

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: P964499

Luminaire Tested: **NAV-SB3C-727-U-SL4**

Issue Date: 1/21/2025

Test Information

Test Method: LM-79-08
Report Number: P964499
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2405-108-9)
Test Lab: INNOVATION CENTER
Issue Date: 1/21/2025
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: LUMARK
Catalog Number: NAV-SB3C-727-U-SL4
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE
(3) 70 CRI, 2700K, 615mA LIGHTSQUARES WITH 26 LEDS EACH AND TYPE IV SPILL
LIGHT ELIMINATOR OPTICS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 21176.5 lumens
Efficiency: N/A
Efficacy: 142.0 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')
IES Classification: Type IV - Medium
BUG Rating: B3 - U0 - G4

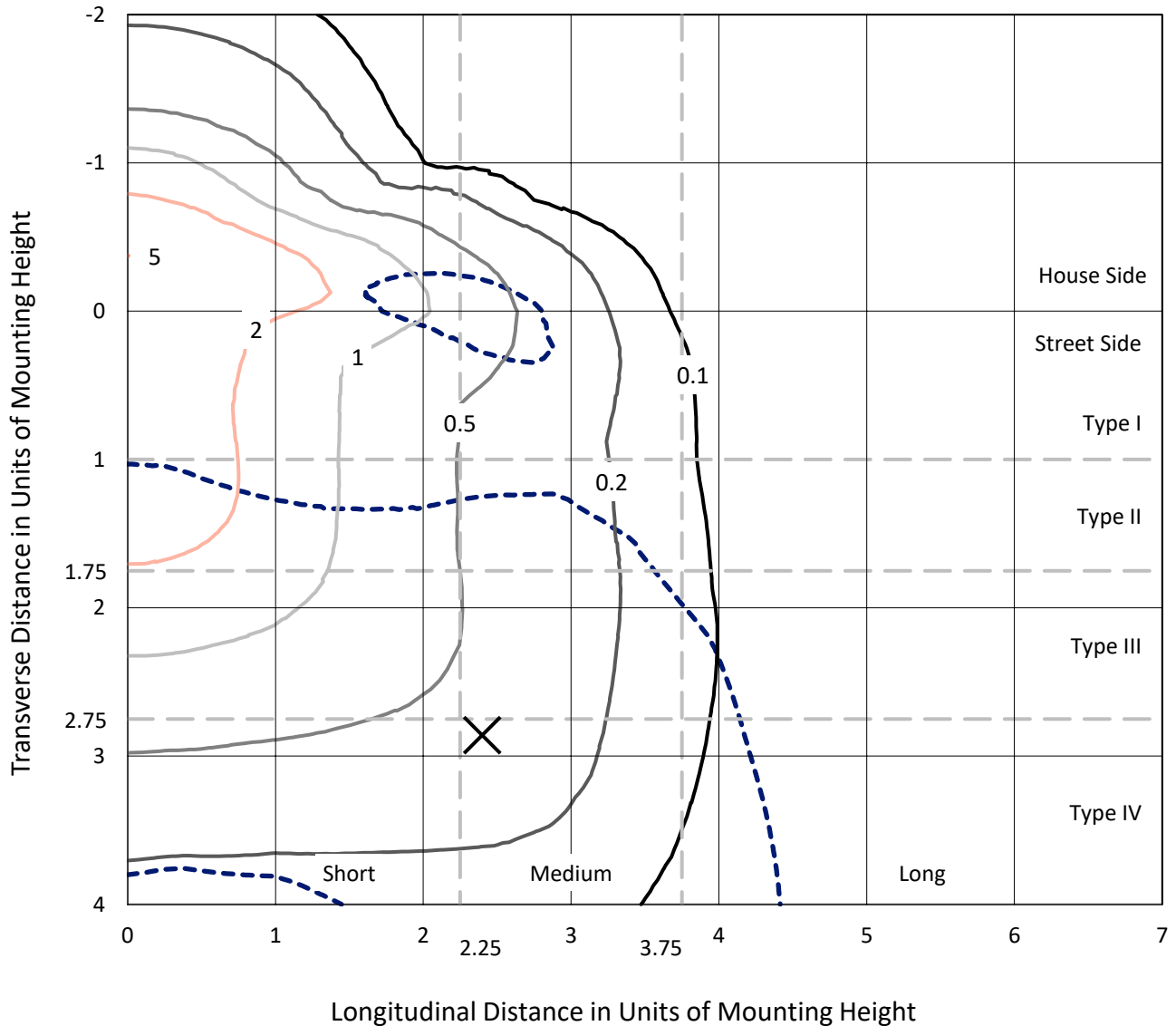
Input Watts (W): 149.1
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Iso-Footcandle Lines of Horizontal Illumination

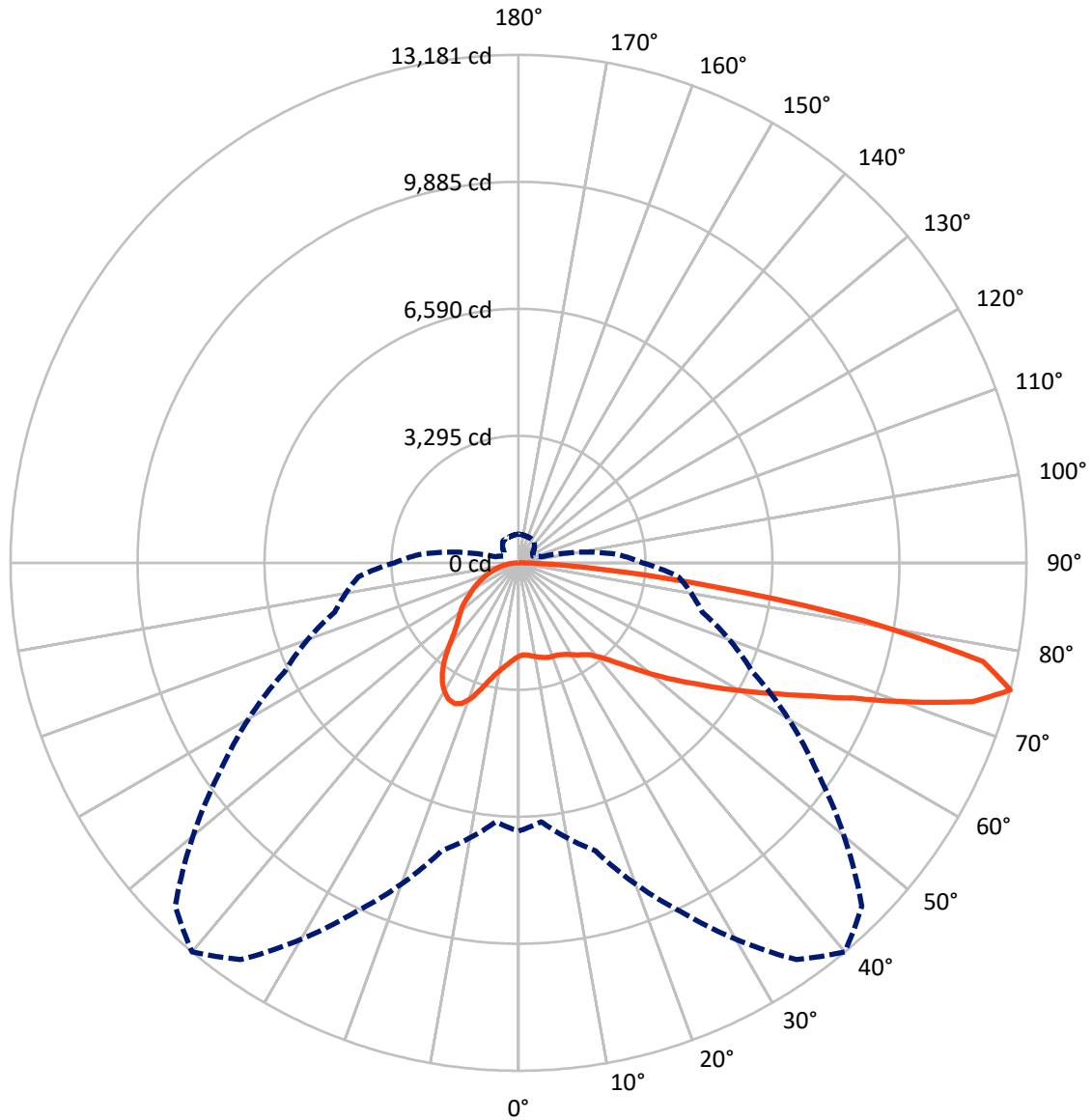
✕ Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 5 fc
 Type IV - Medium - N/A

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Luminous Intensity Polar Plot



— Vertical Plane Through 40-Deg Lateral - - - Horizontal Cone Through 75-Deg Vertical

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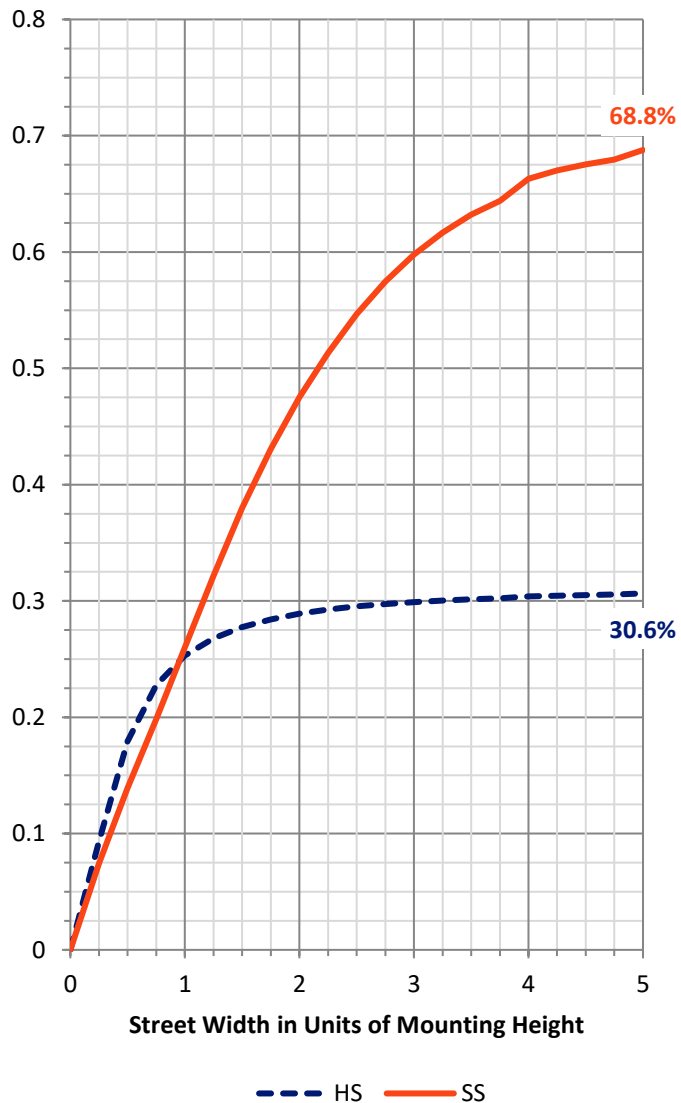
FLUX DISTRIBUTION:

| | | Downward | Upward | Total |
|--------------------|-----------|----------|--------|---------|
| House Side | Lumens | 6561.2 | 0.0 | 6561.2 |
| | % Fixture | 31.0 | 0.0 | 31.0 |
| Street Side | Lumens | 14615.3 | 0.0 | 14615.3 |
| | % Fixture | 69.0 | 0.0 | 69.0 |
| Total | Lumens | 21176.5 | 0.0 | 21176.5 |
| | % Fixture | 100.0 | 0.0 | 100.0 |

ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|---------|-----------|
| 0°-10° | 241.7 | 1.1 |
| 10°-20° | 811.6 | 3.8 |
| 20°-30° | 1481.8 | 7.0 |
| 30°-40° | 2101.7 | 9.9 |
| 40°-50° | 2837.9 | 13.4 |
| 50°-60° | 3817.7 | 18.0 |
| 60°-70° | 4845.5 | 22.9 |
| 70°-80° | 4397.6 | 20.8 |
| 80°-90° | 641.0 | 3.0 |
| 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° | 21176.5 | 100.0 |
| 0°-180° | 21176.5 | 100.0 |

Coefficient of Utilization

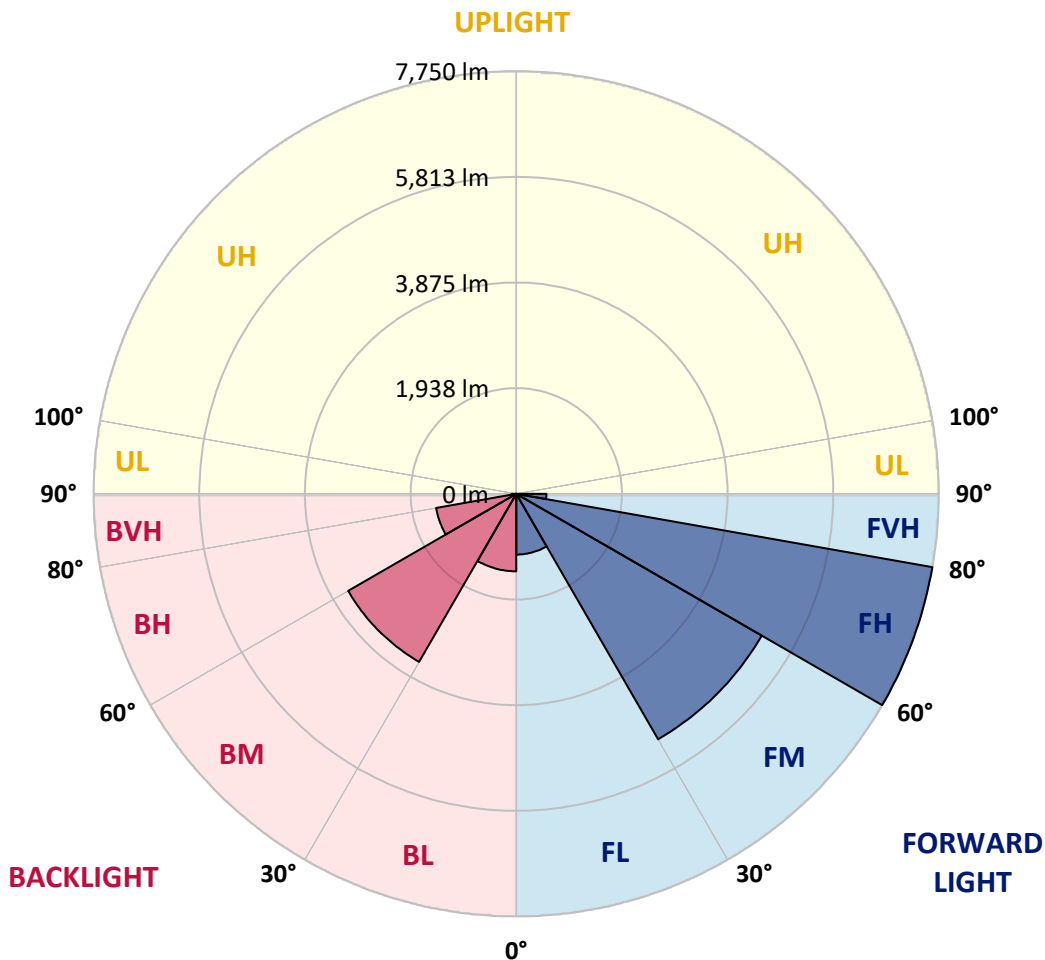


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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

| Zone | Lumens | % Fixture | Zone Rating/Lumen Limit | | |
|----------------|--------|-----------|-------------------------|------|----------|
| | | | B | U | G |
| FL (0°-30°) | 1113.9 | 5.3 | | | |
| FM (30°-60°) | 5198.4 | 24.5 | | | |
| FH (60°-80°) | 7750.3 | 36.6 | | | G4/12000 |
| FVH (80°-90°) | 552.8 | 2.6 | | | G4/750 |
| BL (0°-30°) | 1421.2 | 6.7 | B3/2500 | | |
| BM (30°-60°) | 3558.9 | 16.8 | B3/5000 | | |
| BH (60°-80°) | 1492.9 | 7.0 | B3/2500 | | G3/2500 |
| BVH (80°-90°) | 88.3 | 0.4 | | | G1/100 |
| UL (90°-100°) | 0.0 | 0.0 | | U0/0 | |
| UH (100°-180°) | 0.0 | 0.0 | | U0/0 | |

BUG Rating: B3-U0-G4
 Type IV Medium



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CANDELA DISTRIBUTION (FULL):

| | 0° | 5° | 15° | 25° | 35° | 40° | 45° | 55° | 65° | 75° | 85° |
|-------|---------|---------|---------|---------|---------|---------|---------|--------|--------|--------|--------|
| 0° | 2421.6 | 2421.6 | 2421.6 | 2421.6 | 2421.6 | 2421.6 | 2421.6 | 2421.6 | 2421.6 | 2421.6 | 2421.6 |
| 2.5° | 2384.5 | 2398.0 | 2394.6 | 2390.1 | 2390.1 | 2391.2 | 2390.1 | 2398.0 | 2405.9 | 2413.7 | 2426.1 |
| 5° | 2409.2 | 2422.7 | 2415.9 | 2410.3 | 2405.9 | 2404.8 | 2401.4 | 2400.2 | 2404.8 | 2414.8 | 2431.7 |
| 7.5° | 2457.5 | 2471.0 | 2460.9 | 2450.8 | 2441.8 | 2437.2 | 2432.8 | 2426.1 | 2422.7 | 2428.3 | 2451.9 |
| 10° | 2511.5 | 2524.9 | 2512.6 | 2494.5 | 2480.0 | 2474.4 | 2469.8 | 2463.1 | 2458.7 | 2461.9 | 2487.8 |
| 12.5° | 2565.4 | 2578.8 | 2562.0 | 2537.3 | 2518.1 | 2514.7 | 2509.2 | 2506.9 | 2505.8 | 2504.7 | 2530.5 |
| 15° | 2615.9 | 2627.1 | 2605.8 | 2576.5 | 2556.4 | 2550.7 | 2545.1 | 2548.5 | 2554.1 | 2560.9 | 2590.1 |
| 17.5° | 2655.2 | 2666.4 | 2635.0 | 2596.7 | 2577.7 | 2575.4 | 2572.0 | 2583.3 | 2599.0 | 2615.9 | 2651.8 |
| 20° | 2691.1 | 2702.3 | 2661.9 | 2610.3 | 2587.8 | 2587.8 | 2588.9 | 2612.5 | 2635.0 | 2659.7 | 2709.1 |
| 22.5° | 2741.7 | 2750.7 | 2701.2 | 2630.5 | 2597.9 | 2600.1 | 2609.1 | 2632.7 | 2660.8 | 2694.5 | 2763.0 |
| 25° | 2816.9 | 2823.7 | 2763.0 | 2668.7 | 2631.6 | 2638.4 | 2646.2 | 2657.4 | 2684.4 | 2723.7 | 2815.8 |
| 27.5° | 2938.3 | 2943.8 | 2864.1 | 2736.0 | 2679.9 | 2691.1 | 2702.3 | 2694.5 | 2706.8 | 2740.5 | 2858.5 |
| 30° | 3108.9 | 3112.3 | 3011.2 | 2841.6 | 2761.9 | 2767.5 | 2769.8 | 2737.2 | 2713.6 | 2740.5 | 2888.8 |
| 32.5° | 3311.2 | 3310.0 | 3189.8 | 2969.6 | 2855.1 | 2849.5 | 2830.4 | 2766.4 | 2711.3 | 2734.9 | 2915.7 |
| 35° | 3624.5 | 3612.1 | 3457.1 | 3149.4 | 2960.7 | 2925.9 | 2881.0 | 2799.0 | 2722.6 | 2729.3 | 2939.4 |
| 37.5° | 4143.4 | 4105.2 | 3890.7 | 3443.7 | 3117.9 | 3029.2 | 2963.0 | 2851.8 | 2747.3 | 2727.1 | 2967.4 |
| 40° | 4728.5 | 4680.3 | 4444.4 | 3846.8 | 3353.8 | 3211.1 | 3104.4 | 2927.0 | 2787.7 | 2737.2 | 3009.0 |
| 42.5° | 5422.7 | 5354.2 | 5100.3 | 4322.0 | 3652.6 | 3445.8 | 3285.3 | 3022.4 | 2847.2 | 2769.8 | 3065.2 |
| 45° | 6275.2 | 6184.2 | 5824.8 | 4857.7 | 4028.9 | 3753.7 | 3539.1 | 3167.4 | 2938.3 | 2832.7 | 3149.4 |
| 47.5° | 7136.7 | 7159.1 | 6648.0 | 5470.9 | 4480.4 | 4133.3 | 3857.0 | 3385.3 | 3070.8 | 2933.8 | 3285.3 |
| 50° | 8052.0 | 8067.8 | 7466.8 | 6150.5 | 4992.5 | 4562.4 | 4214.2 | 3629.0 | 3255.0 | 3077.5 | 3488.6 |
| 52.5° | 8766.4 | 8768.6 | 8210.4 | 6861.5 | 5526.0 | 5034.1 | 4599.4 | 3907.5 | 3468.4 | 3268.4 | 3759.3 |
| 55° | 9213.4 | 9207.8 | 8731.6 | 7534.3 | 6139.2 | 5529.4 | 5026.2 | 4224.2 | 3729.0 | 3493.1 | 4099.6 |
| 57.5° | 9538.0 | 9521.1 | 9090.9 | 8112.7 | 6793.0 | 6114.5 | 5509.2 | 4583.7 | 4036.7 | 3760.4 | 4547.7 |
| 60° | 9661.5 | 9651.4 | 9334.7 | 8612.5 | 7480.3 | 6761.5 | 6066.3 | 4985.8 | 4386.0 | 4076.0 | 5123.9 |
| 62.5° | 9708.7 | 9727.8 | 9573.9 | 9096.6 | 8216.0 | 7478.1 | 6678.4 | 5466.5 | 4779.1 | 4433.1 | 5731.6 |
| 65° | 9875.0 | 9909.8 | 9878.3 | 9730.0 | 9047.2 | 8317.1 | 7490.4 | 6038.2 | 5208.1 | 4816.2 | 6366.2 |
| 67.5° | 10204.0 | 10238.8 | 10252.4 | 10488.2 | 10062.5 | 9362.8 | 8503.5 | 6750.2 | 5710.2 | 5213.8 | 6843.5 |
| 70° | 10196.2 | 10186.0 | 10424.1 | 11091.3 | 11333.9 | 10810.6 | 9869.3 | 7626.3 | 6308.9 | 5544.0 | 6904.2 |
| 72.5° | 9280.8 | 9199.9 | 9762.6 | 11084.6 | 12391.9 | 12322.3 | 11537.2 | 8756.3 | 6825.5 | 5584.4 | 5991.0 |
| 75° | 6962.5 | 6746.9 | 7740.9 | 9989.5 | 12568.3 | 13180.5 | 12597.6 | 9457.2 | 6703.1 | 4934.1 | 4169.2 |
| 77.5° | 2977.5 | 2760.7 | 3932.2 | 7395.0 | 11248.6 | 12321.2 | 11624.8 | 8250.8 | 5350.8 | 3262.8 | 2047.5 |
| 80° | 779.5 | 778.4 | 1188.3 | 3352.7 | 7649.9 | 9098.8 | 7982.4 | 5328.4 | 3057.3 | 1165.8 | 565.0 |
| 82.5° | 322.4 | 314.5 | 437.0 | 1304.0 | 3738.0 | 5105.9 | 4166.9 | 2376.7 | 1104.1 | 315.6 | 187.6 |
| 85° | 120.1 | 119.1 | 212.3 | 450.4 | 1318.6 | 2106.0 | 1524.2 | 607.6 | 275.2 | 153.9 | 84.3 |
| 87.5° | 33.7 | 32.6 | 46.0 | 156.1 | 321.2 | 487.5 | 260.6 | 99.9 | 77.5 | 60.7 | 24.7 |
| 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° | 2421.6 | 2421.6 | 2421.6 | 2421.6 | 2421.6 | 2421.6 | 2421.6 | 2421.6 | 2421.6 | 2421.6 | 2421.6 |
| 2.5° | 2429.5 | 2435.0 | 2445.1 | 2453.0 | 2463.1 | 2474.4 | 2490.0 | 2500.2 | 2510.3 | 2517.0 | 2512.6 |
| 5° | 2439.5 | 2451.9 | 2477.7 | 2503.6 | 2533.9 | 2562.0 | 2594.5 | 2618.2 | 2637.2 | 2642.9 | 2645.1 |
| 7.5° | 2461.9 | 2482.2 | 2526.0 | 2569.8 | 2618.2 | 2664.2 | 2711.3 | 2751.8 | 2784.3 | 2796.7 | 2797.8 |
| 10° | 2501.3 | 2528.3 | 2590.1 | 2651.8 | 2715.8 | 2786.6 | 2847.2 | 2905.7 | 2951.7 | 2970.8 | 2971.9 |
| 12.5° | 2550.7 | 2584.4 | 2665.3 | 2750.7 | 2839.4 | 2937.1 | 3015.8 | 3087.6 | 3144.9 | 3170.7 | 3170.7 |
| 15° | 2614.8 | 2658.5 | 2761.9 | 2876.5 | 3006.7 | 3142.6 | 3242.6 | 3322.3 | 3386.4 | 3417.9 | 3415.6 |
| 17.5° | 2684.4 | 2742.8 | 2873.1 | 3046.1 | 3232.5 | 3411.1 | 3527.8 | 3586.3 | 3652.6 | 3682.9 | 3681.8 |
| 20° | 2751.8 | 2823.7 | 3010.1 | 3261.7 | 3509.9 | 3699.7 | 3794.0 | 3809.8 | 3814.3 | 3817.7 | 3826.6 |
| 22.5° | 2821.4 | 2918.0 | 3181.9 | 3533.5 | 3799.7 | 3931.1 | 3944.6 | 3877.2 | 3782.9 | 3739.0 | 3751.4 |
| 25° | 2897.8 | 3025.8 | 3406.6 | 3833.4 | 4049.1 | 4064.7 | 3961.4 | 3797.4 | 3618.9 | 3536.9 | 3549.3 |
| 27.5° | 2971.9 | 3150.5 | 3676.2 | 4119.8 | 4228.7 | 4090.6 | 3868.2 | 3635.7 | 3420.0 | 3333.6 | 3343.7 |
| 30° | 3046.1 | 3293.1 | 3973.8 | 4370.3 | 4310.7 | 4026.6 | 3721.1 | 3461.6 | 3244.8 | 3153.8 | 3164.0 |
| 32.5° | 3121.3 | 3459.4 | 4316.4 | 4551.1 | 4296.2 | 3890.7 | 3538.0 | 3266.2 | 3075.2 | 2979.8 | 2992.2 |
| 35° | 3206.6 | 3663.8 | 4641.0 | 4649.9 | 4198.4 | 3690.7 | 3296.5 | 3032.6 | 2866.3 | 2789.9 | 2806.9 |
| 37.5° | 3317.8 | 3923.3 | 4927.4 | 4674.6 | 4027.7 | 3397.6 | 2996.6 | 2756.2 | 2619.3 | 2584.4 | 2609.1 |
| 40° | 3456.0 | 4235.5 | 5146.4 | 4635.4 | 3775.0 | 3041.6 | 2668.7 | 2476.6 | 2399.1 | 2407.0 | 2434.0 |
| 42.5° | 3635.7 | 4584.8 | 5300.3 | 4534.3 | 3423.4 | 2674.2 | 2381.2 | 2295.8 | 2332.8 | 2364.3 | 2393.5 |
| 45° | 3869.4 | 4947.6 | 5395.7 | 4362.4 | 3025.8 | 2363.1 | 2211.5 | 2231.7 | 2259.8 | 2263.2 | 2285.6 |
| 47.5° | 4168.1 | 5314.8 | 5458.6 | 4103.0 | 2620.4 | 2144.1 | 2103.7 | 2108.2 | 2102.6 | 2079.0 | 2096.9 |
| 50° | 4541.0 | 5672.0 | 5514.8 | 3759.3 | 2275.5 | 2007.2 | 1953.2 | 1937.5 | 1860.0 | 1783.6 | 1793.7 |
| 52.5° | 4965.5 | 5999.9 | 5538.4 | 3332.5 | 2007.2 | 1892.6 | 1804.9 | 1706.1 | 1561.2 | 1537.6 | 1545.5 |
| 55° | 5437.3 | 6303.2 | 5477.7 | 2807.9 | 1781.3 | 1745.4 | 1612.8 | 1493.8 | 1478.0 | 1457.9 | 1461.2 |
| 57.5° | 6001.1 | 6630.1 | 5354.2 | 2222.7 | 1550.0 | 1573.6 | 1444.4 | 1457.9 | 1429.8 | 1398.3 | 1392.8 |
| 60° | 6617.7 | 6968.2 | 5137.4 | 1689.3 | 1310.8 | 1359.0 | 1400.6 | 1399.4 | 1391.6 | 1365.8 | 1356.8 |
| 62.5° | 7172.5 | 7190.6 | 4710.6 | 1293.9 | 1100.7 | 1192.8 | 1306.3 | 1305.1 | 1298.4 | 1283.8 | 1278.2 |
| 65° | 7502.8 | 7156.9 | 3998.5 | 1018.7 | 927.7 | 1055.8 | 1178.2 | 1187.2 | 1188.3 | 1187.2 | 1187.2 |
| 67.5° | 7444.4 | 6762.6 | 3021.3 | 811.0 | 785.0 | 916.6 | 1051.2 | 1063.6 | 1072.7 | 1074.9 | 1077.2 |
| 70° | 6784.0 | 5896.6 | 1970.0 | 647.0 | 658.2 | 794.1 | 931.1 | 943.5 | 951.3 | 960.3 | 964.8 |
| 72.5° | 5287.9 | 4335.4 | 1127.7 | 523.4 | 546.9 | 688.5 | 812.0 | 826.7 | 831.2 | 848.0 | 854.7 |
| 75° | 3222.4 | 2549.6 | 608.7 | 412.3 | 449.3 | 588.6 | 694.1 | 710.9 | 718.8 | 739.0 | 741.3 |
| 77.5° | 1532.0 | 1104.1 | 347.1 | 321.2 | 361.6 | 480.7 | 586.3 | 605.4 | 584.0 | 595.3 | 586.3 |
| 80° | 517.8 | 410.0 | 219.0 | 244.9 | 276.3 | 375.2 | 469.4 | 488.6 | 443.6 | 441.4 | 437.0 |
| 82.5° | 180.8 | 166.3 | 139.3 | 162.9 | 178.6 | 268.4 | 355.0 | 379.7 | 330.3 | 329.1 | 313.3 |
| 85° | 70.7 | 67.3 | 77.5 | 88.8 | 106.7 | 165.1 | 233.6 | 246.0 | 203.3 | 164.0 | 161.7 |
| 87.5° | 14.6 | 15.7 | 19.1 | 20.2 | 32.6 | 57.3 | 84.3 | 103.3 | 82.0 | 69.6 | 64.1 |
| 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)