

Ms. 8442 Oberti et al. On the symmetry and crystal chemistry of britholite....

Table 4 Observed and calculated structure factors * marks the reflections not used in the refinement [$I < 3 \sigma(I)$]

Sample CAPR

H	K	L	/FO/	/FC/	H	K	L	/FO/	/FC/	H	K	L	/FO/	/FC/
0	1	0	16.4	26.4	4	3	0	18.3	-33.7	10	3	0*	14.8	-25.4
0	2	0	104.7	-179.7	4	4	0	171.0	307.4	10	4	0	17.1	29.5
0	3	0	182.6	290.2	4	5	0*	13.1	-12.7	10	5	0	40.5	-81.0
0	4	0	126.3	222.3	4	6	0	71.4	-141.2	11	1	0	23.6	-48.0
0	5	0	53.8	104.4	4	7	0	70.0	136.8	11	2	0	14.5	26.6
0	6	0	27.6	55.2	4	8	0	42.9	84.3	11	3	0	36.3	-71.2
0	7	0	19.0	-36.6	4	9	0*	1.8	9.8	12	1	0	23.9	-49.7
0	8	0	106.2	201.0	4	10	0	11.9	22.9	12	2	0	42.9	-85.0
0	9	0	91.7	176.3	5	1	0	97.0	-180.4	0	0	1*	11.5	.0
0	10	0	44.1	-87.4	5	2	0	87.6	168.8	0	1	1	7.8	-13.1
0	11	0	20.5	-39.6	5	3	0	70.2	137.1	0	2	1	11.6	11.9
0	12	0	88.0	171.2	5	4	0	53.3	106.7	0	3	1	17.8	-30.5
0	13	0	18.7	34.0	5	5	0	49.5	100.4	0	4	1*	12.5	-16.3
1	1	0*	7.7	5.7	5	6	0	61.8	-120.0	0	5	1*	12.3	-21.8
1	2	0	88.3	-159.2	5	7	0	27.9	53.2	0	6	1	35.1	69.4
1	3	0	124.3	217.5	5	8	0	91.3	177.7	0	7	1	29.3	56.5
1	4	0	178.8	304.9	5	9	0	24.7	-47.7	0	8	1*	11.0	18.0
1	5	0	42.1	-82.3	5	10	0	34.8	-67.4	0	9	1	16.4	-31.9
1	6	0	97.0	-185.2	6	1	0	109.9	-204.5	0	10	1	39.4	78.9
1	7	0	141.2	262.1	6	2	0	48.3	-95.8	0	11	1	22.2	39.5
1	8	0	51.5	100.1	6	3	0	39.6	79.3	0	12	1*	2.9	-11.3
1	9	0	32.1	-62.9	6	4	0	30.3	-59.3	0	13	1*	9.4	17.3
1	10	0	41.7	81.9	6	5	0	54.7	-107.3	1	1	1	74.2	-136.1
1	11	0	13.7	27.7	6	6	0	24.6	49.5	1	2	1	136.6	-234.6
1	12	0	53.1	104.4	6	7	0	23.7	47.6	1	3	1	24.9	47.7
2	1	0	129.1	-220.4	6	8	0	23.2	-45.5	1	4	1*	9.5	14.3
2	2	0	21.4	38.1	6	9	0*	.9	12.4	1	5	1	75.4	-142.3
2	3	0	90.6	-167.1	7	1	0	44.0	85.1	1	6	1	71.9	-139.0
2	4	0	115.1	-211.2	7	2	0	86.3	-167.6	1	7	1*	11.1	-20.3
2	5	0	23.5	46.4	7	3	0	76.3	-151.6	1	8	1*	6.0	-11.5
2	6	0	67.7	-129.4	7	4	0	43.0	84.5	1	9	1	24.2	-46.5
2	7	0	42.8	-84.1	7	5	0	49.2	-97.5	1	10	1	35.2	-70.0
2	8	0	36.1	69.9	7	6	0	59.5	-118.5	1	11	1*	6.3	8.3
2	9	0	75.7	-150.1	7	7	0*	2.8	10.8	1	12	1*	6.7	-6.4

2 10 0 55.9 -109.1 7 8 0 30.2 -56.3 2 1 1 170.2 -278.4
2 11 0 28.8 57.4 8 1 0* 5.3 -11.9 2 2 1 40.0 -78.7
2 12 0 20.6 -41.1 8 2 0 31.6 64.0 2 3 1 110.0 200.0
3 1 0 55.9 -109.3 8 3 0* 2.7 6.4 2 4 1 51.9 -100.6
3 2 0 76.8 -143.8 8 4 0 49.8 98.2 2 5 1 102.2 -194.0
3 3 0 24.1 45.0 8 5 0 60.8 118.6 2 6 1 45.8 -91.6
3 4 0 15.5 -26.8 8 6 0 58.5 -115.8 2 7 1 31.4 61.3
3 5 0* 16.1 24.2 8 7 0* 8.7 16.7 2 8 1 14.7 26.8
3 6 0* 10.8 -17.9 9 1 0 52.8 -103.0 2 9 1 94.4 -183.2
3 7 0 55.4 -107.7 9 2 0 25.6 -48.3 2 10 1 33.2 -66.0
3 8 0* 12.1 -20.0 9 3 0 105.5 202.9 2 11 1 20.2 39.9
3 9 0 33.3 66.6 9 4 0 46.8 95.2 2 12 1* 8.0 -19.8
3 10 0 31.3 -62.0 9 5 0 34.9 -68.4 3 1 1 31.0 -61.3
3 11 0 39.5 -79.8 9 6 0 18.1 36.9 3 2 1 135.5 240.6
4 1 0 136.2 240.6 10 1 0 17.5 -30.6 3 3 1 126.5 230.9
4 2 0 86.6 -163.4 10 2 0 28.6 -55.9 3 4 1 15.7 -30.5

H K L /FO/ /FC/ H K L /FO/ /FC/ H K L /FO/ /FC/

3 5 1 24.1 -45.8 8 7 1 22.1 44.6 3 6 2 110.6 212.5
3 6 1 73.9 143.9 9 1 1 44.8 -88.5 3 7 2* 10.2 18.7
3 7 1 72.1 140.7 9 2 1 24.5 -48.1 3 8 2 21.2 -43.0
3 8 1* 8.1 -15.1 9 3 1* 14.9 30.2 3 9 2 49.8 98.9
3 9 1 40.5 -79.1 9 4 1* 13.2 -28.2 3 10 2* 5.6 -3.9
3 10 1 38.2 75.1 9 5 1* 9.9 -18.0 3 11 2* 8.2 21.6
3 11 1 40.0 79.4 9 6 1* 3.6 -15.1 4 0 2 188.9 -320.3
4 1 1 32.9 65.3 10 1 1 93.8 -181.0 4 1 2 41.2 79.1
4 2 1 17.7 31.0 10 2 1* 5.9 5.8 4 2 2 42.9 82.5
4 3 1 79.7 152.8 10 3 1 23.8 46.9 4 3 2 56.2 -107.1
4 4 1 33.7 -65.4 10 4 1 32.8 -66.5 4 4 2 59.7 -115.8
4 5 1 39.1 76.3 10 5 1 45.1 -89.0 4 5 2 61.1 -120.2
4 6 1 71.0 136.8 11 1 1* 7.5 -13.1 4 6 2* 9.5 19.0
4 7 1 30.8 59.8 11 2 1 45.6 92.2 4 7 2 22.0 42.4
4 8 1 16.9 33.9 11 3 1 32.4 63.7 4 8 2 86.1 -166.6
4 9 1 17.7 36.1 12 1 1 17.0 34.0 4 9 2 43.2 -83.4
4 10 1 41.3 79.0 12 2 1 43.6 84.2 4 10 2 58.3 113.6
5 1 1 114.1 -209.7 0 0 2 188.8 -288.9 5 0 2 145.5 -262.7

5	2	1	82.8	-158.3	1	0	2	107.1	-185.5	5	1	2	41.8	81.0
5	3	1	16.9	-30.8	1	1	2	154.6	253.9	5	2	2	76.9	153.8
5	4	1	29.5	-56.2	1	2	2	40.2	72.3	5	3	2	127.0	-238.6
5	5	1	53.4	-106.0	1	3	2	125.9	-224.8	5	4	2	94.6	-181.5
5	6	1	54.0	-105.8	1	4	2	24.8	-48.4	5	5	2	65.6	128.7
5	7	1	17.3	-32.1	1	5	2	35.2	-70.1	5	6	2*	7.2	20.5
5	8	1*	5.9	-3.5	1	6	2	37.3	75.8	5	7	2	71.5	-140.1
5	9	1	38.2	-75.0	1	7	2	25.8	-49.8	5	8	2	24.1	-44.7
5	10	1*	7.7	-8.0	1	8	2	109.9	-210.0	5	9	2*	13.4	-26.2
6	1	1	92.5	-181.0	1	9	2	27.2	-53.2	6	0	2	92.1	181.9
6	2	1*	10.0	-17.4	1	10	2	40.9	81.2	6	1	2	32.5	62.6
6	3	1	75.3	147.1	1	11	2	45.2	-89.6	6	2	2	26.4	-51.5
6	4	1	17.9	-36.2	1	12	2	82.8	-162.6	6	3	2	71.1	138.6
6	5	1	83.1	-162.0	2	0	2	42.3	-81.0	6	4	2	9.2	-18.9
6	6	1	17.3	-32.6	2	1	2*	8.9	-11.0	6	5	2	14.2	24.8
6	7	1	26.6	53.8	2	2	2	167.7	288.3	6	6	2	64.6	127.3
6	8	1*	16.0	-35.5	2	3	2	14.4	-28.1	6	7	2	52.3	-100.6
6	9	1	53.3	-105.1	2	4	2	28.1	52.4	6	8	2*	10.1	-16.6
7	1	1	22.6	-43.4	2	5	2	145.0	266.1	6	9	2	53.6	102.0
7	2	1	80.0	154.9	2	6	2	21.5	38.2	7	0	2	58.0	-112.0
7	3	1	72.6	141.2	2	7	2	16.3	-31.1	7	1	2	78.0	152.2
7	4	1	39.9	-79.9	2	8	2	66.8	132.7	7	2	2	22.4	44.5
7	5	1*	1.3	-7.9	2	9	2	33.5	66.4	7	3	2	14.7	28.9
7	6	1	49.0	96.2	2	10	2*	14.0	27.5	7	4	2	44.5	87.6
7	7	1	48.3	92.9	2	11	2	31.8	64.3	7	5	2*	5.4	-.6
7	8	1*	9.0	-11.2	2	12	2*	13.7	-26.6	7	6	2	23.1	46.6
8	1	1*	13.5	26.9	3	0	2	41.2	78.7	7	7	2	64.9	128.0
8	2	1	58.8	115.3	3	1	2	75.9	-149.6	7	8	2*	5.4	2.4
8	3	1*	5.4	8.6	3	2	2	36.0	-71.0	8	0	2	144.2	-269.9
8	4	1*	10.8	-14.3	3	3	2	112.6	210.7	8	1	2	28.0	-55.7
8	5	1	14.9	30.7	3	4	2	66.3	-127.4	8	2	2	65.9	130.4
8	6	1	27.9	55.5	3	5	2	73.9	-145.0	8	3	2	47.9	-95.2

H K L /FO/ /FC/ H K L /FO/ /FC/ H K L /FO/ /FC/

8	4	2	89.1	-173.6	2	2	3	23.0	45.9	7	3	3	68.6	-135.5
8	5	2*	11.8	16.9	2	3	3	76.1	-153.4	7	4	3	39.7	80.0

8	6	2*	18.2	37.4	2	4	3	70.8	137.4	7	5	3*	9.8	18.4
8	7	2	41.9	-84.4	2	5	3	99.9	191.3	7	6	3	38.1	-77.0
9	0	2	14.3	27.9	2	6	3	36.9	72.2	7	7	3	41.0	-78.8
9	1	2*	13.4	17.8	2	7	3	34.5	-67.5	8	1	3	14.5	-26.6
9	2	2	17.7	-34.8	2	8	3*	14.9	-27.7	8	2	3	59.7	-117.5
9	3	2*	12.7	-26.2	2	9	3	83.3	163.5	8	3	3	16.4	-32.0
9	4	2	75.9	-148.8	2	10	3	28.7	54.1	8	4	3*	5.6	12.1
9	5	2*	5.5	5.0	2	11	3	20.6	-41.1	8	5	3	18.4	-35.1
9	6	2	41.8	82.7	3	1	3	27.9	-56.1	8	6	3	29.2	-58.1
10	0	2*	4.9	-8.8	3	2	3	128.7	-235.2	9	1	3	45.7	91.9
10	1	2	91.0	176.5	3	3	3	94.8	-179.7	9	2	3	28.6	57.3
10	2	2	15.5	-29.6	3	4	3	12.3	22.0	9	3	3*	15.1	-30.2
10	3	2	22.3	-41.0	3	5	3	26.4	51.3	9	4	3*	9.4	18.1
10	4	2	49.2	97.7	3	6	3	57.0	-112.2	9	5	3*	1.8	10.3
11	0	2*	12.9	-26.0	3	7	3	62.3	-122.4	10	1	3	92.9	181.1
11	1	2*	15.9	-30.5	3	8	3*	14.1	25.4	10	2	3*	4.6	-2.5
11	2	2	47.7	94.7	3	9	3	33.8	68.4	10	3	3	15.4	-32.7
11	3	2*	6.1	2.7	3	10	3	40.6	-79.7	10	4	3	35.5	73.2
12	0	2*	12.3	-23.7	3	11	3	36.5	-73.5	11	1	3*	7.5	11.6
12	1	2*	6.5	-12.7	4	1	3	42.3	-84.2	11	2	3	47.4	-94.7
12	2	2	16.6	33.4	4	2	3	25.2	-49.3	11	3	3	31.1	-60.9
13	0	2	46.9	-90.3	4	3	3	77.0	-150.2	12	1	3*	18.4	-37.6
0	0	3*	6.0	.0	4	4	3*	11.3	17.6	0	0	4	290.2	447.7
0	1	3	20.6	-42.3	4	5	3	37.5	-74.8	1	0	4*	6.1	2.7
0	2	3	48.5	-89.6	4	6	3	57.8	-114.0	1	1	4	21.3	40.1
0	3	3*	12.1	16.3	4	7	3	27.8	-55.1	1	2	4	94.3	-175.5
0	4	3*	9.8	4.8	4	8	3	13.2	-27.5	1	3	4	37.4	71.5
0	5	3	19.6	-38.3	4	9	3*	11.3	-20.8	1	4	4	147.2	269.5
0	6	3	28.9	-55.9	4	10	3	35.0	-67.3	1	5	4	37.9	-72.9
0	7	3	13.5	-22.6	5	1	3	110.6	209.1	1	6	4	88.4	-172.3
0	8	3*	7.8	-4.1	5	2	3	79.6	154.4	1	7	4	118.7	227.8
0	9	3*	14.5	27.7	5	3	3*	10.8	20.3	1	8	4	49.7	96.2
0	10	3	37.9	-73.6	5	4	3	24.7	48.5	1	9	4	21.7	-42.5
0	11	3*	14.3	-25.7	5	5	3	45.9	89.9	1	10	4	36.9	71.6
0	12	3*	4.6	10.5	5	6	3	38.3	75.1	1	11	4*	12.9	19.3
1	1	3	117.6	208.8	5	7	3	11.8	20.7	2	0	4	71.1	-134.6
1	2	3	130.5	231.2	5	8	3*	7.1	4.3	2	1	4	96.3	-180.3
1	3	3	20.8	-34.7	5	9	3	33.1	66.6	2	2	4*	7.8	9.8
1	4	3	23.6	-47.2	6	1	3	78.4	150.6	2	3	4	68.5	-130.2

1 5 3 52.2 100.4 6 2 3 26.4 53.8 2 4 4 89.7 -172.2
1 6 3 68.5 134.1 6 3 3 59.2 -115.1 2 5 4* 4.9 -2.4
1 7 3* 3.9 .1 6 4 3 19.9 38.9 2 6 4 72.8 -141.0
1 8 3* 6.6 -15.0 6 5 3 84.0 163.8 2 7 4 37.7 -74.4
1 9 3 29.4 59.1 6 6 3* 13.7 29.2 2 8 4 27.0 54.1
1 10 3 38.3 76.2 6 7 3 28.6 -57.4 2 9 4 70.9 -137.0
1 11 3* 10.2 -8.1 6 8 3 14.0 28.3 2 10 4 51.2 -99.3
1 12 3* 5.1 9.7 7 1 3 14.2 27.2 2 11 4 29.8 57.0
2 1 3 174.3 298.9 7 2 3 74.9 -146.8 3 0 4 134.8 241.6

H K L /FO/ /FC/ H K L /FO/ /FC/ H K L /FO/ /FC/

3 1 4 26.6 -51.3 8 3 4* 1.4 6.9 2 10 5 29.1 -57.3
3 2 4 52.3 -99.6 8 4 4 45.6 90.3 3 1 5 25.1 -49.8
3 3 4 24.4 47.8 8 5 4 56.4 110.0 3 2 5 103.2 195.2
3 4 4* 10.0 -18.3 8 6 4 48.9 -96.8 3 3 5 100.5 192.7
3 5 4* 11.4 14.9 9 0 4 73.3 149.7 3 4 5 16.6 -33.5
3 6 4* 6.4 -8.3 9 1 4 52.6 -102.9 3 5 5* 15.2 -26.5
3 7 4 50.1 -99.7 9 2 4 25.7 -50.3 3 6 5 64.4 126.0
3 8 4 17.4 -34.5 9 3 4 87.8 169.4 3 7 5 58.5 115.5
3 9 4 24.9 50.1 9 4 4 37.8 75.4 3 8 5* 5.5 -10.1
3 10 4 31.0 -59.1 9 5 4 32.1 -64.5 3 9 5 34.1 -68.0
4 0 4 96.4 180.7 10 0 4 37.9 -74.3 3 10 5 28.8 57.1
4 1 4 104.6 196.1 10 1 4* 12.5 -21.7 4 1 5 22.1 42.9
4 2 4 90.7 -173.9 10 2 4 23.0 -45.8 4 2 5 15.7 28.9
4 3 4 17.8 -33.2 10 3 4* 13.6 -25.9 4 3 5 55.5 109.0
4 4 4 154.6 285.4 11 0 4 20.2 -39.0 4 4 5 27.7 -53.2
4 5 4* 2.5 1.9 11 1 4 21.5 -41.6 4 5 5 29.2 55.9
4 6 4 58.9 -116.9 11 2 4* 15.4 30.0 4 6 5 59.7 116.8
4 7 4 63.2 122.2 12 0 4 74.6 145.6 4 7 5 23.9 47.4
4 8 4 38.0 77.0 0 0 5* 3.2 .0 4 8 5* 13.3 28.1
4 9 4* 10.1 10.7 0 1 5* 11.5 -19.5 4 9 5 20.0 38.1
5 0 4 54.5 108.9 0 2 5* 8.1 7.4 5 1 5 86.3 -166.1
5 1 4 91.9 -177.2 0 3 5* 2.2 3.2 5 2 5 62.1 -121.0
5 2 4 50.8 99.2 0 4 5 18.0 -32.8 5 3 5* 12.2 -28.1
5 3 4 56.0 109.1 0 5 5* 6.3 -9.8 5 4 5 20.9 -40.2
5 4 4 39.2 75.6 0 6 5 29.8 57.4 5 5 5 42.8 -84.6

5 5 4 36.2 72.0 0 7 5 23.4 44.5 5 6 5 50.9 -98.8
5 6 4 54.6 -107.2 0 8 5* 11.6 18.4 5 7 5* 12.7 -21.6
5 7 4 26.6 51.8 0 9 5* 11.5 -20.2 5 8 5* 8.2 -3.4
5 8 4 85.5 166.8 0 10 5 33.2 64.1 6 1 5 80.2 -156.4
5 9 4 18.3 -38.8 0 11 5 20.8 39.3 6 2 5* 5.6 2.9
6 0 4 31.1 60.8 1 1 5 53.4 -99.1 6 3 5 60.5 120.6
6 1 4 90.1 -174.1 1 2 5 107.9 -202.5 6 4 5 18.2 -36.1
6 2 4 38.7 -75.0 1 3 5 21.2 41.8 6 5 5 65.2 -129.0
6 3 4 37.3 72.0 1 4 5* 3.1 3.3 6 6 5 14.7 -28.7
6 4 4 34.1 -68.6 1 5 5 64.5 -125.6 6 7 5 20.6 40.8
6 5 4 56.1 -108.8 1 6 5 48.2 -95.2 7 1 5 19.3 -37.7
6 6 4 17.5 34.8 1 7 5 14.0 -26.4 7 2 5 63.4 123.0
6 7 4 15.3 29.3 1 8 5* 4.6 -14.0 7 3 5 59.1 115.2
6 8 4 22.7 -45.3 1 9 5 15.2 -30.7 7 4 5 30.8 -61.8
7 0 4* 12.3 -21.0 1 10 5 27.7 -56.2 7 5 5* 6.3 -5.5
7 1 4 38.5 75.0 1 11 5* 5.0 2.7 7 6 5 43.6 85.3
7 2 4 73.6 -142.8 2 1 5 124.9 -228.6 8 1 5 16.6 32.3
7 3 4 62.2 -121.8 2 2 5 31.2 -63.1 8 2 5 45.1 88.9
7 4 4 39.3 78.5 2 3 5 84.3 161.1 8 3 5* 6.9 1.0
7 5 4 40.2 -79.1 2 4 5 32.0 -61.5 8 4 5* 3.2 -9.2
7 6 4 54.0 -107.3 2 5 5 83.6 -162.5 8 5 5* 13.1 23.1
7 7 4* 6.6 3.5 2 6 5 40.4 -80.6 9 1 5 37.4 -72.5
8 0 4 82.3 165.6 2 7 5 24.7 49.8 9 2 5* 15.9 -32.8
8 1 4 16.2 -32.7 2 8 5* 11.4 19.2 9 3 5* 13.1 24.1
8 2 4 25.3 50.2 2 9 5 79.5 -156.8 9 4 5* 13.0 -25.2

H K L /FO/ /FC/ H K L /FO/ /FC/ H K L /FO/ /FC/

10 1 5 74.6 -145.8 5 4 6 75.1 -147.7 1 8 7* 3.9 -5.6
10 2 5* 1.5 -1.6 5 5 6 44.5 87.5 1 9 7 27.4 53.0
10 3 5 22.5 44.8 5 6 6* 5.0 19.5 2 1 7 107.5 205.2
11 1 5* 6.4 -9.7 5 7 6 52.7 -103.8 2 2 7 19.9 40.6
0 0 6 152.7 -276.7 6 0 6 84.5 164.8 2 3 7 62.6 -124.0
1 0 6 75.2 -143.4 6 1 6 29.3 59.6 2 4 7 38.1 74.7
1 1 6 127.5 236.3 6 2 6* 11.8 -21.8 2 5 7 69.0 136.3
1 2 6* 5.0 .0 6 3 6 56.5 111.0 2 6 7 24.4 47.5

1	3	6	102.6	-194.2	6	4	6*	15.6	-27.5	2	7	7	21.2	-39.5
1	4	6*	11.6	-21.4	6	5	6*	7.2	15.4	2	8	7*	9.7	-15.3
1	5	6	17.2	-32.4	6	6	6	49.3	95.7	2	9	7	58.5	116.0
1	6	6	21.4	42.3	6	7	6	43.6	-85.2	3	1	7*	11.8	-16.9
1	7	6	16.2	-28.8	7	0	6	32.7	-62.6	3	2	7	72.2	-141.1
1	8	6	77.0	-151.7	7	1	6	59.1	116.5	3	3	7	72.4	-142.2
1	9	6*	14.1	-25.6	7	2	6	26.1	51.8	3	4	7*	6.8	1.8
1	10	6	36.8	71.5	7	3	6	19.3	37.3	3	5	7	21.7	41.8
2	0	6*	2.7	4.6	7	4	6	40.9	80.7	3	6	7	44.7	-89.2
2	1	6	26.0	52.7	7	5	6*	3.7	7.8	3	7	7	54.3	-106.1
2	2	6	113.4	213.4	7	6	6*	.0	35.0	3	8	7*	10.4	19.4
2	3	6*	3.0	-5.5	8	0	6	112.8	-217.3	4	1	7	19.3	-37.8
2	4	6	25.3	49.4	8	1	6	32.9	-63.9	4	2	7	21.8	-43.9
2	5	6	92.3	178.1	8	2	6	52.5	104.0	4	3	7	42.8	-83.8
2	6	6*	10.6	15.0	8	3	6	35.7	-70.7	4	4	7*	13.1	23.0
2	7	6*	10.9	-19.3	8	4	6	70.2	-135.6	4	5	7	24.6	-47.3
2	8	6	53.2	105.5	9	0	6*	12.0	18.3	4	6	7	42.0	-82.7
2	9	6	24.4	48.4	9	1	6*	9.2	9.6	4	7	7	21.1	-42.9
2	10	6*	14.3	26.4	9	2	6*	12.9	-26.2	5	1	7	76.9	150.0
3	0	6*	11.6	17.1	9	3	6	16.7	-32.5	5	2	7	54.0	105.6
3	1	6	31.5	-58.8	10	0	6*	7.5	3.1	5	3	7*	5.0	9.2
3	2	6*	10.5	-12.6	10	1	6	72.5	146.6	5	4	7	22.3	43.1
3	3	6	97.1	188.3	10	2	6*	8.5	-16.8	5	5	7	33.5	65.3
3	4	6	39.0	-73.9	11	0	6*	14.9	-26.7	5	6	7	28.6	57.7
3	5	6	50.6	-100.9	0	0	7*	6.7	.0	5	7	7*	10.0	23.0
3	6	6	89.8	176.4	0	1	7*	10.0	-19.0	6	1	7	55.3	108.9
3	7	6*	8.5	10.7	0	2	7*	7.4	-12.6	6	2	7*	15.5	31.9
3	8	6	24.3	-48.3	0	3	7*	2.3	-2.3	6	3	7	47.0	-93.5
3	9	6	36.8	74.4	0	4	7*	3.3	2.9	6	4	7*	10.6	21.0
4	0	6	136.8	-253.5	0	5	7*	5.6	-.4	6	5	7	64.7	125.8
4	1	6	35.0	67.9	0	6	7	14.5	-29.5	6	6	7*	12.5	24.3
4	2	6*	14.3	25.4	0	7	7*	16.5	-34.0	7	1	7	16.6	31.4
4	3	6	41.8	-79.5	0	8	7*	3.3	-2.7	7	2	7	59.6	-116.4
4	4	6	35.9	-68.5	0	9	7*	10.1	19.1	7	3	7	49.9	-97.8
4	5	6	39.4	-76.6	0	10	7	31.5	-60.3	7	4	7	28.9	56.2
4	6	6*	17.6	33.2	1	1	7	55.3	106.8	7	5	7*	7.6	5.0
4	7	6	19.4	39.2	1	2	7	78.4	150.4	8	1	7*	5.6	-15.1
4	8	6	64.3	-125.3	1	3	7*	10.4	-14.3	8	2	7	39.7	-79.0
5	0	6	92.6	-178.3	1	4	7*	8.9	-19.1	8	3	7*	10.6	-21.5

5 1 6 18.7 35.7 1 5 7 40.5 79.4 9 1 7 30.7 61.9
5 2 6 49.1 97.3 1 6 7 47.4 93.6 9 2 7 22.8 44.2
5 3 6 93.4 -179.9 1 7 7* 8.1 7.6 0 0 8 177.1 322.0

H K L /FO/ /FC/ H K L /FO/ /FC/ H K L /FO/ /FC/

1 0 8* 8.0 8.4 6 2 8 23.7 -44.6 4 3 9 37.4 75.6
1 1 8* 15.4 25.2 6 3 8 26.9 51.7 4 4 9* 7.4 -10.2
1 2 8 62.0 -123.6 6 4 8 29.8 -58.5 4 5 9 14.4 27.9
1 3 8* 10.8 15.8 7 0 8* 5.8 -11.6 5 1 9 53.1 -105.4
1 4 8 99.7 193.5 7 1 8 25.2 48.3 5 2 9 40.8 -80.9
1 5 8 28.8 -57.6 7 2 8 51.0 -100.7 5 3 9* 9.6 -19.5
1 6 8 58.3 -116.9 7 3 8 40.3 -79.4 5 4 9* 6.3 -15.2
1 7 8 84.6 163.8 8 0 8 53.9 104.6 6 1 9 52.1 -102.6
1 8 8 36.9 73.8 8 1 8 18.3 -33.8 6 2 9* 7.1 -9.6
2 0 8 43.6 -85.5 8 2 8 20.1 34.9 6 3 9 33.0 65.5
2 1 8 61.0 -119.1 9 0 8 53.1 104.2 7 1 9* 7.3 -17.9
2 2 8* 18.3 4.1 0 0 9* 10.1 .0 0 0 10 74.8 -145.3
2 3 8 38.6 -75.0 0 1 9* 8.5 -4.4 1 0 10 42.8 -84.3
2 4 8 56.8 -113.0 0 2 9 17.2 35.9 1 1 10 71.1 139.2
2 5 8* 8.9 -20.5 0 3 9* 5.5 7.8 1 2 10* 4.1 .2
2 6 8 51.2 -102.2 0 4 9* 13.7 -24.7 1 3 10 51.8 -101.5
2 7 8 23.0 -46.4 0 5 9 13.8 26.3 1 4 10* 7.4 -9.8
2 8 8* 14.6 30.1 0 6 9 16.3 33.1 1 5 10* 10.2 -19.6
3 0 8 81.9 157.4 0 7 9* 6.0 6.7 2 0 10* 5.9 2.7
3 1 8* 12.2 -21.5 0 8 9* 8.1 12.2 2 1 10* 14.7 28.6
3 2 8 33.2 -66.6 1 1 9 46.0 -91.3 2 2 10 65.5 129.7
3 3 8 16.8 29.7 1 2 9 70.5 -139.4 2 3 10* 3.4 -1.9
3 4 8* 6.3 -14.3 1 3 9 15.5 27.9 2 4 10* 10.6 21.5
3 5 8* 7.2 4.5 1 4 9* 11.6 14.2 3 0 10* 8.4 13.2
3 6 8* 2.5 .4 1 5 9 37.7 -75.2 3 1 10 19.9 -39.8
3 7 8 39.6 -79.1 1 6 9 28.8 -57.6 3 2 10* 1.9 -7.3
4 0 8 64.5 126.6 1 7 9* 5.3 -9.6 3 3 10 58.7 117.0
4 1 8 61.4 119.9 2 1 9 76.6 -149.2 3 4 10 25.0 -46.9
4 2 8 65.3 -129.7 2 2 9* 14.5 -27.7 4 0 10 80.9 -157.9
4 3 8* 9.5 -13.4 2 3 9 41.0 79.5 4 1 10 20.2 36.5
4 4 8 110.4 211.1 2 4 9 23.5 -45.5 4 2 10* 3.0 14.3

4 5 8* 3.8 5.9 2 5 9 57.3 -113.8 4 3 10 24.2 -47.6
4 6 8 40.6 -80.1 2 6 9 24.5 -52.8 5 0 10 55.4 -110.6
5 0 8 38.1 76.6 3 1 9* 7.2 -.9 5 1 10* 12.5 19.7
5 1 8 64.4 -128.1 3 2 9 69.1 135.7 6 0 10 51.2 100.5
5 2 8 27.3 52.7 3 3 9 53.7 106.2 0 0 11* .0 .0
5 3 8 39.2 75.9 3 4 9 14.6 -25.9 0 1 11* 3.2 -10.2
5 4 8 19.7 38.8 3 5 9* 5.8 -12.9 0 2 11* 6.6 9.7
5 5 8 20.5 43.3 3 6 9 36.5 72.6 1 1 11 27.2 52.9
6 0 8 22.5 43.0 4 1 9 18.0 34.9 1 2 11 42.0 83.0
6 1 8 59.1 -115.8 4 2 9* 13.1 23.0 2 1 11 60.7 120.4

Sample LOS

H K L /FO/ /FC/ H K L /FO/ /FC/ H K L /FO/ /FC/

1 0 0 18.4 25.8 7 5 0 41.9 -81.3 6 1 1 89.7 -182.0
1 1 0 20.4 32.5 8 5 0 41.1 78.3 7 1 1 19.6 -38.1
2 1 0 153.5 -300.8 6 0 0 29.3 57.6 8 1 1 16.3 32.5
3 1 0 61.4 -120.9 1 6 0 85.9 -175.4 9 1 1 31.9 -67.2
4 1 0 144.5 285.3 2 6 0 62.6 -125.4 10 1 1 66.1 -136.4
5 1 0 96.5 -192.5 3 6 0* 7.3 -8.4 11 1 1* 7.9 -8.5
6 1 0 103.9 -209.7 4 6 0 58.9 -119.7 1 2 1 154.0 -305.1
7 1 0 36.4 72.2 5 6 0 45.4 -90.0 2 2 1 39.5 -82.1
8 1 0 12.7 -22.0 6 6 0 24.5 46.9 3 2 1 140.3 281.4
9 1 0 42.5 -87.7 7 6 0 44.0 -86.0 4 2 1 22.7 43.9
10 1 0* 8.2 -16.7 7 0 0* 23.3 -35.9 5 2 1 67.9 -141.1
11 1 0 22.7 -41.4 1 7 0 129.9 268.6 6 2 1 9.0 -15.3
2 0 0 116.3 -231.8 2 7 0 31.8 -63.3 7 2 1 66.6 134.8
1 2 0 98.1 -193.1 3 7 0 45.6 -91.5 8 2 1 49.6 101.1
2 2 0 27.2 52.1 4 7 0 54.2 109.0 9 2 1 12.7 -25.3
3 2 0 83.2 -163.3 5 7 0 23.7 47.0 10 2 1* .7 3.2
4 2 0 86.5 -171.5 6 7 0 17.8 33.4 1 3 1 24.0 45.1
5 2 0 84.0 174.3 8 0 0 83.3 169.2 2 3 1 104.4 207.4
6 2 0 44.2 -87.7 1 8 0 43.2 87.8 3 3 1 121.5 244.7
7 2 0 75.0 -152.1 2 8 0 32.8 64.7 4 3 1 72.4 150.6
8 2 0 27.7 57.4 3 8 0 18.5 -34.4 5 3 1 14.5 -29.1
9 2 0 17.4 -34.4 4 8 0 27.2 54.7 6 3 1 59.0 122.0
10 2 0 17.0 -37.0 5 8 0 70.9 135.8 7 3 1 55.8 111.5
3 0 0 220.8 430.0 9 0 0 76.7 152.2 8 3 1* 5.3 11.3
1 3 0 125.2 241.2 1 9 0 21.3 -42.5 9 3 1 10.3 20.1

2	3	0	93.1	-176.7	2	9	0	60.2	-117.6	1	4	1*	5.4	11.0
3	3	0	27.6	52.0	3	9	0	22.3	42.9	2	4	1	49.4	-96.0
4	3	0	16.4	-30.3	4	9	0	8.7	4.8	3	4	1	19.4	-36.2
5	3	0	62.6	130.5	10	0	0	34.1	-69.9	4	4	1	28.1	-56.7
6	3	0	41.8	84.9	1	10	0	34.6	67.4	5	4	1	23.5	-47.1
7	3	0	63.0	-128.4	2	10	0	38.9	-76.9	6	4	1	19.8	-41.0
8	3	0	7.5	8.9	11	0	0	19.7	-35.3	7	4	1	32.1	-66.0
9	3	0	82.8	161.9	1	11	0	9.9	20.4	8	4	1	8.6	-8.8
4	0	0	126.9	252.4	0	0	1*	5.8	.0	9	4	1	10.4	-20.4
1	4	0	206.7	409.3	1	0	1	12.0	17.7	1	5	1	66.9	-133.3
2	4	0	112.8	-223.9	2	0	1	16.2	-27.1	2	5	1	95.7	-195.1
3	4	0	19.2	-36.9	3	0	1	12.6	20.2	3	5	1	21.1	-42.1
4	4	0	160.6	332.0	4	0	1	12.4	19.8	4	5	1	34.7	71.3
5	4	0	47.5	98.1	5	0	1	10.1	13.0	5	5	1	39.9	-82.7
6	4	0	26.3	-54.6	6	0	1	37.0	-75.1	6	5	1	65.3	-130.2
7	4	0	30.8	61.9	7	0	1	27.4	-55.1	7	5	1	8.5	-11.7
8	4	0	34.1	68.5	8	0	1	8.7	-14.9	8	5	1	12.7	24.1
9	4	0	32.9	63.3	9	0	1	10.5	17.8	1	6	1	62.2	-123.6
5	0	0	48.2	99.1	10	0	1	34.3	-70.8	2	6	1	46.7	-94.5
1	5	0	40.4	-77.6	11	0	1	17.6	-34.5	3	6	1	61.9	124.7
2	5	0	21.2	41.9	1	1	1	87.3	-167.4	4	6	1	60.3	120.7
3	5	0*	.0	-1.0	2	1	1	204.6	-397.9	5	6	1	38.4	-76.2
4	5	0	11.1	-19.1	3	1	1	30.5	-59.3	6	6	1	14.5	-26.5
5	5	0	44.6	91.5	4	1	1	32.7	66.0	7	6	1	34.0	67.0
6	5	0	48.5	-96.3	5	1	1	104.8	-211.3	1	7	1	10.8	-19.9

H K L /FO/ /FC/ H K L /FO/ /FC/ H K L /FO/ /FC/

2	7	1	25.2	49.9	2	3	2	19.1	-34.9	11	1	2*	6.7	-13.6
3	7	1	59.0	117.1	3	3	2	116.4	238.2	0	0	3*	10.1	.0
4	7	1	27.1	52.0	4	3	2	51.8	-103.3	1	0	3	25.5	47.7
5	7	1	10.7	-18.7	5	3	2	113.8	-233.3	2	0	3	44.2	80.7
6	7	1	14.4	29.6	6	3	2	58.3	118.2	3	0	3	8.6	-10.8
1	8	1	7.6	-11.1	7	3	2	11.9	22.3	4	0	3	6.4	5.6
2	8	1	7.8	14.8	8	3	2	37.0	-73.6	5	0	3	16.4	31.3
3	8	1	7.0	-15.7	9	3	2	12.2	-22.6	6	0	3	28.6	56.8
4	8	1	11.9	23.5	1	4	2	22.2	-42.7	7	0	3	17.3	34.7

5	8	1*	4.9	-6.2	2	4	2	26.1	49.0	8	0	3*	3.9	.5
1	9	1	16.5	-32.2	3	4	2	55.6	-112.1	9	0	3	9.3	-14.8
2	9	1	74.2	-144.2	4	4	2	45.9	-88.9	10	0	3	33.4	66.8
3	9	1	32.1	-60.5	5	4	2	82.3	-167.7	11	0	3	8.9	20.2
4	9	1	15.1	28.6	6	4	2	12.2	-21.7	1	1	3	121.2	235.8
1	10	1	25.8	-47.3	7	4	2	40.5	80.0	2	1	3	189.7	379.6
2	10	1	27.0	-48.2	8	4	2	64.1	-126.1	3	1	3	29.8	-57.7
1	11	1*	4.2	1.3	9	4	2	57.2	-105.1	4	1	3	36.4	-75.2
0	0	2	215.4	-425.5	1	5	2	33.1	-66.2	5	1	3	101.8	205.5
1	0	2	114.6	-232.0	2	5	2	140.8	284.9	6	1	3	68.3	135.8
2	0	2	34.9	-73.0	3	5	2	59.0	-120.5	7	1	3	11.7	22.5
3	0	2	52.9	100.1	4	5	2	48.5	-97.0	8	1	3	11.7	-24.8
4	0	2	205.1	-408.3	5	5	2	52.8	107.2	9	1	3	30.8	64.6
5	0	2	140.0	-287.1	6	5	2	12.3	23.1	10	1	3	62.2	126.1
6	0	2	95.9	192.4	7	5	2*	3.5	7.0	1	2	3	127.8	249.8
7	0	2	46.7	-94.6	8	5	2	11.4	24.9	2	2	3	22.6	44.6
8	0	2	117.9	-241.5	1	6	2	27.6	59.1	3	2	3	120.4	-242.7
9	0	2	12.4	23.6	2	6	2	14.6	28.8	4	2	3	31.2	-65.0
10	0	2	6.3	-4.8	3	6	2	97.8	198.8	5	2	3	65.1	132.3
11	0	2	6.4	-13.3	4	6	2	9.0	15.9	6	2	3	23.8	47.3
1	1	2	192.6	369.0	5	6	2*	5.2	9.8	7	2	3	65.7	-132.3
2	1	2	8.9	4.0	6	6	2	48.7	94.8	8	2	3	47.1	-95.6
3	1	2	73.3	-144.5	7	6	2	14.9	30.4	9	2	3	17.6	35.2
4	1	2	49.9	98.5	1	7	2	20.9	-39.7	10	2	3*	4.3	-6.4
5	1	2	35.9	69.9	2	7	2	18.4	-34.3	1	3	3	14.5	-22.4
6	1	2	28.8	56.7	3	7	2	8.0	15.0	2	3	3	74.1	-149.9
7	1	2	76.0	155.2	4	7	2	21.7	40.5	3	3	3	87.4	-177.4
8	1	2	21.3	-43.6	5	7	2	56.8	-110.9	4	3	3	63.6	-134.0
9	1	2	6.6	11.8	6	7	2	40.9	-74.4	5	3	3	9.8	16.7
10	1	2	65.7	135.4	1	8	2	94.0	-186.5	6	3	3	44.4	-90.9
1	2	2	39.7	67.3	2	8	2	55.7	109.4	7	3	3	48.8	-97.4
2	2	2	188.2	373.3	3	8	2	12.3	-24.1	8	3	3	13.7	-27.1
3	2	2	26.9	-56.3	4	8	2	61.9	-120.2	9	3	3	11.4	-17.8
4	2	2	37.0	74.4	5	8	2	14.6	-29.8	1	4	3	18.4	-37.1
5	2	2	70.8	144.7	1	9	2	25.8	-47.8	2	4	3	66.4	136.2
6	2	2	23.3	-45.7	2	9	2	24.6	47.5	3	4	3	10.8	17.0
7	2	2	20.0	39.8	3	9	2	42.5	80.8	4	4	3	11.8	18.4
8	2	2	53.4	110.8	4	9	2	28.4	-54.3	5	4	3	24.8	46.6
9	2	2	13.7	-29.2	1	10	2	34.1	63.8	6	4	3	18.2	36.9

10 2 2 14.2 -26.0 2 10 2 9.4 16.3 7 4 3 31.6 62.7
1 3 2 134.3 -266.3 1 11 2 33.8 -66.6 8 4 3* 7.0 8.8

H K L /FO/ /FC/ H K L /FO/ /FC/ H K L /FO/ /FC/

1 5 3 44.8 84.3 3 2 4 50.3 -102.1 2 0 5 12.1 -24.5
2 5 3 90.4 180.4 4 2 4 81.9 -167.0 3 0 5* 6.8 -6.3
3 5 3 26.1 51.2 5 2 4 44.5 90.7 4 0 5 18.8 38.1
4 5 3 36.8 -73.2 6 2 4 32.1 -64.3 5 0 5* 3.7 -7.8
5 5 3 31.9 65.0 7 2 4 58.7 -118.4 6 0 5 27.3 -54.6
6 5 3 66.1 130.0 8 2 4 18.9 37.7 7 0 5 16.0 -31.6
7 5 3 6.5 10.3 9 2 4 17.2 -33.7 8 0 5 9.9 -17.3
1 6 3 59.6 118.4 1 3 4 30.8 56.6 9 0 5* 4.5 10.0
2 6 3 33.5 66.3 2 3 4 59.7 -121.7 10 0 5 23.1 -46.9
3 6 3 47.4 -93.1 3 3 4 20.3 38.8 1 1 5 48.9 -97.7
4 6 3 49.3 -96.6 4 3 4 15.6 -31.7 2 1 5 109.1 -220.2
5 6 3 24.6 48.4 5 3 4 44.3 91.0 3 1 5 22.3 -46.8
6 6 3 14.6 25.3 6 3 4 32.6 65.3 4 1 5 20.0 38.7
1 7 3* 5.3 1.6 7 3 4 46.4 -94.2 5 1 5 67.4 -132.5
2 7 3 23.4 -44.0 8 3 4* 3.9 3.1 6 1 5 67.4 -136.0
3 7 3 51.5 -101.0 1 4 4 141.8 285.7 7 1 5 14.5 -28.6
4 7 3 23.7 -46.1 2 4 4 79.6 -160.0 8 1 5 17.4 35.1
5 7 3* 8.4 16.2 3 4 4 13.1 -26.0 9 1 5 26.2 -53.5
1 8 3 7.3 -11.5 4 4 4 128.7 261.2 1 2 5 98.7 -199.7
2 8 3 7.5 -13.4 5 4 4 31.9 61.5 2 2 5 25.4 -52.8
3 8 3 12.5 25.5 6 4 4 26.8 -51.6 3 2 5 93.1 188.8
4 8 3 12.6 -21.9 7 4 4 25.5 52.0 4 2 5 14.7 27.4
1 9 3 22.3 43.7 8 4 4 29.6 57.4 5 2 5 45.3 -90.6
2 9 3 61.7 117.0 1 5 4 34.5 -67.2 6 2 5* 5.8 4.6
3 9 3 27.3 50.6 2 5 4* 5.5 -4.5 7 2 5 44.4 89.6
1 10 3 24.6 46.2 3 5 4* 5.1 -2.3 8 2 5 35.4 69.9
2 10 3 24.8 42.0 4 5 4* 4.7 -6.4 9 2 5* 5.9 -11.0
0 0 4 339.1 676.0 5 5 4 28.5 57.0 1 3 5 21.2 42.1
1 0 4 8.5 -6.9 6 5 4 44.7 -86.8 2 3 5 64.4 127.9
2 0 4 70.5 -140.9 7 5 4 32.9 -61.8 3 3 5 81.5 164.5
3 0 4 125.8 247.4 1 6 4 75.3 -150.8 4 3 5 47.3 96.6

4 0 4 83.6 165.0 2 6 4 61.7 -121.8 5 3 5 13.9 -27.2
5 0 4 45.2 92.2 3 6 4 6.3 -5.7 6 3 5 42.0 82.5
6 0 4 25.8 50.2 4 6 4 46.2 -91.4 7 3 5 42.5 81.0
7 0 4 12.3 -23.3 5 6 4 39.3 -75.7 8 3 5* .0 2.0
8 0 4 61.1 121.2 6 6 4 14.5 29.0 1 4 5* 1.7 1.0
9 0 4 58.4 116.3 1 7 4 101.2 201.3 2 4 5 25.7 -50.3
10 0 4 27.0 -54.1 2 7 4 27.7 -52.7 3 4 5 18.9 -38.8
1 1 4 23.3 41.8 3 7 4 39.4 -77.3 4 4 5 19.4 -38.5
2 1 4 95.3 -193.5 4 7 4 45.0 86.4 5 4 5 12.4 -23.6
3 1 4 29.3 -59.1 5 7 4 20.1 40.0 6 4 5 19.5 -37.8
4 1 4 92.5 184.8 1 8 4 39.6 76.0 7 4 5 23.2 -44.6
5 1 4 81.9 -165.6 2 8 4 22.9 42.3 1 5 5 53.4 -103.1
6 1 4 78.6 -155.5 3 8 4 19.3 -37.2 2 5 5 68.8 -135.7
7 1 4 26.6 52.9 4 8 4 24.8 46.9 3 5 5 8.2 -16.1
8 1 4 15.9 -33.1 1 9 4 14.5 -25.7 4 5 5 22.3 43.6
9 1 4 38.8 -76.5 2 9 4 53.6 -99.3 5 5 5 28.4 -56.9
10 1 4* 7.7 -13.7 1 10 4 28.0 49.8 6 5 5 44.5 -86.3
1 2 4 91.2 -183.9 0 0 5* 3.7 .0 1 6 5 34.0 -69.3
2 2 4 9.9 14.5 1 0 5 14.1 25.5 2 6 5 38.1 -75.2

H K L /FO/ /FC/ H K L /FO/ /FC/ H K L /FO/ /FC/

3 6 5 48.7 92.4 6 4 6 10.9 -20.1 2 5 7 50.7 95.7
4 6 5 48.6 91.2 1 5 6 13.7 -27.8 3 5 7 19.5 36.2
5 6 5 34.9 -66.2 2 5 6 72.9 142.5 4 5 7 21.1 -41.3
1 7 5 11.3 -23.0 3 5 6 33.0 -64.6 1 6 7 35.6 69.1
2 7 5 21.1 40.9 4 5 6 25.6 -52.3 2 6 7 15.9 32.3
3 7 5 40.6 77.0 5 5 6 30.8 59.3 3 6 7 31.5 -58.4
4 7 5 18.9 36.9 1 6 6 13.3 28.3 1 7 7 6.0 9.4
1 8 5* 8.8 -10.4 2 6 6 7.8 14.2 2 7 7 8.3 -19.4
2 8 5 6.6 10.6 3 6 6 66.9 130.9 0 0 8 132.8 261.7
3 8 5* 2.4 -8.1 4 6 6 10.4 19.8 1 0 8 6.7 8.5
1 9 5 8.8 -16.3 1 7 6 13.2 -25.3 2 0 8 29.9 -63.1
2 9 5 61.4 -111.2 2 7 6 8.7 -19.6 3 0 8 55.6 109.6
0 0 6 125.8 -255.0 3 7 6* 4.6 5.0 4 0 8 45.3 90.6
1 0 6 60.9 -125.3 1 8 6 58.6 -108.9 5 0 8 25.7 50.8
2 0 6* 3.8 3.2 2 8 6 37.0 68.3 6 0 8 11.3 21.5

3	0	6	10.4	21.6	0	0	7*	8.1	.0	7	0	8*	3.8	-8.7
4	0	6	110.7	-223.6	1	0	7	11.9	22.2	1	1	8	8.4	16.4
5	0	6	72.4	-146.1	2	0	7*	4.2	2.2	2	1	8	42.3	-89.3
6	0	6	65.8	134.3	3	0	7*	3.0	3.2	3	1	8	9.6	-18.4
7	0	6	22.5	-46.1	4	0	7*	7.3	3.8	4	1	8	39.2	76.8
8	0	6	77.6	-151.1	5	0	7*	2.8	-5.1	5	1	8	42.3	-82.8
9	0	6	7.8	14.7	6	0	7	12.8	25.2	6	1	8	39.4	-72.9
1	1	6	108.8	217.7	7	0	7	17.3	34.7	1	2	8	42.0	-85.2
2	1	6	24.2	46.8	8	0	7*	1.1	-3.4	2	2	8*	3.0	5.6
3	1	6	22.5	-45.2	1	1	7	40.4	84.6	3	2	8	23.7	-48.1
4	1	6	30.2	59.0	2	1	7	85.2	174.9	4	2	8	43.0	-85.0
5	1	6	15.7	28.2	3	1	7	10.4	-16.9	5	2	8	20.3	40.2
6	1	6	23.6	45.2	4	1	7	13.7	-26.4	1	3	8	10.5	17.1
7	1	6	45.7	89.5	5	1	7	58.2	112.2	2	3	8	22.8	-49.3
8	1	6	19.6	-39.5	6	1	7	37.2	74.9	3	3	8	7.1	13.0
1	2	6*	5.6	-2.0	7	1	7	12.4	22.9	4	3	8*	4.7	-5.3
2	2	6	91.8	186.8	1	2	7	54.2	107.7	5	3	8	26.3	50.0
3	2	6	6.2	-8.4	2	2	7	16.4	31.3	1	4	8	71.9	140.4
4	2	6	9.9	19.1	3	2	7	49.5	-100.2	2	4	8	39.1	-75.4
5	2	6	36.9	73.4	4	2	7	22.8	-45.2	3	4	8*	5.6	-12.5
6	2	6	9.7	-14.5	5	2	7	35.6	69.0	4	4	8	70.7	134.0
7	2	6	19.1	35.6	6	2	7	15.5	25.7	1	5	8	20.2	-38.1
8	2	6	35.1	68.5	7	2	7	44.1	-85.4	2	5	8	6.4	-12.5
1	3	6	83.0	-166.0	1	3	7*	5.2	-2.3	3	5	8*	1.1	-1.1
2	3	6	6.7	-5.8	2	3	7	48.3	-97.7	1	6	8	38.1	-71.7
3	3	6	77.5	158.8	3	3	7	53.4	-107.8	0	0	9*	.0	.0
4	3	6	31.6	-62.6	4	3	7	26.9	-53.5	1	0	9*	4.6	9.4
5	3	6	70.8	-139.0	5	3	7*	4.0	1.8	2	0	9	15.5	-29.9
6	3	6	37.5	74.8	6	3	7	30.4	-57.7	3	0	9*	4.1	-5.0
7	3	6	13.1	24.5	1	4	7	8.5	-10.3	4	0	9	12.0	21.2
1	4	6	10.6	-21.1	2	4	7	31.2	61.5	5	0	9	12.5	-23.3
2	4	6	18.8	35.0	3	4	7*	3.1	-.6	1	1	9	29.0	-61.4
3	4	6	26.5	-52.1	4	4	7	11.6	19.4	2	1	9	45.9	-91.8
4	4	6	24.6	-48.4	5	4	7	18.3	31.3	3	1	9*	.8	-6.7
5	4	6	56.0	-111.1	1	5	7	25.3	47.4	4	1	9	9.8	19.1

1	2	9	49.3	-93.9	3	2	9	47.4	89.9	2	3	9	21.2	41.1
2	2	9	9.2	-16.6	1	3	9	13.9	22.5	1	4	9*	2.8	6.2