UGRA
Display Analysis & Certification Tool
Report

Basics

Date:	2023-8-27 15:13:26
Report-Version:	v2.0.0
Monitor-Name:	\\.\DISPLAY1
EDID-Name:	BenQ SW272U
EDID-Serial:	ETA7P02465SL0
Profile:	C:/.../SW272U_Cal1_L160_5800K_Native_G180_K0_20230827.icc
Created:	2023-8-27 13:08
Measurement device:	i1Display Pro, Serial: PL-20.B-02.515716.12, Correction: White LED
Evaluation method:	UDACT v2.0

Summary

Calibration (Reference Whitepoint: 5800.00 Kelvin)

White Point	yes
Gray balance	yes
Tone values	yes
Profile quality	yes
Gamut ability	yes

Softproof quality (depends on the calibration verification)

ISO Coated v2 (FOGRA39L)	yes
sRGB	yes
AdobeRGB	yes
ECI-RGB v2.0	yes

The monitor has passed the certification according to the UDACT v2.0 specifications.

Diagram

White-Point

Gray Balance

Tone values

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 2.0 dE00.

XYZ (measured):	153.54 161.65 154.57
XYZ (normalized):	94.98 100.00 95.62
xy:	0.3268 0.3441
Luminance:	161.7 Cd/m2
Next Temperature:	5746 Kelvin
Reference Whitepoint:	5800.0 Kelvin
Deviation XYZ to Reference Whitepoint:	1.6 dE00
	1.5 dE76

Blackpoint

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

Luminance:	0.3 Cd/m2
Chromaticity:	2.2 Chroma (Lab)

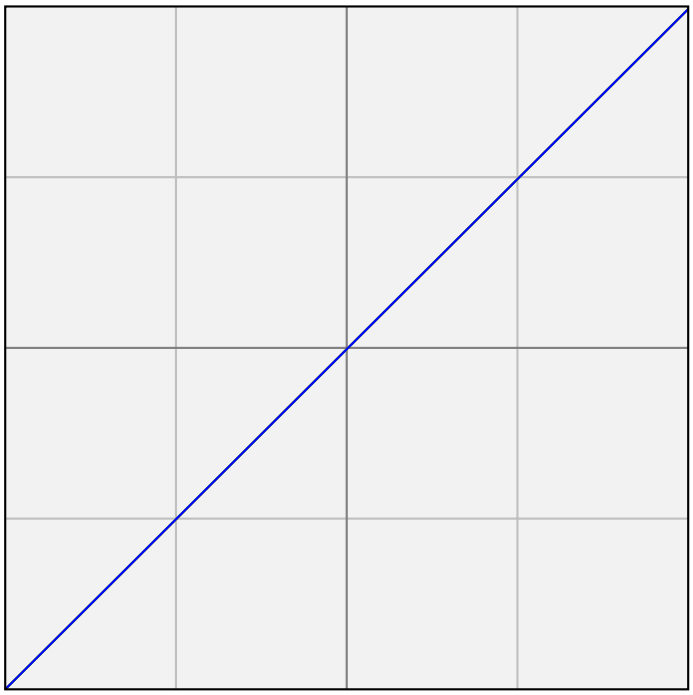
Gray balance

Average and maximum calculation will respect measurements with 1% minimum luminance only. The L-deviation shows the difference between the profile and measurement value.
The maximum allowed deviations to comply with this test are an average of 1.0 DeltaC, a range of 2.0 DeltaC. A maximum L-deviation of 2.3 dL00 in the luminance range of 20%-100% shall not be exceeded.

%	Kelvin	Cd/m2	L	Chroma	Gamma	Delta-L
0	14647	0.29	1.63	2.24		
5	6965	0.88	4.91	1.81	1.88	+1.2
10	5729	2.48	12.82	0.05	1.88	+0.0
15	5769	5.29	21.12	0.13	1.84	+0.1
20	5731	9.03	28.34	0.07	1.82	+0.2
25	5686	13.35	34.51	0.28	1.82	+0.4
30	5721	18.56	40.38	0.14	1.81	+0.3
35	5750	24.62	45.95	0.08	1.80	+0.3
40	5762	31.51	51.26	0.10	1.79	+0.3
45	5755	38.51	55.91	0.23	1.81	+0.4
50	5760	46.49	60.57	0.10	1.81	+0.2
55	5729	55.19	65.07	0.23	1.80	+0.1
60	5734	64.85	69.55	0.25	1.79	+0.2
65	5747	74.14	73.46	0.12	1.81	+0.1
70	5740	84.26	77.36	0.12	1.83	-0.1
75	5763	96.47	81.66	0.30	1.80	+0.1
80	5749	108.17	85.46	0.13	1.81	+0.0
85	5734	119.39	88.86	0.12	1.87	-0.1
90	5725	132.15	92.46	0.22	1.92	-0.3
95	5723	146.39	96.23	0.24	1.96	-0.2
100	5746	161.65	100.00	0.00		
Average	5739			0.16	1.84	0.2
Max				0.30		0.4
Range				0.55		

Tone values

This tests checks the calibration curves (vcgt) 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 = 99.6%

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 2.0 dE00 and a maximum of 4.0 dE00.

The Lab values are calculated, based on the measured white point (xy: 0.3268 0.3441).

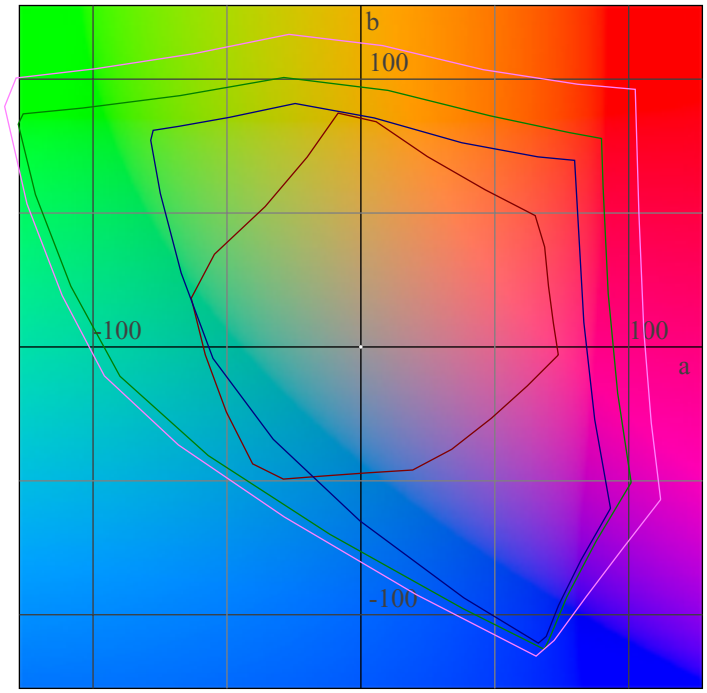
The assumed chromatic adaptation is: CAT02

RGB	Lab	deltaLab	dE76	dE00
0 0 0	1.6 -0.0 -2.3	-1.6 0.0 2.3	2.8	2.4
0 0 128	15.0 41.6 -75.0	-0.5 3.1 -2.3	3.9	1.0
0 0 255	29.9 66.3 -116.0	0.1 1.4 -0.9	1.7	0.4
0 128 0	50.0 -88.2 62.8	0.9 -1.0 3.5	3.8	1.2
0 128 128	52.6 -60.3 -13.3	0.3 0.5 0.0	0.6	0.3
0 170 255	67.7 -46.0 -52.9	0.4 0.7 0.0	0.8	0.4
0 255 0	84.5 -135.8 99.2	0.6 0.8 1.0	1.5	0.5
0 255 170	86.2 -112.4 17.5	0.4 1.3 -0.0	1.3	0.3
0 255 255	87.8 -91.9 -20.1	0.3 1.3 0.0	1.4	0.4
85 85 85	44.3 0.1 -0.1	-0.3 -0.1 0.1	0.3	0.3
128 0 0	33.5 67.6 52.3	0.4 0.9 4.4	4.5	1.7
128 0 128	37.4 73.7 -37.5	0.1 0.5 -0.3	0.6	0.1
128 128 0	58.6 -10.1 77.1	0.4 -0.4 2.1	2.2	0.6
128 128 128	60.9 -0.1 -0.1	-0.2 0.1 0.1	0.2	0.2
128 128 255	64.8 19.9 -57.9	-0.3 0.6 -0.7	1.0	0.3
128 255 128	89.8 -74.5 44.2	0.1 -0.3 0.8	0.8	0.2
170 0 255	51.1 94.4 -80.1	0.2 0.1 -0.3	0.3	0.2
170 170 170	75.0 0.1 -0.1	-0.0 -0.1 0.1	0.1	0.1
170 255 0	91.1 -60.7 110.2	0.4 0.2 0.1	0.4	0.2
170 255 255	94.2 -36.8 -9.8	0.0 -0.1 -0.1	0.1	0.0
255 0 0	59.2 104.0 95.5	0.3 -0.4 1.0	1.1	0.5
255 0 170	62.0 108.5 -19.4	0.2 -0.5 -0.2	0.5	0.2
255 0 255	64.6 112.9 -57.1	0.2 -0.6 -0.2	0.6	0.2
255 128 128	75.3 58.8 24.0	-0.2 0.2 0.5	0.5	0.3
255 170 0	81.1 32.0 107.4	0.4 -0.9 -0.2	1.0	0.5
255 170 255	85.0 45.6 -24.1	-0.1 0.2 -0.2	0.3	0.1
255 255 0	97.2 -15.5 120.5	0.3 -0.4 -0.6	0.8	0.3
255 255 170	98.7 -7.7 37.5	0.1 -0.2 0.5	0.6	0.2
255 255 255	100.0 -0.0 0.0	0.0 -0.0 -0.0	0.0	0.0
170 85 85	55.5 46.3 18.9	-0.1 0.2 0.4	0.4	0.2
85 170 85	66.8 -58.3 34.7	0.1 -0.6 0.7	0.9	0.3
85 85 170	47.3 15.7 -45.5	-0.3 0.5 -0.7	0.9	0.4
85 170 170	68.5 -43.1 -10.9	0.0 -0.2 0.0	0.2	0.1
170 85 170	57.7 53.2 -27.8	-0.2 0.5 -0.3	0.6	0.2
170 170 85	73.5 -8.4 45.8	0.1 -0.3 0.7	0.8	0.3
Average			1.1	0.4
Maximum			4.5	2.4

Gamut-Volume

These measurements are only informative.

ISO Coated v2 (FOGRA39L)	100 %
sRGB	100 %
AdobeRGB	100 %
ECI-RGB v2.0	97 %



AdobeRGB
sRGB
ISO Coated v2 (FOGRA39L)
Monitor

Softproof Quality

The measurements are converted to Lab values based on the measured whitepoint (xy: 0.3268 0.3441) and compared with the selected reference.The maximum allowed deviations to comply with this test are an average of 2.0 dE00 and a minimum Gamut volume of 90% for ISO Coated v2 (FOGRA39L).

		Limit	dE00
Average		2.0	0.4
Maximum		4.0	1.7
Primaries		5.0	0.7
Composite Gray Max		3.0	0.7

Reference (Lab)	Measurement (Lab)	Measurement (Yxy)	dE76	dE00
55.0 -37.0 -50.0	55.1 -35.5 -49.0	23.05 0.1697 0.2547	1.8	0.5
66.9 -24.7 -37.1	67.1 -25.7 -36.2	36.79 0.2275 0.2948	1.3	0.7
79.7 -12.5 -21.8	79.9 -12.5 -20.9	56.55 0.2876 0.3270	0.9	0.4
87.7 -5.8 -11.8	87.5 -6.0 -11.2	71.12 0.3176 0.3430	0.7	0.5
91.5 -3.0 -7.0	91.2 -2.7 -7.1	78.81 0.3300 0.3483	0.4	0.4
48.0 74.0 -3.0	48.1 74.1 -3.5	16.85 0.5081 0.2582	0.5	0.2
60.8 50.6 -6.7	61.0 49.9 -6.6	29.23 0.4289 0.2922	0.7	0.2
76.4 25.8 -6.9	76.7 25.0 -6.8	51.01 0.3743 0.3235	0.8	0.4
86.2 12.0 -5.2	86.2 11.4 -5.0	68.41 0.3544 0.3404	0.6	0.5
90.7 5.9 -3.9	90.4 5.7 -3.6	77.27 0.3480 0.3479	0.4	0.4
89.0 -5.0 93.0	88.6 -4.5 93.1	73.31 0.4612 0.4929	0.7	0.4
90.3 -4.7 62.6	90.1 -4.0 61.2	76.58 0.4302 0.4582	1.6	0.5
92.2 -3.5 31.1	91.9 -3.2 30.2	80.55 0.3887 0.4116	1.0	0.5
93.6 -1.6 13.3	93.4 -1.3 12.8	83.89 0.3643 0.3810	0.6	0.5
94.3 -0.9 5.4	94.1 -0.6 5.4	85.47 0.3535 0.3680	0.4	0.5
89.0 0.0 -1.8	88.8 -0.0 -1.7	73.84 0.3428 0.3556	0.2	0.2
82.8 0.0 -1.7	82.9 -0.3 -1.8	61.89 0.3420 0.3555	0.3	0.5
69.3 0.0 -1.4	69.5 -0.1 -1.3	40.10 0.3429 0.3558	0.3	0.2
54.1 0.0 -1.0	54.4 0.2 -1.2	22.39 0.3431 0.3553	0.4	0.4
36.6 -0.0 -0.5	36.8 0.4 -0.6	9.44 0.3450 0.3559	0.4	0.6
16.0 0.0 0.0	16.0 -0.1 0.3	2.09 0.3466 0.3605	0.3	0.3
10.4 13.9 1.4	11.0 12.1 0.7	1.27 0.4206 0.3243	2.0	1.5
33.4 25.4 20.9	33.5 25.1 21.4	7.76 0.5001 0.3713	0.6	0.4
34.4 -3.3 22.3	34.8 -3.3 22.7	8.39 0.4083 0.4434	0.5	0.4
24.0 22.0 -46.0	24.0 22.0 -46.0	4.11 0.2228 0.1612	0.1	0.0
40.9 17.9 -36.6	41.2 17.7 -36.3	12.00 0.2761 0.2327	0.5	0.3
63.7 10.3 -23.8	63.9 10.5 -23.1	32.71 0.3132 0.2969	0.7	0.6
79.4 5.1 -13.6	79.3 5.2 -13.6	55.50 0.3284 0.3280	0.1	0.1
87.2 2.6 -8.1	87.1 2.4 -7.8	70.14 0.3358 0.3427	0.4	0.4
47.0 68.0 48.0	47.0 68.1 49.1	15.99 0.6244 0.3308	1.1	0.4
58.5 47.1 37.9	58.5 46.9 37.5	26.50 0.5289 0.3643	0.4	0.2
74.2 22.9 21.4	74.4 22.3 21.3	47.31 0.4266 0.3744	0.7	0.4
85.0 10.0 9.8	85.0 9.6 9.7	66.02 0.3779 0.3671	0.4	0.4
90.0 4.7 3.7	89.8 4.9 3.3	75.82 0.3586 0.3601	0.5	0.5
50.0 -65.0 27.0	50.1 -66.3 27.2	18.50 0.2421 0.5556	1.3	0.3
62.1 -39.8 21.0	62.3 -39.7 20.8	30.73 0.3064 0.4625	0.3	0.2
77.0 -19.1 11.0	77.0 -18.1 10.5	51.53 0.3340 0.3980	1.1	0.6
86.3 -8.4 4.2	86.3 -8.4 4.2	68.64 0.3400 0.3735	0.1	0.0
90.8 -4.1 0.9	90.6 -4.4 1.1	77.61 0.3409 0.3640	0.4	0.4
88.5 -0.4 -3.1	88.5 -0.7 -2.8	73.11 0.3398 0.3542	0.5	0.6

82.0 -0.9 -4.1	82.1 -1.4 -4.0	60.53 0.3364 0.3522	0.5	0.7
67.7 -2.0 -4.4	67.8 -2.0 -4.6	37.74 0.3321 0.3503	0.3	0.3
52.2 -2.5 -3.5	52.4 -2.3 -3.8	20.54 0.3305 0.3510	0.4	0.4
37.5 -3.9 -3.1	37.8 -4.2 -2.6	10.00 0.3248 0.3560	0.7	0.7
26.3 -6.8 -3.4	26.6 -7.3 -2.9	4.95 0.3073 0.3597	0.8	0.7
10.4 -8.2 -10.2	10.8 -8.3 -9.1	1.24 0.2417 0.3137	1.2	0.9
24.3 32.7 13.1	24.4 33.5 13.7	4.22 0.5335 0.3265	1.0	0.4
24.7 -17.0 7.5	24.6 -17.5 7.5	4.28 0.3072 0.4368	0.5	0.3
23.0 0.0 0.0	22.9 -0.0 -0.1	3.76 0.3450 0.3580	0.2	0.2
38.5 6.6 3.9	38.9 6.5 4.4	10.58 0.3788 0.3621	0.6	0.5
61.5 5.4 3.8	61.9 5.0 3.8	30.23 0.3645 0.3617	0.6	0.6
78.1 2.9 0.9	77.9 3.1 0.8	53.06 0.3525 0.3573	0.3	0.3
86.6 1.5 -0.7	86.5 1.0 -0.6	69.06 0.3462 0.3566	0.4	0.6
53.1 37.7 28.9	53.3 37.6 28.9	21.31 0.5032 0.3656	0.2	0.2
41.5 22.7 16.8	41.6 22.9 17.0	12.26 0.4609 0.3670	0.3	0.2
31.9 40.0 24.0	32.0 39.9 25.0	7.06 0.5613 0.3428	1.0	0.6
32.5 44.4 -1.8	32.7 44.9 -1.9	7.42 0.4779 0.2772	0.5	0.2
51.3 1.3 44.5	51.4 1.4 44.5	19.64 0.4503 0.4603	0.2	0.2
34.6 -36.4 13.9	34.7 -37.5 14.0	8.35 0.2690 0.4911	1.1	0.4
36.0 -26.2 -20.9	36.3 -27.1 -20.8	9.15 0.2056 0.3132	1.0	0.5
20.9 9.6 -23.6	21.0 9.4 -23.4	3.25 0.2697 0.2354	0.3	0.2
71.2 18.8 17.3	71.2 19.1 16.7	42.52 0.4146 0.3707	0.6	0.4
71.2 22.2 73.1	71.1 22.0 73.2	42.29 0.5074 0.4434	0.2	0.2
47.7 71.2 16.2	47.8 71.2 15.8	16.61 0.5591 0.2904	0.5	0.2
38.0 55.4 -20.9	38.2 55.3 -20.8	10.22 0.4212 0.2311	0.3	0.2
73.7 -22.8 67.6	73.4 -21.6 67.5	45.81 0.4142 0.5109	1.2	0.6
52.3 -52.3 -20.2	52.2 -52.9 -20.1	20.29 0.1861 0.3501	0.6	0.3
43.3 -17.0 -48.6	43.6 -18.5 -48.2	13.56 0.1756 0.2279	1.6	0.8
95.0 0.0 -2.0	94.8 0.1 -1.7	87.17 0.3432 0.3557	0.4	0.4
15.7 -3.1 11.7	15.6 -2.0 9.6	2.02 0.3870 0.4199	2.3	1.7
34.7 28.5 -4.0	35.0 28.8 -3.8	8.51 0.4186 0.3000	0.5	0.3
25.8 -11.0 -14.4	26.0 -11.3 -14.6	4.73 0.2465 0.3099	0.3	0.2
Average			0.7	0.4
Gamut-Volume				100 %

Measurement Data

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

RGB	XYZ	Yxy
255 255 255	153.54 161.65 154.57	161.65 0.3268 0.3441
0 0 0	0.28 0.29 0.50	0.29 0.2616 0.2719
12 12 12	0.84 0.88 1.02	0.88 0.3060 0.3212
25 25 25	2.36 2.48 2.37	2.48 0.3272 0.3442
38 38 38	5.02 5.29 5.06	5.29 0.3263 0.3444
51 51 51	8.57 9.03 8.61	9.03 0.3272 0.3444
63 63 63	12.71 13.35 12.66	13.35 0.3282 0.3447
76 76 76	17.65 18.56 17.71	18.56 0.3274 0.3442
89 89 89	23.40 24.62 23.58	24.62 0.3268 0.3438
102 102 102	29.91 31.51 30.19	31.51 0.3265 0.3440
114 114 114	36.50 38.51 36.74	38.51 0.3266 0.3446
127 127 127	44.14 46.49 44.54	46.49 0.3265 0.3439
140 140 140	52.52 55.19 52.79	55.19 0.3272 0.3439
153 153 153	61.72 64.85 62.10	64.85 0.3271 0.3437
165 165 165	70.47 74.14 71.01	74.14 0.3268 0.3439
178 178 178	80.10 84.26 80.61	84.26 0.3270 0.3440
191 191 191	91.43 96.47 92.18	96.47 0.3265 0.3444
204 204 204	102.66 108.17 103.33	108.17 0.3268 0.3443
216 216 216	113.44 119.39 113.96	119.39 0.3271 0.3443
229 229 229	125.65 132.15 126.08	132.15 0.3273 0.3442
242 242 242	139.13 146.39 139.51	146.39 0.3273 0.3444
0 0 128	7.66 3.46 40.77	3.46 0.1477 0.0667
0 0 255	26.46 11.41 143.30	11.41 0.1460 0.0630
0 128 0	8.68 29.69 2.62	29.69 0.2117 0.7244
0 128 128	16.47 33.76 43.93	33.76 0.1749 0.3585
0 170 255	41.16 62.12 148.12	62.12 0.1637 0.2471
0 255 0	30.16 104.94 8.06	104.94 0.2107 0.7330
0 255 170	43.10 111.13 77.29	111.13 0.1862 0.4800
0 255 255	56.94 117.21 152.45	117.21 0.1744 0.3589
85 85 85	21.54 22.65 21.70	22.65 0.3268 0.3438
128 0 0	26.78 12.21 0.59	12.21 0.6766 0.3086
128 0 128	35.03 15.76 41.90	15.76 0.3779 0.1701
128 128 0	36.10 42.68 2.77	42.68 0.4427 0.5234
128 128 128	44.73 47.11 45.16	47.11 0.3265 0.3439
128 128 255	63.96 55.54 147.86	55.54 0.2392 0.2077
128 255 128	66.65 122.46 51.12	122.46 0.2774 0.5098
170 0 255	72.35 32.05 144.72	32.05 0.2904 0.1287
170 170 170	74.08 77.95 74.68	77.95 0.3267 0.3438
170 255 0	76.10 126.35 8.27	126.35 0.3611 0.5996
170 255 255	104.14 139.11 153.94	139.11 0.2622 0.3502
255 0 0	94.72 42.77 0.82	42.77 0.6849 0.3092
255 0 170	108.08 48.50 70.30	48.50 0.4764 0.2138
255 0 255	122.01 54.37 145.38	54.37 0.3792 0.1690
255 128 128	112.61 77.98 46.04	77.98 0.4759 0.3296
255 170 0	109.75 93.62 4.47	93.62 0.5281 0.4504
255 170 255	137.64 106.69 150.37	106.69 0.3487 0.2703
255 255 0	125.73 148.91 8.46	148.91 0.4441 0.5260
255 255 170	139.55 155.48 79.73	155.48 0.3724 0.4149
170 85 85	54.11 37.40 21.99	37.40 0.4767 0.3295
85 170 85	32.01 58.82 24.49	58.82 0.2776 0.5101
85 85 170	30.78 26.71 71.32	26.71 0.2390 0.2074

85 170 170	41.26 62.94 74.17	62.94 0.2313 0.3529
170 85 170	63.43 41.51 71.72	41.51 0.3591 0.2350
170 170 85	64.70 73.75 24.80	73.75 0.3963 0.4517
0 128 203	26.35 38.13 97.41	38.13 0.1628 0.2355
86 158 217	46.89 60.27 111.51	60.27 0.2144 0.2756
155 192 230	80.35 91.96 124.79	91.96 0.2704 0.3095
196 215 236	105.51 115.28 131.78	115.28 0.2993 0.3270
216 226 240	119.33 127.60 136.35	127.60 0.3113 0.3329
171 39 101	52.64 26.88 28.58	26.88 0.4870 0.2486
185 96 141	68.33 47.00 52.30	47.00 0.4076 0.2804
206 159 189	94.14 82.35 89.26	82.35 0.3542 0.3099
221 199 218	113.60 110.57 114.92	110.57 0.3350 0.3261
228 218 230	123.26 124.93 126.54	124.93 0.3289 0.3334
235 218 46	106.35 117.39 13.12	117.39 0.4490 0.4956
236 223 101	112.10 122.86 35.19	122.86 0.4150 0.4548
235 229 163	119.68 129.66 73.37	129.66 0.3709 0.4018
236 233 204	127.02 135.34 105.17	135.34 0.3456 0.3682
236 235 223	130.44 138.04 121.25	138.04 0.3347 0.3542
215 216 220	113.45 119.40 117.33	119.40 0.3240 0.3410
194 195 199	94.90 100.08 98.67	100.08 0.3232 0.3408
152 153 155	61.57 64.83 63.62	64.83 0.3240 0.3412
110 110 112	34.46 36.20 35.61	36.20 0.3243 0.3407
68 68 69	14.58 15.27 14.87	15.27 0.3261 0.3414
30 30 30	3.20 3.38 3.18	3.38 0.3278 0.3462
30 18 21	2.61 2.04 1.87	2.04 0.4004 0.3128
87 50 37	16.39 12.39 5.06	12.39 0.4844 0.3661
66 65 37	12.08 13.48 5.28	13.48 0.3917 0.4370
40 35 104	9.69 6.87 29.36	6.87 0.2110 0.1497
79 70 135	23.48 19.67 47.39	19.67 0.2593 0.2173
138 131 180	55.77 53.15 80.38	53.15 0.2946 0.2808
184 181 212	89.13 89.93 108.89	89.93 0.3095 0.3123
209 208 227	109.85 113.52 123.23	113.52 0.3169 0.3275
169 44 33	47.26 25.27 4.15	25.27 0.6164 0.3296
184 92 66	60.31 42.23 14.65	42.23 0.5146 0.3604
205 154 129	84.96 75.98 47.18	75.98 0.4082 0.3651
221 196 183	107.70 106.44 85.97	106.44 0.3589 0.3547
228 216 212	120.02 122.44 110.96	122.44 0.3396 0.3464
34 121 59	12.50 29.94 12.66	29.94 0.2269 0.5434
92 149 96	32.00 49.67 28.82	49.67 0.2897 0.4495
156 186 155	68.53 83.27 65.04	83.27 0.3160 0.3840
197 212 198	99.34 110.95 98.67	110.95 0.3215 0.3591
216 225 220	115.72 125.49 117.88	125.49 0.3223 0.3495
212 215 221	111.85 118.25 118.30	118.25 0.3210 0.3394
189 193 201	92.25 97.94 100.26	97.94 0.3176 0.3372
143 149 156	57.16 61.09 64.10	61.09 0.3135 0.3350
101 106 111	30.89 33.25 34.93	33.25 0.3118 0.3356
65 72 74	14.57 16.19 16.79	16.19 0.3064 0.3404
41 50 51	6.76 8.02 8.57	8.02 0.2895 0.3433
13 24 31	1.56 2.02 3.29	2.02 0.2274 0.2945
71 29 31	10.86 6.73 3.41	6.73 0.5173 0.3204
33 49 36	4.76 6.93 4.71	6.93 0.2902 0.4226
41 41 41	5.78 6.08 5.85	6.08 0.3262 0.3435
80 70 67	17.54 17.05 14.19	17.05 0.3596 0.3496
138 128 124	48.37 48.79 42.90	48.79 0.3454 0.3484
184 178 178	83.30 85.73 80.75	85.73 0.3335 0.3432
209 207 209	106.80 111.63 107.86	111.63 0.3273 0.3421

155 86 66	46.05 34.03 14.40	34.03 0.4874 0.3602
105 68 57	24.24 19.65 10.81	19.65 0.4432 0.3592
96 38 32	18.14 11.23 3.73	11.23 0.5481 0.3392
98 36 63	20.31 11.87 12.29	11.87 0.4567 0.2670
115 102 41	29.93 31.48 7.22	31.48 0.4361 0.4587
34 75 46	7.17 13.51 7.65	13.51 0.2532 0.4768
28 76 96	9.96 15.00 26.30	15.00 0.1943 0.2926
37 35 65	6.14 5.33 12.77	5.33 0.2534 0.2198
189 147 128	75.08 68.36 46.21	68.36 0.3959 0.3605
203 145 42	75.30 67.53 8.97	67.53 0.4960 0.4449
171 42 73	50.42 26.37 16.17	26.37 0.5423 0.2837
117 38 102	29.93 16.47 28.80	16.47 0.3980 0.2191
157 177 52	57.55 73.54 12.76	73.54 0.4000 0.5112
15 124 138	17.85 33.22 50.30	33.22 0.1761 0.3277
22 91 163	17.99 22.51 66.36	22.51 0.1684 0.2106
236 237 241	134.04 140.95 138.31	140.95 0.3243 0.3410
30 30 19	2.93 3.25 1.75	3.25 0.3693 0.4104
89 51 70	18.91 13.70 14.96	13.70 0.3976 0.2880
32 50 64	6.16 7.73 12.68	7.73 0.2319 0.2910