

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: P884298

Luminaire Tested: **NAV-SB5A-750-U-T3-HSS**

Issue Date: 10/7/2024

**Test Information**

Test Method: LM-79-08  
Report Number: P884298  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2405-108-6)  
Test Lab: INNOVATION CENTER  
Issue Date: 10/7/2024  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: LUMARK  
Catalog Number: NAV-SB5A-750-U-T3-HSS  
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE  
(5) 70 CRI, 5000K, 350mA LIGHTSQUARES WITH 26 LEDS EACH AND TYPE III  
OPTICS WITH HOUSE SIDE SHIELD  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 19247 lumens  
Efficiency: N/A  
Efficacy: 135.8 lumens/watt  
Luminous Opening: Rectangular (W 1' x L: 1.5' x H: 0')  
IES Classification: Type III - Short  
BUG Rating: B2 - U0 - G3

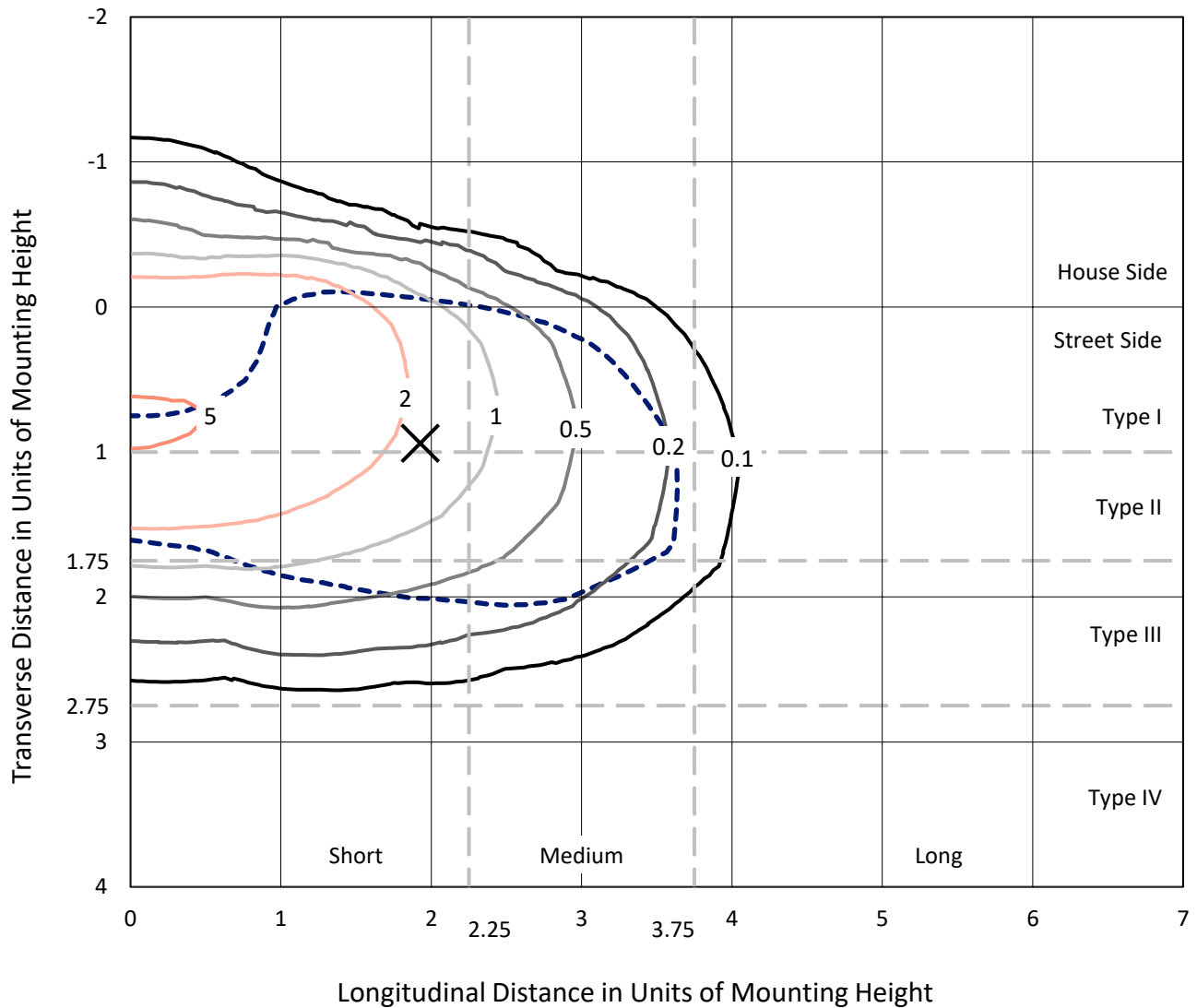
Input Watts (W): 141.7  
Input Voltage (V): 120.0  
Input Current (Ain): 1.201  
Voltage Rise (V): NR  
Power Factor: 0.992  
Total Harmonic Distortion (THDi): 10.503  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 24 FT



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### Iso-Footcandle Lines of Horizontal Illumination

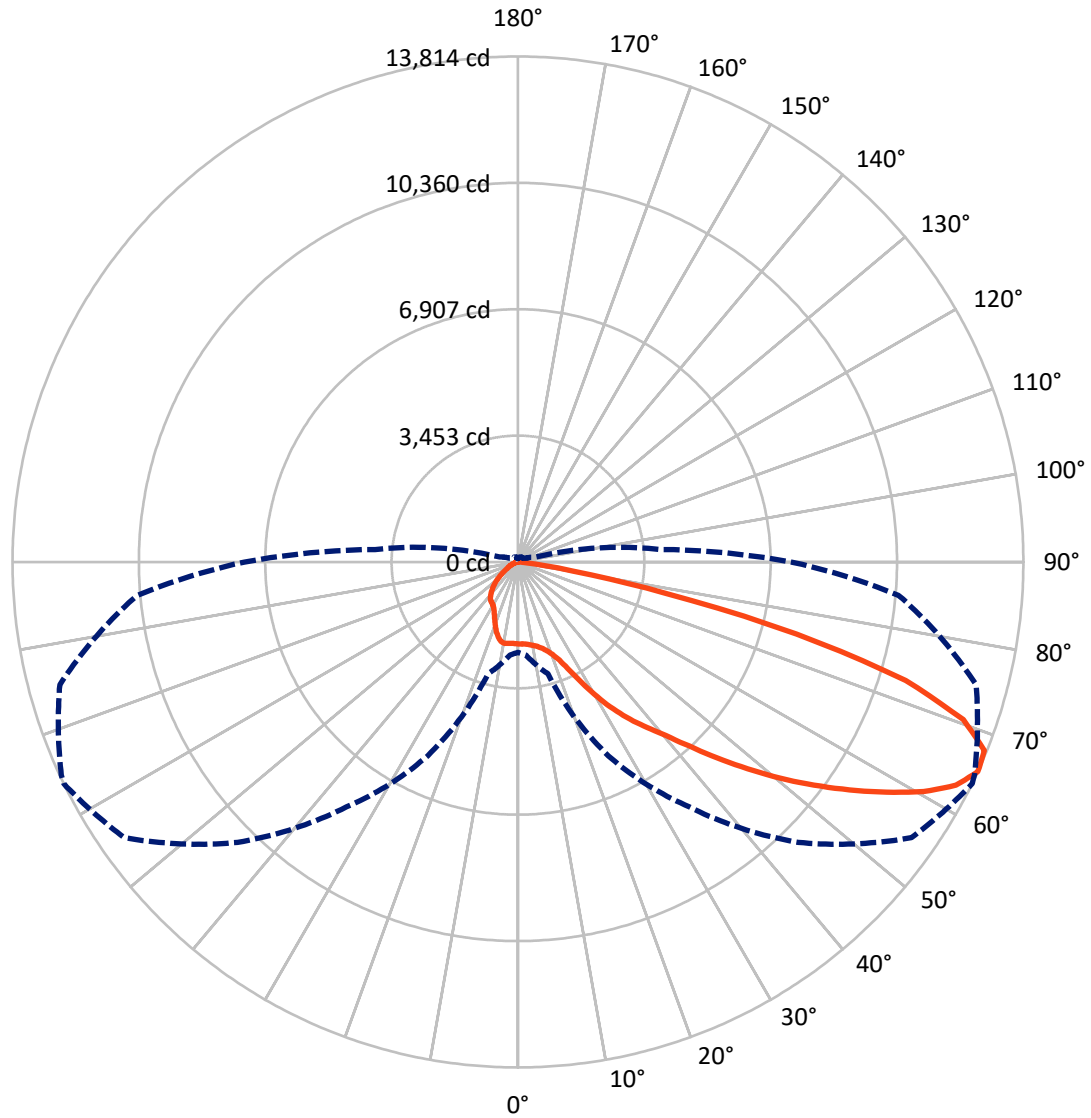
✕ Max cd  
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 5.6 fc  
 Type III - Short - N/A

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### Luminous Intensity Polar Plot



— Vertical Plane Through 64-Deg Lateral      - - - Horizontal Cone Through 65-Deg Vertical

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**FLUX DISTRIBUTION:**

|                    |           | Downward | Upward | Total   |
|--------------------|-----------|----------|--------|---------|
| <b>House Side</b>  | Lumens    | 2573.9   | 0.0    | 2573.9  |
|                    | % Fixture | 13.4     | 0.0    | 13.4    |
| <b>Street Side</b> | Lumens    | 16673.1  | 0.0    | 16673.1 |
|                    | % Fixture | 86.6     | 0.0    | 86.6    |
| <b>Total</b>       | Lumens    | 19247.0  | 0.0    | 19247.0 |
|                    | % Fixture | 100.0    | 0.0    | 100.0   |

**ZONAL LUMENS:**

| Zone      | Lumens  | % Fixture |
|-----------|---------|-----------|
| 0°-10°    | 206.5   | 1.1       |
| 10°-20°   | 560.2   | 2.9       |
| 20°-30°   | 1061.5  | 5.5       |
| 30°-40°   | 2148.0  | 11.2      |
| 40°-50°   | 3659.1  | 19.0      |
| 50°-60°   | 4976.1  | 25.9      |
| 60°-70°   | 4672.8  | 24.3      |
| 70°-80°   | 1872.1  | 9.7       |
| 80°-90°   | 90.7    | 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°    | 19247.0 | 100.0     |
| 0°-180°   | 19247.0 | 100.0     |

**Coefficient of Utilization**



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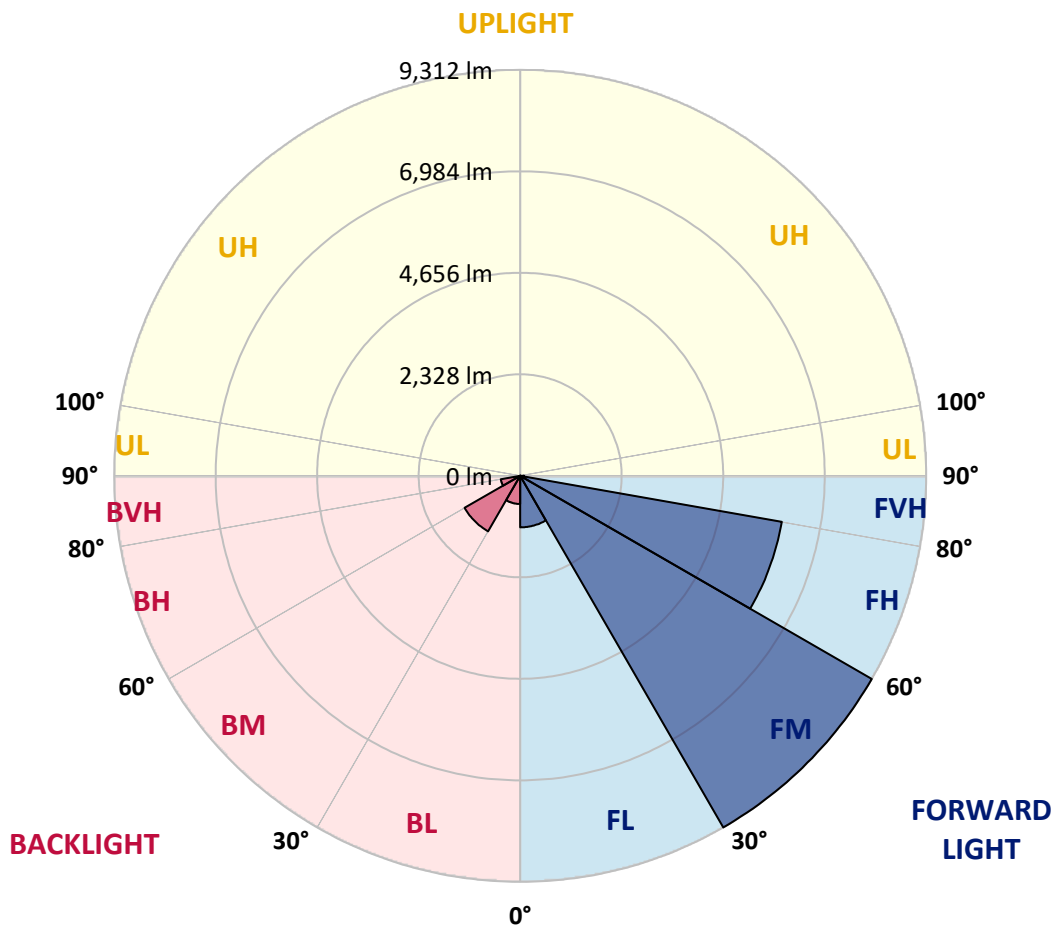
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

| Zone           | Lumens | % Fixture | Zone Rating/Lumen Limit |      |         |
|----------------|--------|-----------|-------------------------|------|---------|
|                |        |           | B                       | U    | G       |
| FL (0°-30°)    | 1182.0 | 6.1       |                         |      |         |
| FM (30°-60°)   | 9311.7 | 48.4      |                         |      |         |
| FH (60°-80°)   | 6093.2 | 31.7      |                         |      | G3/7500 |
| FVH (80°-90°)  | 86.3   | 0.4       |                         |      | G1/100  |
| BL (0°-30°)    | 646.2  | 3.4       | B2/1000                 |      |         |
| BM (30°-60°)   | 1471.5 | 7.6       | B2/2500                 |      |         |
| BH (60°-80°)   | 451.8  | 2.3       | B1/500                  |      | G1/500  |
| BVH (80°-90°)  | 4.4    | 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-G3**

Type III Short



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**CANDELA DISTRIBUTION (FULL):**

|       | 0°     | 5°     | 15°    | 25°    | 35°     | 45°     | 55°     | 64°     | 65°     | 75°     | 85°     |
|-------|--------|--------|--------|--------|---------|---------|---------|---------|---------|---------|---------|
| 0°    | 2238.6 | 2238.6 | 2238.6 | 2238.6 | 2238.6  | 2238.6  | 2238.6  | 2238.6  | 2238.6  | 2238.6  | 2238.6  |
| 2.5°  | 2230.9 | 2246.4 | 2242.5 | 2238.6 | 2237.3  | 2239.9  | 2241.2  | 2239.9  | 2239.9  | 2239.9  | 2241.2  |
| 5°    | 2188.3 | 2201.2 | 2201.2 | 2210.2 | 2223.1  | 2238.6  | 2250.2  | 2252.8  | 2255.4  | 2259.3  | 2258.0  |
| 7.5°  | 2107.0 | 2117.3 | 2125.1 | 2154.8 | 2187.0  | 2228.3  | 2263.1  | 2281.2  | 2283.8  | 2298.0  | 2303.1  |
| 10°   | 2051.5 | 2064.4 | 2077.3 | 2108.3 | 2154.8  | 2216.7  | 2276.0  | 2319.9  | 2326.4  | 2359.9  | 2375.4  |
| 12.5° | 2049.0 | 2061.9 | 2078.6 | 2112.2 | 2166.4  | 2232.2  | 2304.4  | 2367.7  | 2379.3  | 2428.3  | 2460.6  |
| 15°   | 2076.1 | 2091.5 | 2107.0 | 2148.3 | 2206.4  | 2286.4  | 2363.8  | 2442.5  | 2454.1  | 2523.8  | 2558.6  |
| 17.5° | 2131.5 | 2152.2 | 2163.8 | 2205.1 | 2267.0  | 2356.0  | 2458.0  | 2548.3  | 2558.6  | 2639.9  | 2683.8  |
| 20°   | 2241.2 | 2265.7 | 2269.6 | 2303.1 | 2363.8  | 2459.3  | 2580.5  | 2692.8  | 2705.7  | 2798.6  | 2847.6  |
| 22.5° | 2468.3 | 2503.1 | 2472.2 | 2488.9 | 2543.1  | 2638.6  | 2770.2  | 2912.1  | 2930.2  | 3036.0  | 3079.9  |
| 25°   | 2868.3 | 2917.3 | 2837.3 | 2808.9 | 2832.2  | 2931.5  | 3096.7  | 3276.0  | 3296.7  | 3381.8  | 3403.7  |
| 27.5° | 3654.1 | 3590.8 | 3469.5 | 3350.8 | 3281.2  | 3337.9  | 3523.7  | 3745.7  | 3771.5  | 3854.0  | 3828.2  |
| 30°   | 4517.3 | 4461.8 | 4297.9 | 4034.7 | 3869.5  | 3860.5  | 4032.1  | 4279.8  | 4309.5  | 4388.2  | 4309.5  |
| 32.5° | 5381.7 | 5328.8 | 5150.8 | 4826.9 | 4540.5  | 4398.5  | 4517.3  | 4792.1  | 4807.6  | 4857.9  | 4741.8  |
| 35°   | 6232.0 | 6177.8 | 5999.8 | 5668.2 | 5315.9  | 4993.4  | 4970.1  | 5279.8  | 5285.0  | 5337.9  | 5165.0  |
| 37.5° | 7087.5 | 7042.3 | 6852.6 | 6527.5 | 6180.4  | 5735.3  | 5519.8  | 5741.7  | 5748.2  | 5799.8  | 5620.4  |
| 40°   | 7697.8 | 7717.1 | 7586.8 | 7335.2 | 7037.2  | 6550.7  | 6136.5  | 6233.3  | 6194.6  | 6281.1  | 6174.0  |
| 42.5° | 8221.6 | 8260.3 | 8146.8 | 8020.3 | 7847.4  | 7419.1  | 6900.4  | 6883.6  | 6821.7  | 6868.1  | 6757.2  |
| 45°   | 8674.5 | 8706.8 | 8604.8 | 8575.2 | 8571.3  | 8270.7  | 7735.2  | 7634.6  | 7548.1  | 7539.1  | 7406.2  |
| 47.5° | 8841.0 | 8902.9 | 8946.8 | 9046.1 | 9239.7  | 9113.2  | 8598.4  | 8442.3  | 8345.5  | 8274.5  | 8064.2  |
| 50°   | 8904.2 | 8970.0 | 9119.7 | 9408.7 | 9866.7  | 9920.9  | 9457.7  | 9282.2  | 9163.5  | 9034.5  | 8724.8  |
| 52.5° | 8819.0 | 8936.4 | 9137.7 | 9624.2 | 10288.6 | 10568.6 | 10282.2 | 10128.7 | 9993.2  | 9782.9  | 9323.5  |
| 55°   | 8317.1 | 8434.5 | 8846.1 | 9621.6 | 10499.0 | 11022.8 | 11061.5 | 10993.1 | 10840.9 | 10509.3 | 9807.4  |
| 57.5° | 7259.1 | 7433.3 | 8084.9 | 9293.8 | 10495.1 | 11413.8 | 11825.4 | 11874.4 | 11704.1 | 11229.3 | 10188.0 |
| 60°   | 5793.3 | 6029.5 | 6824.3 | 8567.4 | 10171.2 | 11625.4 | 12495.0 | 12740.2 | 12559.5 | 11938.9 | 10496.4 |
| 62.5° | 4042.4 | 4316.0 | 5068.2 | 7429.4 | 9430.6  | 11473.1 | 12984.0 | 13436.9 | 13300.1 | 12573.7 | 10615.1 |
| 65°   | 2465.7 | 2553.5 | 3159.9 | 5846.2 | 8171.3  | 10835.7 | 13135.0 | 13813.7 | 13768.5 | 12962.1 | 10439.6 |
| 67.5° | 1642.5 | 1716.1 | 1890.3 | 4008.9 | 6343.0  | 9562.2  | 12773.7 | 13747.9 | 13760.8 | 12898.9 | 9797.1  |
| 70°   | 989.6  | 1052.9 | 1166.4 | 2331.5 | 4110.8  | 7568.7  | 11655.0 | 12909.2 | 12984.0 | 12053.7 | 8579.0  |
| 72.5° | 407.7  | 450.3  | 553.5  | 1056.7 | 2129.0  | 4803.7  | 9280.9  | 11083.5 | 11257.6 | 10135.1 | 6584.3  |
| 75°   | 231.0  | 252.9  | 325.1  | 530.3  | 923.8   | 2238.6  | 5621.7  | 7868.1  | 8124.9  | 6985.5  | 3961.1  |
| 77.5° | 153.5  | 163.9  | 210.3  | 343.2  | 520.0   | 763.8   | 2402.5  | 4099.2  | 4589.5  | 3815.3  | 1714.8  |
| 80°   | 103.2  | 112.3  | 144.5  | 229.7  | 338.1   | 327.7   | 765.1   | 1518.7  | 1868.3  | 1310.9  | 418.0   |
| 82.5° | 69.7   | 71.0   | 103.2  | 151.0  | 214.2   | 158.7   | 225.8   | 472.2   | 593.5   | 379.3   | 158.7   |
| 85°   | 40.0   | 38.7   | 76.1   | 87.7   | 95.5    | 65.8    | 68.4    | 141.9   | 185.8   | 160.0   | 90.3    |
| 87.5° | 5.2    | 7.7    | 29.7   | 23.2   | 12.9    | 14.2    | 14.2    | 24.5    | 36.1    | 38.7    | 19.4    |
| 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°    | 2238.6 | 2238.6 | 2238.6 | 2238.6 | 2238.6 | 2238.6 | 2238.6 | 2238.6 | 2238.6 | 2238.6 | 2238.6 |
| 2.5°  | 2241.2 | 2239.9 | 2236.0 | 2232.2 | 2223.1 | 2218.0 | 2220.6 | 2218.0 | 2216.7 | 2218.0 | 2223.1 |
| 5°    | 2258.0 | 2254.1 | 2243.8 | 2230.9 | 2212.8 | 2190.9 | 2176.7 | 2156.0 | 2136.7 | 2125.1 | 2127.7 |
| 7.5°  | 2303.1 | 2299.3 | 2285.1 | 2248.9 | 2190.9 | 2099.3 | 2015.4 | 1941.9 | 1886.4 | 1854.1 | 1855.4 |
| 10°   | 2375.4 | 2368.9 | 2347.0 | 2267.0 | 2114.8 | 1914.8 | 1748.3 | 1610.3 | 1519.9 | 1477.4 | 1473.5 |
| 12.5° | 2460.6 | 2452.8 | 2414.1 | 2250.2 | 1970.2 | 1658.0 | 1428.3 | 1274.8 | 1190.9 | 1153.5 | 1149.6 |
| 15°   | 2561.2 | 2550.9 | 2474.7 | 2170.2 | 1759.9 | 1374.1 | 1163.8 | 1049.0 | 994.8  | 961.3  | 962.5  |
| 17.5° | 2686.4 | 2668.3 | 2519.9 | 2050.2 | 1531.6 | 1157.4 | 1001.3 | 914.8  | 867.1  | 834.8  | 832.2  |
| 20°   | 2848.9 | 2819.2 | 2556.0 | 1907.0 | 1321.2 | 1020.6 | 891.6  | 819.3  | 783.2  | 754.8  | 749.6  |
| 22.5° | 3076.0 | 3033.4 | 2599.9 | 1752.2 | 1172.9 | 926.4  | 810.3  | 757.4  | 727.7  | 695.5  | 690.3  |
| 25°   | 3357.3 | 3307.0 | 2654.1 | 1609.0 | 1070.9 | 845.1  | 750.9  | 707.1  | 672.2  | 634.8  | 630.9  |
| 27.5° | 3750.8 | 3660.5 | 2718.6 | 1491.6 | 983.2  | 775.5  | 696.7  | 647.7  | 607.7  | 576.8  | 570.3  |
| 30°   | 4189.5 | 4041.1 | 2775.4 | 1420.6 | 903.2  | 710.9  | 625.8  | 576.8  | 539.3  | 517.4  | 513.5  |
| 32.5° | 4605.0 | 4403.7 | 2812.8 | 1389.6 | 830.9  | 637.4  | 548.4  | 495.5  | 467.1  | 460.6  | 464.5  |
| 35°   | 4997.2 | 4731.4 | 2808.9 | 1359.9 | 766.4  | 563.8  | 472.2  | 418.0  | 396.1  | 400.0  | 400.0  |
| 37.5° | 5448.8 | 5081.1 | 2781.8 | 1313.5 | 713.5  | 496.8  | 406.4  | 358.7  | 339.3  | 340.6  | 345.8  |
| 40°   | 5974.0 | 5485.0 | 2765.1 | 1225.8 | 655.5  | 434.8  | 352.2  | 313.5  | 299.3  | 294.2  | 292.9  |
| 42.5° | 6533.9 | 5875.9 | 2767.6 | 1126.4 | 583.2  | 379.3  | 314.8  | 282.6  | 269.7  | 265.8  | 264.5  |
| 45°   | 7096.5 | 6248.8 | 2771.5 | 1023.2 | 507.1  | 336.8  | 287.7  | 260.6  | 252.9  | 247.7  | 247.7  |
| 47.5° | 7625.5 | 6566.2 | 2699.3 | 912.2  | 432.2  | 304.5  | 265.8  | 247.7  | 241.3  | 234.8  | 234.8  |
| 50°   | 8118.4 | 6777.8 | 2525.1 | 783.2  | 372.9  | 278.7  | 249.0  | 236.1  | 229.7  | 223.2  | 223.2  |
| 52.5° | 8501.6 | 6811.4 | 2237.3 | 650.3  | 331.6  | 259.3  | 238.7  | 227.1  | 219.3  | 212.9  | 211.6  |
| 55°   | 8671.9 | 6601.0 | 1828.3 | 526.4  | 299.3  | 242.6  | 228.4  | 216.8  | 207.7  | 201.3  | 200.0  |
| 57.5° | 8628.1 | 6158.5 | 1425.8 | 423.2  | 268.4  | 225.8  | 215.5  | 207.7  | 197.4  | 187.1  | 185.8  |
| 60°   | 8412.6 | 5566.2 | 1074.8 | 352.2  | 240.0  | 207.7  | 201.3  | 194.8  | 180.6  | 165.2  | 162.6  |
| 62.5° | 8039.7 | 4821.8 | 766.4  | 291.6  | 209.0  | 187.1  | 184.5  | 179.3  | 158.7  | 130.3  | 127.7  |
| 65°   | 7469.4 | 3917.3 | 516.1  | 242.6  | 179.3  | 163.9  | 165.2  | 156.1  | 129.0  | 96.8   | 94.2   |
| 67.5° | 6635.9 | 2864.4 | 330.3  | 198.7  | 149.7  | 136.8  | 138.1  | 132.9  | 109.7  | 82.6   | 78.7   |
| 70°   | 5574.0 | 1896.7 | 215.5  | 151.0  | 120.0  | 105.8  | 113.5  | 114.8  | 92.9   | 67.1   | 64.5   |
| 72.5° | 4086.3 | 1120.0 | 151.0  | 112.3  | 87.7   | 73.5   | 92.9   | 95.5   | 74.8   | 50.3   | 47.7   |
| 75°   | 2328.9 | 531.6  | 113.5  | 81.3   | 54.2   | 51.6   | 72.3   | 72.3   | 51.6   | 33.5   | 31.0   |
| 77.5° | 978.0  | 221.9  | 80.0   | 52.9   | 31.0   | 29.7   | 49.0   | 45.2   | 25.8   | 15.5   | 15.5   |
| 80°   | 282.6  | 99.4   | 42.6   | 25.8   | 12.9   | 11.6   | 19.4   | 14.2   | 6.5    | 2.6    | 2.6    |
| 82.5° | 111.0  | 43.9   | 16.8   | 10.3   | 5.2    | 5.2    | 2.6    | 0.0    | 0.0    | 0.0    | 0.0    |
| 85°   | 65.8   | 18.1   | 7.7    | 3.9    | 1.3    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    |
| 87.5° | 16.8   | 3.9    | 2.6    | 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)