

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: P961437

Luminaire Tested: **NAV-SB2A-740-U-T2R-HSS**

Issue Date: 1/21/2025

### Test Information

Test Method: LM-79-08  
Report Number: P961437  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2411-289-4)  
Test Lab: INNOVATION CENTER  
Issue Date: 1/21/2025  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: LUMARK  
Catalog Number: NAV-SB2A-740-U-T2R-HSS  
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE  
(2) 70 CRI, 4000K, 350mA LIGHTSQUARES WITH 26 LEDS EACH AND TYPE II  
ROADWAY OPTICS WITH HOUSE SIDE SHIELD  
Light Source: -  
Ballast/Driver: -

### Summary

Lumens per Lamp: N/A  
Luminaire Lumens: 8236.9 lumens  
Efficiency: N/A  
Efficacy: 143.8 lumens/watt  
Luminous Opening: Rectangular (W 0.5' x L: 1' x H: 0')  
IES Classification: Type II - Medium  
BUG Rating: B1 - U0 - G2

Input Watts (W): 57.3  
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

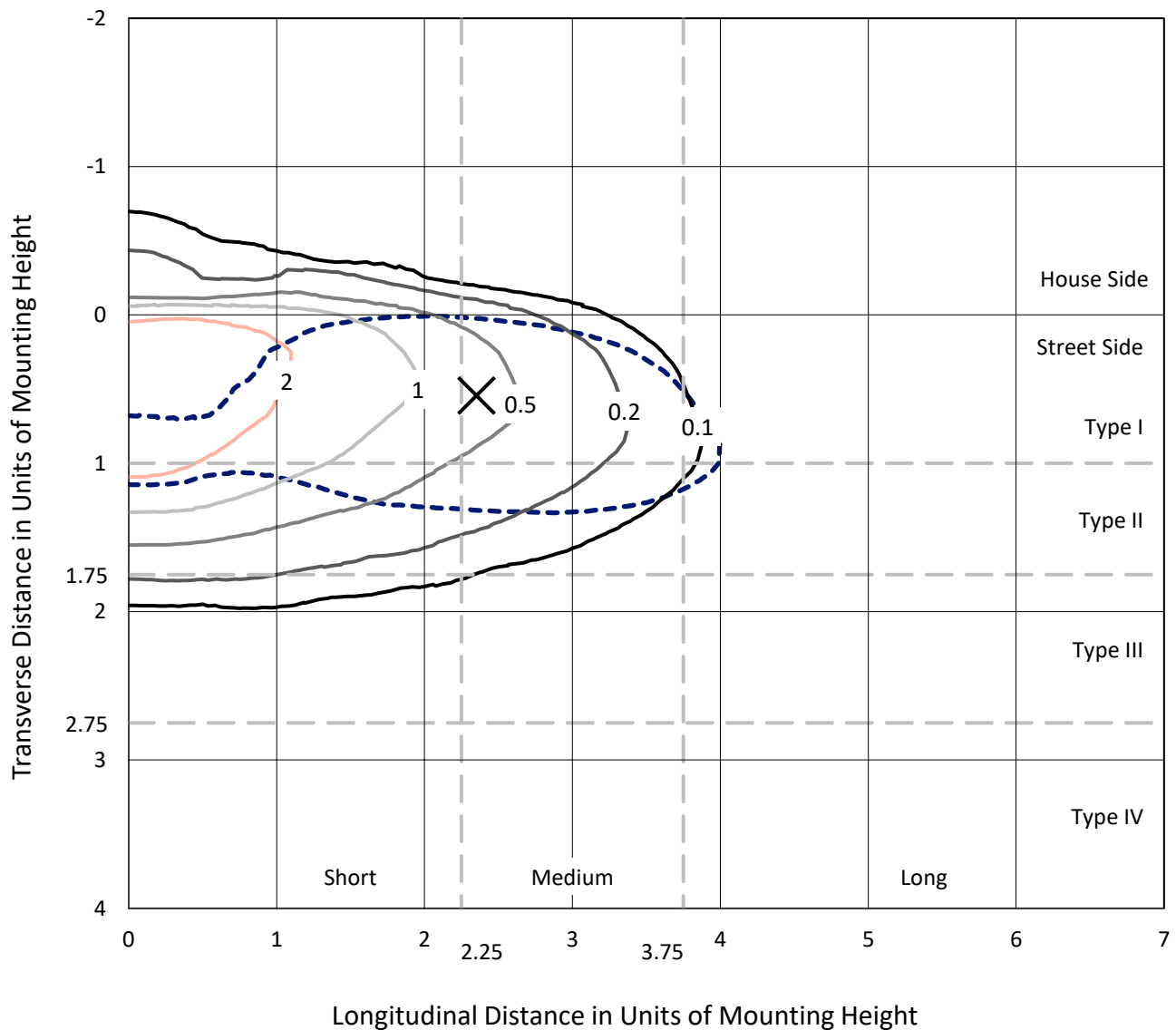


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## Iso-Footcandle Lines of Horizontal Illumination

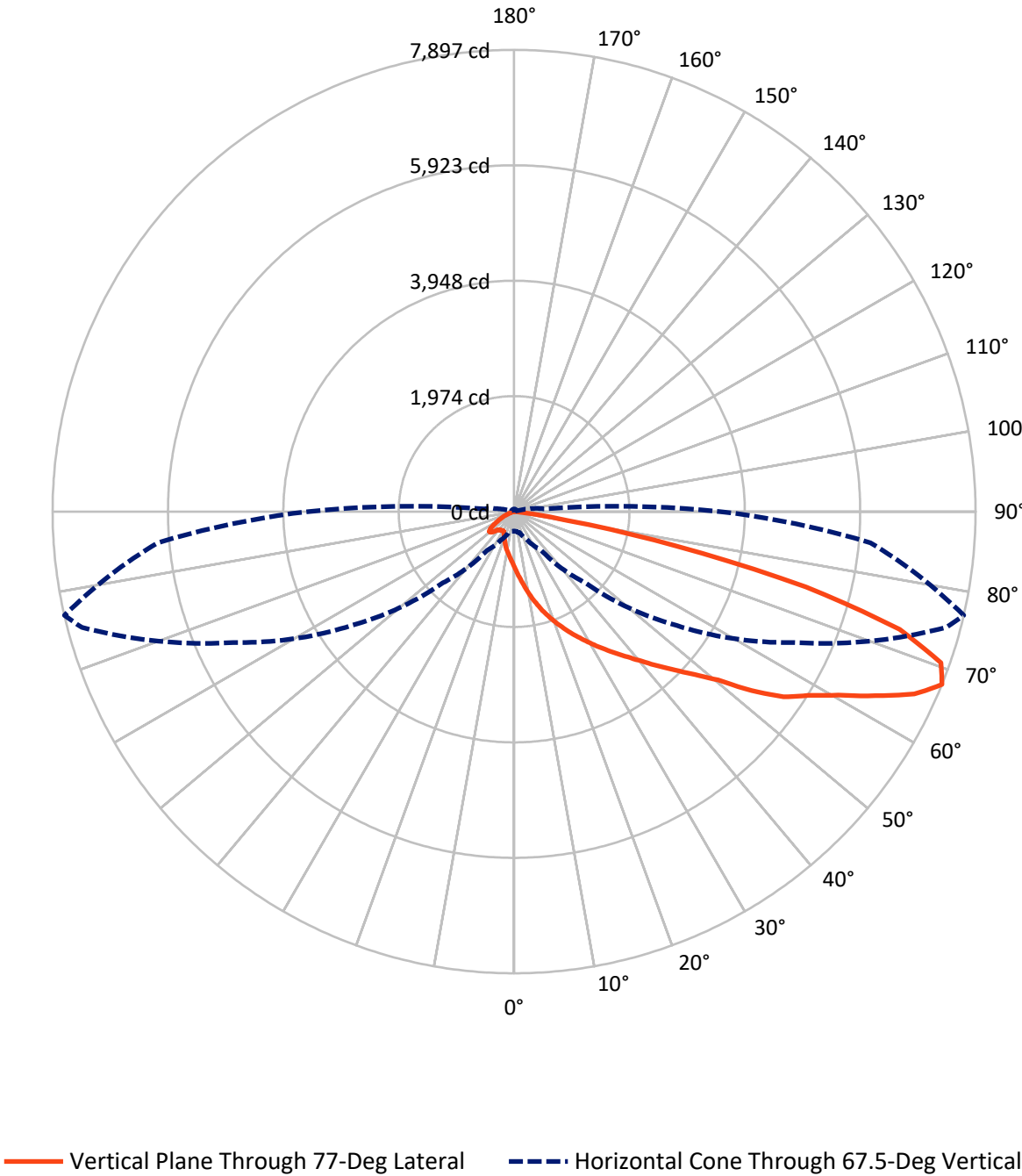
× Max cd  
- - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 3.6 fc  
Type II - Medium - N/A

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Luminous Intensity Polar Plot



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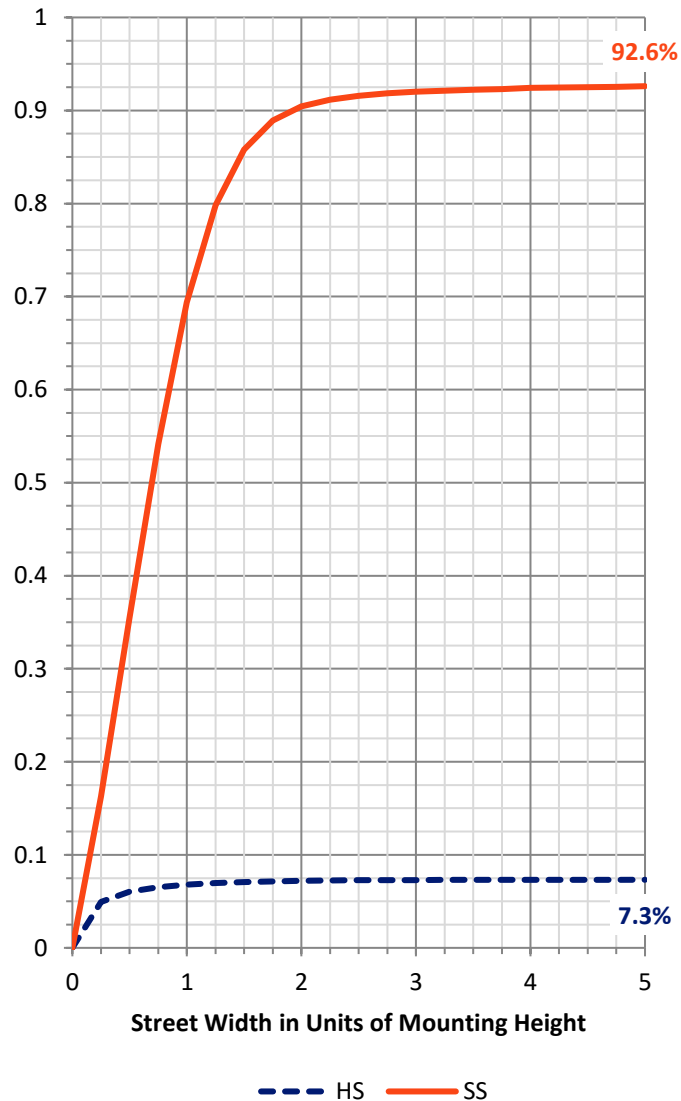
**FLUX DISTRIBUTION:**

|                    |           | Downward | Upward | Total  |
|--------------------|-----------|----------|--------|--------|
| <b>House Side</b>  | Lumens    | 606.0    | 0.0    | 606.0  |
|                    | % Fixture | 7.4      | 0.0    | 7.4    |
| <b>Street Side</b> | Lumens    | 7630.9   | 0.0    | 7630.9 |
|                    | % Fixture | 92.6     | 0.0    | 92.6   |
| <b>Total</b>       | Lumens    | 8236.9   | 0.0    | 8236.9 |
|                    | % Fixture | 100.0    | 0.0    | 100.0  |

**ZONAL LUMENS:**

| Zone      | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10°    | 96.9   | 1.2       |
| 10°-20°   | 339.5  | 4.1       |
| 20°-30°   | 655.1  | 8.0       |
| 30°-40°   | 1137.3 | 13.8      |
| 40°-50°   | 1651.4 | 20.0      |
| 50°-60°   | 1896.4 | 23.0      |
| 60°-70°   | 1646.4 | 20.0      |
| 70°-80°   | 775.5  | 9.4       |
| 80°-90°   | 38.3   | 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°    | 8236.9 | 100.0     |
| 0°-180°   | 8236.9 | 100.0     |

**Coefficient of Utilization**



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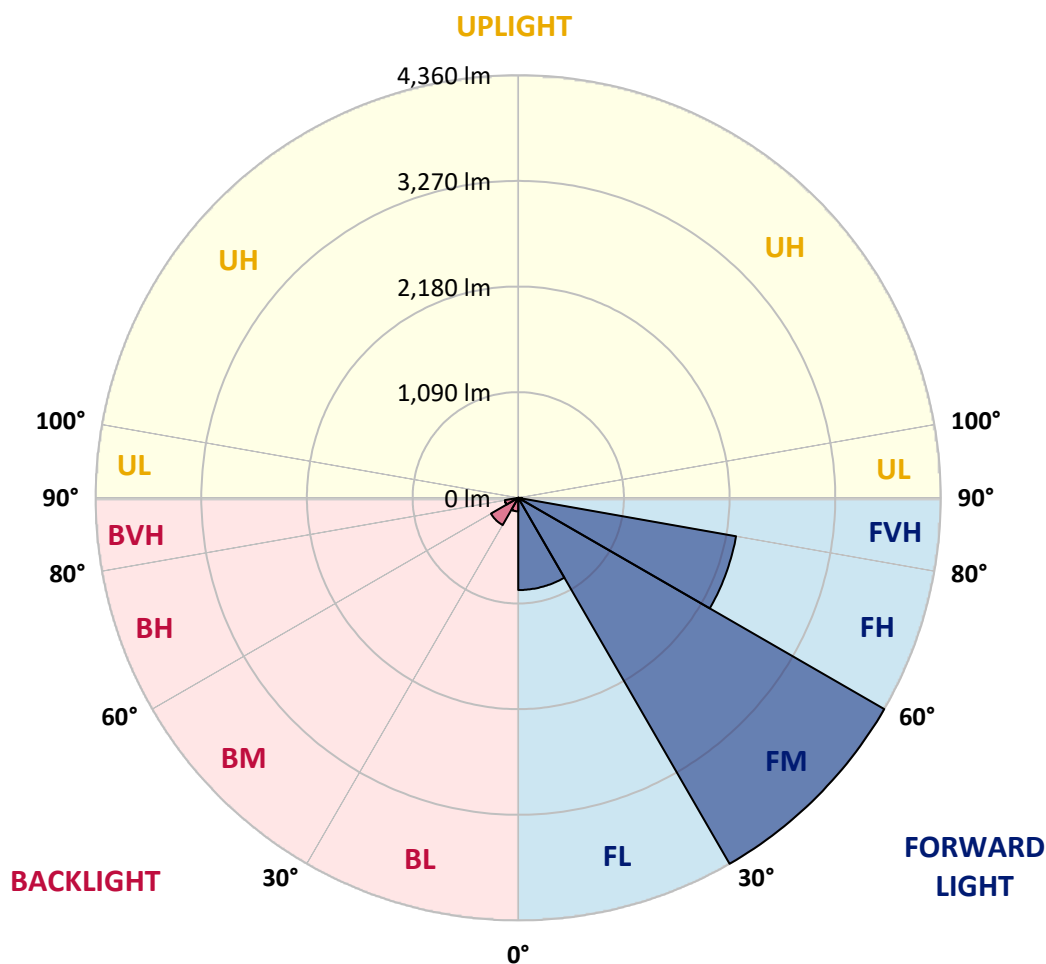
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

| Zone |             | Lumens | % Fixture | Zone Rating/Lumen Limit |      |         |
|------|-------------|--------|-----------|-------------------------|------|---------|
|      |             |        |           | B                       | U    | G       |
| FL   | (0°-30°)    | 951.3  | 11.5      |                         |      |         |
| FM   | (30°-60°)   | 4360.4 | 52.9      |                         |      |         |
| FH   | (60°-80°)   | 2281.6 | 27.7      |                         |      | G2/5000 |
| FVH  | (80°-90°)   | 37.6   | 0.5       |                         |      | G1/100  |
| BL   | (0°-30°)    | 140.3  | 1.7       | B1/500                  |      |         |
| BM   | (30°-60°)   | 324.7  | 3.9       | B1/1000                 |      |         |
| BH   | (60°-80°)   | 140.3  | 1.7       | B1/500                  |      | G1/500  |
| BVH  | (80°-90°)   | 0.7    | 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-G2**

Type II Medium



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**CANDELA DISTRIBUTION (FULL):**

|       | 0°     | 5°     | 15°    | 25°    | 35°    | 45°    | 55°    | 65°    | 75°    | 77°    | 85°    |
|-------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 0°    | 949.9  | 949.9  | 949.9  | 949.9  | 949.9  | 949.9  | 949.9  | 949.9  | 949.9  | 949.9  | 949.9  |
| 2.5°  | 1315.1 | 1323.2 | 1311.5 | 1288.9 | 1255.2 | 1233.2 | 1179.5 | 1128.8 | 1072.6 | 1054.7 | 998.5  |
| 5°    | 1603.0 | 1610.2 | 1596.8 | 1572.4 | 1527.4 | 1484.3 | 1413.8 | 1307.9 | 1197.9 | 1162.7 | 1062.9 |
| 7.5°  | 1816.3 | 1820.4 | 1815.3 | 1792.7 | 1749.8 | 1701.2 | 1622.5 | 1497.1 | 1333.9 | 1295.1 | 1142.2 |
| 10°   | 1969.7 | 1983.1 | 1981.5 | 1972.8 | 1944.2 | 1904.8 | 1820.9 | 1678.2 | 1486.4 | 1436.2 | 1231.6 |
| 12.5° | 2071.5 | 2086.4 | 2095.1 | 2114.5 | 2112.9 | 2087.9 | 2014.2 | 1863.3 | 1638.3 | 1579.5 | 1332.4 |
| 15°   | 2101.1 | 2117.0 | 2150.3 | 2195.3 | 2235.2 | 2248.0 | 2196.4 | 2045.0 | 1805.5 | 1730.4 | 1435.7 |
| 17.5° | 2084.3 | 2108.8 | 2148.8 | 2219.8 | 2307.4 | 2365.1 | 2359.5 | 2220.4 | 1957.4 | 1871.5 | 1537.0 |
| 20°   | 2121.6 | 2145.2 | 2176.4 | 2236.2 | 2338.0 | 2442.9 | 2484.8 | 2388.1 | 2108.3 | 2018.3 | 1643.4 |
| 22.5° | 2328.3 | 2324.2 | 2327.3 | 2337.0 | 2397.9 | 2501.7 | 2588.1 | 2540.6 | 2257.7 | 2165.6 | 1755.9 |
| 25°   | 2655.7 | 2637.2 | 2606.1 | 2553.4 | 2538.0 | 2588.1 | 2678.1 | 2675.6 | 2415.2 | 2316.5 | 1871.0 |
| 27.5° | 3031.1 | 3028.1 | 2954.9 | 2828.0 | 2756.4 | 2737.0 | 2779.9 | 2807.1 | 2571.2 | 2465.8 | 1986.7 |
| 30°   | 3390.7 | 3398.8 | 3300.1 | 3158.9 | 3027.5 | 2951.3 | 2912.4 | 2931.8 | 2729.8 | 2627.0 | 2105.8 |
| 32.5° | 3703.7 | 3712.3 | 3605.0 | 3439.8 | 3277.1 | 3185.1 | 3103.2 | 3055.1 | 2902.7 | 2790.7 | 2236.8 |
| 35°   | 3968.2 | 3976.8 | 3853.6 | 3670.9 | 3497.6 | 3414.2 | 3321.6 | 3190.2 | 3076.6 | 2972.3 | 2382.5 |
| 37.5° | 4204.4 | 4201.9 | 4036.7 | 3852.6 | 3682.2 | 3616.2 | 3567.6 | 3356.4 | 3255.6 | 3154.8 | 2544.2 |
| 40°   | 4344.1 | 4354.8 | 4213.7 | 4010.6 | 3845.4 | 3797.3 | 3794.2 | 3562.5 | 3462.2 | 3364.6 | 2721.2 |
| 42.5° | 4385.0 | 4403.9 | 4301.6 | 4134.8 | 3985.0 | 3932.8 | 4013.2 | 3785.5 | 3702.7 | 3607.5 | 2921.1 |
| 45°   | 4311.4 | 4329.8 | 4283.2 | 4167.6 | 4080.1 | 4046.4 | 4201.4 | 4016.8 | 3959.5 | 3865.3 | 3146.6 |
| 47.5° | 4096.5 | 4119.6 | 4130.8 | 4106.3 | 4105.2 | 4139.5 | 4370.2 | 4260.2 | 4264.3 | 4168.2 | 3408.0 |
| 50°   | 3680.7 | 3719.5 | 3822.8 | 3909.9 | 4044.3 | 4213.2 | 4534.4 | 4524.1 | 4608.0 | 4525.2 | 3748.7 |
| 52.5° | 2924.7 | 2980.0 | 3336.0 | 3573.8 | 3876.0 | 4199.3 | 4714.9 | 4947.7 | 5211.1 | 5089.8 | 4228.9 |
| 55°   | 2350.3 | 2350.3 | 2639.8 | 3084.8 | 3547.7 | 4108.3 | 4793.7 | 5222.8 | 5621.8 | 5593.1 | 4567.1 |
| 57.5° | 1916.0 | 1939.1 | 2123.7 | 2517.0 | 3072.5 | 3891.4 | 4842.3 | 5395.7 | 5952.7 | 5931.8 | 4897.6 |
| 60°   | 1182.5 | 1232.2 | 1581.1 | 1969.2 | 2531.9 | 3505.2 | 4811.6 | 5570.7 | 6354.3 | 6371.1 | 5295.5 |
| 62.5° | 665.9  | 684.4  | 839.9  | 1416.9 | 1968.7 | 2986.0 | 4576.8 | 5668.4 | 6867.8 | 6939.4 | 5705.7 |
| 65°   | 459.8  | 469.0  | 528.9  | 881.8  | 1364.7 | 2377.4 | 4118.0 | 5607.5 | 7382.4 | 7527.1 | 6053.4 |
| 67.5° | 334.0  | 338.6  | 376.0  | 538.6  | 809.6  | 1723.7 | 3398.8 | 5300.6 | 7654.9 | 7896.9 | 6120.0 |
| 70°   | 256.8  | 259.8  | 286.9  | 353.9  | 478.3  | 1063.8 | 2468.4 | 4690.4 | 7457.5 | 7746.5 | 5779.4 |
| 72.5° | 208.7  | 211.8  | 232.8  | 261.9  | 317.1  | 629.1  | 1496.1 | 3809.1 | 6585.9 | 6897.9 | 4920.0 |
| 75°   | 176.0  | 180.1  | 199.0  | 217.9  | 248.6  | 404.1  | 701.7  | 2652.6 | 4952.8 | 5157.4 | 3421.3 |
| 77.5° | 97.7   | 90.0   | 161.6  | 180.6  | 209.7  | 255.7  | 328.4  | 1561.1 | 2773.9 | 2830.5 | 1518.1 |
| 80°   | 60.9   | 62.9   | 128.4  | 145.2  | 161.1  | 128.9  | 150.4  | 601.0  | 961.6  | 913.5  | 294.1  |
| 82.5° | 3.6    | 8.2    | 98.7   | 104.9  | 110.5  | 55.2   | 56.8   | 204.1  | 231.8  | 212.8  | 52.2   |
| 85°   | 0.0    | 0.0    | 45.0   | 36.3   | 38.3   | 15.9   | 16.4   | 47.6   | 31.2   | 33.7   | 10.2   |
| 87.5° | 0.0    | 0.0    | 0.0    | 1.0    | 0.0    | 1.5    | 3.1    | 4.1    | 1.5    | 2.0    | 3.6    |
| 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°    | 949.9  | 949.9  | 949.9 | 949.9 | 949.9 | 949.9 | 949.9 | 949.9 | 949.9 | 949.9 | 949.9 |
| 2.5°  | 962.6  | 926.8  | 854.2 | 783.1 | 725.3 | 671.6 | 633.2 | 596.9 | 578.5 | 577.5 | 576.5 |
| 5°    | 991.8  | 916.6  | 771.3 | 643.0 | 539.7 | 456.7 | 403.0 | 364.7 | 345.2 | 338.6 | 337.5 |
| 7.5°  | 1032.7 | 919.6  | 698.7 | 520.2 | 398.4 | 327.4 | 296.6 | 284.4 | 280.3 | 275.7 | 274.7 |
| 10°   | 1084.3 | 926.8  | 633.8 | 418.9 | 314.1 | 278.3 | 266.0 | 260.9 | 257.8 | 254.7 | 253.7 |
| 12.5° | 1142.2 | 933.5  | 569.3 | 347.8 | 276.2 | 257.8 | 249.1 | 242.9 | 238.8 | 235.2 | 234.2 |
| 15°   | 1198.4 | 937.6  | 502.2 | 298.2 | 256.8 | 241.9 | 232.8 | 226.1 | 220.5 | 216.4 | 215.9 |
| 17.5° | 1254.2 | 943.2  | 439.4 | 268.5 | 240.9 | 226.1 | 216.9 | 208.7 | 204.1 | 199.5 | 199.0 |
| 20°   | 1316.1 | 942.2  | 380.1 | 247.5 | 225.1 | 210.2 | 200.5 | 192.8 | 188.2 | 183.1 | 182.6 |
| 22.5° | 1373.4 | 937.1  | 327.9 | 229.7 | 208.7 | 194.3 | 183.6 | 176.0 | 171.4 | 167.3 | 166.8 |
| 25°   | 1439.3 | 933.0  | 284.4 | 213.3 | 193.3 | 179.1 | 167.3 | 160.1 | 155.0 | 151.4 | 150.9 |
| 27.5° | 1502.8 | 926.8  | 252.7 | 198.4 | 178.6 | 164.7 | 153.4 | 145.2 | 140.6 | 138.1 | 138.1 |
| 30°   | 1565.2 | 925.3  | 240.9 | 184.1 | 165.2 | 151.4 | 140.1 | 132.4 | 128.9 | 127.9 | 127.4 |
| 32.5° | 1640.3 | 929.4  | 246.0 | 179.1 | 152.9 | 139.1 | 128.4 | 122.8 | 119.2 | 119.2 | 119.2 |
| 35°   | 1720.7 | 928.3  | 253.7 | 183.6 | 144.7 | 126.9 | 118.7 | 115.1 | 111.5 | 111.5 | 111.5 |
| 37.5° | 1821.4 | 929.9  | 259.8 | 191.3 | 141.7 | 116.6 | 112.0 | 107.4 | 105.4 | 105.4 | 105.4 |
| 40°   | 1971.8 | 980.5  | 256.8 | 197.9 | 140.6 | 109.5 | 100.2 | 98.7  | 97.2  | 97.2  | 97.2  |
| 42.5° | 2155.9 | 1090.5 | 260.9 | 198.4 | 140.1 | 104.3 | 92.0  | 95.1  | 91.5  | 91.0  | 90.5  |
| 45°   | 2357.5 | 1210.7 | 286.9 | 187.7 | 139.6 | 101.8 | 87.9  | 91.5  | 85.9  | 85.9  | 85.9  |
| 47.5° | 2557.5 | 1329.8 | 313.5 | 172.4 | 138.1 | 101.3 | 84.4  | 82.3  | 80.8  | 81.3  | 81.3  |
| 50°   | 2833.1 | 1427.0 | 323.8 | 151.4 | 134.5 | 100.2 | 77.8  | 78.2  | 77.3  | 78.2  | 78.2  |
| 52.5° | 3133.4 | 1447.5 | 311.5 | 127.9 | 124.3 | 97.2  | 73.2  | 75.2  | 74.7  | 75.7  | 75.7  |
| 55°   | 3320.6 | 1425.6 | 257.3 | 106.4 | 108.4 | 84.9  | 68.6  | 72.7  | 72.7  | 72.7  | 72.7  |
| 57.5° | 3513.9 | 1331.9 | 182.6 | 86.4  | 90.0  | 69.6  | 64.5  | 70.1  | 69.6  | 69.1  | 69.1  |
| 60°   | 3653.1 | 1180.5 | 120.2 | 71.1  | 71.6  | 57.3  | 59.9  | 66.0  | 65.5  | 62.9  | 62.9  |
| 62.5° | 3756.9 | 1013.2 | 77.3  | 60.4  | 54.7  | 51.7  | 54.7  | 59.9  | 57.8  | 52.2  | 51.1  |
| 65°   | 3745.1 | 781.6  | 59.3  | 51.7  | 45.0  | 45.0  | 47.6  | 52.2  | 46.0  | 36.8  | 35.8  |
| 67.5° | 3526.7 | 528.9  | 49.1  | 43.5  | 37.8  | 37.3  | 39.4  | 43.5  | 39.4  | 31.2  | 30.1  |
| 70°   | 3136.5 | 345.7  | 39.4  | 33.7  | 30.1  | 27.6  | 31.7  | 37.3  | 33.2  | 25.1  | 24.1  |
| 72.5° | 2545.7 | 210.7  | 29.6  | 24.6  | 22.0  | 17.9  | 25.1  | 30.6  | 26.5  | 18.4  | 17.4  |
| 75°   | 1647.0 | 107.4  | 20.5  | 15.9  | 11.8  | 10.8  | 18.4  | 23.1  | 18.4  | 11.3  | 9.7   |
| 77.5° | 630.2  | 45.0   | 11.3  | 7.2   | 6.1   | 5.1   | 10.2  | 13.8  | 7.7   | 2.6   | 2.0   |
| 80°   | 121.3  | 19.0   | 5.6   | 3.6   | 3.1   | 2.0   | 1.5   | 1.0   | 0.0   | 0.0   | 0.0   |
| 82.5° | 21.0   | 6.1    | 2.0   | 1.0   | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   |
| 85°   | 7.2    | 1.0    | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   |
| 87.5° | 2.6    | 0.0    | 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)