

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: P731741

Luminaire Tested: **NHRS50U33BZ730-VS**

Issue Date: 09/15/2023

**Test Information**

Test Method: LM-79-2019  
Report Number: P731741  
Test Lab: INNOVATION CENTER  
Issue Date: 09/15/2023  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: LUMARK  
Catalog Number: NHRS50U33BZ730-VS  
Description: LUMARK NIGHT HARRIER 2 PANEL FLOOD SELECTABLE CCT NEMA 3 AT 3000K WITH VISOR  
Light Source: (32) 3000K CCT, 70 CRI LEDS  
Ballast/Driver: -

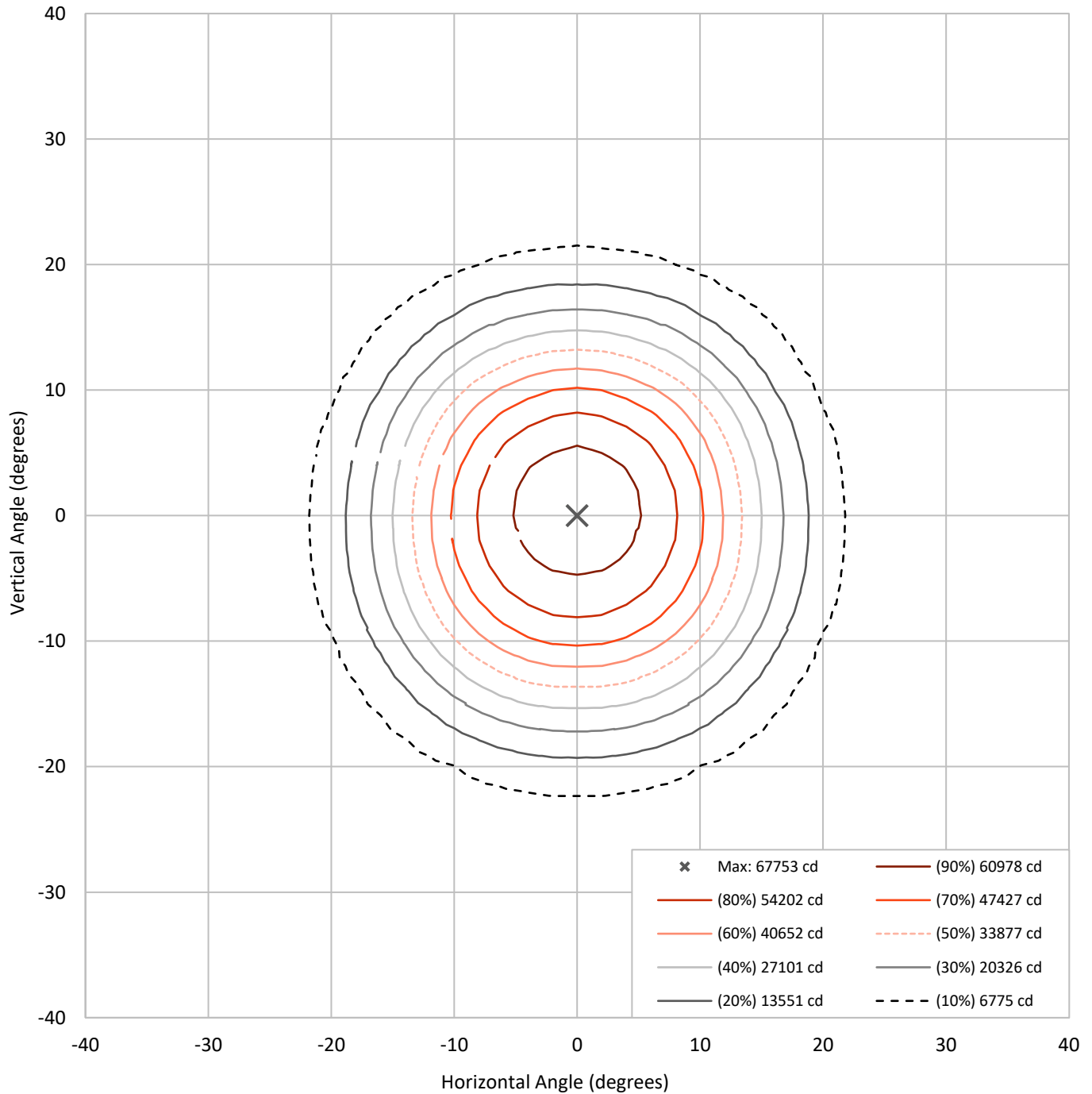
**Summary**

Lumens per Lamp:	N/A	NEMA Type:	3H x 3V
Luminaire Lumens:	17333.6 lumens	Max Intensity:	67753 candela
Efficiency:	N/A	Max Intensity Angle:	0°H x 0°V
Efficacy:	112.8 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:	8430.1 lumens	Field Lumens:	13648.4 lumens
Beam Efficiency:	48.6%	Field Efficiency:	78.7%
Input Watts (W):	153.7		
Input Voltage (V):	120		
Input Current (A <sub>in</sub> ):	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





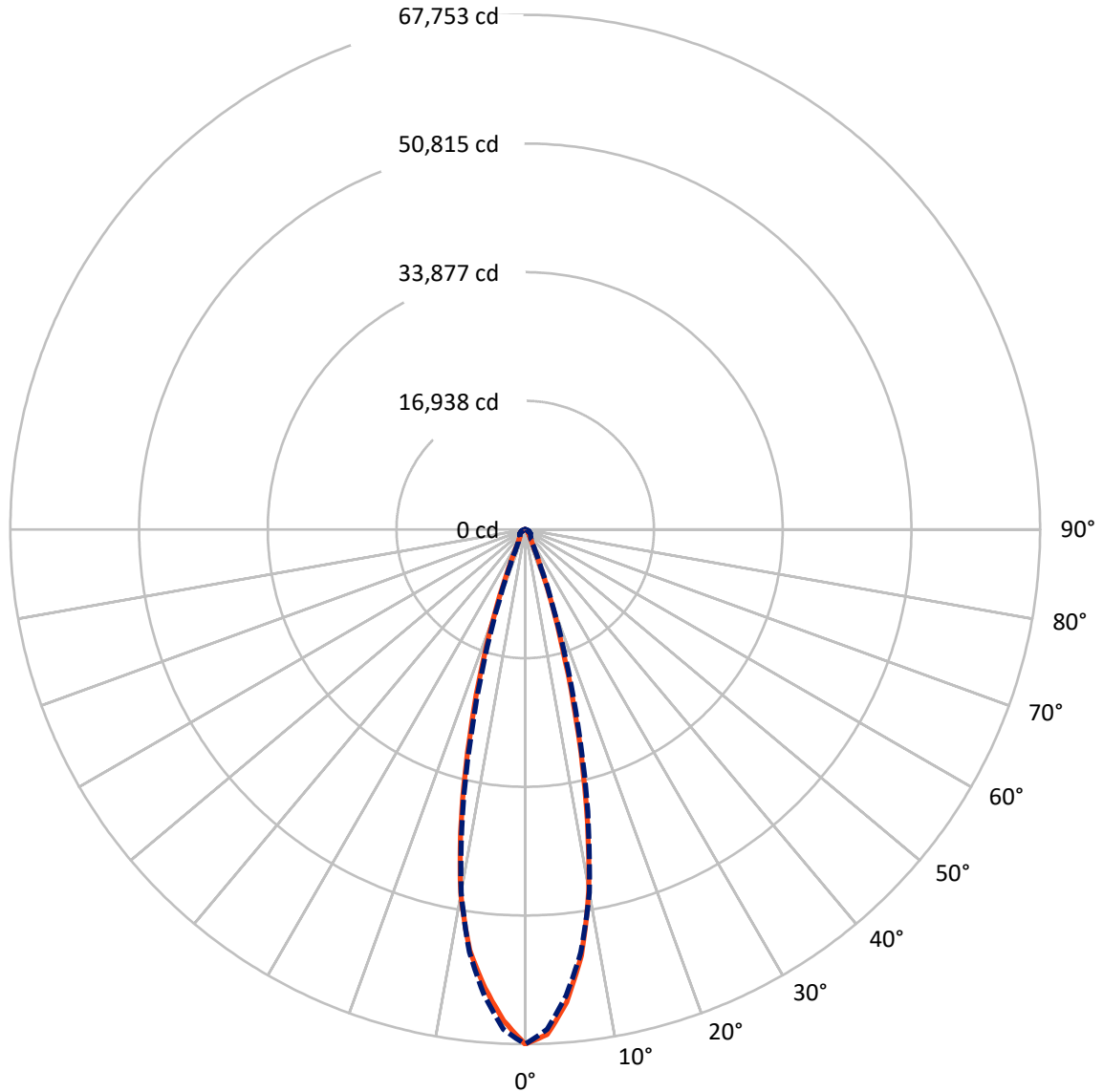
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### Lumen Table

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																			
70																			
60	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					
50		0.4	1.0	1.7	2.3	3.1	3.7	3.9	3.9	3.7	3.1	2.3	1.7		1.0	0.4			
40	1.1	1.5	3.6	6.3	9.5	12.3	14.3	15.4	15.4	14.3	12.3	9.5	6.3	3.6	1.5	1.1			
30		3.0	7.0	12.3	17.8	22.2	26.3	29.7	29.7	26.3	22.2	17.8	12.3	7.0	3.0				
20	2.6	4.4	10.0	17.1	23.7	33.0	56.1	99.6	99.6	56.1	33.0	23.7	17.1	10.0	4.4	2.6			
10		5.4	12.1	20.2	28.5	56.4	271.8	711.7	711.7	271.8	56.4	28.5	20.2	12.1	5.4				
0	3.6	6.0	13.3	21.6	31.5	101.0	711.1	1651.0	1651.0	711.1	101.0	31.5	21.6	13.3	6.0	3.6			
-10		6.2	13.7	22.0	31.7	104.2	733.3	1650.2	1650.2	733.3	104.2	31.7	22.0	13.7	6.2				
-20	3.6	6.1	13.3	21.5	29.3	59.4	307.7	782.8	782.8	307.7	59.4	29.3	21.5	13.3	6.1	3.6			
-30		5.7	12.3	20.4	26.9	36.8	65.2	124.9	124.9	65.2	36.8	26.9	20.4	12.3	5.7				
-40	2.7	5.1	10.9	18.3	24.9	29.9	34.9	39.4	39.4	34.9	29.9	24.9	18.3	10.9	5.1	2.7			
-50		4.2	9.0	15.0	21.3	26.1	29.2	31.1	31.1	29.2	26.1	21.3	15.0	9.0	4.2				
-60	1.2	3.1	6.7	11.0	15.6	19.6	22.4	24.1	24.1	22.4	19.6	15.6	11.0	6.7	3.1	1.2			
-70		1.8	4.2	6.9	9.7	12.3	13.9	14.7	14.7	13.9	12.3	9.7	6.9	4.2	1.8				
-80	0.2	2.5	7.7	12.4	13.9	12.4	7.7	2.5	0.2										
-90																			
	-90	-80	-70	-60	-50	-40	-30	-20	-10	0	10	20	30	40	50	60	70	80	90

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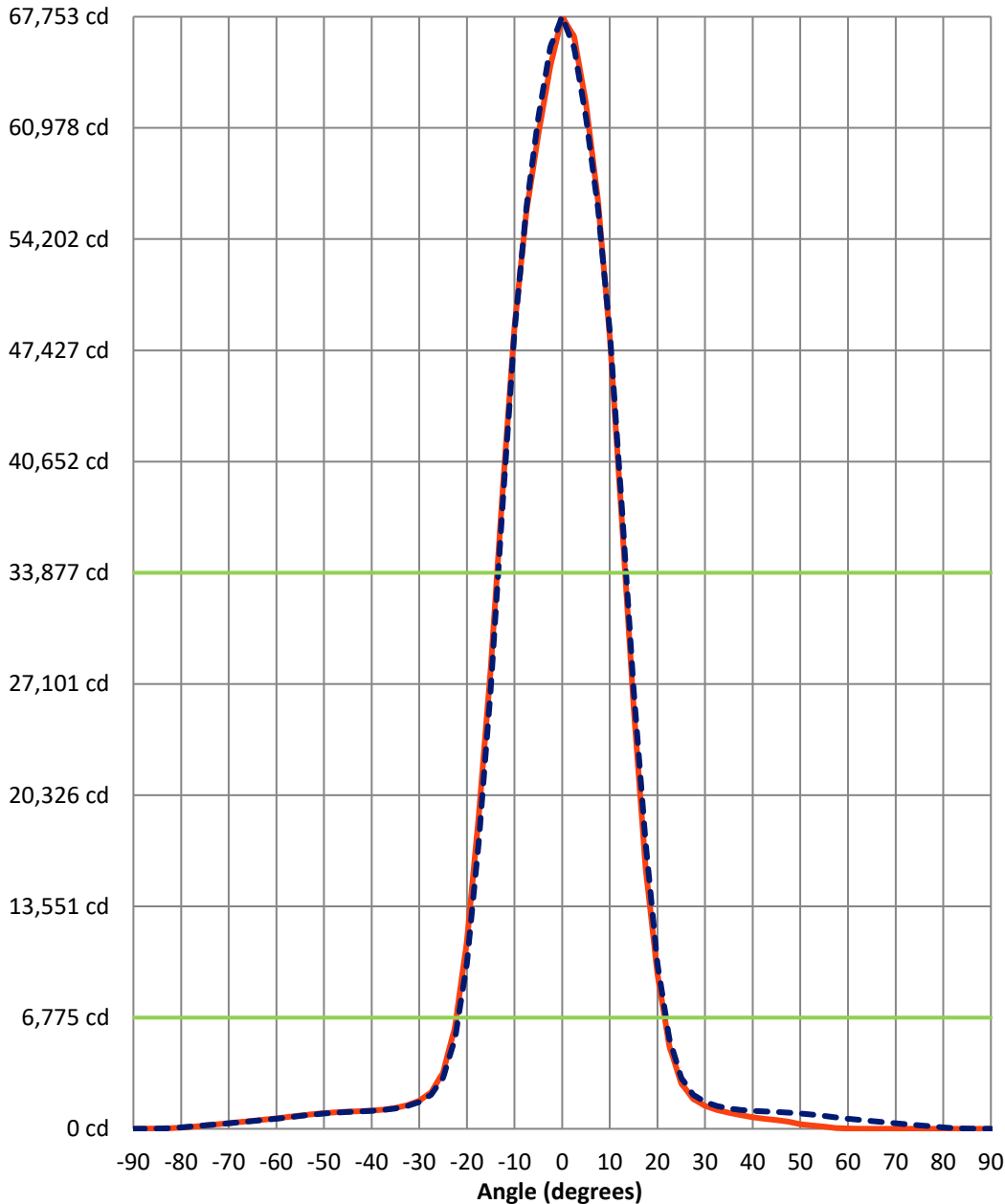
### Luminous Intensity Polar Plot



— 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: 8430.1  
Efficiency: 48.6%

**Field:**  
H Angle: 43.6°  
V Angle: 43.7°  
Lumens: 13648.4  
Efficiency: 78.7%

**Spill:**  
Lumens: 3685.2  
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	1	2	1	1	1	1	1
70°	0	1	1	1	2	2	1	2	2	2	2
67.5°	0	1	1	1	2	2	2	2	2	3	2
65°	0	1	1	2	3	3	4	3	4	4	4
62.5°	0	1	1	2	3	5	5	4	6	7	7
60°	0	1	1	3	4	7	7	7	8	12	12
57.5°	0	1	2	3	5	9	10	9	13	17	20
55°	0	1	2	4	7	11	14	13	19	24	30
52.5°	0	1	2	4	9	13	18	21	26	37	44
50°	0	1	3	4	11	17	23	29	35	50	64
47.5°	0	1	3	5	13	22	28	39	48	65	87
45°	0	1	4	7	16	26	37	49	65	87	111
42.5°	0	1	4	8	18	31	47	62	81	110	142
40°	0	1	5	10	21	36	57	77	100	133	173
37.5°	0	1	5	12	25	41	67	91	121	159	205
35°	0	1	6	14	29	49	77	106	143	186	236
32.5°	0	1	6	16	33	57	88	121	163	212	262
30°	0	2	7	18	37	65	100	136	184	237	287
27.5°	0	2	7	20	41	73	112	153	204	260	310
25°	0	2	8	22	45	82	124	169	224	281	333
22.5°	0	2	8	23	50	90	135	185	243	301	354
20°	0	2	9	25	54	98	146	200	260	319	374
17.5°	0	2	9	27	58	106	156	215	277	336	393
15°	0	2	10	28	62	114	165	228	292	353	411
12.5°	0	2	10	30	66	121	174	237	304	368	427
10°	0	2	11	31	70	128	183	246	312	378	441
7.5°	0	2	11	33	75	134	190	254	320	386	451
5°	0	2	11	34	78	141	199	262	328	395	459
2.5°	0	2	12	35	80	146	205	266	332	399	467
0°	0	2	12	36	83	150	210	270	335	403	472
-2.5°	0	2	12	37	85	153	213	272	338	407	476
-5°	0	2	13	38	87	156	215	274	340	410	477
-7.5°	0	2	13	39	89	156	215	273	338	408	478
-10°	0	2	13	38	87	156	215	273	338	408	477
-12.5°	0	2	13	38	87	156	215	271	336	405	474
-15°	0	2	13	38	87	155	214	269	333	402	470
-17.5°	0	2	13	38	86	153	212	267	329	397	465
-20°	0	2	13	38	85	151	210	263	324	390	458



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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	37	83	147	206	259	318	383	450
-25°	0	2	12	36	81	143	201	254	311	374	441
-27.5°	0	2	12	35	78	137	196	247	303	365	430
-30°	0	2	12	34	74	130	191	240	295	355	418
-32.5°	0	2	11	33	70	123	184	232	286	344	404
-35°	0	2	11	31	66	116	176	224	276	332	390
-37.5°	0	2	11	29	61	108	166	215	264	319	374
-40°	0	2	10	27	55	102	155	206	252	305	358
-42.5°	0	2	9	24	51	94	144	196	239	289	339
-45°	0	2	9	22	48	87	133	184	227	271	320
-47.5°	0	2	8	19	44	79	121	170	214	254	299
-50°	0	2	7	17	40	70	111	156	199	236	278
-52.5°	0	2	6	16	35	62	100	141	182	219	258
-55°	0	2	6	15	31	55	89	128	164	200	235
-57.5°	0	2	5	13	26	48	77	112	146	180	213
-60°	0	1	4	12	21	41	67	98	127	159	190
-62.5°	0	1	3	10	18	34	56	82	109	137	166
-65°	0	1	3	8	16	26	47	67	89	115	142
-67.5°	0	1	3	6	13	21	36	54	70	92	116
-70°	0	1	3	5	10	17	26	41	55	68	89
-72.5°	0	1	2	4	8	14	20	28	40	52	63
-75°	0	1	2	3	5	10	16	20	25	35	44
-77.5°	0	1	2	3	4	6	11	15	18	21	26
-80°	0	1	1	2	3	4	6	9	12	14	16
-82.5°	0	0	1	2	2	3	4	5	6	8	10
-85°	0	0	1	1	2	2	3	3	4	4	5
-87.5°	0	0	0	1	1	1	1	2	2	2	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	2	2	2	2
62.5°	4	6	6	7	6	5	7	8	6	6	7
60°	10	10	14	17	14	15	17	20	18	15	20
57.5°	18	20	28	32	33	28	36	38	41	40	43
55°	31	36	47	56	57	56	62	72	75	75	76
52.5°	53	58	74	84	89	93	102	114	121	121	126
50°	76	91	105	117	127	137	150	167	176	181	192
47.5°	106	125	138	154	171	190	210	225	236	256	284
45°	139	160	175	196	221	251	271	285	305	333	362
42.5°	176	195	216	239	280	310	331	349	377	421	445
40°	206	231	257	296	339	367	393	419	468	505	530
37.5°	239	268	300	350	393	426	460	500	549	591	613
35°	271	304	347	398	445	487	525	571	618	661	691
32.5°	304	341	393	443	493	544	586	633	682	726	757
30°	333	379	434	486	542	593	640	691	746	785	814
27.5°	359	416	473	529	588	641	692	750	803	840	869
25°	384	446	510	571	632	688	744	806	854	891	920
22.5°	408	473	539	611	674	733	793	850	897	939	967
20°	432	497	565	640	713	777	836	891	933	970	1006
17.5°	453	519	589	665	740	812	875	931	964	997	1033
15°	473	539	611	689	766	838	902	955	988	1019	1056
12.5°	491	557	631	710	789	861	923	970	1005	1039	1083
10°	507	572	648	729	809	882	940	984	1019	1054	1104
7.5°	519	585	663	745	827	900	955	996	1030	1067	1121
5°	528	596	675	761	842	915	966	1006	1040	1078	1134
2.5°	537	606	686	776	856	926	977	1019	1050	1088	1144
0°	543	613	692	785	864	932	984	1027	1058	1093	1148
-2.5°	546	618	698	788	867	935	989	1029	1060	1094	1148
-5°	546	620	700	786	866	933	989	1029	1058	1090	1142
-7.5°	545	620	700	783	862	929	985	1025	1054	1086	1135
-10°	543	617	696	777	856	923	978	1020	1050	1079	1124
-12.5°	540	612	689	769	848	915	970	1013	1044	1071	1110
-15°	536	605	680	758	836	906	960	1004	1038	1063	1094
-17.5°	530	596	668	745	823	895	950	997	1031	1055	1084
-20°	523	586	655	730	807	880	938	984	1020	1047	1072



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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°	515	575	641	713	789	861	923	972	1009	1038	1060
-25°	506	565	627	697	770	841	905	958	996	1026	1050
-27.5°	494	553	613	678	749	819	883	937	979	1011	1037
-30°	480	540	597	659	727	794	858	913	959	993	1021
-32.5°	465	526	580	639	703	769	830	884	932	971	1002
-35°	449	507	562	618	680	740	798	853	903	944	978
-37.5°	431	488	542	596	652	707	767	818	868	915	948
-40°	413	468	520	572	622	674	728	781	830	874	917
-42.5°	395	446	498	546	592	640	690	740	787	831	872
-45°	371	423	474	518	560	604	650	698	741	783	824
-47.5°	347	398	447	488	527	568	610	652	694	733	773
-50°	322	370	416	455	493	531	570	605	642	681	717
-52.5°	297	340	382	420	456	491	527	559	591	624	658
-55°	271	311	347	384	418	450	481	512	541	570	598
-57.5°	246	280	314	347	379	408	436	463	490	515	541
-60°	220	250	280	310	339	366	390	414	438	462	485
-62.5°	194	221	247	273	300	324	345	366	388	407	429
-65°	167	191	216	239	263	281	300	318	336	354	372
-67.5°	140	160	182	205	224	240	256	272	287	302	316
-70°	109	127	145	165	184	199	212	225	238	251	263
-72.5°	78	95	109	125	139	153	166	177	187	199	209
-75°	54	64	75	87	98	108	118	128	137	146	155
-77.5°	34	41	48	54	60	68	75	83	89	94	98
-80°	18	21	26	32	36	39	42	44	46	50	55
-82.5°	12	14	15	17	17	18	19	21	23	25	27
-85°	6	7	8	10	11	11	12	12	13	13	14
-87.5°	3	3	4	5	5	5	6	6	7	8	8
-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	5	6	6	5	6	7	6	6	5
60°	21	17	17	19	19	17	19	19	19	18	19
57.5°	45	42	40	46	47	42	44	52	55	54	53
55°	81	86	87	92	98	104	110	114	116	118	123
52.5°	137	146	147	153	170	176	173	184	189	188	191
50°	214	224	235	248	260	266	267	275	282	283	284
47.5°	298	314	330	347	359	369	383	394	396	399	407
45°	378	396	418	436	451	464	474	486	494	502	508
42.5°	456	482	510	524	526	546	563	569	581	586	588
40°	551	580	604	616	628	648	658	659	666	678	682
37.5°	642	675	699	715	728	745	754	766	782	792	800
35°	722	751	782	794	811	829	847	867	887	908	925
32.5°	785	814	839	858	878	906	933	968	998	1033	1070
30°	838	868	896	919	952	994	1040	1096	1153	1204	1266
27.5°	893	924	957	994	1045	1105	1189	1268	1366	1439	1564
25°	948	982	1028	1086	1158	1261	1380	1503	1682	1841	2113
22.5°	998	1042	1104	1184	1298	1445	1621	1862	2221	2657	3226
20°	1045	1100	1182	1300	1452	1648	1953	2470	3127	4268	5415
17.5°	1086	1163	1264	1406	1601	1918	2493	3405	4868	7203	9675
15°	1118	1210	1342	1524	1805	2306	3185	4880	7922	11671	16054
12.5°	1153	1257	1407	1621	1996	2788	4391	7258	11686	17596	23523
10°	1183	1302	1479	1764	2312	3455	5694	9860	16220	23913	31341
7.5°	1206	1337	1537	1883	2622	4256	7484	12995	20651	29519	38605
5°	1221	1361	1582	1990	2876	4859	8806	15411	24099	34164	44485
2.5°	1235	1383	1621	2068	3046	5236	9650	16865	26085	36951	47580
0°	1239	1389	1631	2081	3115	5488	10072	17516	26788	37999	48560
-2.5°	1239	1384	1634	2089	3047	5388	9926	17298	26317	37623	47978
-5°	1228	1366	1597	2019	2926	5030	9342	16226	24832	35229	45043
-7.5°	1216	1346	1552	1916	2704	4467	8062	13964	21852	30786	40092
-10°	1197	1314	1496	1798	2398	3681	6230	10953	17757	25566	33247
-12.5°	1174	1274	1427	1650	2065	2973	4839	8186	13235	19613	25861
-15°	1147	1234	1365	1557	1871	2450	3470	5568	9241	13702	18569
-17.5°	1127	1196	1301	1446	1654	2029	2713	3856	5772	8833	11929
-20°	1104	1156	1241	1358	1518	1741	2102	2743	3553	5167	6673



REPORT NUMBER: P731741  
 CATALOG NUMBER: NHRS50U33BZ730-VS

**CANDELA DISTRIBUTION (continued):**

	-35°	-32.5°	-30°	-27.5°	-25°	-22.5°	-20°	-17.5°	-15°	-12.5°	-10°
-22.5°	1087	1127	1187	1272	1393	1556	1760	2061	2498	3071	3883
-25°	1072	1098	1143	1209	1291	1403	1543	1702	1932	2157	2537
-27.5°	1058	1081	1109	1153	1215	1280	1376	1477	1604	1712	1887
-30°	1045	1064	1087	1113	1151	1197	1252	1321	1392	1463	1550
-32.5°	1027	1050	1068	1087	1105	1135	1167	1211	1254	1301	1348
-35°	1007	1030	1051	1063	1076	1092	1110	1134	1157	1188	1216
-37.5°	980	1006	1026	1040	1051	1061	1073	1085	1096	1116	1132
-40°	947	976	996	1012	1024	1036	1044	1052	1061	1072	1081
-42.5°	909	937	960	978	993	1005	1015	1024	1033	1040	1046
-45°	863	890	916	936	955	968	980	993	1000	1008	1015
-47.5°	806	837	861	884	905	921	935	948	958	967	977
-50°	747	776	802	825	845	864	880	893	904	914	925
-52.5°	690	714	739	762	781	798	814	827	838	847	858
-55°	626	651	672	693	712	728	742	753	763	771	783
-57.5°	565	589	610	627	643	658	669	679	686	693	703
-60°	506	528	546	562	576	588	598	605	611	616	623
-62.5°	449	467	483	498	511	522	530	536	540	544	549
-65°	390	407	422	436	448	458	465	469	473	476	480
-67.5°	331	346	359	372	384	393	399	403	406	410	413
-70°	274	285	296	306	316	324	330	334	337	340	343
-72.5°	219	227	236	244	252	258	262	265	268	271	273
-75°	163	170	176	181	187	191	195	197	200	202	204
-77.5°	102	108	114	118	121	124	127	128	128	129	130
-80°	58	61	63	65	67	68	70	71	71	72	73
-82.5°	29	30	31	31	31	31	32	32	31	32	32
-85°	14	15	15	15	15	15	16	16	16	16	16
-87.5°	9	9	10	10	11	11	11	11	12	12	12
-90°	0	0	0	0	0	0	0	0	0	0	0



REPORT NUMBER: P731741  
 CATALOG NUMBER: NHRS50U33BZ730-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°	5	4	4	4	4	4	5	5	6	6	7
60°	19	19	19	18	19	19	19	19	18	19	19
57.5°	50	45	44	44	44	45	50	53	54	55	52
55°	127	129	132	131	132	129	127	123	118	116	114
52.5°	194	195	198	200	198	195	194	191	188	189	184
50°	283	276	275	278	275	276	283	284	283	282	275
47.5°	418	426	435	433	435	426	418	407	399	396	394
45°	517	522	528	532	528	522	517	508	502	494	486
42.5°	596	600	605	608	605	600	596	588	586	581	569
40°	692	697	702	701	702	697	692	682	678	666	659
37.5°	812	822	830	834	830	822	812	800	792	782	766
35°	943	960	975	976	975	960	943	925	908	887	867
32.5°	1098	1125	1146	1148	1146	1125	1098	1070	1033	998	968
30°	1310	1348	1376	1398	1376	1348	1310	1266	1204	1153	1096
27.5°	1657	1740	1796	1826	1796	1740	1657	1564	1439	1366	1268
25°	2364	2547	2656	2775	2656	2547	2364	2113	1841	1682	1503
22.5°	3901	4388	4683	5051	4683	4388	3901	3226	2657	2221	1862
20°	7103	8296	8879	9461	8879	8296	7103	5415	4268	3127	2470
17.5°	12658	14594	16117	15971	16117	14594	12658	9675	7203	4868	3405
15°	20230	23208	25088	25736	25088	23208	20230	16054	11671	7922	4880
12.5°	28945	33477	36561	37192	36561	33477	28945	23523	17596	11686	7258
10°	38674	43777	47179	48241	47179	43777	38674	31341	23913	16220	9860
7.5°	46890	52351	55348	56589	55348	52351	46890	38605	29519	20651	12995
5°	52338	58093	61008	62465	61008	58093	52338	44485	34164	24099	15411
2.5°	55497	60969	65033	66537	65033	60969	55497	47580	36951	26085	16865
0°	56132	61614	65876	67753	65876	61614	56132	48560	37999	26788	17516
-2.5°	55451	60292	63742	64719	63742	60292	55451	47978	37623	26317	17298
-5°	52759	57453	59990	60588	59990	57453	52759	45043	35229	24832	16226
-7.5°	47664	52657	55318	55876	55318	52657	47664	40092	30786	21852	13964
-10°	40322	45441	48196	48845	48196	45441	40322	33247	25566	17757	10953
-12.5°	31489	36008	38591	38819	38591	36008	31489	25861	19613	13235	8186
-15°	22984	26288	28151	28029	28151	26288	22984	18569	13702	9241	5568
-17.5°	15083	17403	18678	19089	18678	17403	15083	11929	8833	5772	3856
-20°	8816	10335	11311	11413	11311	10335	8816	6673	5167	3553	2743



REPORT NUMBER: P731741  
 CATALOG NUMBER: NHRS50U33BZ730-VS

**CANDELA DISTRIBUTION (continued):**

	-7.5°	-5°	-2.5°	0°	2.5°	5°	7.5°	10°	12.5°	15°	17.5°
-22.5°	4905	5697	6206	6199	6206	5697	4905	3883	3071	2498	2061
-25°	2924	3223	3405	3437	3405	3223	2924	2537	2157	1932	1702
-27.5°	2028	2144	2224	2222	2224	2144	2028	1887	1712	1604	1477
-30°	1620	1676	1726	1711	1726	1676	1620	1550	1463	1392	1321
-32.5°	1388	1417	1440	1439	1440	1417	1388	1348	1301	1254	1211
-35°	1239	1258	1273	1270	1273	1258	1239	1216	1188	1157	1134
-37.5°	1146	1157	1166	1168	1166	1157	1146	1132	1116	1096	1085
-40°	1092	1100	1107	1109	1107	1100	1092	1081	1072	1061	1052
-42.5°	1055	1063	1070	1073	1070	1063	1055	1046	1040	1033	1024
-45°	1025	1033	1039	1043	1039	1033	1025	1015	1008	1000	993
-47.5°	987	997	1004	1006	1004	997	987	977	967	958	948
-50°	936	945	952	952	952	945	936	925	914	904	893
-52.5°	868	876	882	885	882	876	868	858	847	838	827
-55°	793	801	807	808	807	801	793	783	771	763	753
-57.5°	711	716	722	724	722	716	711	703	693	686	679
-60°	629	633	637	636	637	633	629	623	616	611	605
-62.5°	552	554	559	561	559	554	552	549	544	540	536
-65°	483	485	485	483	485	485	483	480	476	473	469
-67.5°	414	417	416	415	416	417	414	413	410	406	403
-70°	344	346	344	342	344	346	344	343	340	337	334
-72.5°	274	276	275	273	275	276	274	273	271	268	265
-75°	205	207	205	202	205	207	205	204	202	200	197
-77.5°	130	130	129	127	129	130	130	130	129	128	128
-80°	75	74	73	72	73	74	75	73	72	71	71
-82.5°	33	33	33	32	33	33	33	32	32	31	32
-85°	17	17	17	17	17	17	17	16	16	16	16
-87.5°	13	13	13	13	13	13	13	12	12	12	11
-90°	0	0	0	0	0	0	0	0	0	0	0



REPORT NUMBER: P731741  
 CATALOG NUMBER: NHRS50U33BZ730-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	2
62.5°	6	5	6	6	5	5	6	7	6	6	8
60°	19	17	19	19	17	17	21	20	15	18	20
57.5°	44	42	47	46	40	42	45	43	40	41	38
55°	110	104	98	92	87	86	81	76	75	75	72
52.5°	173	176	170	153	147	146	137	126	121	121	114
50°	267	266	260	248	235	224	214	192	181	176	167
47.5°	383	369	359	347	330	314	298	284	256	236	225
45°	474	464	451	436	418	396	378	362	333	305	285
42.5°	563	546	526	524	510	482	456	445	421	377	349
40°	658	648	628	616	604	580	551	530	505	468	419
37.5°	754	745	728	715	699	675	642	613	591	549	500
35°	847	829	811	794	782	751	722	691	661	618	571
32.5°	933	906	878	858	839	814	785	757	726	682	633
30°	1040	994	952	919	896	868	838	814	785	746	691
27.5°	1189	1105	1045	994	957	924	893	869	840	803	750
25°	1380	1261	1158	1086	1028	982	948	920	891	854	806
22.5°	1621	1445	1298	1184	1104	1042	998	967	939	897	850
20°	1953	1648	1452	1300	1182	1100	1045	1006	970	933	891
17.5°	2493	1918	1601	1406	1264	1163	1086	1033	997	964	931
15°	3185	2306	1805	1524	1342	1210	1118	1056	1019	988	955
12.5°	4391	2788	1996	1621	1407	1257	1153	1083	1039	1005	970
10°	5694	3455	2312	1764	1479	1302	1183	1104	1054	1019	984
7.5°	7484	4256	2622	1883	1537	1337	1206	1121	1067	1030	996
5°	8806	4859	2876	1990	1582	1361	1221	1134	1078	1040	1006
2.5°	9650	5236	3046	2068	1621	1383	1235	1144	1088	1050	1019
0°	10072	5488	3115	2081	1631	1389	1239	1148	1093	1058	1027
-2.5°	9926	5388	3047	2089	1634	1384	1239	1148	1094	1060	1029
-5°	9342	5030	2926	2019	1597	1366	1228	1142	1090	1058	1029
-7.5°	8062	4467	2704	1916	1552	1346	1216	1135	1086	1054	1025
-10°	6230	3681	2398	1798	1496	1314	1197	1124	1079	1050	1020
-12.5°	4839	2973	2065	1650	1427	1274	1174	1110	1071	1044	1013
-15°	3470	2450	1871	1557	1365	1234	1147	1094	1063	1038	1004
-17.5°	2713	2029	1654	1446	1301	1196	1127	1084	1055	1031	997
-20°	2102	1741	1518	1358	1241	1156	1104	1072	1047	1020	984



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 CATALOG NUMBER: NHRS50U33BZ730-VS

**CANDELA DISTRIBUTION (continued):**

	20°	22.5°	25°	27.5°	30°	32.5°	35°	37.5°	40°	42.5°	45°
-22.5°	1760	1556	1393	1272	1187	1127	1087	1060	1038	1009	972
-25°	1543	1403	1291	1209	1143	1098	1072	1050	1026	996	958
-27.5°	1376	1280	1215	1153	1109	1081	1058	1037	1011	979	937
-30°	1252	1197	1151	1113	1087	1064	1045	1021	993	959	913
-32.5°	1167	1135	1105	1087	1068	1050	1027	1002	971	932	884
-35°	1110	1092	1076	1063	1051	1030	1007	978	944	903	853
-37.5°	1073	1061	1051	1040	1026	1006	980	948	915	868	818
-40°	1044	1036	1024	1012	996	976	947	917	874	830	781
-42.5°	1015	1005	993	978	960	937	909	872	831	787	740
-45°	980	968	955	936	916	890	863	824	783	741	698
-47.5°	935	921	905	884	861	837	806	773	733	694	652
-50°	880	864	845	825	802	776	747	717	681	642	605
-52.5°	814	798	781	762	739	714	690	658	624	591	559
-55°	742	728	712	693	672	651	626	598	570	541	512
-57.5°	669	658	643	627	610	589	565	541	515	490	463
-60°	598	588	576	562	546	528	506	485	462	438	414
-62.5°	530	522	511	498	483	467	449	429	407	388	366
-65°	465	458	448	436	422	407	390	372	354	336	318
-67.5°	399	393	384	372	359	346	331	316	302	287	272
-70°	330	324	316	306	296	285	274	263	251	238	225
-72.5°	262	258	252	244	236	227	219	209	199	187	177
-75°	195	191	187	181	176	170	163	155	146	137	128
-77.5°	127	124	121	118	114	108	102	98	94	89	83
-80°	70	68	67	65	63	61	58	55	50	46	44
-82.5°	32	31	31	31	31	30	29	27	25	23	21
-85°	16	15	15	15	15	15	14	14	13	13	12
-87.5°	11	11	11	10	10	9	9	8	8	7	6
-90°	0	0	0	0	0	0	0	0	0	0	0





REPORT NUMBER: P731741  
 CATALOG NUMBER: NHRS50U33BZ730-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	4	4	3
62.5°	7	5	6	7	6	6	4	7	7	6	4
60°	17	15	14	17	14	10	10	12	12	8	7
57.5°	36	28	33	32	28	20	18	20	17	13	9
55°	62	56	57	56	47	36	31	30	24	19	13
52.5°	102	93	89	84	74	58	53	44	37	26	21
50°	150	137	127	117	105	91	76	64	50	35	29
47.5°	210	190	171	154	138	125	106	87	65	48	39
45°	271	251	221	196	175	160	139	111	87	65	49
42.5°	331	310	280	239	216	195	176	142	110	81	62
40°	393	367	339	296	257	231	206	173	133	100	77
37.5°	460	426	393	350	300	268	239	205	159	121	91
35°	525	487	445	398	347	304	271	236	186	143	106
32.5°	586	544	493	443	393	341	304	262	212	163	121
30°	640	593	542	486	434	379	333	287	237	184	136
27.5°	692	641	588	529	473	416	359	310	260	204	153
25°	744	688	632	571	510	446	384	333	281	224	169
22.5°	793	733	674	611	539	473	408	354	301	243	185
20°	836	777	713	640	565	497	432	374	319	260	200
17.5°	875	812	740	665	589	519	453	393	336	277	215
15°	902	838	766	689	611	539	473	411	353	292	228
12.5°	923	861	789	710	631	557	491	427	368	304	237
10°	940	882	809	729	648	572	507	441	378	312	246
7.5°	955	900	827	745	663	585	519	451	386	320	254
5°	966	915	842	761	675	596	528	459	395	328	262
2.5°	977	926	856	776	686	606	537	467	399	332	266
0°	984	932	864	785	692	613	543	472	403	335	270
-2.5°	989	935	867	788	698	618	546	476	407	338	272
-5°	989	933	866	786	700	620	546	477	410	340	274
-7.5°	985	929	862	783	700	620	545	478	408	338	273
-10°	978	923	856	777	696	617	543	477	408	338	273
-12.5°	970	915	848	769	689	612	540	474	405	336	271
-15°	960	906	836	758	680	605	536	470	402	333	269
-17.5°	950	895	823	745	668	596	530	465	397	329	267
-20°	938	880	807	730	655	586	523	458	390	324	263



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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°	923	861	789	713	641	575	515	450	383	318	259
-25°	905	841	770	697	627	565	506	441	374	311	254
-27.5°	883	819	749	678	613	553	494	430	365	303	247
-30°	858	794	727	659	597	540	480	418	355	295	240
-32.5°	830	769	703	639	580	526	465	404	344	286	232
-35°	798	740	680	618	562	507	449	390	332	276	224
-37.5°	767	707	652	596	542	488	431	374	319	264	215
-40°	728	674	622	572	520	468	413	358	305	252	206
-42.5°	690	640	592	546	498	446	395	339	289	239	196
-45°	650	604	560	518	474	423	371	320	271	227	184
-47.5°	610	568	527	488	447	398	347	299	254	214	170
-50°	570	531	493	455	416	370	322	278	236	199	156
-52.5°	527	491	456	420	382	340	297	258	219	182	141
-55°	481	450	418	384	347	311	271	235	200	164	128
-57.5°	436	408	379	347	314	280	246	213	180	146	112
-60°	390	366	339	310	280	250	220	190	159	127	98
-62.5°	345	324	300	273	247	221	194	166	137	109	82
-65°	300	281	263	239	216	191	167	142	115	89	67
-67.5°	256	240	224	205	182	160	140	116	92	70	54
-70°	212	199	184	165	145	127	109	89	68	55	41
-72.5°	166	153	139	125	109	95	78	63	52	40	28
-75°	118	108	98	87	75	64	54	44	35	25	20
-77.5°	75	68	60	54	48	41	34	26	21	18	15
-80°	42	39	36	32	26	21	18	16	14	12	9
-82.5°	19	18	17	17	15	14	12	10	8	6	5
-85°	12	11	11	10	8	7	6	5	4	4	3
-87.5°	6	5	5	5	4	3	3	3	2	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	1	1	1	0	0
70°	1	2	2	1	1	1	0
67.5°	2	2	2	1	1	1	0
65°	4	3	3	2	1	1	0
62.5°	5	5	3	2	1	1	0
60°	7	7	4	3	1	1	0
57.5°	10	9	5	3	2	1	0
55°	14	11	7	4	2	1	0
52.5°	18	13	9	4	2	1	0
50°	23	17	11	4	3	1	0
47.5°	28	22	13	5	3	1	0
45°	37	26	16	7	4	1	0
42.5°	47	31	18	8	4	1	0
40°	57	36	21	10	5	1	0
37.5°	67	41	25	12	5	1	0
35°	77	49	29	14	6	1	0
32.5°	88	57	33	16	6	1	0
30°	100	65	37	18	7	2	0
27.5°	112	73	41	20	7	2	0
25°	124	82	45	22	8	2	0
22.5°	135	90	50	23	8	2	0
20°	146	98	54	25	9	2	0
17.5°	156	106	58	27	9	2	0
15°	165	114	62	28	10	2	0
12.5°	174	121	66	30	10	2	0
10°	183	128	70	31	11	2	0
7.5°	190	134	75	33	11	2	0
5°	199	141	78	34	11	2	0
2.5°	205	146	80	35	12	2	0
0°	210	150	83	36	12	2	0
-2.5°	213	153	85	37	12	2	0
-5°	215	156	87	38	13	2	0
-7.5°	215	156	89	39	13	2	0
-10°	215	156	87	38	13	2	0
-12.5°	215	156	87	38	13	2	0
-15°	214	155	87	38	13	2	0
-17.5°	212	153	86	38	13	2	0
-20°	210	151	85	38	13	2	0



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**CANDELA DISTRIBUTION (continued):**

	75°	77.5°	80°	82.5°	85°	87.5°	90°
-22.5°	206	147	83	37	13	2	0
-25°	201	143	81	36	12	2	0
-27.5°	196	137	78	35	12	2	0
-30°	191	130	74	34	12	2	0
-32.5°	184	123	70	33	11	2	0
-35°	176	116	66	31	11	2	0
-37.5°	166	108	61	29	11	2	0
-40°	155	102	55	27	10	2	0
-42.5°	144	94	51	24	9	2	0
-45°	133	87	48	22	9	2	0
-47.5°	121	79	44	19	8	2	0
-50°	111	70	40	17	7	2	0
-52.5°	100	62	35	16	6	2	0
-55°	89	55	31	15	6	2	0
-57.5°	77	48	26	13	5	2	0
-60°	67	41	21	12	4	1	0
-62.5°	56	34	18	10	3	1	0
-65°	47	26	16	8	3	1	0
-67.5°	36	21	13	6	3	1	0
-70°	26	17	10	5	3	1	0
-72.5°	20	14	8	4	2	1	0
-75°	16	10	5	3	2	1	0
-77.5°	11	6	4	3	2	1	0
-80°	6	4	3	2	1	1	0
-82.5°	4	3	2	2	1	0	0
-85°	3	2	2	1	1	0	0
-87.5°	1	1	1	1	0	0	0
-90°	0	0	0	0	0	0	0

(END OF REPORT)