

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: P960479

Luminaire Tested: **NAV-SB1C-827-U-T2U**

Issue Date: 1/21/2025

### Test Information

Test Method: LM-79-08  
Report Number: P960479  
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-SB1C-827-U-T2U  
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE  
(1) 80 CRI, 2700K, 615mA LIGHTSQUARE WITH 26 LEDS AND TYPE II U OPTICS  
Light Source: -  
Ballast/Driver: -

### Summary

Lumens per Lamp: N/A  
Luminaire Lumens: 6767 lumens  
Efficiency: N/A  
Efficacy: 124.4 lumens/watt  
Luminous Opening: Rectangular (W 0.5' x L: 0.5' x H: 0')  
IES Classification: Type II - Short  
BUG Rating: B2 - 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

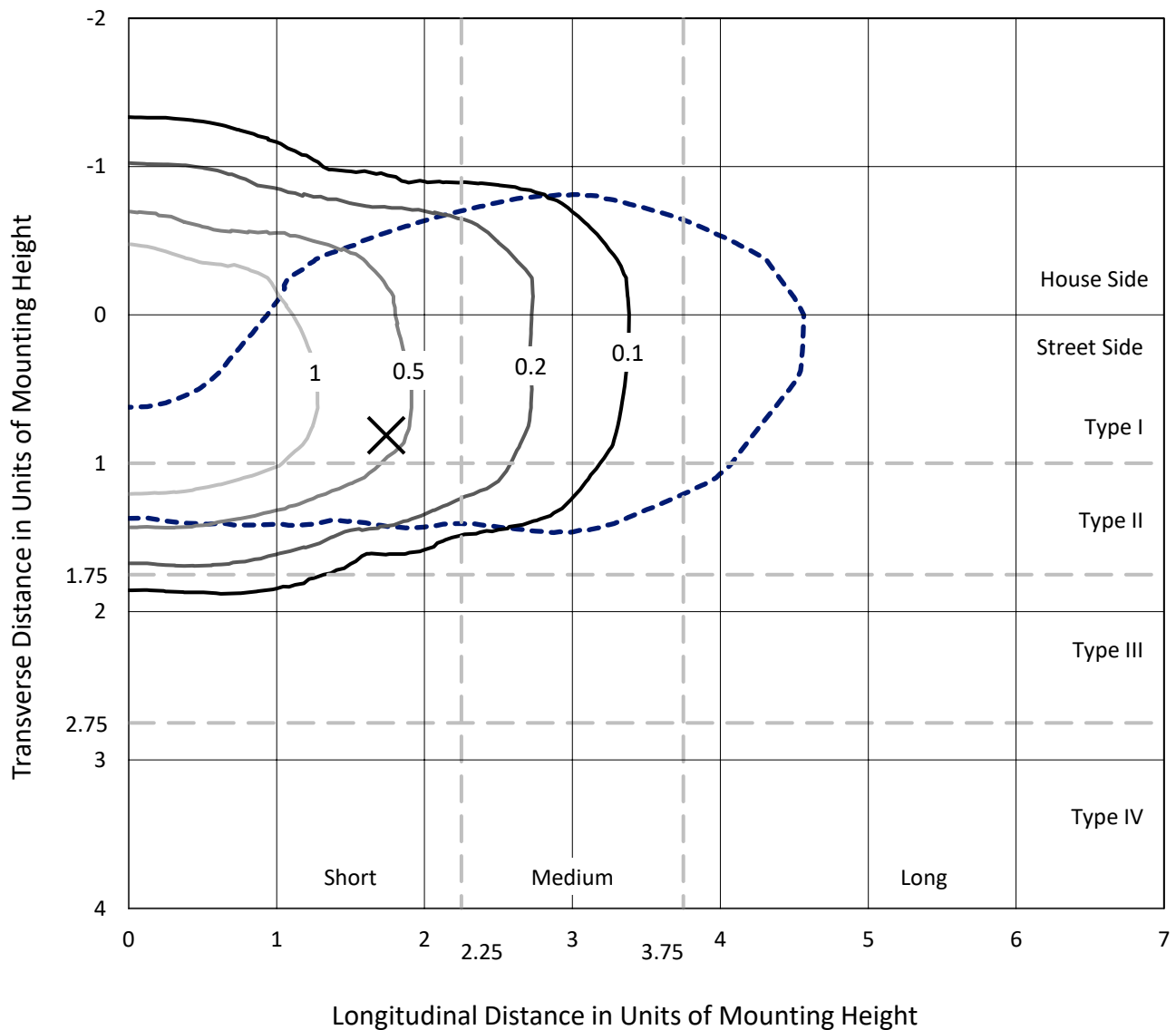


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## Iso-Footcandle Lines of Horizontal Illumination

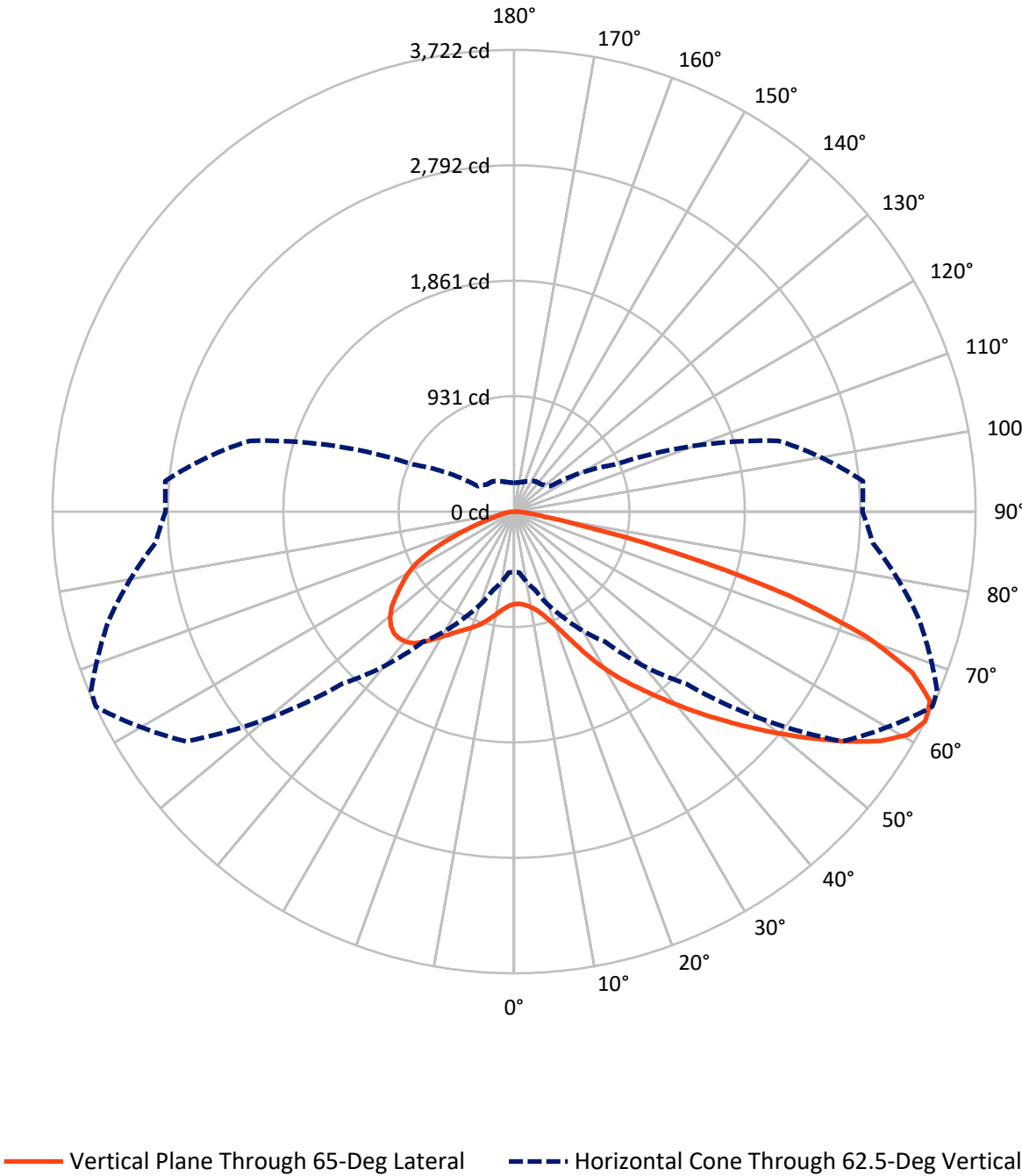
× Max cd  
- - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 1.9 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    | 2135.4   | 0.0    | 2135.4 |
|                    | % Fixture | 31.6     | 0.0    | 31.6   |
| <b>Street Side</b> | Lumens    | 4631.7   | 0.0    | 4631.7 |
|                    | % Fixture | 68.4     | 0.0    | 68.4   |
| <b>Total</b>       | Lumens    | 6767.0   | 0.0    | 6767.0 |
|                    | % Fixture | 100.0    | 0.0    | 100.0  |

**ZONAL LUMENS:**

| Zone      | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10°    | 74.3   | 1.1       |
| 10°-20°   | 252.1  | 3.7       |
| 20°-30°   | 511.2  | 7.6       |
| 30°-40°   | 884.6  | 13.1      |
| 40°-50°   | 1338.7 | 19.8      |
| 50°-60°   | 1569.5 | 23.2      |
| 60°-70°   | 1315.8 | 19.4      |
| 70°-80°   | 726.4  | 10.7      |
| 80°-90°   | 94.4   | 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°    | 6767.0 | 100.0     |
| 0°-180°   | 6767.0 | 100.0     |

**Coefficient of Utilization**



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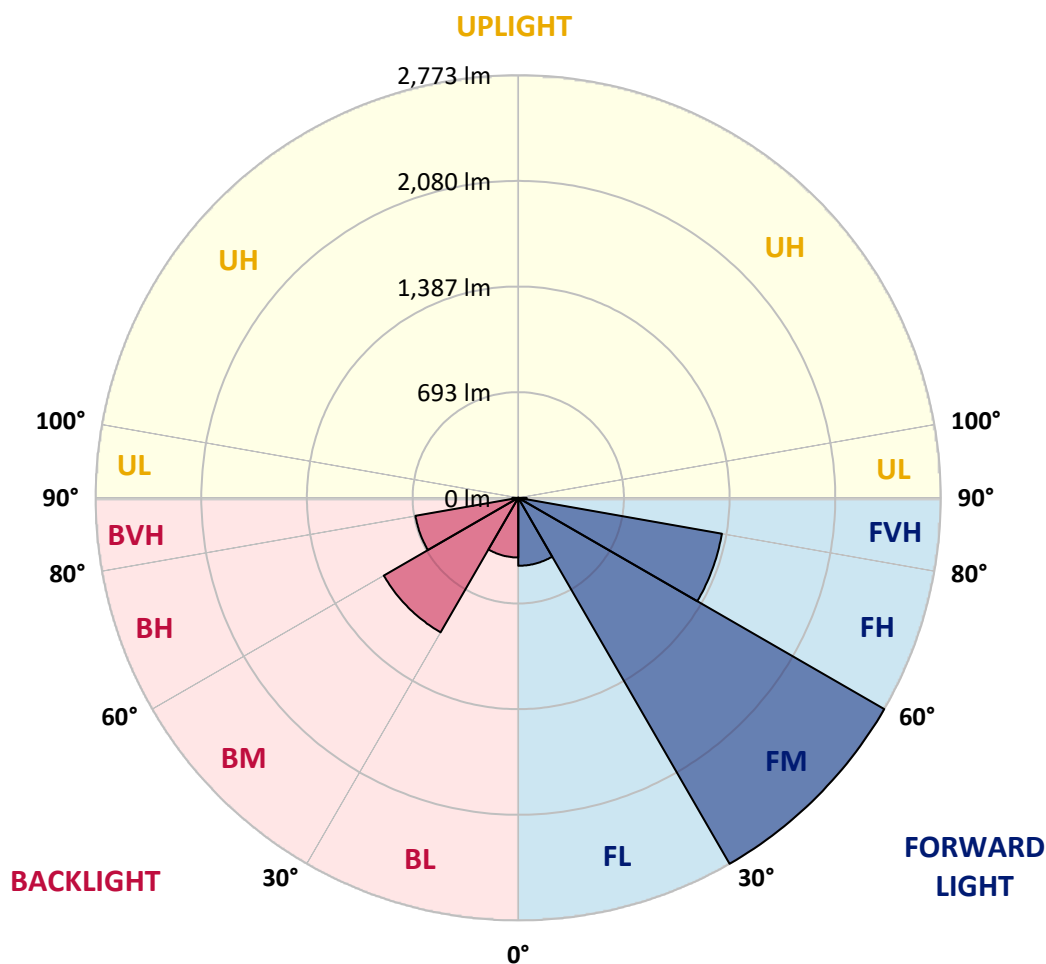
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

| Zone |             | Lumens | % Fixture | Zone Rating/Lumen Limit |      |         |
|------|-------------|--------|-----------|-------------------------|------|---------|
|      |             |        |           | B                       | U    | G       |
| FL   | (0°-30°)    | 446.0  | 6.6       |                         |      |         |
| FM   | (30°-60°)   | 2773.4 | 41.0      |                         |      |         |
| FH   | (60°-80°)   | 1357.3 | 20.1      |                         |      | G1/1800 |
| FVH  | (80°-90°)   | 55.0   | 0.8       |                         |      | G1/100  |
| BL   | (0°-30°)    | 391.6  | 5.8       | B1/500                  |      |         |
| BM   | (30°-60°)   | 1019.4 | 15.1      | B2/2500                 |      |         |
| BH   | (60°-80°)   | 685.0  | 10.1      | B2/1000                 |      | G2/1000 |
| BVH  | (80°-90°)   | 39.4   | 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°    | 745.7  | 745.7  | 745.7  | 745.7  | 745.7  | 745.7  | 745.7  | 745.7  | 745.7  | 745.7  | 745.7  |
| 2.5°  | 740.8  | 738.7  | 740.5  | 740.5  | 741.2  | 740.8  | 743.2  | 743.9  | 745.0  | 747.1  | 747.1  |
| 5°    | 733.4  | 733.1  | 736.3  | 739.0  | 741.8  | 744.3  | 747.4  | 752.0  | 752.8  | 755.2  | 758.3  |
| 7.5°  | 730.9  | 728.9  | 733.8  | 737.3  | 743.9  | 749.9  | 758.3  | 766.1  | 769.3  | 770.3  | 776.2  |
| 10°   | 749.9  | 746.4  | 750.9  | 753.1  | 758.7  | 764.6  | 774.5  | 786.8  | 790.3  | 794.5  | 801.1  |
| 12.5° | 782.2  | 778.4  | 785.0  | 788.2  | 793.5  | 798.7  | 805.3  | 817.3  | 819.1  | 826.8  | 833.1  |
| 15°   | 826.5  | 821.8  | 826.0  | 829.9  | 838.8  | 843.7  | 850.3  | 861.9  | 861.9  | 867.9  | 872.5  |
| 17.5° | 886.5  | 880.5  | 883.7  | 885.1  | 890.7  | 898.1  | 909.3  | 919.5  | 924.8  | 922.6  | 916.4  |
| 20°   | 976.0  | 968.6  | 968.6  | 961.7  | 959.5  | 965.4  | 980.2  | 994.2  | 999.9  | 989.0  | 973.5  |
| 22.5° | 1110.5 | 1099.9 | 1094.0 | 1070.1 | 1060.7 | 1061.3 | 1076.0 | 1093.3 | 1097.9 | 1078.5 | 1043.8 |
| 25°   | 1281.5 | 1265.0 | 1256.9 | 1221.8 | 1200.4 | 1181.7 | 1193.3 | 1215.4 | 1221.8 | 1197.9 | 1141.7 |
| 27.5° | 1452.4 | 1453.4 | 1445.8 | 1403.6 | 1368.2 | 1334.1 | 1328.2 | 1351.4 | 1358.0 | 1331.0 | 1261.5 |
| 30°   | 1692.2 | 1667.3 | 1652.5 | 1602.0 | 1551.4 | 1503.7 | 1479.1 | 1488.6 | 1490.4 | 1458.1 | 1377.3 |
| 32.5° | 1899.0 | 1892.7 | 1861.1 | 1816.8 | 1751.9 | 1677.1 | 1636.0 | 1620.9 | 1618.2 | 1572.1 | 1476.3 |
| 35°   | 2134.6 | 2131.1 | 2097.8 | 2045.1 | 1974.9 | 1870.9 | 1796.8 | 1753.7 | 1750.2 | 1685.5 | 1574.3 |
| 37.5° | 2374.0 | 2374.0 | 2341.4 | 2283.8 | 2211.1 | 2081.3 | 1968.5 | 1900.0 | 1888.9 | 1804.6 | 1673.9 |
| 40°   | 2565.0 | 2553.4 | 2559.4 | 2535.1 | 2452.0 | 2313.9 | 2159.2 | 2059.8 | 2044.7 | 1943.6 | 1780.0 |
| 42.5° | 2673.5 | 2669.6 | 2705.5 | 2732.4 | 2698.4 | 2588.2 | 2369.1 | 2232.9 | 2211.8 | 2096.6 | 1902.2 |
| 45°   | 2697.7 | 2693.5 | 2757.4 | 2856.4 | 2904.1 | 2858.8 | 2597.4 | 2415.1 | 2389.5 | 2256.7 | 2033.1 |
| 47.5° | 2641.9 | 2633.4 | 2727.2 | 2883.4 | 3036.6 | 3116.2 | 2844.5 | 2612.7 | 2575.5 | 2412.6 | 2167.6 |
| 50°   | 2474.0 | 2466.0 | 2607.8 | 2815.4 | 3081.1 | 3291.1 | 3112.7 | 2822.3 | 2765.4 | 2579.7 | 2303.5 |
| 52.5° | 2109.3 | 2113.1 | 2335.4 | 2620.5 | 3022.5 | 3399.9 | 3343.8 | 3043.2 | 2974.8 | 2750.7 | 2430.9 |
| 55°   | 1643.1 | 1651.5 | 1924.6 | 2238.5 | 2787.9 | 3383.4 | 3501.3 | 3270.7 | 3202.6 | 2911.5 | 2562.6 |
| 57.5° | 1176.5 | 1213.7 | 1469.6 | 1780.3 | 2337.5 | 3121.8 | 3535.7 | 3486.9 | 3420.9 | 3087.1 | 2691.4 |
| 60°   | 762.6  | 769.3  | 1032.6 | 1345.7 | 1780.0 | 2657.0 | 3465.9 | 3650.9 | 3599.3 | 3266.2 | 2799.2 |
| 62.5° | 488.7  | 493.2  | 653.7  | 941.3  | 1281.1 | 1965.7 | 3230.7 | 3722.2 | 3706.4 | 3384.4 | 2902.8 |
| 65°   | 359.2  | 355.7  | 439.2  | 622.1  | 862.9  | 1212.3 | 2773.9 | 3687.7 | 3719.0 | 3458.6 | 2988.4 |
| 67.5° | 299.8  | 294.9  | 336.0  | 430.8  | 635.8  | 688.5  | 2052.5 | 3464.1 | 3578.6 | 3450.0 | 3051.2 |
| 70°   | 273.2  | 269.0  | 293.9  | 319.8  | 496.1  | 460.9  | 1034.6 | 3011.6 | 3187.9 | 3354.2 | 3041.1 |
| 72.5° | 231.3  | 224.0  | 258.1  | 284.0  | 385.8  | 353.5  | 427.6  | 2313.3 | 2528.2 | 3047.0 | 2897.9 |
| 75°   | 179.4  | 174.5  | 203.7  | 250.0  | 290.0  | 275.9  | 270.3  | 1404.7 | 1639.2 | 2356.5 | 2535.1 |
| 77.5° | 142.2  | 135.5  | 162.2  | 194.9  | 260.9  | 208.2  | 197.0  | 605.0  | 837.3  | 1504.4 | 1896.9 |
| 80°   | 107.1  | 101.1  | 123.2  | 154.2  | 200.5  | 156.9  | 127.4  | 246.8  | 315.6  | 762.2  | 953.9  |
| 82.5° | 76.2   | 70.9   | 86.0   | 113.1  | 134.8  | 140.8  | 78.3   | 138.4  | 155.5  | 293.9  | 213.1  |
| 85°   | 48.8   | 45.6   | 57.6   | 70.9   | 85.7   | 90.6   | 47.8   | 72.4   | 79.3   | 121.2  | 88.9   |
| 87.5° | 26.6   | 21.7   | 30.9   | 33.0   | 39.7   | 36.2   | 22.9   | 26.3   | 28.4   | 43.9   | 37.5   |
| 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°    | 745.7  | 745.7  | 745.7  | 745.7  | 745.7  | 745.7 | 745.7 | 745.7 | 745.7 | 745.7 | 745.7 |
| 2.5°  | 748.6  | 749.6  | 753.1  | 754.1  | 756.6  | 759.7 | 761.9 | 763.9 | 763.9 | 766.1 | 766.1 |
| 5°    | 758.7  | 761.2  | 768.5  | 772.3  | 778.7  | 785.0 | 788.8 | 793.5 | 796.2 | 797.7 | 798.4 |
| 7.5°  | 778.4  | 782.2  | 792.7  | 799.4  | 810.3  | 819.1 | 825.0 | 831.4 | 832.8 | 836.6 | 835.3 |
| 10°   | 805.0  | 809.6  | 821.5  | 834.1  | 847.2  | 858.0 | 863.7 | 868.3 | 870.0 | 870.6 | 868.9 |
| 12.5° | 835.6  | 842.2  | 857.7  | 873.1  | 886.8  | 896.4 | 897.7 | 896.7 | 891.7 | 887.5 | 887.5 |
| 15°   | 873.1  | 879.1  | 896.4  | 913.2  | 926.5  | 928.2 | 919.5 | 913.9 | 907.9 | 906.8 | 906.8 |
| 17.5° | 918.1  | 921.3  | 937.1  | 953.6  | 954.6  | 948.6 | 935.6 | 930.4 | 924.8 | 920.9 | 921.3 |
| 20°   | 970.4  | 969.3  | 980.6  | 987.6  | 980.2  | 962.0 | 942.3 | 933.6 | 927.9 | 923.3 | 923.7 |
| 22.5° | 1032.9 | 1024.8 | 1023.4 | 1021.6 | 1002.0 | 963.7 | 937.1 | 925.8 | 917.1 | 910.7 | 912.9 |
| 25°   | 1123.8 | 1093.0 | 1071.5 | 1059.5 | 1015.4 | 954.3 | 920.1 | 895.2 | 878.7 | 867.9 | 872.1 |
| 27.5° | 1237.6 | 1185.6 | 1131.5 | 1102.4 | 1015.4 | 934.9 | 879.4 | 839.1 | 812.0 | 800.8 | 806.5 |
| 30°   | 1346.0 | 1291.6 | 1212.0 | 1154.0 | 1012.9 | 903.3 | 813.8 | 757.7 | 726.0 | 714.8 | 721.5 |
| 32.5° | 1438.7 | 1379.4 | 1297.2 | 1210.5 | 1006.9 | 852.1 | 732.4 | 670.2 | 639.7 | 626.4 | 633.0 |
| 35°   | 1524.8 | 1461.5 | 1382.9 | 1272.6 | 991.1  | 776.9 | 642.9 | 595.4 | 561.4 | 540.0 | 546.9 |
| 37.5° | 1612.8 | 1537.7 | 1464.0 | 1328.8 | 962.7  | 689.2 | 574.0 | 533.6 | 493.6 | 464.8 | 472.5 |
| 40°   | 1708.7 | 1618.9 | 1550.7 | 1362.2 | 915.9  | 605.6 | 520.7 | 483.8 | 441.3 | 410.7 | 416.8 |
| 42.5° | 1820.7 | 1716.1 | 1647.3 | 1379.4 | 852.1  | 546.3 | 485.8 | 449.8 | 409.7 | 384.8 | 389.7 |
| 45°   | 1937.7 | 1823.2 | 1735.4 | 1379.0 | 780.8  | 518.5 | 474.7 | 438.8 | 394.6 | 368.6 | 372.9 |
| 47.5° | 2060.1 | 1935.2 | 1811.6 | 1356.6 | 719.0  | 522.4 | 468.3 | 415.3 | 366.5 | 341.2 | 344.8 |
| 50°   | 2183.0 | 2057.7 | 1885.3 | 1314.5 | 692.7  | 513.9 | 444.8 | 382.3 | 324.7 | 302.0 | 303.3 |
| 52.5° | 2304.8 | 2188.0 | 1948.8 | 1254.4 | 666.0  | 482.8 | 414.6 | 339.5 | 307.5 | 291.7 | 291.7 |
| 55°   | 2427.4 | 2316.8 | 2018.0 | 1167.0 | 599.3  | 446.2 | 364.1 | 323.4 | 293.9 | 279.4 | 278.1 |
| 57.5° | 2550.3 | 2465.6 | 2083.7 | 1079.5 | 515.4  | 401.3 | 336.3 | 303.7 | 280.1 | 267.8 | 265.8 |
| 60°   | 2678.0 | 2635.9 | 2151.5 | 999.2  | 432.6  | 343.7 | 316.0 | 287.9 | 264.0 | 250.3 | 249.3 |
| 62.5° | 2809.7 | 2823.4 | 2204.5 | 895.6  | 356.4  | 308.6 | 297.8 | 269.0 | 245.8 | 232.8 | 232.4 |
| 65°   | 2942.5 | 3004.2 | 2239.2 | 752.0  | 288.9  | 275.2 | 278.1 | 248.3 | 224.7 | 213.5 | 213.1 |
| 67.5° | 3042.5 | 3134.4 | 2229.4 | 569.1  | 237.0  | 243.6 | 253.5 | 226.4 | 204.3 | 195.6 | 195.9 |
| 70°   | 3053.7 | 3119.0 | 2132.5 | 389.7  | 198.3  | 212.8 | 226.1 | 205.0 | 182.2 | 175.9 | 176.2 |
| 72.5° | 2904.1 | 2908.3 | 1862.5 | 254.5  | 167.8  | 186.8 | 197.3 | 183.3 | 161.1 | 154.9 | 154.5 |
| 75°   | 2512.0 | 2405.3 | 1367.5 | 167.8  | 140.4  | 160.4 | 170.3 | 160.4 | 139.0 | 140.4 | 135.5 |
| 77.5° | 1903.2 | 1703.4 | 830.4  | 119.4  | 117.3  | 134.8 | 148.1 | 141.1 | 122.9 | 138.0 | 121.5 |
| 80°   | 980.6  | 921.6  | 370.4  | 89.2   | 92.7   | 107.8 | 121.9 | 112.6 | 97.3  | 92.7  | 84.6  |
| 82.5° | 224.7  | 261.2  | 146.1  | 63.9   | 67.0   | 77.6  | 93.1  | 84.6  | 69.9  | 58.9  | 58.3  |
| 85°   | 78.6   | 86.0   | 64.6   | 40.0   | 39.4   | 48.5  | 63.2  | 56.5  | 47.4  | 37.9  | 40.0  |
| 87.5° | 24.9   | 32.7   | 24.2   | 16.2   | 16.8   | 21.7  | 29.1  | 26.6  | 22.1  | 14.3  | 15.1  |
| 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)