

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: P960519

Luminaire Tested: **NAV-SB1C-830-U-T4W**

Issue Date: 1/21/2025

**Test Information**

Test Method: LM-79-08  
Report Number: P960519  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2411-289-1)  
Test Lab: INNOVATION CENTER  
Issue Date: 1/21/2025  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: LUMARK  
Catalog Number: NAV-SB1C-830-U-T4W  
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE  
(1) 80 CRI, 3000K, 615mA LIGHTSQUARE WITH 26 LEDS AND TYPE IV WIDE OPTICS  
Light Source: -  
Ballast/Driver: -

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 6886 lumens  
Efficiency: N/A  
Efficacy: 126.6 lumens/watt  
Luminous Opening: Rectangular (W 0.5' x L: 0.5' x H: 0')  
IES Classification: Type IV - Short  
BUG Rating: B1 - U0 - G2

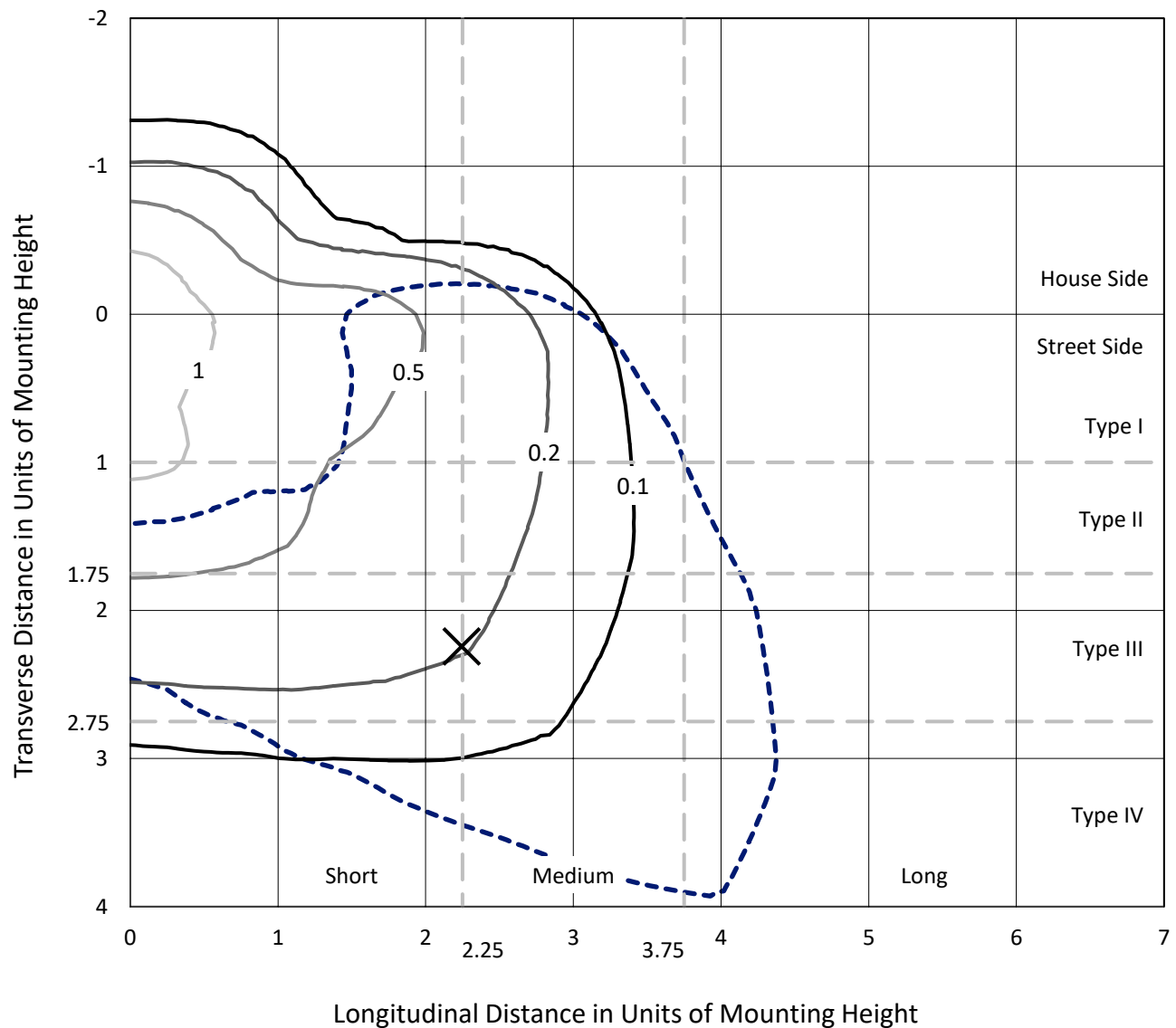
Input Watts (W): 54.4  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 24 FT



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## Iso-Footcandle Lines of Horizontal Illumination

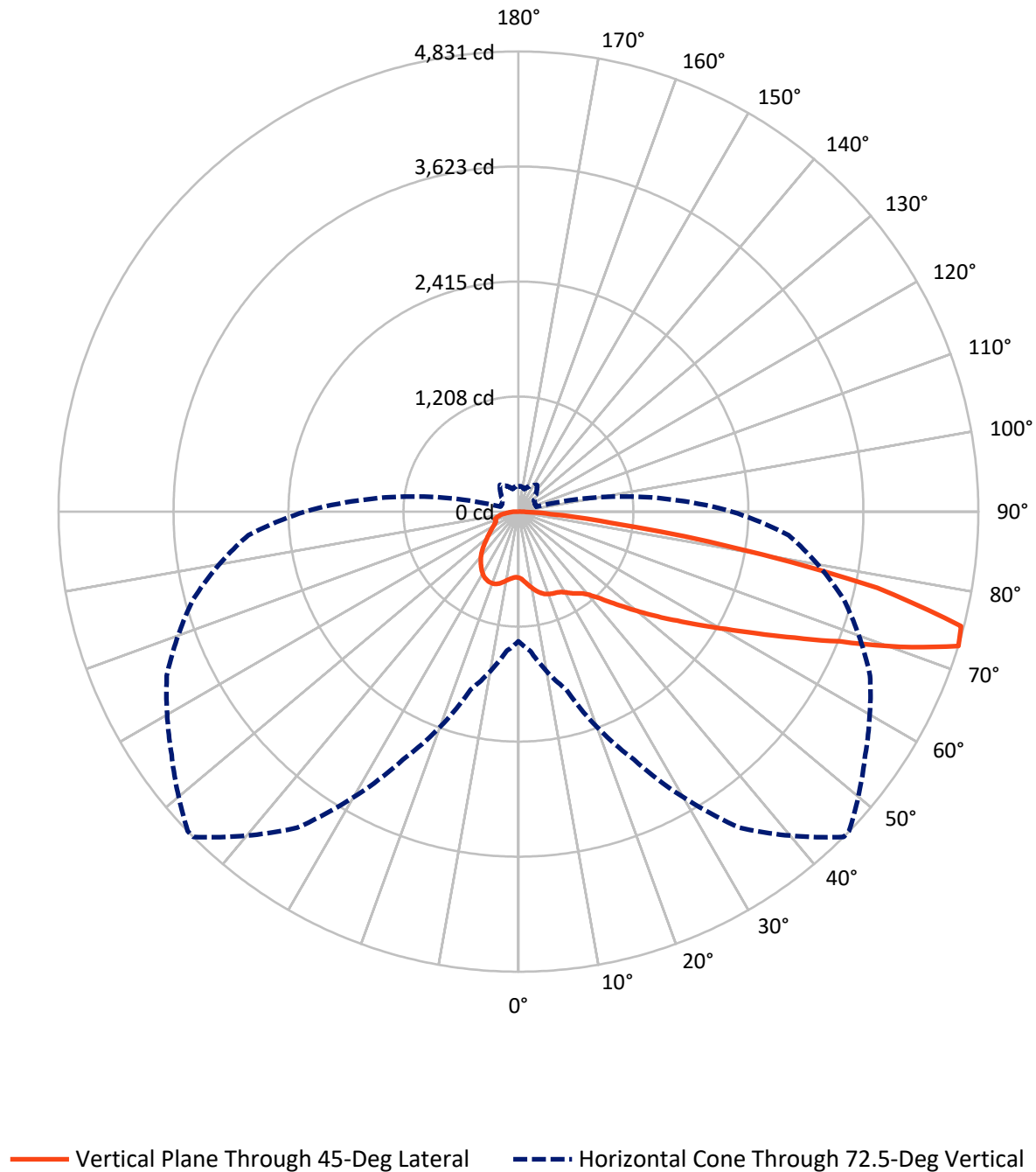
× Max cd  
- - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 1.4 fc  
Type IV - Short - N/A

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## Luminous Intensity Polar Plot



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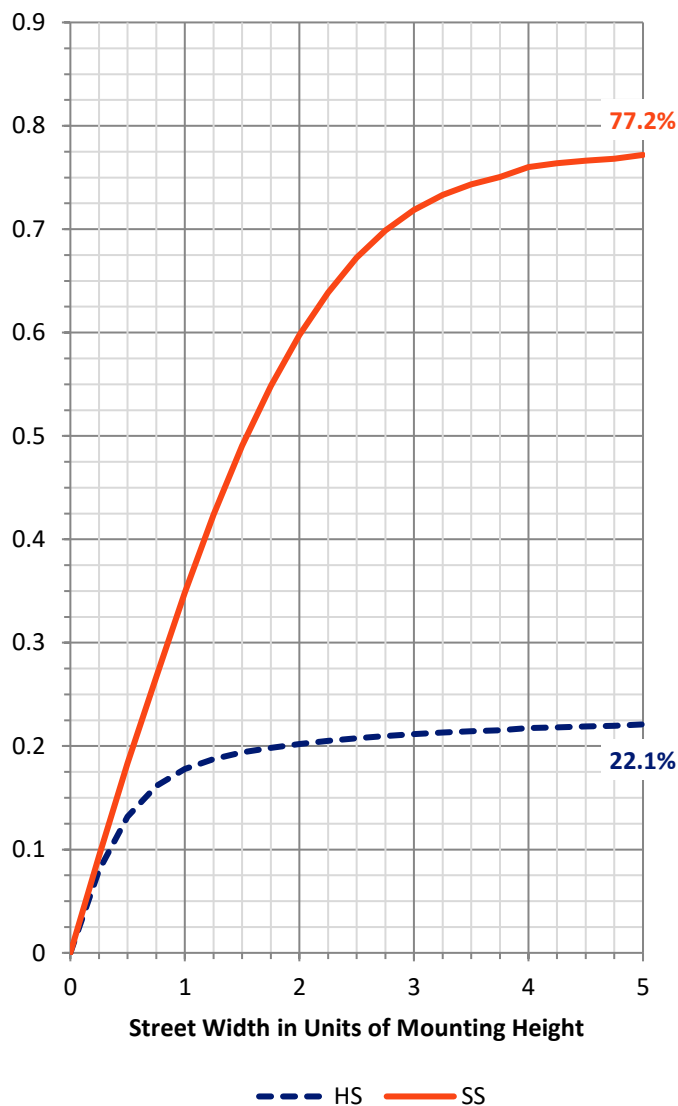
**FLUX DISTRIBUTION:**

|                    |           | Downward | Upward | Total  |
|--------------------|-----------|----------|--------|--------|
| <b>House Side</b>  | Lumens    | 1556.7   | 0.0    | 1556.7 |
|                    | % Fixture | 22.6     | 0.0    | 22.6   |
| <b>Street Side</b> | Lumens    | 5329.3   | 0.0    | 5329.3 |
|                    | % Fixture | 77.4     | 0.0    | 77.4   |
| <b>Total</b>       | Lumens    | 6886.0   | 0.0    | 6886.0 |
|                    | % Fixture | 100.0    | 0.0    | 100.0  |

**ZONAL LUMENS:**

| Zone      | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10°    | 70.7   | 1.0       |
| 10°-20°   | 235.7  | 3.4       |
| 20°-30°   | 410.1  | 6.0       |
| 30°-40°   | 587.9  | 8.5       |
| 40°-50°   | 827.7  | 12.0      |
| 50°-60°   | 1267.8 | 18.4      |
| 60°-70°   | 1836.7 | 26.7      |
| 70°-80°   | 1466.7 | 21.3      |
| 80°-90°   | 182.7  | 2.7       |
| 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°    | 6886.0 | 100.0     |
| 0°-180°   | 6886.0 | 100.0     |

**Coefficient of Utilization**



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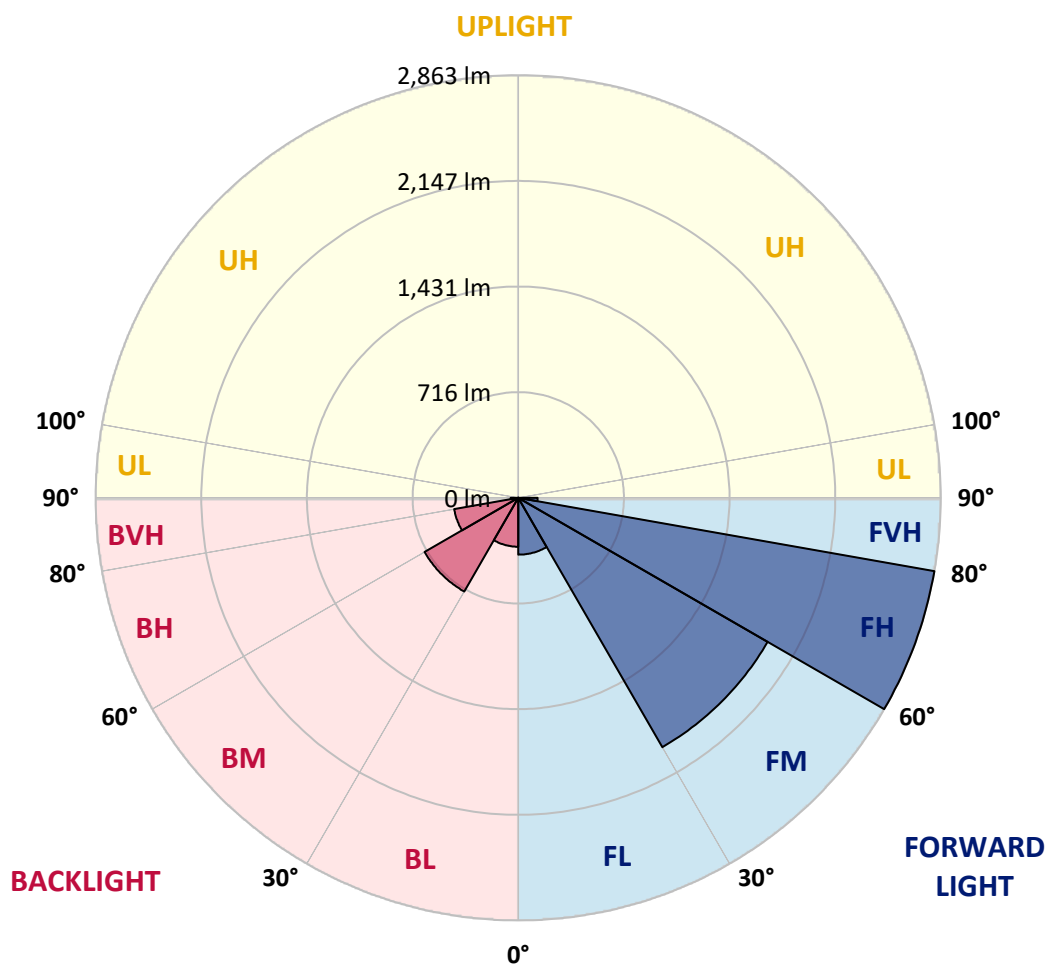
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

| Zone |             | Lumens | % Fixture | Zone Rating/Lumen Limit |      |         |
|------|-------------|--------|-----------|-------------------------|------|---------|
|      |             |        |           | B                       | U    | G       |
| FL   | (0°-30°)    | 385.1  | 5.6       |                         |      |         |
| FM   | (30°-60°)   | 1950.5 | 28.3      |                         |      |         |
| FH   | (60°-80°)   | 2862.7 | 41.6      |                         |      | G2/5000 |
| FVH  | (80°-90°)   | 131.1  | 1.9       |                         |      | G2/225  |
| BL   | (0°-30°)    | 331.4  | 4.8       | B1/500                  |      |         |
| BM   | (30°-60°)   | 733.0  | 10.6      | B1/1000                 |      |         |
| BH   | (60°-80°)   | 440.7  | 6.4       | B1/500                  |      | G1/500  |
| BVH  | (80°-90°)   | 51.6   | 0.7       |                         |      | G1/100  |
| UL   | (90°-100°)  | 0.0    | 0.0       |                         | U0/0 |         |
| UH   | (100°-180°) | 0.0    | 0.0       |                         | U0/0 |         |

**BUG Rating: B1-U0-G2**

Type IV Short



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**CANDELA DISTRIBUTION (FULL):**

|       | 0°     | 5°     | 15°    | 25°    | 35°    | 45°    | 46°    | 55°    | 65°    | 75°    | 85°    |
|-------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 0°    | 694.6  | 694.6  | 694.6  | 694.6  | 694.6  | 694.6  | 694.6  | 694.6  | 694.6  | 694.6  | 694.6  |
| 2.5°  | 721.9  | 726.6  | 722.2  | 718.2  | 716.4  | 711.7  | 711.3  | 708.5  | 706.6  | 701.5  | 700.1  |
| 5°    | 772.2  | 778.5  | 771.2  | 763.2  | 755.9  | 744.4  | 742.9  | 734.5  | 725.1  | 714.2  | 708.1  |
| 7.5°  | 829.2  | 834.7  | 826.4  | 814.4  | 801.7  | 782.5  | 782.1  | 766.8  | 751.9  | 733.5  | 722.9  |
| 10°   | 878.9  | 886.2  | 874.9  | 858.6  | 842.7  | 820.9  | 818.4  | 800.9  | 782.1  | 758.1  | 742.2  |
| 12.5° | 922.8  | 927.9  | 917.1  | 897.1  | 878.5  | 856.8  | 853.5  | 834.4  | 813.2  | 786.1  | 765.8  |
| 15°   | 957.7  | 964.2  | 949.7  | 928.2  | 908.7  | 887.2  | 884.4  | 866.9  | 845.9  | 817.2  | 791.2  |
| 17.5° | 980.5  | 985.9  | 971.1  | 947.1  | 928.2  | 910.5  | 908.4  | 893.8  | 875.4  | 846.2  | 818.4  |
| 20°   | 989.2  | 995.0  | 979.4  | 955.1  | 937.7  | 923.9  | 922.8  | 912.4  | 899.6  | 873.1  | 844.8  |
| 22.5° | 997.9  | 1003.4 | 983.1  | 957.7  | 942.4  | 933.7  | 933.4  | 926.5  | 921.4  | 899.6  | 872.1  |
| 25°   | 1033.1 | 1034.5 | 1007.4 | 970.7  | 948.9  | 941.4  | 941.0  | 940.6  | 942.8  | 925.7  | 901.4  |
| 27.5° | 1063.5 | 1063.2 | 1040.0 | 1005.5 | 971.8  | 955.8  | 955.5  | 959.1  | 966.0  | 951.8  | 931.9  |
| 30°   | 1108.2 | 1104.2 | 1076.7 | 1040.7 | 1009.9 | 985.2  | 983.1  | 979.8  | 985.2  | 974.0  | 962.4  |
| 32.5° | 1202.8 | 1190.1 | 1145.5 | 1081.7 | 1041.4 | 1022.5 | 1019.7 | 999.4  | 1001.5 | 994.7  | 988.8  |
| 35°   | 1338.5 | 1321.8 | 1262.4 | 1159.4 | 1080.7 | 1053.8 | 1052.4 | 1026.5 | 1022.2 | 1016.1 | 1018.2 |
| 37.5° | 1500.0 | 1479.3 | 1410.0 | 1271.8 | 1148.1 | 1090.1 | 1087.8 | 1064.7 | 1046.9 | 1040.4 | 1052.7 |
| 40°   | 1662.1 | 1636.0 | 1578.7 | 1408.9 | 1247.5 | 1150.7 | 1143.7 | 1108.5 | 1088.2 | 1077.4 | 1103.5 |
| 42.5° | 1819.6 | 1797.7 | 1748.8 | 1562.7 | 1370.1 | 1239.1 | 1224.0 | 1163.7 | 1148.4 | 1138.3 | 1185.4 |
| 45°   | 1958.9 | 1939.2 | 1903.3 | 1727.0 | 1513.7 | 1359.6 | 1344.7 | 1246.4 | 1241.7 | 1241.7 | 1309.8 |
| 47.5° | 2072.0 | 2067.6 | 2029.6 | 1894.6 | 1683.2 | 1496.7 | 1471.0 | 1361.4 | 1374.1 | 1393.7 | 1486.6 |
| 50°   | 2197.5 | 2185.5 | 2144.9 | 2059.6 | 1882.3 | 1653.7 | 1632.7 | 1502.4 | 1550.0 | 1603.7 | 1741.9 |
| 52.5° | 2312.9 | 2319.4 | 2274.1 | 2231.6 | 2107.2 | 1829.0 | 1792.0 | 1669.0 | 1771.6 | 1860.5 | 2041.2 |
| 55°   | 2431.5 | 2431.8 | 2419.1 | 2413.4 | 2342.9 | 2022.6 | 1982.0 | 1869.2 | 2032.5 | 2142.8 | 2390.1 |
| 57.5° | 2542.8 | 2543.5 | 2562.4 | 2613.5 | 2616.5 | 2246.1 | 2200.1 | 2115.2 | 2322.3 | 2434.8 | 2750.0 |
| 60°   | 2642.2 | 2647.4 | 2698.8 | 2818.5 | 2857.0 | 2502.2 | 2458.7 | 2405.8 | 2622.0 | 2735.1 | 3128.3 |
| 62.5° | 2675.7 | 2694.1 | 2808.7 | 2978.9 | 3094.6 | 2816.4 | 2773.5 | 2742.0 | 2936.8 | 3042.0 | 3444.6 |
| 65°   | 2619.0 | 2661.5 | 2883.1 | 3111.3 | 3339.0 | 3189.6 | 3147.2 | 3112.7 | 3264.0 | 3363.0 | 3704.3 |
| 67.5° | 2480.1 | 2534.8 | 2878.7 | 3250.2 | 3635.8 | 3638.7 | 3599.2 | 3518.3 | 3614.8 | 3652.9 | 3788.9 |
| 70°   | 2114.1 | 2196.1 | 2625.2 | 3302.0 | 3976.4 | 4252.8 | 4214.7 | 4006.5 | 3964.8 | 3780.5 | 3550.9 |
| 72.5° | 1362.1 | 1472.4 | 1933.0 | 2875.1 | 4052.2 | 4830.7 | 4828.5 | 4447.3 | 4075.4 | 3532.5 | 2848.0 |
| 75°   | 496.9  | 564.5  | 898.2  | 1804.6 | 3401.5 | 4801.3 | 4815.4 | 4371.8 | 3720.3 | 2728.5 | 1774.2 |
| 77.5° | 181.0  | 198.0  | 293.0  | 693.6  | 2091.9 | 3852.4 | 3881.8 | 3495.0 | 2648.1 | 1369.4 | 703.0  |
| 80°   | 95.0   | 104.4  | 150.2  | 269.2  | 896.4  | 2287.8 | 2333.9 | 2077.1 | 1244.6 | 412.5  | 210.7  |
| 82.5° | 52.6   | 57.0   | 84.2   | 146.2  | 403.7  | 978.4  | 1005.9 | 820.5  | 437.9  | 174.9  | 87.0   |
| 85°   | 28.3   | 30.1   | 39.6   | 79.8   | 197.3  | 339.2  | 346.8  | 245.2  | 174.5  | 102.7  | 42.1   |
| 87.5° | 8.3    | 10.1   | 13.0   | 25.4   | 77.3   | 76.2   | 78.0   | 48.6   | 68.9   | 51.9   | 13.7   |
| 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°    | 694.6  | 694.6  | 694.6 | 694.6 | 694.6 | 694.6 | 694.6 | 694.6 | 694.6 | 694.6 | 694.6 |
| 2.5°  | 697.9  | 696.8  | 692.8 | 691.1 | 688.9 | 688.5 | 690.3 | 690.6 | 691.1 | 691.4 | 692.8 |
| 5°    | 704.5  | 700.8  | 697.2 | 695.1 | 695.8 | 696.1 | 699.8 | 702.2 | 704.1 | 705.5 | 706.2 |
| 7.5°  | 717.2  | 714.2  | 708.1 | 707.8 | 708.8 | 712.1 | 716.8 | 722.6 | 725.9 | 728.4 | 729.1 |
| 10°   | 736.1  | 730.6  | 723.3 | 724.4 | 726.6 | 731.3 | 741.1 | 745.8 | 751.2 | 755.9 | 754.9 |
| 12.5° | 755.2  | 750.5  | 742.2 | 742.9 | 746.5 | 754.9 | 764.3 | 770.1 | 773.8 | 777.4 | 778.8 |
| 15°   | 780.2  | 771.9  | 762.8 | 762.8 | 769.4 | 778.5 | 782.8 | 787.5 | 789.7 | 793.7 | 795.1 |
| 17.5° | 806.1  | 795.1  | 783.2 | 782.5 | 790.4 | 794.8 | 797.3 | 798.1 | 798.8 | 803.1 | 804.5 |
| 20°   | 831.8  | 819.8  | 802.8 | 801.3 | 803.1 | 802.4 | 802.1 | 801.3 | 802.4 | 807.8 | 810.1 |
| 22.5° | 857.2  | 843.4  | 819.8 | 813.2 | 808.2 | 801.3 | 800.9 | 800.6 | 801.3 | 806.8 | 810.4 |
| 25°   | 886.9  | 870.2  | 838.7 | 819.1 | 802.1 | 792.6 | 793.7 | 794.1 | 794.8 | 799.1 | 804.9 |
| 27.5° | 919.2  | 900.7  | 856.1 | 817.2 | 786.5 | 779.9 | 778.1 | 779.2 | 781.8 | 788.6 | 795.5 |
| 30°   | 951.5  | 929.7  | 872.1 | 810.1 | 766.8 | 757.8 | 751.9 | 754.5 | 762.5 | 769.4 | 777.1 |
| 32.5° | 980.8  | 959.1  | 884.8 | 794.1 | 741.8 | 727.6 | 720.1 | 723.3 | 731.3 | 733.8 | 742.9 |
| 35°   | 1015.4 | 990.7  | 890.2 | 768.6 | 714.6 | 692.8 | 682.6 | 677.9 | 681.9 | 679.5 | 687.4 |
| 37.5° | 1053.8 | 1028.0 | 889.5 | 735.3 | 682.6 | 657.6 | 643.5 | 625.8 | 617.4 | 608.6 | 614.1 |
| 40°   | 1110.7 | 1073.7 | 880.8 | 695.1 | 643.2 | 620.3 | 594.9 | 564.8 | 545.9 | 528.9 | 529.9 |
| 42.5° | 1188.4 | 1137.2 | 864.8 | 650.8 | 598.5 | 577.2 | 542.6 | 507.5 | 477.8 | 449.5 | 446.9 |
| 45°   | 1304.1 | 1220.3 | 844.8 | 603.6 | 550.3 | 529.2 | 491.9 | 452.3 | 418.6 | 382.3 | 378.0 |
| 47.5° | 1471.0 | 1332.0 | 825.9 | 549.9 | 499.5 | 480.3 | 446.5 | 409.9 | 370.0 | 334.8 | 330.9 |
| 50°   | 1700.2 | 1492.3 | 808.5 | 497.6 | 449.5 | 434.9 | 408.1 | 370.7 | 330.5 | 302.2 | 300.3 |
| 52.5° | 1991.9 | 1710.3 | 801.3 | 447.3 | 402.6 | 397.2 | 375.8 | 341.0 | 302.9 | 278.9 | 277.2 |
| 55°   | 2326.6 | 1971.2 | 801.3 | 399.0 | 361.6 | 363.5 | 348.6 | 316.3 | 283.3 | 261.9 | 259.7 |
| 57.5° | 2668.4 | 2235.2 | 786.8 | 354.4 | 326.9 | 334.5 | 325.0 | 296.7 | 267.0 | 244.9 | 241.2 |
| 60°   | 2983.3 | 2456.5 | 728.1 | 313.8 | 296.0 | 308.0 | 301.8 | 277.5 | 241.2 | 222.7 | 219.9 |
| 62.5° | 3225.2 | 2581.3 | 614.9 | 281.5 | 270.6 | 284.4 | 281.2 | 252.2 | 236.5 | 228.9 | 226.3 |
| 65°   | 3346.3 | 2561.0 | 470.2 | 252.9 | 249.2 | 270.6 | 263.7 | 262.6 | 250.3 | 241.6 | 238.7 |
| 67.5° | 3272.0 | 2386.1 | 341.0 | 231.8 | 236.9 | 257.9 | 284.4 | 288.7 | 265.9 | 248.9 | 245.9 |
| 70°   | 2945.8 | 2069.8 | 253.9 | 211.9 | 221.3 | 258.3 | 324.3 | 302.2 | 260.9 | 240.9 | 237.6 |
| 72.5° | 2241.1 | 1543.4 | 197.0 | 190.9 | 201.0 | 260.0 | 342.0 | 296.0 | 246.3 | 266.3 | 264.0 |
| 75°   | 1281.6 | 847.4  | 158.2 | 165.0 | 175.6 | 243.0 | 333.0 | 280.0 | 235.0 | 244.5 | 244.5 |
| 77.5° | 488.6  | 325.7  | 130.6 | 139.7 | 141.1 | 212.2 | 318.5 | 278.9 | 223.9 | 218.3 | 199.2 |
| 80°   | 169.4  | 127.3  | 108.1 | 111.0 | 109.2 | 188.6 | 305.4 | 242.7 | 183.2 | 164.0 | 158.6 |
| 82.5° | 69.3   | 63.4   | 85.6  | 82.0  | 77.6  | 146.6 | 246.7 | 198.4 | 149.9 | 132.4 | 131.0 |
| 85°   | 30.1   | 40.3   | 56.6  | 49.7  | 45.0  | 101.6 | 197.7 | 168.0 | 126.6 | 109.2 | 108.9 |
| 87.5° | 6.1    | 15.3   | 24.0  | 22.4  | 23.2  | 67.9  | 140.4 | 119.3 | 89.6  | 67.1  | 52.6  |
| 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)