

UGRA

Display Analysis & Certification Tool

Report

Basics

Date: 2007-7-24 14:17:53
Report-Version: v1.2.1
Monitor-Name: Quato 213
Profile: /Library/ColorSync/Profiles/24.07.07-5800K-18-140cd-trc.icc
Created: 2007-7-24 13:15
Measurement device: DTP94-LCD mode (Intelli Proof 213 excellence)

Summary

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 %3.1.

XYZ: 131.05 137.21 135.11
XYZ (normalized): 95.51 100.00 98.47
Luminance: 137.2 Cd/m2
Next Temperature: 5841 Kelvin
Assumed Target Whitepoint: 5800 Kelvin
Distance to assumed Target Whitepoint: 0.7 deltaE

Blackpoint

Luminance: 0.4 Cd/m2
Chromaticity: 2.8 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	12816	0.40	2.65	2.83	
5	6725	0.90	5.96	1.37	1.90
10	5842	2.41	14.16	0.34	1.85
15	5888	4.83	22.00	0.35	1.82
20	5841	7.94	28.87	0.00	1.81
25	5841	11.46	34.70	0.29	1.82
30	5841	15.88	40.53	0.00	1.81
35	5841	21.01	46.06	0.00	1.81
40	5841	26.74	51.25	0.00	1.80
45	5841	32.47	55.75	0.41	1.82
50	5841	39.30	60.47	0.43	1.82
55	5888	46.84	65.07	0.75	1.81
60	5841	54.88	69.47	0.00	1.80
65	5841	62.83	73.41	0.00	1.82
70	5841	71.97	77.55	0.53	1.83
75	5841	81.52	81.52	0.00	1.82
80	5889	91.88	85.48	0.50	1.81
85	5888	101.63	88.95	0.97	1.87
90	5888	112.89	92.70	1.00	1.89
95	5841	124.65	96.35	0.64	1.94
100	5841	137.21	100.00	0.00	
Average	5854			0.33	1.83
Range				1.32	

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: Bradford

RGB	Lab	deltaLab	deltaE
0 0 0	2.6 -0.7 -2.8	-2.6 0.7 2.8	3.9
0 0 128	14.7 41.9 -71.5	-0.6 2.0 -2.1	3.0
0 0 255	30.2 67.3 -112.9	-0.8 -0.8 1.6	1.9
0 128 0	48.5 -83.9 48.3	0.9 -1.7 0.5	2.0
0 128 128	51.3 -56.8 -13.8	0.3 -0.1 -0.6	0.7
0 170 255	66.8 -41.4 -53.0	-0.3 -0.9 1.5	1.8
0 255 0	83.8 -131.8 77.7	-0.8 2.5 -4.0	4.8
0 255 170	85.2 -108.1 13.8	-0.7 2.0 -1.9	2.8
0 255 255	86.8 -86.8 -21.9	-0.7 0.8 0.1	1.1
85 85 85	44.4 0.0 -0.0	-0.4 0.0 -0.0	0.4
128 0 0	35.5 59.1 45.8	0.8 0.9 2.7	2.9
128 0 128	39.0 67.1 -32.1	0.4 -0.6 0.7	1.0
128 128 0	58.5 -10.3 61.1	0.6 0.2 -1.2	1.3
128 128 128	60.9 -0.3 0.3	-0.2 0.3 -0.3	0.5
128 128 255	65.2 18.9 -54.5	-0.9 0.8 0.2	1.2
128 255 128	89.0 -71.0 37.9	-0.5 0.6 -1.4	1.6
170 0 255	53.1 87.4 -74.2	0.3 -1.6 2.8	3.3
170 170 170	75.0 -0.4 0.3	-0.1 0.4 -0.3	0.5
170 255 0	90.8 -58.7 86.9	-0.3 1.9 -4.4	4.8
170 255 255	93.5 -34.5 -10.6	-0.2 0.2 0.1	0.4
255 0 0	63.2 92.6 77.8	-0.0 -1.9 -4.5	4.9
255 0 170	65.3 98.1 -12.5	0.2 -2.4 0.5	2.5
255 0 255	67.6 102.3 -49.4	0.3 -1.8 2.0	2.6
255 128 128	77.2 53.1 25.1	-0.3 -0.1 -0.4	0.5
255 170 0	82.6 29.1 86.6	0.1 -1.4 -4.7	4.9
255 170 255	86.1 41.5 -20.8	-0.2 0.4 0.5	0.7
255 255 0	97.8 -15.2 96.0	-0.2 0.0 -5.3	5.3
255 255 170	98.8 -8.0 34.2	-0.0 0.4 -0.9	1.0
255 255 255	100.0 0.0 -0.0	-0.0 0.0 -0.0	0.0
170 85 85	56.9 40.7 19.1	-0.0 1.0 0.4	1.1
85 170 85	66.0 -54.9 28.9	-0.1 -0.6 -0.1	0.7
85 85 170	47.6 15.2 -42.1	-0.7 0.4 -0.7	1.0
85 170 170	67.8 -39.9 -11.2	-0.3 -0.7 -0.5	0.9
170 85 170	59.1 47.5 -23.3	-0.2 1.3 -0.1	1.4
170 170 85	73.5 -8.5 39.7	0.1 0.2 0.1	0.3
Average			1.9
Maximum			5.3

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 -32.5 -49.9	4.5
66.9 -24.7 -37.1	67.5 -23.4 -37.3	1.4
79.7 -12.5 -21.8	80.0 -12.7 -21.6	0.4
48.0 74.0 -3.0	47.5 74.7 -3.9	1.2
60.8 50.6 -6.7	60.9 50.0 -6.8	0.6
76.4 25.8 -6.9	76.4 25.0 -7.1	0.8
89.0 -5.0 93.0	89.0 -4.1 88.9	4.2
90.3 -4.7 62.6	90.3 -4.9 63.1	0.6
92.2 -3.5 31.1	92.1 -3.4 31.6	0.5
53.1 37.7 28.9	53.1 37.2 28.4	0.7
41.5 22.7 16.8	41.6 21.7 16.0	1.2
31.9 40.0 24.0	32.1 38.8 23.0	1.5
32.5 44.5 -1.8	32.7 43.7 -2.5	1.0
51.3 1.3 44.5	51.2 1.1 44.8	0.3
34.6 -36.4 13.9	34.8 -35.7 13.7	0.8
36.0 -26.2 -20.9	36.5 -25.4 -20.4	1.0
20.9 9.6 -23.6	22.1 8.3 -22.6	2.0
89.0 0.0 -1.9	88.9 -0.6 -1.8	0.6
82.8 0.0 -1.7	82.7 -0.6 -1.7	0.6
69.3 0.0 -1.4	69.4 -0.5 -1.0	0.6
54.1 0.0 -1.0	54.3 -0.0 -0.7	0.3
36.6 0.0 -0.5	37.0 -0.0 -0.6	0.4
16.0 0.0 0.0	17.5 0.1 -0.1	1.6
24.0 22.0 -46.0	25.0 20.6 -44.5	2.2
40.9 17.9 -36.6	41.4 17.8 -35.9	0.9
63.7 10.3 -23.8	64.1 9.7 -23.5	0.7
47.0 68.0 48.0	46.4 68.1 47.6	0.7
58.5 47.1 37.9	58.5 46.7 37.9	0.4
74.2 22.9 21.4	74.1 23.1 21.2	0.3
50.0 -65.0 27.0	50.0 -63.8 27.0	1.2
62.1 -39.8 21.0	62.2 -39.3 21.0	0.5
77.0 -19.1 11.0	76.9 -19.1 11.0	0.1
71.2 18.9 17.2	71.1 18.3 16.8	0.7
71.2 22.1 73.1	70.8 23.1 74.9	2.1
47.7 71.2 16.2	47.2 71.5 15.5	1.0
38.0 55.4 -20.9	37.9 55.3 -21.4	0.5
73.7 -22.8 67.6	73.3 -23.4 69.8	2.3
52.3 -52.3 -20.1	52.3 -52.4 -19.9	0.2
43.3 -17.0 -48.6	43.8 -17.1 -48.3	0.6
95.0 0.0 -2.0	94.9 -0.1 -1.7	0.3
88.5 -0.4 -3.1	88.4 -0.7 -3.4	0.5
82.0 -0.9 -4.1	81.9 -1.2 -4.4	0.4
67.7 -2.0 -4.4	67.6 -2.3 -4.7	0.4
52.2 -2.5 -3.5	52.5 -2.8 -3.1	0.6
37.5 -3.9 -3.1	37.9 -4.0 -3.4	0.5
26.3 -6.8 -3.4	27.1 -6.0 -3.4	1.1
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	131.05 137.21 135.11	85 85 170	26.46 22.90 59.20
0 0 0	0.37 0.40 0.64	85 170 170	35.47 52.14 63.67
12 12 12	0.86 0.90 1.01	170 85 170	53.98 37.11 60.40
25 25 25	2.32 2.41 2.40	170 170 85	55.25 62.74 25.22
38 38 38	4.58 4.83 4.74	0 133 211	24.18 33.21 88.60
51 51 51	7.58 7.94 7.82	84 162 224	41.66 51.81 100.62
63 63 63	10.91 11.46 11.22	154 195 234	68.94 78.34 110.85
76 76 76	15.17 15.88 15.64	171 7 103	43.95 22.11 24.78
89 89 89	20.07 21.01 20.69	185 87 143	58.08 39.71 45.93
102 102 102	25.54 26.74 26.33	206 155 191	79.56 69.19 77.99
114 114 114	30.91 32.47 31.78	237 217 0	91.86 100.94 12.75
127 127 127	37.42 39.30 38.47	237 222 79	95.39 104.96 28.93
140 140 140	44.46 46.84 45.99	236 228 155	102.20 110.48 62.25
153 153 153	52.42 54.88 54.04	156 79 61	38.68 28.59 12.60
165 165 165	60.01 62.83 61.86	105 65 55	20.36 16.66 9.77
178 178 178	68.53 71.97 70.45	97 31 29	15.35 9.62 3.65
191 191 191	77.86 81.52 80.28	98 28 64	16.99 10.02 10.96
204 204 204	87.48 91.88 90.75	116 101 28	25.10 26.44 5.96
216 216 216	96.46 101.63 99.78	34 77 43	6.41 11.58 6.77
229 229 229	107.14 112.89 110.84	26 78 99	8.89 12.88 23.05
242 242 242	118.68 124.65 122.01	36 35 68	5.59 4.92 11.65
0 0 128	6.44 2.80 32.69	215 216 220	96.56 101.43 102.90
0 0 255	23.27 9.69 121.38	194 195 199	80.58 84.64 85.87
0 128 0	7.35 23.69 4.01	152 153 155	52.06 54.68 54.99
0 128 128	13.86 27.10 36.92	110 110 112	29.19 30.56 30.64
0 170 255	35.73 51.03 127.07	68 68 69	12.48 13.07 13.10
0 255 0	26.60 87.72 13.45	30 30 30	3.18 3.32 3.29
0 255 170	37.34 91.82 69.66	38 35 109	8.64 6.22 25.92
0 255 255	49.50 96.71 133.36	78 69 140	20.33 16.87 41.66
85 85 85	18.53 19.40 19.10	137 131 185	47.61 45.32 71.39
128 0 0	22.76 11.70 1.38	169 21 23	39.23 20.81 3.69
128 0 128	29.91 14.60 34.82	185 83 58	51.13 35.80 12.54
128 128 0	30.59 36.10 4.98	206 149 125	72.03 63.78 40.65
128 128 128	38.09 40.01 39.16	35 125 52	11.08 25.39 10.90
128 128 255	55.06 47.81 124.87	92 152 91	27.37 42.08 24.73
128 255 128	57.25 101.82 48.87	156 188 152	57.87 70.51 55.98
170 0 255	62.33 29.40 122.68	189 144 125	63.21 57.66 40.01
170 170 170	63.07 66.24 64.84	205 140 0	63.91 56.74 6.88
170 255 0	65.70 106.82 14.80	171 16 71	41.98 21.71 13.91
170 255 255	88.84 116.01 133.88	117 26 106	25.15 13.71 25.43
255 0 0	83.56 42.41 3.54	158 178 20	48.09 62.27 9.74
255 0 170	94.12 46.50 60.50	9 129 141	15.62 28.40 44.11
255 0 255	105.20 51.20 123.34	16 94 170	15.98 19.32 58.83
255 128 128	97.29 70.42 42.21	236 237 242	114.44 119.82 121.20
255 170 0	95.61 83.25 9.58	212 215 222	95.31 100.12 104.31
255 170 255	117.78 93.45 129.19	189 193 202	78.31 82.53 87.77
255 255 0	109.40 128.72 16.38	143 149 157	48.35 51.47 55.69
255 255 170	119.28 132.52 73.75	101 107 111	26.28 28.25 30.03
170 85 85	46.12 33.61 20.45	65 72 75	12.52 13.77 15.07
85 170 85	27.48 48.54 23.75	41 50 52	6.12 7.04 7.91