

# UGRA

## Display Analysis & Certification Tool

### Report

#### Basics

Date: 2009-9-23 8:56:41  
Report-Version: v1.2.1  
Monitor-Name: LCD2690WUXi2  
EDID-Name: LCD2690WUXi2  
EDID-Serial: 95301557ZB  
Profile: /Users/nilsholmchristensen/Library/ColorSync/Profiles/SpectraView2690\_HW\_i1p  
Created: 2009-9-22 17:30  
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: 111.03 116.74 113.58  
XYZ (normalized): 95.11 100.00 97.29  
Luminance: 116.7 Cd/m2  
Next Temperature: 5820 Kelvin  
Assumed Target Whitepoint: 5800 Kelvin  
Distance to assumed Target Whitepoint: 0.5 deltaE

# Blackpoint

Luminance: 0.2 Cd/m2  
Chromaticity: 1.0 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	9179	0.20	1.57	1.05	
5	9545	0.31	2.38	1.71	2.32
10	6065	0.92	7.11	0.48	2.22
15	5731	1.98	13.82	0.63	2.22
20	5816	3.47	19.93	0.17	2.22
25	5739	5.58	26.11	0.31	2.22
30	5778	8.23	31.93	0.18	2.22
35	5743	11.58	37.70	0.48	2.22
40	5781	15.46	43.13	0.24	2.22
45	5748	19.58	47.97	0.49	2.25
50	5739	25.07	53.46	0.80	2.23
55	5753	30.90	58.48	0.57	2.23
60	5752	37.59	63.51	0.59	2.23
65	5763	44.49	68.10	0.48	2.25
70	5767	52.66	72.96	0.42	2.24
75	5746	61.45	77.66	0.71	2.24
80	5748	70.85	82.21	0.74	2.24
85	5746	80.71	86.57	0.81	2.28
90	5743	91.66	91.02	0.91	2.30
95	5755	103.73	95.52	0.80	2.30
100	5820	116.74	100.00	0.00	
Average	5759			0.52	2.24
Range				1.23	

Tone values = 100.0%

# 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: CAT02

RGB	Lab	deltaLab	deltaE
0 0 0	1.6 -0.5 -1.0	-0.0 0.5 -0.7	0.9
0 0 128	11.0 41.1 -68.0	0.5 -1.4 1.2	1.9
0 0 255	28.1 71.5 -115.9	0.0 0.5 -0.6	0.8
0 128 0	44.6 -78.3 46.9	-0.2 2.0 -0.0	2.0
0 128 128	46.6 -53.6 -11.5	1.0 0.1 -0.1	1.0
0 170 255	63.8 -35.6 -57.2	0.4 -0.1 0.2	0.4
0 255 0	85.4 -132.3 81.1	0.1 0.7 0.1	0.8
0 255 170	86.6 -113.3 22.6	0.0 0.7 0.1	0.7
0 255 255	88.2 -90.1 -19.7	-0.0 0.7 -0.4	0.8
85 85 85	35.9 0.2 -0.0	0.7 0.1 0.0	0.7
128 0 0	29.8 60.7 45.3	-0.3 -0.8 -0.1	0.9
128 0 128	32.5 67.3 -32.1	0.7 0.2 -0.5	0.9
128 128 0	52.3 -8.4 59.3	1.1 1.1 0.5	1.6
128 128 128	53.9 0.6 0.3	0.3 -0.6 -0.3	0.7
128 128 255	58.2 26.6 -66.2	0.7 -0.5 1.5	1.7
128 255 128	89.0 -85.0 48.0	0.1 1.8 -1.1	2.1
170 0 255	48.0 92.4 -82.2	0.1 0.3 0.4	0.5
170 170 170	70.0 0.4 0.2	0.4 -0.3 -0.2	0.5
170 255 0	90.8 -67.7 89.6	0.0 0.7 -0.1	0.7
170 255 255	93.3 -42.8 -11.1	-0.0 0.2 0.1	0.2
255 0 0	59.7 102.0 90.6	0.1 0.2 -0.4	0.5
255 0 170	61.6 106.6 -9.9	-0.1 -0.0 -1.2	1.2
255 0 255	64.3 112.7 -55.1	0.0 0.1 0.5	0.5
255 128 128	71.8 67.3 29.5	0.1 -1.0 -1.1	1.5
255 170 0	78.8 39.7 90.4	-0.3 0.1 -0.6	0.7
255 170 255	81.9 53.8 -27.1	0.1 -0.3 0.1	0.3
255 255 0	97.7 -15.5 100.8	0.2 -0.4 -0.1	0.5
255 255 170	98.6 -9.3 42.1	0.0 0.1 0.1	0.1
255 255 255	100.0 0.0 0.0	0.0 -0.0 0.0	0.0
170 85 85	49.3 49.7 21.9	1.0 -0.5 -0.9	1.5
85 170 85	61.6 -62.5 34.9	1.0 2.4 -0.9	2.8
85 85 170	39.1 19.1 -48.3	1.6 0.0 1.0	1.9
85 170 170	63.1 -45.5 -10.9	1.0 1.4 0.1	1.7
170 85 170	51.3 57.4 -27.8	1.0 -0.5 0.0	1.1
170 170 85	68.7 -8.5 46.2	0.8 0.5 -1.0	1.4
Average			1.0
Maximum			2.8

# 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	55.1 -31.8 -50.8	8.1
67.6 -27.1 -36.5	66.9 -28.4 -37.1	1.6
80.8 -13.8 -21.0	80.4 -13.4 -20.8	0.6
47.2 75.9 -3.8	46.2 76.8 -2.3	2.0
60.7 52.2 -7.1	60.1 53.2 -6.7	1.2
77.0 26.2 -7.7	76.7 27.2 -7.1	1.2
89.7 -4.5 94.7	89.7 -4.1 94.7	0.4
91.3 -4.6 63.1	91.2 -4.5 63.3	0.3
93.3 -3.3 30.6	93.0 -2.6 30.5	0.8
53.5 38.4 28.8	52.5 38.7 30.5	2.0
41.4 23.1 16.6	40.6 22.5 18.0	1.8
32.4 40.3 21.9	31.3 41.4 24.4	3.0
32.6 44.6 -1.8	31.5 45.9 -1.5	1.7
51.3 1.9 44.3	50.2 1.9 46.4	2.4
34.0 -40.9 14.5	33.4 -43.4 16.1	3.1
36.2 -30.6 -20.6	35.1 -32.1 -20.5	1.8
21.2 3.4 -23.0	20.0 4.0 -23.5	1.5
89.8 0.3 -3.5	89.6 1.1 -3.4	0.8
83.6 0.2 -3.7	83.3 0.9 -4.4	1.1
70.2 0.0 -3.7	69.8 0.3 -4.4	0.8
55.1 0.0 -3.1	54.6 0.6 -3.4	0.8
37.5 0.1 -2.1	37.2 0.6 -1.6	0.8
16.9 0.4 -0.4	16.3 1.1 0.8	1.5
24.4 16.2 -47.1	22.9 17.1 -48.7	2.3
41.2 16.0 -36.5	40.0 16.1 -37.1	1.4
64.6 9.3 -23.6	63.8 9.6 -23.9	0.9
47.3 69.0 45.1	46.4 70.3 49.7	4.9
58.9 47.7 37.0	58.0 48.9 39.5	2.9
75.0 23.2 20.3	74.6 24.4 21.2	1.5
48.6 -67.5 28.0	47.6 -70.7 29.2	3.5
62.5 -41.7 22.4	61.5 -43.2 22.8	1.9
77.9 -19.6 11.3	77.6 -20.9 12.0	1.5
72.0 19.1 16.5	71.6 19.1 17.0	0.6
72.2 22.1 73.2	71.7 22.5 76.1	2.9
47.5 72.3 15.3	46.4 73.5 17.2	2.5
37.5 56.5 -21.1	36.1 57.8 -21.3	1.9
74.1 -22.1 69.3	73.3 -23.1 71.2	2.4
52.3 -55.2 -20.1	51.4 -52.8 -20.0	2.6
43.9 -20.9 -49.8	42.7 -17.8 -50.8	3.5
96.0 0.5 -3.3	95.8 1.1 -3.9	0.8
89.5 -0.1 -3.7	89.2 0.4 -4.2	0.7
83.0 -1.1 -4.3	82.7 -0.7 -5.2	1.0
68.6 -2.7 -4.0	68.2 -3.4 -4.2	0.9
53.0 -5.1 -2.3	52.5 -5.9 -2.4	1.0
37.8 -8.1 -0.9	37.1 -9.7 -1.4	1.8
25.9 -13.3 -2.2	25.7 -16.5 -1.7	3.2
Average		1.9
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	111.03 116.74 113.58	85 85 170	15.89 12.81 41.62
0 0 0	0.18 0.20 0.27	85 170 170	23.38 37.36 45.41
12 12 12	0.27 0.31 0.41	170 85 170	37.71 22.82 42.22
25 25 25	0.87 0.92 0.93	170 170 85	39.35 45.11 14.22
38 38 38	1.87 1.98 1.87	0 146 218	20.04 27.63 73.92
51 51 51	3.31 3.47 3.39	97 175 227	33.02 43.25 82.70
63 63 63	5.33 5.58 5.39	170 206 237	58.62 67.36 92.72
76 76 76	7.85 8.23 7.97	182 41 117	36.25 17.73 18.65
89 89 89	11.09 11.58 11.23	197 111 158	49.15 32.75 37.25
102 102 102	14.74 15.46 15.00	216 174 203	69.27 59.58 66.13
114 114 114	18.72 19.58 18.96	242 227 0	79.41 87.46 9.79
127 127 127	24.03 25.07 24.37	242 231 109	83.11 91.37 25.67
140 140 140	29.54 30.90 29.96	242 236 177	89.38 96.40 55.58
153 153 153	35.93 37.59 36.43	170 102 79	32.53 23.71 9.59
165 165 165	42.46 44.49 43.09	121 84 70	16.53 13.40 7.16
178 178 178	50.19 52.66 50.91	115 50 44	12.88 7.77 2.67
191 191 191	58.72 61.45 59.47	115 46 79	13.93 7.93 8.25
204 204 204	67.72 70.85 68.61	131 118 43	20.48 21.45 4.46
216 216 216	77.16 80.71 78.15	37 92 54	4.23 9.01 4.68
229 229 229	87.67 91.66 88.80	23 94 114	6.23 10.14 18.16
242 242 242	99.13 103.73 100.55	43 50 83	3.74 3.54 8.85
0 0 128	4.07 1.69 21.27	224 225 231	84.61 88.23 90.73
0 0 255	18.83 7.49 100.18	206 207 214	70.18 73.20 76.82
0 128 0	5.11 16.59 2.74	168 170 176	45.15 47.27 50.10
0 128 128	9.27 18.54 24.17	129 130 135	25.23 26.33 27.78
0 170 255	28.30 38.98 104.62	87 88 90	10.82 11.27 11.53
0 255 0	23.68 77.89 11.88	44 43 43	2.45 2.51 2.35
0 255 170	31.23 80.99 52.10	41 51 127	6.16 4.61 21.96
0 255 255	42.52 85.55 112.25	92 88 153	15.78 13.34 33.77
85 85 85	9.95 10.44 10.16	153 150 196	39.88 38.18 59.58
128 0 0	14.96 6.98 0.47	183 53 42	34.02 17.74 2.82
128 0 128	19.10 8.58 22.01	196 108 78	43.45 29.85 9.81
128 128 0	20.15 23.60 2.90	216 169 147	62.69 55.22 35.01
128 128 128	24.44 25.55 24.71	31 134 62	7.24 19.24 7.43
128 128 255	39.16 31.33 103.54	106 164 107	21.53 34.81 19.36
128 255 128	42.89 86.44 33.56	171 200 169	49.42 61.27 47.36
170 0 255	46.60 20.23 100.98	201 164 146	54.91 50.00 34.25
170 170 170	45.37 47.54 46.08	214 162 34	55.66 49.81 6.19
170 255 0	51.79 90.74 12.25	183 48 88	35.31 17.85 10.55
170 255 255	70.66 98.23 112.73	132 45 120	20.12 10.52 19.42
255 0 0	68.29 31.43 1.03	171 189 40	40.73 52.78 8.16
255 0 170	75.90 34.37 42.04	0 141 154	12.46 23.18 35.74
255 0 255	87.19 38.77 102.59	0 110 183	12.72 15.62 49.77
255 128 128	77.55 49.85 25.76	242 243 249	100.34 104.68 108.00
255 170 0	78.05 62.73 5.73	222 224 231	83.18 87.11 90.65
255 170 255	96.65 70.29 106.68	202 206 213	68.24 71.97 76.55
255 255 0	92.13 108.97 12.58	160 167 172	41.36 44.66 47.27
255 255 170	99.55 112.07 53.62	118 127 128	21.56 24.06 24.80
170 85 85	31.76 20.49 10.61	79 91 89	9.37 11.20 11.39
85 170 85	17.43 34.95 13.83	48 67 64	3.88 5.43 5.65