

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: 767427

Luminaire Tested: **OVZ15SXX3E**

Issue Date: 3/3/2020

Test Information

Test Method: LM-31-95
Report Number: 767427
Test Lab:
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: STREETWORKS
Catalog Number: OVZ15SXX3E
Description: 150W HPS TYPE III ROADWAY
Light Source: 150W HPS CL ED-23.5
Ballast/Driver: -

Summary

Lumens per Lamp: 16000 (1 lamp)
Luminaire Lumens: 11883.8 lumens
Efficiency: 74.3%
Efficacy: 79.2 lumens/watt
Luminous Opening: Point Source (0' x 0' x 0')
IES Classification: Type III - Medium - Semi-Cutoff
BUG Rating: B2 - U3 - G3

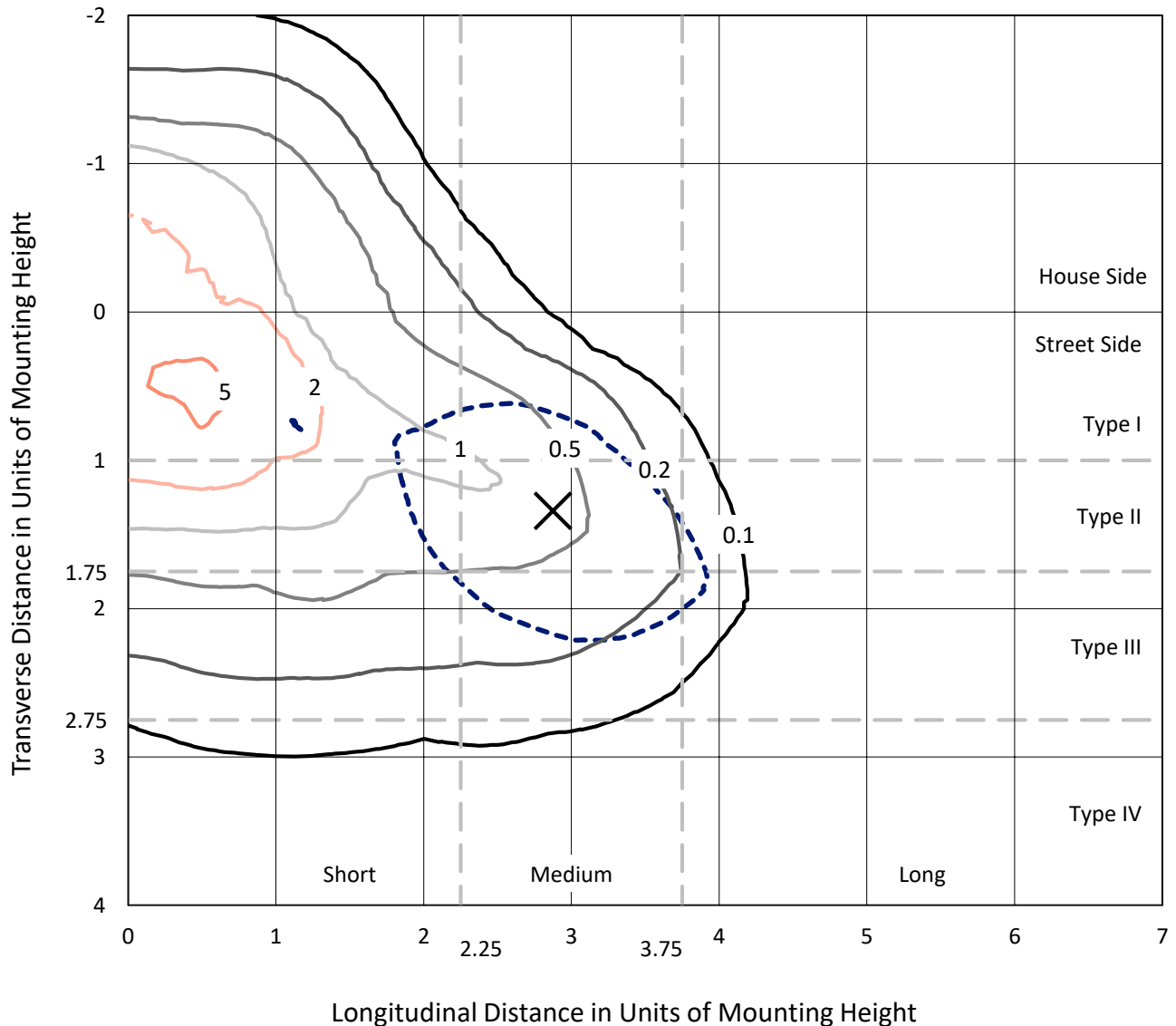
Input Watts (W): 150
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 28.75 FT



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Iso-Footcandle Lines of Horizontal Illumination

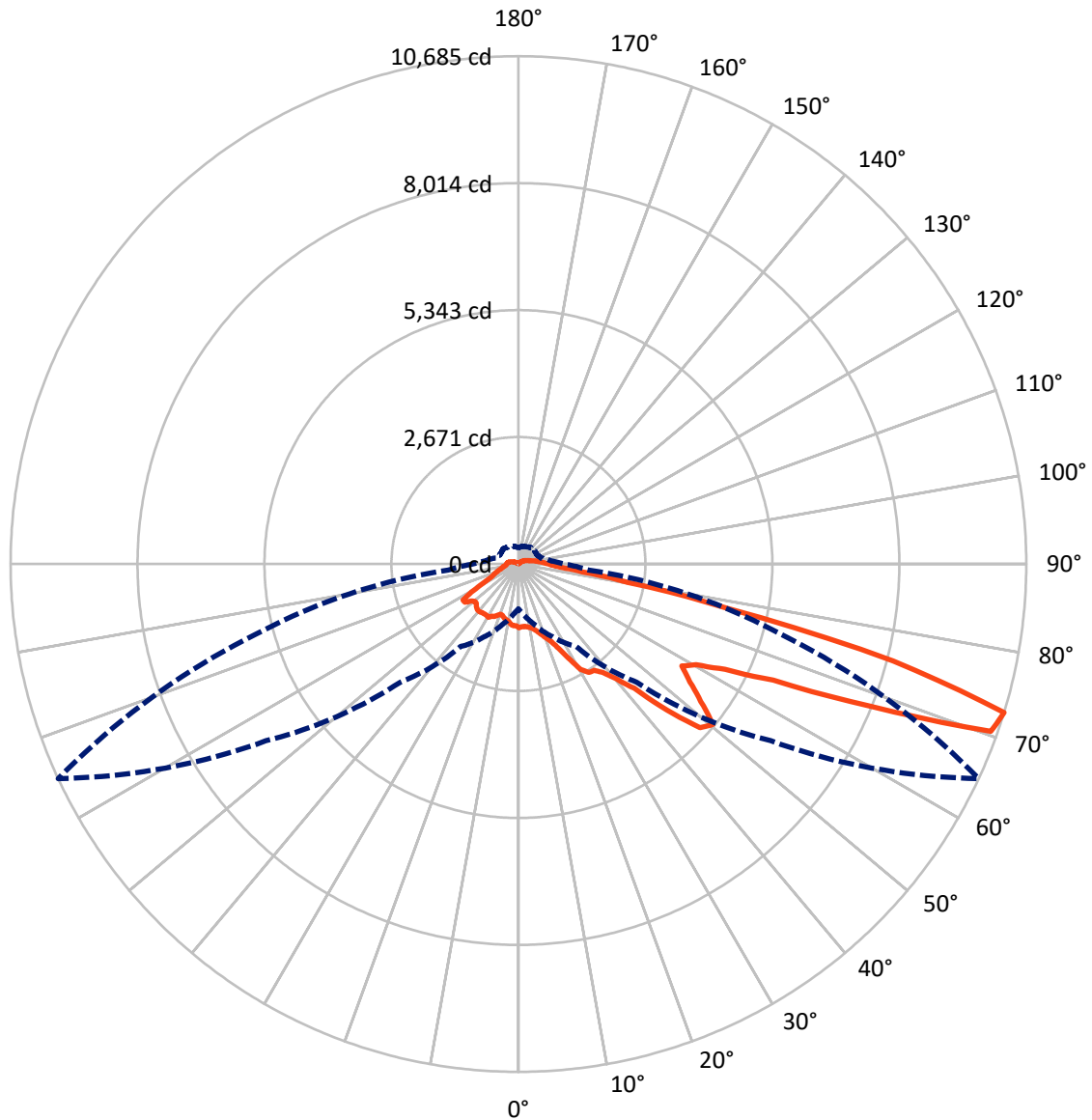
× Max cd
 - - - 1/2 Max cd



Based on 20 foot mounting height. Maximum calculated value = 6.4 fc
 Type III - Medium - Semi-Cutoff

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Luminous Intensity Polar Plot



— Vertical Plane Through 65-Deg Lateral - - - Horizontal Cone Through 72.5-Deg Vertical

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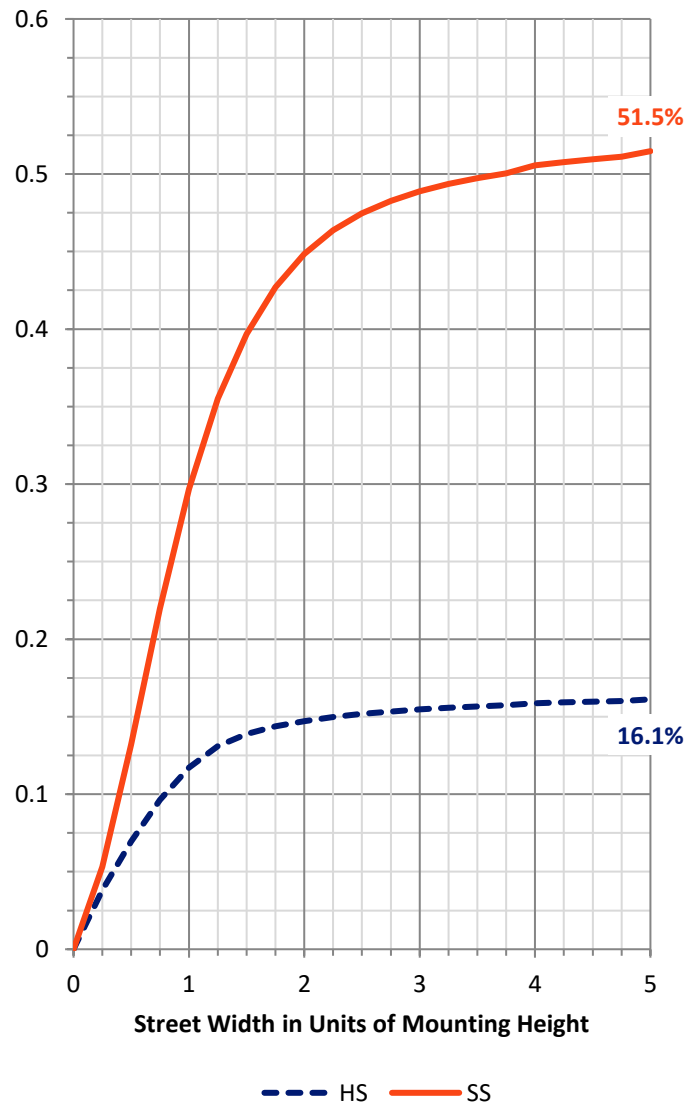
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	2655.5	200.8	2856.3
	% Lamp	16.6	1.3	17.9
Street Side	Lumens	8499.5	528.0	9027.5
	% Lamp	53.1	3.3	56.4
Total	Lumens	11154.9	728.9	11883.8
	% Lamp	69.7	4.6	74.3

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture	% Lamp
0°-10°	121.7	1.0	0.8
10°-20°	381.4	3.2	2.4
20°-30°	828.5	7.0	5.2
30°-40°	1420.0	11.9	8.9
40°-50°	2022.0	17.0	12.6
50°-60°	1992.4	16.8	12.5
60°-70°	2035.3	17.1	12.7
70°-80°	1735.5	14.6	10.8
80°-90°	618.2	5.2	3.9
90°-100°	341.6	2.9	2.1
100°-110°	201.8	1.7	1.3
110°-120°	109.9	0.9	0.7
120°-130°	54.8	0.5	0.3
130°-140°	24.8	0.2	0.2
140°-150°	8.6	0.1	0.1
150°-160°	1.4	0.0	0.0
160°-170°	0.0	0.0	0.0
170°-180°	0.0	0.0	0.0
0°-90°	11154.9	93.9	69.7
0°-180°	11883.8	100.0	74.3

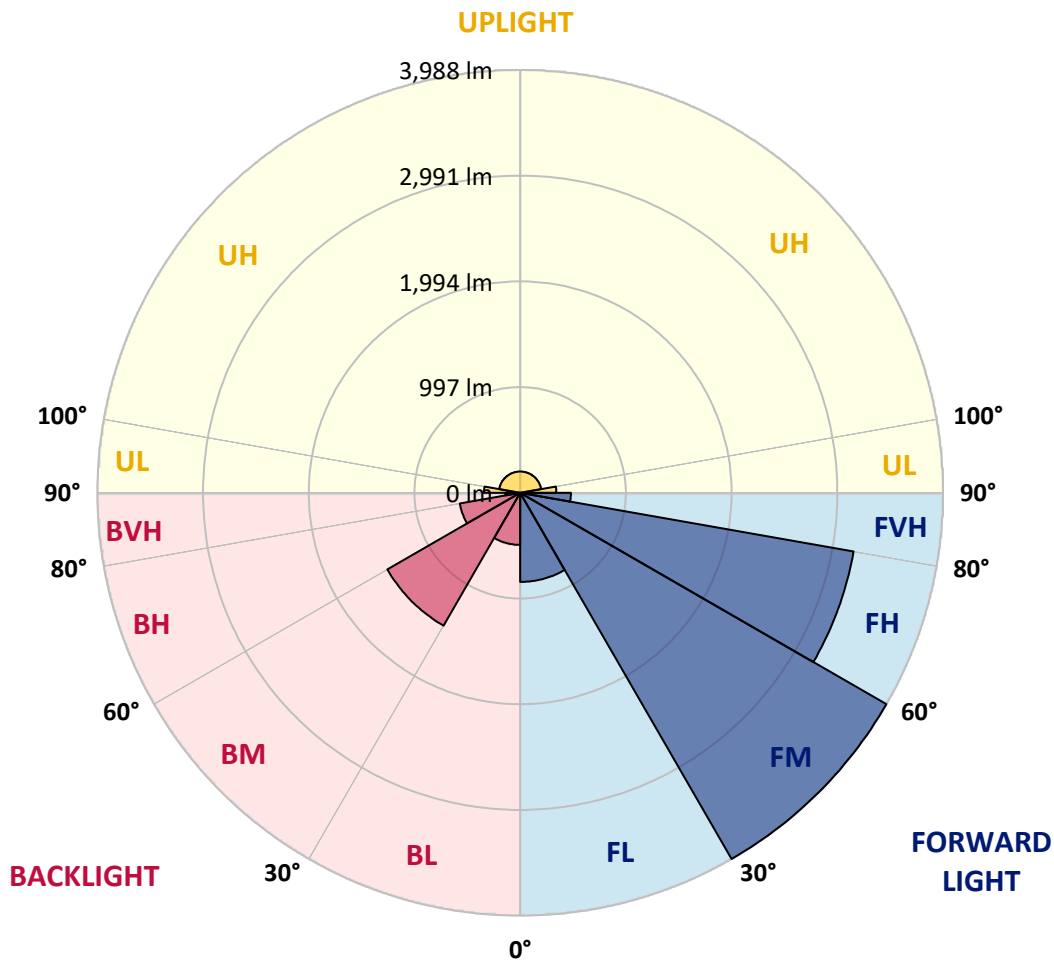


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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Lamp	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	840.2	5.3			
FM	(30°-60°)	3988.0	24.9			
FH	(60°-80°)	3192.8	20.0			G2/5000
FVH	(80°-90°)	478.4	3.0			G3/500
BL	(0°-30°)	491.3	3.1	B1/500		
BM	(30°-60°)	1446.4	9.0	B2/2500		
BH	(60°-80°)	577.9	3.6	B2/1000		G2/1000
BVH	(80°-90°)	139.8	0.9			G2/225
UL	(90°-100°)	341.6	2.1		U3/500	
UH	(100°-180°)	200.8	1.3		U3/500	
Trapped Light		4116.2	25.7			

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°	1341	1341	1341	1341	1341	1341	1341	1341	1341	1341	1341
2.5°	1309	1314	1319	1319	1309	1325	1314	1319	1319	1314	1157
5°	1330	1314	1309	1309	1309	1309	1309	1319	1319	1325	1173
7.5°	1330	1325	1319	1314	1325	1314	1319	1336	1341	1336	1184
10°	1341	1352	1346	1341	1357	1357	1357	1357	1363	1336	1200
12.5°	1428	1422	1428	1428	1417	1422	1422	1401	1384	1341	1206
15°	1579	1579	1563	1584	1568	1547	1509	1465	1406	1357	1200
17.5°	1806	1801	1812	1839	1709	1763	1676	1557	1460	1384	1217
20°	2044	2060	2141	2233	2066	2077	1855	1655	1514	1417	1255
22.5°	2282	2325	2493	2644	2487	2379	2022	1774	1633	1498	1314
25°	2487	2509	2747	2996	2904	2715	2282	1963	1768	1563	1341
27.5°	2552	2590	2871	3190	3342	3099	2720	2233	1920	1628	1374
30°	2552	2612	2898	3218	3542	3526	3250	2569	2012	1644	1395
32.5°	2639	2671	2942	3272	3553	4072	3796	2720	2006	1639	1395
35°	2790	2807	3050	3445	3731	4656	4050	2747	2077	1768	1509
37.5°	2866	2882	3174	3623	4223	4948	3985	2898	2417	2320	2012
40°	2909	2942	3288	3975	4840	4964	4158	3180	3077	2790	2223
42.5°	3039	3104	3493	4396	5272	4856	4542	3574	3596	2601	1876
45°	3028	3109	3580	4807	5186	4937	4640	4386	3656	2028	1536
47.5°	2877	2920	3385	4678	4851	4894	4737	5143	3158	1730	1390
50°	2563	2612	3055	4137	4618	4548	4986	5305	2671	1601	1346
52.5°	2401	2428	2758	3580	4353	4158	5337	4802	2396	1471	1303
55°	2282	2282	2509	3218	3969	4029	5289	4380	2168	1455	1298
57.5°	2044	2060	2282	2898	3477	4245	5094	4050	2287	1520	1401
60°	1730	1768	2131	2606	3315	4623	4445	4294	2579	1730	1682
62.5°	1503	1547	2006	2396	3401	4505	4207	4878	3044	2049	1812
65°	1363	1401	1839	2228	3650	4115	4569	5894	3969	2066	1574
67.5°	1233	1292	1693	2109	3364	3910	5354	7971	5056	1931	1314
70°	1049	1173	1536	1920	2639	3731	6143	10545	6089	1752	1125
72.5°	941	1044	1319	1687	2120	3515	6484	10685	5727	1487	957
75°	887	946	1163	1390	1844	3158	5521	8144	3823	1157	779
77.5°	865	903	1071	1211	1736	2358	3834	4526	2179	881	633
80°	887	919	1044	1092	1411	1525	2228	2336	1325	671	525
82.5°	898	957	1006	990	1038	1060	1341	1352	908	525	427
85°	919	941	908	779	811	817	908	903	698	443	362
87.5°	876	871	854	687	719	703	708	703	606	395	319
90°	768	779	795	622	671	633	606	611	562	346	287
95°	476	476	492	427	503	465	433	460	406	227	233
105°	260	260	265	211	276	276	265	254	233	157	189
115°	173	173	168	114	184	124	168	173	168	108	141
125°	97	97	97	54	103	49	92	97	97	65	87
135°	65	65	65	59	54	27	49	43	43	22	38
145°	32	32	32	27	22	5	16	11	11	5	5
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°	1341	1341	1341	1341	1341	1341	1341	1341	1341	1341
2.5°	1314	1309	1298	1141	1292	1292	1292	1282	1282	1287
5°	1325	1292	1303	1109	1260	1255	1222	1222	1222	1211
7.5°	1319	1303	1282	1103	1233	1206	1179	1173	1163	1146
10°	1298	1271	1222	1071	1222	1184	1163	1130	1114	1125
12.5°	1292	1238	1200	1033	1163	1157	1114	1076	1060	1060
15°	1298	1217	1179	984	1103	1114	1071	1027	1011	995
17.5°	1309	1206	1136	963	1098	1087	1054	1006	984	984
20°	1325	1200	1119	1000	1109	1082	1060	1011	1006	1017
22.5°	1363	1238	1163	1033	1152	1136	1098	1054	1054	1049
25°	1357	1249	1211	1065	1249	1200	1114	1076	1098	1092
27.5°	1336	1303	1233	1109	1200	1238	1163	1163	1228	1233
30°	1314	1314	1287	1157	1200	1287	1271	1260	1303	1330
32.5°	1303	1238	1271	1206	1228	1265	1303	1309	1346	1363
35°	1379	1206	1271	1292	1276	1303	1368	1379	1406	1384
37.5°	1622	1244	1276	1330	1282	1303	1390	1384	1390	1374
40°	1671	1292	1298	1363	1276	1282	1374	1379	1401	1406
42.5°	1471	1282	1292	1352	1292	1271	1374	1401	1449	1460
45°	1292	1222	1260	1309	1314	1298	1363	1401	1498	1514
47.5°	1249	1217	1206	1314	1346	1336	1319	1325	1411	1438
50°	1244	1233	1206	1282	1363	1341	1244	1152	1163	1190
52.5°	1238	1255	1265	1325	1411	1346	1125	903	865	876
55°	1271	1325	1384	1406	1438	1287	963	735	681	681
57.5°	1417	1520	1390	1309	1271	1076	800	633	589	584
60°	1660	1417	1092	1033	1038	908	725	579	541	541
62.5°	1525	1060	790	822	854	779	660	535	497	508
65°	1228	784	627	622	692	654	573	487	460	465
67.5°	990	660	562	552	562	568	519	465	438	422
70°	822	573	497	487	487	481	454	427	400	389
72.5°	703	492	438	433	454	427	400	389	357	346
75°	589	427	389	400	433	406	357	346	319	303
77.5°	492	379	351	368	406	384	319	297	276	260
80°	433	357	330	335	362	351	297	270	243	238
82.5°	362	319	292	287	297	297	265	233	200	195
85°	319	292	270	265	249	249	227	200	173	173
87.5°	287	260	254	254	227	205	189	173	151	151
90°	249	238	249	238	216	168	157	146	130	130
95°	211	205	238	222	195	130	108	103	97	97
105°	178	178	184	157	124	76	54	38	22	22
115°	135	124	103	76	43	16	5	0	0	0
125°	76	59	43	22	11	0	0	0	0	0
135°	32	22	22	11	11	5	5	11	11	11
145°	5	5	0	5	11	5	5	11	5	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)