

LHA	Hc	Zn	Hc	Zn	Hc	Zn	Hc	Zn	Hc	Zn	Hc	Zn	Hc	Zn
0	39°40.9'	62.5	25°46.8'	95.4	53°04.4'	125.9	Hamal	*Alpheratz	ALTAIR	*VEGA	Alioth			
1	40°14.5'	63.1	26°24.3'	96.2	53°34.7'	127.2	68°10.7'	176.8	23°42.8'	254.1	33°57.8'	291.6	17°22.3'	352.6
2	40°48.2'	63.6	27°01.8'	97.0	54°04.6'	128.5	68°12.0'	179.2	23°06.4'	258.0	33°22.8'	292.3	17°17.6'	353.1
3	41°22.1'	64.1	27°39.3'	97.8	54°33.9'	129.8	68°11.8'	181.5	22°29.9'	255.8	32°47.9'	292.9	17°13.3'	353.7
4	41°56.2'	64.7	28°16.6'	98.5	55°02.6'	131.2	68°10.0'	183.9	21°53.2'	256.7	32°13.2'	293.5	17°09.3'	354.3
5	42°30.4'	65.2	28°53.9'	99.5	55°30.7'	132.5	68°06.7'	186.2	21°26.5'	257.3	31°38.7'	294.1	17°05.8'	354.9
6	43°04.8'	65.8	29°31.1'	100.3	55°58.2'	133.9	68°01.8'	188.5	20°39.5'	258.3	31°04.3'	294.7	17°02.6'	355.5
7	43°39.3'	66.3	30°08.2'	101.2	56°25.1'	135.4	67°55.5'	190.8	20°02.5'	259.2	30°30.1'	295.4	16°59.8'	356.1
8	44°13.9'	66.8	30°45.2'	102.0	56°51.2'	136.8	67°47.6'	193.1	19°25.3'	260.0	29°56.0'	296.0	16°57.4'	356.6
9	44°48.7'	67.4	31°22.1'	102.9	57°16.7'	138.3	67°38.3'	195.4	18°48.1'	260.8	29°22.2'	296.6	16°55.4'	357.2
10	45°23.6'	67.9	31°58.8'	103.7	57°41.4'	139.9	67°27.6'	197.6	18°10.8'	261.6	28°48.5'	297.2	16°53.8'	357.8
11	45°58.7'	68.4	32°35.4'	104.6	58°05.4'	141.4	67°15.1'	199.9	17°33.4'	262.4	28°15.0'	297.8	16°52.3'	358.4
12	46°33.3'	69.0	33°11.1'	105.5	58°28.5'	143.0	67°02.0'	202.0	16°55.5'	263.2	27°41.7'	298.4	16°51.7'	359.0
13	47°09.1'	69.5	33°48.2'	106.4	58°50.8'	144.6	66°47.2'	204.1	16°18.4'	264.0	27°08.6'	299.1	16°51.2'	359.6
14	47°44.6'	70.1	34°24.4'	107.3	59°12.2'	146.3	66°31.1'	206.2	15°40.8'	264.8	26°35.7'	299.7	16°51.1'	00.2
15	24°57.1'	14.6	48°20.1'	70.6	35°00.3'	108.2	59°32.8'	147.9	66°13.8'	208.3	48°01.8'	288.5	26°03.0'	300.3
16	25°06.8'	15.1	48°55.8'	71.1	35°36.1'	109.1	59°52.3'	149.6	65°55.3'	210.3	47°26.0'	289.1	25°30.5'	300.9
17	25°16.8'	15.6	49°31.6'	71.7	36°11.7'	110.0	60°10.9'	151.3	65°35.7'	212.3	46°50.4'	289.6	24°58.2'	301.6
18	25°27.1'	16.1	50°07.5'	72.2	36°47.0'	111.0	60°28.5'	153.1	65°15.0'	214.2	46°14.9'	290.2	24°26.2'	302.2
19	25°37.7'	16.6	50°43.5'	72.8	37°22.2'	111.9	60°45.1'	154.9	64°53.3'	216.1	45°39.5'	290.7	23°52.3'	302.8
20	25°48.6'	17.1	51°19.6'	73.3	37°57.1'	112.9	61°00.6'	156.7	64°30.5'	217.9	45°04.3'	291.3	23°28.1'	303.4
21	25°59.9'	17.5	51°55.8'	73.9	38°31.3'	113.9	61°15.0'	158.5	64°06.9'	219.7	44°29.1'	291.8	22°53.1'	304.1
22	26°11.4'	18.0	52°32.2'	74.4	39°06.1'	114.9	61°28.2'	160.4	63°42.3'	221.5	43°54.1'	292.4	22°20.1'	304.7
23	26°23.3'	18.5	53°08.6'	75.0	39°40.4'	115.9	61°40.3'	162.3	63°16.8'	223.2	43°19.3'	292.9	21°48.2'	305.3
24	26°35.4'	19.0	53°45.1'	75.6	40°14.1'	116.9	61°51.2'	164.2	62°50.6'	224.9	42°44.6'	293.5	21°18.5'	306.0
25	26°47.8'	19.5	54°21.7'	76.1	40°47.6'	117.9	62°00.9'	166.1	62°23.6'	226.5	42°10.0'	294.0	20°48.1'	306.6
26	27°00.5'	19.9	54°58.4'	76.7	41°20.8'	118.9	62°09.4'	168.0	61°55.8'	228.1	41°35.6'	294.5	20°17.9'	307.2
27	27°13.5'	20.4	55°35.2'	77.3	41°53.7'	119.8	62°16.6'	170.0	61°27.4'	229.6	41°01.3'	295.1	19°48.0'	307.9
28	27°26.9'	20.9	56°12.1'	77.8	42°26.2'	121.1	62°22.5'	171.9	60°58.3'	231.1	40°27.2'	295.6	19°18.3'	308.5
29	27°40.5'	21.4	56°49.0'	78.4	42°58.4'	122.1	62°27.2'	173.9	60°28.6'	232.6	39°53.2'	296.2	18°48.9'	309.1
30	27°54.4'	21.8	23°24.1'	73.9	24°54.0'	110.3	17°24.3'	128.6	62°30.6'	175.9	59°58.4'	234.0	39°19.4'	296.7
31	28°08.5'	22.3	24°00.4'	74.6	25°29.3'	111.2	17°53.6'	129.5	62°32.6'	177.9	59°27.5'	235.4	38°48.5'	297.3
32	28°23.0'	22.8	24°36.9'	75.3	26°04.4'	112.1	18°22.5'	130.4	62°33.4'	179.8	58°56.2'	236.8	38°18.2'	297.8
33	28°37.7'	23.2	25°13.5'	76.0	26°39.3'	113.0	18°51.1'	131.3	62°32.8'	181.8	58°24.3'	238.1	37°39.0'	298.4
34	28°52.8'	23.7	25°50.2'	76.7	27°13.9'	113.9	19°19.2'	132.2	62°31.0'	183.8	57°52.1'	239.4	37°05.9'	299.5
35	29°08.1'	24.1	26°27.0'	77.4	27°48.3'	114.8	19°47.0'	133.2	62°27.8'	185.8	57°19.3'	240.7	36°32.9'	299.5
36	29°23.3'	24.6	27°03.9'	78.1	28°22.5'	115.7	20°14.3'	134.1	62°23.3'	187.8	56°46.2'	241.9	36°00.1'	300.0
37	29°39.5'	25.0	27°40.9'	78.8	28°56.3'	116.6	20°41.2'	135.1	62°17.6'	189.7	56°12.7'	243.2	35°27.5'	300.6
38	29°55.6'	25.5	28°17.9'	79.5	29°30.0'	117.6	21°07.6'	136.0	62°10.6'	191.7	55°38.8'	244.4	34°55.1'	301.1
39	30°12.0'	25.9	28°55.1'	80.2	30°03.3'	118.5	21°33.6'	137.0	62°02.3'	193.6	55°04.6'	245.5	34°22.9'	301.7
40	30°28.7'	26.4	29°32.4'	81.0	30°36.3'	119.5	21°59.1'	137.9	61°52.8'	195.6	54°30.1'	246.7	33°50.8'	302.2
41	30°45.6'	26.8	30°09.7'	81.7	31°09.0'	120.5	22°24.2'	138.9	61°42.0'	197.5	53°55.3'	247.8	33°19.1'	302.8
42	31°02.7'	27.3	30°47.1'	82.4	31°41.4'	121.4	22°48.8'	139.9	61°30.1'	199.3	53°20.2'	248.9	32°47.3'	303.3
43	31°20.2'	27.7	31°24.6'	83.1	32°13.4'	122.4	23°12.9'	140.9	61°17.0'	201.2	52°44.9'	249.9	32°15.9'	303.9
44	31°37.9'	28.2	32°02.1'	83.9	32°45.1'	123.4	23°36.4'	141.9	61°02.8'	203.0	52°09.3'	251.0	31°44.6'	304.4
45	31°55.8'	28.6	32°39.6'	84.6	33°16.5'	124.4	23°59.5'	142.9	60°47.5'	204.8	51°33.5'	252.0	31°13.6'	305.0
46	32°14.0'	29.0	33°17.3'	85.4	33°47.4'	125.4	24°22.0'	143.9	60°31.1'	206.6	50°57.5'	253.0	30°42.7'	305.5
47	32°32.3'	29.4	33°54.9'	86.1	34°18.0'	126.5	24°44.0'	144.9	60°13.7'	208.4	50°21.2'	254.0	30°11.1'	306.1
48	32°51.1'	29.9	34°32.6'	86.9	34°48.1'	127.5	25°05.5'	145.9	59°55.2'	210.1	49°44.9'	255.0	29°42.7'	306.7
49	33°10.1'	30.3	35°10.3'	87.6	35°17.9'	128.6	25°26.4'	146.9	59°35.8'	211.8	49°08.3'	256.0	29°11.1'	307.2
50	33°29.2'	30.7	35°48.0'	88.4	35°47.2'	129.6	25°46.7'	147.9	59°15.4'	213.5	48°31.6'	256.9	28°41.6'	307.8
51	33°48.6'	31.1	36°25.8'	89.1	36°16.1'	130.7	26°06.5'	148.9	58°54.1'	215.1	47°54.8'	257.8	28°11.9'	308.4
52	34°08.3'	31.6	37°03.6'	89.9	36°44.5'	131.8	26°25.6'	150.0	58°32.0'	216.8	47°17.8'	258.8	27°44.4'	308.9
53	34°28.2'	32.1	37°41.3'	90.7	37°12.4'	132.9	26°44.2'	151.1	58°08.9'	218.3	46°40.7'	259.7	27°16.1'	309.5
54	34°48.3'	32.4	38°19.1'	91.5	37°39.8'	134.0	27°02.2'	152.1	57°45.1'	219.9	46°03.5'	260.6	26°44.1'	310.1
55	35°08.6'	32.8	38°56.8'	92.3	38°06.7'	135.1	27°19.5'	153.2	57°20.5'	221.4	45°26.2'	261.4	26°15.3'	310.6
56	35°29.1'	33.2	39°34.5'	93.1	38°33.1'	136.2	27°36.2'	154.0	56°55.2'	222.9	44°48.8'	262.3	25°46.8'	311.2
57	35°49.9'	33.6	40°12.2'	93.9	38°59.0'	137.4	27°52.3'	155.3	56°29.1'	224.4	44°11.4'	263.2	25°18.5'	311.8
58	36°10.9'	34.0	40°49.9'	94.7	39°24.2'	138.5	28°07.7'	156.3	56°02.3'	225.8	43°33.8'	264.0	24°50.5'	312.4
59	36°32.1'	34.4	41°27.5'	95.5	39°49.0'	139.7	28°22.5'	157.5	55°34.9'	227.3	42°56.3'	264.8	24°22.8'	313.0
60	36°53.5'	34.8	42°05.0'	96.4	40°23.8'	139.3	28°36.6'	158.6	55°06.9'	228.6	42°18.6'	265.7	23°55.3'	313.5
61	37°15.2'	35.2	42°42.5'	97.2	40°50.3'	140.2	28°50.0'	159.7	54°38.2'	230.0	41°41.0'	266.5	23°28.0'	314.1
62	37°37.0'	35.5	43°19.9'	98.1	41°16.7'	141.1	29°02.8'	160.8	54°09.0'	231.3	41°03.3'	267.3	23°01.1'	314.7
63	37°59.1'	35.9	43°57.3'	98.9	41°43.0'	142.0	29°14.9'	161.9	53°39.3'	232.6	40°25.6'	268.1	22°28.4'	315.3
64	38°21.3'	36.3	44°34.5'	99.8	42°09.1'	142.9	29°26.2'	163.0	53°09.0'	233.9	39°47.8'	268.9	22°00.0'	315.9
65	38°43.4'	36.7	45°11.7'	100.7	42°35.0'	143.8	29°37.6'	164.0	52°38.3'	235.2	39°10.0'	269.7	21°31.8'	316.5
66	39°06.4'	37.0	45°48.8'	101.6	43°00.8'	144.8	29°48.4'	165.3	52°07.0'	236.4	38°32.3'	270.0	21°03.1'	317.1
67	39°29.3'	37.4	46°26.7'	102.5	43									

LHA	Hc	Zn	Hc	Zn	Hc	Zn	Hc	Zn	Hc	Zn	Hc	Zn	Hc	Zn
	*DENEBO		*VEGA		*ARCTURUS		*SPICA		*REGULUS		*POLLUX		*CAPELLA	
180	15°23.8'	33.6	24°00.8'	57.3	48°16.3'	127.2	24°58.4'	156.6	44°51.8'	219.8	37°51.6'	269.1	28°40.6'	308.9
181	15°44.9'	34.3	24°32.4'	57.9	48°46.1'	128.4	25°13.1'	157.6	44°27.3'	221.1	37°13.9'	269.9	28°11.3'	309.4
182	16°06.4'	34.9	25°04.5'	58.6	49°15.5'	129.6	25°27.1'	158.7	44°02.2'	222.3	36°36.1'	270.7	27°42.3'	310.0
183	16°28.1'	35.5	25°36.8'	59.2	49°44.3'	130.9	25°40.5'	159.7	43°36.5'	223.5	35°58.3'	271.4	27°13.5'	310.6
184	16°50.3'	36.2	26°09.3'	59.8	50°12.6'	132.1	25°53.3'	160.8	43°10.2'	224.7	35°30.6'	272.2	26°45.0'	311.1
185	17°12.7'	36.8	26°42.1'	60.4	50°40.3'	133.4	26°05.4'	161.9	42°43.3'	225.9	34°42.9'	273.0	26°16.6'	311.7
186	17°35.5'	37.4	27°15.0'	61.1	51°07.4'	134.7	26°18.8'	162.9	42°15.9'	227.1	34°05.0'	272.9	25°48.6'	312.3
187	17°58.6'	38.0	27°48.1'	61.7	51°33.9'	136.1	26°27.5'	164.0	41°48.0'	228.3	33°27.5'	274.4	25°20.8'	312.9
188	18°21.0'	38.6	28°21.5'	62.3	51°59.8'	137.4	26°37.6'	165.1	41°19.6'	229.4	32°49.9'	275.2	24°53.2'	313.4
189	18°45.7'	39.2	28°55.0'	62.9	52°25.0'	138.8	26°47.0'	166.2	40°50.7'	230.5	32°12.3'	275.9	24°25.9'	314.0
190	19°09.7'	39.9	29°28.7'	63.5	52°49.5'	140.2	26°55.6'	167.3	40°21.3'	231.7	31°34.8'	276.7	23°58.9'	314.6
191	19°34.1'	40.5	30°02.8'	64.1	53°13.3'	141.7	27°03.6'	168.4	39°51.4'	232.8	30°57.3'	277.4	23°32.2'	315.2
192	19°58.8'	41.1	30°36.7'	64.8	53°36.3'	143.1	27°10.9'	169.4	39°21.2'	233.8	30°19.9'	278.1	23°05.7'	315.8
193	20°23.7'	41.7	31°10.9'	65.4	53°58.6'	144.6	27°17.1'	170.5	38°50.5'	234.9	29°42.9'	278.8	22°39.5'	316.3
194	20°49.0'	42.3	31°45.3'	66.0	54°20.1'	146.1	27°23.3'	171.6	38°19.4'	236.0	29°05.3'	279.6	22°13.6'	316.9
	*DENEBO		VEGA		Rasalhague		*ARCTURUS		REGULUS		*POLLUX		CAPELLA	
195	21°14.5'	42.9	32°19.9'	66.6	54°44.7'	147.6	27°30.4'	172.7	37°47.9'	237.0	28°28.1'	280.3	21°47.9'	317.5
196	21°40.3'	43.5	32°54.6'	67.2	55°13.0'	149.1	27°38.1'	173.8	37°16.0'	238.1	27°51.0'	281.0	21°22.6'	318.1
197	22°06.5'	44.1	33°29.5'	67.9	55°40.3'	150.6	27°46.1'	174.9	36°43.8'	239.1	27°13.9'	281.7	20°57.5'	318.7
198	22°32.9'	44.7	34°04.6'	68.5	56°07.4'	152.1	27°54.3'	176.0	36°11.2'	240.1	26°37.0'	282.4	20°32.7'	319.3
199	22°59.5'	45.2	34°39.3'	69.1	56°34.3'	153.6	28°02.6'	177.1	35°38.3'	241.1	25°50.2'	283.1	20°08.3'	319.9
200	23°26.5'	45.8	35°15.1'	69.7	57°00.3'	155.1	28°11.0'	178.2	35°05.1'	242.1	25°03.3'	283.8	19°44.1'	320.5
201	23°53.7'	46.4	35°50.6'	70.3	57°26.3'	156.6	28°19.3'	179.3	34°31.6'	243.1	24°16.9'	284.5	19°20.2'	321.1
202	24°21.2'	47.0	36°26.3'	71.0	57°52.3'	158.1	28°27.6'	180.4	33°57.8'	244.0	24°10.4'	285.2	18°56.7'	321.7
203	24°48.9'	47.6	37°02.0'	71.7	58°18.3'	159.6	28°35.9'	181.5	33°23.7'	245.0	23°34.4'	285.9	18°33.4'	322.3
204	25°16.9'	48.2	37°37.3'	72.3	58°44.3'	161.1	28°44.0'	182.6	32°49.4'	245.9	22°57.8'	286.6	18°10.5'	322.9
205	25°45.2'	48.8	38°13.3'	72.9	59°10.3'	162.6	28°52.0'	183.7	32°14.8'	246.9	22°21.6'	287.3	17°47.9'	323.6
206	26°13.7'	49.3	38°50.1'	73.5	59°36.3'	164.1	29°00.1'	184.8	31°39.9'	247.8	21°45.7'	288.0	17°25.7'	324.2
207	26°42.5'	49.9	39°26.3'	74.1	30°14.7'	165.6	29°07.2'	185.9	31°04.8'	248.7	21°09.8'	288.7	17°03.7'	324.8
208	27°11.5'	50.5	40°02.7'	74.8	30°40.4'	167.1	29°14.3'	187.0	30°29.5'	249.6	20°34.2'	289.4	16°42.1'	325.4
209	27°40.7'	51.0	40°39.2'	75.4	31°05.9'	168.6	29°21.4'	188.1	29°54.0'	250.5	19°58.6'	290.1	16°20.9'	326.0
	*DENEBO		VEGA		Rasalhague		*ARCTURUS		REGULUS		*POLLUX		CAPELLA	
210	28°10.2'	51.6	41°15.8'	76.0	32°01.2'	169.1	29°28.5'	189.2	29°18.3'	251.4	19°23.3'	290.8	15°59.9'	326.7
211	28°39.9'	52.2	41°52.5'	76.7	32°27.2'	170.6	29°36.6'	190.3	28°42.4'	252.3	18°48.1'	291.5	15°39.3'	327.3
212	29°09.5'	52.7	42°29.3'	77.3	33°03.1'	172.1	29°44.7'	191.4	28°06.4'	253.2	18°13.0'	292.2	15°19.1'	327.9
213	29°40.0'	53.3	43°06.2'	78.0	33°38.6'	173.6	29°52.8'	192.5	27°30.0'	254.1	17°38.3'	292.9	14°59.2'	328.5
214	30°10.4'	53.9	43°43.1'	78.6	34°13.9'	175.1	30°00.9'	193.6	26°53.8'	254.9	17°03.5'	293.6	14°39.7'	329.2
215	30°41.0'	54.4	44°20.2'	79.3	34°50.3'	176.6	30°09.0'	194.7	26°17.2'	255.8	16°29.0'	294.3	14°20.5'	329.8
216	31°11.8'	55.0	44°57.3'	80.0	35°27.7'	178.1	30°17.1'	195.8	25°40.4'	256.6	15°54.4'	295.0	14°01.7'	330.5
217	31°42.8'	55.5	45°34.6'	80.6	36°05.1'	179.6	30°25.2'	196.9	25°03.8'	257.5	15°29.5'	295.7	13°43.3'	331.1
218	32°14.1'	56.1	46°11.9'	81.3	36°34.3'	181.1	30°33.3'	198.0	24°26.8'	258.3	14°46.6'	296.4	13°25.2'	331.7
219	32°45.5'	56.7	46°49.2'	82.0	37°03.7'	182.6	30°41.4'	199.1	23°49.4'	259.2	14°12.9'	297.1	13°07.5'	332.4
220	33°17.2'	57.2	47°26.8'	82.7	37°37.6'	184.1	30°49.5'	200.2	23°12.7'	260.0	13°39.9'	297.8	12°50.1'	333.0
221	33°49.0'	57.8	48°04.0'	83.4	38°11.1'	185.6	30°57.6'	201.3	22°35.4'	260.8	13°06.1'	298.5	12°33.3'	333.7
222	34°21.0'	58.3	48°41.7'	84.1	38°43.5'	187.1	31°05.7'	202.4	21°58.1'	261.6	12°33.3'	299.3	12°16.8'	334.3
223	34°53.2'	58.9	49°19.1'	84.8	39°14.9'	188.6	31°13.8'	203.5	21°20.7'	262.4	12°00.3'	300.0	12°00.6'	335.0
224	35°25.7'	59.4	49°56.9'	85.5	39°45.9'	190.1	31°21.9'	204.6	20°43.3'	263.2	11°27.7'	300.7	11°44.8'	335.6
	Schedar		*DENEBO		VEGA		Rasalhague		*ARCTURUS		Denebola		*Dubhe	
225	21°21.9'	19.6	35°58.3'	60.0	50°34.5'	86.2	40°16.5'	126.4	56°57.0'	199.0	37°17.7'	243.8	57°01.4'	311.7
226	21°34.7'	20.1	36°31.0'	60.5	51°12.2'	87.0	40°46.7'	127.5	56°44.1'	200.7	36°43.7'	244.8	56°33.3'	311.9
227	21°47.8'	20.7	37°04.0'	61.1	51°49.9'	87.7	41°16.4'	128.6	56°30.3'	202.4	36°09.9'	245.7	56°05.0'	312.0
228	22°01.3'	21.2	37°37.3'	61.7	52°27.7'	88.4	41°45.6'	129.8	56°15.4'	204.0	35°34.8'	246.7	55°37.2'	312.2
229	22°15.2'	21.7	38°10.4'	62.3	53°05.4'	89.2	42°14.4'	130.9	55°59.5'	205.7	35°00.0'	247.6	55°09.2'	312.3
230	22°29.3'	22.3	38°43.9'	62.7	53°43.2'	90.0	42°42.7'	132.1	55°42.7'	207.3	34°25.0'	248.6	54°41.4'	312.5
231	22°43.8'	22.8	39°17.5'	63.2	54°20.9'	90.8	43°10.5'	133.3	55°24.9'	208.9	33°49.7'	249.5	54°13.6'	312.7
232	22°58.6'	23.4	39°51.3'	63.8	54°58.7'	91.6	43°37.3'	134.4	55°06.0'	210.4	33°14.3'	250.4	53°45.9'	312.9
233	23°13.7'	23.9	40°25.3'	64.4	55°36.6'	92.4	44°04.4'	135.6	54°46.7'	212.0	32°38.6'	251.3	53°18.3'	313.1
234	23°29.2'	24.4	40°59.4'	64.9	56°14.1'	93.2	44°30.5'	136.9	54°26.2'	213.8	32°02.7'	252.2	52°50.7'	313.3
235	23°44.9'	24.9	41°33.6'	65.4	56°51.8'	94.0	44°56.0'	138.1	54°05.0'	215.0	31°26.2'	253.1	52°23.3'	313.5
236	24°01.0'	25.5	42°08.1'	66.0	57°29.5'	94.8	45°20.9'	139.4	53°42.9'	216.3	30°50.5'	254.0	51°55.9'	313.7
237	24°17.4'	26.0	42°42.6'	66.6	58°07.1'	95.7	45°45.8'	140.6	53°20.0'	217.9	30°14.1'	254.9	51°28.7'	313.9
238	24°34.1'	26.5	43°17.3'	67.1	58°44.6'	96.6	46°10.8'	141.9	52°56.5'	219.9	29°37.5'	255.8	51°01.6'	314.2
239	24°51.1'	27.0	43°52.2'	67.6	59°22.1'	97.5	46°31.8'	143.2	52°32.2'	220.8	29°00.9'	256.6	50°34.5'	314.4
	*Schedar		DENEBO		VEGA		*Rasalhague		ARCTURUS		*Denebola		Dubhe	
240	25°08.4'	27.5	44°27.1'	68.1	59°59.5'	98.5	46°54.0'	144.5	52°07.0'	222.2	28°24.1'	257.5	50°07.6'	314.7
241	25°26.0'	28.1	45°02.2'	68.7	60°36.8'	99.4	47°16.6'	145.9	51°41.6'	223.5	27°47.2'	258.3	49°40.8'	314.9
242	25°43.9'	28.6	45°37.3'	69.2	61°14.0'	100.4	47°36.4'	147.2	51°15.2'	224.9	27°10.1'	259.2	49°14.1'	315.2
243	26°02.1'	29.1	46°12.9'	69.8	61°51.0'	101.4	47°56.5'	148.6	50°48.3'	226.2	26°33.0'	260.1	48°47.6'	315.4
244	26°20.6'	29.6	46°48.4'	70.4	62°28.2'	102.4	48°16.8'	150.0	50°20.7'	227.5	25°55.7'	260.8	48°21.1'	315.7
245	26°39.4'	30.1	47°24.0'	71.0	63°04.8'	103.5	48°34.3'	151.4	49°52.6'	228.8	25°18.4'	261.7	47°54.8'	316.0
246	26°58.5'	30.6	47°59.7'	71.5	63°41.4'	104.5	48°52.0'	152.8	49°24.0'	230.0	24°41.4'	262.4	47°28.7'	316.2
247	27°17.9'	31.1	48°35.6'	72.0	64°17.9'	105.6	49°08.8'	154.2	48°54.8'	231.3	24°03.6'	263.3	47°02.6'	316.5
248	27°37.5'	31.6	49°11.5'	72.6	64°54.1'	106.8	49°24.8'	155.6	48°25.1'	232.5	23°26.0'	264.1	46°36.7'	316.8
249	27°57.4'	32.1	49°47.6'	73.1	65°30.3'	108.0	49°40.0'	157.1	47°54.9'	233.7	22°			