

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: P961533

Luminaire Tested: **NAV-SB2A-827-U-T2U**

Issue Date: 1/21/2025

### Test Information

Test Method: LM-79-08  
Report Number: P961533  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2411-289-16)  
Test Lab: INNOVATION CENTER  
Issue Date: 1/21/2025  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: LUMARK  
Catalog Number: NAV-SB2A-827-U-T2U  
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE  
(2) 80 CRI, 2700K, 350mA LIGHTSQUARES WITH 26 LEDS EACH AND TYPE II U OPTICS  
Light Source: -  
Ballast/Driver: -

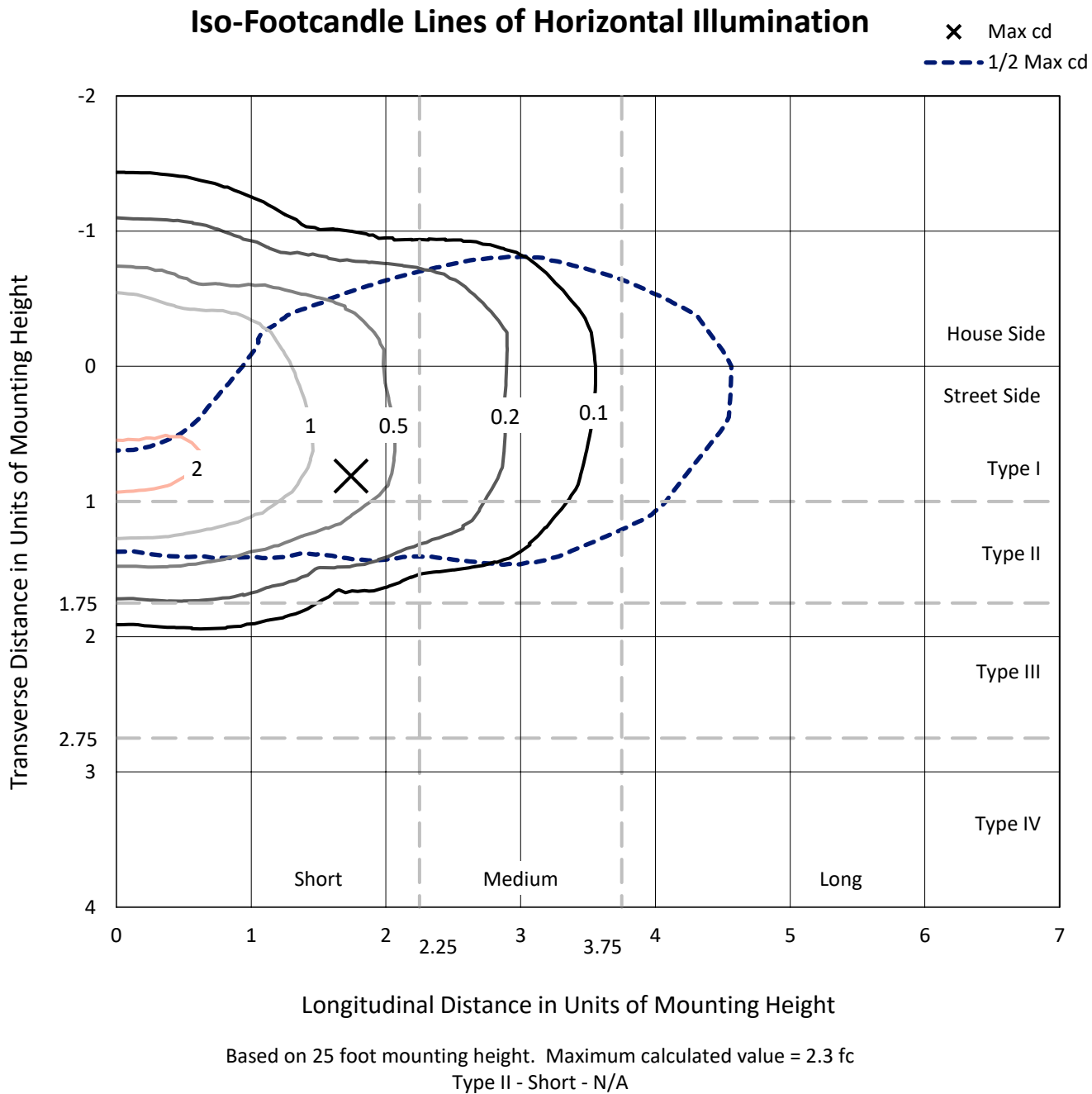
### Summary

Lumens per Lamp: N/A  
Luminaire Lumens: 8102.6 lumens  
Efficiency: N/A  
Efficacy: 141.4 lumens/watt  
Luminous Opening: Rectangular (W 0.5' x L: 1' x H: 0')  
IES Classification: Type II - Short  
BUG Rating: B2 - 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

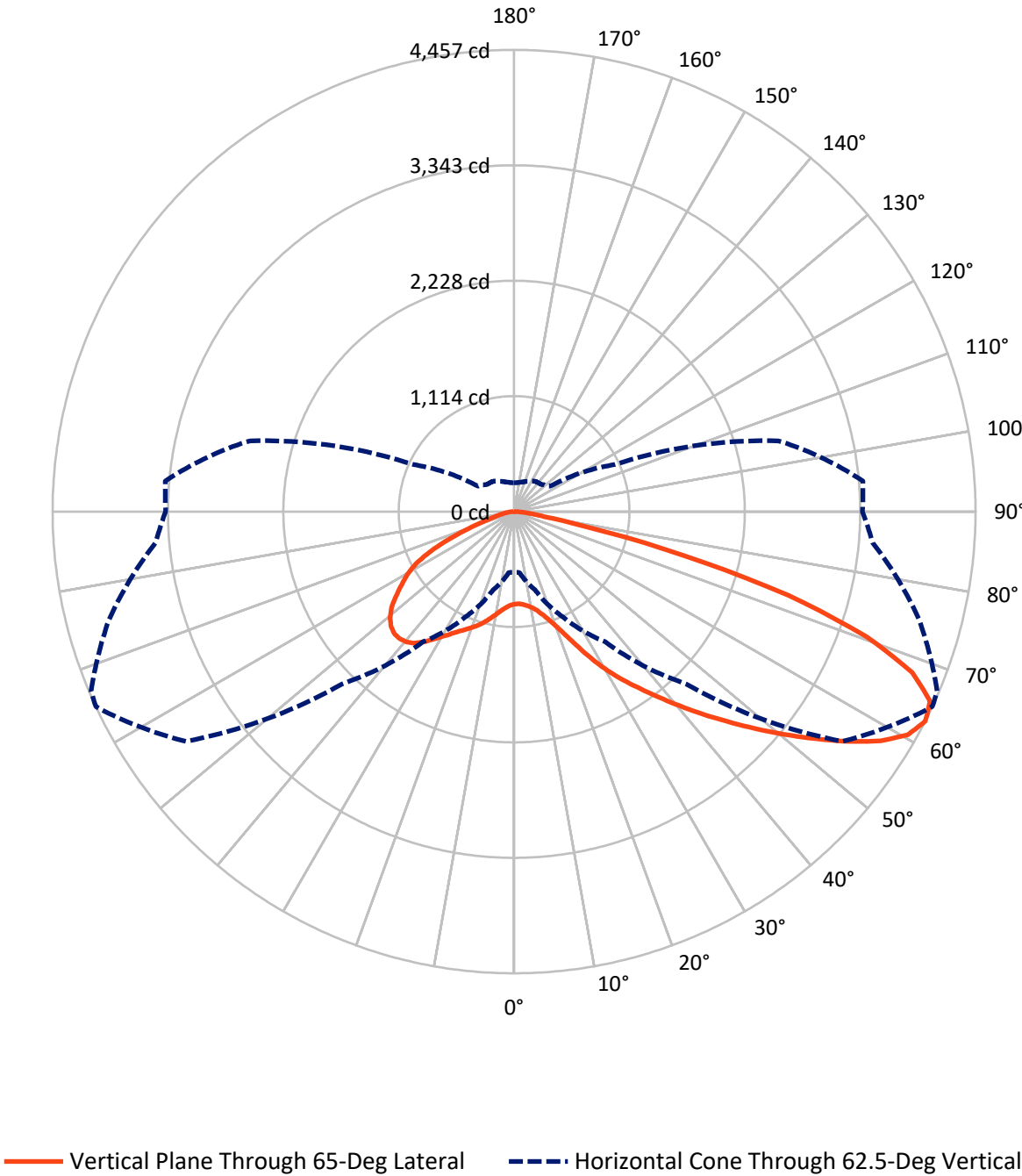


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Luminous Intensity Polar Plot



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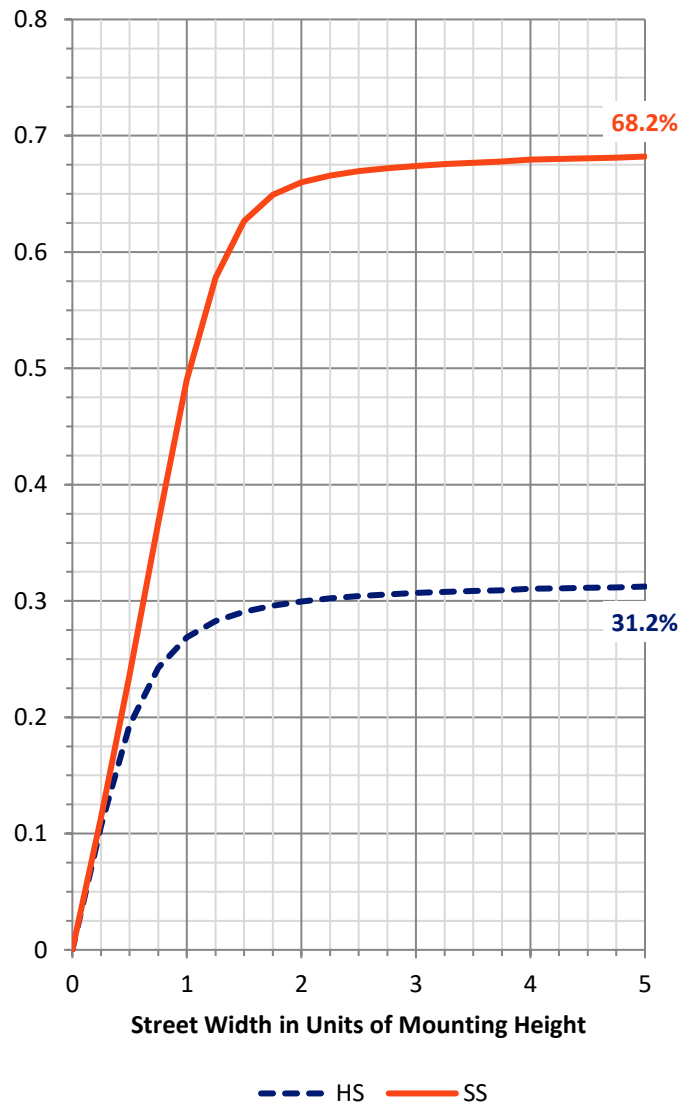
**FLUX DISTRIBUTION:**

|                    |           | Downward | Upward | Total  |
|--------------------|-----------|----------|--------|--------|
| <b>House Side</b>  | Lumens    | 2556.8   | 0.0    | 2556.8 |
|                    | % Fixture | 31.6     | 0.0    | 31.6   |
| <b>Street Side</b> | Lumens    | 5545.8   | 0.0    | 5545.8 |
|                    | % Fixture | 68.4     | 0.0    | 68.4   |
| <b>Total</b>       | Lumens    | 8102.6   | 0.0    | 8102.6 |
|                    | % Fixture | 100.0    | 0.0    | 100.0  |

**ZONAL LUMENS:**

| Zone      | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10°    | 89.0   | 1.1       |
| 10°-20°   | 301.9  | 3.7       |
| 20°-30°   | 612.1  | 7.6       |
| 30°-40°   | 1059.2 | 13.1      |
| 40°-50°   | 1602.9 | 19.8      |
| 50°-60°   | 1879.3 | 23.2      |
| 60°-70°   | 1575.5 | 19.4      |
| 70°-80°   | 869.8  | 10.7      |
| 80°-90°   | 113.0  | 1.4       |
| 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°    | 8102.6 | 100.0     |
| 0°-180°   | 8102.6 | 100.0     |

**Coefficient of Utilization**



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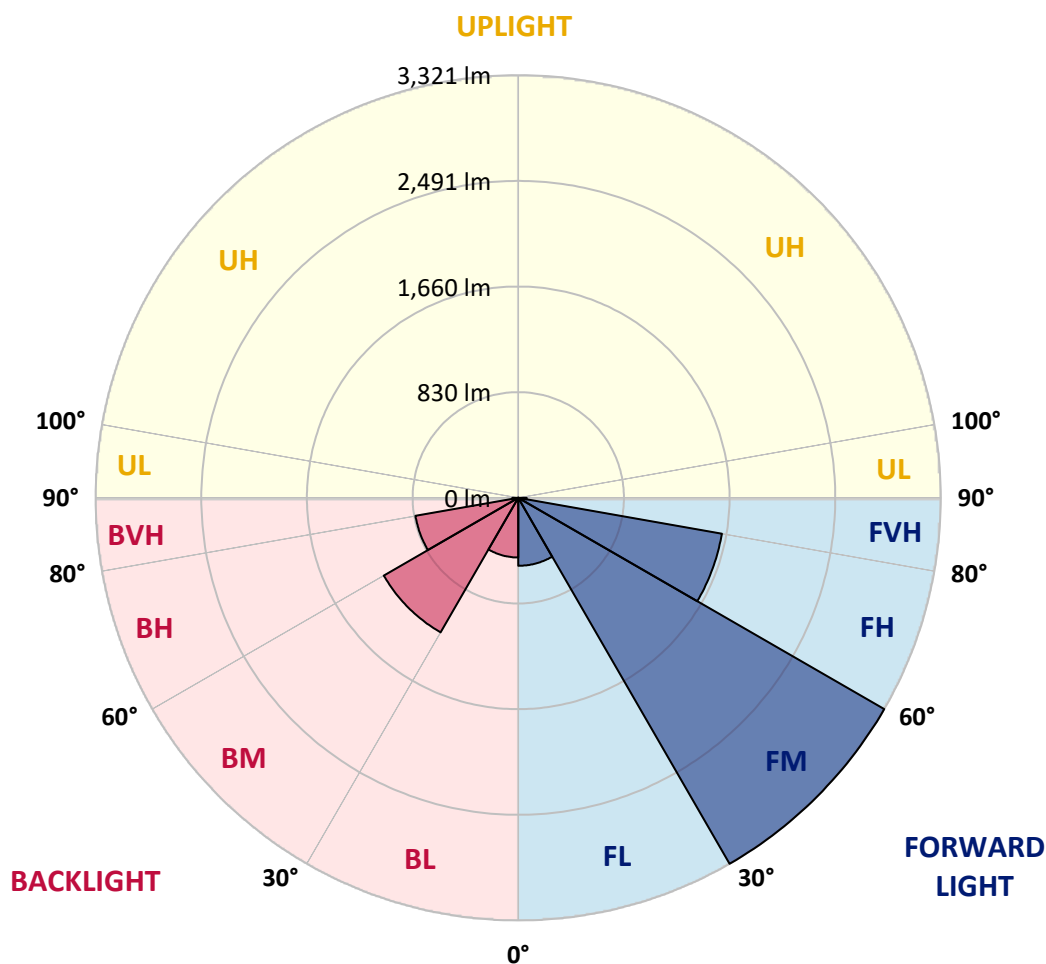
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

| Zone |             | Lumens | % Fixture | Zone Rating/Lumen Limit |      |         |
|------|-------------|--------|-----------|-------------------------|------|---------|
|      |             |        |           | B                       | U    | G       |
| FL   | (0°-30°)    | 534.1  | 6.6       |                         |      |         |
| FM   | (30°-60°)   | 3320.7 | 41.0      |                         |      |         |
| FH   | (60°-80°)   | 1625.2 | 20.1      |                         |      | G1/1800 |
| FVH  | (80°-90°)   | 65.9   | 0.8       |                         |      | G1/100  |
| BL   | (0°-30°)    | 468.9  | 5.8       | B1/500                  |      |         |
| BM   | (30°-60°)   | 1220.6 | 15.1      | B2/2500                 |      |         |
| BH   | (60°-80°)   | 820.2  | 10.1      | B2/1000                 |      | G2/1000 |
| BVH  | (80°-90°)   | 47.1   | 0.6       |                         |      | 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 II Short



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**CANDELA DISTRIBUTION (FULL):**

|       | 0°     | 5°     | 15°    | 25°    | 35°    | 45°    | 55°    | 65°    | 67°    | 75°    | 85°    |
|-------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 0°    | 892.9  | 892.9  | 892.9  | 892.9  | 892.9  | 892.9  | 892.9  | 892.9  | 892.9  | 892.9  | 892.9  |
| 2.5°  | 887.0  | 884.5  | 886.5  | 886.5  | 887.4  | 887.0  | 889.9  | 890.7  | 892.1  | 894.5  | 894.5  |
| 5°    | 878.1  | 877.7  | 881.5  | 884.9  | 888.3  | 891.2  | 894.9  | 900.5  | 901.3  | 904.3  | 908.0  |
| 7.5°  | 875.2  | 872.7  | 878.6  | 882.8  | 890.7  | 897.9  | 908.0  | 917.3  | 921.1  | 922.3  | 929.5  |
| 10°   | 897.9  | 893.7  | 899.1  | 901.7  | 908.5  | 915.5  | 927.3  | 942.1  | 946.3  | 951.3  | 959.3  |
| 12.5° | 936.5  | 931.9  | 939.9  | 943.7  | 950.1  | 956.3  | 964.3  | 978.7  | 980.7  | 989.9  | 997.5  |
| 15°   | 989.5  | 984.1  | 989.1  | 993.7  | 1004.3 | 1010.1 | 1018.1 | 1032.0 | 1032.0 | 1039.1 | 1044.7 |
| 17.5° | 1061.5 | 1054.3 | 1058.1 | 1059.7 | 1066.5 | 1075.3 | 1088.8 | 1101.0 | 1107.3 | 1104.7 | 1097.2 |
| 20°   | 1168.6 | 1159.8 | 1159.8 | 1151.4 | 1148.9 | 1156.0 | 1173.7 | 1190.5 | 1197.2 | 1184.2 | 1165.7 |
| 22.5° | 1329.6 | 1317.0 | 1309.8 | 1281.2 | 1270.0 | 1270.8 | 1288.4 | 1309.0 | 1314.5 | 1291.4 | 1249.8 |
| 25°   | 1534.3 | 1514.6 | 1504.9 | 1462.9 | 1437.3 | 1415.0 | 1428.8 | 1455.3 | 1462.9 | 1434.3 | 1367.0 |
| 27.5° | 1739.1 | 1740.3 | 1731.1 | 1680.7 | 1638.2 | 1597.5 | 1590.3 | 1618.1 | 1626.0 | 1593.7 | 1510.4 |
| 30°   | 2026.2 | 1996.4 | 1978.7 | 1918.2 | 1857.6 | 1800.4 | 1771.0 | 1782.4 | 1784.5 | 1745.8 | 1649.1 |
| 32.5° | 2273.8 | 2266.3 | 2228.5 | 2175.5 | 2097.7 | 2008.1 | 1959.0 | 1940.8 | 1937.5 | 1882.4 | 1767.7 |
| 35°   | 2555.8 | 2551.6 | 2511.8 | 2448.7 | 2364.6 | 2240.1 | 2151.5 | 2099.8 | 2095.6 | 2018.2 | 1885.0 |
| 37.5° | 2842.5 | 2842.5 | 2803.5 | 2734.5 | 2647.5 | 2492.0 | 2357.0 | 2275.1 | 2261.7 | 2160.7 | 2004.4 |
| 40°   | 3071.2 | 3057.4 | 3064.5 | 3035.5 | 2935.9 | 2770.7 | 2585.3 | 2466.4 | 2448.2 | 2327.2 | 2131.3 |
| 42.5° | 3201.2 | 3196.6 | 3239.4 | 3271.8 | 3231.0 | 3099.0 | 2836.7 | 2673.6 | 2648.4 | 2510.4 | 2277.5 |
| 45°   | 3230.2 | 3225.1 | 3301.6 | 3420.1 | 3477.3 | 3423.1 | 3110.0 | 2891.7 | 2861.1 | 2702.2 | 2434.4 |
| 47.5° | 3163.4 | 3153.2 | 3265.4 | 3452.5 | 3635.8 | 3731.2 | 3405.9 | 3128.4 | 3083.8 | 2888.9 | 2595.4 |
| 50°   | 2962.4 | 2952.7 | 3122.6 | 3371.0 | 3689.2 | 3940.6 | 3727.0 | 3379.4 | 3311.3 | 3088.9 | 2758.1 |
| 52.5° | 2525.6 | 2530.2 | 2796.3 | 3137.6 | 3619.0 | 4070.9 | 4003.6 | 3643.8 | 3561.9 | 3293.6 | 2910.7 |
| 55°   | 1967.4 | 1977.4 | 2304.5 | 2680.3 | 3338.2 | 4051.1 | 4192.4 | 3916.2 | 3834.6 | 3486.1 | 3068.3 |
| 57.5° | 1408.7 | 1453.2 | 1759.7 | 2131.7 | 2798.9 | 3738.0 | 4233.6 | 4175.1 | 4096.1 | 3696.4 | 3222.6 |
| 60°   | 913.1  | 921.1  | 1236.4 | 1611.3 | 2131.3 | 3181.4 | 4149.9 | 4371.4 | 4309.7 | 3910.8 | 3351.6 |
| 62.5° | 585.2  | 590.6  | 782.7  | 1127.0 | 1533.9 | 2353.7 | 3868.2 | 4456.8 | 4437.8 | 4052.4 | 3475.7 |
| 65°   | 430.1  | 425.9  | 525.9  | 744.9  | 1033.3 | 1451.5 | 3321.4 | 4415.6 | 4453.0 | 4141.1 | 3578.2 |
| 67.5° | 359.0  | 353.1  | 402.3  | 515.8  | 761.3  | 824.3  | 2457.5 | 4147.9 | 4284.9 | 4131.1 | 3653.5 |
| 70°   | 327.1  | 322.1  | 351.9  | 382.9  | 594.0  | 552.0  | 1238.8 | 3606.0 | 3817.0 | 4016.3 | 3641.3 |
| 72.5° | 277.1  | 268.2  | 308.9  | 340.1  | 462.0  | 423.3  | 512.0  | 2769.9 | 3027.1 | 3648.4 | 3469.7 |
| 75°   | 214.8  | 208.9  | 243.8  | 299.3  | 347.3  | 330.5  | 323.7  | 1681.9 | 1962.8 | 2821.5 | 3035.5 |
| 77.5° | 170.3  | 162.3  | 194.2  | 233.3  | 312.3  | 249.3  | 235.9  | 724.3  | 1002.6 | 1801.3 | 2271.3 |
| 80°   | 128.2  | 121.1  | 147.6  | 184.5  | 240.1  | 187.9  | 152.6  | 295.5  | 377.9  | 912.7  | 1142.2 |
| 82.5° | 91.2   | 84.9   | 103.0  | 135.4  | 161.4  | 168.6  | 93.8   | 165.6  | 186.2  | 351.9  | 255.1  |
| 85°   | 58.4   | 54.6   | 69.0   | 84.9   | 102.6  | 108.4  | 57.2   | 86.6   | 95.0   | 145.0  | 106.4  |
| 87.5° | 32.0   | 26.0   | 37.0   | 39.6   | 47.5   | 43.3   | 27.4   | 31.6   | 34.0   | 52.6   | 45.0   |
| 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°    | 892.9  | 892.9  | 892.9  | 892.9  | 892.9  | 892.9  | 892.9  | 892.9  | 892.9  | 892.9  | 892.9  |
| 2.5°  | 896.3  | 897.5  | 901.7  | 902.9  | 905.9  | 909.7  | 912.2  | 914.7  | 914.7  | 917.3  | 917.3  |
| 5°    | 908.5  | 911.3  | 920.2  | 924.9  | 932.3  | 939.9  | 944.5  | 950.1  | 953.5  | 955.1  | 955.9  |
| 7.5°  | 931.9  | 936.5  | 949.3  | 957.1  | 970.3  | 980.7  | 987.9  | 995.5  | 997.1  | 1001.7 | 1000.1 |
| 10°   | 963.9  | 969.3  | 983.7  | 998.8  | 1014.3 | 1027.4 | 1034.1 | 1039.6 | 1041.7 | 1042.5 | 1040.4 |
| 12.5° | 1000.5 | 1008.5 | 1026.9 | 1045.5 | 1061.9 | 1073.2 | 1074.9 | 1073.6 | 1067.7 | 1062.7 | 1062.7 |
| 15°   | 1045.5 | 1052.6 | 1073.2 | 1093.4 | 1109.4 | 1111.5 | 1101.0 | 1094.2 | 1087.1 | 1085.8 | 1085.8 |
| 17.5° | 1099.3 | 1103.1 | 1122.0 | 1141.7 | 1143.0 | 1135.8 | 1120.3 | 1114.0 | 1107.3 | 1102.6 | 1103.1 |
| 20°   | 1161.9 | 1160.6 | 1174.1 | 1182.5 | 1173.7 | 1151.8 | 1128.3 | 1117.8 | 1111.0 | 1105.6 | 1106.0 |
| 22.5° | 1236.8 | 1227.0 | 1225.4 | 1223.3 | 1199.8 | 1153.9 | 1122.0 | 1108.5 | 1098.0 | 1090.5 | 1093.0 |
| 25°   | 1345.6 | 1308.6 | 1283.0 | 1268.6 | 1215.8 | 1142.6 | 1101.8 | 1071.9 | 1052.2 | 1039.1 | 1044.2 |
| 27.5° | 1481.8 | 1419.6 | 1354.8 | 1320.0 | 1215.8 | 1119.5 | 1053.1 | 1004.7 | 972.3  | 958.9  | 965.6  |
| 30°   | 1611.7 | 1546.5 | 1451.1 | 1381.8 | 1212.8 | 1081.6 | 974.5  | 907.1  | 869.3  | 855.9  | 863.9  |
| 32.5° | 1722.7 | 1651.7 | 1553.3 | 1449.5 | 1205.6 | 1020.3 | 876.9  | 802.5  | 765.9  | 750.0  | 757.9  |
| 35°   | 1825.7 | 1750.0 | 1655.9 | 1523.9 | 1186.7 | 930.3  | 769.7  | 713.0  | 672.2  | 646.6  | 655.0  |
| 37.5° | 1931.2 | 1841.2 | 1753.0 | 1591.1 | 1152.7 | 825.2  | 687.3  | 639.0  | 591.0  | 556.6  | 565.8  |
| 40°   | 2046.0 | 1938.4 | 1856.8 | 1631.1 | 1096.8 | 725.2  | 623.4  | 579.2  | 528.4  | 491.8  | 499.0  |
| 42.5° | 2180.1 | 2054.8 | 1972.4 | 1651.7 | 1020.3 | 654.1  | 581.8  | 538.5  | 490.6  | 460.7  | 466.6  |
| 45°   | 2320.1 | 2183.0 | 2077.9 | 1651.3 | 934.9  | 620.8  | 568.4  | 525.5  | 472.5  | 441.4  | 446.4  |
| 47.5° | 2466.8 | 2317.1 | 2169.1 | 1624.3 | 860.9  | 625.6  | 560.8  | 497.3  | 438.9  | 408.6  | 412.8  |
| 50°   | 2613.9 | 2463.8 | 2257.4 | 1573.9 | 829.4  | 615.4  | 532.6  | 457.8  | 388.9  | 361.5  | 363.2  |
| 52.5° | 2759.7 | 2619.8 | 2333.5 | 1502.0 | 797.4  | 578.0  | 496.5  | 406.5  | 368.3  | 349.3  | 349.3  |
| 55°   | 2906.5 | 2774.1 | 2416.3 | 1397.3 | 717.6  | 534.3  | 435.9  | 387.1  | 351.9  | 334.7  | 332.9  |
| 57.5° | 3053.6 | 2952.3 | 2495.0 | 1292.6 | 617.2  | 480.5  | 402.7  | 363.7  | 335.5  | 320.7  | 318.3  |
| 60°   | 3206.6 | 3156.2 | 2576.0 | 1196.4 | 517.9  | 411.5  | 378.3  | 344.7  | 316.1  | 299.7  | 298.5  |
| 62.5° | 3364.3 | 3380.7 | 2639.5 | 1072.4 | 426.7  | 369.5  | 356.5  | 322.1  | 294.3  | 278.7  | 278.3  |
| 65°   | 3523.1 | 3597.1 | 2681.2 | 900.5  | 345.9  | 329.5  | 332.9  | 297.2  | 269.1  | 255.6  | 255.1  |
| 67.5° | 3643.0 | 3753.1 | 2669.4 | 681.4  | 283.7  | 291.7  | 303.5  | 271.1  | 244.7  | 234.1  | 234.5  |
| 70°   | 3656.4 | 3734.6 | 2553.4 | 466.6  | 237.5  | 254.7  | 270.7  | 245.5  | 218.2  | 210.6  | 211.0  |
| 72.5° | 3477.3 | 3482.3 | 2230.1 | 304.7  | 200.9  | 223.7  | 236.3  | 219.5  | 192.9  | 185.4  | 185.0  |
| 75°   | 3007.8 | 2879.9 | 1637.3 | 200.9  | 168.1  | 192.1  | 203.9  | 192.1  | 166.5  | 168.1  | 162.3  |
| 77.5° | 2278.9 | 2039.6 | 994.1  | 142.9  | 140.4  | 161.4  | 177.4  | 169.0  | 147.1  | 165.2  | 145.4  |
| 80°   | 1174.1 | 1103.5 | 443.5  | 106.8  | 111.0  | 129.0  | 145.9  | 134.9  | 116.4  | 111.0  | 101.3  |
| 82.5° | 269.1  | 312.7  | 174.9  | 76.5   | 80.3   | 92.9   | 111.4  | 101.3  | 83.6   | 70.6   | 69.8   |
| 85°   | 94.2   | 103.0  | 77.4   | 48.0   | 47.0   | 58.0   | 75.6   | 67.6   | 56.8   | 45.4   | 48.0   |
| 87.5° | 29.8   | 39.1   | 29.0   | 19.4   | 20.2   | 26.0   | 34.8   | 32.0   | 26.4   | 17.2   | 18.0   |
| 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)