

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: P959811

Luminaire Tested: **NAV-SB1B-735-U-AFL**

Issue Date: 1/21/2025

### Test Information

Test Method: LM-79-08  
Report Number: P959811  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2411-289-14)  
Test Lab: INNOVATION CENTER  
Issue Date: 1/21/2025  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: LUMARK  
Catalog Number: NAV-SB1B-735-U-AFL  
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE  
(1) 70 CRI, 3500K, 450mA LIGHTSQUARE WITH 26 LEDS AND AUTOMOTIVE  
FRONTLINE OPTICS  
Light Source: -  
Ballast/Driver: -

### Summary

Lumens per Lamp: N/A  
Luminaire Lumens: 5872.2 lumens  
Efficiency: N/A  
Efficacy: 147.5 lumens/watt  
Luminous Opening: Rectangular (W 0.5' x L: 0.5' x H: 0')  
IES Classification: Type II - Short  
BUG Rating: B1 - U0 - G1

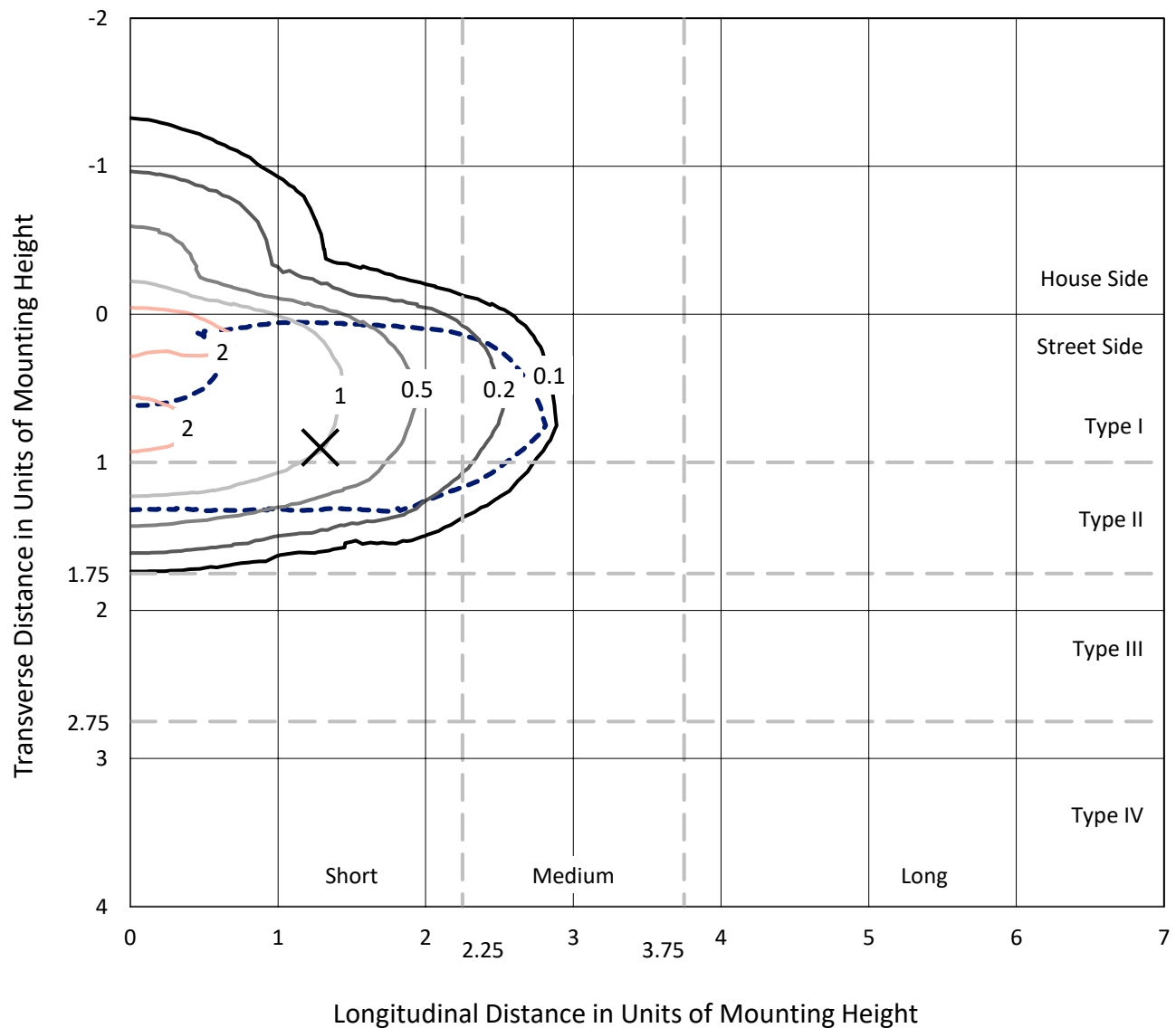
Input Watts (W): 39.8  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 24 FT



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## Iso-Footcandle Lines of Horizontal Illumination

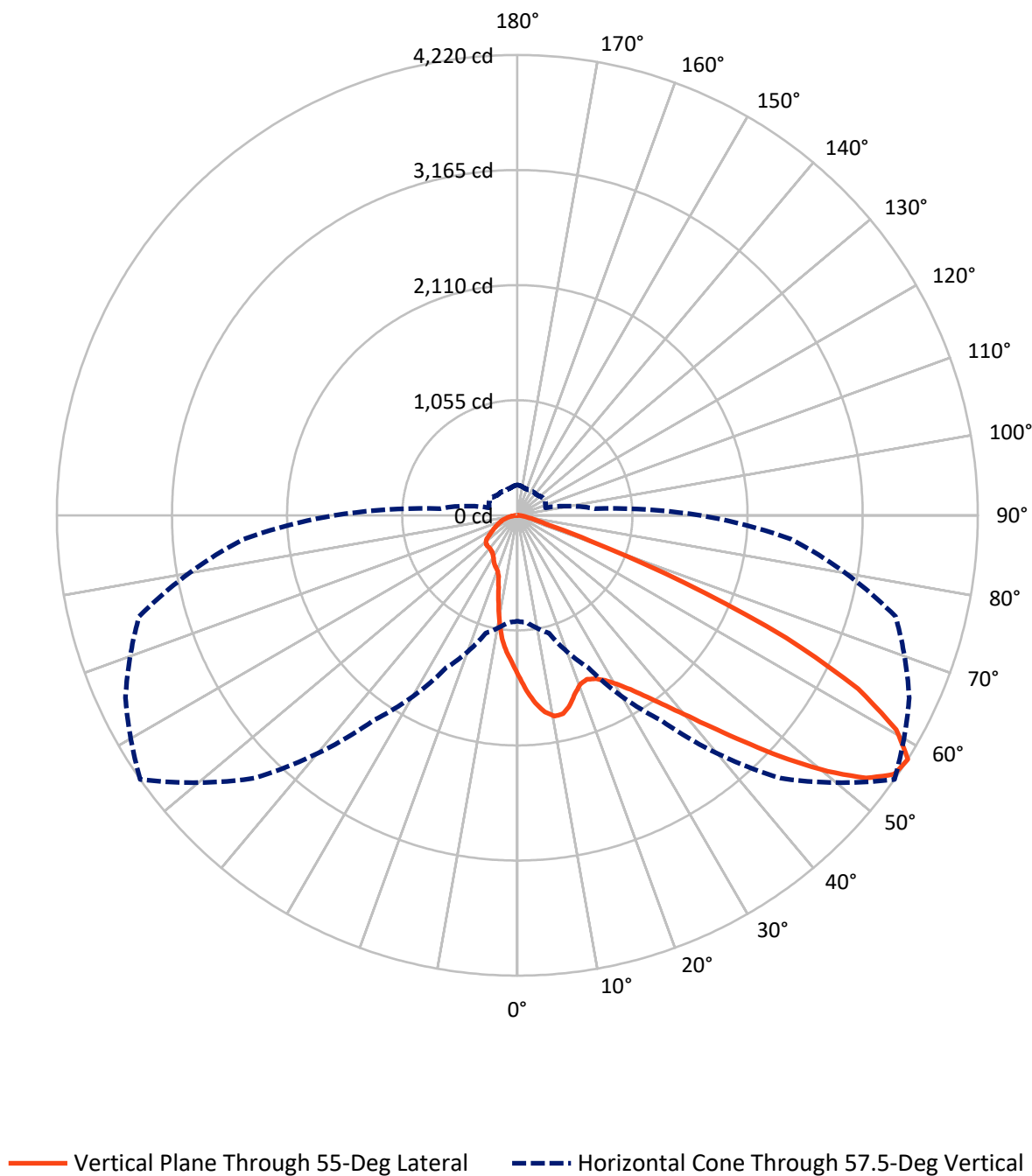
× Max cd  
- - - 1/2 Max cd



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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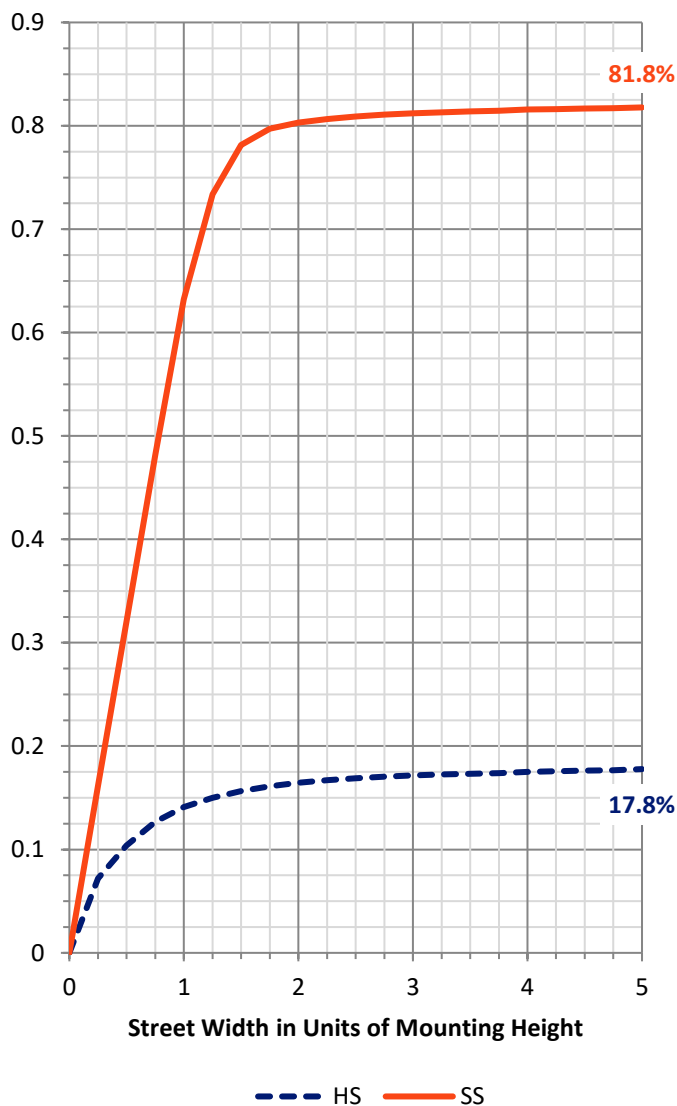
**FLUX DISTRIBUTION:**

|                    |           | Downward | Upward | Total  |
|--------------------|-----------|----------|--------|--------|
| <b>House Side</b>  | Lumens    | 1062.6   | 0.0    | 1062.6 |
|                    | % Fixture | 18.1     | 0.0    | 18.1   |
| <b>Street Side</b> | Lumens    | 4809.7   | 0.0    | 4809.7 |
|                    | % Fixture | 81.9     | 0.0    | 81.9   |
| <b>Total</b>       | Lumens    | 5872.2   | 0.0    | 5872.2 |
|                    | % Fixture | 100.0    | 0.0    | 100.0  |

**ZONAL LUMENS:**

| Zone      | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10°    | 136.5  | 2.3       |
| 10°-20°   | 344.6  | 5.9       |
| 20°-30°   | 549.9  | 9.4       |
| 30°-40°   | 870.7  | 14.8      |
| 40°-50°   | 1332.6 | 22.7      |
| 50°-60°   | 1427.4 | 24.3      |
| 60°-70°   | 898.0  | 15.3      |
| 70°-80°   | 265.6  | 4.5       |
| 80°-90°   | 46.9   | 0.8       |
| 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°    | 5872.2 | 100.0     |
| 0°-180°   | 5872.2 | 100.0     |

**Coefficient of Utilization**



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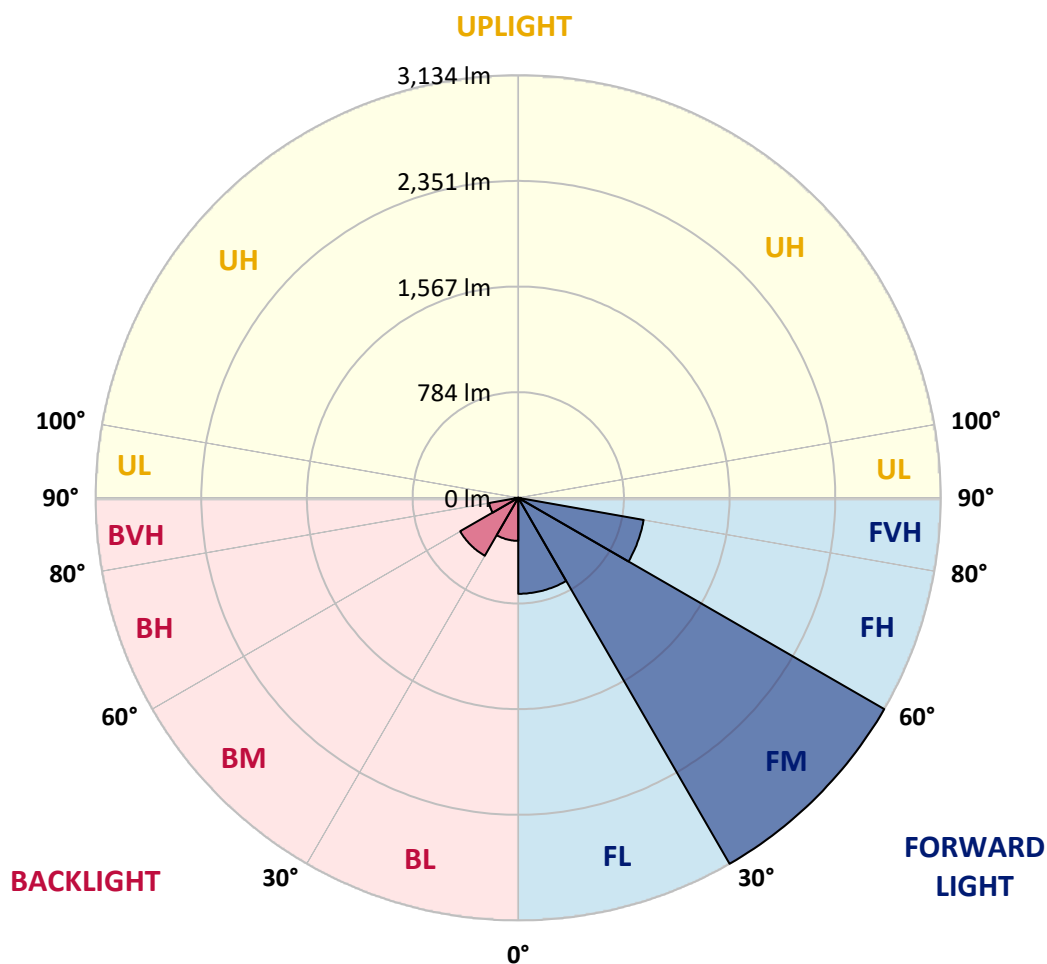
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

| Zone |             | Lumens | % Fixture | Zone Rating/Lumen Limit |      |         |
|------|-------------|--------|-----------|-------------------------|------|---------|
|      |             |        |           | B                       | U    | G       |
| FL   | (0°-30°)    | 711.7  | 12.1      |                         |      |         |
| FM   | (30°-60°)   | 3134.0 | 53.4      |                         |      |         |
| FH   | (60°-80°)   | 944.1  | 16.1      |                         |      | G1/1800 |
| FVH  | (80°-90°)   | 19.8   | 0.3       |                         |      | G1/100  |
| BL   | (0°-30°)    | 319.4  | 5.4       | B1/500                  |      |         |
| BM   | (30°-60°)   | 496.6  | 8.5       | B1/1000                 |      |         |
| BH   | (60°-80°)   | 219.4  | 3.7       | B1/500                  |      | G1/500  |
| BVH  | (80°-90°)   | 27.1   | 0.5       |                         |      | G1/100  |
| UL   | (90°-100°)  | 0.0    | 0.0       |                         | U0/0 |         |
| UH   | (100°-180°) | 0.0    | 0.0       |                         | U0/0 |         |

**BUG Rating: B1-U0-G1**

Type II Short



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**CANDELA DISTRIBUTION (FULL):**

|       | 0°     | 5°     | 15°    | 25°    | 35°    | 45°    | 55°    | 65°    | 75°    | 85°    | 90°    |
|-------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 0°    | 1471.4 | 1471.4 | 1471.4 | 1471.4 | 1471.4 | 1471.4 | 1471.4 | 1471.4 | 1471.4 | 1471.4 | 1471.4 |
| 2.5°  | 1688.2 | 1686.9 | 1693.6 | 1670.9 | 1655.4 | 1634.4 | 1606.8 | 1571.5 | 1533.6 | 1493.5 | 1476.2 |
| 5°    | 1840.2 | 1829.6 | 1836.6 | 1819.6 | 1802.6 | 1771.0 | 1730.0 | 1672.7 | 1602.5 | 1522.7 | 1480.2 |
| 7.5°  | 1816.2 | 1808.9 | 1826.9 | 1842.0 | 1854.8 | 1850.8 | 1820.8 | 1760.6 | 1670.2 | 1554.3 | 1492.6 |
| 10°   | 1622.9 | 1614.7 | 1639.9 | 1692.4 | 1769.5 | 1836.6 | 1873.0 | 1835.7 | 1739.4 | 1588.9 | 1504.8 |
| 12.5° | 1452.2 | 1448.3 | 1465.0 | 1507.5 | 1593.2 | 1721.8 | 1866.3 | 1901.3 | 1811.4 | 1629.9 | 1521.2 |
| 15°   | 1379.4 | 1374.5 | 1385.2 | 1406.7 | 1461.3 | 1581.3 | 1805.6 | 1946.2 | 1882.1 | 1677.2 | 1547.2 |
| 17.5° | 1363.4 | 1357.8 | 1362.4 | 1373.6 | 1408.9 | 1500.2 | 1713.9 | 1968.3 | 1955.9 | 1730.0 | 1569.2 |
| 20°   | 1393.1 | 1388.5 | 1389.1 | 1388.5 | 1413.1 | 1485.6 | 1650.1 | 1959.8 | 2020.3 | 1778.6 | 1590.4 |
| 22.5° | 1465.0 | 1457.4 | 1457.8 | 1441.7 | 1455.0 | 1511.2 | 1633.5 | 1937.0 | 2077.6 | 1821.1 | 1606.5 |
| 25°   | 1582.2 | 1568.6 | 1571.2 | 1530.3 | 1526.6 | 1568.2 | 1659.6 | 1919.4 | 2134.7 | 1855.1 | 1609.6 |
| 27.5° | 1742.5 | 1727.0 | 1718.8 | 1657.7 | 1628.6 | 1649.3 | 1712.8 | 1925.6 | 2188.7 | 1884.6 | 1602.0 |
| 30°   | 1942.8 | 1924.0 | 1907.3 | 1820.8 | 1768.0 | 1760.3 | 1795.3 | 1965.6 | 2252.4 | 1915.5 | 1588.9 |
| 32.5° | 2188.4 | 2166.5 | 2136.2 | 2021.4 | 1947.1 | 1907.3 | 1902.2 | 2037.0 | 2327.2 | 1955.0 | 1582.2 |
| 35°   | 2480.7 | 2452.2 | 2409.1 | 2260.6 | 2166.5 | 2085.2 | 2043.0 | 2139.9 | 2429.5 | 2014.4 | 1589.8 |
| 37.5° | 2781.8 | 2749.7 | 2710.2 | 2533.6 | 2417.9 | 2298.0 | 2214.8 | 2279.5 | 2565.8 | 2095.2 | 1609.9 |
| 40°   | 3059.6 | 3023.5 | 2986.7 | 2829.5 | 2705.4 | 2560.9 | 2425.1 | 2456.2 | 2732.4 | 2191.8 | 1643.8 |
| 42.5° | 3223.6 | 3196.9 | 3182.9 | 3097.9 | 3002.0 | 2855.3 | 2686.8 | 2665.6 | 2919.7 | 2302.9 | 1682.6 |
| 45°   | 3216.2 | 3205.4 | 3248.4 | 3283.7 | 3260.9 | 3179.5 | 2993.5 | 2897.3 | 3107.6 | 2399.1 | 1718.5 |
| 47.5° | 3044.5 | 3051.7 | 3148.0 | 3345.9 | 3433.0 | 3475.6 | 3342.5 | 3124.6 | 3271.0 | 2471.1 | 1734.6 |
| 50°   | 2577.0 | 2583.0 | 2805.8 | 3232.6 | 3477.3 | 3716.9 | 3689.0 | 3346.5 | 3397.6 | 2515.0 | 1730.9 |
| 52.5° | 2206.9 | 2210.9 | 2306.5 | 2897.0 | 3331.0 | 3838.3 | 4001.0 | 3555.7 | 3490.1 | 2527.2 | 1710.6 |
| 55°   | 1662.3 | 1676.0 | 1783.2 | 2272.8 | 2950.4 | 3742.1 | 4191.0 | 3771.2 | 3548.7 | 2528.4 | 1689.3 |
| 57.5° | 971.1  | 985.9  | 1118.4 | 1542.7 | 2293.1 | 3406.6 | 4219.9 | 3962.4 | 3588.4 | 2518.7 | 1676.6 |
| 60°   | 475.7  | 482.1  | 539.8  | 810.9  | 1414.0 | 2760.3 | 3988.0 | 4055.0 | 3610.7 | 2513.5 | 1676.0 |
| 62.5° | 320.5  | 319.7  | 322.1  | 400.1  | 696.7  | 1773.5 | 3504.7 | 3893.0 | 3598.8 | 2493.8 | 1669.9 |
| 65°   | 275.6  | 272.3  | 263.2  | 280.8  | 360.9  | 811.1  | 2707.8 | 3409.0 | 3508.7 | 2444.3 | 1628.3 |
| 67.5° | 238.3  | 238.6  | 238.9  | 233.4  | 257.7  | 374.3  | 1654.8 | 2685.4 | 3185.0 | 2210.0 | 1468.0 |
| 70°   | 197.3  | 200.1  | 201.3  | 201.3  | 210.0  | 245.6  | 706.4  | 1840.5 | 2512.3 | 1732.8 | 1182.4 |
| 72.5° | 179.7  | 173.9  | 174.6  | 171.5  | 171.5  | 187.0  | 284.4  | 1043.3 | 1582.8 | 974.8  | 721.6  |
| 75°   | 146.6  | 150.3  | 150.9  | 148.7  | 141.8  | 142.7  | 168.8  | 437.8  | 677.2  | 404.4  | 356.7  |
| 77.5° | 126.6  | 126.6  | 127.8  | 126.3  | 120.8  | 106.8  | 112.6  | 169.7  | 230.4  | 165.7  | 178.1  |
| 80°   | 101.7  | 101.4  | 106.6  | 109.6  | 101.1  | 78.9   | 72.0   | 93.8   | 102.3  | 72.9   | 92.6   |
| 82.5° | 49.5   | 52.5   | 73.2   | 83.4   | 76.8   | 57.1   | 44.0   | 58.3   | 54.6   | 32.2   | 41.6   |
| 85°   | 28.8   | 27.4   | 32.8   | 46.4   | 44.0   | 31.6   | 21.2   | 30.3   | 28.5   | 16.4   | 16.7   |
| 87.5° | 9.1    | 8.5    | 6.7    | 15.8   | 12.7   | 8.8    | 5.7    | 8.8    | 7.9    | 3.7    | 3.7    |
| 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):**

|       | 95°    | 105°   | 115°   | 125°   | 135°   | 145°   | 155°   | 165°   | 175°   | 180°   |
|-------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 0°    | 1471.4 | 1471.4 | 1471.4 | 1471.4 | 1471.4 | 1471.4 | 1471.4 | 1471.4 | 1471.4 | 1471.4 |
| 2.5°  | 1454.7 | 1418.9 | 1383.3 | 1350.8 | 1331.2 | 1318.4 | 1305.6 | 1291.4 | 1285.9 | 1277.7 |
| 5°    | 1440.1 | 1370.9 | 1309.3 | 1256.1 | 1207.9 | 1169.9 | 1131.7 | 1100.7 | 1086.8 | 1096.1 |
| 7.5°  | 1431.6 | 1331.5 | 1236.5 | 1139.0 | 1045.2 | 970.2  | 905.0  | 859.1  | 838.4  | 843.6  |
| 10°   | 1424.0 | 1286.8 | 1142.1 | 988.1  | 853.3  | 760.4  | 693.6  | 658.8  | 645.6  | 648.4  |
| 12.5° | 1417.1 | 1236.8 | 1028.2 | 825.7  | 682.4  | 621.0  | 602.0  | 602.3  | 604.8  | 606.5  |
| 15°   | 1415.8 | 1176.3 | 901.0  | 683.7  | 590.1  | 586.2  | 606.8  | 619.9  | 626.9  | 628.9  |
| 17.5° | 1414.0 | 1104.0 | 771.3  | 586.8  | 567.6  | 594.4  | 613.5  | 622.0  | 627.5  | 627.8  |
| 20°   | 1406.7 | 1012.4 | 651.8  | 540.7  | 562.8  | 585.9  | 597.7  | 604.4  | 609.0  | 610.5  |
| 22.5° | 1384.3 | 910.4  | 558.5  | 520.0  | 543.4  | 561.9  | 575.8  | 583.4  | 586.2  | 588.0  |
| 25°   | 1343.9 | 796.2  | 494.3  | 500.3  | 516.4  | 539.8  | 550.9  | 552.5  | 551.6  | 554.3  |
| 27.5° | 1291.1 | 673.9  | 454.2  | 473.6  | 494.3  | 514.2  | 520.3  | 519.4  | 517.6  | 520.6  |
| 30°   | 1227.3 | 564.1  | 428.7  | 443.5  | 471.7  | 489.9  | 495.4  | 493.3  | 489.6  | 493.0  |
| 32.5° | 1159.9 | 474.2  | 407.6  | 422.6  | 453.3  | 471.1  | 476.6  | 474.5  | 471.7  | 474.5  |
| 35°   | 1097.1 | 411.3  | 388.3  | 408.6  | 438.7  | 456.2  | 463.2  | 463.5  | 463.5  | 466.9  |
| 37.5° | 1039.5 | 374.6  | 372.2  | 399.7  | 428.7  | 444.4  | 454.5  | 455.0  | 442.0  | 442.9  |
| 40°   | 985.9  | 359.2  | 364.9  | 394.0  | 418.9  | 434.1  | 434.7  | 400.7  | 376.7  | 376.1  |
| 42.5° | 942.3  | 356.1  | 367.1  | 393.4  | 411.9  | 412.6  | 369.7  | 343.4  | 336.6  | 336.9  |
| 45°   | 901.3  | 355.2  | 371.9  | 393.4  | 401.6  | 356.4  | 327.6  | 320.5  | 321.1  | 323.6  |
| 47.5° | 855.5  | 351.6  | 372.8  | 388.0  | 371.9  | 316.9  | 308.4  | 305.3  | 304.2  | 304.7  |
| 50°   | 805.3  | 338.5  | 361.2  | 377.0  | 320.8  | 299.9  | 289.3  | 288.4  | 289.9  | 290.8  |
| 52.5° | 752.6  | 317.2  | 341.5  | 357.3  | 297.5  | 285.1  | 273.2  | 275.3  | 282.0  | 284.1  |
| 55°   | 717.9  | 292.3  | 315.4  | 317.9  | 281.1  | 271.1  | 261.1  | 265.9  | 278.4  | 282.3  |
| 57.5° | 708.8  | 265.9  | 285.7  | 282.9  | 260.1  | 258.9  | 252.9  | 257.1  | 273.0  | 278.7  |
| 60°   | 706.1  | 242.2  | 256.6  | 254.4  | 239.8  | 245.6  | 244.1  | 246.2  | 251.6  | 253.5  |
| 62.5° | 684.8  | 223.4  | 230.4  | 227.3  | 221.6  | 231.6  | 235.2  | 230.7  | 234.9  | 237.1  |
| 65°   | 630.8  | 208.3  | 204.9  | 202.7  | 205.2  | 214.3  | 221.6  | 212.5  | 216.5  | 222.5  |
| 67.5° | 541.6  | 187.6  | 178.5  | 180.9  | 188.5  | 193.4  | 202.7  | 192.5  | 195.8  | 206.1  |
| 70°   | 438.1  | 161.5  | 153.3  | 160.3  | 167.6  | 177.6  | 179.1  | 172.1  | 180.0  | 191.6  |
| 72.5° | 310.0  | 135.1  | 129.4  | 143.6  | 146.1  | 159.1  | 155.7  | 152.4  | 163.3  | 167.3  |
| 75°   | 214.9  | 109.0  | 105.7  | 116.5  | 125.4  | 136.6  | 134.2  | 138.2  | 161.2  | 163.0  |
| 77.5° | 136.0  | 84.7   | 82.6   | 89.6   | 101.7  | 114.2  | 118.1  | 163.0  | 275.3  | 286.3  |
| 80°   | 78.9   | 63.1   | 60.7   | 66.2   | 76.8   | 88.4   | 113.9  | 200.1  | 181.5  | 179.4  |
| 82.5° | 44.0   | 43.5   | 40.4   | 41.9   | 51.4   | 63.8   | 160.9  | 140.8  | 114.5  | 118.1  |
| 85°   | 20.6   | 25.5   | 21.8   | 20.9   | 28.8   | 74.7   | 107.4  | 80.5   | 53.4   | 52.2   |
| 87.5° | 5.4    | 4.8    | 4.8    | 5.4    | 12.1   | 64.4   | 42.8   | 34.3   | 20.3   | 19.8   |
| 90°   | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    |

(END OF REPORT)