

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: P969999

Luminaire Tested: **NAV-SB6A-830-U-T3R-HSS**

Issue Date: 1/21/2025

**Test Information**

Test Method: LM-79-08  
Report Number: P969999  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2411-289-6)  
Test Lab: INNOVATION CENTER  
Issue Date: 1/21/2025  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: LUMARK  
Catalog Number: NAV-SB6A-830-U-T3R-HSS  
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE  
(6) 80 CRI, 3000K, 350mA LIGHTSQUARES WITH 26 LEDS EACH AND TYPE III  
ROADWAY OPTICS WITH HOUSE SIDE SHIELD  
Light Source: -  
Ballast/Driver: -

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 20857.7 lumens  
Efficiency: N/A  
Efficacy: 122.0 lumens/watt  
Luminous Opening: Rectangular (W 1.5' x L: 1' x H: 0')  
IES Classification: Type III - Medium  
BUG Rating: B2 - U0 - G4

Input Watts (W): 170.9  
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



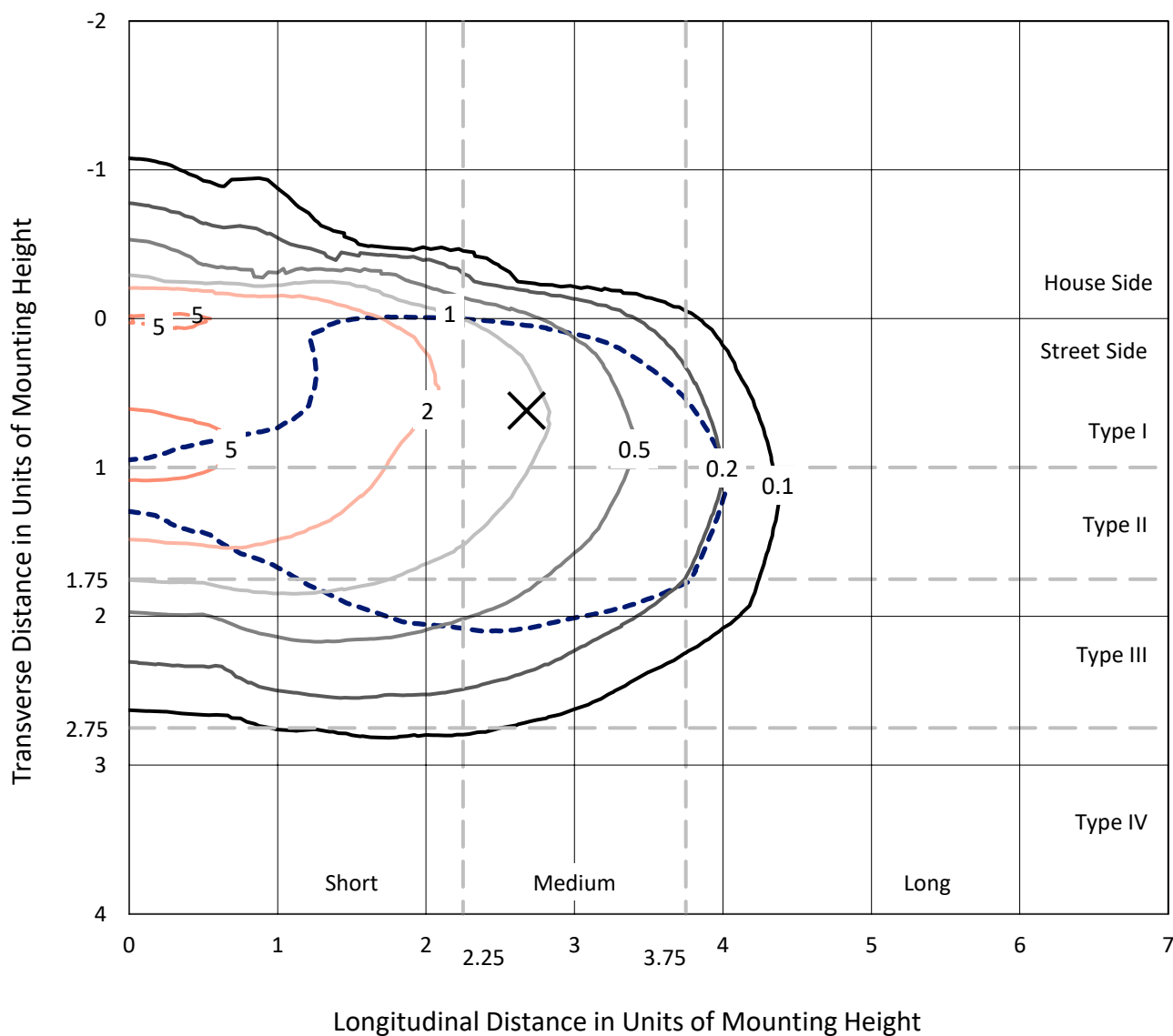
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## Iso-Footcandle Lines of Horizontal Illumination

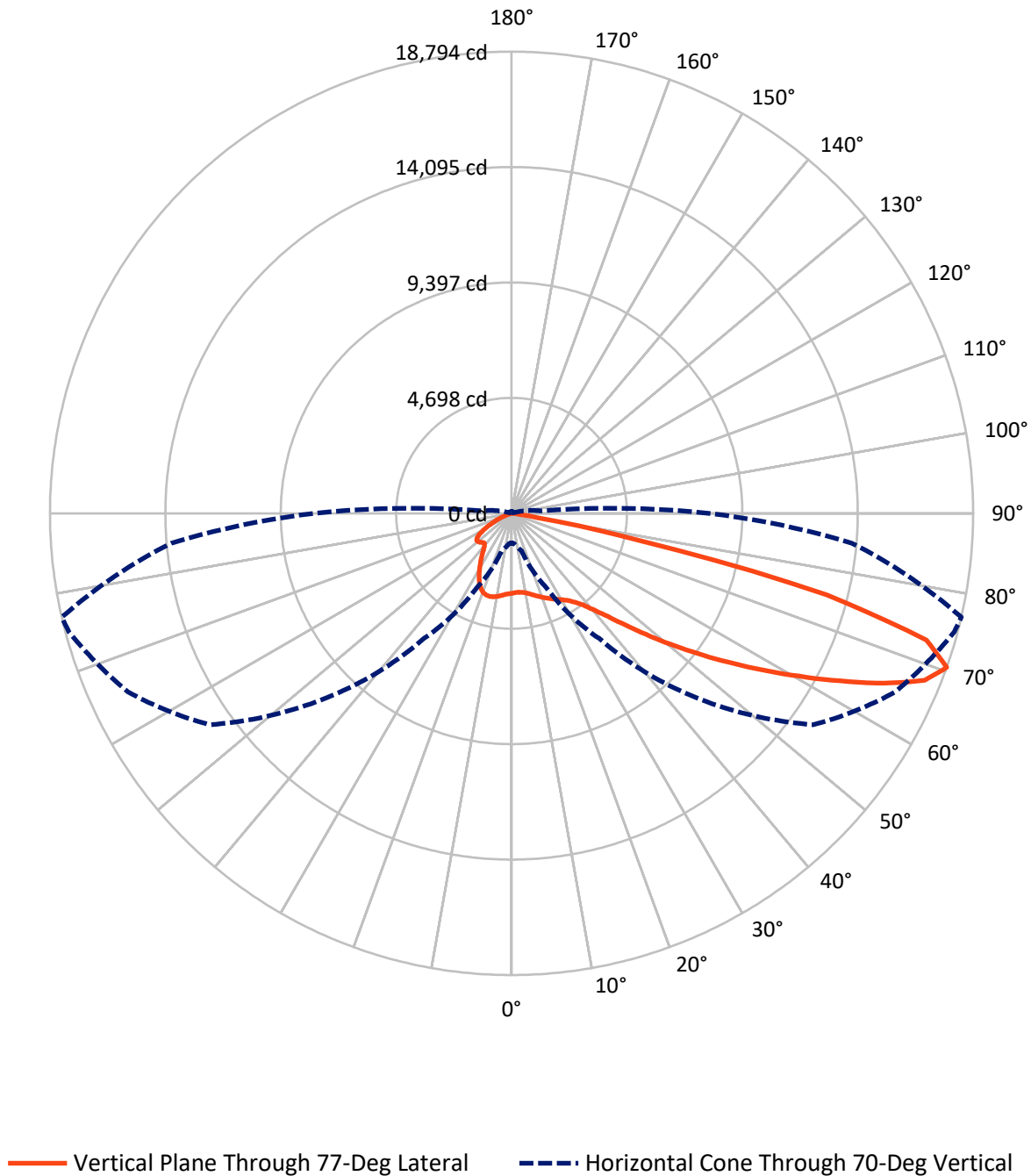
× Max cd

--- 1/2 Max cd



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## Luminous Intensity Polar Plot



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**FLUX DISTRIBUTION:**

|                    |           | Downward | Upward | Total   |
|--------------------|-----------|----------|--------|---------|
| <b>House Side</b>  | Lumens    | 2198.7   | 0.0    | 2198.7  |
|                    | % Fixture | 10.5     | 0.0    | 10.5    |
| <b>Street Side</b> | Lumens    | 18659.0  | 0.0    | 18659.0 |
|                    | % Fixture | 89.5     | 0.0    | 89.5    |
| <b>Total</b>       | Lumens    | 20857.7  | 0.0    | 20857.7 |
|                    | % Fixture | 100.0    | 0.0    | 100.0   |

**ZONAL LUMENS:**

| Zone      | Lumens  | % Fixture |
|-----------|---------|-----------|
| 0°-10°    | 280.4   | 1.3       |
| 10°-20°   | 665.6   | 3.2       |
| 20°-30°   | 1029.5  | 4.9       |
| 30°-40°   | 1868.1  | 9.0       |
| 40°-50°   | 3526.3  | 16.9      |
| 50°-60°   | 5095.3  | 24.4      |
| 60°-70°   | 5423.8  | 26.0      |
| 70°-80°   | 2874.2  | 13.8      |
| 80°-90°   | 94.4    | 0.5       |
| 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°    | 20857.7 | 100.0     |
| 0°-180°   | 20857.7 | 100.0     |

**Coefficient of Utilization**



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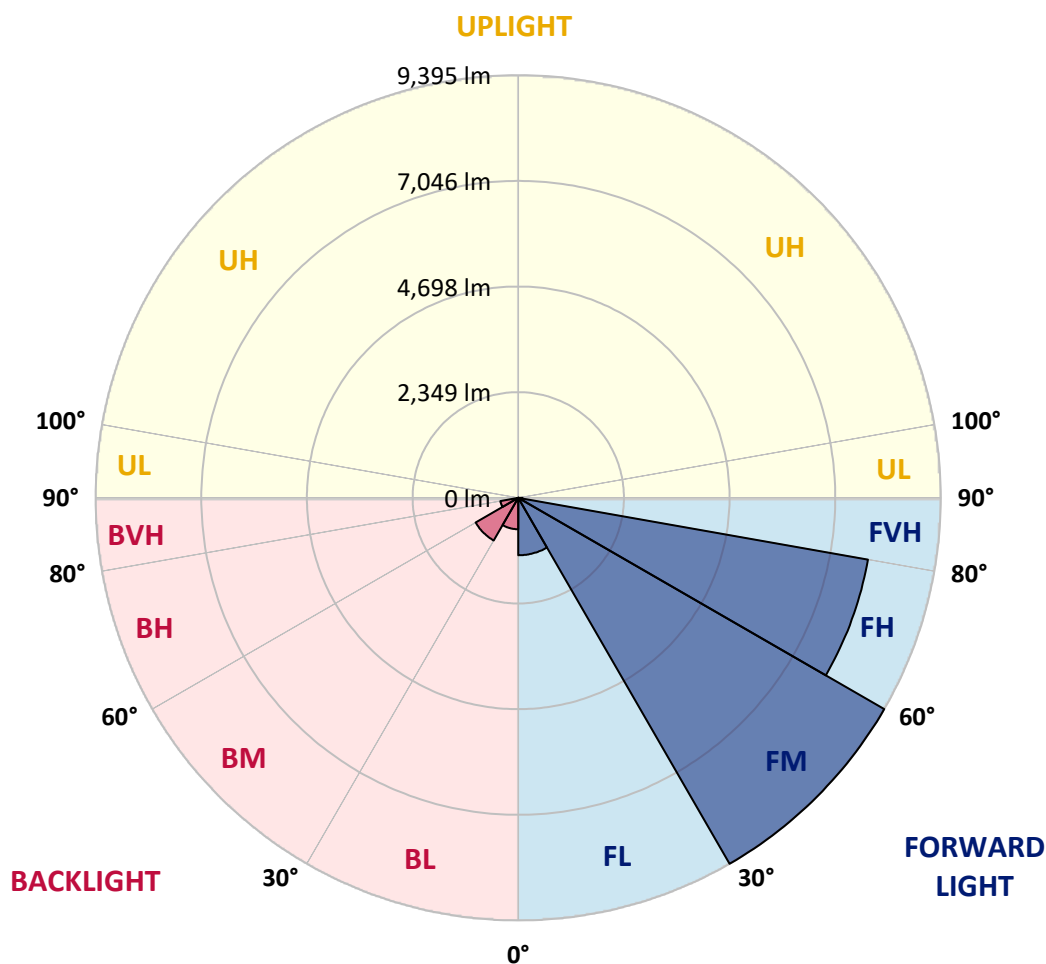
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

| Zone |             | Lumens | % Fixture | Zone Rating/Lumen Limit |      |          |
|------|-------------|--------|-----------|-------------------------|------|----------|
|      |             |        |           | B                       | U    | G        |
| FL   | (0°-30°)    | 1277.0 | 6.1       |                         |      |          |
| FM   | (30°-60°)   | 9395.3 | 45.0      |                         |      |          |
| FH   | (60°-80°)   | 7894.9 | 37.9      |                         |      | G4/12000 |
| FVH  | (80°-90°)   | 91.8   | 0.4       |                         |      | G1/100   |
| BL   | (0°-30°)    | 698.6  | 3.3       | B2/1000                 |      |          |
| BM   | (30°-60°)   | 1094.5 | 5.2       | B2/2500                 |      |          |
| BH   | (60°-80°)   | 403.1  | 1.9       | B1/500                  |      | G1/500   |
| BVH  | (80°-90°)   | 2.5    | 0.0       |                         |      | G0/10    |
| UL   | (90°-100°)  | 0.0    | 0.0       |                         | U0/0 |          |
| UH   | (100°-180°) | 0.0    | 0.0       |                         | U0/0 |          |

**BUG Rating: B2-U0-G4**

Type III Medium



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**CANDELA DISTRIBUTION (FULL):**

|       | 0°      | 5°      | 15°     | 25°     | 35°     | 45°     | 55°     | 65°     | 75°     | 77°     | 85°     |
|-------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|
| 0°    | 3253.5  | 3253.5  | 3253.5  | 3253.5  | 3253.5  | 3253.5  | 3253.5  | 3253.5  | 3253.5  | 3253.5  | 3253.5  |
| 2.5°  | 3054.5  | 3082.2  | 3078.3  | 3096.7  | 3103.3  | 3129.6  | 3156.0  | 3191.5  | 3231.0  | 3229.7  | 3256.0  |
| 5°    | 2882.0  | 2909.7  | 2916.2  | 2941.2  | 2972.9  | 3013.7  | 3067.7  | 3138.9  | 3212.6  | 3224.4  | 3277.1  |
| 7.5°  | 2677.8  | 2706.8  | 2723.9  | 2774.0  | 2832.0  | 2916.2  | 3004.5  | 3108.5  | 3231.0  | 3248.1  | 3349.6  |
| 10°   | 2473.6  | 2500.0  | 2522.4  | 2593.6  | 2685.7  | 2810.9  | 2954.5  | 3104.6  | 3269.2  | 3294.2  | 3437.8  |
| 12.5° | 2347.2  | 2372.3  | 2397.3  | 2459.2  | 2573.8  | 2726.6  | 2921.5  | 3123.1  | 3332.5  | 3368.0  | 3557.7  |
| 15°   | 2302.5  | 2324.8  | 2344.6  | 2399.9  | 2506.6  | 2680.5  | 2914.9  | 3161.2  | 3412.8  | 3460.2  | 3702.6  |
| 17.5° | 2309.0  | 2320.9  | 2334.0  | 2376.2  | 2480.3  | 2659.4  | 2926.8  | 3227.1  | 3507.7  | 3549.8  | 3847.4  |
| 20°   | 2347.2  | 2353.8  | 2355.1  | 2384.0  | 2476.3  | 2656.7  | 2950.5  | 3290.4  | 3597.2  | 3653.8  | 3991.0  |
| 22.5° | 2395.9  | 2398.6  | 2395.9  | 2415.7  | 2501.3  | 2676.5  | 2982.1  | 3366.7  | 3697.3  | 3750.0  | 4136.0  |
| 25°   | 2623.8  | 2573.8  | 2510.5  | 2472.3  | 2543.4  | 2714.7  | 3029.5  | 3469.4  | 3806.6  | 3858.0  | 4276.9  |
| 27.5° | 3331.1  | 3187.5  | 2961.0  | 2706.8  | 2630.4  | 2770.1  | 3095.4  | 3573.5  | 3917.2  | 3963.4  | 4428.3  |
| 30°   | 4479.8  | 4291.4  | 3906.8  | 3333.8  | 2909.7  | 2885.9  | 3181.0  | 3677.6  | 4034.5  | 4084.5  | 4590.4  |
| 32.5° | 5630.9  | 5584.8  | 5141.0  | 4348.0  | 3537.9  | 3144.1  | 3323.3  | 3818.5  | 4189.9  | 4229.5  | 4809.0  |
| 35°   | 6795.3  | 6701.8  | 6338.3  | 5554.6  | 4506.1  | 3669.7  | 3560.3  | 4002.9  | 4394.1  | 4438.9  | 5127.8  |
| 37.5° | 7687.1  | 7630.4  | 7405.2  | 6759.8  | 5654.6  | 4481.0  | 3966.0  | 4288.7  | 4690.5  | 4740.5  | 5536.1  |
| 40°   | 8474.7  | 8448.4  | 8372.0  | 7946.5  | 6938.8  | 5542.7  | 4596.9  | 4731.3  | 5101.4  | 5160.7  | 6036.6  |
| 42.5° | 9093.8  | 9155.7  | 9199.2  | 9080.6  | 8262.6  | 6754.4  | 5445.2  | 5353.0  | 5674.4  | 5735.0  | 6674.2  |
| 45°   | 9727.4  | 9748.5  | 9923.6  | 10094.8 | 9577.2  | 8021.6  | 6401.4  | 6081.4  | 6387.0  | 6462.1  | 7438.1  |
| 47.5° | 10134.4 | 10218.6 | 10526.9 | 10828.5 | 10682.3 | 9278.2  | 7428.9  | 6941.5  | 7212.8  | 7353.8  | 8294.3  |
| 50°   | 10164.6 | 10324.0 | 10748.2 | 11273.8 | 11487.1 | 10474.2 | 8545.8  | 7921.5  | 8209.9  | 8365.4  | 9208.4  |
| 52.5° | 9660.2  | 9907.9  | 10565.1 | 11334.3 | 11921.8 | 11487.1 | 9701.0  | 8901.5  | 9271.6  | 9474.5  | 10156.7 |
| 55°   | 7406.4  | 7730.6  | 9876.2  | 11005.0 | 11938.9 | 12255.0 | 10825.8 | 9922.3  | 10454.5 | 10683.7 | 11181.5 |
| 57.5° | 6452.9  | 6616.2  | 7764.8  | 10433.4 | 11621.4 | 12564.6 | 11842.7 | 10894.4 | 11741.3 | 12025.8 | 12149.6 |
| 60°   | 5368.8  | 5583.5  | 6512.1  | 9498.2  | 11190.7 | 12594.9 | 12741.1 | 12148.3 | 13136.2 | 13456.3 | 13037.4 |
| 62.5° | 3648.6  | 3881.7  | 4805.1  | 7891.2  | 10602.0 | 12580.3 | 13477.3 | 13439.2 | 14686.5 | 15030.3 | 13789.5 |
| 65°   | 2260.2  | 2406.5  | 3015.0  | 6443.7  | 9778.7  | 12596.1 | 14247.9 | 15006.6 | 16322.5 | 16671.5 | 14371.7 |
| 67.5° | 1786.1  | 1853.3  | 2170.7  | 4947.4  | 8360.1  | 12240.6 | 15017.2 | 16480.6 | 17862.3 | 18138.8 | 14549.6 |
| 70°   | 1200.0  | 1240.8  | 1579.3  | 3316.7  | 6219.7  | 10599.3 | 15002.6 | 17220.8 | 18655.2 | 18793.5 | 13901.5 |
| 72.5° | 632.2   | 663.9   | 923.3   | 1535.9  | 3756.6  | 7534.3  | 12646.2 | 16335.6 | 17866.2 | 17658.1 | 11882.2 |
| 75°   | 316.1   | 368.8   | 621.7   | 779.8   | 1604.3  | 4201.8  | 7853.0  | 12879.3 | 14062.2 | 13256.1 | 7623.8  |
| 77.5° | 239.7   | 289.8   | 513.7   | 513.7   | 558.5   | 1414.6  | 3325.9  | 7024.5  | 6479.2  | 5395.2  | 2237.9  |
| 80°   | 152.8   | 197.6   | 449.2   | 388.6   | 233.2   | 359.6   | 866.7   | 1967.9  | 1376.5  | 1047.1  | 407.0   |
| 82.5° | 89.6    | 129.0   | 374.1   | 256.9   | 130.4   | 133.0   | 245.0   | 418.8   | 356.9   | 277.9   | 125.2   |
| 85°   | 35.6    | 84.3    | 256.9   | 101.4   | 51.4    | 32.9    | 73.8    | 89.6    | 73.8    | 55.4    | 31.6    |
| 87.5° | 0.0     | 19.8    | 44.8    | 0.0     | 4.0     | 2.7     | 5.2     | 6.6     | 6.6     | 5.2     | 10.6    |
| 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°    | 3253.5 | 3253.5 | 3253.5 | 3253.5 | 3253.5 | 3253.5 | 3253.5 | 3253.5 | 3253.5 | 3253.5 | 3253.5 |
| 2.5°  | 3267.9 | 3270.6 | 3278.5 | 3279.8 | 3261.3 | 3237.7 | 3228.4 | 3224.4 | 3208.7 | 3207.3 | 3210.0 |
| 5°    | 3307.5 | 3319.3 | 3307.5 | 3273.2 | 3191.5 | 3076.9 | 2990.0 | 2918.9 | 2854.3 | 2834.5 | 2822.7 |
| 7.5°  | 3386.5 | 3398.3 | 3362.7 | 3228.4 | 3022.9 | 2795.1 | 2589.6 | 2444.7 | 2314.2 | 2265.6 | 2245.8 |
| 10°   | 3499.8 | 3515.5 | 3403.6 | 3132.3 | 2768.7 | 2402.5 | 2054.8 | 1809.8 | 1618.8 | 1541.1 | 1508.2 |
| 12.5° | 3642.0 | 3648.6 | 3426.0 | 2986.0 | 2438.1 | 1915.2 | 1422.6 | 1160.4 | 990.6  | 927.3  | 907.5  |
| 15°   | 3798.8 | 3789.5 | 3428.6 | 2787.2 | 1987.6 | 1354.0 | 928.6  | 762.6  | 694.1  | 673.1  | 673.1  |
| 17.5° | 3963.4 | 3925.2 | 3375.9 | 2500.0 | 1493.6 | 926.0  | 688.9  | 649.3  | 637.6  | 632.2  | 630.9  |
| 20°   | 4125.4 | 4039.8 | 3279.8 | 2124.6 | 1072.1 | 691.6  | 625.7  | 613.8  | 607.2  | 604.5  | 602.0  |
| 22.5° | 4272.9 | 4126.8 | 3115.1 | 1688.6 | 778.5  | 611.2  | 591.4  | 580.9  | 569.0  | 563.8  | 562.4  |
| 25°   | 4416.5 | 4176.8 | 2883.3 | 1281.7 | 623.0  | 571.6  | 555.9  | 536.1  | 520.3  | 513.7  | 511.1  |
| 27.5° | 4556.1 | 4208.3 | 2593.6 | 948.3  | 555.9  | 534.7  | 505.8  | 478.2  | 466.3  | 463.6  | 461.0  |
| 30°   | 4705.0 | 4218.9 | 2264.2 | 707.4  | 515.1  | 488.7  | 446.5  | 414.9  | 408.4  | 409.7  | 409.7  |
| 32.5° | 4886.7 | 4234.7 | 1932.3 | 579.5  | 480.7  | 433.4  | 383.2  | 350.3  | 345.1  | 350.3  | 349.0  |
| 35°   | 5104.1 | 4266.4 | 1612.2 | 533.4  | 450.5  | 376.7  | 322.7  | 295.1  | 289.8  | 293.8  | 292.4  |
| 37.5° | 5399.1 | 4317.7 | 1313.2 | 524.3  | 425.5  | 329.3  | 271.3  | 249.0  | 249.0  | 250.3  | 249.0  |
| 40°   | 5791.7 | 4454.6 | 1045.8 | 517.6  | 412.3  | 293.8  | 229.2  | 220.0  | 224.0  | 226.5  | 226.5  |
| 42.5° | 6269.7 | 4745.8 | 865.4  | 509.7  | 397.8  | 277.9  | 208.1  | 204.2  | 210.7  | 213.4  | 213.4  |
| 45°   | 6805.9 | 5114.6 | 802.2  | 496.6  | 384.6  | 288.4  | 198.8  | 193.6  | 201.5  | 202.8  | 204.2  |
| 47.5° | 7360.4 | 5475.5 | 794.3  | 482.1  | 371.5  | 304.2  | 196.3  | 184.4  | 193.6  | 195.0  | 196.3  |
| 50°   | 7921.5 | 5711.3 | 802.2  | 459.7  | 350.3  | 304.2  | 197.6  | 175.2  | 183.1  | 187.1  | 188.4  |
| 52.5° | 8486.6 | 5819.3 | 796.9  | 410.9  | 313.4  | 285.9  | 197.6  | 167.3  | 175.2  | 177.8  | 177.8  |
| 55°   | 9034.6 | 5798.2 | 716.6  | 338.6  | 266.1  | 252.9  | 192.3  | 160.7  | 165.9  | 167.3  | 167.3  |
| 57.5° | 9467.8 | 5504.5 | 567.7  | 263.4  | 216.0  | 210.7  | 175.2  | 152.8  | 156.7  | 155.4  | 155.4  |
| 60°   | 9694.4 | 4859.1 | 405.7  | 202.8  | 169.9  | 165.9  | 154.2  | 142.3  | 144.9  | 138.3  | 136.9  |
| 62.5° | 9697.0 | 4005.5 | 271.3  | 160.7  | 135.7  | 131.7  | 131.7  | 127.7  | 125.2  | 111.9  | 108.0  |
| 65°   | 9490.3 | 3058.5 | 180.5  | 127.7  | 109.4  | 102.7  | 110.6  | 109.4  | 100.1  | 81.7   | 79.0   |
| 67.5° | 9021.3 | 2004.7 | 136.9  | 100.1  | 84.3   | 80.4   | 88.3   | 92.2   | 85.6   | 68.5   | 67.1   |
| 70°   | 8057.2 | 1167.1 | 113.3  | 77.7   | 63.2   | 59.2   | 71.1   | 79.0   | 71.1   | 55.4   | 52.7   |
| 72.5° | 6692.5 | 629.7  | 92.2   | 57.9   | 43.5   | 39.6   | 56.7   | 64.6   | 56.7   | 40.8   | 39.6   |
| 75°   | 4342.7 | 337.2  | 71.1   | 38.2   | 22.3   | 25.0   | 42.1   | 47.5   | 39.6   | 26.3   | 23.7   |
| 77.5° | 1458.2 | 148.8  | 44.8   | 18.4   | 10.6   | 10.6   | 25.0   | 29.0   | 18.4   | 9.2    | 7.9    |
| 80°   | 325.3  | 61.9   | 18.4   | 7.9    | 4.0    | 4.0    | 5.2    | 5.2    | 2.7    | 0.0    | 0.0    |
| 82.5° | 106.7  | 25.0   | 7.9    | 2.7    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    |
| 85°   | 40.8   | 9.2    | 2.7    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    |
| 87.5° | 15.8   | 1.3    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 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)