

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: P965717

Luminaire Tested: **NAV-SB4A-760-U-T2U-HSS**

Issue Date: 1/21/2025

### Test Information

Test Method: LM-79-08  
Report Number: P965717  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2411-289-17)  
Test Lab: INNOVATION CENTER  
Issue Date: 1/21/2025  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: LUMARK  
Catalog Number: NAV-SB4A-760-U-T2U-HSS  
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE  
(4) 70 CRI, 5700K, 350mA LIGHTSQUARES WITH 26 LEDS EACH AND TYPE II U  
OPTICS WITH HOUSE SIDE SHIELD  
Light Source: -  
Ballast/Driver: -

### Summary

Lumens per Lamp: N/A  
Luminaire Lumens: 14899.4 lumens  
Efficiency: N/A  
Efficacy: 130.7 lumens/watt  
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')  
IES Classification: Type II - Short  
BUG Rating: B2 - U0 - G2

Input Watts (W): 114  
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



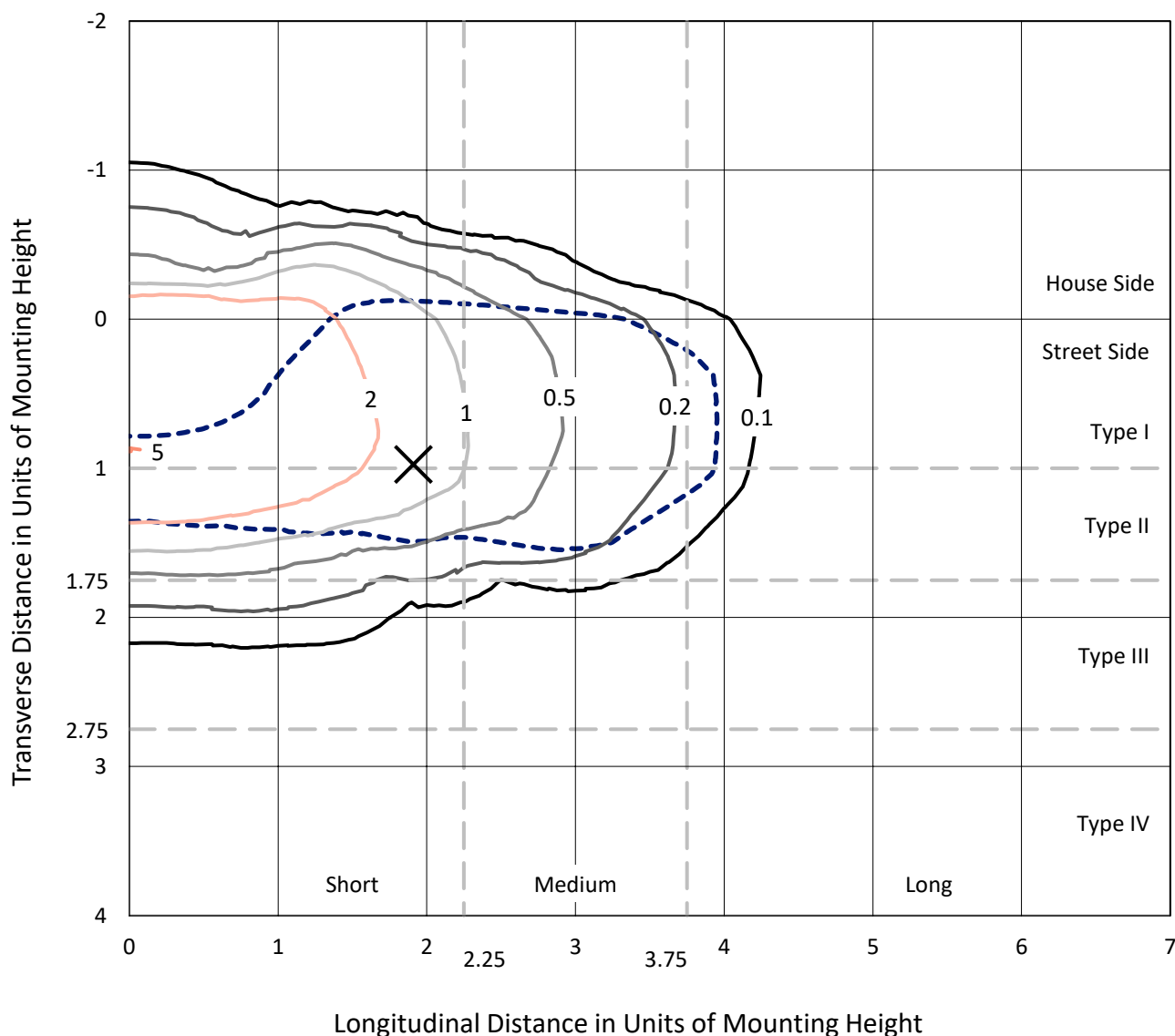
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## Iso-Footcandle Lines of Horizontal Illumination

× Max cd

--- 1/2 Max cd

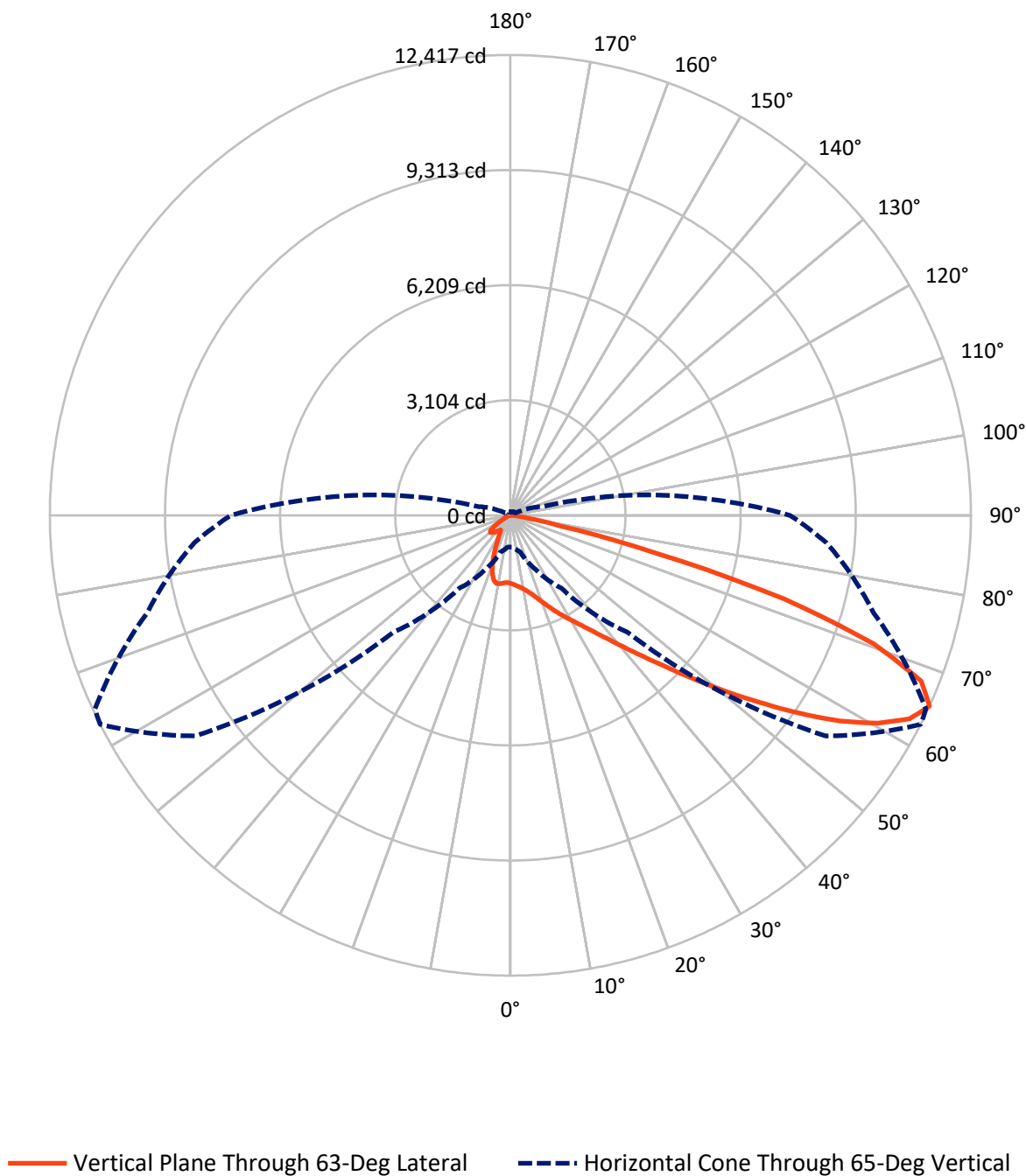


Based on 25 foot mounting height. Maximum calculated value = 5 fc

Type II - Short - N/A

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## Luminous Intensity Polar Plot



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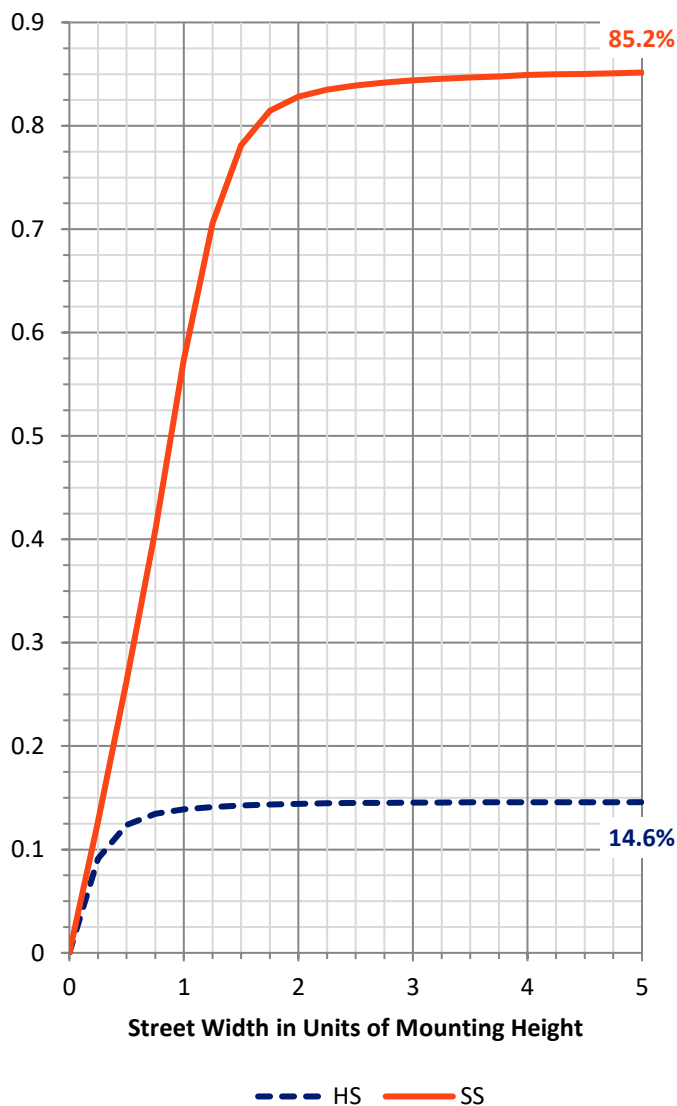
**FLUX DISTRIBUTION:**

|                    |           | Downward | Upward | Total   |
|--------------------|-----------|----------|--------|---------|
| <b>House Side</b>  | Lumens    | 2190.1   | 0.0    | 2190.1  |
|                    | % Fixture | 14.7     | 0.0    | 14.7    |
| <b>Street Side</b> | Lumens    | 12709.3  | 0.0    | 12709.3 |
|                    | % Fixture | 85.3     | 0.0    | 85.3    |
| <b>Total</b>       | Lumens    | 14899.4  | 0.0    | 14899.4 |
|                    | % Fixture | 100.0    | 0.0    | 100.0   |

**ZONAL LUMENS:**

| Zone      | Lumens  | % Fixture |
|-----------|---------|-----------|
| 0°-10°    | 173.3   | 1.2       |
| 10°-20°   | 480.7   | 3.2       |
| 20°-30°   | 837.0   | 5.6       |
| 30°-40°   | 1508.7  | 10.1      |
| 40°-50°   | 2992.3  | 20.1      |
| 50°-60°   | 4076.0  | 27.4      |
| 60°-70°   | 3253.4  | 21.8      |
| 70°-80°   | 1472.2  | 9.9       |
| 80°-90°   | 105.8   | 0.7       |
| 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°    | 14899.4 | 100.0     |
| 0°-180°   | 14899.4 | 100.0     |

**Coefficient of Utilization**



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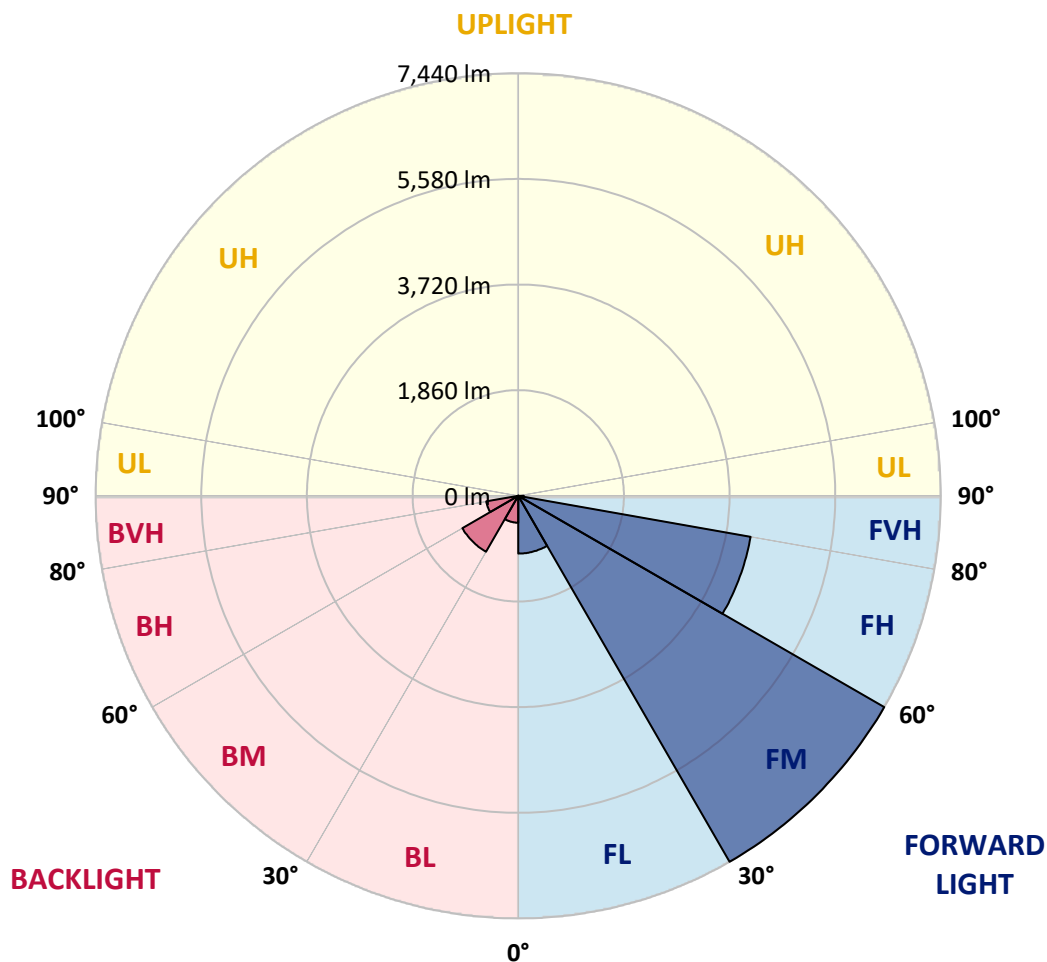
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

| Zone |             | Lumens | % Fixture | Zone Rating/Lumen Limit |      |         |
|------|-------------|--------|-----------|-------------------------|------|---------|
|      |             |        |           | B                       | U    | G       |
| FL   | (0°-30°)    | 1017.1 | 6.8       |                         |      |         |
| FM   | (30°-60°)   | 7440.4 | 49.9      |                         |      |         |
| FH   | (60°-80°)   | 4153.9 | 27.9      |                         |      | G2/5000 |
| FVH  | (80°-90°)   | 98.0   | 0.7       |                         |      | G1/100  |
| BL   | (0°-30°)    | 474.0  | 3.2       | B1/500                  |      |         |
| BM   | (30°-60°)   | 1136.5 | 7.6       | B2/2500                 |      |         |
| BH   | (60°-80°)   | 571.7  | 3.8       | B2/1000                 |      | G2/1000 |
| BVH  | (80°-90°)   | 7.8    | 0.1       |                         |      | G0/10   |
| UL   | (90°-100°)  | 0.0    | 0.0       |                         | U0/0 |         |
| UH   | (100°-180°) | 0.0    | 0.0       |                         | U0/0 |         |

**BUG Rating: B2-U0-G2**

Type II Short



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**CANDELA DISTRIBUTION (FULL):**

|       | 0°     | 5°     | 15°    | 25°    | 35°    | 45°     | 55°     | 63°     | 65°     | 75°     | 85°    |
|-------|--------|--------|--------|--------|--------|---------|---------|---------|---------|---------|--------|
| 0°    | 1838.8 | 1838.8 | 1838.8 | 1838.8 | 1838.8 | 1838.8  | 1838.8  | 1838.8  | 1838.8  | 1838.8  | 1838.8 |
| 2.5°  | 1881.9 | 1876.8 | 1884.0 | 1880.9 | 1878.8 | 1874.7  | 1872.7  | 1870.6  | 1866.5  | 1863.4  | 1851.2 |
| 5°    | 1887.0 | 1884.0 | 1891.1 | 1897.3 | 1903.4 | 1909.6  | 1912.6  | 1916.7  | 1912.6  | 1904.4  | 1892.2 |
| 7.5°  | 1844.0 | 1841.9 | 1857.3 | 1875.7 | 1903.4 | 1927.0  | 1952.6  | 1967.0  | 1968.0  | 1964.9  | 1951.6 |
| 10°   | 1840.9 | 1835.8 | 1851.2 | 1873.7 | 1909.6 | 1951.6  | 1996.7  | 2027.4  | 2031.5  | 2044.9  | 2030.5 |
| 12.5° | 1889.1 | 1884.0 | 1905.5 | 1930.1 | 1967.0 | 2011.0  | 2066.4  | 2109.4  | 2115.6  | 2134.0  | 2123.8 |
| 15°   | 1970.0 | 1962.9 | 1987.5 | 2019.2 | 2066.4 | 2116.6  | 2175.0  | 2214.0  | 2219.1  | 2241.7  | 2223.2 |
| 17.5° | 2064.4 | 2057.2 | 2085.9 | 2119.7 | 2171.0 | 2239.6  | 2307.3  | 2350.3  | 2356.5  | 2370.8  | 2337.0 |
| 20°   | 2185.3 | 2176.1 | 2198.6 | 2229.4 | 2283.7 | 2365.7  | 2446.7  | 2508.2  | 2507.1  | 2507.1  | 2451.8 |
| 22.5° | 2325.7 | 2311.4 | 2330.8 | 2355.4 | 2406.7 | 2506.1  | 2613.8  | 2686.5  | 2686.5  | 2657.8  | 2566.6 |
| 25°   | 2476.4 | 2462.0 | 2483.6 | 2506.1 | 2551.2 | 2664.0  | 2790.0  | 2880.2  | 2884.4  | 2835.1  | 2689.6 |
| 27.5° | 2665.0 | 2646.5 | 2663.0 | 2689.6 | 2716.2 | 2831.0  | 2980.7  | 3085.2  | 3087.3  | 3011.4  | 2806.4 |
| 30°   | 3027.8 | 2975.6 | 2924.3 | 2895.6 | 2907.9 | 3021.7  | 3181.6  | 3297.4  | 3307.7  | 3203.1  | 2933.5 |
| 32.5° | 3692.0 | 3681.8 | 3501.4 | 3265.6 | 3142.6 | 3226.7  | 3406.1  | 3545.5  | 3551.6  | 3417.4  | 3098.6 |
| 35°   | 4724.2 | 4711.9 | 4421.8 | 3972.9 | 3572.1 | 3501.4  | 3678.7  | 3843.7  | 3839.6  | 3688.0  | 3312.8 |
| 37.5° | 5956.4 | 5945.1 | 5562.8 | 4962.0 | 4313.2 | 3916.5  | 4030.3  | 4203.5  | 4229.2  | 4030.3  | 3589.6 |
| 40°   | 7009.1 | 6967.0 | 6725.1 | 6146.0 | 5297.2 | 4605.3  | 4530.5  | 4645.3  | 4672.0  | 4436.2  | 3941.1 |
| 42.5° | 7806.5 | 7770.6 | 7647.6 | 7285.8 | 6488.4 | 5624.3  | 5119.9  | 5164.0  | 5193.7  | 4910.8  | 4345.0 |
| 45°   | 8219.6 | 8211.4 | 8260.6 | 8226.8 | 7702.0 | 6874.8  | 5962.5  | 5779.1  | 5790.3  | 5436.7  | 4803.2 |
| 47.5° | 8278.0 | 8273.9 | 8498.4 | 8816.1 | 8745.4 | 8285.2  | 7043.9  | 6545.8  | 6505.8  | 6030.2  | 5301.3 |
| 50°   | 7933.6 | 7925.4 | 8355.9 | 8951.4 | 9442.4 | 9470.1  | 8271.9  | 7409.8  | 7321.7  | 6644.2  | 5821.1 |
| 52.5° | 6833.8 | 6831.7 | 7539.0 | 8530.2 | 9687.4 | 10507.4 | 9485.5  | 8359.0  | 8211.4  | 7294.0  | 6370.5 |
| 55°   | 5258.2 | 5296.2 | 6107.1 | 7278.6 | 9240.5 | 11006.6 | 10575.0 | 9412.7  | 9186.2  | 7948.0  | 6876.8 |
| 57.5° | 3724.8 | 3780.2 | 4581.8 | 5625.3 | 7854.7 | 10711.4 | 11312.0 | 10468.4 | 10224.5 | 8599.9  | 7390.4 |
| 60°   | 2000.8 | 2050.0 | 2852.6 | 4098.0 | 5843.6 | 9610.5  | 11700.5 | 11384.8 | 11154.2 | 9219.0  | 7853.7 |
| 62.5° | 1192.1 | 1208.5 | 1540.6 | 2645.5 | 3952.4 | 7342.2  | 11535.5 | 12082.8 | 11893.2 | 9738.6  | 8256.5 |
| 65°   | 855.9  | 859.0  | 1026.0 | 1615.4 | 2399.5 | 4460.8  | 10378.2 | 12417.0 | 12358.5 | 10130.2 | 8554.8 |
| 67.5° | 720.6  | 718.5  | 788.2  | 1073.2 | 1634.9 | 2234.5  | 7954.1  | 11944.4 | 12192.5 | 10378.2 | 8723.9 |
| 70°   | 618.1  | 621.2  | 703.2  | 786.2  | 1229.0 | 1264.8  | 3954.4  | 10399.8 | 10928.7 | 10443.8 | 8713.6 |
| 72.5° | 460.2  | 470.5  | 546.3  | 716.5  | 927.6  | 870.2   | 1365.3  | 7711.2  | 8667.5  | 9840.1  | 8261.6 |
| 75°   | 324.9  | 330.0  | 384.4  | 602.7  | 691.9  | 633.4   | 697.0   | 3986.2  | 5212.1  | 7544.1  | 6762.0 |
| 77.5° | 250.1  | 259.3  | 291.1  | 421.3  | 681.6  | 444.8   | 426.4   | 1379.6  | 2119.7  | 4557.2  | 4636.1 |
| 80°   | 135.3  | 151.7  | 210.1  | 304.4  | 478.7  | 314.7   | 211.2   | 549.4   | 718.5   | 2131.0  | 1787.6 |
| 82.5° | 69.7   | 77.9   | 146.6  | 219.4  | 272.6  | 274.7   | 104.6   | 228.6   | 296.2   | 658.0   | 245.0  |
| 85°   | 27.7   | 33.8   | 98.4   | 121.0  | 140.4  | 135.3   | 47.2    | 92.2    | 106.6   | 182.4   | 74.8   |
| 87.5° | 6.1    | 10.2   | 35.9   | 27.7   | 26.6   | 28.7    | 11.3    | 21.5    | 20.5    | 21.5    | 13.3   |
| 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°    | 1838.8 | 1838.8 | 1838.8 | 1838.8 | 1838.8 | 1838.8 | 1838.8 | 1838.8 | 1838.8 | 1838.8 | 1838.8 |
| 2.5°  | 1850.1 | 1846.0 | 1834.7 | 1822.4 | 1808.1 | 1799.9 | 1794.8 | 1793.7 | 1786.6 | 1781.4 | 1786.6 |
| 5°    | 1880.9 | 1876.8 | 1855.2 | 1829.6 | 1802.0 | 1780.4 | 1759.9 | 1741.5 | 1714.8 | 1709.7 | 1707.6 |
| 7.5°  | 1942.4 | 1931.1 | 1896.2 | 1861.4 | 1809.1 | 1746.6 | 1670.7 | 1583.6 | 1505.7 | 1482.1 | 1470.9 |
| 10°   | 2018.2 | 2002.8 | 1958.8 | 1897.3 | 1781.4 | 1611.3 | 1427.8 | 1257.7 | 1122.4 | 1084.4 | 1070.1 |
| 12.5° | 2104.3 | 2091.0 | 2032.6 | 1918.8 | 1665.6 | 1357.1 | 1076.2 | 865.1  | 733.9  | 701.1  | 691.9  |
| 15°   | 2206.8 | 2187.4 | 2106.4 | 1886.0 | 1458.6 | 1031.1 | 739.0  | 614.0  | 566.8  | 560.7  | 554.5  |
| 17.5° | 2315.5 | 2283.7 | 2172.0 | 1768.1 | 1179.8 | 732.9  | 570.9  | 535.0  | 514.6  | 508.4  | 505.3  |
| 20°   | 2414.9 | 2373.9 | 2210.9 | 1589.8 | 881.5  | 570.9  | 511.5  | 487.9  | 469.4  | 462.3  | 458.2  |
| 22.5° | 2514.3 | 2455.9 | 2210.9 | 1346.8 | 661.1  | 506.4  | 469.4  | 447.9  | 426.4  | 417.2  | 412.0  |
| 25°   | 2617.8 | 2540.0 | 2172.0 | 1076.2 | 532.0  | 464.3  | 429.5  | 405.9  | 387.4  | 376.2  | 372.1  |
| 27.5° | 2718.3 | 2610.7 | 2082.8 | 820.0  | 473.6  | 427.4  | 392.6  | 370.0  | 352.6  | 344.4  | 344.4  |
| 30°   | 2813.6 | 2680.4 | 1957.7 | 622.2  | 435.6  | 391.5  | 358.7  | 339.3  | 321.8  | 313.6  | 314.7  |
| 32.5° | 2942.8 | 2768.5 | 1824.5 | 510.4  | 402.8  | 357.7  | 328.0  | 309.5  | 294.2  | 288.0  | 288.0  |
| 35°   | 3122.1 | 2898.7 | 1709.7 | 501.2  | 375.2  | 330.0  | 300.3  | 282.9  | 267.5  | 262.4  | 262.4  |
| 37.5° | 3376.4 | 3108.8 | 1649.2 | 562.7  | 352.6  | 305.4  | 277.8  | 259.3  | 245.0  | 240.9  | 239.8  |
| 40°   | 3690.0 | 3393.8 | 1682.0 | 624.2  | 337.2  | 283.9  | 257.3  | 238.8  | 226.5  | 221.4  | 220.4  |
| 42.5° | 4062.1 | 3745.3 | 1863.4 | 671.4  | 327.0  | 265.5  | 237.8  | 217.3  | 209.1  | 207.0  | 207.0  |
| 45°   | 4489.5 | 4131.8 | 2141.2 | 721.6  | 310.6  | 248.0  | 218.3  | 203.0  | 196.8  | 195.8  | 194.7  |
| 47.5° | 4975.3 | 4556.1 | 2463.1 | 784.1  | 294.2  | 231.6  | 203.0  | 192.7  | 187.6  | 185.5  | 185.5  |
| 50°   | 5457.2 | 4983.5 | 2794.1 | 819.0  | 280.8  | 216.3  | 190.6  | 182.4  | 178.4  | 177.3  | 177.3  |
| 52.5° | 5961.5 | 5423.4 | 3061.7 | 786.2  | 269.6  | 204.0  | 180.4  | 174.2  | 170.1  | 169.1  | 169.1  |
| 55°   | 6442.2 | 5779.1 | 3107.8 | 667.3  | 247.0  | 191.7  | 169.1  | 166.0  | 160.9  | 160.9  | 159.9  |
| 57.5° | 6856.3 | 5957.4 | 2781.8 | 489.9  | 224.5  | 173.2  | 157.8  | 154.8  | 150.7  | 149.6  | 148.6  |
| 60°   | 7236.6 | 5906.2 | 2147.4 | 330.0  | 199.9  | 154.8  | 143.5  | 141.4  | 137.4  | 132.2  | 131.2  |
| 62.5° | 7450.8 | 5680.7 | 1468.8 | 215.2  | 175.3  | 135.3  | 127.1  | 126.1  | 116.8  | 106.6  | 104.6  |
| 65°   | 7531.8 | 5217.2 | 916.4  | 156.8  | 146.6  | 115.8  | 109.7  | 107.6  | 94.3   | 83.0   | 82.0   |
| 67.5° | 7461.1 | 4454.6 | 462.3  | 124.0  | 115.8  | 96.4   | 90.2   | 90.2   | 81.0   | 70.7   | 69.7   |
| 70°   | 7178.2 | 3339.4 | 194.7  | 99.4   | 89.2   | 73.8   | 73.8   | 77.9   | 68.7   | 57.4   | 56.4   |
| 72.5° | 6564.2 | 2246.8 | 103.5  | 75.8   | 66.6   | 52.3   | 60.5   | 63.6   | 54.3   | 43.0   | 43.0   |
| 75°   | 5218.3 | 1370.4 | 71.8   | 56.4   | 42.0   | 36.9   | 46.1   | 48.2   | 36.9   | 28.7   | 27.7   |
| 77.5° | 3569.0 | 787.2  | 48.2   | 35.9   | 26.6   | 21.5   | 31.8   | 29.7   | 19.5   | 13.3   | 14.3   |
| 80°   | 1567.2 | 328.0  | 27.7   | 16.4   | 10.2   | 8.2    | 11.3   | 8.2    | 6.1    | 4.1    | 4.1    |
| 82.5° | 183.5  | 76.9   | 10.2   | 6.1    | 4.1    | 2.0    | 1.0    | 0.0    | 0.0    | 0.0    | 0.0    |
| 85°   | 37.9   | 9.2    | 5.1    | 2.0    | 1.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    |
| 87.5° | 7.2    | 2.0    | 1.0    | 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)