

Scaled data based on original data using
LM-79-08 Approved Method: Electrical and Photometric Measurements of Solid-
State Lighting Products

Test Report Prepared for
Cooper Lighting Solutions
(formerly Eaton)

Brand: STREETWORKS

Report Number: P158645

Luminaire Tested: **VST-F02-LED-E-U-SL4**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P158645
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (P33714)
Test Lab: INNOVATION CENTER-P3
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: STREETWORKS
Catalog Number: VST-F02-LED-E-U-SL4
Description: VENTUS LED SITE/ROADWAY LUMINAIRE
(2) LIGHTBARS WITH AccuLED OPTICS - TYPE 4 W/ SPILL LIGHT CONTROL
Light Source: (14) 4000K CCT, 70 CRI LEDs
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 4789.6 lumens
Efficiency: N/A
Efficacy: 87.1 lumens/watt
Luminous Opening: Rectangular (W 0.33' x L: 1' x H: 0')
IES Classification: Type IV - Short - Full Cutoff
BUG Rating: B1 - U0 - G2

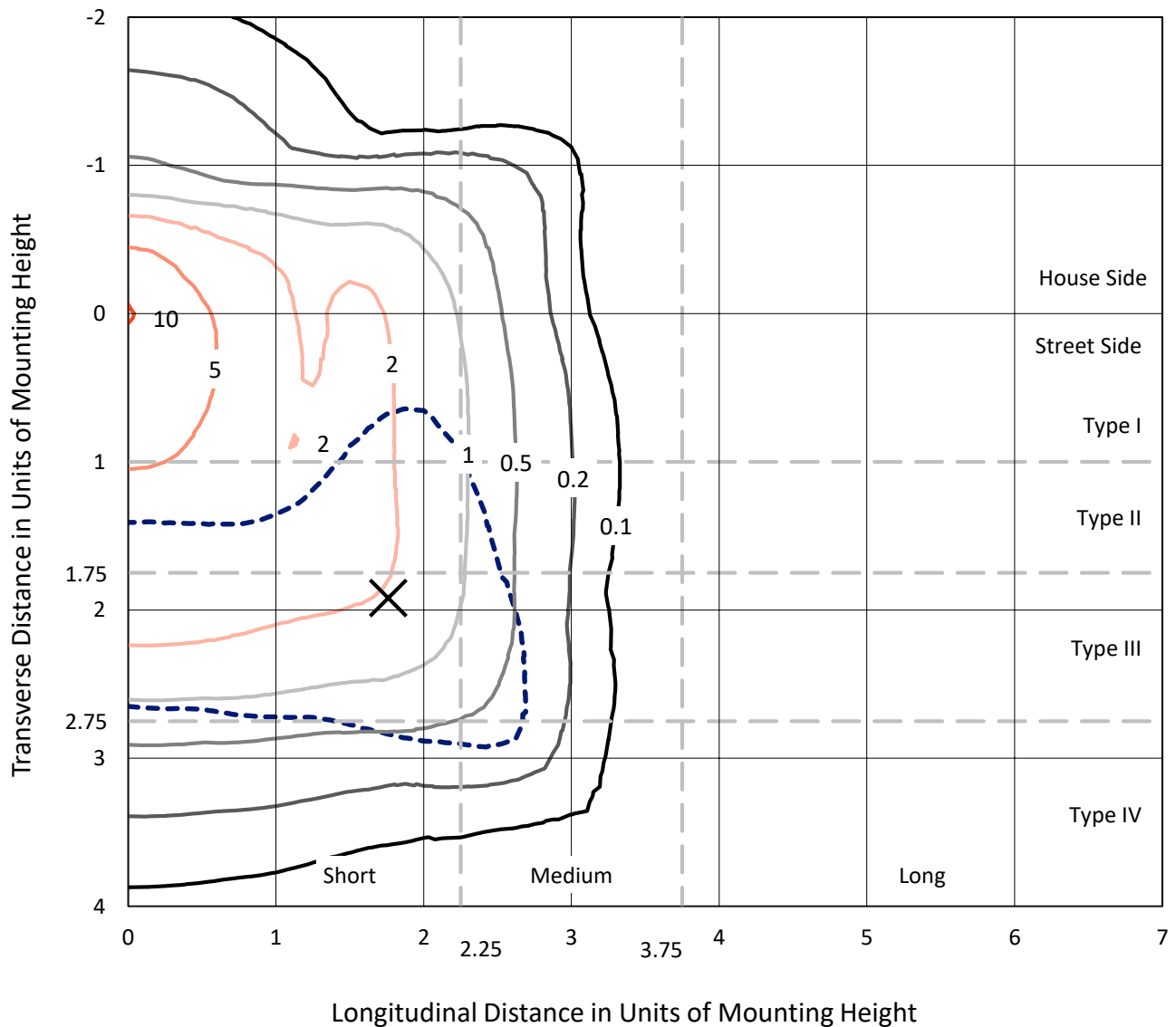
Input Watts (W): 55
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 28.75 FT



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Iso-Footcandle Lines of Horizontal Illumination

✕ Max cd
 - - - 1/2 Max cd

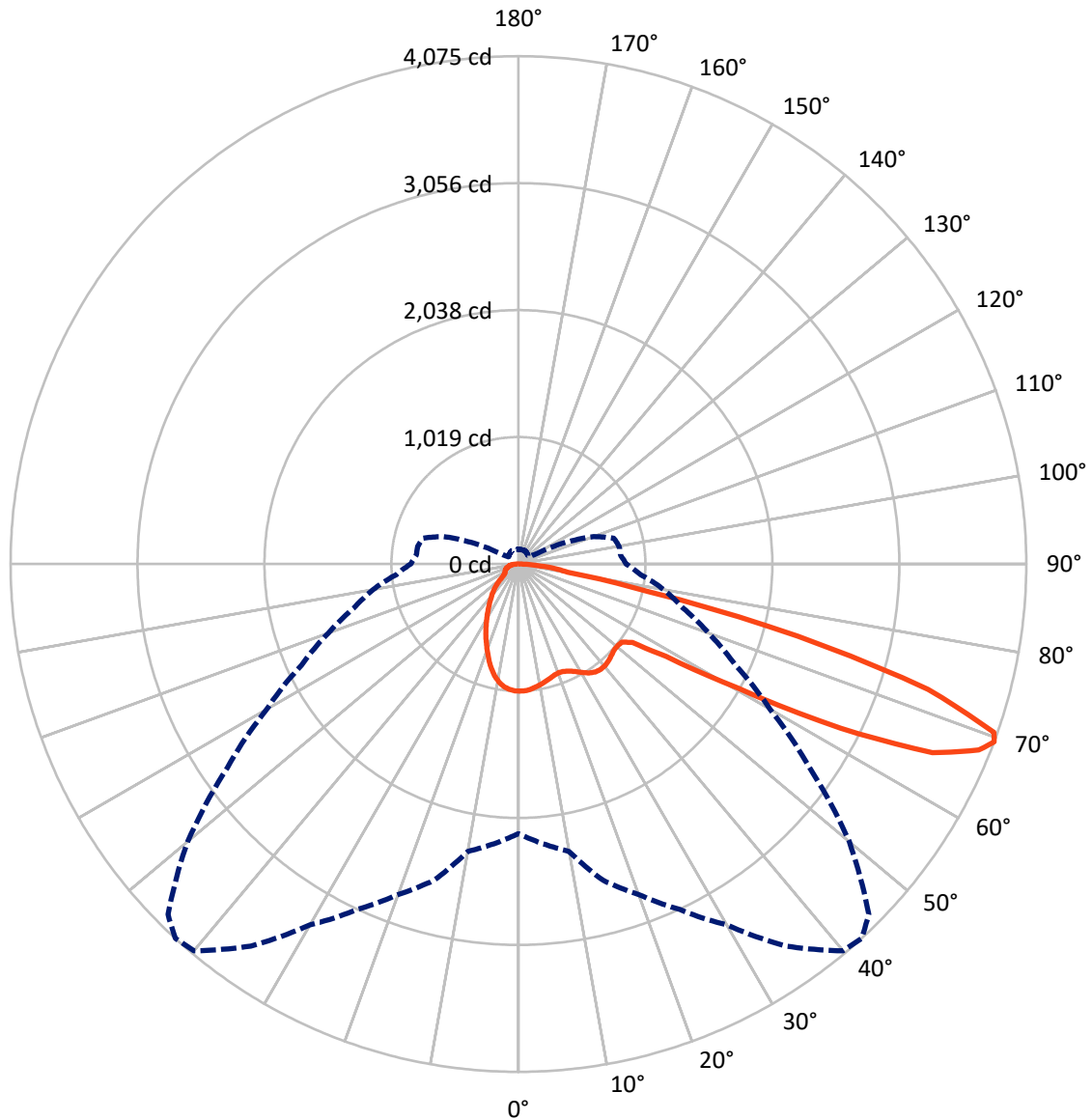


Based on 10 foot mounting height. Maximum calculated value = 10.2 fc
 Type IV - Short - Full Cutoff

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Luminous Intensity Polar Plot



— Vertical Plane Through 42.5-Deg Lateral - - - Horizontal Cone Through 69-Deg Vertical



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FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	1064.8	0.0	1064.8
	% Fixture	22.2	0.0	22.2
Street Side	Lumens	3724.8	0.0	3724.8
	% Fixture	77.8	0.0	77.8
Total	Lumens	4789.6	0.0	4789.6
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	95.0	2.0
10°-20°	255.9	5.3
20°-30°	373.2	7.8
30°-40°	475.7	9.9
40°-50°	553.5	11.6
50°-60°	842.2	17.6
60°-70°	1487.6	31.1
70°-80°	613.9	12.8
80°-90°	92.7	1.9
90°-100°	0.0	0.0
100°-110°	0.0	0.0
110°-120°	0.0	0.0
120°-130°	0.0	0.0
130°-140°	0.0	0.0
140°-150°	0.0	0.0
150°-160°	0.0	0.0
160°-170°	0.0	0.0
170°-180°	0.0	0.0
0°-90°	4789.6	100.0
0°-180°	4789.6	100.0

Coefficient of Utilization



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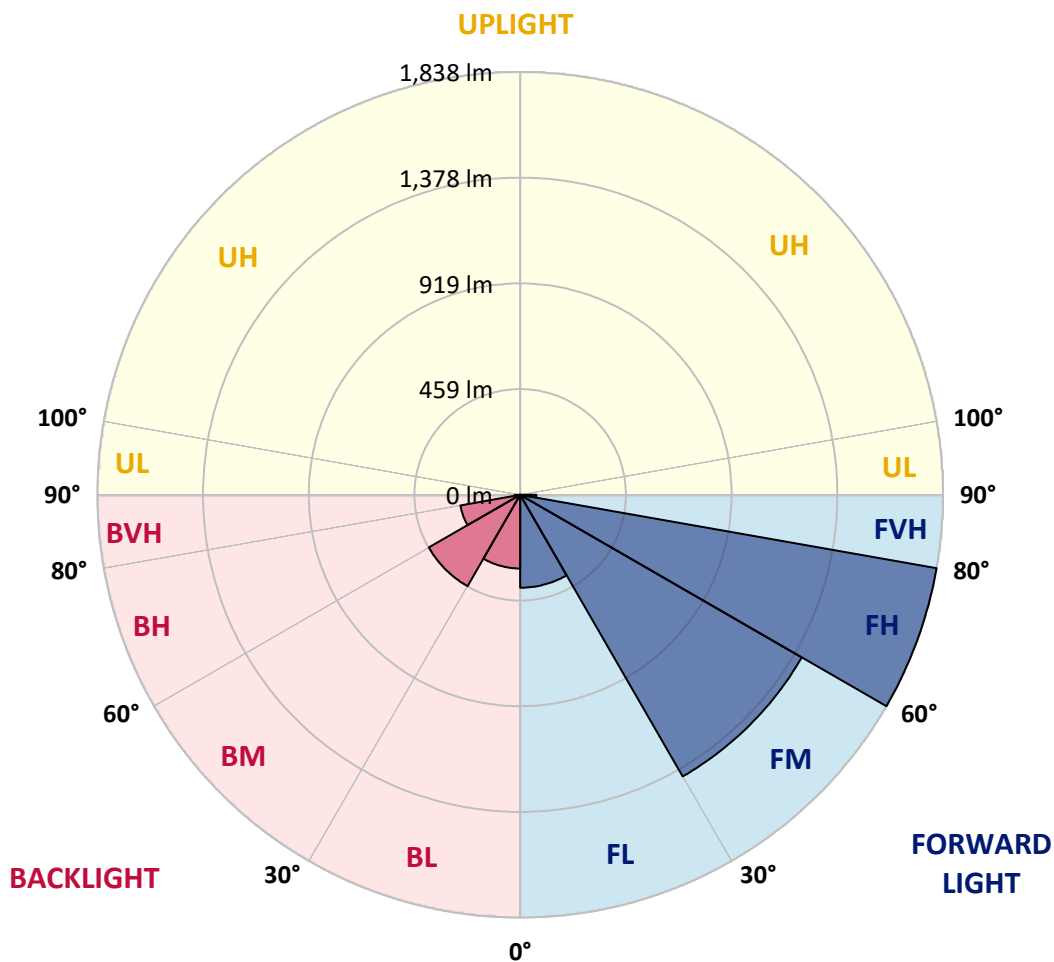
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	403.9	8.4			
FM (30°-60°)	1413.1	29.5			
FH (60°-80°)	1837.8	38.4			G2/5000
FVH (80°-90°)	70.1	1.5			G1/100
BL (0°-30°)	320.1	6.7	B1/500		
BM (30°-60°)	458.3	9.6	B1/1000		
BH (60°-80°)	263.8	5.5	B1/500		G1/500
BVH (80°-90°)	22.6	0.5			G1/100
UL (90°-100°)	0.0	0.0		U0/0	
UH (100°-180°)	0.0	0.0		U0/0	

BUG Rating: B1-U0-G2

Type IV Short





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CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	42.5°	45°
0°	1020.0	1020.0	1020.0	1020.0	1020.0	1020.0	1020.0	1020.0	1020.0	1020.0	1020.0
2.5°	1016.7	1020.4	1019.0	1019.0	1020.0	1018.4	1018.4	1019.0	1017.4	1018.4	1018.0
5°	1013.1	1015.1	1014.4	1014.4	1014.4	1013.1	1012.4	1012.1	1009.8	1009.8	1008.8
7.5°	1005.2	1005.8	1006.8	1005.5	1005.2	1004.8	1002.5	1001.2	998.6	996.2	996.9
10°	994.6	994.3	995.9	994.9	993.6	992.6	990.6	988.3	985.3	982.4	982.0
12.5°	982.7	982.4	983.7	983.0	982.0	980.0	978.4	974.5	969.8	966.2	965.9
15°	975.1	974.1	975.4	974.1	972.5	970.5	967.5	962.6	954.3	950.7	947.7
17.5°	982.4	980.7	981.4	979.7	977.4	972.1	965.2	954.7	942.7	936.5	931.9
20°	1007.8	1004.8	1005.5	1003.9	998.6	991.6	978.4	959.9	939.8	929.5	922.3
22.5°	1044.1	1041.8	1042.8	1041.2	1035.8	1025.3	1005.5	979.1	950.3	935.5	923.9
25°	1099.3	1101.2	1101.9	1094.3	1091.3	1071.8	1044.5	1007.8	969.5	952.0	936.1
27.5°	1161.4	1161.4	1164.3	1161.4	1155.4	1132.6	1094.0	1049.8	1000.6	976.7	957.6
30°	1221.8	1221.1	1226.8	1226.0	1216.5	1190.8	1146.8	1093.0	1036.9	1010.1	985.7
32.5°	1285.9	1287.8	1291.4	1290.1	1277.6	1241.9	1189.1	1130.6	1071.5	1042.1	1014.7
35°	1355.2	1356.2	1357.5	1356.8	1331.4	1286.5	1220.1	1154.8	1093.3	1064.3	1035.8
37.5°	1424.5	1423.6	1421.9	1407.7	1378.6	1316.2	1238.9	1168.6	1104.2	1072.9	1043.5
40°	1486.6	1481.0	1475.7	1453.6	1409.0	1333.1	1246.2	1171.9	1103.2	1070.9	1042.1
42.5°	1520.6	1514.3	1503.4	1475.7	1421.6	1334.7	1241.3	1162.0	1093.0	1061.0	1032.5
45°	1526.9	1522.3	1511.7	1480.7	1418.6	1324.1	1226.0	1145.8	1077.8	1045.8	1019.0
47.5°	1512.1	1508.4	1498.1	1467.5	1405.7	1308.3	1208.6	1128.7	1063.0	1032.9	1007.2
50°	1489.3	1486.0	1478.0	1450.0	1391.2	1297.4	1199.6	1119.7	1058.0	1030.6	1006.8
52.5°	1526.2	1528.9	1505.8	1475.0	1406.7	1307.0	1209.5	1129.0	1066.9	1039.9	1015.1
55°	2101.1	2097.5	1958.5	1841.9	1633.6	1444.7	1303.7	1202.3	1135.9	1108.9	1085.8
57.5°	2730.2	2717.6	2660.5	2551.6	2327.6	2028.8	1757.0	1525.9	1434.8	1395.8	1398.4
60°	2935.6	2940.2	2928.0	2889.4	2809.1	2653.6	2446.9	2273.2	2102.1	2018.6	2028.1
62.5°	3049.5	3057.7	3068.3	3059.7	3033.7	2997.7	2971.6	2987.4	2963.6	2903.5	2855.6
65°	3065.3	3082.2	3117.2	3144.9	3158.5	3192.5	3272.4	3463.9	3638.9	3650.5	3566.3
67.5°	2751.7	2798.2	2874.1	3002.6	3112.6	3233.4	3426.2	3717.5	3975.7	3984.3	3905.7
69°	2163.5	2253.0	2341.9	2628.8	2822.0	3058.7	3344.0	3742.0	4051.3	4075.1	3976.1
70°	1733.6	1786.7	1863.4	2151.7	2440.3	2742.1	3155.5	3661.4	3999.5	4047.4	3938.1
72.5°	1040.8	1061.3	1087.7	1191.1	1339.7	1608.5	2156.6	2985.1	3373.7	3437.8	3298.8
75°	673.0	671.6	674.0	702.7	711.3	762.8	935.5	1535.8	2200.9	2317.1	2150.6
77.5°	506.9	511.5	504.2	506.9	504.5	518.4	523.7	549.8	868.8	1070.2	956.9
80°	447.4	449.8	450.1	448.7	432.6	431.3	439.9	425.0	394.9	400.9	384.1
82.5°	255.2	254.9	257.9	280.3	289.6	320.0	332.5	339.5	313.4	293.9	265.8
85°	165.4	166.7	170.0	177.0	170.0	172.7	169.7	175.7	161.2	149.6	133.7
87.5°	67.7	67.7	72.0	78.2	73.0	71.6	61.4	60.8	51.5	46.6	36.3
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0



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CANDELA DISTRIBUTION (continued):

	50°	55°	60°	65°	70°	75°	80°	85°	90°	95°	100°
0°	1020.0	1020.0	1020.0	1020.0	1020.0	1020.0	1020.0	1020.0	1020.0	1020.0	1020.0
2.5°	1016.0	1018.0	1017.1	1018.4	1017.4	1017.4	1016.0	1015.7	1016.7	1015.4	1015.7
5°	1007.2	1007.5	1005.8	1006.5	1004.5	1003.9	1002.8	1000.2	1001.9	1000.2	1000.9
7.5°	994.3	993.3	991.0	987.7	985.3	984.4	982.4	978.7	979.4	976.4	978.1
10°	977.8	974.5	970.5	965.5	962.2	959.3	955.0	950.7	948.4	945.7	945.4
12.5°	959.3	955.3	950.0	942.4	935.2	930.2	923.6	916.0	913.7	909.4	907.1
15°	939.1	932.8	926.6	918.0	910.1	902.5	893.5	884.0	877.7	871.1	866.2
17.5°	920.9	913.7	905.5	897.2	888.6	879.4	868.1	856.3	847.0	834.8	824.9
20°	906.8	897.5	889.3	880.7	871.1	859.9	846.3	831.1	815.6	802.1	790.5
22.5°	901.1	886.6	876.7	868.1	858.5	845.3	828.8	811.0	792.2	773.3	758.2
25°	905.8	884.3	868.8	858.5	850.3	836.8	818.3	796.4	774.7	752.2	731.8
27.5°	919.3	891.9	869.5	853.3	843.7	830.2	810.7	787.6	761.8	736.7	711.6
30°	940.4	904.8	876.4	853.6	838.7	823.2	802.7	776.0	749.9	721.2	693.8
32.5°	960.9	918.3	884.3	854.9	832.1	812.0	789.2	762.8	734.7	704.6	676.3
35°	975.4	927.2	887.3	851.9	821.9	796.8	772.4	745.9	718.6	687.8	658.7
37.5°	982.4	932.2	887.6	844.0	808.4	780.6	754.5	728.5	702.7	673.6	646.2
40°	982.0	931.9	883.0	833.8	792.2	762.8	737.0	711.6	687.5	662.1	637.3
42.5°	974.8	926.6	876.4	823.9	780.6	747.9	721.2	696.7	676.3	653.8	633.0
45°	963.5	917.6	869.5	819.2	777.3	744.6	716.2	692.5	674.3	653.8	636.0
47.5°	955.0	912.7	870.4	827.5	787.6	753.5	723.5	697.4	681.9	665.4	652.8
50°	956.3	915.0	873.7	832.4	794.8	760.5	731.4	707.6	696.4	692.1	689.2
52.5°	963.2	918.7	883.6	858.9	846.0	820.3	803.1	788.2	796.4	780.3	761.2
55°	1051.7	1037.2	1071.2	1103.2	1143.8	1159.0	1144.5	1141.9	1155.1	1100.3	974.5
57.5°	1417.3	1454.9	1507.4	1535.2	1568.8	1559.9	1526.2	1498.1	1465.1	1401.1	1244.2
60°	2039.0	2010.7	1986.9	1919.8	1865.0	1801.0	1729.6	1668.5	1610.1	1518.0	1348.3
62.5°	2679.7	2482.5	2317.7	2158.6	2030.5	1924.1	1820.8	1729.0	1640.5	1512.1	1329.4
65°	3233.8	2818.7	2509.3	2275.8	2088.6	1927.1	1794.4	1667.6	1555.0	1404.4	1223.8
67.5°	3482.7	2962.6	2512.6	2178.1	1918.9	1699.6	1527.9	1336.4	1210.2	1113.8	1012.1
69°	3464.2	2852.7	2333.3	1921.5	1623.7	1368.1	1183.8	984.0	863.2	822.2	819.9
70°	3376.4	2666.5	2123.9	1713.1	1372.4	1118.4	941.8	762.5	649.9	621.8	671.6
72.5°	2756.6	1884.2	1331.1	1016.4	781.6	617.8	503.9	399.9	319.3	276.7	286.0
75°	1556.9	872.4	564.0	426.3	360.2	297.8	255.6	217.9	197.2	160.1	126.8
77.5°	566.0	374.5	297.8	257.6	182.6	125.8	105.4	92.1	83.5	83.5	79.6
80°	358.0	282.0	196.8	134.7	99.7	86.8	76.0	66.7	61.4	60.1	61.4
82.5°	223.6	172.7	110.3	84.5	71.0	63.7	55.5	48.5	44.2	43.3	45.2
85°	110.3	85.5	67.0	59.8	56.2	52.2	45.9	39.3	38.0	40.6	47.6
87.5°	33.0	29.4	24.1	25.1	26.4	25.7	20.5	17.8	16.9	22.1	34.7
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0



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CANDELA DISTRIBUTION (continued):

	105°	110°	115°	120°	125°	130°	135°	140°	145°	150°	155°
0°	1020.0	1020.0	1020.0	1020.0	1020.0	1020.0	1020.0	1020.0	1020.0	1020.0	1020.0
2.5°	1016.4	1016.0	1016.7	1015.7	1016.4	1016.7	1016.0	1019.0	1017.1	1017.4	1018.7
5°	1001.5	1000.9	1003.5	1002.8	1004.2	1005.5	1004.8	1009.1	1007.5	1008.8	1011.4
7.5°	976.7	978.1	978.4	978.4	981.1	985.3	986.3	989.0	989.0	992.6	995.3
10°	943.7	944.1	946.1	945.7	949.0	953.6	954.3	958.9	960.6	966.5	970.1
12.5°	905.5	903.8	903.5	903.1	907.4	912.4	913.0	920.9	924.2	929.5	935.5
15°	862.5	858.2	856.9	859.6	858.5	861.5	864.5	868.8	873.4	884.0	889.3
17.5°	820.6	812.0	809.7	806.7	803.8	803.8	805.1	810.4	819.9	825.5	837.4
20°	777.7	767.4	759.2	751.2	744.3	741.7	742.0	748.6	755.5	764.8	776.0
22.5°	741.7	726.1	712.0	701.3	687.2	686.8	684.8	686.8	694.4	696.7	703.0
25°	710.6	689.8	670.7	653.5	639.6	632.3	630.4	629.7	626.1	625.1	620.5
27.5°	686.5	661.4	636.7	615.8	598.7	588.8	576.2	567.3	554.4	551.1	542.9
30°	666.7	639.6	612.5	585.5	566.0	548.2	527.0	511.5	491.7	478.8	467.6
32.5°	647.5	620.2	592.7	566.0	535.9	508.2	480.5	456.4	434.2	414.4	397.9
35°	631.7	605.6	577.9	545.5	507.2	467.2	433.9	406.5	376.1	355.3	334.5
37.5°	621.5	597.7	569.9	525.4	476.2	433.3	395.3	361.9	330.9	299.5	276.1
40°	616.9	596.0	561.4	506.9	449.1	401.5	359.6	322.6	283.0	247.7	222.5
42.5°	616.5	595.4	549.5	486.4	426.7	374.8	328.2	284.0	240.1	203.8	179.0
45°	622.4	594.4	536.9	469.2	406.8	352.7	297.2	243.4	194.2	167.1	153.9
47.5°	638.3	596.0	526.7	453.4	388.0	325.9	261.5	198.8	158.2	145.6	145.6
50°	666.7	605.6	524.0	442.1	369.2	294.9	217.9	160.5	140.0	140.0	144.0
52.5°	710.3	625.7	528.7	434.2	345.7	253.9	171.7	138.4	134.4	138.0	143.3
55°	810.7	661.4	535.0	420.7	310.1	201.4	141.7	130.7	132.4	136.7	141.7
57.5°	994.9	737.7	541.6	391.0	252.6	155.2	128.5	127.8	130.7	134.7	139.0
60°	1116.1	834.8	558.4	346.1	191.2	128.1	121.9	125.8	129.4	132.7	136.0
62.5°	1116.1	862.2	571.0	295.9	143.6	116.6	117.5	123.8	128.1	129.8	131.8
65°	1044.8	812.0	528.4	241.1	116.9	110.0	113.6	119.9	123.8	125.2	126.8
67.5°	913.0	717.2	445.1	181.6	104.3	104.3	109.0	113.6	116.9	119.5	122.2
69°	793.8	643.6	392.0	153.9	99.4	100.1	104.7	108.7	112.6	115.9	119.2
70°	708.0	588.4	355.0	139.7	96.4	96.8	101.4	105.7	109.3	112.9	116.9
72.5°	379.1	406.5	269.8	114.6	88.8	89.8	94.1	98.1	101.4	105.0	108.7
75°	129.1	174.7	171.7	93.8	80.2	82.9	85.5	89.2	93.4	95.8	97.7
77.5°	75.6	78.2	91.4	76.3	72.3	73.6	76.6	79.6	83.2	85.5	87.2
80°	63.4	63.1	63.4	62.1	63.1	66.1	68.0	72.0	75.3	76.0	75.6
82.5°	51.5	54.2	54.5	53.8	56.8	59.1	60.8	63.1	62.8	63.4	64.7
85°	45.9	45.5	47.9	48.2	48.2	46.6	46.9	46.9	46.9	47.9	48.2
87.5°	45.9	38.3	29.7	26.8	28.1	26.4	25.1	24.8	27.4	30.1	29.4
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0



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CANDELA DISTRIBUTION (continued):

	160°	165°	170°	175°	180°
0°	1020.0	1020.0	1020.0	1020.0	1020.0
2.5°	1019.3	1020.4	1019.7	1019.7	1020.4
5°	1012.4	1014.1	1013.4	1014.1	1014.1
7.5°	996.6	998.9	1000.6	1002.2	1001.2
10°	973.8	977.8	980.4	982.4	981.4
12.5°	939.8	943.4	949.0	952.3	949.7
15°	893.2	903.5	906.8	911.4	908.8
17.5°	844.7	851.0	854.9	859.2	861.8
20°	779.9	784.9	790.2	792.2	789.2
22.5°	702.0	704.6	703.7	706.6	700.7
25°	616.5	618.2	617.2	619.8	614.9
27.5°	535.6	535.3	535.6	532.3	529.0
30°	457.7	454.7	453.4	448.4	447.4
32.5°	388.0	377.8	372.5	365.2	363.5
35°	318.3	303.8	294.2	286.0	282.3
37.5°	255.9	238.4	227.2	219.9	218.9
40°	202.4	186.2	178.3	174.4	173.7
42.5°	165.1	158.2	156.2	156.2	156.2
45°	150.6	150.2	151.9	153.2	153.5
47.5°	147.6	149.6	151.9	153.9	154.6
50°	147.6	149.6	151.3	153.2	153.9
52.5°	146.9	148.6	149.3	150.6	151.3
55°	145.0	146.0	146.0	146.6	147.3
57.5°	141.7	142.3	141.3	142.0	143.6
60°	138.4	139.0	137.3	139.0	140.0
62.5°	134.7	135.1	134.4	135.7	135.7
65°	128.8	128.1	129.1	130.1	130.4
67.5°	122.8	121.2	122.2	122.5	123.2
69°	118.2	117.2	117.5	118.2	118.9
70°	114.9	114.2	114.9	115.9	116.9
72.5°	106.7	107.0	109.3	111.3	113.3
75°	99.1	101.4	104.3	108.7	110.9
77.5°	89.8	91.4	93.8	98.4	102.7
80°	77.6	78.6	78.9	80.6	80.2
82.5°	63.1	62.1	61.4	60.8	60.4
85°	45.2	44.9	42.2	40.3	40.3
87.5°	27.1	25.7	24.4	22.8	21.8
90°	0.0	0.0	0.0	0.0	0.0

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