

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: P960887

Luminaire Tested: **NAV-SB1D-735-U-T3**

Issue Date: 1/21/2025

**Test Information**

Test Method: LM-79-08  
Report Number: P960887  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2405-108-5)  
Test Lab: INNOVATION CENTER  
Issue Date: 1/21/2025  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: LUMARK  
Catalog Number: NAV-SB1D-735-U-T3  
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE  
(1) 70 CRI, 3500K, 900mA LIGHTSQUARE WITH 26 LEDS AND TYPE III OPTICS  
Light Source: -  
Ballast/Driver: -

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 10440.7 lumens  
Efficiency: N/A  
Efficacy: 131.2 lumens/watt  
Luminous Opening: Rectangular (W 0.5' x L: 0.5' x H: 0')  
IES Classification: Type III - Short  
BUG Rating: B2 - U0 - G2

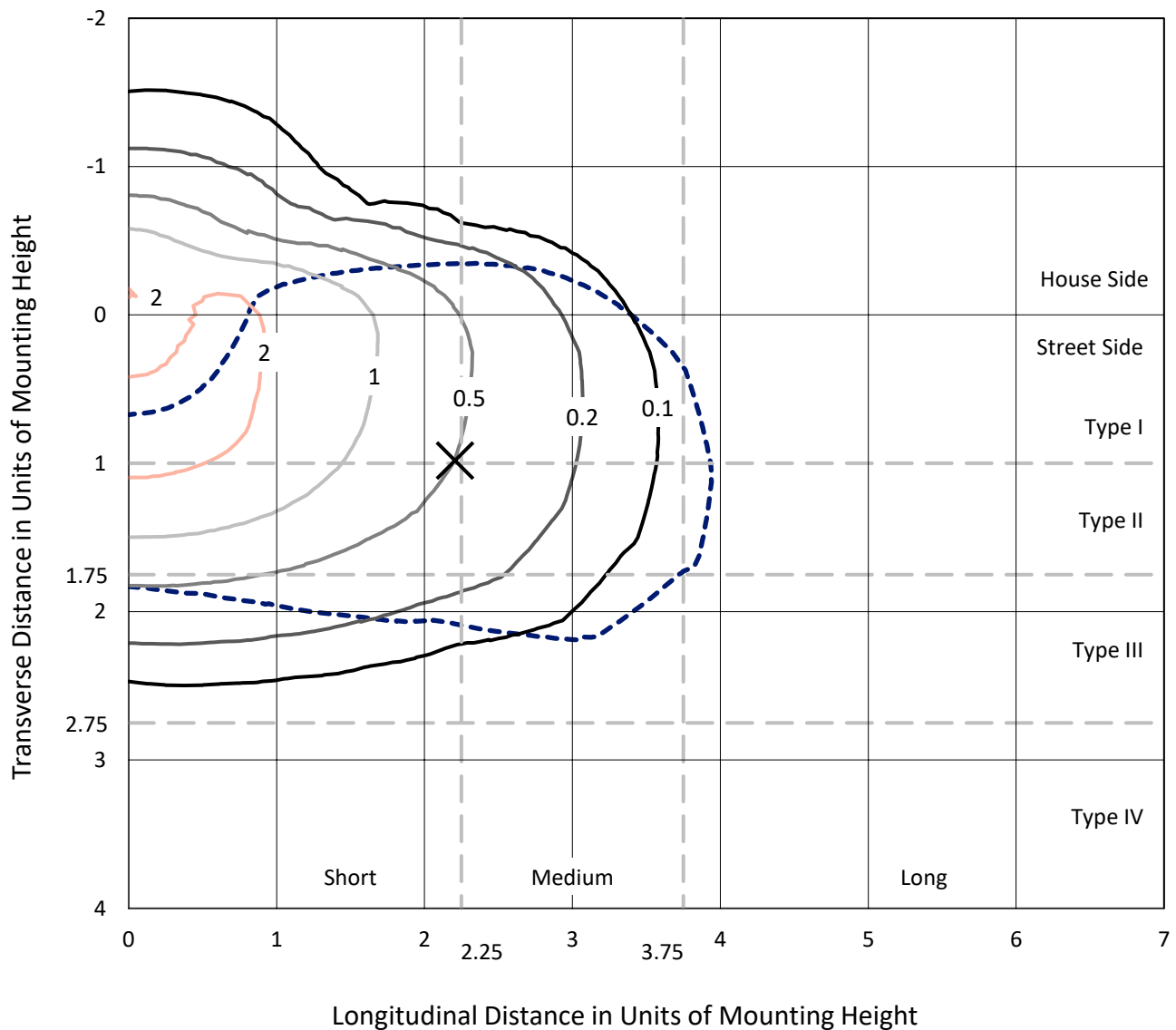
Input Watts (W): 79.6  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 24 FT



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## Iso-Footcandle Lines of Horizontal Illumination

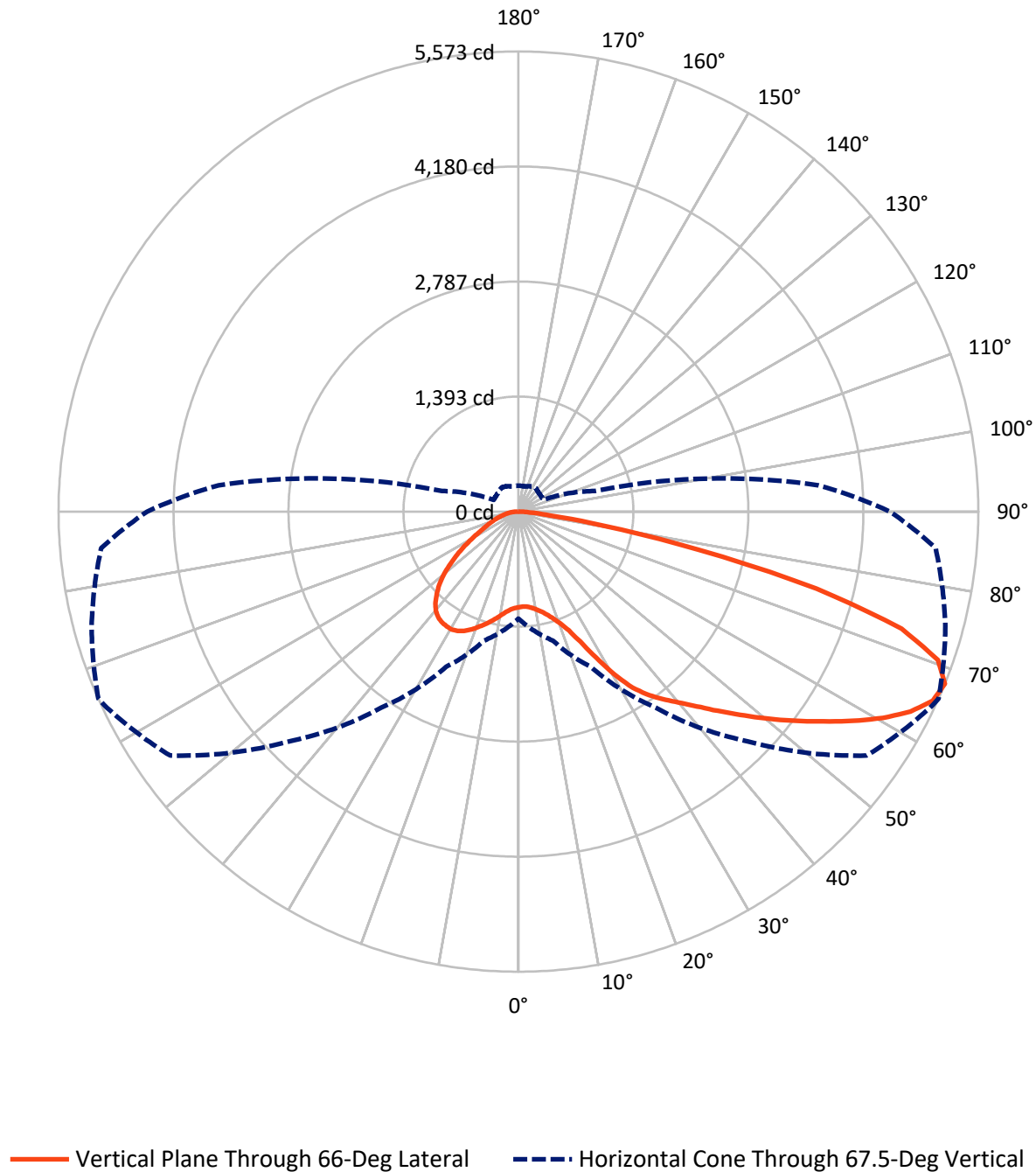
× Max cd  
- - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 2.6 fc  
Type III - Short - N/A

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## Luminous Intensity Polar Plot



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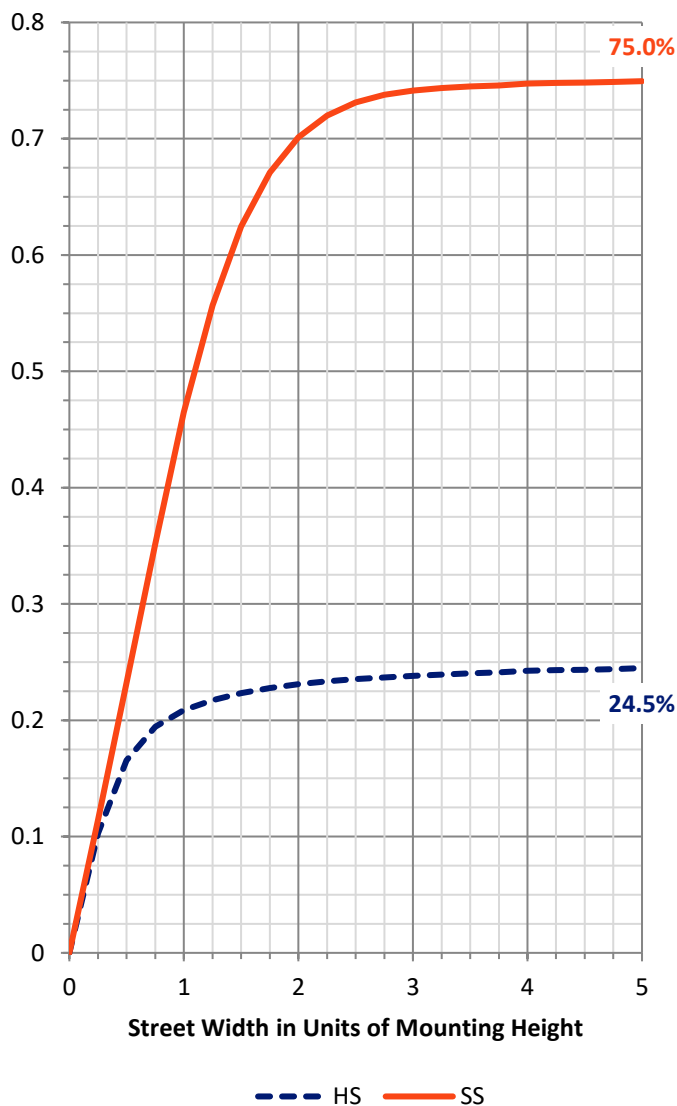
**FLUX DISTRIBUTION:**

|                    |           | Downward | Upward | Total   |
|--------------------|-----------|----------|--------|---------|
| <b>House Side</b>  | Lumens    | 2596.0   | 0.0    | 2596.0  |
|                    | % Fixture | 24.9     | 0.0    | 24.9    |
| <b>Street Side</b> | Lumens    | 7844.6   | 0.0    | 7844.6  |
|                    | % Fixture | 75.1     | 0.0    | 75.1    |
| <b>Total</b>       | Lumens    | 10440.7  | 0.0    | 10440.7 |
|                    | % Fixture | 100.0    | 0.0    | 100.0   |

**ZONAL LUMENS:**

| Zone      | Lumens  | % Fixture |
|-----------|---------|-----------|
| 0°-10°    | 114.8   | 1.1       |
| 10°-20°   | 379.3   | 3.6       |
| 20°-30°   | 731.1   | 7.0       |
| 30°-40°   | 1281.9  | 12.3      |
| 40°-50°   | 1905.8  | 18.3      |
| 50°-60°   | 2415.8  | 23.1      |
| 60°-70°   | 2363.8  | 22.6      |
| 70°-80°   | 1127.6  | 10.8      |
| 80°-90°   | 120.5   | 1.2       |
| 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°    | 10440.7 | 100.0     |
| 0°-180°   | 10440.7 | 100.0     |

**Coefficient of Utilization**



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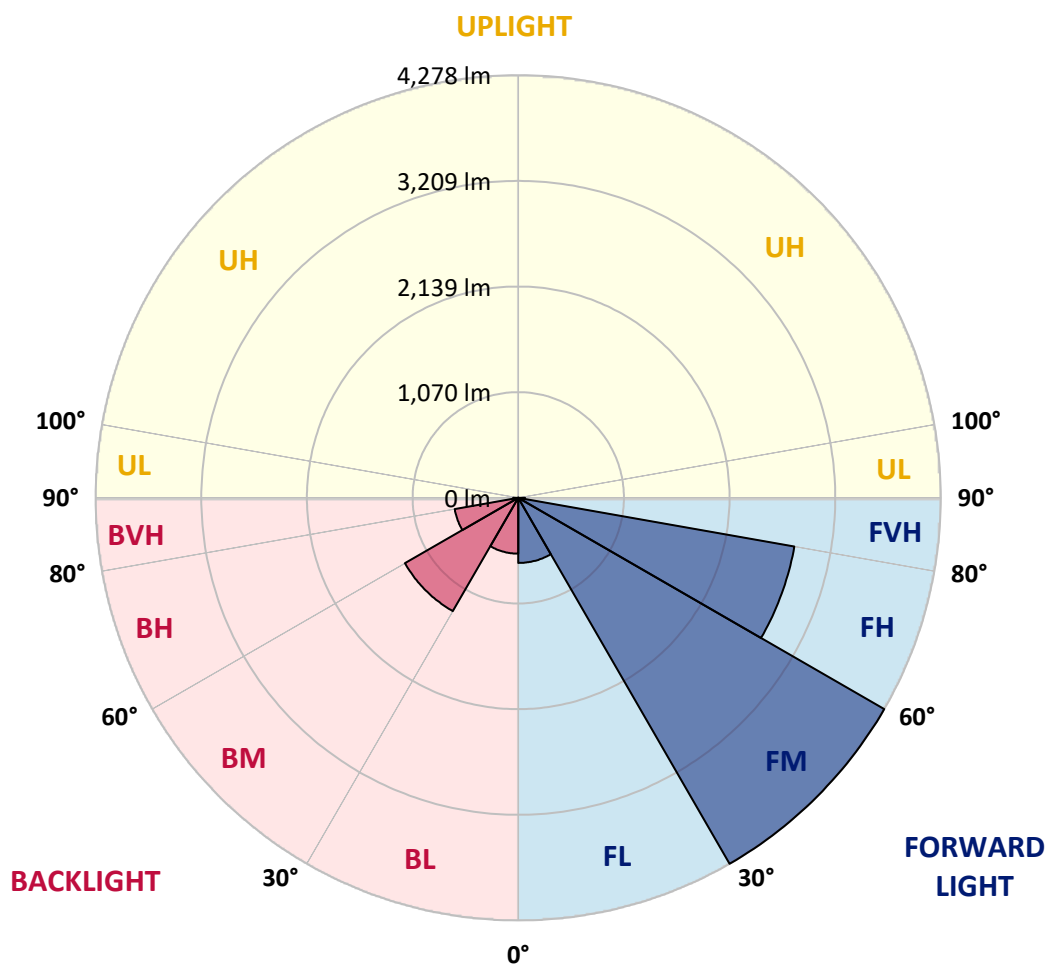
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

| Zone |             | Lumens | % Fixture | Zone Rating/Lumen Limit |      |         |
|------|-------------|--------|-----------|-------------------------|------|---------|
|      |             |        |           | B                       | U    | G       |
| FL   | (0°-30°)    | 659.7  | 6.3       |                         |      |         |
| FM   | (30°-60°)   | 4278.5 | 41.0      |                         |      |         |
| FH   | (60°-80°)   | 2838.1 | 27.2      |                         |      | G2/5000 |
| FVH  | (80°-90°)   | 68.3   | 0.7       |                         |      | G1/100  |
| BL   | (0°-30°)    | 565.5  | 5.4       | B2/1000                 |      |         |
| BM   | (30°-60°)   | 1325.1 | 12.7      | B2/2500                 |      |         |
| BH   | (60°-80°)   | 653.3  | 6.3       | B2/1000                 |      | G2/1000 |
| BVH  | (80°-90°)   | 52.2   | 0.5       |                         |      | G1/100  |
| UL   | (90°-100°)  | 0.0    | 0.0       |                         | U0/0 |         |
| UH   | (100°-180°) | 0.0    | 0.0       |                         | U0/0 |         |

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

Type III Short



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**CANDELA DISTRIBUTION (FULL):**

|       | 0°     | 5°     | 15°    | 25°    | 35°    | 45°    | 55°    | 65°    | 66°    | 75°    | 85°    |
|-------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 0°    | 1158.0 | 1158.0 | 1158.0 | 1158.0 | 1158.0 | 1158.0 | 1158.0 | 1158.0 | 1158.0 | 1158.0 | 1158.0 |
| 2.5°  | 1145.9 | 1152.5 | 1150.9 | 1148.1 | 1147.6 | 1148.7 | 1150.4 | 1152.0 | 1151.4 | 1154.1 | 1158.6 |
| 5°    | 1142.7 | 1149.2 | 1148.7 | 1148.7 | 1150.9 | 1155.3 | 1158.0 | 1160.7 | 1158.0 | 1161.3 | 1167.4 |
| 7.5°  | 1144.8 | 1149.7 | 1152.0 | 1154.1 | 1159.7 | 1167.9 | 1174.4 | 1180.5 | 1177.2 | 1181.0 | 1188.7 |
| 10°   | 1172.8 | 1176.7 | 1178.9 | 1178.9 | 1182.6 | 1192.0 | 1198.6 | 1209.6 | 1206.8 | 1212.9 | 1222.7 |
| 12.5° | 1223.8 | 1227.6 | 1227.6 | 1225.5 | 1228.3 | 1234.3 | 1236.5 | 1248.6 | 1243.5 | 1253.5 | 1263.3 |
| 15°   | 1286.4 | 1294.1 | 1288.0 | 1284.2 | 1285.2 | 1291.3 | 1290.8 | 1300.1 | 1295.2 | 1303.4 | 1312.1 |
| 17.5° | 1355.5 | 1365.4 | 1355.5 | 1354.9 | 1352.8 | 1359.4 | 1359.9 | 1368.1 | 1359.4 | 1365.4 | 1371.3 |
| 20°   | 1437.3 | 1450.9 | 1442.7 | 1445.5 | 1440.5 | 1443.3 | 1446.0 | 1458.1 | 1444.3 | 1448.7 | 1447.1 |
| 22.5° | 1552.5 | 1568.9 | 1560.0 | 1570.5 | 1567.2 | 1565.1 | 1564.5 | 1585.9 | 1564.5 | 1566.1 | 1550.2 |
| 25°   | 1720.3 | 1740.0 | 1724.7 | 1738.9 | 1738.9 | 1746.1 | 1754.3 | 1781.8 | 1746.1 | 1735.6 | 1694.5 |
| 27.5° | 1968.2 | 1988.0 | 1957.9 | 1966.6 | 1963.8 | 1981.4 | 1972.6 | 2040.7 | 2002.2 | 1985.2 | 1902.4 |
| 30°   | 2266.7 | 2301.7 | 2244.8 | 2242.5 | 2239.7 | 2267.7 | 2280.3 | 2325.3 | 2286.4 | 2269.4 | 2169.5 |
| 32.5° | 2589.1 | 2625.9 | 2557.9 | 2538.2 | 2527.8 | 2544.8 | 2534.3 | 2570.5 | 2543.6 | 2517.3 | 2393.9 |
| 35°   | 2930.4 | 2966.6 | 2901.9 | 2863.4 | 2821.8 | 2786.2 | 2748.8 | 2758.2 | 2733.0 | 2692.9 | 2565.1 |
| 37.5° | 3252.9 | 3319.4 | 3250.8 | 3209.6 | 3132.8 | 3063.1 | 2959.0 | 2915.6 | 2892.0 | 2855.2 | 2726.3 |
| 40°   | 3581.6 | 3619.4 | 3567.3 | 3532.2 | 3448.8 | 3339.7 | 3172.9 | 3081.3 | 3049.5 | 3013.8 | 2904.6 |
| 42.5° | 3823.5 | 3859.6 | 3831.7 | 3807.6 | 3742.3 | 3615.6 | 3399.9 | 3285.3 | 3239.2 | 3199.2 | 3106.5 |
| 45°   | 4015.4 | 4042.3 | 4024.8 | 4033.6 | 4005.6 | 3882.7 | 3635.3 | 3504.2 | 3456.5 | 3407.6 | 3334.7 |
| 47.5° | 4092.8 | 4121.3 | 4149.3 | 4201.4 | 4249.1 | 4158.6 | 3888.1 | 3741.1 | 3690.7 | 3640.8 | 3568.9 |
| 50°   | 4084.0 | 4113.1 | 4194.3 | 4305.1 | 4453.2 | 4423.0 | 4154.7 | 3993.5 | 3946.9 | 3889.9 | 3823.5 |
| 52.5° | 4013.8 | 4046.7 | 4150.9 | 4335.2 | 4571.1 | 4621.0 | 4426.4 | 4254.1 | 4210.2 | 4142.1 | 4075.8 |
| 55°   | 3829.5 | 3849.2 | 4005.6 | 4266.7 | 4599.1 | 4759.3 | 4692.3 | 4531.6 | 4487.8 | 4392.8 | 4320.5 |
| 57.5° | 3487.8 | 3516.3 | 3743.9 | 4081.9 | 4528.9 | 4853.1 | 4926.0 | 4823.4 | 4781.2 | 4644.7 | 4568.9 |
| 60°   | 3041.8 | 3087.3 | 3347.9 | 3771.4 | 4350.1 | 4852.6 | 5138.3 | 5110.3 | 5075.3 | 4892.6 | 4813.6 |
| 62.5° | 2537.1 | 2589.8 | 2840.5 | 3332.5 | 4037.4 | 4714.9 | 5271.1 | 5350.6 | 5332.6 | 5121.3 | 5020.4 |
| 65°   | 1948.5 | 1984.7 | 2234.3 | 2764.7 | 3550.8 | 4419.2 | 5286.4 | 5514.7 | 5518.0 | 5295.3 | 5128.5 |
| 67.5° | 1297.3 | 1401.6 | 1618.3 | 2074.6 | 2899.1 | 3935.9 | 5151.5 | 5541.6 | 5573.3 | 5355.0 | 5074.2 |
| 70°   | 633.0  | 770.2  | 982.5  | 1348.4 | 2074.6 | 3194.8 | 4798.7 | 5321.0 | 5391.8 | 5180.6 | 4750.5 |
| 72.5° | 262.8  | 307.2  | 422.9  | 665.4  | 1190.9 | 2155.9 | 4090.1 | 4723.1 | 4854.2 | 4590.4 | 3994.0 |
| 75°   | 177.2  | 192.0  | 241.9  | 341.2  | 542.5  | 1063.1 | 2949.6 | 3521.7 | 3732.9 | 3466.9 | 2833.8 |
| 77.5° | 136.6  | 146.0  | 176.1  | 238.6  | 322.6  | 402.1  | 1578.7 | 2122.4 | 2231.5 | 2065.9 | 1474.6 |
| 80°   | 107.5  | 114.7  | 131.6  | 173.9  | 228.8  | 215.0  | 538.1  | 961.7  | 1024.7 | 859.6  | 474.0  |
| 82.5° | 93.3   | 96.0   | 94.4   | 118.0  | 151.9  | 125.7  | 176.6  | 355.0  | 391.7  | 284.1  | 154.7  |
| 85°   | 67.4   | 75.1   | 78.4   | 73.0   | 80.7   | 63.7   | 72.4   | 125.7  | 138.3  | 123.4  | 87.2   |
| 87.5° | 27.5   | 40.6   | 49.9   | 47.2   | 29.6   | 18.1   | 22.4   | 36.8   | 42.2   | 46.1   | 28.5   |
| 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°    | 1158.0 | 1158.0 | 1158.0 | 1158.0 | 1158.0 | 1158.0 | 1158.0 | 1158.0 | 1158.0 | 1158.0 | 1158.0 |
| 2.5°  | 1159.1 | 1163.0 | 1165.7 | 1169.0 | 1171.2 | 1174.4 | 1181.0 | 1184.9 | 1185.4 | 1188.2 | 1187.7 |
| 5°    | 1169.5 | 1175.1 | 1181.0 | 1189.8 | 1199.7 | 1208.0 | 1220.6 | 1229.3 | 1232.6 | 1235.3 | 1234.8 |
| 7.5°  | 1192.0 | 1199.7 | 1210.6 | 1226.0 | 1240.2 | 1251.2 | 1266.6 | 1277.0 | 1287.5 | 1291.3 | 1291.8 |
| 10°   | 1225.5 | 1236.5 | 1252.3 | 1273.2 | 1288.5 | 1302.8 | 1318.8 | 1327.5 | 1337.9 | 1342.3 | 1344.5 |
| 12.5° | 1267.2 | 1278.7 | 1299.5 | 1328.6 | 1342.9 | 1352.8 | 1358.2 | 1356.1 | 1358.2 | 1362.0 | 1363.1 |
| 15°   | 1314.9 | 1327.5 | 1351.1 | 1382.4 | 1392.3 | 1383.4 | 1371.3 | 1360.4 | 1358.7 | 1359.9 | 1363.8 |
| 17.5° | 1371.3 | 1380.7 | 1408.1 | 1434.5 | 1427.3 | 1391.1 | 1364.8 | 1347.3 | 1338.4 | 1335.8 | 1339.6 |
| 20°   | 1450.4 | 1450.4 | 1472.9 | 1489.3 | 1441.6 | 1380.2 | 1339.1 | 1310.5 | 1292.4 | 1284.7 | 1283.1 |
| 22.5° | 1546.4 | 1537.6 | 1551.8 | 1540.4 | 1438.9 | 1349.4 | 1292.4 | 1243.0 | 1215.6 | 1204.7 | 1202.9 |
| 25°   | 1668.2 | 1657.7 | 1653.9 | 1582.6 | 1419.1 | 1300.6 | 1208.0 | 1148.1 | 1124.0 | 1118.0 | 1119.1 |
| 27.5° | 1852.0 | 1825.6 | 1775.7 | 1605.7 | 1382.9 | 1223.8 | 1109.2 | 1053.8 | 1040.1 | 1040.6 | 1042.2 |
| 30°   | 2096.6 | 2044.0 | 1921.6 | 1609.5 | 1323.7 | 1115.2 | 1008.3 | 968.7  | 962.2  | 964.9  | 974.3  |
| 32.5° | 2323.2 | 2273.2 | 2070.8 | 1591.9 | 1232.6 | 1008.8 | 917.8  | 891.4  | 881.5  | 884.8  | 889.2  |
| 35°   | 2500.9 | 2487.2 | 2209.1 | 1567.2 | 1120.7 | 909.0  | 836.5  | 814.1  | 794.9  | 790.5  | 793.8  |
| 37.5° | 2668.7 | 2663.3 | 2312.7 | 1532.7 | 1009.9 | 838.2  | 771.3  | 741.7  | 713.7  | 698.3  | 698.8  |
| 40°   | 2853.1 | 2847.6 | 2380.8 | 1479.5 | 911.7  | 776.7  | 712.6  | 673.6  | 639.1  | 611.1  | 613.9  |
| 42.5° | 3060.4 | 3028.1 | 2413.2 | 1403.2 | 828.3  | 724.7  | 664.8  | 612.2  | 566.6  | 540.9  | 542.5  |
| 45°   | 3287.0 | 3214.0 | 2412.5 | 1306.2 | 758.1  | 676.9  | 613.9  | 539.3  | 497.0  | 472.8  | 471.8  |
| 47.5° | 3527.2 | 3391.7 | 2382.9 | 1198.6 | 690.1  | 624.2  | 534.8  | 477.8  | 449.8  | 435.0  | 431.7  |
| 50°   | 3775.2 | 3558.0 | 2332.5 | 1075.2 | 620.4  | 564.5  | 485.4  | 446.5  | 425.2  | 411.4  | 406.5  |
| 52.5° | 4008.3 | 3708.8 | 2271.6 | 935.3  | 549.6  | 506.4  | 463.5  | 433.4  | 410.8  | 395.5  | 388.9  |
| 55°   | 4224.9 | 3838.8 | 2185.5 | 792.1  | 492.1  | 467.4  | 453.2  | 427.8  | 402.1  | 384.0  | 376.9  |
| 57.5° | 4417.5 | 3923.3 | 2036.8 | 657.7  | 450.9  | 440.4  | 442.2  | 418.5  | 388.9  | 373.6  | 363.7  |
| 60°   | 4577.8 | 3985.3 | 1816.8 | 533.2  | 417.5  | 414.2  | 425.2  | 401.0  | 366.4  | 348.9  | 341.2  |
| 62.5° | 4673.7 | 3984.2 | 1546.9 | 436.6  | 388.9  | 390.0  | 402.6  | 379.0  | 344.0  | 327.5  | 322.6  |
| 65°   | 4665.5 | 3886.5 | 1250.7 | 373.6  | 361.5  | 362.6  | 379.0  | 355.0  | 325.3  | 315.4  | 314.9  |
| 67.5° | 4500.4 | 3648.5 | 959.4  | 332.4  | 331.3  | 336.3  | 355.5  | 338.5  | 313.8  | 312.7  | 314.4  |
| 70°   | 4053.3 | 3154.2 | 691.2  | 299.5  | 300.0  | 307.2  | 332.4  | 328.0  | 307.7  | 310.0  | 309.3  |
| 72.5° | 3250.2 | 2404.9 | 464.1  | 265.0  | 265.5  | 277.1  | 310.5  | 319.8  | 301.7  | 330.8  | 335.2  |
| 75°   | 2164.6 | 1499.8 | 298.4  | 228.2  | 228.8  | 243.5  | 291.3  | 303.9  | 285.3  | 329.6  | 332.4  |
| 77.5° | 1040.1 | 674.1  | 216.2  | 192.0  | 192.0  | 205.7  | 251.7  | 272.0  | 243.0  | 256.1  | 234.8  |
| 80°   | 359.3  | 253.5  | 170.0  | 154.7  | 151.4  | 160.7  | 212.3  | 235.9  | 209.5  | 193.1  | 181.0  |
| 82.5° | 141.6  | 131.6  | 136.6  | 120.1  | 109.2  | 115.2  | 165.1  | 194.7  | 154.2  | 139.3  | 138.8  |
| 85°   | 81.2   | 85.6   | 96.6   | 79.5   | 63.0   | 70.7   | 121.3  | 139.9  | 116.3  | 102.6  | 104.8  |
| 87.5° | 21.9   | 30.1   | 44.4   | 41.1   | 28.5   | 30.1   | 57.6   | 77.4   | 66.9   | 51.6   | 53.2   |
| 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)