

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: P965117

Luminaire Tested: **NAV-SB3D-740-U-SL3**

Issue Date: 1/21/2025

### Test Information

Test Method: LM-79-08  
Report Number: P965117  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2411-289-12)  
Test Lab: INNOVATION CENTER  
Issue Date: 1/21/2025  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: LUMARK  
Catalog Number: NAV-SB3D-740-U-SL3  
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE  
(3) 70 CRI, 4000K, 900mA LIGHTSQUARES WITH 26 LEDS EACH AND TYPE III  
SPILL LIGHT ELIMINATOR OPTICS  
Light Source: -  
Ballast/Driver: -

### Summary

Lumens per Lamp: N/A  
Luminaire Lumens: 32359.2 lumens  
Efficiency: N/A  
Efficacy: 148.4 lumens/watt  
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')  
IES Classification: Type IV - Medium  
BUG Rating: B3 - U0 - G5

Input Watts (W): 218.1  
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

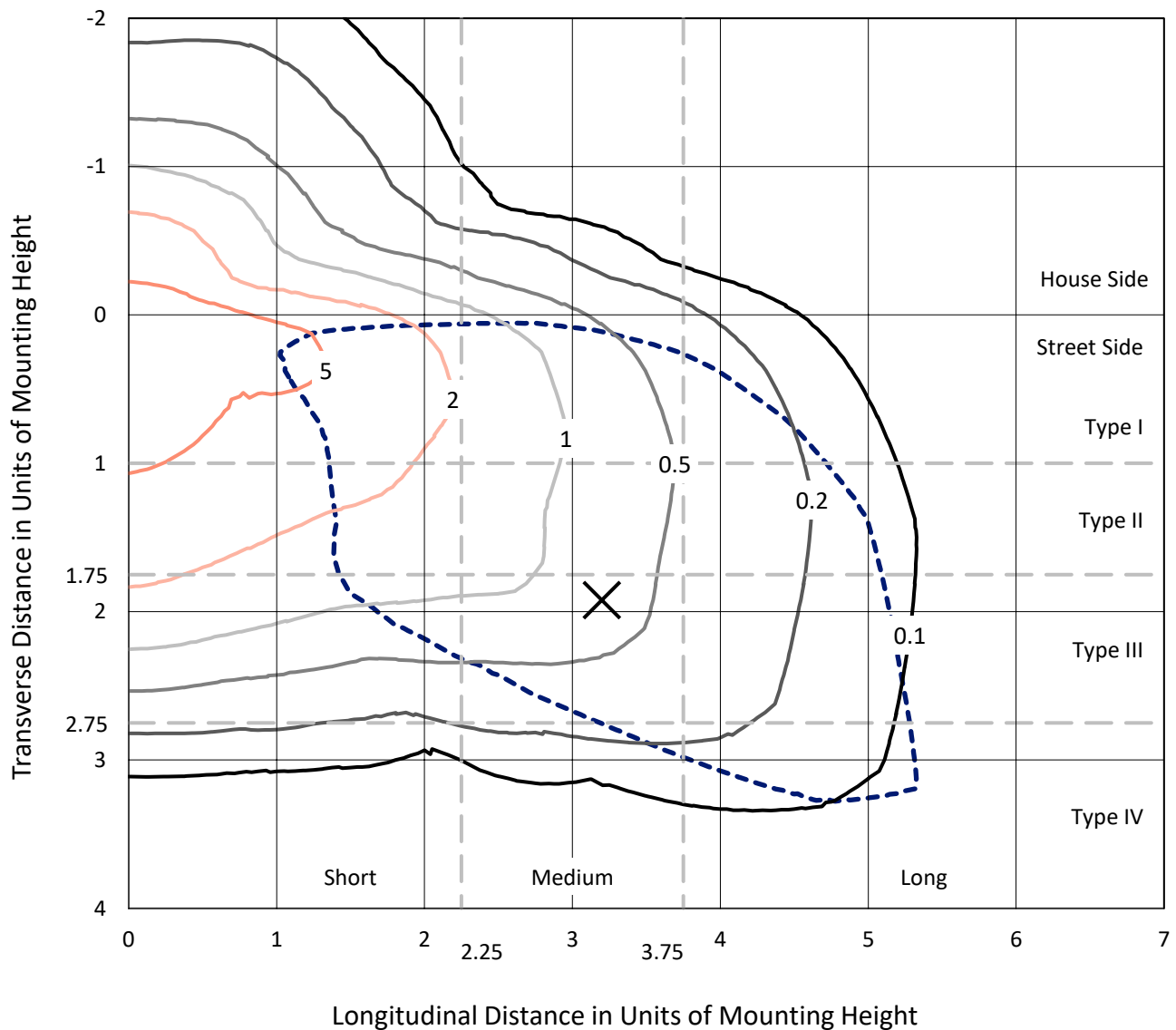


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## Iso-Footcandle Lines of Horizontal Illumination

× Max cd  
- - - 1/2 Max cd

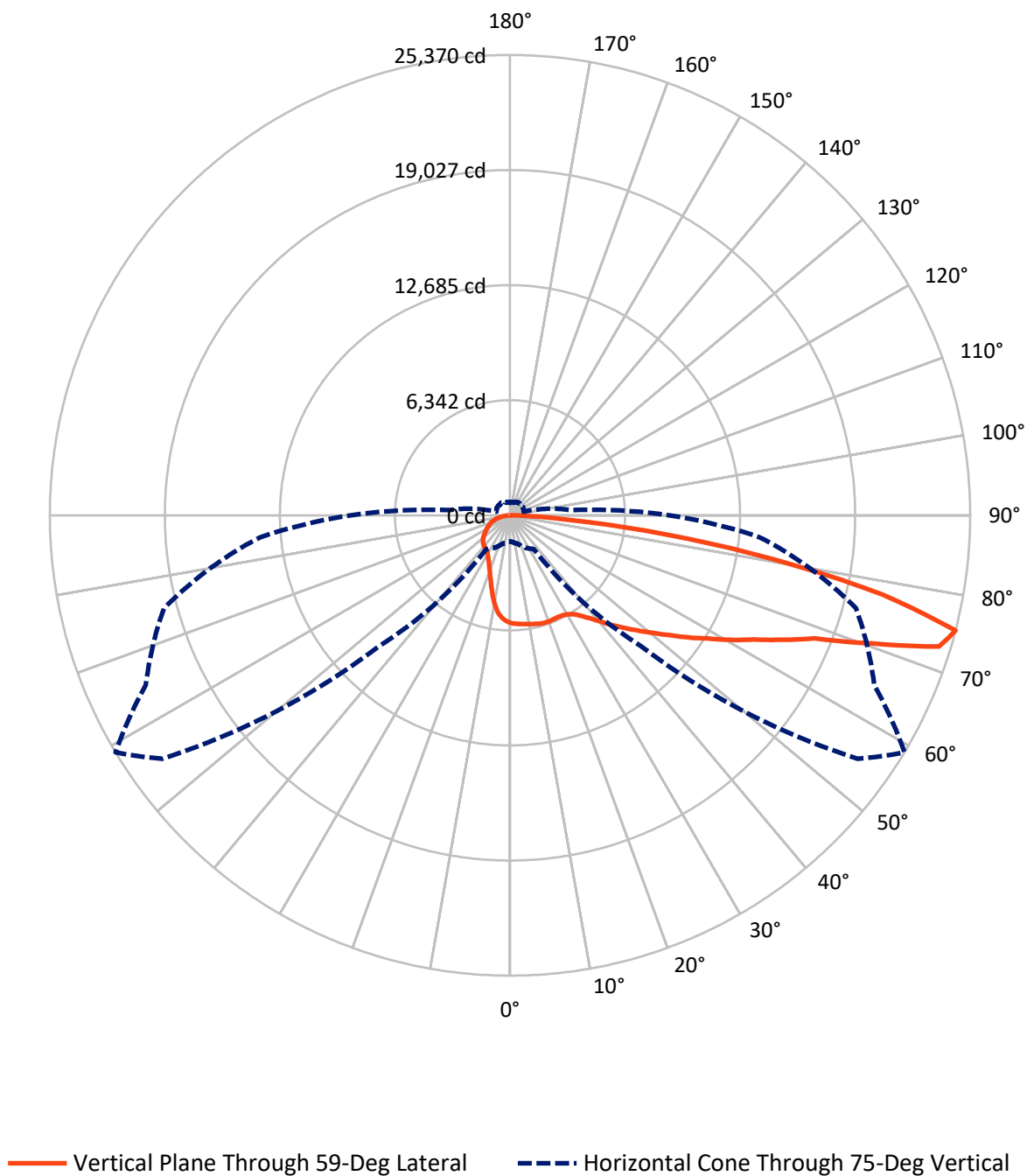


Based on 25 foot mounting height. Maximum calculated value = 9.5 fc  
Type IV - Medium - N/A

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## Luminous Intensity Polar Plot



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**FLUX DISTRIBUTION:**

|                    |           | Downward | Upward | Total   |
|--------------------|-----------|----------|--------|---------|
| <b>House Side</b>  | Lumens    | 6069.2   | 0.0    | 6069.2  |
|                    | % Fixture | 18.8     | 0.0    | 18.8    |
| <b>Street Side</b> | Lumens    | 26290.1  | 0.0    | 26290.1 |
|                    | % Fixture | 81.2     | 0.0    | 81.2    |
| <b>Total</b>       | Lumens    | 32359.2  | 0.0    | 32359.2 |
|                    | % Fixture | 100.0    | 0.0    | 100.0   |

**ZONAL LUMENS:**

| Zone      | Lumens  | % Fixture |
|-----------|---------|-----------|
| 0°-10°    | 532.6   | 1.6       |
| 10°-20°   | 1361.3  | 4.2       |
| 20°-30°   | 2067.7  | 6.4       |
| 30°-40°   | 3073.5  | 9.5       |
| 40°-50°   | 4570.9  | 14.1      |
| 50°-60°   | 6204.5  | 19.2      |
| 60°-70°   | 7574.6  | 23.4      |
| 70°-80°   | 5944.5  | 18.4      |
| 80°-90°   | 1029.7  | 3.2       |
| 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°    | 32359.2 | 100.0     |
| 0°-180°   | 32359.2 | 100.0     |

**Coefficient of Utilization**



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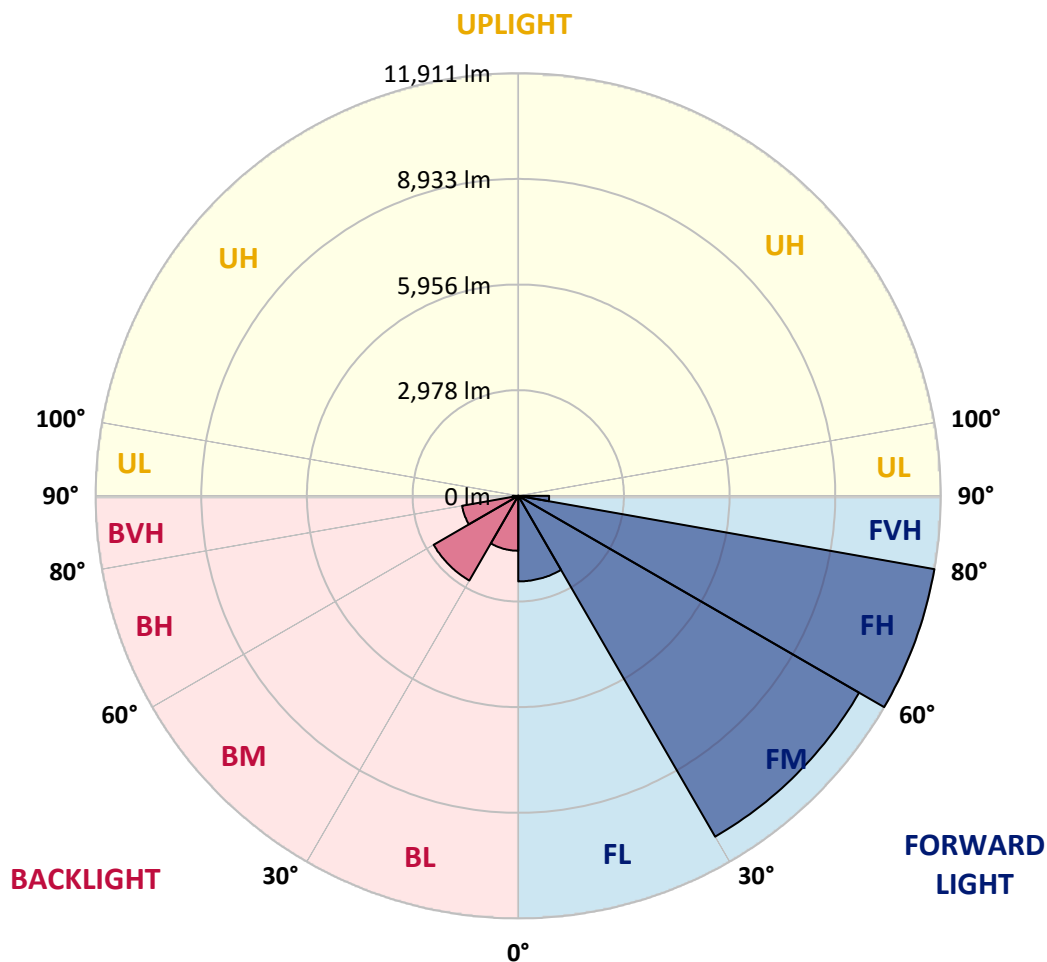
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

| Zone |             | Lumens  | % Fixture | Zone Rating/Lumen Limit |      |          |
|------|-------------|---------|-----------|-------------------------|------|----------|
|      |             |         |           | B                       | U    | G        |
| FL   | (0°-30°)    | 2412.7  | 7.5       |                         |      |          |
| FM   | (30°-60°)   | 11094.1 | 34.3      |                         |      |          |
| FH   | (60°-80°)   | 11911.1 | 36.8      |                         |      | G4/12000 |
| FVH  | (80°-90°)   | 872.1   | 2.7       |                         |      | G5       |
| BL   | (0°-30°)    | 1548.8  | 4.8       | B3/2500                 |      |          |
| BM   | (30°-60°)   | 2754.8  | 8.5       | B3/5000                 |      |          |
| BH   | (60°-80°)   | 1608.0  | 5.0       | B3/2500                 |      | G3/2500  |
| BVH  | (80°-90°)   | 157.6   | 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-G5**

Type IV Medium



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**CANDELA DISTRIBUTION (FULL):**

|       | 0°      | 5°      | 15°     | 25°     | 35°     | 45°     | 55°     | 59°     | 65°     | 75°     | 85°     |
|-------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|
| 0°    | 5939.5  | 5939.5  | 5939.5  | 5939.5  | 5939.5  | 5939.5  | 5939.5  | 5939.5  | 5939.5  | 5939.5  | 5939.5  |
| 2.5°  | 5990.0  | 5969.1  | 5990.0  | 5981.3  | 5977.8  | 5970.8  | 5972.6  | 5984.8  | 5977.8  | 5986.5  | 5956.9  |
| 5°    | 5949.9  | 5937.7  | 5958.6  | 5953.4  | 5976.1  | 5979.5  | 6002.1  | 6016.0  | 6024.7  | 6026.5  | 6003.8  |
| 7.5°  | 5883.8  | 5871.6  | 5901.1  | 5925.5  | 5974.3  | 5988.3  | 6035.2  | 6057.9  | 6070.0  | 6091.0  | 6057.9  |
| 10°   | 5641.8  | 5636.6  | 5709.7  | 5801.9  | 5916.8  | 5988.3  | 6059.6  | 6097.8  | 6117.0  | 6172.8  | 6134.4  |
| 12.5° | 5213.6  | 5220.5  | 5316.3  | 5493.8  | 5723.6  | 5953.4  | 6087.5  | 6143.1  | 6172.8  | 6242.4  | 6224.9  |
| 15°   | 4804.5  | 4802.7  | 4907.2  | 5096.9  | 5419.0  | 5800.2  | 6101.3  | 6197.2  | 6247.6  | 6350.3  | 6336.3  |
| 17.5° | 4567.7  | 4560.7  | 4633.9  | 4778.3  | 5077.7  | 5565.2  | 6066.6  | 6226.7  | 6334.6  | 6463.4  | 6451.2  |
| 20°   | 4524.2  | 4510.3  | 4548.6  | 4620.0  | 4832.4  | 5307.6  | 5976.1  | 6226.7  | 6404.2  | 6571.4  | 6564.4  |
| 22.5° | 4682.6  | 4660.1  | 4644.4  | 4635.7  | 4729.7  | 5095.2  | 5873.4  | 6205.8  | 6506.9  | 6726.3  | 6714.1  |
| 25°   | 5001.2  | 4966.4  | 4886.3  | 4808.0  | 4780.1  | 4999.4  | 5782.8  | 6200.5  | 6660.1  | 6935.2  | 6889.9  |
| 27.5° | 5516.4  | 5473.0  | 5311.0  | 5123.1  | 4954.2  | 5048.2  | 5742.8  | 6231.9  | 6829.0  | 7156.2  | 7065.7  |
| 30°   | 6155.3  | 6108.3  | 5904.6  | 5615.7  | 5312.8  | 5229.2  | 5793.2  | 6324.1  | 7044.8  | 7450.4  | 7272.9  |
| 32.5° | 6728.0  | 6675.8  | 6501.8  | 6207.5  | 5798.4  | 5542.6  | 5953.4  | 6500.0  | 7384.3  | 7859.5  | 7584.5  |
| 35°   | 7236.3  | 7175.4  | 7018.7  | 6747.2  | 6393.8  | 5983.0  | 6242.4  | 6811.6  | 7866.5  | 8524.5  | 8007.5  |
| 37.5° | 7734.2  | 7662.8  | 7492.2  | 7205.0  | 6957.8  | 6569.6  | 6641.0  | 7212.0  | 8507.1  | 9332.2  | 8568.0  |
| 40°   | 8291.2  | 8188.5  | 7981.4  | 7697.6  | 7457.4  | 7257.2  | 7165.0  | 7702.9  | 9158.2  | 10233.9 | 9267.8  |
| 42.5° | 8830.9  | 8733.4  | 8486.2  | 8244.3  | 7943.0  | 7885.6  | 7772.5  | 8277.3  | 9870.1  | 11224.4 | 9978.1  |
| 45°   | 9412.3  | 9295.6  | 8996.2  | 8689.8  | 8500.1  | 8303.4  | 8360.8  | 8851.8  | 10568.2 | 12234.1 | 10723.0 |
| 47.5° | 9957.2  | 9826.6  | 9473.3  | 9132.0  | 9027.6  | 8655.1  | 8900.5  | 9483.6  | 11294.1 | 13257.7 | 11461.1 |
| 50°   | 10251.3 | 10122.5 | 9828.3  | 9520.2  | 9438.4  | 9088.5  | 9485.3  | 10178.2 | 12054.7 | 14277.7 | 12169.6 |
| 52.5° | 10496.8 | 10357.5 | 9972.8  | 9802.2  | 9777.9  | 9560.3  | 10206.0 | 10972.0 | 12815.5 | 15179.4 | 12853.8 |
| 55°   | 10757.9 | 10603.0 | 10112.0 | 9958.9  | 10070.3 | 10089.5 | 11060.8 | 11872.0 | 13619.7 | 16058.5 | 13499.6 |
| 57.5° | 11059.0 | 10862.3 | 10246.1 | 10091.2 | 10355.8 | 10709.1 | 12042.5 | 12805.0 | 14410.0 | 16873.1 | 14074.1 |
| 60°   | 11342.8 | 11144.3 | 10503.7 | 10301.8 | 10663.9 | 11428.0 | 13168.8 | 13934.8 | 15304.8 | 17599.0 | 14617.1 |
| 62.5° | 11398.5 | 11234.8 | 10709.1 | 10707.4 | 11081.7 | 12267.1 | 14502.2 | 15075.0 | 16086.4 | 18316.2 | 15104.6 |
| 65°   | 10434.1 | 10331.4 | 10019.8 | 10691.8 | 11680.5 | 13475.2 | 15987.1 | 16533.8 | 17080.3 | 18942.9 | 15532.7 |
| 67.5° | 7941.3  | 7955.2  | 7932.7  | 9229.5  | 11196.6 | 15210.8 | 18137.0 | 18095.1 | 18307.5 | 19646.2 | 16025.5 |
| 70°   | 3631.3  | 3713.1  | 4245.8  | 6371.2  | 8970.1  | 15411.0 | 21691.6 | 21150.3 | 19848.1 | 20556.6 | 16451.9 |
| 72.5° | 1961.8  | 2024.5  | 2242.1  | 3086.4  | 5392.8  | 13701.5 | 24348.0 | 24732.7 | 21897.0 | 21169.3 | 15983.6 |
| 75°   | 1439.6  | 1474.5  | 1625.9  | 1961.8  | 2264.7  | 10183.5 | 23395.8 | 25369.8 | 22152.9 | 19740.2 | 13802.4 |
| 77.5° | 1077.5  | 1093.2  | 1216.8  | 1554.5  | 1159.4  | 5368.5  | 18694.1 | 21011.0 | 18963.8 | 16218.7 | 10195.6 |
| 80°   | 781.6   | 799.0   | 891.2   | 1166.3  | 812.9   | 1963.6  | 12836.4 | 14747.7 | 12987.8 | 10338.4 | 5081.2  |
| 82.5° | 539.7   | 546.6   | 586.6   | 793.8   | 567.4   | 762.5   | 7283.3  | 8648.1  | 7250.2  | 3627.8  | 1371.8  |
| 85°   | 325.5   | 334.3   | 351.7   | 463.0   | 322.1   | 362.0   | 3143.8  | 3251.7  | 2167.3  | 866.9   | 426.5   |
| 87.5° | 134.1   | 142.8   | 156.6   | 195.0   | 127.1   | 101.0   | 518.8   | 651.1   | 405.6   | 254.2   | 132.3   |
| 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°    | 5939.5  | 5939.5 | 5939.5 | 5939.5 | 5939.5 | 5939.5 | 5939.5 | 5939.5 | 5939.5 | 5939.5 | 5939.5 |
| 2.5°  | 5948.2  | 5936.0 | 5902.9 | 5857.7 | 5815.8 | 5763.7 | 5741.0 | 5721.9 | 5704.4 | 5671.4 | 5655.7 |
| 5°    | 5984.8  | 5951.7 | 5862.9 | 5748.0 | 5617.4 | 5474.7 | 5335.4 | 5239.7 | 5157.9 | 5096.9 | 5046.5 |
| 7.5°  | 6040.4  | 5977.8 | 5815.8 | 5580.9 | 5281.4 | 4975.0 | 4698.3 | 4501.6 | 4353.7 | 4299.7 | 4205.7 |
| 10°   | 6097.8  | 6023.0 | 5741.0 | 5326.7 | 4809.7 | 4338.0 | 3970.6 | 3768.7 | 3650.3 | 3612.1 | 3552.9 |
| 12.5° | 6165.8  | 6056.1 | 5624.4 | 4973.3 | 4282.2 | 3765.2 | 3444.9 | 3326.6 | 3265.6 | 3244.7 | 3250.0 |
| 15°   | 6265.0  | 6084.0 | 5448.6 | 4531.2 | 3779.2 | 3347.4 | 3140.3 | 3058.5 | 3027.1 | 3025.4 | 3032.4 |
| 17.5° | 6339.8  | 6089.2 | 5175.2 | 4057.7 | 3392.7 | 3095.1 | 2924.4 | 2893.2 | 2914.1 | 2945.3 | 2957.5 |
| 20°   | 6423.4  | 6042.2 | 4816.7 | 3626.0 | 3121.2 | 2874.0 | 2802.7 | 2823.5 | 2874.0 | 2919.3 | 2934.9 |
| 22.5° | 6482.6  | 5956.9 | 4383.2 | 3290.0 | 2886.2 | 2746.9 | 2743.4 | 2787.0 | 2814.9 | 2837.4 | 2849.6 |
| 25°   | 6534.8  | 5812.4 | 3923.7 | 3008.1 | 2693.0 | 2670.3 | 2708.7 | 2694.7 | 2675.6 | 2694.7 | 2706.9 |
| 27.5° | 6573.1  | 5584.3 | 3512.9 | 2760.8 | 2557.2 | 2618.1 | 2595.5 | 2564.1 | 2562.4 | 2572.9 | 2590.3 |
| 30°   | 6560.9  | 5279.7 | 3175.1 | 2525.8 | 2461.4 | 2520.6 | 2466.7 | 2461.4 | 2456.2 | 2461.4 | 2480.6 |
| 32.5° | 6560.9  | 4933.3 | 2915.8 | 2364.0 | 2400.5 | 2377.9 | 2372.7 | 2360.5 | 2339.6 | 2337.8 | 2360.5 |
| 35°   | 6597.5  | 4586.9 | 2693.0 | 2276.9 | 2350.0 | 2296.1 | 2299.6 | 2270.0 | 2226.4 | 2205.5 | 2226.4 |
| 37.5° | 6672.3  | 4308.4 | 2471.9 | 2235.1 | 2261.3 | 2259.5 | 2245.6 | 2195.1 | 2118.5 | 2052.4 | 2075.0 |
| 40°   | 6853.4  | 4226.6 | 2320.4 | 2215.9 | 2219.4 | 2240.3 | 2203.8 | 2106.3 | 1932.2 | 1824.3 | 1838.2 |
| 42.5° | 7137.1  | 4364.0 | 2287.4 | 2169.0 | 2191.7 | 2212.5 | 2141.1 | 1914.8 | 1791.3 | 1726.8 | 1726.8 |
| 45°   | 7497.5  | 4604.3 | 2358.7 | 2101.0 | 2125.4 | 2162.0 | 1949.7 | 1841.7 | 1786.1 | 1787.8 | 1796.4 |
| 47.5° | 7953.5  | 4856.8 | 2491.1 | 2041.9 | 2029.7 | 2050.6 | 1822.6 | 1756.4 | 1679.9 | 1698.9 | 1747.7 |
| 50°   | 8481.0  | 5112.6 | 2616.3 | 1961.8 | 1923.5 | 1855.7 | 1740.8 | 1678.1 | 1580.7 | 1535.3 | 1547.5 |
| 52.5° | 9052.0  | 5359.8 | 2666.8 | 1864.4 | 1808.6 | 1730.3 | 1685.1 | 1608.4 | 1490.0 | 1415.2 | 1413.5 |
| 55°   | 9593.3  | 5584.3 | 2611.2 | 1747.7 | 1693.7 | 1632.8 | 1625.9 | 1578.9 | 1451.8 | 1347.4 | 1347.4 |
| 57.5° | 10105.1 | 5772.4 | 2471.9 | 1629.3 | 1577.2 | 1540.6 | 1587.6 | 1565.0 | 1404.8 | 1270.8 | 1263.8 |
| 60°   | 10538.5 | 5901.1 | 2270.0 | 1509.2 | 1472.7 | 1453.6 | 1524.9 | 1517.9 | 1338.6 | 1188.9 | 1183.7 |
| 62.5° | 10883.2 | 5951.7 | 2047.1 | 1394.3 | 1385.6 | 1350.8 | 1437.9 | 1437.9 | 1255.1 | 1108.8 | 1103.6 |
| 65°   | 11153.0 | 5902.9 | 1820.8 | 1281.1 | 1298.6 | 1246.4 | 1331.7 | 1321.2 | 1166.3 | 1037.5 | 1030.5 |
| 67.5° | 11391.5 | 5742.8 | 1570.2 | 1169.8 | 1209.8 | 1143.7 | 1220.3 | 1195.9 | 1068.9 | 966.2  | 959.2  |
| 70°   | 11497.7 | 5370.3 | 1284.6 | 1058.4 | 1107.1 | 1042.7 | 1108.8 | 1063.6 | 959.2  | 889.5  | 875.6  |
| 72.5° | 10644.7 | 4463.3 | 1011.4 | 941.8  | 983.5  | 931.3  | 988.7  | 936.5  | 840.8  | 809.4  | 783.3  |
| 75°   | 8806.5  | 3349.2 | 778.1  | 814.7  | 846.0  | 806.0  | 844.3  | 806.0  | 718.9  | 741.6  | 677.1  |
| 77.5° | 6395.6  | 2261.3 | 595.3  | 680.6  | 694.5  | 673.6  | 706.7  | 663.3  | 584.9  | 579.6  | 553.6  |
| 80°   | 3180.4  | 1324.7 | 466.5  | 537.9  | 532.7  | 518.8  | 557.1  | 536.2  | 470.0  | 497.8  | 492.6  |
| 82.5° | 920.9   | 567.4  | 339.5  | 377.7  | 367.3  | 370.7  | 398.6  | 409.1  | 612.7  | 607.5  | 621.5  |
| 85°   | 288.9   | 222.8  | 203.7  | 210.6  | 200.2  | 205.4  | 235.0  | 466.5  | 431.7  | 252.5  | 273.3  |
| 87.5° | 74.8    | 76.6   | 50.5   | 53.9   | 55.7   | 66.1   | 74.8   | 283.7  | 135.8  | 88.8   | 94.0   |
| 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)