

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: P960352

Luminaire Tested: **NAV-SB1C-735-U-T2R-HSS**

Issue Date: 1/21/2025

**Test Information**

Test Method: LM-79-08  
Report Number: P960352  
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-SB1C-735-U-T2R-HSS  
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE  
(1) 70 CRI, 3500K, 615mA LIGHTSQUARE WITH 26 LEDS AND TYPE II ROADWAY  
OPTICS WITH HOUSE SIDE SHIELD  
Light Source: -  
Ballast/Driver: -

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 6501.6 lumens  
Efficiency: N/A  
Efficacy: 119.5 lumens/watt  
Luminous Opening: Rectangular (W 0.5' x L: 0.5' x H: 0')  
IES Classification: Type II - Medium  
BUG Rating: B1 - U0 - G2

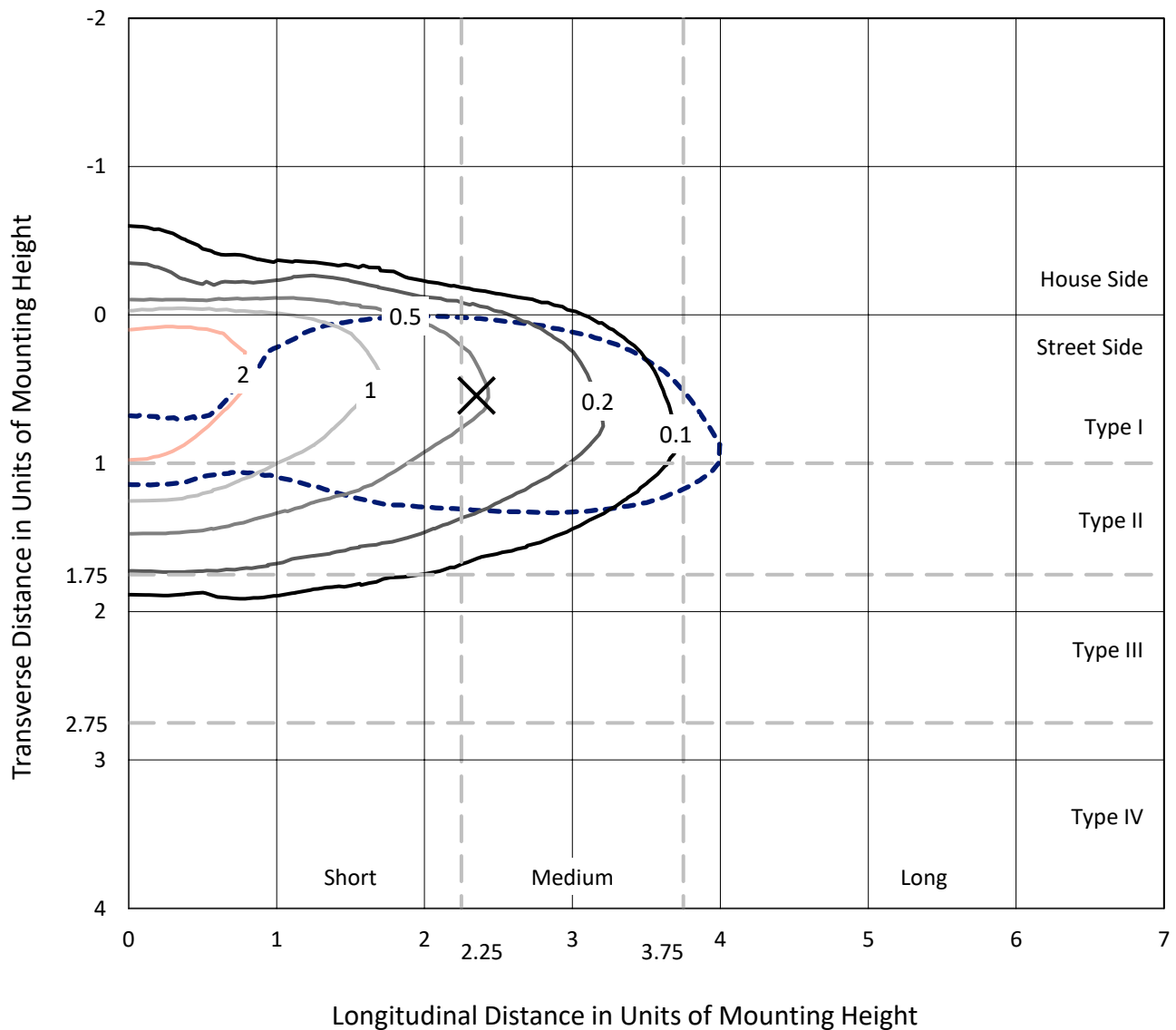
Input Watts (W): 54.4  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 24 FT



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## Iso-Footcandle Lines of Horizontal Illumination

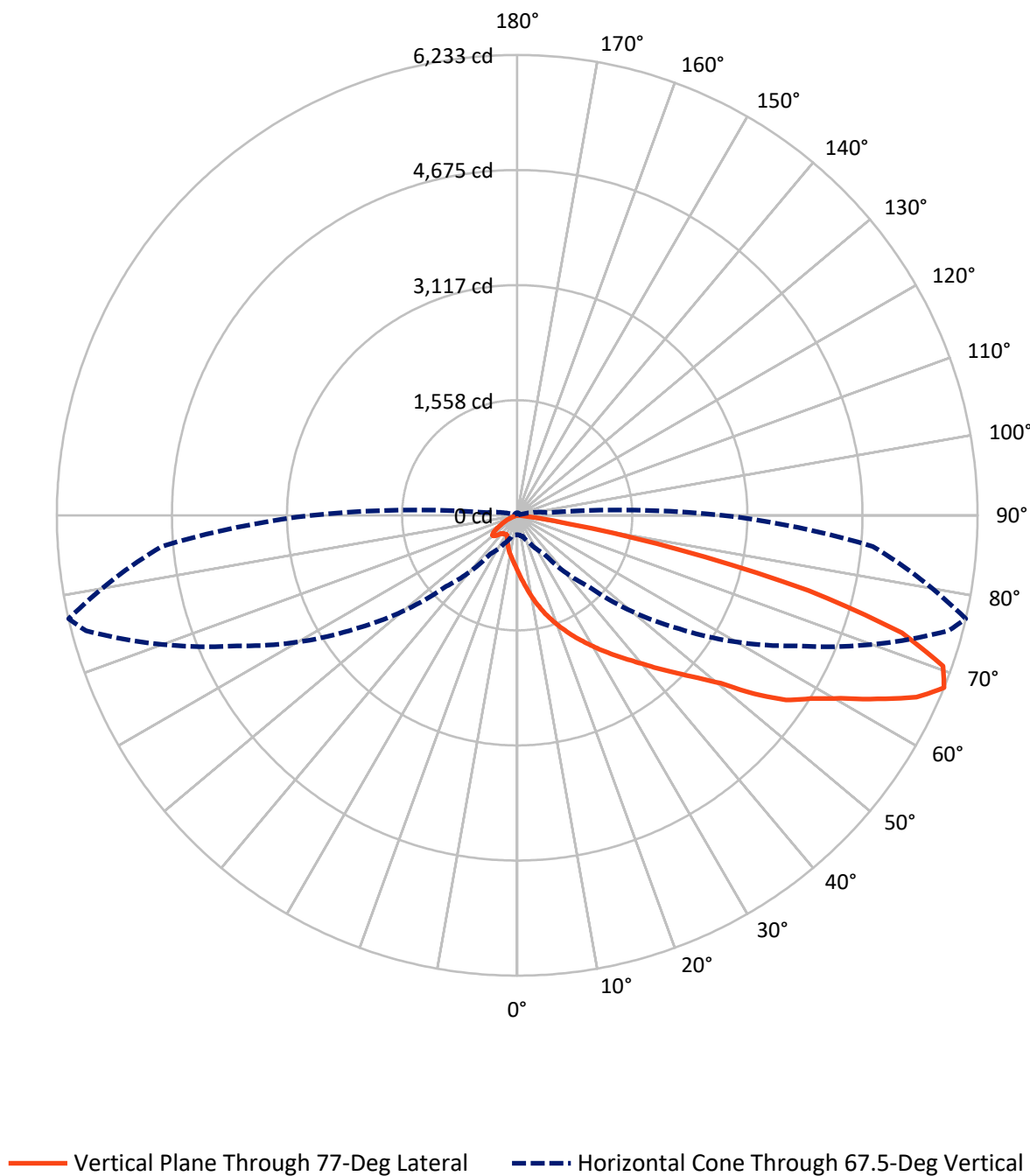
× Max cd  
- - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 2.8 fc  
Type II - Medium - N/A

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## Luminous Intensity Polar Plot



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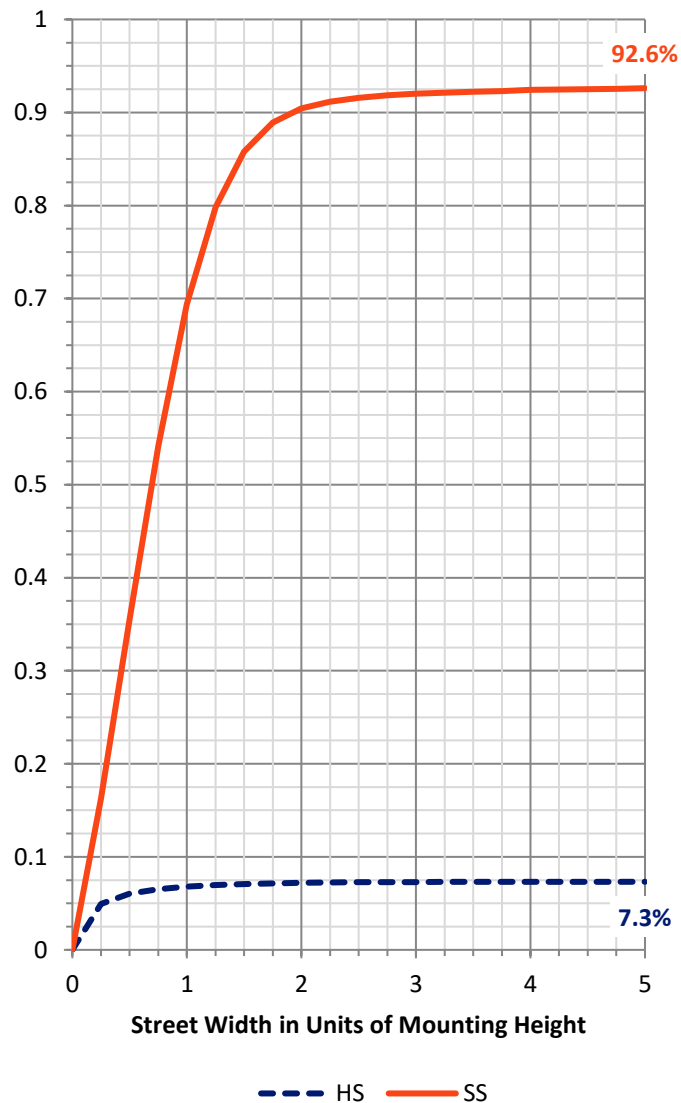
**FLUX DISTRIBUTION:**

|                    |           | Downward | Upward | Total  |
|--------------------|-----------|----------|--------|--------|
| <b>House Side</b>  | Lumens    | 478.3    | 0.0    | 478.3  |
|                    | % Fixture | 7.4      | 0.0    | 7.4    |
| <b>Street Side</b> | Lumens    | 6023.3   | 0.0    | 6023.3 |
|                    | % Fixture | 92.6     | 0.0    | 92.6   |
| <b>Total</b>       | Lumens    | 6501.6   | 0.0    | 6501.6 |
|                    | % Fixture | 100.0    | 0.0    | 100.0  |

**ZONAL LUMENS:**

| Zone      | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10°    | 76.5   | 1.2       |
| 10°-20°   | 268.0  | 4.1       |
| 20°-30°   | 517.1  | 8.0       |
| 30°-40°   | 897.7  | 13.8      |
| 40°-50°   | 1303.5 | 20.0      |
| 50°-60°   | 1496.9 | 23.0      |
| 60°-70°   | 1299.6 | 20.0      |
| 70°-80°   | 612.1  | 9.4       |
| 80°-90°   | 30.3   | 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°    | 6501.6 | 100.0     |
| 0°-180°   | 6501.6 | 100.0     |

**Coefficient of Utilization**



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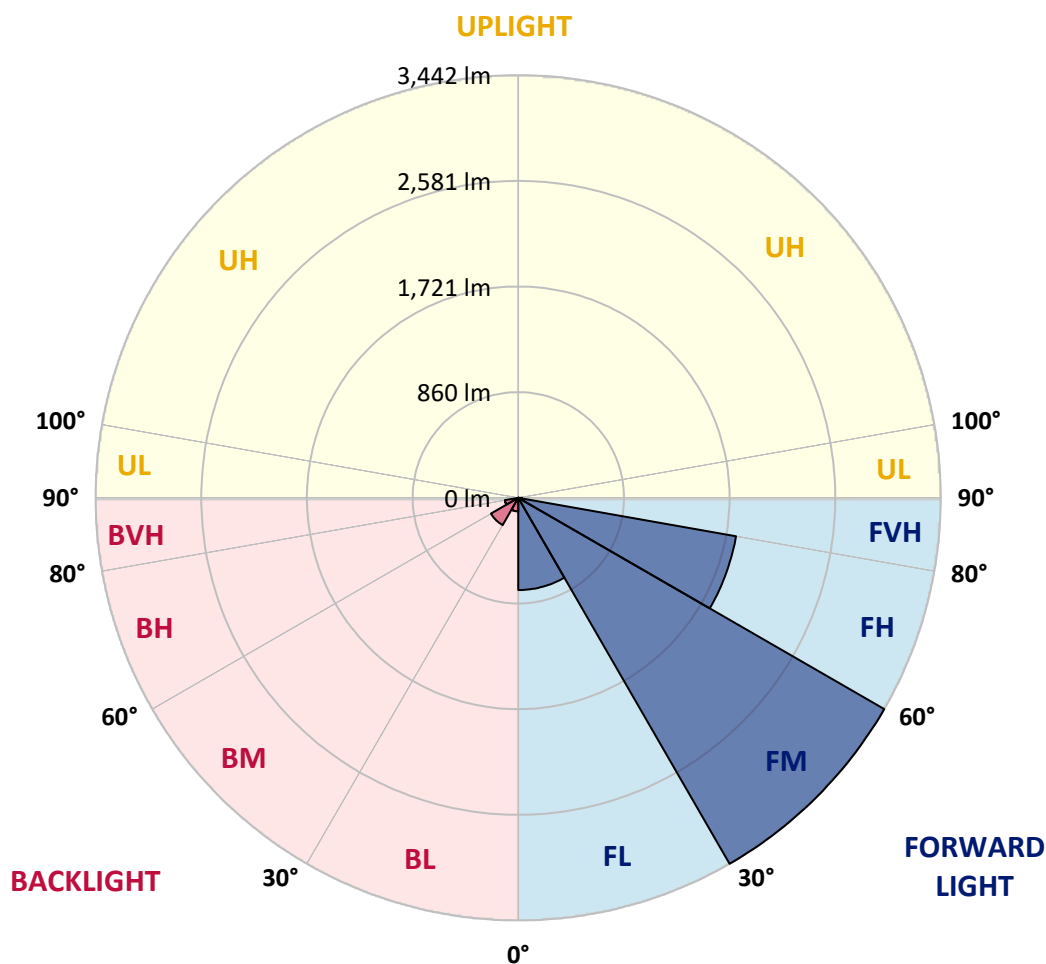
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

| Zone |             | Lumens | % Fixture | Zone Rating/Lumen Limit |      |         |
|------|-------------|--------|-----------|-------------------------|------|---------|
|      |             |        |           | B                       | U    | G       |
| FL   | (0°-30°)    | 750.9  | 11.5      |                         |      |         |
| FM   | (30°-60°)   | 3441.8 | 52.9      |                         |      |         |
| FH   | (60°-80°)   | 1800.9 | 27.7      |                         |      | G2/5000 |
| FVH  | (80°-90°)   | 29.7   | 0.5       |                         |      | G1/100  |
| BL   | (0°-30°)    | 110.7  | 1.7       | B1/500                  |      |         |
| BM   | (30°-60°)   | 256.3  | 3.9       | B1/1000                 |      |         |
| BH   | (60°-80°)   | 110.7  | 1.7       | B1/500                  |      | G1/500  |
| BVH  | (80°-90°)   | 0.6    | 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-G2**

Type II Medium



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**CANDELA DISTRIBUTION (FULL):**

|       | 0°     | 5°     | 15°    | 25°    | 35°    | 45°    | 55°    | 65°    | 75°    | 77°    | 85°    |
|-------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 0°    | 749.7  | 749.7  | 749.7  | 749.7  | 749.7  | 749.7  | 749.7  | 749.7  | 749.7  | 749.7  | 749.7  |
| 2.5°  | 1038.0 | 1044.5 | 1035.1 | 1017.4 | 990.8  | 973.4  | 931.0  | 891.0  | 846.6  | 832.5  | 788.1  |
| 5°    | 1265.3 | 1270.9 | 1260.4 | 1241.1 | 1205.5 | 1171.6 | 1115.9 | 1032.4 | 945.6  | 917.7  | 839.0  |
| 7.5°  | 1433.7 | 1436.8 | 1432.8 | 1415.1 | 1381.2 | 1342.9 | 1280.6 | 1181.7 | 1052.9 | 1022.2 | 901.5  |
| 10°   | 1554.7 | 1565.3 | 1564.0 | 1557.2 | 1534.6 | 1503.5 | 1437.3 | 1324.6 | 1173.2 | 1133.6 | 972.2  |
| 12.5° | 1635.1 | 1646.8 | 1653.6 | 1669.0 | 1667.8 | 1648.0 | 1589.9 | 1470.8 | 1293.1 | 1246.7 | 1051.8 |
| 15°   | 1658.6 | 1671.1 | 1697.3 | 1732.8 | 1764.3 | 1774.4 | 1733.6 | 1614.1 | 1425.2 | 1365.8 | 1133.2 |
| 17.5° | 1645.2 | 1664.6 | 1696.1 | 1752.2 | 1821.2 | 1866.8 | 1862.4 | 1752.5 | 1545.1 | 1477.2 | 1213.2 |
| 20°   | 1674.6 | 1693.2 | 1717.9 | 1765.2 | 1845.4 | 1928.2 | 1961.3 | 1885.0 | 1664.2 | 1593.2 | 1297.1 |
| 22.5° | 1837.8 | 1834.5 | 1837.0 | 1844.7 | 1892.7 | 1974.7 | 2042.8 | 2005.3 | 1782.1 | 1709.4 | 1386.0 |
| 25°   | 2096.1 | 2081.7 | 2057.0 | 2015.5 | 2003.3 | 2042.8 | 2114.0 | 2111.9 | 1906.4 | 1828.5 | 1476.8 |
| 27.5° | 2392.6 | 2390.1 | 2332.4 | 2232.2 | 2175.7 | 2160.4 | 2194.3 | 2215.6 | 2029.6 | 1946.4 | 1568.0 |
| 30°   | 2676.4 | 2682.8 | 2604.8 | 2493.4 | 2389.7 | 2329.5 | 2298.9 | 2314.1 | 2154.8 | 2073.6 | 1662.1 |
| 32.5° | 2923.4 | 2930.3 | 2845.5 | 2715.1 | 2586.7 | 2514.0 | 2449.4 | 2411.5 | 2291.2 | 2202.7 | 1765.6 |
| 35°   | 3132.1 | 3139.0 | 3041.7 | 2897.6 | 2760.7 | 2694.9 | 2621.8 | 2518.0 | 2428.4 | 2346.1 | 1880.6 |
| 37.5° | 3318.6 | 3316.7 | 3186.2 | 3040.9 | 2906.5 | 2854.4 | 2816.0 | 2649.3 | 2569.8 | 2490.2 | 2008.2 |
| 40°   | 3428.9 | 3437.3 | 3325.9 | 3165.6 | 3035.2 | 2997.3 | 2994.8 | 2812.0 | 2732.9 | 2655.8 | 2147.9 |
| 42.5° | 3461.2 | 3476.1 | 3395.4 | 3263.8 | 3145.4 | 3104.3 | 3167.7 | 2988.0 | 2922.6 | 2847.6 | 2305.7 |
| 45°   | 3403.0 | 3417.6 | 3380.9 | 3289.6 | 3220.5 | 3193.9 | 3316.3 | 3170.5 | 3125.3 | 3051.0 | 2483.8 |
| 47.5° | 3233.5 | 3251.6 | 3260.5 | 3241.2 | 3240.3 | 3267.4 | 3449.4 | 3362.7 | 3365.9 | 3290.0 | 2690.0 |
| 50°   | 2905.3 | 2935.9 | 3017.5 | 3086.1 | 3192.3 | 3325.5 | 3579.1 | 3571.0 | 3637.2 | 3571.8 | 2959.0 |
| 52.5° | 2308.5 | 2352.2 | 2633.1 | 2820.9 | 3059.4 | 3314.6 | 3721.6 | 3905.2 | 4113.2 | 4017.5 | 3338.0 |
| 55°   | 1855.1 | 1855.1 | 2083.6 | 2434.9 | 2800.3 | 3242.8 | 3783.8 | 4122.4 | 4437.4 | 4414.8 | 3604.9 |
| 57.5° | 1512.4 | 1530.5 | 1676.3 | 1986.8 | 2425.3 | 3071.6 | 3822.1 | 4259.0 | 4698.6 | 4682.1 | 3865.7 |
| 60°   | 933.5  | 972.6  | 1247.9 | 1554.4 | 1998.4 | 2766.8 | 3797.9 | 4397.0 | 5015.5 | 5028.9 | 4179.8 |
| 62.5° | 525.6  | 540.2  | 663.0  | 1118.4 | 1554.0 | 2357.0 | 3612.6 | 4474.1 | 5420.9 | 5477.4 | 4503.6 |
| 65°   | 363.0  | 370.2  | 417.5  | 696.1  | 1077.2 | 1876.6 | 3250.5 | 4426.1 | 5827.0 | 5941.3 | 4778.1 |
| 67.5° | 263.6  | 267.3  | 296.7  | 425.2  | 639.1  | 1360.6 | 2682.8 | 4183.8 | 6042.3 | 6233.2 | 4830.6 |
| 70°   | 202.6  | 205.1  | 226.5  | 279.4  | 377.5  | 839.8  | 1948.4 | 3702.2 | 5886.4 | 6114.5 | 4561.8 |
| 72.5° | 164.7  | 167.2  | 183.7  | 206.7  | 250.3  | 496.6  | 1180.9 | 3006.5 | 5198.4 | 5444.7 | 3883.5 |
| 75°   | 138.9  | 142.1  | 157.0  | 172.0  | 196.2  | 319.0  | 553.9  | 2093.8 | 3909.3 | 4070.8 | 2700.6 |
| 77.5° | 77.1   | 71.0   | 127.6  | 142.5  | 165.5  | 201.8  | 259.2  | 1232.2 | 2189.4 | 2234.2 | 1198.2 |
| 80°   | 48.1   | 49.6   | 101.4  | 114.7  | 127.2  | 101.8  | 118.7  | 474.4  | 759.0  | 721.1  | 232.2  |
| 82.5° | 2.9    | 6.5    | 77.9   | 82.7   | 87.2   | 43.6   | 44.8   | 161.1  | 182.9  | 168.0  | 41.2   |
| 85°   | 0.0    | 0.0    | 35.6   | 28.7   | 30.2   | 12.5   | 12.9   | 37.5   | 24.6   | 26.6   | 8.1    |
| 87.5° | 0.0    | 0.0    | 0.0    | 0.8    | 0.0    | 1.2    | 2.5    | 3.3    | 1.2    | 1.6    | 2.9    |
| 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°    | 749.7  | 749.7  | 749.7 | 749.7 | 749.7 | 749.7 | 749.7 | 749.7 | 749.7 | 749.7 | 749.7 |
| 2.5°  | 759.8  | 731.5  | 674.2 | 618.1 | 572.5 | 530.1 | 499.8 | 471.2 | 456.6 | 455.8 | 455.0 |
| 5°    | 782.8  | 723.4  | 608.8 | 507.5 | 425.9 | 360.5 | 318.2 | 287.8 | 272.5 | 267.3 | 266.5 |
| 7.5°  | 815.2  | 725.9  | 551.4 | 410.6 | 314.5 | 258.4 | 234.2 | 224.5 | 221.2 | 217.6 | 216.8 |
| 10°   | 855.9  | 731.5  | 500.2 | 330.7 | 247.8 | 219.7 | 209.9 | 205.9 | 203.5 | 201.1 | 200.3 |
| 12.5° | 901.5  | 736.8  | 449.4 | 274.5 | 218.0 | 203.5 | 196.6 | 191.8 | 188.5 | 185.7 | 184.9 |
| 15°   | 946.0  | 740.0  | 396.5 | 235.3 | 202.6 | 191.0 | 183.7 | 178.5 | 174.0 | 170.8 | 170.4 |
| 17.5° | 989.9  | 744.5  | 346.8 | 212.0 | 190.1 | 178.5 | 171.2 | 164.7 | 161.1 | 157.4 | 157.0 |
| 20°   | 1038.8 | 743.6  | 300.0 | 195.4 | 177.6 | 165.9 | 158.3 | 152.2 | 148.5 | 144.5 | 144.1 |
| 22.5° | 1084.0 | 739.6  | 258.8 | 181.3 | 164.7 | 153.4 | 144.9 | 138.9 | 135.3 | 132.0 | 131.6 |
| 25°   | 1136.1 | 736.4  | 224.5 | 168.3 | 152.6 | 141.3 | 132.0 | 126.4 | 122.3 | 119.5 | 119.1 |
| 27.5° | 1186.1 | 731.5  | 199.5 | 156.6 | 140.9 | 130.0 | 121.2 | 114.7 | 111.0 | 109.0 | 109.0 |
| 30°   | 1235.4 | 730.3  | 190.1 | 145.3 | 130.4 | 119.5 | 110.6 | 104.6 | 101.8 | 101.0 | 100.6 |
| 32.5° | 1294.8 | 733.6  | 194.2 | 141.3 | 120.7 | 109.8 | 101.4 | 96.9  | 94.1  | 94.1  | 94.1  |
| 35°   | 1358.1 | 732.8  | 200.3 | 144.9 | 114.3 | 100.1 | 93.7  | 90.8  | 88.0  | 88.0  | 88.0  |
| 37.5° | 1437.7 | 734.0  | 205.1 | 151.0 | 111.8 | 92.0  | 88.5  | 84.8  | 83.1  | 83.1  | 83.1  |
| 40°   | 1556.4 | 774.0  | 202.6 | 156.2 | 111.0 | 86.4  | 79.1  | 77.9  | 76.7  | 76.7  | 76.7  |
| 42.5° | 1701.7 | 860.8  | 205.9 | 156.6 | 110.6 | 82.4  | 72.7  | 75.1  | 72.3  | 71.9  | 71.4  |
| 45°   | 1860.8 | 955.6  | 226.5 | 148.2 | 110.2 | 80.4  | 69.4  | 72.3  | 67.9  | 67.9  | 67.9  |
| 47.5° | 2018.6 | 1049.7 | 247.5 | 136.0 | 109.0 | 79.9  | 66.6  | 65.0  | 63.8  | 64.2  | 64.2  |
| 50°   | 2236.2 | 1126.4 | 255.5 | 119.5 | 106.2 | 79.1  | 61.4  | 61.8  | 61.0  | 61.8  | 61.8  |
| 52.5° | 2473.2 | 1142.6 | 245.9 | 101.0 | 98.1  | 76.7  | 57.7  | 59.3  | 58.9  | 59.8  | 59.8  |
| 55°   | 2621.0 | 1125.2 | 203.1 | 83.9  | 85.6  | 67.0  | 54.1  | 57.3  | 57.3  | 57.3  | 57.3  |
| 57.5° | 2773.6 | 1051.3 | 144.1 | 68.3  | 71.0  | 54.9  | 50.8  | 55.4  | 54.9  | 54.5  | 54.5  |
| 60°   | 2883.4 | 931.8  | 94.9  | 56.1  | 56.5  | 45.2  | 47.3  | 52.1  | 51.7  | 49.6  | 49.6  |
| 62.5° | 2965.4 | 799.8  | 61.0  | 47.7  | 43.2  | 40.8  | 43.2  | 47.3  | 45.6  | 41.2  | 40.4  |
| 65°   | 2956.1 | 616.9  | 46.8  | 40.8  | 35.6  | 35.6  | 37.5  | 41.2  | 36.3  | 29.1  | 28.3  |
| 67.5° | 2783.7 | 417.5  | 38.7  | 34.3  | 29.8  | 29.5  | 31.1  | 34.3  | 31.1  | 24.6  | 23.8  |
| 70°   | 2475.7 | 273.0  | 31.1  | 26.6  | 23.8  | 21.8  | 25.0  | 29.5  | 26.2  | 19.8  | 19.0  |
| 72.5° | 2009.4 | 166.4  | 23.4  | 19.4  | 17.3  | 14.1  | 19.8  | 24.2  | 21.0  | 14.6  | 13.7  |
| 75°   | 1300.0 | 84.8   | 16.2  | 12.5  | 9.3   | 8.5   | 14.6  | 18.1  | 14.6  | 8.9   | 7.7   |
| 77.5° | 497.4  | 35.6   | 8.9   | 5.6   | 4.8   | 4.0   | 8.1   | 10.9  | 6.0   | 2.0   | 1.6   |
| 80°   | 95.7   | 15.0   | 4.4   | 2.9   | 2.5   | 1.6   | 1.2   | 0.8   | 0.0   | 0.0   | 0.0   |
| 82.5° | 16.5   | 4.8    | 1.6   | 0.8   | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   |
| 85°   | 5.6    | 0.8    | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   |
| 87.5° | 2.0    | 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)