

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: LUMARK

Report Number: P961471

Luminaire Tested: **NAV-SB2A-750-U-T2U**

Issue Date: 1/21/2025

### Test Information

Test Method: LM-79-08  
Report Number: P961471  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2411-289-16)  
Test Lab: INNOVATION CENTER  
Issue Date: 1/21/2025  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: LUMARK  
Catalog Number: NAV-SB2A-750-U-T2U  
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE  
(2) 70 CRI, 5000K, 350mA LIGHTSQUARES WITH 26 LEDS EACH AND TYPE II U OPTICS  
Light Source: -  
Ballast/Driver: -

### Summary

Lumens per Lamp: N/A  
Luminaire Lumens: 9858.5 lumens  
Efficiency: N/A  
Efficacy: 172.0 lumens/watt  
Luminous Opening: Rectangular (W 0.5' x L: 1' x H: 0')  
IES Classification: Type II - Short  
BUG Rating: B2 - U0 - G2

Input Watts (W): 57.3  
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: 24 FT



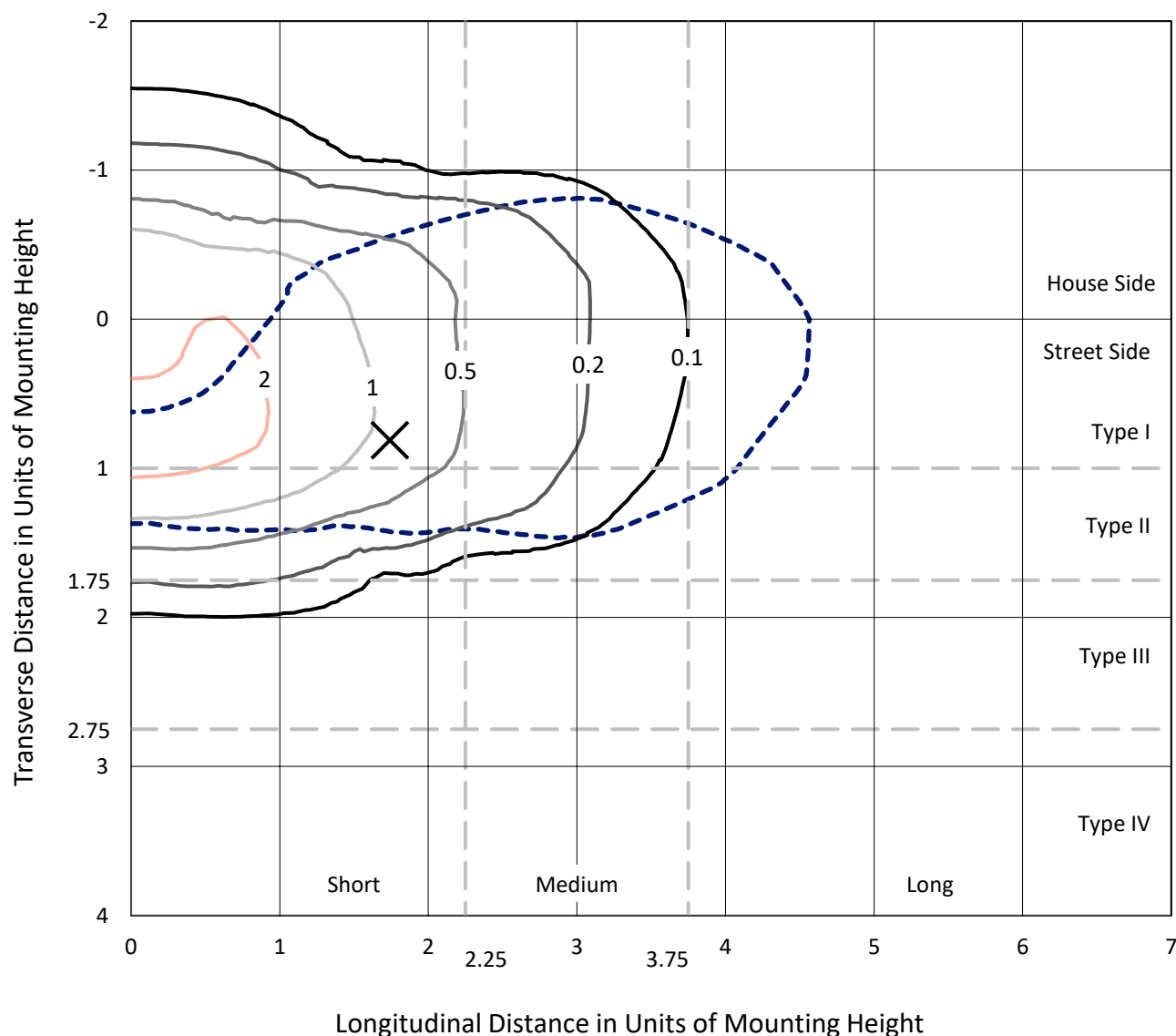
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## Iso-Footcandle Lines of Horizontal Illumination

× Max cd

--- 1/2 Max cd

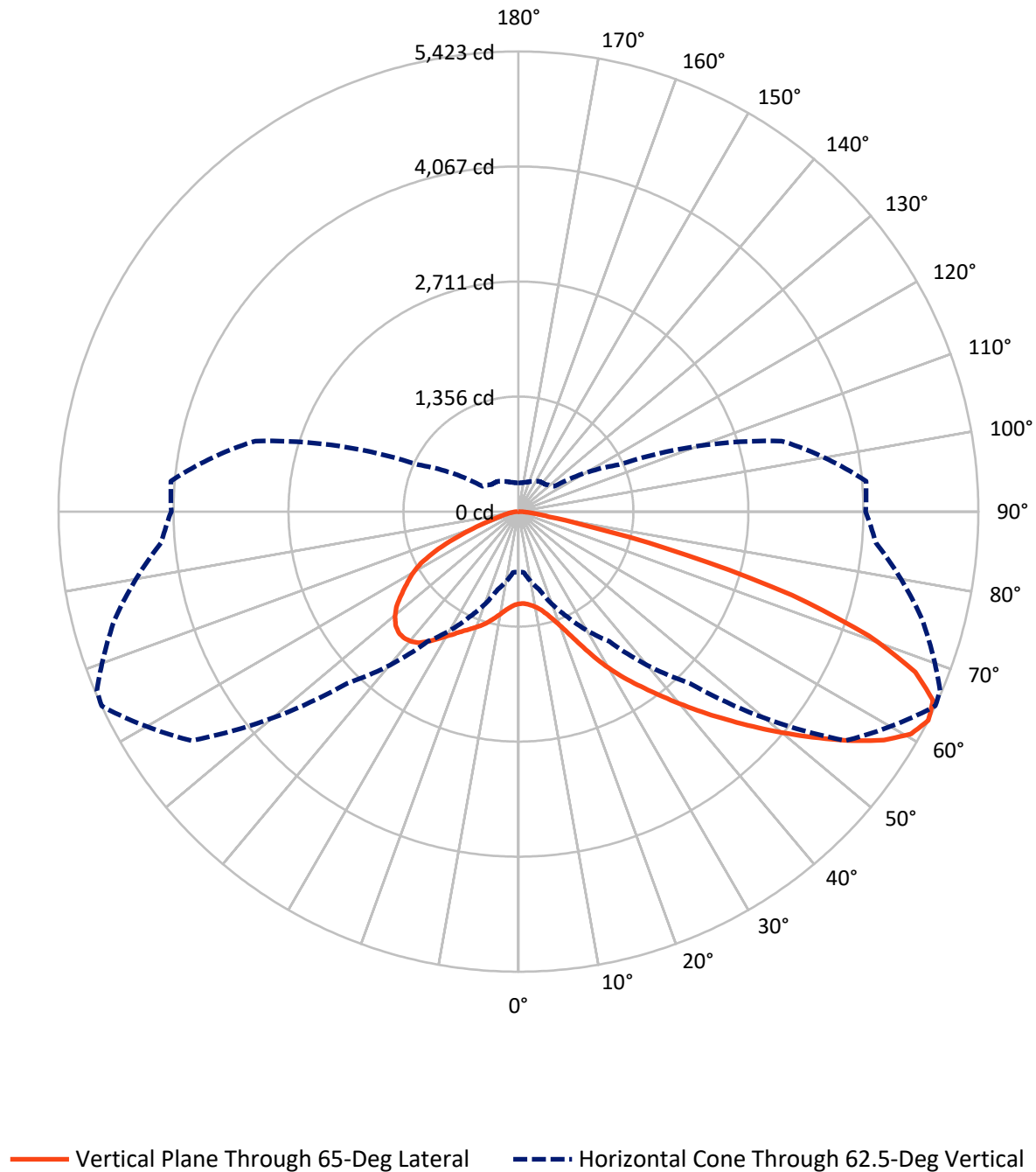


Based on 25 foot mounting height. Maximum calculated value = 2.8 fc

Type II - Short - N/A

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## Luminous Intensity Polar Plot



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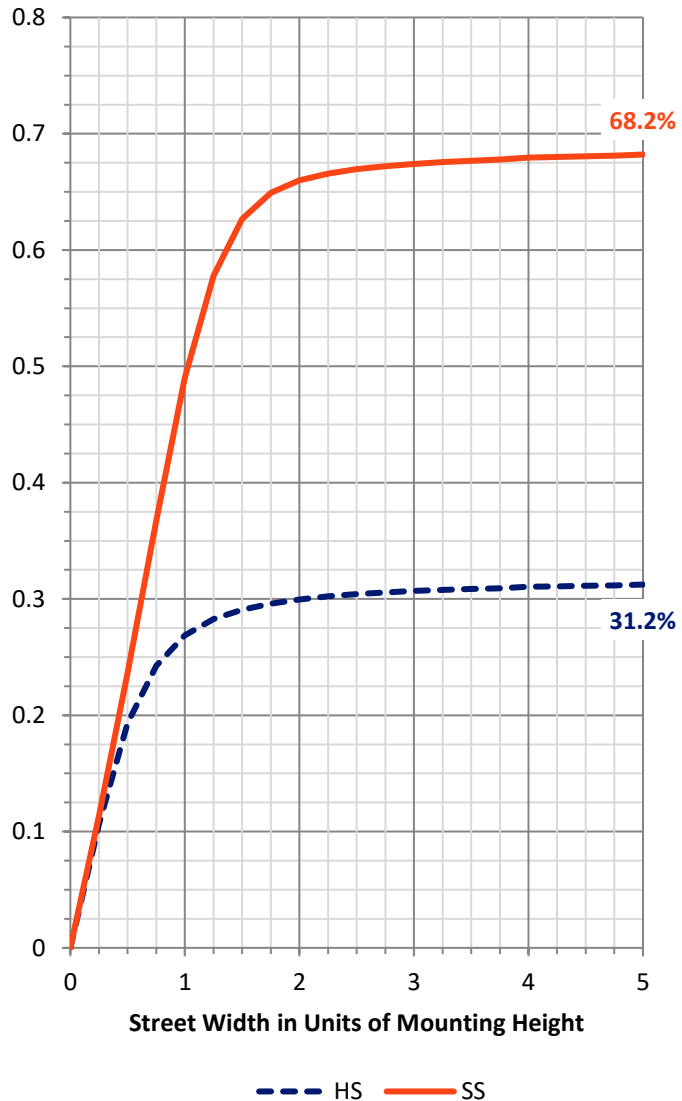
**FLUX DISTRIBUTION:**

|                    |           | Downward | Upward | Total  |
|--------------------|-----------|----------|--------|--------|
| <b>House Side</b>  | Lumens    | 3110.9   | 0.0    | 3110.9 |
|                    | % Fixture | 31.6     | 0.0    | 31.6   |
| <b>Street Side</b> | Lumens    | 6747.6   | 0.0    | 6747.6 |
|                    | % Fixture | 68.4     | 0.0    | 68.4   |
| <b>Total</b>       | Lumens    | 9858.5   | 0.0    | 9858.5 |
|                    | % Fixture | 100.0    | 0.0    | 100.0  |

**ZONAL LUMENS:**

| Zone      | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10°    | 108.3  | 1.1       |
| 10°-20°   | 367.3  | 3.7       |
| 20°-30°   | 744.7  | 7.6       |
| 30°-40°   | 1288.7 | 13.1      |
| 40°-50°   | 1950.2 | 19.8      |
| 50°-60°   | 2286.5 | 23.2      |
| 60°-70°   | 1917.0 | 19.4      |
| 70°-80°   | 1058.3 | 10.7      |
| 80°-90°   | 137.5  | 1.4       |
| 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°    | 9858.5 | 100.0     |
| 0°-180°   | 9858.5 | 100.0     |

**Coefficient of Utilization**



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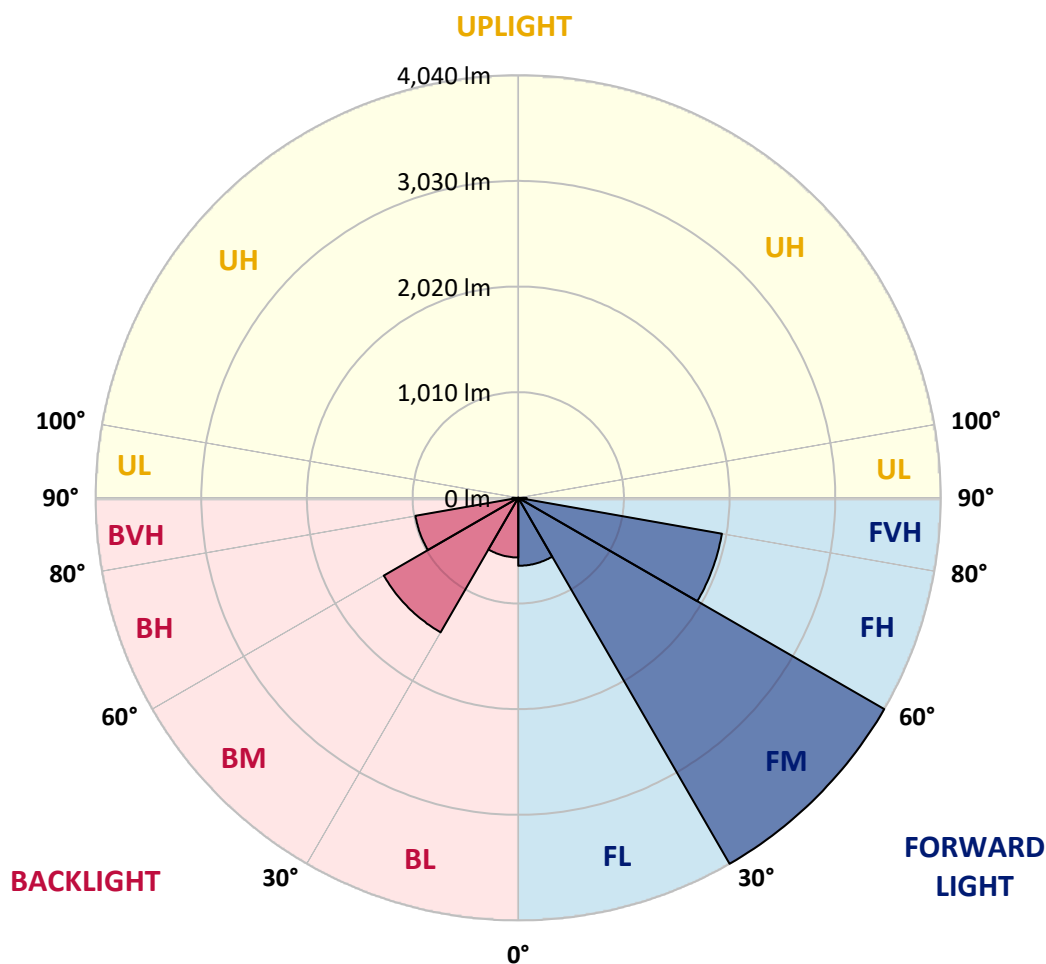
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

| Zone |             | Lumens | % Fixture | Zone Rating/Lumen Limit |      |         |
|------|-------------|--------|-----------|-------------------------|------|---------|
|      |             |        |           | B                       | U    | G       |
| FL   | (0°-30°)    | 649.8  | 6.6       |                         |      |         |
| FM   | (30°-60°)   | 4040.3 | 41.0      |                         |      |         |
| FH   | (60°-80°)   | 1977.3 | 20.1      |                         |      | G2/5000 |
| FVH  | (80°-90°)   | 80.1   | 0.8       |                         |      | G1/100  |
| BL   | (0°-30°)    | 570.5  | 5.8       | B2/1000                 |      |         |
| BM   | (30°-60°)   | 1485.1 | 15.1      | B2/2500                 |      |         |
| BH   | (60°-80°)   | 997.9  | 10.1      | B2/1000                 |      | G2/1000 |
| BVH  | (80°-90°)   | 57.4   | 0.6       |                         |      | 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 II Short



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CATALOG NUMBER: NAV-SB2A-750-U-T2U

**CANDELA DISTRIBUTION (FULL):**

|       | 0°     | 5°     | 15°    | 25°    | 35°    | 45°    | 55°    | 65°    | 67°    | 75°    | 85°    |
|-------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 0°    | 1086.4 | 1086.4 | 1086.4 | 1086.4 | 1086.4 | 1086.4 | 1086.4 | 1086.4 | 1086.4 | 1086.4 | 1086.4 |
| 2.5°  | 1079.2 | 1076.1 | 1078.7 | 1078.7 | 1079.7 | 1079.2 | 1082.8 | 1083.8 | 1085.4 | 1088.4 | 1088.4 |
| 5°    | 1068.5 | 1067.9 | 1072.6 | 1076.7 | 1080.8 | 1084.3 | 1089.0 | 1095.5 | 1096.5 | 1100.1 | 1104.7 |
| 7.5°  | 1064.9 | 1061.8 | 1069.0 | 1074.1 | 1083.8 | 1092.4 | 1104.7 | 1116.0 | 1120.6 | 1122.2 | 1130.9 |
| 10°   | 1092.4 | 1087.4 | 1094.0 | 1097.1 | 1105.3 | 1114.0 | 1128.3 | 1146.2 | 1151.3 | 1157.4 | 1167.2 |
| 12.5° | 1139.6 | 1134.0 | 1143.6 | 1148.2 | 1155.9 | 1163.6 | 1173.3 | 1190.7 | 1193.3 | 1204.5 | 1213.7 |
| 15°   | 1204.0 | 1197.3 | 1203.5 | 1209.1 | 1221.9 | 1229.1 | 1238.8 | 1255.6 | 1255.6 | 1264.3 | 1271.0 |
| 17.5° | 1291.5 | 1282.8 | 1287.4 | 1289.4 | 1297.5 | 1308.3 | 1324.7 | 1339.6 | 1347.2 | 1344.2 | 1335.0 |
| 20°   | 1421.9 | 1411.1 | 1411.1 | 1400.9 | 1397.8 | 1406.5 | 1428.0 | 1448.4 | 1456.6 | 1440.8 | 1418.3 |
| 22.5° | 1617.8 | 1602.4 | 1593.8 | 1558.9 | 1545.2 | 1546.2 | 1567.6 | 1592.7 | 1599.4 | 1571.2 | 1520.6 |
| 25°   | 1866.8 | 1842.8 | 1831.1 | 1779.9 | 1748.8 | 1721.6 | 1738.5 | 1770.7 | 1779.9 | 1745.2 | 1663.3 |
| 27.5° | 2115.9 | 2117.4 | 2106.3 | 2044.9 | 1993.2 | 1943.6 | 1934.9 | 1968.6 | 1978.4 | 1939.0 | 1837.7 |
| 30°   | 2465.2 | 2428.9 | 2407.5 | 2333.8 | 2260.2 | 2190.6 | 2154.9 | 2168.6 | 2171.2 | 2124.1 | 2006.5 |
| 32.5° | 2766.6 | 2757.4 | 2711.3 | 2646.9 | 2552.2 | 2443.3 | 2383.4 | 2361.5 | 2357.4 | 2290.4 | 2150.8 |
| 35°   | 3109.7 | 3104.6 | 3056.0 | 2979.3 | 2877.0 | 2725.6 | 2617.6 | 2554.8 | 2549.7 | 2455.6 | 2293.4 |
| 37.5° | 3458.6 | 3458.6 | 3411.0 | 3327.2 | 3221.3 | 3032.0 | 2867.8 | 2768.1 | 2751.7 | 2628.9 | 2438.7 |
| 40°   | 3736.7 | 3719.9 | 3728.6 | 3693.3 | 3572.1 | 3371.1 | 3145.5 | 3000.8 | 2978.8 | 2831.5 | 2593.1 |
| 42.5° | 3894.8 | 3889.2 | 3941.3 | 3980.8 | 3931.2 | 3770.6 | 3451.4 | 3252.9 | 3222.3 | 3054.5 | 2771.1 |
| 45°   | 3930.2 | 3924.0 | 4017.1 | 4161.3 | 4230.9 | 4164.9 | 3783.9 | 3518.4 | 3481.0 | 3287.7 | 2961.9 |
| 47.5° | 3848.8 | 3836.5 | 3973.1 | 4200.7 | 4423.7 | 4539.8 | 4143.9 | 3806.3 | 3752.1 | 3514.8 | 3157.8 |
| 50°   | 3604.3 | 3592.5 | 3799.2 | 4101.4 | 4488.7 | 4794.5 | 4534.7 | 4111.7 | 4028.9 | 3758.3 | 3355.7 |
| 52.5° | 3073.0 | 3078.5 | 3402.3 | 3817.6 | 4403.2 | 4953.1 | 4871.2 | 4433.4 | 4333.7 | 4007.3 | 3541.4 |
| 55°   | 2393.7 | 2406.0 | 2803.9 | 3261.1 | 4061.6 | 4929.0 | 5100.9 | 4764.8 | 4665.6 | 4241.7 | 3733.3 |
| 57.5° | 1713.9 | 1768.1 | 2141.0 | 2593.7 | 3405.4 | 4547.9 | 5151.0 | 5079.9 | 4983.8 | 4497.3 | 3920.9 |
| 60°   | 1110.9 | 1120.6 | 1504.2 | 1960.4 | 2593.1 | 3870.8 | 5049.3 | 5318.7 | 5243.6 | 4758.2 | 4078.0 |
| 62.5° | 712.0  | 718.6  | 952.3  | 1371.2 | 1866.3 | 2863.7 | 4706.5 | 5422.6 | 5399.6 | 4930.6 | 4228.8 |
| 65°   | 523.3  | 518.1  | 639.8  | 906.3  | 1257.2 | 1766.1 | 4041.1 | 5372.4 | 5417.9 | 5038.5 | 4353.6 |
| 67.5° | 436.8  | 429.7  | 489.4  | 627.6  | 926.3  | 1003.0 | 2990.0 | 5046.7 | 5213.4 | 5026.2 | 4445.2 |
| 70°   | 397.9  | 391.8  | 428.1  | 466.0  | 722.7  | 671.6  | 1507.3 | 4387.4 | 4644.2 | 4886.6 | 4430.4 |
| 72.5° | 337.0  | 326.4  | 376.0  | 413.8  | 562.1  | 515.1  | 623.0  | 3370.1 | 3683.1 | 4439.1 | 4221.7 |
| 75°   | 261.4  | 254.2  | 296.6  | 364.2  | 422.5  | 402.0  | 393.8  | 2046.4 | 2388.0 | 3432.9 | 3693.3 |
| 77.5° | 207.2  | 197.4  | 236.3  | 283.8  | 380.1  | 303.3  | 286.9  | 881.3  | 1219.9 | 2191.7 | 2763.5 |
| 80°   | 156.0  | 147.3  | 179.5  | 224.6  | 292.0  | 228.7  | 185.6  | 359.6  | 459.8  | 1110.4 | 1389.7 |
| 82.5° | 111.0  | 103.3  | 125.4  | 164.7  | 196.4  | 205.1  | 114.1  | 201.5  | 226.6  | 428.1  | 310.5  |
| 85°   | 71.1   | 66.5   | 83.8   | 103.3  | 124.8  | 131.9  | 69.6   | 105.4  | 115.6  | 176.5  | 129.4  |
| 87.5° | 38.8   | 31.7   | 45.0   | 48.1   | 57.8   | 52.7   | 33.2   | 38.3   | 41.4   | 64.0   | 54.7   |
| 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):**

|       | 90°    | 95°    | 105°   | 115°   | 125°   | 135°   | 145°   | 155°   | 165°   | 175°   | 180°   |
|-------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 0°    | 1086.4 | 1086.4 | 1086.4 | 1086.4 | 1086.4 | 1086.4 | 1086.4 | 1086.4 | 1086.4 | 1086.4 | 1086.4 |
| 2.5°  | 1090.5 | 1092.0 | 1097.1 | 1098.6 | 1102.2 | 1106.8 | 1109.9 | 1112.9 | 1112.9 | 1116.0 | 1116.0 |
| 5°    | 1105.3 | 1108.8 | 1119.6 | 1125.2 | 1134.5 | 1143.6 | 1149.2 | 1155.9 | 1160.0 | 1162.0 | 1163.1 |
| 7.5°  | 1134.0 | 1139.6 | 1154.9 | 1164.6 | 1180.5 | 1193.3 | 1201.9 | 1211.1 | 1213.2 | 1218.8 | 1216.8 |
| 10°   | 1172.8 | 1179.5 | 1196.8 | 1215.2 | 1234.2 | 1250.0 | 1258.2 | 1264.8 | 1267.4 | 1268.4 | 1265.9 |
| 12.5° | 1217.3 | 1227.0 | 1249.5 | 1272.0 | 1292.0 | 1305.7 | 1307.8 | 1306.3 | 1299.1 | 1293.0 | 1293.0 |
| 15°   | 1272.0 | 1280.7 | 1305.7 | 1330.3 | 1349.7 | 1352.3 | 1339.6 | 1331.4 | 1322.7 | 1321.1 | 1321.1 |
| 17.5° | 1337.5 | 1342.1 | 1365.1 | 1389.2 | 1390.7 | 1382.0 | 1363.0 | 1355.4 | 1347.2 | 1341.6 | 1342.1 |
| 20°   | 1413.7 | 1412.1 | 1428.5 | 1438.8 | 1428.0 | 1401.4 | 1372.8 | 1360.0 | 1351.8 | 1345.2 | 1345.7 |
| 22.5° | 1504.7 | 1493.0 | 1491.0 | 1488.4 | 1459.7 | 1403.9 | 1365.1 | 1348.7 | 1336.0 | 1326.8 | 1329.8 |
| 25°   | 1637.2 | 1592.2 | 1561.0 | 1543.6 | 1479.2 | 1390.2 | 1340.6 | 1304.2 | 1280.2 | 1264.3 | 1270.5 |
| 27.5° | 1803.0 | 1727.2 | 1648.5 | 1606.0 | 1479.2 | 1362.0 | 1281.2 | 1222.4 | 1183.1 | 1166.7 | 1174.9 |
| 30°   | 1960.9 | 1881.7 | 1765.6 | 1681.2 | 1475.6 | 1316.0 | 1185.6 | 1103.7 | 1057.7 | 1041.4 | 1051.0 |
| 32.5° | 2096.0 | 2009.5 | 1889.9 | 1763.5 | 1466.9 | 1241.4 | 1066.9 | 976.4  | 931.9  | 912.5  | 922.2  |
| 35°   | 2221.3 | 2129.2 | 2014.6 | 1854.1 | 1443.9 | 1131.9 | 936.5  | 867.5  | 817.8  | 786.7  | 796.8  |
| 37.5° | 2349.7 | 2240.2 | 2132.8 | 1935.9 | 1402.4 | 1004.0 | 836.3  | 777.5  | 719.1  | 677.2  | 688.4  |
| 40°   | 2489.3 | 2358.4 | 2259.2 | 1984.5 | 1334.4 | 882.3  | 758.5  | 704.8  | 642.9  | 598.4  | 607.1  |
| 42.5° | 2652.5 | 2500.1 | 2399.8 | 2009.5 | 1241.4 | 795.8  | 707.9  | 655.2  | 596.9  | 560.6  | 567.7  |
| 45°   | 2822.7 | 2656.1 | 2528.2 | 2009.0 | 1137.5 | 755.4  | 691.5  | 639.3  | 574.9  | 537.0  | 543.1  |
| 47.5° | 3001.3 | 2819.3 | 2639.2 | 1976.3 | 1047.4 | 761.1  | 682.3  | 605.1  | 533.9  | 497.1  | 502.2  |
| 50°   | 3180.3 | 2997.7 | 2746.6 | 1914.9 | 1009.1 | 748.8  | 648.0  | 557.0  | 473.1  | 439.8  | 441.9  |
| 52.5° | 3357.8 | 3187.4 | 2839.1 | 1827.5 | 970.3  | 703.3  | 604.0  | 494.6  | 448.0  | 425.1  | 425.1  |
| 55°   | 3536.2 | 3375.2 | 2939.9 | 1700.2 | 873.1  | 650.1  | 530.4  | 471.1  | 428.1  | 407.1  | 405.1  |
| 57.5° | 3715.3 | 3592.0 | 3035.5 | 1572.8 | 750.8  | 584.6  | 489.9  | 442.4  | 408.2  | 390.2  | 387.1  |
| 60°   | 3901.5 | 3840.1 | 3134.2 | 1455.6 | 630.2  | 500.7  | 460.3  | 419.4  | 384.6  | 364.7  | 363.2  |
| 62.5° | 4093.2 | 4113.2 | 3211.5 | 1304.7 | 519.2  | 449.6  | 433.7  | 391.8  | 358.0  | 339.1  | 338.6  |
| 65°   | 4286.7 | 4376.6 | 3262.2 | 1095.5 | 421.0  | 401.0  | 405.1  | 361.6  | 327.4  | 311.0  | 310.5  |
| 67.5° | 4432.4 | 4566.4 | 3247.8 | 829.1  | 345.2  | 355.0  | 369.3  | 329.9  | 297.7  | 284.8  | 285.4  |
| 70°   | 4448.7 | 4543.9 | 3106.7 | 567.7  | 288.9  | 310.0  | 329.4  | 298.7  | 265.5  | 256.2  | 256.8  |
| 72.5° | 4230.9 | 4237.0 | 2713.4 | 370.8  | 244.5  | 272.1  | 287.4  | 267.0  | 234.7  | 225.6  | 225.1  |
| 75°   | 3659.6 | 3504.1 | 1992.2 | 244.5  | 204.6  | 233.7  | 248.0  | 233.7  | 202.5  | 204.6  | 197.4  |
| 77.5° | 2772.6 | 2481.6 | 1209.6 | 173.9  | 170.9  | 196.4  | 215.9  | 205.6  | 179.0  | 201.0  | 177.0  |
| 80°   | 1428.5 | 1342.6 | 539.6  | 129.9  | 135.0  | 157.0  | 177.5  | 164.2  | 141.7  | 135.0  | 123.3  |
| 82.5° | 327.4  | 380.6  | 212.8  | 93.1   | 97.7   | 113.1  | 135.5  | 123.3  | 101.8  | 85.9   | 84.9   |
| 85°   | 114.6  | 125.4  | 94.1   | 58.3   | 57.3   | 70.6   | 92.0   | 82.3   | 69.1   | 55.2   | 58.3   |
| 87.5° | 36.3   | 47.6   | 35.3   | 23.6   | 24.6   | 31.7   | 42.4   | 38.8   | 32.2   | 21.0   | 22.0   |
| 90°   | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    |

(END OF REPORT)