

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: P407858

Luminaire Tested: **ALB7A-DL**

Issue Date: 08/27/2020

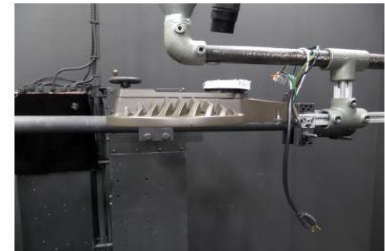
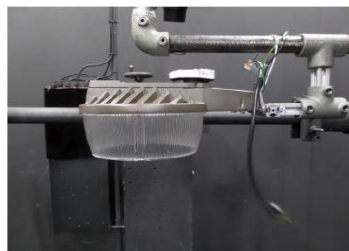
Test Information

Test Method: LM-79-08
Report Number: P407858
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G1-2006-852-13-R2)
Test Lab: INNOVATIONS CENTER(G1)
Issue Date: 08/27/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: HALO
Catalog Number: ALB7A-DL
Description: HALO OUTDOOR BARN LIGHT LITE 50W 4000K W/ DROP LENS
Light Source: (78) 4000K CCT, 70 CRI LEDs
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 7325.9 lumens
Efficiency: N/A
Efficacy: 146.5 lumens/watt
Luminous Opening: Vertical Cylinder (Dia: 0.67' x H: 0.25')
IES Classification: Type V - Short - Cutoff
BUG Rating: B3 - U3 - G1

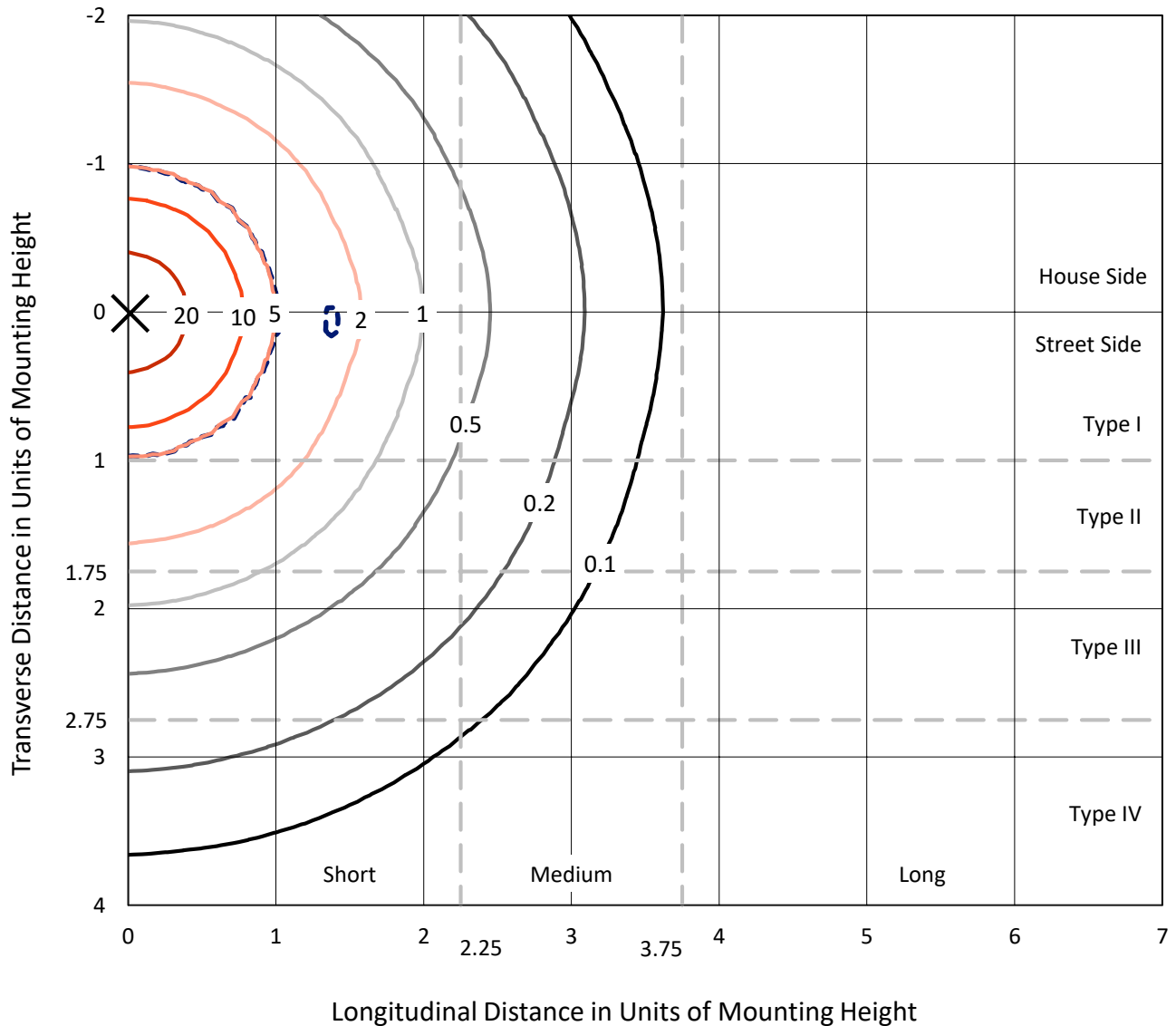
Input Watts (W): 50
Input Voltage (V): 120.0
Input Current (Ain): 0.422
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Iso-Footcandle Lines of Horizontal Illumination

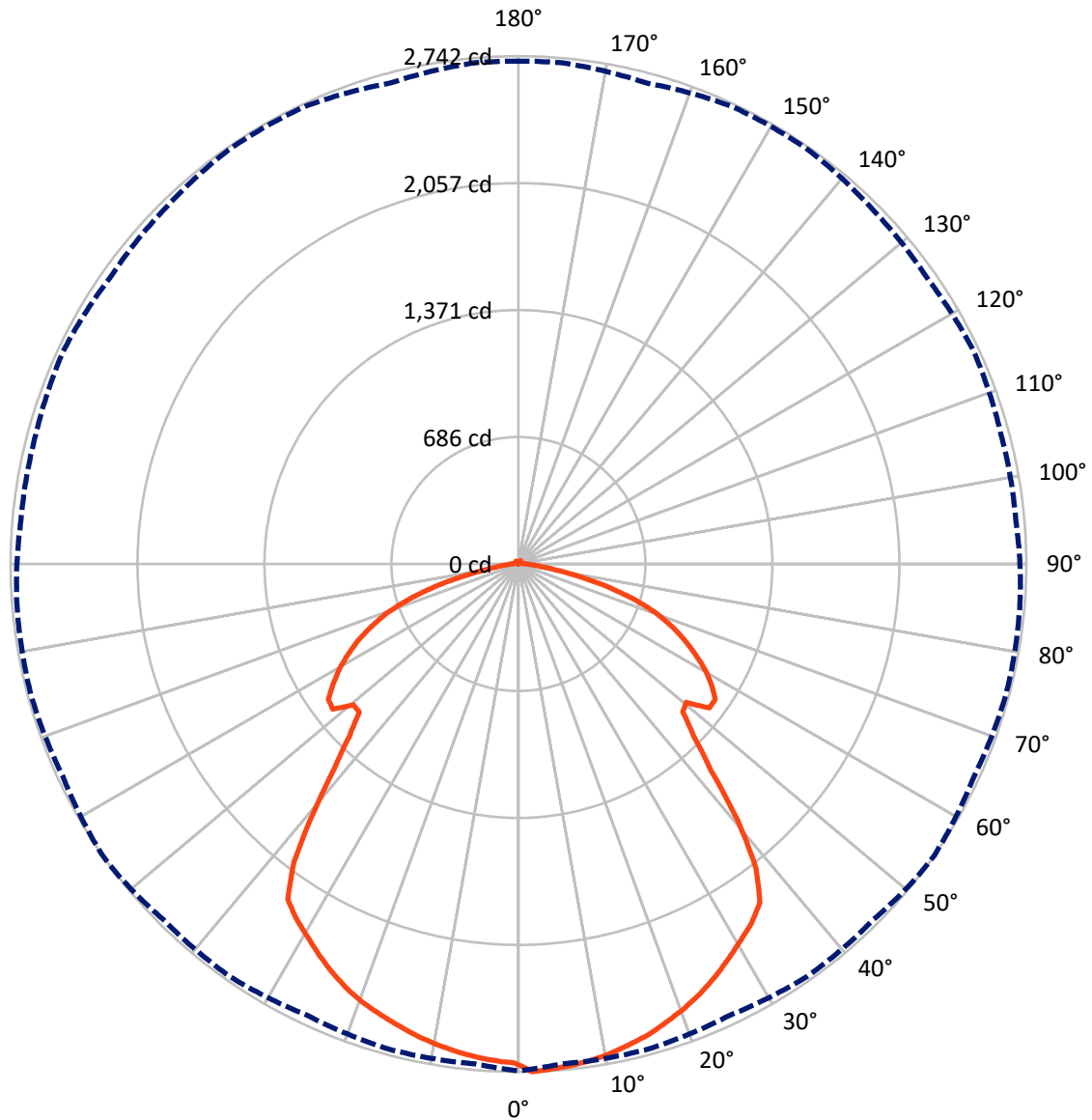
✕ Max cd
 - - - 1/2 Max cd



Based on 10 foot mounting height. Maximum calculated value = 27.1 fc
 Type V - Short - Cutoff

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Luminous Intensity Polar Plot



— Vertical Plane Through 55-Deg Lateral - - - Horizontal Cone Through 1-Deg Vertical

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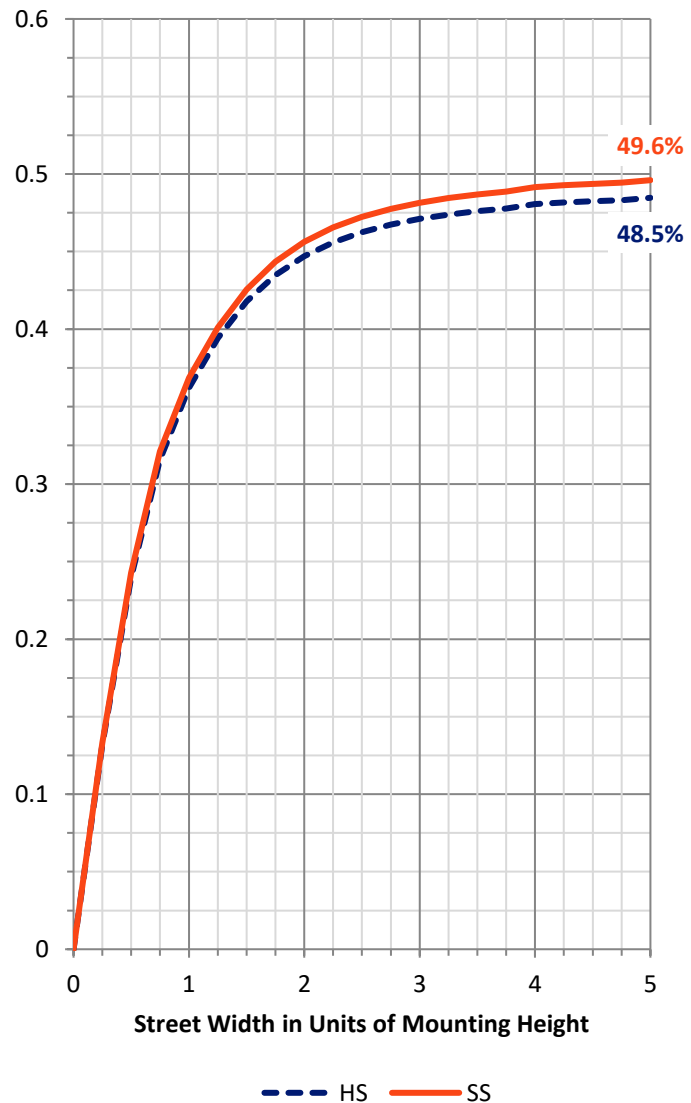
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	3579.1	47.5	3626.6
	% Fixture	48.9	0.6	49.5
Street Side	Lumens	3649.6	49.8	3699.3
	% Fixture	49.8	0.7	50.5
Total	Lumens	7228.7	97.3	7325.9
	% Fixture	98.7	1.3	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	255.8	3.5
10°-20°	733.4	10.0
20°-30°	1124.0	15.3
30°-40°	1337.2	18.3
40°-50°	1054.0	14.4
50°-60°	1118.3	15.3
60°-70°	969.8	13.2
70°-80°	523.7	7.1
80°-90°	112.4	1.5
90°-100°	30.4	0.4
100°-110°	17.0	0.2
110°-120°	10.6	0.1
120°-130°	9.6	0.1
130°-140°	11.7	0.2
140°-150°	11.3	0.2
150°-160°	5.5	0.1
160°-170°	0.8	0.0
170°-180°	0.2	0.0
0°-90°	7228.7	98.7
0°-180°	7325.9	100.0



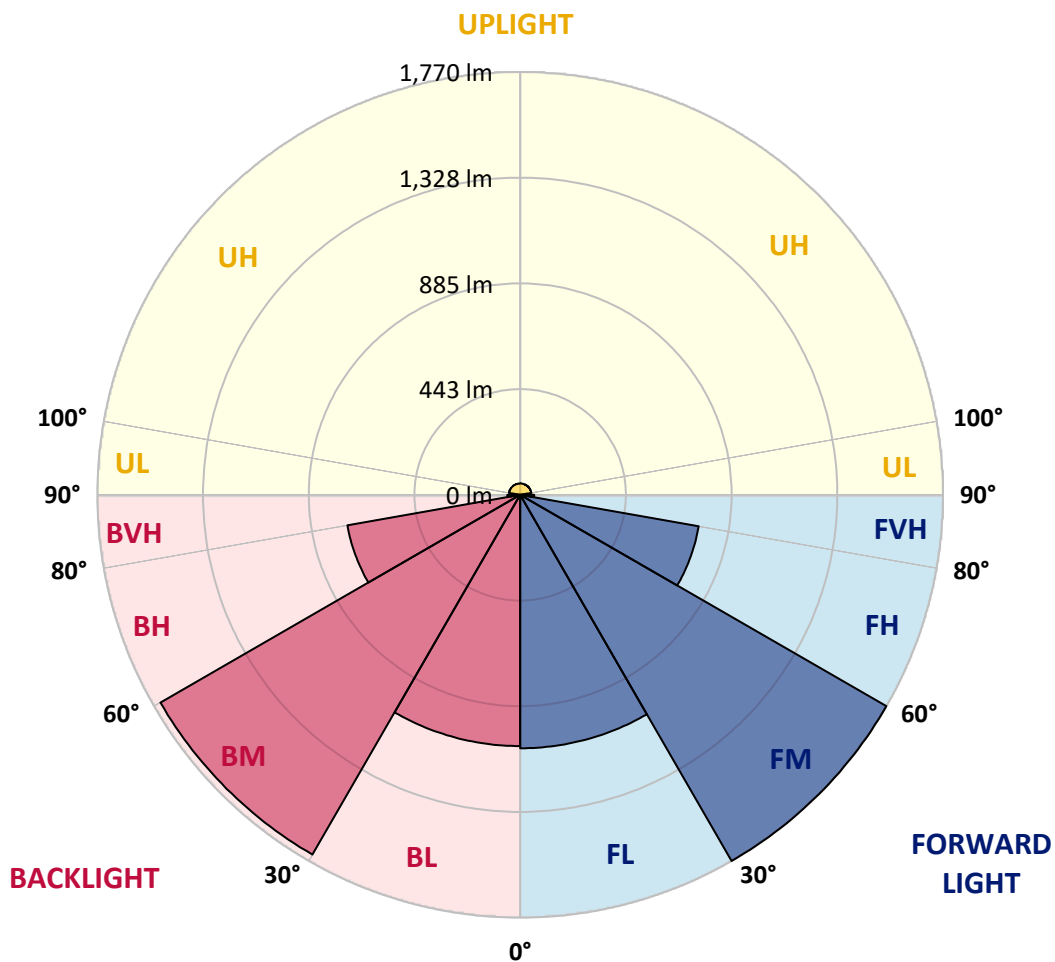
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	1061.2	14.5			
FM (30°-60°)	1770.3	24.2			
FH (60°-80°)	759.1	10.4			G1/1800
FVH (80°-90°)	59.0	0.8			G1/100
BL (0°-30°)	1052.0	14.4	B3/2500		
BM (30°-60°)	1739.2	23.7	B2/2500		
BH (60°-80°)	734.4	10.0	B2/1000		G1/1800
BVH (80°-90°)	53.5	0.7			G1/100
UL (90°-100°)	30.4	0.4		U2/50	
UH (100°-180°)	47.5	0.6		U2/50	

BUG Rating: B3-U3-G1

Type V Short





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	52°	55°	65°	75°	85°
0°	2714	2714	2714	2714	2714	2714	2714	2714	2714	2714	2714
1°	2736	2709	2711	2690	2718	2713	2737	2742	2714	2725	2717
2.5°	2733	2705	2708	2686	2714	2710	2733	2736	2712	2717	2712
5°	2723	2694	2697	2673	2701	2700	2724	2724	2697	2703	2702
7.5°	2706	2674	2681	2656	2686	2689	2708	2711	2683	2682	2688
10°	2683	2648	2657	2635	2667	2672	2689	2690	2662	2659	2668
12.5°	2655	2621	2631	2609	2640	2646	2663	2663	2637	2636	2648
15°	2627	2589	2601	2579	2610	2616	2633	2636	2611	2607	2623
17.5°	2594	2555	2568	2545	2574	2581	2597	2598	2579	2572	2594
20°	2555	2517	2535	2512	2539	2545	2560	2560	2540	2530	2557
22.5°	2519	2478	2494	2471	2498	2508	2518	2517	2496	2480	2512
25°	2473	2436	2449	2422	2455	2468	2470	2468	2445	2430	2459
27.5°	2418	2382	2403	2380	2408	2414	2416	2414	2393	2370	2398
30°	2363	2327	2348	2333	2362	2366	2368	2361	2342	2314	2345
32.5°	2301	2266	2287	2274	2307	2318	2317	2311	2285	2258	2297
35°	2234	2197	2216	2207	2234	2245	2254	2245	2217	2194	2247
37.5°	2073	2058	2068	2049	2051	2069	2078	2084	2087	2073	2131
40°	1722	1717	1753	1758	1757	1792	1817	1825	1776	1758	1810
42.5°	1536	1497	1488	1481	1504	1526	1533	1524	1529	1517	1583
45°	1280	1284	1309	1275	1316	1341	1327	1326	1316	1327	1407
47.5°	1187	1177	1190	1169	1194	1211	1201	1194	1183	1204	1271
50°	1189	1168	1172	1169	1186	1206	1188	1174	1149	1155	1264
52.5°	1322	1300	1298	1289	1311	1324	1308	1290	1263	1276	1378
55°	1307	1289	1295	1289	1308	1318	1304	1290	1264	1274	1371
57.5°	1272	1249	1245	1243	1251	1257	1245	1229	1210	1218	1306
60°	1205	1184	1179	1174	1181	1183	1170	1158	1144	1148	1233
62.5°	1115	1104	1095	1092	1097	1091	1085	1070	1056	1063	1137
65°	1012	1003	996	990	999	996	992	982	980	979	1036
67.5°	924	913	901	894	896	900	899	889	883	881	938
70°	803	797	789	786	798	797	786	783	771	764	797
72.5°	666	658	651	653	661	663	661	655	642	621	650
75°	530	524	525	522	518	521	508	507	496	480	491
77.5°	387	387	385	386	381	377	367	358	344	332	332
80°	255	245	241	241	236	235	230	224	221	212	209
82.5°	150	146	146	144	140	137	136	135	135	131	129
85°	104	104	100	98	94	92	93	90	90	88	88
87.5°	70	71	69	67	64	63	62	61	60	60	61
90°	46	46	47	45	44	43	43	43	43	43	43
92.5°	34	34	35	34	33	33	33	33	33	33	33
95°	27	27	28	27	27	27	27	27	27	26	26
97.5°	24	24	24	24	23	23	23	23	23	23	23
100°	21	21	21	21	21	21	21	21	21	21	21
102.5°	19	19	19	19	18	18	18	18	19	18	18
105°	18	18	18	17	17	16	16	16	16	16	16
107.5°	16	16	17	17	16	16	17	16	16	16	16



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CANDELA DISTRIBUTION (continued):

	0°	5°	15°	25°	35°	45°	52°	55°	65°	75°	85°
110°	14	14	14	14	14	14	14	13	13	13	13
112.5°	13	12	12	12	12	12	12	12	12	12	11
115°	11	11	11	11	11	11	11	11	11	10	10
117.5°	12	11	11	11	10	10	10	10	10	10	9
120°	11	11	11	10	10	9	9	9	10	9	9
122.5°	11	11	11	10	10	10	10	10	10	9	9
125°	11	11	10	10	10	10	10	10	10	9	10
127.5°	11	11	11	10	10	10	11	11	10	10	10
130°	11	11	11	11	11	11	12	11	10	10	11
132.5°	11	11	11	11	11	12	12	12	11	10	13
135°	12	12	12	13	13	13	14	14	13	11	15
137.5°	12	13	13	15	15	15	16	16	16	14	18
140°	13	13	15	17	18	18	18	17	17	17	19
142.5°	14	15	16	19	20	21	20	19	19	19	20
145°	15	16	18	20	21	21	21	20	19	20	20
147.5°	16	16	18	20	21	21	20	20	19	19	19
150°	15	15	17	19	20	19	19	19	18	18	17
152.5°	14	14	15	18	18	17	18	17	16	16	16
155°	12	12	13	15	15	15	15	14	14	14	14
157.5°	9	9	10	11	11	11	11	11	11	10	10
160°	5	6	6	7	8	7	8	7	7	7	7
162.5°	3	3	4	4	4	4	4	4	4	4	4
165°	2	2	2	2	2	2	2	2	2	2	2
167.5°	1	2	2	2	2	1	2	1	1	2	1
170°	1	2	2	2	2	1	2	2	1	1	1
172.5°	2	2	2	2	2	2	2	2	1	2	2
175°	1	2	2	2	2	1	1	1	1	2	2
177.5°	2	2	2	2	2	2	2	2	2	2	2
180°	2	2	2	2	2	2	2	2	2	2	2



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CANDELA DISTRIBUTION (continued):

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	2714	2714	2714	2714	2714	2714	2714	2714	2714	2714	2714
1°	2708	2696	2698	2713	2693	2706	2729	2726	2687	2716	2715
2.5°	2702	2690	2693	2708	2688	2701	2723	2720	2681	2712	2713
5°	2685	2674	2677	2690	2674	2685	2707	2705	2667	2700	2701
7.5°	2668	2655	2658	2671	2655	2662	2685	2681	2645	2678	2680
10°	2644	2633	2635	2645	2633	2638	2660	2653	2617	2653	2653
12.5°	2623	2609	2610	2620	2607	2609	2629	2621	2586	2621	2627
15°	2593	2585	2583	2590	2576	2578	2597	2592	2558	2591	2597
17.5°	2563	2554	2553	2558	2544	2544	2565	2558	2527	2563	2567
20°	2526	2517	2517	2522	2513	2507	2525	2523	2496	2535	2538
22.5°	2482	2473	2478	2479	2472	2467	2482	2479	2459	2500	2506
25°	2428	2419	2428	2426	2423	2417	2428	2429	2413	2455	2465
27.5°	2365	2363	2368	2371	2369	2363	2379	2378	2361	2399	2403
30°	2308	2301	2310	2311	2312	2304	2325	2327	2306	2342	2345
32.5°	2259	2253	2254	2254	2260	2251	2274	2269	2236	2263	2270
35°	2212	2206	2188	2182	2198	2181	2194	2182	2156	2185	2189
37.5°	2112	2093	2043	2022	2013	1979	1993	1981	1956	1972	1981
40°	1784	1773	1740	1741	1740	1719	1706	1700	1660	1693	1721
42.5°	1549	1561	1507	1498	1483	1474	1468	1437	1453	1450	1443
45°	1383	1378	1329	1303	1301	1289	1282	1281	1272	1303	1335
47.5°	1269	1249	1202	1167	1174	1186	1187	1182	1172	1174	1174
50°	1258	1248	1172	1152	1171	1187	1210	1213	1222	1247	1248
52.5°	1378	1363	1287	1257	1272	1284	1285	1274	1277	1300	1307
55°	1365	1352	1280	1240	1260	1263	1258	1249	1252	1275	1282
57.5°	1296	1283	1221	1179	1194	1201	1196	1191	1205	1231	1236
60°	1233	1224	1159	1107	1123	1125	1128	1127	1145	1175	1176
62.5°	1139	1134	1069	1025	1043	1047	1046	1045	1058	1076	1078
65°	1042	1044	986	950	958	950	945	954	976	990	991
67.5°	940	936	893	855	861	856	854	865	890	901	904
70°	806	797	771	745	760	752	746	748	769	770	775
72.5°	658	657	639	619	628	623	625	627	636	638	625
75°	502	499	488	481	489	490	487	494	495	495	492
77.5°	332	335	332	330	338	343	340	335	337	336	337
80°	212	209	211	207	201	205	205	199	205	207	201
82.5°	128	129	133	127	127	125	125	123	124	119	118
85°	88	88	87	87	86	84	83	86	86	83	83
87.5°	62	61	60	60	59	59	58	58	58	57	57
90°	43	42	42	41	41	41	39	39	38	36	37
92.5°	33	33	32	32	32	31	30	29	29	28	28
95°	27	26	27	26	26	25	25	23	23	22	22
97.5°	23	23	23	23	23	23	22	20	19	19	19
100°	21	21	21	21	21	20	19	17	16	16	16
102.5°	18	18	19	19	18	18	17	15	13	13	13
105°	16	16	16	16	16	16	15	13	12	12	12
107.5°	16	16	15	15	15	14	13	12	10	10	11



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CANDELA DISTRIBUTION (continued):

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
110°	13	13	13	13	12	13	12	10	9	8	8
112.5°	12	12	12	12	12	12	11	10	9	7	6
115°	10	11	11	11	12	11	11	9	8	5	5
117.5°	10	10	10	10	11	11	10	9	8	5	5
120°	10	10	10	10	11	12	11	9	8	5	5
122.5°	10	10	10	11	12	13	12	10	8	5	5
125°	10	10	10	12	14	15	13	11	11	5	5
127.5°	11	11	12	13	15	16	14	13	12	5	5
130°	11	12	14	16	16	16	15	17	16	5	4
132.5°	13	14	16	19	17	17	16	19	19	6	5
135°	15	16	19	22	19	17	18	22	21	6	5
137.5°	18	20	21	23	19	17	20	23	20	6	5
140°	20	21	23	23	20	17	20	23	19	6	4
142.5°	21	22	23	22	19	19	20	21	17	5	4
145°	20	22	21	21	19	18	19	19	14	5	4
147.5°	19	20	19	19	18	18	18	17	12	5	4
150°	18	18	18	17	16	17	16	14	10	4	4
152.5°	16	16	16	15	14	14	13	11	8	4	3
155°	13	13	13	12	12	11	11	9	6	3	3
157.5°	11	10	9	9	9	9	8	7	5	3	2
160°	7	7	6	6	6	5	5	4	3	2	2
162.5°	4	4	4	4	3	3	3	3	2	2	2
165°	2	2	2	2	2	2	2	2	2	2	1
167.5°	1	1	1	2	2	2	2	2	2	2	2
170°	1	1	1	2	2	2	2	2	2	2	2
172.5°	1	2	2	2	2	2	2	2	2	2	2
175°	1	2	2	2	2	2	2	2	2	2	2
177.5°	2	2	2	2	2	2	2	2	2	2	2
180°	2	2	2	2	2	2	2	2	2	2	2

(END OF REPORT)