

Scaled data based on original data using  
LM-79-08 Approved Method: Electrical and Photometric Measurements of Solid-State  
Lighting Products

Test Report Prepared for  
Cooper Lighting Solutions  
(formerly Eaton)

Brand: HALO

Report Number: G1-1712-448-3

Luminaire Tested: **FSL303TB**

Test Date: 02/08/18

This test was performed under the Supervised Manufacturer's Testing Program. The results of this test have not been influenced by sources from within Cooper Lighting Solutions or from external interests.



**Test Information**

Test Method: LM-79-08  
Report Number: G1-1712-448-3  
Test Lab: INNOVATION CENTER(G1)  
Test Date: 02/08/18  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: HALO  
Catalog Number: FSL303TB  
Description: FLOOD LARGE SINGLE HEAD LED WITH HIGH OUTPUT PCB ARRAY  
Light Source: (1) PCB ARRAY  
Ballast/Driver: (1) TCL ELECTRONIC DRIVER  
031W0A80-R/1J/08  
Luminaire Equipment: 

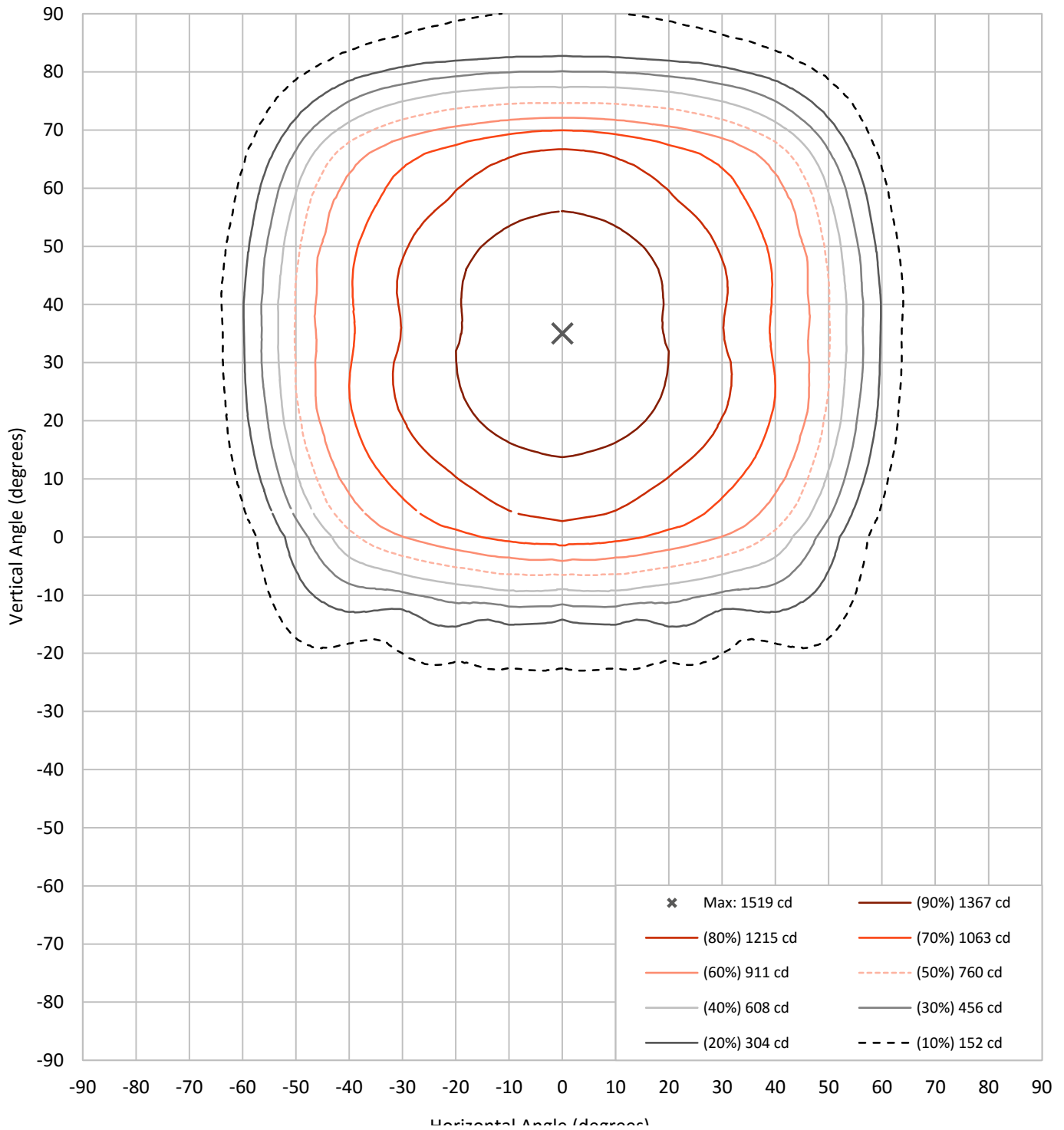
<u>Sample No.</u>	<u>Condition</u>	<u>Description</u>
AS-5443-1	Good	WHITE TWIN R-EVOLVE FLOOD
AS-5443-2	Good	REFLECTOR
AS-5443-3	Good	REFLECTOR
AS-5443-4	Good	REFLECTOR

**Summary**

Lumens per Lamp:	N/A	NEMA Type:	6H x 2V
Luminaire Lumens:	2913.5 lumens	Max Intensity:	1519 candela
Efficiency:	N/A	Max Intensity Angle:	0°H x 35°V
Efficacy:	92.2 lumens/watt		
Luminous Opening:	Rectangular w/ Sides (W: 0.5' x L: 0.25' x H: 0.25')		
Beam Angle (50%):	100.5°H x 81.1°V	Field Angle (10%):	127.4°H x 22.4°V
Beam Lumens:	2332.8 lumens	Field Lumens:	2820.1 lumens
Beam Efficiency:	80.1%	Field Efficiency:	96.8%
Input Watts (W):	31.6		
Input Voltage (V):	120.1		
Input Current (A <sub>in</sub> ):	0.265		
Voltage Rise (V):	NR		
Power Factor:	0.9955		
Total Harmonic Distortion (THDi):	6.04%		
Frequency (hertz):	60		
Stabilization Time:	0.5 HR		
Operation Time:	7.0 HR		
Ambient Temperature (°C):	24.4		
Test Distance:	28.75 FT		

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### Iso-Candela Plot





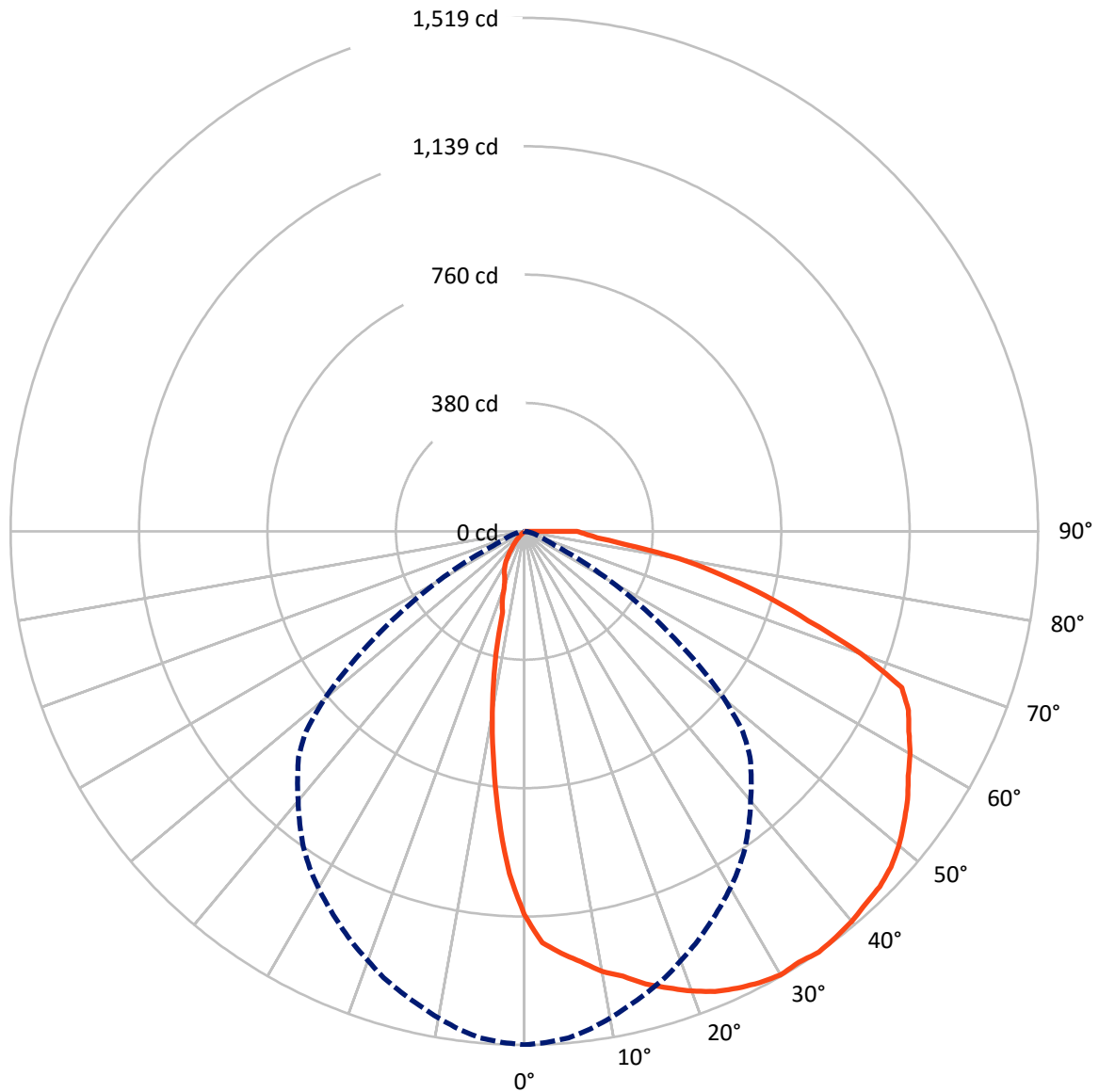
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### Lumen Table

90																				
80	0.3	5.1	27.6	51.6	60.1	51.6	27.6	5.1	0.3											
70																				
60	0.6	1.0	5.4	14.8	23.4	29.5	34.2	37.0	37.0	34.2	29.5	23.4	14.8	5.4	1.0					0.6
50																				
40	0.6	1.4	7.7	18.6	26.9	33.5	38.5	41.5	41.5	38.5	33.5	26.9	18.6	7.7	1.4					0.6
30																				
20	0.6	1.8	9.0	20.0	28.5	35.5	41.0	44.5	44.5	41.0	35.5	28.5	20.0	9.0	1.8					0.6
10																				
0	0.5	1.9	9.4	20.1	28.5	35.7	41.5	45.3	45.3	41.5	35.7	28.5	20.1	9.4	1.9					0.5
-10																				
-20	0.5	1.7	9.0	20.2	28.8	35.7	41.2	44.5	44.5	41.2	35.7	28.8	20.2	9.0	1.7					0.5
-30																				
-40	0.4	1.4	7.7	18.6	27.2	33.7	38.6	41.5	41.5	38.6	33.7	27.2	18.6	7.7	1.4					0.4
-50																				
-60	0.4	1.0	5.4	14.9	23.8	30.0	34.6	37.4	37.4	34.6	30.0	23.8	14.9	5.4	1.0					0.4
-70																				
-80	0.2	0.7	3.4	9.5	15.4	20.0	23.6	25.6	25.6	23.6	20.0	15.4	9.5	3.4	0.7					0.2
-90																				
	0.2	0.5	2.1	4.8	5.9	8.2	9.2	9.8	9.8	9.2	8.2	5.9	4.8	2.1	0.5					0.2
	0.1	0.3	1.0	1.8	2.5	3.5	4.0	4.3	4.3	4.0	3.5	2.5	1.8	1.0	0.3					0.1
	0.1	0.2	0.4	0.8	1.2	1.8	2.1	2.4	2.4	2.1	1.8	1.2	0.8	0.4	0.2					0.1
	0.0	0.1	0.1	0.2	0.3	0.4	0.5	0.6	0.6	0.5	0.4	0.3	0.2	0.1	0.1					0.0
	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0					0.0
	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0					0.0
	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0					0.0

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### Luminous Intensity Polar Plot

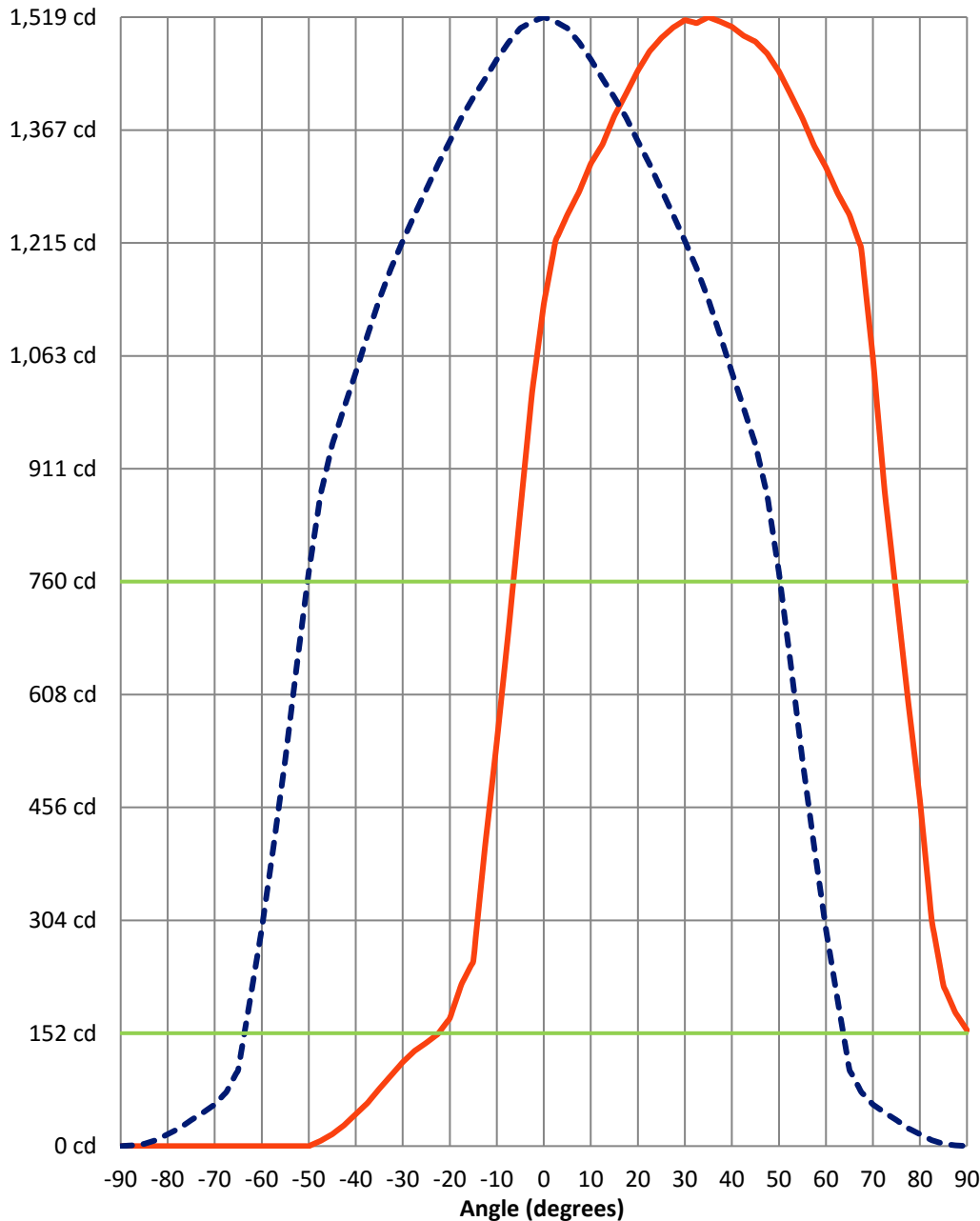


— Vertical Distribution Through 0-Deg      - - - Horizontal Distribution Through 35-Deg



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### Luminous Intensity Plot



**Beam:**  
 H Angle: 100.5°  
 V Angle: 81.1°  
 Lumens: 2332.8  
 Efficiency: 80.1%

**Field:**  
 H Angle: 127.4°  
 V Angle: 22.4°  
 Lumens: 2820.1  
 Efficiency: 96.8%

**Spill:**  
 Lumens: 93.4  
 Efficiency: 3.2%

- Vertical Distribution through 0-Deg
- - - Horizontal Distribution through 35-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	1	1	3	4	8	11	16	20	25	31
87.5°	0	1	1	3	5	9	13	18	23	29	35
85°	0	1	1	3	6	10	15	21	27	33	39
82.5°	0	1	1	4	7	12	17	23	30	36	43
80°	0	1	1	4	7	13	19	26	33	40	47
77.5°	0	1	1	4	8	14	21	28	36	43	51
75°	0	1	1	5	9	15	23	31	39	46	54
72.5°	0	1	2	5	10	17	25	33	42	50	57
70°	0	1	2	5	11	18	26	35	44	53	61
67.5°	0	1	2	5	11	19	28	37	47	55	65
65°	0	1	2	6	12	20	30	39	49	58	69
62.5°	0	1	2	6	13	21	31	41	51	60	74
60°	0	1	2	7	13	22	33	43	52	62	77
57.5°	0	1	2	7	14	23	33	44	54	64	84
55°	0	1	2	7	15	24	34	45	55	66	88
52.5°	0	1	2	7	15	24	34	46	56	69	91
50°	0	1	2	7	15	25	35	46	56	71	99
47.5°	0	1	3	7	16	25	35	46	57	72	107
45°	0	1	3	7	16	25	35	46	57	75	112
42.5°	0	1	3	7	16	25	35	46	57	75	118
40°	0	1	3	8	16	25	35	46	57	73	118
37.5°	0	1	3	8	16	25	35	45	57	73	111
35°	0	1	3	8	16	24	35	45	56	73	103
32.5°	0	0	3	8	15	24	34	44	55	73	111
30°	0	0	3	8	15	24	34	43	53	71	113
27.5°	0	0	3	8	15	23	33	42	52	68	110
25°	0	0	3	7	14	23	32	41	51	66	103
22.5°	0	0	3	7	14	22	31	40	50	66	96
20°	0	0	2	7	13	21	30	39	49	65	96
17.5°	0	0	2	7	13	21	29	38	48	62	93
15°	0	0	2	6	12	20	28	37	46	60	88
12.5°	0	0	2	6	11	19	27	35	44	56	80
10°	0	0	2	5	11	18	26	34	43	54	72
7.5°	0	0	2	5	10	17	24	33	42	52	69
5°	0	0	1	4	9	16	23	31	41	50	65
2.5°	0	0	1	4	8	14	22	30	39	48	60
0°	0	0	1	3	7	13	20	28	37	45	55
-2.5°	0	0	1	3	7	13	19	27	36	43	53
-5°	0	0	1	3	7	12	19	26	34	41	50
-7.5°	0	0	1	3	7	12	18	25	32	39	47
-10°	0	0	1	3	6	11	17	23	30	36	44
-12.5°	0	0	1	3	6	11	16	22	28	34	41
-15°	0	0	1	3	6	10	15	21	26	31	37
-17.5°	0	0	1	2	5	10	14	19	24	29	34
-20°	0	0	1	2	5	9	13	18	22	26	31



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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	0	1	2	5	8	12	16	20	24	27
-25°	0	0	1	2	4	8	11	15	18	21	24
-27.5°	0	0	1	2	4	7	10	14	16	19	21
-30°	0	0	1	2	4	6	9	12	15	17	18
-32.5°	0	0	1	2	3	6	8	11	13	15	15
-35°	0	0	1	2	3	5	8	10	11	12	13
-37.5°	0	0	1	1	3	4	7	9	10	11	11
-40°	0	0	0	1	2	4	6	8	9	9	9
-42.5°	0	0	0	1	2	4	5	6	7	7	7
-45°	0	0	0	1	2	3	4	6	6	6	5
-47.5°	0	0	0	1	2	3	4	5	5	5	4
-50°	0	0	0	1	1	2	3	4	4	4	3
-52.5°	0	0	0	1	1	2	3	3	3	3	2
-55°	0	0	0	1	1	1	2	2	3	2	1
-57.5°	0	0	0	0	1	1	2	2	2	2	1
-60°	0	0	0	0	1	1	1	2	2	1	0
-62.5°	0	0	0	0	1	1	1	1	1	1	0
-65°	0	0	0	0	0	1	1	1	1	1	0
-67.5°	0	0	0	0	0	0	1	1	1	0	0
-70°	0	0	0	0	0	0	0	0	0	0	0
-72.5°	0	0	0	0	0	0	0	0	0	0	0
-75°	0	0	0	0	0	0	0	0	0	0	0
-77.5°	0	0	0	0	0	0	0	0	0	0	0
-80°	0	0	0	0	0	0	0	0	0	0	0
-82.5°	0	0	0	0	0	0	0	0	0	0	0
-85°	0	0	0	0	0	0	0	0	0	0	0
-87.5°	0	0	0	0	0	0	0	0	0	0	0
-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°	37	43	51	58	65	71	78	85	92	99	105
87.5°	41	48	56	64	71	79	87	96	103	110	118
85°	46	53	61	70	79	89	99	110	119	130	140
82.5°	50	57	67	77	89	101	114	132	150	170	187
80°	54	62	74	89	109	131	155	182	209	240	268
77.5°	59	69	85	105	132	170	211	254	299	346	387
75°	63	75	98	133	177	226	279	338	397	455	503
72.5°	69	87	117	165	224	291	361	430	498	561	612
70°	75	97	142	207	278	359	445	525	603	666	724
67.5°	81	119	173	248	335	430	531	619	712	781	841
65°	90	137	207	296	396	495	605	709	800	862	924
62.5°	96	160	243	338	442	554	666	766	858	915	963
60°	111	180	272	374	485	596	712	821	893	946	991
57.5°	124	198	297	404	516	631	755	880	925	971	1016
55°	136	214	319	429	545	667	790	886	940	992	1039
52.5°	154	232	341	454	576	697	812	898	960	1011	1061
50°	165	252	361	482	598	717	847	926	978	1030	1082
47.5°	176	263	383	502	609	737	872	942	991	1043	1095
45°	189	274	395	507	623	758	869	944	996	1052	1102
42.5°	201	287	400	509	643	766	866	942	996	1050	1103
40°	200	295	410	524	654	765	879	949	990	1047	1103
37.5°	199	295	408	522	648	766	895	947	992	1044	1093
35°	196	292	403	520	649	772	876	944	993	1041	1091
32.5°	190	289	406	527	650	770	868	945	995	1045	1100
30°	186	285	404	525	640	762	874	957	1001	1054	1109
27.5°	183	282	398	516	630	764	869	959	1008	1062	1117
25°	177	276	389	500	624	760	869	961	1013	1064	1116
22.5°	169	269	380	479	614	739	864	956	1008	1058	1107
20°	160	258	364	462	600	710	844	934	993	1043	1093
17.5°	154	243	343	447	573	684	823	908	977	1027	1075
15°	143	228	322	425	543	659	780	880	962	1005	1053
12.5°	128	209	299	398	513	621	739	845	928	981	1028
10°	110	186	272	366	478	584	699	805	894	950	995
7.5°	100	165	244	330	439	546	648	759	852	912	960
5°	92	145	214	293	393	499	590	714	800	874	925
2.5°	82	122	182	255	344	441	530	632	724	806	864
0°	71	97	146	212	288	375	464	540	637	716	777
-2.5°	68	92	138	199	269	347	425	491	573	639	687
-5°	64	86	128	183	245	314	381	437	503	556	592
-7.5°	60	80	117	167	221	280	337	383	433	474	499
-10°	56	74	106	149	197	246	293	329	365	393	407
-12.5°	51	67	95	132	172	213	250	277	299	315	318
-15°	47	61	83	114	148	181	209	228	236	240	233
-17.5°	42	54	72	97	125	150	170	182	179	171	154
-20°	37	47	61	81	103	122	135	138	129	110	115



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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°	32	40	51	67	84	97	103	99	87	93	102
-25°	28	34	43	55	67	75	76	71	78	84	91
-27.5°	24	29	35	43	51	56	57	63	68	74	79
-30°	20	23	28	33	39	41	48	54	58	63	68
-32.5°	16	18	22	26	28	34	40	45	49	53	57
-35°	13	14	16	19	23	27	32	36	39	43	45
-37.5°	10	10	11	13	18	21	25	28	30	33	35
-40°	7	6	6	10	13	16	19	20	22	23	25
-42.5°	5	3	4	6	10	12	14	15	15	15	15
-45°	3	1	2	4	6	9	10	10	10	8	7
-47.5°	2	0	1	2	4	6	7	7	6	5	2
-50°	1	0	0	1	2	3	4	5	4	3	0
-52.5°	0	0	0	0	1	2	2	3	2	1	0
-55°	0	0	0	0	0	1	1	1	1	0	0
-57.5°	0	0	0	0	0	0	0	0	0	0	0
-60°	0	0	0	0	0	0	0	0	0	0	0
-62.5°	0	0	0	0	0	0	0	0	0	0	0
-65°	0	0	0	0	0	0	0	0	0	0	0
-67.5°	0	0	0	0	0	0	0	0	0	0	0
-70°	0	0	0	0	0	0	0	0	0	0	0
-72.5°	0	0	0	0	0	0	0	0	0	0	0
-75°	0	0	0	0	0	0	0	0	0	0	0
-77.5°	0	0	0	0	0	0	0	0	0	0	0
-80°	0	0	0	0	0	0	0	0	0	0	0
-82.5°	0	0	0	0	0	0	0	0	0	0	0
-85°	0	0	0	0	0	0	0	0	0	0	0
-87.5°	0	0	0	0	0	0	0	0	0	0	0
-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°	111	117	123	128	133	137	141	145	148	151	153
87.5°	127	133	140	147	153	157	163	166	171	174	177
85°	151	159	167	174	182	189	194	198	203	206	211
82.5°	203	217	231	246	260	261	274	279	281	288	295
80°	296	320	342	365	388	395	411	425	439	446	451
77.5°	426	453	477	501	523	544	557	571	584	593	601
75°	542	576	606	630	652	677	695	707	716	726	736
72.5°	655	693	727	755	779	801	819	832	843	855	864
70°	771	813	847	877	902	925	942	960	979	999	1021
67.5°	883	927	961	994	1019	1043	1067	1094	1122	1148	1171
65°	971	1008	1038	1073	1107	1130	1152	1175	1193	1210	1225
62.5°	1006	1047	1080	1109	1134	1157	1181	1205	1222	1238	1252
60°	1034	1075	1106	1134	1161	1185	1211	1232	1251	1269	1285
57.5°	1060	1096	1128	1161	1189	1211	1235	1260	1281	1299	1314
55°	1085	1122	1160	1190	1218	1243	1267	1291	1311	1330	1346
52.5°	1108	1147	1184	1215	1245	1272	1297	1320	1342	1362	1381
50°	1126	1169	1201	1234	1266	1293	1318	1347	1369	1388	1408
47.5°	1140	1180	1217	1253	1282	1309	1337	1365	1387	1409	1429
45°	1152	1191	1230	1263	1295	1323	1350	1379	1402	1422	1443
42.5°	1153	1194	1232	1266	1299	1327	1355	1382	1405	1429	1449
40°	1146	1189	1227	1263	1295	1325	1356	1384	1410	1434	1451
37.5°	1138	1181	1220	1254	1288	1321	1353	1381	1410	1434	1456
35°	1139	1181	1218	1253	1287	1321	1352	1384	1411	1436	1462
32.5°	1147	1187	1227	1263	1302	1331	1367	1390	1415	1440	1462
30°	1160	1202	1240	1276	1306	1335	1366	1394	1420	1443	1460
27.5°	1165	1206	1242	1274	1305	1336	1363	1388	1418	1437	1456
25°	1165	1203	1238	1270	1300	1328	1356	1383	1408	1428	1447
22.5°	1156	1195	1229	1261	1289	1316	1344	1368	1394	1413	1431
20°	1141	1180	1211	1245	1272	1298	1326	1350	1373	1393	1412
17.5°	1121	1159	1193	1224	1252	1278	1301	1326	1348	1367	1381
15°	1100	1138	1169	1199	1226	1250	1274	1298	1318	1337	1353
12.5°	1070	1108	1140	1170	1196	1219	1242	1265	1286	1306	1320
10°	1037	1076	1107	1136	1163	1185	1211	1233	1253	1273	1287
7.5°	1004	1042	1073	1103	1131	1153	1177	1199	1219	1238	1255
5°	973	1009	1041	1069	1096	1120	1144	1167	1188	1206	1221
2.5°	921	963	1000	1031	1061	1085	1107	1131	1153	1172	1188
0°	830	876	908	938	967	995	1017	1043	1065	1085	1104
-2.5°	727	764	796	822	850	874	897	915	940	959	967
-5°	620	646	677	703	729	749	771	785	807	825	832
-7.5°	514	528	555	580	603	621	638	652	669	697	706
-10°	410	409	428	454	472	492	511	523	532	554	563
-12.5°	310	294	295	325	367	399	407	398	383	395	425
-15°	215	187	206	259	296	313	316	292	254	271	298
-17.5°	144	159	173	203	234	242	235	210	203	211	215
-20°	129	142	152	164	181	185	170	166	175	178	176



REPORT NUMBER: G1-1712-448-3  
 CATALOG NUMBER: FSL303TB

**CANDELA DISTRIBUTION (continued):**

	-35°	-32.5°	-30°	-27.5°	-25°	-22.5°	-20°	-17.5°	-15°	-12.5°	-10°
-22.5°	114	125	134	139	145	144	137	145	151	154	151
-25°	99	109	117	122	123	121	125	130	134	136	135
-27.5°	86	94	101	105	107	110	114	117	121	124	125
-30°	73	79	85	90	93	97	100	104	106	109	111
-32.5°	61	65	70	75	79	83	86	88	90	92	95
-35°	49	52	56	60	64	67	70	71	72	74	77
-37.5°	36	39	42	46	50	52	54	55	55	57	59
-40°	25	26	30	33	36	38	39	40	40	42	44
-42.5°	15	17	20	22	24	25	25	25	25	28	29
-45°	6	9	11	13	14	15	15	14	14	16	17
-47.5°	2	4	5	7	7	7	6	5	6	7	8
-50°	0	1	2	2	3	3	2	0	1	2	2
-52.5°	0	0	0	0	1	1	0	0	0	0	0
-55°	0	0	0	0	0	0	0	0	0	0	0
-57.5°	0	0	0	0	0	0	0	0	0	0	0
-60°	0	0	0	0	0	0	0	0	0	0	0
-62.5°	0	0	0	0	0	0	0	0	0	0	0
-65°	0	0	0	0	0	0	0	0	0	0	0
-67.5°	0	0	0	0	0	0	0	0	0	0	0
-70°	0	0	0	0	0	0	0	0	0	0	0
-72.5°	0	0	0	0	0	0	0	0	0	0	0
-75°	0	0	0	0	0	0	0	0	0	0	0
-77.5°	0	0	0	0	0	0	0	0	0	0	0
-80°	0	0	0	0	0	0	0	0	0	0	0
-82.5°	0	0	0	0	0	0	0	0	0	0	0
-85°	0	0	0	0	0	0	0	0	0	0	0
-87.5°	0	0	0	0	0	0	0	0	0	0	0
-90°	0	0	0	0	0	0	0	0	0	0	0



REPORT NUMBER: G1-1712-448-3  
 CATALOG NUMBER: FSL303TB

**CANDELA DISTRIBUTION (continued):**

	-7.5°	-5°	-2.5°	0°	2.5°	5°	7.5°	10°	12.5°	15°	17.5°
90°	154	155	156	156	156	155	154	153	151	148	145
87.5°	178	180	181	180	181	180	178	177	174	171	166
85°	212	214	216	216	216	214	212	211	206	203	198
82.5°	298	297	299	304	299	297	298	295	288	281	279
80°	460	459	457	465	457	459	460	451	446	439	425
77.5°	602	603	608	598	608	603	602	601	593	584	571
75°	738	741	736	740	736	741	738	736	726	716	707
72.5°	872	881	883	881	883	881	872	864	855	843	832
70°	1036	1053	1056	1060	1056	1053	1036	1021	999	979	960
67.5°	1186	1201	1207	1208	1207	1201	1186	1171	1148	1122	1094
65°	1235	1242	1249	1253	1249	1242	1235	1225	1210	1193	1175
62.5°	1263	1272	1278	1282	1278	1272	1263	1252	1238	1222	1205
60°	1297	1307	1313	1317	1313	1307	1297	1285	1269	1251	1232
57.5°	1327	1336	1343	1346	1343	1336	1327	1314	1299	1281	1260
55°	1361	1370	1378	1383	1378	1370	1361	1346	1330	1311	1291
52.5°	1397	1406	1413	1415	1413	1406	1397	1381	1362	1342	1320
50°	1427	1436	1444	1446	1444	1436	1427	1408	1388	1369	1347
47.5°	1448	1460	1467	1470	1467	1460	1448	1429	1409	1387	1365
45°	1465	1477	1485	1486	1485	1477	1465	1443	1422	1402	1379
42.5°	1471	1486	1495	1494	1495	1486	1471	1449	1429	1405	1382
40°	1475	1495	1505	1506	1505	1495	1475	1451	1434	1410	1384
37.5°	1481	1501	1511	1513	1511	1501	1481	1456	1434	1410	1381
35°	1485	1504	1513	1519	1513	1504	1485	1462	1436	1411	1384
32.5°	1482	1496	1504	1511	1504	1496	1482	1462	1440	1415	1390
30°	1479	1497	1510	1515	1510	1497	1479	1460	1443	1420	1394
27.5°	1474	1488	1500	1505	1500	1488	1474	1456	1437	1418	1388
25°	1463	1477	1485	1491	1485	1477	1463	1447	1428	1408	1383
22.5°	1443	1457	1466	1473	1466	1457	1443	1431	1413	1394	1368
20°	1421	1433	1443	1447	1443	1433	1421	1412	1393	1373	1350
17.5°	1394	1402	1409	1416	1409	1402	1394	1381	1367	1348	1326
15°	1364	1372	1382	1386	1382	1372	1364	1353	1337	1318	1298
12.5°	1332	1339	1344	1348	1344	1339	1332	1320	1306	1286	1265
10°	1302	1307	1313	1322	1313	1307	1302	1287	1273	1253	1233
7.5°	1264	1274	1280	1284	1280	1274	1264	1255	1238	1219	1199
5°	1232	1241	1247	1253	1247	1241	1232	1221	1206	1188	1167
2.5°	1198	1203	1210	1218	1210	1203	1198	1188	1172	1153	1131
0°	1116	1126	1132	1133	1132	1126	1116	1104	1085	1065	1043
-2.5°	988	993	987	1014	987	993	988	967	959	940	915
-5°	844	860	840	855	840	860	844	832	825	807	785
-7.5°	691	708	696	694	696	708	691	706	697	669	652
-10°	575	570	568	544	568	570	575	563	554	532	523
-12.5°	429	420	426	403	426	420	429	425	395	383	398
-15°	295	288	279	249	279	288	295	298	271	254	292
-17.5°	213	216	219	218	219	216	213	215	211	203	210
-20°	176	179	177	172	177	179	176	176	178	175	166



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 CATALOG NUMBER: FSL303TB

**CANDELA DISTRIBUTION (continued):**

	-7.5°	-5°	-2.5°	0°	2.5°	5°	7.5°	10°	12.5°	15°	17.5°
-22.5°	152	154	153	151	153	154	152	151	154	151	145
-25°	138	139	140	139	140	139	138	135	136	134	130
-27.5°	127	128	128	128	128	128	127	125	124	121	117
-30°	113	114	115	113	115	114	113	111	109	106	104
-32.5°	96	97	97	95	97	97	96	95	92	90	88
-35°	79	79	79	77	79	79	79	77	74	72	71
-37.5°	60	61	60	58	60	61	60	59	57	55	55
-40°	45	45	45	43	45	45	45	44	42	40	40
-42.5°	30	30	30	28	30	30	30	29	28	25	25
-45°	17	17	17	16	17	17	17	17	16	14	14
-47.5°	8	8	8	7	8	8	8	8	7	6	5
-50°	1	1	1	0	1	1	1	2	2	1	0
-52.5°	0	0	0	0	0	0	0	0	0	0	0
-55°	0	0	0	0	0	0	0	0	0	0	0
-57.5°	0	0	0	0	0	0	0	0	0	0	0
-60°	0	0	0	0	0	0	0	0	0	0	0
-62.5°	0	0	0	0	0	0	0	0	0	0	0
-65°	0	0	0	0	0	0	0	0	0	0	0
-67.5°	0	0	0	0	0	0	0	0	0	0	0
-70°	0	0	0	0	0	0	0	0	0	0	0
-72.5°	0	0	0	0	0	0	0	0	0	0	0
-75°	0	0	0	0	0	0	0	0	0	0	0
-77.5°	0	0	0	0	0	0	0	0	0	0	0
-80°	0	0	0	0	0	0	0	0	0	0	0
-82.5°	0	0	0	0	0	0	0	0	0	0	0
-85°	0	0	0	0	0	0	0	0	0	0	0
-87.5°	0	0	0	0	0	0	0	0	0	0	0
-90°	0	0	0	0	0	0	0	0	0	0	0



REPORT NUMBER: G1-1712-448-3  
 CATALOG NUMBER: FSL303TB

**CANDELA DISTRIBUTION (continued):**

	20°	22.5°	25°	27.5°	30°	32.5°	35°	37.5°	40°	42.5°	45°
90°	141	137	133	128	123	117	111	105	99	92	85
87.5°	163	157	153	147	140	133	127	118	110	103	96
85°	194	189	182	174	167	159	151	140	130	119	110
82.5°	274	261	260	246	231	217	203	187	170	150	132
80°	411	395	388	365	342	320	296	268	240	209	182
77.5°	557	544	523	501	477	453	426	387	346	299	254
75°	695	677	652	630	606	576	542	503	455	397	338
72.5°	819	801	779	755	727	693	655	612	561	498	430
70°	942	925	902	877	847	813	771	724	666	603	525
67.5°	1067	1043	1019	994	961	927	883	841	781	712	619
65°	1152	1130	1107	1073	1038	1008	971	924	862	800	709
62.5°	1181	1157	1134	1109	1080	1047	1006	963	915	858	766
60°	1211	1185	1161	1134	1106	1075	1034	991	946	893	821
57.5°	1235	1211	1189	1161	1128	1096	1060	1016	971	925	880
55°	1267	1243	1218	1190	1160	1122	1085	1039	992	940	886
52.5°	1297	1272	1245	1215	1184	1147	1108	1061	1011	960	898
50°	1318	1293	1266	1234	1201	1169	1126	1082	1030	978	926
47.5°	1337	1309	1282	1253	1217	1180	1140	1095	1043	991	942
45°	1350	1323	1295	1263	1230	1191	1152	1102	1052	996	944
42.5°	1355	1327	1299	1266	1232	1194	1153	1103	1050	996	942
40°	1356	1325	1295	1263	1227	1189	1146	1103	1047	990	949
37.5°	1353	1321	1288	1254	1220	1181	1138	1093	1044	992	947
35°	1352	1321	1287	1253	1218	1181	1139	1091	1041	993	944
32.5°	1367	1331	1302	1263	1227	1187	1147	1100	1045	995	945
30°	1366	1335	1306	1276	1240	1202	1160	1109	1054	1001	957
27.5°	1363	1336	1305	1274	1242	1206	1165	1117	1062	1008	959
25°	1356	1328	1300	1270	1238	1203	1165	1116	1064	1013	961
22.5°	1344	1316	1289	1261	1229	1195	1156	1107	1058	1008	956
20°	1326	1298	1272	1245	1211	1180	1141	1093	1043	993	934
17.5°	1301	1278	1252	1224	1193	1159	1121	1075	1027	977	908
15°	1274	1250	1226	1199	1169	1138	1100	1053	1005	962	880
12.5°	1242	1219	1196	1170	1140	1108	1070	1028	981	928	845
10°	1211	1185	1163	1136	1107	1076	1037	995	950	894	805
7.5°	1177	1153	1131	1103	1073	1042	1004	960	912	852	759
5°	1144	1120	1096	1069	1041	1009	973	925	874	800	714
2.5°	1107	1085	1061	1031	1000	963	921	864	806	724	632
0°	1017	995	967	938	908	876	830	777	716	637	540
-2.5°	897	874	850	822	796	764	727	687	639	573	491
-5°	771	749	729	703	677	646	620	592	556	503	437
-7.5°	638	621	603	580	555	528	514	499	474	433	383
-10°	511	492	472	454	428	409	410	407	393	365	329
-12.5°	407	399	367	325	295	294	310	318	315	299	277
-15°	316	313	296	259	206	187	215	233	240	236	228
-17.5°	235	242	234	203	173	159	144	154	171	179	182
-20°	170	185	181	164	152	142	129	115	110	129	138



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 CATALOG NUMBER: FSL303TB

**CANDELA DISTRIBUTION (continued):**

	20°	22.5°	25°	27.5°	30°	32.5°	35°	37.5°	40°	42.5°	45°
-22.5°	137	144	145	139	134	125	114	102	93	87	99
-25°	125	121	123	122	117	109	99	91	84	78	71
-27.5°	114	110	107	105	101	94	86	79	74	68	63
-30°	100	97	93	90	85	79	73	68	63	58	54
-32.5°	86	83	79	75	70	65	61	57	53	49	45
-35°	70	67	64	60	56	52	49	45	43	39	36
-37.5°	54	52	50	46	42	39	36	35	33	30	28
-40°	39	38	36	33	30	26	25	25	23	22	20
-42.5°	25	25	24	22	20	17	15	15	15	15	15
-45°	15	15	14	13	11	9	6	7	8	10	10
-47.5°	6	7	7	7	5	4	2	2	5	6	7
-50°	2	3	3	2	2	1	0	0	3	4	5
-52.5°	0	1	1	0	0	0	0	0	1	2	3
-55°	0	0	0	0	0	0	0	0	0	1	1
-57.5°	0	0	0	0	0	0	0	0	0	0	0
-60°	0	0	0	0	0	0	0	0	0	0	0
-62.5°	0	0	0	0	0	0	0	0	0	0	0
-65°	0	0	0	0	0	0	0	0	0	0	0
-67.5°	0	0	0	0	0	0	0	0	0	0	0
-70°	0	0	0	0	0	0	0	0	0	0	0
-72.5°	0	0	0	0	0	0	0	0	0	0	0
-75°	0	0	0	0	0	0	0	0	0	0	0
-77.5°	0	0	0	0	0	0	0	0	0	0	0
-80°	0	0	0	0	0	0	0	0	0	0	0
-82.5°	0	0	0	0	0	0	0	0	0	0	0
-85°	0	0	0	0	0	0	0	0	0	0	0
-87.5°	0	0	0	0	0	0	0	0	0	0	0
-90°	0	0	0	0	0	0	0	0	0	0	0





REPORT NUMBER: G1-1712-448-3  
 CATALOG NUMBER: FSL303TB

**CANDELA DISTRIBUTION (continued):**

	47.5°	50°	52.5°	55°	57.5°	60°	62.5°	65°	67.5°	70°	72.5°
90°	78	71	65	58	51	43	37	31	25	20	16
87.5°	87	79	71	64	56	48	41	35	29	23	18
85°	99	89	79	70	61	53	46	39	33	27	21
82.5°	114	101	89	77	67	57	50	43	36	30	23
80°	155	131	109	89	74	62	54	47	40	33	26
77.5°	211	170	132	105	85	69	59	51	43	36	28
75°	279	226	177	133	98	75	63	54	46	39	31
72.5°	361	291	224	165	117	87	69	57	50	42	33
70°	445	359	278	207	142	97	75	61	53	44	35
67.5°	531	430	335	248	173	119	81	65	55	47	37
65°	605	495	396	296	207	137	90	69	58	49	39
62.5°	666	554	442	338	243	160	96	74	60	51	41
60°	712	596	485	374	272	180	111	77	62	52	43
57.5°	755	631	516	404	297	198	124	84	64	54	44
55°	790	667	545	429	319	214	136	88	66	55	45
52.5°	812	697	576	454	341	232	154	91	69	56	46
50°	847	717	598	482	361	252	165	99	71	56	46
47.5°	872	737	609	502	383	263	176	107	72	57	46
45°	869	758	623	507	395	274	189	112	75	57	46
42.5°	866	766	643	509	400	287	201	118	75	57	46
40°	879	765	654	524	410	295	200	118	73	57	46
37.5°	895	766	648	522	408	295	199	111	73	57	45
35°	876	772	649	520	403	292	196	103	73	56	45
32.5°	868	770	650	527	406	289	190	111	73	55	44
30°	874	762	640	525	404	285	186	113	71	53	43
27.5°	869	764	630	516	398	282	183	110	68	52	42
25°	869	760	624	500	389	276	177	103	66	51	41
22.5°	864	739	614	479	380	269	169	96	66	50	40
20°	844	710	600	462	364	258	160	96	65	49	39
17.5°	823	684	573	447	343	243	154	93	62	48	38
15°	780	659	543	425	322	228	143	88	60	46	37
12.5°	739	621	513	398	299	209	128	80	56	44	35
10°	699	584	478	366	272	186	110	72	54	43	34
7.5°	648	546	439	330	244	165	100	69	52	42	33
5°	590	499	393	293	214	145	92	65	50	41	31
2.5°	530	441	344	255	182	122	82	60	48	39	30
0°	464	375	288	212	146	97	71	55	45	37	28
-2.5°	425	347	269	199	138	92	68	53	43	36	27
-5°	381	314	245	183	128	86	64	50	41	34	26
-7.5°	337	280	221	167	117	80	60	47	39	32	25
-10°	293	246	197	149	106	74	56	44	36	30	23
-12.5°	250	213	172	132	95	67	51	41	34	28	22
-15°	209	181	148	114	83	61	47	37	31	26	21
-17.5°	170	150	125	97	72	54	42	34	29	24	19
-20°	135	122	103	81	61	47	37	31	26	22	18



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 CATALOG NUMBER: FSL303TB

**CANDELA DISTRIBUTION (continued):**

	47.5°	50°	52.5°	55°	57.5°	60°	62.5°	65°	67.5°	70°	72.5°
-22.5°	103	97	84	67	51	40	32	27	24	20	16
-25°	76	75	67	55	43	34	28	24	21	18	15
-27.5°	57	56	51	43	35	29	24	21	19	16	14
-30°	48	41	39	33	28	23	20	18	17	15	12
-32.5°	40	34	28	26	22	18	16	15	15	13	11
-35°	32	27	23	19	16	14	13	13	12	11	10
-37.5°	25	21	18	13	11	10	10	11	11	10	9
-40°	19	16	13	10	6	6	7	9	9	9	8
-42.5°	14	12	10	6	4	3	5	7	7	7	6
-45°	10	9	6	4	2	1	3	5	6	6	6
-47.5°	7	6	4	2	1	0	2	4	5	5	5
-50°	4	3	2	1	0	0	1	3	4	4	4
-52.5°	2	2	1	0	0	0	0	2	3	3	3
-55°	1	1	0	0	0	0	0	1	2	3	2
-57.5°	0	0	0	0	0	0	0	1	2	2	2
-60°	0	0	0	0	0	0	0	0	1	2	2
-62.5°	0	0	0	0	0	0	0	0	1	1	1
-65°	0	0	0	0	0	0	0	0	1	1	1
-67.5°	0	0	0	0	0	0	0	0	0	1	1
-70°	0	0	0	0	0	0	0	0	0	0	0
-72.5°	0	0	0	0	0	0	0	0	0	0	0
-75°	0	0	0	0	0	0	0	0	0	0	0
-77.5°	0	0	0	0	0	0	0	0	0	0	0
-80°	0	0	0	0	0	0	0	0	0	0	0
-82.5°	0	0	0	0	0	0	0	0	0	0	0
-85°	0	0	0	0	0	0	0	0	0	0	0
-87.5°	0	0	0	0	0	0	0	0	0	0	0
-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°	11	8	4	3	1	1	0
87.5°	13	9	5	3	1	1	0
85°	15	10	6	3	1	1	0
82.5°	17	12	7	4	1	1	0
80°	19	13	7	4	1	1	0
77.5°	21	14	8	4	1	1	0
75°	23	15	9	5	1	1	0
72.5°	25	17	10	5	2	1	0
70°	26	18	11	5	2	1	0
67.5°	28	19	11	5	2	1	0
65°	30	20	12	6	2	1	0
62.5°	31	21	13	6	2	1	0
60°	33	22	13	7	2	1	0
57.5°	33	23	14	7	2	1	0
55°	34	24	15	7	2	1	0
52.5°	34	24	15	7	2	1	0
50°	35	25	15	7	2	1	0
47.5°	35	25	16	7	3	1	0
45°	35	25	16	7	3	1	0
42.5°	35	25	16	7	3	1	0
40°	35	25	16	8	3	1	0
37.5°	35	25	16	8	3	1	0
35°	35	24	16	8	3	1	0
32.5°	34	24	15	8	3	0	0
30°	34	24	15	8	3	0	0
27.5°	33	23	15	8	3	0	0
25°	32	23	14	7	3	0	0
22.5°	31	22	14	7	3	0	0
20°	30	21	13	7	2	0	0
17.5°	29	21	13	7	2	0	0
15°	28	20	12	6	2	0	0
12.5°	27	19	11	6	2	0	0
10°	26	18	11	5	2	0	0
7.5°	24	17	10	5	2	0	0
5°	23	16	9	4	1	0	0
2.5°	22	14	8	4	1	0	0
0°	20	13	7	3	1	0	0
-2.5°	19	13	7	3	1	0	0
-5°	19	12	7	3	1	0	0
-7.5°	18	12	7	3	1	0	0
-10°	17	11	6	3	1	0	0
-12.5°	16	11	6	3	1	0	0
-15°	15	10	6	3	1	0	0
-17.5°	14	10	5	2	1	0	0
-20°	13	9	5	2	1	0	0



REPORT NUMBER: G1-1712-448-3  
 CATALOG NUMBER: FSL303TB

**CANDELA DISTRIBUTION (continued):**

	75°	77.5°	80°	82.5°	85°	87.5°	90°
-22.5°	12	8	5	2	1	0	0
-25°	11	8	4	2	1	0	0
-27.5°	10	7	4	2	1	0	0
-30°	9	6	4	2	1	0	0
-32.5°	8	6	3	2	1	0	0
-35°	8	5	3	2	1	0	0
-37.5°	7	4	3	1	1	0	0
-40°	6	4	2	1	0	0	0
-42.5°	5	4	2	1	0	0	0
-45°	4	3	2	1	0	0	0
-47.5°	4	3	2	1	0	0	0
-50°	3	2	1	1	0	0	0
-52.5°	3	2	1	1	0	0	0
-55°	2	1	1	1	0	0	0
-57.5°	2	1	1	0	0	0	0
-60°	1	1	1	0	0	0	0
-62.5°	1	1	1	0	0	0	0
-65°	1	1	0	0	0	0	0
-67.5°	1	0	0	0	0	0	0
-70°	0	0	0	0	0	0	0
-72.5°	0	0	0	0	0	0	0
-75°	0	0	0	0	0	0	0
-77.5°	0	0	0	0	0	0	0
-80°	0	0	0	0	0	0	0
-82.5°	0	0	0	0	0	0	0
-85°	0	0	0	0	0	0	0
-87.5°	0	0	0	0	0	0	0
-90°	0	0	0	0	0	0	0

(END OF REPORT)







Horizontal Angle (degrees)



Horizontal Angle (degrees)



