

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: P966644

Luminaire Tested: **NAV-SB4C-730-U-T2-HSS**

Issue Date: 1/21/2025

**Test Information**

Test Method: LM-79-08  
Report Number: P966644  
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-SB4C-730-U-T2-HSS  
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE  
(4) 70 CRI, 3000K, 615mA 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: 22464.9 lumens  
Efficiency: N/A  
Efficacy: 111.9 lumens/watt  
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')  
IES Classification: Type II - Medium  
BUG Rating: B3 - U0 - G3

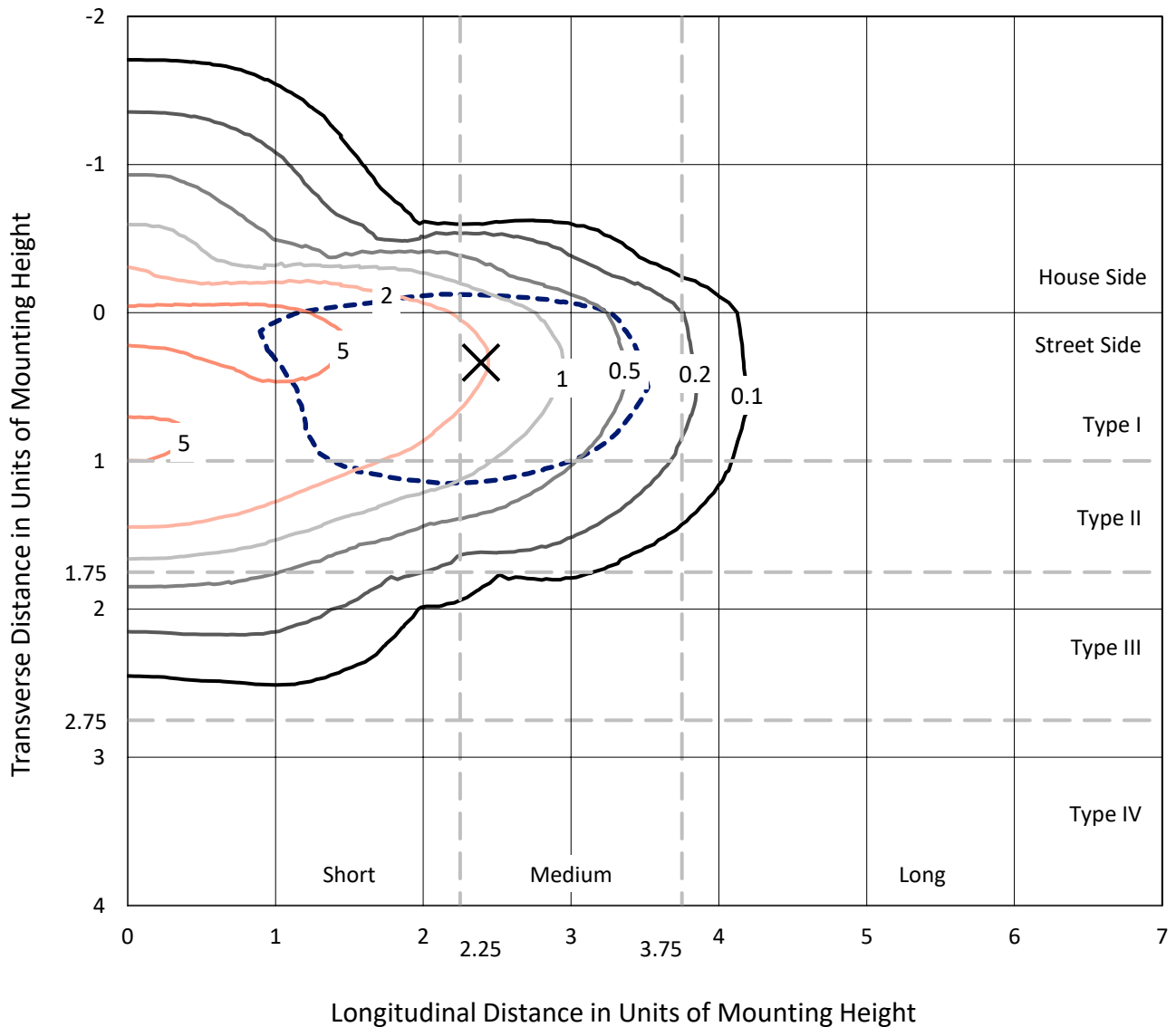
Input Watts (W): 200.7  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 24 FT



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### Iso-Footcandle Lines of Horizontal Illumination

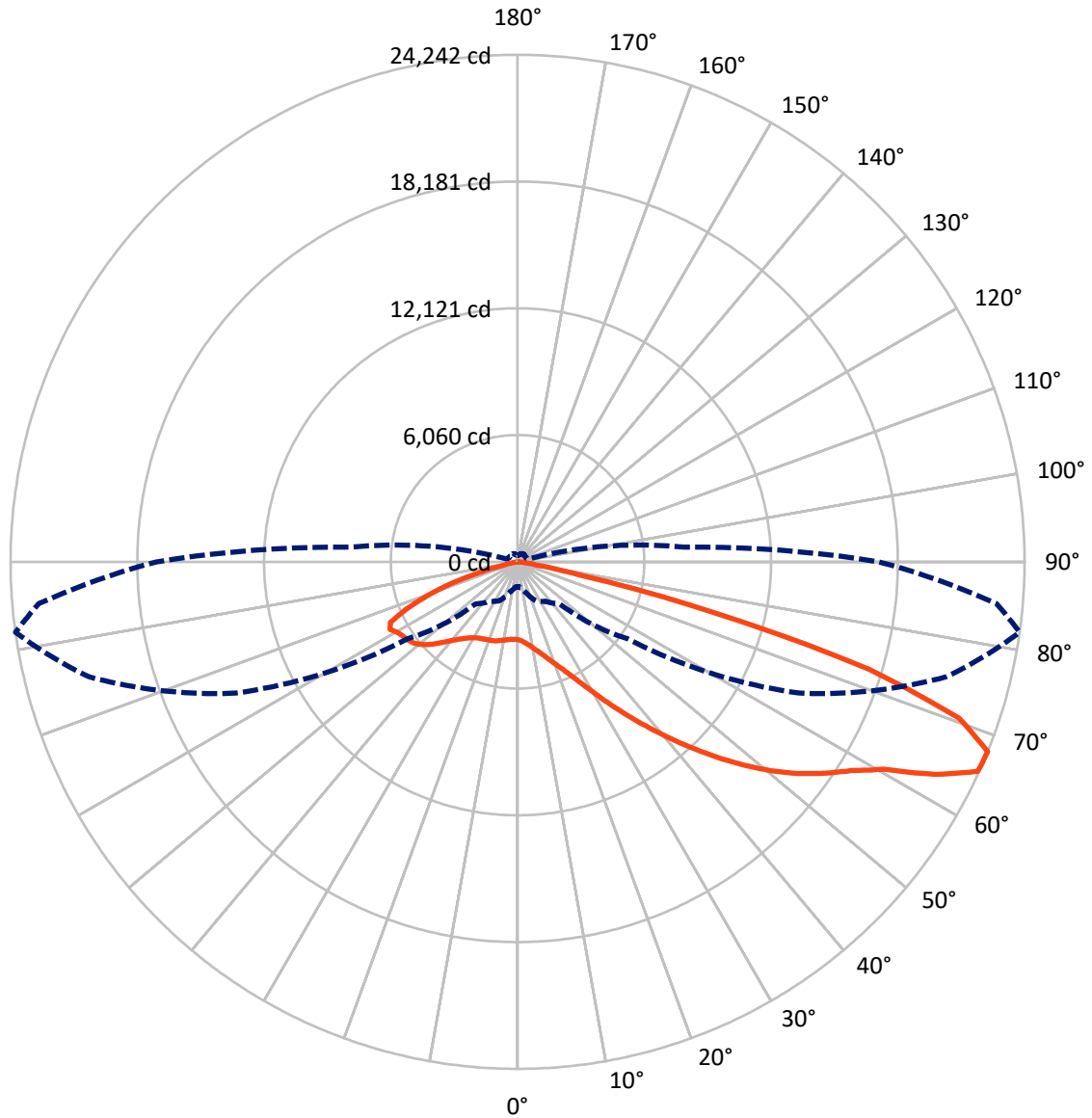
× Max cd  
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 7.9 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    | 4069.3   | 0.0    | 4069.3  |
|                    | % Fixture | 18.1     | 0.0    | 18.1    |
| <b>Street Side</b> | Lumens    | 18395.6  | 0.0    | 18395.6 |
|                    | % Fixture | 81.9     | 0.0    | 81.9    |
| <b>Total</b>       | Lumens    | 22464.9  | 0.0    | 22464.9 |
|                    | % Fixture | 100.0    | 0.0    | 100.0   |

**ZONAL LUMENS:**

| Zone      | Lumens  | % Fixture |
|-----------|---------|-----------|
| 0°-10°    | 331.6   | 1.5       |
| 10°-20°   | 861.6   | 3.8       |
| 20°-30°   | 1380.1  | 6.1       |
| 30°-40°   | 2440.4  | 10.9      |
| 40°-50°   | 4275.7  | 19.0      |
| 50°-60°   | 5702.6  | 25.4      |
| 60°-70°   | 5308.9  | 23.6      |
| 70°-80°   | 2037.5  | 9.1       |
| 80°-90°   | 126.6   | 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°    | 22464.9 | 100.0     |
| 0°-180°   | 22464.9 | 100.0     |

**Coefficient of Utilization**



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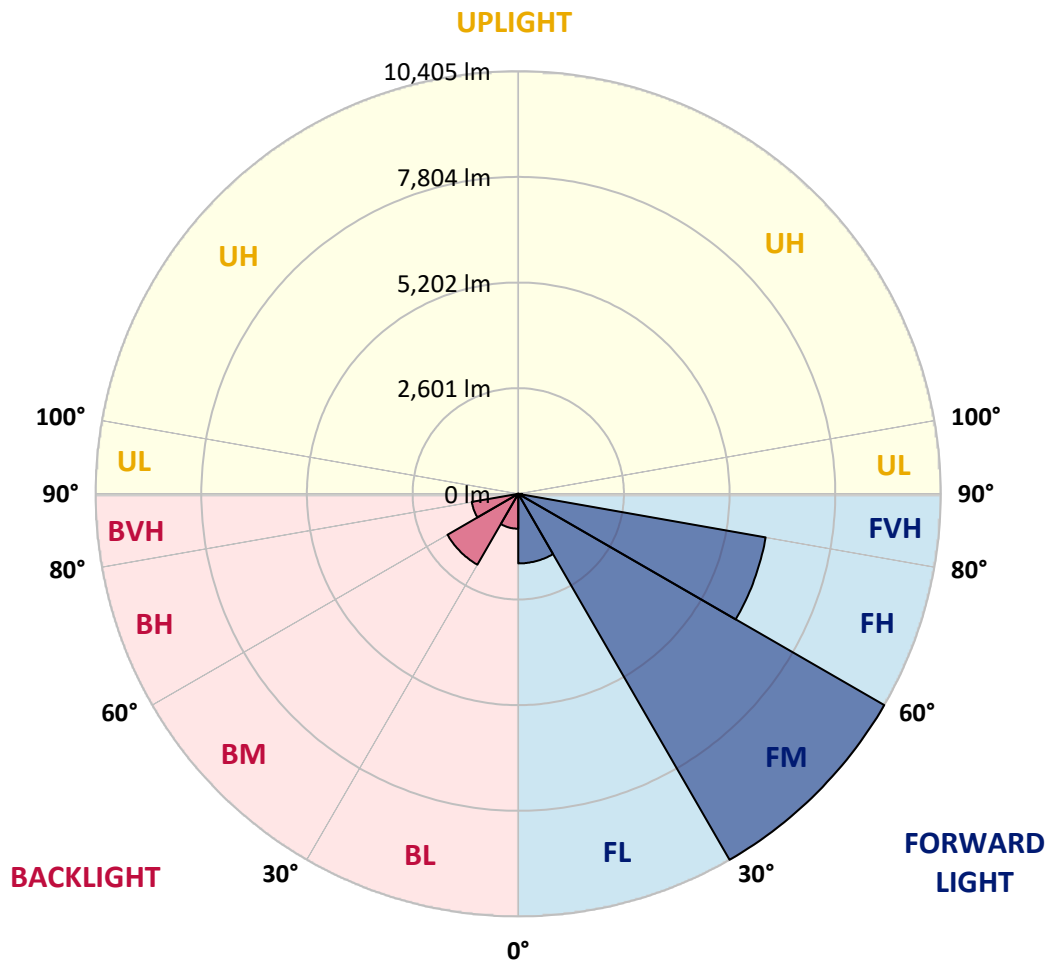
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

| Zone           | Lumens  | % Fixture | Zone Rating/Lumen Limit |      |         |
|----------------|---------|-----------|-------------------------|------|---------|
|                |         |           | B                       | U    | G       |
| FL (0°-30°)    | 1713.8  | 7.6       |                         |      |         |
| FM (30°-60°)   | 10404.8 | 46.3      |                         |      |         |
| FH (60°-80°)   | 6184.9  | 27.5      |                         |      | G3/7500 |
| FVH (80°-90°)  | 92.0    | 0.4       |                         |      | G1/100  |
| BL (0°-30°)    | 859.4   | 3.8       | B2/1000                 |      |         |
| BM (30°-60°)   | 2013.9  | 9.0       | B2/2500                 |      |         |
| BH (60°-80°)   | 1161.5  | 5.2       | B3/2500                 |      | G3/2500 |
| BVH (80°-90°)  | 34.5    | 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°    | 3721.7 | 3721.7 | 3721.7 | 3721.7 | 3721.7 | 3721.7  | 3721.7  | 3721.7  | 3721.7  | 3721.7  | 3721.7  |
| 2.5°  | 3933.5 | 3956.2 | 3943.3 | 3936.8 | 3925.4 | 3909.2  | 3896.3  | 3855.9  | 3813.8  | 3786.3  | 3776.7  |
| 5°    | 4012.8 | 4035.4 | 4033.9 | 4040.3 | 4048.4 | 4053.3  | 4050.0  | 4004.7  | 3944.9  | 3898.0  | 3870.5  |
| 7.5°  | 3944.9 | 3970.7 | 3991.8 | 4024.2 | 4080.7 | 4140.6  | 4169.7  | 4160.0  | 4098.6  | 4033.9  | 3999.9  |
| 10°   | 3752.4 | 3779.9 | 3830.0 | 3906.1 | 4025.8 | 4155.1  | 4263.5  | 4313.6  | 4274.9  | 4203.6  | 4156.8  |
| 12.5° | 3399.8 | 3427.3 | 3526.0 | 3690.9 | 3891.5 | 4116.3  | 4323.3  | 4457.6  | 4467.3  | 4396.1  | 4341.2  |
| 15°   | 3003.6 | 3031.0 | 3136.2 | 3343.2 | 3648.9 | 4009.6  | 4355.7  | 4609.6  | 4695.3  | 4633.9  | 4567.6  |
| 17.5° | 2757.7 | 2782.0 | 2861.2 | 3027.8 | 3346.4 | 3796.1  | 4344.4  | 4771.4  | 4967.0  | 4918.6  | 4839.3  |
| 20°   | 2683.2 | 2704.4 | 2741.6 | 2858.0 | 3123.3 | 3574.5  | 4269.9  | 4923.4  | 5259.9  | 5232.3  | 5143.3  |
| 22.5° | 2762.6 | 2782.0 | 2793.3 | 2845.0 | 3011.7 | 3428.9  | 4176.2  | 5078.7  | 5599.5  | 5602.8  | 5494.4  |
| 25°   | 2945.3 | 2964.7 | 2951.8 | 2984.2 | 3057.0 | 3383.6  | 4140.6  | 5261.4  | 6026.5  | 6062.1  | 5939.2  |
| 27.5° | 3246.2 | 3247.8 | 3217.1 | 3215.4 | 3226.7 | 3451.6  | 4177.8  | 5457.2  | 6565.1  | 6631.4  | 6479.3  |
| 30°   | 3849.5 | 3825.2 | 3707.1 | 3579.3 | 3521.1 | 3655.4  | 4281.3  | 5688.4  | 7200.7  | 7318.8  | 7128.0  |
| 32.5° | 4779.5 | 4743.9 | 4527.1 | 4221.5 | 3914.2 | 3983.7  | 4467.3  | 5952.1  | 7893.0  | 8106.5  | 7873.5  |
| 35°   | 5788.7 | 5779.1 | 5552.6 | 5098.1 | 4561.1 | 4451.2  | 4769.7  | 6298.2  | 8648.3  | 8988.0  | 8711.4  |
| 37.5° | 6726.9 | 6722.0 | 6592.6 | 6057.2 | 5403.8 | 5103.0  | 5255.0  | 6751.1  | 9457.1  | 9948.8  | 9622.0  |
| 40°   | 7584.1 | 7598.6 | 7469.3 | 6990.5 | 6332.1 | 5939.2  | 5914.9  | 7310.7  | 10356.3 | 10995.2 | 10607.0 |
| 42.5° | 8324.8 | 8341.0 | 8210.0 | 7855.8 | 7249.3 | 6864.3  | 6725.2  | 7996.5  | 11234.6 | 12119.3 | 11660.0 |
| 45°   | 8827.9 | 8928.2 | 8908.7 | 8625.7 | 8190.6 | 7791.1  | 7698.9  | 8857.0  | 12235.7 | 13311.4 | 12772.7 |
| 47.5° | 8970.2 | 9062.4 | 9208.0 | 9246.7 | 8981.6 | 8588.5  | 8698.5  | 9893.7  | 13248.2 | 14505.0 | 13892.0 |
| 50°   | 8619.2 | 8704.9 | 9007.4 | 9410.1 | 9594.5 | 9473.3  | 9670.6  | 11004.9 | 14285.0 | 15695.4 | 14990.2 |
| 52.5° | 7926.9 | 8014.3 | 8396.0 | 9033.3 | 9785.4 | 10167.1 | 10645.9 | 12099.9 | 15289.4 | 16822.7 | 16030.2 |
| 55°   | 6925.8 | 7018.0 | 7508.0 | 8229.4 | 9421.5 | 10453.4 | 11459.4 | 13193.3 | 16209.8 | 17836.8 | 16968.4 |
| 57.5° | 5563.9 | 5631.9 | 6141.3 | 7150.6 | 8506.0 | 10168.7 | 12059.4 | 14386.9 | 17076.7 | 18833.2 | 17898.3 |
| 60°   | 3626.2 | 3686.1 | 4278.0 | 5403.8 | 6988.9 | 9217.6  | 12179.2 | 15718.1 | 18228.3 | 20128.7 | 19151.8 |
| 62.5° | 2411.6 | 2452.0 | 2803.0 | 3629.5 | 4921.8 | 7391.6  | 11478.8 | 16780.7 | 19916.9 | 22383.4 | 21301.3 |
| 65°   | 1654.7 | 1695.0 | 2046.0 | 2621.8 | 3179.9 | 4889.5  | 9465.2  | 16640.0 | 21447.0 | 24173.9 | 22894.5 |
| 67.5° | 1180.7 | 1214.7 | 1512.3 | 2055.7 | 2301.5 | 2840.2  | 6416.3  | 14841.4 | 21227.0 | 24241.9 | 22980.3 |
| 70°   | 845.9  | 865.3  | 1111.2 | 1601.3 | 1829.3 | 1706.4  | 3568.0  | 11351.1 | 18585.7 | 22385.1 | 21230.2 |
| 72.5° | 591.9  | 598.4  | 771.5  | 1219.5 | 1473.4 | 1245.4  | 1698.3  | 7567.9  | 14057.0 | 17570.0 | 16458.8 |
| 75°   | 401.1  | 409.2  | 519.2  | 894.4  | 1182.3 | 951.0   | 899.3   | 4058.1  | 8252.1  | 9725.5  | 8717.8  |
| 77.5° | 245.9  | 249.1  | 334.8  | 611.4  | 884.7  | 724.6   | 579.0   | 1719.3  | 3192.8  | 3134.6  | 2672.0  |
| 80°   | 139.1  | 139.1  | 213.5  | 380.1  | 603.3  | 467.4   | 406.0   | 731.0   | 1010.9  | 888.0   | 782.8   |
| 82.5° | 77.6   | 79.2   | 155.3  | 236.2  | 399.5  | 276.5   | 223.2   | 338.0   | 436.8   | 386.5   | 336.4   |
| 85°   | 32.4   | 35.6   | 95.4   | 111.6  | 190.9  | 137.5   | 90.6    | 142.4   | 161.7   | 143.9   | 105.2   |
| 87.5° | 3.3    | 4.8    | 29.1   | 21.0   | 22.7   | 27.5    | 12.9    | 27.5    | 22.7    | 22.7    | 16.2    |
| 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°    | 3721.7  | 3721.7 | 3721.7 | 3721.7 | 3721.7 | 3721.7 | 3721.7 | 3721.7 | 3721.7 | 3721.7 | 3721.7 |
| 2.5°  | 3746.0  | 3721.7 | 3660.2 | 3589.0 | 3495.2 | 3449.9 | 3388.4 | 3346.4 | 3310.9 | 3314.1 | 3281.7 |
| 5°    | 3818.7  | 3757.2 | 3619.8 | 3448.3 | 3234.8 | 3082.8 | 2921.0 | 2809.4 | 2718.9 | 2699.4 | 2655.8 |
| 7.5°  | 3919.0  | 3821.9 | 3580.9 | 3272.0 | 2911.3 | 2638.0 | 2393.8 | 2236.9 | 2125.3 | 2089.7 | 2054.1 |
| 10°   | 4048.4  | 3907.7 | 3530.8 | 3050.4 | 2531.2 | 2183.6 | 1921.5 | 1798.6 | 1722.5 | 1696.7 | 1677.3 |
| 12.5° | 4198.8  | 4006.3 | 3464.5 | 2780.3 | 2139.9 | 1805.0 | 1638.5 | 1577.0 | 1552.7 | 1544.7 | 1539.8 |
| 15°   | 4388.0  | 4129.3 | 3364.3 | 2460.1 | 1808.3 | 1573.8 | 1502.5 | 1494.4 | 1497.7 | 1494.4 | 1492.9 |
| 17.5° | 4612.9  | 4263.5 | 3200.9 | 2130.2 | 1585.1 | 1455.7 | 1429.8 | 1436.2 | 1444.3 | 1442.7 | 1439.5 |
| 20°   | 4858.7  | 4396.1 | 2992.2 | 1837.4 | 1433.1 | 1371.6 | 1357.0 | 1363.5 | 1369.9 | 1366.7 | 1365.1 |
| 22.5° | 5138.5  | 4538.5 | 2760.9 | 1609.4 | 1331.2 | 1294.0 | 1277.8 | 1279.4 | 1279.4 | 1272.9 | 1269.7 |
| 25°   | 5473.3  | 4695.3 | 2518.3 | 1447.6 | 1253.5 | 1224.4 | 1205.0 | 1198.5 | 1188.8 | 1169.4 | 1166.1 |
| 27.5° | 5872.8  | 4862.0 | 2285.4 | 1334.3 | 1192.1 | 1164.5 | 1141.8 | 1125.8 | 1101.5 | 1069.1 | 1065.9 |
| 30°   | 6322.5  | 5064.1 | 2088.1 | 1263.2 | 1143.5 | 1116.0 | 1090.2 | 1065.9 | 1030.3 | 989.8  | 986.7  |
| 32.5° | 6851.4  | 5280.9 | 1944.1 | 1216.3 | 1099.8 | 1070.7 | 1040.0 | 1010.9 | 972.1  | 931.6  | 933.3  |
| 35°   | 7482.2  | 5542.9 | 1860.1 | 1184.0 | 1065.9 | 1027.0 | 993.1  | 960.7  | 931.6  | 896.1  | 892.8  |
| 37.5° | 8166.4  | 5821.1 | 1834.1 | 1167.8 | 1043.2 | 983.4  | 944.5  | 921.9  | 918.7  | 897.7  | 896.1  |
| 40°   | 8915.2  | 6151.0 | 1853.6 | 1158.0 | 1019.0 | 941.4  | 899.3  | 894.4  | 902.5  | 865.3  | 866.9  |
| 42.5° | 9707.8  | 6542.5 | 1885.9 | 1146.8 | 985.0  | 899.3  | 858.8  | 858.8  | 852.4  | 800.6  | 800.6  |
| 45°   | 10565.0 | 6993.7 | 1918.3 | 1119.3 | 944.5  | 857.2  | 826.5  | 815.2  | 787.7  | 737.6  | 735.9  |
| 47.5° | 11428.6 | 7453.1 | 1942.5 | 1069.1 | 896.1  | 821.6  | 794.2  | 768.2  | 727.9  | 682.5  | 680.9  |
| 50°   | 12248.7 | 7865.5 | 1916.6 | 994.8  | 841.0  | 787.7  | 758.6  | 723.0  | 679.3  | 648.6  | 643.7  |
| 52.5° | 12981.4 | 8223.0 | 1806.7 | 907.3  | 782.8  | 752.1  | 726.2  | 689.0  | 653.4  | 621.0  | 617.9  |
| 55°   | 13618.7 | 8512.4 | 1612.5 | 824.9  | 731.0  | 721.4  | 695.5  | 648.6  | 600.0  | 572.6  | 569.3  |
| 57.5° | 14230.1 | 8732.5 | 1369.9 | 757.0  | 684.2  | 687.4  | 648.6  | 606.5  | 561.3  | 532.2  | 528.9  |
| 60°   | 15043.6 | 9026.8 | 1124.1 | 693.8  | 634.1  | 643.7  | 601.7  | 570.9  | 514.3  | 477.1  | 472.3  |
| 62.5° | 16344.0 | 9484.5 | 892.8  | 616.2  | 575.8  | 579.0  | 561.3  | 524.1  | 456.1  | 412.5  | 409.2  |
| 65°   | 17375.9 | 9316.3 | 703.6  | 532.2  | 509.5  | 514.3  | 514.3  | 473.9  | 401.1  | 351.0  | 346.1  |
| 67.5° | 17259.5 | 7977.1 | 561.3  | 449.7  | 446.4  | 449.7  | 460.9  | 427.0  | 355.9  | 315.4  | 308.9  |
| 70°   | 15899.2 | 6345.2 | 449.7  | 373.6  | 388.2  | 380.1  | 412.5  | 389.8  | 320.2  | 279.8  | 275.0  |
| 72.5° | 12973.3 | 4570.8 | 342.9  | 308.9  | 297.6  | 310.6  | 372.0  | 351.0  | 266.9  | 221.6  | 216.7  |
| 75°   | 7580.8  | 2439.1 | 255.5  | 244.3  | 215.1  | 258.8  | 329.9  | 299.2  | 203.8  | 163.4  | 158.5  |
| 77.5° | 2468.2  | 850.7  | 187.6  | 179.6  | 160.1  | 208.7  | 281.5  | 252.4  | 166.6  | 129.4  | 124.5  |
| 80°   | 661.5   | 257.2  | 127.8  | 118.1  | 103.5  | 155.3  | 223.2  | 200.6  | 119.7  | 84.2   | 82.5   |
| 82.5° | 265.3   | 108.3  | 74.4   | 66.3   | 56.6   | 106.7  | 176.3  | 161.7  | 89.0   | 53.4   | 53.4   |
| 85°   | 85.7    | 35.6   | 27.5   | 21.0   | 25.8   | 66.3   | 105.2  | 110.0  | 63.0   | 27.5   | 21.0   |
| 87.5° | 11.3    | 4.8    | 4.8    | 6.5    | 4.8    | 11.3   | 32.4   | 30.7   | 17.8   | 3.3    | 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)