

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: P966594

Luminaire Tested: **NAV-SB4C-722-U-T4W-HSS**

Issue Date: 1/21/2025

Test Information

Test Method: LM-79-08
Report Number: P966594
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2411-289-2)
Test Lab: INNOVATION CENTER
Issue Date: 1/21/2025
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: LUMARK
Catalog Number: NAV-SB4C-722-U-T4W-HSS
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE
(4) 70 CRI, 2200K, 615mA LIGHTSQUARES WITH 26 LEDS EACH AND TYPE IV WIDE
OPTICS WITH HOUSE SIDE SHIELD
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 19576.5 lumens
Efficiency: N/A
Efficacy: 97.5 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')
IES Classification: Type IV - Short
BUG Rating: B2 - U0 - G4

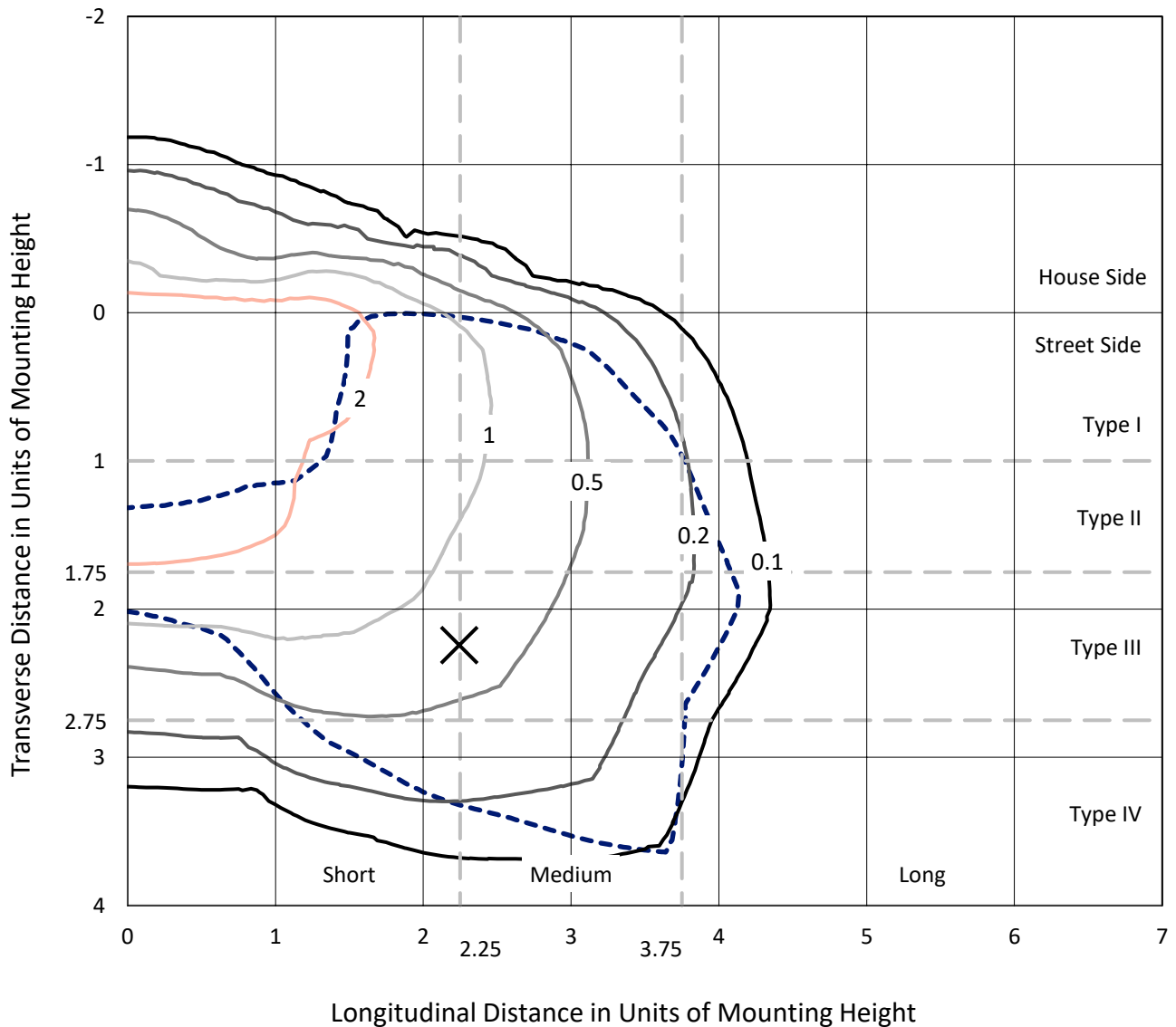
Input Watts (W): 200.7
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Iso-Footcandle Lines of Horizontal Illumination

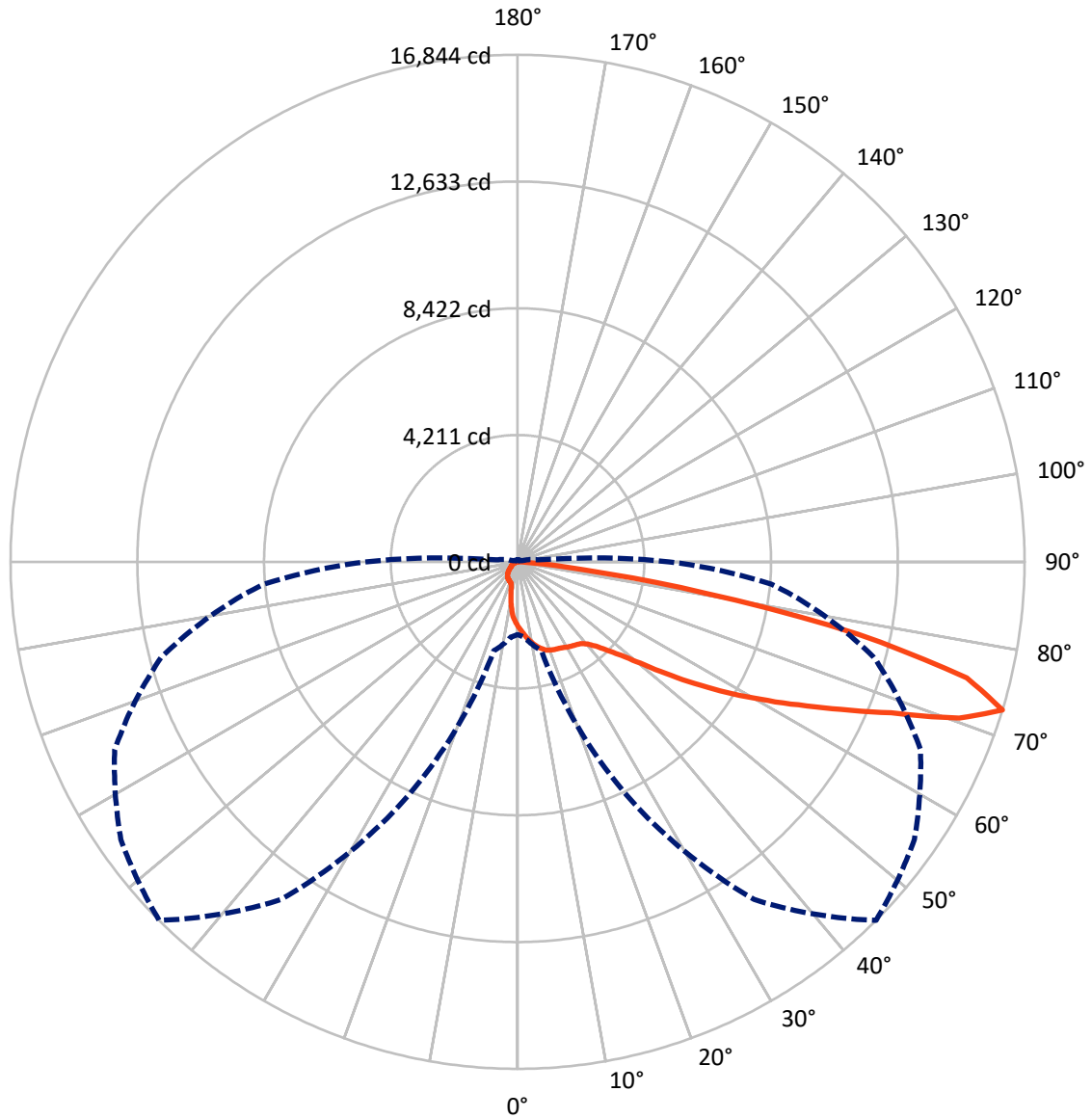
× Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 4.7 fc
 Type IV - Short - N/A

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Luminous Intensity Polar Plot



— Vertical Plane Through 45-Deg Lateral - - - Horizontal Cone Through 72.5-Deg Vertical

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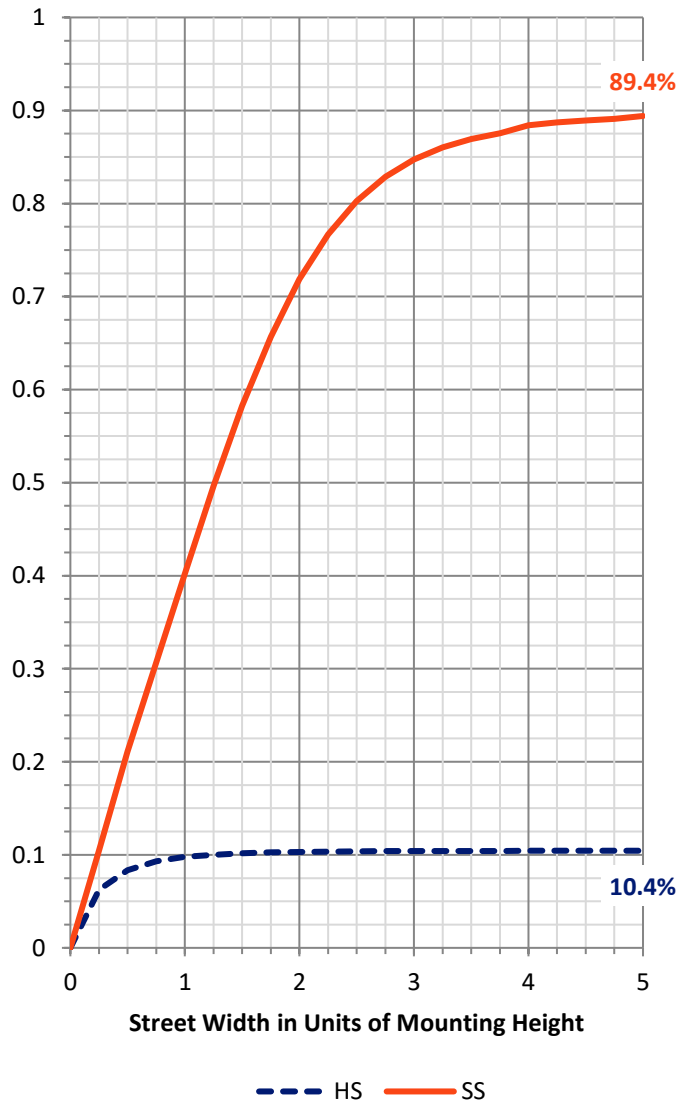
FLUX DISTRIBUTION:

| | | Downward | Upward | Total |
|--------------------|-----------|----------|--------|---------|
| House Side | Lumens | 2056.9 | 0.0 | 2056.9 |
| | % Fixture | 10.5 | 0.0 | 10.5 |
| Street Side | Lumens | 17519.5 | 0.0 | 17519.5 |
| | % Fixture | 89.5 | 0.0 | 89.5 |
| Total | Lumens | 19576.5 | 0.0 | 19576.5 |
| | % Fixture | 100.0 | 0.0 | 100.0 |

ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|---------|-----------|
| 0°-10° | 202.1 | 1.0 |
| 10°-20° | 590.6 | 3.0 |
| 20°-30° | 969.8 | 5.0 |
| 30°-40° | 1375.4 | 7.0 |
| 40°-50° | 2273.4 | 11.6 |
| 50°-60° | 4083.9 | 20.9 |
| 60°-70° | 5670.7 | 29.0 |
| 70°-80° | 4113.3 | 21.0 |
| 80°-90° | 297.4 | 1.5 |
| 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° | 19576.5 | 100.0 |
| 0°-180° | 19576.5 | 100.0 |

Coefficient of Utilization

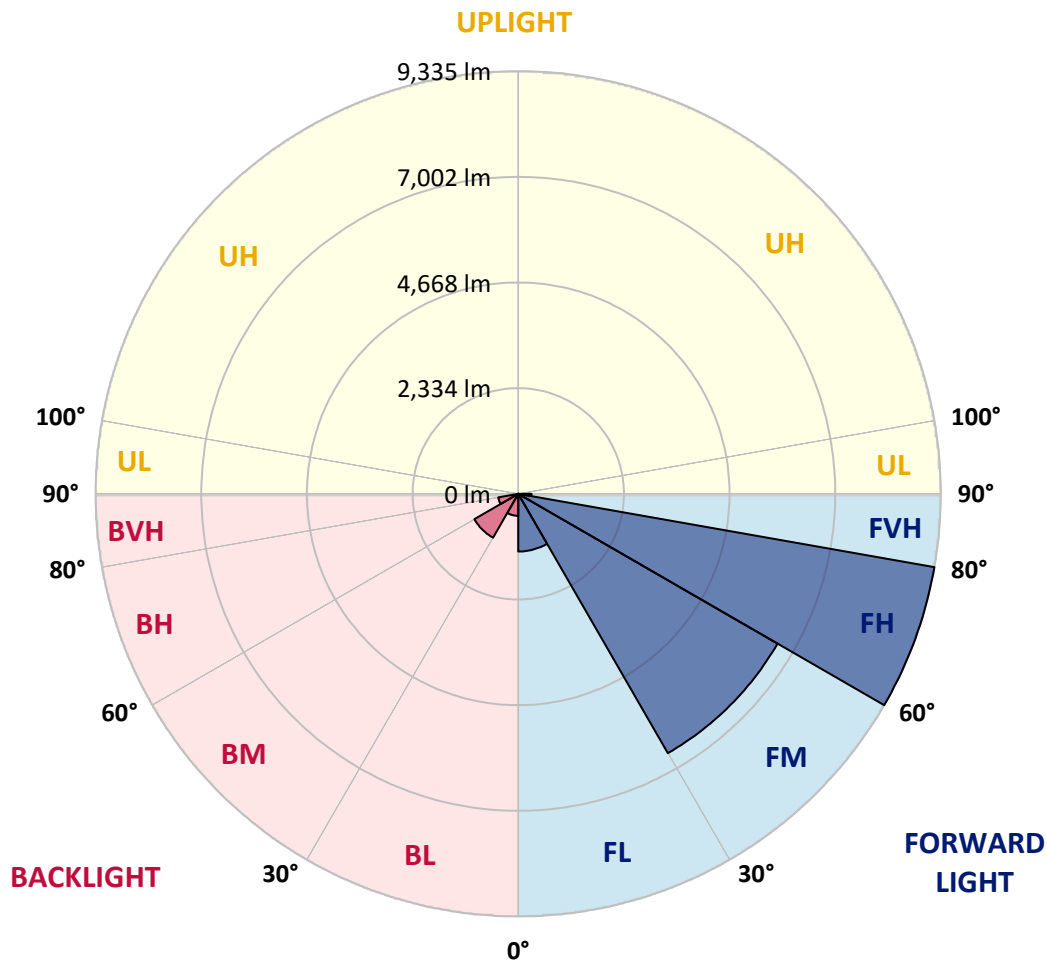


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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

| Zone | Lumens | % Fixture | Zone Rating/Lumen Limit | | |
|----------------|--------|-----------|-------------------------|------|----------|
| | | | B | U | G |
| FL (0°-30°) | 1275.2 | 6.5 | | | |
| FM (30°-60°) | 6614.0 | 33.8 | | | |
| FH (60°-80°) | 9335.5 | 47.7 | | | G4/12000 |
| FVH (80°-90°) | 294.9 | 1.5 | | | G3/500 |
| BL (0°-30°) | 487.2 | 2.5 | B1/500 | | |
| BM (30°-60°) | 1118.7 | 5.7 | B2/2500 | | |
| BH (60°-80°) | 448.5 | 2.3 | B1/500 | | G1/500 |
| BVH (80°-90°) | 2.5 | 0.0 | | | G0/10 |
| UL (90°-100°) | 0.0 | 0.0 | | U0/0 | |
| UH (100°-180°) | 0.0 | 0.0 | | U0/0 | |

BUG Rating: B2-U0-G4
 Type IV Short



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CANDELA DISTRIBUTION (FULL):

| | 0° | 5° | 15° | 25° | 35° | 45° | 46° | 55° | 65° | 75° | 85° |
|-------|--------|--------|---------|---------|---------|---------|---------|---------|---------|---------|---------|
| 0° | 2144.6 | 2144.6 | 2144.6 | 2144.6 | 2144.6 | 2144.6 | 2144.6 | 2144.6 | 2144.6 | 2144.6 | 2144.6 |
| 2.5° | 2342.4 | 2346.4 | 2343.8 | 2327.7 | 2301.0 | 2286.3 | 2278.3 | 2251.5 | 2234.2 | 2203.4 | 2171.4 |
| 5° | 2557.6 | 2573.6 | 2564.2 | 2532.2 | 2481.4 | 2445.3 | 2434.6 | 2379.8 | 2330.3 | 2272.9 | 2206.1 |
| 7.5° | 2786.1 | 2794.0 | 2776.7 | 2735.2 | 2667.2 | 2605.7 | 2596.3 | 2520.2 | 2441.2 | 2353.1 | 2262.3 |
| 10° | 2983.8 | 2993.1 | 2966.5 | 2906.3 | 2828.8 | 2752.6 | 2739.3 | 2655.1 | 2561.6 | 2453.3 | 2337.1 |
| 12.5° | 3149.5 | 3158.8 | 3124.1 | 3051.9 | 2966.5 | 2887.6 | 2874.2 | 2786.1 | 2683.1 | 2562.9 | 2418.6 |
| 15° | 3275.1 | 3292.5 | 3245.7 | 3168.2 | 3076.0 | 2997.2 | 2990.4 | 2903.6 | 2803.4 | 2669.8 | 2516.1 |
| 17.5° | 3348.6 | 3366.0 | 3321.8 | 3228.3 | 3149.5 | 3082.7 | 3074.7 | 3002.5 | 2909.0 | 2780.7 | 2611.0 |
| 20° | 3360.6 | 3376.7 | 3329.9 | 3248.3 | 3182.9 | 3129.4 | 3125.4 | 3073.4 | 3005.2 | 2882.2 | 2713.9 |
| 22.5° | 3324.5 | 3344.6 | 3301.8 | 3236.3 | 3190.9 | 3162.8 | 3157.5 | 3128.1 | 3089.4 | 2985.1 | 2810.0 |
| 25° | 3287.1 | 3303.2 | 3271.1 | 3213.6 | 3189.6 | 3186.9 | 3190.9 | 3185.6 | 3177.5 | 3089.4 | 2922.4 |
| 27.5° | 3284.4 | 3301.8 | 3265.8 | 3210.9 | 3197.6 | 3225.7 | 3229.7 | 3255.1 | 3261.8 | 3184.3 | 3030.5 |
| 30° | 3307.2 | 3319.2 | 3284.4 | 3227.0 | 3220.3 | 3284.4 | 3285.7 | 3331.2 | 3341.9 | 3264.4 | 3137.4 |
| 32.5° | 3356.6 | 3370.0 | 3335.2 | 3251.0 | 3241.7 | 3331.2 | 3335.2 | 3395.3 | 3412.7 | 3349.9 | 3249.7 |
| 35° | 3472.9 | 3488.9 | 3448.8 | 3317.8 | 3284.4 | 3375.3 | 3387.3 | 3458.1 | 3492.9 | 3440.8 | 3366.0 |
| 37.5° | 3762.8 | 3716.0 | 3661.3 | 3452.8 | 3382.0 | 3444.8 | 3464.8 | 3547.7 | 3609.1 | 3549.1 | 3504.9 |
| 40° | 4483.0 | 4336.1 | 4165.0 | 3682.6 | 3553.1 | 3593.1 | 3609.1 | 3691.9 | 3776.2 | 3717.4 | 3696.0 |
| 42.5° | 5564.0 | 5390.4 | 5115.1 | 4211.8 | 3811.0 | 3830.9 | 3843.0 | 3915.2 | 4034.1 | 3987.4 | 3992.7 |
| 45° | 6527.5 | 6464.7 | 6184.0 | 5115.1 | 4293.3 | 4194.4 | 4209.2 | 4246.6 | 4421.5 | 4404.2 | 4439.0 |
| 47.5° | 7267.8 | 7231.7 | 7015.2 | 6151.9 | 5108.4 | 4639.4 | 4680.8 | 4698.2 | 4950.8 | 5012.1 | 5105.7 |
| 50° | 7836.9 | 7823.6 | 7629.9 | 7073.9 | 6173.4 | 5295.5 | 5310.2 | 5272.7 | 5650.9 | 5803.2 | 5981.0 |
| 52.5° | 8374.1 | 8419.6 | 8276.6 | 7930.5 | 7310.5 | 6154.6 | 6151.9 | 5975.6 | 6486.1 | 6715.9 | 7019.2 |
| 55° | 8859.2 | 8875.3 | 8889.9 | 8804.4 | 8454.3 | 7132.8 | 7107.4 | 6818.8 | 7454.8 | 7692.6 | 8021.3 |
| 57.5° | 9314.8 | 9321.6 | 9452.4 | 9627.5 | 9644.8 | 8183.1 | 8136.2 | 7790.2 | 8513.1 | 8682.8 | 8884.6 |
| 60° | 9620.9 | 9651.6 | 9928.2 | 10414.5 | 10627.0 | 9266.7 | 9241.3 | 8888.6 | 9590.1 | 9668.9 | 9631.5 |
| 62.5° | 9179.9 | 9367.0 | 10064.5 | 11029.2 | 11554.3 | 10468.0 | 10456.0 | 10124.6 | 10723.2 | 10659.1 | 10338.4 |
| 65° | 7430.7 | 7747.5 | 8974.1 | 11444.7 | 12464.3 | 11809.5 | 11827.0 | 11474.2 | 11887.0 | 11678.6 | 10913.0 |
| 67.5° | 5197.9 | 5532.0 | 6983.1 | 11478.2 | 13481.2 | 13385.0 | 13485.2 | 12932.0 | 13123.1 | 12655.4 | 11049.3 |
| 70° | 3594.5 | 3766.9 | 4711.5 | 10759.3 | 14273.5 | 15555.0 | 15552.3 | 14722.6 | 14352.5 | 13100.3 | 10354.4 |
| 72.5° | 2417.3 | 2506.7 | 3059.9 | 8535.8 | 13691.0 | 16844.4 | 16766.9 | 16090.9 | 14766.7 | 12251.8 | 8459.6 |
| 75° | 1019.6 | 1085.1 | 1416.4 | 4797.1 | 10831.5 | 15410.7 | 15201.0 | 14220.1 | 13120.4 | 9647.6 | 5278.1 |
| 77.5° | 323.4 | 351.5 | 558.5 | 1717.1 | 5966.2 | 11583.7 | 11361.9 | 8880.6 | 8793.7 | 4839.8 | 1929.6 |
| 80° | 153.6 | 179.1 | 314.1 | 689.5 | 2347.8 | 6300.3 | 6269.6 | 4028.8 | 3782.9 | 1306.9 | 387.6 |
| 82.5° | 66.8 | 78.8 | 173.7 | 368.8 | 1050.3 | 2247.5 | 2292.9 | 1370.9 | 1134.5 | 495.7 | 118.9 |
| 85° | 21.4 | 28.1 | 80.2 | 169.7 | 443.6 | 558.5 | 551.9 | 326.1 | 456.9 | 269.9 | 41.4 |
| 87.5° | 0.0 | 0.0 | 26.8 | 38.7 | 45.4 | 32.1 | 36.1 | 28.1 | 126.9 | 74.8 | 14.7 |
| 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° | 2144.6 | 2144.6 | 2144.6 | 2144.6 | 2144.6 | 2144.6 | 2144.6 | 2144.6 | 2144.6 | 2144.6 | 2144.6 |
| 2.5° | 2155.4 | 2133.9 | 2096.5 | 2061.8 | 2031.0 | 2000.3 | 1981.6 | 1954.9 | 1952.2 | 1952.2 | 1958.9 |
| 5° | 2170.0 | 2135.3 | 2068.4 | 1997.6 | 1916.1 | 1838.6 | 1761.2 | 1686.3 | 1662.2 | 1644.9 | 1652.9 |
| 7.5° | 2212.8 | 2158.0 | 2052.5 | 1917.5 | 1762.5 | 1592.7 | 1473.8 | 1345.6 | 1296.1 | 1269.5 | 1273.5 |
| 10° | 2274.3 | 2199.4 | 2039.0 | 1802.6 | 1551.3 | 1320.2 | 1150.5 | 1011.6 | 958.1 | 935.3 | 935.3 |
| 12.5° | 2342.4 | 2250.2 | 2015.0 | 1659.6 | 1320.2 | 1043.6 | 877.9 | 813.7 | 805.8 | 805.8 | 805.8 |
| 15° | 2423.9 | 2311.7 | 1973.6 | 1491.3 | 1078.3 | 825.7 | 767.0 | 769.7 | 777.7 | 783.0 | 783.0 |
| 17.5° | 2508.1 | 2377.2 | 1908.1 | 1302.8 | 864.6 | 742.9 | 744.3 | 748.2 | 755.0 | 760.3 | 760.3 |
| 20° | 2599.0 | 2442.6 | 1821.3 | 1102.4 | 741.6 | 718.9 | 722.9 | 726.9 | 732.3 | 734.9 | 736.3 |
| 22.5° | 2696.5 | 2504.1 | 1718.4 | 906.0 | 700.2 | 698.8 | 700.2 | 704.2 | 710.8 | 710.8 | 713.5 |
| 25° | 2800.7 | 2572.2 | 1600.8 | 763.0 | 678.8 | 678.8 | 681.5 | 684.2 | 689.5 | 689.5 | 690.8 |
| 27.5° | 2907.6 | 2635.1 | 1476.5 | 688.2 | 660.1 | 658.8 | 658.8 | 662.8 | 665.4 | 666.8 | 668.1 |
| 30° | 3025.2 | 2708.6 | 1352.3 | 672.1 | 645.4 | 638.7 | 634.7 | 637.3 | 640.0 | 641.3 | 644.1 |
| 32.5° | 3145.5 | 2779.4 | 1241.4 | 678.8 | 630.7 | 618.7 | 605.3 | 602.6 | 602.6 | 608.0 | 612.0 |
| 35° | 3279.1 | 2856.9 | 1155.8 | 701.5 | 622.7 | 589.3 | 567.8 | 555.9 | 557.2 | 565.2 | 569.2 |
| 37.5° | 3439.5 | 2950.4 | 1093.1 | 721.6 | 617.4 | 555.9 | 521.1 | 506.5 | 497.1 | 506.5 | 503.8 |
| 40° | 3649.2 | 3088.0 | 1047.7 | 737.6 | 610.7 | 517.1 | 470.4 | 446.3 | 429.0 | 434.3 | 431.6 |
| 42.5° | 3957.9 | 3304.5 | 1030.2 | 738.9 | 595.9 | 471.7 | 418.2 | 386.2 | 360.8 | 362.1 | 356.8 |
| 45° | 4390.8 | 3646.5 | 1119.7 | 721.6 | 563.9 | 422.2 | 363.5 | 320.7 | 304.6 | 300.6 | 295.3 |
| 47.5° | 4984.2 | 4145.0 | 1326.9 | 685.5 | 517.1 | 374.1 | 310.0 | 273.9 | 261.9 | 255.2 | 251.2 |
| 50° | 5779.2 | 4785.0 | 1556.7 | 645.4 | 470.4 | 328.7 | 265.9 | 243.2 | 235.1 | 228.5 | 227.1 |
| 52.5° | 6701.1 | 5434.4 | 1745.1 | 605.3 | 423.6 | 288.6 | 237.8 | 224.5 | 217.8 | 212.5 | 211.2 |
| 55° | 7547.0 | 5882.1 | 1734.4 | 562.5 | 378.1 | 256.6 | 217.8 | 209.8 | 201.7 | 196.4 | 193.7 |
| 57.5° | 8073.5 | 5944.9 | 1429.8 | 515.8 | 326.1 | 231.1 | 199.1 | 193.7 | 184.4 | 177.7 | 176.4 |
| 60° | 8315.3 | 5586.8 | 1002.1 | 454.3 | 273.9 | 207.2 | 179.1 | 176.4 | 164.3 | 155.0 | 152.3 |
| 62.5° | 8359.4 | 4921.3 | 668.1 | 378.1 | 228.5 | 184.4 | 159.0 | 155.0 | 139.0 | 122.9 | 114.9 |
| 65° | 8180.4 | 3969.9 | 462.4 | 295.3 | 195.1 | 160.3 | 136.3 | 128.2 | 110.9 | 94.9 | 89.5 |
| 67.5° | 7613.8 | 2787.4 | 322.1 | 212.5 | 165.7 | 126.9 | 108.2 | 105.6 | 92.2 | 78.8 | 74.8 |
| 70° | 6575.6 | 1588.7 | 215.1 | 159.0 | 131.0 | 86.8 | 85.5 | 88.1 | 74.8 | 64.2 | 58.8 |
| 72.5° | 5041.6 | 726.9 | 133.7 | 116.2 | 89.5 | 58.8 | 68.2 | 69.5 | 57.5 | 48.1 | 42.7 |
| 75° | 2967.8 | 311.3 | 84.2 | 74.8 | 45.4 | 38.7 | 49.4 | 50.7 | 38.7 | 30.7 | 26.8 |
| 77.5° | 1010.1 | 117.6 | 53.4 | 44.1 | 22.8 | 21.4 | 32.1 | 32.1 | 21.4 | 12.0 | 9.3 |
| 80° | 229.8 | 44.1 | 26.8 | 17.3 | 10.7 | 9.3 | 10.7 | 9.3 | 5.3 | 1.3 | 0.0 |
| 82.5° | 65.5 | 17.3 | 10.7 | 6.7 | 4.0 | 4.0 | 1.3 | 0.0 | 0.0 | 0.0 | 0.0 |
| 85° | 18.8 | 8.0 | 2.7 | 2.7 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 87.5° | 8.0 | 1.3 | 0.0 | 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)