

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: P967801

Luminaire Tested: **NAV-SB5A-750-U-T4FT-HSS**

Issue Date: 1/21/2025

### Test Information

Test Method: LM-79-08  
Report Number: P967801  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2405-108-25)  
Test Lab: INNOVATION CENTER  
Issue Date: 1/21/2025  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: LUMARK  
Catalog Number: NAV-SB5A-750-U-T4FT-HSS  
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE  
(5) 70 CRI, 5000K, 350mA LIGHTSQUARES WITH 26 LEDS EACH AND TYPE IV  
FORWARD THROW OPTICS WITH HOUSE SIDE SHIELD  
Light Source: -  
Ballast/Driver: -

### Summary

Lumens per Lamp: N/A  
Luminaire Lumens: 18604.8 lumens  
Efficiency: N/A  
Efficacy: 131.3 lumens/watt  
Luminous Opening: Rectangular (W 1.5' x L: 1' x H: 0')  
IES Classification: Type IV - Short  
BUG Rating: B2 - U0 - G4

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



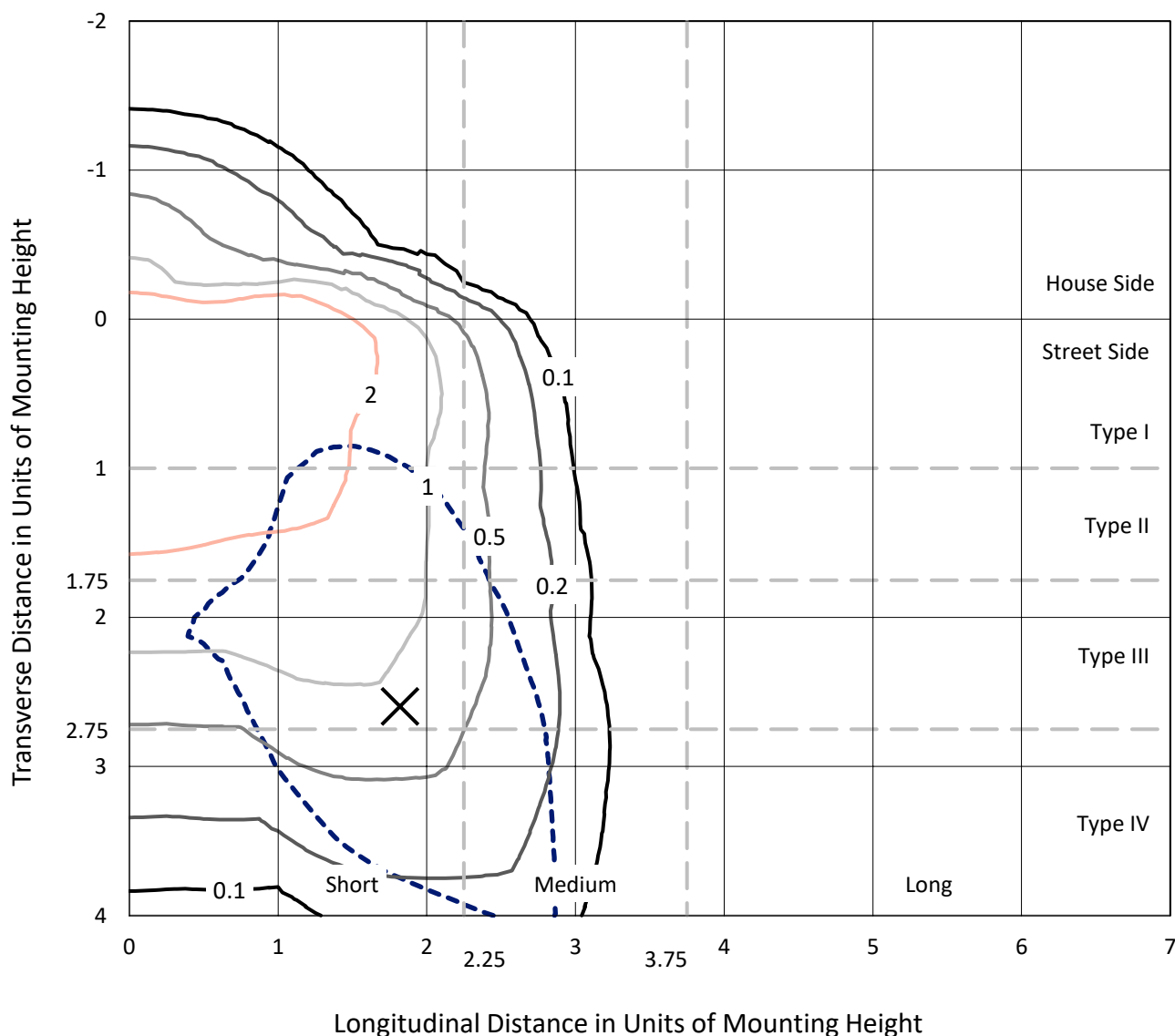
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## Iso-Footcandle Lines of Horizontal Illumination

× Max cd

--- 1/2 Max cd

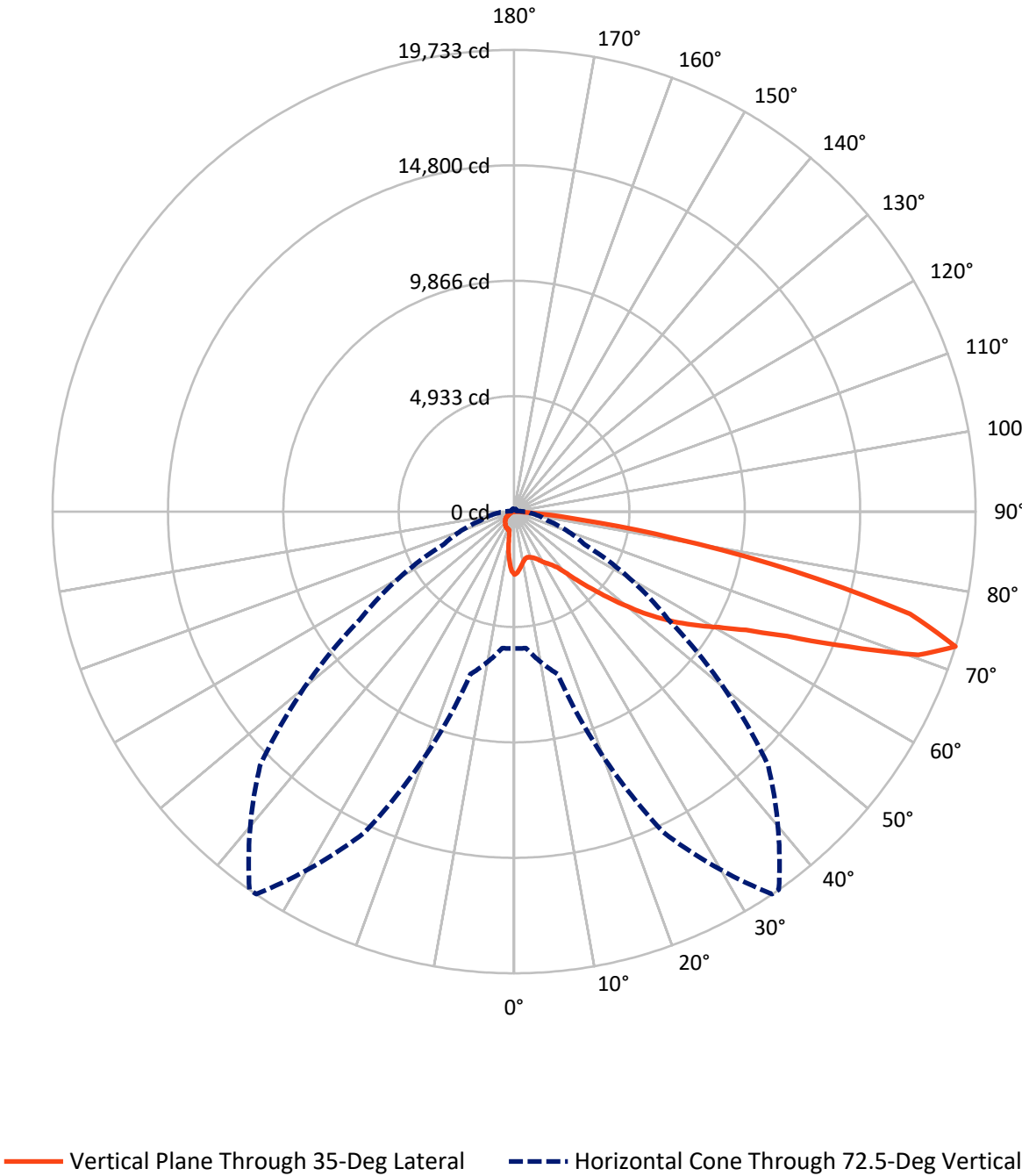


Based on 25 foot mounting height. Maximum calculated value = 4.3 fc

Type IV - 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    | 2093.9   | 0.0    | 2093.9  |
|                    | % Fixture | 11.3     | 0.0    | 11.3    |
| <b>Street Side</b> | Lumens    | 16510.9  | 0.0    | 16510.9 |
|                    | % Fixture | 88.7     | 0.0    | 88.7    |
| <b>Total</b>       | Lumens    | 18604.8  | 0.0    | 18604.8 |
|                    | % Fixture | 100.0    | 0.0    | 100.0   |

**ZONAL LUMENS:**

| Zone      | Lumens  | % Fixture |
|-----------|---------|-----------|
| 0°-10°    | 221.6   | 1.2       |
| 10°-20°   | 518.4   | 2.8       |
| 20°-30°   | 842.1   | 4.5       |
| 30°-40°   | 1405.0  | 7.6       |
| 40°-50°   | 2658.2  | 14.3      |
| 50°-60°   | 4223.9  | 22.7      |
| 60°-70°   | 5225.2  | 28.1      |
| 70°-80°   | 3248.0  | 17.5      |
| 80°-90°   | 262.5   | 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°    | 18604.8 | 100.0     |
| 0°-180°   | 18604.8 | 100.0     |

**Coefficient of Utilization**



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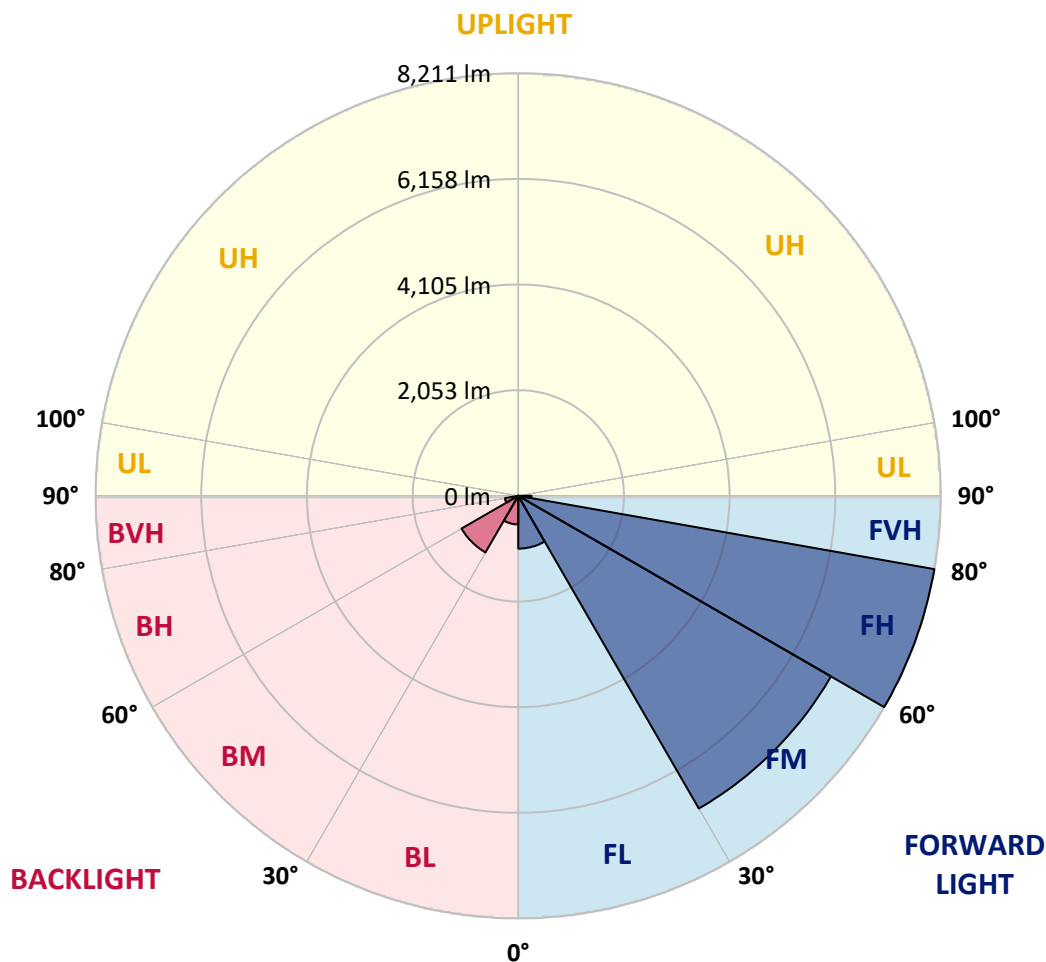
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

| Zone |             | Lumens | % Fixture | Zone Rating/Lumen Limit |      |          |
|------|-------------|--------|-----------|-------------------------|------|----------|
|      |             |        |           | B                       | U    | G        |
| FL   | (0°-30°)    | 1025.6 | 5.5       |                         |      |          |
| FM   | (30°-60°)   | 7015.9 | 37.7      |                         |      |          |
| FH   | (60°-80°)   | 8210.5 | 44.1      |                         |      | G4/12000 |
| FVH  | (80°-90°)   | 258.9  | 1.4       |                         |      | G3/500   |
| BL   | (0°-30°)    | 556.4  | 3.0       | B2/1000                 |      |          |
| BM   | (30°-60°)   | 1271.2 | 6.8       | B2/2500                 |      |          |
| BH   | (60°-80°)   | 262.8  | 1.4       | B1/500                  |      | G1/500   |
| BVH  | (80°-90°)   | 3.6    | 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 IV Short



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**CANDELA DISTRIBUTION (FULL):**

|       | 0°     | 5°     | 15°     | 25°     | 34°     | 35°     | 45°     | 55°     | 65°    | 75°    | 85°    |
|-------|--------|--------|---------|---------|---------|---------|---------|---------|--------|--------|--------|
| 0°    | 2696.5 | 2696.5 | 2696.5  | 2696.5  | 2696.5  | 2696.5  | 2696.5  | 2696.5  | 2696.5 | 2696.5 | 2696.5 |
| 2.5°  | 2576.5 | 2598.3 | 2602.4  | 2609.2  | 2609.2  | 2617.3  | 2631.0  | 2650.1  | 2681.5 | 2697.8 | 2708.8 |
| 5°    | 2374.7 | 2391.1 | 2411.5  | 2427.9  | 2459.3  | 2463.4  | 2516.5  | 2568.3  | 2640.6 | 2695.1 | 2733.3 |
| 7.5°  | 2171.6 | 2190.7 | 2218.0  | 2257.5  | 2298.4  | 2310.7  | 2391.1  | 2478.3  | 2592.8 | 2695.1 | 2759.2 |
| 10°   | 2028.5 | 2029.8 | 2054.4  | 2093.9  | 2159.4  | 2174.3  | 2272.5  | 2396.6  | 2539.6 | 2678.7 | 2783.7 |
| 12.5° | 1948.0 | 1957.5 | 1968.5  | 1998.4  | 2061.2  | 2070.7  | 2175.7  | 2321.5  | 2486.5 | 2669.2 | 2812.3 |
| 15°   | 1948.0 | 1954.9 | 1961.6  | 1976.7  | 2027.1  | 2035.3  | 2128.0  | 2273.9  | 2459.3 | 2673.3 | 2858.7 |
| 17.5° | 1968.5 | 1979.4 | 1973.9  | 1991.7  | 2044.9  | 2050.3  | 2132.1  | 2260.2  | 2457.8 | 2699.1 | 2929.6 |
| 20°   | 2017.6 | 2025.7 | 2014.8  | 2025.7  | 2078.9  | 2089.9  | 2174.3  | 2286.2  | 2481.1 | 2744.1 | 3018.2 |
| 22.5° | 2095.3 | 2099.4 | 2073.5  | 2081.7  | 2136.2  | 2149.8  | 2247.9  | 2359.8  | 2537.0 | 2816.4 | 3136.8 |
| 25°   | 2193.4 | 2201.6 | 2162.0  | 2171.6  | 2223.4  | 2239.7  | 2352.9  | 2470.1  | 2625.5 | 2915.9 | 3288.1 |
| 27.5° | 2306.6 | 2310.7 | 2276.6  | 2275.2  | 2342.0  | 2365.2  | 2479.7  | 2606.5  | 2744.1 | 3041.4 | 3479.0 |
| 30°   | 2436.1 | 2448.3 | 2415.6  | 2410.2  | 2494.7  | 2513.8  | 2627.0  | 2774.2  | 2918.7 | 3229.5 | 3750.3 |
| 32.5° | 2538.3 | 2547.8 | 2528.8  | 2542.4  | 2628.3  | 2643.3  | 2805.5  | 3011.3  | 3192.7 | 3496.7 | 4119.7 |
| 35°   | 2685.5 | 2691.0 | 2647.4  | 2671.9  | 2770.1  | 2808.2  | 3049.6  | 3344.0  | 3537.6 | 3832.1 | 4602.2 |
| 37.5° | 3218.6 | 3218.6 | 3033.2  | 2911.8  | 3005.9  | 3039.9  | 3383.5  | 3762.5  | 3962.9 | 4281.8 | 5210.3 |
| 40°   | 3956.1 | 3943.8 | 3672.5  | 3424.4  | 3412.1  | 3479.0  | 3859.3  | 4290.0  | 4512.3 | 4821.7 | 5894.6 |
| 42.5° | 4742.7 | 4723.6 | 4354.1  | 4108.7  | 4067.8  | 4091.1  | 4408.6  | 4940.3  | 5166.6 | 5480.2 | 6630.7 |
| 45°   | 5440.6 | 5435.2 | 5097.1  | 4767.2  | 4693.6  | 4767.2  | 5094.4  | 5701.0  | 5863.2 | 6193.2 | 7365.4 |
| 47.5° | 6025.5 | 6025.5 | 5778.7  | 5563.3  | 5525.2  | 5568.7  | 6022.7  | 6544.8  | 6529.9 | 6952.5 | 8081.2 |
| 50°   | 6698.9 | 6693.5 | 6458.9  | 6366.3  | 6405.7  | 6467.1  | 7091.5  | 7433.6  | 7219.6 | 7698.2 | 8720.5 |
| 52.5° | 7170.6 | 7203.3 | 7122.8  | 7107.9  | 7309.6  | 7416.0  | 8176.6  | 8303.4  | 7837.2 | 8405.6 | 9199.1 |
| 55°   | 7544.1 | 7582.2 | 7675.0  | 7780.0  | 8168.4  | 8307.5  | 9227.7  | 9128.1  | 8353.9 | 9019.1 | 9474.4 |
| 57.5° | 8073.0 | 8018.5 | 8161.7  | 8368.8  | 8997.2  | 9164.9  | 10246.0 | 9906.5  | 8769.6 | 9516.6 | 9504.4 |
| 60°   | 8715.1 | 8723.3 | 8747.8  | 9009.5  | 9824.7  | 10040.2 | 11249.3 | 10642.7 | 9036.8 | 9822.1 | 9171.8 |
| 62.5° | 9486.7 | 9499.0 | 9549.4  | 9951.5  | 10935.8 | 11138.9 | 12318.0 | 11245.3 | 9159.5 | 9736.2 | 8313.0 |
| 65°   | 9433.5 | 9485.3 | 10048.3 | 11423.8 | 12624.8 | 12825.2 | 13565.5 | 11667.8 | 8974.1 | 8950.9 | 6768.4 |
| 67.5° | 8593.8 | 8678.3 | 9620.2  | 13182.3 | 15171.3 | 15394.9 | 15073.1 | 11751.0 | 8173.9 | 6960.6 | 4415.5 |
| 70°   | 7492.2 | 7522.3 | 8655.1  | 14763.7 | 18119.9 | 18346.3 | 16422.8 | 10836.3 | 6202.7 | 3882.5 | 1978.0 |
| 72.5° | 5850.9 | 5857.8 | 7186.9  | 15130.4 | 19720.4 | 19732.7 | 15363.5 | 8044.4  | 3335.8 | 1491.4 | 687.1  |
| 75°   | 4179.6 | 4138.7 | 4813.5  | 12270.4 | 17349.8 | 17488.8 | 11517.8 | 3773.4  | 1274.6 | 704.8  | 342.1  |
| 77.5° | 2241.2 | 2286.2 | 2723.7  | 7276.9  | 11985.4 | 12222.6 | 6284.5  | 1087.8  | 648.9  | 479.9  | 226.3  |
| 80°   | 692.5  | 730.7  | 1116.4  | 3331.8  | 6788.9  | 6932.0  | 2329.7  | 483.9   | 452.6  | 342.1  | 148.6  |
| 82.5° | 218.1  | 226.3  | 520.8   | 1400.0  | 2817.8  | 2883.2  | 674.8   | 274.0   | 309.4  | 226.3  | 87.2   |
| 85°   | 62.7   | 64.1   | 231.8   | 522.1   | 696.6   | 710.2   | 189.5   | 106.3   | 177.2  | 140.4  | 45.0   |
| 87.5° | 6.8    | 21.8   | 87.2    | 87.2    | 61.3    | 60.0    | 20.4    | 23.2    | 50.4   | 17.7   | 8.2    |
| 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°    | 2696.5 | 2696.5 | 2696.5 | 2696.5 | 2696.5 | 2696.5 | 2696.5 | 2696.5 | 2696.5 | 2696.5 | 2696.5 |
| 2.5°  | 2701.9 | 2703.2 | 2685.5 | 2655.6 | 2622.9 | 2595.6 | 2561.5 | 2534.2 | 2515.1 | 2509.7 | 2519.2 |
| 5°    | 2721.0 | 2711.4 | 2661.0 | 2569.7 | 2460.6 | 2366.5 | 2261.6 | 2178.4 | 2123.9 | 2100.7 | 2108.9 |
| 7.5°  | 2749.7 | 2722.4 | 2611.9 | 2432.0 | 2223.4 | 2038.0 | 1849.9 | 1704.1 | 1611.3 | 1565.0 | 1571.8 |
| 10°   | 2774.2 | 2719.6 | 2530.1 | 2233.0 | 1914.0 | 1633.1 | 1379.5 | 1203.8 | 1105.6 | 1059.2 | 1060.6 |
| 12.5° | 2797.3 | 2718.3 | 2423.8 | 1997.1 | 1565.0 | 1221.5 | 985.6  | 898.4  | 871.1  | 861.5  | 858.8  |
| 15°   | 2841.0 | 2722.4 | 2290.3 | 1727.2 | 1217.4 | 922.9  | 837.0  | 835.7  | 841.1  | 838.3  | 837.0  |
| 17.5° | 2901.0 | 2726.4 | 2138.9 | 1440.9 | 939.3  | 813.8  | 809.7  | 822.0  | 830.2  | 826.2  | 824.7  |
| 20°   | 2978.6 | 2742.8 | 1978.0 | 1157.3 | 807.0  | 786.6  | 796.1  | 807.0  | 813.8  | 807.0  | 805.6  |
| 22.5° | 3087.7 | 2771.4 | 1802.2 | 929.7  | 764.8  | 770.2  | 778.4  | 790.7  | 797.4  | 787.9  | 786.6  |
| 25°   | 3221.3 | 2816.4 | 1629.0 | 808.4  | 744.4  | 751.1  | 763.4  | 777.1  | 785.3  | 775.7  | 774.3  |
| 27.5° | 3394.4 | 2888.7 | 1469.5 | 781.2  | 723.9  | 728.0  | 745.7  | 766.1  | 777.1  | 764.8  | 764.8  |
| 30°   | 3645.3 | 3007.2 | 1331.9 | 793.3  | 711.6  | 702.0  | 726.6  | 755.2  | 767.5  | 756.6  | 755.2  |
| 32.5° | 3977.9 | 3174.9 | 1247.3 | 812.5  | 706.1  | 672.1  | 695.3  | 732.1  | 752.5  | 745.7  | 745.7  |
| 35°   | 4414.2 | 3429.9 | 1214.6 | 834.2  | 702.0  | 640.7  | 657.0  | 696.6  | 732.1  | 738.8  | 738.8  |
| 37.5° | 4943.1 | 3784.3 | 1224.2 | 843.9  | 689.8  | 614.8  | 623.0  | 657.0  | 703.5  | 725.2  | 730.7  |
| 40°   | 5544.2 | 4197.4 | 1278.7 | 834.2  | 676.2  | 593.0  | 594.4  | 620.2  | 661.1  | 693.9  | 704.8  |
| 42.5° | 6164.5 | 4679.9 | 1379.5 | 798.9  | 663.9  | 573.9  | 569.8  | 587.5  | 614.8  | 638.0  | 647.5  |
| 45°   | 6754.7 | 5176.1 | 1479.1 | 749.8  | 648.9  | 554.8  | 545.3  | 552.1  | 557.6  | 567.1  | 572.6  |
| 47.5° | 7270.1 | 5525.2 | 1450.5 | 704.8  | 628.4  | 533.0  | 516.7  | 513.9  | 497.5  | 496.2  | 494.9  |
| 50°   | 7625.9 | 5601.5 | 1288.2 | 659.8  | 598.5  | 508.5  | 482.6  | 466.3  | 437.6  | 423.9  | 425.4  |
| 52.5° | 7739.1 | 5300.2 | 1052.4 | 614.8  | 549.4  | 475.8  | 439.0  | 413.1  | 377.6  | 365.3  | 364.0  |
| 55°   | 7589.1 | 4710.0 | 841.1  | 560.3  | 481.2  | 432.1  | 391.2  | 357.2  | 328.5  | 313.5  | 313.5  |
| 57.5° | 7222.4 | 3958.8 | 665.2  | 496.2  | 409.0  | 383.0  | 342.1  | 308.1  | 283.5  | 268.5  | 265.8  |
| 60°   | 6614.3 | 3143.6 | 526.2  | 419.8  | 349.0  | 329.9  | 287.6  | 265.8  | 244.1  | 226.3  | 222.2  |
| 62.5° | 5691.4 | 2243.8 | 413.1  | 332.6  | 291.7  | 269.9  | 245.4  | 229.0  | 203.2  | 178.6  | 174.5  |
| 65°   | 4441.4 | 1372.8 | 319.0  | 244.1  | 234.5  | 223.6  | 208.6  | 193.6  | 162.3  | 137.7  | 133.6  |
| 67.5° | 2801.4 | 650.3  | 227.7  | 184.0  | 185.4  | 180.0  | 173.1  | 160.8  | 137.7  | 115.8  | 113.2  |
| 70°   | 1233.7 | 314.9  | 150.0  | 140.4  | 137.7  | 137.7  | 143.1  | 139.1  | 117.3  | 96.8   | 92.7   |
| 72.5° | 419.8  | 169.0  | 111.8  | 106.3  | 99.5   | 98.2   | 119.9  | 115.8  | 94.1   | 74.9   | 70.9   |
| 75°   | 219.5  | 113.2  | 81.8   | 76.4   | 60.0   | 72.3   | 95.4   | 90.0   | 66.8   | 49.1   | 45.0   |
| 77.5° | 143.1  | 80.5   | 55.9   | 49.1   | 34.0   | 47.7   | 70.9   | 62.7   | 39.6   | 24.5   | 21.8   |
| 80°   | 90.0   | 53.2   | 32.7   | 23.2   | 16.4   | 25.9   | 38.1   | 27.3   | 15.0   | 5.4    | 4.1    |
| 82.5° | 47.7   | 27.3   | 12.3   | 8.2    | 6.8    | 8.2    | 9.5    | 6.8    | 2.8    | 0.0    | 0.0    |
| 85°   | 19.1   | 9.5    | 4.1    | 2.8    | 1.3    | 0.0    | 2.8    | 1.3    | 0.0    | 0.0    | 0.0    |
| 87.5° | 6.8    | 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)