

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: 767440

Luminaire Tested: **OVZ15SXX3EG**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-31-95  
Report Number: 767440  
Test Lab:  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: STREETWORKS  
Catalog Number: OVZ15SXX3EG  
Description: 150 WATT HPS TYPE III ROADWAY  
Light Source: 150W HPS CL ED-23.5  
Ballast/Driver: -

**Summary**

Lumens per Lamp: 16000 (1 lamp)  
Luminaire Lumens: 11570.7 lumens  
Efficiency: 72.3%  
Efficacy: 77.1 lumens/watt  
Luminous Opening: Point Source (0' x 0' x 0')  
IES Classification: Type III - Medium - Semi-Cutoff  
BUG Rating: B2 - U3 - G3

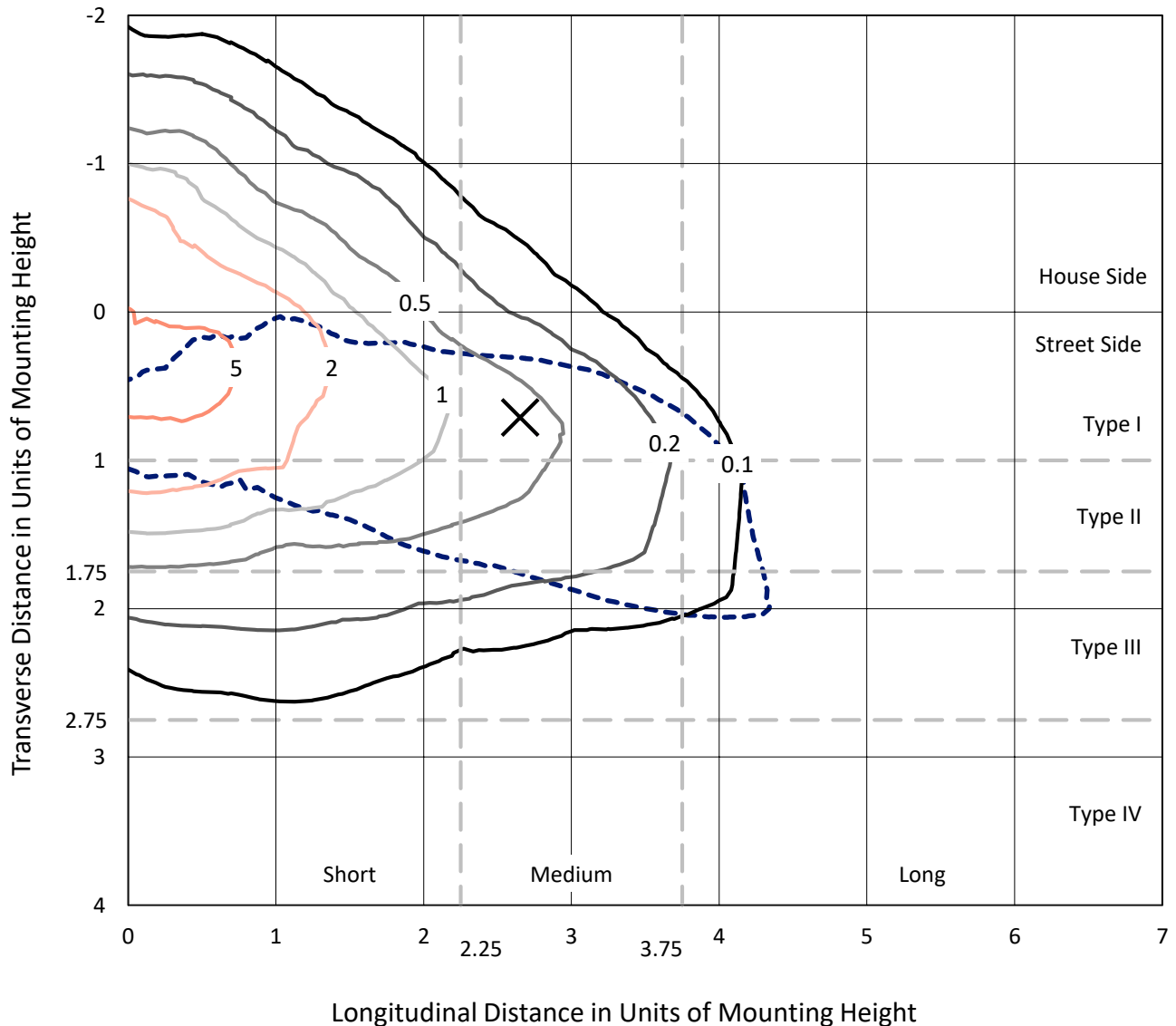
Input Watts (W): 150  
Input Voltage (V): NR  
Input Current (A<sub>in</sub>): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 28.75 FT



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### Iso-Footcandle Lines of Horizontal Illumination

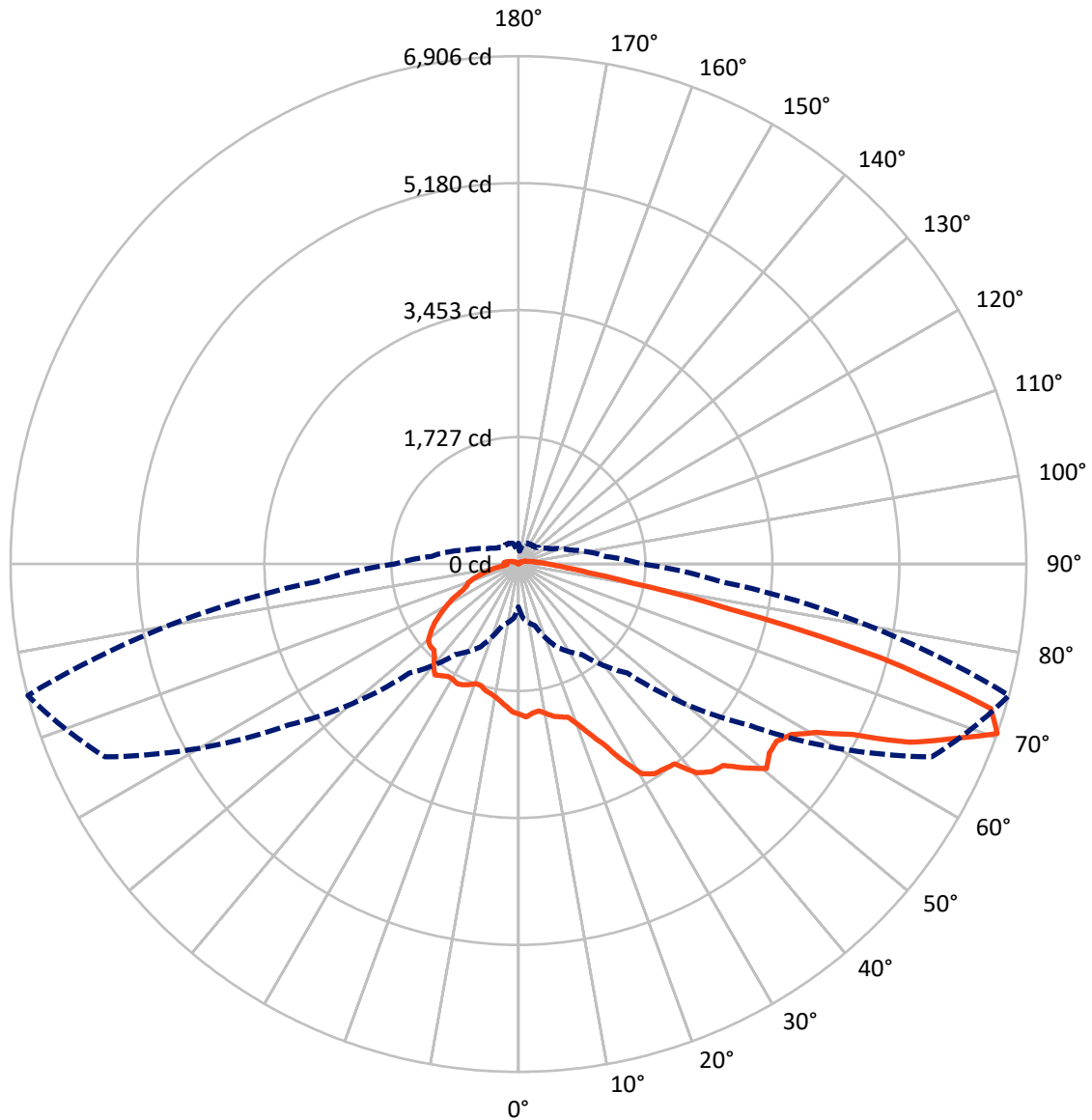
× Max cd  
 - - - 1/2 Max cd



Based on 20 foot mounting height. Maximum calculated value = 7.7 fc  
 Type III - 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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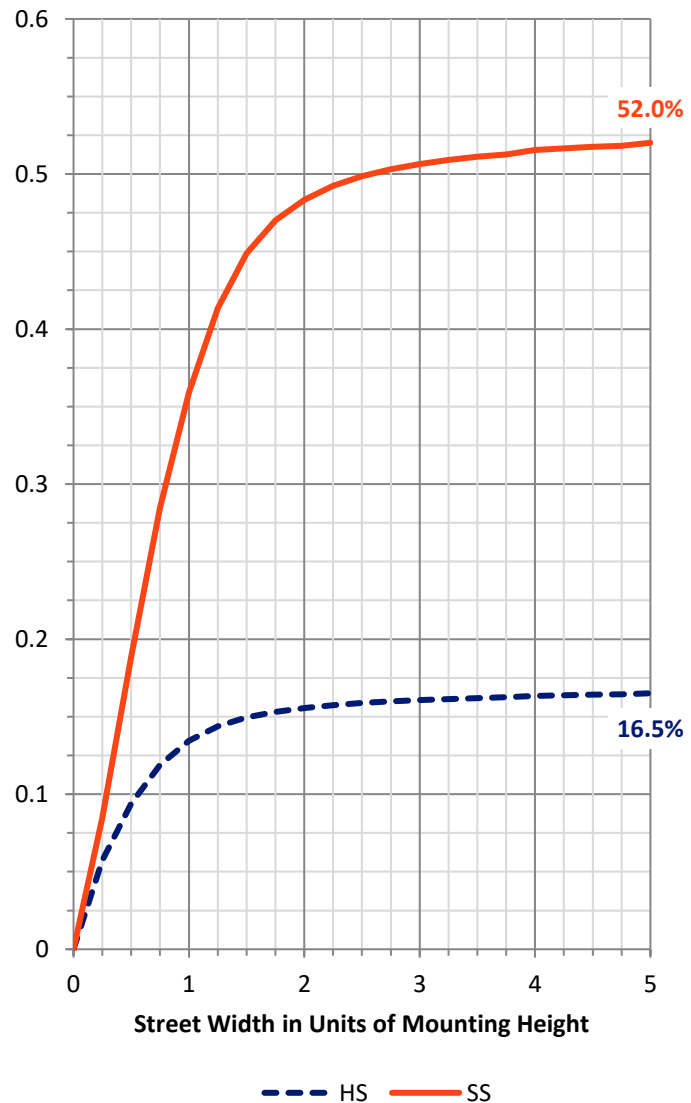
**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	2707.6	149.3	2857.0
	% Lamp	16.9	0.9	17.9
<b>Street Side</b>	Lumens	8440.0	273.8	8713.7
	% Lamp	52.7	1.7	54.5
<b>Total</b>	Lumens	11147.6	423.1	11570.7
	% Lamp	69.7	2.6	72.3

**Coefficient of Utilization**

**ZONAL LUMENS:**

Zone	Lumens	% Fixture	% Lamp
0°-10°	191.9	1.7	1.2
10°-20°	588.5	5.1	3.7
20°-30°	1141.3	9.9	7.1
30°-40°	1756.8	15.2	11.0
40°-50°	2015.8	17.4	12.6
50°-60°	2003.7	17.3	12.5
60°-70°	1807.7	15.6	11.3
70°-80°	1242.6	10.7	7.8
80°-90°	399.3	3.5	2.5
90°-100°	206.0	1.8	1.3
100°-110°	120.6	1.0	0.8
110°-120°	66.4	0.6	0.4
120°-130°	30.5	0.3	0.2
130°-140°	8.5	0.1	0.1
140°-150°	1.0	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°	11147.6	96.3	69.7
0°-180°	11570.7	100.0	72.3



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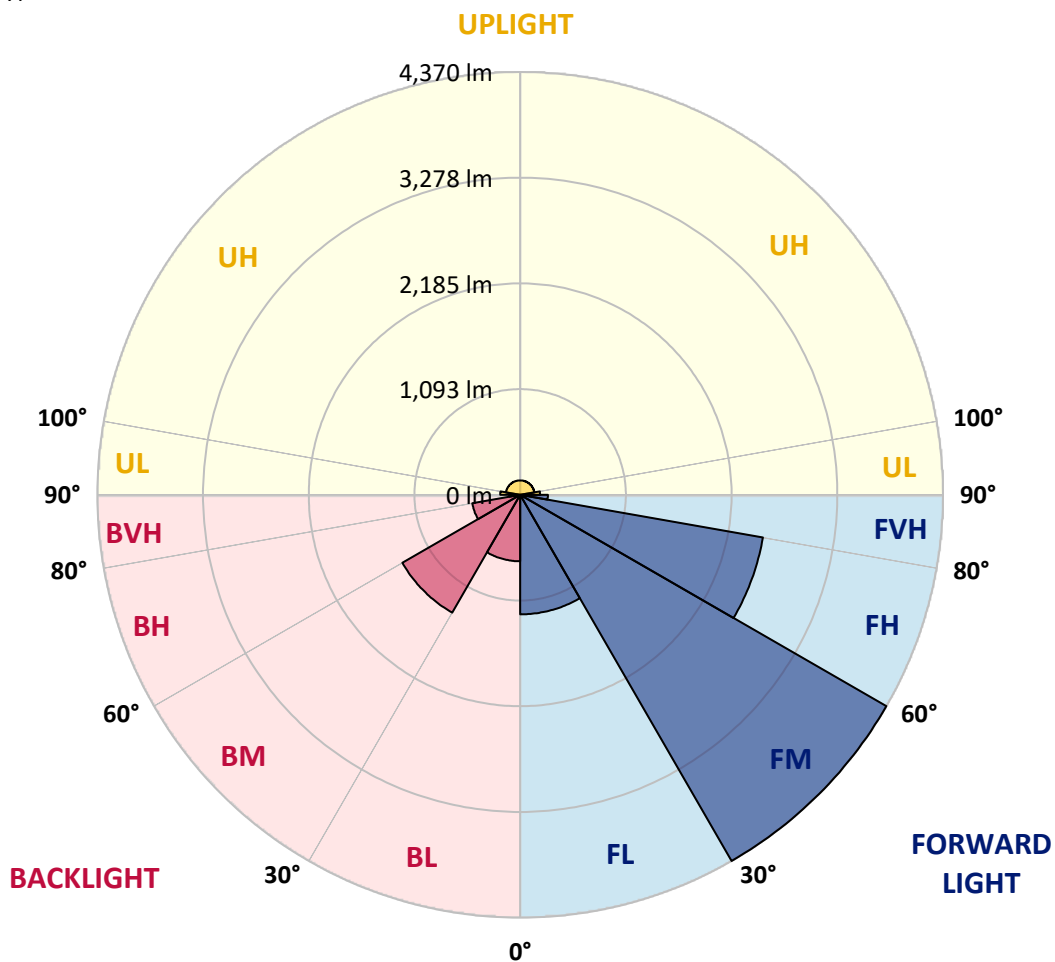
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone		Lumens	% Lamp	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	1235.1	7.7			
FM	(30°-60°)	4370.3	27.3			
FH	(60°-80°)	2547.9	15.9			G2/5000
FVH	(80°-90°)	286.5	1.8			G3/500
BL	(0°-30°)	686.6	4.3	B2/1000		
BM	(30°-60°)	1405.9	8.8	B2/2500		
BH	(60°-80°)	502.4	3.1	B2/1000		G2/1000
BVH	(80°-90°)	112.7	0.7			G2/225
UL	(90°-100°)	206.0	1.3		U3/500	
UH	(100°-180°)	149.3	0.9		U3/500	
Trapped Light		4429.3	27.7			

**BUG Rating: B2-U3-G3**

Type III Medium





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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	15°	25°	35°	45°	55°	65°	75°	85°	90°
0°	2044	2044	2044	2044	2044	2044	2044	2044	2044	2044	2044
2.5°	1903	2201	2185	2158	1839	2120	2120	2093	2082	2049	2055
5°	1990	2271	2277	2233	1903	2185	2114	2093	2033	2001	1985
7.5°	2131	2374	2352	2320	2114	2223	2152	2104	2017	1974	1936
10°	2228	2520	2460	2406	2195	2287	2260	2158	2066	1974	1925
12.5°	2347	2650	2579	2498	2304	2401	2369	2233	2125	1974	1936
15°	2509	2769	2731	2623	2428	2547	2417	2325	2158	1990	1925
17.5°	2682	2909	2926	2823	2628	2666	2536	2406	2190	2028	1936
20°	2855	3120	3163	3115	2871	2888	2763	2601	2336	2087	1979
22.5°	3072	3336	3461	3428	3169	3180	3163	2893	2525	2168	2039
25°	3418	3601	3764	3693	3450	3623	3553	3272	2725	2266	2120
27.5°	3850	3921	3969	3904	3715	3991	4034	3807	3028	2455	2250
30°	4034	4180	4099	4083	4002	4288	4651	4407	3309	2650	2444
32.5°	3872	4056	4104	4202	4240	4656	5235	4483	3401	2752	2563
35°	3537	3704	3926	4288	4391	4991	5143	4310	3418	2812	2590
37.5°	3515	3472	3688	4310	4532	4932	4802	4240	3450	2904	2682
40°	3515	3488	3607	4294	4607	4656	4602	4207	3731	3282	2931
42.5°	3612	3585	3683	4196	4461	4656	4467	4002	3861	3374	2985
45°	3537	3612	3742	3899	4126	4721	4191	3656	3904	3758	3234
47.5°	3385	3482	3574	3618	3839	4477	3996	3601	4142	4067	3180
50°	3082	3234	3272	3477	3656	4272	3899	3769	4369	3791	2963
52.5°	2844	2996	3082	3472	3510	4386	3829	4023	4272	3504	2780
55°	2487	2634	2823	3255	3358	4575	4023	4164	4256	3223	2563
57.5°	1936	2060	2260	2758	2969	4532	4240	4526	4375	3034	2401
60°	1514	1525	1693	2125	2352	4142	4564	5126	4651	3109	2525
62.5°	1146	1190	1336	1606	1849	3450	4678	5624	5105	3190	2341
65°	844	979	1141	1401	1698	2882	4705	5981	5846	2747	1844
67.5°	703	844	1011	1352	1655	2552	4391	6230	6343	2698	1682
70°	584	741	871	1249	1503	2098	3818	6203	6906	2769	1682
72.5°	487	665	757	979	1173	1541	3034	5943	6716	2493	1547
75°	411	589	660	687	833	1200	2255	5289	5094	1876	1255
77.5°	346	514	600	503	627	968	1644	3910	2920	1271	952
80°	292	449	546	411	514	806	1173	2244	1568	800	676
82.5°	238	406	497	341	438	644	806	1190	952	514	487
85°	346	368	438	287	373	503	568	708	665	379	351
87.5°	314	330	373	233	308	389	416	487	492	303	276
90°	292	308	319	195	254	330	346	373	379	265	243
95°	238	249	243	146	162	249	249	249	249	205	195
105°	0	162	173	87	87	162	151	141	130	119	124
115°	0	130	130	124	59	108	97	87	87	87	87
125°	0	76	81	38	32	49	49	43	43	43	43
135°	11	11	11	5	5	11	11	5	11	5	5
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°	2044	2044	2044	2044	2044	2044	2044	2044	2044	2044
2.5°	2028	2017	2028	2006	2001	1806	1979	1979	1839	1979
5°	1963	1952	1931	1925	1909	1736	1914	1920	1752	1925
7.5°	1925	1893	1844	1855	1849	1682	1849	1860	1698	1860
10°	1898	1839	1806	1795	1795	1611	1795	1785	1639	1785
12.5°	1871	1801	1779	1736	1730	1536	1720	1720	1568	1720
15°	1849	1779	1709	1687	1660	1482	1633	1660	1509	1687
17.5°	1860	1730	1644	1622	1590	1574	1557	1590	1455	1622
20°	1893	1725	1639	1563	1525	1503	1498	1525	1417	1557
22.5°	1936	1768	1666	1536	1476	1298	1449	1498	1401	1536
25°	1985	1806	1644	1514	1428	1260	1406	1465	1368	1514
27.5°	2093	1828	1611	1492	1395	1238	1395	1476	1374	1514
30°	2239	1806	1579	1438	1363	1228	1411	1509	1449	1579
32.5°	2309	1801	1514	1368	1336	1228	1428	1541	1525	1655
35°	2341	1844	1438	1303	1282	1200	1401	1536	1520	1676
37.5°	2450	1887	1374	1228	1206	1130	1325	1449	1428	1590
40°	2563	1812	1341	1163	1119	1038	1228	1325	1309	1438
42.5°	2504	1703	1309	1092	1033	957	1141	1206	1157	1276
45°	2547	1639	1260	1017	941	881	1060	1103	1011	1125
47.5°	2369	1639	1217	936	849	898	995	1011	887	984
50°	2266	1611	1211	849	752	784	898	908	762	854
52.5°	2120	1514	1152	779	687	687	784	822	660	746
55°	1995	1411	1071	714	611	595	654	703	557	649
57.5°	1931	1276	979	649	525	519	541	584	552	552
60°	2033	1146	881	600	487	460	476	492	481	476
62.5°	1817	1017	773	541	438	411	416	422	319	400
65°	1428	849	654	487	400	368	373	373	249	357
67.5°	1238	762	557	427	357	335	335	330	211	314
70°	1190	730	487	373	324	314	308	292	178	281
72.5°	1082	644	460	330	292	287	276	265	151	238
75°	887	525	406	308	276	260	254	238	135	227
77.5°	698	422	341	281	243	238	238	216	114	205
80°	535	346	287	249	222	222	211	195	92	184
82.5°	422	238	254	227	211	205	200	178	81	162
85°	324	195	238	216	195	189	184	162	76	151
87.5°	265	162	216	200	184	178	162	141	65	130
90°	233	157	216	195	173	168	162	135	130	130
95°	195	200	184	162	151	135	119	103	92	97
105°	124	130	119	97	76	54	32	22	0	0
115°	87	76	65	54	32	16	0	5	5	0
125°	32	32	22	11	5	5	5	5	0	11
135°	0	5	5	5	5	0	5	5	11	11
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)