

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: G1-1712-448-5

Luminaire Tested: **FHS303TB**

Test Date: 02/09/18



Test Information

Test Method: LM-79-08
Report Number: G1-1712-448-5
Test Lab: INNOVATION CENTER(G1)
Test Date: 02/09/18
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: HALO
Catalog Number: FHS303TB
Description: TRIPLE HEAD
Light Source: (3) PCB ARRAY
Ballast/Driver: (1) TCL ELECTRONIC DRIVER
031W0A80-R/1J/08

Summary

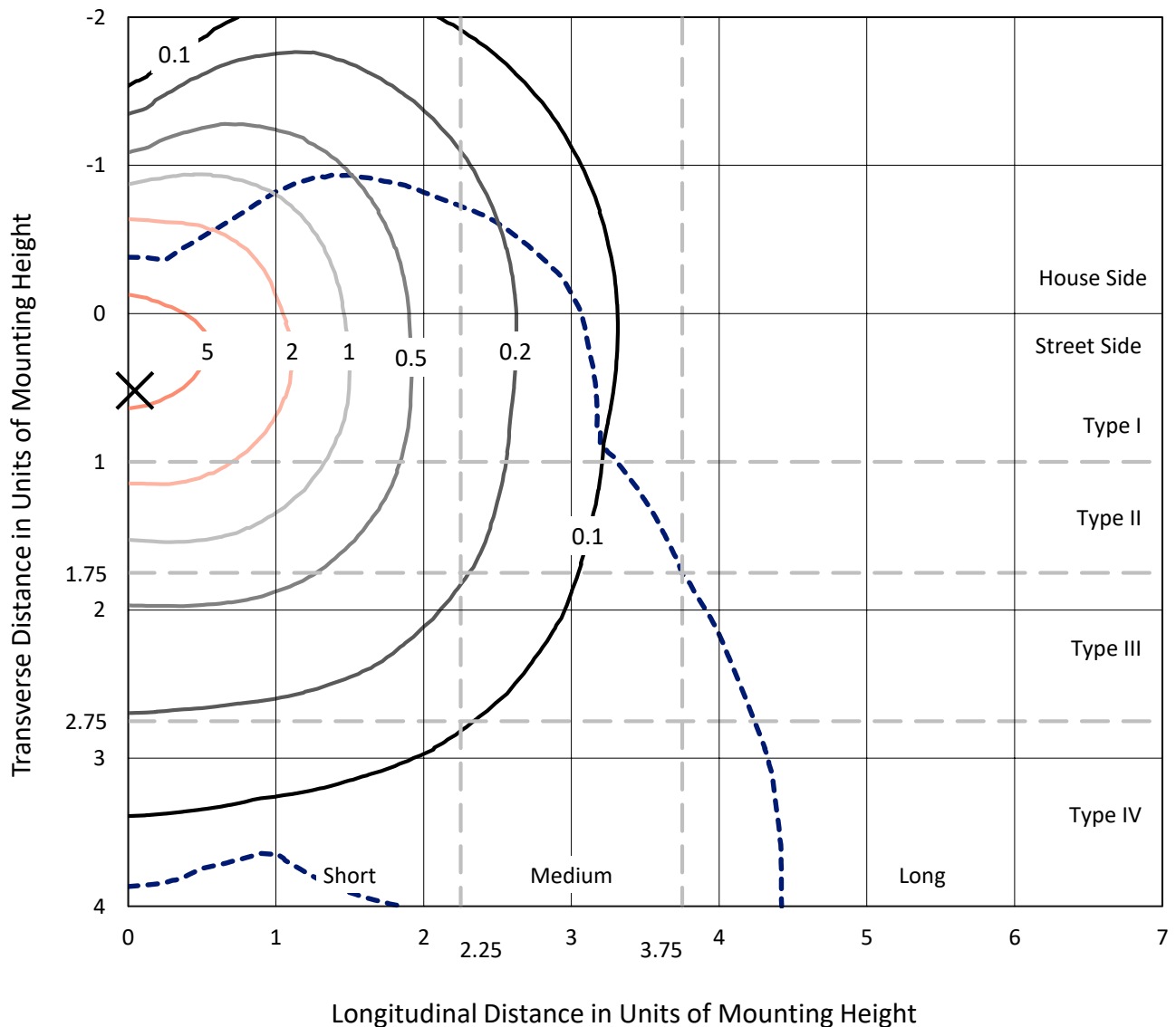
Lumens per Lamp: N/A
Luminaire Lumens: 2955.5 lumens
Efficiency: N/A
Efficacy: 91.2 lumens/watt
Luminous Opening: Rectangular w/ Sides (W: 0.85' x L: 0.6' x H: 0.23')
IES Classification: Type IV - Short - Non-Cutoff
BUG Rating: B1 - U3 - G2

Input Watts (W): 32.4
Input Voltage (V): 120.1
Input Current (Ain): 0.272
Voltage Rise (V): NR
Power Factor: 0.9954
Total Harmonic Distortion (THDi): 6.50%
Frequency (hertz): 60
Stabilization Time: 0.5 HR
Operation Time: 7.0 HR
Ambient Temperature (°C): 24.7
Test Distance: 28.75 FT

REPORT NUMBER: G1-1712-448-5
 CATALOG NUMBER: FHS303TB

Iso-Footcandle Lines of Horizontal Illumination

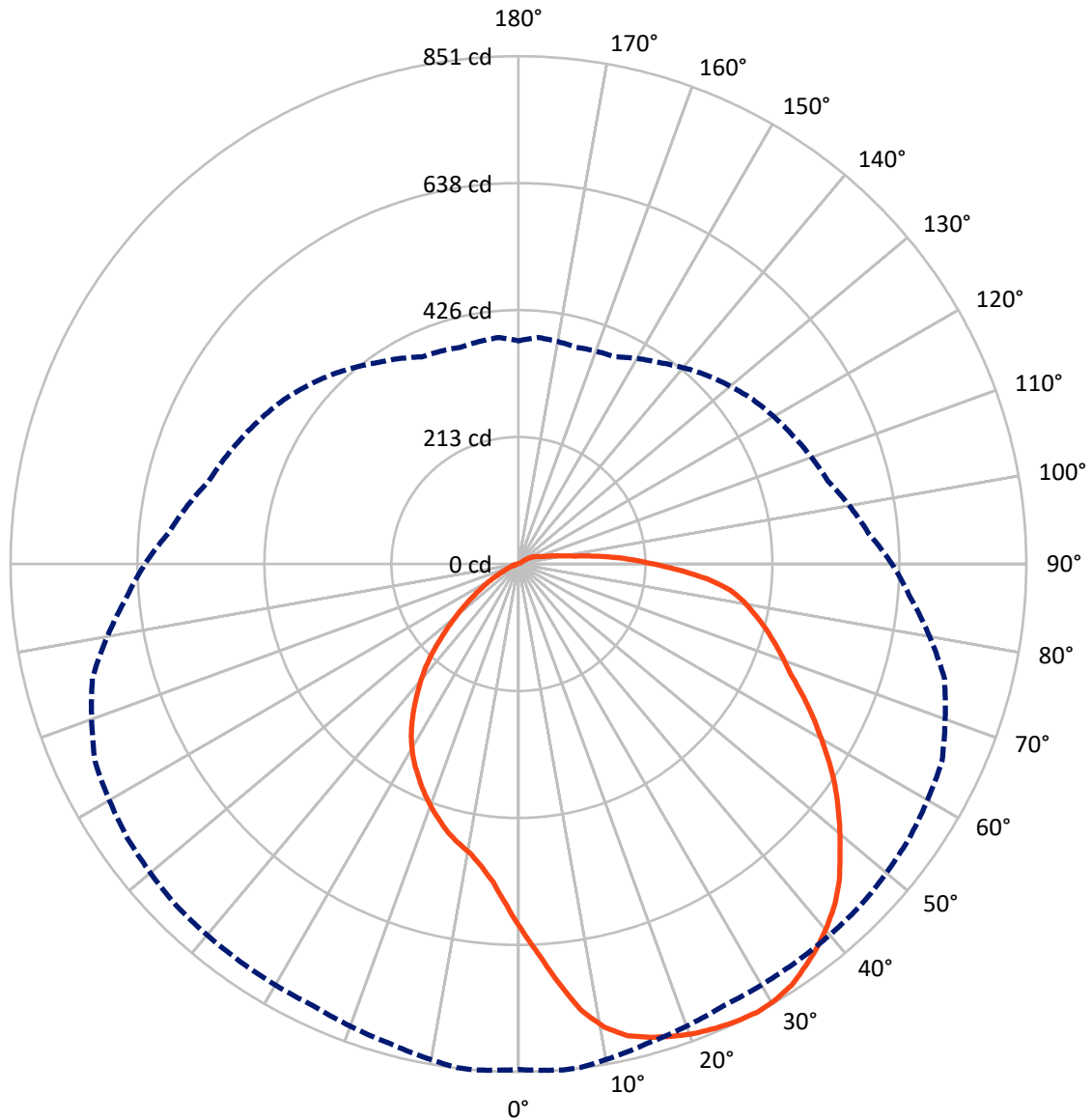
✕ Max cd
 - - - 1/2 Max cd



Based on 10 foot mounting height. Maximum calculated value = 7.5 fc
 Type IV - Short - Non-Cutoff

REPORT NUMBER: G1-1712-448-5
CATALOG NUMBER: FHS303TB

Luminous Intensity Polar Plot



— Vertical Plane Through 5-Deg Lateral - - - Horizontal Cone Through 27.5-Deg Vertical



REPORT NUMBER: G1-1712-448-5
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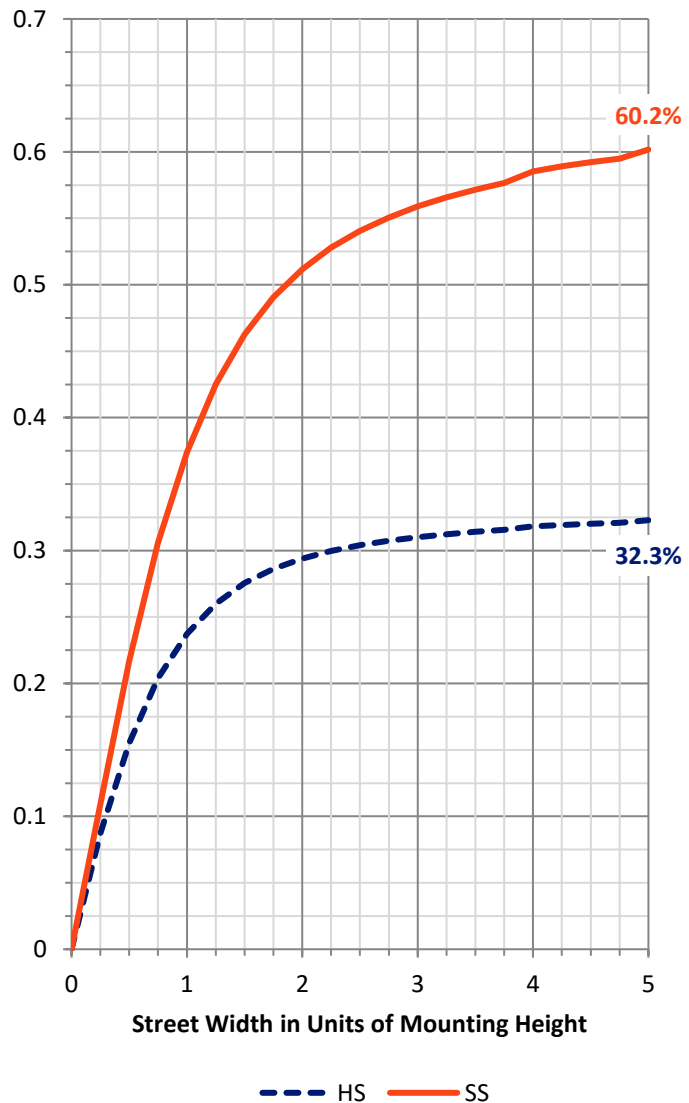
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	976.2	32.5	1008.7
	% Fixture	33.0	1.1	34.1
Street Side	Lumens	1861.9	84.9	1946.8
	% Fixture	63.0	2.9	65.9
Total	Lumens	2838.1	117.4	2955.5
	% Fixture	96.0	4.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	59.2	2.0
10°-20°	176.1	6.0
20°-30°	288.6	9.8
30°-40°	383.6	13.0
40°-50°	449.8	15.2
50°-60°	472.7	16.0
60°-70°	434.7	14.7
70°-80°	355.0	12.0
80°-90°	218.3	7.4
90°-100°	76.4	2.6
100°-110°	28.6	1.0
110°-120°	11.7	0.4
120°-130°	0.7	0.0
130°-140°	0.0	0.0
140°-150°	0.0	0.0
150°-160°	0.0	0.0
160°-170°	0.0	0.0
170°-180°	0.0	0.0
0°-90°	2838.1	96.0
0°-180°	2955.5	100.0

Coefficient of Utilization

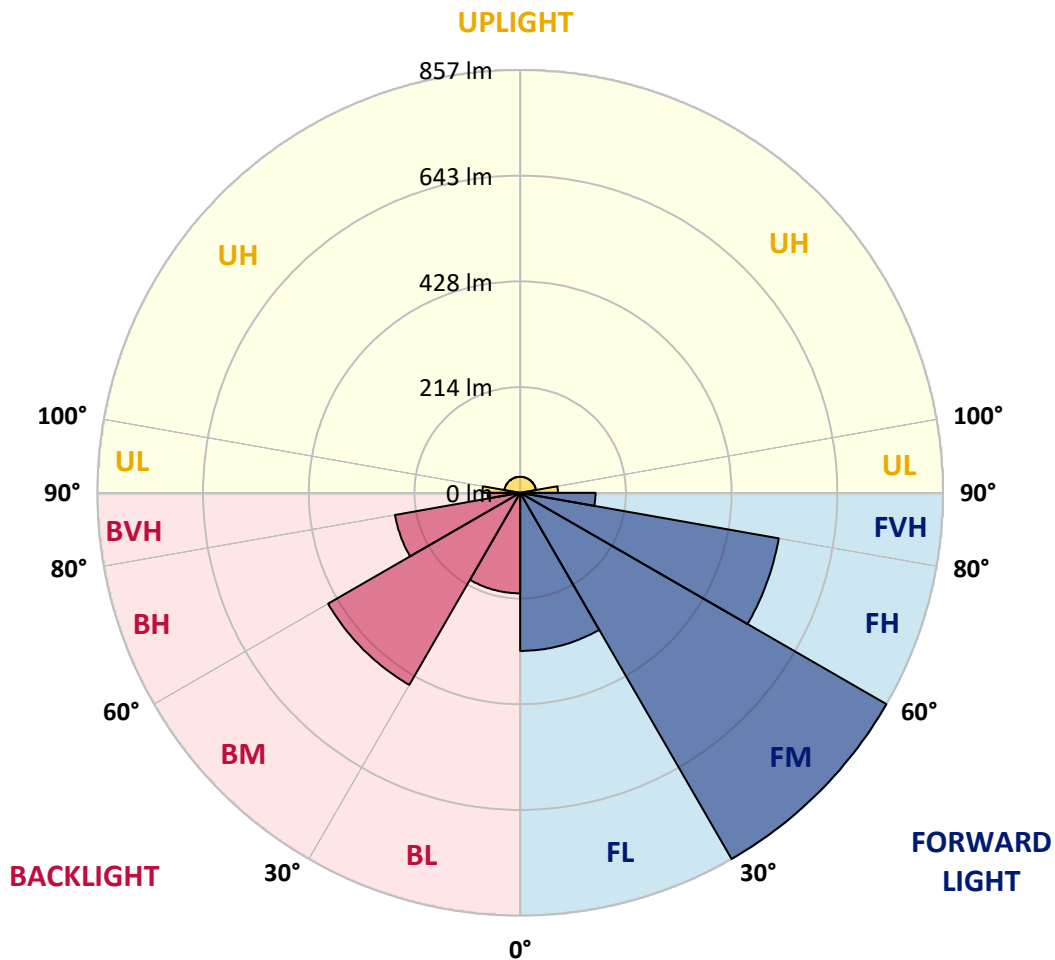


REPORT NUMBER: G1-1712-448-5
 CATALOG NUMBER: FHS303TB

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	320.3	10.8			
FM	(30°-60°)	856.8	29.0			
FH	(60°-80°)	532.1	18.0			G0/660
FVH	(80°-90°)	152.7	5.2			G2/225
BL	(0°-30°)	203.7	6.9	B1/500		
BM	(30°-60°)	449.3	15.2	B1/1000		
BH	(60°-80°)	257.6	8.7	B1/500		G1/500
BVH	(80°-90°)	65.6	2.2			G1/100
UL	(90°-100°)	76.4	2.6		U3/500	
UH	(100°-180°)	32.5	1.1		U2/50	

BUG Rating: B1-U3-G2
 Type IV Short





REPORT NUMBER: G1-1712-448-5
 CATALOG NUMBER: FHS303TB

CANDELA DISTRIBUTION (FULL):

	0°	5°	7°	15°	25°	35°	45°	55°	65°	75°	85°
0°	613	613	613	613	613	613	613	613	613	613	613
2.5°	655	655	653	655	650	646	644	640	636	631	626
5°	706	705	703	703	697	690	681	670	657	644	632
7.5°	754	755	753	753	750	736	716	688	662	639	618
10°	789	789	790	791	784	764	737	705	671	638	610
12.5°	810	811	812	815	803	779	753	723	686	645	610
15°	822	823	824	827	810	788	766	741	706	659	615
17.5°	830	832	834	834	811	792	777	758	728	679	627
20°	837	840	841	837	812	796	785	774	749	700	637
22.5°	841	845	846	836	814	801	795	787	766	716	647
25°	846	849	849	835	814	806	804	795	776	729	654
27°	847	850	851	833	815	812	809	799	782	737	659
27.5°	847	851	850	832	816	813	810	800	783	739	660
30°	844	848	847	827	816	818	813	804	787	746	665
32.5°	837	841	839	820	815	821	815	806	788	752	669
35°	824	828	826	812	815	820	815	805	789	754	671
37.5°	809	814	811	804	813	818	814	804	787	754	671
40°	792	797	796	796	809	814	811	802	786	751	668
42.5°	770	778	779	788	805	810	807	799	782	745	660
45°	744	754	756	780	798	805	803	796	776	736	650
47.5°	717	725	730	767	789	798	798	790	767	723	639
50°	687	698	705	749	778	791	793	782	757	703	623
52.5°	657	670	680	724	765	781	786	771	742	679	604
55°	627	642	650	697	750	770	775	756	725	654	583
57.5°	595	611	620	665	728	753	760	740	703	624	557
60°	569	580	590	633	700	732	741	717	671	591	529
62.5°	542	551	559	598	666	708	714	689	632	554	500
65°	518	521	527	562	629	679	679	657	593	520	478
67.5°	495	492	494	523	586	639	641	622	558	489	460
70°	471	470	468	488	542	597	599	587	520	459	441
72.5°	451	448	447	453	500	553	561	544	481	429	422
75°	428	427	425	424	459	508	525	503	444	403	403
77.5°	405	405	403	397	419	461	486	461	407	376	380
80°	384	383	383	375	381	417	445	410	356	336	338
82.5°	358	358	359	351	343	371	387	345	293	282	282
85°	318	317	318	312	298	312	318	275	235	232	233
87.5°	266	265	263	260	246	244	245	212	183	190	192
90°	217	217	216	211	198	190	174	149	137	141	143
92.5°	179	177	174	169	156	141	118	98	95	97	99
95°	132	134	130	125	113	100	81	73	75	76	78
97.5°	94	95	94	88	81	72	59	55	58	61	64
100°	76	75	74	70	62	56	48	44	44	46	49
102.5°	62	61	60	56	48	41	40	39	36	37	39
105°	49	48	48	44	36	34	34	32	32	34	36
107.5°	40	40	39	37	32	29	26	25	27	31	33



REPORT NUMBER: G1-1712-448-5

CATALOG NUMBER: FHS303TB

CANDELA DISTRIBUTION (continued):

	0°	5°	7°	15°	25°	35°	45°	55°	65°	75°	85°
110°	37	36	36	34	29	23	20	19	22	26	29
112.5°	33	32	32	30	24	18	13	13	17	21	23
115°	28	28	28	25	20	13	8	8	12	17	19
117.5°	24	23	22	20	16	9	5	5	9	12	14
120°	18	18	18	16	11	6	2	2	5	8	10
122.5°	0	0	0	0	0	0	0	0	0	0	0
125°	0	0	0	0	0	0	0	0	0	0	0
127.5°	0	0	0	0	0	0	0	0	0	0	0
130°	0	0	0	0	0	0	0	0	0	0	0
132.5°	0	0	0	0	0	0	0	0	0	0	0
135°	0	0	0	0	0	0	0	0	0	0	0
137.5°	0	0	0	0	0	0	0	0	0	0	0
140°	0	0	0	0	0	0	0	0	0	0	0
142.5°	0	0	0	0	0	0	0	0	0	0	0
145°	0	0	0	0	0	0	0	0	0	0	0
147.5°	0	0	0	0	0	0	0	0	0	0	0
150°	0	0	0	0	0	0	0	0	0	0	0
152.5°	0	0	0	0	0	0	0	0	0	0	0
155°	0	0	0	0	0	0	0	0	0	0	0
157.5°	0	0	0	0	0	0	0	0	0	0	0
160°	0	0	0	0	0	0	0	0	0	0	0
162.5°	0	0	0	0	0	0	0	0	0	0	0
165°	0	0	0	0	0	0	0	0	0	0	0
167.5°	0	0	0	0	0	0	0	0	0	0	0
170°	0	0	0	0	0	0	0	0	0	0	0
172.5°	0	0	0	0	0	0	0	0	0	0	0
175°	0	0	0	0	0	0	0	0	0	0	0
177.5°	0	0	0	0	0	0	0	0	0	0	0
180°	0	0	0	0	0	0	0	0	0	0	0



REPORT NUMBER: G1-1712-448-5

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CANDELA DISTRIBUTION (continued):

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	613	613	613	613	613	613	613	613	613	613	613
2.5°	622	619	611	601	594	587	581	575	573	572	573
5°	625	618	600	586	573	562	551	544	537	535	535
7.5°	607	597	573	555	543	535	530	523	515	510	510
10°	597	582	551	528	514	506	506	505	499	491	490
12.5°	593	575	537	512	494	484	481	488	487	479	476
15°	595	574	530	502	483	469	466	469	474	466	463
17.5°	604	579	532	501	477	462	452	449	457	450	447
20°	612	583	535	503	479	457	439	432	439	434	429
22.5°	618	586	536	504	481	455	427	415	418	417	412
25°	623	587	537	507	482	451	419	398	396	399	393
27°	626	588	537	508	480	448	414	386	380	384	378
27.5°	626	589	537	508	480	447	412	383	376	381	374
30°	628	589	538	509	477	441	405	370	357	361	354
32.5°	629	589	539	509	474	435	397	358	337	339	332
35°	628	588	541	509	470	429	388	348	318	313	305
37.5°	627	588	544	508	466	423	379	336	301	286	277
40°	623	586	546	508	463	417	370	325	283	259	248
42.5°	616	582	545	508	461	411	361	313	267	232	216
45°	608	578	543	506	459	405	352	301	252	201	185
47.5°	599	573	540	502	456	400	344	289	238	170	157
50°	587	565	534	498	453	396	335	278	216	142	127
52.5°	572	554	525	490	447	392	326	266	191	116	101
55°	556	543	514	480	439	385	318	255	168	92	77
57.5°	536	527	501	469	428	376	308	241	144	72	55
60°	515	506	482	453	415	364	297	219	123	55	40
62.5°	491	484	461	434	398	349	284	196	100	39	30
65°	472	466	444	417	378	328	269	173	80	28	24
67.5°	456	449	429	400	359	307	251	151	62	20	19
70°	439	432	413	383	340	288	231	129	45	15	15
72.5°	419	414	396	365	322	270	205	106	31	11	11
75°	400	396	377	347	303	252	179	85	21	8	7
77.5°	376	373	357	327	286	232	150	65	15	6	4
80°	335	334	319	296	261	208	125	45	12	3	2
82.5°	282	280	269	250	222	175	98	29	10	2	0
85°	231	231	221	204	177	133	68	20	8	0	0
87.5°	192	189	180	164	141	96	45	15	6	0	0
90°	141	141	134	119	98	65	30	12	4	0	0
92.5°	99	98	93	81	65	42	21	10	2	0	0
95°	79	77	73	63	48	31	16	7	1	0	0
97.5°	64	63	58	48	36	23	14	5	0	0	0
100°	49	49	44	36	28	20	11	3	0	0	0
102.5°	40	39	37	32	26	17	8	2	0	0	0
105°	36	36	34	29	23	14	5	0	0	0	0
107.5°	33	32	30	25	18	10	3	0	0	0	0



REPORT NUMBER: G1-1712-448-5
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CANDELA DISTRIBUTION (continued):

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
110°	29	28	26	21	14	7	2	0	0	0	0
112.5°	24	23	21	16	10	4	1	0	0	0	0
115°	19	18	16	12	7	2	0	0	0	0	0
117.5°	14	14	12	8	4	1	0	0	0	0	0
120°	10	10	8	5	2	1	0	0	0	0	0
122.5°	0	0	0	0	0	0	0	0	0	0	0
125°	0	0	0	0	0	0	0	0	0	0	0
127.5°	0	0	0	0	0	0	0	0	0	0	0
130°	0	0	0	0	0	0	0	0	0	0	0
132.5°	0	0	0	0	0	0	0	0	0	0	0
135°	0	0	0	0	0	0	0	0	0	0	0
137.5°	0	0	0	0	0	0	0	0	0	0	0
140°	0	0	0	0	0	0	0	0	0	0	0
142.5°	0	0	0	0	0	0	0	0	0	0	0
145°	0	0	0	0	0	0	0	0	0	0	0
147.5°	0	0	0	0	0	0	0	0	0	0	0
150°	0	0	0	0	0	0	0	0	0	0	0
152.5°	0	0	0	0	0	0	0	0	0	0	0
155°	0	0	0	0	0	0	0	0	0	0	0
157.5°	0	0	0	0	0	0	0	0	0	0	0
160°	0	0	0	0	0	0	0	0	0	0	0
162.5°	0	0	0	0	0	0	0	0	0	0	0
165°	0	0	0	0	0	0	0	0	0	0	0
167.5°	0	0	0	0	0	0	0	0	0	0	0
170°	0	0	0	0	0	0	0	0	0	0	0
172.5°	0	0	0	0	0	0	0	0	0	0	0
175°	0	0	0	0	0	0	0	0	0	0	0
177.5°	0	0	0	0	0	0	0	0	0	0	0
180°	0	0	0	0	0	0	0	0	0	0	0

(END OF REPORT)