

Scaled data based on original data using
LM-79-2019 Approved Method: Electrical and Photometric Measurements of Solid-
State Lighting Products

Test Report Prepared for
Cooper Lighting Solutions
(formerly Eaton)

Brand: LUMARK

Report Number: P731757

Luminaire Tested: **NHRS50U33BZ750-VS**

Issue Date: 09/15/2023

Test Information

Test Method: LM-79-2019
Report Number: P731757
Test Lab: INNOVATION CENTER
Issue Date: 09/15/2023
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: LUMARK
Catalog Number: NHRS50U33BZ750-VS
Description: LUMARK NIGHT HARRIER 2 PANEL FLOOD SELECTABLE CCT NEMA 3 AT 5000K WITH VISOR
Light Source: (32) 5000K CCT, 70 CRI LEDS
Ballast/Driver: -

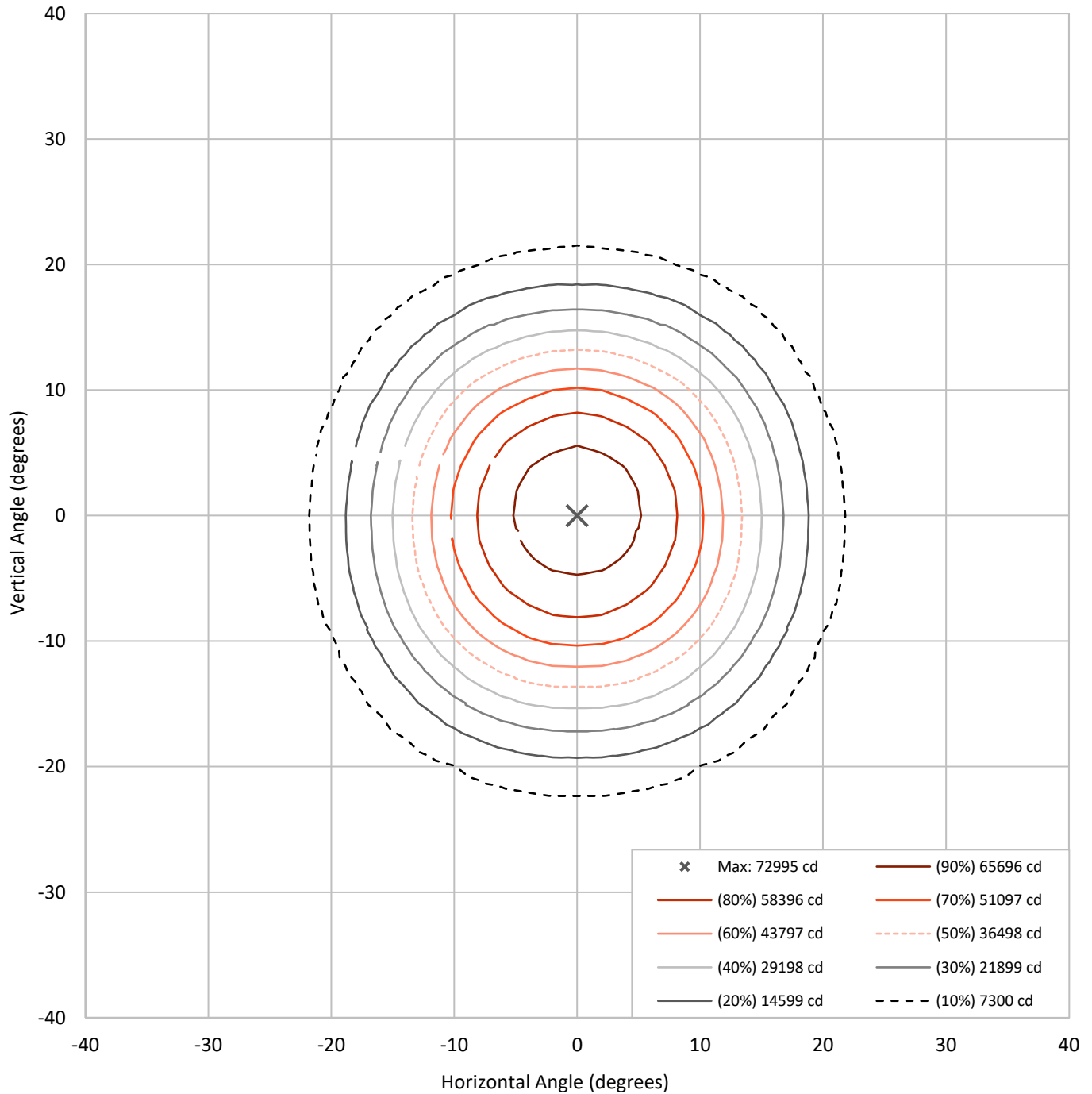
Summary

Lumens per Lamp:	N/A	NEMA Type:	3H x 3V
Luminaire Lumens:	18674.5 lumens	Max Intensity:	72995 candela
Efficiency:	N/A	Max Intensity Angle:	0°H x 0°V
Efficacy:	120.8 lumens/watt		
Luminous Opening:	Rectangular (W 1.25' x L: 0.46' x H: 0')		
Beam Angle (50%):	26.8°H x 26.9°V	Field Angle (10%):	43.6°H x 43.7°V
Beam Lumens:	9082.2 lumens	Field Lumens:	14704.3 lumens
Beam Efficiency:	48.6%	Field Efficiency:	78.7%
Input Watts (W):	154.6		
Input Voltage (V):	120		
Input Current (A _{in}):	NR		
Voltage Rise (V):	NR		
Power Factor:	NR		
Total Harmonic Distortion (THDi):	NR		
Frequency (hertz):	60		
Stabilization Time:	NR		
Operation Time:	NR		
Ambient Temperature (°C):	NR		
Test Distance:	28.75 FT		



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Iso-Candela Plot





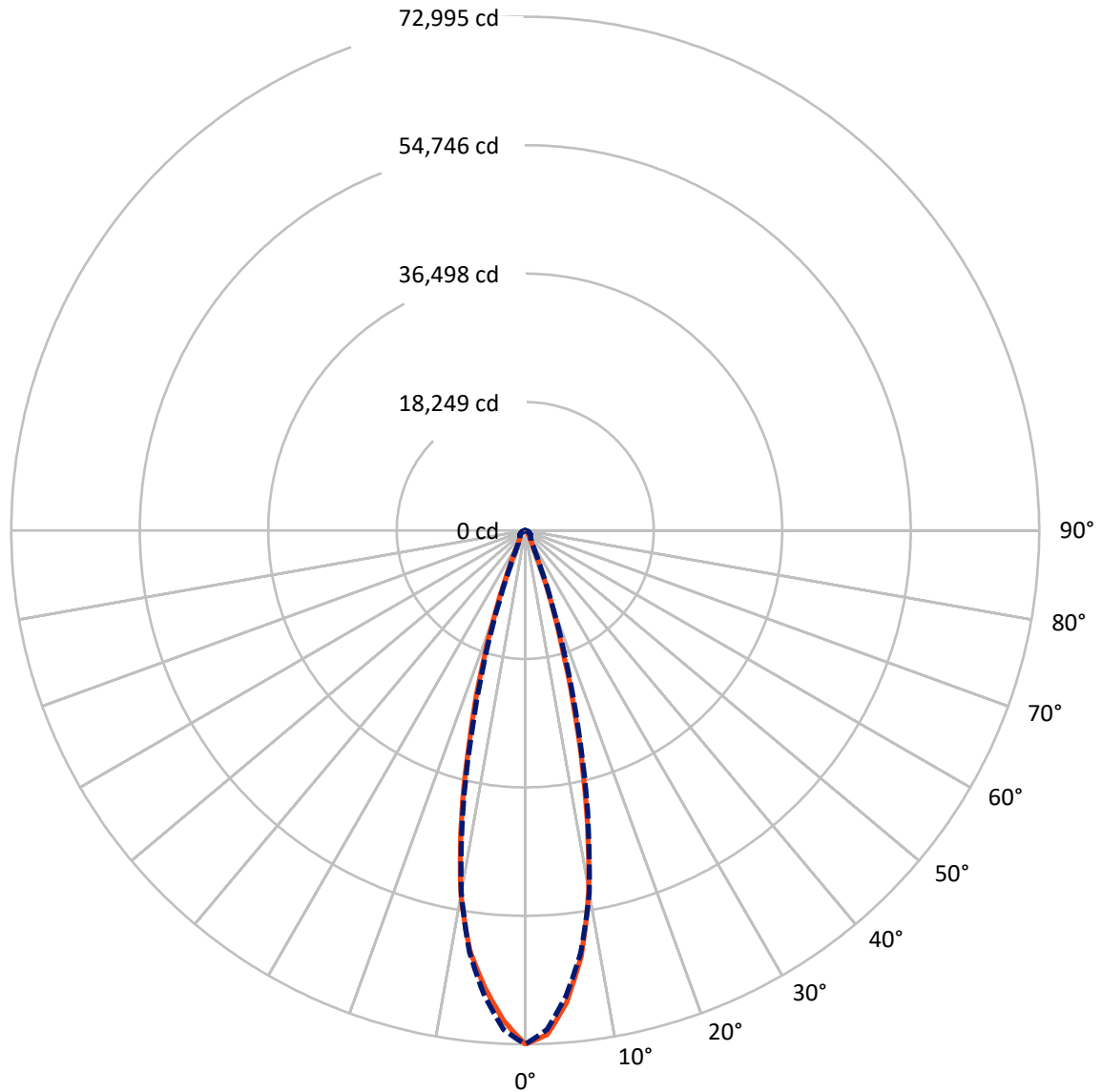
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Lumen Table

90	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0							
80	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0							
70	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2					
60		0.4	1.1	1.8	2.5	3.3	4.0	4.2	4.2	4.0	3.3	2.5	1.8		1.1	0.4			
50	1.1	1.6	3.8	6.8	10.2	13.3	15.4	16.6	16.6	15.4	13.3	10.2	6.8	3.8	1.6	1.1			
40		3.2	7.5	13.2	19.1	23.9	28.3	32.0	32.0	28.3	23.9	19.1	13.2	7.5	3.2				
30	2.8	4.7	10.8	18.5	25.6	35.6	60.4	107.3	107.3	60.4	35.6	25.6	18.5	10.8	4.7	2.8			
20		5.8	13.0	21.8	30.7	60.8	292.8	766.8	766.8	292.8	60.8	30.7	21.8	13.0	5.8				
10	3.9	6.5	14.3	23.3	33.9	108.9	766.1	1778.8	1778.8	766.1	108.9	33.9	23.3	14.3	6.5	3.9			
0		6.7	14.8	23.7	34.1	112.2	790.0	1777.9	1777.9	790.0	112.2	34.1	23.7	14.8	6.7				
-10	3.9	6.6	14.3	23.1	31.6	64.0	331.5	843.4	843.4	331.5	64.0	31.6	23.1	14.3	6.6	3.9			
-20		6.2	13.2	22.0	29.0	39.6	70.3	134.6	134.6	70.3	39.6	29.0	22.0	13.2	6.2				
-30	2.9	5.5	11.7	19.7	26.9	32.2	37.6	42.4	42.4	37.6	32.2	26.9	19.7	11.7	5.5	2.9			
-40		4.5	9.7	16.2	22.9	28.1	31.4	33.5	33.5	31.4	28.1	22.9	16.2	9.7	4.5				
-50	1.3	3.3	7.2	11.9	16.8	21.1	24.1	25.9	25.9	24.1	21.1	16.8	11.9	7.2	3.3	1.3			
-60		2.0	4.5	7.4	10.5	13.2	15.0	15.9	15.9	15.0	13.2	10.5	7.4	4.5	2.0				
-70	0.2	2.7	8.3	13.3	15.0	13.3	8.3	2.7	0.2							0.2			
-80		0.2	2.7	8.3	13.3	15.0	13.3	8.3	2.7	0.2									
-90	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0							
	-90	-80	-70	-60	-50	-40	-30	-20	-10	0	10	20	30	40	50	60	70	80	90

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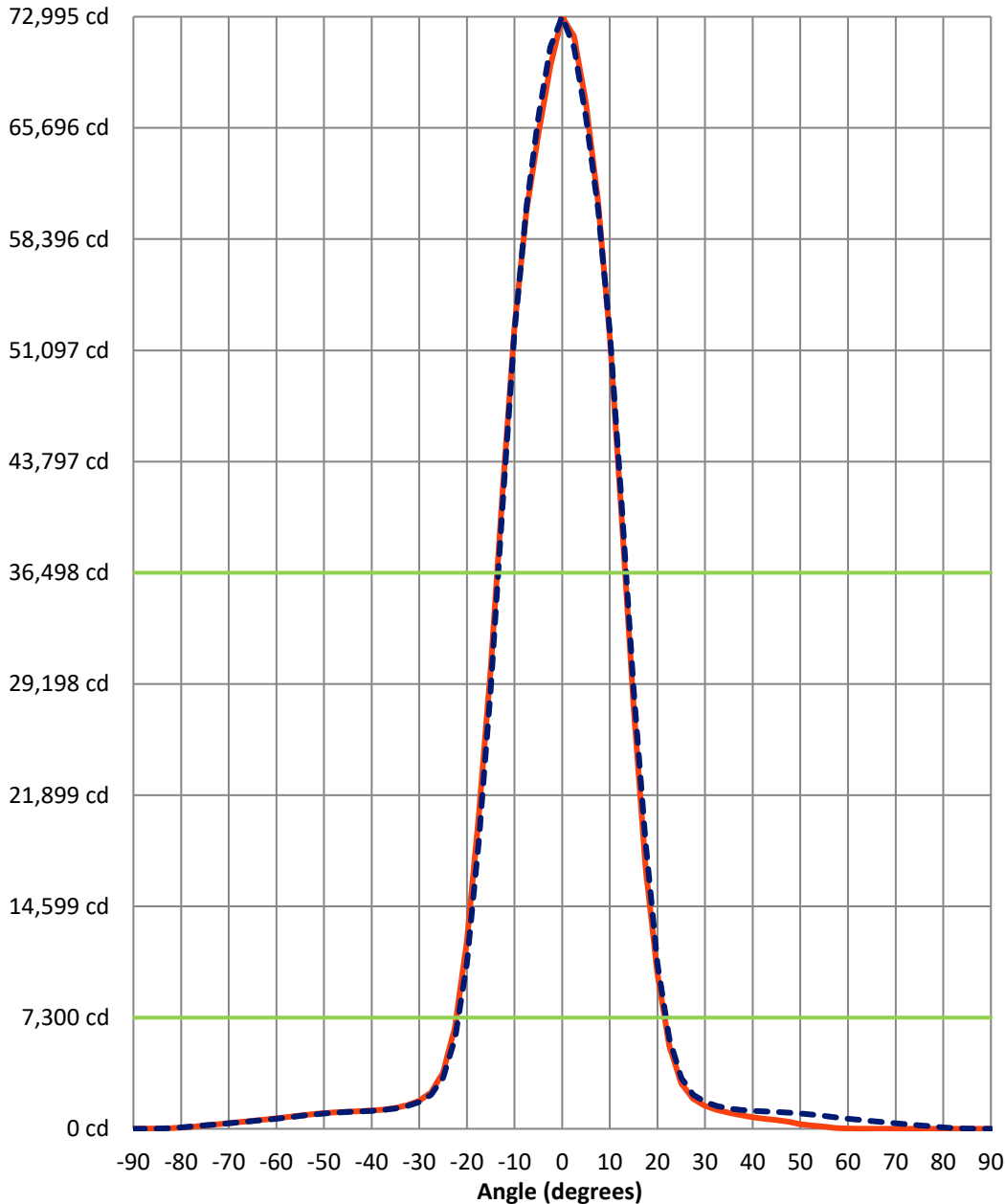
Luminous Intensity Polar Plot



— Vertical Distribution Through 0-Deg - - - Horizontal Distribution Through 0-Deg

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Luminous Intensity Plot



Beam:
H Angle: 26.8°
V Angle: 26.9°
Lumens: 9082.2
Efficiency: 48.6%

Field:
H Angle: 43.6°
V Angle: 43.7°
Lumens: 14704.3
Efficiency: 78.7%

Spill:
Lumens: 3970.2
Efficiency: 21.3%

— Vertical Distribution through 0-Deg
- - Horizontal Distribution through 0-Deg



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FIELD
 BEAM

CANDELA DISTRIBUTION:

	-90°	-87.5°	-85°	-82.5°	-80°	-77.5°	-75°	-72.5°	-70°	-67.5°	-65°
90°	0	0	0	0	0	0	0	0	0	0	0
87.5°	0	0	0	0	0	0	0	0	0	0	0
85°	0	0	0	0	0	0	1	1	1	1	1
82.5°	0	0	0	0	1	1	1	1	1	1	1
80°	0	0	0	1	1	1	1	1	1	1	1
77.5°	0	0	0	1	1	1	1	1	1	1	1
75°	0	0	1	1	1	1	1	1	1	1	1
72.5°	0	0	1	1	2	2	1	1	1	1	1
70°	0	1	1	1	2	2	2	2	2	2	2
67.5°	0	1	1	2	3	3	3	2	2	3	2
65°	0	1	1	2	3	4	4	3	4	5	4
62.5°	0	1	1	3	4	5	5	4	6	7	8
60°	0	1	1	3	4	7	7	7	9	13	13
57.5°	0	1	2	4	6	9	11	10	14	19	21
55°	0	1	2	4	8	11	15	14	21	26	33
52.5°	0	1	3	5	10	14	20	23	28	40	47
50°	0	1	3	5	12	19	25	32	38	54	69
47.5°	0	1	3	6	15	24	31	42	52	70	94
45°	0	1	4	8	17	29	41	53	70	94	120
42.5°	0	1	4	10	19	34	51	67	88	119	153
40°	0	1	5	12	23	39	61	83	108	144	187
37.5°	0	1	5	14	27	45	72	99	131	172	222
35°	0	1	6	16	31	53	83	115	154	201	255
32.5°	0	1	6	17	36	62	95	130	176	229	282
30°	0	2	7	19	40	71	108	147	198	256	309
27.5°	0	2	7	21	45	79	121	165	220	280	334
25°	0	2	8	23	49	88	133	183	242	303	359
22.5°	0	2	8	25	54	97	145	200	262	324	382
20°	0	2	9	27	59	106	157	216	281	344	403
17.5°	0	2	9	29	63	114	168	232	298	362	424
15°	0	2	10	30	67	122	179	245	314	380	443
12.5°	0	2	10	32	72	130	188	256	327	396	460
10°	0	2	11	33	76	137	198	265	336	407	475
7.5°	0	2	11	35	81	144	206	273	344	416	485
5°	0	2	11	36	84	152	215	282	353	426	494
2.5°	0	2	12	37	86	156	221	287	357	430	503
0°	0	2	12	38	89	161	227	291	361	434	508
-2.5°	0	2	12	39	91	164	230	294	364	438	512
-5°	0	2	13	40	93	167	232	296	367	442	514
-7.5°	0	2	13	41	95	167	232	295	365	440	515
-10°	0	2	13	41	94	168	232	294	364	440	514
-12.5°	0	2	13	41	94	167	231	293	362	437	511
-15°	0	2	13	41	93	166	230	291	359	433	507
-17.5°	0	2	13	41	93	165	229	288	355	428	501
-20°	0	2	13	40	91	162	226	284	350	421	494



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CANDELA DISTRIBUTION (continued):

	-90°	-87.5°	-85°	-82.5°	-80°	-77.5°	-75°	-72.5°	-70°	-67.5°	-65°
-22.5°	0	2	13	40	89	158	222	279	343	413	485
-25°	0	2	13	39	87	153	217	273	336	404	475
-27.5°	0	2	12	38	84	147	211	267	327	394	463
-30°	0	2	12	36	80	140	205	259	318	383	450
-32.5°	0	2	12	35	76	133	198	250	308	371	436
-35°	0	2	11	33	71	124	189	241	297	358	420
-37.5°	0	2	11	31	66	117	178	232	285	343	404
-40°	0	2	10	29	60	109	167	222	271	328	385
-42.5°	0	2	10	26	55	102	156	210	258	310	365
-45°	0	2	9	23	51	94	143	198	244	292	344
-47.5°	0	2	8	20	47	85	131	183	230	273	322
-50°	0	2	7	18	43	76	119	168	214	254	299
-52.5°	0	2	7	17	38	67	108	152	196	235	277
-55°	0	2	6	15	33	59	96	138	177	215	252
-57.5°	0	2	5	14	27	52	84	121	157	194	229
-60°	0	1	4	12	22	45	72	105	137	171	204
-62.5°	0	1	3	10	19	37	61	89	117	148	179
-65°	0	1	3	9	17	28	50	72	97	124	152
-67.5°	0	1	3	7	14	22	39	59	75	99	125
-70°	0	1	3	5	11	19	28	44	59	74	96
-72.5°	0	1	2	4	8	15	22	30	43	56	68
-75°	0	1	2	3	5	11	17	22	27	38	48
-77.5°	0	1	2	3	4	7	12	16	20	22	28
-80°	0	1	1	2	3	5	7	10	13	16	18
-82.5°	0	0	1	2	3	4	5	6	7	9	11
-85°	0	0	1	1	2	2	3	4	4	5	6
-87.5°	0	0	0	1	1	1	2	2	2	3	3
-90°	0	0	0	0	0	0	0	0	0	0	0



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CANDELA DISTRIBUTION (continued):

	-62.5°	-60°	-57.5°	-55°	-52.5°	-50°	-47.5°	-45°	-42.5°	-40°	-37.5°
90°	0	0	0	0	0	0	0	0	0	0	0
87.5°	0	0	1	1	1	1	1	1	1	0	0
85°	1	1	1	1	1	1	1	1	0	0	0
82.5°	1	1	1	1	1	1	0	0	0	0	0
80°	1	1	1	1	1	1	0	0	0	0	0
77.5°	1	1	1	1	1	1	0	0	0	0	0
75°	1	1	1	1	1	1	0	0	0	0	0
72.5°	1	1	1	1	1	1	0	0	0	0	0
70°	1	1	1	1	1	1	0	0	0	0	0
67.5°	1	2	2	2	1	1	0	1	1	1	1
65°	2	3	4	3	1	2	3	3	2	2	2
62.5°	4	6	7	7	6	6	8	9	6	7	7
60°	11	10	15	18	16	16	18	21	19	16	22
57.5°	19	21	30	35	36	31	39	41	44	43	47
55°	34	39	51	60	62	61	67	77	80	81	82
52.5°	57	63	80	90	96	100	109	122	130	130	136
50°	82	98	112	127	137	147	161	180	190	195	207
47.5°	115	134	149	167	183	205	227	242	255	275	306
45°	150	172	190	211	237	270	291	306	329	359	390
42.5°	190	211	233	257	302	334	356	376	407	453	480
40°	222	249	277	318	365	395	424	452	505	545	571
37.5°	257	289	323	377	423	459	496	539	591	637	660
35°	292	328	374	429	480	525	566	616	666	712	744
32.5°	327	368	423	477	531	586	631	682	735	782	816
30°	359	409	468	524	584	639	689	744	804	845	877
27.5°	387	448	510	570	634	691	746	808	864	905	935
25°	413	480	550	615	681	742	801	868	920	960	991
22.5°	440	509	581	658	726	791	854	916	966	1012	1042
20°	465	536	609	689	768	837	901	959	1005	1045	1084
17.5°	489	560	635	716	798	875	943	1003	1039	1074	1113
15°	510	581	658	742	825	903	971	1029	1065	1098	1138
12.5°	529	600	680	765	850	928	994	1046	1083	1119	1166
10°	546	617	698	785	872	950	1013	1060	1097	1135	1189
7.5°	559	631	714	803	891	970	1029	1073	1110	1149	1208
5°	569	642	727	820	907	986	1041	1084	1120	1161	1221
2.5°	579	653	739	836	922	998	1053	1097	1132	1172	1232
0°	585	660	746	846	931	1004	1060	1106	1140	1178	1237
-2.5°	588	665	752	849	935	1007	1065	1109	1142	1179	1237
-5°	588	667	754	847	933	1005	1065	1108	1140	1175	1231
-7.5°	587	667	754	843	929	1002	1061	1104	1136	1170	1223
-10°	585	664	749	837	923	995	1054	1099	1131	1162	1211
-12.5°	582	658	742	828	913	986	1045	1091	1125	1154	1196
-15°	577	651	732	817	901	976	1034	1082	1119	1145	1178
-17.5°	571	642	720	803	886	964	1023	1074	1110	1137	1167
-20°	564	632	705	786	869	948	1010	1060	1099	1128	1155



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CANDELA DISTRIBUTION (continued):

	-62.5°	-60°	-57.5°	-55°	-52.5°	-50°	-47.5°	-45°	-42.5°	-40°	-37.5°
-22.5°	555	620	690	768	850	928	994	1047	1087	1118	1142
-25°	544	608	675	750	829	906	976	1032	1074	1105	1131
-27.5°	532	596	660	730	807	882	951	1010	1055	1090	1118
-30°	517	581	643	709	783	856	924	984	1033	1070	1100
-32.5°	501	567	625	689	757	828	893	953	1004	1047	1079
-35°	484	546	605	666	732	797	859	919	973	1017	1053
-37.5°	465	526	584	641	702	762	826	881	935	986	1022
-40°	445	504	560	616	670	726	784	841	895	942	988
-42.5°	426	481	536	588	637	689	743	798	848	896	940
-45°	399	456	511	557	603	651	701	752	799	844	889
-47.5°	374	429	481	525	568	613	657	702	747	790	833
-50°	347	399	448	490	531	572	614	652	692	733	773
-52.5°	320	367	412	453	491	530	568	602	637	672	709
-55°	292	335	374	413	450	485	519	551	582	613	644
-57.5°	265	302	338	373	408	440	470	499	528	555	582
-60°	237	269	301	334	365	394	420	446	472	498	522
-62.5°	209	238	266	294	323	348	372	394	419	439	462
-65°	180	206	232	257	283	303	323	343	361	381	401
-67.5°	150	172	196	220	241	258	276	293	309	325	341
-70°	117	137	156	177	198	214	228	242	256	270	283
-72.5°	84	102	118	135	149	165	179	190	202	215	226
-75°	58	68	80	94	105	117	127	138	148	158	167
-77.5°	36	44	52	58	64	73	81	89	96	102	106
-80°	20	22	28	33	38	42	45	47	50	54	59
-82.5°	13	15	16	18	18	19	20	22	25	27	29
-85°	7	8	9	11	12	12	13	13	14	14	15
-87.5°	3	4	5	5	6	6	7	7	8	8	9
-90°	0	0	0	0	0	0	0	0	0	0	0



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CANDELA DISTRIBUTION (continued):

	-35°	-32.5°	-30°	-27.5°	-25°	-22.5°	-20°	-17.5°	-15°	-12.5°	-10°
90°	0	0	0	0	0	0	0	0	0	0	0
87.5°	0	0	0	0	0	0	0	0	0	0	0
85°	0	0	0	0	0	0	0	0	0	0	0
82.5°	0	0	0	0	0	0	0	0	0	0	0
80°	0	0	0	0	0	0	0	0	0	0	0
77.5°	0	0	0	0	0	0	0	0	0	0	0
75°	0	0	0	0	0	0	0	0	0	0	0
72.5°	0	0	0	0	0	0	0	0	0	0	0
70°	0	0	0	0	0	0	0	0	0	0	0
67.5°	0	0	0	0	0	0	0	0	0	0	0
65°	2	1	1	1	0	1	1	1	1	1	1
62.5°	6	5	6	6	6	5	7	7	7	6	6
60°	22	18	18	20	20	18	20	21	21	20	20
57.5°	48	45	43	50	50	45	48	56	59	59	58
55°	87	93	93	99	106	113	119	123	126	128	133
52.5°	148	158	158	165	183	189	186	198	204	203	206
50°	230	241	253	267	280	287	288	297	304	305	307
47.5°	321	338	355	374	388	398	413	424	427	431	439
45°	407	427	451	471	486	499	510	523	532	540	547
42.5°	491	520	550	565	567	588	606	613	626	632	633
40°	593	624	651	663	676	698	709	710	718	731	735
37.5°	691	727	753	770	785	803	813	826	842	853	862
35°	778	809	842	855	874	893	913	934	956	978	997
32.5°	845	877	903	925	946	976	1006	1044	1076	1114	1153
30°	902	935	965	990	1026	1071	1121	1181	1242	1298	1364
27.5°	962	996	1031	1071	1126	1191	1281	1366	1471	1550	1686
25°	1021	1057	1107	1170	1248	1358	1487	1619	1812	1983	2276
22.5°	1075	1122	1190	1276	1398	1556	1747	2006	2393	2863	3476
20°	1125	1186	1273	1400	1565	1775	2104	2660	3370	4598	5834
17.5°	1170	1253	1362	1515	1725	2067	2685	3669	5245	7760	10423
15°	1204	1304	1446	1642	1945	2484	3431	5258	8536	12574	17296
12.5°	1242	1354	1516	1747	2150	3004	4731	7820	12590	18957	25342
10°	1274	1403	1594	1901	2491	3722	6134	10623	17475	25762	33765
7.5°	1299	1440	1656	2029	2826	4585	8062	14001	22249	31803	41591
5°	1315	1466	1704	2144	3098	5234	9486	16603	25964	36807	47926
2.5°	1330	1489	1746	2228	3281	5642	10397	18169	28103	39810	51261
0°	1335	1496	1757	2242	3356	5913	10852	18871	28861	40939	52316
-2.5°	1335	1491	1760	2250	3282	5804	10694	18636	28353	40533	51690
-5°	1324	1472	1720	2176	3153	5419	10064	17481	26753	37955	48527
-7.5°	1310	1450	1672	2064	2913	4812	8685	15044	23542	33168	43193
-10°	1290	1416	1612	1937	2583	3965	6712	11801	19131	27544	35818
-12.5°	1264	1372	1537	1778	2224	3202	5213	8819	14259	21130	27862
-15°	1236	1329	1471	1677	2016	2639	3738	5998	9956	14762	20005
-17.5°	1214	1288	1402	1557	1781	2186	2923	4154	6217	9516	12852
-20°	1190	1245	1336	1463	1635	1875	2264	2954	3828	5567	7189



REPORT NUMBER: P731757
 CATALOG NUMBER: NHRS50U33BZ750-VS

CANDELA DISTRIBUTION (continued):

	-35°	-32.5°	-30°	-27.5°	-25°	-22.5°	-20°	-17.5°	-15°	-12.5°	-10°
-22.5°	1171	1214	1279	1371	1501	1676	1896	2220	2691	3308	4183
-25°	1155	1184	1232	1302	1391	1512	1662	1833	2081	2324	2734
-27.5°	1140	1165	1195	1243	1309	1379	1482	1590	1727	1845	2033
-30°	1126	1147	1171	1199	1240	1289	1349	1423	1500	1576	1670
-32.5°	1107	1131	1150	1171	1191	1223	1257	1304	1352	1402	1453
-35°	1084	1109	1132	1145	1159	1177	1196	1222	1246	1280	1310
-37.5°	1055	1084	1105	1120	1132	1143	1156	1169	1181	1203	1220
-40°	1020	1051	1073	1091	1103	1116	1125	1134	1143	1155	1165
-42.5°	980	1009	1034	1054	1070	1083	1094	1103	1113	1120	1127
-45°	930	959	987	1009	1030	1043	1055	1069	1077	1086	1094
-47.5°	869	902	928	953	975	992	1007	1021	1032	1042	1053
-50°	805	836	864	888	910	930	948	963	974	984	996
-52.5°	744	769	796	821	841	859	877	890	902	912	924
-55°	674	700	723	746	767	784	799	812	822	831	844
-57.5°	609	634	656	675	692	708	721	731	740	747	757
-60°	546	569	588	605	621	633	644	652	658	664	672
-62.5°	483	503	521	537	551	563	571	577	581	585	591
-65°	420	438	454	469	483	494	500	506	509	513	517
-67.5°	357	372	387	401	413	423	429	434	438	441	445
-70°	296	307	319	330	340	349	355	360	363	366	369
-72.5°	236	246	255	264	271	278	282	286	289	292	294
-75°	177	184	190	196	201	206	210	213	215	218	220
-77.5°	111	117	123	127	131	134	136	138	138	139	140
-80°	63	66	68	70	71	73	75	76	77	78	79
-82.5°	31	32	33	33	34	34	34	34	34	35	35
-85°	15	15	16	16	16	16	16	17	17	17	17
-87.5°	10	10	10	11	11	11	12	12	13	13	13
-90°	0	0	0	0	0	0	0	0	0	0	0



REPORT NUMBER: P731757
 CATALOG NUMBER: NHRS50U33BZ750-VS

CANDELA DISTRIBUTION (continued):

	-7.5°	-5°	-2.5°	0°	2.5°	5°	7.5°	10°	12.5°	15°	17.5°
90°	0	0	0	0	0	0	0	0	0	0	0
87.5°	0	0	0	0	0	0	0	0	0	0	0
85°	0	0	0	0	0	0	0	0	0	0	0
82.5°	0	0	0	0	0	0	0	0	0	0	0
80°	0	0	0	0	0	0	0	0	0	0	0
77.5°	0	0	0	0	0	0	0	0	0	0	0
75°	0	0	0	0	0	0	0	0	0	0	0
72.5°	0	0	0	0	0	0	0	0	0	0	0
70°	0	0	0	0	0	0	0	0	0	0	0
67.5°	0	0	0	0	0	0	0	0	0	0	0
65°	0	0	0	0	0	0	0	1	1	1	1
62.5°	6	5	5	5	5	5	6	6	6	7	7
60°	20	20	20	19	20	20	20	20	20	21	21
57.5°	54	48	47	47	47	48	54	58	59	59	56
55°	137	139	142	141	142	139	137	133	128	126	123
52.5°	209	210	213	215	213	210	209	206	203	204	198
50°	305	297	297	300	297	297	305	307	305	304	297
47.5°	451	459	469	466	469	459	451	439	431	427	424
45°	556	562	569	573	569	562	556	547	540	532	523
42.5°	642	646	651	655	651	646	642	633	632	626	613
40°	745	751	756	755	756	751	745	735	731	718	710
37.5°	875	885	894	898	894	885	875	862	853	842	826
35°	1016	1034	1050	1051	1050	1034	1016	997	978	956	934
32.5°	1183	1212	1235	1237	1235	1212	1183	1153	1114	1076	1044
30°	1412	1453	1483	1506	1483	1453	1412	1364	1298	1242	1181
27.5°	1786	1874	1935	1968	1935	1874	1786	1686	1550	1471	1366
25°	2547	2744	2862	2989	2862	2744	2547	2276	1983	1812	1619
22.5°	4203	4727	5045	5442	5045	4727	4203	3476	2863	2393	2006
20°	7653	8939	9566	10193	9566	8939	7653	5834	4598	3370	2660
17.5°	13637	15723	17364	17207	17364	15723	13637	10423	7760	5245	3669
15°	21796	25003	27029	27727	27029	25003	21796	17296	12574	8536	5258
12.5°	31184	36067	39390	40069	39390	36067	31184	25342	18957	12590	7820
10°	41666	47164	50828	51973	50828	47164	41666	33765	25762	17475	10623
7.5°	50518	56401	59629	60967	59629	56401	50518	41591	31803	22249	14001
5°	56387	62588	65728	67298	65728	62588	56387	47926	36807	25964	16603
2.5°	59790	65686	70064	71684	70064	65686	59790	51261	39810	28103	18169
0°	60474	66380	70972	72995	70972	66380	60474	52316	40939	28861	18871
-2.5°	59742	64956	68673	69726	68673	64956	59742	51690	40533	28353	18636
-5°	56840	61898	64631	65275	64631	61898	56840	48527	37955	26753	17481
-7.5°	51352	56730	59598	60199	59598	56730	51352	43193	33168	23542	15044
-10°	43440	48955	51924	52624	51924	48955	43440	35818	27544	19131	11801
-12.5°	33926	38793	41577	41821	41577	38793	33926	27862	21130	14259	8819
-15°	24763	28322	30329	30197	30329	28322	24763	20005	14762	9956	5998
-17.5°	16249	18750	20122	20566	20122	18750	16249	12852	9516	6217	4154
-20°	9498	11135	12186	12296	12186	11135	9498	7189	5567	3828	2954



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 CATALOG NUMBER: NHRS50U33BZ750-VS

CANDELA DISTRIBUTION (continued):

	-7.5°	-5°	-2.5°	0°	2.5°	5°	7.5°	10°	12.5°	15°	17.5°
-22.5°	5285	6138	6686	6679	6686	6138	5285	4183	3308	2691	2220
-25°	3151	3472	3669	3703	3669	3472	3151	2734	2324	2081	1833
-27.5°	2186	2310	2395	2394	2395	2310	2186	2033	1845	1727	1590
-30°	1745	1806	1859	1843	1859	1806	1745	1670	1576	1500	1423
-32.5°	1496	1527	1552	1551	1552	1527	1496	1453	1402	1352	1304
-35°	1335	1356	1372	1368	1372	1356	1335	1310	1280	1246	1222
-37.5°	1235	1247	1257	1259	1257	1247	1235	1220	1203	1181	1169
-40°	1176	1185	1192	1195	1192	1185	1176	1165	1155	1143	1134
-42.5°	1137	1146	1153	1156	1153	1146	1137	1127	1120	1113	1103
-45°	1104	1112	1119	1123	1119	1112	1104	1094	1086	1077	1069
-47.5°	1064	1074	1082	1084	1082	1074	1064	1053	1042	1032	1021
-50°	1009	1019	1026	1026	1026	1019	1009	996	984	974	963
-52.5°	935	943	950	953	950	943	935	924	912	902	890
-55°	855	864	870	871	870	864	855	844	831	822	812
-57.5°	765	771	778	780	778	771	765	757	747	740	731
-60°	678	682	686	685	686	682	678	672	664	658	652
-62.5°	595	598	602	604	602	598	595	591	585	581	577
-65°	521	522	523	521	523	522	521	517	513	509	506
-67.5°	447	450	449	447	449	450	447	445	441	438	434
-70°	371	373	371	368	371	373	371	369	366	363	360
-72.5°	295	297	296	294	296	297	295	294	292	289	286
-75°	221	223	221	218	221	223	221	220	218	215	213
-77.5°	140	140	138	136	138	140	140	140	139	138	138
-80°	81	80	79	78	79	80	81	79	78	77	76
-82.5°	36	36	36	35	36	36	36	35	35	34	34
-85°	18	18	18	18	18	18	18	17	17	17	17
-87.5°	14	14	14	14	14	14	14	13	13	13	12
-90°	0	0	0	0	0	0	0	0	0	0	0



REPORT NUMBER: P731757
 CATALOG NUMBER: NHRS50U33BZ750-VS

CANDELA DISTRIBUTION (continued):

	20°	22.5°	25°	27.5°	30°	32.5°	35°	37.5°	40°	42.5°	45°
90°	0	0	0	0	0	0	0	0	0	0	0
87.5°	0	0	0	0	0	0	0	0	0	1	1
85°	0	0	0	0	0	0	0	0	0	0	1
82.5°	0	0	0	0	0	0	0	0	0	0	0
80°	0	0	0	0	0	0	0	0	0	0	0
77.5°	0	0	0	0	0	0	0	0	0	0	0
75°	0	0	0	0	0	0	0	0	0	0	0
72.5°	0	0	0	0	0	0	0	0	0	0	0
70°	0	0	0	0	0	0	0	0	0	0	0
67.5°	0	0	0	0	0	0	0	1	1	1	1
65°	1	1	0	1	1	1	2	2	2	2	3
62.5°	7	5	6	6	6	5	6	7	7	6	9
60°	20	18	20	20	18	18	22	22	16	19	21
57.5°	48	45	50	50	43	45	48	47	43	44	41
55°	119	113	106	99	93	93	87	82	81	80	77
52.5°	186	189	183	165	158	158	148	136	130	130	122
50°	288	287	280	267	253	241	230	207	195	190	180
47.5°	413	398	388	374	355	338	321	306	275	255	242
45°	510	499	486	471	451	427	407	390	359	329	306
42.5°	606	588	567	565	550	520	491	480	453	407	376
40°	709	698	676	663	651	624	593	571	545	505	452
37.5°	813	803	785	770	753	727	691	660	637	591	539
35°	913	893	874	855	842	809	778	744	712	666	616
32.5°	1006	976	946	925	903	877	845	816	782	735	682
30°	1121	1071	1026	990	965	935	902	877	845	804	744
27.5°	1281	1191	1126	1071	1031	996	962	935	905	864	808
25°	1487	1358	1248	1170	1107	1057	1021	991	960	920	868
22.5°	1747	1556	1398	1276	1190	1122	1075	1042	1012	966	916
20°	2104	1775	1565	1400	1273	1186	1125	1084	1045	1005	959
17.5°	2685	2067	1725	1515	1362	1253	1170	1113	1074	1039	1003
15°	3431	2484	1945	1642	1446	1304	1204	1138	1098	1065	1029
12.5°	4731	3004	2150	1747	1516	1354	1242	1166	1119	1083	1046
10°	6134	3722	2491	1901	1594	1403	1274	1189	1135	1097	1060
7.5°	8062	4585	2826	2029	1656	1440	1299	1208	1149	1110	1073
5°	9486	5234	3098	2144	1704	1466	1315	1221	1161	1120	1084
2.5°	10397	5642	3281	2228	1746	1489	1330	1232	1172	1132	1097
0°	10852	5913	3356	2242	1757	1496	1335	1237	1178	1140	1106
-2.5°	10694	5804	3282	2250	1760	1491	1335	1237	1179	1142	1109
-5°	10064	5419	3153	2176	1720	1472	1324	1231	1175	1140	1108
-7.5°	8685	4812	2913	2064	1672	1450	1310	1223	1170	1136	1104
-10°	6712	3965	2583	1937	1612	1416	1290	1211	1162	1131	1099
-12.5°	5213	3202	2224	1778	1537	1372	1264	1196	1154	1125	1091
-15°	3738	2639	2016	1677	1471	1329	1236	1178	1145	1119	1082
-17.5°	2923	2186	1781	1557	1402	1288	1214	1167	1137	1110	1074
-20°	2264	1875	1635	1463	1336	1245	1190	1155	1128	1099	1060



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 CATALOG NUMBER: NHRS50U33BZ750-VS

CANDELA DISTRIBUTION (continued):

	20°	22.5°	25°	27.5°	30°	32.5°	35°	37.5°	40°	42.5°	45°
-22.5°	1896	1676	1501	1371	1279	1214	1171	1142	1118	1087	1047
-25°	1662	1512	1391	1302	1232	1184	1155	1131	1105	1074	1032
-27.5°	1482	1379	1309	1243	1195	1165	1140	1118	1090	1055	1010
-30°	1349	1289	1240	1199	1171	1147	1126	1100	1070	1033	984
-32.5°	1257	1223	1191	1171	1150	1131	1107	1079	1047	1004	953
-35°	1196	1177	1159	1145	1132	1109	1084	1053	1017	973	919
-37.5°	1156	1143	1132	1120	1105	1084	1055	1022	986	935	881
-40°	1125	1116	1103	1091	1073	1051	1020	988	942	895	841
-42.5°	1094	1083	1070	1054	1034	1009	980	940	896	848	798
-45°	1055	1043	1030	1009	987	959	930	889	844	799	752
-47.5°	1007	992	975	953	928	902	869	833	790	747	702
-50°	948	930	910	888	864	836	805	773	733	692	652
-52.5°	877	859	841	821	796	769	744	709	672	637	602
-55°	799	784	767	746	723	700	674	644	613	582	551
-57.5°	721	708	692	675	656	634	609	582	555	528	499
-60°	644	633	621	605	588	569	546	522	498	472	446
-62.5°	571	563	551	537	521	503	483	462	439	419	394
-65°	500	494	483	469	454	438	420	401	381	361	343
-67.5°	429	423	413	401	387	372	357	341	325	309	293
-70°	355	349	340	330	319	307	296	283	270	256	242
-72.5°	282	278	271	264	255	246	236	226	215	202	190
-75°	210	206	201	196	190	184	177	167	158	148	138
-77.5°	136	134	131	127	123	117	111	106	102	96	89
-80°	75	73	71	70	68	66	63	59	54	50	47
-82.5°	34	34	34	33	33	32	31	29	27	25	22
-85°	16	16	16	16	16	15	15	15	14	14	13
-87.5°	12	11	11	11	10	10	10	9	8	8	7
-90°	0	0	0	0	0	0	0	0	0	0	0



REPORT NUMBER: P731757
 CATALOG NUMBER: NHRS50U33BZ750-VS

CANDELA DISTRIBUTION (continued):

	47.5°	50°	52.5°	55°	57.5°	60°	62.5°	65°	67.5°	70°	72.5°
90°	0	0	0	0	0	0	0	0	0	0	0
87.5°	1	1	1	1	1	0	0	0	0	0	0
85°	1	1	1	1	1	1	1	1	1	1	1
82.5°	0	1	1	1	1	1	1	1	1	1	1
80°	0	1	1	1	1	1	1	1	1	1	1
77.5°	0	1	1	1	1	1	1	1	1	1	1
75°	0	1	1	1	1	1	1	1	1	1	1
72.5°	0	1	1	1	1	1	1	1	1	1	1
70°	0	1	1	1	1	1	1	2	2	2	2
67.5°	0	1	1	2	2	2	1	2	3	2	2
65°	3	2	1	3	4	3	2	4	5	4	3
62.5°	8	6	6	7	7	6	4	8	7	6	4
60°	18	16	16	18	15	10	11	13	13	9	7
57.5°	39	31	36	35	30	21	19	21	19	14	10
55°	67	61	62	60	51	39	34	33	26	21	14
52.5°	109	100	96	90	80	63	57	47	40	28	23
50°	161	147	137	127	112	98	82	69	54	38	32
47.5°	227	205	183	167	149	134	115	94	70	52	42
45°	291	270	237	211	190	172	150	120	94	70	53
42.5°	356	334	302	257	233	211	190	153	119	88	67
40°	424	395	365	318	277	249	222	187	144	108	83
37.5°	496	459	423	377	323	289	257	222	172	131	99
35°	566	525	480	429	374	328	292	255	201	154	115
32.5°	631	586	531	477	423	368	327	282	229	176	130
30°	689	639	584	524	468	409	359	309	256	198	147
27.5°	746	691	634	570	510	448	387	334	280	220	165
25°	801	742	681	615	550	480	413	359	303	242	183
22.5°	854	791	726	658	581	509	440	382	324	262	200
20°	901	837	768	689	609	536	465	403	344	281	216
17.5°	943	875	798	716	635	560	489	424	362	298	232
15°	971	903	825	742	658	581	510	443	380	314	245
12.5°	994	928	850	765	680	600	529	460	396	327	256
10°	1013	950	872	785	698	617	546	475	407	336	265
7.5°	1029	970	891	803	714	631	559	485	416	344	273
5°	1041	986	907	820	727	642	569	494	426	353	282
2.5°	1053	998	922	836	739	653	579	503	430	357	287
0°	1060	1004	931	846	746	660	585	508	434	361	291
-2.5°	1065	1007	935	849	752	665	588	512	438	364	294
-5°	1065	1005	933	847	754	667	588	514	442	367	296
-7.5°	1061	1002	929	843	754	667	587	515	440	365	295
-10°	1054	995	923	837	749	664	585	514	440	364	294
-12.5°	1045	986	913	828	742	658	582	511	437	362	293
-15°	1034	976	901	817	732	651	577	507	433	359	291
-17.5°	1023	964	886	803	720	642	571	501	428	355	288
-20°	1010	948	869	786	705	632	564	494	421	350	284



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CANDELA DISTRIBUTION (continued):

	47.5°	50°	52.5°	55°	57.5°	60°	62.5°	65°	67.5°	70°	72.5°
-22.5°	994	928	850	768	690	620	555	485	413	343	279
-25°	976	906	829	750	675	608	544	475	404	336	273
-27.5°	951	882	807	730	660	596	532	463	394	327	267
-30°	924	856	783	709	643	581	517	450	383	318	259
-32.5°	893	828	757	689	625	567	501	436	371	308	250
-35°	859	797	732	666	605	546	484	420	358	297	241
-37.5°	826	762	702	641	584	526	465	404	343	285	232
-40°	784	726	670	616	560	504	445	385	328	271	222
-42.5°	743	689	637	588	536	481	426	365	310	258	210
-45°	701	651	603	557	511	456	399	344	292	244	198
-47.5°	657	613	568	525	481	429	374	322	273	230	183
-50°	614	572	531	490	448	399	347	299	254	214	168
-52.5°	568	530	491	453	412	367	320	277	235	196	152
-55°	519	485	450	413	374	335	292	252	215	177	138
-57.5°	470	440	408	373	338	302	265	229	194	157	121
-60°	420	394	365	334	301	269	237	204	171	137	105
-62.5°	372	348	323	294	266	238	209	179	148	117	89
-65°	323	303	283	257	232	206	180	152	124	97	72
-67.5°	276	258	241	220	196	172	150	125	99	75	59
-70°	228	214	198	177	156	137	117	96	74	59	44
-72.5°	179	165	149	135	118	102	84	68	56	43	30
-75°	127	117	105	94	80	68	58	48	38	27	22
-77.5°	81	73	64	58	52	44	36	28	22	20	16
-80°	45	42	38	33	28	22	20	18	16	13	10
-82.5°	20	19	18	18	16	15	13	11	9	7	6
-85°	13	12	12	11	9	8	7	6	5	4	4
-87.5°	7	6	6	5	5	4	3	3	3	2	2
-90°	0	0	0	0	0	0	0	0	0	0	0



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CANDELA DISTRIBUTION (continued):

	75°	77.5°	80°	82.5°	85°	87.5°	90°
90°	0	0	0	0	0	0	0
87.5°	0	0	0	0	0	0	0
85°	1	0	0	0	0	0	0
82.5°	1	1	1	0	0	0	0
80°	1	1	1	1	0	0	0
77.5°	1	1	1	1	0	0	0
75°	1	1	1	1	1	0	0
72.5°	1	2	2	1	1	0	0
70°	2	2	2	1	1	1	0
67.5°	3	3	3	2	1	1	0
65°	4	4	3	2	1	1	0
62.5°	5	5	4	3	1	1	0
60°	7	7	4	3	1	1	0
57.5°	11	9	6	4	2	1	0
55°	15	11	8	4	2	1	0
52.5°	20	14	10	5	3	1	0
50°	25	19	12	5	3	1	0
47.5°	31	24	15	6	3	1	0
45°	41	29	17	8	4	1	0
42.5°	51	34	19	10	4	1	0
40°	61	39	23	12	5	1	0
37.5°	72	45	27	14	5	1	0
35°	83	53	31	16	6	1	0
32.5°	95	62	36	17	6	1	0
30°	108	71	40	19	7	2	0
27.5°	121	79	45	21	7	2	0
25°	133	88	49	23	8	2	0
22.5°	145	97	54	25	8	2	0
20°	157	106	59	27	9	2	0
17.5°	168	114	63	29	9	2	0
15°	179	122	67	30	10	2	0
12.5°	188	130	72	32	10	2	0
10°	198	137	76	33	11	2	0
7.5°	206	144	81	35	11	2	0
5°	215	152	84	36	11	2	0
2.5°	221	156	86	37	12	2	0
0°	227	161	89	38	12	2	0
-2.5°	230	164	91	39	12	2	0
-5°	232	167	93	40	13	2	0
-7.5°	232	167	95	41	13	2	0
-10°	232	168	94	41	13	2	0
-12.5°	231	167	94	41	13	2	0
-15°	230	166	93	41	13	2	0
-17.5°	229	165	93	41	13	2	0
-20°	226	162	91	40	13	2	0



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CANDELA DISTRIBUTION (continued):

	75°	77.5°	80°	82.5°	85°	87.5°	90°
-22.5°	222	158	89	40	13	2	0
-25°	217	153	87	39	13	2	0
-27.5°	211	147	84	38	12	2	0
-30°	205	140	80	36	12	2	0
-32.5°	198	133	76	35	12	2	0
-35°	189	124	71	33	11	2	0
-37.5°	178	117	66	31	11	2	0
-40°	167	109	60	29	10	2	0
-42.5°	156	102	55	26	10	2	0
-45°	143	94	51	23	9	2	0
-47.5°	131	85	47	20	8	2	0
-50°	119	76	43	18	7	2	0
-52.5°	108	67	38	17	7	2	0
-55°	96	59	33	15	6	2	0
-57.5°	84	52	27	14	5	2	0
-60°	72	45	22	12	4	1	0
-62.5°	61	37	19	10	3	1	0
-65°	50	28	17	9	3	1	0
-67.5°	39	22	14	7	3	1	0
-70°	28	19	11	5	3	1	0
-72.5°	22	15	8	4	2	1	0
-75°	17	11	5	3	2	1	0
-77.5°	12	7	4	3	2	1	0
-80°	7	5	3	2	1	1	0
-82.5°	5	4	3	2	1	0	0
-85°	3	2	2	1	1	0	0
-87.5°	2	1	1	1	0	0	0
-90°	0	0	0	0	0	0	0

(END OF REPORT)