

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: P177512

Luminaire Tested: **VAL-F04-LED-E-U-GL3-7030**

Issue Date: 3/3/2020

### Test Information

Test Method: LM-79-08  
Report Number: P177512  
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (P33702)  
Test Lab: INNOVATION CENTER-P3  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: STREETWORKS  
Catalog Number: VAL-F04-LED-E-U-GL3-7030  
Description: VALET TUNNEL LED LUMINAIRE  
(4) LIGHTBARS WITH AccuLED OPTICS - TYPE III W/ GLARE CONTROL  
Light Source: (28) 3000K CCT, 70 CRI LEDs  
Ballast/Driver: -

### Summary

Lumens per Lamp: N/A  
Luminaire Lumens: 8953.5 lumens  
Efficiency: N/A  
Efficacy: 87.6 lumens/watt  
Luminous Opening: Rectangular w/ Sides (W: 0.67' x L: 1' x H: 0.1')  
IES Classification: Type III - Short - Semi-Cutoff  
BUG Rating: B2 - U0 - G2

Input Watts (W): 102.2  
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

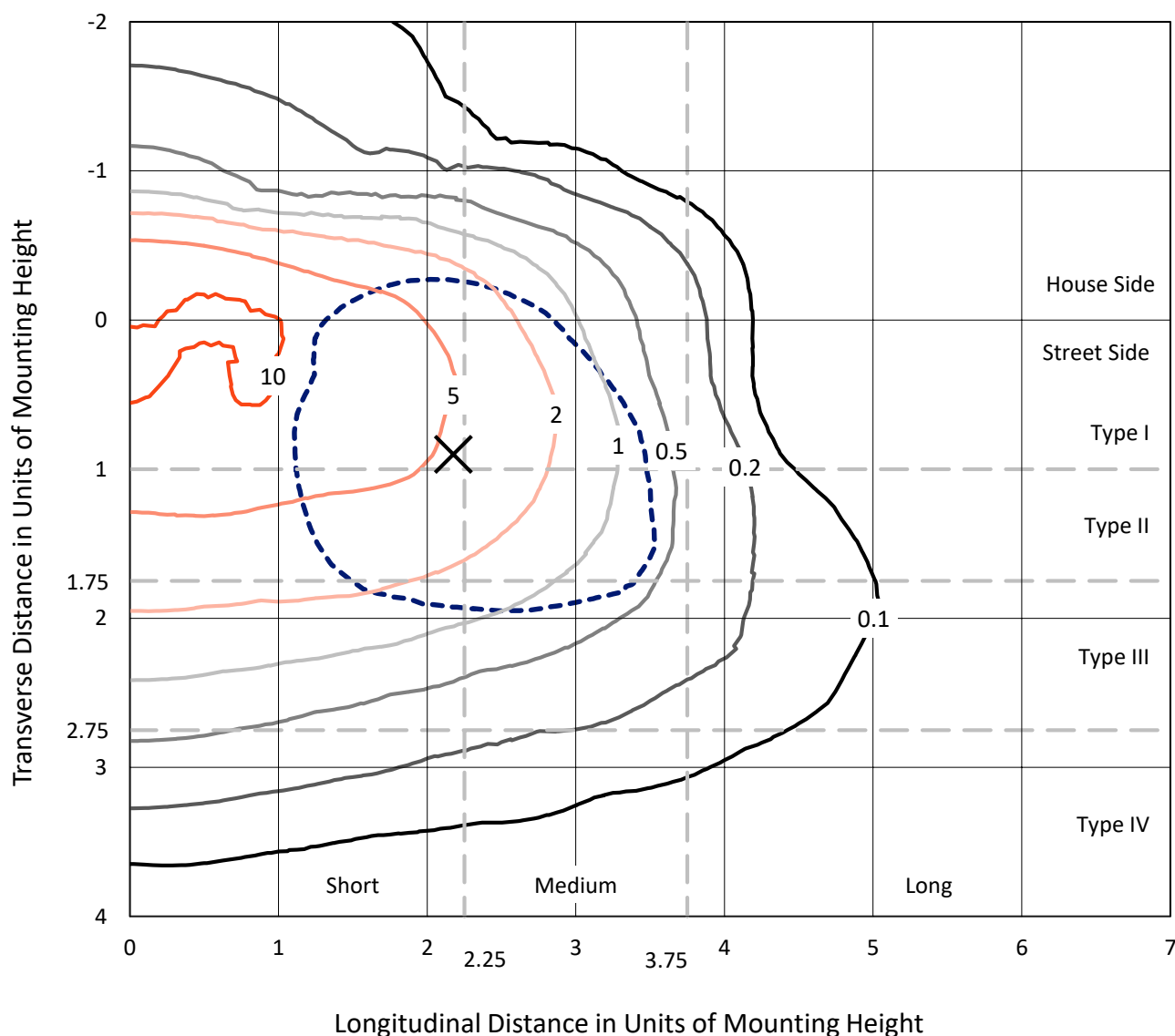


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## Iso-Footcandle Lines of Horizontal Illumination

× Max cd  
 - - - 1/2 Max cd

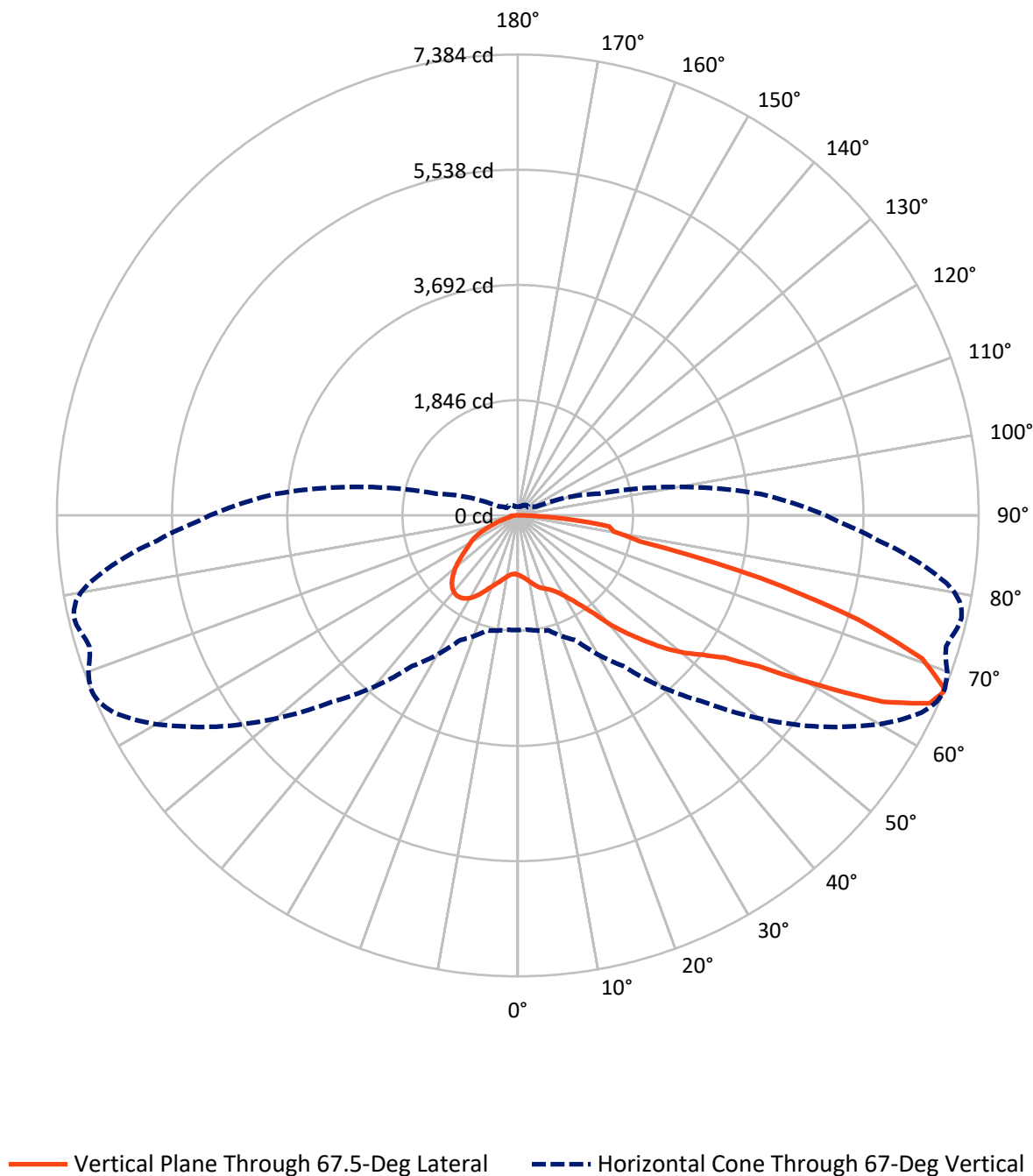


Based on 10 foot mounting height. Maximum calculated value = 12.1 fc  
 Type III - Short - Semi-Cutoff

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## Luminous Intensity Polar Plot



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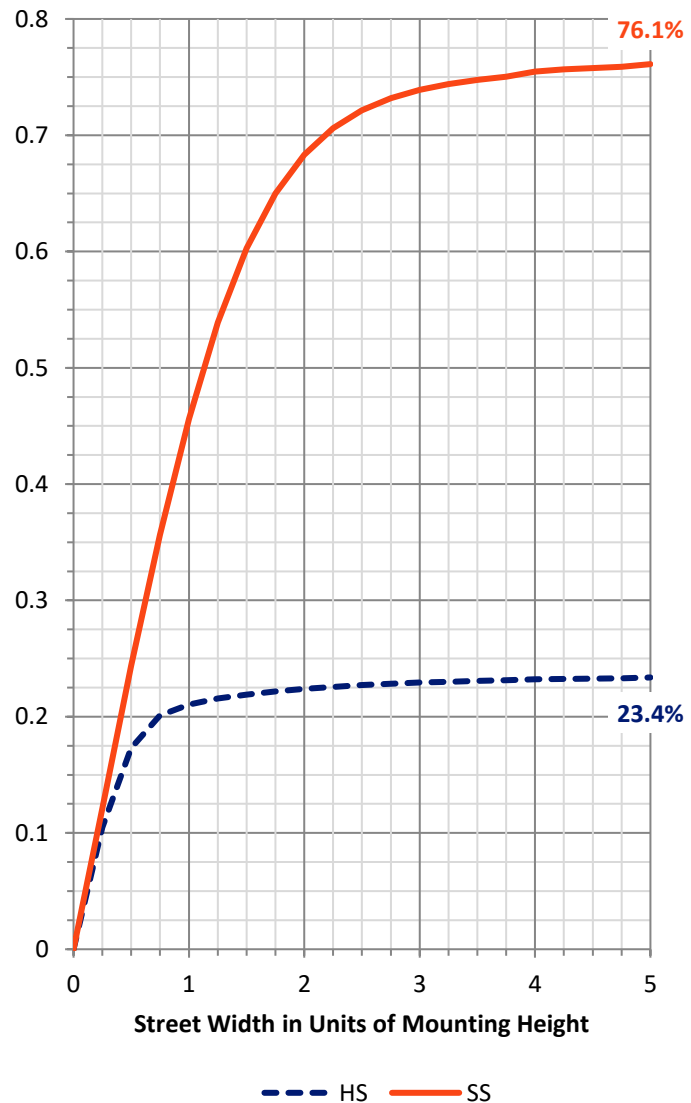
**FLUX DISTRIBUTION:**

|                    |           | Downward | Upward | Total  |
|--------------------|-----------|----------|--------|--------|
| <b>House Side</b>  | Lumens    | 2120.2   | 0.0    | 2120.2 |
|                    | % Fixture | 23.7     | 0.0    | 23.7   |
| <b>Street Side</b> | Lumens    | 6833.4   | 0.0    | 6833.4 |
|                    | % Fixture | 76.3     | 0.0    | 76.3   |
| <b>Total</b>       | Lumens    | 8953.5   | 0.0    | 8953.5 |
|                    | % Fixture | 100.0    | 0.0    | 100.0  |

**ZONAL LUMENS:**

| Zone      | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10°    | 95.1   | 1.1       |
| 10°-20°   | 325.5  | 3.6       |
| 20°-30°   | 579.5  | 6.5       |
| 30°-40°   | 844.1  | 9.4       |
| 40°-50°   | 1300.6 | 14.5      |
| 50°-60°   | 1904.8 | 21.3      |
| 60°-70°   | 2529.4 | 28.3      |
| 70°-80°   | 1192.3 | 13.3      |
| 80°-90°   | 182.3  | 2.0       |
| 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°    | 8953.5 | 100.0     |
| 0°-180°   | 8953.5 | 100.0     |

**Coefficient of Utilization**



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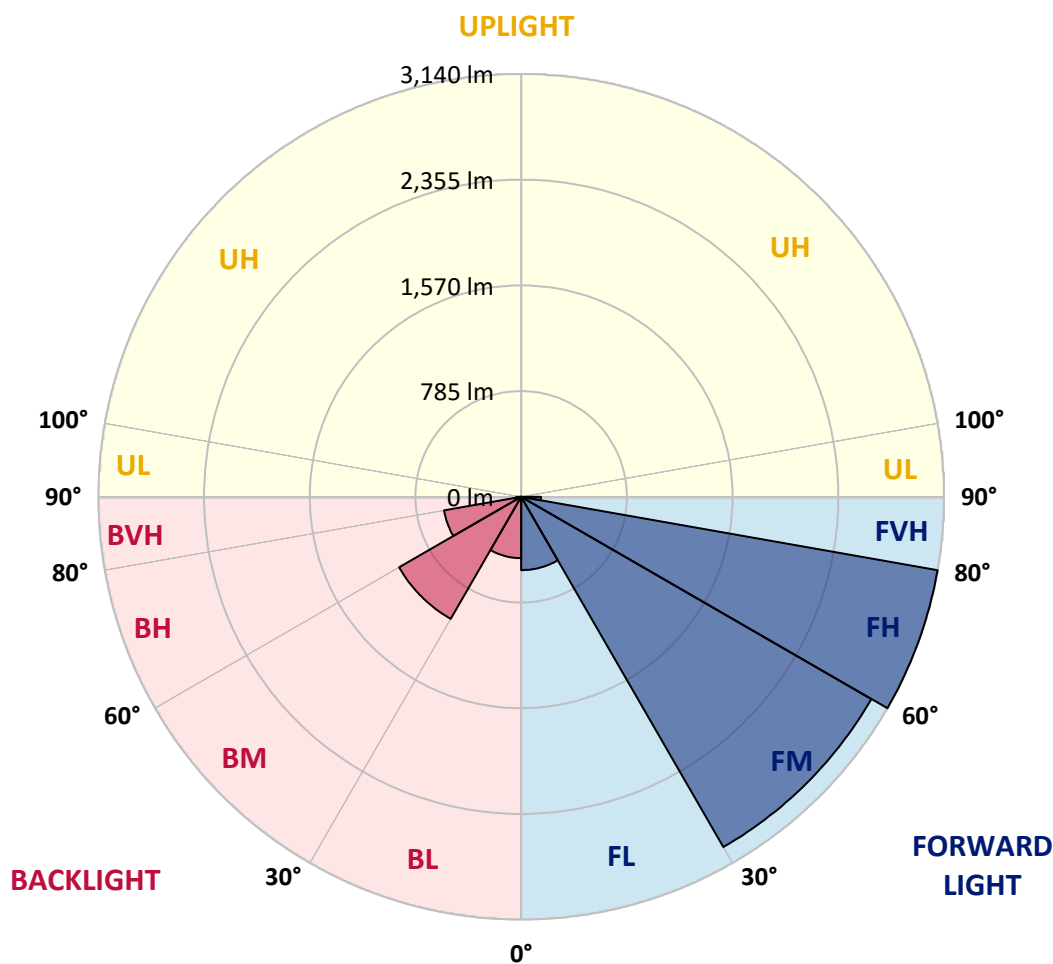
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

| Zone |             | Lumens | % Fixture | Zone Rating/Lumen Limit |      |         |
|------|-------------|--------|-----------|-------------------------|------|---------|
|      |             |        |           | B                       | U    | G       |
| FL   | (0°-30°)    | 544.3  | 6.1       |                         |      |         |
| FM   | (30°-60°)   | 3002.6 | 33.5      |                         |      |         |
| FH   | (60°-80°)   | 3139.6 | 35.1      |                         |      | G2/5000 |
| FVH  | (80°-90°)   | 146.9  | 1.6       |                         |      | G2/225  |
| BL   | (0°-30°)    | 455.8  | 5.1       | B1/500                  |      |         |
| BM   | (30°-60°)   | 1046.9 | 11.7      | B2/2500                 |      |         |
| BH   | (60°-80°)   | 582.1  | 6.5       | B2/1000                 |      | G2/1000 |
| BVH  | (80°-90°)   | 35.4   | 0.4       |                         |      | G1/100  |
| UL   | (90°-100°)  | 0.0    | 0.0       |                         | U0/0 |         |
| UH   | (100°-180°) | 0.0    | 0.0       |                         | U0/0 |         |

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

Type III Short





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**CANDELA DISTRIBUTION (FULL):**

|       | 0°     | 5°     | 15°    | 25°    | 35°    | 45°    | 55°    | 60°    | 61°    | 62°    | 64°    |
|-------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 0°    | 952.4  | 952.4  | 952.4  | 952.4  | 952.4  | 952.4  | 952.4  | 952.4  | 952.4  | 952.4  | 952.4  |
| 2.5°  | 1000.1 | 995.9  | 996.5  | 998.3  | 992.3  | 989.2  | 982.6  | 978.4  | 977.8  | 977.2  | 974.8  |
| 5°    | 1058.6 | 1054.4 | 1056.2 | 1051.4 | 1039.9 | 1032.1 | 1018.2 | 1011.0 | 1009.7 | 1008.5 | 1005.5 |
| 7.5°  | 1119.5 | 1114.1 | 1108.1 | 1102.6 | 1090.0 | 1077.3 | 1059.2 | 1048.4 | 1047.1 | 1045.3 | 1043.5 |
| 10°   | 1191.9 | 1184.1 | 1179.2 | 1162.4 | 1140.6 | 1123.1 | 1105.1 | 1093.6 | 1093.0 | 1091.2 | 1087.6 |
| 12.5° | 1273.3 | 1264.9 | 1255.9 | 1233.5 | 1199.8 | 1173.8 | 1152.7 | 1146.1 | 1140.6 | 1141.2 | 1137.6 |
| 15°   | 1354.2 | 1345.1 | 1333.1 | 1304.7 | 1260.1 | 1221.5 | 1194.3 | 1184.7 | 1185.3 | 1182.3 | 1184.1 |
| 17.5° | 1422.3 | 1414.5 | 1397.0 | 1360.8 | 1308.9 | 1255.9 | 1221.5 | 1217.2 | 1218.5 | 1217.9 | 1219.7 |
| 20°   | 1467.0 | 1462.1 | 1435.6 | 1392.2 | 1333.7 | 1275.2 | 1240.2 | 1240.2 | 1240.8 | 1243.2 | 1247.4 |
| 22.5° | 1494.1 | 1486.9 | 1451.9 | 1391.0 | 1333.1 | 1284.2 | 1257.1 | 1263.1 | 1266.7 | 1268.5 | 1275.2 |
| 25°   | 1509.2 | 1500.1 | 1452.5 | 1371.7 | 1312.6 | 1290.8 | 1282.4 | 1297.5 | 1303.5 | 1306.5 | 1317.4 |
| 27.5° | 1509.2 | 1498.3 | 1444.7 | 1347.5 | 1289.0 | 1310.7 | 1330.6 | 1356.6 | 1360.8 | 1369.9 | 1382.5 |
| 30°   | 1492.3 | 1483.9 | 1432.6 | 1329.4 | 1283.0 | 1348.1 | 1408.5 | 1438.0 | 1448.3 | 1458.5 | 1474.8 |
| 32.5° | 1474.2 | 1467.0 | 1426.6 | 1339.1 | 1316.8 | 1426.6 | 1527.3 | 1567.7 | 1573.7 | 1582.2 | 1599.1 |
| 35°   | 1473.0 | 1470.6 | 1453.1 | 1400.6 | 1418.7 | 1570.1 | 1706.4 | 1734.2 | 1751.1 | 1755.3 | 1762.5 |
| 37.5° | 1485.7 | 1490.5 | 1505.6 | 1500.1 | 1565.3 | 1783.6 | 1941.1 | 1996.6 | 2009.8 | 2002.6 | 2009.2 |
| 40°   | 1515.2 | 1527.3 | 1583.4 | 1652.8 | 1789.1 | 2041.8 | 2260.8 | 2324.7 | 2339.2 | 2335.0 | 2333.2 |
| 42.5° | 1608.7 | 1625.0 | 1707.6 | 1856.0 | 2021.9 | 2309.0 | 2557.5 | 2626.3 | 2631.1 | 2633.5 | 2617.9 |
| 45°   | 1755.3 | 1764.3 | 1874.1 | 2063.5 | 2274.0 | 2596.8 | 2853.7 | 2930.3 | 2927.3 | 2915.2 | 2903.8 |
| 47.5° | 1921.8 | 1940.5 | 2072.0 | 2301.2 | 2534.6 | 2862.8 | 3153.5 | 3228.3 | 3234.9 | 3224.1 | 3203.0 |
| 50°   | 2073.2 | 2087.7 | 2236.0 | 2508.1 | 2764.4 | 3084.1 | 3406.2 | 3481.6 | 3480.4 | 3486.5 | 3492.5 |
| 52.5° | 2192.6 | 2205.9 | 2347.0 | 2646.2 | 2933.3 | 3269.9 | 3596.9 | 3689.7 | 3704.2 | 3713.9 | 3725.9 |
| 55°   | 2254.1 | 2268.0 | 2398.3 | 2703.5 | 3035.9 | 3451.5 | 3817.0 | 3950.3 | 3975.1 | 3996.8 | 4016.7 |
| 57.5° | 2255.3 | 2273.4 | 2392.9 | 2699.3 | 3089.0 | 3613.7 | 4108.4 | 4347.8 | 4382.8 | 4438.3 | 4506.5 |
| 60°   | 2218.6 | 2243.9 | 2351.3 | 2660.1 | 3149.9 | 3819.4 | 4588.5 | 5046.9 | 5115.7 | 5212.8 | 5300.3 |
| 62.5° | 2122.6 | 2148.0 | 2243.9 | 2560.6 | 3221.1 | 4083.0 | 5282.2 | 5954.1 | 6100.7 | 6208.1 | 6381.2 |
| 65°   | 1971.2 | 1995.4 | 2076.2 | 2395.9 | 3164.4 | 4291.1 | 5799.1 | 6605.0 | 6754.6 | 6889.1 | 7092.4 |
| 67°   | 1836.1 | 1838.5 | 1906.7 | 2207.1 | 2943.6 | 4226.6 | 5902.9 | 6691.8 | 6830.0 | 6966.3 | 7202.1 |
| 67.5° | 1788.5 | 1801.7 | 1854.8 | 2144.4 | 2859.7 | 4178.9 | 5861.8 | 6644.8 | 6778.7 | 6924.1 | 7164.7 |
| 70°   | 1445.9 | 1449.5 | 1500.7 | 1710.7 | 2269.2 | 3464.8 | 5265.3 | 6044.6 | 6136.3 | 6349.2 | 6585.7 |
| 72.5° | 881.9  | 875.8  | 892.1  | 1047.7 | 1493.5 | 2399.5 | 4215.7 | 4976.4 | 5101.8 | 5283.4 | 5443.2 |
| 75°   | 485.6  | 514.5  | 534.4  | 642.4  | 839.0  | 1410.9 | 2870.6 | 3600.5 | 3784.4 | 3892.4 | 3924.4 |
| 77.5° | 296.8  | 294.4  | 303.4  | 414.4  | 688.2  | 965.1  | 1585.8 | 2112.4 | 2214.9 | 2245.7 | 2126.9 |
| 80°   | 141.1  | 146.6  | 144.8  | 170.7  | 333.6  | 814.3  | 1108.7 | 1356.6 | 1408.5 | 1438.0 | 1476.6 |
| 82.5° | 77.2   | 80.2   | 91.1   | 101.9  | 131.5  | 350.5  | 956.7  | 1251.0 | 1286.0 | 1336.7 | 1393.4 |
| 85°   | 48.3   | 50.7   | 70.0   | 73.6   | 80.8   | 108.0  | 398.7  | 731.1  | 760.6  | 861.4  | 893.3  |
| 87.5° | 19.9   | 21.7   | 38.0   | 34.4   | 41.0   | 38.0   | 120.6  | 185.8  | 197.2  | 209.9  | 232.8  |
| 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):**

|       | 65°    | 66°    | 67°    | 67.5°  | 68°    | 69°    | 70°    | 71°    | 72°    | 73°    | 74°    |
|-------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 0°    | 952.4  | 952.4  | 952.4  | 952.4  | 952.4  | 952.4  | 952.4  | 952.4  | 952.4  | 952.4  | 952.4  |
| 2.5°  | 975.4  | 974.8  | 972.3  | 971.7  | 973.0  | 973.0  | 971.7  | 969.9  | 969.3  | 968.7  | 967.5  |
| 5°    | 1004.3 | 1003.1 | 1001.3 | 1000.1 | 999.5  | 999.5  | 997.7  | 995.9  | 994.1  | 991.7  | 991.0  |
| 7.5°  | 1038.7 | 1038.7 | 1038.1 | 1036.3 | 1034.5 | 1032.1 | 1030.3 | 1028.4 | 1026.6 | 1025.4 | 1023.6 |
| 10°   | 1083.9 | 1086.4 | 1082.1 | 1080.9 | 1080.3 | 1076.7 | 1076.1 | 1074.3 | 1073.1 | 1070.1 | 1070.1 |
| 12.5° | 1137.6 | 1135.2 | 1134.6 | 1132.2 | 1132.2 | 1130.4 | 1129.8 | 1129.2 | 1128.0 | 1125.6 | 1125.0 |
| 15°   | 1182.3 | 1182.3 | 1181.7 | 1180.5 | 1181.7 | 1180.5 | 1178.6 | 1179.8 | 1178.0 | 1178.6 | 1176.8 |
| 17.5° | 1218.5 | 1220.9 | 1220.3 | 1220.9 | 1220.3 | 1220.3 | 1221.5 | 1221.5 | 1222.7 | 1220.3 | 1220.9 |
| 20°   | 1248.6 | 1252.2 | 1254.0 | 1252.8 | 1254.0 | 1254.6 | 1257.7 | 1258.9 | 1260.7 | 1261.9 | 1261.9 |
| 22.5° | 1280.0 | 1284.8 | 1288.4 | 1288.4 | 1290.8 | 1293.2 | 1298.7 | 1299.9 | 1304.1 | 1303.5 | 1306.5 |
| 25°   | 1324.0 | 1331.9 | 1334.3 | 1337.9 | 1340.9 | 1345.1 | 1351.8 | 1354.8 | 1356.6 | 1360.8 | 1365.6 |
| 27.5° | 1391.6 | 1401.2 | 1403.0 | 1407.3 | 1415.1 | 1417.5 | 1424.7 | 1427.8 | 1434.4 | 1443.4 | 1445.3 |
| 30°   | 1483.9 | 1495.9 | 1496.5 | 1501.4 | 1510.4 | 1513.4 | 1519.4 | 1527.3 | 1532.7 | 1541.8 | 1542.4 |
| 32.5° | 1609.3 | 1621.4 | 1619.6 | 1628.6 | 1628.0 | 1637.1 | 1635.3 | 1647.3 | 1652.2 | 1657.0 | 1670.2 |
| 35°   | 1776.4 | 1775.2 | 1784.3 | 1787.3 | 1785.5 | 1792.7 | 1791.5 | 1796.9 | 1801.7 | 1801.7 | 1816.2 |
| 37.5° | 2017.1 | 2015.3 | 2014.1 | 2001.4 | 1998.4 | 1999.0 | 1996.6 | 2001.4 | 1993.6 | 1993.6 | 2009.2 |
| 40°   | 2339.8 | 2328.9 | 2320.5 | 2312.0 | 2303.6 | 2292.1 | 2282.5 | 2280.1 | 2266.8 | 2266.2 | 2260.2 |
| 42.5° | 2620.3 | 2610.0 | 2604.0 | 2587.7 | 2579.3 | 2577.5 | 2553.9 | 2547.3 | 2543.7 | 2546.1 | 2540.1 |
| 45°   | 2914.6 | 2903.8 | 2880.9 | 2873.6 | 2871.2 | 2858.5 | 2854.9 | 2838.6 | 2833.8 | 2842.3 | 2839.2 |
| 47.5° | 3218.0 | 3202.4 | 3189.7 | 3181.2 | 3178.2 | 3167.4 | 3151.7 | 3165.0 | 3158.3 | 3153.5 | 3144.5 |
| 50°   | 3490.7 | 3473.2 | 3473.2 | 3458.1 | 3460.5 | 3453.3 | 3437.0 | 3440.6 | 3421.9 | 3429.2 | 3424.3 |
| 52.5° | 3719.3 | 3720.5 | 3726.5 | 3709.6 | 3712.7 | 3712.7 | 3707.2 | 3689.7 | 3694.6 | 3692.2 | 3703.6 |
| 55°   | 4010.0 | 4029.9 | 4019.1 | 4022.1 | 4025.7 | 4042.6 | 4054.7 | 4044.4 | 4027.5 | 4040.8 | 4077.6 |
| 57.5° | 4518.5 | 4536.6 | 4547.5 | 4555.9 | 4569.8 | 4577.6 | 4642.8 | 4651.8 | 4632.5 | 4672.3 | 4754.4 |
| 60°   | 5402.8 | 5424.5 | 5457.1 | 5499.9 | 5509.0 | 5563.9 | 5597.6 | 5637.5 | 5651.9 | 5686.3 | 5774.4 |
| 62.5° | 6466.2 | 6515.1 | 6521.1 | 6575.4 | 6617.6 | 6566.4 | 6579.6 | 6628.5 | 6573.0 | 6649.0 | 6652.6 |
| 65°   | 7162.3 | 7233.5 | 7235.9 | 7255.8 | 7271.5 | 7223.3 | 7201.5 | 7179.8 | 7127.3 | 7124.3 | 7176.8 |
| 67°   | 7281.8 | 7346.9 | 7374.1 | 7383.7 | 7381.3 | 7356.6 | 7321.0 | 7258.2 | 7207.6 | 7178.6 | 7200.3 |
| 67.5° | 7248.0 | 7311.9 | 7349.9 | 7359.0 | 7359.6 | 7335.5 | 7302.9 | 7234.7 | 7187.1 | 7154.5 | 7177.4 |
| 70°   | 6693.0 | 6842.6 | 6907.8 | 6874.0 | 6893.3 | 6893.3 | 6892.1 | 6829.4 | 6805.8 | 6774.5 | 6762.4 |
| 72.5° | 5565.1 | 5668.8 | 5751.5 | 5707.4 | 5712.9 | 5753.9 | 5744.2 | 5750.9 | 5683.3 | 5676.1 | 5564.5 |
| 75°   | 3986.5 | 4019.7 | 3991.9 | 4023.3 | 3854.4 | 3794.1 | 3691.6 | 3542.0 | 3502.8 | 3440.6 | 3254.8 |
| 77.5° | 2117.8 | 2080.4 | 2006.2 | 2000.2 | 1930.8 | 1877.1 | 1810.8 | 1767.4 | 1657.6 | 1596.7 | 1457.3 |
| 80°   | 1495.9 | 1514.0 | 1542.4 | 1559.3 | 1574.9 | 1587.0 | 1562.3 | 1492.9 | 1401.2 | 1298.7 | 1201.6 |
| 82.5° | 1429.0 | 1453.7 | 1470.6 | 1479.0 | 1473.0 | 1453.7 | 1397.0 | 1330.6 | 1208.2 | 1119.5 | 1014.6 |
| 85°   | 901.2  | 921.1  | 886.7  | 879.5  | 894.5  | 772.7  | 705.7  | 651.5  | 527.8  | 491.0  | 433.7  |
| 87.5° | 241.9  | 255.2  | 255.8  | 247.9  | 243.1  | 214.1  | 189.4  | 167.7  | 138.7  | 130.3  | 105.6  |
| 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):**

|       | 75°    | 76°    | 77°    | 78°    | 79°    | 80°    | 81°    | 82°    | 83°    | 84°    | 85°    |
|-------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 0°    | 952.4  | 952.4  | 952.4  | 952.4  | 952.4  | 952.4  | 952.4  | 952.4  | 952.4  | 952.4  | 952.4  |
| 2.5°  | 967.5  | 966.9  | 966.9  | 965.1  | 963.9  | 963.3  | 962.7  | 960.9  | 959.7  | 959.7  | 959.1  |
| 5°    | 990.4  | 989.2  | 987.4  | 986.8  | 984.4  | 983.2  | 980.8  | 979.6  | 977.8  | 976.6  | 976.0  |
| 7.5°  | 1023.0 | 1020.0 | 1016.4 | 1017.0 | 1013.4 | 1011.6 | 1010.4 | 1007.9 | 1006.1 | 1004.3 | 1003.7 |
| 10°   | 1066.4 | 1065.8 | 1062.2 | 1063.4 | 1056.8 | 1059.8 | 1053.8 | 1054.4 | 1050.8 | 1047.1 | 1046.5 |
| 12.5° | 1121.9 | 1121.3 | 1117.7 | 1113.5 | 1112.3 | 1112.9 | 1109.3 | 1109.9 | 1105.7 | 1104.4 | 1103.2 |
| 15°   | 1175.0 | 1173.8 | 1172.0 | 1169.0 | 1167.2 | 1166.6 | 1165.4 | 1164.2 | 1160.5 | 1160.5 | 1156.3 |
| 17.5° | 1220.9 | 1221.5 | 1219.1 | 1216.6 | 1215.4 | 1213.6 | 1213.0 | 1213.0 | 1210.0 | 1207.0 | 1207.6 |
| 20°   | 1261.3 | 1262.5 | 1262.5 | 1260.7 | 1261.3 | 1260.1 | 1259.5 | 1260.7 | 1257.7 | 1256.5 | 1254.6 |
| 22.5° | 1306.5 | 1306.5 | 1307.1 | 1308.3 | 1310.1 | 1310.7 | 1310.7 | 1309.5 | 1307.7 | 1307.1 | 1303.5 |
| 25°   | 1369.3 | 1366.8 | 1369.9 | 1371.1 | 1371.1 | 1374.1 | 1372.9 | 1373.5 | 1374.1 | 1372.3 | 1370.5 |
| 27.5° | 1448.3 | 1445.9 | 1451.9 | 1456.1 | 1455.5 | 1457.3 | 1460.9 | 1456.7 | 1459.1 | 1460.9 | 1456.7 |
| 30°   | 1545.4 | 1551.4 | 1555.6 | 1558.7 | 1557.4 | 1562.9 | 1564.7 | 1564.1 | 1562.3 | 1565.3 | 1565.3 |
| 32.5° | 1669.0 | 1666.0 | 1676.9 | 1683.5 | 1684.1 | 1682.9 | 1685.9 | 1689.5 | 1686.5 | 1691.4 | 1688.9 |
| 35°   | 1816.2 | 1818.0 | 1820.4 | 1827.7 | 1830.7 | 1825.9 | 1830.7 | 1834.9 | 1833.7 | 1834.3 | 1836.7 |
| 37.5° | 2006.2 | 2009.2 | 2006.8 | 2007.4 | 2006.2 | 2029.1 | 2032.8 | 2036.4 | 2032.2 | 2028.5 | 2039.4 |
| 40°   | 2269.8 | 2269.8 | 2269.2 | 2277.1 | 2263.8 | 2278.3 | 2274.0 | 2284.3 | 2295.2 | 2289.1 | 2305.4 |
| 42.5° | 2529.2 | 2543.7 | 2544.9 | 2533.4 | 2543.1 | 2558.8 | 2558.8 | 2565.4 | 2575.0 | 2565.4 | 2581.1 |
| 45°   | 2826.6 | 2844.7 | 2841.7 | 2861.0 | 2846.5 | 2864.6 | 2867.6 | 2859.1 | 2880.3 | 2882.7 | 2876.6 |
| 47.5° | 3151.1 | 3154.7 | 3155.3 | 3161.9 | 3165.0 | 3179.4 | 3178.8 | 3194.5 | 3189.7 | 3165.6 | 3174.0 |
| 50°   | 3429.2 | 3438.2 | 3443.0 | 3447.3 | 3462.3 | 3472.6 | 3486.5 | 3488.9 | 3485.3 | 3478.0 | 3471.4 |
| 52.5° | 3707.2 | 3729.0 | 3742.8 | 3780.2 | 3803.7 | 3822.4 | 3845.4 | 3853.8 | 3849.6 | 3847.8 | 3821.2 |
| 55°   | 4079.4 | 4131.3 | 4211.5 | 4263.4 | 4320.1 | 4353.3 | 4379.8 | 4393.1 | 4383.4 | 4388.2 | 4333.4 |
| 57.5° | 4780.3 | 4902.2 | 4972.1 | 5060.8 | 5160.9 | 5202.6 | 5214.0 | 5261.1 | 5209.2 | 5157.3 | 5115.7 |
| 60°   | 5822.0 | 5934.2 | 6061.5 | 6152.6 | 6186.4 | 6301.6 | 6247.3 | 6186.4 | 6130.9 | 6023.5 | 5902.3 |
| 62.5° | 6762.4 | 6907.2 | 6972.3 | 7057.4 | 7034.5 | 7024.8 | 6988.6 | 6891.5 | 6772.7 | 6612.8 | 6451.2 |
| 65°   | 7226.3 | 7307.7 | 7348.1 | 7375.9 | 7349.9 | 7283.0 | 7163.5 | 7020.0 | 6849.9 | 6643.0 | 6430.7 |
| 67°   | 7245.0 | 7282.4 | 7295.6 | 7269.1 | 7211.2 | 7106.8 | 6956.0 | 6752.8 | 6543.5 | 6306.4 | 6067.5 |
| 67.5° | 7214.2 | 7238.9 | 7245.6 | 7204.0 | 7135.2 | 7022.4 | 6861.3 | 6644.2 | 6421.6 | 6175.5 | 5935.4 |
| 70°   | 6794.4 | 6776.3 | 6717.8 | 6660.5 | 6445.7 | 6294.3 | 6013.9 | 5782.2 | 5473.4 | 5247.2 | 4990.8 |
| 72.5° | 5519.8 | 5437.2 | 5380.5 | 5127.2 | 4867.8 | 4717.6 | 4416.0 | 4139.1 | 3857.4 | 3642.1 | 3484.7 |
| 75°   | 3098.6 | 3038.3 | 2880.9 | 2746.9 | 2532.8 | 2336.8 | 2196.2 | 2020.1 | 1851.2 | 1751.1 | 1677.5 |
| 77.5° | 1400.0 | 1227.5 | 1108.7 | 958.5  | 774.5  | 622.5  | 462.0  | 427.1  | 364.3  | 348.6  | 314.3  |
| 80°   | 1092.4 | 968.7  | 813.1  | 641.2  | 452.4  | 304.0  | 223.2  | 189.4  | 177.9  | 170.7  | 167.1  |
| 82.5° | 911.4  | 751.0  | 632.1  | 448.8  | 287.1  | 193.0  | 145.4  | 131.5  | 123.1  | 117.0  | 111.6  |
| 85°   | 389.7  | 308.2  | 253.9  | 181.6  | 129.1  | 101.9  | 89.3   | 81.4   | 73.6   | 67.0   | 62.7   |
| 87.5° | 91.1   | 70.0   | 63.9   | 54.3   | 51.3   | 50.7   | 50.1   | 47.7   | 44.6   | 41.0   | 36.8   |
| 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):**

|       | 86°    | 87°    | 88°    | 89°    | 90°    | 95°    | 105°   | 115°   | 125°   | 135°   | 145°   |
|-------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 0°    | 952.4  | 952.4  | 952.4  | 952.4  | 952.4  | 952.4  | 952.4  | 952.4  | 952.4  | 952.4  | 952.4  |
| 2.5°  | 958.5  | 957.9  | 956.7  | 954.9  | 954.9  | 952.4  | 944.6  | 939.2  | 933.1  | 929.5  | 925.9  |
| 5°    | 974.8  | 974.2  | 971.1  | 969.3  | 968.1  | 963.3  | 950.0  | 939.8  | 928.9  | 921.1  | 915.0  |
| 7.5°  | 1001.9 | 1000.1 | 997.7  | 996.5  | 992.9  | 986.8  | 967.5  | 953.0  | 937.4  | 924.7  | 914.4  |
| 10°   | 1045.9 | 1042.9 | 1039.3 | 1035.7 | 1036.9 | 1027.2 | 1004.9 | 983.8  | 960.9  | 941.0  | 927.1  |
| 12.5° | 1099.6 | 1099.6 | 1097.8 | 1095.4 | 1091.2 | 1080.3 | 1050.2 | 1025.4 | 997.7  | 973.0  | 962.7  |
| 15°   | 1156.3 | 1153.3 | 1150.3 | 1146.7 | 1146.1 | 1131.6 | 1104.4 | 1076.1 | 1047.1 | 1026.0 | 1014.0 |
| 17.5° | 1202.8 | 1204.0 | 1199.8 | 1198.5 | 1197.3 | 1182.9 | 1153.9 | 1128.6 | 1107.5 | 1085.1 | 1065.8 |
| 20°   | 1252.2 | 1249.8 | 1248.6 | 1246.8 | 1246.2 | 1234.1 | 1211.2 | 1195.5 | 1176.8 | 1143.1 | 1092.4 |
| 22.5° | 1305.3 | 1302.3 | 1303.5 | 1299.9 | 1299.3 | 1290.8 | 1273.9 | 1269.1 | 1241.4 | 1170.2 | 1082.1 |
| 25°   | 1374.1 | 1368.6 | 1370.5 | 1370.5 | 1371.1 | 1363.2 | 1361.4 | 1353.0 | 1283.0 | 1163.6 | 1041.1 |
| 27.5° | 1456.1 | 1458.5 | 1458.5 | 1457.9 | 1453.7 | 1456.1 | 1464.6 | 1435.6 | 1297.5 | 1128.6 | 979.6  |
| 30°   | 1562.9 | 1564.1 | 1565.3 | 1569.5 | 1560.5 | 1576.1 | 1586.4 | 1494.1 | 1286.6 | 1080.3 | 902.4  |
| 32.5° | 1692.6 | 1687.7 | 1690.2 | 1692.6 | 1695.6 | 1711.9 | 1705.8 | 1523.7 | 1254.6 | 1014.6 | 806.5  |
| 35°   | 1835.5 | 1844.6 | 1847.0 | 1852.4 | 1858.4 | 1883.2 | 1813.8 | 1529.7 | 1205.8 | 926.5  | 684.0  |
| 37.5° | 2048.4 | 2062.9 | 2062.9 | 2082.2 | 2070.8 | 2100.9 | 1910.3 | 1515.2 | 1131.6 | 804.1  | 545.9  |
| 40°   | 2316.9 | 2323.5 | 2330.1 | 2332.6 | 2326.5 | 2322.9 | 1973.7 | 1479.6 | 1027.2 | 650.2  | 399.3  |
| 42.5° | 2590.7 | 2588.3 | 2588.9 | 2593.1 | 2576.8 | 2508.7 | 2012.9 | 1417.5 | 897.6  | 485.6  | 286.5  |
| 45°   | 2885.7 | 2875.4 | 2872.4 | 2864.0 | 2849.5 | 2705.9 | 2035.2 | 1330.0 | 726.8  | 341.4  | 225.0  |
| 47.5° | 3172.8 | 3160.1 | 3140.8 | 3117.3 | 3089.6 | 2864.6 | 2032.8 | 1216.6 | 557.4  | 244.3  | 198.5  |
| 50°   | 3467.2 | 3444.8 | 3403.2 | 3380.3 | 3333.3 | 3022.0 | 2018.9 | 1090.6 | 401.1  | 202.1  | 185.8  |
| 52.5° | 3803.7 | 3763.9 | 3725.3 | 3679.5 | 3601.7 | 3215.6 | 1997.8 | 948.8  | 292.5  | 185.2  | 177.3  |
| 55°   | 4305.6 | 4240.5 | 4177.1 | 4081.8 | 4006.4 | 3475.0 | 1962.2 | 796.2  | 231.0  | 178.5  | 172.5  |
| 57.5° | 4997.5 | 4886.5 | 4806.3 | 4677.8 | 4557.1 | 3833.9 | 1924.2 | 657.5  | 206.3  | 176.7  | 170.1  |
| 60°   | 5776.2 | 5609.1 | 5459.5 | 5301.5 | 5164.0 | 4282.1 | 1904.3 | 548.9  | 200.9  | 178.5  | 170.7  |
| 62.5° | 6264.8 | 6067.5 | 5880.5 | 5687.5 | 5489.7 | 4496.2 | 1818.0 | 474.1  | 203.3  | 186.4  | 175.5  |
| 65°   | 6203.3 | 5985.5 | 5782.2 | 5547.0 | 5360.6 | 4294.1 | 1598.5 | 401.1  | 207.5  | 200.3  | 188.8  |
| 67°   | 5788.3 | 5577.1 | 5345.5 | 5115.1 | 4934.1 | 3909.9 | 1349.3 | 337.8  | 212.3  | 215.9  | 203.3  |
| 67.5° | 5677.3 | 5439.6 | 5206.2 | 4994.5 | 4798.4 | 3791.1 | 1284.2 | 322.1  | 213.5  | 220.2  | 208.1  |
| 70°   | 4734.5 | 4546.3 | 4273.0 | 4116.2 | 3974.5 | 3073.3 | 957.9  | 250.3  | 217.2  | 238.9  | 231.0  |
| 72.5° | 3312.7 | 3130.6 | 2987.6 | 2902.0 | 2819.3 | 2233.0 | 673.8  | 199.7  | 211.7  | 249.1  | 241.3  |
| 75°   | 1673.3 | 1631.6 | 1581.6 | 1553.8 | 1555.0 | 1298.1 | 406.0  | 170.1  | 199.1  | 238.9  | 219.0  |
| 77.5° | 330.6  | 322.1  | 325.7  | 356.5  | 351.1  | 399.9  | 201.5  | 144.2  | 169.5  | 184.0  | 157.4  |
| 80°   | 159.8  | 154.4  | 149.6  | 148.4  | 145.4  | 139.3  | 126.7  | 120.0  | 137.5  | 121.2  | 104.4  |
| 82.5° | 103.7  | 97.7   | 95.3   | 90.5   | 91.1   | 98.9   | 110.4  | 115.2  | 111.6  | 83.8   | 70.6   |
| 85°   | 58.5   | 57.9   | 56.7   | 57.9   | 60.3   | 79.0   | 118.2  | 108.0  | 89.9   | 59.1   | 53.1   |
| 87.5° | 35.0   | 33.2   | 33.8   | 34.4   | 35.6   | 58.5   | 93.5   | 77.8   | 57.3   | 30.8   | 31.4   |
| 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):**

|       | 155°   | 165°   | 175°   | 180°   |
|-------|--------|--------|--------|--------|
| 0°    | 952.4  | 952.4  | 952.4  | 952.4  |
| 2.5°  | 925.3  | 922.9  | 922.9  | 922.3  |
| 5°    | 910.2  | 906.6  | 906.0  | 906.0  |
| 7.5°  | 907.8  | 903.0  | 902.4  | 900.6  |
| 10°   | 918.7  | 916.9  | 917.5  | 915.6  |
| 12.5° | 953.0  | 955.5  | 957.9  | 957.9  |
| 15°   | 1005.5 | 1003.7 | 1006.7 | 1003.7 |
| 17.5° | 1044.1 | 1028.4 | 1024.8 | 1023.0 |
| 20°   | 1045.3 | 1012.8 | 1001.9 | 1000.1 |
| 22.5° | 1007.9 | 959.7  | 941.6  | 938.6  |
| 25°   | 944.6  | 883.7  | 860.8  | 858.3  |
| 27.5° | 865.0  | 796.8  | 763.0  | 761.8  |
| 30°   | 769.1  | 688.2  | 645.4  | 638.8  |
| 32.5° | 652.1  | 556.1  | 510.9  | 496.4  |
| 35°   | 516.9  | 418.6  | 376.4  | 375.2  |
| 37.5° | 386.0  | 309.4  | 282.3  | 281.1  |
| 40°   | 282.9  | 243.1  | 232.8  | 231.0  |
| 42.5° | 231.0  | 214.7  | 210.5  | 208.7  |
| 45°   | 206.9  | 200.3  | 197.8  | 196.0  |
| 47.5° | 192.4  | 188.2  | 186.4  | 186.4  |
| 50°   | 181.0  | 179.8  | 178.5  | 178.5  |
| 52.5° | 173.1  | 172.5  | 171.3  | 170.7  |
| 55°   | 166.5  | 164.1  | 164.7  | 164.1  |
| 57.5° | 162.3  | 158.6  | 158.6  | 158.6  |
| 60°   | 159.8  | 153.2  | 153.2  | 153.8  |
| 62.5° | 160.4  | 150.2  | 149.6  | 149.6  |
| 65°   | 165.3  | 148.4  | 144.8  | 145.4  |
| 67°   | 171.3  | 146.6  | 139.3  | 138.7  |
| 67.5° | 173.1  | 145.4  | 137.5  | 136.9  |
| 70°   | 180.4  | 141.8  | 128.5  | 127.3  |
| 72.5° | 181.6  | 136.3  | 119.4  | 118.2  |
| 75°   | 168.9  | 129.1  | 112.2  | 109.2  |
| 77.5° | 131.5  | 111.0  | 101.3  | 101.3  |
| 80°   | 92.3   | 85.1   | 72.4   | 71.8   |
| 82.5° | 67.6   | 63.9   | 53.1   | 51.9   |
| 85°   | 49.5   | 46.4   | 39.2   | 39.2   |
| 87.5° | 30.8   | 29.6   | 25.3   | 24.1   |
| 90°   | 0.0    | 0.0    | 0.0    | 0.0    |

(END OF REPORT)