

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: P967888

Luminaire Tested: **NAV-SB5A-830-U-T2U**

Issue Date: 1/21/2025

**Test Information**

Test Method: LM-79-08  
Report Number: P967888  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2411-289-16)  
Test Lab: INNOVATION CENTER  
Issue Date: 1/21/2025  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: LUMARK  
Catalog Number: NAV-SB5A-830-U-T2U  
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE  
(5) 80 CRI, 3000K, 350mA LIGHTSQUARES WITH 26 LEDS EACH AND TYPE II U OPTICS  
Light Source: -  
Ballast/Driver: -

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 21149.8 lumens  
Efficiency: N/A  
Efficacy: 149.3 lumens/watt  
Luminous Opening: Rectangular (W 1.5' x L: 1' x H: 0')  
IES Classification: Type II - Short  
BUG Rating: B3 - U0 - G3

Input Watts (W): 141.7  
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

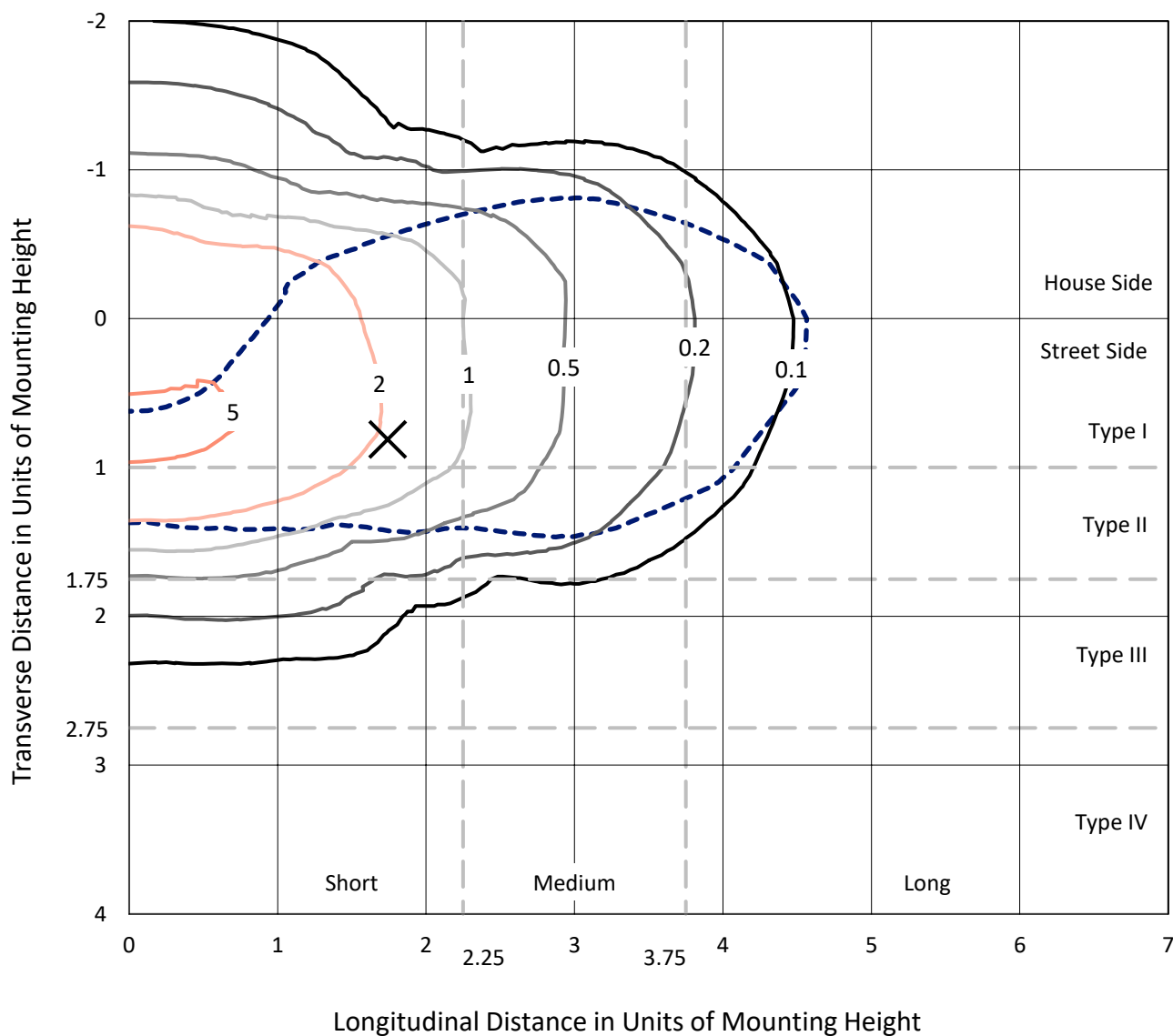


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## Iso-Footcandle Lines of Horizontal Illumination

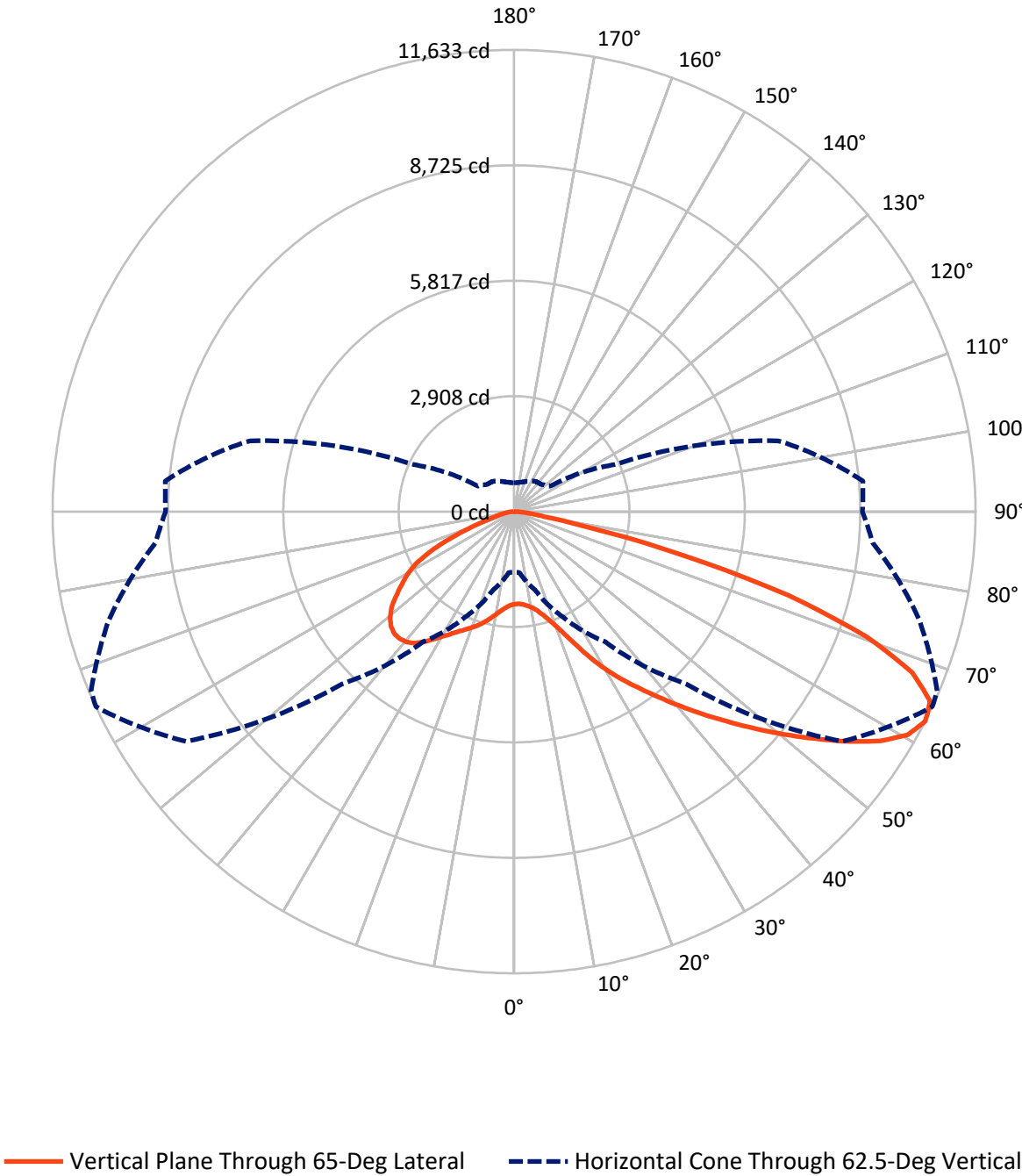
× Max cd  
- - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 5.9 fc  
Type II - 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    | 6674.0   | 0.0    | 6674.0  |
|                    | % Fixture | 31.6     | 0.0    | 31.6    |
| <b>Street Side</b> | Lumens    | 14475.9  | 0.0    | 14475.9 |
|                    | % Fixture | 68.4     | 0.0    | 68.4    |
| <b>Total</b>       | Lumens    | 21149.8  | 0.0    | 21149.8 |
|                    | % Fixture | 100.0    | 0.0    | 100.0   |

**ZONAL LUMENS:**

| Zone      | Lumens  | % Fixture |
|-----------|---------|-----------|
| 0°-10°    | 232.4   | 1.1       |
| 10°-20°   | 788.0   | 3.7       |
| 20°-30°   | 1597.7  | 7.6       |
| 30°-40°   | 2764.7  | 13.1      |
| 40°-50°   | 4183.9  | 19.8      |
| 50°-60°   | 4905.3  | 23.2      |
| 60°-70°   | 4112.5  | 19.4      |
| 70°-80°   | 2270.5  | 10.7      |
| 80°-90°   | 294.9   | 1.4       |
| 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°    | 21149.8 | 100.0     |
| 0°-180°   | 21149.8 | 100.0     |

**Coefficient of Utilization**



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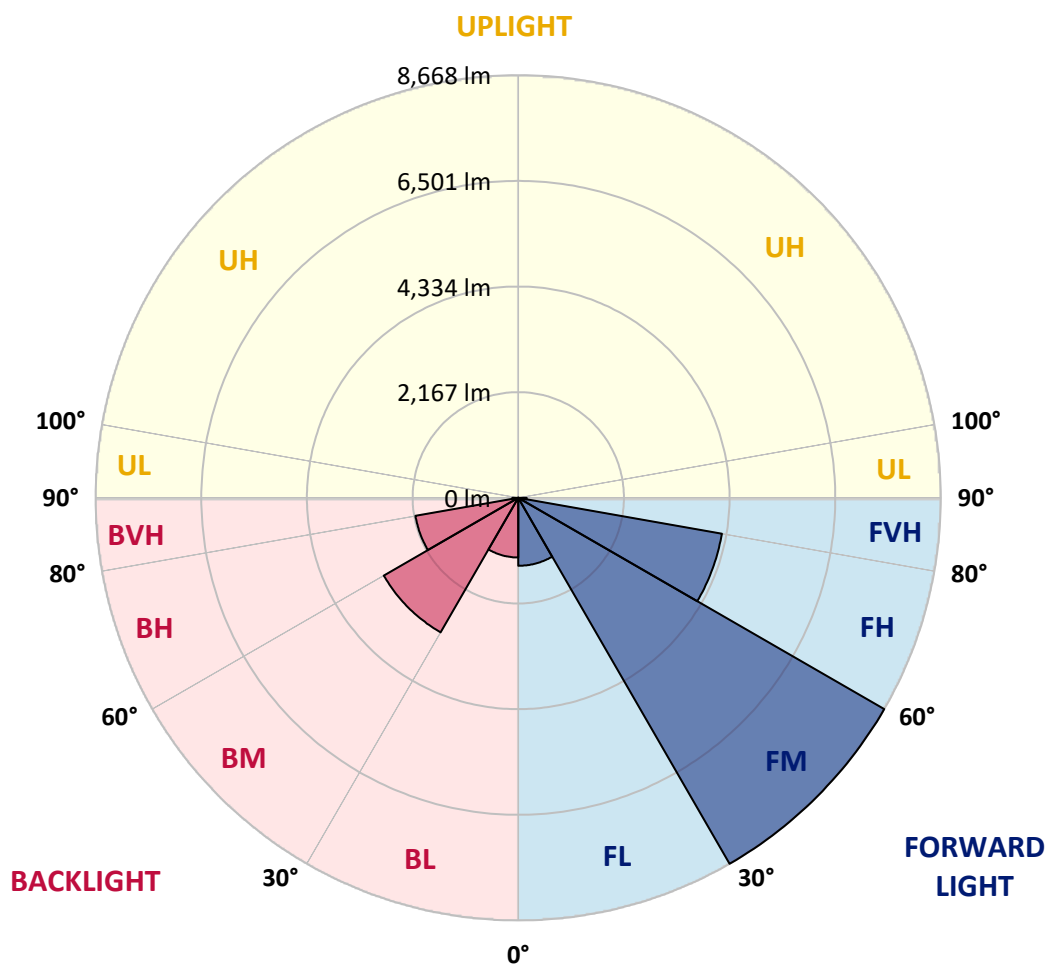
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

| Zone |             | Lumens | % Fixture | Zone Rating/Lumen Limit |      |         |
|------|-------------|--------|-----------|-------------------------|------|---------|
|      |             |        |           | B                       | U    | G       |
| FL   | (0°-30°)    | 1394.1 | 6.6       |                         |      |         |
| FM   | (30°-60°)   | 8667.9 | 41.0      |                         |      |         |
| FH   | (60°-80°)   | 4242.0 | 20.1      |                         |      | G2/5000 |
| FVH  | (80°-90°)   | 171.9  | 0.8       |                         |      | G2/225  |
| BL   | (0°-30°)    | 1223.9 | 5.8       | B3/2500                 |      |         |
| BM   | (30°-60°)   | 3186.1 | 15.1      | B3/5000                 |      |         |
| BH   | (60°-80°)   | 2141.0 | 10.1      | B3/2500                 |      | G3/2500 |
| BVH  | (80°-90°)   | 123.0  | 0.6       |                         |      | 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 II Short



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**CANDELA DISTRIBUTION (FULL):**

|       | 0°     | 5°     | 15°    | 25°    | 35°    | 45°     | 55°     | 65°     | 67°     | 75°     | 85°    |
|-------|--------|--------|--------|--------|--------|---------|---------|---------|---------|---------|--------|
| 0°    | 2330.6 | 2330.6 | 2330.6 | 2330.6 | 2330.6 | 2330.6  | 2330.6  | 2330.6  | 2330.6  | 2330.6  | 2330.6 |
| 2.5°  | 2315.3 | 2308.7 | 2314.1 | 2314.1 | 2316.4 | 2315.3  | 2323.0  | 2325.1  | 2328.4  | 2335.1  | 2335.1 |
| 5°    | 2292.2 | 2291.1 | 2301.0 | 2309.7 | 2318.5 | 2326.2  | 2336.1  | 2350.3  | 2352.6  | 2360.3  | 2370.1 |
| 7.5°  | 2284.5 | 2278.0 | 2293.3 | 2304.3 | 2325.1 | 2343.8  | 2370.1  | 2394.3  | 2404.1  | 2407.4  | 2426.1 |
| 10°   | 2343.8 | 2332.8 | 2347.0 | 2353.7 | 2371.2 | 2389.9  | 2420.6  | 2459.0  | 2469.9  | 2483.2  | 2504.0 |
| 12.5° | 2444.7 | 2432.6 | 2453.5 | 2463.4 | 2479.9 | 2496.3  | 2517.2  | 2554.5  | 2559.9  | 2584.1  | 2603.8 |
| 15°   | 2583.0 | 2568.8 | 2581.9 | 2594.0 | 2621.4 | 2636.8  | 2657.6  | 2693.8  | 2693.8  | 2712.5  | 2726.7 |
| 17.5° | 2770.7 | 2752.0 | 2761.9 | 2766.3 | 2783.8 | 2806.9  | 2841.9  | 2873.8  | 2890.2  | 2883.6  | 2863.8 |
| 20°   | 3050.4 | 3027.4 | 3027.4 | 3005.4 | 2998.8 | 3017.5  | 3063.6  | 3107.5  | 3125.0  | 3091.0  | 3042.7 |
| 22.5° | 3470.6 | 3437.7 | 3419.1 | 3344.5 | 3314.8 | 3317.1  | 3363.1  | 3416.9  | 3431.2  | 3370.8  | 3262.2 |
| 25°   | 4005.1 | 3953.5 | 3928.2 | 3818.5 | 3751.6 | 3693.5  | 3729.7  | 3798.8  | 3818.5  | 3743.9  | 3568.3 |
| 27.5° | 4539.4 | 4542.7 | 4518.6 | 4386.9 | 4276.1 | 4169.7  | 4151.0  | 4223.4  | 4244.3  | 4159.8  | 3942.6 |
| 30°   | 5288.9 | 5211.0 | 5164.9 | 5006.9 | 4848.9 | 4699.6  | 4622.9  | 4652.5  | 4657.9  | 4557.0  | 4304.6 |
| 32.5° | 5935.2 | 5915.5 | 5816.7 | 5678.4 | 5475.4 | 5241.7  | 5113.3  | 5066.2  | 5057.3  | 4913.6  | 4614.0 |
| 35°   | 6671.4 | 6660.4 | 6556.2 | 6391.7 | 6172.2 | 5847.4  | 5615.9  | 5480.9  | 5469.9  | 5268.1  | 4920.2 |
| 37.5° | 7419.8 | 7419.8 | 7317.8 | 7137.8 | 6910.7 | 6504.6  | 6152.5  | 5938.4  | 5903.4  | 5640.1  | 5231.8 |
| 40°   | 8016.7 | 7980.5 | 7999.2 | 7923.5 | 7663.4 | 7232.2  | 6748.3  | 6437.7  | 6390.6  | 6074.6  | 5563.2 |
| 42.5° | 8355.8 | 8343.7 | 8455.6 | 8540.1 | 8433.7 | 8089.1  | 7404.4  | 6978.7  | 6912.9  | 6552.9  | 5945.1 |
| 45°   | 8431.4 | 8418.3 | 8618.0 | 8927.4 | 9076.7 | 8935.1  | 8117.7  | 7548.2  | 7468.0  | 7053.3  | 6354.4 |
| 47.5° | 8257.0 | 8230.6 | 8523.7 | 9012.0 | 9490.4 | 9739.4  | 8890.1  | 8166.0  | 8049.6  | 7540.5  | 6774.6 |
| 50°   | 7732.5 | 7707.3 | 8150.6 | 8799.1 | 9629.8 | 10285.9 | 9728.5  | 8821.0  | 8643.3  | 8062.9  | 7199.3 |
| 52.5° | 6592.5 | 6604.5 | 7299.1 | 8190.1 | 9446.5 | 10626.1 | 10450.5 | 9511.2  | 9297.3  | 8597.2  | 7597.6 |
| 55°   | 5135.2 | 5161.6 | 6015.3 | 6996.2 | 8713.5 | 10574.5 | 10943.2 | 10222.2 | 10009.4 | 9099.7  | 8009.0 |
| 57.5° | 3677.0 | 3793.3 | 4593.2 | 5564.3 | 7305.7 | 9757.0  | 11050.7 | 10898.2 | 10691.9 | 9648.4  | 8411.8 |
| 60°   | 2383.3 | 2404.1 | 3227.1 | 4205.9 | 5563.2 | 8304.2  | 10832.3 | 11410.6 | 11249.3 | 10208.0 | 8748.6 |
| 62.5° | 1527.5 | 1541.7 | 2043.1 | 2941.9 | 4004.0 | 6143.6  | 10097.2 | 11633.3 | 11583.9 | 10577.8 | 9072.3 |
| 65°   | 1122.5 | 1111.5 | 1372.7 | 1944.4 | 2697.1 | 3788.9  | 8669.7  | 11525.8 | 11623.5 | 10809.3 | 9340.0 |
| 67.5° | 937.1  | 921.7  | 1050.1 | 1346.3 | 1987.2 | 2151.8  | 6414.7  | 10826.9 | 11184.6 | 10783.0 | 9536.5 |
| 70°   | 853.7  | 840.5  | 918.4  | 999.6  | 1550.4 | 1440.7  | 3233.7  | 9412.5  | 9963.3  | 10483.4 | 9504.6 |
| 72.5° | 723.1  | 700.1  | 806.5  | 887.6  | 1205.9 | 1104.9  | 1336.5  | 7229.9  | 7901.5  | 9523.3  | 9056.9 |
| 75°   | 560.7  | 545.3  | 636.4  | 781.3  | 906.3  | 862.4   | 844.9   | 4390.2  | 5123.2  | 7364.9  | 7923.5 |
| 77.5° | 444.4  | 423.5  | 507.0  | 609.0  | 815.3  | 650.7   | 615.6   | 1890.6  | 2617.0  | 4701.9  | 5928.6 |
| 80°   | 334.7  | 316.0  | 385.2  | 481.7  | 626.6  | 490.5   | 398.3   | 771.4   | 986.5   | 2382.2  | 2981.3 |
| 82.5° | 238.1  | 221.6  | 268.9  | 353.3  | 421.4  | 440.0   | 244.7   | 432.3   | 486.1   | 918.4   | 666.0  |
| 85°   | 152.5  | 142.7  | 180.0  | 221.6  | 267.7  | 283.1   | 149.2   | 226.0   | 247.9   | 378.5   | 277.6  |
| 87.5° | 83.4   | 68.1   | 96.6   | 103.1  | 124.0  | 113.1   | 71.3    | 82.3    | 88.9    | 137.1   | 117.4  |
| 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°    | 2330.6 | 2330.6 | 2330.6 | 2330.6 | 2330.6 | 2330.6 | 2330.6 | 2330.6 | 2330.6 | 2330.6 | 2330.6 |
| 2.5°  | 2339.4 | 2342.7 | 2353.7 | 2357.0 | 2364.7 | 2374.5 | 2381.1 | 2387.6 | 2387.6 | 2394.3 | 2394.3 |
| 5°    | 2371.2 | 2378.9 | 2402.0 | 2414.0 | 2433.8 | 2453.5 | 2465.6 | 2479.9 | 2488.6 | 2493.0 | 2495.3 |
| 7.5°  | 2432.6 | 2444.7 | 2477.6 | 2498.5 | 2532.6 | 2559.9 | 2578.6 | 2598.4 | 2602.8 | 2614.8 | 2610.5 |
| 10°   | 2516.1 | 2530.3 | 2567.6 | 2607.1 | 2647.8 | 2681.7 | 2699.3 | 2713.6 | 2719.0 | 2721.3 | 2715.7 |
| 12.5° | 2611.5 | 2632.4 | 2680.7 | 2729.0 | 2771.7 | 2801.3 | 2805.7 | 2802.5 | 2787.1 | 2774.0 | 2774.0 |
| 15°   | 2729.0 | 2747.6 | 2801.3 | 2854.0 | 2895.7 | 2901.2 | 2873.8 | 2856.3 | 2837.6 | 2834.2 | 2834.2 |
| 17.5° | 2869.4 | 2879.2 | 2928.6 | 2980.2 | 2983.5 | 2964.8 | 2924.2 | 2907.8 | 2890.2 | 2878.2 | 2879.2 |
| 20°   | 3032.9 | 3029.6 | 3064.7 | 3086.7 | 3063.6 | 3006.5 | 2945.1 | 2917.7 | 2900.1 | 2885.9 | 2886.9 |
| 22.5° | 3228.2 | 3202.9 | 3198.6 | 3193.1 | 3131.7 | 3012.1 | 2928.6 | 2893.6 | 2866.1 | 2846.3 | 2852.9 |
| 25°   | 3512.4 | 3415.8 | 3348.9 | 3311.6 | 3173.3 | 2982.4 | 2875.9 | 2798.0 | 2746.5 | 2712.5 | 2725.7 |
| 27.5° | 3867.9 | 3705.5 | 3536.6 | 3445.4 | 3173.3 | 2922.1 | 2748.6 | 2622.5 | 2538.0 | 2502.8 | 2520.5 |
| 30°   | 4207.0 | 4036.9 | 3787.8 | 3606.8 | 3165.6 | 2823.3 | 2543.5 | 2368.0 | 2269.1 | 2234.1 | 2254.9 |
| 32.5° | 4496.7 | 4311.3 | 4054.5 | 3783.4 | 3147.0 | 2663.1 | 2288.9 | 2094.7 | 1999.3 | 1957.5 | 1978.4 |
| 35°   | 4765.5 | 4568.0 | 4322.2 | 3977.6 | 3097.7 | 2428.3 | 2009.1 | 1861.0 | 1754.6 | 1687.7 | 1709.6 |
| 37.5° | 5041.0 | 4806.1 | 4575.7 | 4153.2 | 3008.8 | 2153.9 | 1794.1 | 1667.9 | 1542.7 | 1452.8 | 1476.9 |
| 40°   | 5340.5 | 5059.6 | 4846.7 | 4257.4 | 2862.8 | 1892.8 | 1627.3 | 1512.1 | 1379.2 | 1283.8 | 1302.5 |
| 42.5° | 5690.5 | 5363.5 | 5148.5 | 4311.3 | 2663.1 | 1707.3 | 1518.6 | 1405.6 | 1280.5 | 1202.6 | 1218.0 |
| 45°   | 6055.9 | 5698.2 | 5423.9 | 4310.1 | 2440.3 | 1620.7 | 1483.5 | 1371.6 | 1233.4 | 1152.1 | 1165.3 |
| 47.5° | 6438.8 | 6048.2 | 5662.0 | 4239.9 | 2247.2 | 1632.7 | 1463.8 | 1298.1 | 1145.5 | 1066.5 | 1077.5 |
| 50°   | 6822.9 | 6431.2 | 5892.4 | 4108.2 | 2164.9 | 1606.4 | 1390.2 | 1194.9 | 1015.0 | 943.6  | 948.0  |
| 52.5° | 7203.6 | 6838.3 | 6091.0 | 3920.6 | 2081.6 | 1508.8 | 1295.9 | 1061.1 | 961.2  | 911.8  | 911.8  |
| 55°   | 7586.6 | 7240.9 | 6307.1 | 3647.4 | 1873.1 | 1394.6 | 1137.9 | 1010.5 | 918.4  | 873.4  | 869.0  |
| 57.5° | 7970.6 | 7706.2 | 6512.3 | 3374.1 | 1610.8 | 1254.2 | 1051.2 | 949.1  | 875.7  | 837.2  | 830.7  |
| 60°   | 8370.0 | 8238.3 | 6724.1 | 3122.9 | 1351.9 | 1074.2 | 987.6  | 899.7  | 825.1  | 782.4  | 779.1  |
| 62.5° | 8781.5 | 8824.3 | 6889.8 | 2799.2 | 1113.8 | 964.5  | 930.5  | 840.5  | 768.1  | 727.5  | 726.4  |
| 65°   | 9196.3 | 9389.4 | 6998.5 | 2350.3 | 903.0  | 860.3  | 869.0  | 775.8  | 702.2  | 667.2  | 666.0  |
| 67.5° | 9509.0 | 9796.5 | 6967.7 | 1778.7 | 740.7  | 761.5  | 792.2  | 707.8  | 638.6  | 611.2  | 612.2  |
| 70°   | 9544.2 | 9748.3 | 6664.9 | 1218.0 | 619.9  | 664.9  | 706.6  | 640.8  | 569.5  | 549.7  | 550.8  |
| 72.5° | 9076.7 | 9089.9 | 5821.1 | 795.5  | 524.5  | 583.7  | 616.6  | 572.8  | 503.7  | 483.9  | 482.8  |
| 75°   | 7851.0 | 7517.5 | 4273.9 | 524.5  | 438.9  | 501.4  | 532.2  | 501.4  | 434.5  | 438.9  | 423.5  |
| 77.5° | 5948.4 | 5324.0 | 2595.1 | 373.1  | 366.5  | 421.4  | 463.1  | 441.1  | 384.1  | 431.2  | 379.7  |
| 80°   | 3064.7 | 2880.4 | 1157.6 | 278.7  | 289.7  | 336.8  | 380.8  | 352.2  | 303.9  | 289.7  | 264.4  |
| 82.5° | 702.2  | 816.4  | 456.4  | 199.7  | 209.6  | 242.5  | 290.8  | 264.4  | 218.3  | 184.3  | 182.1  |
| 85°   | 245.8  | 268.9  | 201.9  | 125.0  | 122.9  | 151.4  | 197.5  | 176.7  | 148.1  | 118.5  | 125.0  |
| 87.5° | 77.9   | 102.1  | 75.7   | 50.4   | 52.7   | 68.1   | 91.1   | 83.4   | 69.1   | 45.0   | 47.2   |
| 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)