

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

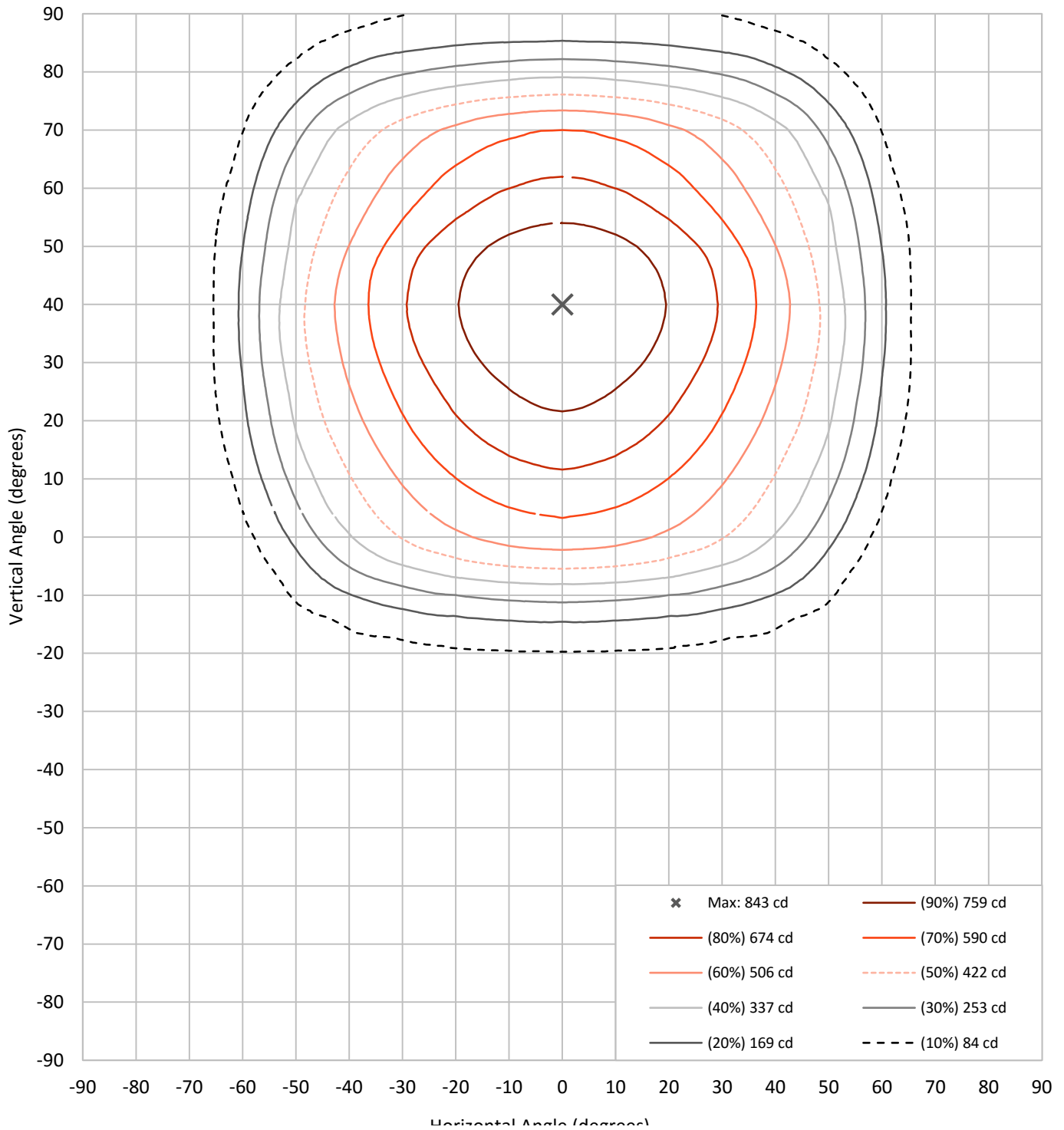
Summary

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 _{in}):	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		



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

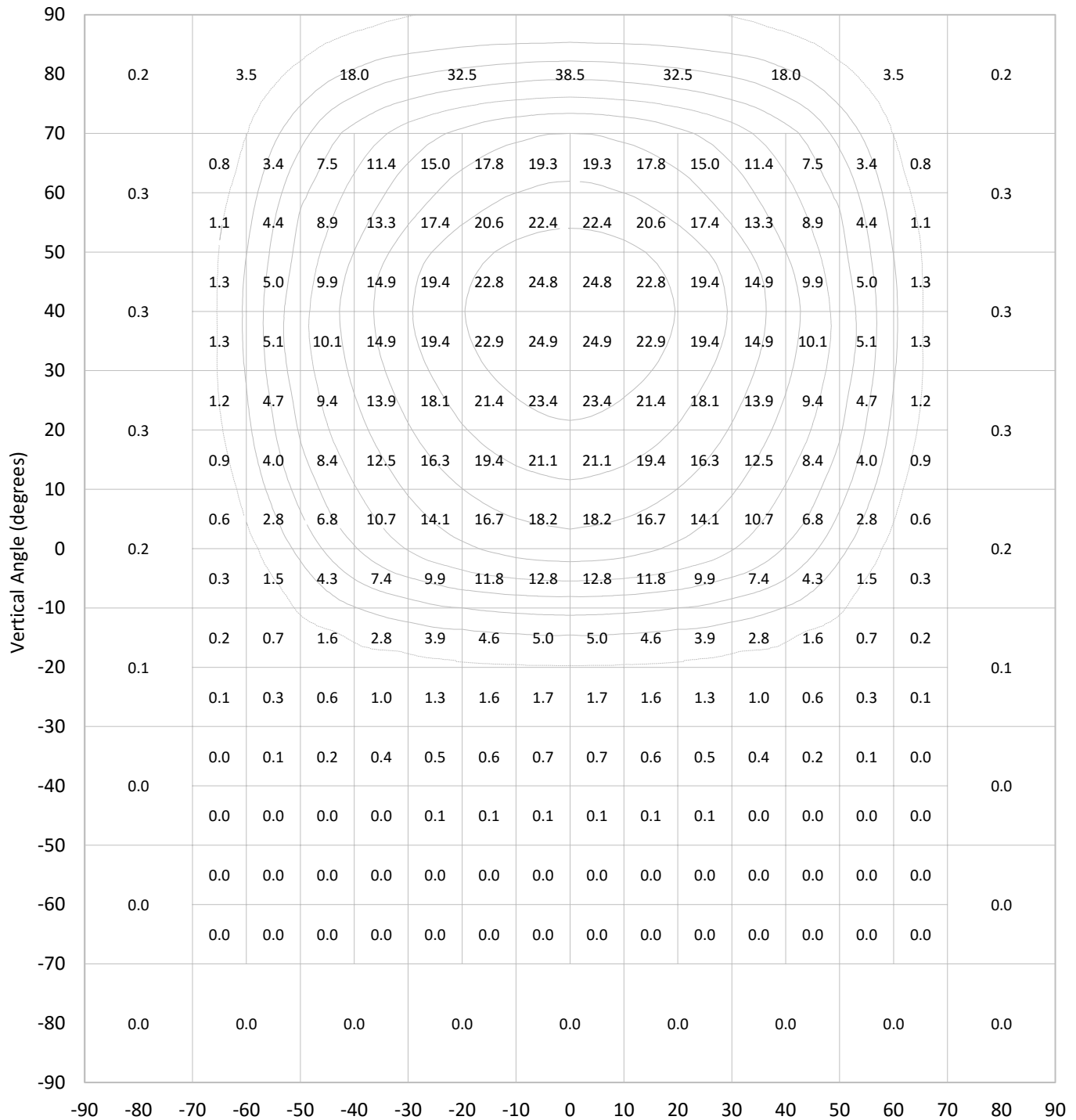
Iso-Candela Plot





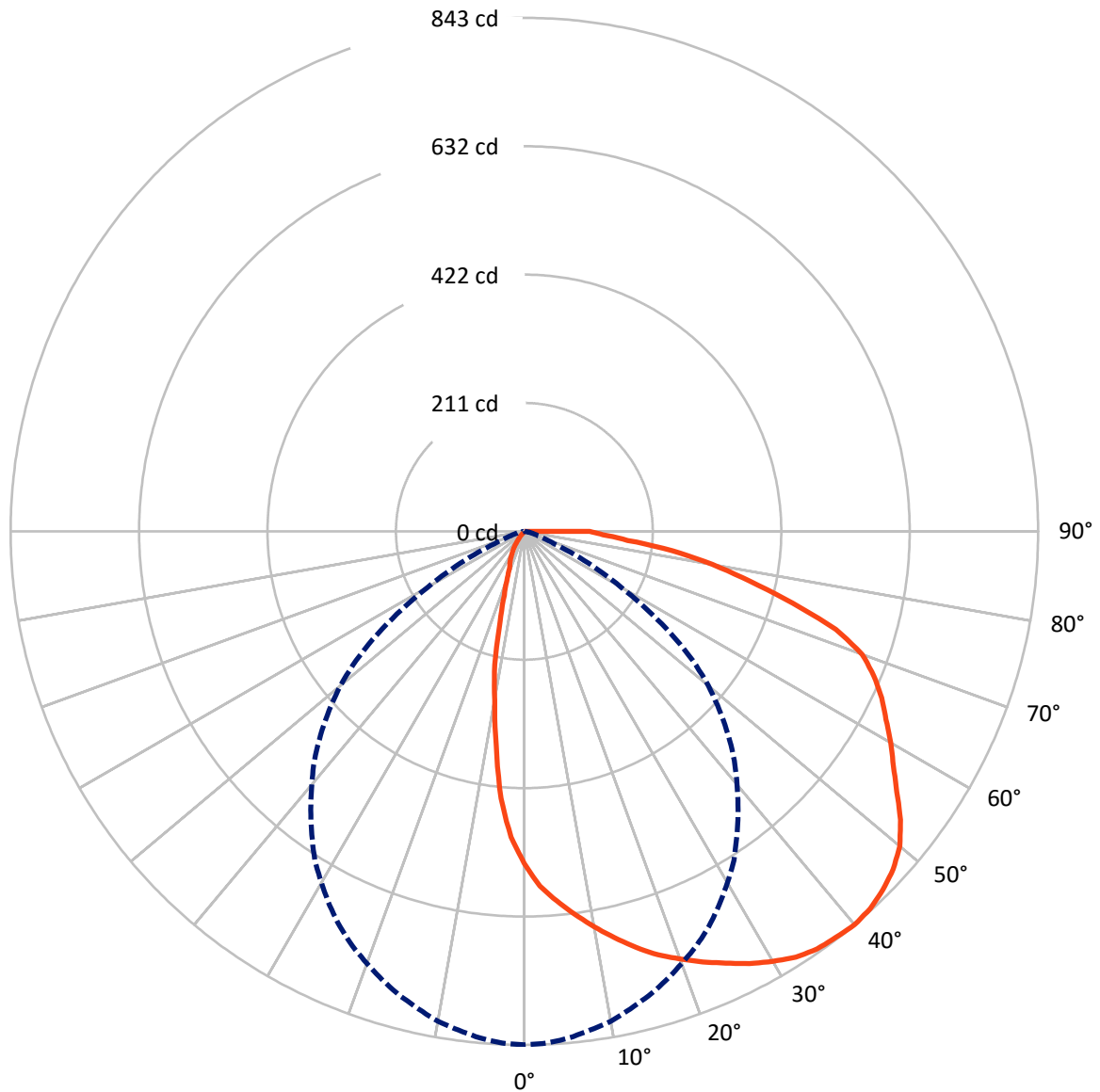
REPORT NUMBER: G1-1712-448-1
 CATALOG NUMBER: FSS153TB

Lumen Table



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

Luminous Intensity Polar Plot

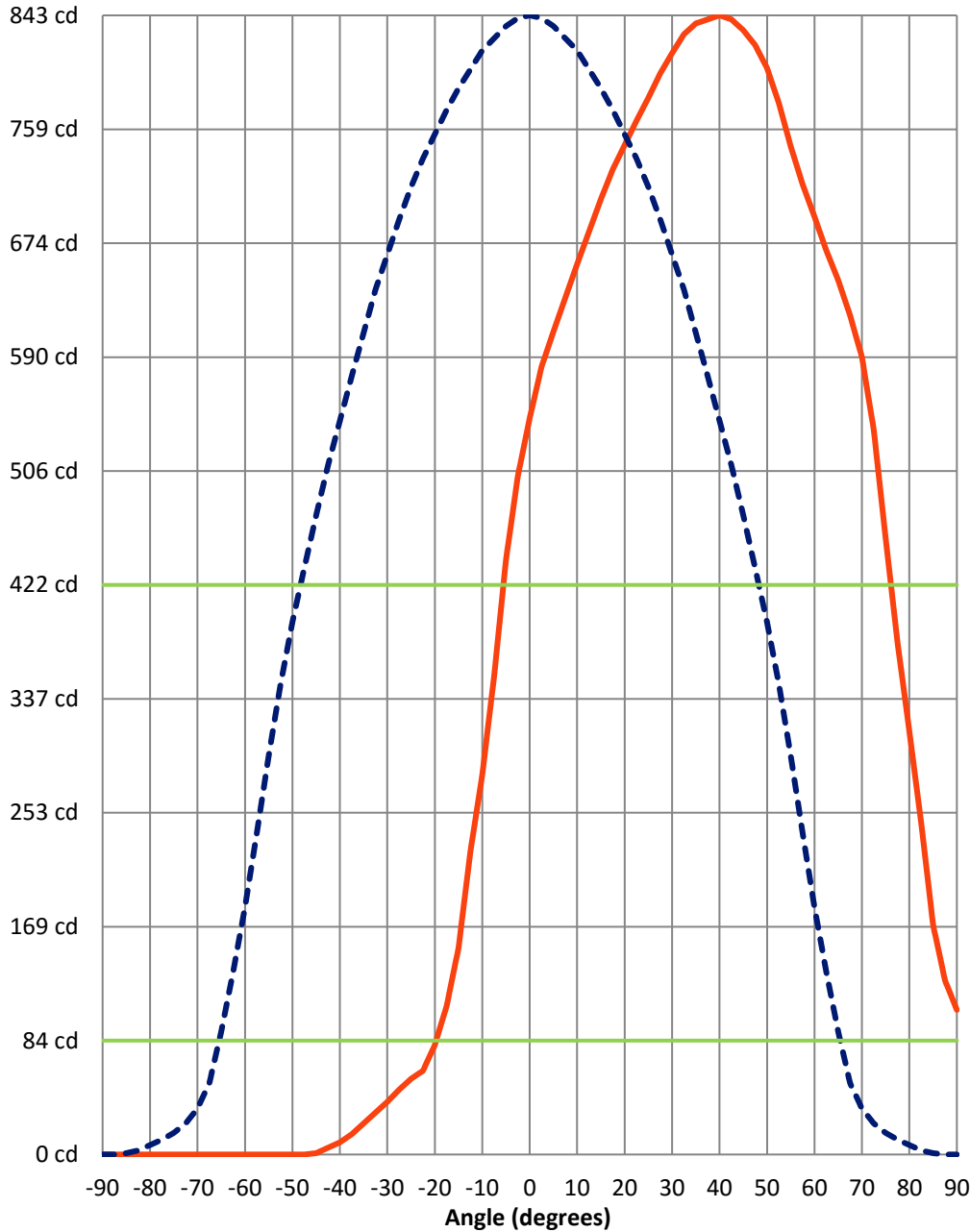


— Vertical Distribution Through 0-Deg - - - Horizontal Distribution Through 40-Deg



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

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



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

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



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

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



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

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



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

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



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

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



REPORT NUMBER: G1-1712-448-1
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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



REPORT NUMBER: G1-1712-448-1
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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)

