

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: P966646

Luminaire Tested: **NAV-SB4C-730-U-T2R**

Issue Date: 1/21/2025

**Test Information**

Test Method: LM-79-08  
Report Number: P966646  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2411-289-3)  
Test Lab: INNOVATION CENTER  
Issue Date: 1/21/2025  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: LUMARK  
Catalog Number: NAV-SB4C-730-U-T2R  
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE  
(4) 70 CRI, 3000K, 615mA LIGHTSQUARES WITH 26 LEDS EACH AND TYPE II  
ROADWAY OPTICS  
Light Source: -  
Ballast/Driver: -

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 31335.3 lumens  
Efficiency: N/A  
Efficacy: 156.1 lumens/watt  
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')  
IES Classification: Type II - Medium  
BUG Rating: B3 - U0 - G4

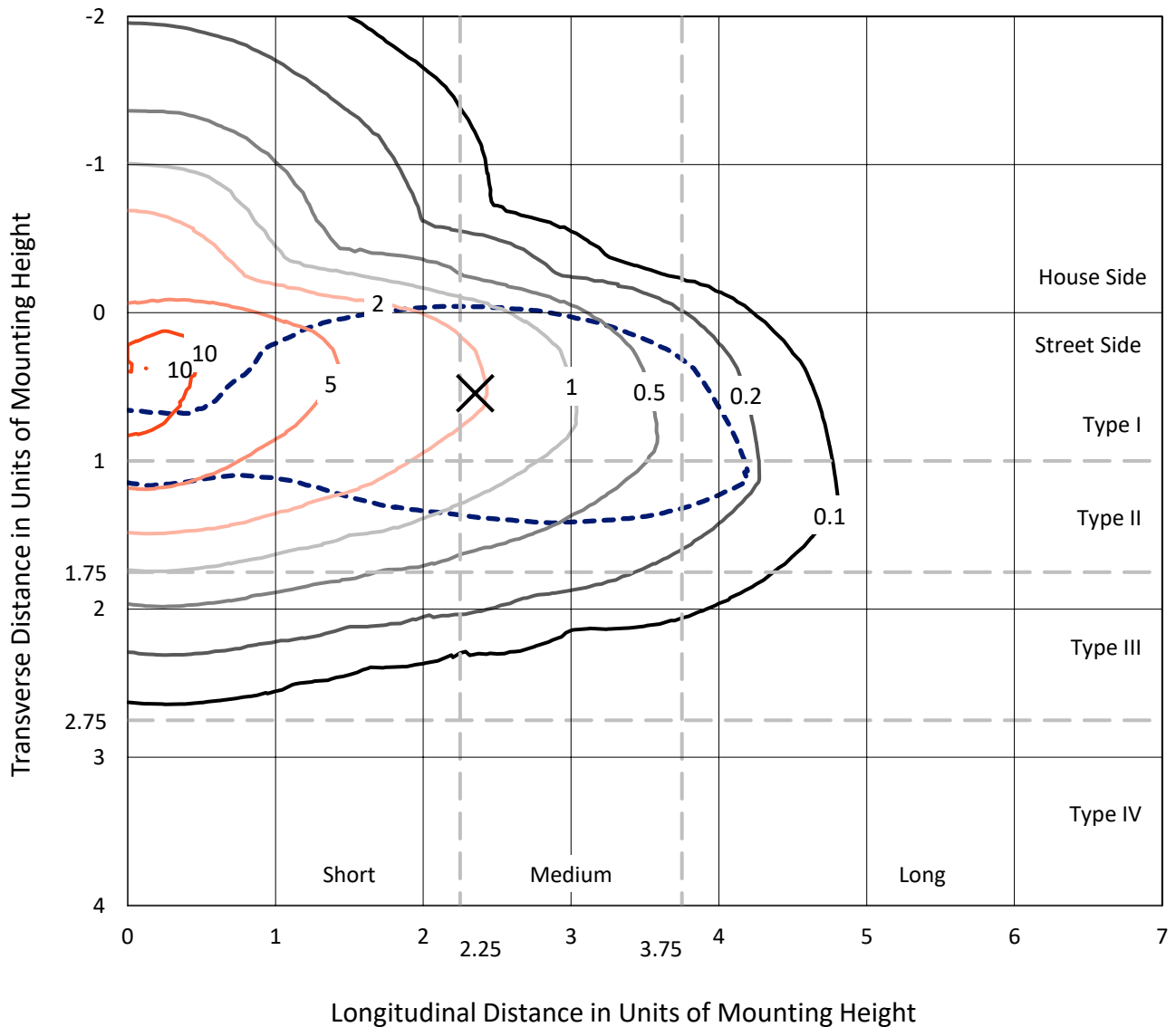
Input Watts (W): 200.7  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 24 FT



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### Iso-Footcandle Lines of Horizontal Illumination

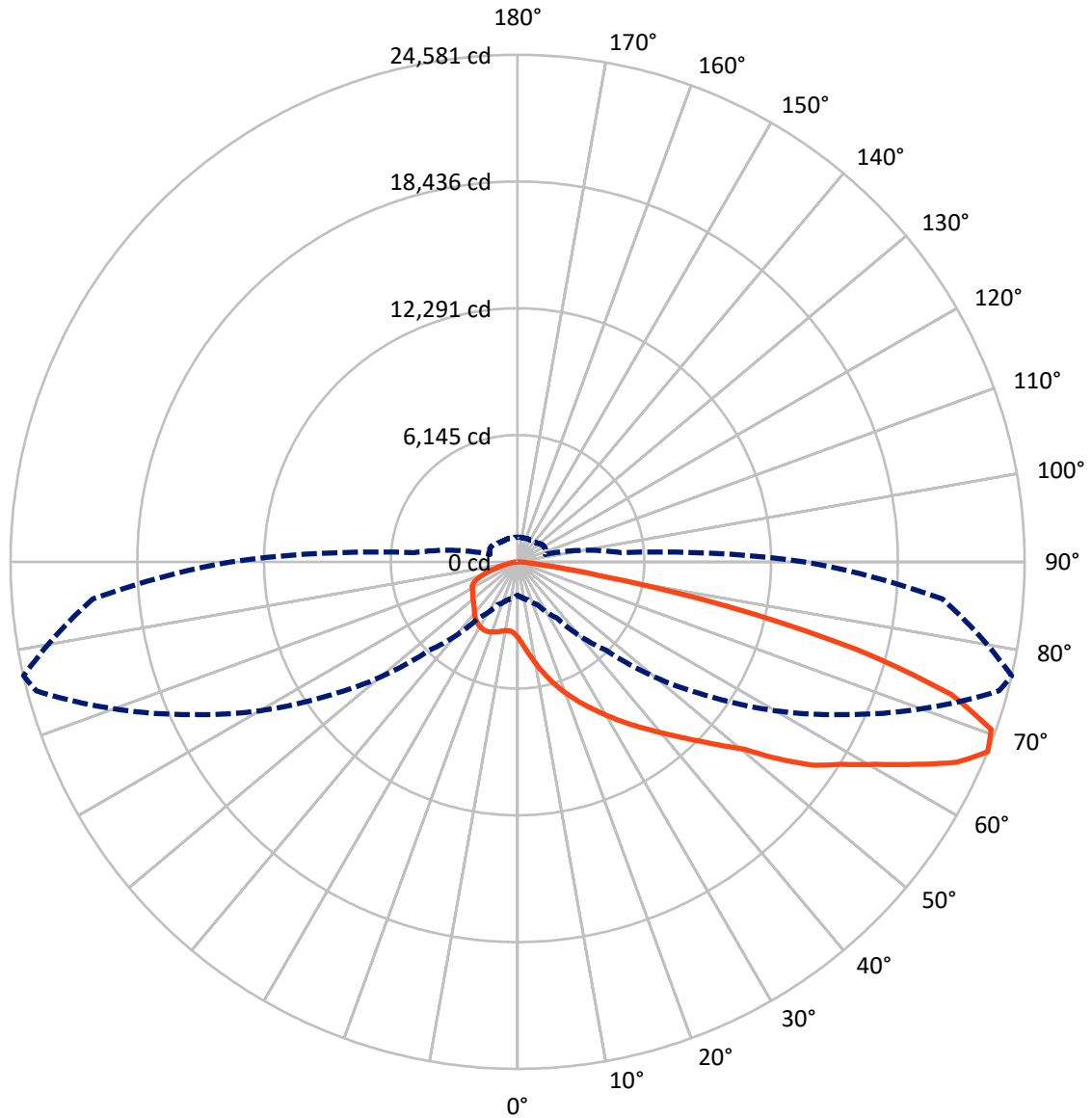
✕ Max cd  
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 11.5 fc  
 Type II - Medium - N/A

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### Luminous Intensity Polar Plot



— Vertical Plane Through 77-Deg Lateral    - - - Horizontal Cone Through 67.5-Deg Vertical

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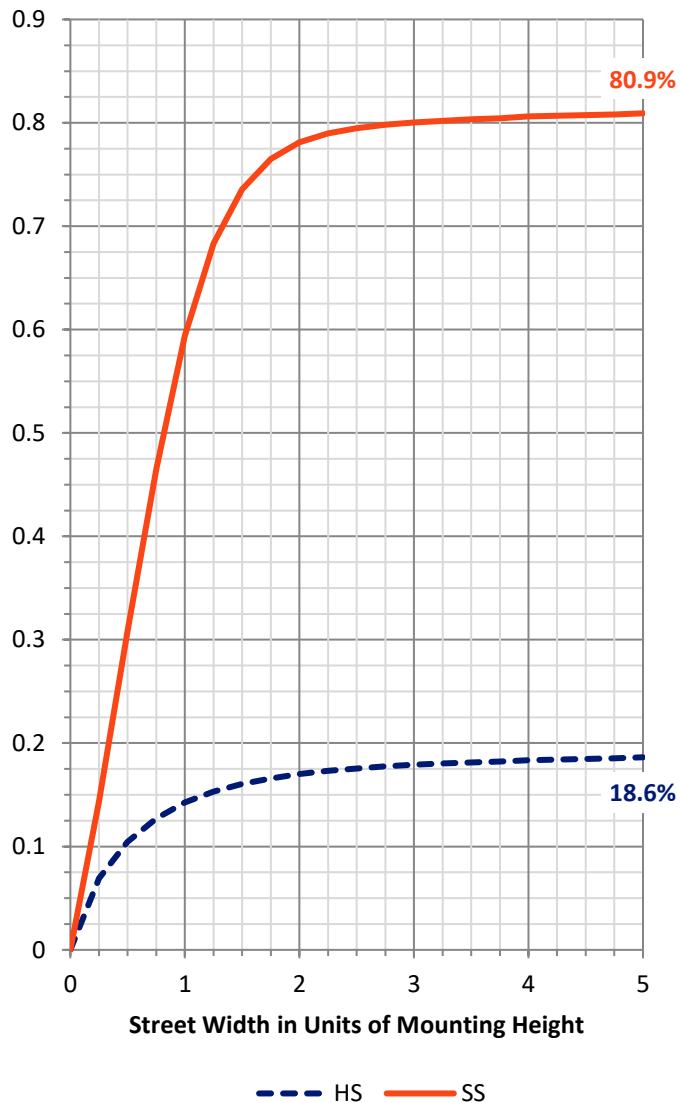
**FLUX DISTRIBUTION:**

|                    |           | Downward | Upward | Total   |
|--------------------|-----------|----------|--------|---------|
| <b>House Side</b>  | Lumens    | 5927.4   | 0.0    | 5927.4  |
|                    | % Fixture | 18.9     | 0.0    | 18.9    |
| <b>Street Side</b> | Lumens    | 25407.9  | 0.0    | 25407.9 |
|                    | % Fixture | 81.1     | 0.0    | 81.1    |
| <b>Total</b>       | Lumens    | 31335.3  | 0.0    | 31335.3 |
|                    | % Fixture | 100.0    | 0.0    | 100.0   |

**ZONAL LUMENS:**

| Zone      | Lumens  | % Fixture |
|-----------|---------|-----------|
| 0°-10°    | 394.1   | 1.3       |
| 10°-20°   | 1415.8  | 4.5       |
| 20°-30°   | 2673.1  | 8.5       |
| 30°-40°   | 4306.4  | 13.7      |
| 40°-50°   | 5890.3  | 18.8      |
| 50°-60°   | 6644.3  | 21.2      |
| 60°-70°   | 6201.7  | 19.8      |
| 70°-80°   | 3399.6  | 10.8      |
| 80°-90°   | 410.1   | 1.3       |
| 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°    | 31335.3 | 100.0     |
| 0°-180°   | 31335.3 | 100.0     |

**Coefficient of Utilization**

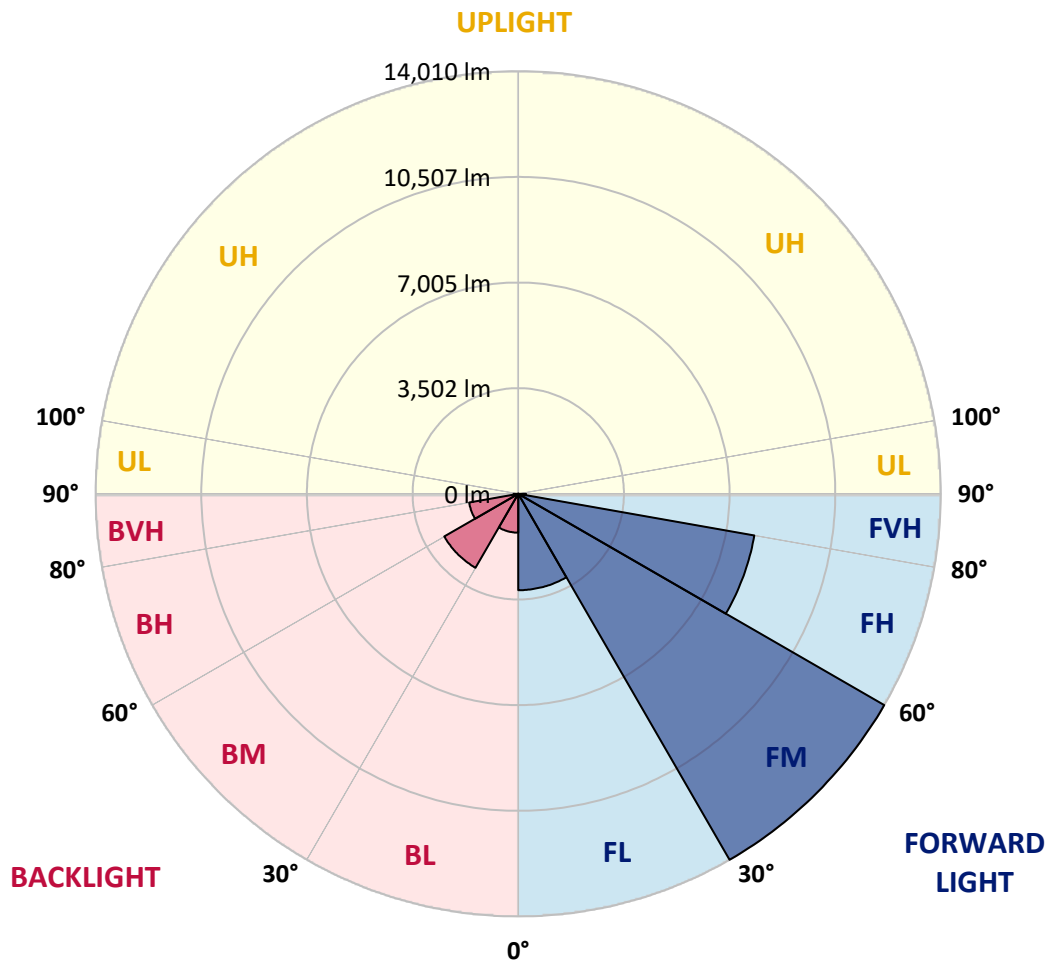


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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

| Zone           | Lumens  | % Fixture | Zone Rating/Lumen Limit |      |          |
|----------------|---------|-----------|-------------------------|------|----------|
|                |         |           | B                       | U    | G        |
| FL (0°-30°)    | 3194.2  | 10.2      |                         |      |          |
| FM (30°-60°)   | 14009.7 | 44.7      |                         |      |          |
| FH (60°-80°)   | 7947.6  | 25.4      |                         |      | G4/12000 |
| FVH (80°-90°)  | 256.4   | 0.8       |                         |      | G3/500   |
| BL (0°-30°)    | 1288.8  | 4.1       | B3/2500                 |      |          |
| BM (30°-60°)   | 2831.4  | 9.0       | B3/5000                 |      |          |
| BH (60°-80°)   | 1653.7  | 5.3       | B3/2500                 |      | G3/2500  |
| BVH (80°-90°)  | 153.6   | 0.5       |                         |      | G2/225   |
| UL (90°-100°)  | 0.0     | 0.0       |                         | U0/0 |          |
| UH (100°-180°) | 0.0     | 0.0       |                         | U0/0 |          |

**BUG Rating: B3-U0-G4**  
 Type II Medium



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**CANDELA DISTRIBUTION (FULL):**

|       | 0°      | 5°      | 15°     | 25°     | 35°     | 45°     | 55°     | 65°     | 75°     | 77°     | 85°     |
|-------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|
| 0°    | 3676.6  | 3676.6  | 3676.6  | 3676.6  | 3676.6  | 3676.6  | 3676.6  | 3676.6  | 3676.6  | 3676.6  | 3676.6  |
| 2.5°  | 4603.5  | 4635.8  | 4595.4  | 4595.4  | 4459.5  | 4388.3  | 4252.4  | 4148.9  | 3962.9  | 3930.6  | 3807.7  |
| 5°    | 5441.3  | 5481.7  | 5425.1  | 5400.8  | 5240.7  | 5093.5  | 4865.5  | 4640.7  | 4309.0  | 4275.1  | 3985.5  |
| 7.5°  | 6089.9  | 6141.7  | 6091.6  | 6065.6  | 5923.4  | 5758.3  | 5491.4  | 5177.7  | 4710.2  | 4643.9  | 4224.9  |
| 10°   | 6618.8  | 6626.9  | 6610.7  | 6620.5  | 6508.9  | 6373.0  | 6099.7  | 5734.1  | 5150.1  | 5059.6  | 4514.5  |
| 12.5° | 6918.1  | 6955.3  | 6987.6  | 7045.8  | 7026.5  | 6942.3  | 6696.5  | 6259.8  | 5616.0  | 5499.5  | 4829.9  |
| 15°   | 7058.8  | 7123.5  | 7196.3  | 7330.6  | 7438.9  | 7459.9  | 7272.4  | 6824.2  | 6089.9  | 5949.2  | 5148.6  |
| 17.5° | 7109.0  | 7170.4  | 7285.3  | 7479.3  | 7712.3  | 7869.2  | 7785.1  | 7372.6  | 6559.0  | 6397.2  | 5483.3  |
| 20°   | 7362.9  | 7380.7  | 7450.2  | 7634.6  | 7887.0  | 8147.4  | 8210.5  | 7899.9  | 7023.2  | 6840.4  | 5829.5  |
| 22.5° | 7906.4  | 7870.8  | 7890.2  | 7974.3  | 8155.5  | 8407.9  | 8551.8  | 8365.7  | 7500.4  | 7290.1  | 6178.9  |
| 25°   | 8804.1  | 8700.6  | 8597.1  | 8500.0  | 8592.2  | 8734.5  | 8897.9  | 8831.6  | 8000.2  | 7733.3  | 6531.5  |
| 27.5° | 9938.0  | 9811.8  | 9583.8  | 9265.1  | 9153.5  | 9203.7  | 9276.5  | 9263.4  | 8462.8  | 8192.7  | 6895.5  |
| 30°   | 11054.1 | 10906.9 | 10635.1 | 10174.2 | 9879.8  | 9747.1  | 9692.1  | 9654.9  | 8965.9  | 8678.0  | 7262.6  |
| 32.5° | 11945.3 | 11828.8 | 11562.0 | 11046.0 | 10619.0 | 10392.5 | 10209.7 | 10077.1 | 9491.6  | 9203.7  | 7650.8  |
| 35°   | 12725.0 | 12616.6 | 12310.9 | 11747.9 | 11283.7 | 11042.7 | 10803.4 | 10520.3 | 10038.2 | 9747.1  | 8068.2  |
| 37.5° | 13436.6 | 13328.3 | 12909.4 | 12323.8 | 11856.4 | 11689.7 | 11476.2 | 10995.8 | 10586.6 | 10311.6 | 8509.8  |
| 40°   | 13886.3 | 13862.1 | 13470.7 | 12807.5 | 12322.2 | 12239.7 | 12168.5 | 11547.4 | 11194.7 | 10939.2 | 8995.0  |
| 42.5° | 14001.2 | 14054.6 | 13744.0 | 13198.9 | 12736.2 | 12669.9 | 12836.6 | 12171.8 | 11877.4 | 11633.1 | 9544.9  |
| 45°   | 13724.5 | 13878.2 | 13674.4 | 13304.0 | 13030.6 | 12995.1 | 13428.5 | 12854.3 | 12632.7 | 12409.6 | 10208.1 |
| 47.5° | 13024.2 | 13284.6 | 13200.5 | 13148.7 | 13110.0 | 13263.6 | 13949.4 | 13579.0 | 13488.4 | 13294.4 | 10965.1 |
| 50°   | 11610.5 | 12103.8 | 12251.0 | 12577.8 | 12953.0 | 13472.3 | 14423.4 | 14370.0 | 14488.1 | 14292.3 | 11887.1 |
| 52.5° | 9166.5  | 9845.7  | 10699.9 | 11518.3 | 12471.0 | 13402.7 | 14944.2 | 15505.5 | 16003.6 | 15896.9 | 13352.6 |
| 55°   | 7566.8  | 7872.4  | 8529.1  | 10030.1 | 11536.1 | 13110.0 | 15178.7 | 16422.6 | 17507.9 | 17412.5 | 14463.8 |
| 57.5° | 6337.4  | 6610.7  | 7015.1  | 8268.7  | 10122.4 | 12445.1 | 15324.3 | 16982.2 | 18538.3 | 18528.6 | 15560.4 |
| 60°   | 5019.1  | 5308.7  | 5722.8  | 6610.7  | 8470.9  | 11296.7 | 15292.0 | 17619.5 | 19853.3 | 19934.2 | 16898.1 |
| 62.5° | 3531.0  | 3849.7  | 4309.0  | 5137.2  | 6783.9  | 9808.5  | 14632.0 | 18080.5 | 21401.3 | 21621.2 | 18507.6 |
| 65°   | 2321.1  | 2531.4  | 2877.6  | 3592.5  | 5054.7  | 7895.1  | 13371.9 | 18140.3 | 23057.6 | 23429.7 | 20018.4 |
| 67.5° | 1627.2  | 1708.1  | 1911.9  | 2300.1  | 3332.1  | 6054.4  | 11364.6 | 17520.8 | 24162.3 | 24581.3 | 20673.4 |
| 70°   | 1269.8  | 1310.2  | 1413.7  | 1569.0  | 2093.0  | 4071.3  | 8708.7  | 15909.8 | 23926.2 | 24362.9 | 19989.2 |
| 72.5° | 1096.6  | 1135.5  | 1174.3  | 1193.7  | 1404.0  | 2513.6  | 5899.1  | 13302.4 | 21702.1 | 21998.1 | 17380.1 |
| 75°   | 994.8   | 1004.5  | 1036.8  | 1030.3  | 1070.8  | 1630.5  | 3404.8  | 9692.1  | 17122.9 | 17021.0 | 12830.1 |
| 77.5° | 836.3   | 849.2   | 902.6   | 894.5   | 951.1   | 1114.5  | 1767.9  | 6255.0  | 11101.0 | 10408.7 | 7141.3  |
| 80°   | 708.5   | 714.9   | 773.2   | 763.4   | 826.6   | 807.2   | 902.6   | 3188.2  | 4708.5  | 3988.8  | 2059.1  |
| 82.5° | 245.9   | 304.1   | 590.4   | 608.2   | 630.8   | 488.5   | 520.8   | 1300.5  | 1438.0  | 1101.6  | 431.8   |
| 85°   | 119.7   | 127.8   | 300.8   | 427.0   | 425.4   | 245.9   | 254.0   | 464.2   | 452.9   | 355.9   | 143.9   |
| 87.5° | 19.4    | 24.3    | 35.6    | 166.6   | 132.6   | 64.7    | 87.3    | 90.6    | 93.8    | 80.9    | 32.4    |
| 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°    | 3676.6  | 3676.6 | 3676.6 | 3676.6 | 3676.6 | 3676.6 | 3676.6 | 3676.6 | 3676.6 | 3676.6 | 3676.6 |
| 2.5°  | 3717.1  | 3636.2 | 3466.3 | 3309.4 | 3186.5 | 3068.4 | 3002.1 | 2945.4 | 2913.2 | 2906.7 | 2906.7 |
| 5°    | 3817.3  | 3650.7 | 3341.8 | 3081.4 | 2911.5 | 2785.3 | 2719.0 | 2677.0 | 2656.0 | 2643.0 | 2641.4 |
| 7.5°  | 3961.3  | 3717.1 | 3277.0 | 2981.1 | 2803.2 | 2712.6 | 2678.6 | 2672.2 | 2670.5 | 2672.2 | 2677.0 |
| 10°   | 4160.3  | 3825.4 | 3270.6 | 2956.8 | 2808.0 | 2757.9 | 2756.2 | 2757.9 | 2764.3 | 2766.0 | 2767.6 |
| 12.5° | 4375.3  | 3937.0 | 3296.5 | 2977.8 | 2869.5 | 2841.9 | 2837.1 | 2835.5 | 2840.4 | 2843.6 | 2845.2 |
| 15°   | 4609.9  | 4084.2 | 3340.2 | 3023.1 | 2937.4 | 2908.3 | 2903.4 | 2893.7 | 2892.1 | 2890.5 | 2888.9 |
| 17.5° | 4850.9  | 4229.8 | 3388.6 | 3071.6 | 2981.1 | 2940.6 | 2922.9 | 2900.2 | 2882.4 | 2877.6 | 2882.4 |
| 20°   | 5095.2  | 4373.8 | 3422.7 | 3095.9 | 2984.3 | 2927.7 | 2892.1 | 2853.3 | 2822.5 | 2804.8 | 2811.3 |
| 22.5° | 5355.6  | 4524.1 | 3443.7 | 3089.5 | 2955.2 | 2877.6 | 2812.8 | 2767.6 | 2720.7 | 2689.9 | 2691.5 |
| 25°   | 5609.5  | 4655.2 | 3442.1 | 3055.5 | 2898.6 | 2799.9 | 2717.4 | 2659.2 | 2594.5 | 2562.1 | 2562.1 |
| 27.5° | 5853.8  | 4773.3 | 3401.7 | 2995.7 | 2817.7 | 2707.7 | 2609.0 | 2539.5 | 2476.4 | 2445.6 | 2444.0 |
| 30°   | 6106.1  | 4871.9 | 3338.5 | 2908.3 | 2722.3 | 2600.9 | 2492.6 | 2432.7 | 2376.2 | 2347.0 | 2345.4 |
| 32.5° | 6356.8  | 4962.5 | 3249.6 | 2799.9 | 2612.3 | 2495.8 | 2389.1 | 2334.0 | 2300.1 | 2300.1 | 2301.7 |
| 35°   | 6622.1  | 5025.6 | 3131.5 | 2673.7 | 2495.8 | 2384.3 | 2300.1 | 2267.7 | 2264.5 | 2245.1 | 2240.2 |
| 37.5° | 6901.9  | 5066.1 | 2987.6 | 2544.4 | 2381.0 | 2275.8 | 2250.0 | 2211.1 | 2178.7 | 2136.7 | 2130.3 |
| 40°   | 7196.3  | 5106.4 | 2814.4 | 2410.1 | 2259.6 | 2201.4 | 2190.1 | 2138.4 | 2046.1 | 1942.6 | 1928.0 |
| 42.5° | 7553.7  | 5134.0 | 2635.0 | 2275.8 | 2131.9 | 2112.4 | 2128.6 | 2039.6 | 1892.5 | 1814.9 | 1816.5 |
| 45°   | 7967.8  | 5179.2 | 2469.9 | 2143.2 | 2000.9 | 2000.9 | 2068.8 | 1952.3 | 1831.1 | 1782.5 | 1790.6 |
| 47.5° | 8504.8  | 5284.4 | 2316.3 | 1997.6 | 1879.5 | 1911.9 | 1936.1 | 1847.2 | 1779.3 | 1719.4 | 1717.8 |
| 50°   | 9281.3  | 5536.7 | 2157.7 | 1850.4 | 1787.4 | 1852.1 | 1818.0 | 1766.3 | 1687.0 | 1638.6 | 1633.6 |
| 52.5° | 10245.3 | 5685.6 | 2017.0 | 1717.8 | 1708.1 | 1772.8 | 1724.3 | 1675.8 | 1615.9 | 1551.2 | 1538.2 |
| 55°   | 10902.0 | 5713.0 | 1898.9 | 1620.7 | 1654.8 | 1648.2 | 1630.5 | 1586.8 | 1554.4 | 1468.7 | 1470.4 |
| 57.5° | 11636.4 | 5768.1 | 1802.0 | 1562.5 | 1620.7 | 1549.6 | 1543.1 | 1505.9 | 1463.8 | 1405.6 | 1386.2 |
| 60°   | 12514.6 | 5853.8 | 1717.8 | 1539.9 | 1591.6 | 1484.9 | 1452.5 | 1438.0 | 1395.9 | 1366.8 | 1374.9 |
| 62.5° | 13472.3 | 5931.4 | 1632.1 | 1543.1 | 1557.7 | 1421.8 | 1373.3 | 1368.4 | 1342.5 | 1332.8 | 1332.8 |
| 65°   | 14125.7 | 5719.5 | 1525.3 | 1539.9 | 1504.3 | 1357.1 | 1295.6 | 1294.0 | 1272.9 | 1269.8 | 1268.1 |
| 67.5° | 13897.7 | 5048.2 | 1381.4 | 1494.6 | 1449.2 | 1292.4 | 1224.5 | 1218.0 | 1190.5 | 1192.1 | 1192.1 |
| 70°   | 12755.7 | 4090.7 | 1182.4 | 1382.9 | 1381.4 | 1234.2 | 1150.0 | 1129.0 | 1091.8 | 1098.3 | 1104.7 |
| 72.5° | 10614.1 | 3031.2 | 915.5  | 1197.0 | 1272.9 | 1180.8 | 1064.4 | 1030.3 | 983.5  | 989.9  | 988.3  |
| 75°   | 7665.4  | 2060.7 | 666.5  | 910.6  | 1108.0 | 1117.7 | 980.2  | 922.0  | 865.4  | 875.0  | 878.3  |
| 77.5° | 3922.5  | 1167.9 | 490.2  | 627.6  | 870.2  | 1015.8 | 904.2  | 826.6  | 813.6  | 904.2  | 891.2  |
| 80°   | 1279.4  | 585.6  | 339.7  | 439.9  | 571.0  | 831.4  | 792.5  | 703.7  | 700.4  | 721.4  | 619.5  |
| 82.5° | 381.7   | 247.4  | 218.3  | 289.6  | 315.4  | 637.3  | 684.2  | 532.2  | 457.8  | 482.1  | 498.2  |
| 85°   | 131.0   | 119.7  | 124.5  | 143.9  | 150.5  | 373.6  | 478.8  | 352.6  | 333.2  | 367.2  | 362.3  |
| 87.5° | 30.7    | 42.0   | 35.6   | 32.4   | 32.4   | 90.6   | 186.0  | 147.2  | 203.8  | 135.9  | 131.0  |
| 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)