

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: P960918

Luminaire Tested: **NAV-SB1D-740-U-T3**

Issue Date: 1/21/2025

**Test Information**

Test Method: LM-79-08  
Report Number: P960918  
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-740-U-T3  
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE  
(1) 70 CRI, 4000K, 900mA LIGHTSQUARE WITH 26 LEDS AND TYPE III OPTICS  
Light Source: -  
Ballast/Driver: -

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 11046.4 lumens  
Efficiency: N/A  
Efficacy: 138.8 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

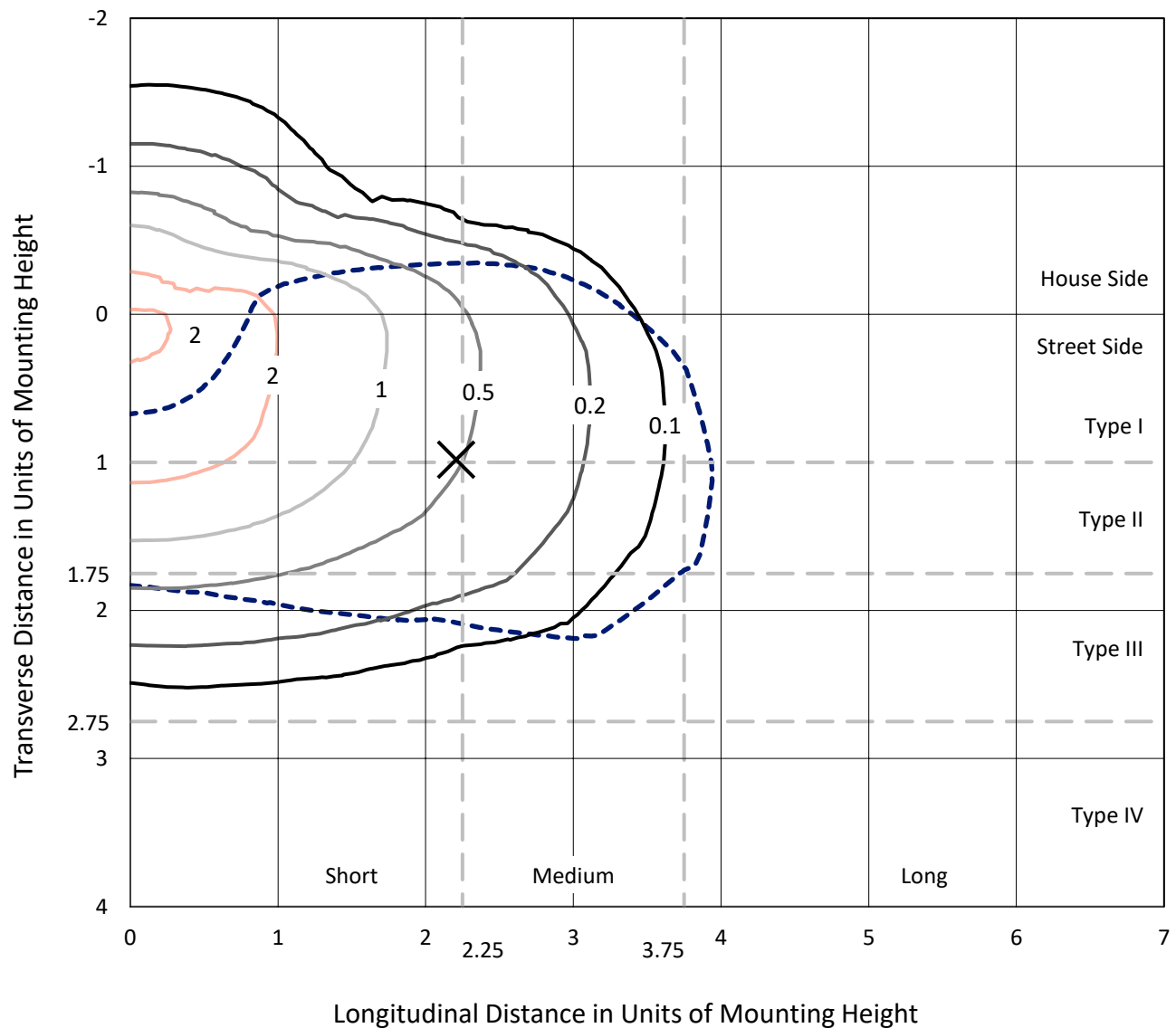
Input Watts (W): 79.6  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 24 FT



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## Iso-Footcandle Lines of Horizontal Illumination

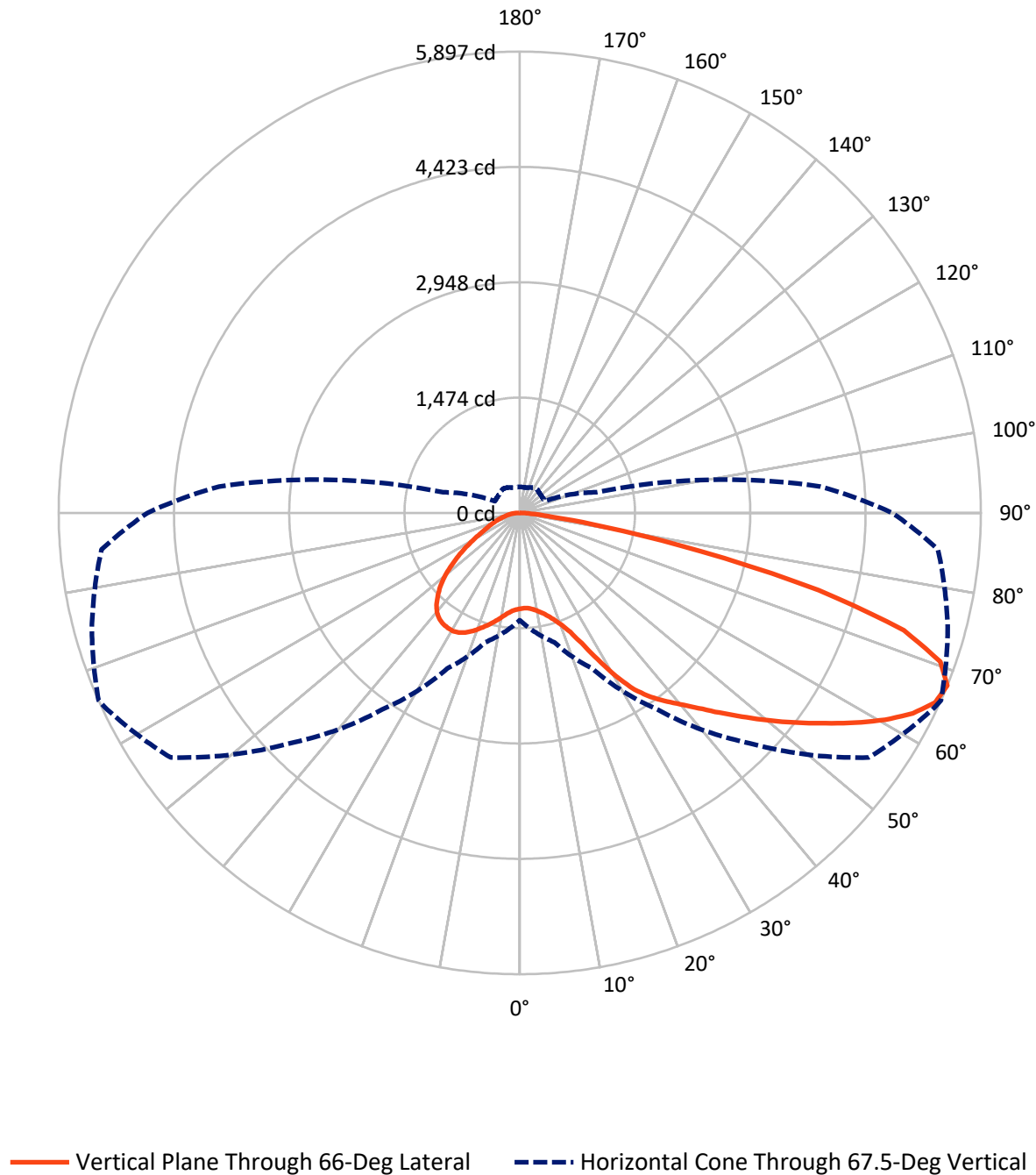
× Max cd  
- - - 1/2 Max cd



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

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## Luminous Intensity Polar Plot



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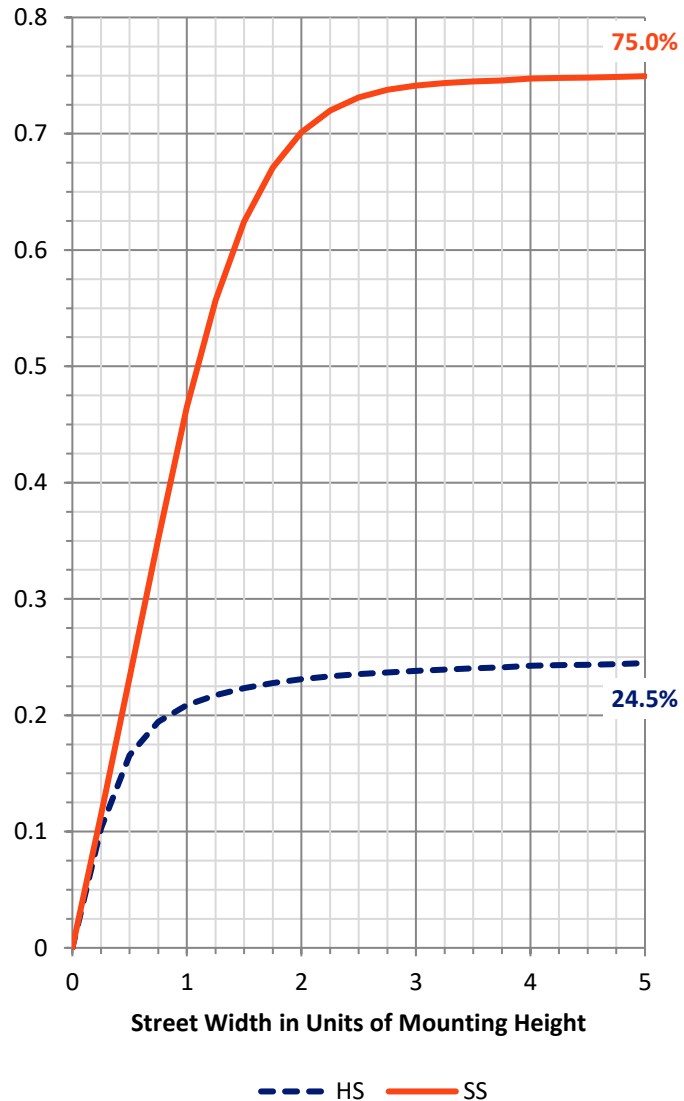
**FLUX DISTRIBUTION:**

|                    |           | Downward | Upward | Total   |
|--------------------|-----------|----------|--------|---------|
| <b>House Side</b>  | Lumens    | 2746.7   | 0.0    | 2746.7  |
|                    | % Fixture | 24.9     | 0.0    | 24.9    |
| <b>Street Side</b> | Lumens    | 8299.8   | 0.0    | 8299.8  |
|                    | % Fixture | 75.1     | 0.0    | 75.1    |
| <b>Total</b>       | Lumens    | 11046.4  | 0.0    | 11046.4 |
|                    | % Fixture | 100.0    | 0.0    | 100.0   |

**ZONAL LUMENS:**

| Zone      | Lumens  | % Fixture |
|-----------|---------|-----------|
| 0°-10°    | 121.5   | 1.1       |
| 10°-20°   | 401.3   | 3.6       |
| 20°-30°   | 773.5   | 7.0       |
| 30°-40°   | 1356.3  | 12.3      |
| 40°-50°   | 2016.4  | 18.3      |
| 50°-60°   | 2556.0  | 23.1      |
| 60°-70°   | 2500.9  | 22.6      |
| 70°-80°   | 1193.0  | 10.8      |
| 80°-90°   | 127.5   | 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°    | 11046.4 | 100.0     |
| 0°-180°   | 11046.4 | 100.0     |

**Coefficient of Utilization**



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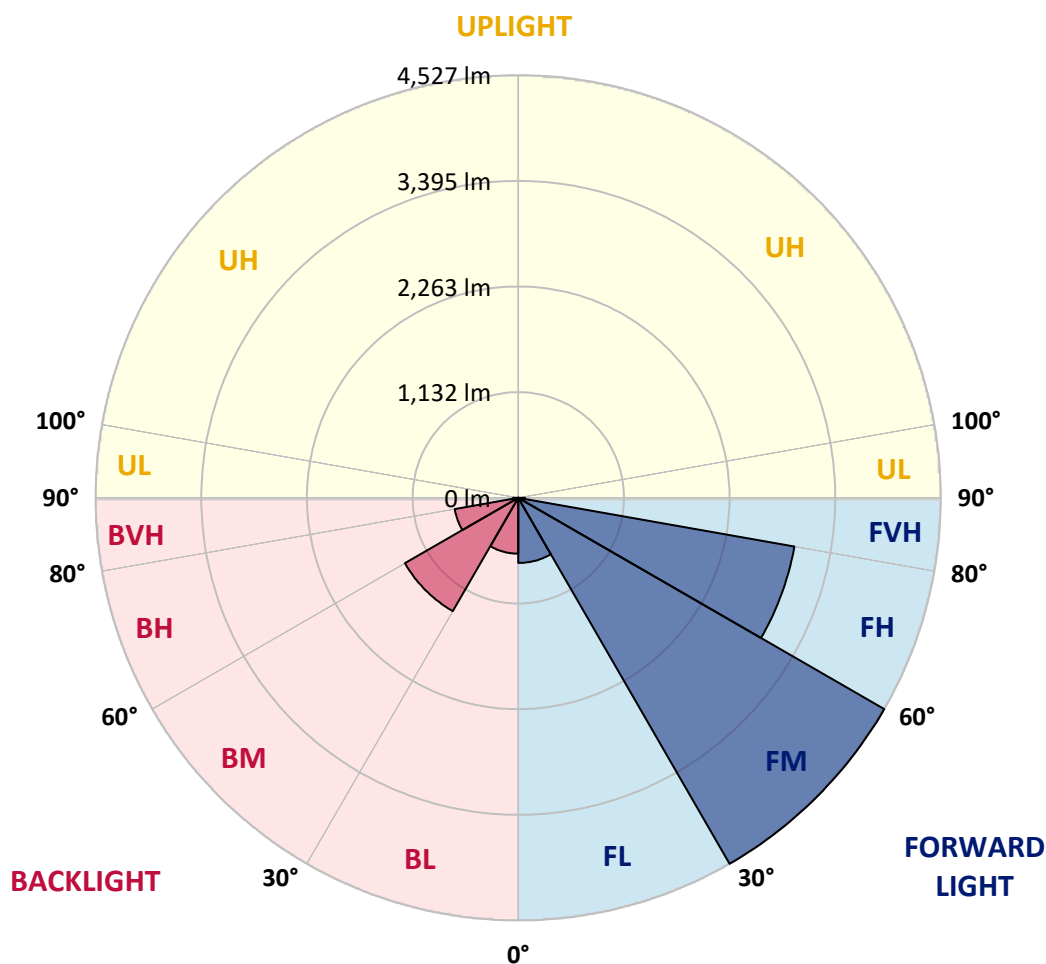
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

| Zone |             | Lumens | % Fixture | Zone Rating/Lumen Limit |      |         |
|------|-------------|--------|-----------|-------------------------|------|---------|
|      |             |        |           | B                       | U    | G       |
| FL   | (0°-30°)    | 698.0  | 6.3       |                         |      |         |
| FM   | (30°-60°)   | 4526.7 | 41.0      |                         |      |         |
| FH   | (60°-80°)   | 3002.7 | 27.2      |                         |      | G2/5000 |
| FVH  | (80°-90°)   | 72.3   | 0.7       |                         |      | G1/100  |
| BL   | (0°-30°)    | 598.3  | 5.4       | B2/1000                 |      |         |
| BM   | (30°-60°)   | 1401.9 | 12.7      | B2/2500                 |      |         |
| BH   | (60°-80°)   | 691.2  | 6.3       | B2/1000                 |      | G2/1000 |
| BVH  | (80°-90°)   | 55.2   | 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°    | 1225.2 | 1225.2 | 1225.2 | 1225.2 | 1225.2 | 1225.2 | 1225.2 | 1225.2 | 1225.2 | 1225.2 | 1225.2 |
| 2.5°  | 1212.5 | 1219.3 | 1217.7 | 1214.7 | 1214.2 | 1215.3 | 1217.1 | 1218.8 | 1218.2 | 1221.1 | 1225.8 |
| 5°    | 1209.0 | 1216.0 | 1215.3 | 1215.3 | 1217.7 | 1222.3 | 1225.2 | 1228.1 | 1225.2 | 1228.7 | 1235.0 |
| 7.5°  | 1211.2 | 1216.5 | 1218.8 | 1221.1 | 1226.9 | 1235.6 | 1242.6 | 1249.0 | 1245.5 | 1249.6 | 1257.7 |
| 10°   | 1240.9 | 1245.0 | 1247.2 | 1247.2 | 1251.3 | 1261.2 | 1268.1 | 1279.7 | 1276.8 | 1283.2 | 1293.7 |
| 12.5° | 1294.9 | 1298.9 | 1298.9 | 1296.6 | 1299.5 | 1305.8 | 1308.2 | 1320.9 | 1315.7 | 1326.1 | 1336.6 |
| 15°   | 1361.0 | 1369.1 | 1362.7 | 1358.6 | 1359.9 | 1366.2 | 1365.6 | 1375.6 | 1370.3 | 1379.0 | 1388.3 |
| 17.5° | 1434.2 | 1444.5 | 1434.2 | 1433.6 | 1431.2 | 1438.2 | 1438.8 | 1447.5 | 1438.2 | 1444.5 | 1451.0 |
| 20°   | 1520.6 | 1535.1 | 1526.4 | 1529.3 | 1524.1 | 1527.0 | 1529.9 | 1542.6 | 1528.2 | 1532.8 | 1531.0 |
| 22.5° | 1642.5 | 1659.9 | 1650.7 | 1661.6 | 1658.1 | 1655.9 | 1655.3 | 1677.9 | 1655.3 | 1657.0 | 1640.2 |
| 25°   | 1820.1 | 1841.0 | 1824.7 | 1839.8 | 1839.8 | 1847.4 | 1856.1 | 1885.1 | 1847.4 | 1836.4 | 1792.8 |
| 27.5° | 2082.4 | 2103.3 | 2071.4 | 2080.6 | 2077.8 | 2096.3 | 2087.1 | 2159.1 | 2118.4 | 2100.4 | 2012.8 |
| 30°   | 2398.2 | 2435.3 | 2374.9 | 2372.6 | 2369.7 | 2399.3 | 2412.6 | 2460.2 | 2419.0 | 2401.1 | 2295.4 |
| 32.5° | 2739.4 | 2778.3 | 2706.3 | 2685.4 | 2674.4 | 2692.4 | 2681.4 | 2719.7 | 2691.2 | 2663.4 | 2532.8 |
| 35°   | 3100.4 | 3138.8 | 3070.3 | 3029.6 | 2985.5 | 2947.8 | 2908.3 | 2918.2 | 2891.5 | 2849.1 | 2713.9 |
| 37.5° | 3441.6 | 3512.0 | 3439.4 | 3395.8 | 3314.5 | 3240.8 | 3130.6 | 3084.7 | 3059.8 | 3020.9 | 2884.6 |
| 40°   | 3789.3 | 3829.4 | 3774.3 | 3737.2 | 3648.9 | 3533.4 | 3357.0 | 3260.0 | 3226.4 | 3188.7 | 3073.2 |
| 42.5° | 4045.3 | 4083.6 | 4054.0 | 4028.5 | 3959.4 | 3825.3 | 3597.2 | 3476.0 | 3427.2 | 3384.9 | 3286.8 |
| 45°   | 4248.4 | 4276.8 | 4258.3 | 4267.6 | 4238.0 | 4108.0 | 3846.2 | 3707.5 | 3657.0 | 3605.3 | 3528.2 |
| 47.5° | 4330.2 | 4360.5 | 4390.1 | 4445.2 | 4495.6 | 4399.9 | 4113.7 | 3958.2 | 3904.8 | 3852.1 | 3776.0 |
| 50°   | 4321.0 | 4351.7 | 4437.6 | 4554.9 | 4711.6 | 4679.6 | 4395.8 | 4225.3 | 4175.8 | 4115.5 | 4045.3 |
| 52.5° | 4246.7 | 4281.5 | 4391.8 | 4586.8 | 4836.4 | 4889.1 | 4683.1 | 4500.9 | 4454.4 | 4382.5 | 4312.3 |
| 55°   | 4051.7 | 4072.5 | 4238.0 | 4514.2 | 4866.0 | 5035.4 | 4964.6 | 4794.5 | 4748.1 | 4647.8 | 4571.1 |
| 57.5° | 3690.1 | 3720.2 | 3961.1 | 4318.6 | 4791.7 | 5134.6 | 5211.8 | 5103.4 | 5058.7 | 4914.2 | 4834.0 |
| 60°   | 3218.2 | 3266.4 | 3542.1 | 3990.1 | 4602.5 | 5134.1 | 5436.5 | 5406.9 | 5369.8 | 5176.5 | 5092.9 |
| 62.5° | 2684.3 | 2740.0 | 3005.2 | 3525.8 | 4271.7 | 4988.4 | 5576.9 | 5661.1 | 5641.9 | 5418.5 | 5311.7 |
| 65°   | 2061.5 | 2099.8 | 2364.0 | 2925.1 | 3756.8 | 4675.5 | 5593.2 | 5834.6 | 5838.1 | 5602.4 | 5426.0 |
| 67.5° | 1372.6 | 1482.9 | 1712.2 | 2195.0 | 3067.3 | 4164.3 | 5450.4 | 5863.1 | 5896.7 | 5665.7 | 5368.5 |
| 70°   | 669.7  | 814.9  | 1039.5 | 1426.6 | 2195.0 | 3380.1 | 5077.2 | 5629.7 | 5704.6 | 5481.2 | 5026.2 |
| 72.5° | 278.0  | 325.0  | 447.5  | 704.0  | 1260.0 | 2280.9 | 4327.3 | 4997.1 | 5135.9 | 4856.7 | 4225.8 |
| 75°   | 187.5  | 203.2  | 255.9  | 361.0  | 574.0  | 1124.8 | 3120.7 | 3726.1 | 3949.5 | 3668.1 | 2998.2 |
| 77.5° | 144.5  | 154.4  | 186.3  | 252.5  | 341.2  | 425.4  | 1670.3 | 2245.5 | 2361.0 | 2185.7 | 1560.0 |
| 80°   | 113.8  | 121.3  | 139.3  | 184.0  | 242.0  | 227.6  | 569.4  | 1017.4 | 1084.1 | 909.5  | 501.4  |
| 82.5° | 98.7   | 101.6  | 99.8   | 124.7  | 160.7  | 132.9  | 186.9  | 375.6  | 414.4  | 300.6  | 163.7  |
| 85°   | 71.3   | 79.5   | 83.0   | 77.2   | 85.3   | 67.3   | 76.6   | 132.9  | 146.3  | 130.6  | 92.2   |
| 87.5° | 29.0   | 42.9   | 52.8   | 49.9   | 31.4   | 19.2   | 23.8   | 38.8   | 44.7   | 48.8   | 30.1   |
| 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°    | 1225.2 | 1225.2 | 1225.2 | 1225.2 | 1225.2 | 1225.2 | 1225.2 | 1225.2 | 1225.2 | 1225.2 | 1225.2 |
| 2.5°  | 1226.3 | 1230.4 | 1233.3 | 1236.8 | 1239.1 | 1242.6 | 1249.6 | 1253.7 | 1254.2 | 1257.2 | 1256.5 |
| 5°    | 1237.4 | 1243.2 | 1249.6 | 1258.9 | 1269.3 | 1278.0 | 1291.4 | 1300.6 | 1304.1 | 1307.1 | 1306.5 |
| 7.5°  | 1261.2 | 1269.3 | 1280.9 | 1297.1 | 1312.2 | 1323.9 | 1340.1 | 1351.2 | 1362.1 | 1366.2 | 1366.8 |
| 10°   | 1296.6 | 1308.2 | 1325.0 | 1347.1 | 1363.4 | 1378.4 | 1395.2 | 1404.6 | 1415.5 | 1420.2 | 1422.5 |
| 12.5° | 1340.7 | 1352.9 | 1374.9 | 1405.7 | 1420.8 | 1431.2 | 1437.0 | 1434.7 | 1437.0 | 1441.0 | 1442.3 |
| 15°   | 1391.2 | 1404.6 | 1429.5 | 1462.6 | 1473.0 | 1463.7 | 1451.0 | 1439.4 | 1437.7 | 1438.8 | 1442.8 |
| 17.5° | 1451.0 | 1460.8 | 1489.8 | 1517.7 | 1510.1 | 1471.9 | 1444.0 | 1425.5 | 1416.1 | 1413.3 | 1417.3 |
| 20°   | 1534.5 | 1534.5 | 1558.3 | 1575.7 | 1525.3 | 1460.2 | 1416.8 | 1386.5 | 1367.4 | 1359.3 | 1357.5 |
| 22.5° | 1636.1 | 1626.8 | 1641.9 | 1629.7 | 1522.3 | 1427.7 | 1367.4 | 1315.2 | 1286.2 | 1274.5 | 1272.7 |
| 25°   | 1764.9 | 1753.9 | 1749.9 | 1674.4 | 1501.4 | 1376.1 | 1278.0 | 1214.7 | 1189.2 | 1182.8 | 1184.0 |
| 27.5° | 1959.4 | 1931.5 | 1878.7 | 1698.8 | 1463.2 | 1294.9 | 1173.5 | 1114.9 | 1100.4 | 1101.0 | 1102.7 |
| 30°   | 2218.2 | 2162.5 | 2033.1 | 1702.8 | 1400.5 | 1179.9 | 1066.7 | 1025.0 | 1018.0 | 1020.9 | 1030.7 |
| 32.5° | 2458.0 | 2405.2 | 2190.9 | 1684.3 | 1304.1 | 1067.3 | 971.0  | 943.1  | 932.6  | 936.1  | 940.8  |
| 35°   | 2645.9 | 2631.5 | 2337.2 | 1658.1 | 1185.7 | 961.7  | 885.1  | 861.3  | 841.0  | 836.3  | 839.8  |
| 37.5° | 2823.6 | 2817.7 | 2446.9 | 1621.6 | 1068.5 | 886.8  | 816.0  | 784.6  | 755.1  | 738.8  | 739.4  |
| 40°   | 3018.6 | 3012.8 | 2518.8 | 1565.3 | 964.6  | 821.8  | 753.9  | 712.7  | 676.2  | 646.6  | 649.4  |
| 42.5° | 3238.0 | 3203.7 | 2553.1 | 1484.6 | 876.4  | 766.7  | 703.5  | 647.7  | 599.5  | 572.3  | 574.0  |
| 45°   | 3477.7 | 3400.4 | 2552.6 | 1381.9 | 802.1  | 716.2  | 649.4  | 570.5  | 525.8  | 500.3  | 499.2  |
| 47.5° | 3731.9 | 3588.5 | 2521.2 | 1268.1 | 730.1  | 660.5  | 565.9  | 505.5  | 475.9  | 460.2  | 456.7  |
| 50°   | 3994.2 | 3764.4 | 2467.8 | 1137.5 | 656.4  | 597.3  | 513.6  | 472.4  | 449.8  | 435.3  | 430.1  |
| 52.5° | 4240.8 | 3924.0 | 2403.4 | 989.5  | 581.6  | 535.7  | 490.5  | 458.5  | 434.7  | 418.5  | 411.5  |
| 55°   | 4470.1 | 4061.6 | 2312.3 | 838.0  | 520.6  | 494.5  | 479.4  | 452.7  | 425.4  | 406.3  | 398.7  |
| 57.5° | 4673.9 | 4150.9 | 2155.0 | 695.9  | 477.0  | 466.1  | 467.8  | 442.8  | 411.5  | 395.2  | 384.8  |
| 60°   | 4843.3 | 4216.5 | 1922.3 | 564.2  | 441.7  | 438.2  | 449.8  | 424.2  | 387.7  | 369.1  | 361.0  |
| 62.5° | 4944.9 | 4215.3 | 1636.7 | 462.0  | 411.5  | 412.7  | 426.0  | 401.1  | 363.9  | 346.4  | 341.2  |
| 65°   | 4936.2 | 4112.0 | 1323.3 | 395.2  | 382.4  | 383.7  | 401.1  | 375.6  | 344.2  | 333.7  | 333.1  |
| 67.5° | 4761.5 | 3860.2 | 1015.1 | 351.7  | 350.5  | 355.8  | 376.1  | 358.1  | 332.0  | 330.9  | 332.5  |
| 70°   | 4288.5 | 3337.2 | 731.2  | 316.9  | 317.4  | 325.0  | 351.7  | 347.1  | 325.6  | 327.9  | 327.4  |
| 72.5° | 3438.8 | 2544.5 | 491.0  | 280.3  | 281.0  | 293.0  | 328.5  | 338.4  | 319.2  | 349.9  | 354.6  |
| 75°   | 2290.2 | 1586.8 | 315.7  | 241.5  | 242.0  | 257.7  | 308.2  | 321.5  | 301.8  | 348.8  | 351.7  |
| 77.5° | 1100.4 | 713.3  | 228.7  | 203.2  | 203.2  | 217.6  | 266.4  | 287.9  | 257.1  | 271.0  | 248.4  |
| 80°   | 380.2  | 268.1  | 179.9  | 163.7  | 160.2  | 170.0  | 224.6  | 249.6  | 221.7  | 204.3  | 191.6  |
| 82.5° | 149.8  | 139.3  | 144.5  | 127.1  | 115.5  | 121.9  | 174.7  | 206.0  | 163.1  | 147.4  | 146.9  |
| 85°   | 85.9   | 90.5   | 102.2  | 84.2   | 66.7   | 74.8   | 128.2  | 148.0  | 123.0  | 108.5  | 110.8  |
| 87.5° | 23.2   | 31.9   | 47.0   | 43.6   | 30.1   | 31.9   | 61.0   | 81.8   | 70.8   | 54.5   | 56.3   |
| 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)