

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: P960878

Luminaire Tested: **NAV-SB1D-735-U-T2-HSS**

Issue Date: 1/21/2025

### Test Information

Test Method: LM-79-08  
Report Number: P960878  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2405-108-4)  
Test Lab: INNOVATION CENTER  
Issue Date: 1/21/2025  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: LUMARK  
Catalog Number: NAV-SB1D-735-U-T2-HSS  
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE  
(1) 70 CRI, 3500K, 900mA LIGHTSQUARE WITH 26 LEDS AND TYPE II OPTICS WITH  
HOUSE SIDE SHIELD  
Light Source: -  
Ballast/Driver: -

### Summary

Lumens per Lamp: N/A  
Luminaire Lumens: 7618.8 lumens  
Efficiency: N/A  
Efficacy: 95.7 lumens/watt  
Luminous Opening: Rectangular (W 0.5' x L: 0.5' x H: 0')  
IES Classification: Type II - Medium  
BUG Rating: B1 - U0 - G2

Input Watts (W): 79.6  
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



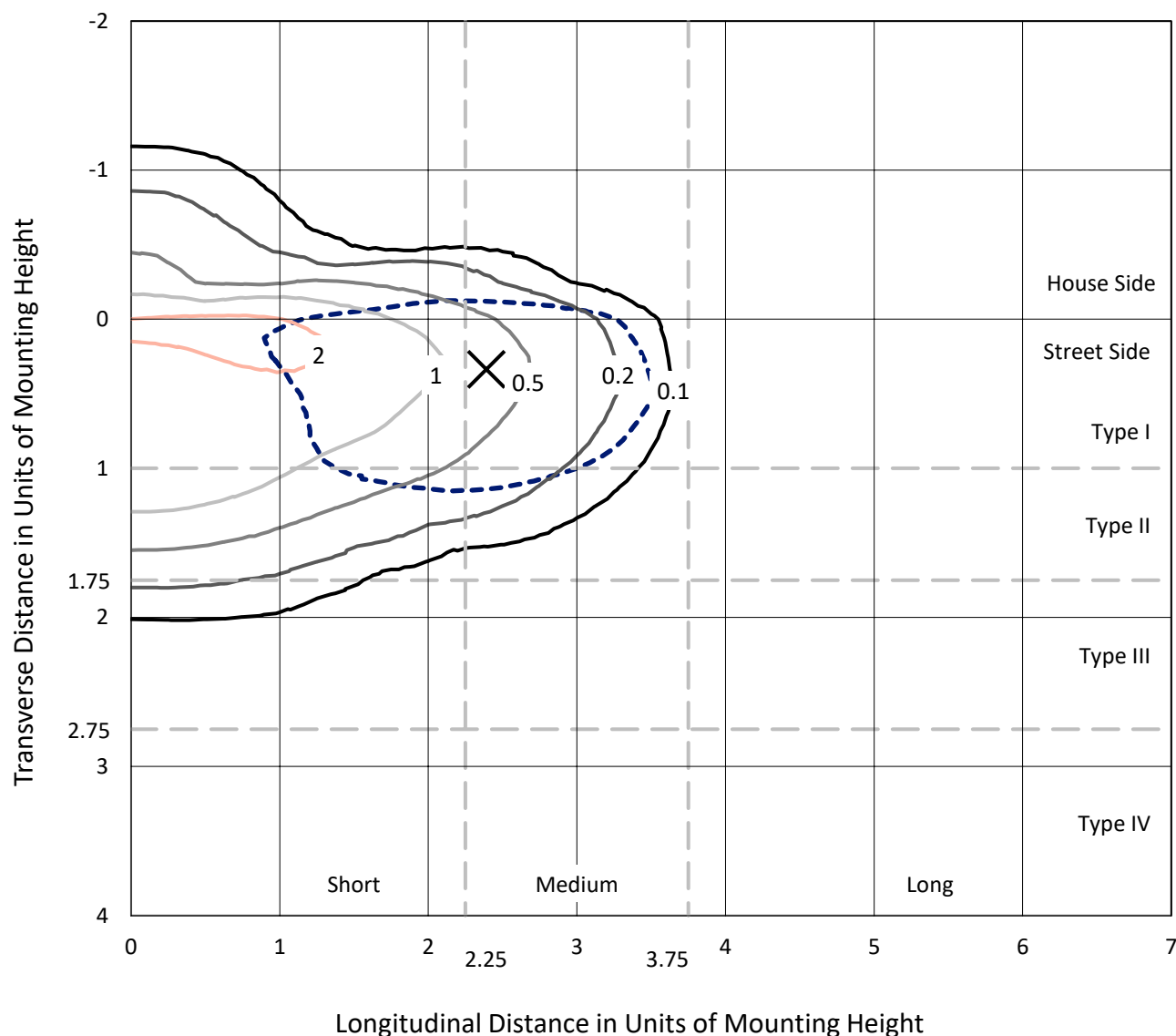
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## Iso-Footcandle Lines of Horizontal Illumination

× Max cd

--- 1/2 Max cd

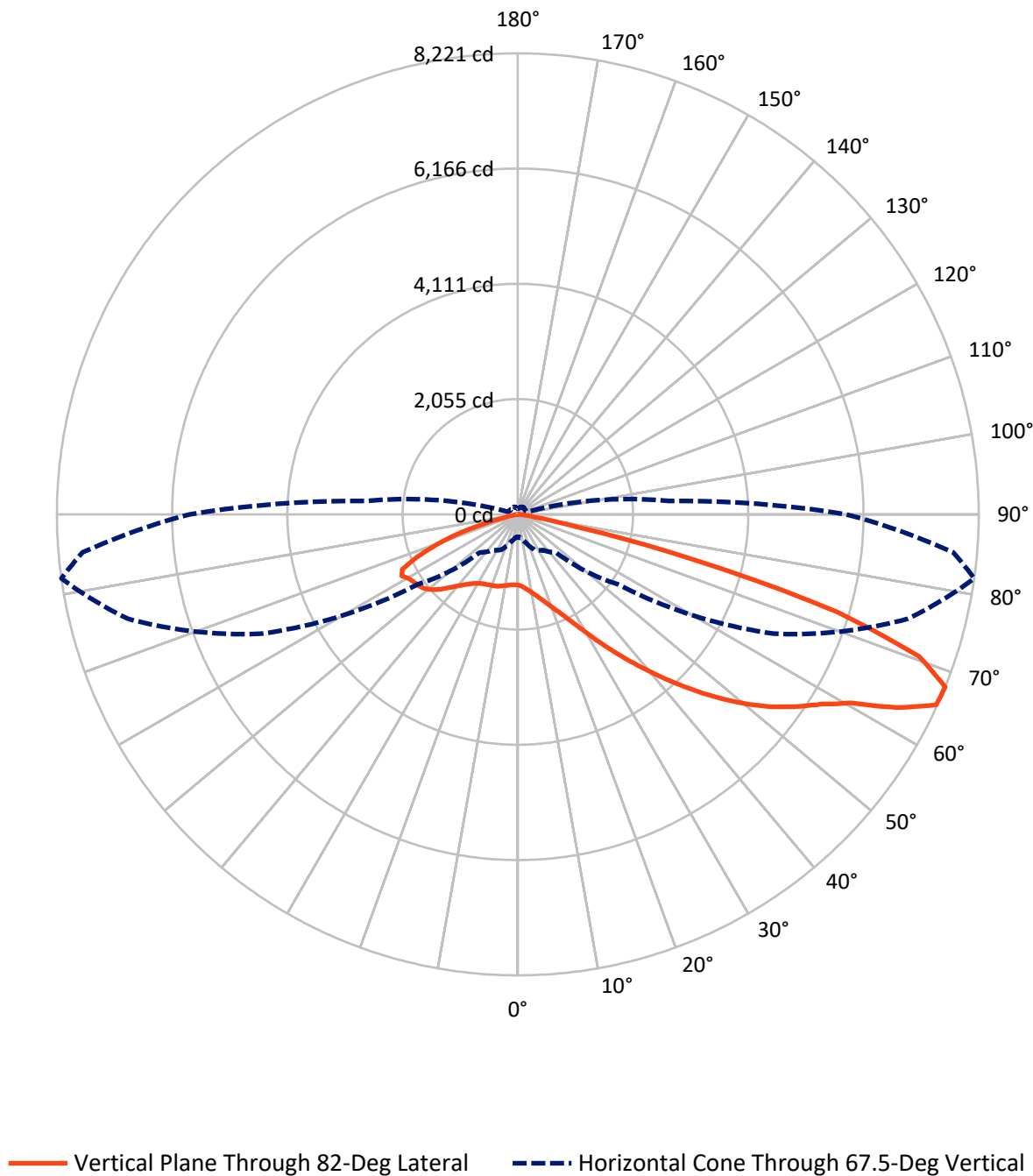


Based on 25 foot mounting height. Maximum calculated value = 2.7 fc  
Type II - Medium - N/A

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## Luminous Intensity Polar Plot



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**FLUX DISTRIBUTION:**

|                    |           | Downward | Upward | Total  |
|--------------------|-----------|----------|--------|--------|
| <b>House Side</b>  | Lumens    | 1380.1   | 0.0    | 1380.1 |
|                    | % Fixture | 18.1     | 0.0    | 18.1   |
| <b>Street Side</b> | Lumens    | 6238.7   | 0.0    | 6238.7 |
|                    | % Fixture | 81.9     | 0.0    | 81.9   |
| <b>Total</b>       | Lumens    | 7618.8   | 0.0    | 7618.8 |
|                    | % Fixture | 100.0    | 0.0    | 100.0  |

**ZONAL LUMENS:**

| Zone      | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10°    | 112.5  | 1.5       |
| 10°-20°   | 292.2  | 3.8       |
| 20°-30°   | 468.0  | 6.1       |
| 30°-40°   | 827.6  | 10.9      |
| 40°-50°   | 1450.1 | 19.0      |
| 50°-60°   | 1934.0 | 25.4      |
| 60°-70°   | 1800.5 | 23.6      |
| 70°-80°   | 691.0  | 9.1       |
| 80°-90°   | 42.9   | 0.6       |
| 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°    | 7618.8 | 100.0     |
| 0°-180°   | 7618.8 | 100.0     |

**Coefficient of Utilization**



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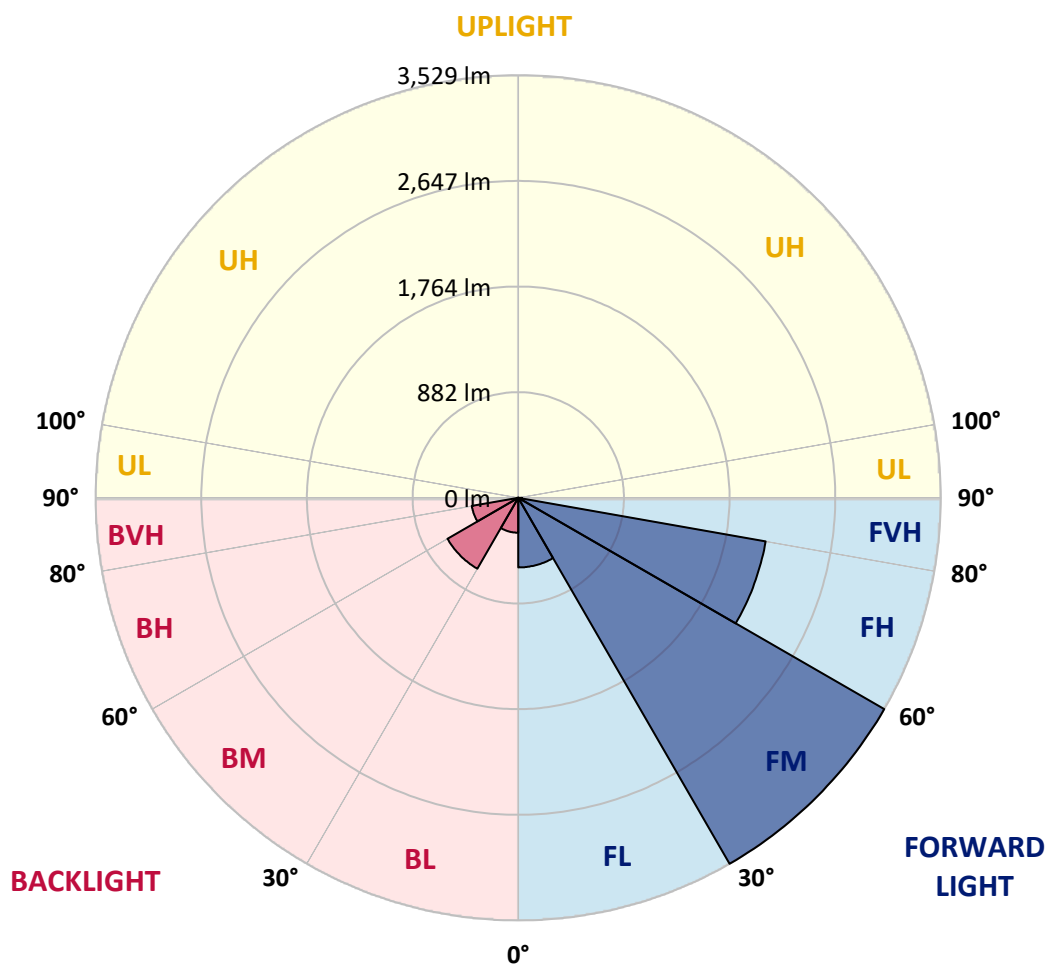
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

| Zone |             | Lumens | % Fixture | Zone Rating/Lumen Limit |      |         |
|------|-------------|--------|-----------|-------------------------|------|---------|
|      |             |        |           | B                       | U    | G       |
| FL   | (0°-30°)    | 581.2  | 7.6       |                         |      |         |
| FM   | (30°-60°)   | 3528.7 | 46.3      |                         |      |         |
| FH   | (60°-80°)   | 2097.6 | 27.5      |                         |      | G2/5000 |
| FVH  | (80°-90°)   | 31.2   | 0.4       |                         |      | G1/100  |
| BL   | (0°-30°)    | 291.5  | 3.8       | B1/500                  |      |         |
| BM   | (30°-60°)   | 683.0  | 9.0       | B1/1000                 |      |         |
| BH   | (60°-80°)   | 393.9  | 5.2       | B1/500                  |      | G1/500  |
| BVH  | (80°-90°)   | 11.7   | 0.2       |                         |      | 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 II Medium



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**CANDELA DISTRIBUTION (FULL):**

|       | 0°     | 5°     | 15°    | 25°    | 35°    | 45°    | 55°    | 65°    | 75°    | 82°    | 85°    |
|-------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 0°    | 1262.2 | 1262.2 | 1262.2 | 1262.2 | 1262.2 | 1262.2 | 1262.2 | 1262.2 | 1262.2 | 1262.2 | 1262.2 |
| 2.5°  | 1334.0 | 1341.7 | 1337.3 | 1335.2 | 1331.3 | 1325.8 | 1321.4 | 1307.7 | 1293.4 | 1284.1 | 1280.8 |
| 5°    | 1360.9 | 1368.6 | 1368.1 | 1370.2 | 1373.0 | 1374.6 | 1373.5 | 1358.1 | 1337.8 | 1321.9 | 1312.6 |
| 7.5°  | 1337.8 | 1346.6 | 1353.8 | 1364.8 | 1384.0 | 1404.2 | 1414.1 | 1410.8 | 1390.0 | 1368.1 | 1356.5 |
| 10°   | 1272.6 | 1282.0 | 1299.0 | 1324.7 | 1365.3 | 1409.2 | 1446.0 | 1463.0 | 1449.8 | 1425.7 | 1409.8 |
| 12.5° | 1153.0 | 1162.4 | 1195.8 | 1251.7 | 1319.8 | 1396.0 | 1466.3 | 1511.8 | 1515.1 | 1491.0 | 1472.3 |
| 15°   | 1018.6 | 1028.0 | 1063.6 | 1133.9 | 1237.5 | 1359.9 | 1477.2 | 1563.3 | 1592.4 | 1571.5 | 1549.1 |
| 17.5° | 935.2  | 943.5  | 970.4  | 1026.8 | 1134.9 | 1287.4 | 1473.3 | 1618.2 | 1684.6 | 1668.1 | 1641.2 |
| 20°   | 910.0  | 917.2  | 929.8  | 969.2  | 1059.2 | 1212.3 | 1448.1 | 1669.7 | 1783.8 | 1774.5 | 1744.3 |
| 22.5° | 936.8  | 943.5  | 947.3  | 964.8  | 1021.4 | 1162.9 | 1416.3 | 1722.4 | 1899.0 | 1900.1 | 1863.3 |
| 25°   | 998.9  | 1005.4 | 1001.1 | 1012.1 | 1036.7 | 1147.5 | 1404.2 | 1784.4 | 2043.8 | 2055.9 | 2014.2 |
| 27.5° | 1101.0 | 1101.5 | 1091.0 | 1090.5 | 1094.3 | 1170.6 | 1416.9 | 1850.7 | 2226.5 | 2249.0 | 2197.4 |
| 30°   | 1305.5 | 1297.2 | 1257.3 | 1213.9 | 1194.1 | 1239.7 | 1452.0 | 1929.2 | 2442.1 | 2482.1 | 2417.4 |
| 32.5° | 1620.9 | 1608.8 | 1535.3 | 1431.7 | 1327.5 | 1351.1 | 1515.1 | 2018.6 | 2676.9 | 2749.3 | 2670.2 |
| 35°   | 1963.2 | 1959.9 | 1883.1 | 1729.0 | 1546.8 | 1509.6 | 1617.7 | 2136.0 | 2933.0 | 3048.2 | 2954.5 |
| 37.5° | 2281.3 | 2279.7 | 2235.8 | 2054.3 | 1832.7 | 1730.6 | 1782.2 | 2289.5 | 3207.3 | 3374.1 | 3263.2 |
| 40°   | 2572.1 | 2577.1 | 2533.2 | 2370.7 | 2147.5 | 2014.2 | 2006.0 | 2479.4 | 3512.3 | 3729.0 | 3597.3 |
| 42.5° | 2823.4 | 2828.8 | 2784.4 | 2664.3 | 2458.6 | 2328.0 | 2280.8 | 2711.9 | 3810.1 | 4110.1 | 3954.3 |
| 45°   | 2993.9 | 3028.0 | 3021.3 | 2925.4 | 2777.7 | 2642.3 | 2611.0 | 3003.8 | 4149.7 | 4514.4 | 4331.8 |
| 47.5° | 3042.2 | 3073.5 | 3122.8 | 3136.0 | 3046.0 | 2912.7 | 2950.1 | 3355.4 | 4493.1 | 4919.3 | 4711.4 |
| 50°   | 2923.2 | 2952.2 | 3054.8 | 3191.3 | 3254.0 | 3212.8 | 3279.7 | 3732.2 | 4844.7 | 5323.0 | 5083.8 |
| 52.5° | 2688.4 | 2718.0 | 2847.4 | 3063.6 | 3318.6 | 3448.1 | 3610.5 | 4103.6 | 5185.3 | 5705.4 | 5436.5 |
| 55°   | 2348.8 | 2380.0 | 2546.3 | 2791.0 | 3195.2 | 3545.2 | 3886.4 | 4474.4 | 5497.4 | 6049.2 | 5754.7 |
| 57.5° | 1886.9 | 1910.0 | 2082.8 | 2425.0 | 2884.8 | 3448.6 | 4089.9 | 4879.2 | 5791.5 | 6387.2 | 6070.0 |
| 60°   | 1229.8 | 1250.1 | 1450.9 | 1832.7 | 2370.2 | 3126.1 | 4130.4 | 5330.7 | 6182.0 | 6826.5 | 6495.2 |
| 62.5° | 817.8  | 831.6  | 950.6  | 1230.9 | 1669.2 | 2506.8 | 3893.0 | 5691.1 | 6754.6 | 7591.2 | 7224.2 |
| 65°   | 561.2  | 574.8  | 693.9  | 889.2  | 1078.4 | 1658.2 | 3210.0 | 5643.3 | 7273.6 | 8198.5 | 7764.5 |
| 67.5° | 400.5  | 411.9  | 512.9  | 697.2  | 780.5  | 963.2  | 2176.1 | 5033.4 | 7199.0 | 8221.4 | 7793.6 |
| 70°   | 286.9  | 293.5  | 376.9  | 543.0  | 620.4  | 578.7  | 1210.1 | 3849.6 | 6303.2 | 7591.8 | 7200.1 |
| 72.5° | 200.8  | 203.0  | 261.7  | 413.6  | 499.7  | 422.4  | 575.9  | 2566.6 | 4767.4 | 5958.7 | 5581.9 |
| 75°   | 136.0  | 138.8  | 176.1  | 303.3  | 401.0  | 322.6  | 304.9  | 1376.3 | 2798.7 | 3298.3 | 2956.6 |
| 77.5° | 83.3   | 84.5   | 113.6  | 207.4  | 300.0  | 245.8  | 196.4  | 583.1  | 1082.8 | 1063.0 | 906.2  |
| 80°   | 47.2   | 47.2   | 72.4   | 128.9  | 204.6  | 158.6  | 137.7  | 247.9  | 342.9  | 301.1  | 265.5  |
| 82.5° | 26.3   | 26.9   | 52.7   | 80.1   | 135.5  | 93.8   | 75.7   | 114.6  | 148.1  | 131.1  | 114.1  |
| 85°   | 11.0   | 12.1   | 32.4   | 37.8   | 64.7   | 46.6   | 30.7   | 48.3   | 54.8   | 48.8   | 35.7   |
| 87.5° | 1.1    | 1.6    | 9.8    | 7.2    | 7.7    | 9.3    | 4.4    | 9.3    | 7.7    | 7.7    | 5.5    |
| 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°    | 1262.2 | 1262.2 | 1262.2 | 1262.2 | 1262.2 | 1262.2 | 1262.2 | 1262.2 | 1262.2 | 1262.2 | 1262.2 |
| 2.5°  | 1270.4 | 1262.2 | 1241.4 | 1217.2 | 1185.4 | 1170.0 | 1149.2 | 1134.9 | 1122.9 | 1123.9 | 1112.9 |
| 5°    | 1295.1 | 1274.3 | 1227.6 | 1169.5 | 1097.1 | 1045.5 | 990.7  | 952.8  | 922.1  | 915.5  | 900.7  |
| 7.5°  | 1329.1 | 1296.2 | 1214.4 | 1109.7 | 987.4  | 894.6  | 811.8  | 758.6  | 720.8  | 708.7  | 696.6  |
| 10°   | 1373.0 | 1325.2 | 1197.4 | 1034.5 | 858.4  | 740.6  | 651.7  | 610.0  | 584.1  | 575.4  | 568.9  |
| 12.5° | 1424.0 | 1358.7 | 1175.0 | 942.9  | 725.7  | 612.1  | 555.7  | 534.8  | 526.6  | 523.9  | 522.2  |
| 15°   | 1488.2 | 1400.5 | 1140.9 | 834.4  | 613.3  | 533.7  | 509.6  | 506.9  | 508.0  | 506.9  | 506.4  |
| 17.5° | 1564.5 | 1446.0 | 1085.6 | 722.4  | 537.6  | 493.6  | 484.9  | 487.1  | 489.8  | 489.3  | 488.2  |
| 20°   | 1647.8 | 1491.0 | 1014.7 | 623.1  | 486.0  | 465.1  | 460.2  | 462.4  | 464.6  | 463.5  | 463.0  |
| 22.5° | 1742.7 | 1539.2 | 936.3  | 545.8  | 451.4  | 438.8  | 433.4  | 433.9  | 433.9  | 431.7  | 430.6  |
| 25°   | 1856.3 | 1592.4 | 854.0  | 491.0  | 425.1  | 415.2  | 408.7  | 406.5  | 403.1  | 396.6  | 395.4  |
| 27.5° | 1991.8 | 1648.9 | 775.1  | 452.5  | 404.3  | 394.9  | 387.2  | 381.8  | 373.5  | 362.5  | 361.5  |
| 30°   | 2144.2 | 1717.5 | 708.2  | 428.4  | 387.9  | 378.5  | 369.7  | 361.5  | 349.4  | 335.7  | 334.6  |
| 32.5° | 2323.6 | 1791.0 | 659.4  | 412.5  | 373.0  | 363.2  | 352.7  | 342.9  | 329.6  | 316.0  | 316.5  |
| 35°   | 2537.5 | 1879.8 | 630.8  | 401.5  | 361.5  | 348.3  | 336.8  | 325.8  | 316.0  | 303.9  | 302.8  |
| 37.5° | 2769.5 | 1974.2 | 622.1  | 396.1  | 353.8  | 333.5  | 320.3  | 312.6  | 311.6  | 304.4  | 303.9  |
| 40°   | 3023.5 | 2086.1 | 628.6  | 392.8  | 345.5  | 319.3  | 304.9  | 303.3  | 306.1  | 293.5  | 294.0  |
| 42.5° | 3292.3 | 2218.8 | 639.6  | 388.9  | 334.0  | 304.9  | 291.3  | 291.3  | 289.0  | 271.5  | 271.5  |
| 45°   | 3583.0 | 2371.8 | 650.6  | 379.6  | 320.3  | 290.7  | 280.3  | 276.4  | 267.1  | 250.1  | 249.6  |
| 47.5° | 3875.9 | 2527.6 | 658.8  | 362.5  | 303.9  | 278.7  | 269.4  | 260.6  | 246.8  | 231.4  | 230.9  |
| 50°   | 4154.0 | 2667.6 | 650.1  | 337.3  | 285.3  | 267.1  | 257.3  | 245.2  | 230.4  | 220.0  | 218.3  |
| 52.5° | 4402.6 | 2788.7 | 612.7  | 307.7  | 265.5  | 255.0  | 246.3  | 233.7  | 221.6  | 210.6  | 209.5  |
| 55°   | 4618.6 | 2886.9 | 546.9  | 279.7  | 247.9  | 244.7  | 235.9  | 220.0  | 203.5  | 194.1  | 193.1  |
| 57.5° | 4826.0 | 2961.5 | 464.6  | 256.8  | 232.1  | 233.1  | 220.0  | 205.7  | 190.3  | 180.5  | 179.4  |
| 60°   | 5101.9 | 3061.4 | 381.2  | 235.3  | 215.0  | 218.3  | 204.1  | 193.6  | 174.5  | 161.8  | 160.2  |
| 62.5° | 5543.0 | 3216.7 | 302.8  | 209.0  | 195.3  | 196.4  | 190.3  | 177.7  | 154.7  | 139.9  | 138.8  |
| 65°   | 5892.9 | 3159.6 | 238.6  | 180.5  | 172.8  | 174.5  | 174.5  | 160.7  | 136.0  | 119.0  | 117.4  |
| 67.5° | 5853.5 | 2705.4 | 190.3  | 152.5  | 151.4  | 152.5  | 156.3  | 144.8  | 120.6  | 107.0  | 104.8  |
| 70°   | 5392.1 | 2151.9 | 152.5  | 126.7  | 131.6  | 128.9  | 139.9  | 132.2  | 108.6  | 94.9   | 93.3   |
| 72.5° | 4399.8 | 1550.2 | 116.3  | 104.8  | 101.0  | 105.4  | 126.2  | 119.0  | 90.5   | 75.1   | 73.5   |
| 75°   | 2571.0 | 827.2  | 86.7   | 82.8   | 73.0   | 87.7   | 111.9  | 101.5  | 69.1   | 55.5   | 53.7   |
| 77.5° | 837.0  | 288.5  | 63.7   | 60.9   | 54.3   | 70.7   | 95.4   | 85.6   | 56.5   | 43.9   | 42.2   |
| 80°   | 224.4  | 87.2   | 43.4   | 40.1   | 35.2   | 52.7   | 75.7   | 68.1   | 40.6   | 28.5   | 28.0   |
| 82.5° | 90.0   | 36.8   | 25.2   | 22.4   | 19.2   | 36.2   | 59.8   | 54.8   | 30.1   | 18.1   | 18.1   |
| 85°   | 29.1   | 12.1   | 9.3    | 7.2    | 8.8    | 22.4   | 35.7   | 37.3   | 21.4   | 9.3    | 7.2    |
| 87.5° | 3.8    | 1.6    | 1.6    | 2.2    | 1.6    | 3.8    | 11.0   | 10.5   | 6.0    | 1.1    | 0.0    |
| 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)