

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: P961963

Luminaire Tested: **NAV-SB2B-740-U-T2-HSS**

Issue Date: 1/21/2025

**Test Information**

Test Method: LM-79-08  
Report Number: P961963  
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-SB2B-740-U-T2-HSS  
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE  
(2) 70 CRI, 4000K, 450mA LIGHTSQUARES WITH 26 LEDS EACH AND TYPE II  
OPTICS WITH HOUSE SIDE SHIELD  
Light Source: -  
Ballast/Driver: -

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 8917.5 lumens  
Efficiency: N/A  
Efficacy: 120.7 lumens/watt  
Luminous Opening: Rectangular (W 0.5' x L: 1' x H: 0')  
IES Classification: Type II - Medium  
BUG Rating: B1 - U0 - G2

Input Watts (W): 73.9  
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

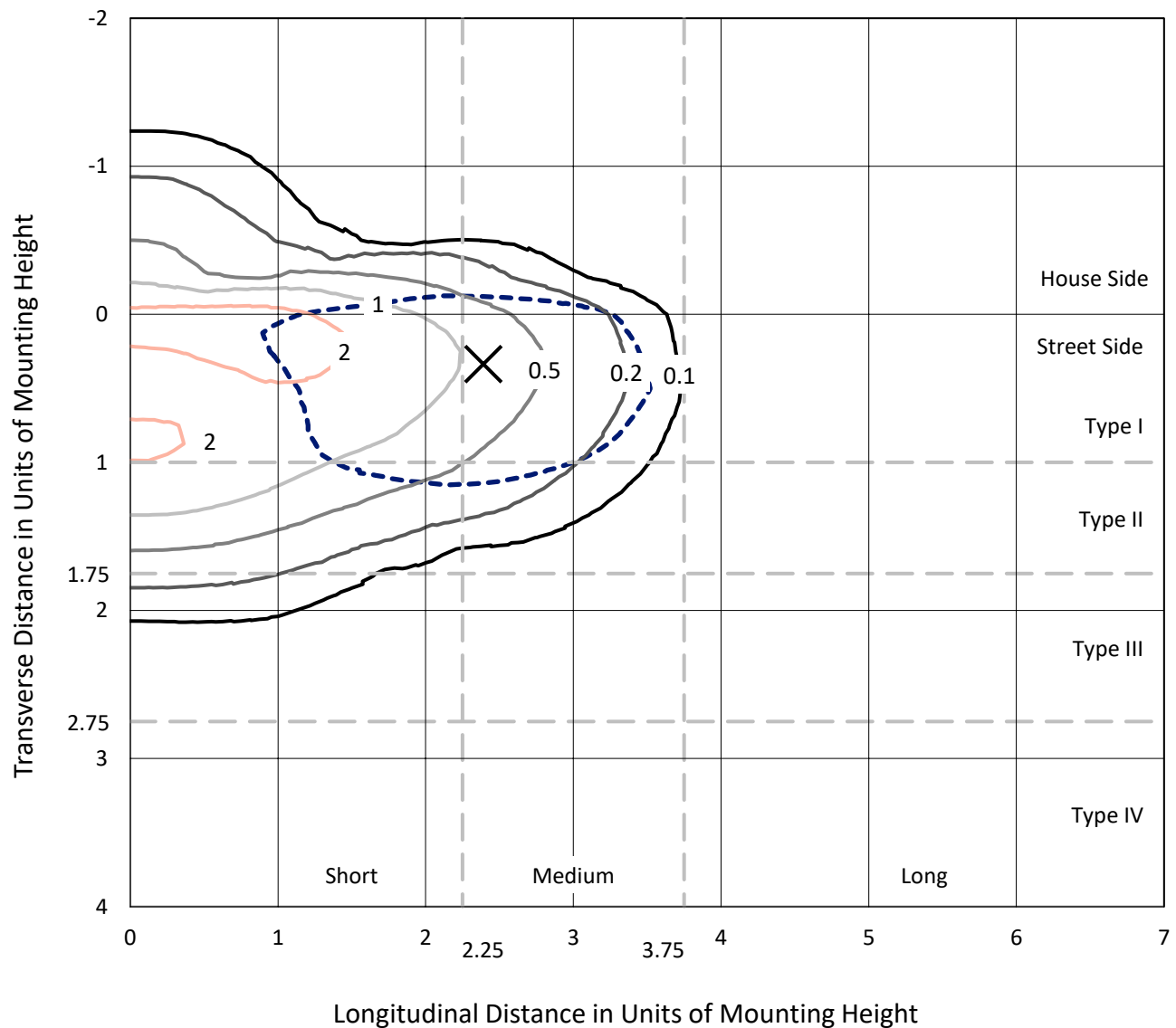


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## Iso-Footcandle Lines of Horizontal Illumination

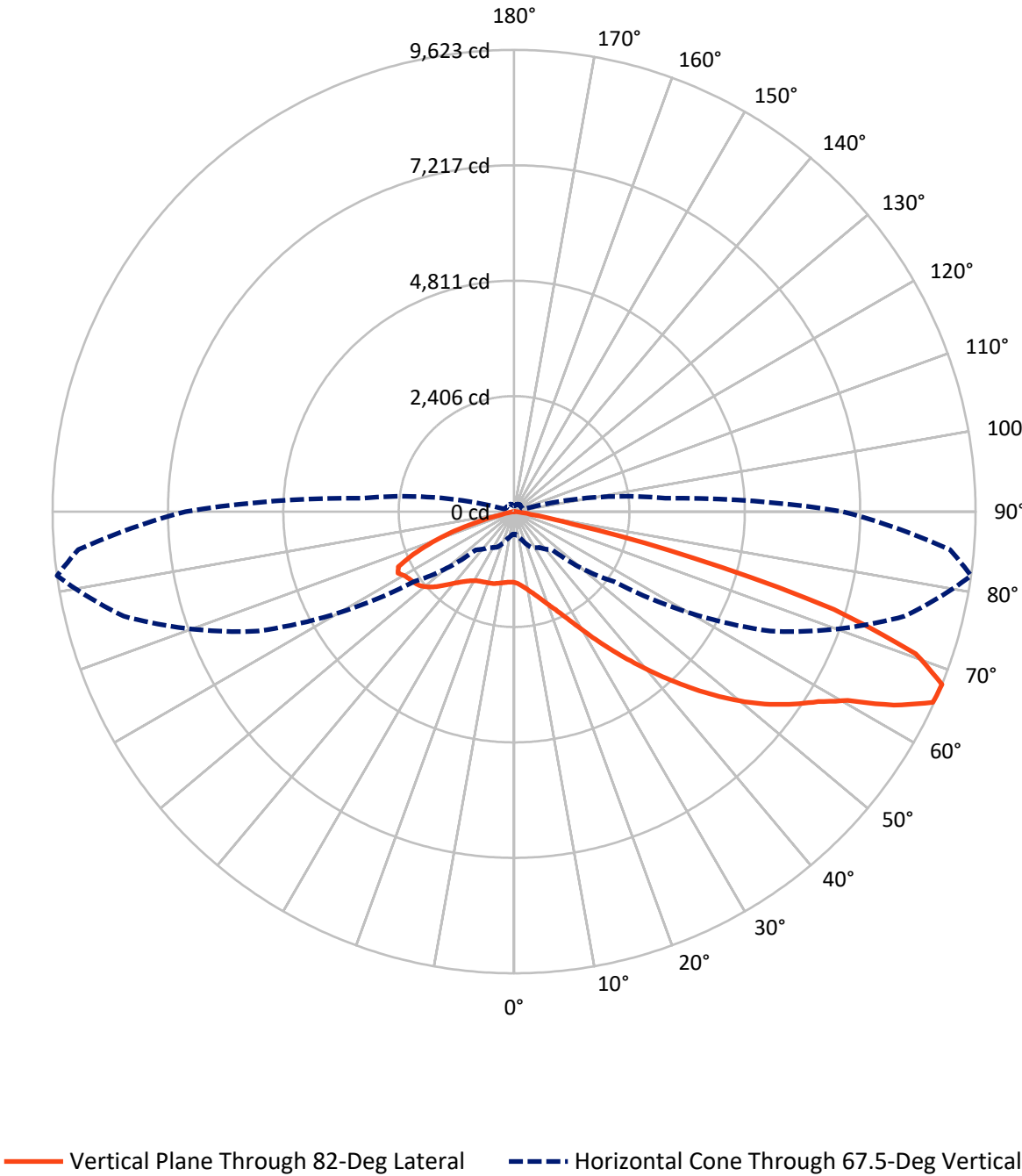
× Max cd  
- - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 3.1 fc  
Type II - Medium - N/A

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Luminous Intensity Polar Plot



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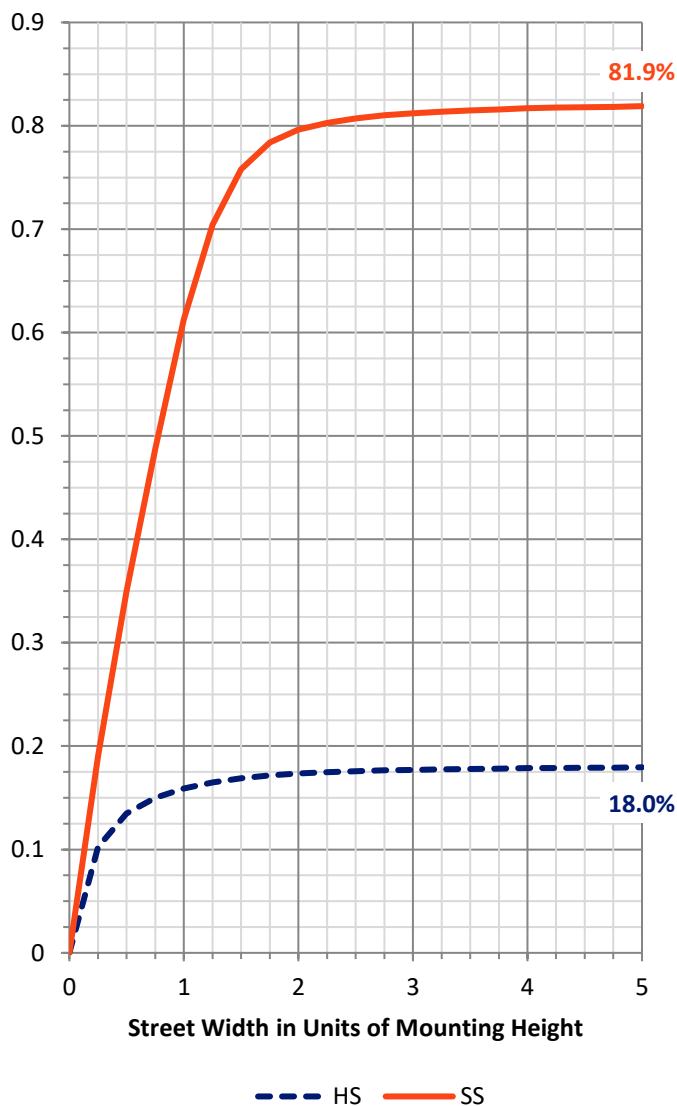
**FLUX DISTRIBUTION:**

|                    |           | Downward | Upward | Total  |
|--------------------|-----------|----------|--------|--------|
| <b>House Side</b>  | Lumens    | 1615.3   | 0.0    | 1615.3 |
|                    | % Fixture | 18.1     | 0.0    | 18.1   |
| <b>Street Side</b> | Lumens    | 7302.2   | 0.0    | 7302.2 |
|                    | % Fixture | 81.9     | 0.0    | 81.9   |
| <b>Total</b>       | Lumens    | 8917.5   | 0.0    | 8917.5 |
|                    | % Fixture | 100.0    | 0.0    | 100.0  |

**ZONAL LUMENS:**

| Zone      | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10°    | 131.6  | 1.5       |
| 10°-20°   | 342.0  | 3.8       |
| 20°-30°   | 547.8  | 6.1       |
| 30°-40°   | 968.7  | 10.9      |
| 40°-50°   | 1697.3 | 19.0      |
| 50°-60°   | 2263.7 | 25.4      |
| 60°-70°   | 2107.4 | 23.6      |
| 70°-80°   | 808.8  | 9.1       |
| 80°-90°   | 50.2   | 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°    | 8917.5 | 100.0     |
| 0°-180°   | 8917.5 | 100.0     |

**Coefficient of Utilization**



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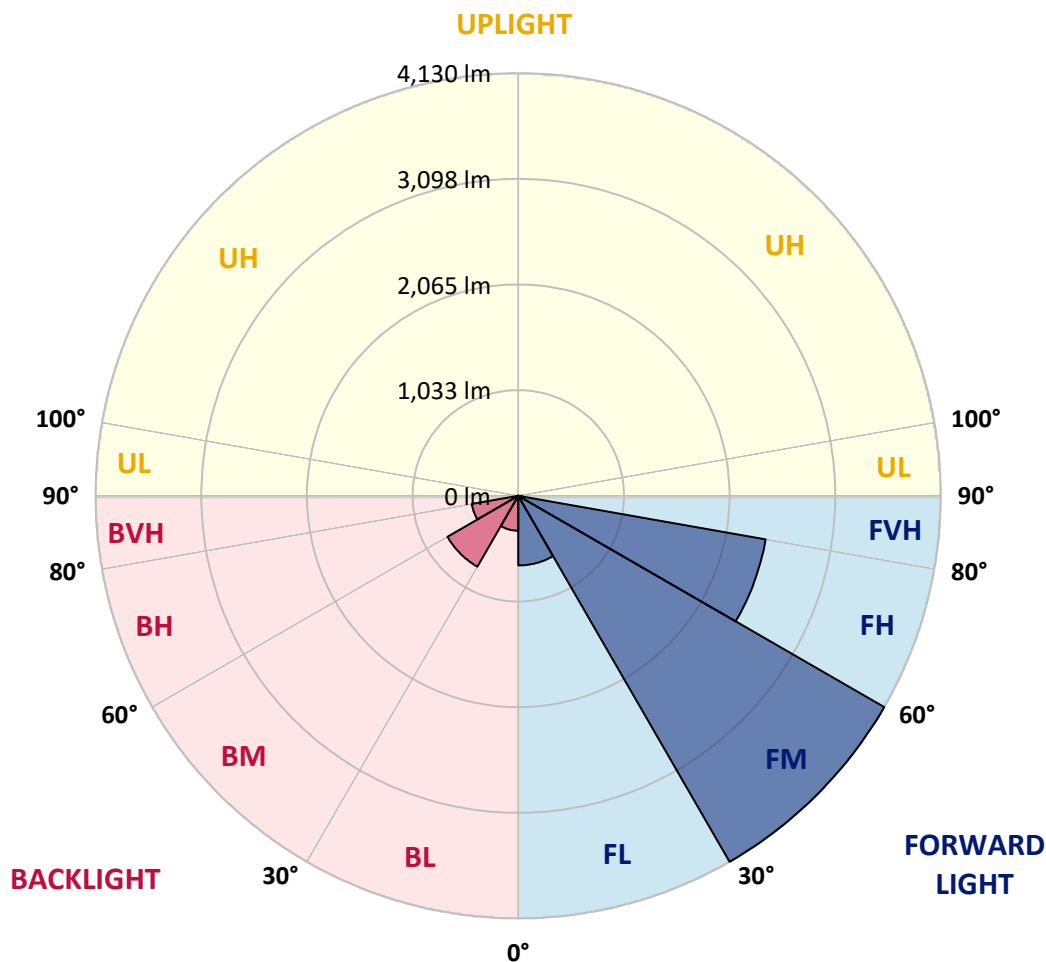
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

| Zone |             | Lumens | % Fixture | Zone Rating/Lumen Limit |      |         |
|------|-------------|--------|-----------|-------------------------|------|---------|
|      |             |        |           | B                       | U    | G       |
| FL   | (0°-30°)    | 680.3  | 7.6       |                         |      |         |
| FM   | (30°-60°)   | 4130.2 | 46.3      |                         |      |         |
| FH   | (60°-80°)   | 2455.1 | 27.5      |                         |      | G2/5000 |
| FVH  | (80°-90°)   | 36.5   | 0.4       |                         |      | G1/100  |
| BL   | (0°-30°)    | 341.2  | 3.8       | B1/500                  |      |         |
| BM   | (30°-60°)   | 799.4  | 9.0       | B1/1000                 |      |         |
| BH   | (60°-80°)   | 461.0  | 5.2       | B1/500                  |      | G1/500  |
| BVH  | (80°-90°)   | 13.7   | 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°    | 1477.3 | 1477.3 | 1477.3 | 1477.3 | 1477.3 | 1477.3 | 1477.3 | 1477.3 | 1477.3 | 1477.3 | 1477.3 |
| 2.5°  | 1561.5 | 1570.4 | 1565.3 | 1562.7 | 1558.2 | 1551.8 | 1546.6 | 1530.6 | 1513.9 | 1503.1 | 1499.2 |
| 5°    | 1592.8 | 1601.9 | 1601.3 | 1603.8 | 1607.0 | 1608.9 | 1607.7 | 1589.7 | 1565.9 | 1547.3 | 1536.4 |
| 7.5°  | 1565.9 | 1576.2 | 1584.5 | 1597.4 | 1619.9 | 1643.6 | 1655.2 | 1651.3 | 1626.9 | 1601.3 | 1587.7 |
| 10°   | 1489.5 | 1500.4 | 1520.4 | 1550.5 | 1598.1 | 1649.4 | 1692.4 | 1712.3 | 1696.9 | 1668.7 | 1650.0 |
| 12.5° | 1349.5 | 1360.5 | 1399.6 | 1465.1 | 1544.8 | 1634.0 | 1716.2 | 1769.5 | 1773.4 | 1745.1 | 1723.2 |
| 15°   | 1192.3 | 1203.1 | 1244.9 | 1327.1 | 1448.4 | 1591.6 | 1729.0 | 1829.8 | 1863.9 | 1839.5 | 1813.1 |
| 17.5° | 1094.7 | 1104.3 | 1135.8 | 1201.9 | 1328.4 | 1506.9 | 1724.6 | 1894.0 | 1971.7 | 1952.4 | 1921.0 |
| 20°   | 1065.2 | 1073.5 | 1088.2 | 1134.5 | 1239.7 | 1418.9 | 1694.9 | 1954.4 | 2087.9 | 2077.0 | 2041.7 |
| 22.5° | 1096.6 | 1104.3 | 1108.8 | 1129.3 | 1195.5 | 1361.1 | 1657.7 | 2016.0 | 2222.7 | 2224.0 | 2181.0 |
| 25°   | 1169.1 | 1176.9 | 1171.7 | 1184.6 | 1213.5 | 1343.2 | 1643.6 | 2088.5 | 2392.2 | 2406.4 | 2357.6 |
| 27.5° | 1288.5 | 1289.2 | 1277.0 | 1276.3 | 1280.8 | 1370.1 | 1658.3 | 2166.2 | 2606.1 | 2632.3 | 2572.0 |
| 30°   | 1528.1 | 1518.4 | 1471.6 | 1420.9 | 1397.7 | 1451.0 | 1699.4 | 2258.1 | 2858.3 | 2905.3 | 2829.4 |
| 32.5° | 1897.2 | 1883.1 | 1797.0 | 1675.7 | 1553.7 | 1581.4 | 1773.4 | 2362.7 | 3133.1 | 3217.9 | 3125.4 |
| 35°   | 2297.8 | 2294.0 | 2204.2 | 2023.7 | 1810.6 | 1766.9 | 1893.4 | 2500.1 | 3432.9 | 3567.8 | 3458.0 |
| 37.5° | 2670.2 | 2668.3 | 2616.9 | 2404.4 | 2145.0 | 2025.6 | 2086.0 | 2679.9 | 3754.0 | 3949.2 | 3819.5 |
| 40°   | 3010.5 | 3016.3 | 2964.9 | 2774.9 | 2513.6 | 2357.6 | 2348.0 | 2902.0 | 4111.0 | 4364.6 | 4210.5 |
| 42.5° | 3304.6 | 3311.0 | 3259.0 | 3118.4 | 2877.6 | 2724.8 | 2669.6 | 3174.2 | 4459.6 | 4810.7 | 4628.5 |
| 45°   | 3504.3 | 3544.0 | 3536.4 | 3424.0 | 3251.3 | 3092.7 | 3056.1 | 3515.7 | 4857.0 | 5284.0 | 5070.2 |
| 47.5° | 3560.7 | 3597.3 | 3655.2 | 3670.5 | 3565.3 | 3409.3 | 3452.9 | 3927.4 | 5259.0 | 5757.8 | 5514.5 |
| 50°   | 3421.4 | 3455.5 | 3575.5 | 3735.4 | 3808.6 | 3760.4 | 3838.7 | 4368.4 | 5670.5 | 6230.4 | 5950.4 |
| 52.5° | 3146.6 | 3181.3 | 3332.8 | 3585.8 | 3884.3 | 4035.8 | 4225.9 | 4803.0 | 6069.2 | 6677.9 | 6363.2 |
| 55°   | 2749.3 | 2785.8 | 2980.3 | 3266.7 | 3739.9 | 4149.5 | 4548.8 | 5237.1 | 6434.5 | 7080.4 | 6735.6 |
| 57.5° | 2208.6 | 2235.5 | 2437.9 | 2838.4 | 3376.5 | 4036.4 | 4787.1 | 5710.9 | 6778.6 | 7475.8 | 7104.8 |
| 60°   | 1439.4 | 1463.2 | 1698.2 | 2145.0 | 2774.3 | 3658.9 | 4834.5 | 6239.3 | 7235.8 | 7990.2 | 7602.3 |
| 62.5° | 957.2  | 973.3  | 1112.6 | 1440.7 | 1953.8 | 2934.1 | 4556.5 | 6661.2 | 7906.0 | 8885.1 | 8455.6 |
| 65°   | 656.8  | 672.8  | 812.2  | 1040.8 | 1262.3 | 1940.8 | 3757.2 | 6605.3 | 8513.4 | 9595.8 | 9088.1 |
| 67.5° | 468.7  | 482.2  | 600.3  | 816.0  | 913.6  | 1127.4 | 2546.9 | 5891.3 | 8426.1 | 9622.9 | 9122.1 |
| 70°   | 335.8  | 343.5  | 441.1  | 635.6  | 726.1  | 677.3  | 1416.3 | 4505.8 | 7377.6 | 8885.8 | 8427.3 |
| 72.5° | 235.0  | 237.6  | 306.3  | 484.1  | 584.9  | 494.4  | 674.1  | 3004.1 | 5580.0 | 6974.4 | 6533.3 |
| 75°   | 159.2  | 162.5  | 206.1  | 355.1  | 469.3  | 377.5  | 357.0  | 1610.9 | 3275.7 | 3860.6 | 3460.6 |
| 77.5° | 97.6   | 98.9   | 132.9  | 242.7  | 351.2  | 287.6  | 229.8  | 682.4  | 1267.4 | 1244.2 | 1060.7 |
| 80°   | 55.2   | 55.2   | 84.8   | 150.9  | 239.4  | 185.5  | 161.1  | 290.2  | 401.3  | 352.5  | 310.8  |
| 82.5° | 30.9   | 31.5   | 61.6   | 93.8   | 158.6  | 109.8  | 88.6   | 134.2  | 173.3  | 153.4  | 133.6  |
| 85°   | 12.8   | 14.1   | 37.9   | 44.3   | 75.7   | 54.5   | 36.0   | 56.5   | 64.2   | 57.1   | 41.7   |
| 87.5° | 1.3    | 1.9    | 11.6   | 8.3    | 9.0    | 10.9   | 5.1    | 10.9   | 9.0    | 9.0    | 6.5    |
| 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°    | 1477.3 | 1477.3 | 1477.3 | 1477.3 | 1477.3 | 1477.3 | 1477.3 | 1477.3 | 1477.3 | 1477.3 | 1477.3 |
| 2.5°  | 1487.0 | 1477.3 | 1452.9 | 1424.6 | 1387.4 | 1369.5 | 1345.1 | 1328.4 | 1314.3 | 1315.5 | 1302.7 |
| 5°    | 1515.9 | 1491.5 | 1436.8 | 1368.8 | 1284.1 | 1223.7 | 1159.5 | 1115.2 | 1079.2 | 1071.5 | 1054.2 |
| 7.5°  | 1555.6 | 1517.1 | 1421.5 | 1298.9 | 1155.7 | 1047.1 | 950.2  | 888.0  | 843.7  | 829.5  | 815.4  |
| 10°   | 1607.0 | 1551.1 | 1401.6 | 1210.8 | 1004.8 | 866.7  | 762.7  | 713.9  | 683.8  | 673.5  | 665.8  |
| 12.5° | 1666.8 | 1590.3 | 1375.2 | 1103.6 | 849.4  | 716.5  | 650.4  | 626.0  | 616.3  | 613.2  | 611.2  |
| 15°   | 1741.9 | 1639.1 | 1335.5 | 976.5  | 717.8  | 624.7  | 596.4  | 593.3  | 594.5  | 593.3  | 592.6  |
| 17.5° | 1831.1 | 1692.4 | 1270.6 | 845.5  | 629.2  | 577.8  | 567.5  | 570.1  | 573.4  | 572.7  | 571.4  |
| 20°   | 1928.6 | 1745.1 | 1187.8 | 729.4  | 568.9  | 544.5  | 538.6  | 541.2  | 543.8  | 542.5  | 541.9  |
| 22.5° | 2039.7 | 1801.5 | 1095.9 | 638.8  | 528.4  | 513.6  | 507.2  | 507.9  | 507.9  | 505.3  | 504.0  |
| 25°   | 2172.7 | 1863.9 | 999.7  | 574.6  | 497.5  | 486.1  | 478.4  | 475.7  | 471.9  | 464.2  | 462.9  |
| 27.5° | 2331.3 | 1930.0 | 907.2  | 529.7  | 473.1  | 462.3  | 453.3  | 446.9  | 437.3  | 424.4  | 423.1  |
| 30°   | 2509.7 | 2010.2 | 828.9  | 501.4  | 453.9  | 443.0  | 432.8  | 423.1  | 409.0  | 392.9  | 391.7  |
| 32.5° | 2719.6 | 2096.2 | 771.7  | 482.8  | 436.5  | 425.1  | 412.9  | 401.3  | 385.9  | 369.8  | 370.4  |
| 35°   | 2970.0 | 2200.3 | 738.3  | 470.0  | 423.1  | 407.6  | 394.2  | 381.4  | 369.8  | 355.7  | 354.4  |
| 37.5° | 3241.7 | 2310.7 | 728.1  | 463.5  | 414.1  | 390.3  | 374.9  | 365.9  | 364.7  | 356.3  | 355.7  |
| 40°   | 3538.9 | 2441.7 | 735.7  | 459.7  | 404.5  | 373.7  | 357.0  | 355.1  | 358.2  | 343.5  | 344.1  |
| 42.5° | 3853.5 | 2597.0 | 748.7  | 455.2  | 391.0  | 357.0  | 340.9  | 340.9  | 338.4  | 317.9  | 317.9  |
| 45°   | 4193.8 | 2776.2 | 761.5  | 444.3  | 374.9  | 340.3  | 328.1  | 323.6  | 312.6  | 292.7  | 292.1  |
| 47.5° | 4536.6 | 2958.5 | 771.1  | 424.4  | 355.7  | 326.2  | 315.3  | 304.9  | 288.9  | 270.9  | 270.3  |
| 50°   | 4862.2 | 3122.3 | 760.9  | 394.8  | 333.8  | 312.6  | 301.1  | 287.0  | 269.7  | 257.5  | 255.5  |
| 52.5° | 5153.0 | 3264.1 | 717.2  | 360.2  | 310.8  | 298.6  | 288.2  | 273.5  | 259.4  | 246.5  | 245.3  |
| 55°   | 5406.0 | 3379.0 | 640.1  | 327.5  | 290.2  | 286.4  | 276.0  | 257.5  | 238.2  | 227.2  | 226.0  |
| 57.5° | 5648.7 | 3466.3 | 543.8  | 300.4  | 271.6  | 272.9  | 257.5  | 240.8  | 222.8  | 211.3  | 209.9  |
| 60°   | 5971.5 | 3583.2 | 446.2  | 275.4  | 251.6  | 255.5  | 238.8  | 226.6  | 204.2  | 189.4  | 187.5  |
| 62.5° | 6487.7 | 3764.9 | 354.4  | 244.6  | 228.6  | 229.8  | 222.8  | 208.0  | 181.0  | 163.7  | 162.5  |
| 65°   | 6897.4 | 3698.1 | 279.3  | 211.3  | 202.2  | 204.2  | 204.2  | 188.1  | 159.2  | 139.3  | 137.4  |
| 67.5° | 6851.2 | 3166.5 | 222.8  | 178.5  | 177.2  | 178.5  | 183.0  | 169.5  | 141.2  | 125.2  | 122.6  |
| 70°   | 6311.2 | 2518.7 | 178.5  | 148.3  | 154.1  | 150.9  | 163.7  | 154.8  | 127.1  | 111.1  | 109.2  |
| 72.5° | 5149.8 | 1814.4 | 136.1  | 122.6  | 118.2  | 123.3  | 147.7  | 139.3  | 106.0  | 87.9   | 86.0   |
| 75°   | 3009.2 | 968.2  | 101.5  | 97.0   | 85.4   | 102.7  | 131.0  | 118.8  | 80.9   | 64.9   | 62.9   |
| 77.5° | 979.8  | 337.7  | 74.5   | 71.2   | 63.6   | 82.8   | 111.7  | 100.1  | 66.1   | 51.4   | 49.4   |
| 80°   | 262.6  | 102.1  | 50.7   | 46.8   | 41.1   | 61.6   | 88.6   | 79.6   | 47.6   | 33.4   | 32.7   |
| 82.5° | 105.3  | 43.0   | 29.5   | 26.3   | 22.4   | 42.3   | 70.0   | 64.2   | 35.4   | 21.2   | 21.2   |
| 85°   | 34.0   | 14.1   | 10.9   | 8.3    | 10.2   | 26.3   | 41.7   | 43.7   | 25.0   | 10.9   | 8.3    |
| 87.5° | 4.5    | 1.9    | 1.9    | 2.6    | 1.9    | 4.5    | 12.8   | 12.2   | 7.1    | 1.3    | 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)