

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: P964700

Luminaire Tested: **NAV-SB3C-827-U-T3**

Issue Date: 1/21/2025

**Test Information**

Test Method: LM-79-08  
Report Number: P964700  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2405-108-5)  
Test Lab: INNOVATION CENTER  
Issue Date: 1/21/2025  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: LUMARK  
Catalog Number: NAV-SB3C-827-U-T3  
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE  
(3) 80 CRI, 2700K, 615mA LIGHTSQUARES WITH 26 LEDS EACH AND TYPE III  
OPTICS  
Light Source: -  
Ballast/Driver: -

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 20040.8 lumens  
Efficiency: N/A  
Efficacy: 134.4 lumens/watt  
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')  
IES Classification: Type III - Short  
BUG Rating: B3 - U0 - G3

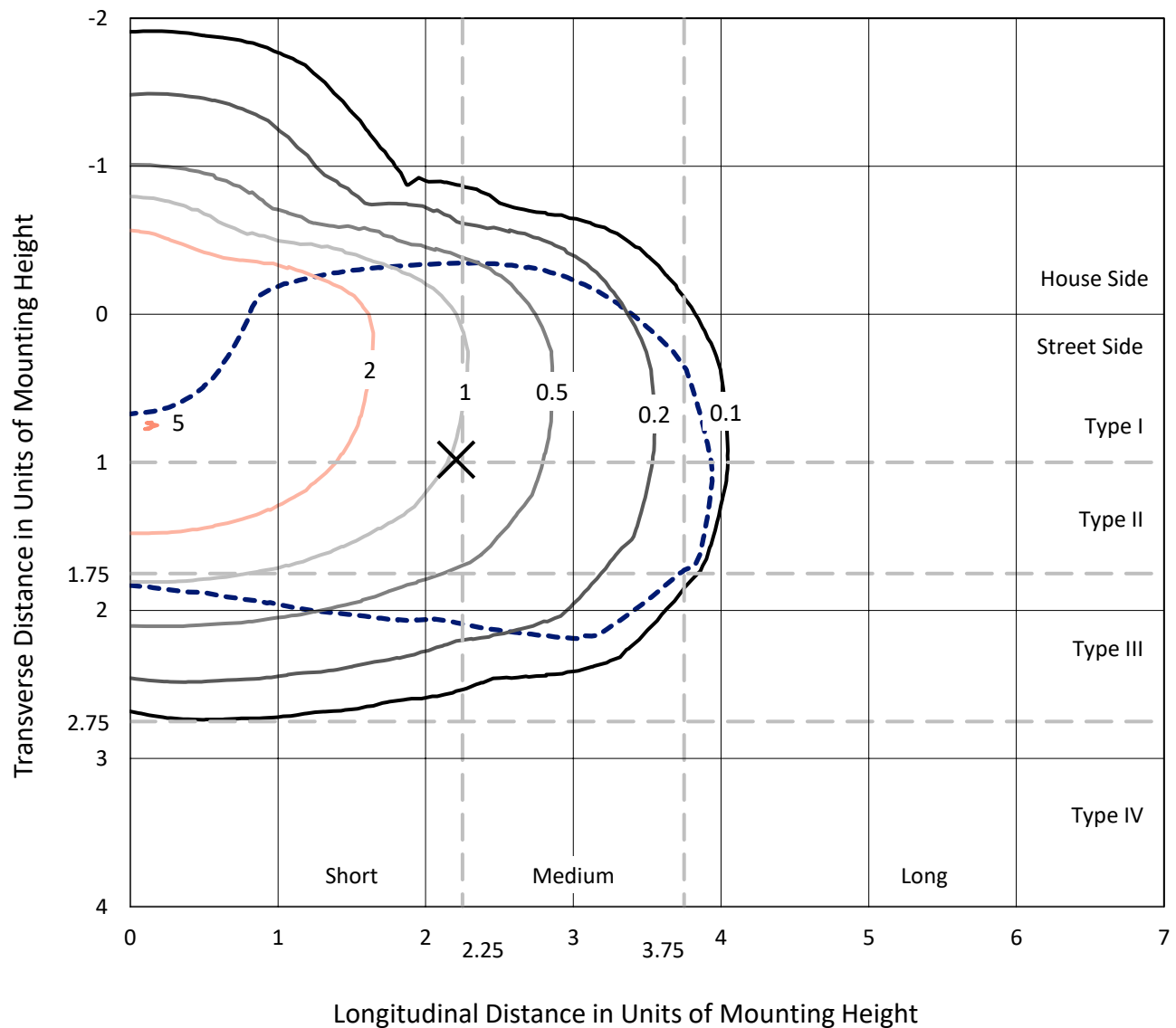
Input Watts (W): 149.1  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 24 FT



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## Iso-Footcandle Lines of Horizontal Illumination

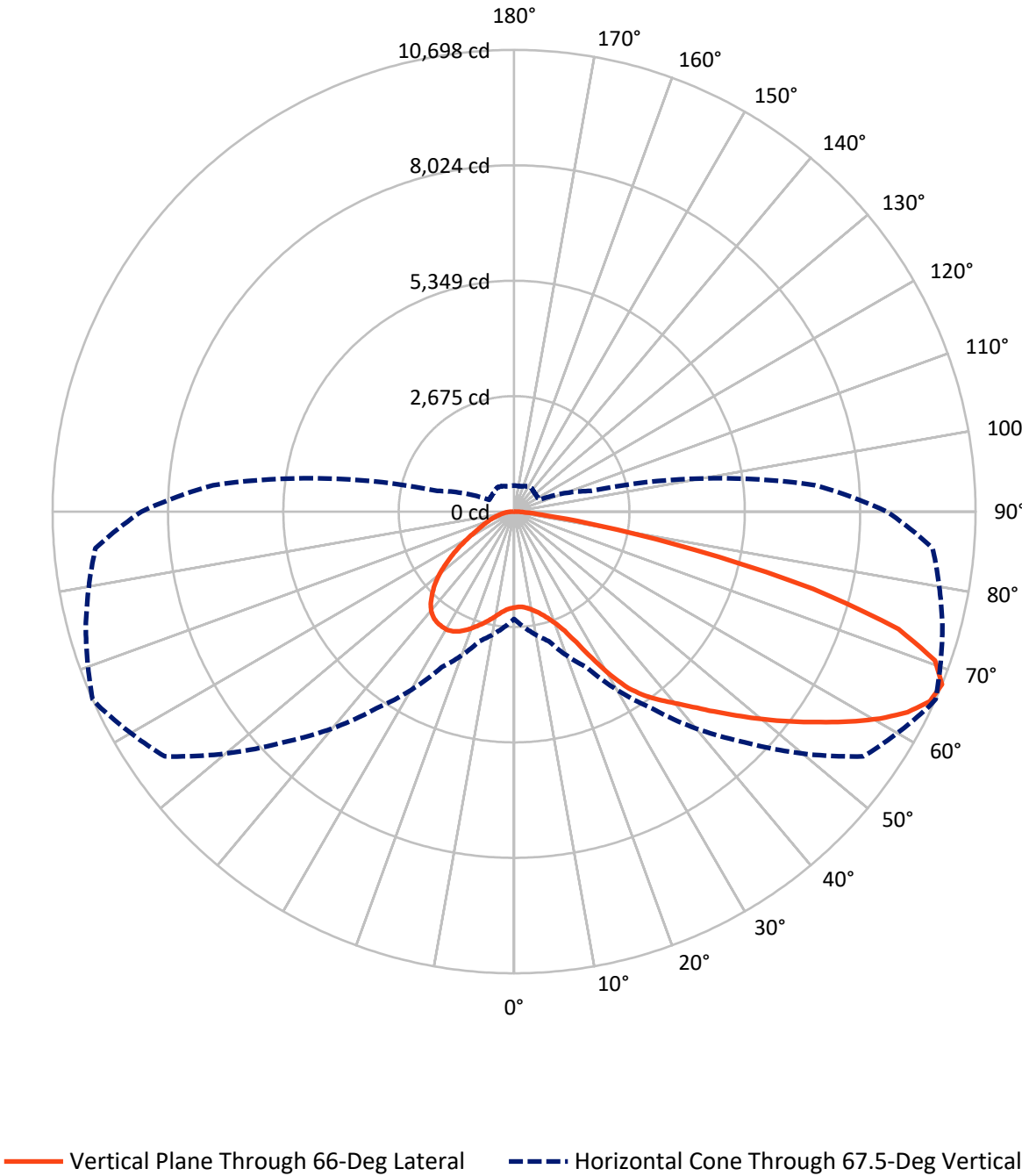
× Max cd  
- - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 5 fc  
Type III - Short - N/A

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Luminous Intensity Polar Plot



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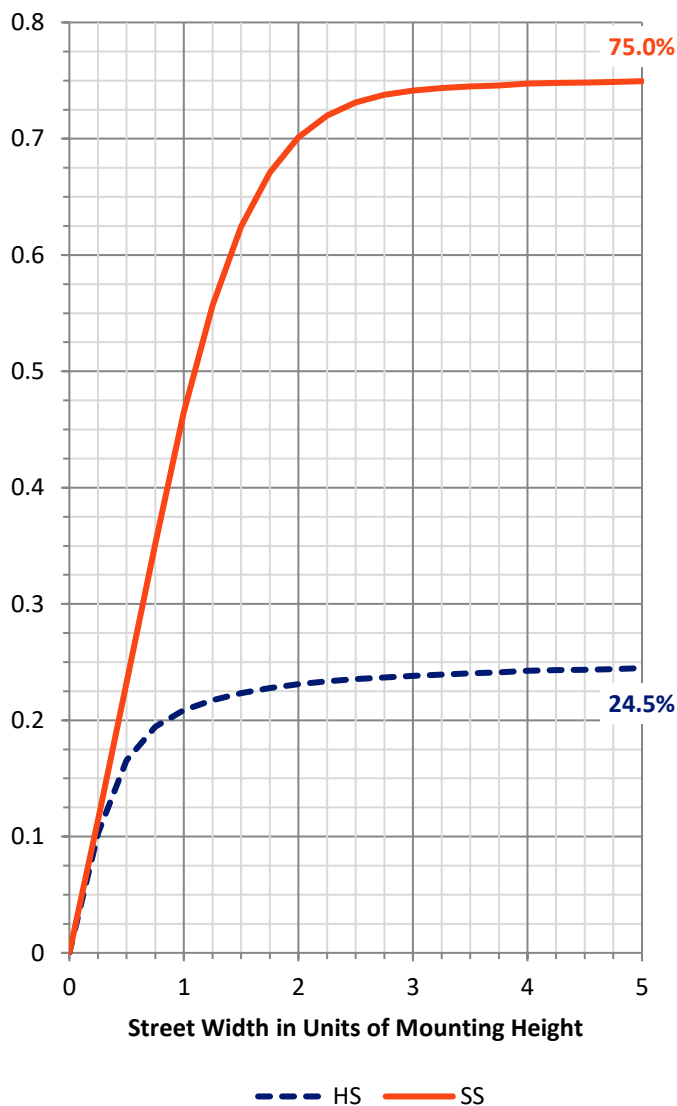
**FLUX DISTRIBUTION:**

|                    |           | Downward | Upward | Total   |
|--------------------|-----------|----------|--------|---------|
| <b>House Side</b>  | Lumens    | 4983.1   | 0.0    | 4983.1  |
|                    | % Fixture | 24.9     | 0.0    | 24.9    |
| <b>Street Side</b> | Lumens    | 15057.7  | 0.0    | 15057.7 |
|                    | % Fixture | 75.1     | 0.0    | 75.1    |
| <b>Total</b>       | Lumens    | 20040.8  | 0.0    | 20040.8 |
|                    | % Fixture | 100.0    | 0.0    | 100.0   |

**ZONAL LUMENS:**

| Zone      | Lumens  | % Fixture |
|-----------|---------|-----------|
| 0°-10°    | 220.4   | 1.1       |
| 10°-20°   | 728.1   | 3.6       |
| 20°-30°   | 1403.4  | 7.0       |
| 30°-40°   | 2460.7  | 12.3      |
| 40°-50°   | 3658.2  | 18.3      |
| 50°-60°   | 4637.1  | 23.1      |
| 60°-70°   | 4537.3  | 22.6      |
| 70°-80°   | 2164.3  | 10.8      |
| 80°-90°   | 231.3   | 1.2       |
| 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°    | 20040.8 | 100.0     |
| 0°-180°   | 20040.8 | 100.0     |

**Coefficient of Utilization**



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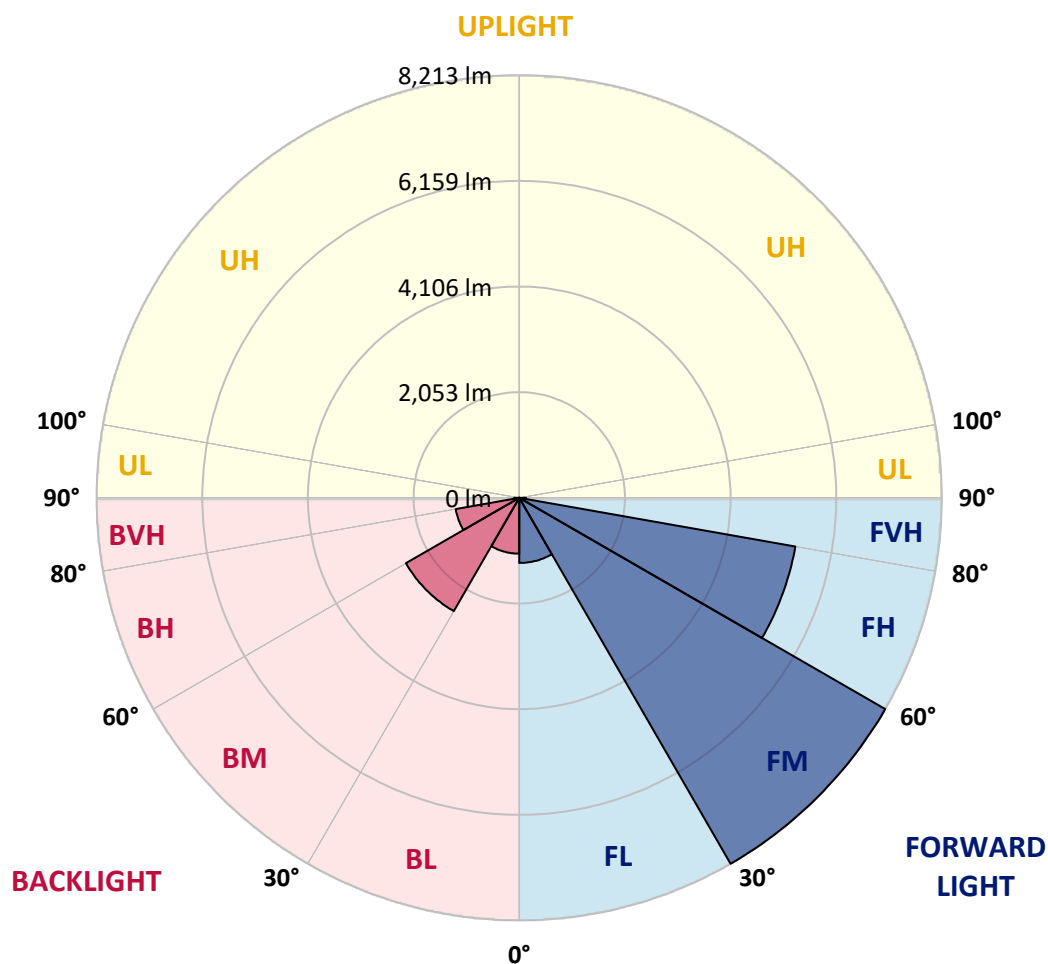
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

| Zone |             | Lumens | % Fixture | Zone Rating/Lumen Limit |      |         |
|------|-------------|--------|-----------|-------------------------|------|---------|
|      |             |        |           | B                       | U    | G       |
| FL   | (0°-30°)    | 1266.4 | 6.3       |                         |      |         |
| FM   | (30°-60°)   | 8212.6 | 41.0      |                         |      |         |
| FH   | (60°-80°)   | 5447.6 | 27.2      |                         |      | G3/7500 |
| FVH  | (80°-90°)   | 131.1  | 0.7       |                         |      | G2/225  |
| BL   | (0°-30°)    | 1085.5 | 5.4       | B3/2500                 |      |         |
| BM   | (30°-60°)   | 2543.4 | 12.7      | B3/5000                 |      |         |
| BH   | (60°-80°)   | 1254.0 | 6.3       | B3/2500                 |      | G3/2500 |
| BVH  | (80°-90°)   | 100.2  | 0.5       |                         |      | G2/225  |
| UL   | (90°-100°)  | 0.0    | 0.0       |                         | U0/0 |         |
| UH   | (100°-180°) | 0.0    | 0.0       |                         | U0/0 |         |

**BUG Rating: B3-U0-G3**

Type III Short



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**CANDELA DISTRIBUTION (FULL):**

|       | 0°     | 5°     | 15°    | 25°    | 35°    | 45°    | 55°     | 65°     | 66°     | 75°     | 85°    |
|-------|--------|--------|--------|--------|--------|--------|---------|---------|---------|---------|--------|
| 0°    | 2222.8 | 2222.8 | 2222.8 | 2222.8 | 2222.8 | 2222.8 | 2222.8  | 2222.8  | 2222.8  | 2222.8  | 2222.8 |
| 2.5°  | 2199.6 | 2212.3 | 2209.1 | 2203.9 | 2202.8 | 2204.9 | 2208.1  | 2211.2  | 2210.1  | 2215.4  | 2223.8 |
| 5°    | 2193.3 | 2205.9 | 2204.9 | 2204.9 | 2209.1 | 2217.5 | 2222.8  | 2228.0  | 2222.8  | 2229.1  | 2240.6 |
| 7.5°  | 2197.5 | 2207.0 | 2211.2 | 2215.4 | 2226.0 | 2241.8 | 2254.4  | 2266.0  | 2259.6  | 2267.0  | 2281.8 |
| 10°   | 2251.2 | 2258.6 | 2262.8 | 2262.8 | 2270.2 | 2288.1 | 2300.7  | 2321.7  | 2316.5  | 2328.1  | 2347.0 |
| 12.5° | 2349.1 | 2356.5 | 2356.5 | 2352.3 | 2357.6 | 2369.2 | 2373.4  | 2396.6  | 2387.0  | 2406.0  | 2424.9 |
| 15°   | 2469.2 | 2483.9 | 2472.3 | 2464.9 | 2467.1 | 2478.7 | 2477.6  | 2495.5  | 2486.0  | 2501.8  | 2518.6 |
| 17.5° | 2601.9 | 2620.8 | 2601.9 | 2600.8 | 2596.6 | 2609.2 | 2610.3  | 2626.0  | 2609.2  | 2620.8  | 2632.4 |
| 20°   | 2758.8 | 2785.0 | 2769.2 | 2774.6 | 2765.0 | 2770.4 | 2775.6  | 2798.8  | 2772.4  | 2780.8  | 2777.6 |
| 22.5° | 2979.9 | 3011.4 | 2994.6 | 3014.6 | 3008.3 | 3004.1 | 3003.0  | 3044.0  | 3003.0  | 3006.2  | 2975.7 |
| 25°   | 3302.0 | 3340.0 | 3310.4 | 3337.9 | 3337.9 | 3351.5 | 3367.3  | 3420.0  | 3351.5  | 3331.6  | 3252.5 |
| 27.5° | 3778.0 | 3815.9 | 3758.0 | 3774.9 | 3769.5 | 3803.3 | 3786.5  | 3917.0  | 3843.2  | 3810.6  | 3651.7 |
| 30°   | 4350.8 | 4418.2 | 4308.7 | 4304.5 | 4299.3 | 4353.0 | 4377.2  | 4463.5  | 4388.7  | 4356.0  | 4164.5 |
| 32.5° | 4969.9 | 5040.5 | 4910.0 | 4872.0 | 4852.0 | 4884.6 | 4864.6  | 4934.1  | 4882.6  | 4832.1  | 4595.1 |
| 35°   | 5624.9 | 5694.4 | 5570.2 | 5496.5 | 5416.4 | 5347.9 | 5276.4  | 5294.2  | 5245.8  | 5169.0  | 4923.6 |
| 37.5° | 6244.0 | 6371.4 | 6239.8 | 6160.9 | 6013.5 | 5879.7 | 5679.6  | 5596.5  | 5551.2  | 5480.7  | 5233.2 |
| 40°   | 6874.8 | 6947.4 | 6847.4 | 6780.0 | 6620.0 | 6410.3 | 6090.3  | 5914.5  | 5853.4  | 5784.9  | 5575.4 |
| 42.5° | 7339.1 | 7408.6 | 7354.9 | 7308.6 | 7183.3 | 6940.1 | 6526.2  | 6306.1  | 6217.8  | 6140.9  | 5962.9 |
| 45°   | 7707.6 | 7759.2 | 7725.5 | 7742.3 | 7688.7 | 7452.8 | 6977.9  | 6726.3  | 6634.7  | 6540.9  | 6400.9 |
| 47.5° | 7856.1 | 7910.8 | 7964.6 | 8064.6 | 8156.2 | 7982.5 | 7463.3  | 7181.2  | 7084.3  | 6988.4  | 6850.5 |
| 50°   | 7839.3 | 7895.1 | 8050.9 | 8263.6 | 8547.9 | 8490.0 | 7975.1  | 7665.6  | 7576.0  | 7466.5  | 7339.1 |
| 52.5° | 7704.5 | 7767.7 | 7967.7 | 8321.5 | 8774.3 | 8870.1 | 8496.3  | 8165.7  | 8081.4  | 7950.8  | 7823.4 |
| 55°   | 7350.7 | 7388.6 | 7688.7 | 8189.9 | 8828.0 | 9135.4 | 9007.0  | 8698.5  | 8614.2  | 8432.1  | 8293.1 |
| 57.5° | 6694.7 | 6749.4 | 7186.4 | 7835.0 | 8693.2 | 9315.5 | 9455.5  | 9258.6  | 9177.5  | 8915.3  | 8770.1 |
| 60°   | 5838.6 | 5926.0 | 6426.2 | 7239.1 | 8350.0 | 9314.5 | 9863.1  | 9809.4  | 9741.9  | 9391.4  | 9239.7 |
| 62.5° | 4869.9 | 4971.0 | 5452.2 | 6396.7 | 7749.7 | 9050.1 | 10117.9 | 10270.5 | 10235.8 | 9830.4  | 9636.6 |
| 65°   | 3740.1 | 3809.6 | 4288.7 | 5306.9 | 6815.7 | 8482.6 | 10147.3 | 10585.4 | 10591.6 | 10164.2 | 9844.1 |
| 67.5° | 2490.2 | 2690.3 | 3106.3 | 3982.2 | 5564.8 | 7555.0 | 9888.3  | 10636.9 | 10698.0 | 10278.9 | 9739.9 |
| 70°   | 1215.1 | 1478.4 | 1885.8 | 2588.1 | 3982.2 | 6132.4 | 9211.3  | 10213.7 | 10349.5 | 9944.1  | 9118.6 |
| 72.5° | 504.4  | 589.7  | 811.8  | 1277.3 | 2286.0 | 4138.1 | 7850.9  | 9065.9  | 9317.6  | 8811.1  | 7666.6 |
| 75°   | 340.1  | 368.5  | 464.3  | 655.0  | 1041.4 | 2040.7 | 5661.8  | 6760.0  | 7165.4  | 6654.7  | 5439.6 |
| 77.5° | 262.2  | 280.1  | 338.0  | 458.1  | 619.1  | 771.8  | 3030.4  | 4073.9  | 4283.5  | 3965.4  | 2830.3 |
| 80°   | 206.3  | 220.1  | 252.7  | 333.7  | 439.1  | 412.8  | 1033.0  | 1845.8  | 1966.9  | 1649.9  | 909.8  |
| 82.5° | 179.0  | 184.3  | 181.1  | 226.4  | 291.7  | 241.1  | 339.1   | 681.2   | 751.8   | 545.4   | 296.9  |
| 85°   | 129.6  | 144.2  | 150.6  | 140.0  | 154.8  | 122.2  | 139.0   | 241.1   | 265.4   | 236.9   | 167.4  |
| 87.5° | 52.7   | 77.9   | 95.8   | 90.5   | 56.9   | 34.7   | 43.2    | 70.5    | 81.1    | 88.5    | 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°    | 2222.8 | 2222.8 | 2222.8 | 2222.8 | 2222.8 | 2222.8 | 2222.8 | 2222.8 | 2222.8 | 2222.8 | 2222.8 |
| 2.5°  | 2224.9 | 2232.2 | 2237.6 | 2243.8 | 2248.0 | 2254.4 | 2267.0 | 2274.4 | 2275.4 | 2280.7 | 2279.6 |
| 5°    | 2244.9 | 2255.4 | 2267.0 | 2283.9 | 2302.8 | 2318.7 | 2342.8 | 2359.7 | 2366.0 | 2371.2 | 2370.2 |
| 7.5°  | 2288.1 | 2302.8 | 2323.9 | 2353.4 | 2380.8 | 2401.8 | 2431.3 | 2451.3 | 2471.3 | 2478.7 | 2479.7 |
| 10°   | 2352.3 | 2373.4 | 2403.9 | 2443.9 | 2473.4 | 2500.8 | 2531.3 | 2548.1 | 2568.1 | 2576.5 | 2580.7 |
| 12.5° | 2432.3 | 2454.5 | 2494.4 | 2550.3 | 2577.7 | 2596.6 | 2607.1 | 2602.9 | 2607.1 | 2614.5 | 2616.6 |
| 15°   | 2524.0 | 2548.1 | 2593.5 | 2653.4 | 2672.4 | 2655.6 | 2632.4 | 2611.3 | 2608.2 | 2610.3 | 2617.6 |
| 17.5° | 2632.4 | 2650.2 | 2702.9 | 2753.5 | 2739.8 | 2670.3 | 2619.8 | 2586.1 | 2569.2 | 2563.9 | 2571.3 |
| 20°   | 2784.0 | 2784.0 | 2827.2 | 2858.7 | 2767.2 | 2649.2 | 2570.3 | 2515.6 | 2480.8 | 2466.0 | 2462.9 |
| 22.5° | 2968.3 | 2951.4 | 2978.9 | 2956.7 | 2761.9 | 2590.3 | 2480.8 | 2386.0 | 2333.3 | 2312.3 | 2309.1 |
| 25°   | 3202.0 | 3182.0 | 3174.6 | 3037.8 | 2724.0 | 2496.6 | 2318.7 | 2203.9 | 2157.5 | 2145.9 | 2148.0 |
| 27.5° | 3554.8 | 3504.3 | 3408.4 | 3082.0 | 2654.5 | 2349.1 | 2129.0 | 2022.7 | 1996.4 | 1997.4 | 2000.6 |
| 30°   | 4024.4 | 3923.3 | 3688.5 | 3089.4 | 2540.8 | 2140.6 | 1935.3 | 1859.6 | 1846.8 | 1852.2 | 1870.0 |
| 32.5° | 4459.3 | 4363.4 | 3975.0 | 3055.6 | 2366.0 | 1936.4 | 1761.6 | 1711.0 | 1692.1 | 1698.4 | 1706.8 |
| 35°   | 4800.4 | 4774.1 | 4240.2 | 3008.3 | 2151.2 | 1744.8 | 1605.8 | 1562.6 | 1525.7 | 1517.3 | 1523.7 |
| 37.5° | 5122.6 | 5112.1 | 4439.3 | 2942.0 | 1938.5 | 1608.9 | 1480.4 | 1423.6 | 1369.9 | 1340.4 | 1341.4 |
| 40°   | 5476.5 | 5465.9 | 4569.9 | 2839.9 | 1750.0 | 1491.0 | 1367.8 | 1293.0 | 1226.7 | 1173.0 | 1178.2 |
| 42.5° | 5874.5 | 5812.4 | 4632.0 | 2693.5 | 1590.0 | 1390.9 | 1276.2 | 1175.1 | 1087.7 | 1038.2 | 1041.4 |
| 45°   | 6309.3 | 6169.3 | 4631.0 | 2507.0 | 1455.2 | 1299.4 | 1178.2 | 1035.0 | 954.0  | 907.6  | 905.6  |
| 47.5° | 6770.5 | 6510.4 | 4574.1 | 2300.7 | 1324.6 | 1198.2 | 1026.6 | 917.2  | 863.5  | 835.0  | 828.7  |
| 50°   | 7246.4 | 6829.5 | 4477.2 | 2063.8 | 1190.8 | 1083.5 | 931.8  | 857.1  | 816.0  | 789.8  | 780.2  |
| 52.5° | 7694.0 | 7119.0 | 4360.2 | 1795.3 | 1055.0 | 971.9  | 889.7  | 831.8  | 788.6  | 759.2  | 746.5  |
| 55°   | 8109.9 | 7368.6 | 4195.0 | 1520.5 | 944.5  | 897.1  | 869.7  | 821.3  | 771.8  | 737.1  | 723.3  |
| 57.5° | 8479.4 | 7530.8 | 3909.7 | 1262.5 | 865.5  | 845.5  | 848.7  | 803.4  | 746.5  | 717.1  | 698.1  |
| 60°   | 8786.9 | 7649.7 | 3487.4 | 1023.5 | 801.3  | 795.0  | 816.0  | 769.7  | 703.4  | 669.6  | 655.0  |
| 62.5° | 8971.2 | 7647.6 | 2969.3 | 838.1  | 746.5  | 748.7  | 772.8  | 727.5  | 660.2  | 628.6  | 619.1  |
| 65°   | 8955.4 | 7460.2 | 2400.8 | 717.1  | 693.9  | 696.0  | 727.5  | 681.2  | 624.4  | 605.5  | 604.4  |
| 67.5° | 8638.5 | 7003.2 | 1841.6 | 638.1  | 636.0  | 645.4  | 682.3  | 649.6  | 602.3  | 600.1  | 603.3  |
| 70°   | 7780.3 | 6054.5 | 1326.8 | 574.9  | 575.9  | 589.7  | 638.1  | 629.7  | 590.7  | 594.9  | 593.9  |
| 72.5° | 6238.8 | 4616.2 | 890.8  | 508.6  | 509.6  | 531.8  | 595.9  | 613.9  | 579.1  | 634.9  | 643.4  |
| 75°   | 4154.9 | 2878.8 | 572.8  | 438.0  | 439.1  | 467.5  | 559.1  | 583.3  | 547.6  | 632.8  | 638.1  |
| 77.5° | 1996.4 | 1294.1 | 414.8  | 368.5  | 368.5  | 394.8  | 483.3  | 522.2  | 466.5  | 491.7  | 450.7  |
| 80°   | 689.7  | 486.5  | 326.5  | 296.9  | 290.6  | 308.5  | 407.5  | 452.7  | 402.2  | 370.6  | 347.5  |
| 82.5° | 271.6  | 252.7  | 262.2  | 230.6  | 209.5  | 221.1  | 316.9  | 373.8  | 295.9  | 267.4  | 266.4  |
| 85°   | 155.8  | 164.3  | 185.3  | 152.7  | 121.1  | 135.8  | 232.7  | 268.5  | 223.2  | 196.9  | 201.1  |
| 87.5° | 42.1   | 57.9   | 85.3   | 78.9   | 54.7   | 57.9   | 110.6  | 148.4  | 128.4  | 99.0   | 102.1  |
| 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)