UGRA
Display Analysis & Certification Tool
Report

Basics

Date:	2010-7-2 3:58:33
Report-Version:	v1.3.1
Monitor-Name:	\\.\DISPLAY1
Profile:	C:/Windows/system32/spool/drivers/color/nec-pa271w-ugra.icc
Created:	2010-7-2 3:55
Measurement device:	eye-one pro

Summary

The monitor has passed the certification according to the UGRA DACT specifications.

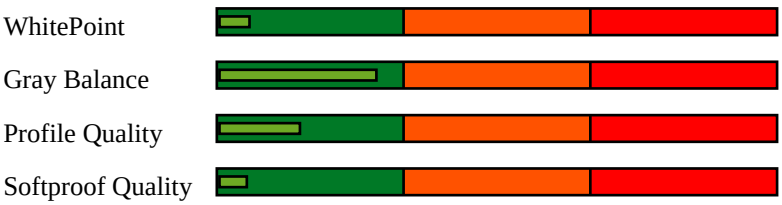
Calibration

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
sRGB	yes
AdobeRGB	yes
ECI-RGB	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 2.0.

XYZ:	131.69 138.07 135.27
XYZ (normalized):	95.38 100.00 97.97
Luminance:	138.1 Cd/m2
Next Temperature:	5828 Kelvin
Assumed Target Whitepoint:	5800 Kelvin
Distance to assumed Target Whitepoint:	0.3 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:	1.1 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	6996	0.26	1.69	1.06	
5	6449	0.63	4.15	0.96	1.96
10	5852	2.33	13.77	0.88	1.83
15	5891	4.54	21.17	0.21	1.83
20	5840	7.71	28.34	0.23	1.81
25	5764	11.12	34.10	0.37	1.83
30	5797	15.66	40.15	0.16	1.82
35	5858	20.89	45.82	0.26	1.81
40	5788	26.77	51.14	0.31	1.80
45	5862	32.43	55.57	0.43	1.82
50	5813	39.70	60.56	0.25	1.81
55	5864	46.87	64.92	0.40	1.81
60	5792	55.34	69.53	0.27	1.80
65	5781	62.99	73.30	0.85	1.82
70	5839	72.65	77.65	0.25	1.81
75	5806	82.61	81.75	0.64	1.80
80	5789	92.57	85.53	0.35	1.80
85	5822	102.92	89.18	0.37	1.80
90	5803	114.12	92.86	0.62	1.84
95	5814	126.23	96.58	0.39	1.79
100	5828	138.07	100.00	0.00	
Average	5821			0.38	1.82
Range				1.70	
Max				0.88	

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	1.7 -1.0 0.1	-1.7 1.0 -0.1	2.0
0 0 128	13.0 49.0 -75.9	-0.6 1.8 -1.8	2.6
0 0 255	27.1 76.4 -116.9	-0.1 0.4 -0.5	0.6
0 128 0	51.0 -87.9 51.6	0.1 -1.0 0.8	1.3
0 128 128	52.9 -60.0 -12.6	-0.2 0.3 -0.6	0.7
0 170 255	67.5 -44.6 -51.3	0.0 0.1 0.0	0.2
0 255 0	85.6 -134.5 79.2	-0.1 0.1 -0.0	0.1
0 255 170	86.9 -111.5 15.3	-0.2 0.5 -0.4	0.7
0 255 255	88.2 -90.9 -19.5	-0.2 0.6 -0.4	0.7
85 85 85	44.1 -0.0 -0.2	-0.1 0.0 0.2	0.2
128 0 0	34.1 66.8 52.0	0.0 1.0 1.7	2.0
128 0 128	36.8 75.0 -35.8	0.2 0.4 -0.0	0.5
128 128 0	59.3 -10.6 64.0	0.1 -0.4 0.5	0.7
128 128 128	60.8 -0.3 0.2	-0.1 0.3 -0.2	0.3
128 128 255	63.9 21.4 -56.2	-0.2 0.6 -0.3	0.7
128 255 128	90.2 -74.8 39.8	-0.1 -0.2 -0.1	0.2
170 0 255	50.1 97.8 -77.8	0.1 -0.1 -0.0	0.1
170 170 170	74.9 0.8 -0.1	0.0 -0.8 0.1	0.8
170 255 0	91.9 -60.2 88.9	-0.1 -0.8 -0.3	0.8
170 255 255	94.3 -36.4 -9.4	-0.2 -0.3 -0.3	0.5
255 0 0	59.8 102.4 86.5	0.1 0.0 -0.9	0.9
255 0 170	61.8 108.4 -17.4	0.2 -0.1 0.3	0.4
255 0 255	64.0 114.2 -54.3	0.2 -0.1 0.2	0.3
255 128 128	75.3 58.4 23.8	-0.0 0.2 0.2	0.2
255 170 0	81.7 31.1 88.9	0.3 -1.0 -0.2	1.0
255 170 255	84.5 46.3 -22.7	0.1 -0.1 0.1	0.1
255 255 0	97.9 -16.3 98.1	0.1 -0.3 -0.6	0.7
255 255 170	99.0 -8.2 34.7	-0.0 -0.1 0.2	0.3
255 255 255	100.0 0.0 -0.0	0.0 0.0 -0.0	0.0
170 85 85	55.7 46.4 18.6	-0.2 -0.3 0.3	0.5
85 170 85	67.1 -58.3 30.7	0.1 -0.6 0.5	0.8
85 85 170	46.6 17.3 -44.2	-0.2 0.0 -0.3	0.3
85 170 170	68.5 -42.6 -10.9	-0.0 -0.5 0.1	0.5
170 85 170	57.4 54.4 -26.1	-0.2 -0.1 -0.2	0.3
170 170 85	73.8 -8.1 41.4	0.0 -1.0 0.6	1.1
Average			0.7
Maximum			2.6

Gamut-Volume

These measurements are only informative.

Gamut-Volume	
ISO	100 %
sRGB	100 %
AdobeRGB	98 %
ECI-RGB v1.0	93 %

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	55.7 -34.0 -48.6	3.4
66.9 -24.7 -37.1	67.0 -24.7 -36.9	0.3
79.7 -12.5 -21.8	80.0 -12.7 -21.1	0.8
48.0 74.0 -3.0	48.2 74.3 -2.4	0.6
60.8 50.6 -6.7	60.9 50.6 -6.4	0.3
76.4 25.8 -6.9	76.7 26.0 -6.7	0.4
89.0 -5.0 93.0	88.9 -4.4 91.2	1.9
90.3 -4.7 62.6	90.4 -4.3 62.3	0.5
92.2 -3.5 31.1	92.3 -3.5 30.9	0.3
53.1 37.7 28.9	53.2 37.6 29.3	0.4
41.5 22.7 16.8	41.5 22.8 16.8	0.1
31.9 40.0 24.0	31.8 39.9 23.8	0.2
32.5 44.4 -1.8	32.7 44.3 -1.4	0.5
51.3 1.3 44.5	51.2 1.6 44.0	0.6
34.6 -36.4 13.9	34.4 -35.6 13.3	1.0
36.0 -26.2 -20.9	36.0 -25.8 -20.7	0.4
20.9 9.6 -23.6	21.3 8.2 -22.8	1.7
89.0 0.0 -1.8	89.1 0.1 -1.7	0.3
82.8 0.0 -1.7	83.0 -0.3 -1.4	0.5
69.3 0.0 -1.4	69.4 -0.7 -1.1	0.7
54.1 0.0 -1.0	54.1 -0.2 -1.0	0.3
36.6 -0.0 -0.5	36.5 0.4 -0.5	0.5
16.0 0.0 0.0	16.7 -0.3 0.4	0.9
24.0 22.0 -46.0	24.0 21.9 -45.8	0.2
40.9 17.9 -36.6	40.8 18.2 -36.4	0.4
63.7 10.3 -23.8	63.7 9.7 -23.7	0.6
47.0 68.0 48.0	47.1 68.1 47.6	0.5
58.5 47.1 37.9	58.4 47.1 38.1	0.2
74.2 22.9 21.4	74.3 22.9 21.4	0.2
50.0 -65.0 27.0	50.0 -64.6 26.7	0.5
62.1 -39.8 21.0	62.1 -39.4 21.2	0.4
77.0 -19.1 11.0	77.2 -19.2 11.1	0.3
71.2 18.8 17.3	71.3 18.9 17.3	0.1
71.2 22.2 73.1	71.1 22.8 73.3	0.7
47.7 71.2 16.2	47.9 71.3 16.8	0.6
38.0 55.4 -20.9	38.2 55.2 -20.2	0.8
73.7 -22.8 67.6	73.6 -21.9 67.5	0.9
52.3 -52.3 -20.2	52.4 -52.8 -19.8	0.6
43.3 -17.0 -48.6	43.2 -17.4 -48.4	0.5
95.0 0.0 -2.0	95.2 -0.1 -1.7	0.3
88.5 -0.4 -3.1	88.7 -0.3 -2.8	0.3
82.0 -0.9 -4.1	82.2 -1.3 -3.5	0.7
67.7 -2.0 -4.4	67.6 -2.5 -4.4	0.5
52.2 -2.5 -3.5	52.4 -2.9 -3.1	0.6
37.5 -3.9 -3.1	37.5 -4.1 -3.2	0.3
26.3 -6.8 -3.4	26.6 -7.0 -3.6	0.5
Average		0.6
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	131.69 138.07 135.27	85 85 170	26.06 22.02 59.81
0 0 0	0.21 0.26 0.24	85 170 170	35.67 53.72 64.77
12 12 12	0.57 0.63 0.63	170 85 170	54.22 34.91 60.51
25 25 25	2.19 2.33 2.22	170 170 85	56.19 63.73 24.46
38 38 38	4.32 4.54 4.48	0 130 208	23.81 33.36 86.60
51 51 51	7.37 7.71 7.60	85 159 221	40.66 51.31 98.85
63 63 63	10.66 11.12 10.87	154 193 232	69.10 78.71 109.90
76 76 76	14.94 15.66 15.27	171 39 103	45.22 23.01 24.67
89 89 89	19.94 20.89 20.61	185 96 143	58.52 39.87 45.56
102 102 102	25.53 26.77 26.01	206 159 191	81.15 70.24 78.10
114 114 114	30.80 32.43 31.73	236 216 0	91.81 101.17 11.71
127 127 127	37.82 39.70 38.70	237 221 86	96.53 105.84 29.64
140 140 140	44.55 46.87 45.93	236 228 158	103.46 112.04 63.83
153 153 153	52.86 55.34 53.99	155 85 63	39.14 28.86 12.32
165 165 165	60.47 62.99 61.91	105 68 56	20.58 16.65 9.45
178 178 178	69.18 72.65 71.08	96 37 31	15.39 9.50 3.43
191 191 191	78.58 82.61 80.18	98 36 64	17.23 10.11 10.59
204 204 204	88.44 92.57 90.29	115 101 33	25.41 26.65 6.20
216 216 216	98.38 102.92 101.12	35 74 44	6.24 11.34 6.68
229 229 229	108.64 114.12 110.85	27 76 98	8.63 12.62 22.79
242 242 242	120.24 126.23 123.02	36 36 67	5.29 4.65 11.21
0 0 128	6.49 2.43 33.91	215 216 220	98.20 102.80 103.48
0 0 255	22.26 8.01 118.83	194 195 199	81.63 85.74 86.03
0 128 0	8.16 26.70 4.19	152 153 155	52.27 55.08 55.14
0 128 128	14.59 29.33 38.38	110 110 112	29.06 30.53 30.68
0 170 255	35.67 52.59 126.23	68 68 69	12.29 12.81 12.74
0 255 0	28.00 92.92 14.08	30 30 30	2.94 3.11 2.99
0 255 170	38.75 97.05 71.42	39 37 108	8.34 5.84 25.73
0 255 255	50.30 101.23 133.39	78 71 138	19.87 16.37 41.07
85 85 85	18.29 19.19 18.91	137 132 183	47.26 45.02 70.97
128 0 0	23.27 10.78 0.64	169 42 30	40.61 21.71 3.95
128 0 128	29.63 12.97 34.76	184 91 62	51.41 35.90 12.45
128 128 0	31.61 37.45 4.64	205 153 127	72.88 64.72 40.91
128 128 128	38.18 40.12 39.16	36 120 54	10.97 25.50 10.98
128 128 255	53.99 45.88 124.05	93 148 92	27.35 42.19 24.54
128 255 128	58.21 106.16 49.14	156 186 153	58.72 71.64 56.41
170 0 255	61.39 25.87 119.96	189 147 126	64.31 58.50 39.96
170 170 170	63.79 66.49 65.32	204 143 23	64.90 57.83 7.53
170 255 0	67.72 110.92 14.78	171 41 73	43.33 22.63 13.92
170 255 255	90.16 119.35 134.38	117 39 105	25.53 13.98 24.96
255 0 0	81.28 37.26 1.61	158 176 32	49.52 63.31 10.81
255 0 170	91.73 40.88 59.29	13 125 140	15.68 28.73 44.20
255 0 255	103.27 45.02 120.98	18 92 167	15.47 18.84 57.78
255 128 128	95.96 66.54 40.51	236 237 242	115.97 121.60 122.40
255 170 0	94.82 81.38 8.27	212 215 221	96.70 101.49 104.15
255 170 255	116.98 89.77 127.81	189 193 201	79.23 83.72 87.24
255 255 0	109.39 129.82 15.42	143 149 156	48.46 51.76 55.44
255 255 170	120.37 134.07 73.73	101 107 111	26.34 28.39 30.01
170 85 85	46.67 32.21 19.65	65 72 75	12.31 13.59 14.73
85 170 85	27.92 50.84 23.81	41 50 52	5.86 6.88 7.77