

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: G1-1712-448-1

Luminaire Tested: **FSS153TB**

Test Date: 02/12/18

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: G1-1712-448-1  
Test Lab: INNOVATION CENTER(G1)  
Test Date: 02/12/18  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: HALO  
Catalog Number: FSS153TB  
Description: FLOOD SMALL SINGLE HEAD LED  
Light Source: (1) PCB ARRAY  
Ballast/Driver: (1) TCL ELECTRONIC DRIVER  
016W0A42-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

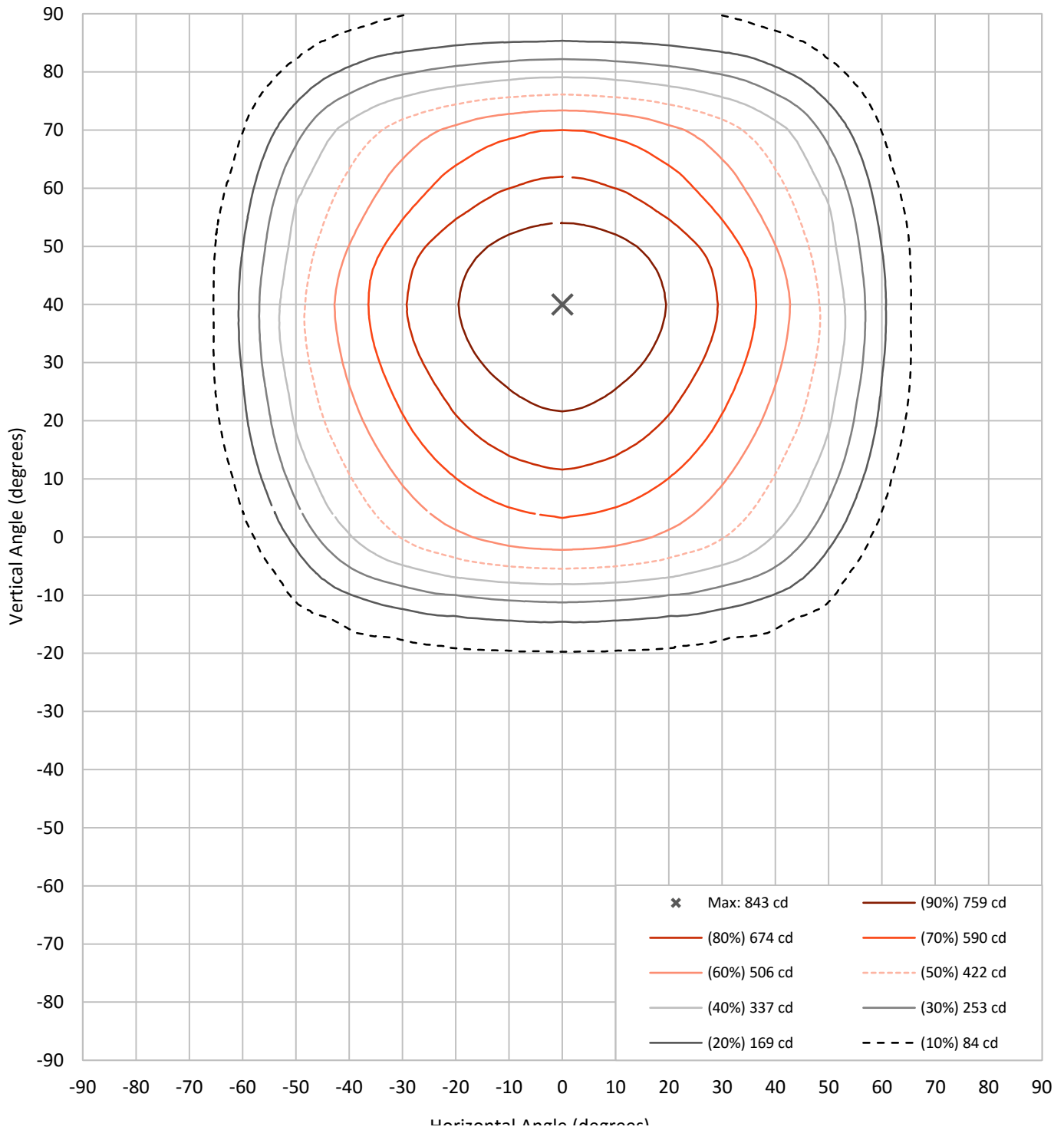
**Summary**

Lumens per Lamp:	N/A	NEMA Type:	7H x 2V
Luminaire Lumens:	1510.5 lumens	Max Intensity:	843 candela
Efficiency:	N/A	Max Intensity Angle:	0°H x 40°V
Efficacy:	87.3 lumens/watt		
Luminous Opening:	Rectangular w/ Sides (W: 0.42' x L: 0.25' x H: 0.21')		
Beam Angle (50%):	96.6°H x 81.7°V	Field Angle (10%):	130.9°H x 19.7°V
Beam Lumens:	1134.6 lumens	Field Lumens:	1471.4 lumens
Beam Efficiency:	75.1%	Field Efficiency:	97.4%
Input Watts (W):	17.3		
Input Voltage (V):	120.0		
Input Current (A <sub>in</sub> ):	0.145		
Voltage Rise (V):	NR		
Power Factor:	0.9953		
Total Harmonic Distortion (THDi):	5.92%		
Frequency (hertz):	60		
Stabilization Time:	0.5 HR		
Operation Time:	7.0 HR		
Ambient Temperature (°C):	25.0		
Test Distance:	28.75 FT		



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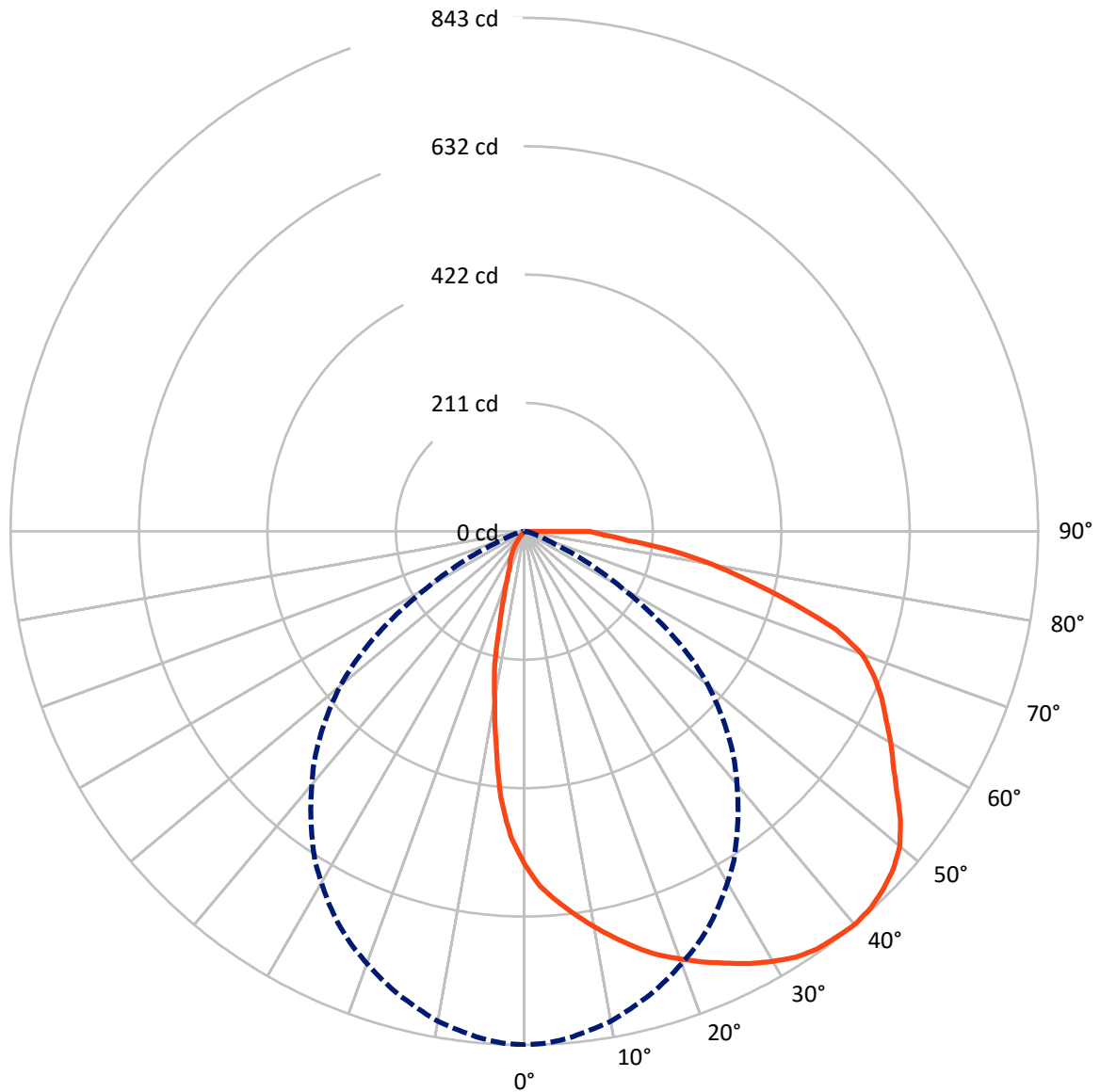
### Iso-Candela Plot





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### Luminous Intensity Polar Plot

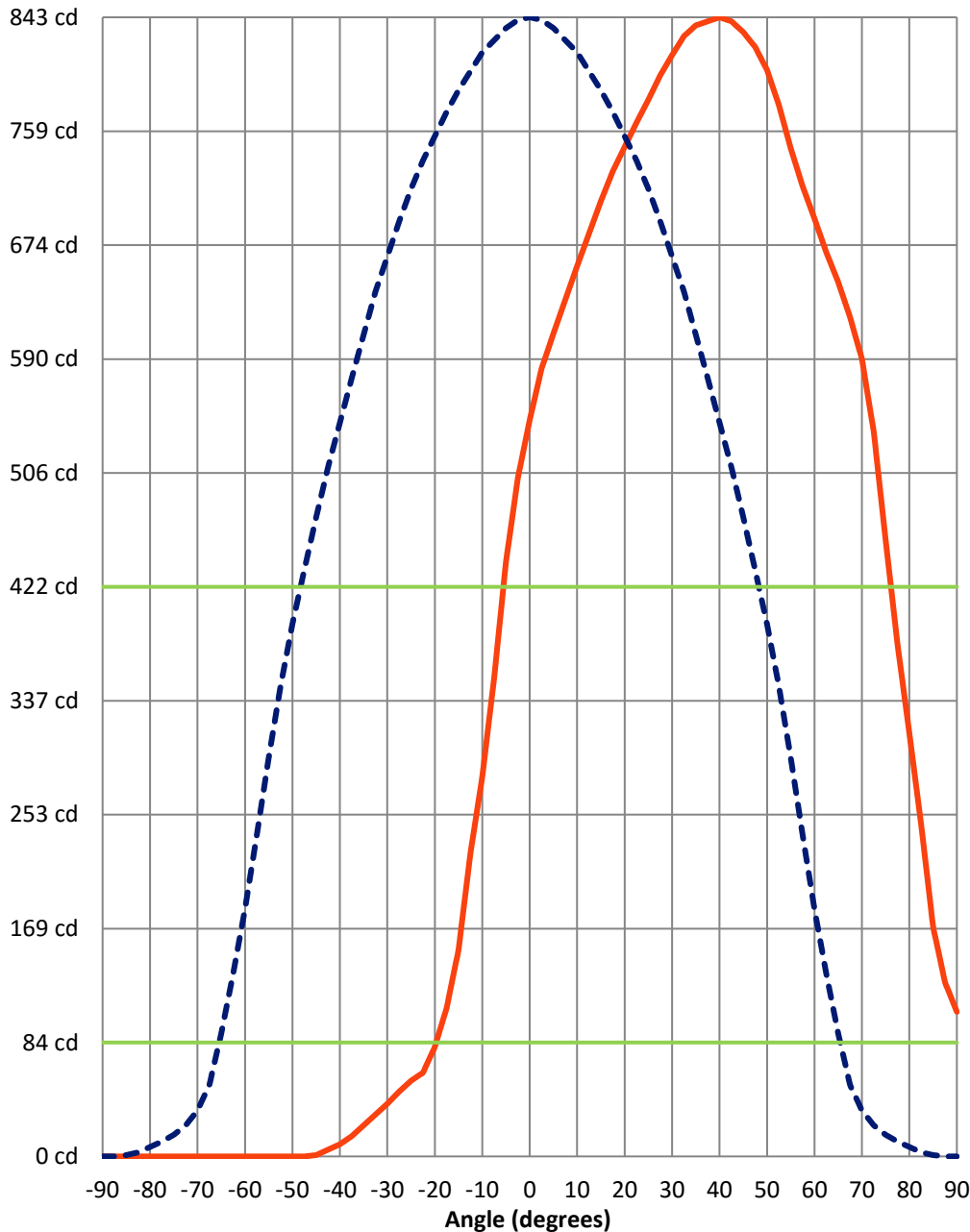


— Vertical Distribution Through 0-Deg      - - - Horizontal Distribution Through 40-Deg



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### Luminous Intensity Plot



**Beam:**  
 H Angle: 96.6°  
 V Angle: 81.7°  
 Lumens: 1134.6  
 Efficiency: 75.1%

**Field:**  
 H Angle: 130.9°  
 V Angle: 19.7°  
 Lumens: 1471.4  
 Efficiency: 97.4%

**Spill:**  
 Lumens: 39.1  
 Efficiency: 2.6%

— Vertical Distribution through 0-Deg  
 - - - Horizontal Distribution through 40-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	1	3	4	5	8	11	13	16
87.5°	0	0	0	1	3	4	6	9	12	15	18
85°	0	0	0	2	3	5	7	10	13	16	19
82.5°	0	0	0	2	3	5	7	11	14	18	21
80°	0	0	0	2	4	6	8	12	15	19	23
77.5°	0	0	0	2	4	6	9	13	17	21	25
75°	0	0	0	2	4	7	10	14	18	24	29
72.5°	0	0	1	2	5	8	11	15	20	26	33
70°	0	0	1	2	5	8	12	17	22	29	39
67.5°	0	0	1	3	5	9	13	18	24	33	44
65°	0	0	1	3	6	9	13	18	26	36	50
62.5°	0	0	1	3	6	10	14	19	28	39	57
60°	0	0	1	3	6	10	15	20	29	43	63
57.5°	0	0	1	3	6	11	15	20	30	46	70
55°	0	0	1	3	6	11	15	20	31	49	76
52.5°	0	0	1	3	7	11	16	21	31	52	82
50°	0	0	1	3	7	11	16	21	30	53	85
47.5°	0	0	1	3	7	11	16	22	30	54	88
45°	0	0	1	3	7	11	16	22	31	54	89
42.5°	0	0	1	3	7	11	16	23	33	54	90
40°	0	0	1	3	7	11	16	23	34	53	91
37.5°	0	0	1	3	7	11	16	24	36	55	89
35°	0	0	1	3	7	11	16	24	37	58	87
32.5°	0	0	1	3	7	11	16	24	38	59	89
30°	0	0	1	3	6	11	16	23	37	59	88
27.5°	0	0	1	3	6	10	16	23	37	57	87
25°	0	0	1	3	6	10	15	23	36	55	84
22.5°	0	0	1	3	6	10	14	21	34	53	80
20°	0	0	1	3	6	9	13	20	31	49	75
17.5°	0	0	1	3	6	9	13	18	28	44	69
15°	0	0	1	2	5	8	12	17	24	38	61
12.5°	0	0	0	2	5	8	12	16	21	32	53
10°	0	0	0	2	5	7	11	15	20	29	46
7.5°	0	0	0	2	4	7	10	15	19	27	42
5°	0	0	0	2	4	6	10	14	19	25	38
2.5°	0	0	0	1	3	6	9	13	17	23	33
0°	0	0	0	1	3	5	8	12	16	20	28
-2.5°	0	0	0	1	3	5	7	11	15	19	26
-5°	0	0	0	1	2	4	7	10	14	18	23
-7.5°	0	0	0	1	2	4	6	9	12	16	21
-10°	0	0	0	1	2	3	5	8	11	14	18
-12.5°	0	0	0	1	2	3	4	7	10	13	16
-15°	0	0	0	1	1	2	4	6	9	12	14
-17.5°	0	0	0	0	1	2	3	5	7	10	13
-20°	0	0	0	0	1	1	2	4	6	9	11



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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	0	0	1	1	2	4	5	7	9
-25°	0	0	0	0	0	1	2	3	4	6	7
-27.5°	0	0	0	0	0	0	1	2	3	5	6
-30°	0	0	0	0	0	0	1	2	3	3	4
-32.5°	0	0	0	0	0	0	1	1	2	2	3
-35°	0	0	0	0	0	0	1	1	1	1	1
-37.5°	0	0	0	0	0	0	0	1	1	1	1
-40°	0	0	0	0	0	0	0	1	1	0	0
-42.5°	0	0	0	0	0	0	0	0	0	0	0
-45°	0	0	0	0	0	0	0	0	0	0	0
-47.5°	0	0	0	0	0	0	0	0	0	0	0
-50°	0	0	0	0	0	0	0	0	0	0	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





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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°	20	24	27	31	36	41	46	51	57	63	68
87.5°	22	27	31	36	43	50	58	65	72	79	85
85°	24	30	36	43	53	63	74	86	96	105	115
82.5°	28	36	45	54	67	81	96	113	127	141	156
80°	31	42	54	69	87	106	127	148	166	184	203
77.5°	37	51	68	86	108	133	159	186	209	229	249
75°	42	60	82	107	135	164	194	227	254	277	299
72.5°	48	72	98	129	161	196	232	269	300	323	347
70°	56	82	115	151	189	226	264	303	338	363	387
67.5°	62	95	132	171	212	252	293	330	364	389	415
65°	71	107	148	190	235	274	313	350	383	409	435
62.5°	80	119	162	207	253	295	334	368	401	427	454
60°	91	131	176	222	271	316	354	386	416	444	471
57.5°	101	141	188	237	288	337	369	401	431	461	488
55°	110	150	199	250	301	348	383	414	444	475	504
52.5°	117	159	209	260	309	356	393	426	458	490	522
50°	123	167	217	268	317	362	405	439	473	507	542
47.5°	128	174	224	276	325	370	414	452	488	522	559
45°	131	179	230	284	333	379	423	465	498	534	569
42.5°	135	182	235	292	341	387	431	470	506	540	574
40°	135	183	238	295	348	394	434	473	510	543	576
37.5°	134	184	239	296	353	397	437	472	508	542	574
35°	132	183	237	294	352	397	433	469	503	537	569
32.5°	129	181	233	290	344	392	428	463	497	530	562
30°	126	175	228	284	336	382	422	457	489	522	553
27.5°	125	169	221	276	327	372	413	448	480	512	542
25°	121	164	212	266	317	364	404	439	471	501	530
22.5°	116	158	206	255	308	355	395	429	460	489	518
20°	110	151	198	246	299	346	386	418	447	476	505
17.5°	103	143	188	236	286	334	376	406	434	462	491
15°	94	134	177	223	272	318	359	391	419	448	475
12.5°	84	123	164	209	256	301	341	375	404	432	459
10°	74	110	150	193	238	282	323	359	389	416	442
7.5°	66	98	135	175	219	263	305	342	372	399	425
5°	58	87	121	157	199	241	285	325	355	381	407
2.5°	50	75	105	139	178	217	259	298	331	358	386
0°	40	61	88	119	154	190	230	268	303	331	359
-2.5°	36	53	75	101	132	164	200	235	268	296	323
-5°	31	44	61	82	108	136	167	198	229	256	280
-7.5°	26	35	47	64	87	113	139	164	189	211	230
-10°	22	29	40	55	73	93	112	130	148	165	180
-12.5°	20	26	35	47	60	74	86	97	108	119	134
-15°	18	22	30	39	47	55	62	66	76	91	103
-17.5°	15	19	25	31	36	39	43	52	61	70	76
-20°	13	16	20	24	26	30	36	43	48	52	53



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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°	11	13	16	19	22	25	30	35	38	38	40
-25°	9	11	13	16	18	21	24	28	30	32	35
-27.5°	7	8	10	12	15	17	19	22	25	27	29
-30°	5	6	8	9	11	13	15	17	20	22	23
-32.5°	3	5	6	7	8	10	11	13	15	16	18
-35°	2	3	4	5	5	6	8	9	10	11	13
-37.5°	2	2	2	2	3	4	5	6	7	7	8
-40°	1	1	1	1	1	2	3	3	3	4	5
-42.5°	1	1	1	0	1	1	1	1	1	2	2
-45°	0	0	0	0	0	0	0	0	0	1	1
-47.5°	0	0	0	0	0	0	0	0	0	0	0
-50°	0	0	0	0	0	0	0	0	0	0	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



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**CANDELA DISTRIBUTION (continued):**

	-35°	-32.5°	-30°	-27.5°	-25°	-22.5°	-20°	-17.5°	-15°	-12.5°	-10°
90°	74	78	82	86	90	93	96	98	101	102	104
87.5°	92	97	101	105	110	113	116	119	122	123	124
85°	125	131	136	141	146	150	155	159	163	164	166
82.5°	170	179	188	196	204	211	217	222	228	232	235
80°	221	232	243	252	262	270	277	284	290	296	301
77.5°	269	284	296	308	319	329	338	347	355	362	367
75°	320	337	352	367	381	394	406	417	428	435	440
72.5°	371	392	410	426	444	459	473	486	499	509	517
70°	411	434	454	475	493	509	523	537	551	562	571
67.5°	439	463	483	504	524	541	555	569	583	594	602
65°	461	486	506	527	546	565	580	594	608	619	627
62.5°	480	505	527	547	568	588	603	617	631	643	651
60°	497	523	546	568	588	608	625	639	653	666	674
57.5°	515	541	566	588	609	629	646	662	676	689	698
55°	532	560	586	610	631	652	670	686	701	715	724
52.5°	553	581	609	634	656	677	698	713	728	743	754
50°	572	602	630	658	680	701	722	738	753	767	779
47.5°	590	620	648	675	698	717	737	754	769	783	795
45°	603	630	658	684	707	727	746	764	779	793	805
42.5°	607	637	663	689	714	734	752	771	786	800	813
40°	608	640	666	692	716	737	755	773	789	803	817
37.5°	606	638	665	689	713	736	753	771	787	801	814
35°	601	631	660	683	706	729	747	765	783	796	809
32.5°	592	621	648	674	697	718	738	755	773	787	799
30°	582	610	637	663	685	706	726	744	760	775	787
27.5°	571	598	625	649	672	693	712	731	746	760	771
25°	558	586	611	636	658	679	698	716	731	744	756
22.5°	546	572	598	622	644	664	684	700	716	728	740
20°	532	559	583	607	629	649	668	684	699	712	723
17.5°	517	543	567	591	612	632	650	666	681	694	703
15°	501	527	550	573	594	613	631	647	661	672	684
12.5°	484	509	533	554	575	593	610	626	639	651	661
10°	467	491	514	535	555	573	589	604	617	628	638
7.5°	450	473	495	515	534	551	567	581	594	605	614
5°	432	454	476	495	513	530	544	558	570	581	589
2.5°	411	433	455	473	491	507	521	534	546	556	564
0°	384	406	426	444	461	477	490	503	515	524	533
-2.5°	348	371	390	408	421	435	447	459	471	480	488
-5°	301	319	334	348	362	376	390	403	411	419	426
-7.5°	247	262	274	287	300	313	322	327	334	342	346
-10°	193	204	218	230	242	249	252	261	266	271	275
-12.5°	149	158	166	175	183	190	195	199	205	211	214
-15°	112	114	116	126	136	138	136	146	146	150	151
-17.5°	78	77	85	92	95	95	102	103	105	106	108
-20°	55	62	65	67	69	73	75	77	78	79	79



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**CANDELA DISTRIBUTION (continued):**

	-35°	-32.5°	-30°	-27.5°	-25°	-22.5°	-20°	-17.5°	-15°	-12.5°	-10°
-22.5°	46	51	51	51	56	58	58	61	61	62	62
-25°	38	42	43	45	47	49	50	52	53	54	54
-27.5°	32	35	36	38	40	42	43	44	45	46	47
-30°	25	28	30	31	33	34	35	36	37	37	38
-32.5°	19	21	23	24	25	26	27	28	29	29	30
-35°	14	15	16	17	18	19	20	21	21	21	22
-37.5°	9	9	10	11	12	13	14	14	15	15	15
-40°	5	5	6	7	7	7	8	8	9	9	9
-42.5°	2	2	2	3	3	4	4	4	4	4	4
-45°	0	0	1	0	0	1	1	1	1	1	1
-47.5°	0	0	0	0	0	0	0	0	0	0	0
-50°	0	0	0	0	0	0	0	0	0	0	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



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**CANDELA DISTRIBUTION (continued):**

	-7.5°	-5°	-2.5°	0°	2.5°	5°	7.5°	10°	12.5°	15°	17.5°
90°	105	106	107	107	107	106	105	104	102	101	98
87.5°	126	127	128	129	128	127	126	124	123	122	119
85°	166	166	168	170	168	166	166	166	164	163	159
82.5°	240	242	243	245	243	242	240	235	232	228	222
80°	308	311	312	313	312	311	308	301	296	290	284
77.5°	372	377	378	379	378	377	372	367	362	355	347
75°	445	450	453	456	453	450	445	440	435	428	417
72.5°	524	533	534	536	534	533	524	517	509	499	486
70°	579	588	589	590	589	588	579	571	562	551	537
67.5°	609	617	619	621	619	617	609	602	594	583	569
65°	634	641	645	647	645	641	634	627	619	608	594
62.5°	658	665	668	669	668	665	658	651	643	631	617
60°	681	688	692	694	692	688	681	674	666	653	639
57.5°	706	714	717	718	717	714	706	698	689	676	662
55°	733	740	745	746	745	740	733	724	715	701	686
52.5°	764	772	777	778	777	772	764	754	743	728	713
50°	789	798	803	804	803	798	789	779	767	753	738
47.5°	805	814	820	821	820	814	805	795	783	769	754
45°	815	824	830	832	830	824	815	805	793	779	764
42.5°	823	831	838	840	838	831	823	813	800	786	771
40°	826	835	841	843	841	835	826	817	803	789	773
37.5°	824	832	838	840	838	832	824	814	801	787	771
35°	819	827	834	837	834	827	819	809	796	783	765
32.5°	811	819	826	829	826	819	811	799	787	773	755
30°	799	806	813	815	813	806	799	787	775	760	744
27.5°	783	791	798	800	798	791	783	771	760	746	731
25°	767	774	781	782	781	774	767	756	744	731	716
22.5°	749	758	763	765	763	758	749	740	728	716	700
20°	732	741	745	747	745	741	732	723	712	699	684
17.5°	713	721	726	729	726	721	713	703	694	681	666
15°	692	699	705	707	705	699	692	684	672	661	647
12.5°	669	675	681	683	681	675	669	661	651	639	626
10°	645	651	656	659	656	651	645	638	628	617	604
7.5°	621	627	631	634	631	627	621	614	605	594	581
5°	595	602	605	609	605	602	595	589	581	570	558
2.5°	571	574	577	583	577	574	571	564	556	546	534
0°	539	543	547	545	547	543	539	533	524	515	503
-2.5°	494	497	499	502	499	497	494	488	480	471	459
-5°	431	436	436	440	436	436	431	426	419	411	403
-7.5°	350	353	356	354	356	353	350	346	342	334	327
-10°	278	281	281	281	281	281	278	275	271	266	261
-12.5°	217	219	222	224	222	219	217	214	211	205	199
-15°	155	158	158	153	158	158	155	151	150	146	146
-17.5°	110	109	110	110	110	109	110	108	106	105	103
-20°	81	80	81	81	81	80	81	79	79	78	77



REPORT NUMBER: G1-1712-448-1  
 CATALOG NUMBER: FSS153TB

**CANDELA DISTRIBUTION (continued):**

	-7.5°	-5°	-2.5°	0°	2.5°	5°	7.5°	10°	12.5°	15°	17.5°
-22.5°	64	63	63	62	63	63	64	62	62	61	61
-25°	55	55	56	56	56	55	55	54	54	53	52
-27.5°	47	48	48	48	48	48	47	47	46	45	44
-30°	39	39	39	39	39	39	39	38	37	37	36
-32.5°	30	31	31	31	31	31	30	30	29	29	28
-35°	22	22	23	23	23	22	22	22	21	21	21
-37.5°	15	16	16	15	16	16	15	15	15	15	14
-40°	9	10	10	9	10	10	9	9	9	9	8
-42.5°	5	5	5	5	5	5	5	4	4	4	4
-45°	1	1	1	1	1	1	1	1	1	1	1
-47.5°	0	0	0	0	0	0	0	0	0	0	0
-50°	0	0	0	0	0	0	0	0	0	0	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: G1-1712-448-1  
 CATALOG NUMBER: FSS153TB

**CANDELA DISTRIBUTION (continued):**

	20°	22.5°	25°	27.5°	30°	32.5°	35°	37.5°	40°	42.5°	45°
90°	96	93	90	86	82	78	74	68	63	57	51
87.5°	116	113	110	105	101	97	92	85	79	72	65
85°	155	150	146	141	136	131	125	115	105	96	86
82.5°	217	211	204	196	188	179	170	156	141	127	113
80°	277	270	262	252	243	232	221	203	184	166	148
77.5°	338	329	319	308	296	284	269	249	229	209	186
75°	406	394	381	367	352	337	320	299	277	254	227
72.5°	473	459	444	426	410	392	371	347	323	300	269
70°	523	509	493	475	454	434	411	387	363	338	303
67.5°	555	541	524	504	483	463	439	415	389	364	330
65°	580	565	546	527	506	486	461	435	409	383	350
62.5°	603	588	568	547	527	505	480	454	427	401	368
60°	625	608	588	568	546	523	497	471	444	416	386
57.5°	646	629	609	588	566	541	515	488	461	431	401
55°	670	652	631	610	586	560	532	504	475	444	414
52.5°	698	677	656	634	609	581	553	522	490	458	426
50°	722	701	680	658	630	602	572	542	507	473	439
47.5°	737	717	698	675	648	620	590	559	522	488	452
45°	746	727	707	684	658	630	603	569	534	498	465
42.5°	752	734	714	689	663	637	607	574	540	506	470
40°	755	737	716	692	666	640	608	576	543	510	473
37.5°	753	736	713	689	665	638	606	574	542	508	472
35°	747	729	706	683	660	631	601	569	537	503	469
32.5°	738	718	697	674	648	621	592	562	530	497	463
30°	726	706	685	663	637	610	582	553	522	489	457
27.5°	712	693	672	649	625	598	571	542	512	480	448
25°	698	679	658	636	611	586	558	530	501	471	439
22.5°	684	664	644	622	598	572	546	518	489	460	429
20°	668	649	629	607	583	559	532	505	476	447	418
17.5°	650	632	612	591	567	543	517	491	462	434	406
15°	631	613	594	573	550	527	501	475	448	419	391
12.5°	610	593	575	554	533	509	484	459	432	404	375
10°	589	573	555	535	514	491	467	442	416	389	359
7.5°	567	551	534	515	495	473	450	425	399	372	342
5°	544	530	513	495	476	454	432	407	381	355	325
2.5°	521	507	491	473	455	433	411	386	358	331	298
0°	490	477	461	444	426	406	384	359	331	303	268
-2.5°	447	435	421	408	390	371	348	323	296	268	235
-5°	390	376	362	348	334	319	301	280	256	229	198
-7.5°	322	313	300	287	274	262	247	230	211	189	164
-10°	252	249	242	230	218	204	193	180	165	148	130
-12.5°	195	190	183	175	166	158	149	134	119	108	97
-15°	136	138	136	126	116	114	112	103	91	76	66
-17.5°	102	95	95	92	85	77	78	76	70	61	52
-20°	75	73	69	67	65	62	55	53	52	48	43



REPORT NUMBER: G1-1712-448-1  
 CATALOG NUMBER: FSS153TB

**CANDELA DISTRIBUTION (continued):**

	20°	22.5°	25°	27.5°	30°	32.5°	35°	37.5°	40°	42.5°	45°
-22.5°	58	58	56	51	51	51	46	40	38	38	35
-25°	50	49	47	45	43	42	38	35	32	30	28
-27.5°	43	42	40	38	36	35	32	29	27	25	22
-30°	35	34	33	31	30	28	25	23	22	20	17
-32.5°	27	26	25	24	23	21	19	18	16	15	13
-35°	20	19	18	17	16	15	14	13	11	10	9
-37.5°	14	13	12	11	10	9	9	8	7	7	6
-40°	8	7	7	7	6	5	5	5	4	3	3
-42.5°	4	4	3	3	2	2	2	2	2	1	1
-45°	1	1	0	0	1	0	0	1	1	0	0
-47.5°	0	0	0	0	0	0	0	0	0	0	0
-50°	0	0	0	0	0	0	0	0	0	0	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: G1-1712-448-1  
 CATALOG NUMBER: FSS153TB

**CANDELA DISTRIBUTION (continued):**

	47.5°	50°	52.5°	55°	57.5°	60°	62.5°	65°	67.5°	70°	72.5°
90°	46	41	36	31	27	24	20	16	13	11	8
87.5°	58	50	43	36	31	27	22	18	15	12	9
85°	74	63	53	43	36	30	24	19	16	13	10
82.5°	96	81	67	54	45	36	28	21	18	14	11
80°	127	106	87	69	54	42	31	23	19	15	12
77.5°	159	133	108	86	68	51	37	25	21	17	13
75°	194	164	135	107	82	60	42	29	24	18	14
72.5°	232	196	161	129	98	72	48	33	26	20	15
70°	264	226	189	151	115	82	56	39	29	22	17
67.5°	293	252	212	171	132	95	62	44	33	24	18
65°	313	274	235	190	148	107	71	50	36	26	18
62.5°	334	295	253	207	162	119	80	57	39	28	19
60°	354	316	271	222	176	131	91	63	43	29	20
57.5°	369	337	288	237	188	141	101	70	46	30	20
55°	383	348	301	250	199	150	110	76	49	31	20
52.5°	393	356	309	260	209	159	117	82	52	31	21
50°	405	362	317	268	217	167	123	85	53	30	21
47.5°	414	370	325	276	224	174	128	88	54	30	22
45°	423	379	333	284	230	179	131	89	54	31	22
42.5°	431	387	341	292	235	182	135	90	54	33	23
40°	434	394	348	295	238	183	135	91	53	34	23
37.5°	437	397	353	296	239	184	134	89	55	36	24
35°	433	397	352	294	237	183	132	87	58	37	24
32.5°	428	392	344	290	233	181	129	89	59	38	24
30°	422	382	336	284	228	175	126	88	59	37	23
27.5°	413	372	327	276	221	169	125	87	57	37	23
25°	404	364	317	266	212	164	121	84	55	36	23
22.5°	395	355	308	255	206	158	116	80	53	34	21
20°	386	346	299	246	198	151	110	75	49	31	20
17.5°	376	334	286	236	188	143	103	69	44	28	18
15°	359	318	272	223	177	134	94	61	38	24	17
12.5°	341	301	256	209	164	123	84	53	32	21	16
10°	323	282	238	193	150	110	74	46	29	20	15
7.5°	305	263	219	175	135	98	66	42	27	19	15
5°	285	241	199	157	121	87	58	38	25	19	14
2.5°	259	217	178	139	105	75	50	33	23	17	13
0°	230	190	154	119	88	61	40	28	20	16	12
-2.5°	200	164	132	101	75	53	36	26	19	15	11
-5°	167	136	108	82	61	44	31	23	18	14	10
-7.5°	139	113	87	64	47	35	26	21	16	12	9
-10°	112	93	73	55	40	29	22	18	14	11	8
-12.5°	86	74	60	47	35	26	20	16	13	10	7
-15°	62	55	47	39	30	22	18	14	12	9	6
-17.5°	43	39	36	31	25	19	15	13	10	7	5
-20°	36	30	26	24	20	16	13	11	9	6	4



REPORT NUMBER: G1-1712-448-1  
 CATALOG NUMBER: FSS153TB

**CANDELA DISTRIBUTION (continued):**

	47.5°	50°	52.5°	55°	57.5°	60°	62.5°	65°	67.5°	70°	72.5°
-22.5°	30	25	22	19	16	13	11	9	7	5	4
-25°	24	21	18	16	13	11	9	7	6	4	3
-27.5°	19	17	15	12	10	8	7	6	5	3	2
-30°	15	13	11	9	8	6	5	4	3	3	2
-32.5°	11	10	8	7	6	5	3	3	2	2	1
-35°	8	6	5	5	4	3	2	1	1	1	1
-37.5°	5	4	3	2	2	2	2	1	1	1	1
-40°	3	2	1	1	1	1	1	0	0	1	1
-42.5°	1	1	1	0	1	1	1	0	0	0	0
-45°	0	0	0	0	0	0	0	0	0	0	0
-47.5°	0	0	0	0	0	0	0	0	0	0	0
-50°	0	0	0	0	0	0	0	0	0	0	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: G1-1712-448-1  
 CATALOG NUMBER: FSS153TB

**CANDELA DISTRIBUTION (continued):**

	75°	77.5°	80°	82.5°	85°	87.5°	90°
90°	5	4	3	1	0	0	0
87.5°	6	4	3	1	0	0	0
85°	7	5	3	2	0	0	0
82.5°	7	5	3	2	0	0	0
80°	8	6	4	2	0	0	0
77.5°	9	6	4	2	0	0	0
75°	10	7	4	2	0	0	0
72.5°	11	8	5	2	1	0	0
70°	12	8	5	2	1	0	0
67.5°	13	9	5	3	1	0	0
65°	13	9	6	3	1	0	0
62.5°	14	10	6	3	1	0	0
60°	15	10	6	3	1	0	0
57.5°	15	11	6	3	1	0	0
55°	15	11	6	3	1	0	0
52.5°	16	11	7	3	1	0	0
50°	16	11	7	3	1	0	0
47.5°	16	11	7	3	1	0	0
45°	16	11	7	3	1	0	0
42.5°	16	11	7	3	1	0	0
40°	16	11	7	3	1	0	0
37.5°	16	11	7	3	1	0	0
35°	16	11	7	3	1	0	0
32.5°	16	11	7	3	1	0	0
30°	16	11	6	3	1	0	0
27.5°	16	10	6	3	1	0	0
25°	15	10	6	3	1	0	0
22.5°	14	10	6	3	1	0	0
20°	13	9	6	3	1	0	0
17.5°	13	9	6	3	1	0	0
15°	12	8	5	2	1	0	0
12.5°	12	8	5	2	0	0	0
10°	11	7	5	2	0	0	0
7.5°	10	7	4	2	0	0	0
5°	10	6	4	2	0	0	0
2.5°	9	6	3	1	0	0	0
0°	8	5	3	1	0	0	0
-2.5°	7	5	3	1	0	0	0
-5°	7	4	2	1	0	0	0
-7.5°	6	4	2	1	0	0	0
-10°	5	3	2	1	0	0	0
-12.5°	4	3	2	1	0	0	0
-15°	4	2	1	1	0	0	0
-17.5°	3	2	1	0	0	0	0
-20°	2	1	1	0	0	0	0



REPORT NUMBER: G1-1712-448-1  
 CATALOG NUMBER: FSS153TB

**CANDELA DISTRIBUTION (continued):**

	75°	77.5°	80°	82.5°	85°	87.5°	90°
-22.5°	2	1	1	0	0	0	0
-25°	2	1	0	0	0	0	0
-27.5°	1	0	0	0	0	0	0
-30°	1	0	0	0	0	0	0
-32.5°	1	0	0	0	0	0	0
-35°	1	0	0	0	0	0	0
-37.5°	0	0	0	0	0	0	0
-40°	0	0	0	0	0	0	0
-42.5°	0	0	0	0	0	0	0
-45°	0	0	0	0	0	0	0
-47.5°	0	0	0	0	0	0	0
-50°	0	0	0	0	0	0	0
-52.5°	0	0	0	0	0	0	0
-55°	0	0	0	0	0	0	0
-57.5°	0	0	0	0	0	0	0
-60°	0	0	0	0	0	0	0
-62.5°	0	0	0	0	0	0	0
-65°	0	0	0	0	0	0	0
-67.5°	0	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)



