

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: P159545

Luminaire Tested: **VST-F04-LED-E-U-T3**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P159545  
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (P33706)  
Test Lab: INNOVATION CENTER-P3  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: STREETWORKS  
Catalog Number: VST-F04-LED-E-U-T3  
Description: VENTUS LED SITE/ROADWAY LUMINAIRE  
(4) LIGHTBARS WITH AccuLED OPTICS - TYPE 3 AREA  
Light Source: (28) 4000K CCT, 70 CRI LEDs  
Ballast/Driver: -

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 10099 lumens  
Efficiency: N/A  
Efficacy: 98.8 lumens/watt  
Luminous Opening: Rectangular (W 0.67' x L: 1' x H: 0')  
IES Classification: Type II - Short - Semi-Cutoff  
BUG Rating: B3 - U0 - G3

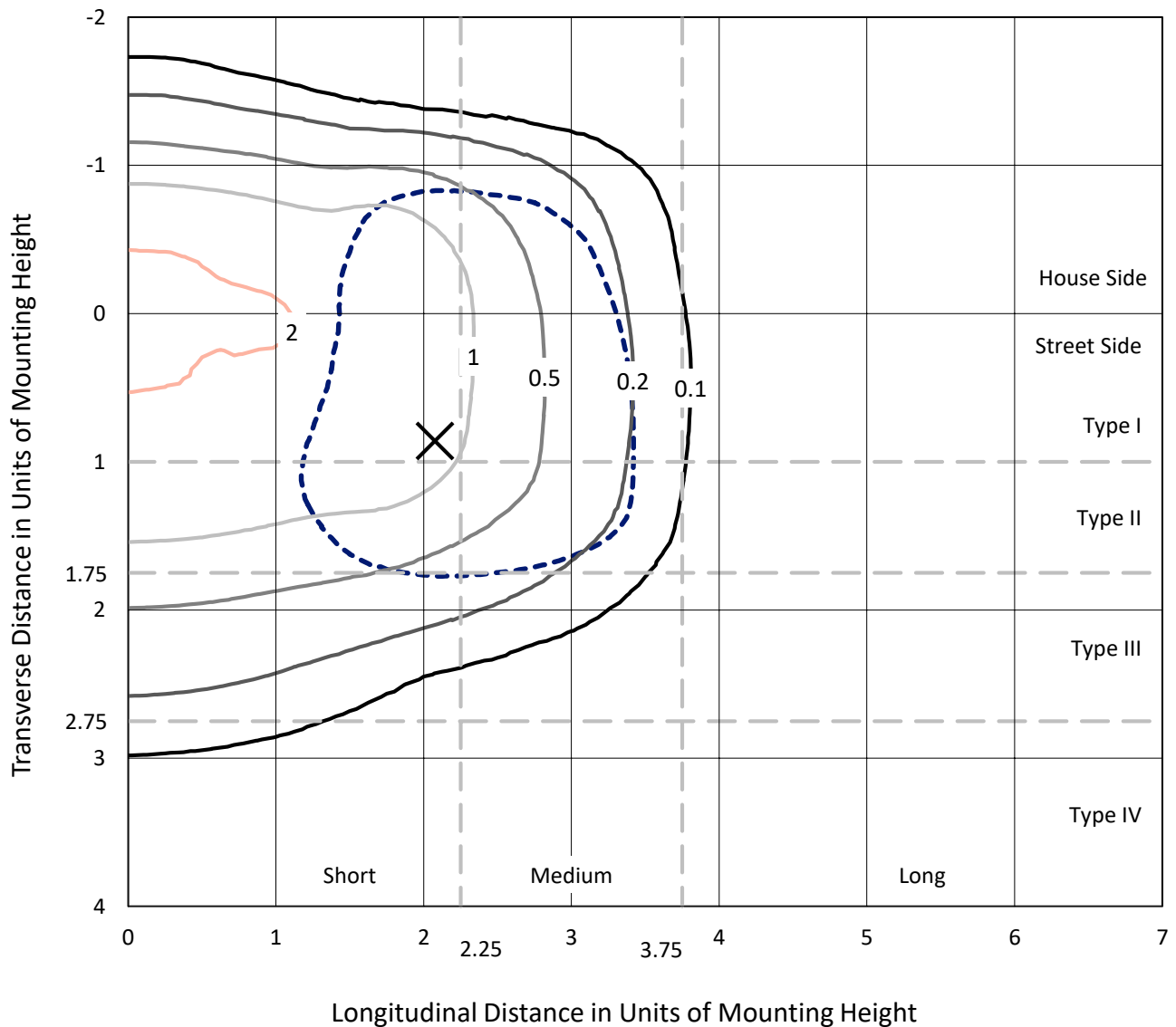
Input Watts (W): 102.2  
Input Voltage (V): NR  
Input Current (A<sub>in</sub>): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 28.75 FT



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### Iso-Footcandle Lines of Horizontal Illumination

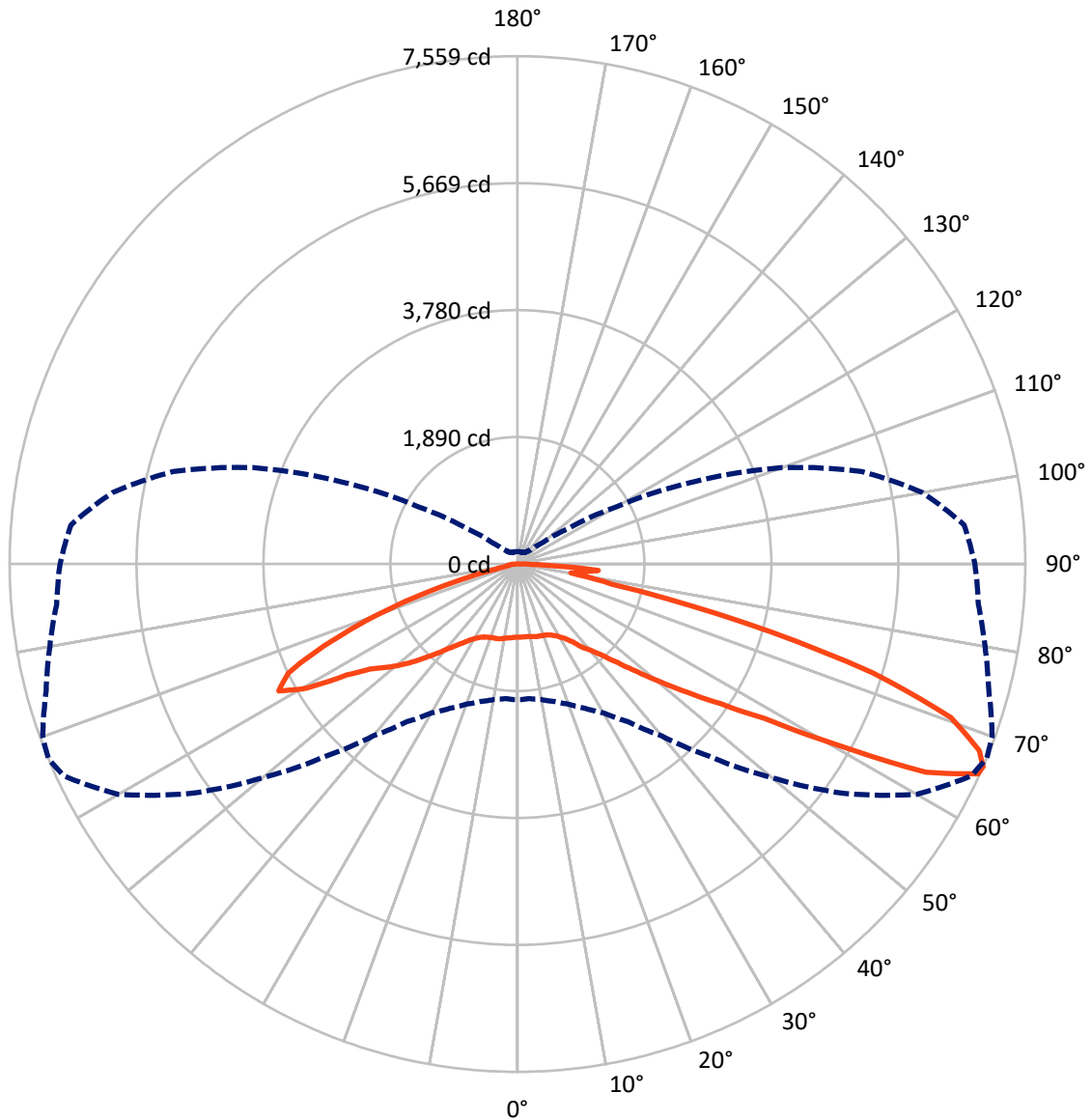
✕ Max cd  
 - - - 1/2 Max cd



Based on 20 foot mounting height. Maximum calculated value = 2.7 fc  
 Type II - Short - Semi-Cutoff

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### Luminous Intensity Polar Plot



— Vertical Plane Through 67.5-Deg Lateral    - - - Horizontal Cone Through 66-Deg Vertical

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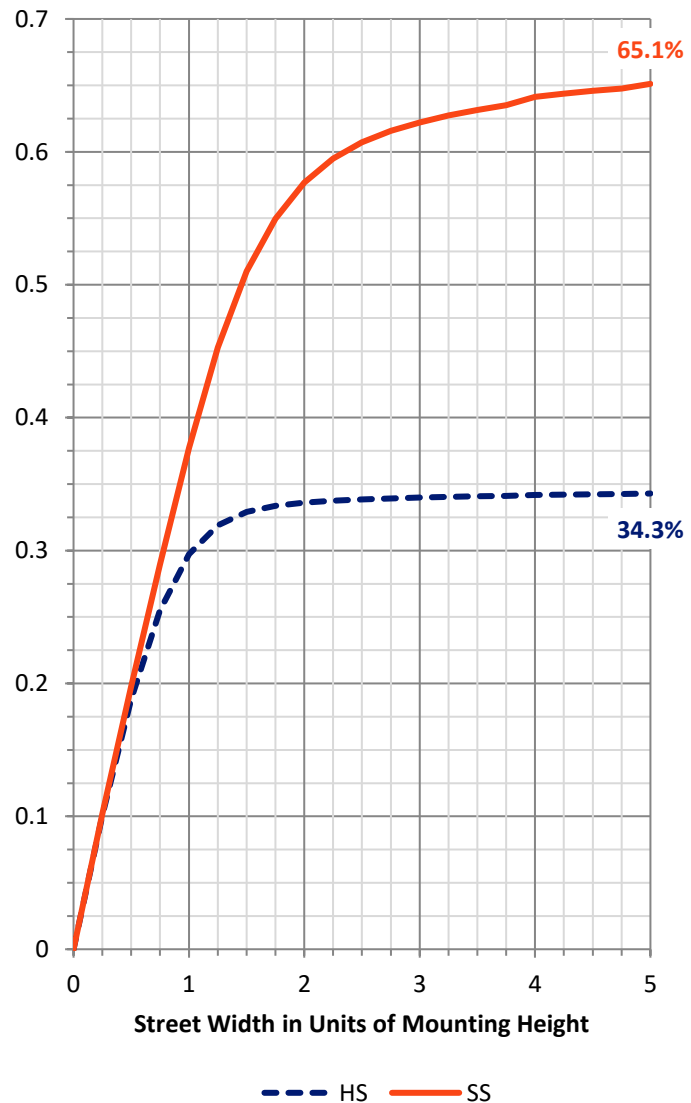
**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	3494.7	0.0	3494.7
	% Fixture	34.6	0.0	34.6
<b>Street Side</b>	Lumens	6604.3	0.0	6604.3
	% Fixture	65.4	0.0	65.4
<b>Total</b>	Lumens	10099.0	0.0	10099.0
	% Fixture	100.0	0.0	100.0

**Coefficient of Utilization**

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	104.6	1.0
10°-20°	309.6	3.1
20°-30°	532.3	5.3
30°-40°	860.2	8.5
40°-50°	1425.6	14.1
50°-60°	2237.4	22.2
60°-70°	3058.9	30.3
70°-80°	1345.2	13.3
80°-90°	225.2	2.2
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°	10099.0	100.0
0°-180°	10099.0	100.0



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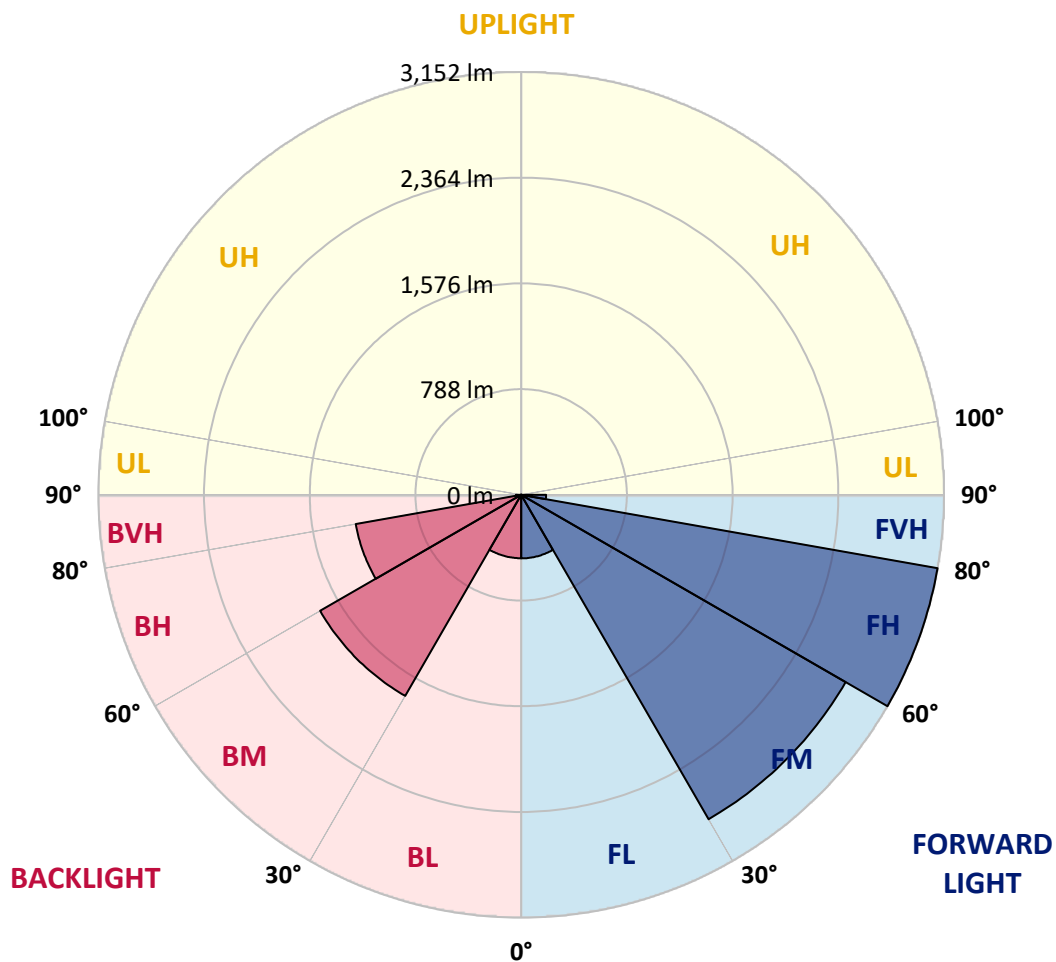
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	473.7	4.7			
FM (30°-60°)	2792.7	27.7			
FH (60°-80°)	3152.1	31.2			G2/5000
FVH (80°-90°)	185.8	1.8			G2/225
BL (0°-30°)	472.7	4.7	B1/500		
BM (30°-60°)	1730.6	17.1	B2/2500		
BH (60°-80°)	1252.0	12.4	B3/2500		G3/2500
BVH (80°-90°)	39.4	0.4			G1/100
UL (90°-100°)	0.0	0.0		U0/0	
UH (100°-180°)	0.0	0.0		U0/0	

**BUG Rating: B3-U0-G3**

Type II Short





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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	1089.7	1089.7	1089.7	1089.7	1089.7	1089.7	1089.7	1089.7	1089.7	1089.7	1089.7
2.5°	1087.7	1087.7	1088.4	1087.7	1087.7	1087.1	1089.7	1089.7	1089.7	1089.0	1091.0
5°	1085.1	1085.1	1085.7	1085.7	1086.4	1085.7	1087.7	1088.4	1088.4	1088.4	1090.4
7.5°	1078.5	1080.4	1079.1	1079.8	1080.4	1082.4	1085.1	1086.4	1087.7	1089.7	1090.4
10°	1064.6	1067.9	1067.2	1069.2	1069.9	1075.8	1077.8	1080.4	1085.1	1087.7	1089.7
12.5°	1045.4	1047.4	1048.1	1050.7	1053.4	1060.6	1065.9	1070.5	1077.1	1083.7	1090.4
15°	1030.3	1031.6	1031.6	1034.2	1038.2	1044.8	1051.4	1059.3	1069.2	1080.4	1091.0
17.5°	1034.9	1038.2	1035.5	1034.9	1036.2	1040.2	1046.1	1052.7	1064.6	1077.1	1089.7
20°	1065.3	1065.9	1064.6	1061.3	1058.7	1059.3	1059.3	1060.6	1067.9	1077.8	1087.7
22.5°	1090.4	1093.0	1092.3	1093.0	1092.3	1095.0	1093.7	1091.0	1088.4	1089.0	1093.7
25°	1112.1	1114.8	1114.8	1116.8	1120.1	1125.4	1129.3	1128.7	1124.7	1119.4	1117.4
27.5°	1147.8	1147.8	1147.8	1149.8	1154.4	1161.0	1167.6	1171.6	1174.9	1169.6	1158.4
30°	1203.9	1204.6	1202.6	1203.3	1206.6	1215.2	1223.1	1229.0	1235.6	1235.0	1220.5
32.5°	1265.4	1268.0	1267.3	1270.0	1274.6	1282.5	1291.1	1300.4	1309.0	1314.2	1305.0
35°	1344.6	1347.3	1347.9	1351.9	1357.2	1369.1	1380.9	1392.8	1402.1	1406.0	1404.1
37.5°	1474.7	1475.4	1472.7	1466.8	1468.8	1478.0	1491.9	1511.0	1517.0	1520.9	1530.2
40°	1669.5	1667.6	1657.0	1651.7	1648.4	1652.4	1649.7	1664.9	1678.8	1679.4	1678.8
42.5°	1906.0	1900.0	1890.1	1888.8	1887.5	1886.2	1878.9	1879.6	1892.1	1895.4	1891.4
45°	2141.1	2133.8	2126.6	2133.2	2125.2	2145.7	2151.6	2167.5	2169.5	2176.1	2166.2
47.5°	2333.9	2334.6	2334.6	2343.8	2359.7	2398.6	2433.6	2464.0	2475.3	2491.1	2493.1
50°	2479.9	2483.8	2496.4	2526.1	2559.8	2625.2	2683.9	2738.8	2788.3	2806.8	2855.7
52.5°	2565.1	2575.6	2602.1	2651.6	2711.7	2796.2	2888.7	2981.8	3067.7	3140.3	3198.4
55°	2549.9	2557.8	2604.0	2681.3	2775.1	2888.7	3018.1	3152.8	3286.9	3409.7	3504.8
57.5°	2452.1	2457.4	2503.7	2590.8	2707.7	2860.3	3043.2	3243.3	3431.5	3629.7	3792.1
60°	2324.0	2331.9	2374.9	2443.6	2565.7	2728.2	2940.2	3211.6	3512.1	3823.8	4127.6
62.5°	2242.1	2240.1	2277.8	2339.2	2431.0	2578.3	2782.3	3104.0	3520.0	4047.1	4647.4
65°	2106.1	2100.1	2139.1	2209.1	2308.8	2451.5	2645.0	2954.1	3436.8	4131.6	4982.9
66°	2021.5	2009.7	2048.6	2119.3	2219.0	2370.9	2556.5	2861.6	3335.8	4049.0	4947.2
67.5°	1873.6	1867.7	1886.2	1941.6	2015.6	2158.3	2351.8	2658.9	3096.7	3800.7	4685.7
70°	1522.9	1509.7	1524.2	1549.3	1577.7	1612.7	1731.6	1975.3	2345.8	3028.0	3775.0
72.5°	1037.5	1030.9	1058.0	1096.3	1172.2	1207.9	1254.8	1294.4	1425.2	1908.6	2633.1
75°	789.2	793.2	827.5	890.9	988.6	1094.3	1197.3	1235.0	1191.4	1153.8	1494.5
77.5°	442.5	465.6	507.2	587.8	691.5	840.7	1020.3	1218.5	1317.5	1293.1	1209.2
80°	182.3	179.0	199.4	243.7	279.4	401.5	614.2	862.5	1141.2	1317.5	1289.8
82.5°	50.9	52.2	67.4	86.5	111.6	142.0	221.9	356.6	581.2	904.1	1183.5
85°	15.9	15.9	21.8	32.4	38.3	44.2	56.1	92.5	157.8	315.0	638.6
87.5°	3.3	3.3	4.6	9.2	9.9	9.9	12.5	17.2	15.2	13.9	62.1
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):**

	55°	60°	65°	67.5°	70°	75°	80°	85°	90°	95°	100°
0°	1089.7	1089.7	1089.7	1089.7	1089.7	1089.7	1089.7	1089.7	1089.7	1089.7	1089.7
2.5°	1089.0	1087.7	1088.4	1089.0	1088.4	1088.4	1087.7	1087.1	1087.7	1087.7	1089.7
5°	1088.4	1087.7	1088.4	1088.4	1088.4	1089.0	1089.0	1089.0	1091.0	1091.0	1094.3
7.5°	1089.7	1089.7	1091.0	1091.0	1091.0	1091.0	1091.7	1093.0	1096.3	1095.6	1101.6
10°	1092.3	1093.7	1097.0	1097.6	1097.6	1099.6	1100.9	1103.6	1106.9	1108.2	1113.5
12.5°	1095.6	1102.2	1108.2	1109.5	1111.5	1114.8	1116.8	1118.1	1124.0	1126.0	1132.6
15°	1099.6	1108.8	1116.1	1118.8	1121.4	1125.4	1128.0	1130.0	1135.3	1137.9	1145.8
17.5°	1100.3	1110.8	1119.4	1123.4	1126.7	1131.3	1135.3	1139.2	1145.2	1149.1	1157.1
20°	1099.6	1113.5	1126.7	1132.0	1135.3	1143.8	1149.8	1155.1	1162.3	1166.3	1174.2
22.5°	1106.9	1122.7	1140.5	1147.1	1152.4	1164.3	1172.2	1180.8	1190.1	1192.7	1198.7
25°	1124.0	1140.5	1163.0	1172.2	1181.5	1197.3	1208.6	1221.1	1230.4	1231.7	1233.7
27.5°	1153.1	1168.3	1195.4	1209.2	1224.4	1246.9	1263.4	1275.9	1289.1	1289.1	1287.8
30°	1211.9	1215.2	1243.6	1261.4	1283.9	1316.9	1341.3	1355.2	1365.1	1365.1	1353.9
32.5°	1287.8	1283.9	1309.6	1328.8	1359.8	1406.0	1439.1	1449.6	1460.2	1456.9	1437.7
35°	1397.4	1386.2	1400.8	1429.8	1464.8	1528.2	1562.6	1586.3	1592.9	1583.7	1553.3
37.5°	1535.5	1534.2	1541.4	1573.8	1612.7	1694.6	1729.6	1744.8	1739.5	1723.0	1669.5
40°	1681.4	1677.5	1672.8	1694.6	1738.2	1836.6	1898.7	1906.6	1899.4	1874.9	1807.6
42.5°	1876.3	1876.3	1854.5	1860.4	1896.7	2007.0	2080.3	2105.4	2106.1	2070.4	1980.6
45°	2144.4	2141.7	2103.4	2094.2	2121.9	2230.2	2324.7	2338.5	2338.5	2291.7	2193.3
47.5°	2466.7	2463.4	2425.7	2393.4	2398.6	2515.5	2594.1	2615.3	2596.8	2561.8	2444.9
50°	2829.9	2824.0	2785.7	2755.3	2742.1	2860.3	2927.0	2936.9	2909.8	2868.2	2741.4
52.5°	3198.4	3216.2	3193.8	3177.3	3181.9	3258.5	3327.2	3280.3	3266.4	3221.5	3094.1
55°	3582.1	3636.9	3686.5	3671.9	3689.1	3763.7	3776.9	3714.9	3689.8	3657.4	3515.4
57.5°	3968.5	4128.3	4290.7	4336.3	4378.6	4485.6	4470.4	4368.7	4387.8	4436.0	4276.2
60°	4508.0	4969.7	5381.8	5457.7	5589.1	5680.3	5700.7	5680.9	5770.1	5745.0	5603.7
62.5°	5336.9	6106.2	6679.5	6822.1	6954.2	6949.6	6880.3	6808.9	6896.8	6896.8	6527.6
65°	5928.6	6801.7	7415.2	7533.4	7528.1	7369.0	7205.2	7062.5	7050.0	6952.2	6412.7
66°	5956.3	6855.2	7456.1	7559.2	7519.5	7263.3	7067.2	6886.2	6808.9	6672.9	6120.1
67.5°	5706.7	6703.9	7322.7	7412.6	7308.2	6941.0	6670.9	6428.5	6316.3	6087.1	5566.7
70°	4681.1	5761.5	6661.7	6845.3	6727.0	6262.1	5892.3	5564.7	5350.1	5019.2	4644.1
72.5°	3417.0	4253.8	5228.5	5527.1	5508.6	5080.6	4782.8	4482.9	4200.9	3899.8	3625.7
75°	2221.0	2767.2	3310.7	3485.0	3401.2	3153.5	2940.2	2765.2	2497.7	2288.4	2237.5
77.5°	1268.0	1549.3	1465.5	1443.7	1338.7	1080.4	718.5	503.9	455.0	568.0	622.8
80°	1206.6	1093.7	895.5	807.7	742.3	505.9	265.5	186.9	163.8	167.7	180.3
82.5°	1360.5	1417.9	1159.7	968.8	843.4	615.5	336.2	156.5	114.3	135.4	151.9
85°	1019.7	1435.8	1423.2	1205.9	989.3	709.3	397.6	119.5	68.7	95.1	124.2
87.5°	206.7	340.1	327.6	287.9	245.0	171.0	66.7	37.6	34.3	46.9	71.3
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):**

	105°	110°	115°	120°	125°	130°	135°	140°	145°	150°	155°
0°	1089.7	1089.7	1089.7	1089.7	1089.7	1089.7	1089.7	1089.7	1089.7	1089.7	1089.7
2.5°	1091.0	1091.0	1092.3	1094.3	1095.0	1095.0	1096.3	1095.0	1097.6	1098.3	1098.9
5°	1097.0	1098.9	1100.3	1103.6	1105.5	1106.9	1108.8	1107.5	1110.2	1110.8	1112.1
7.5°	1103.6	1106.9	1109.5	1110.8	1113.5	1113.5	1114.1	1112.8	1112.1	1110.2	1109.5
10°	1115.4	1117.4	1120.7	1119.4	1118.1	1113.5	1109.5	1103.6	1100.3	1094.3	1091.0
12.5°	1134.6	1135.9	1135.9	1130.0	1121.4	1110.8	1100.9	1091.0	1083.1	1076.5	1072.5
15°	1147.8	1150.5	1147.1	1138.6	1126.0	1111.5	1098.3	1085.1	1074.5	1065.9	1060.6
17.5°	1157.7	1157.1	1151.1	1139.2	1127.3	1114.8	1102.9	1089.0	1075.8	1063.3	1055.4
20°	1172.9	1166.3	1155.7	1143.2	1130.6	1120.1	1110.8	1097.6	1083.7	1066.6	1054.7
22.5°	1193.4	1181.5	1166.3	1153.1	1141.2	1131.3	1120.7	1109.5	1095.0	1075.8	1059.3
25°	1222.4	1202.0	1184.8	1171.6	1161.0	1149.8	1137.9	1123.4	1108.8	1089.0	1069.2
27.5°	1266.7	1236.3	1214.5	1202.6	1192.7	1177.5	1162.3	1145.2	1126.7	1106.2	1083.7
30°	1320.2	1283.9	1258.8	1248.2	1236.3	1219.1	1202.6	1178.8	1153.1	1128.7	1100.9
32.5°	1382.9	1345.9	1320.8	1312.9	1293.8	1274.0	1250.8	1219.1	1185.5	1149.1	1116.1
35°	1478.0	1431.1	1408.0	1389.5	1363.1	1339.3	1300.4	1258.8	1210.5	1162.3	1121.4
37.5°	1575.8	1528.2	1504.4	1478.7	1444.3	1400.8	1348.6	1289.1	1225.1	1165.6	1115.4
40°	1706.5	1655.0	1624.6	1585.0	1529.5	1461.5	1384.2	1303.0	1225.1	1151.1	1090.4
42.5°	1859.1	1811.5	1764.6	1699.3	1610.1	1511.0	1402.7	1298.4	1203.9	1118.8	1054.7
45°	2070.4	1989.2	1914.6	1809.6	1679.4	1540.1	1404.7	1276.6	1167.6	1073.2	1001.9
47.5°	2308.2	2203.2	2071.1	1906.6	1729.0	1551.3	1385.6	1235.6	1110.2	1007.8	929.9
50°	2582.2	2421.1	2218.4	1983.9	1754.1	1536.1	1340.0	1167.0	1030.9	913.4	830.1
52.5°	2895.9	2650.3	2351.8	2038.7	1750.1	1489.9	1264.7	1076.5	924.6	799.8	717.9
55°	3244.0	2899.9	2479.2	2073.7	1714.5	1400.1	1146.5	949.0	792.5	669.7	597.7
57.5°	3857.5	3337.8	2722.3	2120.6	1639.8	1264.0	996.6	787.9	646.6	542.2	473.5
60°	4997.4	4103.2	3182.6	2230.9	1527.6	1093.7	807.7	618.2	499.9	424.0	373.1
62.5°	5702.7	4642.1	3407.1	2215.0	1345.3	860.5	599.7	458.3	365.2	315.0	283.3
65°	5535.6	4430.8	3133.0	1902.7	1046.8	610.2	396.9	299.8	251.0	225.2	210.0
66°	5308.5	4194.3	2901.2	1703.9	912.0	509.8	327.6	251.6	216.0	196.8	188.9
67.5°	4832.3	3762.4	2502.3	1364.4	683.5	379.7	241.7	197.5	175.7	165.8	160.5
70°	4044.4	3031.3	1769.9	805.7	370.5	206.1	154.5	137.4	132.1	128.8	126.8
72.5°	3127.1	2194.6	1034.2	396.3	186.9	133.4	117.6	110.3	108.3	108.3	109.0
75°	1970.0	1261.4	463.0	190.9	126.8	107.6	100.4	97.1	97.7	98.4	97.7
77.5°	654.5	435.2	192.8	135.4	110.3	97.7	91.8	90.5	91.8	92.5	92.5
80°	188.2	164.4	139.3	119.5	101.0	91.1	85.9	85.2	88.5	89.2	87.8
82.5°	144.6	135.4	126.1	115.6	97.1	85.9	83.9	84.5	86.5	85.2	79.3
85°	132.7	131.4	94.4	93.8	84.5	81.9	79.9	80.6	78.6	71.3	64.7
87.5°	74.6	69.3	53.5	54.2	62.7	64.7	53.5	56.8	52.8	46.2	42.3
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):**

	160°	165°	170°	175°	180°
0°	1089.7	1089.7	1089.7	1089.7	1089.7
2.5°	1100.3	1099.6	1099.6	1101.6	1098.9
5°	1112.8	1112.1	1112.1	1114.1	1112.1
7.5°	1106.9	1104.9	1103.6	1102.9	1102.9
10°	1087.1	1085.1	1081.1	1079.8	1078.5
12.5°	1066.6	1064.6	1060.0	1060.0	1058.7
15°	1054.0	1051.4	1048.1	1046.1	1044.8
17.5°	1047.4	1043.5	1039.5	1037.5	1036.2
20°	1044.8	1039.5	1034.9	1031.6	1031.6
22.5°	1045.4	1038.8	1033.6	1029.6	1028.3
25°	1052.0	1042.1	1035.5	1031.6	1030.3
27.5°	1061.3	1049.4	1040.8	1035.5	1033.6
30°	1073.8	1057.3	1045.4	1038.8	1036.2
32.5°	1082.4	1059.3	1044.1	1034.9	1031.6
35°	1081.8	1052.0	1033.6	1021.7	1017.7
37.5°	1069.9	1034.9	1010.4	995.9	989.3
40°	1043.5	1003.2	977.4	963.6	955.6
42.5°	1005.2	961.6	938.5	923.3	914.7
45°	945.1	902.1	873.7	861.8	850.6
47.5°	861.8	818.3	793.8	776.7	769.4
50°	764.1	720.5	694.8	680.9	674.3
52.5°	657.1	615.5	597.0	583.8	574.6
55°	546.2	507.9	499.9	485.4	476.8
57.5°	441.8	419.4	412.1	397.6	390.3
60°	345.4	338.1	330.2	321.0	317.0
62.5°	267.5	260.9	258.9	252.9	252.3
65°	204.1	204.7	203.4	202.1	200.8
66°	185.6	184.9	185.6	184.3	183.6
67.5°	157.8	160.5	162.5	161.8	161.8
70°	128.1	130.1	132.7	132.1	132.1
72.5°	109.6	112.9	114.3	113.6	113.6
75°	99.1	102.4	102.4	101.0	100.4
77.5°	92.5	93.8	92.5	91.1	89.8
80°	85.9	84.5	82.6	80.6	79.3
82.5°	74.6	71.3	69.3	66.0	66.0
85°	60.1	57.5	52.8	49.5	46.2
87.5°	39.0	37.6	34.3	25.8	20.5
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)