

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: P968194

Luminaire Tested: **NAV-SB5B-727-U-T2-HSS**

Issue Date: 1/21/2025

**Test Information**

Test Method: LM-79-08  
Report Number: P968194  
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-SB5B-727-U-T2-HSS  
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE  
(5) 70 CRI, 2700K, 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: 19747.6 lumens  
Efficiency: N/A  
Efficacy: 108.1 lumens/watt  
Luminous Opening: Rectangular (W 1.5' x L: 1' x H: 0')  
IES Classification: Type II - Medium  
BUG Rating: B3 - U0 - G3

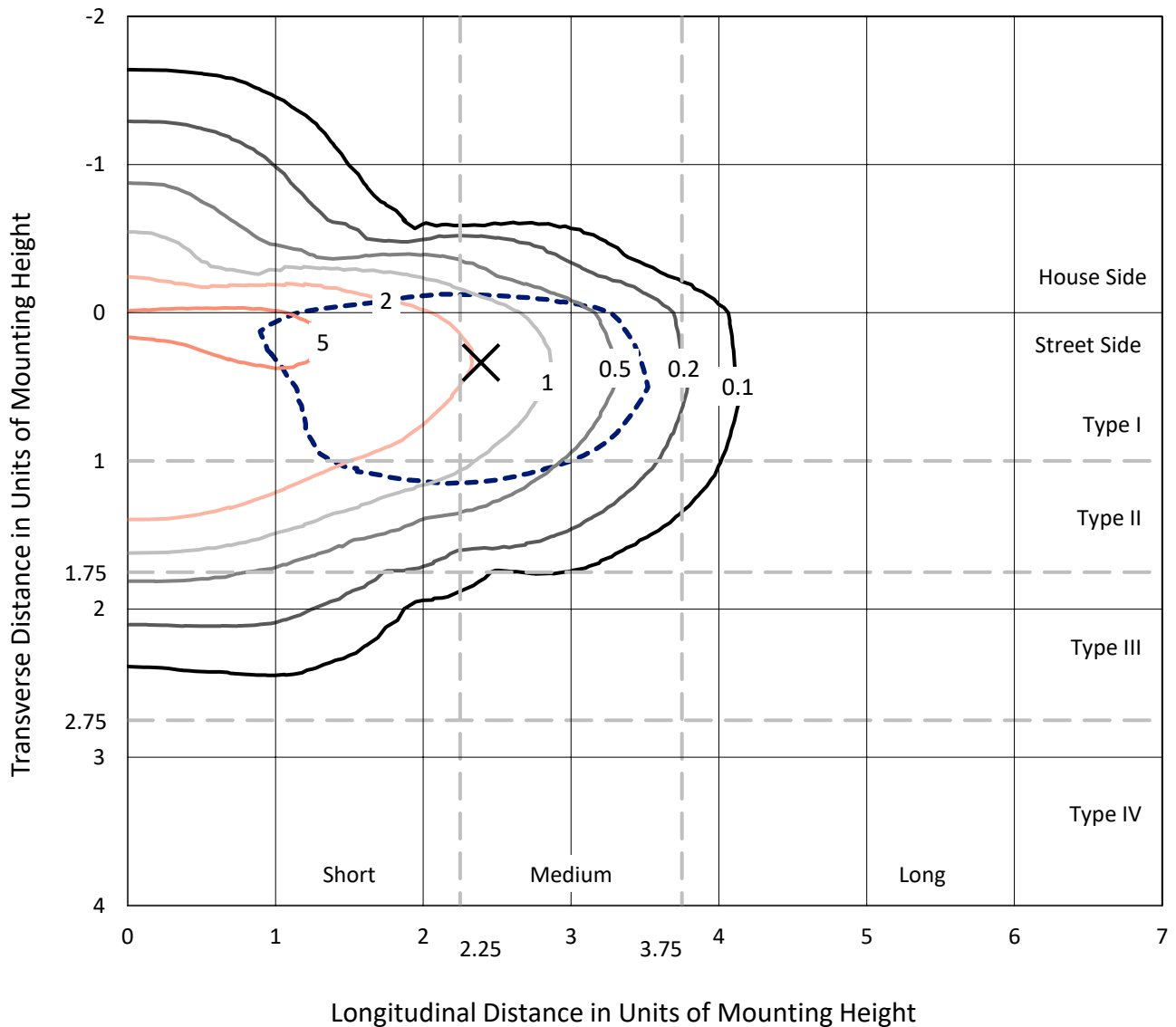
Input Watts (W): 182.7  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 24 FT



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### Iso-Footcandle Lines of Horizontal Illumination

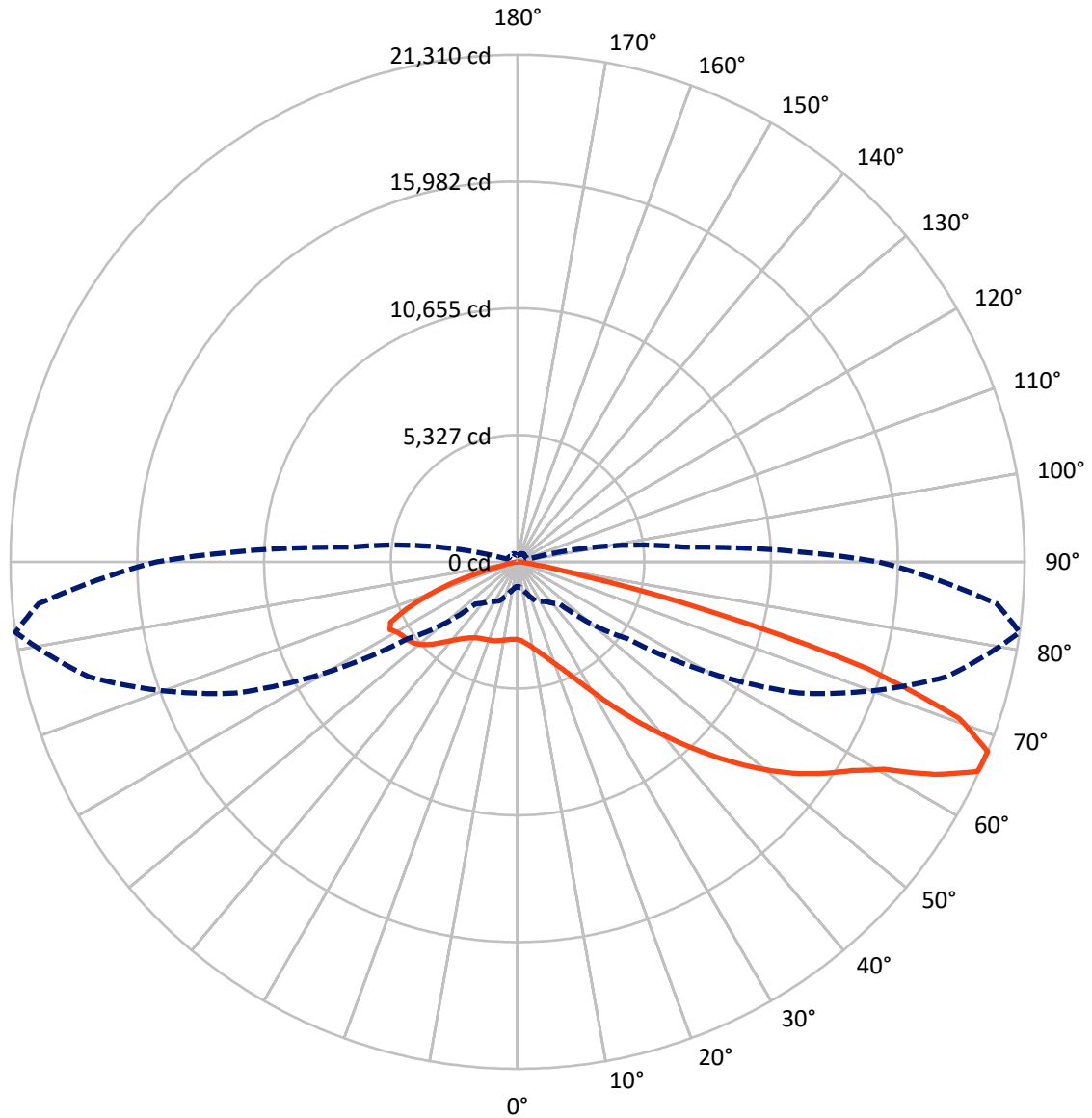
× Max cd  
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 6.9 fc  
 Type II - Medium - N/A

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### Luminous Intensity Polar Plot



— Vertical Plane Through 82-Deg Lateral      - - - Horizontal Cone Through 67.5-Deg Vertical

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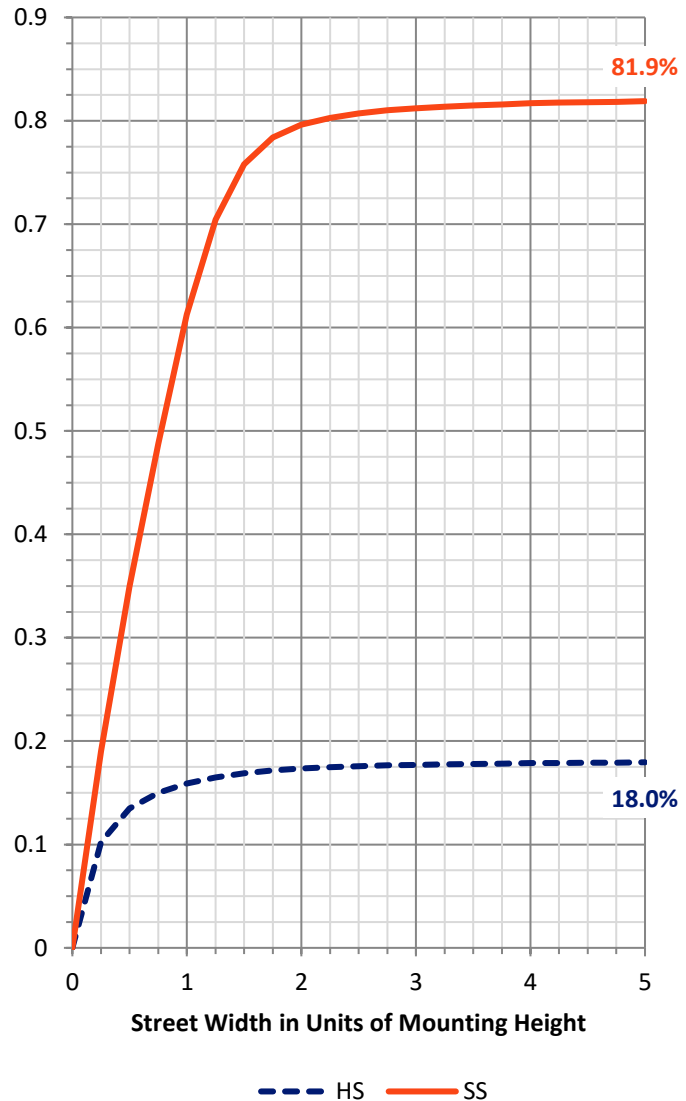
**FLUX DISTRIBUTION:**

|                    |           | Downward | Upward | Total   |
|--------------------|-----------|----------|--------|---------|
| <b>House Side</b>  | Lumens    | 3577.1   | 0.0    | 3577.1  |
|                    | % Fixture | 18.1     | 0.0    | 18.1    |
| <b>Street Side</b> | Lumens    | 16170.5  | 0.0    | 16170.5 |
|                    | % Fixture | 81.9     | 0.0    | 81.9    |
| <b>Total</b>       | Lumens    | 19747.6  | 0.0    | 19747.6 |
|                    | % Fixture | 100.0    | 0.0    | 100.0   |

**ZONAL LUMENS:**

| Zone      | Lumens  | % Fixture |
|-----------|---------|-----------|
| 0°-10°    | 291.5   | 1.5       |
| 10°-20°   | 757.4   | 3.8       |
| 20°-30°   | 1213.1  | 6.1       |
| 30°-40°   | 2145.2  | 10.9      |
| 40°-50°   | 3758.6  | 19.0      |
| 50°-60°   | 5012.9  | 25.4      |
| 60°-70°   | 4666.7  | 23.6      |
| 70°-80°   | 1791.1  | 9.1       |
| 80°-90°   | 111.2   | 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°    | 19747.6 | 100.0     |
| 0°-180°   | 19747.6 | 100.0     |

**Coefficient of Utilization**



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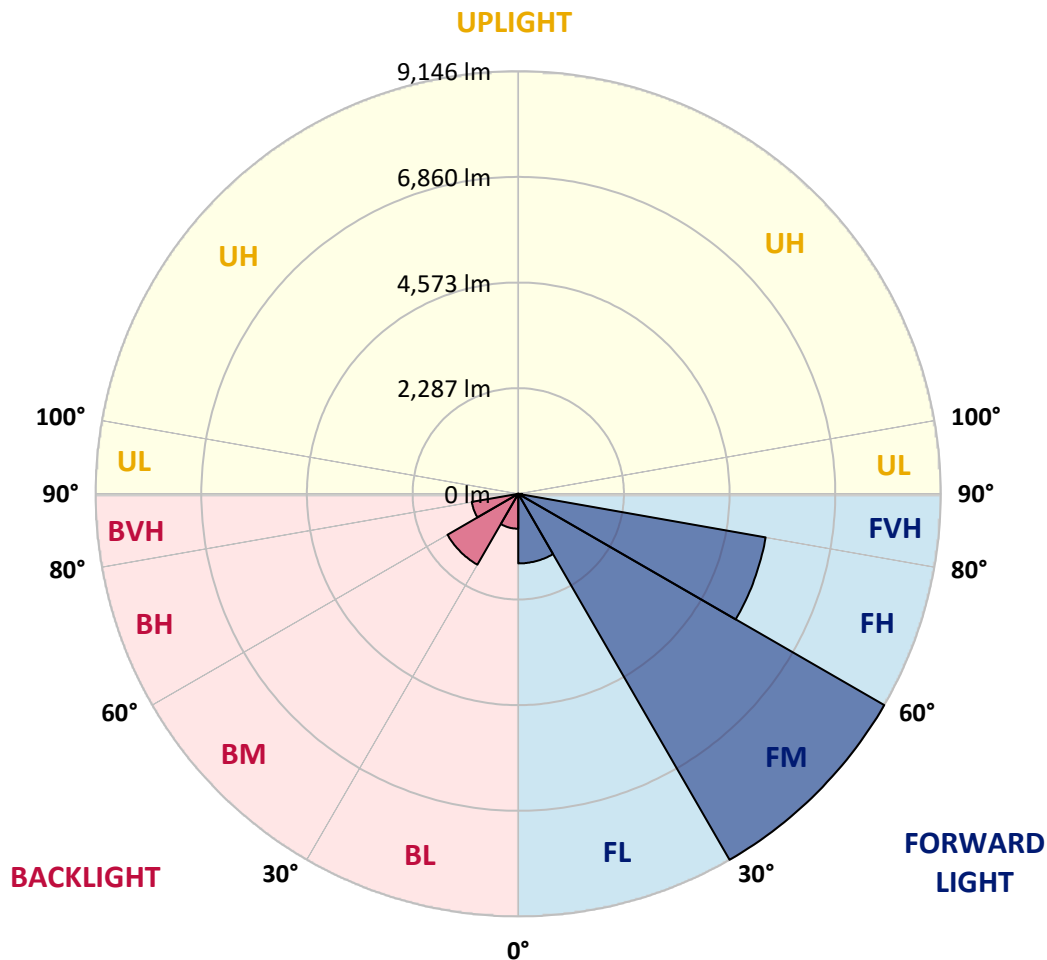
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

| Zone           | Lumens | % Fixture | Zone Rating/Lumen Limit |      |         |
|----------------|--------|-----------|-------------------------|------|---------|
|                |        |           | B                       | U    | G       |
| FL (0°-30°)    | 1506.5 | 7.6       |                         |      |         |
| FM (30°-60°)   | 9146.3 | 46.3      |                         |      |         |
| FH (60°-80°)   | 5436.8 | 27.5      |                         |      | G3/7500 |
| FVH (80°-90°)  | 80.9   | 0.4       |                         |      | G1/100  |
| BL (0°-30°)    | 755.5  | 3.8       | B2/1000                 |      |         |
| BM (30°-60°)   | 1770.3 | 9.0       | B2/2500                 |      |         |
| BH (60°-80°)   | 1021.0 | 5.2       | B3/2500                 |      | G3/2500 |
| BVH (80°-90°)  | 30.4   | 0.2       |                         |      | G1/100  |
| UL (90°-100°)  | 0.0    | 0.0       |                         | U0/0 |         |
| UH (100°-180°) | 0.0    | 0.0       |                         | U0/0 |         |

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

Type II Medium



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**CANDELA DISTRIBUTION (FULL):**

|       | 0°     | 5°     | 15°    | 25°    | 35°    | 45°    | 55°     | 65°     | 75°     | 82°     | 85°     |
|-------|--------|--------|--------|--------|--------|--------|---------|---------|---------|---------|---------|
| 0°    | 3271.5 | 3271.5 | 3271.5 | 3271.5 | 3271.5 | 3271.5 | 3271.5  | 3271.5  | 3271.5  | 3271.5  | 3271.5  |
| 2.5°  | 3457.7 | 3477.7 | 3466.3 | 3460.6 | 3450.7 | 3436.4 | 3425.0  | 3389.6  | 3352.6  | 3328.4  | 3319.9  |
| 5°    | 3527.4 | 3547.3 | 3545.9 | 3551.6 | 3558.7 | 3563.0 | 3560.1  | 3520.4  | 3467.7  | 3426.5  | 3402.3  |
| 7.5°  | 3467.7 | 3490.4 | 3509.0 | 3537.4 | 3587.2 | 3639.8 | 3665.4  | 3656.8  | 3602.8  | 3545.9  | 3516.1  |
| 10°   | 3298.6 | 3322.7 | 3366.8 | 3433.6 | 3538.8 | 3652.6 | 3747.8  | 3791.9  | 3757.8  | 3695.2  | 3654.0  |
| 12.5° | 2988.6 | 3012.8 | 3099.5 | 3244.5 | 3420.8 | 3618.5 | 3800.4  | 3918.5  | 3927.0  | 3864.4  | 3816.1  |
| 15°   | 2640.3 | 2664.4 | 2756.8 | 2938.8 | 3207.5 | 3524.6 | 3828.9  | 4052.0  | 4127.5  | 4073.5  | 4015.1  |
| 17.5° | 2424.1 | 2445.4 | 2515.1 | 2661.6 | 2941.6 | 3336.9 | 3818.9  | 4194.3  | 4366.3  | 4323.7  | 4254.0  |
| 20°   | 2358.7 | 2377.2 | 2409.9 | 2512.3 | 2745.5 | 3142.1 | 3753.6  | 4327.9  | 4623.7  | 4599.5  | 4521.3  |
| 22.5° | 2428.4 | 2445.4 | 2455.4 | 2500.9 | 2647.4 | 3014.2 | 3671.0  | 4464.4  | 4922.3  | 4925.0  | 4829.8  |
| 25°   | 2589.0 | 2606.2 | 2594.8 | 2623.2 | 2687.1 | 2974.3 | 3639.8  | 4625.0  | 5297.5  | 5328.9  | 5220.7  |
| 27.5° | 2853.5 | 2854.9 | 2827.9 | 2826.5 | 2836.5 | 3034.1 | 3672.5  | 4797.1  | 5771.1  | 5829.3  | 5695.6  |
| 30°   | 3383.8 | 3362.5 | 3258.7 | 3146.4 | 3095.2 | 3213.3 | 3763.5  | 5000.4  | 6329.8  | 6433.5  | 6265.8  |
| 32.5° | 4201.4 | 4170.1 | 3979.6 | 3710.8 | 3440.7 | 3501.8 | 3927.0  | 5232.1  | 6938.3  | 7126.0  | 6921.2  |
| 35°   | 5088.5 | 5080.0 | 4880.9 | 4481.4 | 4009.4 | 3912.7 | 4192.9  | 5536.4  | 7602.2  | 7900.8  | 7657.7  |
| 37.5° | 5913.2 | 5908.9 | 5795.1 | 5324.6 | 4750.2 | 4485.7 | 4619.4  | 5934.5  | 8313.2  | 8745.4  | 8458.2  |
| 40°   | 6666.7 | 6679.5 | 6565.7 | 6145.0 | 5566.3 | 5220.7 | 5199.4  | 6426.4  | 9103.6  | 9665.2  | 9324.0  |
| 42.5° | 7317.9 | 7332.1 | 7216.9 | 6905.6 | 6372.4 | 6034.1 | 5911.8  | 7029.2  | 9875.7  | 10653.4 | 10249.6 |
| 45°   | 7760.1 | 7848.2 | 7831.2 | 7582.3 | 7199.9 | 6848.7 | 6767.7  | 7785.7  | 10755.7 | 11701.3 | 11227.8 |
| 47.5° | 7885.2 | 7966.2 | 8094.2 | 8128.4 | 7895.2 | 7549.6 | 7646.3  | 8697.0  | 11645.8 | 12750.5 | 12211.6 |
| 50°   | 7576.7 | 7652.0 | 7917.9 | 8272.0 | 8434.0 | 8327.4 | 8500.8  | 9673.7  | 12557.2 | 13796.9 | 13177.1 |
| 52.5° | 6968.2 | 7044.9 | 7380.5 | 7940.7 | 8601.8 | 8937.3 | 9358.1  | 10636.3 | 13440.1 | 14788.0 | 14091.3 |
| 55°   | 6088.1 | 6169.1 | 6599.9 | 7234.0 | 8281.9 | 9188.9 | 10073.3 | 11597.5 | 14249.0 | 15679.4 | 14915.9 |
| 57.5° | 4890.9 | 4950.6 | 5398.5 | 6285.7 | 7477.2 | 8938.7 | 10600.8 | 12646.8 | 15011.1 | 16555.2 | 15733.4 |
| 60°   | 3187.6 | 3240.2 | 3760.6 | 4750.2 | 6143.5 | 8102.7 | 10706.0 | 13816.9 | 16023.5 | 17694.1 | 16835.3 |
| 62.5° | 2119.9 | 2155.4 | 2463.9 | 3190.5 | 4326.5 | 6497.6 | 10090.4 | 14751.0 | 17507.8 | 19676.0 | 18724.8 |
| 65°   | 1454.5 | 1490.0 | 1798.6 | 2304.7 | 2795.2 | 4298.0 | 8320.2  | 14627.3 | 18852.8 | 21249.9 | 20125.3 |
| 67.5° | 1037.9 | 1067.7 | 1329.3 | 1807.1 | 2023.1 | 2496.7 | 5640.2  | 13046.3 | 18659.4 | 21309.6 | 20200.7 |
| 70°   | 743.6  | 760.7  | 976.7  | 1407.5 | 1608.0 | 1500.0 | 3136.4  | 9978.1  | 16337.7 | 19677.4 | 18662.3 |
| 72.5° | 520.4  | 526.0  | 678.1  | 1072.0 | 1295.3 | 1094.8 | 1492.9  | 6652.6  | 12356.7 | 15444.8 | 14468.1 |
| 75°   | 352.6  | 359.7  | 456.4  | 786.3  | 1039.4 | 836.0  | 790.5   | 3567.2  | 7253.9  | 8549.2  | 7663.4  |
| 77.5° | 216.1  | 218.9  | 294.3  | 537.4  | 777.7  | 636.9  | 509.0   | 1511.4  | 2806.6  | 2755.4  | 2348.8  |
| 80°   | 122.3  | 122.3  | 187.7  | 334.2  | 530.3  | 410.9  | 356.9   | 642.7   | 888.6   | 780.5   | 688.2   |
| 82.5° | 68.3   | 69.7   | 136.5  | 207.6  | 351.2  | 243.1  | 196.2   | 297.1   | 383.9   | 339.8   | 295.7   |
| 85°   | 28.4   | 31.3   | 83.8   | 98.1   | 167.8  | 120.8  | 79.6    | 125.2   | 142.2   | 126.6   | 92.5    |
| 87.5° | 2.9    | 4.3    | 25.6   | 18.4   | 19.9   | 24.2   | 11.4    | 24.2    | 19.9    | 19.9    | 14.2    |
| 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°    | 3271.5  | 3271.5 | 3271.5 | 3271.5 | 3271.5 | 3271.5 | 3271.5 | 3271.5 | 3271.5 | 3271.5 | 3271.5 |
| 2.5°  | 3292.8  | 3271.5 | 3217.5 | 3155.0 | 3072.4 | 3032.7 | 2978.6 | 2941.6 | 2910.4 | 2913.3 | 2884.8 |
| 5°    | 3356.9  | 3302.8 | 3181.9 | 3031.2 | 2843.6 | 2709.9 | 2567.7 | 2469.6 | 2390.0 | 2373.0 | 2334.5 |
| 7.5°  | 3445.0  | 3359.6 | 3147.8 | 2876.3 | 2559.2 | 2319.0 | 2104.2 | 1966.4 | 1868.3 | 1836.9 | 1805.6 |
| 10°   | 3558.7  | 3435.0 | 3103.7 | 2681.5 | 2225.1 | 1919.4 | 1689.1 | 1581.1 | 1514.2 | 1491.5 | 1474.4 |
| 12.5° | 3690.9  | 3521.8 | 3045.5 | 2444.0 | 1881.0 | 1586.7 | 1440.2 | 1386.2 | 1364.9 | 1357.8 | 1353.5 |
| 15°   | 3857.3  | 3629.8 | 2957.3 | 2162.5 | 1589.6 | 1383.4 | 1320.8 | 1313.7 | 1316.6 | 1313.7 | 1312.3 |
| 17.5° | 4054.9  | 3747.8 | 2813.7 | 1872.5 | 1393.4 | 1279.6 | 1256.9 | 1262.5 | 1269.7 | 1268.2 | 1265.4 |
| 20°   | 4271.1  | 3864.4 | 2630.3 | 1615.1 | 1259.7 | 1205.7 | 1192.9 | 1198.5 | 1204.3 | 1201.4 | 1200.0 |
| 22.5° | 4517.0  | 3989.5 | 2427.0 | 1414.7 | 1170.1 | 1137.4 | 1123.2 | 1124.6 | 1124.6 | 1119.0 | 1116.1 |
| 25°   | 4811.3  | 4127.5 | 2213.7 | 1272.5 | 1101.9 | 1076.2 | 1059.2 | 1053.5 | 1045.0 | 1028.0 | 1025.1 |
| 27.5° | 5162.5  | 4273.8 | 2009.0 | 1173.0 | 1047.9 | 1023.7 | 1003.8 | 989.5  | 968.2  | 939.8  | 937.0  |
| 30°   | 5557.8  | 4451.6 | 1835.6 | 1110.4 | 1005.2 | 981.0  | 958.3  | 937.0  | 905.7  | 870.1  | 867.3  |
| 32.5° | 6022.7  | 4642.1 | 1709.0 | 1069.2 | 966.8  | 941.3  | 914.2  | 888.6  | 854.4  | 819.0  | 820.4  |
| 35°   | 6577.1  | 4872.4 | 1635.1 | 1040.8 | 937.0  | 902.8  | 873.0  | 844.5  | 819.0  | 787.7  | 784.8  |
| 37.5° | 7178.6  | 5117.0 | 1612.3 | 1026.5 | 917.1  | 864.5  | 830.4  | 810.4  | 807.6  | 789.0  | 787.7  |
| 40°   | 7836.8  | 5407.1 | 1629.3 | 1018.0 | 895.7  | 827.5  | 790.5  | 786.3  | 793.3  | 760.7  | 762.1  |
| 42.5° | 8533.5  | 5751.1 | 1657.8 | 1008.1 | 865.8  | 790.5  | 755.0  | 755.0  | 749.3  | 703.8  | 703.8  |
| 45°   | 9287.1  | 6147.7 | 1686.2 | 983.9  | 830.4  | 753.6  | 726.5  | 716.6  | 692.4  | 648.3  | 646.9  |
| 47.5° | 10046.3 | 6551.6 | 1707.5 | 939.8  | 787.7  | 722.2  | 698.1  | 675.4  | 639.8  | 600.0  | 598.6  |
| 50°   | 10767.1 | 6914.1 | 1684.8 | 874.4  | 739.3  | 692.4  | 666.9  | 635.5  | 597.2  | 570.1  | 565.9  |
| 52.5° | 11411.2 | 7228.3 | 1588.1 | 797.7  | 688.2  | 661.1  | 638.4  | 605.7  | 574.4  | 545.9  | 543.1  |
| 55°   | 11971.4 | 7482.8 | 1417.5 | 725.1  | 642.7  | 634.1  | 611.4  | 570.1  | 527.5  | 503.3  | 500.5  |
| 57.5° | 12508.8 | 7676.2 | 1204.3 | 665.4  | 601.4  | 604.2  | 570.1  | 533.2  | 493.3  | 467.8  | 464.9  |
| 60°   | 13223.9 | 7934.9 | 988.1  | 610.0  | 557.3  | 565.9  | 528.9  | 501.8  | 452.1  | 419.4  | 415.1  |
| 62.5° | 14367.1 | 8337.3 | 784.8  | 541.7  | 506.1  | 509.0  | 493.3  | 460.6  | 401.0  | 362.5  | 359.7  |
| 65°   | 15274.1 | 8189.4 | 618.5  | 467.8  | 447.8  | 452.1  | 452.1  | 416.6  | 352.6  | 308.5  | 304.2  |
| 67.5° | 15171.8 | 7012.2 | 493.3  | 395.2  | 392.4  | 395.2  | 405.2  | 375.4  | 312.8  | 277.3  | 271.5  |
| 70°   | 13976.1 | 5577.6 | 395.2  | 328.4  | 341.2  | 334.2  | 362.5  | 342.7  | 281.5  | 246.0  | 241.7  |
| 72.5° | 11404.2 | 4018.0 | 301.5  | 271.5  | 261.6  | 273.0  | 327.0  | 308.5  | 234.6  | 194.7  | 190.5  |
| 75°   | 6663.9  | 2144.1 | 224.7  | 214.7  | 189.1  | 227.4  | 290.1  | 263.0  | 179.2  | 143.6  | 139.3  |
| 77.5° | 2169.6  | 747.8  | 164.9  | 157.8  | 140.7  | 183.4  | 247.4  | 221.8  | 146.5  | 113.8  | 109.5  |
| 80°   | 581.5   | 226.0  | 112.3  | 103.8  | 91.0   | 136.5  | 196.2  | 176.3  | 105.2  | 73.9   | 72.5   |
| 82.5° | 233.2   | 95.2   | 65.4   | 58.3   | 49.7   | 93.8   | 155.0  | 142.2  | 78.2   | 46.9   | 46.9   |
| 85°   | 75.3    | 31.3   | 24.2   | 18.4   | 22.8   | 58.3   | 92.5   | 96.7   | 55.5   | 24.2   | 18.4   |
| 87.5° | 9.9     | 4.3    | 4.3    | 5.6    | 4.3    | 9.9    | 28.4   | 27.1   | 15.7   | 2.9    | 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)