

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: P159758

Luminaire Tested: **VST-E04-LED-E-U-T4-8030**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P159758  
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (P33707)  
Test Lab: INNOVATION CENTER-P3  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: STREETWORKS  
Catalog Number: VST-E04-LED-E-U-T4-8030  
Description: VENTUS LED SITE/ROADWAY LUMINAIRE  
(4) LIGHTBARS WITH AccuLED OPTICS - TYPE 4 SHORT  
Light Source: (84) 3000K CCT, 80 CRI LEDs  
Ballast/Driver: -

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 10048.1 lumens  
Efficiency: N/A  
Efficacy: 103.4 lumens/watt  
Luminous Opening: Rectangular (W 0.67' x L: 1' x H: 0')  
IES Classification: Type IV - Short - Semi-Cutoff  
BUG Rating: B2 - U0 - G2

Input Watts (W): 97.2  
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

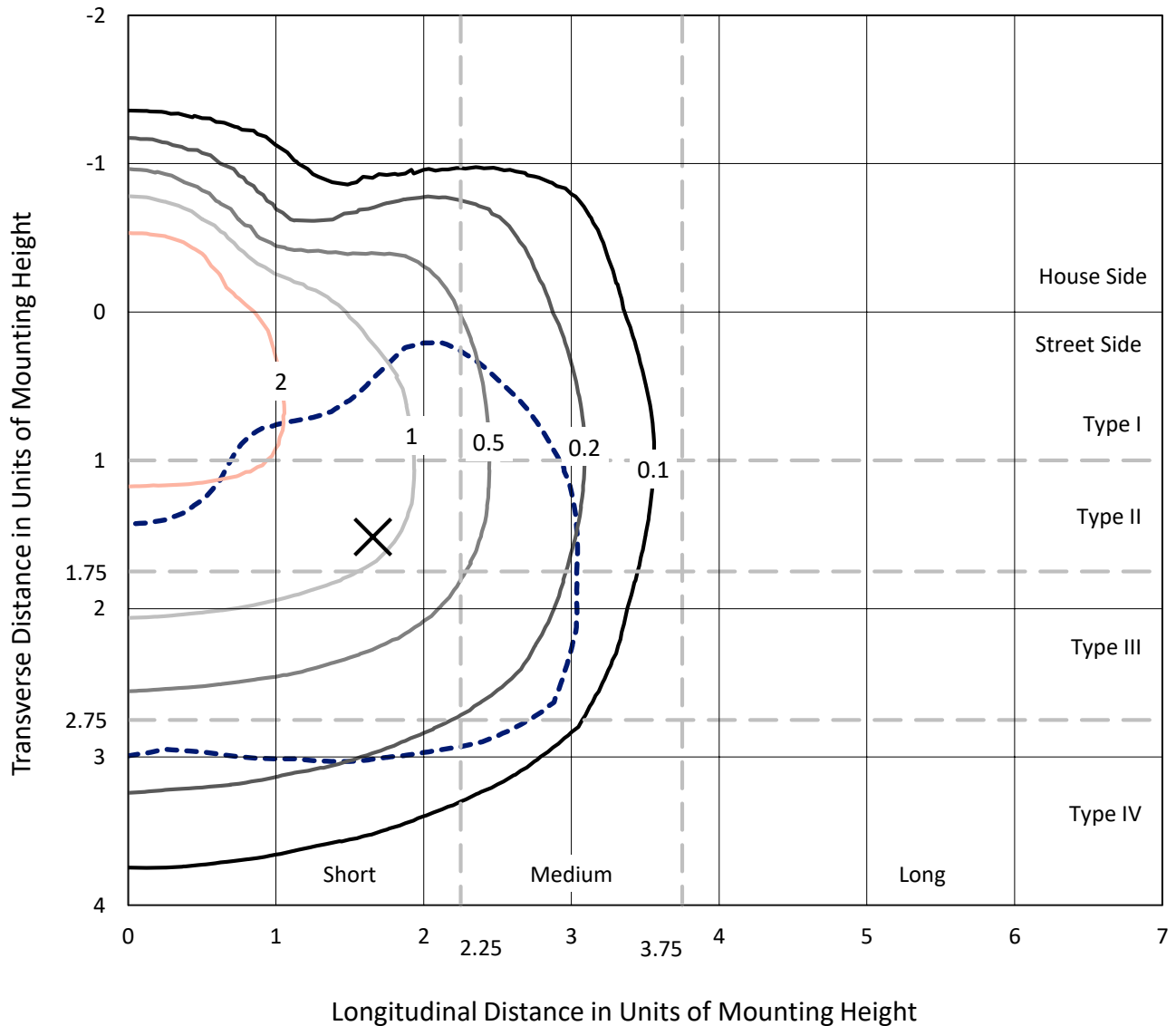


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### Iso-Footcandle Lines of Horizontal Illumination

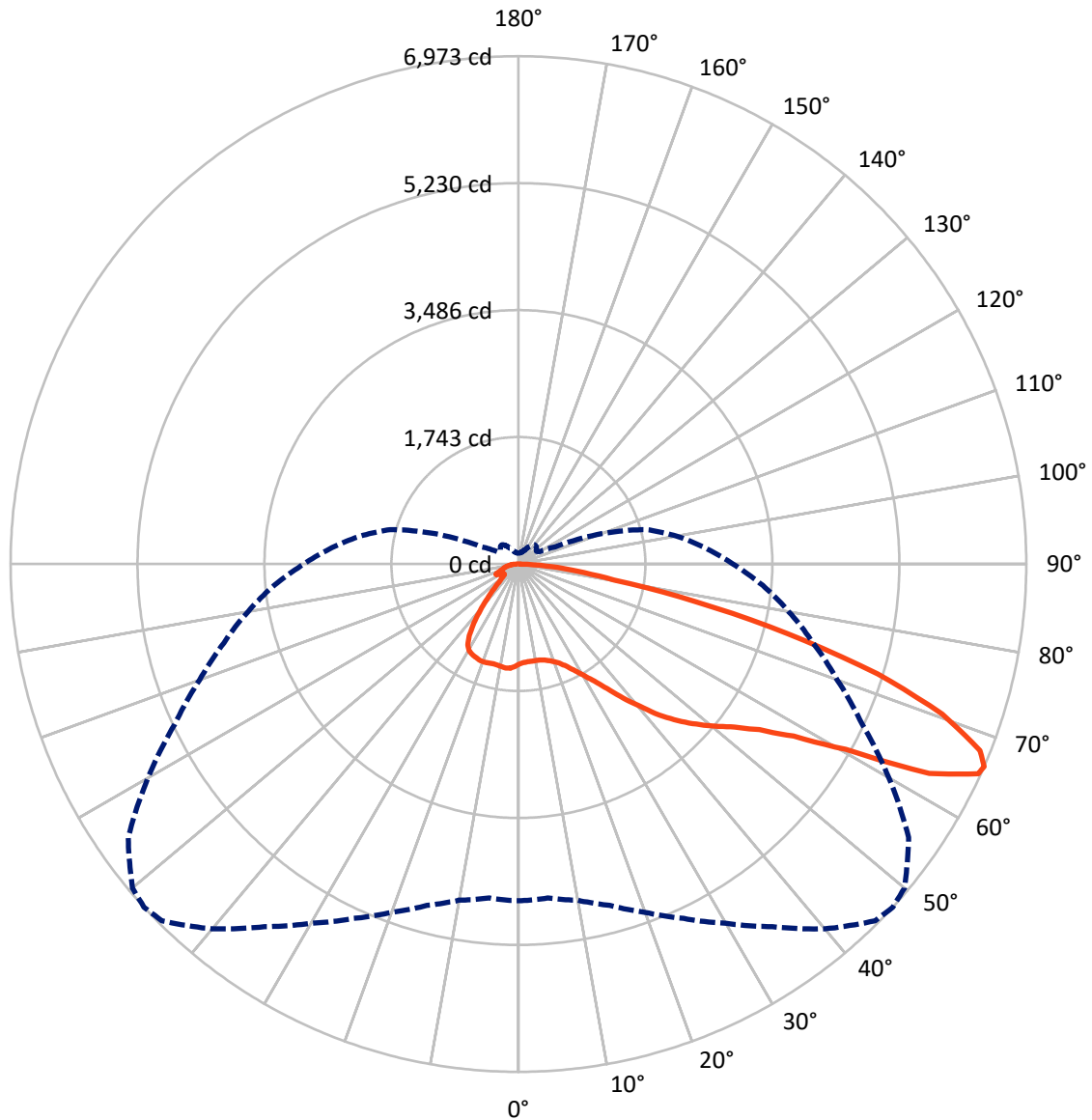
✕ Max cd  
 - - - 1/2 Max cd



Based on 20 foot mounting height. Maximum calculated value = 3.5 fc  
 Type IV - Short - Semi-Cutoff

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### Luminous Intensity Polar Plot



— Vertical Plane Through 47.5-Deg Lateral    - - - Horizontal Cone Through 66-Deg Vertical



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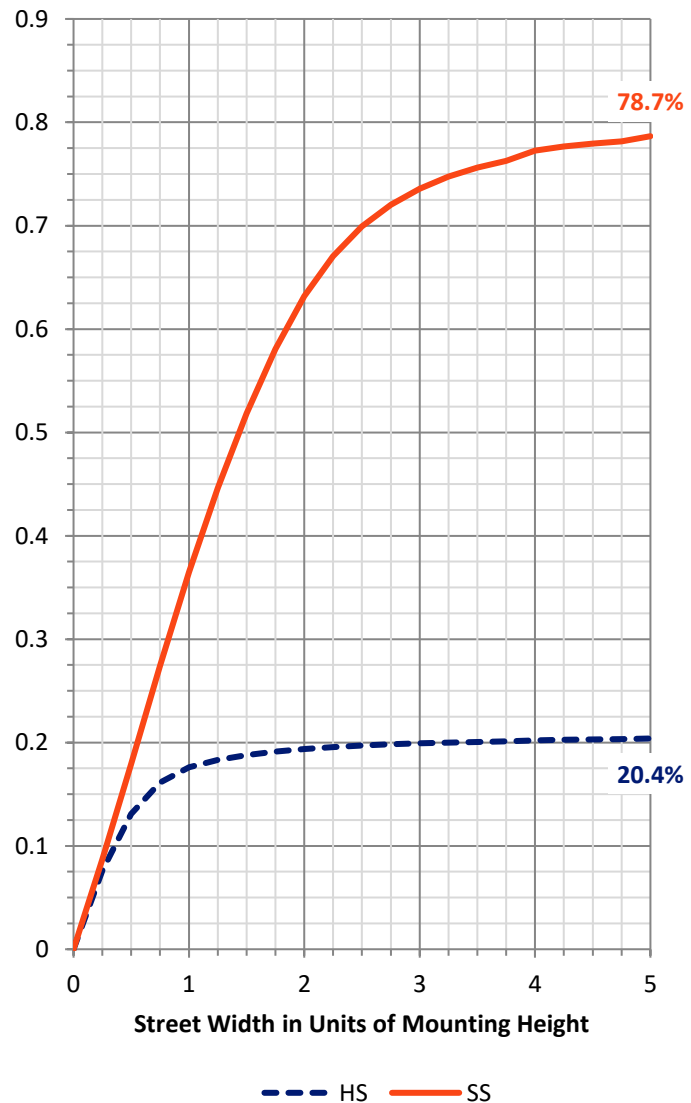
**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	2080.4	0.0	2080.4
	% Fixture	20.7	0.0	20.7
<b>Street Side</b>	Lumens	7967.7	0.0	7967.7
	% Fixture	79.3	0.0	79.3
<b>Total</b>	Lumens	10048.1	0.0	10048.1
	% Fixture	100.0	0.0	100.0

**Coefficient of Utilization**

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	132.5	1.3
10°-20°	397.3	4.0
20°-30°	677.9	6.7
30°-40°	1023.2	10.2
40°-50°	1330.0	13.2
50°-60°	1824.6	18.2
60°-70°	2806.8	27.9
70°-80°	1622.5	16.1
80°-90°	233.1	2.3
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°	10048.1	100.0
0°-180°	10048.1	100.0



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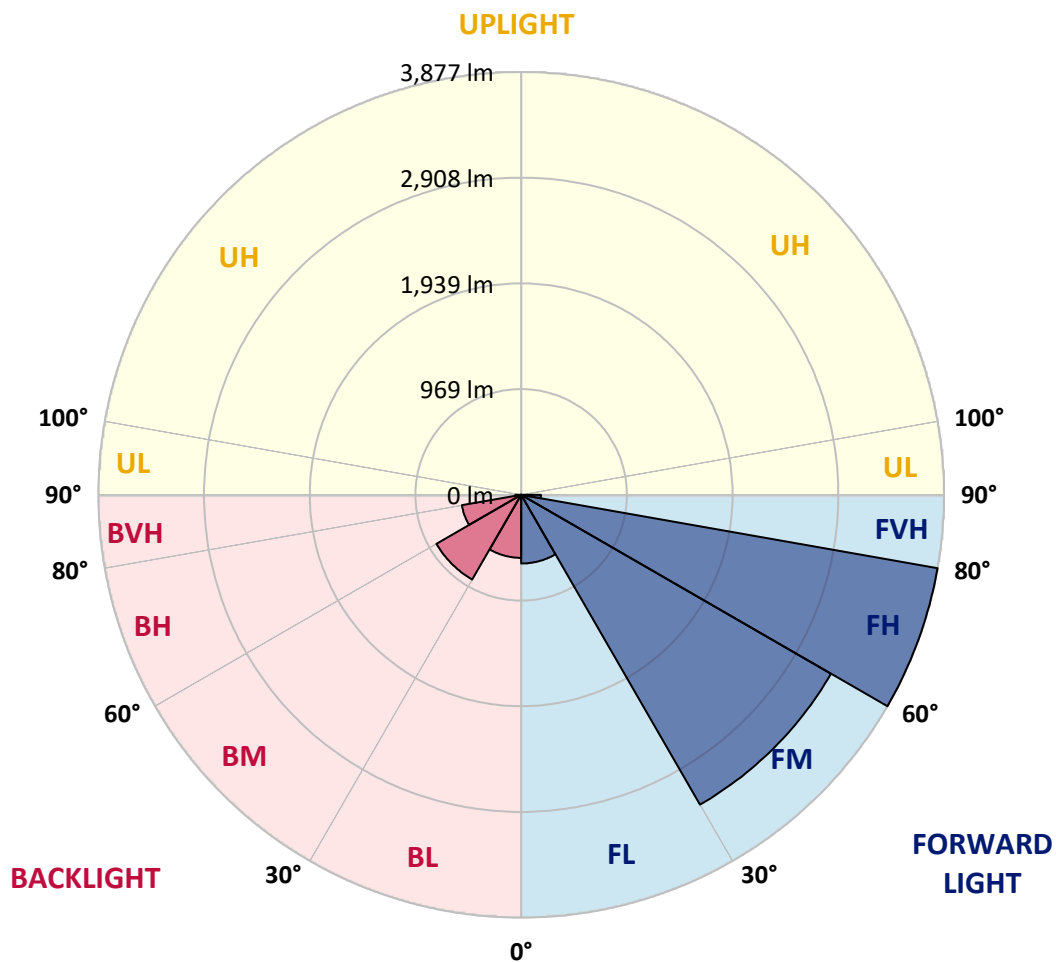
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	629.8	6.3			
FM (30°-60°)	3280.3	32.6			
FH (60°-80°)	3877.2	38.6			G2/5000
FVH (80°-90°)	180.4	1.8			G2/225
BL (0°-30°)	578.0	5.8	B2/1000		
BM (30°-60°)	897.6	8.9	B1/1000		
BH (60°-80°)	552.2	5.5	B2/1000		G2/1000
BVH (80°-90°)	52.7	0.5			G1/100
UL (90°-100°)	0.0	0.0		U0/0	
UH (100°-180°)	0.0	0.0		U0/0	

**BUG Rating: B2-U0-G2**

Type IV Short





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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	47.5°
0°	1374.7	1374.7	1374.7	1374.7	1374.7	1374.7	1374.7	1374.7	1374.7	1374.7	1374.7
2.5°	1339.6	1340.3	1340.9	1340.9	1343.0	1343.0	1346.3	1348.4	1349.0	1353.1	1355.8
5°	1314.6	1313.9	1314.6	1316.0	1319.3	1322.0	1328.8	1333.5	1337.6	1344.3	1347.7
7.5°	1303.8	1305.1	1306.5	1307.2	1309.9	1316.6	1322.7	1327.4	1335.5	1343.6	1347.0
10°	1318.0	1320.0	1318.0	1319.3	1319.3	1325.4	1328.1	1331.5	1337.6	1345.0	1347.0
12.5°	1351.1	1355.1	1351.1	1347.7	1345.0	1350.4	1349.0	1346.3	1349.7	1351.7	1351.7
15°	1405.8	1405.8	1403.1	1398.3	1391.6	1392.2	1386.2	1380.1	1377.4	1372.7	1369.3
17.5°	1459.1	1457.7	1451.7	1445.6	1440.9	1438.8	1430.1	1422.0	1412.5	1405.1	1397.0
20°	1511.1	1516.5	1509.1	1500.3	1492.9	1488.1	1481.4	1465.2	1453.7	1441.5	1433.4
22.5°	1600.9	1596.2	1588.1	1575.2	1567.8	1559.7	1545.5	1528.0	1510.4	1495.6	1485.4
25°	1693.4	1688.7	1677.2	1667.7	1656.9	1650.2	1634.6	1613.0	1596.2	1573.2	1559.7
27.5°	1792.6	1788.6	1775.1	1767.7	1760.2	1752.1	1738.6	1716.3	1700.8	1674.5	1660.3
30°	1904.7	1904.0	1885.8	1884.5	1873.7	1864.9	1855.4	1836.5	1821.0	1794.7	1777.8
32.5°	2024.2	2021.5	2008.7	2004.6	2012.1	2006.0	1992.5	1972.9	1952.7	1937.1	1918.2
35°	2194.4	2189.7	2182.2	2185.6	2190.3	2207.2	2186.3	2169.4	2145.1	2124.8	2098.5
37.5°	2318.6	2311.9	2320.6	2339.5	2366.6	2379.4	2397.6	2398.3	2386.8	2359.8	2336.8
40°	2432.7	2430.0	2450.3	2476.6	2526.6	2563.0	2597.5	2614.3	2618.4	2600.8	2566.4
42.5°	2529.3	2537.4	2564.4	2604.9	2675.1	2730.5	2794.6	2834.5	2859.4	2850.0	2834.5
45°	2644.1	2648.1	2681.2	2732.5	2799.3	2891.2	2975.6	3043.1	3087.0	3086.3	3068.8
47.5°	2787.9	2788.5	2816.9	2877.0	2948.6	3041.7	3148.4	3238.2	3296.3	3299.0	3285.5
50°	2958.7	2957.3	2988.4	3045.1	3121.4	3211.2	3324.6	3436.7	3517.8	3517.8	3498.2
52.5°	3178.8	3176.1	3193.0	3243.0	3316.5	3411.1	3523.8	3653.5	3741.2	3760.1	3717.6
55°	3472.5	3476.6	3480.6	3524.5	3587.3	3662.2	3791.9	3911.4	4028.9	4039.7	4014.7
57.5°	3812.1	3798.6	3827.7	3899.2	3970.8	4064.7	4156.5	4297.6	4436.7	4460.3	4456.9
60°	4342.8	4325.3	4355.0	4446.1	4525.1	4673.0	4830.3	5012.6	5177.4	5226.0	5167.3
62.5°	4831.0	4852.6	4893.1	4999.1	5113.9	5311.1	5547.4	5860.0	6172.6	6342.8	6330.6
65°	4787.1	4766.9	4844.5	4989.0	5197.0	5448.1	5741.8	6118.6	6569.0	6910.6	6941.0
66°	4624.4	4603.5	4687.2	4852.6	5090.3	5369.8	5695.9	6079.4	6539.9	6926.1	6972.7
67.5°	4355.7	4334.7	4429.3	4579.8	4824.9	5176.7	5529.2	5948.4	6427.2	6797.2	6835.0
70°	3837.1	3808.8	3882.4	4052.5	4251.0	4591.3	4926.9	5371.2	5862.7	6158.4	6172.6
72.5°	3250.4	3184.2	3262.5	3393.5	3535.3	3816.9	4109.2	4413.1	4804.7	5078.1	5156.4
75°	2358.4	2392.9	2415.8	2502.3	2596.1	2829.1	3000.6	3255.1	3558.3	3756.1	3818.9
77.5°	1251.1	1303.1	1335.5	1422.0	1577.3	1754.8	1940.5	2097.8	2297.0	2407.7	2484.7
80°	702.2	738.7	791.3	859.5	935.1	1071.5	1181.6	1262.6	1291.0	1310.5	1328.1
82.5°	386.2	478.7	557.0	604.3	648.9	703.6	769.0	836.6	858.2	825.8	808.9
85°	60.1	88.5	269.4	328.8	357.9	399.7	447.0	496.9	497.6	428.1	467.2
87.5°	16.9	18.9	38.5	58.1	56.7	45.9	56.7	103.3	60.8	30.4	35.1
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):**

	50°	55°	60°	65°	70°	75°	80°	85°	90°	95°	100°
0°	1374.7	1374.7	1374.7	1374.7	1374.7	1374.7	1374.7	1374.7	1374.7	1374.7	1374.7
2.5°	1357.1	1358.5	1361.9	1365.2	1368.6	1372.0	1374.0	1377.4	1380.1	1384.1	1388.9
5°	1351.7	1355.1	1361.2	1368.6	1375.4	1381.4	1386.2	1392.9	1399.0	1404.4	1412.5
7.5°	1351.7	1358.5	1368.6	1376.7	1382.8	1390.2	1397.6	1404.4	1411.2	1416.6	1422.0
10°	1352.4	1359.2	1369.3	1378.7	1385.5	1393.6	1399.7	1405.8	1413.2	1416.6	1423.3
12.5°	1355.1	1357.8	1365.2	1374.7	1382.8	1390.9	1397.0	1403.1	1411.2	1412.5	1417.2
15°	1368.6	1364.6	1366.6	1373.3	1382.1	1388.9	1395.6	1400.3	1405.8	1404.4	1408.5
17.5°	1393.6	1383.5	1379.4	1380.1	1384.1	1388.9	1391.6	1392.2	1392.9	1386.8	1387.5
20°	1427.4	1413.2	1403.7	1399.0	1393.6	1388.9	1381.4	1372.7	1364.6	1352.4	1351.1
22.5°	1478.0	1457.1	1446.9	1434.1	1417.9	1397.6	1379.4	1357.8	1340.3	1322.0	1315.3
25°	1551.6	1530.0	1519.2	1498.9	1469.9	1440.9	1414.5	1385.5	1359.8	1338.2	1328.1
27.5°	1650.2	1628.6	1617.1	1596.2	1560.4	1531.3	1494.9	1463.8	1432.8	1401.0	1388.2
30°	1769.7	1750.8	1737.9	1721.1	1690.0	1658.3	1615.7	1567.8	1518.5	1467.9	1442.9
32.5°	1910.8	1889.9	1880.4	1860.8	1828.4	1795.3	1748.1	1686.6	1604.3	1524.6	1474.6
35°	2087.0	2063.4	2052.6	2026.9	1989.1	1940.5	1889.9	1807.5	1696.1	1585.4	1503.7
37.5°	2322.7	2270.0	2234.2	2175.5	2114.7	2046.5	1974.3	1889.9	1758.2	1621.1	1507.7
40°	2531.3	2478.0	2409.1	2324.7	2230.2	2136.3	2053.9	1958.1	1814.9	1646.8	1494.9
42.5°	2790.6	2696.0	2586.0	2471.9	2346.3	2230.8	2132.9	2020.2	1853.4	1653.5	1459.1
45°	3027.6	2914.8	2767.6	2615.7	2459.7	2314.6	2204.5	2078.9	1886.5	1653.5	1415.9
47.5°	3243.6	3108.6	2932.4	2743.3	2561.7	2403.0	2278.1	2139.0	1933.1	1674.5	1403.1
50°	3443.5	3288.2	3087.7	2868.2	2664.3	2494.8	2360.5	2216.0	2004.0	1728.5	1434.1
52.5°	3654.1	3489.4	3245.0	3012.0	2787.2	2605.6	2462.4	2311.2	2095.8	1813.6	1488.8
55°	3930.3	3737.2	3459.7	3203.1	2956.0	2755.5	2592.7	2425.3	2196.4	1909.4	1555.6
57.5°	4365.8	4085.6	3808.1	3474.5	3241.6	2977.6	2799.3	2606.9	2359.8	2034.4	1656.2
60°	5128.1	4783.7	4450.2	4066.7	3779.1	3502.9	3233.5	2982.3	2684.6	2316.6	1877.0
62.5°	6216.5	5866.7	5342.8	4873.5	4439.4	4073.4	3722.3	3403.0	3020.8	2618.4	2149.1
65°	6866.7	6466.3	5841.8	5211.1	4683.8	4230.1	3828.3	3437.4	3024.9	2632.6	2231.5
66°	6918.7	6539.9	5872.8	5206.4	4658.8	4188.2	3770.3	3365.8	2943.2	2567.8	2204.5
67.5°	6822.1	6496.0	5809.4	5114.6	4554.9	4046.4	3617.0	3193.0	2768.3	2420.6	2114.7
70°	6140.9	5905.2	5316.5	4665.6	4107.2	3658.9	3205.8	2798.0	2395.6	2103.2	1876.4
72.5°	5034.2	4735.8	4323.9	3886.4	3446.9	3049.2	2637.3	2290.3	1952.7	1740.0	1579.3
75°	3698.0	3429.3	2975.6	2702.8	2412.5	2162.6	1885.1	1556.3	1316.6	1209.9	1170.8
77.5°	2344.3	2052.6	1669.8	1368.6	1176.9	1011.4	797.4	634.0	507.7	528.7	585.4
80°	1184.3	1020.2	763.6	602.9	521.2	433.5	343.0	259.9	189.7	216.7	245.1
82.5°	760.3	634.7	505.7	398.4	336.2	296.4	237.0	172.2	128.3	144.5	176.9
85°	457.8	386.9	308.6	252.5	219.4	183.0	134.4	95.2	94.5	101.3	124.9
87.5°	69.5	99.3	57.4	61.4	64.8	69.5	61.4	52.0	45.2	58.7	74.3
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°	1374.7	1374.7	1374.7	1374.7	1374.7	1374.7	1374.7	1374.7	1374.7	1374.7	1374.7
2.5°	1393.6	1394.9	1397.6	1401.0	1400.3	1405.1	1407.8	1405.1	1411.2	1411.2	1414.5
5°	1419.3	1421.3	1426.0	1429.4	1430.7	1434.8	1436.1	1435.5	1436.8	1437.5	1438.8
7.5°	1426.7	1432.1	1434.1	1436.1	1436.8	1438.2	1438.2	1436.8	1436.8	1436.1	1437.5
10°	1424.7	1426.7	1428.0	1427.4	1427.4	1426.0	1425.3	1424.7	1424.7	1423.3	1425.3
12.5°	1417.9	1417.9	1417.9	1416.6	1416.6	1415.9	1415.9	1415.9	1417.2	1417.9	1421.3
15°	1404.4	1404.4	1405.8	1405.1	1407.1	1410.5	1414.5	1417.2	1420.6	1421.3	1423.3
17.5°	1383.5	1384.1	1388.2	1397.0	1405.8	1415.9	1423.3	1425.3	1422.6	1415.9	1411.2
20°	1347.0	1355.8	1372.0	1392.9	1412.5	1425.3	1428.7	1420.6	1407.8	1390.2	1380.8
22.5°	1314.6	1332.2	1361.2	1395.6	1419.9	1428.7	1418.6	1399.7	1376.7	1356.5	1342.3
25°	1327.4	1347.7	1378.1	1407.8	1423.3	1418.6	1398.3	1371.3	1347.0	1323.4	1300.4
27.5°	1381.4	1401.7	1423.3	1432.1	1426.7	1409.1	1380.8	1351.7	1319.3	1285.6	1257.2
30°	1432.8	1444.2	1445.6	1436.8	1417.2	1388.9	1355.8	1322.0	1280.8	1240.3	1204.5
32.5°	1449.0	1435.5	1411.2	1386.2	1359.2	1330.1	1291.6	1247.1	1203.2	1157.3	1117.4
35°	1444.2	1389.5	1329.5	1276.1	1243.7	1210.6	1175.5	1116.1	1066.8	1027.6	1002.0
37.5°	1401.7	1301.8	1209.3	1131.6	1081.0	1041.8	989.8	940.5	898.0	880.5	859.5
40°	1342.3	1189.7	1061.4	952.7	900.0	850.1	792.0	754.2	742.0	725.8	726.5
42.5°	1257.2	1058.7	893.3	768.4	711.0	656.3	615.1	592.8	593.5	580.0	582.7
45°	1167.4	927.0	719.1	594.8	538.1	491.5	468.6	461.8	462.5	463.2	459.1
47.5°	1112.7	824.4	576.6	451.0	401.1	374.7	362.6	359.2	359.9	360.6	355.8
50°	1104.6	771.1	481.4	345.0	312.6	297.8	291.7	288.3	288.3	285.6	281.6
52.5°	1127.6	757.6	434.8	299.1	268.1	254.5	249.8	247.1	243.1	237.7	230.2
55°	1164.0	769.7	420.6	283.6	253.2	239.7	233.6	232.3	225.5	215.4	203.2
57.5°	1231.6	813.6	430.1	287.6	255.9	243.7	239.7	238.3	228.9	213.4	197.8
60°	1425.3	941.2	477.4	310.6	275.5	265.4	265.4	263.3	250.5	228.2	205.9
62.5°	1692.7	1128.2	541.5	342.3	302.5	301.1	312.6	313.3	290.3	254.5	219.4
65°	1821.7	1216.0	563.8	349.1	309.9	325.4	348.4	348.4	316.0	266.7	221.5
66°	1822.3	1214.0	557.0	341.0	301.8	322.1	345.7	345.7	311.9	263.3	218.1
67.5°	1775.8	1176.2	534.8	326.1	283.6	302.5	323.4	322.7	292.4	249.8	208.6
70°	1592.8	1040.5	471.3	301.8	262.0	262.6	270.1	265.4	245.1	216.1	189.7
72.5°	1373.3	870.3	408.5	286.3	245.1	232.3	226.2	222.1	209.3	191.8	175.6
75°	1053.3	675.9	355.8	272.1	230.2	208.0	199.9	196.5	187.7	177.6	164.7
77.5°	645.5	463.2	301.8	249.1	213.4	193.1	184.3	177.6	168.8	159.3	150.6
80°	278.2	279.5	241.7	211.3	185.7	162.0	150.6	142.5	137.7	134.4	129.6
82.5°	194.5	200.5	184.3	164.1	141.8	124.9	114.8	112.8	113.4	113.4	112.1
85°	145.8	143.1	129.0	117.5	107.4	96.6	88.5	87.8	90.5	90.5	88.5
87.5°	84.4	85.1	72.9	68.2	70.9	60.8	55.4	56.0	62.8	62.1	60.8
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°	1374.7	1374.7	1374.7	1374.7	1374.7
2.5°	1414.5	1416.6	1415.9	1417.9	1415.9
5°	1440.9	1440.2	1439.5	1442.2	1438.8
7.5°	1436.8	1437.5	1437.5	1437.5	1436.8
10°	1426.7	1429.4	1430.7	1433.4	1432.8
12.5°	1423.3	1427.4	1431.4	1435.5	1436.1
15°	1424.0	1426.7	1428.7	1430.7	1431.4
17.5°	1406.4	1405.8	1403.7	1402.4	1401.0
20°	1370.6	1367.3	1363.9	1358.5	1361.2
22.5°	1326.1	1316.6	1305.8	1297.0	1296.4
25°	1274.1	1256.5	1239.0	1227.5	1223.4
27.5°	1228.2	1207.2	1189.0	1178.9	1176.2
30°	1173.5	1154.6	1138.4	1129.6	1124.2
32.5°	1092.5	1077.6	1057.4	1050.6	1049.9
35°	979.7	968.2	954.0	951.3	948.0
37.5°	852.1	848.0	841.3	833.2	831.8
40°	715.7	718.4	716.4	711.7	704.2
42.5°	584.0	588.8	589.4	592.8	596.2
45°	465.2	469.3	469.3	472.6	476.7
47.5°	357.2	354.5	356.5	359.9	361.9
50°	270.1	268.1	264.7	262.0	259.3
52.5°	217.4	213.4	203.9	201.2	198.5
55°	191.8	184.3	177.6	174.9	174.9
57.5°	184.3	174.9	167.4	164.1	162.7
60°	185.7	172.2	162.7	157.3	155.3
62.5°	191.8	172.8	160.0	153.9	151.9
65°	191.1	171.5	159.3	152.6	150.6
66°	187.7	169.5	158.0	151.9	150.6
67.5°	182.3	166.8	156.6	151.2	149.2
70°	171.5	161.4	153.9	149.2	147.2
72.5°	162.7	156.0	149.2	143.8	142.5
75°	154.6	147.9	141.8	139.1	137.1
77.5°	142.5	136.4	133.0	130.3	129.0
80°	126.3	122.2	118.2	115.5	113.4
82.5°	110.1	104.7	100.6	98.6	97.2
85°	89.8	86.4	80.3	76.3	75.6
87.5°	60.1	56.7	54.7	51.3	47.9
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)