

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: STREETWORKS

Report Number: P256696

Luminaire Tested: **CST-6-3-D-U-T5R-HSS-HM-EX90**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P256696
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-1808-894-5)
Test Lab: INNOVATION CENTER(G2)
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: STREETWORKS
Catalog Number: CST-6-3-D-U-T5R-HSS-HM-EX90
Description: CELESTEON HIGH MAST LUMINAIRE
(6) 70 CRI, 4000K LEDS AND TYPE V ROUND WITH EXTERNAL FIELD INSTALLED 90
DEGREE SHIELD - BLACK
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 26576 lumens
Efficiency: N/A
Efficacy: 113.6 lumens/watt
Luminous Opening: Circular (Dia: 2.08' x H: 0')
IES Classification: Type IV - Short - Semi-Cutoff
BUG Rating: B4 - U1 - G4

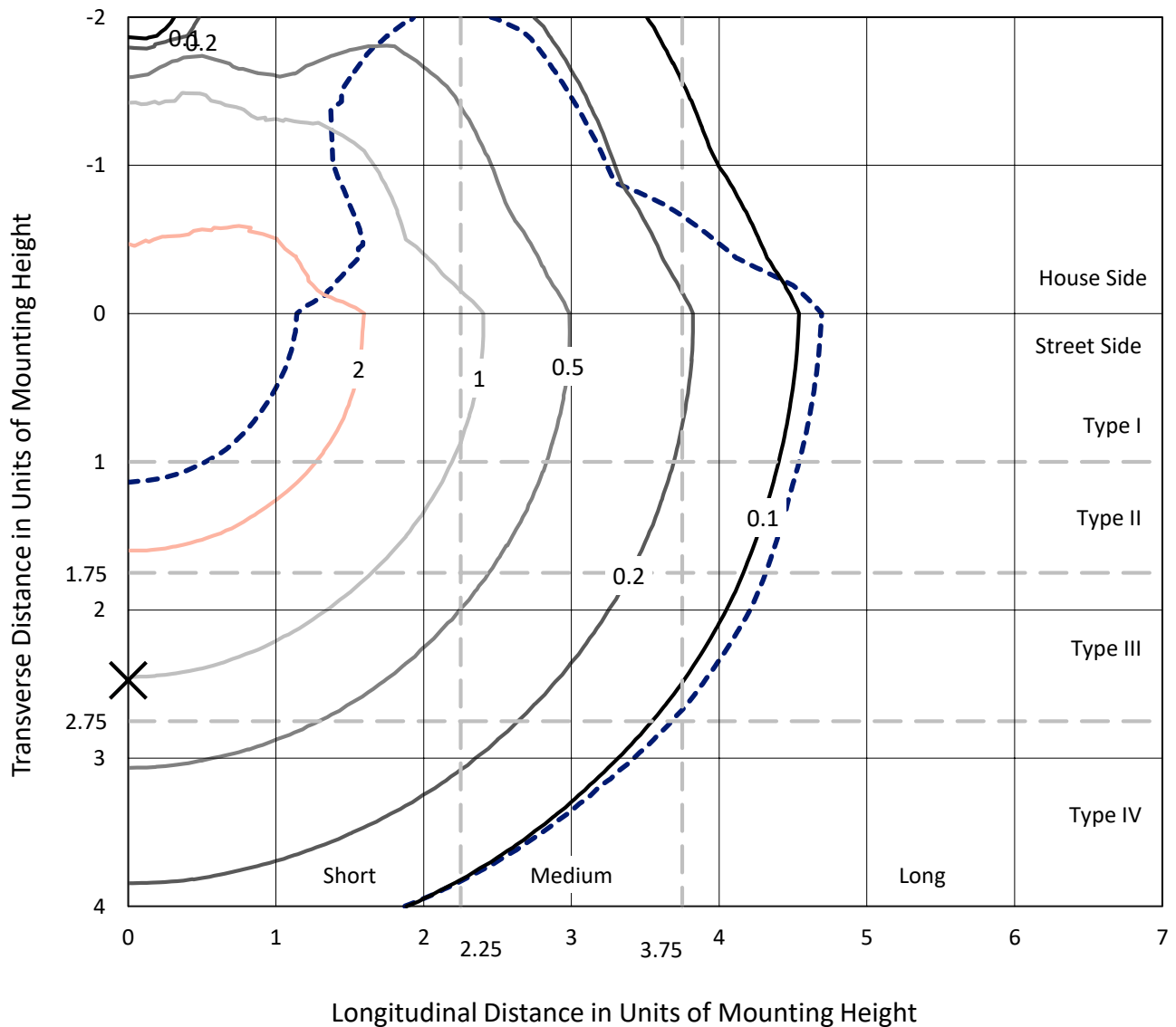
Input Watts (W): 234
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 28.75 FT



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Iso-Footcandle Lines of Horizontal Illumination

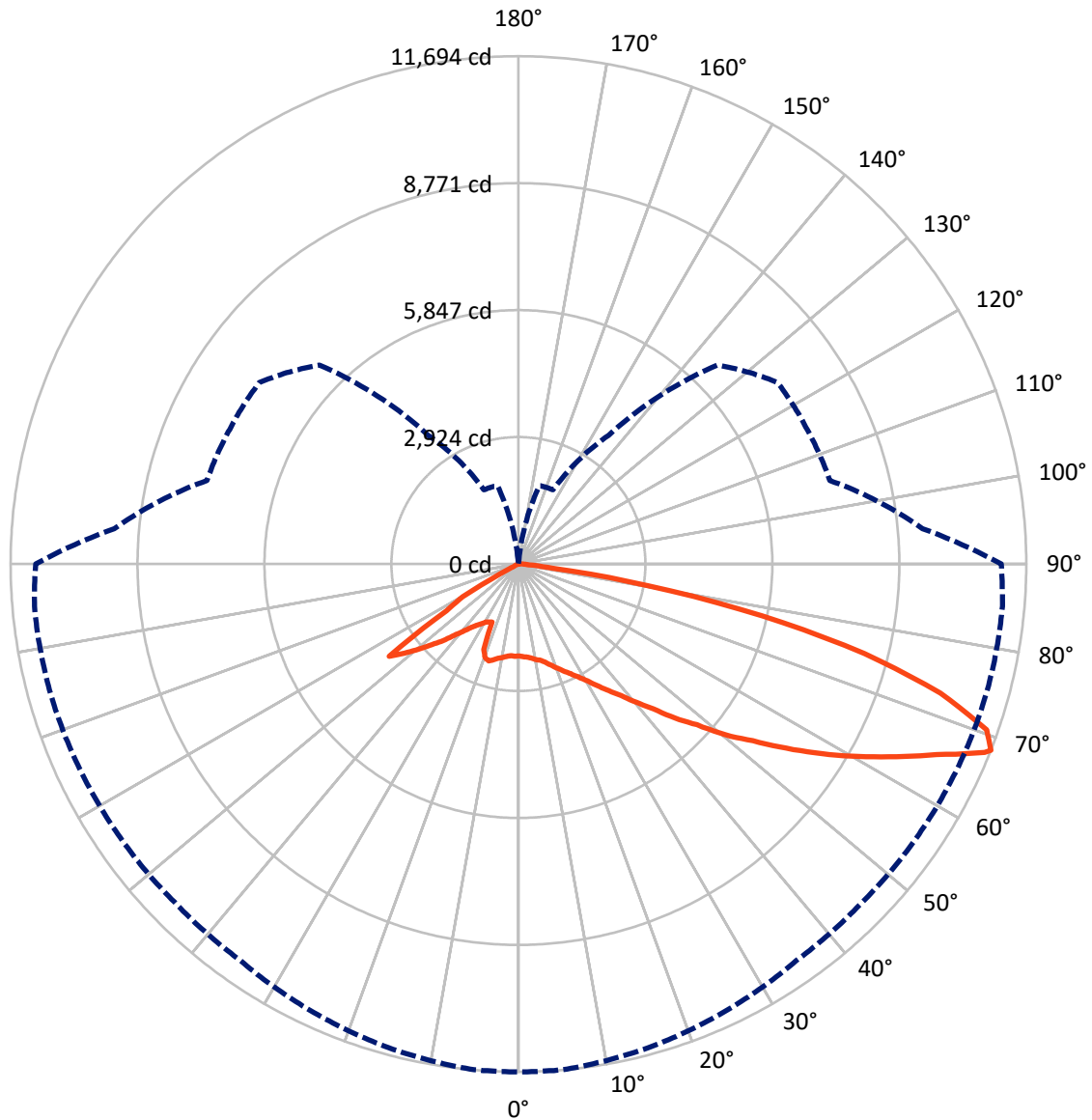
× Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 3.4 fc
 Type IV - Short - Semi-Cutoff

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Luminous Intensity Polar Plot



— Vertical Plane Through 0-Deg Lateral - - - Horizontal Cone Through 68-Deg Vertical

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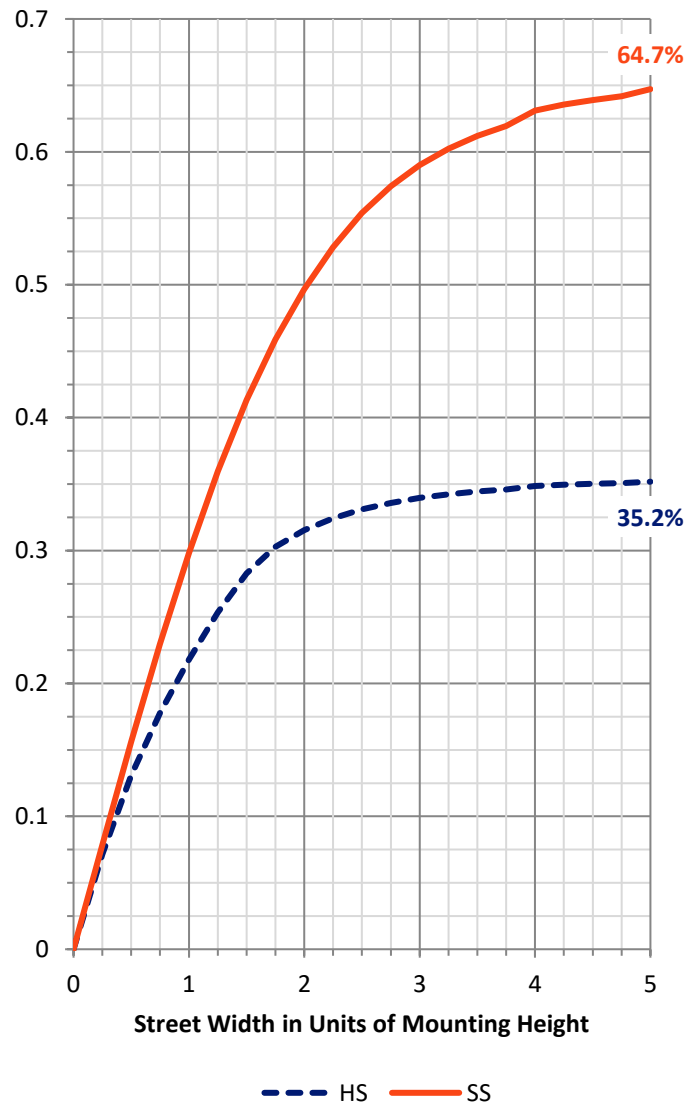
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	9352.9	1.6	9354.5
	% Fixture	35.2	0.0	35.2
Street Side	Lumens	17214.4	7.0	17221.4
	% Fixture	64.8	0.0	64.8
Total	Lumens	26567.4	8.6	26576.0
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	204.6	0.8
10°-20°	655.5	2.5
20°-30°	1170.3	4.4
30°-40°	1903.8	7.2
40°-50°	3251.1	12.2
50°-60°	5424.7	20.4
60°-70°	7546.8	28.4
70°-80°	5849.9	22.0
80°-90°	560.6	2.1
90°-100°	6.8	0.0
100°-110°	0.6	0.0
110°-120°	0.3	0.0
120°-130°	0.2	0.0
130°-140°	0.2	0.0
140°-150°	0.2	0.0
150°-160°	0.2	0.0
160°-170°	0.1	0.0
170°-180°	0.0	0.0
0°-90°	26567.4	100.0
0°-180°	26576.0	100.0



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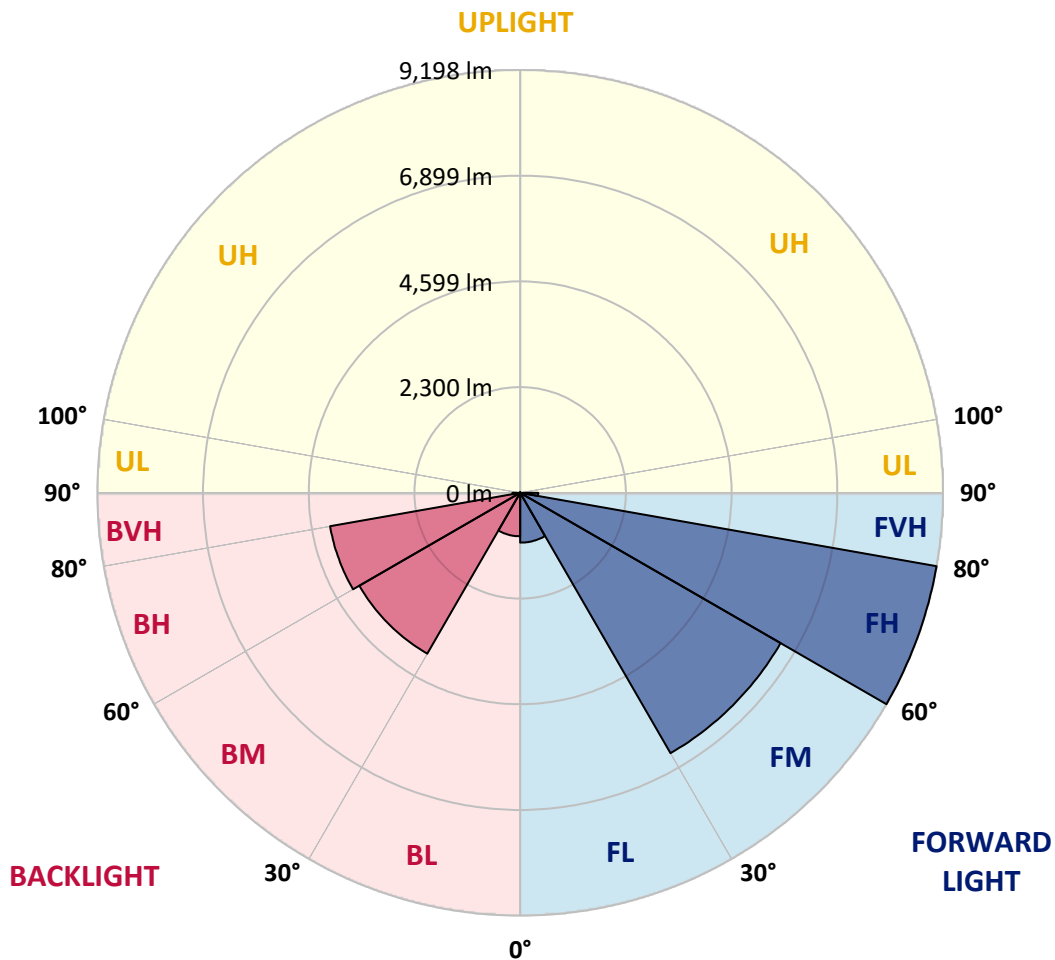
CATALOG NUMBER: CST-6-3-D-U-T5R-HSS-HM-EX90

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	1084.7	4.1			
FM	(30°-60°)	6539.6	24.6			
FH	(60°-80°)	9198.0	34.6			G4/12000
FVH	(80°-90°)	392.2	1.5			G3/500
BL	(0°-30°)	945.8	3.6	B2/1000		
BM	(30°-60°)	4040.0	15.2	B3/5000		
BH	(60°-80°)	4198.7	15.8	B4/5000		G4/5000
BVH	(80°-90°)	168.4	0.6			G2/225
UL	(90°-100°)	6.8	0.0		U1/10	
UH	(100°-180°)	1.6	0.0		U1/10	

BUG Rating: B4-U1-G4

Type IV Short





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	75°	85°	90°
0°	2115	2115	2115	2115	2115	2115	2115	2115	2115	2115	2115
2.5°	2139	2136	2134	2147	2110	2125	2115	2128	2125	2131	2132
5°	2154	2149	2142	2156	2134	2144	2133	2139	2120	2136	2138
7.5°	2188	2174	2173	2177	2162	2169	2150	2157	2147	2141	2147
10°	2239	2227	2214	2222	2197	2206	2186	2192	2187	2174	2186
12.5°	2274	2278	2269	2275	2253	2245	2238	2237	2234	2215	2212
15°	2352	2354	2338	2342	2337	2333	2323	2315	2299	2287	2279
17.5°	2454	2443	2428	2432	2446	2428	2422	2407	2384	2364	2360
20°	2561	2554	2540	2548	2547	2535	2538	2513	2480	2463	2450
22.5°	2680	2670	2660	2675	2663	2655	2652	2635	2594	2575	2572
25°	2799	2794	2801	2796	2779	2773	2777	2771	2723	2700	2686
27.5°	2948	2936	2947	2941	2923	2924	2925	2926	2872	2842	2822
30°	3118	3114	3128	3109	3092	3103	3112	3092	3045	3001	2994
32.5°	3339	3314	3330	3306	3280	3306	3322	3282	3244	3188	3198
35°	3584	3576	3576	3545	3531	3572	3588	3549	3490	3441	3429
37.5°	3844	3852	3877	3864	3851	3876	3912	3860	3784	3732	3718
40°	4189	4209	4226	4209	4194	4210	4251	4183	4130	4102	4072
42.5°	4560	4594	4583	4585	4598	4621	4662	4600	4539	4538	4494
45°	5062	5062	5039	5061	5059	5116	5134	5100	5049	5034	4996
47.5°	5531	5580	5571	5603	5578	5626	5687	5658	5599	5546	5538
50°	6185	6173	6161	6209	6205	6238	6294	6276	6194	6134	6123
52.5°	6760	6823	6808	6880	6840	6887	6954	6951	6851	6792	6775
55°	7486	7528	7525	7599	7544	7606	7662	7668	7559	7475	7501
57.5°	8242	8277	8257	8318	8264	8349	8383	8361	8297	8191	8230
60°	8999	9029	9052	9057	9026	9076	9108	9127	9026	8905	8952
62.5°	9768	9802	9782	9790	9704	9772	9812	9817	9701	9594	9627
65°	10578	10625	10553	10505	10399	10398	10451	10460	10378	10302	10289
67.5°	11581	11602	11448	11287	11108	11069	11106	11127	11174	11172	11113
68°	11694	11690	11534	11342	11150	11105	11123	11150	11181	11187	11116
70°	11437	11388	11299	11057	10867	10749	10686	10736	10652	10653	10520
72.5°	10159	10153	9989	9869	9700	9504	9414	9413	9421	9363	9226
75°	8229	8237	8046	7963	7911	7874	7893	7952	7958	7957	7909
77.5°	5739	5772	5721	5586	5731	5855	6094	6216	6177	6294	6368
80°	3008	3074	3076	3171	3288	3401	3607	3792	3656	3596	3534
82.5°	791	815	851	796	813	830	990	975	900	940	1000
85°	226	233	223	202	185	170	174	147	128	127	123
87.5°	159	171	151	130	117	109	105	89	72	63	50
90°	74	73	63	49	43	41	41	32	18	11	10
92.5°	31	32	26	21	18	14	11	7	4	2	1
95°	11	12	10	8	7	6	5	4	2	1	1
97.5°	3	3	3	3	3	3	3	2	2	1	1
100°	0	0	0	1	2	2	2	2	1	1	1
102.5°	0	0	0	0	1	1	1	1	1	1	1
105°	0	0	0	0	0	1	1	1	1	1	1
107.5°	0	0	0	0	0	0	1	1	1	1	1



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CANDELA DISTRIBUTION (continued):

	0°	5°	15°	25°	35°	45°	55°	65°	75°	85°	90°
110°	0	0	0	0	0	0	0	1	1	1	1
112.5°	0	0	0	0	0	0	0	1	1	1	1
115°	0	0	0	0	0	0	0	0	1	1	1
117.5°	0	0	0	0	0	0	0	0	0	1	1
120°	0	0	0	0	0	0	0	0	0	0	1
122.5°	0	0	0	0	0	0	0	0	0	1	1
125°	0	0	0	0	0	0	0	0	0	1	1
127.5°	0	0	0	0	0	0	0	0	0	1	1
130°	0	0	0	0	0	0	0	0	0	1	1
132.5°	0	0	0	0	0	0	0	0	0	1	1
135°	0	0	0	0	0	0	0	0	0	1	1
137.5°	0	0	0	0	0	0	0	1	1	1	1
140°	0	0	0	0	0	0	0	1	1	1	1
142.5°	0	0	0	0	0	0	0	1	1	1	1
145°	0	0	0	0	0	0	1	1	1	1	1
147.5°	0	0	0	0	0	0	1	1	1	1	1
150°	0	0	0	0	0	0	1	1	1	1	1
152.5°	0	0	0	0	0	0	1	1	1	1	1
155°	0	0	0	0	0	0	0	1	1	1	1
157.5°	0	0	0	0	0	0	1	1	1	1	1
160°	0	0	0	0	0	0	1	1	1	1	1
162.5°	0	0	0	0	0	0	1	1	1	1	1
165°	0	0	0	0	0	1	1	1	1	1	1
167.5°	0	0	0	0	0	1	1	1	1	1	1
170°	0	0	0	0	1	1	1	1	1	1	1
172.5°	0	0	0	0	1	1	1	1	1	1	1
175°	0	0	0	0	1	1	1	1	1	1	1
177.5°	0	0	0	0	1	1	1	1	1	1	1
180°	0	0	0	0	0	0	0	0	0	0	0



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CANDELA DISTRIBUTION (continued):

	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	2115	2115	2115	2115	2115	2115	2115	2115	2115	2115
2.5°	2130	2125	2123	2098	2105	2090	2125	2115	2113	2127
5°	2135	2112	2126	2110	2114	2092	2120	2108	2109	2116
7.5°	2138	2125	2139	2111	2122	2114	2134	2122	2134	2140
10°	2168	2162	2152	2144	2152	2133	2158	2156	2163	2181
12.5°	2209	2202	2192	2178	2184	2177	2196	2198	2211	2220
15°	2270	2261	2256	2242	2244	2239	2250	2252	2278	2275
17.5°	2356	2346	2350	2337	2332	2320	2300	2293	2324	2333
20°	2450	2439	2444	2433	2340	2151	2278	2365	2299	2294
22.5°	2557	2545	2549	2532	2417	2063	1795	1773	2025	2127
25°	2675	2659	2657	2635	2257	1868	1838	1799	1615	1469
27.5°	2821	2797	2785	2453	2241	1941	1896	1757	1490	1499
30°	2979	2944	2719	2500	2358	2027	1967	1540	1542	1538
32.5°	3159	3081	2664	2644	2498	2119	1633	1615	1617	1623
35°	3395	2860	2849	2850	2669	2050	1730	1713	1715	1719
37.5°	3445	3083	3085	3062	2851	1873	1848	1847	1843	1839
40°	3485	3364	3335	3298	2643	2017	2009	2003	2006	2014
42.5°	3798	3707	3679	3635	2711	2235	2209	2202	2210	2206
45°	4214	4138	4083	3361	2995	2472	2451	2442	2445	2470
47.5°	4654	4609	4441	3631	3326	2752	2731	2717	2722	2716
50°	5133	5092	4111	4038	3692	3054	3023	3018	3020	3019
52.5°	5653	4796	4556	4480	4078	3370	3359	3332	3338	3332
55°	6263	5052	5046	4957	4512	3737	3724	3686	3447	3656
57.5°	6842	5541	5541	5455	4956	4102	4081	4053	2450	1976
60°	7476	6031	6017	5946	5384	4450	3617	3609	1480	1485
62.5°	8024	6468	6493	6427	5796	3332	1676	1642	146	225
65°	8638	6951	6981	6913	6242	3534	1819	1802	33	30
67.5°	9334	7433	7365	7290	6503	3639	1890	1875	9	6
68°	9340	7423	7335	7284	6478	3619	1884	1870	9	6
70°	8860	7049	6961	6974	6168	3461	1806	1780	9	6
72.5°	7773	6273	6174	6104	5470	3077	1619	1570	9	6
75°	6651	5316	5152	4998	4401	2518	1328	1273	9	6
77.5°	5242	4052	3819	3718	3307	1860	987	927	9	5
80°	2897	2325	2127	2065	1891	1093	566	530	8	5
82.5°	749	562	490	473	444	259	138	131	7	4
85°	107	79	87	103	99	67	48	41	6	3
87.5°	56	47	55	62	63	39	20	11	3	0
90°	9	9	10	11	11	5	4	0	0	0
92.5°	1	1	1	0	0	0	0	0	0	0
95°	1	1	1	1	0	0	0	0	0	0
97.5°	1	1	1	1	0	0	0	0	0	0
100°	1	1	1	1	0	0	0	0	0	0
102.5°	1	1	1	1	0	0	0	0	0	0
105°	1	1	1	1	0	0	0	0	0	0
107.5°	1	2	1	1	0	0	0	0	0	0



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CANDELA DISTRIBUTION (continued):

	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
110°	1	1	1	1	0	0	0	0	0	0
112.5°	1	1	1	1	0	0	0	0	0	0
115°	1	1	1	0	0	0	0	0	0	0
117.5°	1	1	1	0	0	0	0	0	0	0
120°	1	1	1	0	0	0	0	0	0	0
122.5°	1	1	1	0	0	0	0	0	0	0
125°	1	1	1	0	0	0	0	0	0	0
127.5°	1	1	1	0	0	0	0	0	0	0
130°	1	1	1	0	0	0	0	0	0	0
132.5°	1	1	1	0	0	0	0	0	0	0
135°	1	1	1	0	0	0	0	0	0	0
137.5°	1	1	1	0	0	0	0	0	0	0
140°	1	1	1	0	0	0	0	0	0	0
142.5°	1	1	1	0	0	0	0	0	0	0
145°	1	1	1	0	0	0	0	0	0	0
147.5°	1	1	1	0	0	0	0	0	0	0
150°	1	1	1	0	0	0	0	0	0	0
152.5°	1	1	1	0	0	0	0	0	0	0
155°	1	1	1	0	0	0	0	0	0	0
157.5°	1	1	1	0	0	0	0	0	0	0
160°	1	1	1	0	0	0	0	0	0	0
162.5°	1	1	1	0	0	0	0	0	0	0
165°	1	1	1	0	0	0	0	0	0	0
167.5°	1	1	1	0	0	0	0	0	0	0
170°	1	1	1	0	0	0	0	0	0	0
172.5°	1	1	1	0	0	0	0	0	0	0
175°	1	1	1	0	0	0	0	0	0	0
177.5°	1	1	1	0	0	0	0	0	0	0
180°	0	0	0	0	0	0	0	0	0	0

(END OF REPORT)