

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: P964238

Luminaire Tested: **NAV-SB3B-835-U-T4W-HSS**

Issue Date: 1/21/2025

**Test Information**

Test Method: LM-79-08  
Report Number: P964238  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2411-289-2)  
Test Lab: INNOVATION CENTER  
Issue Date: 1/21/2025  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: LUMARK  
Catalog Number: NAV-SB3B-835-U-T4W-HSS  
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE  
(3) 80 CRI, 3500K, 450mA LIGHTSQUARES WITH 26 LEDS EACH AND TYPE IV WIDE  
OPTICS WITH HOUSE SIDE SHIELD  
Light Source: -  
Ballast/Driver: -

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 12372.8 lumens  
Efficiency: N/A  
Efficacy: 113.3 lumens/watt  
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')  
IES Classification: Type IV - Short  
BUG Rating: B1 - U0 - G3

Input Watts (W): 109.2  
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



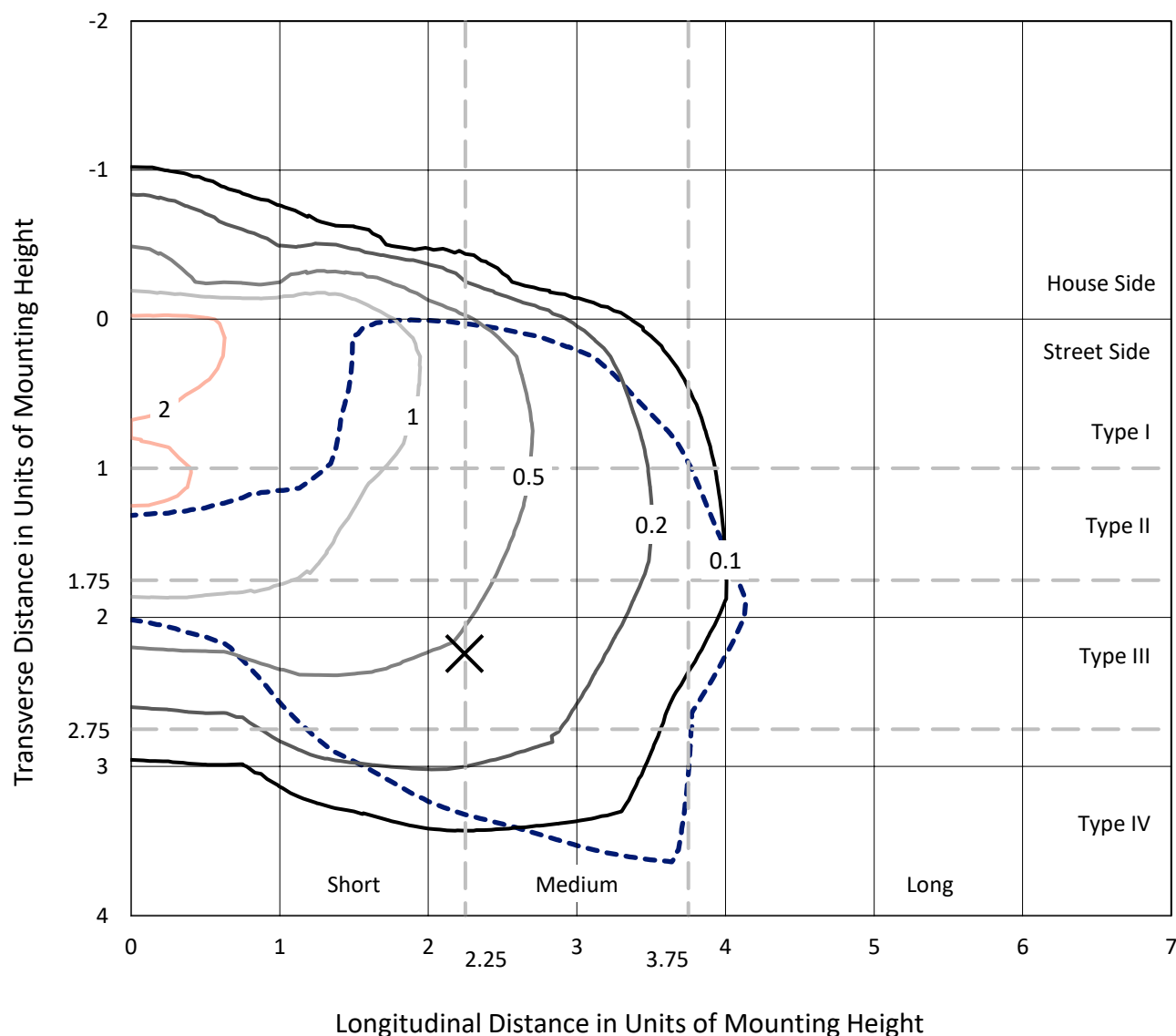
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## Iso-Footcandle Lines of Horizontal Illumination

× Max cd

--- 1/2 Max cd

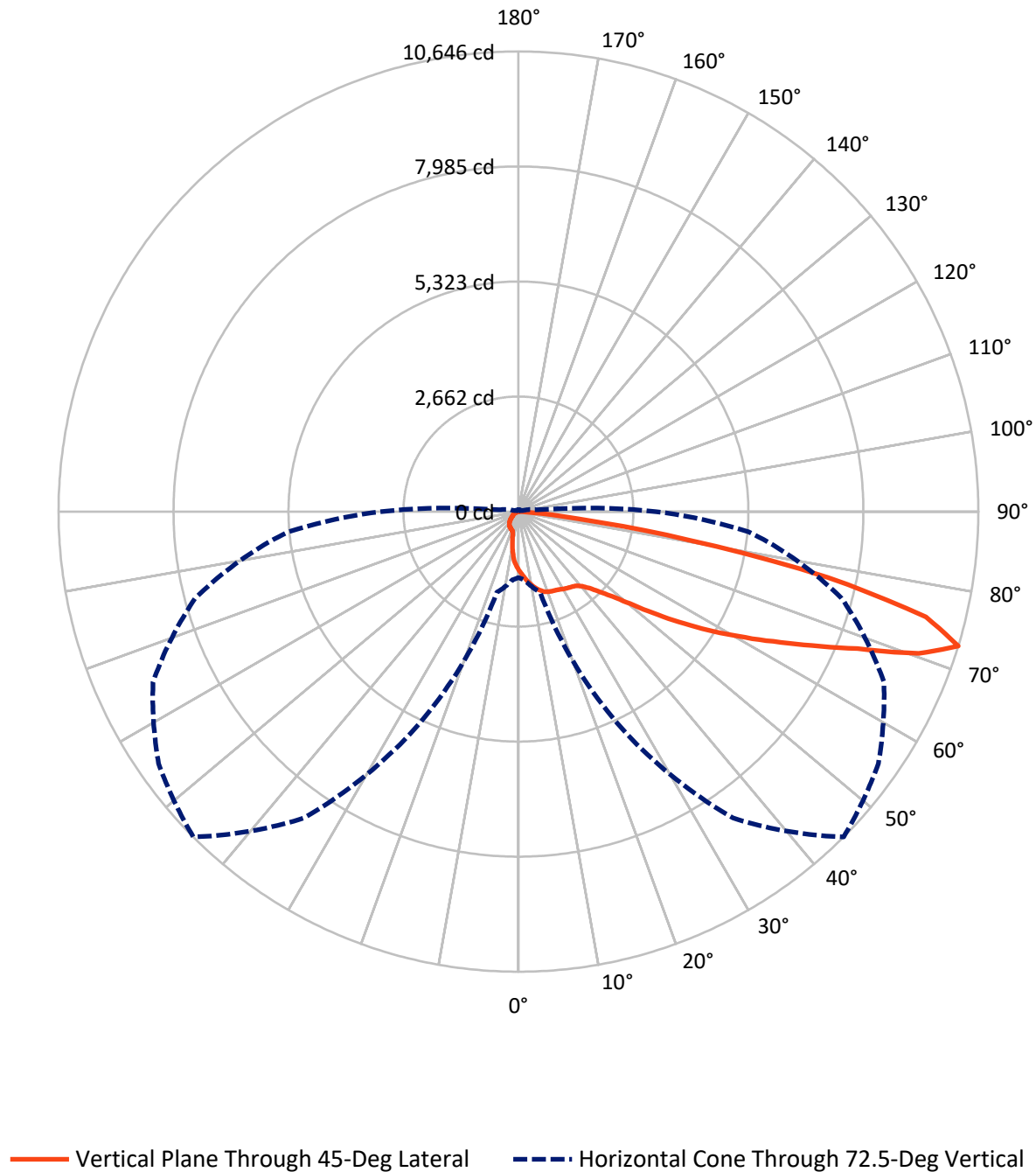


Based on 25 foot mounting height. Maximum calculated value = 3 fc

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    | 1300.0   | 0.0    | 1300.0  |
|                    | % Fixture | 10.5     | 0.0    | 10.5    |
| <b>Street Side</b> | Lumens    | 11072.7  | 0.0    | 11072.7 |
|                    | % Fixture | 89.5     | 0.0    | 89.5    |
| <b>Total</b>       | Lumens    | 12372.8  | 0.0    | 12372.8 |
|                    | % Fixture | 100.0    | 0.0    | 100.0   |

**ZONAL LUMENS:**

| Zone      | Lumens  | % Fixture |
|-----------|---------|-----------|
| 0°-10°    | 127.7   | 1.0       |
| 10°-20°   | 373.2   | 3.0       |
| 20°-30°   | 612.9   | 5.0       |
| 30°-40°   | 869.3   | 7.0       |
| 40°-50°   | 1436.8  | 11.6      |
| 50°-60°   | 2581.1  | 20.9      |
| 60°-70°   | 3584.0  | 29.0      |
| 70°-80°   | 2599.7  | 21.0      |
| 80°-90°   | 187.9   | 1.5       |
| 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°    | 12372.8 | 100.0     |
| 0°-180°   | 12372.8 | 100.0     |

**Coefficient of Utilization**



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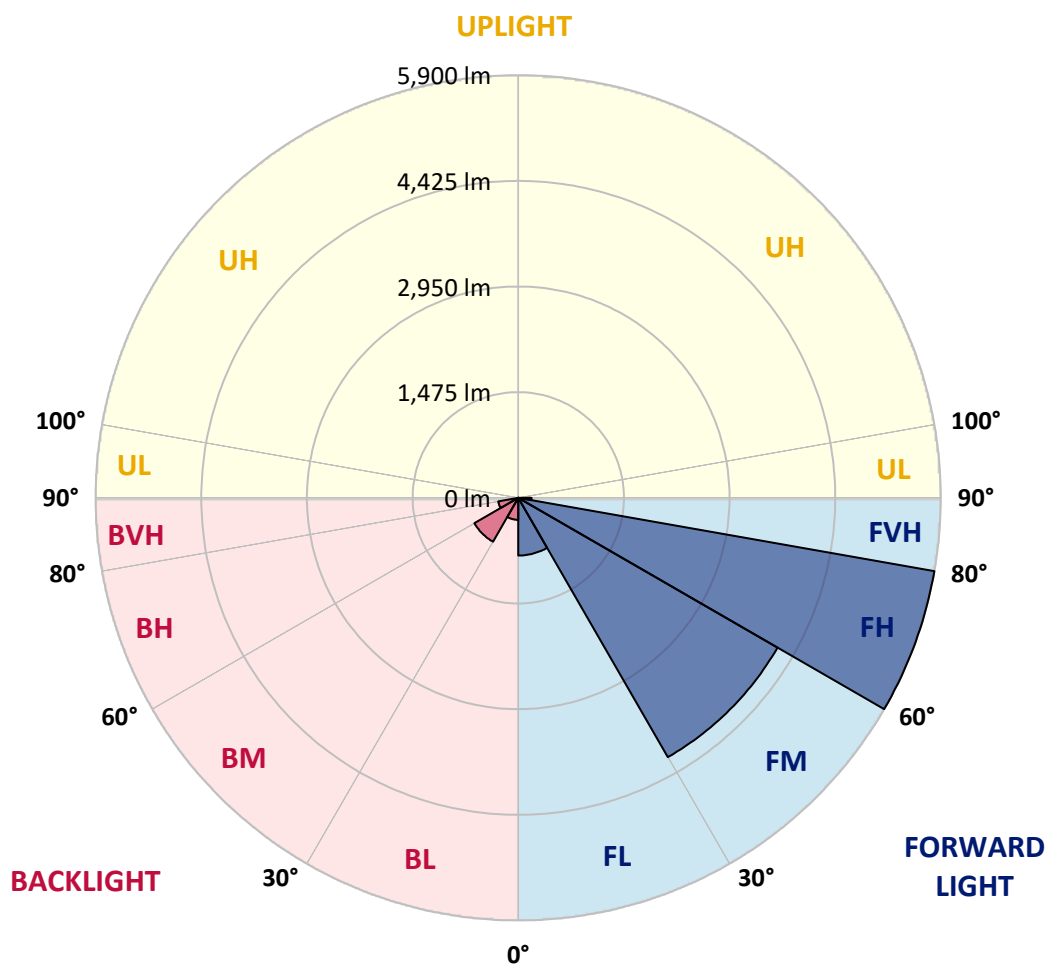
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

| Zone |             | Lumens | % Fixture | Zone Rating/Lumen Limit |      |         |
|------|-------------|--------|-----------|-------------------------|------|---------|
|      |             |        |           | B                       | U    | G       |
| FL   | (0°-30°)    | 806.0  | 6.5       |                         |      |         |
| FM   | (30°-60°)   | 4180.2 | 33.8      |                         |      |         |
| FH   | (60°-80°)   | 5900.2 | 47.7      |                         |      | G3/7500 |
| FVH  | (80°-90°)   | 186.4  | 1.5       |                         |      | G2/225  |
| BL   | (0°-30°)    | 307.9  | 2.5       | B1/500                  |      |         |
| BM   | (30°-60°)   | 707.0  | 5.7       | B1/1000                 |      |         |
| BH   | (60°-80°)   | 283.5  | 2.3       | B1/500                  |      | G1/500  |
| BVH  | (80°-90°)   | 1.6    | 0.0       |                         |      | G0/10   |
| UL   | (90°-100°)  | 0.0    | 0.0       |                         | U0/0 |         |
| UH   | (100°-180°) | 0.0    | 0.0       |                         | U0/0 |         |

**BUG Rating: B1-U0-G3**

Type IV Short



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**CANDELA DISTRIBUTION (FULL):**

|       | 0°     | 5°     | 15°    | 25°    | 35°    | 45°     | 46°     | 55°     | 65°    | 75°    | 85°    |
|-------|--------|--------|--------|--------|--------|---------|---------|---------|--------|--------|--------|
| 0°    | 1355.5 | 1355.5 | 1355.5 | 1355.5 | 1355.5 | 1355.5  | 1355.5  | 1355.5  | 1355.5 | 1355.5 | 1355.5 |
| 2.5°  | 1480.4 | 1483.0 | 1481.3 | 1471.2 | 1454.3 | 1444.9  | 1439.9  | 1423.0  | 1412.0 | 1392.7 | 1372.4 |
| 5°    | 1616.4 | 1626.6 | 1620.6 | 1600.3 | 1568.2 | 1545.5  | 1538.7  | 1504.1  | 1472.8 | 1436.5 | 1394.3 |
| 7.5°  | 1760.8 | 1765.9 | 1754.9 | 1728.8 | 1685.7 | 1646.9  | 1640.9  | 1592.7  | 1542.9 | 1487.2 | 1429.8 |
| 10°   | 1885.8 | 1891.7 | 1874.8 | 1836.8 | 1787.9 | 1739.7  | 1731.3  | 1678.0  | 1619.0 | 1550.5 | 1477.0 |
| 12.5° | 1990.5 | 1996.5 | 1974.5 | 1928.9 | 1874.8 | 1825.0  | 1816.6  | 1760.8  | 1695.8 | 1619.8 | 1528.6 |
| 15°   | 2069.9 | 2081.0 | 2051.3 | 2002.3 | 1944.1 | 1894.3  | 1890.0  | 1835.2  | 1771.8 | 1687.4 | 1590.3 |
| 17.5° | 2116.4 | 2127.4 | 2099.5 | 2040.4 | 1990.5 | 1948.3  | 1943.3  | 1897.7  | 1838.5 | 1757.5 | 1650.2 |
| 20°   | 2124.0 | 2134.2 | 2104.5 | 2053.1 | 2011.7 | 1977.8  | 1975.4  | 1942.4  | 1899.3 | 1821.6 | 1715.2 |
| 22.5° | 2101.1 | 2113.9 | 2086.8 | 2045.5 | 2016.7 | 1999.0  | 1995.6  | 1977.0  | 1952.5 | 1886.7 | 1776.0 |
| 25°   | 2077.6 | 2087.6 | 2067.4 | 2031.0 | 2015.9 | 2014.2  | 2016.7  | 2013.3  | 2008.3 | 1952.5 | 1846.9 |
| 27.5° | 2075.8 | 2086.8 | 2064.0 | 2029.4 | 2021.0 | 2038.7  | 2041.2  | 2057.3  | 2061.5 | 2012.5 | 1915.4 |
| 30°   | 2090.2 | 2097.8 | 2075.8 | 2039.5 | 2035.3 | 2075.8  | 2076.6  | 2105.5  | 2112.1 | 2063.2 | 1983.0 |
| 32.5° | 2121.4 | 2129.8 | 2107.9 | 2054.7 | 2048.8 | 2105.5  | 2107.9  | 2145.9  | 2156.9 | 2117.2 | 2053.9 |
| 35°   | 2194.9 | 2205.1 | 2179.8 | 2096.9 | 2075.8 | 2133.2  | 2140.9  | 2185.6  | 2207.5 | 2174.6 | 2127.4 |
| 37.5° | 2378.2 | 2348.6 | 2314.0 | 2182.2 | 2137.5 | 2177.2  | 2189.8  | 2242.2  | 2281.0 | 2243.1 | 2215.2 |
| 40°   | 2833.4 | 2740.4 | 2632.4 | 2327.5 | 2245.6 | 2270.9  | 2281.0  | 2333.4  | 2386.6 | 2349.5 | 2336.0 |
| 42.5° | 3516.6 | 3406.8 | 3232.8 | 2661.9 | 2408.5 | 2421.3  | 2428.8  | 2474.5  | 2549.6 | 2520.1 | 2523.4 |
| 45°   | 4125.5 | 4085.9 | 3908.4 | 3232.8 | 2713.5 | 2651.0  | 2660.3  | 2683.9  | 2794.6 | 2783.6 | 2805.5 |
| 47.5° | 4593.3 | 4570.6 | 4433.7 | 3888.2 | 3228.6 | 2932.2  | 2958.4  | 2969.3  | 3129.0 | 3167.9 | 3226.9 |
| 50°   | 4953.1 | 4944.7 | 4822.2 | 4470.9 | 3901.7 | 3346.8  | 3356.2  | 3332.5  | 3571.5 | 3667.8 | 3780.1 |
| 52.5° | 5292.7 | 5321.4 | 5231.0 | 5012.2 | 4620.4 | 3889.9  | 3888.2  | 3776.7  | 4099.3 | 4244.6 | 4436.3 |
| 55°   | 5599.2 | 5609.3 | 5618.6 | 5564.6 | 5343.3 | 4508.1  | 4492.1  | 4309.6  | 4711.6 | 4862.0 | 5069.6 |
| 57.5° | 5887.2 | 5891.4 | 5974.2 | 6084.8 | 6095.8 | 5171.8  | 5142.3  | 4923.6  | 5380.4 | 5487.7 | 5615.3 |
| 60°   | 6080.6 | 6100.0 | 6274.8 | 6582.2 | 6716.5 | 5856.7  | 5840.8  | 5617.8  | 6061.1 | 6110.9 | 6087.4 |
| 62.5° | 5801.9 | 5920.1 | 6360.9 | 6970.7 | 7302.6 | 6616.0  | 6608.4  | 6399.0  | 6777.3 | 6736.8 | 6534.1 |
| 65°   | 4696.4 | 4896.5 | 5671.8 | 7233.3 | 7877.7 | 7463.9  | 7474.9  | 7252.0  | 7512.9 | 7381.1 | 6897.2 |
| 67.5° | 3285.2 | 3496.4 | 4413.4 | 7254.4 | 8520.4 | 8459.6  | 8523.0  | 8173.4  | 8294.1 | 7998.5 | 6983.4 |
| 70°   | 2271.8 | 2380.8 | 2977.8 | 6800.2 | 9021.2 | 9831.1  | 9829.4  | 9304.9  | 9071.0 | 8279.7 | 6544.2 |
| 72.5° | 1527.8 | 1584.3 | 1934.0 | 5394.8 | 8653.0 | 10646.1 | 10597.1 | 10169.7 | 9332.8 | 7743.5 | 5346.7 |
| 75°   | 644.4  | 685.7  | 895.2  | 3031.8 | 6845.8 | 9740.0  | 9607.3  | 8987.4  | 8292.4 | 6097.5 | 3335.9 |
| 77.5° | 204.4  | 222.1  | 353.0  | 1085.2 | 3770.8 | 7321.2  | 7181.0  | 5612.7  | 5557.9 | 3058.9 | 1219.5 |
| 80°   | 97.2   | 113.2  | 198.4  | 435.7  | 1483.8 | 3981.9  | 3962.5  | 2546.2  | 2390.8 | 825.9  | 244.9  |
| 82.5° | 42.2   | 49.8   | 109.8  | 233.1  | 663.8  | 1420.4  | 1449.2  | 866.4   | 717.0  | 313.3  | 75.1   |
| 85°   | 13.5   | 17.7   | 50.6   | 107.2  | 280.3  | 353.0   | 348.8   | 206.0   | 288.8  | 170.6  | 26.1   |
| 87.5° | 0.0    | 0.0    | 16.9   | 24.5   | 28.7   | 20.3    | 22.8    | 17.7    | 80.3   | 47.3   | 9.3    |
| 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°    | 1355.5 | 1355.5 | 1355.5 | 1355.5 | 1355.5 | 1355.5 | 1355.5 | 1355.5 | 1355.5 | 1355.5 | 1355.5 |
| 2.5°  | 1362.2 | 1348.7 | 1325.0 | 1303.1 | 1283.7 | 1264.2 | 1252.4 | 1235.5 | 1233.9 | 1233.9 | 1238.1 |
| 5°    | 1371.6 | 1349.5 | 1307.3 | 1262.6 | 1211.0 | 1162.0 | 1113.0 | 1065.8 | 1050.6 | 1039.7 | 1044.7 |
| 7.5°  | 1398.5 | 1363.9 | 1297.2 | 1211.9 | 1114.0 | 1006.7 | 931.5  | 850.4  | 819.2  | 802.3  | 804.8  |
| 10°   | 1437.4 | 1390.1 | 1288.7 | 1139.3 | 980.5  | 834.4  | 727.1  | 639.3  | 605.6  | 591.1  | 591.1  |
| 12.5° | 1480.4 | 1422.2 | 1273.6 | 1048.9 | 834.4  | 659.6  | 554.8  | 514.3  | 509.2  | 509.2  | 509.2  |
| 15°   | 1532.0 | 1461.0 | 1247.3 | 942.5  | 681.5  | 521.9  | 484.7  | 486.5  | 491.5  | 494.9  | 494.9  |
| 17.5° | 1585.2 | 1502.4 | 1206.0 | 823.4  | 546.4  | 469.6  | 470.4  | 472.9  | 477.1  | 480.5  | 480.5  |
| 20°   | 1642.6 | 1543.8 | 1151.1 | 696.7  | 468.7  | 454.4  | 456.8  | 459.4  | 462.8  | 464.5  | 465.4  |
| 22.5° | 1704.3 | 1582.6 | 1086.1 | 572.6  | 442.5  | 441.7  | 442.5  | 445.1  | 449.3  | 449.3  | 451.0  |
| 25°   | 1770.2 | 1625.8 | 1011.8 | 482.3  | 429.1  | 429.1  | 430.7  | 432.4  | 435.7  | 435.7  | 436.6  |
| 27.5° | 1837.7 | 1665.4 | 933.2  | 434.9  | 417.2  | 416.4  | 416.4  | 418.9  | 420.6  | 421.4  | 422.3  |
| 30°   | 1912.0 | 1711.9 | 854.6  | 424.8  | 408.0  | 403.6  | 401.2  | 402.8  | 404.6  | 405.4  | 407.0  |
| 32.5° | 1988.0 | 1756.6 | 784.5  | 429.1  | 398.6  | 391.0  | 382.5  | 380.9  | 380.9  | 384.3  | 386.8  |
| 35°   | 2072.4 | 1805.6 | 730.5  | 443.4  | 393.6  | 372.5  | 359.0  | 351.4  | 352.2  | 357.2  | 359.8  |
| 37.5° | 2173.8 | 1864.7 | 690.8  | 456.0  | 390.2  | 351.4  | 329.3  | 320.1  | 314.2  | 320.1  | 318.4  |
| 40°   | 2306.4 | 1951.7 | 662.2  | 466.2  | 385.9  | 326.9  | 297.2  | 282.1  | 271.1  | 274.5  | 272.8  |
| 42.5° | 2501.5 | 2088.5 | 651.1  | 467.0  | 376.7  | 298.1  | 264.3  | 244.1  | 228.1  | 228.9  | 225.5  |
| 45°   | 2775.1 | 2304.7 | 707.8  | 456.0  | 356.4  | 266.9  | 229.7  | 202.6  | 192.6  | 190.0  | 186.7  |
| 47.5° | 3150.0 | 2619.7 | 838.7  | 433.3  | 326.9  | 236.5  | 196.0  | 173.1  | 165.5  | 161.3  | 158.8  |
| 50°   | 3652.6 | 3024.3 | 983.9  | 408.0  | 297.2  | 207.8  | 168.1  | 153.8  | 148.6  | 144.4  | 143.6  |
| 52.5° | 4235.3 | 3434.7 | 1102.9 | 382.5  | 267.7  | 182.4  | 150.4  | 141.9  | 137.7  | 134.3  | 133.5  |
| 55°   | 4769.8 | 3717.6 | 1096.2 | 355.6  | 239.0  | 162.2  | 137.7  | 132.6  | 127.5  | 124.1  | 122.5  |
| 57.5° | 5102.7 | 3757.3 | 903.6  | 326.0  | 206.0  | 146.1  | 125.9  | 122.5  | 116.5  | 112.3  | 111.5  |
| 60°   | 5255.5 | 3530.9 | 633.3  | 287.1  | 173.1  | 130.9  | 113.2  | 111.5  | 103.8  | 98.0   | 96.2   |
| 62.5° | 5283.4 | 3110.4 | 422.3  | 239.0  | 144.4  | 116.5  | 100.4  | 98.0   | 87.8   | 77.7   | 72.7   |
| 65°   | 5170.2 | 2509.1 | 292.2  | 186.7  | 123.3  | 101.4  | 86.1   | 81.1   | 70.1   | 60.0   | 56.6   |
| 67.5° | 4812.1 | 1761.7 | 203.6  | 134.3  | 104.8  | 80.3   | 68.4   | 66.7   | 58.3   | 49.8   | 47.3   |
| 70°   | 4155.9 | 1004.1 | 136.0  | 100.4  | 82.7   | 54.9   | 54.0   | 55.8   | 47.3   | 40.5   | 37.2   |
| 72.5° | 3186.4 | 459.4  | 84.5   | 73.5   | 56.6   | 37.2   | 43.0   | 43.9   | 36.3   | 30.4   | 27.1   |
| 75°   | 1875.6 | 196.8  | 53.2   | 47.3   | 28.7   | 24.5   | 31.3   | 32.1   | 24.5   | 19.5   | 16.9   |
| 77.5° | 638.5  | 74.3   | 33.8   | 27.9   | 14.3   | 13.5   | 20.3   | 20.3   | 13.5   | 7.6    | 5.9    |
| 80°   | 145.2  | 27.9   | 16.9   | 11.0   | 6.8    | 5.9    | 6.8    | 5.9    | 3.4    | 0.8    | 0.0    |
| 82.5° | 41.4   | 11.0   | 6.8    | 4.2    | 2.6    | 2.6    | 0.8    | 0.0    | 0.0    | 0.0    | 0.0    |
| 85°   | 11.8   | 5.0    | 1.6    | 1.6    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    |
| 87.5° | 5.0    | 0.8    | 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)