

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: G1-1712-448-2

Luminaire Tested: **FSL203TB**

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: G1-1712-448-2
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: FSL203TB
Description: FLOOD LARGE SINGLE HEAD LED
Light Source: (1) PCB ARRAY
Ballast/Driver: (1) TCL ELECTRONIC DRIVER
021W0A54-R/1J/08
Luminaire Equipment:

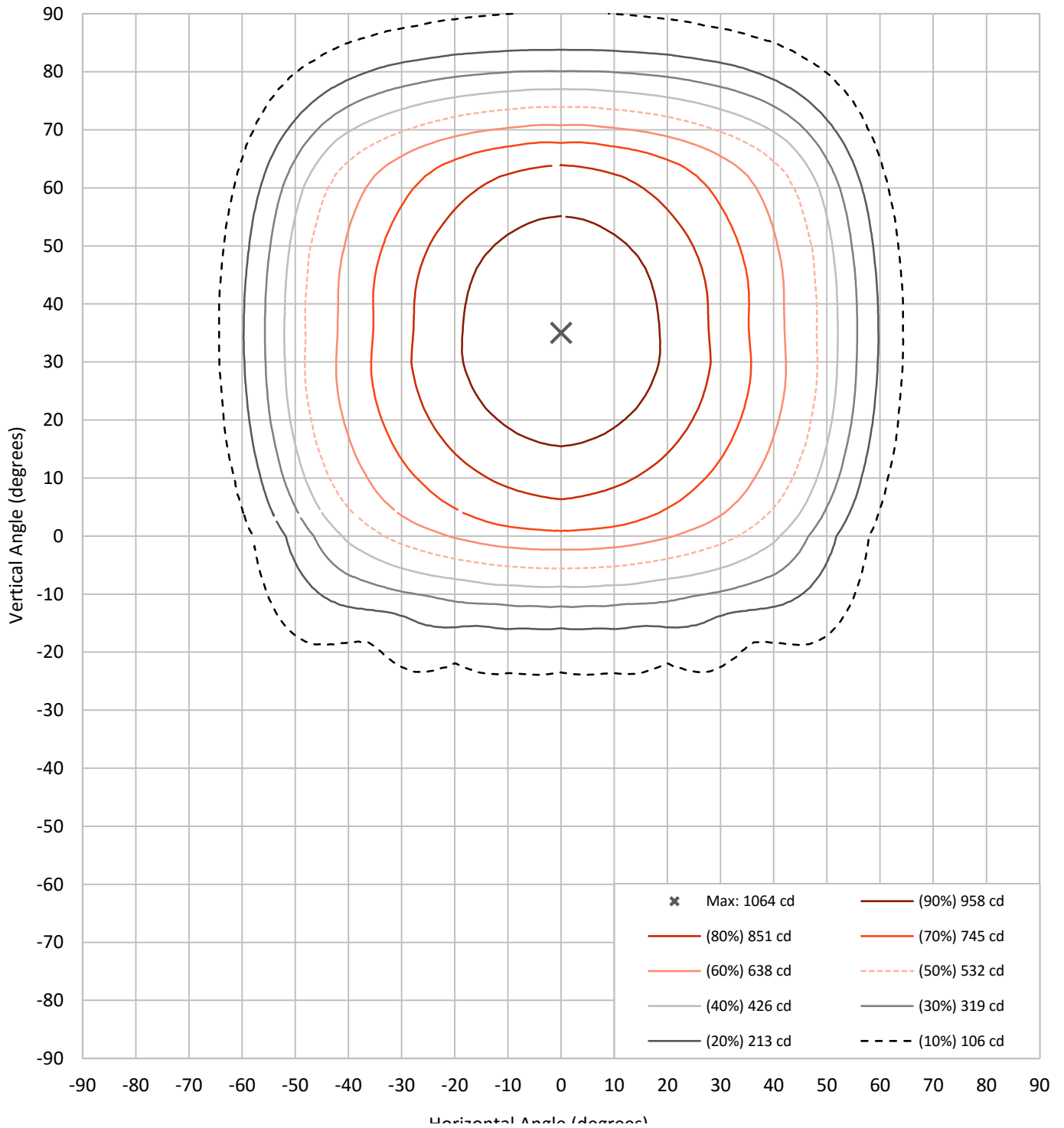
<u>Sample No.</u>	<u>Condition</u>	<u>Description</u>
AS-5443-1	Good	WHITE TWIN R-EVOLVE FLOOD
AS-5443-2	Good	REFLECTOR
AS-5443-3	Good	REFLECTOR
AS-5443-4	Good	REFLECTOR

Summary

Lumens per Lamp:	N/A	NEMA Type:	6H x 2V
Luminaire Lumens:	1951.6 lumens	Max Intensity:	1064 candela
Efficiency:	N/A	Max Intensity Angle:	0°H x 35°V
Efficacy:	89.9 lumens/watt		
Luminous Opening:	Rectangular w/ Sides (W: 0.5' x L: 0.25' x H: 0.25')		
Beam Angle (50%):	96.1°H x 79.5°V	Field Angle (10%):	128.5°H x 23.3°V
Beam Lumens:	1473.7 lumens	Field Lumens:	1888.3 lumens
Beam Efficiency:	75.5%	Field Efficiency:	96.8%
Input Watts (W):	21.7		
Input Voltage (V):	120.0		
Input Current (A _{in}):	0.182		
Voltage Rise (V):	NR		
Power Factor:	0.9964		
Total Harmonic Distortion (THDi):	8.40%		
Frequency (hertz):	60		
Stabilization Time:	0.5 HR		
Operation Time:	7.0 HR		
Ambient Temperature (°C):	24.7		
Test Distance:	28.75 FT		

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Iso-Candela Plot





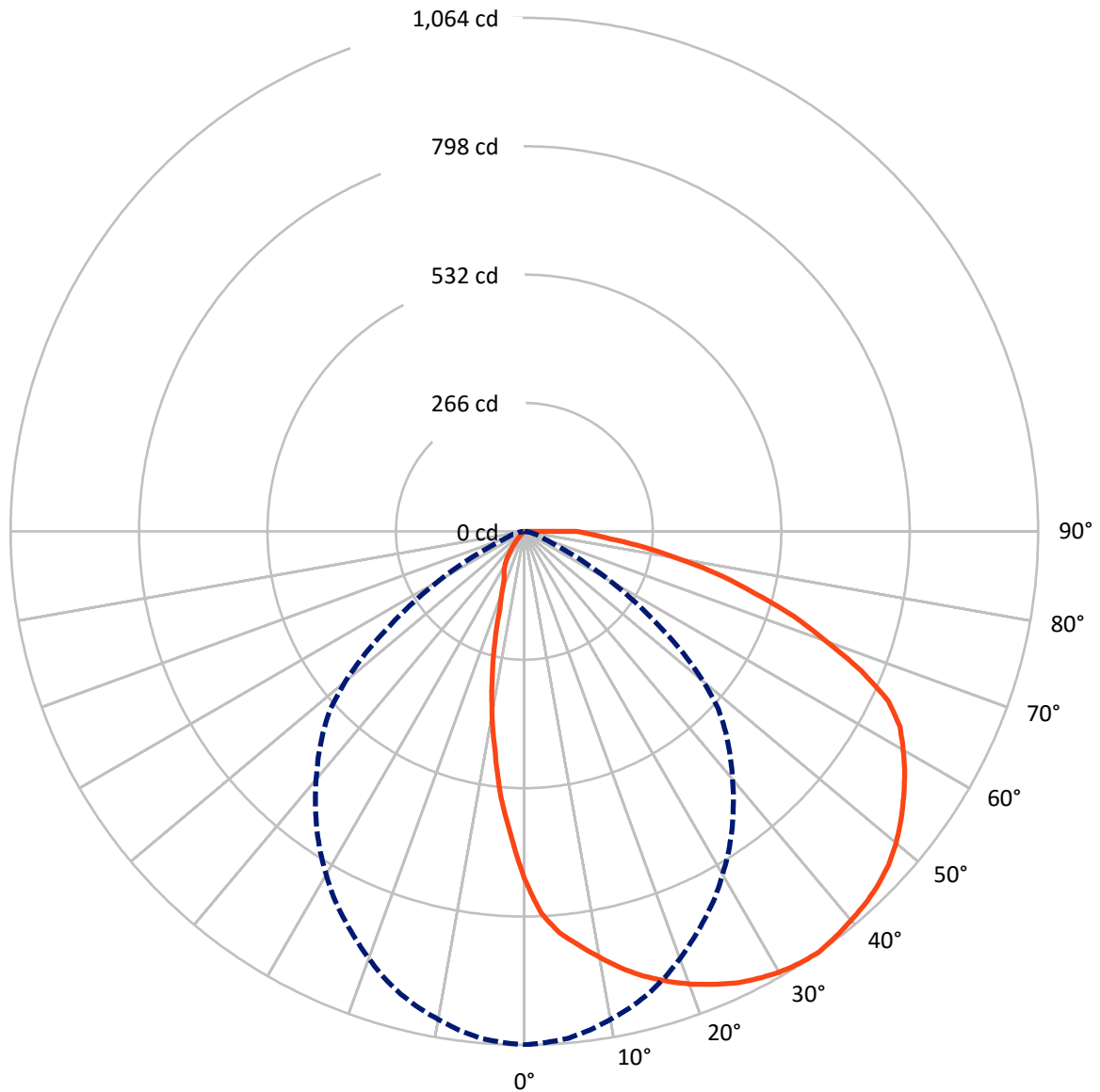
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 CATALOG NUMBER: FSL203TB

Lumen Table

90																			
80	0.2	3.7	19.0	35.1	41.5	35.1	19.0	3.7	0.2										
70																			
60	0.4	0.8	3.7	9.2	14.5	19.0	22.4	24.4	24.4	22.4	19.0	14.5	9.2	3.7	0.8				0.4
50																			
40	0.4	1.1	5.1	11.6	17.3	22.4	26.4	28.7	28.7	26.4	22.4	17.3	11.6	5.1	1.1				0.4
30																			
20	0.4	1.3	5.8	12.5	18.5	24.0	28.4	31.0	31.0	28.4	24.0	18.5	12.5	5.8	1.3				0.4
10																			
0	0.3	1.4	6.0	12.7	18.7	24.4	29.0	31.7	31.7	29.0	24.4	18.7	12.7	6.0	1.4				0.3
-10																			
-20	0.2	1.3	5.8	12.6	18.6	24.0	28.4	30.9	30.9	28.4	24.0	18.6	12.6	5.8	1.3				0.2
-30																			
-40	0.1	1.1	5.0	11.6	17.3	22.3	26.2	28.5	28.5	26.2	22.3	17.3	11.6	5.0	1.1				0.1
-50																			
-60	0.0	0.7	3.7	9.3	14.9	19.3	22.8	24.7	24.7	22.8	19.3	14.9	9.3	3.7	0.7				0.0
-70																			
-80	0.2	0.4	1.5	3.2	4.4	6.1	6.9	7.4	7.4	6.9	6.1	4.4	3.2	1.5	0.4				0.2
-90																			
	0.2	0.2	0.7	1.2	1.9	2.6	2.9	3.1	3.1	2.9	2.6	1.9	1.2	0.7	0.2				0.2
	0.1	0.1	0.2	0.5	0.9	1.2	1.5	1.7	1.7	1.5	1.2	0.9	0.5	0.2	0.1				0.1
	0.0	0.0	0.1	0.2	0.2	0.3	0.3	0.4	0.4	0.3	0.3	0.2	0.2	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				0.0

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Luminous Intensity Polar Plot

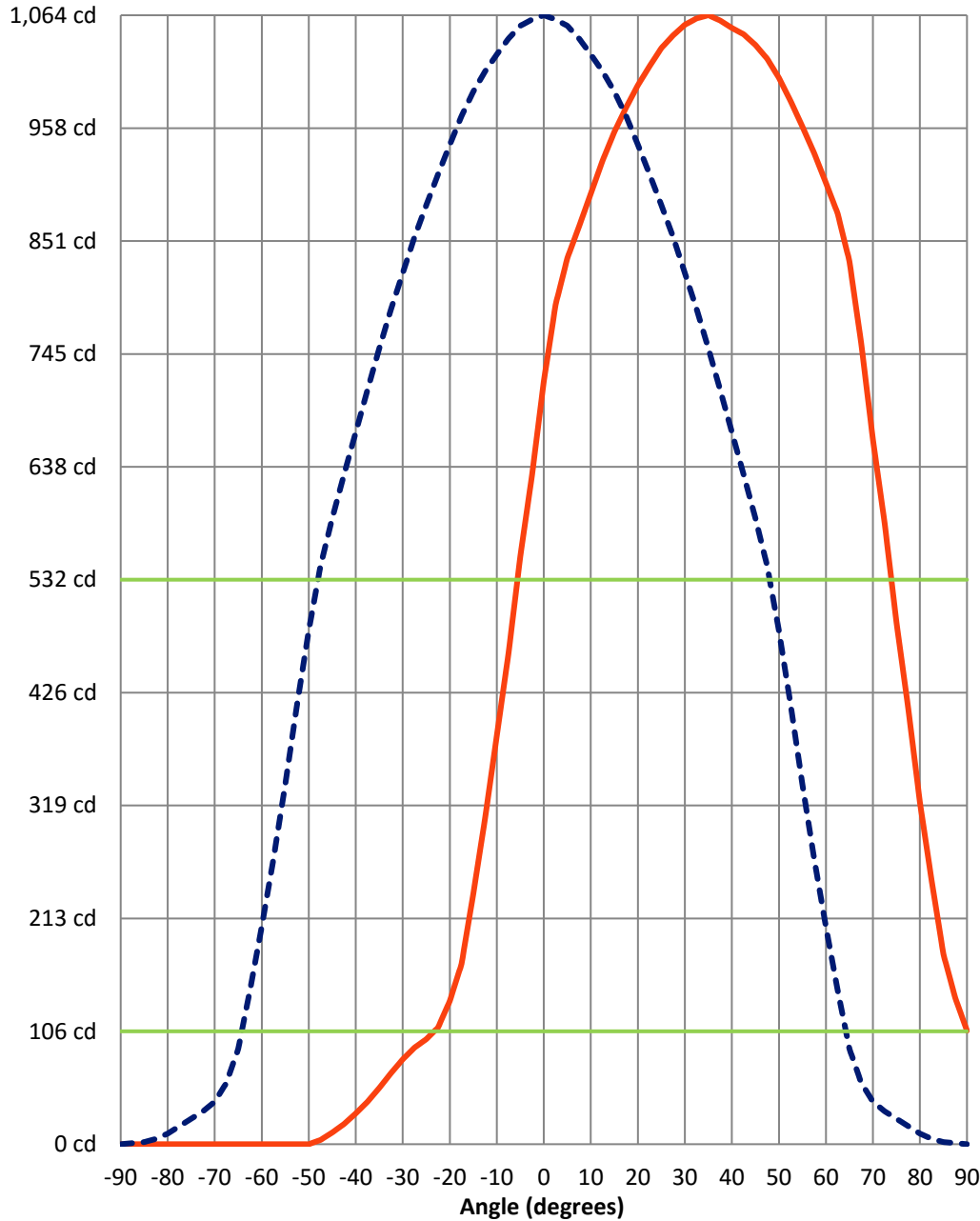


— Vertical Distribution Through 0-Deg - - - Horizontal Distribution Through 35-Deg



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Luminous Intensity Plot



Beam:
 H Angle: 96.1°
 V Angle: 79.5°
 Lumens: 1473.7
 Efficiency: 75.5%

Field:
 H Angle: 128.5°
 V Angle: 23.3°
 Lumens: 1888.3
 Efficiency: 96.8%

Spill:
 Lumens: 63.3
 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	2	2	5	7	11	14	17	21
87.5°	0	1	1	2	3	6	9	12	16	20	24
85°	0	1	1	2	3	7	10	14	18	22	27
82.5°	0	1	1	2	4	8	11	16	20	25	30
80°	0	1	1	3	5	9	13	17	22	27	32
77.5°	0	1	1	3	5	10	14	19	24	30	35
75°	0	1	1	3	6	10	15	21	26	32	37
72.5°	0	1	2	3	7	11	17	22	28	34	40
70°	0	1	2	4	7	12	18	24	30	36	43
67.5°	0	1	2	4	8	13	19	25	32	38	46
65°	0	1	2	4	8	14	20	26	33	39	49
62.5°	0	1	2	4	9	14	21	27	34	41	54
60°	0	1	2	5	9	15	22	28	35	43	58
57.5°	0	1	2	5	10	15	22	29	36	45	63
55°	0	1	2	5	10	16	23	30	37	47	68
52.5°	0	1	2	5	10	16	23	30	38	50	71
50°	0	1	2	5	10	16	23	31	38	52	77
47.5°	0	1	2	5	10	17	24	31	38	52	83
45°	0	1	2	5	11	17	24	31	39	55	87
42.5°	0	1	2	5	11	17	24	31	39	56	90
40°	0	1	2	5	11	17	24	31	39	55	92
37.5°	0	1	2	5	11	17	24	31	40	56	91
35°	0	1	2	5	10	17	24	31	40	58	90
32.5°	0	1	2	5	10	16	24	31	39	58	92
30°	0	1	2	5	10	16	23	30	37	56	91
27.5°	0	1	2	5	10	16	23	30	36	53	89
25°	0	1	2	5	10	15	22	29	36	50	83
22.5°	0	1	2	5	9	15	22	28	36	50	79
20°	0	1	2	5	9	14	21	28	35	49	77
17.5°	0	1	2	4	9	14	21	27	34	47	74
15°	0	1	2	4	8	13	20	26	33	44	69
12.5°	0	1	2	4	8	13	19	25	31	40	62
10°	0	1	2	3	7	12	18	24	30	38	56
7.5°	0	1	1	3	7	11	17	23	29	37	52
5°	0	1	1	3	6	11	16	23	29	36	48
2.5°	0	1	1	2	6	10	15	21	27	34	44
0°	0	1	1	2	5	9	14	20	26	32	39
-2.5°	0	1	1	2	5	9	14	19	25	31	37
-5°	0	1	1	2	5	9	13	19	24	29	35
-7.5°	0	1	1	2	5	8	13	18	22	27	33
-10°	0	1	1	2	4	8	12	17	21	26	31
-12.5°	0	1	1	2	4	7	11	16	20	24	29
-15°	0	1	1	2	4	7	11	15	18	22	26
-17.5°	0	1	1	2	4	7	10	14	17	20	24
-20°	0	1	1	2	4	6	9	13	16	18	22



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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	1	1	2	3	6	9	12	14	17	19
-25°	0	1	1	1	3	5	8	11	13	15	17
-27.5°	0	1	1	1	3	5	7	10	12	13	15
-30°	0	1	1	1	3	5	7	9	10	12	13
-32.5°	0	1	1	1	2	4	6	8	9	10	11
-35°	0	1	1	1	2	4	5	7	8	9	9
-37.5°	0	1	1	1	2	3	5	6	7	8	7
-40°	0	1	1	1	2	3	4	5	6	6	6
-42.5°	0	1	1	1	1	2	4	4	5	5	5
-45°	0	1	1	1	1	2	3	4	4	4	4
-47.5°	0	1	1	1	1	2	3	3	4	3	3
-50°	0	1	1	1	1	1	2	3	3	3	2
-52.5°	0	1	1	1	1	1	2	2	2	2	1
-55°	0	1	1	1	1	1	1	2	2	2	1
-57.5°	0	0	1	1	1	1	1	1	1	1	0
-60°	0	0	1	1	1	1	1	1	1	1	0
-62.5°	0	0	1	1	1	1	1	1	1	1	0
-65°	0	0	1	1	1	1	1	1	1	0	0
-67.5°	0	0	1	1	1	0	0	0	0	0	0
-70°	0	0	1	1	1	0	0	0	0	0	0
-72.5°	0	0	0	1	1	0	0	0	0	0	0
-75°	0	0	0	1	1	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°	26	30	35	39	45	50	55	59	64	68	73
87.5°	29	33	39	44	50	56	63	69	75	81	87
85°	32	37	43	50	58	66	75	85	95	104	113
82.5°	35	41	48	57	68	80	93	108	123	138	152
80°	38	44	55	68	85	104	123	143	163	183	203
77.5°	42	51	65	84	105	131	157	185	212	238	261
75°	46	57	77	103	132	163	196	232	266	297	324
72.5°	51	68	93	124	160	201	242	283	323	357	387
70°	57	78	110	150	194	240	288	337	383	418	448
67.5°	62	93	130	176	228	280	335	388	439	474	507
65°	71	106	151	204	262	318	379	436	488	525	563
62.5°	79	121	172	229	290	354	418	477	532	567	602
60°	89	135	191	251	317	383	452	511	555	594	628
57.5°	99	148	207	270	338	407	474	537	575	612	647
55°	108	161	222	286	356	427	494	549	589	627	663
52.5°	117	172	233	300	369	443	512	561	601	640	677
50°	123	180	242	310	381	458	529	573	611	650	690
47.5°	129	187	250	320	392	467	536	582	620	660	700
45°	134	194	258	328	401	475	538	586	626	667	707
42.5°	139	199	263	333	406	481	543	588	629	671	712
40°	142	202	267	336	409	484	547	591	629	671	713
37.5°	144	204	269	338	411	484	549	590	630	671	711
35°	145	205	269	339	414	484	545	590	631	671	711
32.5°	143	205	268	338	412	485	548	592	633	674	715
30°	141	201	266	335	409	484	551	596	635	677	717
27.5°	139	199	263	332	406	481	550	595	635	676	718
25°	135	193	257	327	401	475	545	593	631	671	712
22.5°	129	187	250	320	392	466	535	587	624	663	703
20°	123	179	242	310	380	454	523	575	614	653	691
17.5°	116	170	231	297	366	439	509	566	603	640	678
15°	108	160	219	282	349	420	490	550	590	626	663
12.5°	99	148	204	266	331	400	468	528	572	609	645
10°	87	134	188	249	311	377	443	506	553	589	624
7.5°	80	121	170	231	288	350	414	476	526	565	602
5°	72	108	152	207	262	319	382	443	498	536	571
2.5°	63	94	133	182	232	286	342	399	453	495	530
0°	53	78	112	154	199	248	298	351	401	446	479
-2.5°	51	74	106	145	186	230	274	320	363	401	428
-5°	47	69	98	133	170	209	246	285	321	352	374
-7.5°	44	64	90	121	154	187	219	250	279	303	321
-10°	41	58	81	109	137	166	192	216	237	255	267
-12.5°	37	52	73	97	121	144	165	182	197	207	214
-15°	34	47	64	84	105	123	139	150	158	162	162
-17.5°	30	41	55	72	89	103	115	121	121	119	113
-20°	27	35	47	60	74	85	92	93	89	80	87



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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°	23	29	39	50	60	68	71	69	61	67	76
-25°	20	25	32	40	48	52	53	51	55	59	66
-27.5°	17	21	26	32	37	39	39	44	48	52	56
-30°	14	17	20	24	27	28	33	37	41	45	48
-32.5°	11	13	15	18	19	23	27	31	34	37	40
-35°	9	10	11	13	15	19	22	25	27	30	32
-37.5°	7	7	7	9	12	14	17	19	21	23	24
-40°	5	4	4	7	9	11	13	14	15	16	17
-42.5°	4	2	2	4	7	8	9	10	10	11	11
-45°	2	1	1	3	4	6	7	7	7	6	5
-47.5°	1	0	0	1	3	4	5	5	4	3	1
-50°	1	0	0	0	1	2	3	3	3	2	0
-52.5°	0	0	0	0	0	1	2	2	2	1	0
-55°	0	0	0	0	0	0	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°	77	81	85	88	91	95	97	100	102	104	106
87.5°	93	99	104	109	115	119	122	125	129	132	135
85°	122	131	139	144	149	157	161	165	168	171	176
82.5°	167	179	190	199	207	215	223	229	234	238	241
80°	223	238	251	262	273	283	293	300	307	312	317
77.5°	284	301	316	331	345	357	367	375	383	390	396
75°	346	366	385	403	419	432	445	456	465	474	481
72.5°	412	434	455	474	492	508	525	538	549	559	568
70°	475	500	523	545	567	586	603	618	631	641	649
67.5°	536	566	592	618	640	661	680	697	712	725	736
65°	595	624	651	679	705	726	745	764	781	796	808
62.5°	636	666	693	720	745	769	790	808	825	840	851
60°	661	693	721	747	773	798	818	837	854	870	882
57.5°	680	711	740	769	795	819	841	861	878	894	907
55°	697	729	760	788	816	839	862	882	901	918	930
52.5°	713	745	776	806	834	859	882	903	922	939	953
50°	725	759	791	821	850	875	899	922	942	959	974
47.5°	736	771	803	834	863	889	914	938	959	975	990
45°	746	780	812	844	873	900	925	949	970	987	1002
42.5°	750	785	820	850	880	907	932	957	979	996	1012
40°	750	788	821	853	882	910	938	962	985	1003	1019
37.5°	749	786	821	854	884	912	941	966	989	1008	1024
35°	750	787	821	855	885	914	942	969	992	1011	1027
32.5°	754	791	826	858	888	916	944	970	992	1010	1026
30°	757	793	827	860	887	915	942	967	988	1006	1021
27.5°	755	790	824	854	883	909	935	959	980	997	1012
25°	749	783	816	846	874	901	925	949	969	986	1001
22.5°	740	774	806	836	863	889	913	935	955	973	986
20°	727	762	792	821	848	874	897	919	938	954	968
17.5°	713	746	776	804	832	856	879	901	919	935	948
15°	697	730	759	786	812	836	859	880	898	913	926
12.5°	678	711	739	766	790	813	834	854	872	886	899
10°	657	688	716	742	765	788	808	827	844	859	871
7.5°	635	664	692	716	739	761	781	799	815	829	840
5°	605	635	662	687	710	730	750	769	785	799	809
2.5°	565	596	623	647	668	688	707	726	743	756	767
0°	511	541	566	588	609	629	647	664	678	691	701
-2.5°	456	483	505	523	542	559	574	589	602	613	621
-5°	397	420	440	457	473	487	499	511	522	530	539
-7.5°	339	358	374	388	402	413	421	429	443	454	458
-10°	279	294	307	318	328	338	351	362	369	374	374
-12.5°	220	228	239	248	267	281	288	292	294	293	303
-15°	160	164	186	207	220	227	228	224	220	230	235
-17.5°	115	135	155	170	178	179	174	164	169	179	181
-20°	99	114	129	139	142	138	128	128	135	141	140



REPORT NUMBER: G1-1712-448-2
 CATALOG NUMBER: FSL203TB

CANDELA DISTRIBUTION (continued):

	-35°	-32.5°	-30°	-27.5°	-25°	-22.5°	-20°	-17.5°	-15°	-12.5°	-10°
-22.5°	86	96	106	114	114	107	100	108	113	115	112
-25°	73	81	88	94	93	87	90	93	98	99	98
-27.5°	62	68	73	77	77	79	81	83	86	88	89
-30°	52	56	60	63	66	69	72	73	75	76	78
-32.5°	43	46	49	52	55	58	61	62	63	64	66
-35°	34	37	39	42	44	47	49	50	51	52	53
-37.5°	25	27	30	33	35	36	37	38	38	40	41
-40°	17	18	21	23	25	27	27	27	27	29	30
-42.5°	11	12	13	15	16	17	18	18	18	20	20
-45°	5	7	8	9	9	10	10	9	10	11	12
-47.5°	2	3	4	5	5	5	4	3	3	4	5
-50°	0	0	1	2	2	2	1	0	1	1	1
-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: G1-1712-448-2
 CATALOG NUMBER: FSL203TB

CANDELA DISTRIBUTION (continued):

	-7.5°	-5°	-2.5°	0°	2.5°	5°	7.5°	10°	12.5°	15°	17.5°
90°	107	107	108	107	108	107	107	106	104	102	100
87.5°	135	136	137	138	137	136	135	135	132	129	125
85°	176	176	177	179	177	176	176	176	171	168	165
82.5°	247	251	250	248	250	251	247	241	238	234	229
80°	322	321	323	322	323	321	322	317	312	307	300
77.5°	402	409	407	411	407	409	402	396	390	383	375
75°	486	492	491	492	491	492	486	481	474	465	456
72.5°	576	585	585	585	585	585	576	568	559	549	538
70°	656	665	667	664	667	665	656	649	641	631	618
67.5°	746	758	759	755	759	758	746	736	725	712	697
65°	817	824	829	832	829	824	817	808	796	781	764
62.5°	861	870	875	877	875	870	861	851	840	825	808
60°	892	900	906	906	906	900	892	882	870	854	837
57.5°	918	928	933	934	933	928	918	907	894	878	861
55°	942	951	956	959	956	951	942	930	918	901	882
52.5°	965	976	982	983	982	976	965	953	939	922	903
50°	987	997	1003	1005	1003	997	987	974	959	942	922
47.5°	1004	1014	1020	1023	1020	1014	1004	990	975	959	938
45°	1017	1026	1033	1036	1033	1026	1017	1002	987	970	949
42.5°	1027	1037	1044	1046	1044	1037	1027	1012	996	979	957
40°	1034	1044	1051	1052	1051	1044	1034	1019	1003	985	962
37.5°	1039	1050	1056	1059	1056	1050	1039	1024	1008	989	966
35°	1042	1054	1060	1064	1060	1054	1042	1027	1011	992	969
32.5°	1040	1052	1059	1061	1059	1052	1040	1026	1010	992	970
30°	1033	1045	1053	1055	1053	1045	1033	1021	1006	988	967
27.5°	1024	1036	1042	1045	1042	1036	1024	1012	997	980	959
25°	1012	1023	1030	1033	1030	1023	1012	1001	986	969	949
22.5°	997	1007	1014	1016	1014	1007	997	986	973	955	935
20°	980	989	996	998	996	989	980	968	954	938	919
17.5°	960	968	975	977	975	968	960	948	935	919	901
15°	936	945	950	954	950	945	936	926	913	898	880
12.5°	909	917	922	927	922	917	909	899	886	872	854
10°	881	888	893	896	893	888	881	871	859	844	827
7.5°	850	857	863	865	863	857	850	840	829	815	799
5°	817	824	831	835	831	824	817	809	799	785	769
2.5°	775	780	785	791	785	780	775	767	756	743	726
0°	709	715	720	719	720	715	709	701	691	678	664
-2.5°	626	632	632	631	632	632	626	621	613	602	589
-5°	545	548	551	554	551	548	545	539	530	522	511
-7.5°	458	467	467	463	467	467	458	458	454	443	429
-10°	382	383	388	385	388	383	382	374	374	369	362
-12.5°	308	303	312	307	312	303	308	303	293	294	292
-15°	234	236	241	236	241	236	234	235	230	220	224
-17.5°	174	177	177	170	177	177	174	181	179	169	164
-20°	136	139	139	135	139	139	136	140	141	135	128



REPORT NUMBER: G1-1712-448-2
 CATALOG NUMBER: FSL203TB

CANDELA DISTRIBUTION (continued):

	-7.5°	-5°	-2.5°	0°	2.5°	5°	7.5°	10°	12.5°	15°	17.5°
-22.5°	113	115	113	110	113	115	113	112	115	113	108
-25°	99	100	100	99	100	100	99	98	99	98	93
-27.5°	90	91	92	91	92	91	90	89	88	86	83
-30°	80	81	81	80	81	81	80	78	76	75	73
-32.5°	67	68	68	67	68	68	67	66	64	63	62
-35°	55	55	55	53	55	55	55	53	52	51	50
-37.5°	42	42	42	40	42	42	42	41	40	38	38
-40°	31	31	30	29	30	31	31	30	29	27	27
-42.5°	21	21	20	19	20	21	21	20	20	18	18
-45°	12	12	12	11	12	12	12	12	11	10	9
-47.5°	5	5	5	4	5	5	5	5	4	3	3
-50°	1	1	0	0	0	1	1	1	1	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: G1-1712-448-2
 CATALOG NUMBER: FSL203TB

CANDELA DISTRIBUTION (continued):

	20°	22.5°	25°	27.5°	30°	32.5°	35°	37.5°	40°	42.5°	45°
90°	97	95	91	88	85	81	77	73	68	64	59
87.5°	122	119	115	109	104	99	93	87	81	75	69
85°	161	157	149	144	139	131	122	113	104	95	85
82.5°	223	215	207	199	190	179	167	152	138	123	108
80°	293	283	273	262	251	238	223	203	183	163	143
77.5°	367	357	345	331	316	301	284	261	238	212	185
75°	445	432	419	403	385	366	346	324	297	266	232
72.5°	525	508	492	474	455	434	412	387	357	323	283
70°	603	586	567	545	523	500	475	448	418	383	337
67.5°	680	661	640	618	592	566	536	507	474	439	388
65°	745	726	705	679	651	624	595	563	525	488	436
62.5°	790	769	745	720	693	666	636	602	567	532	477
60°	818	798	773	747	721	693	661	628	594	555	511
57.5°	841	819	795	769	740	711	680	647	612	575	537
55°	862	839	816	788	760	729	697	663	627	589	549
52.5°	882	859	834	806	776	745	713	677	640	601	561
50°	899	875	850	821	791	759	725	690	650	611	573
47.5°	914	889	863	834	803	771	736	700	660	620	582
45°	925	900	873	844	812	780	746	707	667	626	586
42.5°	932	907	880	850	820	785	750	712	671	629	588
40°	938	910	882	853	821	788	750	713	671	629	591
37.5°	941	912	884	854	821	786	749	711	671	630	590
35°	942	914	885	855	821	787	750	711	671	631	590
32.5°	944	916	888	858	826	791	754	715	674	633	592
30°	942	915	887	860	827	793	757	717	677	635	596
27.5°	935	909	883	854	824	790	755	718	676	635	595
25°	925	901	874	846	816	783	749	712	671	631	593
22.5°	913	889	863	836	806	774	740	703	663	624	587
20°	897	874	848	821	792	762	727	691	653	614	575
17.5°	879	856	832	804	776	746	713	678	640	603	566
15°	859	836	812	786	759	730	697	663	626	590	550
12.5°	834	813	790	766	739	711	678	645	609	572	528
10°	808	788	765	742	716	688	657	624	589	553	506
7.5°	781	761	739	716	692	664	635	602	565	526	476
5°	750	730	710	687	662	635	605	571	536	498	443
2.5°	707	688	668	647	623	596	565	530	495	453	399
0°	647	629	609	588	566	541	511	479	446	401	351
-2.5°	574	559	542	523	505	483	456	428	401	363	320
-5°	499	487	473	457	440	420	397	374	352	321	285
-7.5°	421	413	402	388	374	358	339	321	303	279	250
-10°	351	338	328	318	307	294	279	267	255	237	216
-12.5°	288	281	267	248	239	228	220	214	207	197	182
-15°	228	227	220	207	186	164	160	162	162	158	150
-17.5°	174	179	178	170	155	135	115	113	119	121	121
-20°	128	138	142	139	129	114	99	87	80	89	93



REPORT NUMBER: G1-1712-448-2
 CATALOG NUMBER: FSL203TB

CANDELA DISTRIBUTION (continued):

	20°	22.5°	25°	27.5°	30°	32.5°	35°	37.5°	40°	42.5°	45°
-22.5°	100	107	114	114	106	96	86	76	67	61	69
-25°	90	87	93	94	88	81	73	66	59	55	51
-27.5°	81	79	77	77	73	68	62	56	52	48	44
-30°	72	69	66	63	60	56	52	48	45	41	37
-32.5°	61	58	55	52	49	46	43	40	37	34	31
-35°	49	47	44	42	39	37	34	32	30	27	25
-37.5°	37	36	35	33	30	27	25	24	23	21	19
-40°	27	27	25	23	21	18	17	17	16	15	14
-42.5°	18	17	16	15	13	12	11	11	11	10	10
-45°	10	10	9	9	8	7	5	5	6	7	7
-47.5°	4	5	5	5	4	3	2	1	3	4	5
-50°	1	2	2	2	1	0	0	0	2	3	3
-52.5°	0	1	1	0	0	0	0	0	1	2	2
-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



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 CATALOG NUMBER: FSL203TB

CANDELA DISTRIBUTION (continued):

	47.5°	50°	52.5°	55°	57.5°	60°	62.5°	65°	67.5°	70°	72.5°
90°	55	50	45	39	35	30	26	21	17	14	11
87.5°	63	56	50	44	39	33	29	24	20	16	12
85°	75	66	58	50	43	37	32	27	22	18	14
82.5°	93	80	68	57	48	41	35	30	25	20	16
80°	123	104	85	68	55	44	38	32	27	22	17
77.5°	157	131	105	84	65	51	42	35	30	24	19
75°	196	163	132	103	77	57	46	37	32	26	21
72.5°	242	201	160	124	93	68	51	40	34	28	22
70°	288	240	194	150	110	78	57	43	36	30	24
67.5°	335	280	228	176	130	93	62	46	38	32	25
65°	379	318	262	204	151	106	71	49	39	33	26
62.5°	418	354	290	229	172	121	79	54	41	34	27
60°	452	383	317	251	191	135	89	58	43	35	28
57.5°	474	407	338	270	207	148	99	63	45	36	29
55°	494	427	356	286	222	161	108	68	47	37	30
52.5°	512	443	369	300	233	172	117	71	50	38	30
50°	529	458	381	310	242	180	123	77	52	38	31
47.5°	536	467	392	320	250	187	129	83	52	38	31
45°	538	475	401	328	258	194	134	87	55	39	31
42.5°	543	481	406	333	263	199	139	90	56	39	31
40°	547	484	409	336	267	202	142	92	55	39	31
37.5°	549	484	411	338	269	204	144	91	56	40	31
35°	545	484	414	339	269	205	145	90	58	40	31
32.5°	548	485	412	338	268	205	143	92	58	39	31
30°	551	484	409	335	266	201	141	91	56	37	30
27.5°	550	481	406	332	263	199	139	89	53	36	30
25°	545	475	401	327	257	193	135	83	50	36	29
22.5°	535	466	392	320	250	187	129	79	50	36	28
20°	523	454	380	310	242	179	123	77	49	35	28
17.5°	509	439	366	297	231	170	116	74	47	34	27
15°	490	420	349	282	219	160	108	69	44	33	26
12.5°	468	400	331	266	204	148	99	62	40	31	25
10°	443	377	311	249	188	134	87	56	38	30	24
7.5°	414	350	288	231	170	121	80	52	37	29	23
5°	382	319	262	207	152	108	72	48	36	29	23
2.5°	342	286	232	182	133	94	63	44	34	27	21
0°	298	248	199	154	112	78	53	39	32	26	20
-2.5°	274	230	186	145	106	74	51	37	31	25	19
-5°	246	209	170	133	98	69	47	35	29	24	19
-7.5°	219	187	154	121	90	64	44	33	27	22	18
-10°	192	166	137	109	81	58	41	31	26	21	17
-12.5°	165	144	121	97	73	52	37	29	24	20	16
-15°	139	123	105	84	64	47	34	26	22	18	15
-17.5°	115	103	89	72	55	41	30	24	20	17	14
-20°	92	85	74	60	47	35	27	22	18	16	13



REPORT NUMBER: G1-1712-448-2
 CATALOG NUMBER: FSL203TB

CANDELA DISTRIBUTION (continued):

	47.5°	50°	52.5°	55°	57.5°	60°	62.5°	65°	67.5°	70°	72.5°
-22.5°	71	68	60	50	39	29	23	19	17	14	12
-25°	53	52	48	40	32	25	20	17	15	13	11
-27.5°	39	39	37	32	26	21	17	15	13	12	10
-30°	33	28	27	24	20	17	14	13	12	10	9
-32.5°	27	23	19	18	15	13	11	11	10	9	8
-35°	22	19	15	13	11	10	9	9	9	8	7
-37.5°	17	14	12	9	7	7	7	7	8	7	6
-40°	13	11	9	7	4	4	5	6	6	6	5
-42.5°	9	8	7	4	2	2	4	5	5	5	4
-45°	7	6	4	3	1	1	2	4	4	4	4
-47.5°	5	4	3	1	0	0	1	3	3	4	3
-50°	3	2	1	0	0	0	1	2	3	3	3
-52.5°	2	1	0	0	0	0	0	1	2	2	2
-55°	1	0	0	0	0	0	0	1	2	2	2
-57.5°	0	0	0	0	0	0	0	0	1	1	1
-60°	0	0	0	0	0	0	0	0	1	1	1
-62.5°	0	0	0	0	0	0	0	0	1	1	1
-65°	0	0	0	0	0	0	0	0	0	1	1
-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: G1-1712-448-2
 CATALOG NUMBER: FSL203TB

CANDELA DISTRIBUTION (continued):

	75°	77.5°	80°	82.5°	85°	87.5°	90°
90°	7	5	2	2	1	1	0
87.5°	9	6	3	2	1	1	0
85°	10	7	3	2	1	1	0
82.5°	11	8	4	2	1	1	0
80°	13	9	5	3	1	1	0
77.5°	14	10	5	3	1	1	0
75°	15	10	6	3	1	1	0
72.5°	17	11	7	3	2	1	0
70°	18	12	7	4	2	1	0
67.5°	19	13	8	4	2	1	0
65°	20	14	8	4	2	1	0
62.5°	21	14	9	4	2	1	0
60°	22	15	9	5	2	1	0
57.5°	22	15	10	5	2	1	0
55°	23	16	10	5	2	1	0
52.5°	23	16	10	5	2	1	0
50°	23	16	10	5	2	1	0
47.5°	24	17	10	5	2	1	0
45°	24	17	11	5	2	1	0
42.5°	24	17	11	5	2	1	0
40°	24	17	11	5	2	1	0
37.5°	24	17	11	5	2	1	0
35°	24	17	10	5	2	1	0
32.5°	24	16	10	5	2	1	0
30°	23	16	10	5	2	1	0
27.5°	23	16	10	5	2	1	0
25°	22	15	10	5	2	1	0
22.5°	22	15	9	5	2	1	0
20°	21	14	9	5	2	1	0
17.5°	21	14	9	4	2	1	0
15°	20	13	8	4	2	1	0
12.5°	19	13	8	4	2	1	0
10°	18	12	7	3	2	1	0
7.5°	17	11	7	3	1	1	0
5°	16	11	6	3	1	1	0
2.5°	15	10	6	2	1	1	0
0°	14	9	5	2	1	1	0
-2.5°	14	9	5	2	1	1	0
-5°	13	9	5	2	1	1	0
-7.5°	13	8	5	2	1	1	0
-10°	12	8	4	2	1	1	0
-12.5°	11	7	4	2	1	1	0
-15°	11	7	4	2	1	1	0
-17.5°	10	7	4	2	1	1	0
-20°	9	6	4	2	1	1	0



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CANDELA DISTRIBUTION (continued):

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

