

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: P962986

Luminaire Tested: **NAV-SB2D-735-U-T2-HSS**

Issue Date: 1/21/2025

### Test Information

Test Method: LM-79-08  
Report Number: P962986  
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-SB2D-735-U-T2-HSS  
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE  
(2) 70 CRI, 3500K, 900mA 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: 15231.5 lumens  
Efficiency: N/A  
Efficacy: 103.2 lumens/watt  
Luminous Opening: Rectangular (W 0.5' x L: 1' x H: 0')  
IES Classification: Type II - Medium  
BUG Rating: B2 - U0 - G2

Input Watts (W): 147.6  
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



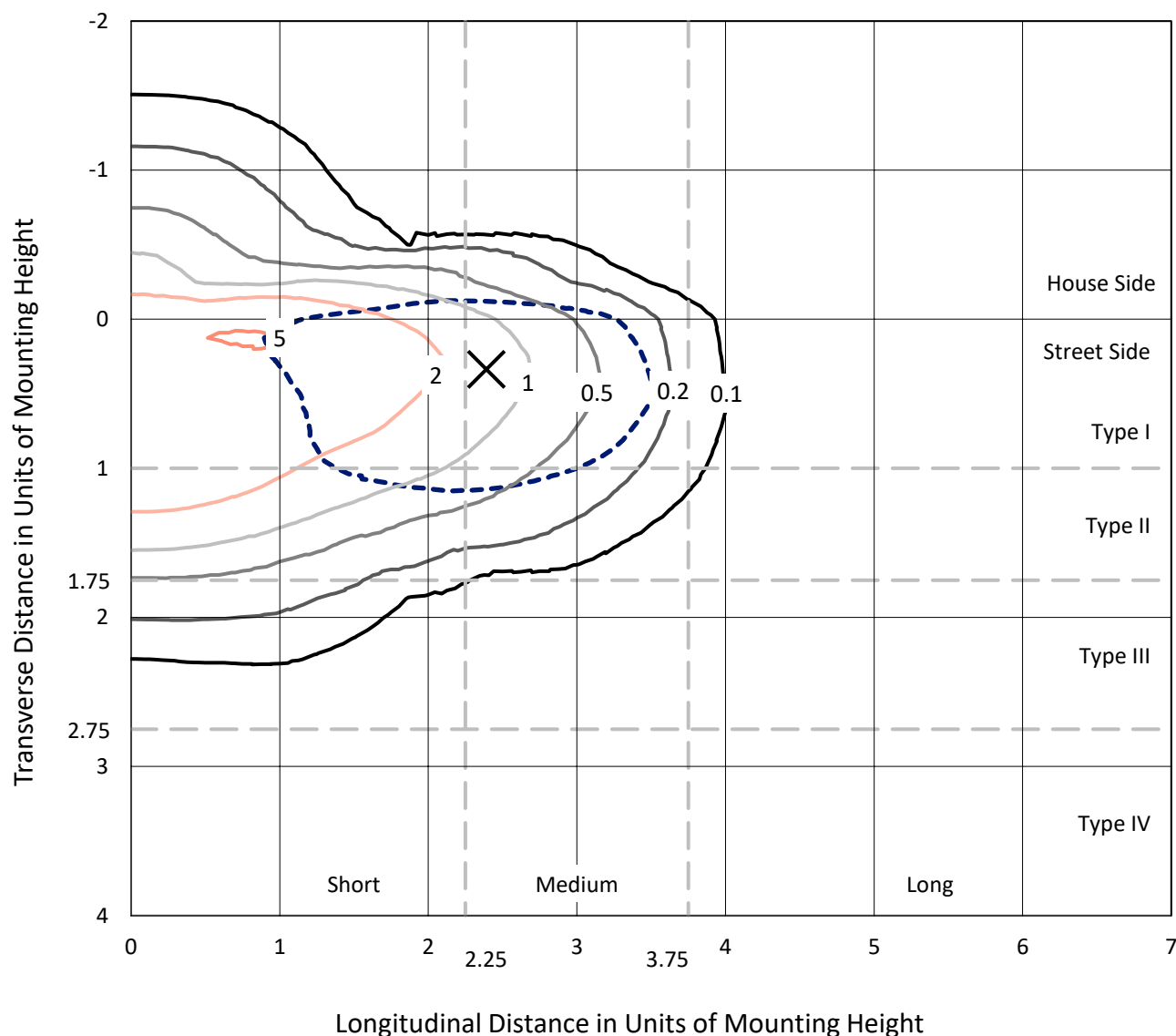
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## Iso-Footcandle Lines of Horizontal Illumination

× Max cd

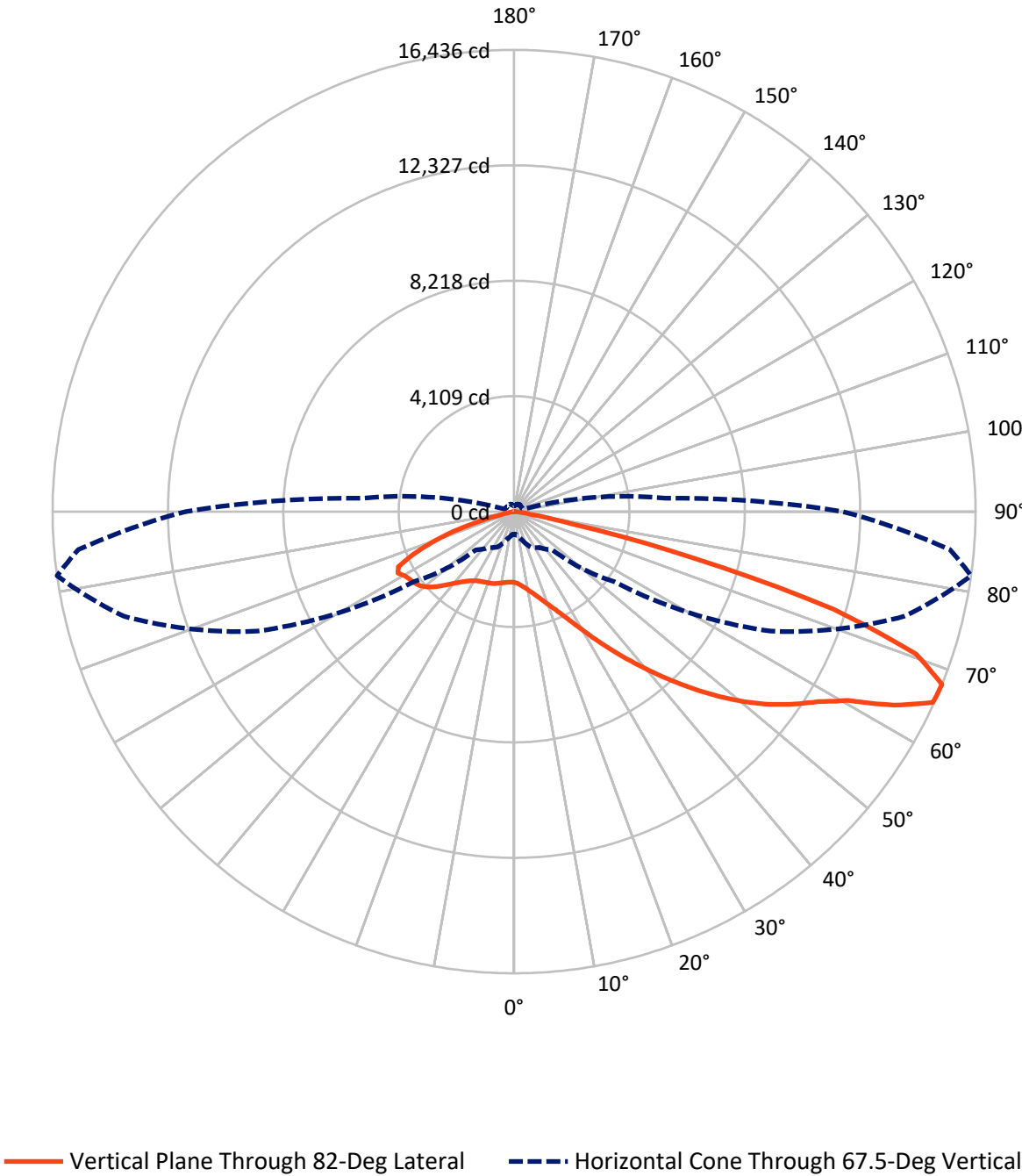
--- 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 5.3 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    | 2759.0   | 0.0    | 2759.0  |
|                    | % Fixture | 18.1     | 0.0    | 18.1    |
| <b>Street Side</b> | Lumens    | 12472.4  | 0.0    | 12472.4 |
|                    | % Fixture | 81.9     | 0.0    | 81.9    |
| <b>Total</b>       | Lumens    | 15231.5  | 0.0    | 15231.5 |
|                    | % Fixture | 100.0    | 0.0    | 100.0   |

**ZONAL LUMENS:**

| Zone      | Lumens  | % Fixture |
|-----------|---------|-----------|
| 0°-10°    | 224.8   | 1.5       |
| 10°-20°   | 584.2   | 3.8       |
| 20°-30°   | 935.7   | 6.1       |
| 30°-40°   | 1654.6  | 10.9      |
| 40°-50°   | 2899.0  | 19.0      |
| 50°-60°   | 3866.5  | 25.4      |
| 60°-70°   | 3599.5  | 23.6      |
| 70°-80°   | 1381.5  | 9.1       |
| 80°-90°   | 85.8    | 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°    | 15231.5 | 100.0     |
| 0°-180°   | 15231.5 | 100.0     |

**Coefficient of Utilization**



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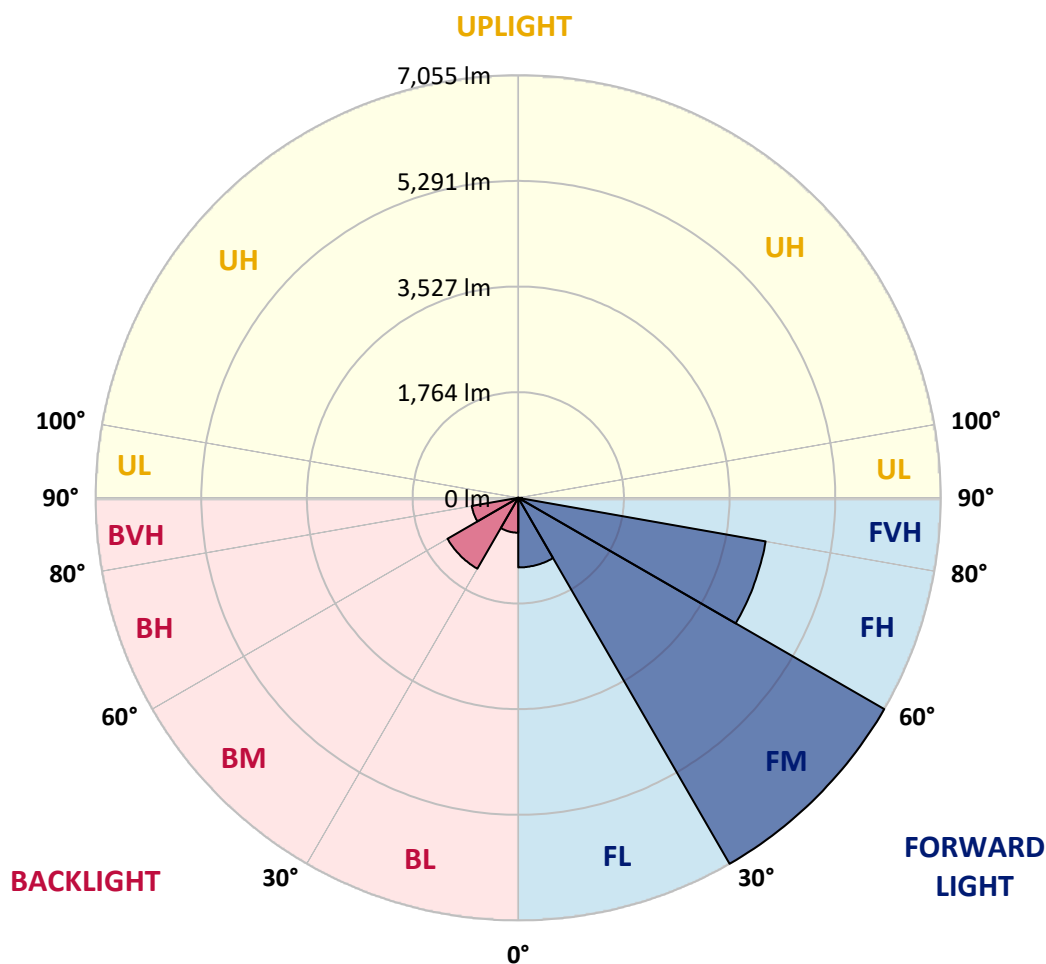
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

| Zone |             | Lumens | % Fixture | Zone Rating/Lumen Limit |      |         |
|------|-------------|--------|-----------|-------------------------|------|---------|
|      |             |        |           | B                       | U    | G       |
| FL   | (0°-30°)    | 1162.0 | 7.6       |                         |      |         |
| FM   | (30°-60°)   | 7054.6 | 46.3      |                         |      |         |
| FH   | (60°-80°)   | 4193.5 | 27.5      |                         |      | G2/5000 |
| FVH  | (80°-90°)   | 62.4   | 0.4       |                         |      | G1/100  |
| BL   | (0°-30°)    | 582.7  | 3.8       | B2/1000                 |      |         |
| BM   | (30°-60°)   | 1365.4 | 9.0       | B2/2500                 |      |         |
| BH   | (60°-80°)   | 787.5  | 5.2       | B2/1000                 |      | G2/1000 |
| BVH  | (80°-90°)   | 23.4   | 0.2       |                         |      | 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 Medium



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**CANDELA DISTRIBUTION (FULL):**

|       | 0°     | 5°     | 15°    | 25°    | 35°    | 45°    | 55°    | 65°     | 75°     | 82°     | 85°     |
|-------|--------|--------|--------|--------|--------|--------|--------|---------|---------|---------|---------|
| 0°    | 2523.3 | 2523.3 | 2523.3 | 2523.3 | 2523.3 | 2523.3 | 2523.3 | 2523.3  | 2523.3  | 2523.3  | 2523.3  |
| 2.5°  | 2667.0 | 2682.3 | 2673.6 | 2669.2 | 2661.5 | 2650.5 | 2641.7 | 2614.4  | 2585.9  | 2567.2  | 2560.7  |
| 5°    | 2720.8 | 2736.1 | 2735.0 | 2739.4 | 2744.8 | 2748.1 | 2746.0 | 2715.2  | 2674.6  | 2642.9  | 2624.2  |
| 7.5°  | 2674.6 | 2692.3 | 2706.5 | 2728.4 | 2766.8 | 2807.4 | 2827.2 | 2820.5  | 2778.9  | 2735.0  | 2711.9  |
| 10°   | 2544.2 | 2562.8 | 2596.8 | 2648.4 | 2729.5 | 2817.2 | 2890.7 | 2924.7  | 2898.4  | 2850.1  | 2818.3  |
| 12.5° | 2305.1 | 2323.8 | 2390.6 | 2502.5 | 2638.5 | 2791.0 | 2931.3 | 3022.3  | 3028.9  | 2980.6  | 2943.4  |
| 15°   | 2036.5 | 2055.1 | 2126.4 | 2266.7 | 2474.0 | 2718.5 | 2953.2 | 3125.4  | 3183.5  | 3141.8  | 3096.8  |
| 17.5° | 1869.7 | 1886.2 | 1939.9 | 2052.9 | 2268.9 | 2573.8 | 2945.5 | 3235.1  | 3367.7  | 3334.8  | 3281.1  |
| 20°   | 1819.3 | 1833.5 | 1858.8 | 1937.8 | 2117.5 | 2423.5 | 2895.1 | 3338.1  | 3566.3  | 3547.6  | 3487.3  |
| 22.5° | 1873.1 | 1886.2 | 1893.9 | 1928.9 | 2041.9 | 2324.9 | 2831.5 | 3443.4  | 3796.5  | 3798.8  | 3725.3  |
| 25°   | 1997.0 | 2010.1 | 2001.3 | 2023.2 | 2072.7 | 2294.2 | 2807.4 | 3567.3  | 4086.1  | 4110.1  | 4026.8  |
| 27.5° | 2201.0 | 2202.0 | 2181.2 | 2180.1 | 2187.8 | 2340.2 | 2832.6 | 3700.0  | 4451.3  | 4496.2  | 4393.0  |
| 30°   | 2610.0 | 2593.6 | 2513.5 | 2426.8 | 2387.3 | 2478.3 | 2902.8 | 3856.9  | 4882.2  | 4962.2  | 4832.9  |
| 32.5° | 3240.5 | 3216.4 | 3069.5 | 2862.2 | 2653.8 | 2701.0 | 3028.9 | 4035.6  | 5351.5  | 5496.3  | 5338.4  |
| 35°   | 3924.8 | 3918.3 | 3764.7 | 3456.6 | 3092.5 | 3017.9 | 3234.0 | 4270.3  | 5863.7  | 6093.9  | 5906.5  |
| 37.5° | 4560.8 | 4557.6 | 4469.8 | 4106.9 | 3663.9 | 3459.9 | 3562.9 | 4577.3  | 6412.0  | 6745.3  | 6523.8  |
| 40°   | 5142.1 | 5152.0 | 5064.2 | 4739.6 | 4293.3 | 4026.8 | 4010.4 | 4956.8  | 7021.8  | 7454.9  | 7191.7  |
| 42.5° | 5644.4 | 5655.3 | 5566.5 | 5326.3 | 4915.1 | 4654.1 | 4559.8 | 5421.7  | 7617.2  | 8217.0  | 7905.6  |
| 45°   | 5985.4 | 6053.4 | 6040.2 | 5848.3 | 5553.3 | 5282.4 | 5219.9 | 6005.2  | 8296.0  | 9025.2  | 8660.1  |
| 47.5° | 6081.9 | 6144.5 | 6243.1 | 6269.4 | 6089.6 | 5823.1 | 5897.6 | 6708.1  | 8982.5  | 9834.6  | 9418.9  |
| 50°   | 5843.9 | 5902.1 | 6107.2 | 6380.2 | 6505.2 | 6423.0 | 6556.7 | 7461.5  | 9685.4  | 10641.7 | 10163.6 |
| 52.5° | 5374.6 | 5433.8 | 5692.6 | 6124.7 | 6634.6 | 6893.4 | 7218.0 | 8203.9  | 10366.4 | 11406.0 | 10868.7 |
| 55°   | 4695.7 | 4758.3 | 5090.6 | 5579.7 | 6387.9 | 7087.5 | 7769.6 | 8945.2  | 10990.5 | 12093.7 | 11504.7 |
| 57.5° | 3772.4 | 3818.4 | 4163.9 | 4848.1 | 5767.2 | 6894.5 | 8176.4 | 9754.5  | 11578.2 | 12769.1 | 12135.3 |
| 60°   | 2458.7 | 2499.3 | 2900.5 | 3663.9 | 4738.6 | 6249.7 | 8257.6 | 10657.0 | 12359.0 | 13647.6 | 12985.2 |
| 62.5° | 1635.1 | 1662.4 | 1900.5 | 2460.8 | 3337.1 | 5011.6 | 7782.8 | 11377.5 | 13503.9 | 15176.3 | 14442.6 |
| 65°   | 1121.9 | 1149.2 | 1387.2 | 1777.7 | 2156.0 | 3315.2 | 6417.5 | 11282.1 | 14541.3 | 16390.3 | 15522.8 |
| 67.5° | 800.5  | 823.6  | 1025.3 | 1393.8 | 1560.5 | 1925.7 | 4350.3 | 10062.6 | 14392.1 | 16436.3 | 15580.9 |
| 70°   | 573.5  | 586.7  | 753.4  | 1085.7 | 1240.2 | 1156.9 | 2419.2 | 7696.1  | 12601.3 | 15177.4 | 14394.4 |
| 72.5° | 401.4  | 405.8  | 523.1  | 826.9  | 999.1  | 844.4  | 1151.5 | 5131.2  | 9530.8  | 11912.7 | 11159.3 |
| 75°   | 271.9  | 277.5  | 352.0  | 606.4  | 801.7  | 644.8  | 609.8  | 2751.4  | 5595.0  | 6594.0  | 5910.9  |
| 77.5° | 166.7  | 168.9  | 227.0  | 414.5  | 599.8  | 491.3  | 392.6  | 1165.7  | 2164.7  | 2125.2  | 1811.6  |
| 80°   | 94.3   | 94.3   | 144.7  | 257.7  | 409.1  | 316.9  | 275.2  | 495.7   | 685.4   | 602.1   | 530.7   |
| 82.5° | 52.7   | 53.7   | 105.3  | 160.1  | 270.9  | 187.5  | 151.3  | 229.2   | 296.1   | 262.1   | 228.1   |
| 85°   | 21.9   | 24.1   | 64.7   | 75.6   | 129.4  | 93.2   | 61.4   | 96.5    | 109.7   | 97.6    | 71.2    |
| 87.5° | 2.2    | 3.3    | 19.8   | 14.2   | 15.4   | 18.7   | 8.8    | 18.7    | 15.4    | 15.4    | 11.0    |
| 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°    | 2523.3  | 2523.3 | 2523.3 | 2523.3 | 2523.3 | 2523.3 | 2523.3 | 2523.3 | 2523.3 | 2523.3 | 2523.3 |
| 2.5°  | 2539.7  | 2523.3 | 2481.6 | 2433.5 | 2369.8 | 2339.2 | 2297.4 | 2268.9 | 2244.8 | 2247.0 | 2225.1 |
| 5°    | 2589.1  | 2547.4 | 2454.3 | 2338.0 | 2193.3 | 2090.2 | 1980.5 | 1904.9 | 1843.5 | 1830.2 | 1800.6 |
| 7.5°  | 2657.1  | 2591.3 | 2427.9 | 2218.5 | 1973.9 | 1788.6 | 1623.0 | 1516.6 | 1440.9 | 1416.9 | 1392.8 |
| 10°   | 2744.8  | 2649.4 | 2394.0 | 2068.2 | 1716.3 | 1480.4 | 1302.8 | 1219.4 | 1167.9 | 1150.4 | 1137.2 |
| 12.5° | 2846.8  | 2716.4 | 2349.0 | 1885.1 | 1450.9 | 1223.8 | 1110.9 | 1069.2 | 1052.8 | 1047.2 | 1044.0 |
| 15°   | 2975.2  | 2799.7 | 2281.0 | 1668.0 | 1226.0 | 1067.0 | 1018.7 | 1013.3 | 1015.5 | 1013.3 | 1012.2 |
| 17.5° | 3127.6  | 2890.7 | 2170.2 | 1444.2 | 1074.7 | 987.0  | 969.4  | 973.9  | 979.3  | 978.2  | 976.0  |
| 20°   | 3294.2  | 2980.6 | 2028.8 | 1245.8 | 971.6  | 930.0  | 920.0  | 924.4  | 928.9  | 926.7  | 925.6  |
| 22.5° | 3484.0  | 3077.2 | 1872.0 | 1091.1 | 902.5  | 877.3  | 866.3  | 867.5  | 867.5  | 863.0  | 860.9  |
| 25°   | 3711.0  | 3183.5 | 1707.4 | 981.4  | 849.9  | 830.1  | 817.0  | 812.6  | 806.1  | 792.8  | 790.7  |
| 27.5° | 3981.8  | 3296.5 | 1549.5 | 904.8  | 808.2  | 789.6  | 774.2  | 763.2  | 746.8  | 724.9  | 722.7  |
| 30°   | 4286.8  | 3433.5 | 1415.7 | 856.5  | 775.3  | 756.7  | 739.1  | 722.7  | 698.5  | 671.2  | 668.9  |
| 32.5° | 4645.3  | 3580.5 | 1318.1 | 824.7  | 745.7  | 726.0  | 705.1  | 685.4  | 659.1  | 631.7  | 632.7  |
| 35°   | 5073.0  | 3758.2 | 1261.2 | 802.8  | 722.7  | 696.4  | 673.3  | 651.4  | 631.7  | 607.5  | 605.4  |
| 37.5° | 5536.8  | 3946.8 | 1243.5 | 791.8  | 707.4  | 666.8  | 640.4  | 625.0  | 622.9  | 608.6  | 607.5  |
| 40°   | 6044.6  | 4170.5 | 1256.8 | 785.2  | 690.8  | 638.3  | 609.8  | 606.4  | 611.9  | 586.7  | 587.8  |
| 42.5° | 6581.9  | 4435.9 | 1278.7 | 777.5  | 667.9  | 609.8  | 582.3  | 582.3  | 577.9  | 542.8  | 542.8  |
| 45°   | 7163.2  | 4741.9 | 1300.6 | 758.9  | 640.4  | 581.2  | 560.4  | 552.7  | 534.0  | 500.1  | 499.0  |
| 47.5° | 7748.8  | 5053.2 | 1317.0 | 724.9  | 607.5  | 557.1  | 538.4  | 520.9  | 493.4  | 462.8  | 461.7  |
| 50°   | 8304.8  | 5332.9 | 1299.5 | 674.4  | 570.2  | 534.0  | 514.3  | 490.2  | 460.6  | 439.7  | 436.4  |
| 52.5° | 8801.6  | 5575.3 | 1225.0 | 615.2  | 530.7  | 509.9  | 492.4  | 467.2  | 443.0  | 421.1  | 418.9  |
| 55°   | 9233.6  | 5771.6 | 1093.4 | 559.2  | 495.7  | 489.1  | 471.5  | 439.7  | 406.8  | 388.2  | 386.0  |
| 57.5° | 9648.1  | 5920.7 | 928.9  | 513.2  | 463.9  | 466.1  | 439.7  | 411.2  | 380.5  | 360.8  | 358.6  |
| 60°   | 10199.8 | 6120.3 | 762.2  | 470.5  | 429.9  | 436.4  | 408.0  | 387.1  | 348.7  | 323.5  | 320.2  |
| 62.5° | 11081.5 | 6430.6 | 605.4  | 417.8  | 390.4  | 392.6  | 380.5  | 355.3  | 309.2  | 279.6  | 277.5  |
| 65°   | 11781.0 | 6316.6 | 477.0  | 360.8  | 345.4  | 348.7  | 348.7  | 321.3  | 271.9  | 238.0  | 234.7  |
| 67.5° | 11702.1 | 5408.6 | 380.5  | 304.8  | 302.7  | 304.8  | 312.5  | 289.5  | 241.3  | 213.8  | 209.4  |
| 70°   | 10779.8 | 4302.0 | 304.8  | 253.3  | 263.2  | 257.7  | 279.6  | 264.2  | 217.1  | 189.7  | 186.4  |
| 72.5° | 8796.0  | 3099.1 | 232.5  | 209.4  | 201.8  | 210.5  | 252.3  | 238.0  | 180.9  | 150.3  | 147.0  |
| 75°   | 5139.9  | 1653.7 | 173.2  | 165.6  | 145.9  | 175.5  | 223.8  | 202.8  | 138.2  | 110.8  | 107.4  |
| 77.5° | 1673.4  | 576.9  | 127.2  | 121.8  | 108.5  | 141.4  | 190.9  | 171.1  | 113.0  | 87.7   | 84.5   |
| 80°   | 448.5   | 174.4  | 86.6   | 80.1   | 70.2   | 105.3  | 151.3  | 136.0  | 81.2   | 57.0   | 56.0   |
| 82.5° | 179.9   | 73.5   | 50.4   | 45.0   | 38.3   | 72.4   | 119.5  | 109.7  | 60.3   | 36.2   | 36.2   |
| 85°   | 58.1    | 24.1   | 18.7   | 14.2   | 17.5   | 45.0   | 71.2   | 74.6   | 42.7   | 18.7   | 14.2   |
| 87.5° | 7.7     | 3.3    | 3.3    | 4.4    | 3.3    | 7.7    | 21.9   | 20.8   | 12.1   | 2.2    | 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)