UGRA
Display Analysis & Certification Tool
Report

Basics

Date:	2013-11-27 22:05:44
Report-Version:	v1.3.1
Monitor-Name:	\\.\DISPLAY1
EDID-Name:	HP LP2475w
EDID-Serial:	PLC93401SG
Profile:	HP_LP2475w_adobeRGB_-2013-11...14217-6500K-22-120cd-trc.icm
Created:	2013-11-27 21:42
Measurement device:	Silver Haze Pro & DTP94 - LCD, Correction: Wide Gamut S-IPS (generic)

Summary

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

Calibration (Assumed Target Whitepoint: 6500.00 Kelvin)

White Point	yes
Gray balance	yes
Profile quality	yes

Softproofing
Depends on the calibration verification.

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

White-Point 

Gray Balance 

Profile Quality 

Softproof Quality 

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:	112.60 118.73 128.72
XYZ (normalized):	94.83 100.00 108.41
xy:	0.3127 0.3298
Luminance:	118.7 Cd/m2
Next Temperature:	6496 Kelvin
Assumed Target Whitepoint:	6500.0 Kelvin
Distance to assumed Target Whitepoint:	0.5 DeltaE-76

Blackpoint

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

Luminance:	0.2 Cd/m2
Chromaticity:	1.5 Chroma (Lab)

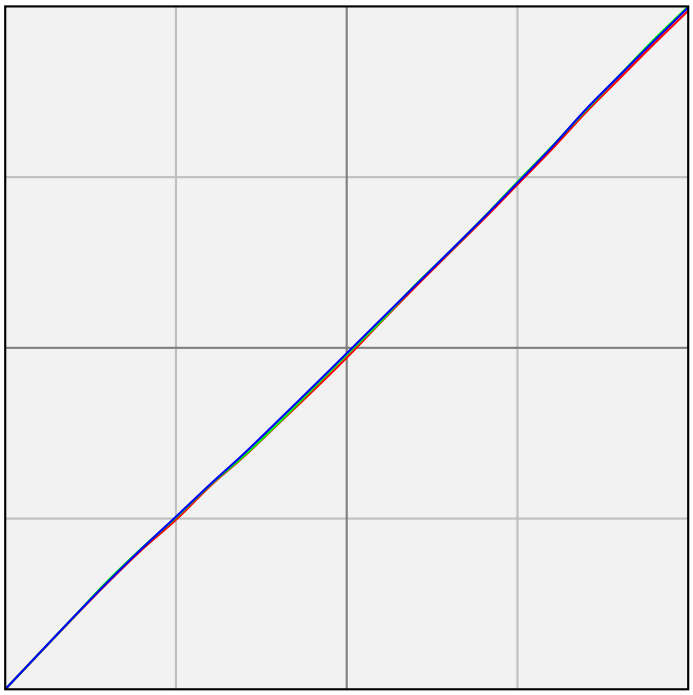
Gray balance

Average and maximum calculation will respect measurements with 1% minimum luminance only. The L-deviation shows the difference between the profile and measurement value.
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	12741	0.20	1.55	1.50	
5	8343	0.30	2.32	1.18	2.39
10	6898	0.91	6.95	1.40	2.23
15	6655	2.03	13.89	0.43	2.21
20	6549	3.76	20.69	0.17	2.19
25	6602	5.69	26.12	0.40	2.22
30	6549	8.53	32.22	0.23	2.21
35	6549	11.77	37.69	0.25	2.22
40	6557	15.93	43.39	0.30	2.20
45	6549	20.40	48.49	0.31	2.22
50	6549	25.88	53.81	0.33	2.21
55	6444	31.76	58.74	0.35	2.22
60	6496	38.56	63.74	0.00	2.21
65	6503	45.66	68.36	0.49	2.22
70	6496	53.89	73.14	0.00	2.22
75	6496	62.92	77.87	0.00	2.21
80	6451	72.23	82.29	0.91	2.22
85	6511	82.08	86.57	1.18	2.24
90	6503	93.35	91.06	0.62	2.26
95	6496	105.84	95.64	0.00	2.25
100	6496	118.73	100.00	0.00	
Average	6525			0.33	2.23
Max				1.18	
Range				1.47	

Tone values

This tests checks the calibration curves of the graphic card. 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.



Tone values = 97.6%

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 Lab values are calculated, based on the measured white point (xy: 0.3127 0.3298).

The assumed chromatic adaptation is: Bradford

RGB	Lab	deltaLab	DeltaE-76
0 0 0	1.5 0.2 -1.5	-1.5 -0.2 1.5	2.1
0 0 128	12.8 40.5 -67.5	-0.8 0.8 -0.5	1.2
0 0 255	30.7 69.2 -113.6	-0.3 -0.8 0.8	1.2
0 128 0	45.2 -74.1 49.6	0.3 -0.6 1.2	1.3
0 128 128	47.4 -49.9 -11.0	-0.0 0.1 -0.1	0.2
0 170 255	65.0 -31.4 -56.0	0.1 -0.0 0.3	0.3
0 255 0	85.7 -124.5 84.7	0.2 0.7 -0.6	1.0
0 255 170	87.1 -105.7 23.6	0.1 0.9 -0.4	1.0
0 255 255	88.9 -83.3 -18.3	0.1 0.8 -0.1	0.8
85 85 85	35.9 -0.3 -0.3	-0.1 0.3 0.3	0.4
128 0 0	28.7 60.3 44.3	-0.2 1.3 2.4	2.7
128 0 128	32.0 66.6 -34.1	-0.0 0.6 0.2	0.6
128 128 0	52.3 -9.7 61.0	0.1 -0.1 0.4	0.4
128 128 128	54.2 -0.3 -0.1	-0.2 0.3 0.1	0.4
128 128 255	59.3 25.1 -64.9	-0.3 1.0 -0.4	1.1
128 255 128	89.3 -81.0 48.6	0.1 0.1 -0.1	0.2
170 0 255	48.5 90.5 -82.6	-0.2 0.5 0.3	0.6
170 170 170	70.2 0.4 -0.3	-0.0 -0.4 0.3	0.5
170 255 0	90.8 -65.4 92.9	0.1 -0.1 -1.1	1.1
170 255 255	93.8 -40.2 -10.3	0.0 -0.0 -0.1	0.1
255 0 0	58.2 101.5 89.3	-0.4 0.6 -1.1	1.3
255 0 170	60.5 106.1 -13.1	-0.3 -0.0 0.4	0.5
255 0 255	63.8 111.2 -56.6	-0.3 0.2 0.3	0.5
255 128 128	71.3 65.4 28.1	-0.3 0.3 0.0	0.4
255 170 0	78.2 37.8 91.5	0.0 -0.6 -1.2	1.3
255 170 255	82.1 52.6 -27.4	-0.2 -0.3 -0.1	0.4
255 255 0	97.4 -16.0 103.5	0.0 -0.3 -1.8	1.8
255 255 170	98.5 -8.8 42.1	0.0 -0.5 -0.3	0.6
255 255 255	100.0 0.0 0.0	0.0 -0.0 -0.0	0.0
170 85 85	48.7 48.7 21.0	-0.2 0.2 0.0	0.3
85 170 85	62.1 -60.4 35.9	0.1 0.1 0.3	0.4
85 85 170	39.8 19.6 -48.8	-0.2 -0.1 0.1	0.3
85 170 170	63.9 -43.1 -10.6	0.1 0.1 0.1	0.2
170 85 170	51.3 56.7 -29.2	-0.3 -0.1 -0.1	0.3
170 170 85	68.7 -8.9 46.7	-0.0 -0.4 0.1	0.4
Average			0.7
Maximum			2.7

Gamut-Volume

These measurements are only informative.

Gamut-Volume (ISO)	98 %
sRGB	100 %
AdobeRGB	99 %
ECI-RGB v1.0	90 %

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)	Measurement (Lab)	Measurement (Yxy)	DeltaE-76
55.0 -37.0 -50.0	55.9 -28.7 -48.9	0.1819 0.2526	8.4
66.9 -24.7 -37.1	66.9 -24.6 -37.3	0.2266 0.2913	0.2
79.7 -12.5 -21.8	79.5 -12.1 -22.4	0.2852 0.3235	0.8
48.0 74.0 -3.0	48.4 73.8 -2.9	0.5085 0.2600	0.5
60.8 50.6 -6.7	61.2 50.2 -6.5	0.4296 0.2923	0.6
76.4 25.8 -6.9	76.5 25.9 -6.9	0.3756 0.3225	0.2
89.0 -5.0 93.0	88.8 -5.0 94.0	0.4608 0.4941	1.0
90.3 -4.7 62.6	90.1 -4.2 62.6	0.4316 0.4602	0.5
92.2 -3.5 31.1	92.0 -3.0 31.1	0.3904 0.4129	0.5
53.1 37.7 28.9	53.3 37.5 28.6	0.5021 0.3653	0.5
41.5 22.7 16.8	41.7 23.1 16.7	0.4604 0.3657	0.4
31.9 40.0 24.0	32.2 38.5 22.8	0.5498 0.3425	1.9
32.5 44.4 -1.8	33.0 43.4 -1.8	0.4736 0.2803	1.1
51.3 1.3 44.5	51.3 1.2 43.9	0.4492 0.4599	0.6
34.6 -36.4 13.9	34.6 -35.1 13.3	0.2751 0.4826	1.5
36.0 -26.2 -20.9	36.0 -25.4 -21.3	0.2076 0.3090	0.9
20.9 9.6 -23.6	21.8 8.6 -22.8	0.2708 0.2406	1.5
89.0 0.0 -1.8	89.1 0.3 -2.0	0.3429 0.3548	0.4
82.8 0.0 -1.7	82.6 0.3 -1.8	0.3429 0.3548	0.4
69.3 0.0 -1.4	69.4 -0.1 -1.3	0.3428 0.3558	0.2
54.1 0.0 -1.0	54.2 0.2 -1.3	0.3429 0.3548	0.4
36.6 -0.0 -0.5	36.7 -0.0 -0.3	0.3447 0.3576	0.3
16.0 0.0 0.0	17.0 -0.3 0.1	0.3446 0.3596	1.1
24.0 22.0 -46.0	24.6 21.8 -45.4	0.2262 0.1649	0.9
40.9 17.9 -36.6	41.1 17.6 -36.4	0.2755 0.2324	0.5
63.7 10.3 -23.8	63.6 10.3 -23.9	0.3109 0.2950	0.2
47.0 68.0 48.0	47.4 67.4 48.0	0.6198 0.3319	0.8
58.5 47.1 37.9	58.7 47.1 37.7	0.5292 0.3644	0.3
74.2 22.9 21.4	74.2 23.2 21.5	0.4288 0.3737	0.3
50.0 -65.0 27.0	49.8 -64.3 26.4	0.2453 0.5498	0.9
62.1 -39.8 21.0	62.1 -39.4 20.7	0.3068 0.4623	0.5
77.0 -19.1 11.0	76.8 -18.7 10.6	0.3331 0.3990	0.5
71.2 18.8 17.3	71.4 19.1 17.6	0.4163 0.3721	0.4
71.2 22.2 73.1	71.4 22.3 73.6	0.5077 0.4432	0.5
47.7 71.2 16.2	48.1 70.0 16.3	0.5569 0.2934	1.3
38.0 55.4 -20.9	38.4 54.2 -20.9	0.4178 0.2321	1.2
73.7 -22.8 67.6	73.6 -22.5 67.6	0.4126 0.5123	0.4
52.3 -52.3 -20.2	52.4 -49.0 -19.4	0.1953 0.3493	3.4
43.3 -17.0 -48.6	43.5 -16.7 -48.3	0.1784 0.2266	0.5
95.0 0.0 -2.0	94.9 -0.2 -2.2	0.3419 0.3549	0.3
88.5 -0.4 -3.1	88.3 0.2 -3.5	0.3400 0.3521	0.8
82.0 -0.9 -4.1	81.8 -0.3 -4.5	0.3370 0.3504	0.7
67.7 -2.0 -4.4	67.6 -1.9 -4.8	0.3319 0.3499	0.4
52.2 -2.5 -3.5	52.4 -3.1 -3.4	0.3297 0.3531	0.7
37.5 -3.9 -3.1	37.4 -3.8 -3.3	0.3236 0.3527	0.2

26.3 -6.8 -3.4	26.9 -7.2 -3.4	0.3058 0.3574	0.7
Average			0.9
Gamut-Volume			98 %

Measurement Data

This table lists all RGB measurements. The XYZ values represent the values from the measurement device.

RGB	XYZ	Yxy
255 255 255	112.60 118.73 128.72	118.73 0.3127 0.3298
0 0 0	0.20 0.20 0.34	0.20 0.2710 0.2722
12 12 12	0.30 0.30 0.42	0.30 0.2938 0.2967
25 25 25	0.89 0.91 1.08	0.91 0.3080 0.3163
38 38 38	1.91 2.03 2.22	2.03 0.3098 0.3298
51 51 51	3.55 3.76 4.08	3.76 0.3118 0.3298
63 63 63	5.36 5.69 6.20	5.69 0.3108 0.3298
76 76 76	8.06 8.53 9.27	8.53 0.3118 0.3298
89 89 89	11.13 11.77 12.80	11.77 0.3118 0.3298
102 102 102	15.11 15.93 17.42	15.93 0.3118 0.3287
114 114 114	19.29 20.40 22.18	20.40 0.3118 0.3298
127 127 127	24.47 25.88 28.13	25.88 0.3118 0.3298
140 140 140	30.21 31.76 34.33	31.76 0.3137 0.3298
153 153 153	36.57 38.56 41.81	38.56 0.3127 0.3298
165 165 165	43.44 45.66 49.80	45.66 0.3127 0.3287
178 178 178	51.10 53.89 58.42	53.89 0.3127 0.3298
191 191 191	59.67 62.92 68.21	62.92 0.3127 0.3298
204 204 204	68.93 72.23 78.57	72.23 0.3137 0.3287
216 216 216	78.34 82.08 90.06	82.08 0.3128 0.3277
229 229 229	88.81 93.35 101.81	93.35 0.3127 0.3287
242 242 242	100.37 105.84 114.74	105.84 0.3127 0.3298
0 0 128	5.08 2.13 26.08	2.13 0.1526 0.0638
0 0 255	22.69 9.16 118.61	9.16 0.1508 0.0609
0 128 0	5.70 17.51 2.57	17.51 0.2212 0.6791
0 128 128	10.62 19.74 27.95	19.74 0.1821 0.3385
0 170 255	32.87 42.00 121.15	42.00 0.1677 0.2143
0 255 0	25.72 80.26 10.83	80.26 0.2202 0.6871
0 255 170	34.76 84.09 58.13	84.09 0.1964 0.4752
0 255 255	47.91 89.53 127.02	89.53 0.1812 0.3385
85 85 85	10.08 10.66 11.69	10.66 0.3108 0.3287
128 0 0	14.03 6.45 0.48	6.45 0.6693 0.3079
128 0 128	18.92 8.37 25.98	8.37 0.3552 0.1571
128 128 0	19.76 23.96 2.74	23.96 0.4253 0.5157
128 128 128	24.85 26.29 28.58	26.29 0.3118 0.3298
128 128 255	42.20 33.53 119.38	33.53 0.2163 0.1719
128 255 128	44.97 88.93 36.85	88.93 0.2634 0.5208
170 0 255	48.79 21.11 118.12	21.11 0.2595 0.1123
170 170 170	46.34 48.70 53.12	48.70 0.3127 0.3287
170 255 0	52.28 92.29 11.15	92.29 0.3357 0.5927
170 255 255	74.63 101.56 127.69	101.56 0.2456 0.3342
255 0 0	64.67 29.41 1.12	29.41 0.6793 0.3089
255 0 170	73.98 33.03 49.74	33.03 0.4719 0.2107
255 0 255	87.21 38.47 119.18	38.47 0.3562 0.1571
255 128 128	75.45 49.25 29.61	49.25 0.4890 0.3192
255 170 0	75.18 62.03 5.47	62.03 0.5270 0.4347
255 170 255	97.99 71.59 122.68	71.59 0.3353 0.2450
255 255 0	90.48 109.65 11.60	109.65 0.4273 0.5179
255 255 170	99.76 113.38 59.73	113.38 0.3656 0.4155
170 85 85	30.84 20.09 12.01	20.09 0.4900 0.3192
85 170 85	18.29 36.30 15.11	36.30 0.2624 0.5208
85 85 170	17.37 13.64 49.29	13.64 0.2163 0.1698
85 170 170	25.46 39.28 52.39	39.28 0.2174 0.3354
170 85 170	38.20 23.06 49.59	23.06 0.3446 0.2080
170 170 85	39.20 45.82 15.51	45.82 0.3899 0.4558
0 145 215	22.73 29.32 83.53	29.32 0.1677 0.2163

96 172 226	35.59 44.26 94.41	44.26 0.2042 0.2540
166 202 236	59.27 67.01 105.63	67.01 0.2556 0.2889
188 55 121	38.57 19.75 24.02	19.75 0.4684 0.2399
200 115 159	50.33 34.54 43.99	34.54 0.3905 0.2681
216 173 201	69.11 60.07 74.35	60.07 0.3395 0.2951
241 225 26	76.39 86.31 9.80	86.31 0.4429 0.5004
241 228 109	80.49 89.78 27.48	89.78 0.4070 0.4540
240 233 173	87.07 95.17 59.65	95.17 0.3599 0.3935
173 105 83	33.26 24.82 12.11	24.82 0.4739 0.3536
126 87 74	17.67 14.40 9.14	14.40 0.4288 0.3494
117 54 46	13.00 8.25 3.53	8.25 0.5244 0.3330
119 51 82	14.70 8.76 10.40	8.76 0.4342 0.2588
134 120 50	21.32 22.83 5.87	22.83 0.4262 0.4565
46 93 61	5.45 9.93 6.44	9.93 0.2499 0.4550
33 94 116	7.64 10.94 22.00	10.94 0.1883 0.2695
51 50 85	4.83 4.18 11.01	4.18 0.2413 0.2090
222 223 226	84.03 88.31 98.85	88.31 0.3099 0.3256
204 205 208	69.45 72.98 81.69	72.98 0.3099 0.3256
167 168 170	44.97 47.41 52.75	47.41 0.3099 0.3267
128 128 130	25.02 26.29 29.43	26.29 0.3099 0.3256
87 87 87	10.59 11.16 12.21	11.16 0.3118 0.3287
44 44 44	2.58 2.74 2.96	2.74 0.3117 0.3308
54 50 125	7.73 5.34 24.91	5.34 0.2035 0.1407
97 89 154	17.58 14.46 39.66	14.46 0.2452 0.2017
153 148 194	40.82 38.61 67.50	38.61 0.2778 0.2628
187 61 45	34.28 18.60 3.79	18.60 0.6049 0.3283
200 111 82	43.85 30.95 12.20	30.95 0.5040 0.3558
216 168 145	61.70 55.21 38.75	55.21 0.3964 0.3547
39 138 73	9.24 21.84 10.40	21.84 0.2228 0.5265
108 164 112	23.22 36.31 23.53	36.31 0.2796 0.4371
169 197 168	49.56 60.82 53.43	60.82 0.3025 0.3713
202 163 144	54.77 50.22 37.87	50.22 0.3834 0.3515
216 161 43	54.77 49.84 7.15	49.84 0.4901 0.4460
188 59 92	36.43 19.33 13.59	19.33 0.5253 0.2788
137 54 123	21.86 12.09 24.44	12.09 0.3744 0.2071
172 189 54	41.22 54.12 10.04	54.12 0.3911 0.5136
0 142 155	14.40 24.87 41.70	24.87 0.1778 0.3072
0 109 180	14.25 16.67 55.40	16.67 0.1651 0.1931
239 240 244	98.52 103.86 116.56	103.86 0.3089 0.3256
219 221 227	82.24 86.41 99.25	86.41 0.3070 0.3225
199 203 210	67.67 71.31 83.53	71.31 0.3041 0.3205
159 164 171	41.72 44.54 53.15	44.54 0.2993 0.3195
119 125 129	22.51 24.42 28.77	24.42 0.2973 0.3226
83 90 93	10.53 11.61 13.97	11.61 0.2915 0.3216
56 67 69	5.11 6.03 7.43	6.03 0.2752 0.3248