

UGRA

Display Analysis & Certification Tool

Report

Basics

Date: 2022-11-25 08:39:22
Report-Version: v2.0.0
Monitor-Name: \\.\DISPLAY1
EDID-Name: BenQ PD3420Q
EDID-Serial: ETV6N05438SL0
Profile: C:/.../BenQ_PD3420Q-2022-11-25T083317-5800K-18-100%-trc.icm
Created: 2022-11-25 8:33
Measurement device: i1Pro, Rev. 3, Serial: 1107951
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	no

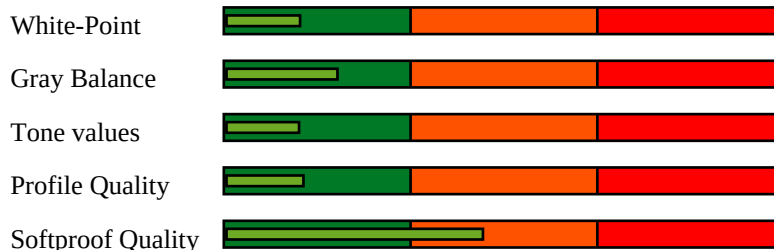


The monitor has
not passed the certification
according to the UDACT v2.0
specifications.

Softproof quality (depends on the calibration verification)

ISO Coated v2 (FOGRA39L)	no
sRGB	no
AdobeRGB	no
ECI-RGB v2.0	no

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 2.0 dE00.

XYZ (measured):	153.45 161.15 155.57
XYZ (normalized):	95.22 100.00 96.54
xy:	0.3264 0.3427
Luminance:	161.2 Cd/m2
Next Temperature:	5769 Kelvin
Reference Whitepoint:	5800.0 Kelvin
Deviation XYZ to Reference Whitepoint:	0.8 dE00
	0.7 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:	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 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	9714	0.26	1.44	1.47		
5	6081	0.73	4.09	1.72	1.94	+0.4
10	5892	2.62	13.39	0.42	1.84	+0.6
15	5788	5.29	21.13	0.07	1.83	+0.1
20	5616	8.94	28.23	0.62	1.82	+0.1
25	5900	12.89	33.98	0.61	1.83	-0.1
30	5770	18.20	40.07	0.50	1.82	-0.0
35	5836	23.95	45.44	0.46	1.82	-0.2
40	5780	30.89	50.88	0.42	1.81	-0.0
45	5743	37.73	55.49	0.30	1.83	-0.1
50	5755	45.55	60.13	0.39	1.83	-0.2
55	5783	54.56	64.85	0.21	1.82	-0.1
60	5779	64.01	69.27	0.18	1.81	-0.1
65	5755	73.46	73.27	0.27	1.83	-0.1
70	5754	83.69	77.24	0.85	1.83	-0.2
75	5779	95.29	81.36	0.61	1.82	-0.2
80	5785	107.31	85.30	0.57	1.81	-0.2
85	5778	119.50	89.00	0.48	1.83	-0.0
90	5781	132.64	92.71	0.51	1.83	-0.0
95	5774	146.16	96.28	0.57	1.85	-0.1
100	5769	161.15	100.00	0.00		
Average	5773			0.44	1.83	0.1
Max				0.85		0.2
Range				1.20		

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 = 98.0%

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 2.0 dE00 and a maximum of 4.0 dE00.

The Lab values are calculated, based on the measured white point (xy: 0.3264 0.3427).

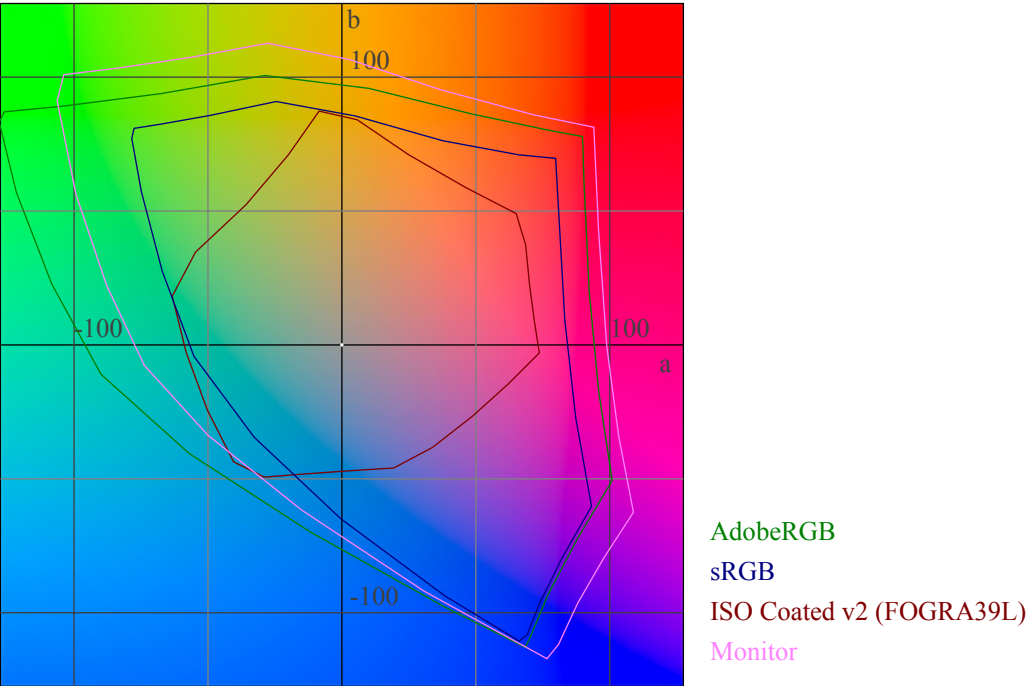
The assumed chromatic adaptation is: Bradford

RGB	Lab	deltaLab	dE76	dE00
0 0 0	1.4 0.3 -1.4	-1.4 -0.3 1.4	2.0	1.7
0 0 128	13.8 49.9 -76.8	-0.3 2.4 -1.6	2.9	0.7
0 0 255	28.6 78.3 -118.3	-0.1 0.7 -0.4	0.8	0.2
0 128 0	51.8 -70.6 64.7	0.4 -0.8 2.0	2.2	0.6
0 128 128	54.1 -46.4 -9.9	-0.1 0.8 -1.2	1.5	0.8
0 170 255	69.3 -30.6 -50.1	-0.1 0.6 -0.5	0.8	0.3
0 255 0	87.0 -108.1 100.8	0.1 0.2 0.1	0.3	0.1
0 255 170	88.5 -88.3 21.5	-0.0 0.8 -0.9	1.1	0.3
0 255 255	89.9 -69.8 -16.4	-0.0 0.7 -0.4	0.9	0.3
85 85 85	44.0 0.5 -0.3	0.0 -0.5 0.3	0.6	0.8
128 0 0	31.5 62.1 48.3	0.1 0.8 1.9	2.1	0.7
128 0 128	35.0 71.5 -41.8	0.2 0.7 0.3	0.8	0.3
128 128 0	58.9 -11.1 74.7	0.4 -1.0 1.3	1.7	0.7
128 128 128	60.8 -0.3 0.2	-0.1 0.3 -0.2	0.4	0.5
128 128 255	64.4 22.9 -58.2	-0.3 0.9 -0.4	1.0	0.5
128 255 128	91.2 -63.5 46.9	-0.0 -0.1 -0.3	0.3	0.1
170 0 255	48.4 95.1 -84.9	0.2 0.2 0.4	0.5	0.2
170 170 170	74.9 0.1 -0.2	0.1 -0.1 0.2	0.2	0.3
170 255 0	92.4 -54.4 108.7	0.1 -0.4 -0.6	0.7	0.2
170 255 255	95.0 -29.8 -8.2	-0.1 0.1 -0.2	0.2	0.1
255 0 0	56.2 95.4 82.9	-0.0 -0.2 -1.4	1.4	0.4
255 0 170	58.9 102.6 -26.2	-0.1 -0.2 0.7	0.8	0.2
255 0 255	61.4 109.6 -63.1	-0.0 -0.3 0.3	0.5	0.1
255 128 128	73.6 51.7 20.4	-0.1 -0.2 0.7	0.7	0.4
255 170 0	80.3 24.8 100.2	0.4 -1.3 -0.3	1.4	0.7
255 170 255	83.8 42.2 -26.2	-0.1 -0.0 0.1	0.1	0.1
255 255 0	97.6 -18.1 116.1	0.2 -0.4 -1.1	1.1	0.3
255 255 170	98.9 -9.1 37.0	-0.0 -0.1 0.6	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	54.0 40.9 16.1	0.1 -0.4 0.5	0.6	0.4
85 170 85	67.9 -49.5 36.6	0.1 -0.5 0.2	0.6	0.2
85 85 170	46.7 18.6 -46.2	-0.1 0.1 -0.0	0.2	0.1
85 170 170	69.4 -34.1 -9.1	-0.0 -0.2 -0.0	0.2	0.1
170 85 170	56.1 50.3 -30.6	-0.0 0.1 0.3	0.3	0.1
170 170 85	73.6 -9.6 45.5	0.1 -0.4 0.3	0.6	0.3
Average			0.9	0.4
Maximum			2.9	1.7

Gamut-Volume

These measurements are only informative.

ISO Coated v2 (FOGRA39L)	96 %
sRGB	100 %
AdobeRGB	91 %
ECI-RGB v2.0	84 %



Softproof Quality

The measurements are converted to Lab values based on the measured whitepoint (xy: 0.3264 0.3427) 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	0.7
Maximum		4.0	5.5
Primaries		5.0	5.5
Composite Gray Max		3.0	0.8

Reference (Lab)	Measurement (Lab)	Measurement (Yxy)	dE76	dE00
55.0 -37.0 -50.0	57.1 -23.7 -46.2	25.01 0.1972 0.2585	14.0	5.5
66.9 -24.7 -37.1	67.0 -24.9 -37.3	36.66 0.2265 0.2917	0.3	0.2
79.7 -12.5 -21.8	79.5 -12.0 -22.4	55.78 0.2853 0.3235	0.8	0.5
87.7 -5.8 -11.8	87.7 -5.9 -11.9	71.54 0.3165 0.3417	0.2	0.2
91.5 -3.0 -7.0	91.5 -2.8 -7.2	79.55 0.3297 0.3481	0.4	0.4
48.0 74.0 -3.0	47.9 74.1 -4.1	16.73 0.5064 0.2571	1.1	0.4
60.8 50.6 -6.7	60.8 50.9 -7.1	29.05 0.4296 0.2902	0.5	0.2
76.4 25.8 -6.9	76.5 25.7 -7.3	50.72 0.3744 0.3219	0.4	0.3
86.2 12.0 -5.2	86.0 13.1 -6.3	67.92 0.3546 0.3368	1.5	1.1
90.7 5.9 -3.9	90.6 6.1 -4.3	77.59 0.3474 0.3463	0.5	0.4
89.0 -5.0 93.0	88.8 -4.5 93.3	73.76 0.4612 0.4928	0.6	0.3
90.3 -4.7 62.6	90.3 -4.0 62.0	76.85 0.4312 0.4591	0.9	0.5
92.2 -3.5 31.1	92.1 -3.2 30.8	81.03 0.3897 0.4125	0.4	0.3
93.6 -1.6 13.3	93.5 -1.3 12.9	84.12 0.3645 0.3811	0.5	0.5
94.3 -0.9 5.4	94.4 -0.9 4.9	86.16 0.3522 0.3674	0.5	0.4
89.0 0.0 -1.8	89.0 0.5 -2.3	74.25 0.3425 0.3541	0.7	0.8
82.8 0.0 -1.7	82.6 0.5 -2.3	61.33 0.3425 0.3539	0.8	0.9
69.3 0.0 -1.4	69.3 0.0 -1.4	39.74 0.3429 0.3555	0.1	0.1
54.1 0.0 -1.0	54.1 0.2 -1.0	22.04 0.3437 0.3558	0.2	0.3
36.6 -0.0 -0.5	36.5 0.7 -1.0	9.29 0.3441 0.3538	0.9	1.1
16.0 0.0 0.0	16.1 0.3 -0.2	2.11 0.3457 0.3566	0.3	0.4
10.4 13.9 1.4	10.3 14.6 -1.5	1.17 0.4211 0.3035	2.9	2.1
33.4 25.4 20.9	33.3 25.6 20.3	7.67 0.4987 0.3676	0.6	0.5
34.4 -3.3 22.3	34.3 -2.5 22.3	8.14 0.4104 0.4405	0.8	0.8
24.0 22.0 -46.0	24.2 21.4 -46.0	4.17 0.2220 0.1623	0.6	0.4
40.9 17.9 -36.6	40.7 17.8 -36.7	11.71 0.2745 0.2306	0.2	0.2
63.7 10.3 -23.8	63.9 9.7 -23.7	32.64 0.3105 0.2963	0.7	0.5
79.4 5.1 -13.6	79.4 5.0 -13.6	55.61 0.3281 0.3283	0.2	0.2
87.2 2.6 -8.1	87.0 3.2 -8.8	70.05 0.3353 0.3404	0.8	0.8
47.0 68.0 48.0	46.7 67.8 48.6	15.83 0.6238 0.3307	0.7	0.4
58.5 47.1 37.9	58.3 47.6 37.3	26.31 0.5304 0.3630	0.8	0.5
74.2 22.9 21.4	74.1 23.6 20.7	46.81 0.4282 0.3719	1.0	0.8
85.0 10.0 9.8	84.9 10.4 9.3	65.85 0.3786 0.3657	0.7	0.6
90.0 4.7 3.7	89.9 4.8 3.3	76.18 0.3584 0.3603	0.4	0.4
50.0 -65.0 27.0	50.2 -61.0 28.3	18.61 0.2575 0.5495	4.2	1.4
62.1 -39.8 21.0	62.1 -39.7 20.9	30.57 0.3067 0.4632	0.2	0.1
77.0 -19.1 11.0	76.8 -18.8 10.5	51.17 0.3328 0.3989	0.6	0.3
86.3 -8.4 4.2	86.3 -8.6 4.2	68.56 0.3396 0.3737	0.3	0.2
90.8 -4.1 0.9	90.8 -3.9 0.5	78.11 0.3409 0.3626	0.4	0.4
88.5 -0.4 -3.1	88.6 -0.1 -3.5	73.32 0.3396 0.3524	0.5	0.6

82.0 -0.9 -4.1	81.8 -0.5 -4.8	59.86 0.3363 0.3499	0.8	0.8
67.7 -2.0 -4.4	67.5 -1.9 -4.7	37.36 0.3321 0.3499	0.4	0.4
52.2 -2.5 -3.5	52.4 -2.7 -3.1	20.47 0.3316 0.3534	0.5	0.5
37.5 -3.9 -3.1	37.5 -4.2 -3.2	9.82 0.3230 0.3540	0.3	0.4
26.3 -6.8 -3.4	26.2 -7.3 -2.8	4.83 0.3073 0.3601	0.8	0.8
10.4 -8.2 -10.2	11.5 -9.0 -8.7	1.33 0.2432 0.3195	2.0	1.6
24.3 32.7 13.1	24.3 32.4 12.9	4.20 0.5269 0.3272	0.3	0.2
24.7 -17.0 7.5	24.7 -15.9 7.1	4.31 0.3118 0.4304	1.1	0.7
23.0 0.0 0.0	22.7 -0.3 -0.1	3.71 0.3440 0.3584	0.4	0.5
38.5 6.6 3.9	38.7 6.7 3.8	10.48 0.3776 0.3602	0.2	0.2
61.5 5.4 3.8	61.3 5.8 3.2	29.55 0.3650 0.3594	0.7	0.7
78.1 2.9 0.9	77.8 3.8 0.4	52.94 0.3528 0.3559	1.1	1.2
86.6 1.5 -0.7	86.5 1.6 -0.7	69.02 0.3469 0.3559	0.2	0.2
53.1 37.7 28.9	52.9 38.4 28.1	20.98 0.5040 0.3629	1.1	0.7
41.5 22.7 16.8	41.5 22.3 16.8	12.20 0.4588 0.3676	0.5	0.3
31.9 40.0 24.0	31.8 40.0 24.2	7.00 0.5597 0.3409	0.2	0.1
32.5 44.4 -1.8	32.7 44.5 -2.5	7.39 0.4748 0.2764	0.7	0.4
51.3 1.3 44.5	51.1 1.6 43.9	19.33 0.4502 0.4593	0.7	0.4
34.6 -36.4 13.9	34.7 -35.7 14.2	8.34 0.2755 0.4883	0.8	0.4
36.0 -26.2 -20.9	35.8 -26.0 -20.2	8.92 0.2087 0.3139	0.7	0.3
20.9 9.6 -23.6	21.4 9.0 -23.6	3.35 0.2682 0.2361	0.7	0.5
71.2 18.8 17.3	71.0 19.2 17.0	42.21 0.4155 0.3710	0.5	0.4
71.2 22.2 73.1	71.1 23.1 73.8	42.38 0.5098 0.4421	1.2	0.5
47.7 71.2 16.2	47.7 70.8 15.2	16.55 0.5569 0.2902	1.1	0.4
38.0 55.4 -20.9	37.9 55.4 -22.0	10.05 0.4170 0.2278	1.0	0.4
73.7 -22.8 67.6	73.3 -21.7 67.4	45.67 0.4140 0.5111	1.1	0.6
52.3 -52.3 -20.2	53.5 -41.3 -17.5	21.54 0.2162 0.3498	11.4	3.7
43.3 -17.0 -48.6	44.3 -12.5 -46.5	14.02 0.1918 0.2307	5.0	2.7
95.0 0.0 -2.0	95.1 0.2 -2.0	87.84 0.3427 0.3550	0.2	0.3
15.7 -3.1 11.7	16.0 -1.9 9.1	2.10 0.3846 0.4157	2.9	2.1
34.7 28.5 -4.0	34.9 28.5 -4.3	8.46 0.4160 0.2990	0.4	0.3
25.8 -11.0 -14.4	26.1 -11.1 -14.2	4.79 0.2486 0.3117	0.3	0.3
Average			1.1	0.7
Gamut-Volume				96 %

Measurement Data

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

RGB	XYZ	Yxy
255 255 255	153.45 161.15 155.57	161.15 0.3264 0.3427
0 0 0	0.26 0.26 0.39	0.26 0.2855 0.2837
12 12 12	0.74 0.73 0.83	0.73 0.3216 0.3170
25 25 25	2.50 2.62 2.59	2.62 0.3238 0.3399
38 38 38	5.03 5.29 5.12	5.29 0.3260 0.3425
51 51 51	8.57 8.94 8.48	8.94 0.3298 0.3439
63 63 63	12.24 12.89 12.70	12.89 0.3236 0.3408
76 76 76	17.42 18.20 17.74	18.20 0.3264 0.3411
89 89 89	22.80 23.95 23.42	23.95 0.3250 0.3413
102 102 102	29.50 30.89 30.05	30.89 0.3262 0.3415
114 114 114	35.89 37.73 36.17	37.73 0.3269 0.3437
127 127 127	43.51 45.55 44.13	45.55 0.3267 0.3420
140 140 140	51.99 54.56 52.89	54.56 0.3261 0.3422
153 153 153	60.99 64.01 62.00	64.01 0.3262 0.3423
165 165 165	70.09 73.46 70.99	73.46 0.3267 0.3424
178 178 178	80.13 83.69 81.42	83.69 0.3267 0.3413
191 191 191	91.01 95.29 92.71	95.29 0.3262 0.3415
204 204 204	102.43 107.31 104.40	107.31 0.3261 0.3416
216 216 216	114.03 119.50 116.04	119.50 0.3262 0.3418
229 229 229	126.56 132.64 128.86	132.64 0.3261 0.3418
242 242 242	139.54 146.16 141.95	146.16 0.3263 0.3418
0 0 128	8.01 3.02 41.15	3.02 0.1534 0.0579
0 0 255	28.06 10.21 145.42	10.21 0.1528 0.0556
0 128 0	12.77 32.16 2.51	32.16 0.2692 0.6779
0 128 128	21.01 35.92 43.49	35.92 0.2092 0.3577
0 170 255	49.69 65.08 149.12	65.08 0.1883 0.2466
0 255 0	44.50 112.98 7.96	112.98 0.2690 0.6829
0 255 170	58.05 118.44 77.10	118.44 0.2289 0.4670
0 255 255	72.66 123.76 153.05	123.76 0.2079 0.3541
85 85 85	21.32 22.25 21.67	22.25 0.3268 0.3410
128 0 0	22.89 10.76 0.64	10.76 0.6675 0.3138
128 0 128	30.96 13.67 42.72	13.67 0.3545 0.1565
128 128 0	36.03 42.99 2.91	42.99 0.4397 0.5247
128 128 128	44.34 46.70 44.89	46.70 0.3262 0.3436
128 128 255	64.57 54.40 148.86	54.40 0.2411 0.2031
128 255 128	76.35 127.37 50.45	127.37 0.3004 0.5011
170 0 255	66.45 28.04 147.02	28.04 0.2751 0.1161
170 170 170	73.88 77.51 75.12	77.51 0.3262 0.3422
170 255 0	83.46 131.03 8.49	131.03 0.3743 0.5876
170 255 255	111.84 141.89 154.56	141.89 0.2739 0.3475
255 0 0	80.72 37.61 1.53	37.61 0.6735 0.3138
255 0 170	94.56 42.65 73.29	42.65 0.4492 0.2026
255 0 255	108.91 47.72 148.39	47.72 0.3571 0.1565
255 128 128	102.02 73.53 47.02	73.53 0.4584 0.3304
255 170 0	101.86 91.09 5.27	91.09 0.5139 0.4595
255 170 255	130.50 102.58 151.99	102.58 0.3389 0.2664
255 255 0	125.07 150.37 9.16	150.37 0.4395 0.5284
255 255 170	139.05 155.93 80.89	155.93 0.3699 0.4149
170 85 85	48.87 35.05 22.34	35.05 0.4599 0.3299
85 170 85	36.70 61.10 24.29	61.10 0.3006 0.5004
85 85 170	30.95 25.87 71.77	25.87 0.2407 0.2012

85 170 170	46.41 64.81 74.44	64.81 0.2500 0.3491
170 85 170	58.51 38.68 72.64	38.68 0.3445 0.2278
170 170 85	64.22 73.85 24.92	73.85 0.3940 0.4531
0 130 204	32.26 41.05 99.57	41.05 0.1866 0.2375
63 160 218	47.13 59.84 114.35	59.84 0.2129 0.2704
145 193 230	79.60 90.42 127.37	90.42 0.2677 0.3041
192 216 237	106.21 115.60 135.00	115.60 0.2977 0.3240
214 227 240	120.39 128.39 138.89	128.39 0.3105 0.3312
186 36 101	52.15 26.51 29.23	26.51 0.4834 0.2457
198 95 141	68.30 46.45 53.07	46.45 0.4070 0.2768
213 159 189	94.00 81.56 90.42	81.56 0.3534 0.3066
225 199 218	114.02 109.40 117.53	109.40 0.3344 0.3209
230 218 230	124.07 125.03 129.51	125.03 0.3277 0.3302
241 216 41	106.92 117.92 12.51	117.92 0.4505 0.4968
241 221 98	112.44 123.06 34.20	123.06 0.4169 0.4563
238 228 162	120.31 130.10 73.01	130.10 0.3720 0.4023
237 232 203	127.30 135.34 105.77	135.34 0.3455 0.3674
236 235 223	131.17 138.76 123.95	138.76 0.3330 0.3523
215 216 220	114.43 119.70 120.02	119.70 0.3231 0.3380
194 195 199	94.57 98.87 99.28	98.87 0.3231 0.3378
152 153 155	61.05 64.06 63.60	64.06 0.3235 0.3395
110 110 112	33.92 35.53 35.12	35.53 0.3244 0.3398
68 68 69	14.39 14.97 14.96	14.97 0.3247 0.3378
30 30 30	3.26 3.40 3.33	3.40 0.3263 0.3407
32 17 21	2.57 1.87 2.01	1.87 0.3991 0.2900
93 49 37	16.30 12.21 5.26	12.21 0.4826 0.3616
67 64 36	11.86 13.06 5.16	13.06 0.3943 0.4340
38 37 105	9.73 6.91 29.99	6.91 0.2087 0.1482
78 71 135	22.97 19.08 47.54	19.08 0.2564 0.2130
137 132 181	55.28 52.83 81.89	52.83 0.2910 0.2780
184 182 212	89.08 89.78 109.88	89.78 0.3085 0.3109
209 209 227	110.28 113.01 126.00	113.01 0.3157 0.3235
184 40 30	46.58 24.88 4.16	24.88 0.6159 0.3290
198 90 64	60.10 41.76 14.59	41.76 0.5161 0.3586
214 152 129	84.81 74.93 47.42	74.93 0.4094 0.3617
226 196 183	107.94 105.83 86.84	105.83 0.3591 0.3521
230 216 212	120.38 122.63 112.15	122.63 0.3389 0.3453
0 121 59	13.61 30.09 12.15	30.09 0.2437 0.5388
80 149 96	31.88 49.34 28.47	49.34 0.2906 0.4499
150 186 155	67.67 82.52 64.76	82.52 0.3148 0.3839
194 212 198	99.02 110.53 99.11	110.53 0.3208 0.3581
215 225 220	116.85 125.92 120.41	125.92 0.3218 0.3467
212 215 221	112.67 118.22 120.90	118.22 0.3203 0.3361
188 193 201	91.80 96.55 101.27	96.55 0.3170 0.3334
142 149 156	56.64 60.29 64.07	60.29 0.3129 0.3331
100 107 111	30.66 33.04 34.43	33.04 0.3125 0.3367
64 72 74	14.32 15.85 16.90	15.85 0.3042 0.3368
39 50 51	6.60 7.81 8.41	7.81 0.2892 0.3422
10 24 31	1.65 2.16 3.43	2.16 0.2283 0.2982
76 28 30	10.61 6.66 3.55	6.66 0.5097 0.3199
30 49 36	4.94 6.95 4.85	6.95 0.2949 0.4155
41 41 41	5.67 5.99 5.81	5.99 0.3247 0.3425
82 70 67	17.42 16.85 14.40	16.85 0.3579 0.3463
140 127 124	47.63 47.54 42.75	47.54 0.3454 0.3447
186 178 178	83.47 85.26 81.75	85.26 0.3332 0.3404
210 207 209	107.11 111.22 108.74	111.22 0.3275 0.3401

166 84 65	45.64 33.37 14.53	33.37 0.4879 0.3568
111 68 57	23.92 19.49 10.87	19.49 0.4407 0.3590
104 36 31	17.98 11.08 3.87	11.08 0.5460 0.3365
106 35 63	20.09 11.75 12.61	11.75 0.4520 0.2644
118 101 40	29.47 30.91 7.09	30.91 0.4368 0.4582
23 75 46	7.41 13.48 7.55	13.48 0.2605 0.4740
0 76 96	9.85 14.57 25.62	14.57 0.1968 0.2912
36 36 66	6.28 5.46 13.31	5.46 0.2506 0.2181
196 146 127	74.48 67.63 45.78	67.63 0.3964 0.3599
215 143 38	75.91 67.50 8.51	67.50 0.4997 0.4443
186 39 72	49.89 26.11 16.56	26.11 0.5390 0.2821
126 37 103	29.49 16.08 29.71	16.08 0.3917 0.2137
156 176 50	57.33 73.23 12.28	73.23 0.4014 0.5127
0 126 139	21.86 35.10 50.42	35.10 0.2036 0.3269
0 93 164	19.89 23.09 66.38	23.09 0.1819 0.2111
236 237 241	135.07 141.59 141.04	141.59 0.3234 0.3390
30 30 19	3.05 3.37 1.89	3.37 0.3669 0.4053
94 51 70	18.71 13.55 15.26	13.55 0.3937 0.2852
26 51 64	6.26 7.80 12.78	7.80 0.2333 0.2907