

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: P961532

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

Issue Date: 1/21/2025

**Test Information**

Test Method: LM-79-08  
Report Number: P961532  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2411-289-17)  
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-HSS  
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE  
(2) 80 CRI, 2700K, 350mA LIGHTSQUARES WITH 26 LEDS EACH AND TYPE II U  
OPTICS WITH HOUSE SIDE SHIELD  
Light Source: -  
Ballast/Driver: -

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 6111.1 lumens  
Efficiency: N/A  
Efficacy: 106.7 lumens/watt  
Luminous Opening: Rectangular (W 0.5' x L: 1' x H: 0')  
IES Classification: Type II - Short  
BUG Rating: B1 - U0 - G1

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



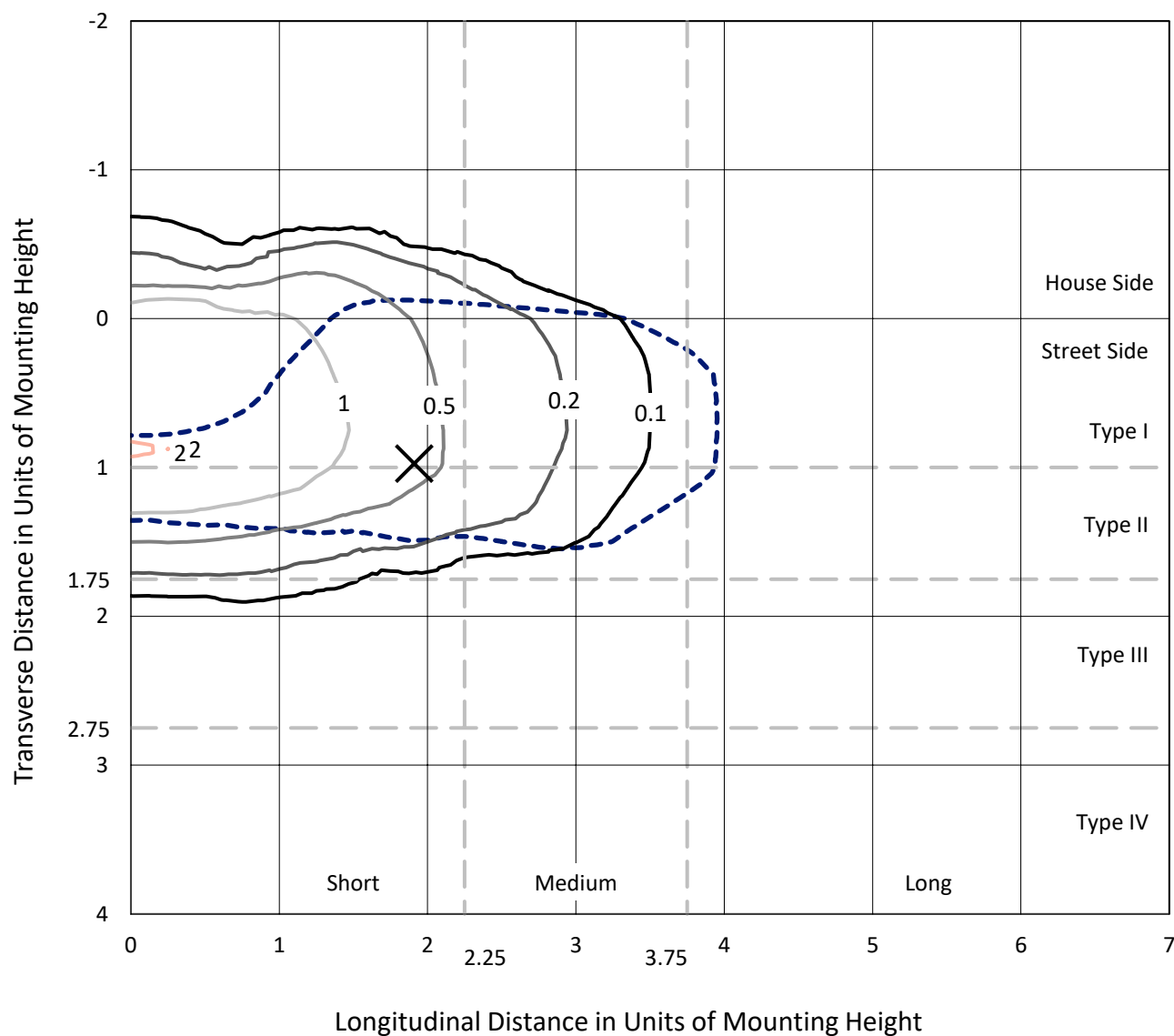
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## Iso-Footcandle Lines of Horizontal Illumination

× Max cd

--- 1/2 Max cd

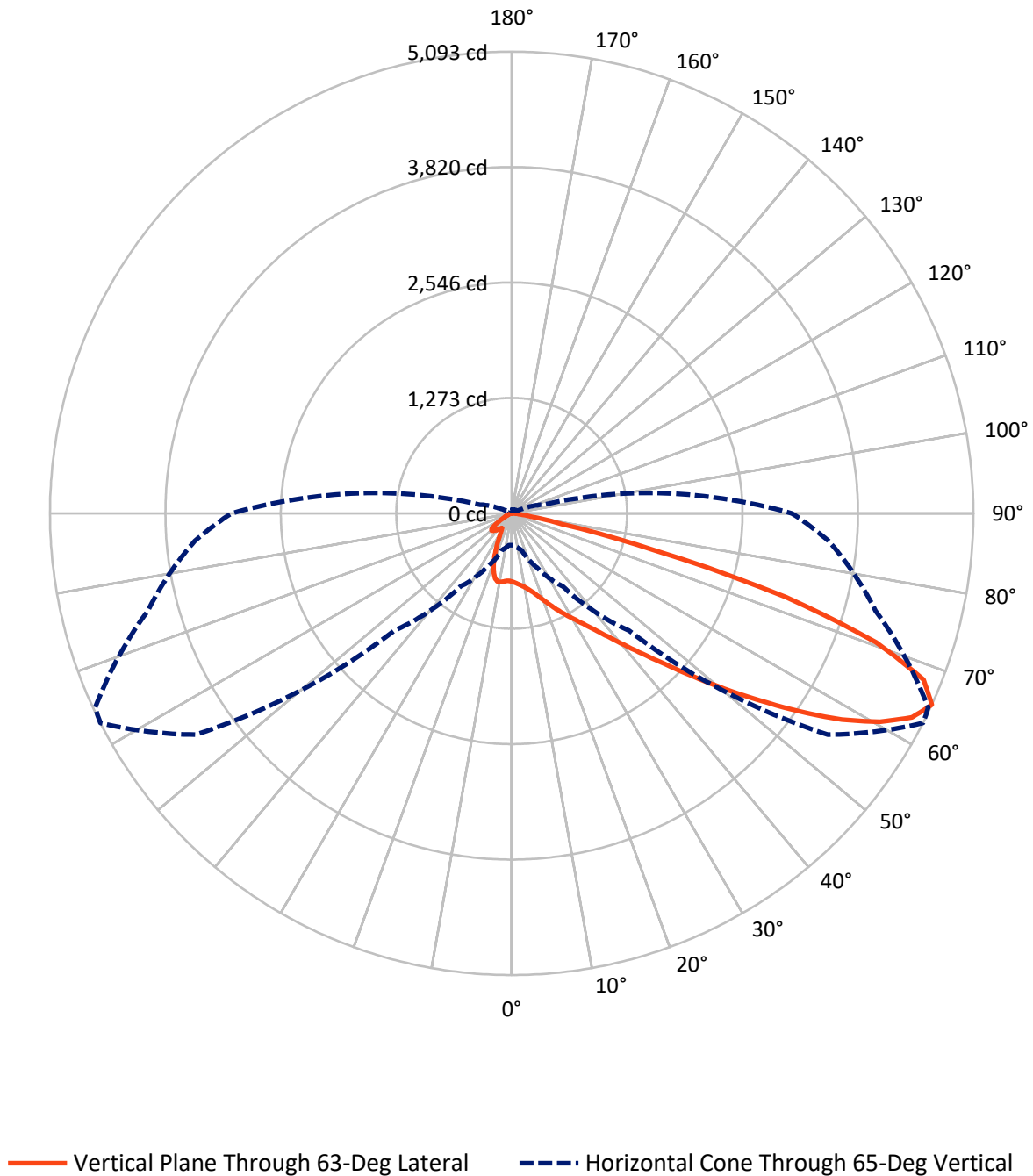


Based on 25 foot mounting height. Maximum calculated value = 2.1 fc

Type II - Short - N/A

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## Luminous Intensity Polar Plot



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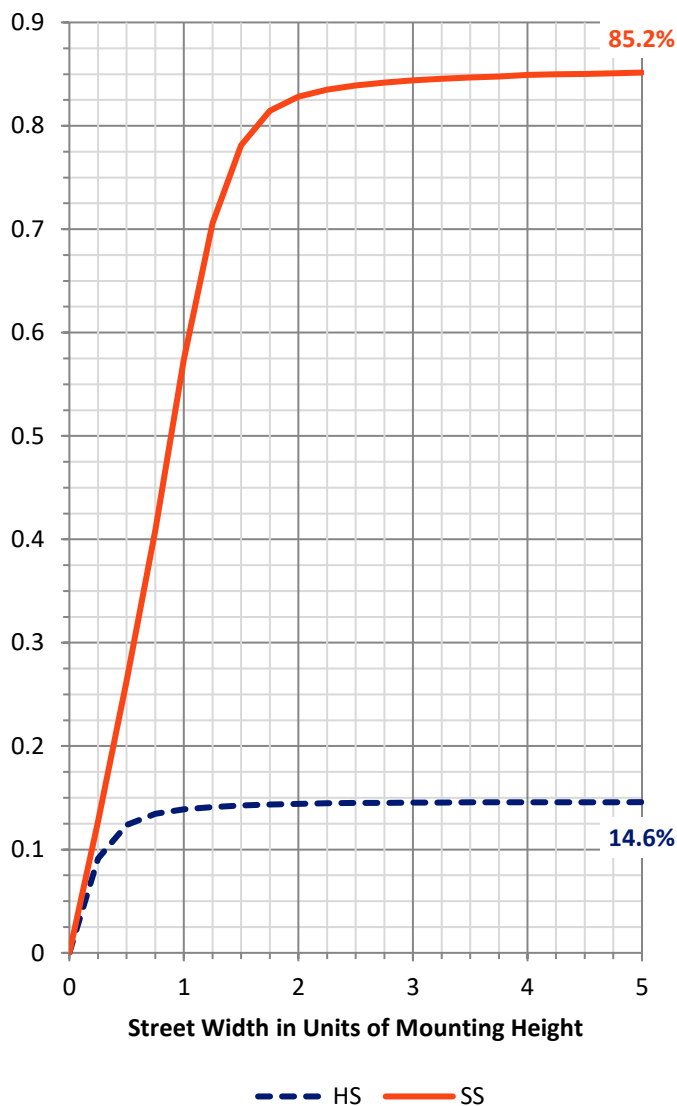
**FLUX DISTRIBUTION:**

|                    |           | Downward | Upward | Total  |
|--------------------|-----------|----------|--------|--------|
| <b>House Side</b>  | Lumens    | 898.3    | 0.0    | 898.3  |
|                    | % Fixture | 14.7     | 0.0    | 14.7   |
| <b>Street Side</b> | Lumens    | 5212.8   | 0.0    | 5212.8 |
|                    | % Fixture | 85.3     | 0.0    | 85.3   |
| <b>Total</b>       | Lumens    | 6111.1   | 0.0    | 6111.1 |
|                    | % Fixture | 100.0    | 0.0    | 100.0  |

**ZONAL LUMENS:**

| Zone      | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10°    | 71.1   | 1.2       |
| 10°-20°   | 197.2  | 3.2       |
| 20°-30°   | 343.3  | 5.6       |
| 30°-40°   | 618.8  | 10.1      |
| 40°-50°   | 1227.3 | 20.1      |
| 50°-60°   | 1671.8 | 27.4      |
| 60°-70°   | 1334.4 | 21.8      |
| 70°-80°   | 603.8  | 9.9       |
| 80°-90°   | 43.4   | 0.7       |
| 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°    | 6111.1 | 100.0     |
| 0°-180°   | 6111.1 | 100.0     |

**Coefficient of Utilization**



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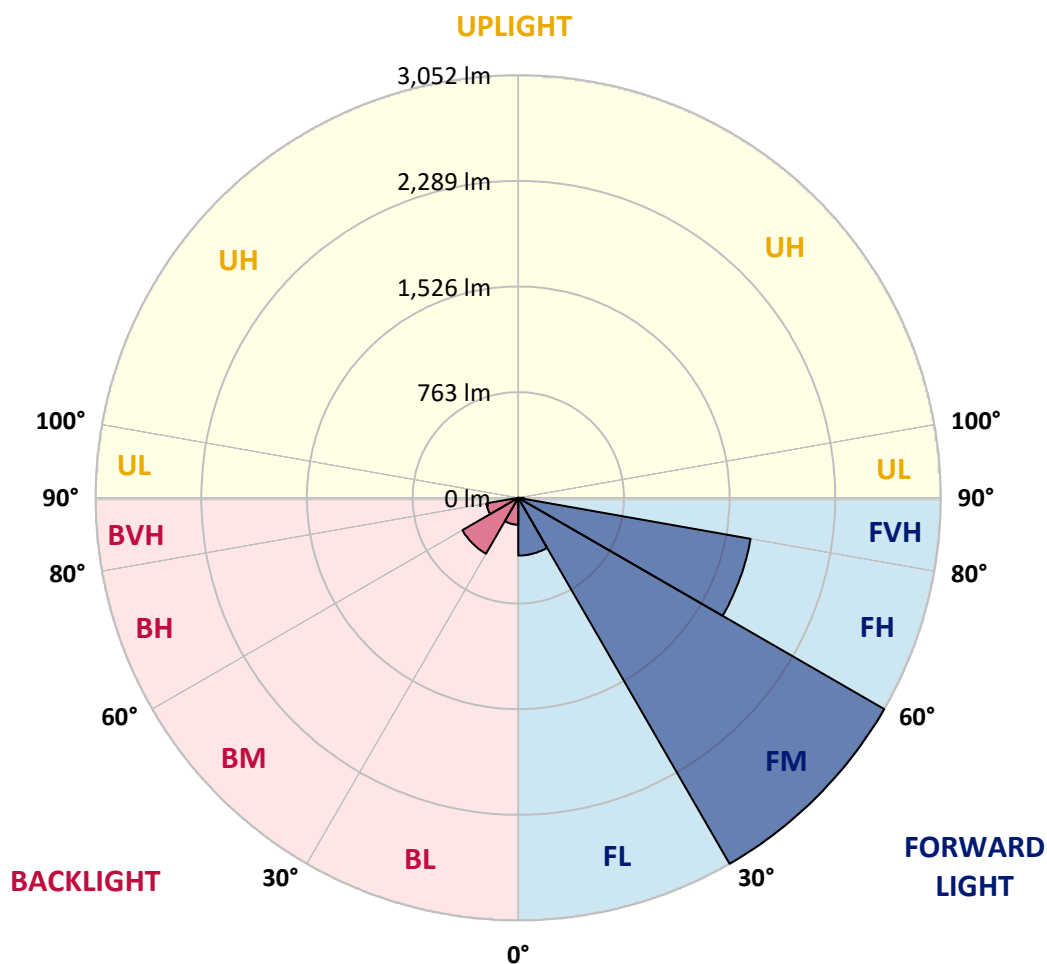
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

| Zone |             | Lumens | % Fixture | Zone Rating/Lumen Limit |      |         |
|------|-------------|--------|-----------|-------------------------|------|---------|
|      |             |        |           | B                       | U    | G       |
| FL   | (0°-30°)    | 417.2  | 6.8       |                         |      |         |
| FM   | (30°-60°)   | 3051.7 | 49.9      |                         |      |         |
| FH   | (60°-80°)   | 1703.7 | 27.9      |                         |      | G1/1800 |
| FVH  | (80°-90°)   | 40.2   | 0.7       |                         |      | G1/100  |
| BL   | (0°-30°)    | 194.4  | 3.2       | B1/500                  |      |         |
| BM   | (30°-60°)   | 466.2  | 7.6       | B1/1000                 |      |         |
| BH   | (60°-80°)   | 234.5  | 3.8       | B1/500                  |      | G1/500  |
| BVH  | (80°-90°)   | 3.2    | 0.1       |                         |      | G0/10   |
| UL   | (90°-100°)  | 0.0    | 0.0       |                         | U0/0 |         |
| UH   | (100°-180°) | 0.0    | 0.0       |                         | U0/0 |         |

**BUG Rating: B1-U0-G1**

Type II Short



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**CANDELA DISTRIBUTION (FULL):**

|       | 0°     | 5°     | 15°    | 25°    | 35°    | 45°    | 55°    | 63°    | 65°    | 75°    | 85°    |
|-------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 0°    | 754.2  | 754.2  | 754.2  | 754.2  | 754.2  | 754.2  | 754.2  | 754.2  | 754.2  | 754.2  | 754.2  |
| 2.5°  | 771.9  | 769.8  | 772.7  | 771.4  | 770.6  | 769.0  | 768.1  | 767.2  | 765.6  | 764.3  | 759.2  |
| 5°    | 774.0  | 772.7  | 775.6  | 778.2  | 780.7  | 783.2  | 784.5  | 786.2  | 784.5  | 781.2  | 776.1  |
| 7.5°  | 756.3  | 755.5  | 761.8  | 769.4  | 780.7  | 790.4  | 800.9  | 806.8  | 807.2  | 806.0  | 800.4  |
| 10°   | 755.0  | 753.0  | 759.2  | 768.5  | 783.2  | 800.4  | 819.0  | 831.6  | 833.2  | 838.8  | 832.8  |
| 12.5° | 774.8  | 772.7  | 781.6  | 791.6  | 806.8  | 824.8  | 847.6  | 865.2  | 867.8  | 875.2  | 871.0  |
| 15°   | 808.0  | 805.1  | 815.2  | 828.2  | 847.6  | 868.2  | 892.2  | 908.0  | 910.2  | 919.4  | 911.8  |
| 17.5° | 846.8  | 843.8  | 855.6  | 869.4  | 890.4  | 918.6  | 946.4  | 964.0  | 966.6  | 972.4  | 958.6  |
| 20°   | 896.4  | 892.6  | 901.8  | 914.4  | 936.6  | 970.3  | 1003.5 | 1028.8 | 1028.3 | 1028.3 | 1005.6 |
| 22.5° | 953.9  | 948.0  | 956.0  | 966.1  | 987.2  | 1027.9 | 1072.0 | 1101.9 | 1101.9 | 1090.1 | 1052.7 |
| 25°   | 1015.7 | 1009.8 | 1018.6 | 1027.9 | 1046.4 | 1092.6 | 1144.4 | 1181.3 | 1183.1 | 1162.9 | 1103.2 |
| 27.5° | 1093.1 | 1085.5 | 1092.2 | 1103.2 | 1114.1 | 1161.2 | 1222.5 | 1265.5 | 1266.3 | 1235.1 | 1151.1 |
| 30°   | 1241.9 | 1220.5 | 1199.5 | 1187.7 | 1192.7 | 1239.3 | 1304.9 | 1352.5 | 1356.7 | 1313.7 | 1203.2 |
| 32.5° | 1514.3 | 1510.1 | 1436.1 | 1339.5 | 1288.9 | 1323.5 | 1397.1 | 1454.2 | 1456.7 | 1401.7 | 1270.9 |
| 35°   | 1937.7 | 1932.6 | 1813.6 | 1629.5 | 1465.1 | 1436.1 | 1508.9 | 1576.6 | 1574.9 | 1512.6 | 1358.7 |
| 37.5° | 2443.0 | 2438.4 | 2281.5 | 2035.2 | 1769.0 | 1606.4 | 1653.0 | 1724.2 | 1734.6 | 1653.0 | 1472.3 |
| 40°   | 2874.8 | 2857.5 | 2758.3 | 2520.8 | 2172.7 | 1888.9 | 1858.2 | 1905.3 | 1916.2 | 1819.6 | 1616.5 |
| 42.5° | 3201.9 | 3187.1 | 3136.7 | 2988.3 | 2661.2 | 2306.8 | 2099.9 | 2118.1 | 2130.3 | 2014.2 | 1782.2 |
| 45°   | 3371.3 | 3367.9 | 3388.1 | 3374.2 | 3158.9 | 2819.7 | 2445.5 | 2370.3 | 2374.9 | 2229.9 | 1970.0 |
| 47.5° | 3395.2 | 3393.6 | 3485.6 | 3616.0 | 3587.0 | 3398.2 | 2889.1 | 2684.8 | 2668.4 | 2473.3 | 2174.3 |
| 50°   | 3254.0 | 3250.6 | 3427.2 | 3671.4 | 3872.9 | 3884.1 | 3392.7 | 3039.1 | 3003.0 | 2725.1 | 2387.5 |
| 52.5° | 2802.9 | 2802.0 | 3092.1 | 3498.6 | 3973.3 | 4309.6 | 3890.5 | 3428.4 | 3367.9 | 2991.7 | 2612.8 |
| 55°   | 2156.7 | 2172.3 | 2504.8 | 2985.3 | 3790.0 | 4514.4 | 4337.4 | 3860.7 | 3767.7 | 3259.9 | 2820.6 |
| 57.5° | 1527.8 | 1550.5 | 1879.2 | 2307.2 | 3221.6 | 4393.4 | 4639.7 | 4293.6 | 4193.6 | 3527.2 | 3031.1 |
| 60°   | 820.6  | 840.8  | 1170.0 | 1680.8 | 2396.8 | 3941.7 | 4799.0 | 4669.5 | 4574.9 | 3781.2 | 3221.2 |
| 62.5° | 488.9  | 495.7  | 631.9  | 1085.1 | 1621.1 | 3011.4 | 4731.3 | 4955.8 | 4878.1 | 3994.3 | 3386.4 |
| 65°   | 351.1  | 352.3  | 420.9  | 662.6  | 984.2  | 1829.6 | 4256.6 | 5092.9 | 5068.9 | 4154.9 | 3508.8 |
| 67.5° | 295.5  | 294.7  | 323.3  | 440.1  | 670.6  | 916.5  | 3262.4 | 4899.1 | 5000.8 | 4256.6 | 3578.2 |
| 70°   | 253.5  | 254.8  | 288.4  | 322.5  | 504.1  | 518.8  | 1622.0 | 4265.5 | 4482.4 | 4283.6 | 3574.0 |
| 72.5° | 188.8  | 193.0  | 224.1  | 293.9  | 380.5  | 356.9  | 560.0  | 3162.7 | 3555.0 | 4035.9 | 3388.5 |
| 75°   | 133.2  | 135.4  | 157.6  | 247.2  | 283.8  | 259.8  | 285.9  | 1635.0 | 2137.8 | 3094.3 | 2773.4 |
| 77.5° | 102.6  | 106.4  | 119.4  | 172.8  | 279.6  | 182.4  | 174.9  | 565.9  | 869.4  | 1869.2 | 1901.5 |
| 80°   | 55.5   | 62.2   | 86.2   | 124.8  | 196.3  | 129.0  | 86.6   | 225.3  | 294.7  | 874.0  | 733.2  |
| 82.5° | 28.6   | 32.0   | 60.2   | 90.0   | 111.8  | 112.6  | 42.8   | 93.8   | 121.5  | 269.9  | 100.4  |
| 85°   | 11.4   | 13.8   | 40.4   | 49.6   | 57.6   | 55.5   | 19.4   | 37.8   | 43.8   | 74.8   | 30.6   |
| 87.5° | 2.6    | 4.2    | 14.8   | 11.4   | 11.0   | 11.8   | 4.6    | 8.8    | 8.4    | 8.8    | 5.4    |
| 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°    | 754.2  | 754.2  | 754.2  | 754.2 | 754.2 | 754.2 | 754.2 | 754.2 | 754.2 | 754.2 | 754.2 |
| 2.5°  | 758.8  | 757.2  | 752.6  | 747.5 | 741.6 | 738.2 | 736.2 | 735.7 | 732.8 | 730.7 | 732.8 |
| 5°    | 771.4  | 769.8  | 761.0  | 750.4 | 739.1 | 730.2 | 721.8 | 714.3 | 703.4 | 701.2 | 700.4 |
| 7.5°  | 796.6  | 792.0  | 777.8  | 763.4 | 742.0 | 716.4 | 685.3 | 649.5 | 617.6 | 607.9 | 603.3 |
| 10°   | 827.8  | 821.4  | 803.4  | 778.2 | 730.7 | 660.9 | 585.7 | 515.9 | 460.3 | 444.7 | 438.9 |
| 12.5° | 863.2  | 857.6  | 833.6  | 787.0 | 683.2 | 556.6 | 441.5 | 354.9 | 301.0 | 287.5 | 283.8 |
| 15°   | 905.2  | 897.2  | 864.0  | 773.6 | 598.3 | 422.9 | 303.1 | 251.8 | 232.5 | 230.0 | 227.4 |
| 17.5° | 949.7  | 936.6  | 890.8  | 725.2 | 483.9 | 300.6 | 234.2 | 219.5 | 211.0 | 208.5 | 207.3 |
| 20°   | 990.5  | 973.6  | 906.8  | 652.1 | 361.5 | 234.2 | 209.8 | 200.1 | 192.6 | 189.6 | 187.9 |
| 22.5° | 1031.3 | 1007.3 | 906.8  | 552.4 | 271.2 | 207.7 | 192.6 | 183.7 | 174.9 | 171.1 | 169.0 |
| 25°   | 1073.7 | 1041.8 | 890.8  | 441.5 | 218.2 | 190.4 | 176.2 | 166.5 | 158.9 | 154.3 | 152.6 |
| 27.5° | 1114.9 | 1070.8 | 854.2  | 336.3 | 194.2 | 175.3 | 161.0 | 151.8 | 144.6 | 141.2 | 141.2 |
| 30°   | 1154.0 | 1099.4 | 803.0  | 255.2 | 178.7 | 160.6 | 147.2 | 139.2 | 132.0 | 128.6 | 129.0 |
| 32.5° | 1207.0 | 1135.5 | 748.4  | 209.4 | 165.2 | 146.7 | 134.6 | 127.0 | 120.6 | 118.2 | 118.2 |
| 35°   | 1280.5 | 1188.9 | 701.2  | 205.6 | 153.9 | 135.4 | 123.2 | 116.0 | 109.8 | 107.6 | 107.6 |
| 37.5° | 1384.9 | 1275.1 | 676.4  | 230.8 | 144.6 | 125.3 | 114.0 | 106.4 | 100.4 | 98.8  | 98.4  |
| 40°   | 1513.5 | 1391.9 | 689.9  | 256.0 | 138.3 | 116.4 | 105.5 | 98.0  | 92.9  | 90.8  | 90.4  |
| 42.5° | 1666.1 | 1536.2 | 764.3  | 275.4 | 134.1 | 108.9 | 97.6  | 89.2  | 85.8  | 85.0  | 85.0  |
| 45°   | 1841.4 | 1694.6 | 878.2  | 296.0 | 127.4 | 101.8 | 89.6  | 83.2  | 80.8  | 80.3  | 79.8  |
| 47.5° | 2040.7 | 1868.8 | 1010.2 | 321.6 | 120.6 | 95.0  | 83.2  | 79.0  | 77.0  | 76.1  | 76.1  |
| 50°   | 2238.3 | 2044.1 | 1146.1 | 335.9 | 115.2 | 88.7  | 78.2  | 74.8  | 73.2  | 72.8  | 72.8  |
| 52.5° | 2445.1 | 2224.4 | 1255.7 | 322.5 | 110.6 | 83.6  | 74.0  | 71.4  | 69.8  | 69.4  | 69.4  |
| 55°   | 2642.2 | 2370.3 | 1274.7 | 273.7 | 101.3 | 78.6  | 69.4  | 68.1  | 66.0  | 66.0  | 65.6  |
| 57.5° | 2812.1 | 2443.4 | 1141.0 | 201.0 | 92.0  | 71.0  | 64.8  | 63.4  | 61.8  | 61.4  | 61.0  |
| 60°   | 2968.1 | 2422.4 | 880.8  | 135.4 | 82.0  | 63.4  | 58.8  | 58.0  | 56.4  | 54.2  | 53.8  |
| 62.5° | 3055.9 | 2329.9 | 602.5  | 88.3  | 71.9  | 55.5  | 52.2  | 51.7  | 48.0  | 43.8  | 42.8  |
| 65°   | 3089.1 | 2139.9 | 375.9  | 64.4  | 60.2  | 47.5  | 45.0  | 44.2  | 38.6  | 34.0  | 33.6  |
| 67.5° | 3060.1 | 1827.1 | 189.6  | 50.8  | 47.5  | 39.6  | 37.0  | 37.0  | 33.2  | 29.0  | 28.6  |
| 70°   | 2944.1 | 1369.7 | 79.8   | 40.8  | 36.6  | 30.2  | 30.2  | 32.0  | 28.2  | 23.6  | 23.2  |
| 72.5° | 2692.4 | 921.6  | 42.4   | 31.2  | 27.4  | 21.4  | 24.8  | 26.0  | 22.2  | 17.6  | 17.6  |
| 75°   | 2140.3 | 562.1  | 29.4   | 23.2  | 17.2  | 15.2  | 19.0  | 19.8  | 15.2  | 11.8  | 11.4  |
| 77.5° | 1463.9 | 322.9  | 19.8   | 14.8  | 11.0  | 8.8   | 13.0  | 12.2  | 8.0   | 5.4   | 5.8   |
| 80°   | 642.8  | 134.6  | 11.4   | 6.8   | 4.2   | 3.4   | 4.6   | 3.4   | 2.6   | 1.6   | 1.6   |
| 82.5° | 75.2   | 31.6   | 4.2    | 2.6   | 1.6   | 0.8   | 0.4   | 0.0   | 0.0   | 0.0   | 0.0   |
| 85°   | 15.6   | 3.8    | 2.2    | 0.8   | 0.4   | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   |
| 87.5° | 3.0    | 0.8    | 0.4    | 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)