

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: ITL57333

Luminaire Tested: **OVZ10SXX2D**

Issue Date: 3/3/2020

Test Information

Test Method: LM-31-95
Report Number: ITL57333
Test Lab: INDEPENDENT TESTING LABORATORIES, INC.
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: STREETWORKS
Catalog Number: OVZ10SXX2D
Description: 100W HPS TYPE II ROADWAY
Light Source: 100W HPS CL ED-23.5
Ballast/Driver: -

Summary

Lumens per Lamp: 9500 (1 lamp)
Luminaire Lumens: 7181.7 lumens
Efficiency: 75.6%
Efficacy: 71.8 lumens/watt
Luminous Opening: Rectangular w/ Sides (W: 0.95' x L: 1.11' x H: 0.5')
IES Classification: Type II - Medium - Semi-Cutoff
BUG Rating: B1 - U3 - G2

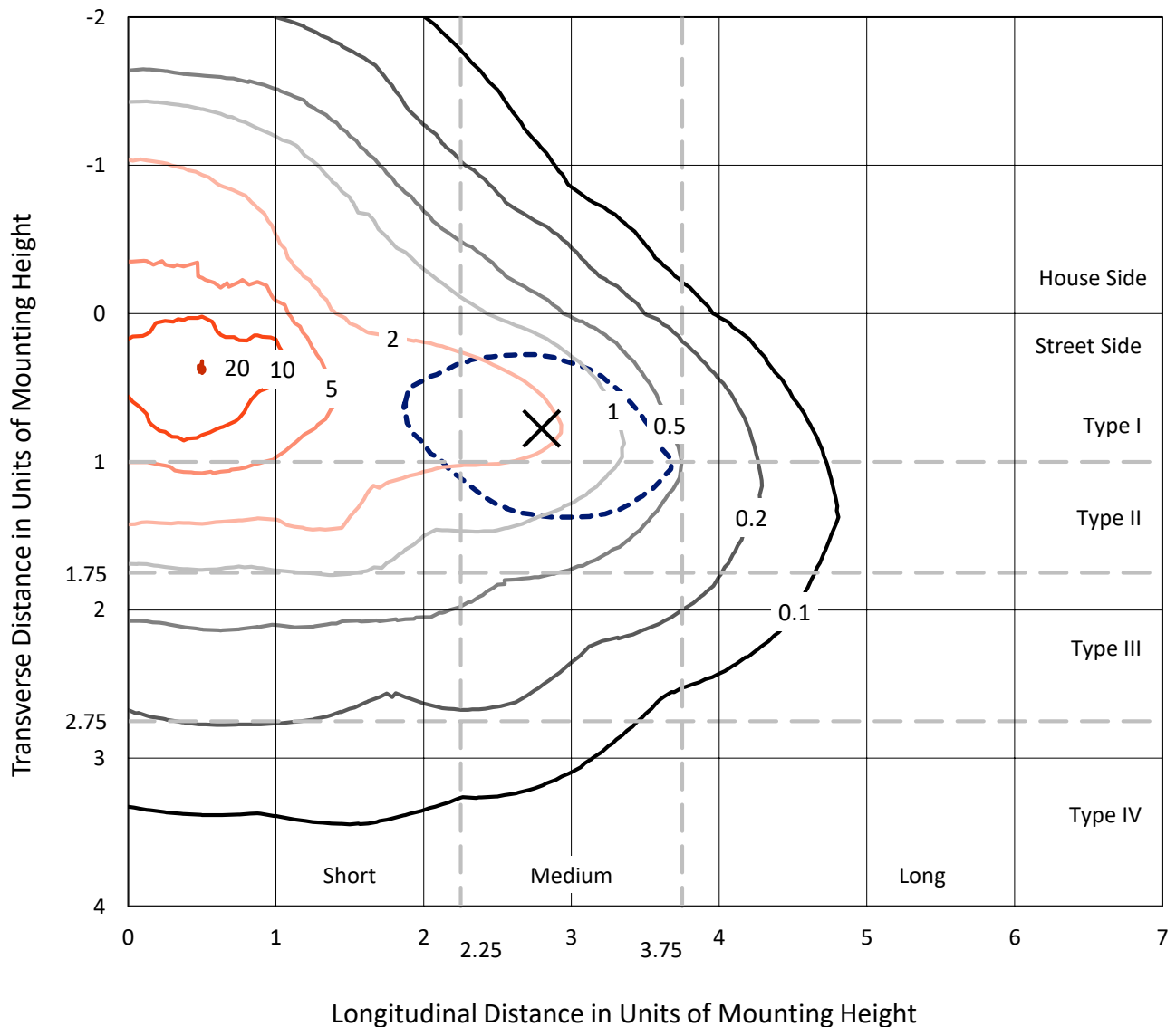
Input Watts (W): 100
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 28.75 FT



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Iso-Footcandle Lines of Horizontal Illumination

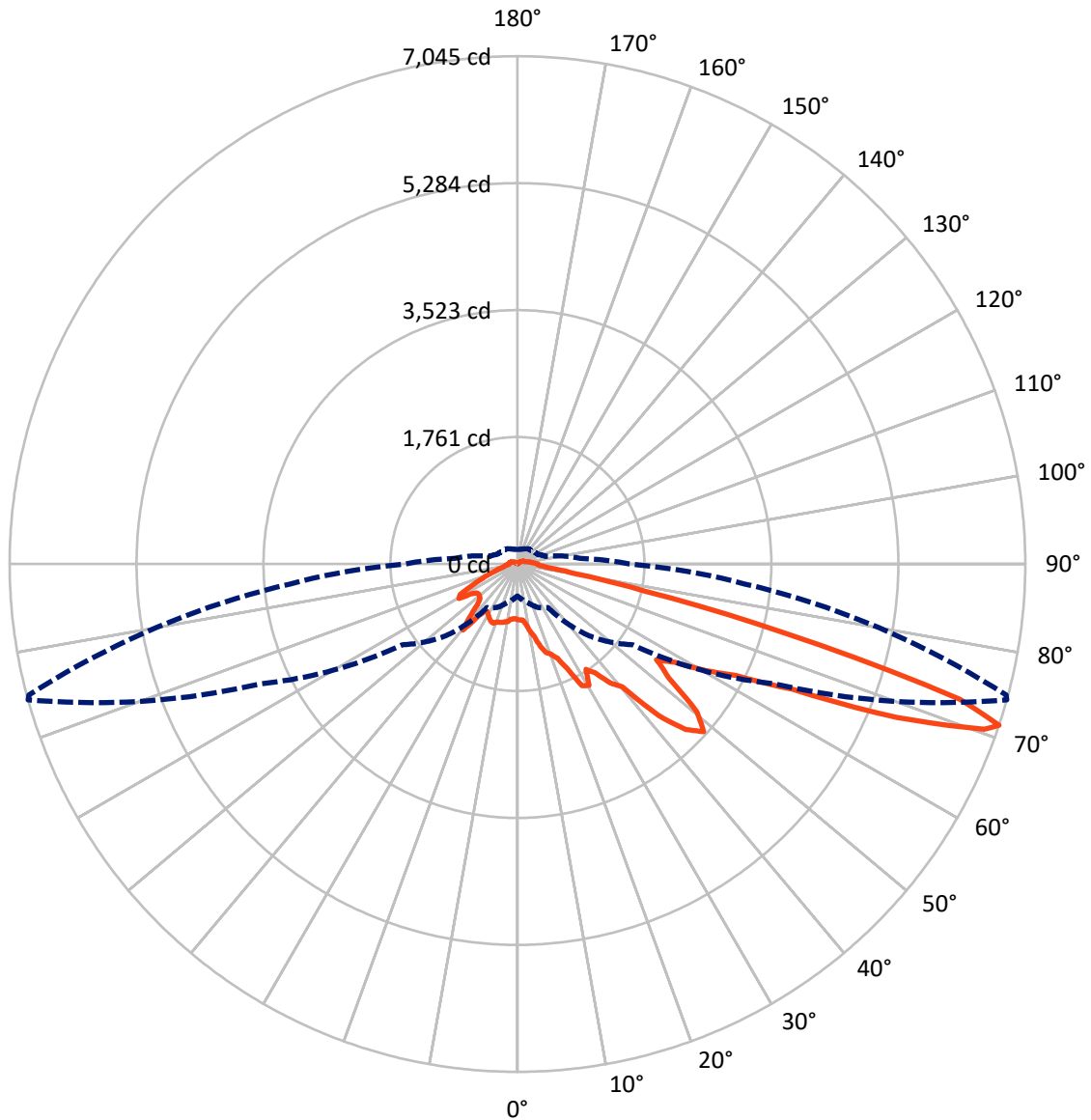
× Max cd
 - - - 1/2 Max cd



Based on 10 foot mounting height. Maximum calculated value = 20.8 fc
 Type II - Medium - Semi-Cutoff

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Luminous Intensity Polar Plot



— Vertical Plane Through 74.5-Deg Lateral - - - Horizontal Cone Through 71-Deg Vertical

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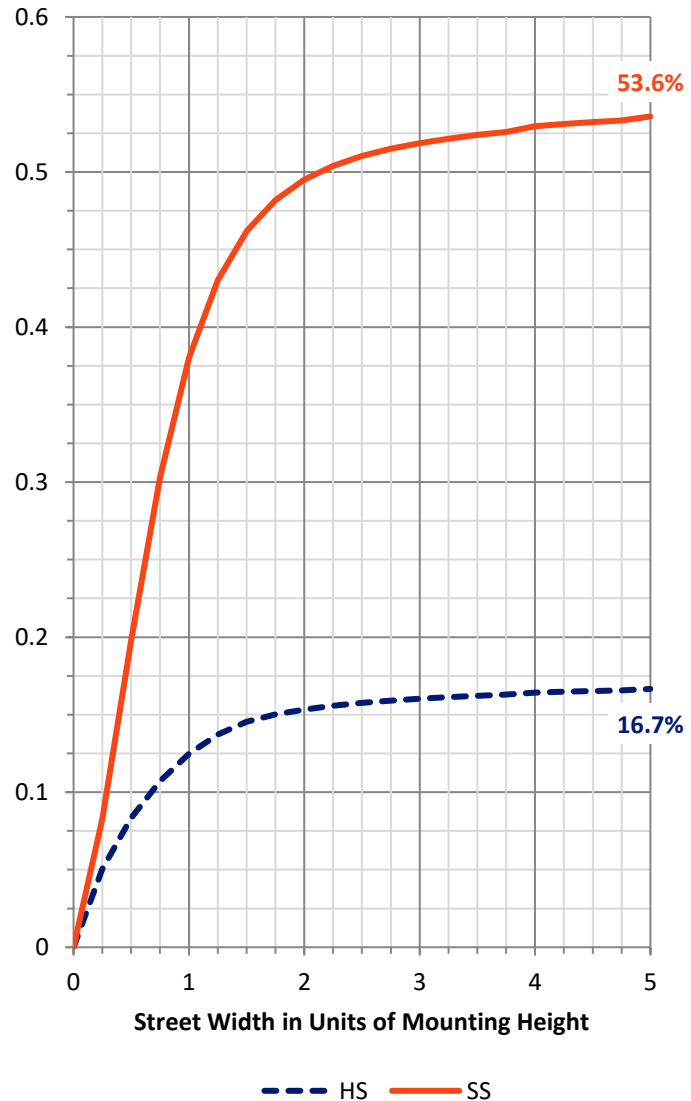
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	1628.4	112.3	1740.7
	% Lamp	17.1	1.2	18.3
Street Side	Lumens	5190.5	250.5	5441.0
	% Lamp	54.6	2.6	57.3
Total	Lumens	6818.9	362.8	7181.7
	% Lamp	71.8	3.8	75.6

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture	% Lamp
0°-10°	78.7	1.1	0.8
10°-20°	299.8	4.2	3.2
20°-30°	607.4	8.5	6.4
30°-40°	985.2	13.7	10.4
40°-50°	1262.0	17.6	13.3
50°-60°	1177.4	16.4	12.4
60°-70°	1242.0	17.3	13.1
70°-80°	888.9	12.4	9.4
80°-90°	277.4	3.9	2.9
90°-100°	166.8	2.3	1.8
100°-110°	102.6	1.4	1.1
110°-120°	58.8	0.8	0.6
120°-130°	29.8	0.4	0.3
130°-140°	10.5	0.1	0.1
140°-150°	2.0	0.0	0.0
150°-160°	0.1	0.0	0.0
160°-170°	0.0	0.0	0.0
170°-180°	0.0	0.0	0.0
0°-90°	6818.9	94.9	71.8
0°-180°	7181.7	100.0	75.6

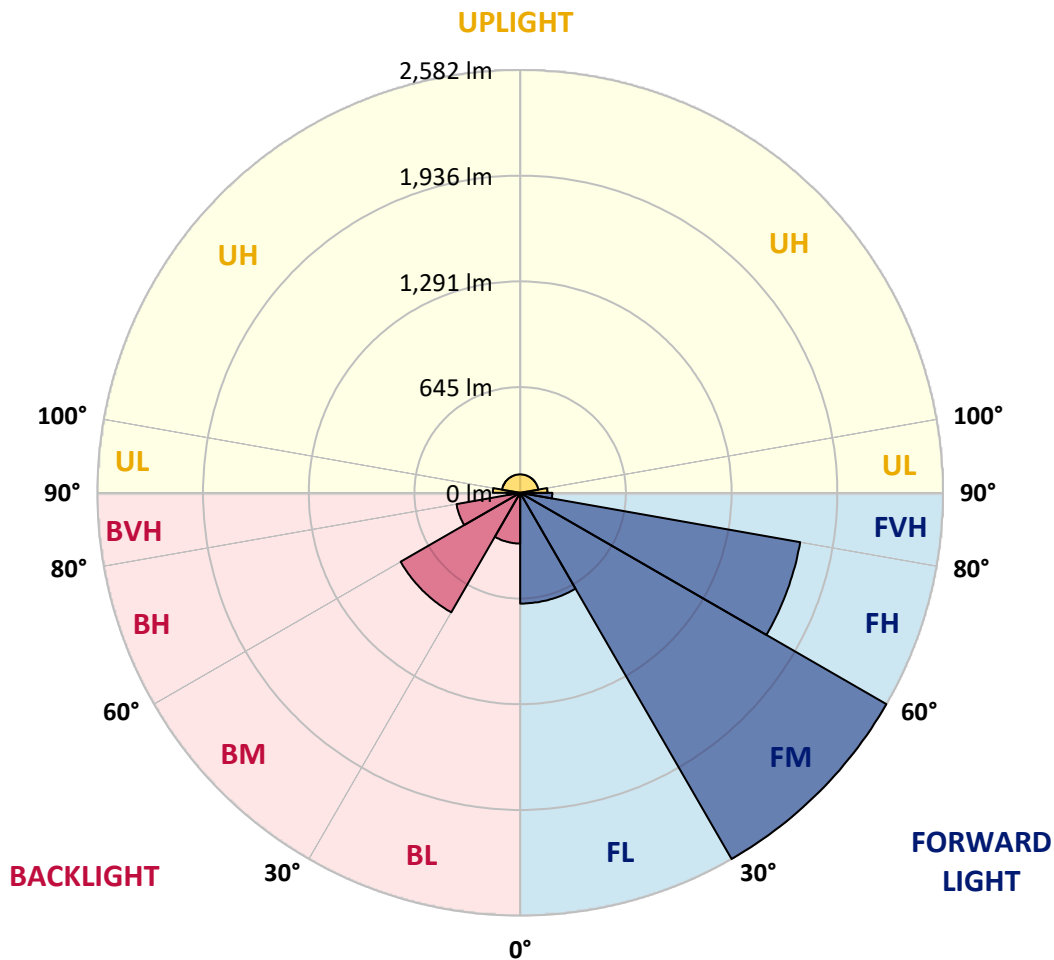


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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Lamp	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	676.2	7.1			
FM (30°-60°)	2581.8	27.2			
FH (60°-80°)	1736.3	18.3			G1/1800
FVH (80°-90°)	196.1	2.1			G2/225
BL (0°-30°)	309.6	3.3	B1/500		
BM (30°-60°)	842.8	8.9	B1/1000		
BH (60°-80°)	394.6	4.2	B1/500		G1/500
BVH (80°-90°)	81.3	0.9			G1/100
UL (90°-100°)	166.8	1.8		U3/500	
UH (100°-180°)	112.3	1.2		U3/500	
Trapped Light	2318.3	24.4			

BUG Rating: B1-U3-G2
 Type II Medium





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	74.5°	75°	85°
0°	776	776	776	776	776	776	776	776	776	776	776
2.5°	793	793	793	784	775	775	775	765	775	775	765
5°	848	830	839	830	811	811	802	784	784	784	775
7.5°	922	913	913	913	904	876	867	839	839	839	830
10°	1033	1014	1033	1014	1033	996	996	950	941	941	904
12.5°	1180	1153	1190	1180	1226	1199	1171	1088	1024	1033	959
15°	1365	1346	1402	1439	1512	1439	1374	1291	1180	1190	1033
17.5°	1494	1503	1595	1724	1789	1678	1623	1457	1291	1273	1097
20°	1512	1540	1669	1881	1992	1992	1807	1512	1337	1319	1162
22.5°	1475	1503	1651	1900	2130	2241	2038	1641	1420	1420	1263
25°	1420	1457	1577	1872	2195	2416	2370	2010	1605	1595	1365
27.5°	1457	1475	1595	1909	2222	2407	2794	2527	1909	1881	1475
30°	1568	1558	1706	2066	2259	2508	3375	2923	1955	1900	1448
32.5°	1586	1586	1789	2250	2508	2859	3587	2729	1743	1678	1392
35°	1623	1632	1853	2398	2932	3191	3126	2462	1853	1835	1420
37.5°	1789	1826	2047	2628	3163	3209	2748	2840	2093	2047	1531
40°	1770	1835	2149	2914	2988	3061	2895	3117	2241	2213	1955
42.5°	1586	1623	1946	2812	2785	2951	3154	2951	2877	2849	2324
45°	1420	1402	1632	2416	2647	3025	3006	3006	3274	3255	2582
47.5°	1328	1273	1503	2029	2425	2859	2656	3338	3476	3430	2047
50°	1291	1236	1420	1853	2195	2591	2471	3476	3227	3108	1605
52.5°	1217	1171	1300	1660	2167	2481	2619	3559	2628	2499	1346
55°	1033	1005	1134	1402	1946	2508	2693	3366	2342	2268	1263
57.5°	830	848	1005	1199	1586	2619	2564	2868	2573	2499	1337
60°	719	728	885	1024	1411	2849	2195	3061	2997	2895	1549
62.5°	645	655	802	931	1356	2517	2250	3274	3403	3347	1918
65°	590	599	728	848	1300	2185	2305	3301	4186	4196	2471
67.5°	480	553	682	765	1107	1789	2019	3578	5680	5680	2914
70°	461	498	590	673	811	1503	1992	3947	6870	6888	3227
71°	443	480	553	664	738	1411	1955	3928	7045	7017	3163
72.5°	424	443	489	618	682	1365	1697	3624	6418	6326	2785
75°	406	433	470	609	692	1125	1337	2729	3818	3633	1494
77.5°	387	406	470	581	682	811	922	1605	1789	1734	811
80°	369	415	489	553	590	544	645	802	821	747	452
82.5°	332	369	406	461	433	397	443	489	452	443	323
85°	295	314	341	378	323	314	341	332	332	323	267
87.5°	258	267	304	332	277	277	277	277	286	277	258
90°	256	259	294	290	249	243	233	231	272	269	236
95°	240	232	259	230	220	198	204	199	207	201	169
105°	112	112	118	125	123	117	116	113	112	112	110
115°	72	70	75	80	86	83	81	86	89	89	89
125°	37	35	38	38	41	44	50	53	57	55	55
135°	18	17	17	18	17	16	14	17	18	18	17
145°	6	5	6	5	4	0	0	0	0	0	0
155°	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°	74.5°	75°	85°
165°	0	0	0	0	0	0	0	0	0	0	0
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):

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	776	776	776	776	776	776	776	776	776	776	776
2.5°	756	765	756	756	765	775	775	802	821	830	848
5°	775	765	765	747	765	765	784	802	830	848	848
7.5°	821	811	775	756	756	765	775	784	784	784	775
10°	876	858	811	784	765	756	765	765	747	747	756
12.5°	931	885	821	793	775	765	756	747	738	728	719
15°	968	913	839	793	765	738	719	728	701	701	701
17.5°	1024	931	848	784	719	682	655	692	627	627	627
20°	1088	996	858	738	673	645	636	636	590	572	572
22.5°	1199	1107	894	738	664	645	627	609	562	553	553
25°	1291	1180	885	747	710	655	627	590	535	516	516
27.5°	1346	1190	858	728	738	682	636	581	516	498	498
30°	1291	1134	821	738	765	701	673	590	516	516	516
32.5°	1282	1107	784	756	839	710	673	636	562	553	572
35°	1346	1153	784	756	858	710	627	636	581	572	572
37.5°	1577	1522	913	756	830	682	618	618	609	599	609
40°	2130	2121	1208	821	793	673	627	664	655	627	609
42.5°	2287	1983	996	848	784	673	655	673	627	618	609
45°	1946	1328	793	784	747	692	645	636	609	599	590
47.5°	1457	1070	710	701	710	692	609	590	599	590	609
50°	1245	996	692	664	664	645	581	599	599	609	627
52.5°	1051	885	682	664	645	627	599	627	627	627	627
55°	996	839	692	692	655	645	627	627	572	553	535
57.5°	1088	904	756	701	710	692	599	516	406	406	387
60°	1226	1060	950	811	701	618	507	397	332	314	314
62.5°	1558	1337	913	645	526	452	397	332	286	277	277
65°	1780	1328	710	480	369	369	341	295	267	258	258
67.5°	1817	1180	562	378	314	332	286	277	240	231	221
70°	1687	968	452	323	286	277	258	240	221	203	203
71°	1549	876	406	314	286	267	258	231	212	203	203
72.5°	1236	710	341	258	249	249	240	203	184	166	166
75°	784	489	277	240	249	286	249	203	175	166	148
77.5°	461	332	221	212	231	286	249	184	148	138	129
80°	323	249	184	184	203	249	231	166	148	129	129
82.5°	258	212	175	157	166	194	203	166	129	111	111
85°	221	184	157	138	157	148	148	148	120	92	92
87.5°	194	157	129	138	138	129	129	129	111	92	74
90°	175	136	120	135	129	117	96	100	89	77	72
95°	142	121	112	136	115	106	74	64	64	59	59
105°	107	103	101	97	79	61	38	27	21	6	4
115°	89	84	74	59	46	29	15	6	2	0	0
125°	55	53	42	30	19	11	4	2	0	0	0
135°	18	16	13	6	2	1	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



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CANDELA DISTRIBUTION (continued):

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
165°	0	0	0	0	0	0	0	0	0	0	0
175°	0	0	0	0	0	0	0	0	0	0	0
180°	0	0	0	0	0	0	0	0	0	0	0

(END OF REPORT)