38.60 23.27 43.99
25 25 25	0.96 1.06 1.08	170 170 85	40.23 46.30 14.57
38 38 38	2.12 2.21 2.13	0 147 220	21.16 29.07 77.80
51 51 51	3.63 3.73 3.65	101 176 230	35.24 45.56 88.00
63 63 63	5.40 5.69 5.56	171 207 238	60.96 69.65 97.28
76 76 76	8.12 8.57 8.33	184 41 120	37.52 18.38 20.02
89 89 89	11.50 11.93 11.41	198 112 160	50.79 34.13 39.72
102 102 102	15.10 15.95 15.38	216 174 205	71.18 61.41 69.84
114 114 114	19.16 20.29 19.52	243 227 0	81.58 89.91 10.43
127 127 127	24.57 25.91 24.99	243 231 111	85.45 93.99 27.20
140 140 140	30.67 32.00 30.74	243 236 178	92.34 99.58 58.58
153 153 153	37.23 38.90 37.91	172 103 80	34.37 25.04 10.30
165 165 165	43.74 45.75 45.29	123 84 70	17.34 13.88 7.54
178 178 178	51.60 54.00 53.57	117 50 43	13.62 8.21 2.87
191 191 191	60.04 63.09 62.56	117 47 79	14.65 8.47 8.53
204 204 204	69.40 72.57 71.61	133 119 41	21.54 22.58 4.64
216 216 216	79.05 82.68 81.45	41 92 54	4.77 9.47 4.94
229 229 229	89.78 94.17 92.74	29 95 115	6.80 10.75 19.03
242 242 242	101.35 106.25 104.85	45 51 84	4.28 3.99 9.48
0 0 128	4.27 1.86 21.93	224 225 232	86.82 90.72 95.91
0 0 255	19.22 7.63 102.03	206 207 214	71.99 74.96 79.74
0 128 0	5.35 17.28 3.00	169 170 177	47.07 48.97 53.16
0 128 128	9.61 19.22 24.80	129 130 135	25.82 27.13 28.67
0 170 255	29.18 40.09 107.98	88 88 90	11.20 11.66 11.81
0 255 0	24.24 79.41 12.60	46 44 43	2.91 2.88 2.67
0 255 170	31.86 82.72 53.31	44 51 129	6.67 4.90 22.97
0 255 255	43.31 87.28 114.25	94 89 155	16.64 14.00 36.08
85 85 85	10.33 10.70 10.30	155 151 198	42.59 40.56 63.64
128 0 0	15.05 7.08 0.61	185 53 42	35.11 18.41 3.12
128 0 128	19.27 8.71 22.48	198 109 80	45.08 31.19 10.71
128 128 0	20.51 24.28 3.25	217 170 149	64.64 57.27 37.64
128 128 128	24.93 26.32 25.40	39 135 61	8.11 20.45 7.73
128 128 255	40.05 32.21 106.18	109 165 107	22.79 36.36 19.85
128 255 128	43.75 88.39 34.86	173 200 170	51.37 62.99 49.48
170 0 255	47.60 20.64 103.83	202 164 147	56.60 51.48 35.99
170 170 170	46.72 48.90 48.52	216 163 31	57.88 51.89 6.48
170 255 0	52.98 92.61 12.87	185 49 90	36.61 18.62 11.18
170 255 255	72.32 100.57 116.30	134 46 121	21.08 11.18 20.20
255 0 0	69.35 32.02 1.26	174 190 35	42.83 55.07 8.30
255 0 170	77.33 35.09 43.49	0 142 156	13.24 24.39 38.05
255 0 255	88.97 39.61 104.71	0 111 187	13.72 16.61 54.02
255 128 128	79.37 51.33 26.27	242 243 250	101.97 106.60 111.98
255 170 0	79.77 64.34 6.12	222 224 231	85.08 89.23 94.12
255 170 255	99.02 72.22 109.61	202 206 214	69.28 73.14 78.96
255 255 0	94.54 111.58 13.30	161 167 173	43.35 46.24 50.26
255 255 170	101.98 114.72 55.68	119 127 128	22.36 24.88 25.54
170 85 85	32.45 20.95 10.70	81 92 89	10.08 11.88 11.57
85 170 85	18.04 36.16 14.24	50 67 64	4.35 5.77 5.98