

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: 767441

Luminaire Tested: **OVZ25SXX2E**

Issue Date: 3/3/2020

Test Information

Test Method: LM-31-95
Report Number: 767441
Test Lab:
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: STREETWORKS
Catalog Number: OVZ25SXX2E
Description: 250W High Pressure Sodium Type II Roadway
Light Source: 250W E-18 Clear
Ballast/Driver: -

Summary

Lumens per Lamp: 27500 (1 lamp)
Luminaire Lumens: 19211.2 lumens
Efficiency: 69.9%
Efficacy: 76.8 lumens/watt
Luminous Opening: Rectangular w/ Sides (W: 1.1' x L: 2.26' x H: 0.81')
IES Classification: Type II - Medium - Semi-Cutoff
BUG Rating: B3 - U3 - G3

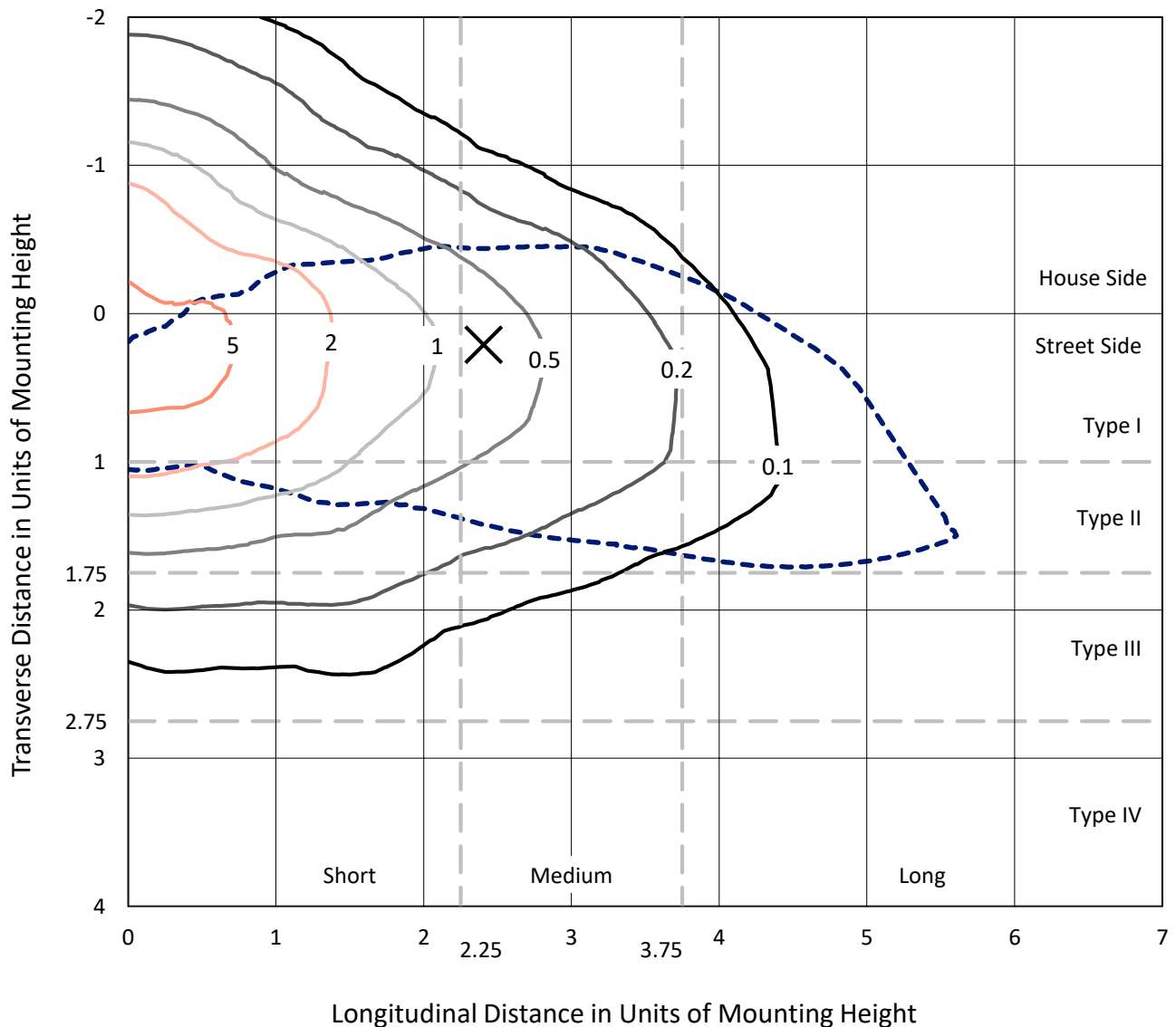
Input Watts (W): 250
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 28.75 FT



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Iso-Footcandle Lines of Horizontal Illumination

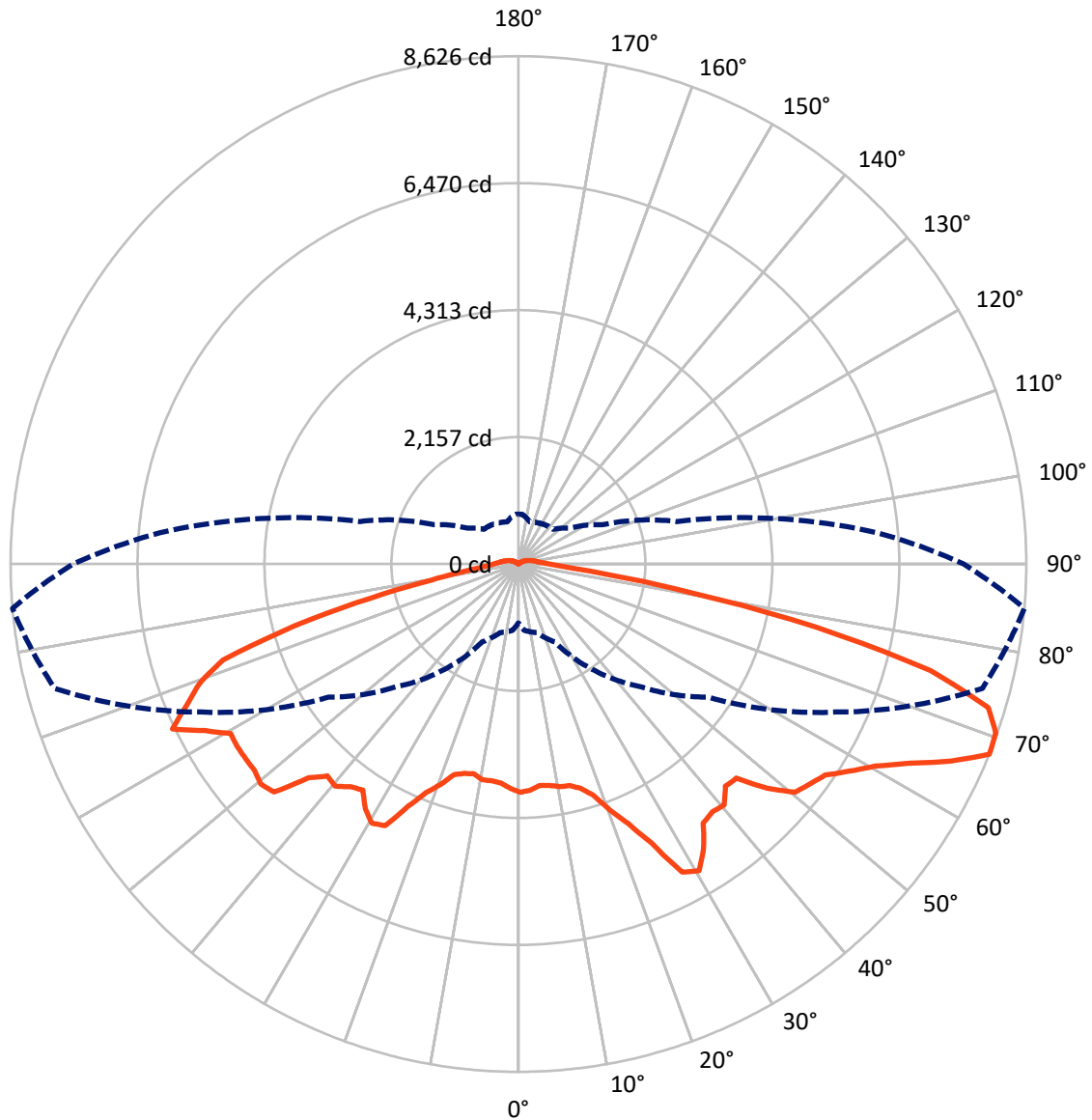
✕ Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 7.2 fc
 Type II - Medium - Semi-Cutoff

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Luminous Intensity Polar Plot



— Vertical Plane Through 85-Deg Lateral - - - Horizontal Cone Through 67.5-Deg Vertical

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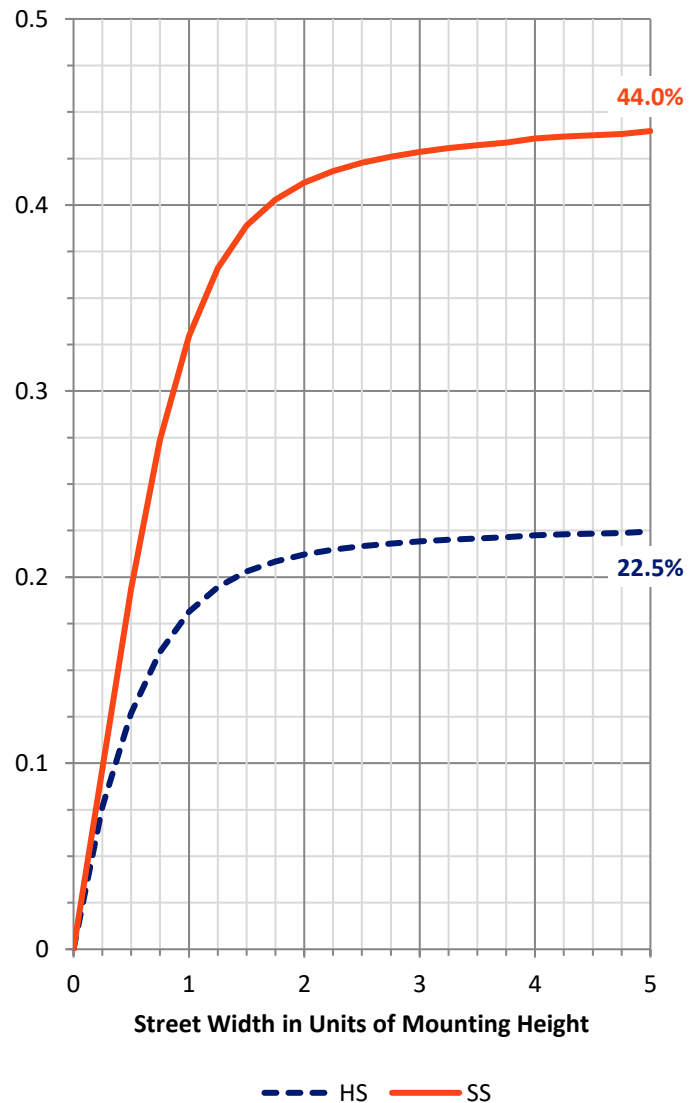
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	6304.6	240.5	6545.1
	% Lamp	22.9	0.9	23.8
Street Side	Lumens	12252.5	413.6	12666.1
	% Lamp	44.6	1.5	46.1
Total	Lumens	18557.1	654.1	19211.2
	% Lamp	67.5	2.4	69.9

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture	% Lamp
0°-10°	364.2	1.9	1.3
10°-20°	1110.3	5.8	4.0
20°-30°	2029.5	10.6	7.4
30°-40°	2815.5	14.7	10.2
40°-50°	3199.3	16.7	11.6
50°-60°	3276.7	17.1	11.9
60°-70°	2961.7	15.4	10.8
70°-80°	2086.9	10.9	7.6
80°-90°	713.2	3.7	2.6
90°-100°	322.0	1.7	1.2
100°-110°	194.2	1.0	0.7
110°-120°	102.8	0.5	0.4
120°-130°	40.1	0.2	0.1
130°-140°	7.6	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°	18557.1	96.6	67.5
0°-180°	19211.2	100.0	69.9

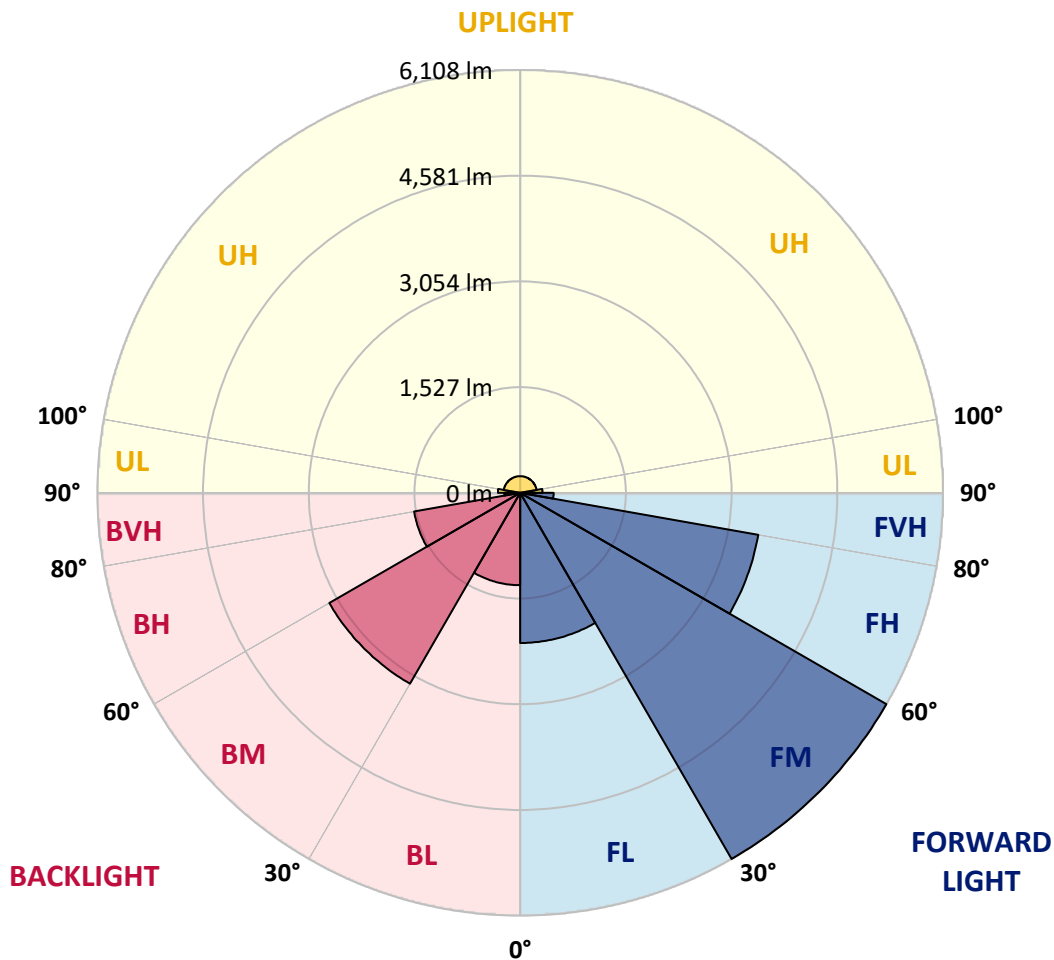


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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Lamp	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	2169.4	7.9			
FM (30°-60°)	6107.8	22.2			
FH (60°-80°)	3492.5	12.7			G2/5000
FVH (80°-90°)	482.9	1.8			G3/500
BL (0°-30°)	1334.5	4.9	B3/2500		
BM (30°-60°)	3183.6	11.6	B3/5000		
BH (60°-80°)	1556.2	5.7	B3/2500		G3/2500
BVH (80°-90°)	230.3	0.8			G3/500
UL (90°-100°)	322.0	1.2		U3/500	
UH (100°-180°)	240.5	0.9		U3/500	
Trapped Light	8288.8	30.1			

BUG Rating: B3-U3-G3
 Type II Medium





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	75°	85°	90°
0°	3876	3876	3876	3876	3876	3876	3876	3876	3876	3876	3876
2.5°	3786	4028	4008	3856	3967	3952	3932	3897	3871	3846	3831
5°	3967	4199	4159	3982	4068	4008	3952	3892	3735	3780	3770
7.5°	4119	4361	4305	4144	4225	4144	4043	3962	3770	3796	3760
10°	4250	4487	4457	4331	4406	4285	4194	4078	3861	3846	3786
12.5°	4391	4633	4649	4543	4603	4502	4366	4220	3952	3861	3750
15°	4512	4729	4820	4770	4861	4709	4573	4421	4124	3952	3816
17.5°	4644	4871	5032	5032	5118	4962	4840	4699	4361	4129	3937
20°	4845	5037	5249	5290	5325	5219	5148	5088	4770	4467	4220
22.5°	5078	5254	5451	5502	5542	5486	5537	5502	5174	4795	4497
25°	5350	5532	5653	5673	5769	5810	5976	5921	5633	5249	4916
27.5°	5603	5754	5744	5799	5991	6153	6339	6415	6334	5926	5497
30°	5653	5754	5673	5835	6228	6365	6557	6930	6698	6047	5587
32.5°	5512	5567	5507	5799	6440	6551	6758	6950	6425	5774	5370
35°	5300	5335	5280	5678	6430	6728	6678	6597	5951	5406	5052
37.5°	5108	5133	5037	5426	6208	6592	6350	6294	5683	5345	5083
40°	4967	4997	4921	5163	5885	6218	6299	6082	5804	5380	5143
42.5°	4825	4861	4815	4982	5572	5850	6173	6178	5739	5158	4997
45°	4533	4578	4608	4724	5325	5693	6027	6198	5431	5189	5194
47.5°	4119	4194	4240	4391	5138	5623	6016	6334	5582	5693	5804
50°	3624	3730	3806	3998	4911	5476	6294	6360	5875	6092	6042
52.5°	3170	3256	3387	3680	4608	5285	6274	6688	6112	6203	6047
55°	2726	2816	2963	3397	4159	5118	6163	6713	6284	6324	6133
57.5°	2271	2367	2493	3018	3649	4800	6052	6471	6471	6637	6294
60°	1756	1883	1974	2458	3044	4432	5577	6249	6753	6965	6440
62.5°	1373	1494	1595	1938	2534	4073	4896	6107	7349	7450	6804
65°	1151	1277	1358	1630	2246	3548	4427	6001	7899	8071	7485
67.5°	999	1131	1206	1459	2180	2953	3942	5951	8157	8626	7561
70°	868	1009	1080	1333	2059	2377	3377	5638	8283	8601	7389
72.5°	878	898	959	1176	1706	1852	2852	5012	8106	8348	7006
75°	777	808	853	974	1292	1418	2312	4220	7606	7228	5678
77.5°	575	722	767	813	964	1136	1792	3412	6451	5174	3755
80°	505	641	702	631	782	944	1423	2615	4487	2988	2145
82.5°	424	560	626	530	661	797	1115	1822	2519	1595	1206
85°	394	505	560	474	585	686	848	1161	1343	924	782
87.5°	353	454	495	414	520	580	641	752	792	636	575
90°	313	404	424	358	449	485	495	530	545	490	459
95°	222	318	323	273	343	343	343	343	353	343	343
105°	222	222	232	172	242	237	227	222	222	217	212
115°	162	156	167	96	167	156	141	131	131	131	131
125°	91	86	96	50	86	71	66	50	50	50	45
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°	3876	3876	3876	3876	3876	3876	3876	3876	3876	3876
2.5°	3816	3801	3796	3780	3770	3760	3755	3750	3750	3745
5°	3730	3674	3644	3619	3614	3619	3629	3644	3654	3654
7.5°	3710	3619	3533	3473	3442	3447	3473	3503	3543	3543
10°	3715	3584	3468	3367	3291	3286	3326	3392	3422	3422
12.5°	3644	3478	3346	3240	3180	3139	3180	3271	3331	3341
15°	3674	3427	3245	3119	3049	2998	3033	3145	3245	3250
17.5°	3740	3407	3190	3018	2907	2867	2897	3013	3134	3160
20°	3972	3533	3165	2927	2791	2736	2736	2872	3013	3028
22.5°	4189	3634	3215	2862	2680	2594	2599	2731	2877	2897
25°	4522	3770	3215	2837	2599	2498	2493	2615	2776	2806
27.5°	4987	3912	3175	2791	2554	2433	2423	2534	2731	2756
30°	5057	3922	3104	2710	2488	2372	2362	2483	2721	2746
32.5°	4906	3881	3018	2635	2448	2367	2362	2514	2776	2837
35°	4659	3836	2978	2559	2418	2377	2433	2599	2882	2948
37.5°	4734	3841	2968	2488	2397	2387	2478	2665	2963	3018
40°	4891	4149	3044	2428	2337	2327	2423	2615	2953	3008
42.5°	4845	4220	3165	2423	2216	2186	2307	2519	2852	2907
45°	5088	4295	3139	2382	2059	2034	2165	2347	2620	2685
47.5°	5678	4573	3079	2211	1908	1893	2024	2150	2337	2382
50°	5754	4517	2998	2054	1777	1777	1883	1968	2095	2110
52.5°	5688	4280	2816	1948	1661	1666	1762	1797	1878	1888
55°	5693	4149	2620	1827	1524	1524	1610	1630	1686	1696
57.5°	5693	3957	2483	1676	1388	1388	1413	1489	1519	1514
60°	5673	3730	2342	1509	1232	1252	1211	1282	1338	1333
62.5°	6027	3705	2180	1368	1100	1121	1040	1095	1181	1181
65°	6511	3468	1938	1211	964	964	898	903	1004	1020
67.5°	6112	2786	1575	1060	833	808	772	742	843	848
70°	5779	2448	1287	893	717	686	651	626	681	697
72.5°	5274	2150	1110	752	621	591	565	535	560	565
75°	3952	1716	984	671	540	515	490	459	464	464
77.5°	2559	1247	843	606	485	459	444	414	404	404
80°	1509	873	676	525	439	409	399	368	353	353
82.5°	944	631	530	444	384	358	348	318	313	313
85°	671	515	444	384	343	328	308	288	273	273
87.5°	515	439	389	348	313	298	273	252	242	232
90°	429	389	348	318	283	262	242	222	212	212
95°	328	323	288	262	227	212	192	172	156	151
105°	217	212	192	167	136	101	76	45	15	10
115°	131	116	101	76	56	25	5	0	10	10
125°	50	30	20	5	0	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)