

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: STREETWORKS

Report Number: P883744

Luminaire Tested: **NVN-SB4B-727-U-SL4**

Issue Date: 10/7/2024

Test Information

Test Method: LM-79-08
Report Number: P883744
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2405-108-9)
Test Lab: INNOVATION CENTER
Issue Date: 10/7/2024
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: STREETWORKS
Catalog Number: NVN-SB4B-727-U-SL4
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE
(4) 70 CRI, 2700K, 450mA LIGHTSQUARES WITH 26 LEDS EACH AND TYPE IV SPILL
LIGHT ELIMINATOR OPTICS
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 20501 lumens
Efficiency: N/A
Efficacy: 139.5 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')
IES Classification: Type IV - Medium
BUG Rating: B3 - U0 - G4

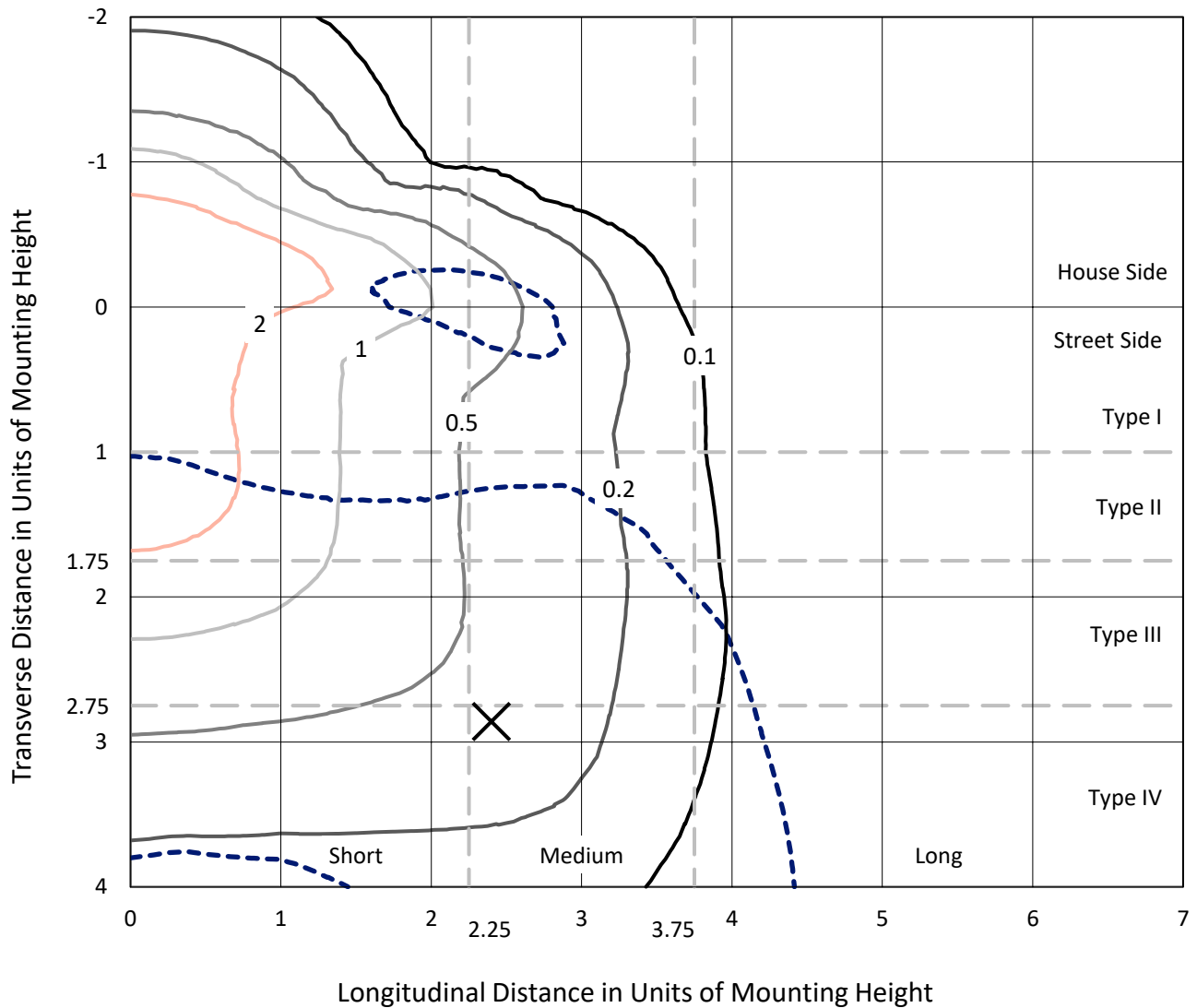
Input Watts (W): 147
Input Voltage (V): 120.0
Input Current (Ain): 1.255
Voltage Rise (V): NR
Power Factor: 0.988
Total Harmonic Distortion (THDi): 13.593
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Iso-Footcandle Lines of Horizontal Illumination

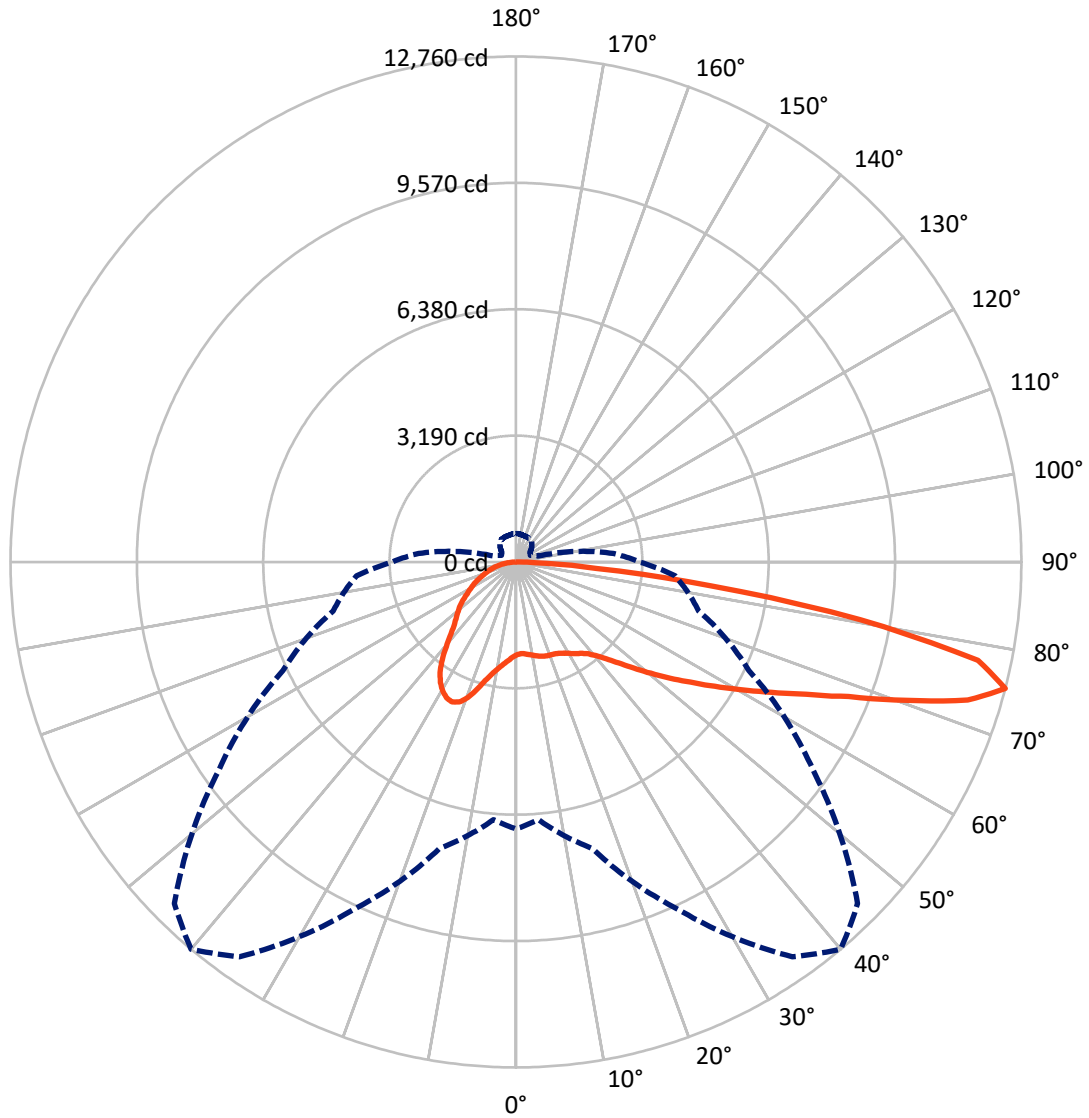
✕ Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 4.8 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 | 6351.9 | 0.0 | 6351.9 |
| | % Fixture | 31.0 | 0.0 | 31.0 |
| Street Side | Lumens | 14149.1 | 0.0 | 14149.1 |
| | % Fixture | 69.0 | 0.0 | 69.0 |
| Total | Lumens | 20501.0 | 0.0 | 20501.0 |
| | % Fixture | 100.0 | 0.0 | 100.0 |

ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|---------|-----------|
| 0°-10° | 234.0 | 1.1 |
| 10°-20° | 785.7 | 3.8 |
| 20°-30° | 1434.6 | 7.0 |
| 30°-40° | 2034.6 | 9.9 |
| 40°-50° | 2747.3 | 13.4 |
| 50°-60° | 3695.9 | 18.0 |
| 60°-70° | 4691.0 | 22.9 |
| 70°-80° | 4257.3 | 20.8 |
| 80°-90° | 620.6 | 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° | 20501.0 | 100.0 |
| 0°-180° | 20501.0 | 100.0 |

Coefficient of Utilization



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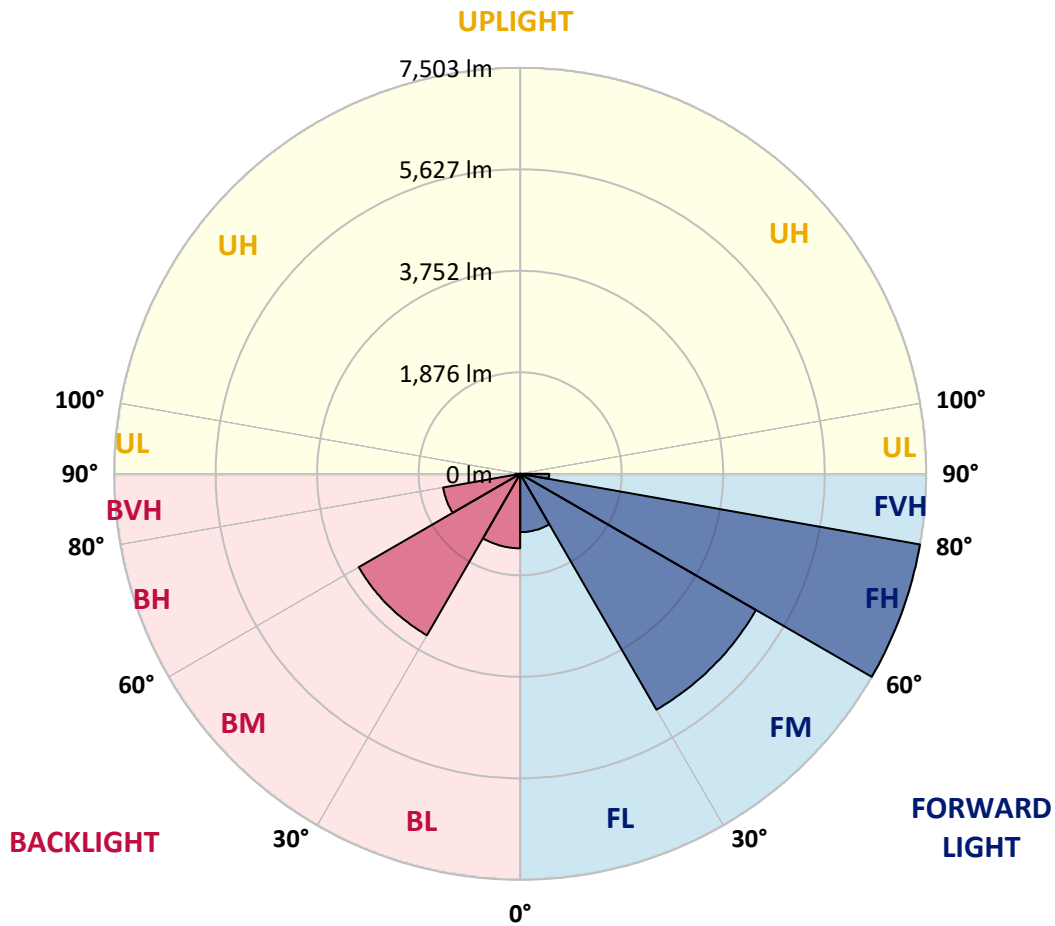
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

| Zone | Lumens | % Fixture | Zone Rating/Lumen Limit | | |
|----------------|--------|-----------|-------------------------|------|----------|
| | | | B | U | G |
| FL (0°-30°) | 1078.4 | 5.3 | | | |
| FM (30°-60°) | 5032.5 | 24.5 | | | |
| FH (60°-80°) | 7503.0 | 36.6 | | | G4/12000 |
| FVH (80°-90°) | 535.1 | 2.6 | | | G4/750 |
| BL (0°-30°) | 1375.9 | 6.7 | B3/2500 | | |
| BM (30°-60°) | 3445.3 | 16.8 | B3/5000 | | |
| BH (60°-80°) | 1445.2 | 7.0 | B3/2500 | | G3/2500 |
| BVH (80°-90°) | 85.4 | 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° | 2344.3 | 2344.3 | 2344.3 | 2344.3 | 2344.3 | 2344.3 | 2344.3 | 2344.3 | 2344.3 | 2344.3 | 2344.3 |
| 2.5° | 2308.4 | 2321.5 | 2318.2 | 2313.9 | 2313.9 | 2315.0 | 2313.9 | 2321.5 | 2329.1 | 2336.7 | 2348.7 |
| 5° | 2332.4 | 2345.4 | 2338.9 | 2333.4 | 2329.1 | 2328.0 | 2324.7 | 2323.7 | 2328.0 | 2337.8 | 2354.1 |
| 7.5° | 2379.1 | 2392.2 | 2382.4 | 2372.6 | 2363.9 | 2359.5 | 2355.2 | 2348.7 | 2345.4 | 2350.8 | 2373.7 |
| 10° | 2431.3 | 2444.4 | 2432.4 | 2415.0 | 2400.9 | 2395.4 | 2391.1 | 2384.5 | 2380.2 | 2383.5 | 2408.5 |
| 12.5° | 2483.5 | 2496.5 | 2480.2 | 2456.3 | 2437.8 | 2434.6 | 2429.1 | 2427.0 | 2425.9 | 2424.8 | 2449.8 |
| 15° | 2532.4 | 2543.3 | 2522.6 | 2494.4 | 2474.8 | 2469.4 | 2463.9 | 2467.2 | 2472.6 | 2479.1 | 2507.4 |
| 17.5° | 2570.5 | 2581.4 | 2550.9 | 2513.9 | 2495.5 | 2493.3 | 2490.0 | 2500.9 | 2516.1 | 2532.4 | 2567.2 |
| 20° | 2605.3 | 2616.2 | 2577.0 | 2527.0 | 2505.2 | 2505.2 | 2506.3 | 2529.2 | 2550.9 | 2574.8 | 2622.7 |
| 22.5° | 2654.2 | 2662.9 | 2615.1 | 2546.6 | 2515.0 | 2517.2 | 2525.9 | 2548.7 | 2575.9 | 2608.5 | 2674.9 |
| 25° | 2727.1 | 2733.6 | 2674.9 | 2583.5 | 2547.7 | 2554.2 | 2561.8 | 2572.7 | 2598.8 | 2636.8 | 2726.0 |
| 27.5° | 2844.5 | 2849.9 | 2772.7 | 2648.8 | 2594.4 | 2605.3 | 2616.2 | 2608.5 | 2620.5 | 2653.1 | 2767.3 |
| 30° | 3009.8 | 3013.0 | 2915.2 | 2751.0 | 2673.8 | 2679.2 | 2681.4 | 2649.9 | 2627.0 | 2653.1 | 2796.7 |
| 32.5° | 3205.5 | 3204.4 | 3088.1 | 2874.9 | 2764.0 | 2758.6 | 2740.1 | 2678.1 | 2624.9 | 2647.7 | 2822.7 |
| 35° | 3508.9 | 3496.9 | 3346.8 | 3048.9 | 2866.2 | 2832.5 | 2789.0 | 2709.7 | 2635.7 | 2642.2 | 2845.6 |
| 37.5° | 4011.2 | 3974.2 | 3766.6 | 3333.8 | 3018.5 | 2932.6 | 2868.4 | 2760.8 | 2659.6 | 2640.1 | 2872.8 |
| 40° | 4577.7 | 4531.0 | 4302.6 | 3724.2 | 3246.8 | 3108.7 | 3005.4 | 2833.6 | 2698.8 | 2649.9 | 2913.0 |
| 42.5° | 5249.7 | 5183.4 | 4937.6 | 4184.1 | 3536.0 | 3336.0 | 3180.5 | 2926.0 | 2756.4 | 2681.4 | 2967.4 |
| 45° | 6075.0 | 5986.9 | 5639.0 | 4702.8 | 3900.3 | 3633.9 | 3426.2 | 3066.3 | 2844.5 | 2742.3 | 3048.9 |
| 47.5° | 6909.0 | 6930.7 | 6436.0 | 5296.5 | 4337.4 | 4001.4 | 3733.9 | 3277.3 | 2972.8 | 2840.1 | 3180.5 |
| 50° | 7795.2 | 7810.4 | 7228.7 | 5954.3 | 4833.3 | 4416.8 | 4079.7 | 3513.2 | 3151.1 | 2979.3 | 3377.3 |
| 52.5° | 8486.7 | 8488.9 | 7948.5 | 6642.6 | 5349.7 | 4873.5 | 4452.7 | 3782.9 | 3357.7 | 3164.2 | 3639.3 |
| 55° | 8919.5 | 8914.1 | 8453.0 | 7293.9 | 5943.4 | 5353.0 | 4865.9 | 4089.5 | 3610.0 | 3381.6 | 3968.8 |
| 57.5° | 9233.7 | 9217.4 | 8801.0 | 7853.9 | 6576.3 | 5919.5 | 5333.4 | 4437.5 | 3907.9 | 3640.4 | 4402.7 |
| 60° | 9353.3 | 9343.6 | 9036.9 | 8337.8 | 7241.7 | 6545.8 | 5872.8 | 4826.7 | 4246.1 | 3946.0 | 4960.5 |
| 62.5° | 9399.0 | 9417.5 | 9268.5 | 8806.4 | 7953.9 | 7239.5 | 6465.4 | 5292.1 | 4626.7 | 4291.8 | 5548.7 |
| 65° | 9559.9 | 9593.6 | 9563.2 | 9419.7 | 8758.6 | 8051.8 | 7251.5 | 5845.6 | 5042.0 | 4662.5 | 6163.1 |
| 67.5° | 9878.5 | 9912.2 | 9925.3 | 10153.6 | 9741.5 | 9064.1 | 8232.3 | 6534.9 | 5528.1 | 5047.5 | 6625.2 |
| 70° | 9870.9 | 9861.1 | 10091.7 | 10737.5 | 10972.4 | 10465.7 | 9554.5 | 7383.1 | 6107.6 | 5367.1 | 6683.9 |
| 72.5° | 8984.7 | 8906.4 | 9451.2 | 10731.0 | 11996.7 | 11929.3 | 11169.2 | 8476.9 | 6607.8 | 5406.3 | 5799.9 |
| 75° | 6740.5 | 6531.7 | 7494.0 | 9670.8 | 12167.4 | 12760.0 | 12195.7 | 9155.4 | 6489.3 | 4776.7 | 4036.2 |
| 77.5° | 2882.6 | 2672.7 | 3806.8 | 7159.1 | 10889.8 | 11928.2 | 11254.0 | 7987.6 | 5180.1 | 3158.7 | 1982.2 |
| 80° | 754.6 | 753.5 | 1150.4 | 3245.7 | 7405.9 | 8808.6 | 7727.8 | 5158.4 | 2959.8 | 1128.7 | 546.9 |
| 82.5° | 312.1 | 304.5 | 423.0 | 1262.4 | 3618.7 | 4943.1 | 4034.1 | 2300.8 | 1068.9 | 305.5 | 181.6 |
| 85° | 116.3 | 115.3 | 205.5 | 436.0 | 1276.5 | 2038.8 | 1475.5 | 588.3 | 266.4 | 149.0 | 81.6 |
| 87.5° | 32.6 | 31.5 | 44.6 | 151.1 | 311.0 | 471.9 | 252.3 | 96.8 | 75.0 | 58.7 | 23.9 |
| 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° | 2344.3 | 2344.3 | 2344.3 | 2344.3 | 2344.3 | 2344.3 | 2344.3 | 2344.3 | 2344.3 | 2344.3 | 2344.3 |
| 2.5° | 2351.9 | 2357.4 | 2367.2 | 2374.8 | 2384.5 | 2395.4 | 2410.6 | 2420.4 | 2430.2 | 2436.7 | 2432.4 |
| 5° | 2361.7 | 2373.7 | 2398.7 | 2423.7 | 2453.1 | 2480.2 | 2511.8 | 2534.6 | 2553.1 | 2558.5 | 2560.7 |
| 7.5° | 2383.5 | 2403.0 | 2445.4 | 2487.8 | 2534.6 | 2579.2 | 2624.9 | 2664.0 | 2695.5 | 2707.5 | 2708.6 |
| 10° | 2421.5 | 2447.6 | 2507.4 | 2567.2 | 2629.2 | 2697.7 | 2756.4 | 2813.0 | 2857.5 | 2876.0 | 2877.1 |
| 12.5° | 2469.4 | 2502.0 | 2580.3 | 2662.9 | 2748.8 | 2843.4 | 2919.5 | 2989.1 | 3044.6 | 3069.6 | 3069.6 |
| 15° | 2531.3 | 2573.7 | 2673.8 | 2784.7 | 2910.8 | 3042.4 | 3139.2 | 3216.4 | 3278.3 | 3308.8 | 3306.6 |
| 17.5° | 2598.8 | 2655.3 | 2781.4 | 2948.9 | 3129.4 | 3302.3 | 3415.4 | 3471.9 | 3536.0 | 3565.4 | 3564.3 |
| 20° | 2664.0 | 2733.6 | 2914.1 | 3157.7 | 3398.0 | 3581.7 | 3673.1 | 3688.3 | 3692.6 | 3695.9 | 3704.6 |
| 22.5° | 2731.4 | 2824.9 | 3080.4 | 3420.8 | 3678.5 | 3805.7 | 3818.8 | 3753.5 | 3662.2 | 3619.8 | 3631.7 |
| 25° | 2805.4 | 2929.3 | 3297.9 | 3711.1 | 3919.9 | 3935.1 | 3835.1 | 3676.3 | 3503.4 | 3424.1 | 3436.0 |
| 27.5° | 2877.1 | 3050.0 | 3558.9 | 3988.4 | 4093.9 | 3960.1 | 3744.8 | 3519.7 | 3311.0 | 3227.2 | 3237.0 |
| 30° | 2948.9 | 3188.1 | 3847.0 | 4230.9 | 4173.2 | 3898.1 | 3602.4 | 3351.2 | 3141.3 | 3053.3 | 3063.1 |
| 32.5° | 3021.7 | 3349.0 | 4178.7 | 4405.9 | 4159.1 | 3766.6 | 3425.1 | 3162.0 | 2977.2 | 2884.7 | 2896.7 |
| 35° | 3104.4 | 3546.9 | 4492.9 | 4501.6 | 4064.5 | 3573.0 | 3191.4 | 2935.8 | 2774.9 | 2701.0 | 2717.3 |
| 37.5° | 3212.0 | 3798.1 | 4770.2 | 4525.5 | 3899.2 | 3289.2 | 2901.0 | 2668.3 | 2535.7 | 2502.0 | 2525.9 |
| 40° | 3345.8 | 4100.4 | 4982.2 | 4487.5 | 3654.6 | 2944.5 | 2583.5 | 2397.6 | 2322.6 | 2330.2 | 2356.3 |
| 42.5° | 3519.7 | 4438.5 | 5131.2 | 4389.6 | 3314.2 | 2589.0 | 2305.2 | 2222.5 | 2258.4 | 2288.9 | 2317.1 |
| 45° | 3745.9 | 4789.8 | 5223.6 | 4223.2 | 2929.3 | 2287.8 | 2141.0 | 2160.6 | 2187.7 | 2191.0 | 2212.7 |
| 47.5° | 4035.1 | 5145.3 | 5284.5 | 3972.1 | 2536.8 | 2075.7 | 2036.6 | 2040.9 | 2035.5 | 2012.7 | 2030.1 |
| 50° | 4396.1 | 5491.1 | 5338.9 | 3639.3 | 2203.0 | 1943.1 | 1890.9 | 1875.7 | 1800.6 | 1726.7 | 1736.5 |
| 52.5° | 4807.2 | 5808.6 | 5361.7 | 3226.2 | 1943.1 | 1832.2 | 1747.4 | 1651.7 | 1511.4 | 1488.6 | 1496.2 |
| 55° | 5263.8 | 6102.2 | 5303.0 | 2718.4 | 1724.5 | 1689.7 | 1561.4 | 1446.2 | 1430.9 | 1411.4 | 1414.6 |
| 57.5° | 5809.7 | 6418.6 | 5183.4 | 2151.9 | 1500.5 | 1523.4 | 1398.3 | 1411.4 | 1384.2 | 1353.7 | 1348.3 |
| 60° | 6406.6 | 6745.9 | 4973.5 | 1635.4 | 1268.9 | 1315.7 | 1355.9 | 1354.8 | 1347.2 | 1322.2 | 1313.5 |
| 62.5° | 6943.8 | 6961.2 | 4560.3 | 1252.6 | 1065.6 | 1154.8 | 1264.6 | 1263.5 | 1257.0 | 1242.8 | 1237.4 |
| 65° | 7263.5 | 6928.6 | 3870.9 | 986.2 | 898.1 | 1022.1 | 1140.6 | 1149.3 | 1150.4 | 1149.3 | 1149.3 |
| 67.5° | 7206.9 | 6546.9 | 2925.0 | 785.1 | 760.1 | 887.3 | 1017.8 | 1029.7 | 1038.4 | 1040.6 | 1042.8 |
| 70° | 6567.6 | 5708.6 | 1907.2 | 626.3 | 637.2 | 768.8 | 901.4 | 913.4 | 921.0 | 929.7 | 934.0 |
| 72.5° | 5119.2 | 4197.2 | 1091.7 | 506.7 | 529.5 | 666.5 | 786.2 | 800.3 | 804.6 | 820.9 | 827.5 |
| 75° | 3119.6 | 2468.3 | 589.3 | 399.1 | 434.9 | 569.8 | 672.0 | 688.3 | 695.9 | 715.5 | 717.6 |
| 77.5° | 1483.1 | 1068.9 | 336.0 | 311.0 | 350.1 | 465.4 | 567.6 | 586.1 | 565.4 | 576.3 | 567.6 |
| 80° | 501.3 | 396.9 | 212.0 | 237.0 | 267.5 | 363.2 | 454.5 | 473.0 | 429.5 | 427.3 | 423.0 |
| 82.5° | 175.1 | 160.9 | 134.8 | 157.7 | 172.9 | 259.9 | 343.6 | 367.5 | 319.7 | 318.6 | 303.4 |
| 85° | 68.5 | 65.2 | 75.0 | 85.9 | 103.3 | 159.8 | 226.2 | 238.1 | 196.8 | 158.8 | 156.6 |
| 87.5° | 14.1 | 15.2 | 18.5 | 19.6 | 31.5 | 55.5 | 81.6 | 100.0 | 79.4 | 67.4 | 62.0 |
| 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)