

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: P964485

Luminaire Tested: **NAV-SB3C-722-U-T4FT**

Issue Date: 1/21/2025

Test Information

Test Method: LM-79-08
Report Number: P964485
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2405-108-24)
Test Lab: INNOVATION CENTER
Issue Date: 1/21/2025
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: LUMARK
Catalog Number: NAV-SB3C-722-U-T4FT
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE
(3) 70 CRI, 2200K, 615mA LIGHTSQUARES WITH 26 LEDS EACH AND TYPE IV
FORWARD THROW OPTICS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 18804.6 lumens
Efficiency: N/A
Efficacy: 126.1 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')
IES Classification: Type IV - Short
BUG Rating: B3 - U0 - G3

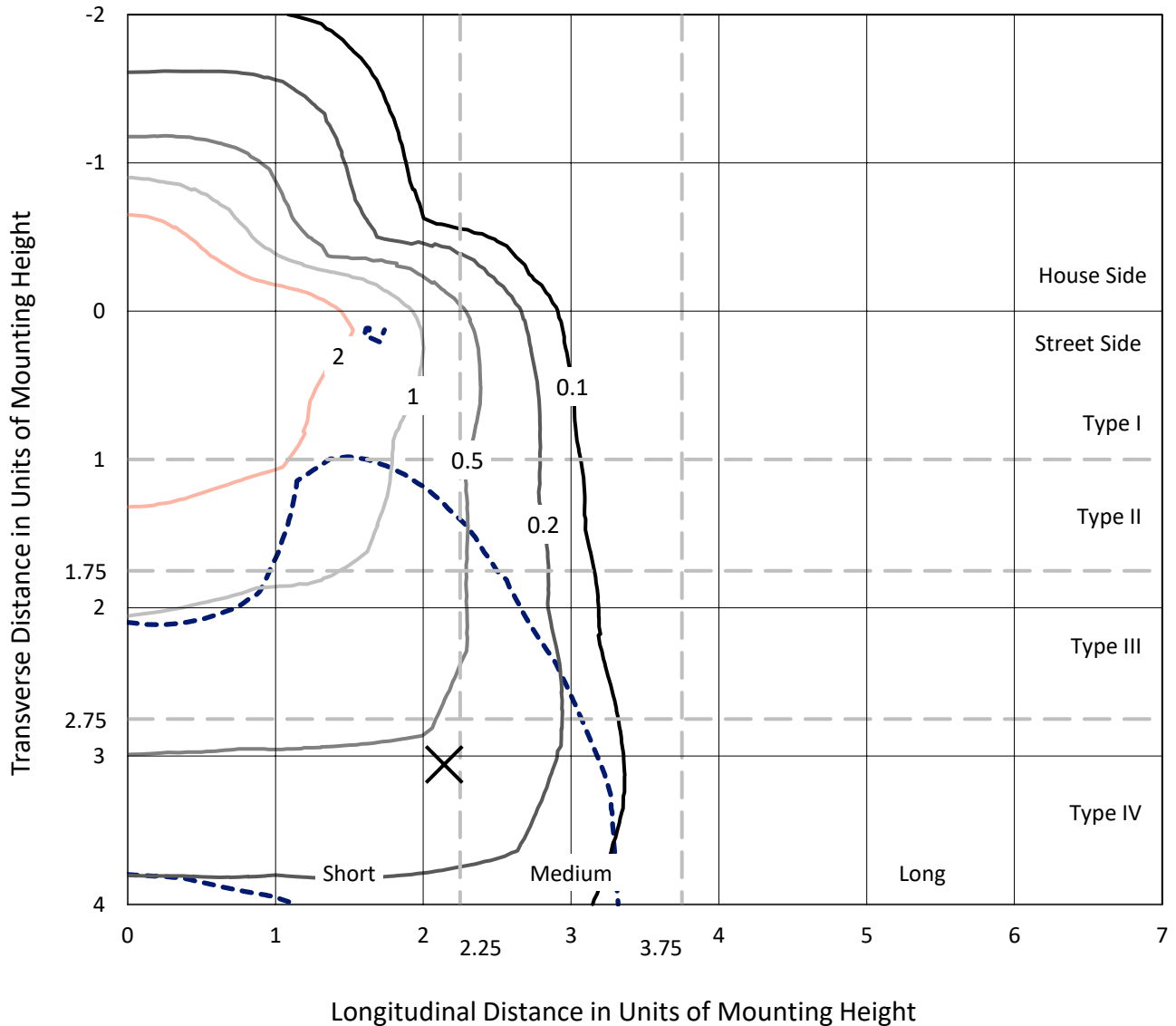
Input Watts (W): 149.1
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Iso-Footcandle Lines of Horizontal Illumination

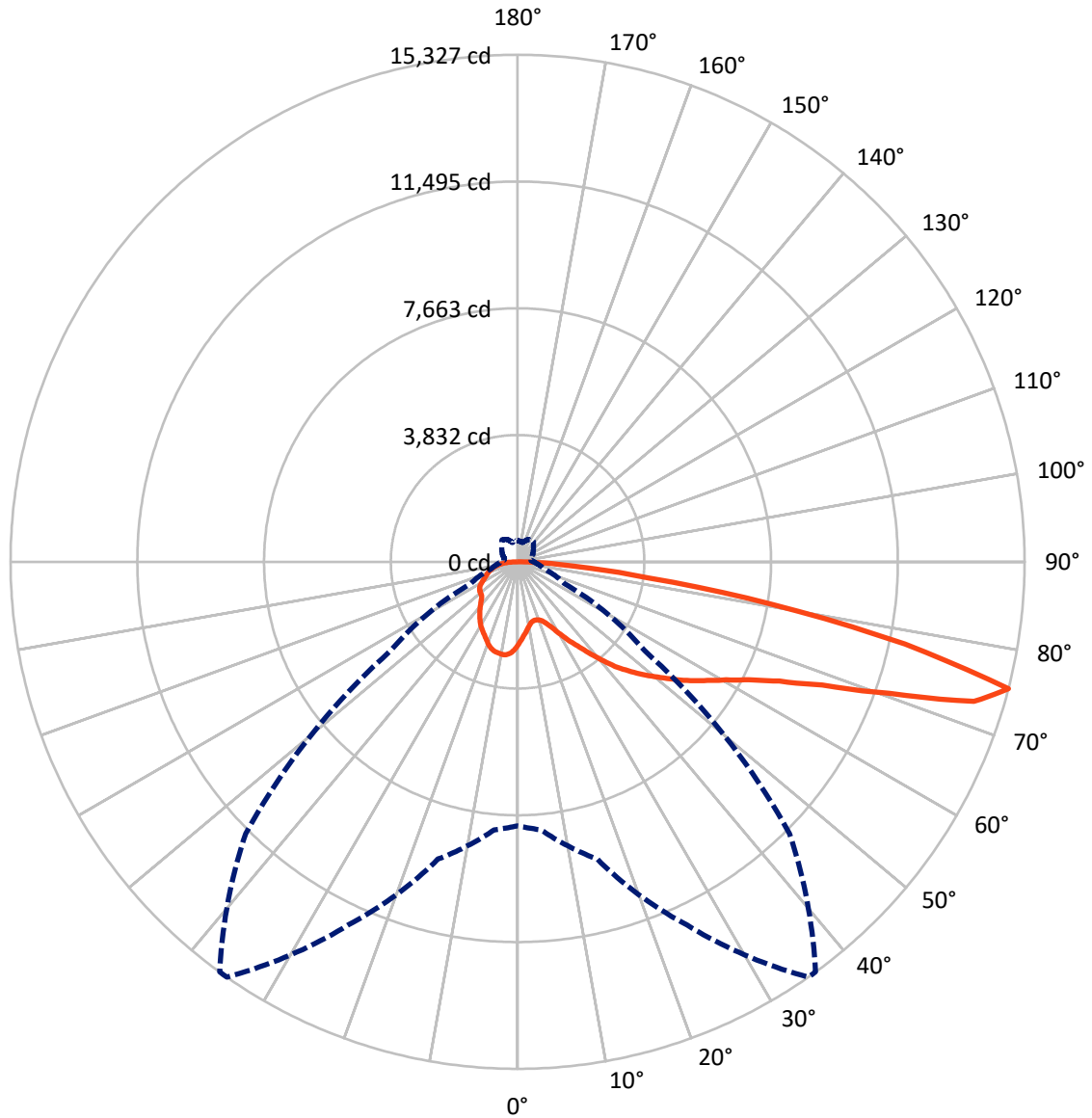
× Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 4.4 fc
 Type IV - Short - N/A

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Luminous Intensity Polar Plot



— Vertical Plane Through 35-Deg Lateral - - - Horizontal Cone Through 75-Deg Vertical

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FLUX DISTRIBUTION:

| | | Downward | Upward | Total |
|--------------------|-----------|----------|--------|---------|
| House Side | Lumens | 4475.0 | 0.0 | 4475.0 |
| | % Fixture | 23.8 | 0.0 | 23.8 |
| Street Side | Lumens | 14329.6 | 0.0 | 14329.6 |
| | % Fixture | 76.2 | 0.0 | 76.2 |
| Total | Lumens | 18804.6 | 0.0 | 18804.6 |
| | % Fixture | 100.0 | 0.0 | 100.0 |

ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|---------|-----------|
| 0°-10° | 237.3 | 1.3 |
| 10°-20° | 684.3 | 3.6 |
| 20°-30° | 1149.2 | 6.1 |
| 30°-40° | 1786.0 | 9.5 |
| 40°-50° | 2650.9 | 14.1 |
| 50°-60° | 3659.7 | 19.5 |
| 60°-70° | 4440.1 | 23.6 |
| 70°-80° | 3669.4 | 19.5 |
| 80°-90° | 527.8 | 2.8 |
| 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° | 18804.6 | 100.0 |
| 0°-180° | 18804.6 | 100.0 |

Coefficient of Utilization



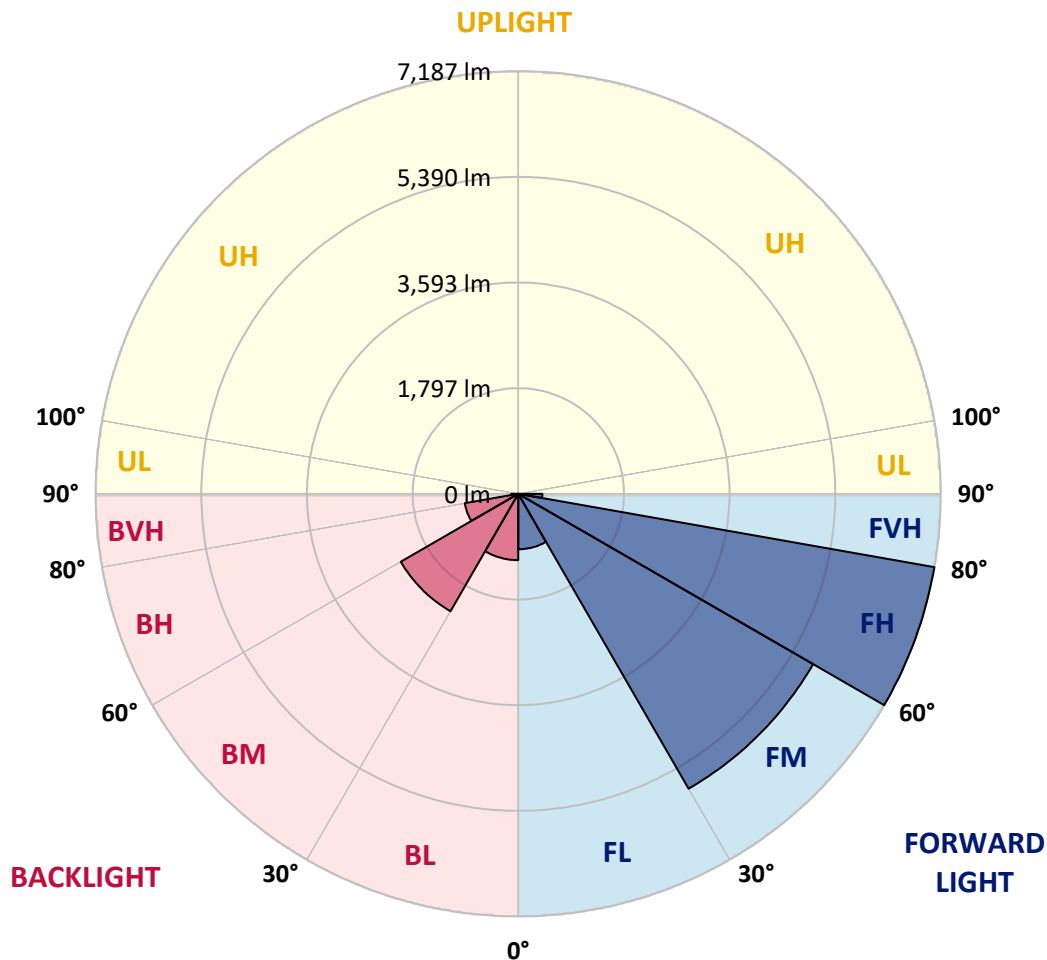
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

| Zone | Lumens | % Fixture | Zone Rating/Lumen Limit | | |
|----------------|--------|-----------|-------------------------|------|---------|
| | | | B | U | G |
| FL (0°-30°) | 943.0 | 5.0 | | | |
| FM (30°-60°) | 5790.8 | 30.8 | | | |
| FH (60°-80°) | 7186.9 | 38.2 | | | G3/7500 |
| FVH (80°-90°) | 408.9 | 2.2 | | | G3/500 |
| BL (0°-30°) | 1127.8 | 6.0 | B3/2500 | | |
| BM (30°-60°) | 2305.8 | 12.3 | B2/2500 | | |
| BH (60°-80°) | 922.6 | 4.9 | B2/1000 | | G2/1000 |
| BVH (80°-90°) | 118.8 | 0.6 | | | G2/225 |
| UL (90°-100°) | 0.0 | 0.0 | | U0/0 | |
| UH (100°-180°) | 0.0 | 0.0 | | U0/0 | |

BUG Rating: B3-U0-G3

Type IV Short



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CANDELA DISTRIBUTION (FULL):

| | 0° | 5° | 15° | 25° | 35° | 36° | 45° | 55° | 65° | 75° | 85° |
|-------|--------|--------|---------|---------|---------|---------|---------|--------|--------|--------|--------|
| 0° | 2505.8 | 2505.8 | 2505.8 | 2505.8 | 2505.8 | 2505.8 | 2505.8 | 2505.8 | 2505.8 | 2505.8 | 2505.8 |
| 2.5° | 2310.7 | 2324.9 | 2331.0 | 2328.0 | 2343.1 | 2341.2 | 2362.5 | 2389.0 | 2425.6 | 2461.1 | 2513.0 |
| 5° | 2132.7 | 2148.0 | 2161.2 | 2173.4 | 2202.9 | 2212.1 | 2245.6 | 2296.4 | 2363.5 | 2431.6 | 2517.0 |
| 7.5° | 1967.1 | 1980.3 | 2000.6 | 2022.9 | 2072.8 | 2082.0 | 2137.8 | 2217.2 | 2310.7 | 2410.3 | 2528.2 |
| 10° | 1831.9 | 1845.1 | 1866.4 | 1891.8 | 1953.9 | 1965.0 | 2036.2 | 2141.9 | 2263.9 | 2390.0 | 2540.4 |
| 12.5° | 1773.9 | 1778.0 | 1790.2 | 1815.6 | 1869.5 | 1876.6 | 1954.9 | 2075.8 | 2218.2 | 2374.7 | 2558.7 |
| 15° | 1770.9 | 1779.0 | 1780.0 | 1793.2 | 1837.9 | 1841.0 | 1913.2 | 2033.2 | 2189.7 | 2371.6 | 2586.2 |
| 17.5° | 1801.3 | 1807.5 | 1798.4 | 1806.5 | 1844.1 | 1849.1 | 1906.1 | 2012.8 | 2180.6 | 2384.9 | 2632.9 |
| 20° | 1882.7 | 1887.7 | 1860.4 | 1849.1 | 1876.6 | 1880.7 | 1936.5 | 2026.0 | 2189.7 | 2412.3 | 2697.0 |
| 22.5° | 2055.5 | 2058.5 | 1991.5 | 1945.8 | 1947.7 | 1949.8 | 1998.5 | 2079.9 | 2225.3 | 2462.2 | 2778.3 |
| 25° | 2324.9 | 2322.9 | 2216.2 | 2127.7 | 2076.9 | 2065.7 | 2098.2 | 2167.4 | 2285.2 | 2528.2 | 2883.0 |
| 27.5° | 2640.0 | 2624.8 | 2518.0 | 2385.9 | 2275.1 | 2258.8 | 2251.7 | 2281.1 | 2370.6 | 2615.6 | 3011.0 |
| 30° | 2995.9 | 2981.6 | 2866.7 | 2693.9 | 2540.4 | 2514.0 | 2446.9 | 2431.6 | 2497.7 | 2734.6 | 3189.0 |
| 32.5° | 3386.2 | 3377.1 | 3239.8 | 3030.4 | 2825.0 | 2794.6 | 2681.7 | 2641.0 | 2692.9 | 2914.5 | 3437.0 |
| 35° | 3713.6 | 3705.4 | 3591.5 | 3376.0 | 3124.9 | 3087.3 | 2972.5 | 2926.7 | 2953.1 | 3145.3 | 3761.3 |
| 37.5° | 4009.4 | 4005.3 | 3907.7 | 3738.0 | 3478.7 | 3432.9 | 3303.9 | 3288.6 | 3283.5 | 3449.2 | 4154.7 |
| 40° | 4283.8 | 4273.6 | 4172.0 | 4082.6 | 3890.4 | 3848.8 | 3734.9 | 3721.7 | 3683.0 | 3823.4 | 4600.0 |
| 42.5° | 4587.8 | 4561.4 | 4414.0 | 4372.2 | 4320.4 | 4285.8 | 4217.8 | 4219.8 | 4134.4 | 4245.2 | 5071.7 |
| 45° | 4835.8 | 4820.6 | 4669.1 | 4644.7 | 4700.6 | 4686.4 | 4745.3 | 4760.6 | 4594.9 | 4687.4 | 5561.6 |
| 47.5° | 5102.1 | 5087.9 | 4959.9 | 4942.5 | 5094.0 | 5098.1 | 5306.5 | 5311.5 | 5044.2 | 5146.9 | 6052.6 |
| 50° | 5430.6 | 5410.2 | 5283.2 | 5304.5 | 5474.2 | 5489.5 | 5870.7 | 5836.1 | 5457.9 | 5613.5 | 6539.6 |
| 52.5° | 5647.0 | 5659.2 | 5631.8 | 5666.4 | 5898.2 | 5912.4 | 6425.7 | 6337.3 | 5867.6 | 6074.0 | 7017.4 |
| 55° | 5806.6 | 5831.0 | 5916.4 | 5995.7 | 6345.5 | 6359.7 | 6949.3 | 6814.1 | 6207.2 | 6501.0 | 7466.7 |
| 57.5° | 6012.0 | 5977.4 | 6137.1 | 6291.6 | 6770.3 | 6807.9 | 7458.6 | 7273.6 | 6508.1 | 6868.9 | 7774.7 |
| 60° | 6306.8 | 6282.4 | 6406.5 | 6635.1 | 7246.1 | 7306.1 | 7997.4 | 7687.3 | 6728.7 | 7160.8 | 7834.7 |
| 62.5° | 6904.5 | 6843.5 | 6862.9 | 7065.1 | 7845.9 | 7925.2 | 8605.3 | 8048.2 | 6838.5 | 7274.6 | 7513.5 |
| 65° | 7798.1 | 7693.4 | 7595.9 | 7736.1 | 8690.7 | 8769.0 | 9291.4 | 8331.8 | 6797.8 | 7053.9 | 6660.6 |
| 67.5° | 8923.4 | 8819.8 | 8699.8 | 8832.0 | 9934.9 | 9996.9 | 10138.3 | 8491.4 | 6477.6 | 6204.1 | 5153.0 |
| 70° | 9851.6 | 9812.9 | 9956.3 | 10500.2 | 11922.4 | 11924.3 | 11224.0 | 8359.3 | 5600.3 | 4398.7 | 2981.6 |
| 72.5° | 9728.6 | 9705.2 | 10460.5 | 12141.9 | 14427.2 | 14373.3 | 12251.7 | 7359.0 | 3772.5 | 1984.3 | 1117.2 |
| 75° | 7981.1 | 8132.6 | 9302.6 | 12112.4 | 15326.8 | 15319.8 | 11622.5 | 4678.3 | 1560.5 | 822.4 | 577.4 |
| 77.5° | 4279.8 | 4519.6 | 6039.4 | 8942.8 | 11965.0 | 12145.0 | 8171.2 | 1636.7 | 669.9 | 526.5 | 399.5 |
| 80° | 1395.7 | 1605.1 | 2407.2 | 4553.3 | 7774.7 | 7741.2 | 3502.1 | 642.5 | 458.5 | 373.1 | 276.5 |
| 82.5° | 592.7 | 617.0 | 1075.5 | 2150.0 | 3990.0 | 3928.0 | 1115.2 | 369.0 | 322.3 | 255.1 | 170.8 |
| 85° | 231.8 | 259.2 | 474.8 | 994.2 | 1728.2 | 1690.5 | 402.5 | 183.0 | 206.3 | 166.8 | 101.7 |
| 87.5° | 76.3 | 92.6 | 169.7 | 340.5 | 537.7 | 518.4 | 98.6 | 63.0 | 89.5 | 76.3 | 36.6 |
| 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° | 2505.8 | 2505.8 | 2505.8 | 2505.8 | 2505.8 | 2505.8 | 2505.8 | 2505.8 | 2505.8 | 2505.8 | 2505.8 |
| 2.5° | 2527.2 | 2543.4 | 2562.8 | 2591.2 | 2615.6 | 2636.0 | 2657.3 | 2670.5 | 2675.7 | 2690.8 | 2689.8 |
| 5° | 2545.5 | 2581.1 | 2628.8 | 2675.7 | 2721.4 | 2748.8 | 2773.2 | 2785.4 | 2796.6 | 2804.7 | 2806.8 |
| 7.5° | 2576.0 | 2621.7 | 2697.0 | 2758.0 | 2796.6 | 2819.0 | 2835.3 | 2831.2 | 2835.3 | 2837.2 | 2840.3 |
| 10° | 2602.4 | 2666.4 | 2755.9 | 2813.8 | 2843.4 | 2844.4 | 2840.3 | 2826.0 | 2819.0 | 2820.0 | 2822.0 |
| 12.5° | 2633.9 | 2705.1 | 2801.6 | 2850.4 | 2858.6 | 2836.3 | 2819.0 | 2794.6 | 2785.4 | 2781.3 | 2779.3 |
| 15° | 2676.6 | 2758.0 | 2851.4 | 2869.8 | 2849.4 | 2821.0 | 2791.5 | 2751.8 | 2731.5 | 2715.2 | 2720.4 |
| 17.5° | 2728.4 | 2817.9 | 2890.1 | 2876.9 | 2833.2 | 2786.5 | 2738.6 | 2678.6 | 2637.0 | 2619.7 | 2620.7 |
| 20° | 2800.6 | 2881.0 | 2919.6 | 2861.7 | 2795.6 | 2724.4 | 2643.1 | 2569.9 | 2531.2 | 2514.0 | 2512.0 |
| 22.5° | 2888.0 | 2965.3 | 2948.1 | 2835.3 | 2741.7 | 2627.8 | 2526.2 | 2472.3 | 2453.0 | 2440.8 | 2442.8 |
| 25° | 2992.8 | 3058.9 | 2968.4 | 2796.6 | 2653.2 | 2499.8 | 2421.5 | 2404.2 | 2395.0 | 2385.9 | 2385.9 |
| 27.5° | 3129.0 | 3164.6 | 2983.7 | 2739.6 | 2515.0 | 2363.5 | 2335.1 | 2338.1 | 2335.1 | 2319.8 | 2322.9 |
| 30° | 3308.9 | 3301.8 | 2997.8 | 2647.2 | 2356.4 | 2240.5 | 2242.6 | 2255.8 | 2257.8 | 2247.6 | 2252.7 |
| 32.5° | 3545.8 | 3473.6 | 3005.0 | 2527.2 | 2205.0 | 2132.7 | 2134.8 | 2149.0 | 2159.2 | 2141.9 | 2150.0 |
| 35° | 3832.5 | 3673.9 | 2993.8 | 2376.8 | 2088.0 | 2030.1 | 2014.8 | 2018.9 | 2021.9 | 2005.7 | 2016.9 |
| 37.5° | 4166.9 | 3898.6 | 2944.0 | 2210.0 | 1991.5 | 1929.5 | 1897.0 | 1869.5 | 1853.2 | 1837.9 | 1848.1 |
| 40° | 4533.9 | 4143.6 | 2852.5 | 2047.3 | 1883.7 | 1822.8 | 1773.9 | 1722.1 | 1667.2 | 1646.9 | 1656.0 |
| 42.5° | 4918.2 | 4395.6 | 2741.7 | 1891.8 | 1759.7 | 1709.9 | 1658.0 | 1582.8 | 1500.5 | 1458.8 | 1463.9 |
| 45° | 5316.7 | 4653.9 | 2632.9 | 1738.3 | 1632.6 | 1611.3 | 1551.3 | 1460.8 | 1371.3 | 1318.5 | 1314.5 |
| 47.5° | 5707.0 | 4897.9 | 2473.3 | 1583.8 | 1513.7 | 1537.1 | 1490.2 | 1406.9 | 1307.3 | 1224.0 | 1214.8 |
| 50° | 6080.1 | 5126.5 | 2212.1 | 1427.3 | 1417.1 | 1514.6 | 1470.0 | 1350.0 | 1236.1 | 1129.4 | 1120.2 |
| 52.5° | 6450.1 | 5311.5 | 1877.6 | 1284.9 | 1365.3 | 1508.6 | 1443.5 | 1311.4 | 1172.1 | 1060.3 | 1048.1 |
| 55° | 6764.3 | 5407.2 | 1555.3 | 1163.0 | 1290.1 | 1456.7 | 1412.0 | 1265.7 | 1081.6 | 962.7 | 952.5 |
| 57.5° | 6943.1 | 5329.9 | 1287.0 | 1043.0 | 1186.3 | 1371.3 | 1358.1 | 1168.1 | 973.9 | 882.4 | 870.2 |
| 60° | 6866.0 | 5016.8 | 1067.4 | 938.3 | 1087.7 | 1278.9 | 1264.6 | 1071.4 | 891.5 | 805.1 | 792.9 |
| 62.5° | 6440.0 | 4420.0 | 893.6 | 846.8 | 998.2 | 1184.3 | 1171.1 | 997.2 | 828.5 | 745.2 | 732.0 |
| 65° | 5581.9 | 3595.6 | 758.4 | 770.6 | 907.8 | 1070.4 | 1089.8 | 935.2 | 778.7 | 697.4 | 684.2 |
| 67.5° | 4257.4 | 2604.4 | 652.6 | 704.5 | 819.4 | 958.6 | 1014.5 | 890.5 | 737.0 | 659.8 | 647.6 |
| 70° | 2426.6 | 1479.1 | 563.1 | 640.4 | 741.1 | 855.0 | 956.6 | 855.0 | 692.3 | 628.2 | 620.1 |
| 72.5° | 920.0 | 679.1 | 487.0 | 576.4 | 665.8 | 767.5 | 892.6 | 799.0 | 640.4 | 592.7 | 584.6 |
| 75° | 491.0 | 413.8 | 409.7 | 501.1 | 579.4 | 682.1 | 812.2 | 744.2 | 601.8 | 626.2 | 646.6 |
| 77.5° | 334.5 | 292.7 | 342.6 | 429.0 | 484.9 | 587.5 | 726.8 | 660.8 | 521.5 | 519.5 | 478.8 |
| 80° | 231.8 | 207.4 | 278.5 | 345.6 | 375.2 | 494.0 | 634.4 | 567.2 | 425.0 | 396.5 | 379.1 |
| 82.5° | 139.3 | 135.2 | 208.4 | 258.2 | 265.4 | 381.2 | 525.5 | 475.8 | 347.7 | 302.9 | 304.9 |
| 85° | 76.3 | 80.4 | 133.1 | 151.5 | 154.5 | 266.3 | 411.7 | 368.0 | 267.3 | 224.7 | 226.7 |
| 87.5° | 21.3 | 27.5 | 48.8 | 60.0 | 74.2 | 138.3 | 245.0 | 218.5 | 134.2 | 93.5 | 93.5 |
| 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)