

Scaled data based on original data using  
LM-31-95 IESNA Approved Method for Photometric Testing of Roadway Luminaires  
Using Incandescent Filament and High Intensity Discharge Lamps

Test Report Prepared for

Cooper Lighting Solutions

(formerly Eaton)

Brand: STREETWORKS

Report Number: 767412

Luminaire Tested: **OVZ15SXX2EG**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-31-95  
Report Number: 767412  
Test Lab:  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: STREETWORKS  
Catalog Number: OVZ15SXX2EG  
Description: 150W HPS TYPE II ROADWAY  
Light Source: 150W HPS CL ED-23.5  
Ballast/Driver: -

**Summary**

Lumens per Lamp: 16000 (1 lamp)  
Luminaire Lumens: 11654.7 lumens  
Efficiency: 72.8%  
Efficacy: 77.7 lumens/watt  
Luminous Opening: Point Source (0' x 0' x 0')  
IES Classification: Type II - Medium - Semi-Cutoff  
BUG Rating: B2 - U3 - G3

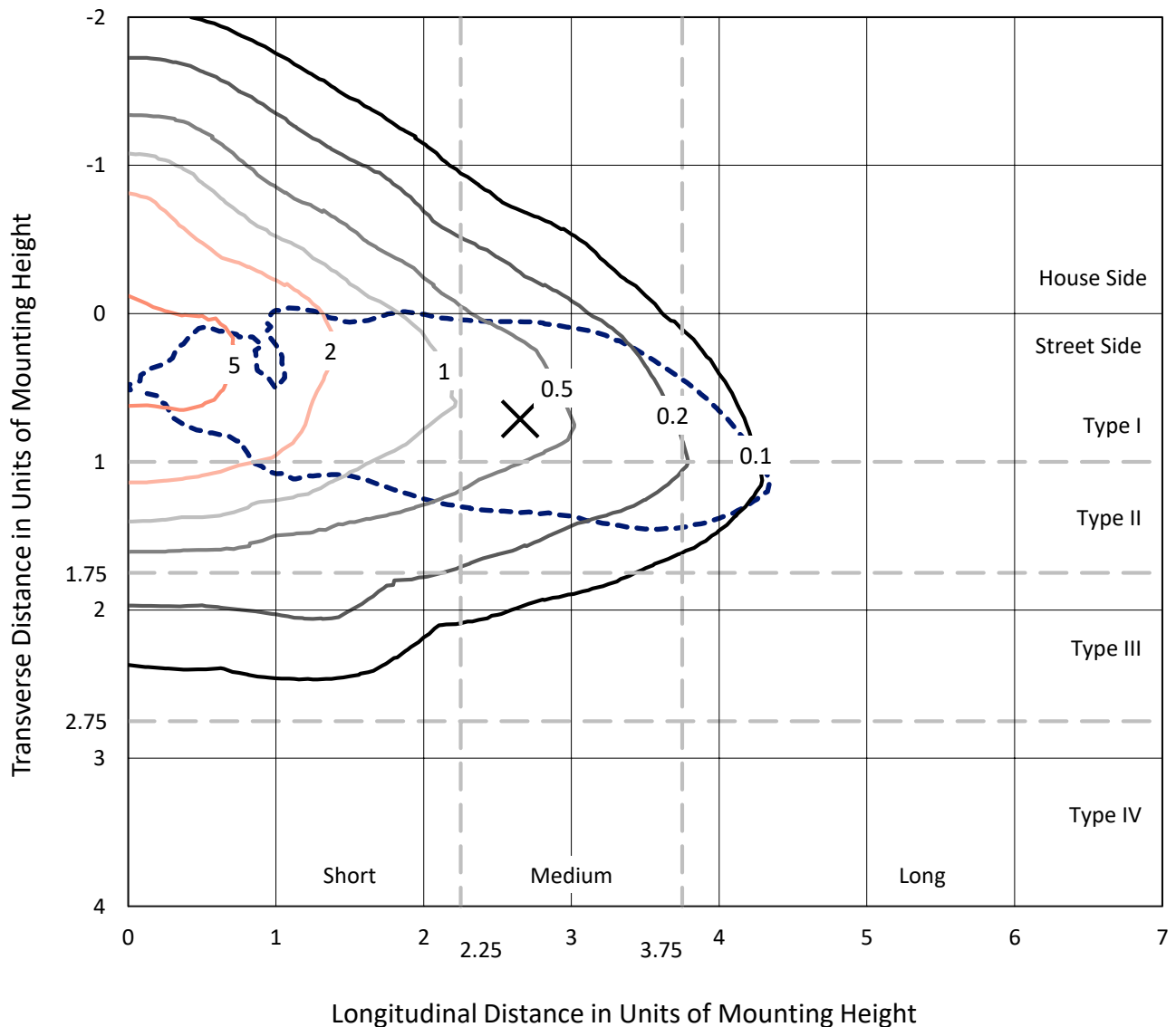
Input Watts (W): 150  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 28.75 FT



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### Iso-Footcandle Lines of Horizontal Illumination

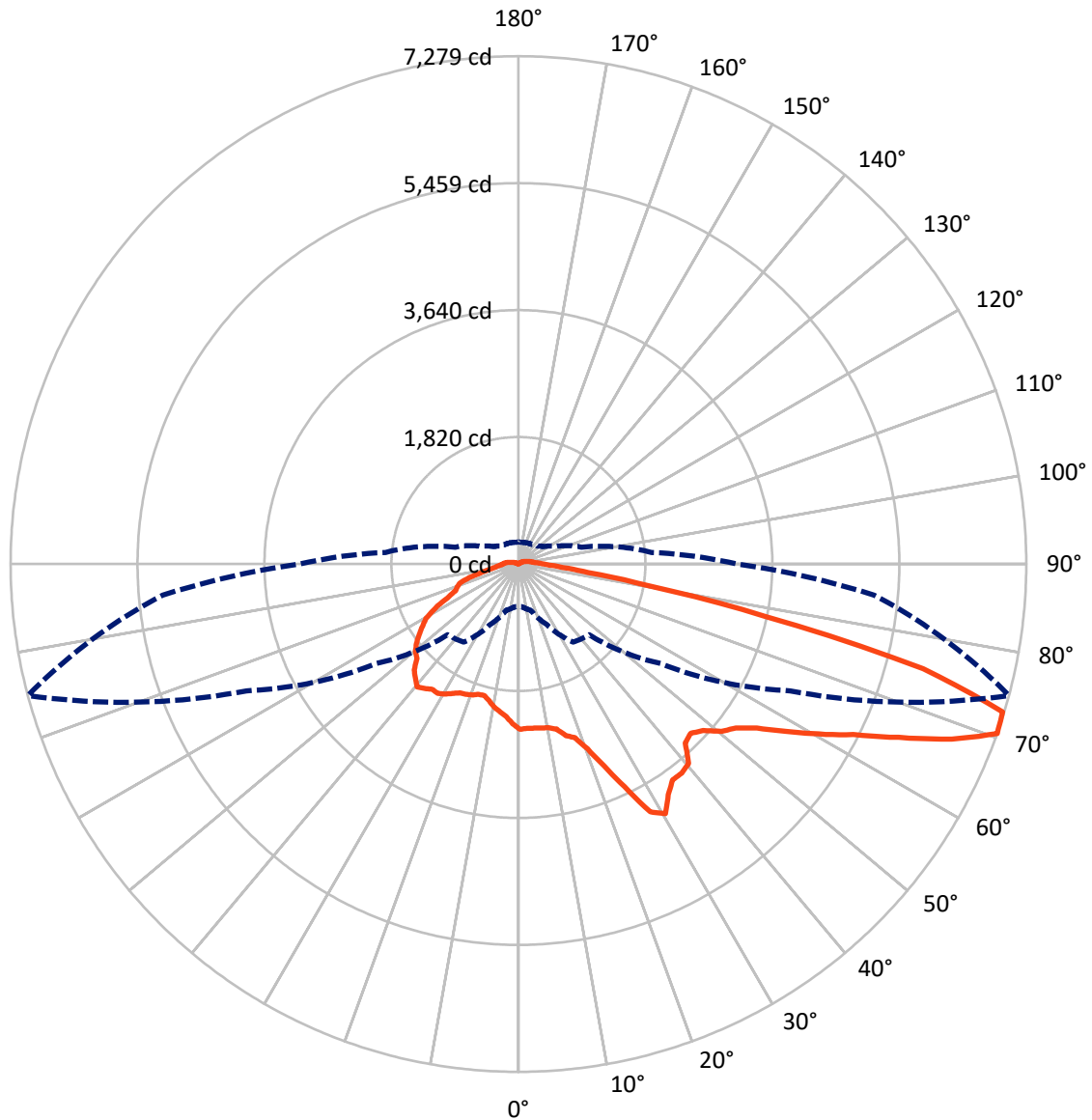
× Max cd  
 - - - 1/2 Max cd



Based on 20 foot mounting height. Maximum calculated value = 7.9 fc  
 Type II - Medium - Semi-Cutoff

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### Luminous Intensity Polar Plot



— Vertical Plane Through 75-Deg Lateral      - - - Horizontal Cone Through 70-Deg Vertical

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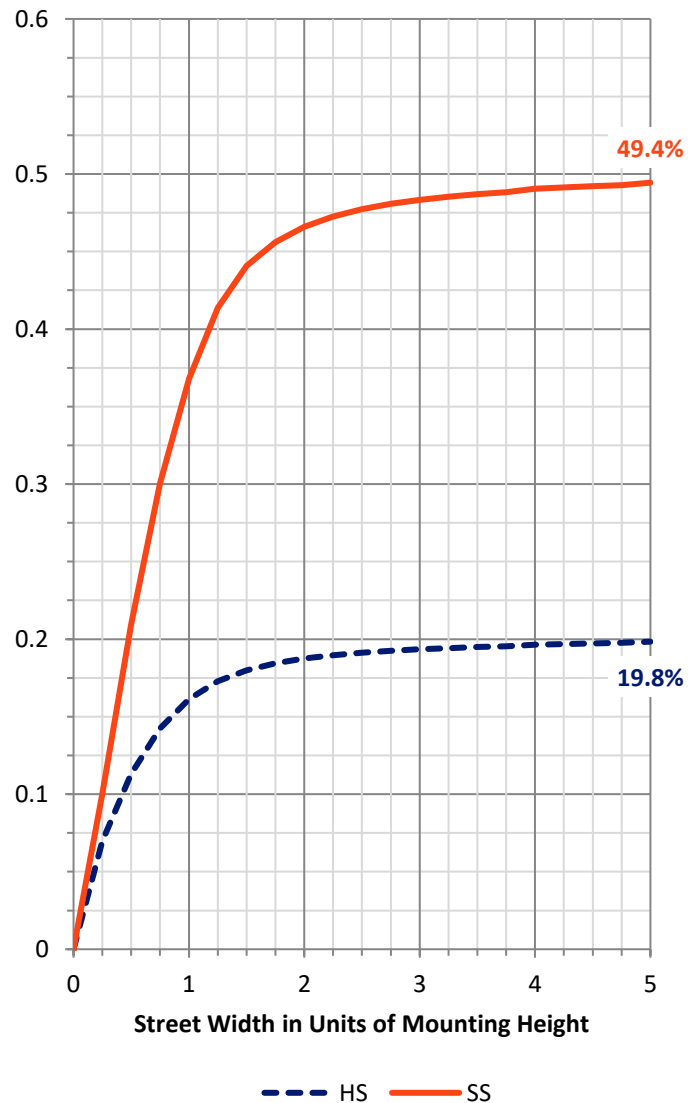
**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	3246.9	134.4	3381.3
	% Lamp	20.3	0.8	21.1
<b>Street Side</b>	Lumens	8008.6	264.8	8273.4
	% Lamp	50.1	1.7	51.7
<b>Total</b>	Lumens	11255.5	399.2	11654.7
	% Lamp	70.3	2.5	72.8

**Coefficient of Utilization**

**ZONAL LUMENS:**

Zone	Lumens	% Fixture	% Lamp
0°-10°	218.2	1.9	1.4
10°-20°	663.7	5.7	4.1
20°-30°	1251.4	10.7	7.8
30°-40°	1769.9	15.2	11.1
40°-50°	1985.1	17.0	12.4
50°-60°	2000.3	17.2	12.5
60°-70°	1796.3	15.4	11.2
70°-80°	1192.6	10.2	7.5
80°-90°	377.9	3.2	2.4
90°-100°	199.2	1.7	1.2
100°-110°	118.1	1.0	0.7
110°-120°	61.0	0.5	0.4
120°-130°	24.4	0.2	0.2
130°-140°	5.0	0.0	0.0
140°-150°	0.0	0.0	0.0
150°-160°	0.0	0.0	0.0
160°-170°	0.0	0.0	0.0
170°-180°	0.0	0.0	0.0
0°-90°	11255.5	96.6	70.3
0°-180°	11654.7	100.0	72.8

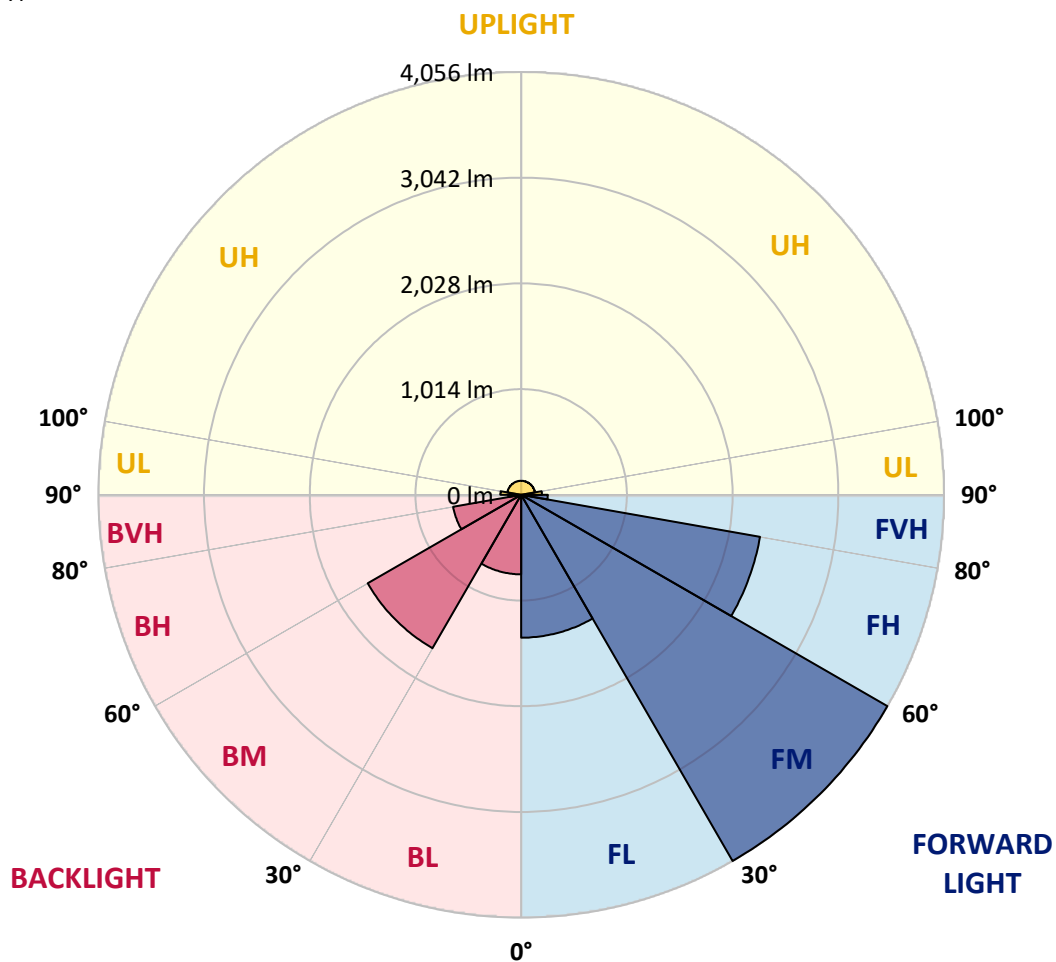


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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone	Lumens	% Lamp	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	1370.4	8.6			
FM (30°-60°)	4056.1	25.4			
FH (60°-80°)	2326.5	14.5			G2/5000
FVH (80°-90°)	255.5	1.6			G3/500
BL (0°-30°)	762.9	4.8	B2/1000		
BM (30°-60°)	1699.3	10.6	B2/2500		
BH (60°-80°)	662.3	4.1	B2/1000		G2/1000
BVH (80°-90°)	122.4	0.8			G2/225
UL (90°-100°)	199.2	1.2		U3/500	
UH (100°-180°)	134.4	0.8		U3/500	
Trapped Light	4345.3	27.2			

**BUG Rating: B2-U3-G3**  
 Type II Medium





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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	15°	25°	35°	45°	55°	65°	75°	85°	90°
0°	2369	2369	2369	2369	2369	2369	2369	2369	2369	2369	2369
2.5°	2487	2487	2477	2450	2460	2439	2417	2401	2358	2336	2314
5°	2563	2596	2569	2542	2515	2482	2444	2406	2363	2293	2277
7.5°	2682	2671	2650	2606	2542	2493	2460	2412	2374	2293	2250
10°	2758	2725	2698	2682	2606	2547	2525	2477	2385	2293	2233
12.5°	2812	2828	2812	2774	2720	2688	2634	2542	2428	2293	2228
15°	2920	2942	3012	2974	2893	2823	2758	2677	2552	2358	2260
17.5°	3104	3088	3250	3272	3147	3023	2953	2817	2617	2412	2271
20°	3309	3272	3434	3526	3401	3288	3190	3077	2828	2498	2352
22.5°	3515	3526	3612	3699	3634	3612	3596	3488	3147	2628	2450
25°	3645	3677	3758	3747	3802	3910	3985	3942	3537	2844	2569
27.5°	3634	3645	3737	3785	3937	4115	4288	4537	4023	3050	2720
30°	3439	3385	3542	3807	4121	4294	4640	4948	4153	3147	2866
32.5°	3223	3185	3353	3753	4267	4537	4991	4845	3942	3120	2871
35°	3169	3158	3250	3639	4277	4710	4867	4537	3802	3044	2807
37.5°	3266	3218	3223	3564	4175	4488	4526	4299	3802	3234	2958
40°	3439	3331	3282	3526	3953	4164	4234	4039	3758	3428	3223
42.5°	3385	3288	3272	3428	3693	4039	4067	3699	3504	3407	3245
45°	3115	3109	3169	3272	3526	3964	3980	3488	3461	3780	3715
47.5°	2877	2909	2990	3115	3423	3715	4045	3461	3564	4115	3856
50°	2704	2704	2817	3093	3407	3683	3964	3639	3769	4213	3829
52.5°	2433	2417	2520	2936	3266	3953	4023	3780	3904	4061	3607
55°	1925	1952	2077	2617	2920	3958	4272	4018	4148	3931	3385
57.5°	1417	1444	1579	2114	2423	3645	4261	4218	4526	3958	3266
60°	1082	1087	1233	1611	1882	3088	3937	4488	4948	4256	3553
62.5°	887	898	1000	1309	1622	2417	3628	4845	5386	4748	3704
65°	746	768	865	1184	1676	1968	3374	4943	5992	4786	3326
67.5°	671	698	779	1098	1622	1757	2996	4829	6700	4888	3158
70°	606	616	687	957	1368	1433	2487	4299	7279	5116	3131
72.5°	541	557	589	725	979	1076	1914	3580	7257	4656	2747
75°	476	497	530	573	714	854	1433	2942	5992	3207	1958
77.5°	411	427	481	470	552	703	1087	2228	3618	1876	1228
80°	368	379	443	411	470	595	795	1428	1882	1060	741
82.5°	324	335	400	373	406	497	579	838	1006	649	487
85°	303	319	351	335	379	411	443	546	644	460	373
87.5°	260	276	297	287	319	324	341	395	443	335	287
90°	249	254	265	270	287	281	292	314	341	292	254
95°	195	205	205	211	222	216	216	216	227	211	200
105°	141	141	141	151	151	146	146	141	135	124	130
115°	97	97	97	97	97	87	81	76	81	81	81
125°	54	59	65	54	54	49	38	38	16	32	38
135°	0	0	0	0	0	0	0	0	0	0	0
145°	0	0	0	0	0	0	0	0	0	0	0
155°	0	0	0	0	0	0	0	0	0	0	0
165°	0	0	0	0	0	0	0	0	0	0	0



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**CANDELA DISTRIBUTION (continued):**

	0°	5°	15°	25°	35°	45°	55°	65°	75°	85°	90°
175°	0	0	0	0	0	0	0	0	0	0	0
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°	2369	2369	2369	2369	2369	2369	2369	2369	2369	2369
2.5°	2201	2293	2282	2266	2266	2255	2233	2239	2228	2206
5°	2141	2195	2168	2136	2120	2114	2114	2125	2136	2141
7.5°	2120	2136	2071	2022	1990	1990	1995	1985	2006	2012
10°	2093	2082	1990	1931	1909	1893	1887	1887	1898	1903
12.5°	2039	2006	1893	1849	1839	1844	1833	1844	1849	1860
15°	2028	1947	1839	1795	1779	1768	1768	1817	1839	1839
17.5°	2055	1952	1822	1752	1720	1709	1725	1752	1785	1795
20°	2158	1990	1822	1714	1666	1644	1633	1655	1703	1709
22.5°	2217	2012	1839	1703	1628	1574	1557	1579	1639	1644
25°	2282	2028	1822	1655	1547	1492	1492	1525	1601	1601
27.5°	2390	2082	1806	1611	1492	1438	1444	1503	1563	1579
30°	2601	2141	1768	1579	1476	1428	1428	1498	1563	1579
32.5°	2677	2185	1709	1547	1460	1433	1460	1547	1639	1655
35°	2606	2179	1644	1487	1422	1417	1492	1622	1741	1763
37.5°	2725	2233	1671	1395	1368	1363	1455	1611	1747	1763
40°	2953	2282	1682	1357	1319	1309	1401	1547	1682	1709
42.5°	2958	2206	1563	1314	1228	1211	1298	1428	1530	1557
45°	3272	2131	1487	1255	1130	1119	1211	1314	1390	1395
47.5°	3180	1985	1455	1157	1033	1033	1125	1195	1238	1244
50°	3093	1941	1433	1087	930	936	1033	1076	1092	1092
52.5°	2915	1855	1406	984	838	838	919	990	963	963
55°	2698	1747	1287	887	757	725	800	876	849	844
57.5°	2585	1639	1206	811	676	638	665	746	741	725
60°	2774	1536	1098	735	600	568	562	611	633	627
62.5°	2682	1352	973	665	535	487	487	508	530	530
65°	2277	1125	811	589	470	427	422	438	449	443
67.5°	2017	979	671	503	416	379	368	368	379	379
70°	1914	936	600	433	368	341	330	319	314	314
72.5°	1703	881	562	384	324	303	292	276	270	270
75°	1292	730	508	357	297	287	276	260	249	249
77.5°	860	535	411	314	260	254	233	227	216	216
80°	579	416	330	265	227	222	222	195	195	195
82.5°	406	335	276	238	205	200	200	178	173	173
85°	314	297	249	227	205	195	184	173	162	162
87.5°	243	249	216	195	173	173	157	141	130	130
90°	216	227	211	189	168	157	146	135	130	130
95°	168	195	184	162	135	124	114	97	97	97
105°	92	92	114	97	76	59	43	27	11	11
115°	38	32	59	49	32	11	0	5	0	0
125°	16	11	16	5	5	0	0	0	0	0
135°	0	0	0	0	0	0	0	0	0	0
145°	0	0	0	0	0	0	0	0	0	0
155°	0	0	0	0	0	0	0	0	0	0
165°	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°
175°	0	0	0	0	0	0	0	0	0	0
180°	0	0	0	0	0	0	0	0	0	0

(END OF REPORT)