

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: P884484

Luminaire Tested: **NVN-SB5B-827-U-SL4**

Issue Date: 10/7/2024

Test Information

Test Method: LM-79-08
Report Number: P884484
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-SB5B-827-U-SL4
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE
(5) 80 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: 23013 lumens
Efficiency: N/A
Efficacy: 126.0 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 1.5' x H: 0')
IES Classification: Type IV - Medium
BUG Rating: B3 - U0 - G4

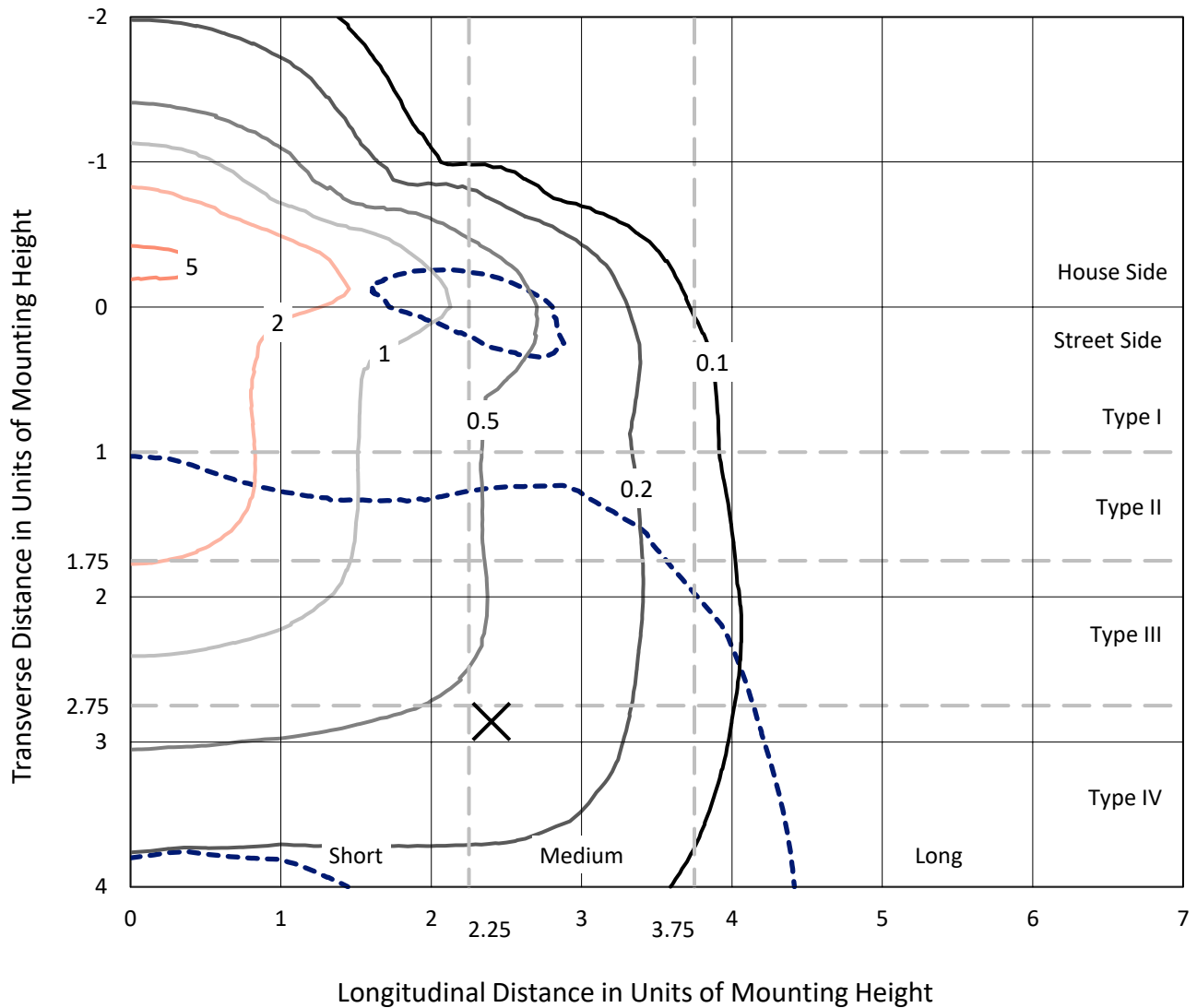
Input Watts (W): 182.7
Input Voltage (V): 120.0
Input Current (Ain): 1.547
Voltage Rise (V): NR
Power Factor: 0.992
Total Harmonic Distortion (THDi): 11.125
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Iso-Footcandle Lines of Horizontal Illumination

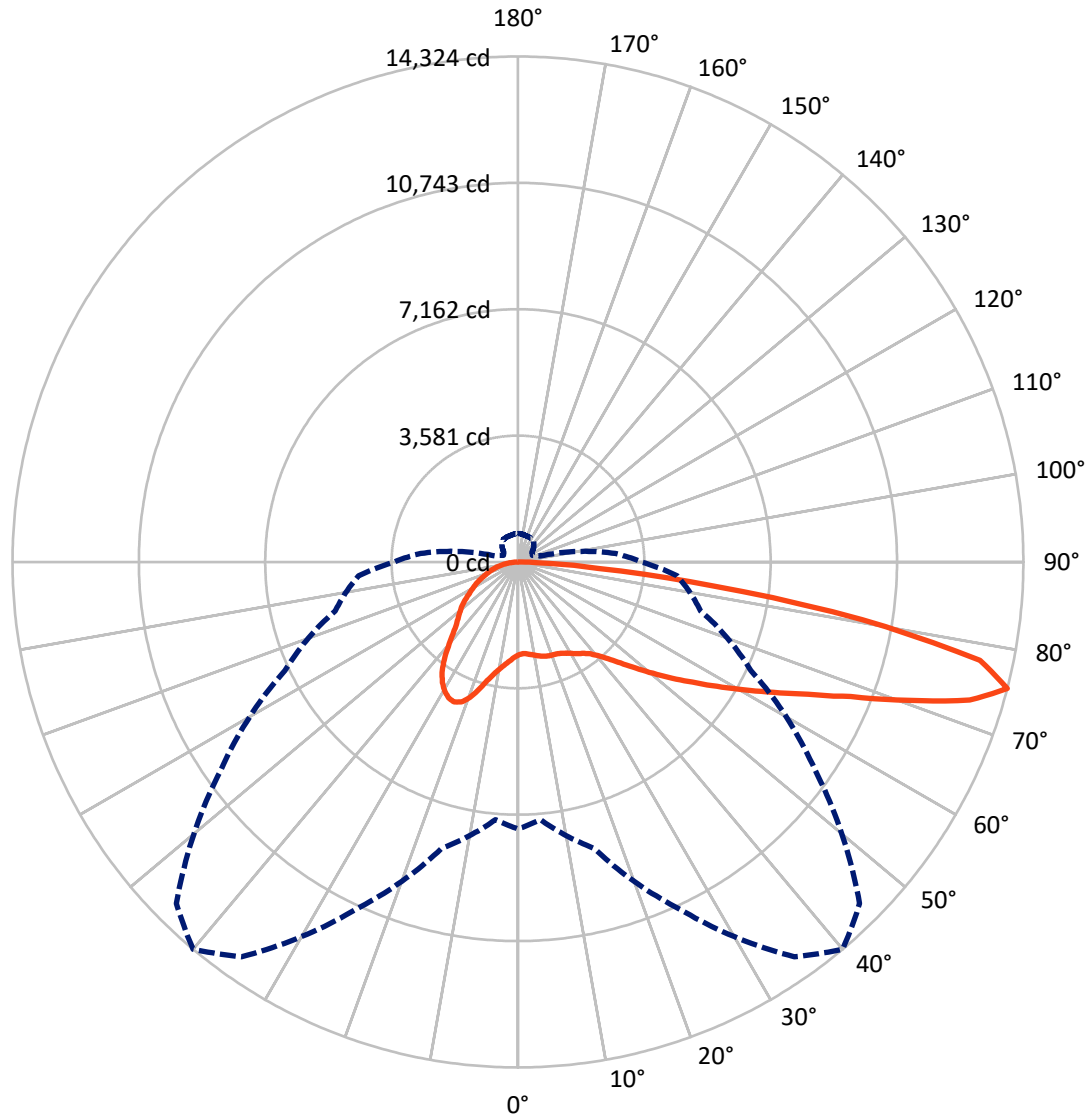
✕ Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 5.4 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 | 7130.2 | 0.0 | 7130.2 |
| | % Fixture | 31.0 | 0.0 | 31.0 |
| Street Side | Lumens | 15882.8 | 0.0 | 15882.8 |
| | % Fixture | 69.0 | 0.0 | 69.0 |
| Total | Lumens | 23013.0 | 0.0 | 23013.0 |
| | % Fixture | 100.0 | 0.0 | 100.0 |

ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|---------|-----------|
| 0°-10° | 262.7 | 1.1 |
| 10°-20° | 881.9 | 3.8 |
| 20°-30° | 1610.3 | 7.0 |
| 30°-40° | 2283.9 | 9.9 |
| 40°-50° | 3084.0 | 13.4 |
| 50°-60° | 4148.8 | 18.0 |
| 60°-70° | 5265.8 | 22.9 |
| 70°-80° | 4779.0 | 20.8 |
| 80°-90° | 696.6 | 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° | 23013.0 | 100.0 |
| 0°-180° | 23013.0 | 100.0 |

Coefficient of Utilization



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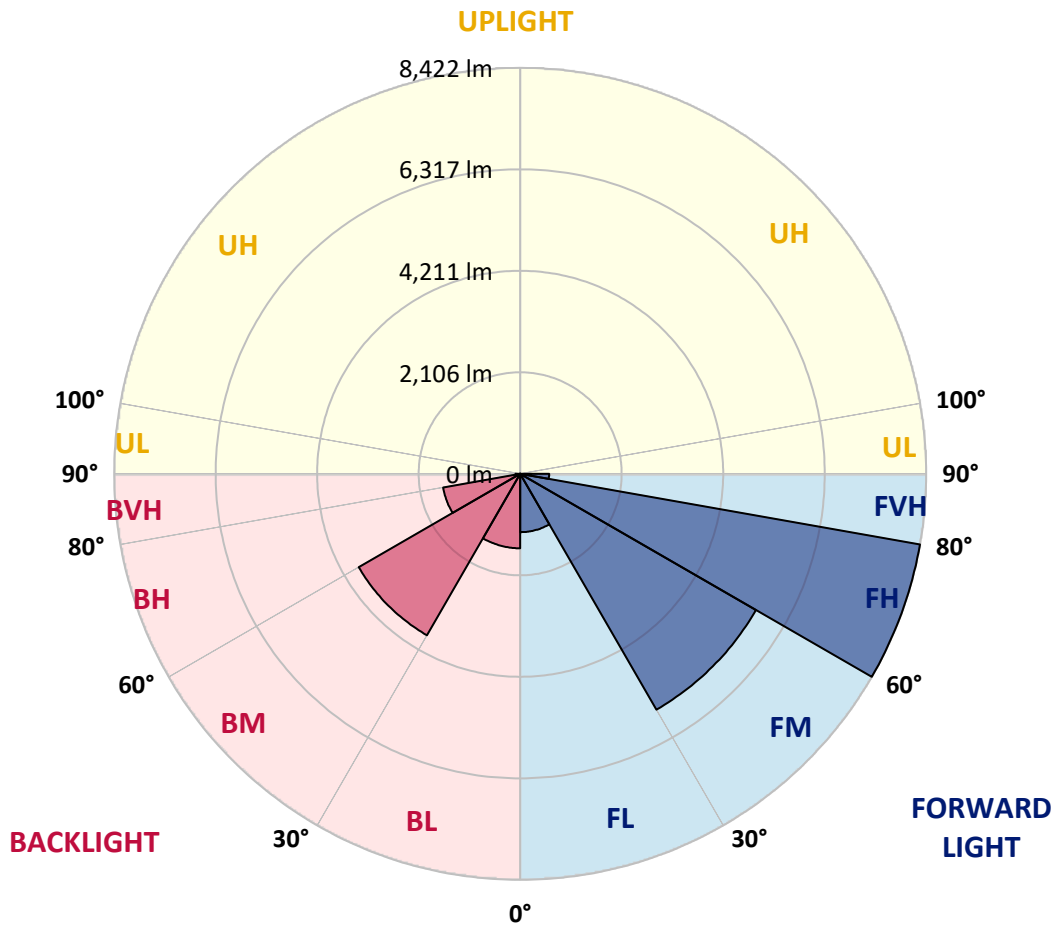
CATALOG NUMBER: NVN-SB5B-827-U-SL4

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

| Zone | Lumens | % Fixture | Zone Rating/Lumen Limit | | |
|----------------|--------|-----------|-------------------------|------|----------|
| | | | B | U | G |
| FL (0°-30°) | 1210.5 | 5.3 | | | |
| FM (30°-60°) | 5649.2 | 24.5 | | | |
| FH (60°-80°) | 8422.4 | 36.6 | | | G4/12000 |
| FVH (80°-90°) | 600.7 | 2.6 | | | G4/750 |
| BL (0°-30°) | 1544.5 | 6.7 | B3/2500 | | |
| BM (30°-60°) | 3867.5 | 16.8 | B3/5000 | | |
| BH (60°-80°) | 1622.3 | 7.0 | B3/2500 | | G3/2500 |
| BVH (80°-90°) | 95.9 | 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° | 2631.6 | 2631.6 | 2631.6 | 2631.6 | 2631.6 | 2631.6 | 2631.6 | 2631.6 | 2631.6 | 2631.6 | 2631.6 |
| 2.5° | 2591.3 | 2605.9 | 2602.3 | 2597.4 | 2597.4 | 2598.6 | 2597.4 | 2605.9 | 2614.5 | 2623.0 | 2636.4 |
| 5° | 2618.1 | 2632.8 | 2625.5 | 2619.4 | 2614.5 | 2613.3 | 2609.6 | 2608.4 | 2613.3 | 2624.2 | 2642.6 |
| 7.5° | 2670.6 | 2685.3 | 2674.3 | 2663.3 | 2653.5 | 2648.7 | 2643.8 | 2636.4 | 2632.8 | 2638.9 | 2664.5 |
| 10° | 2729.2 | 2743.9 | 2730.4 | 2710.9 | 2695.0 | 2688.9 | 2684.1 | 2676.7 | 2671.8 | 2675.5 | 2703.6 |
| 12.5° | 2787.8 | 2802.4 | 2784.1 | 2757.3 | 2736.5 | 2732.9 | 2726.8 | 2724.3 | 2723.1 | 2721.9 | 2750.0 |
| 15° | 2842.7 | 2854.9 | 2831.7 | 2800.0 | 2778.0 | 2771.9 | 2765.8 | 2769.5 | 2775.6 | 2782.9 | 2814.7 |
| 17.5° | 2885.4 | 2897.7 | 2863.5 | 2822.0 | 2801.2 | 2798.8 | 2795.1 | 2807.3 | 2824.4 | 2842.7 | 2881.8 |
| 20° | 2924.5 | 2936.7 | 2892.8 | 2836.6 | 2812.2 | 2812.2 | 2813.4 | 2839.1 | 2863.5 | 2890.3 | 2944.0 |
| 22.5° | 2979.4 | 2989.2 | 2935.5 | 2858.6 | 2823.2 | 2825.6 | 2835.4 | 2861.0 | 2891.6 | 2928.2 | 3002.6 |
| 25° | 3061.2 | 3068.5 | 3002.6 | 2900.1 | 2859.8 | 2867.1 | 2875.7 | 2887.9 | 2917.2 | 2959.9 | 3060.0 |
| 27.5° | 3193.0 | 3199.1 | 3112.5 | 2973.3 | 2912.3 | 2924.5 | 2936.7 | 2928.2 | 2941.6 | 2978.2 | 3106.4 |
| 30° | 3378.6 | 3382.2 | 3272.4 | 3088.1 | 3001.4 | 3007.5 | 3009.9 | 2974.5 | 2948.9 | 2978.2 | 3139.3 |
| 32.5° | 3598.3 | 3597.0 | 3466.4 | 3227.2 | 3102.7 | 3096.6 | 3075.9 | 3006.3 | 2946.5 | 2972.1 | 3168.6 |
| 35° | 3938.8 | 3925.4 | 3756.9 | 3422.5 | 3217.4 | 3179.6 | 3130.8 | 3041.7 | 2958.7 | 2966.0 | 3194.3 |
| 37.5° | 4502.7 | 4461.2 | 4228.1 | 3742.3 | 3388.3 | 3291.9 | 3219.9 | 3099.0 | 2985.5 | 2963.6 | 3224.8 |
| 40° | 5138.6 | 5086.2 | 4829.8 | 4180.5 | 3644.6 | 3489.6 | 3373.7 | 3180.8 | 3029.5 | 2974.5 | 3269.9 |
| 42.5° | 5893.0 | 5818.5 | 5542.6 | 4696.8 | 3969.3 | 3744.7 | 3570.2 | 3284.6 | 3094.2 | 3009.9 | 3331.0 |
| 45° | 6819.4 | 6720.5 | 6329.9 | 5279.0 | 4378.2 | 4079.2 | 3846.0 | 3442.0 | 3193.0 | 3078.3 | 3422.5 |
| 47.5° | 7755.6 | 7780.0 | 7224.6 | 5945.4 | 4868.9 | 4491.7 | 4191.5 | 3678.8 | 3337.1 | 3188.2 | 3570.2 |
| 50° | 8750.3 | 8767.4 | 8114.4 | 6683.9 | 5425.5 | 4958.0 | 4579.6 | 3943.7 | 3537.2 | 3344.4 | 3791.1 |
| 52.5° | 9526.6 | 9529.1 | 8922.4 | 7456.5 | 6005.2 | 5470.6 | 4998.3 | 4246.4 | 3769.1 | 3551.9 | 4085.3 |
| 55° | 10012.4 | 10006.3 | 9488.8 | 8187.6 | 6671.7 | 6008.9 | 5462.1 | 4590.6 | 4052.3 | 3796.0 | 4455.1 |
| 57.5° | 10365.2 | 10346.8 | 9879.4 | 8816.2 | 7382.1 | 6644.8 | 5986.9 | 4981.2 | 4386.8 | 4086.5 | 4942.1 |
| 60° | 10499.4 | 10488.4 | 10144.2 | 9359.4 | 8129.1 | 7347.9 | 6592.3 | 5418.1 | 4766.4 | 4429.5 | 5568.3 |
| 62.5° | 10550.7 | 10571.4 | 10404.2 | 9885.5 | 8928.5 | 8126.6 | 7257.6 | 5940.6 | 5193.6 | 4817.6 | 6228.6 |
| 65° | 10731.3 | 10769.2 | 10735.0 | 10573.9 | 9831.8 | 9038.4 | 8140.0 | 6561.8 | 5659.8 | 5233.8 | 6918.2 |
| 67.5° | 11089.0 | 11126.8 | 11141.4 | 11397.8 | 10935.2 | 10174.7 | 9241.0 | 7335.7 | 6205.4 | 5665.9 | 7437.0 |
| 70° | 11080.4 | 11069.4 | 11328.2 | 12053.2 | 12316.9 | 11748.1 | 10725.2 | 8287.7 | 6856.0 | 6024.8 | 7502.9 |
| 72.5° | 10085.6 | 9997.8 | 10609.3 | 12045.9 | 13466.6 | 13391.0 | 12537.8 | 9515.6 | 7417.5 | 6068.7 | 6510.6 |
| 75° | 7566.4 | 7332.0 | 8412.2 | 10855.8 | 13658.3 | 14323.5 | 13690.0 | 10277.3 | 7284.4 | 5362.0 | 4530.8 |
| 77.5° | 3235.8 | 3000.2 | 4273.2 | 8036.3 | 12224.1 | 13389.7 | 12633.0 | 8966.4 | 5814.8 | 3545.8 | 2225.1 |
| 80° | 847.1 | 845.9 | 1291.4 | 3643.4 | 8313.4 | 9887.9 | 8674.7 | 5790.4 | 3322.4 | 1267.0 | 614.0 |
| 82.5° | 350.3 | 341.8 | 474.8 | 1417.1 | 4062.1 | 5548.7 | 4528.3 | 2582.7 | 1199.8 | 343.0 | 203.8 |
| 85° | 130.6 | 129.4 | 230.7 | 489.5 | 1433.0 | 2288.6 | 1656.3 | 660.3 | 299.0 | 167.2 | 91.5 |
| 87.5° | 36.6 | 35.4 | 50.0 | 169.7 | 349.1 | 529.7 | 283.2 | 108.6 | 84.2 | 65.9 | 26.9 |
| 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° | 2631.6 | 2631.6 | 2631.6 | 2631.6 | 2631.6 | 2631.6 | 2631.6 | 2631.6 | 2631.6 | 2631.6 | 2631.6 |
| 2.5° | 2640.1 | 2646.2 | 2657.2 | 2665.7 | 2676.7 | 2688.9 | 2706.0 | 2717.0 | 2728.0 | 2735.3 | 2730.4 |
| 5° | 2651.1 | 2664.5 | 2692.6 | 2720.7 | 2753.6 | 2784.1 | 2819.5 | 2845.2 | 2865.9 | 2872.0 | 2874.5 |
| 7.5° | 2675.5 | 2697.5 | 2745.1 | 2792.7 | 2845.2 | 2895.2 | 2946.5 | 2990.4 | 3025.8 | 3039.2 | 3040.5 |
| 10° | 2718.2 | 2747.5 | 2814.7 | 2881.8 | 2951.4 | 3028.3 | 3094.2 | 3157.6 | 3207.7 | 3228.4 | 3229.7 |
| 12.5° | 2771.9 | 2808.6 | 2896.4 | 2989.2 | 3085.6 | 3191.8 | 3277.3 | 3355.4 | 3417.6 | 3445.7 | 3445.7 |
| 15° | 2841.5 | 2889.1 | 3001.4 | 3125.9 | 3267.5 | 3415.2 | 3523.8 | 3610.5 | 3680.0 | 3714.2 | 3711.8 |
| 17.5° | 2917.2 | 2980.7 | 3122.2 | 3310.2 | 3512.8 | 3706.9 | 3833.8 | 3897.3 | 3969.3 | 4002.3 | 4001.1 |
| 20° | 2990.4 | 3068.5 | 3271.2 | 3544.6 | 3814.3 | 4020.6 | 4123.1 | 4140.2 | 4145.1 | 4148.7 | 4158.5 |
| 22.5° | 3066.1 | 3171.1 | 3457.9 | 3839.9 | 4129.2 | 4272.0 | 4286.7 | 4213.4 | 4110.9 | 4063.3 | 4076.7 |
| 25° | 3149.1 | 3288.2 | 3702.0 | 4165.8 | 4400.2 | 4417.3 | 4305.0 | 4126.8 | 3932.7 | 3843.6 | 3857.0 |
| 27.5° | 3229.7 | 3423.7 | 3995.0 | 4477.1 | 4595.5 | 4445.3 | 4203.7 | 3951.0 | 3716.7 | 3622.7 | 3633.7 |
| 30° | 3310.2 | 3578.7 | 4318.4 | 4749.3 | 4684.6 | 4375.8 | 4043.8 | 3761.8 | 3526.3 | 3427.4 | 3438.4 |
| 32.5° | 3392.0 | 3759.4 | 4690.7 | 4945.8 | 4668.7 | 4228.1 | 3844.8 | 3549.4 | 3341.9 | 3238.2 | 3251.6 |
| 35° | 3484.8 | 3981.5 | 5043.4 | 5053.2 | 4562.5 | 4010.8 | 3582.4 | 3295.6 | 3114.9 | 3031.9 | 3050.2 |
| 37.5° | 3605.6 | 4263.5 | 5354.7 | 5080.0 | 4377.0 | 3692.2 | 3256.5 | 2995.3 | 2846.4 | 2808.6 | 2835.4 |
| 40° | 3755.7 | 4602.8 | 5592.7 | 5037.3 | 4102.4 | 3305.3 | 2900.1 | 2691.4 | 2607.2 | 2615.7 | 2645.0 |
| 42.5° | 3951.0 | 4982.4 | 5759.9 | 4927.5 | 3720.3 | 2906.2 | 2587.6 | 2494.9 | 2535.1 | 2569.3 | 2601.1 |
| 45° | 4204.9 | 5376.6 | 5863.7 | 4740.7 | 3288.2 | 2568.1 | 2403.3 | 2425.3 | 2455.8 | 2459.5 | 2483.9 |
| 47.5° | 4529.6 | 5775.8 | 5932.0 | 4458.8 | 2847.6 | 2330.1 | 2286.1 | 2291.0 | 2284.9 | 2259.3 | 2278.8 |
| 50° | 4934.8 | 6163.9 | 5993.0 | 4085.3 | 2472.9 | 2181.2 | 2122.6 | 2105.5 | 2021.3 | 1938.3 | 1949.3 |
| 52.5° | 5396.2 | 6520.3 | 6018.7 | 3621.5 | 2181.2 | 2056.7 | 1961.5 | 1854.1 | 1696.6 | 1671.0 | 1679.5 |
| 55° | 5908.8 | 6849.9 | 5952.8 | 3051.4 | 1935.8 | 1896.8 | 1752.8 | 1623.4 | 1606.3 | 1584.3 | 1588.0 |
| 57.5° | 6521.6 | 7205.1 | 5818.5 | 2415.5 | 1684.4 | 1710.0 | 1569.7 | 1584.3 | 1553.8 | 1519.6 | 1513.5 |
| 60° | 7191.6 | 7572.5 | 5582.9 | 1835.8 | 1424.4 | 1476.9 | 1522.1 | 1520.8 | 1512.3 | 1484.2 | 1474.5 |
| 62.5° | 7794.6 | 7814.1 | 5119.1 | 1406.1 | 1196.2 | 1296.3 | 1419.5 | 1418.3 | 1411.0 | 1395.1 | 1389.0 |
| 65° | 8153.5 | 7777.5 | 4345.3 | 1107.1 | 1008.2 | 1147.3 | 1280.4 | 1290.2 | 1291.4 | 1290.2 | 1290.2 |
| 67.5° | 8090.0 | 7349.1 | 3283.4 | 881.3 | 853.2 | 996.0 | 1142.5 | 1155.9 | 1165.7 | 1168.1 | 1170.5 |
| 70° | 7372.3 | 6408.0 | 2140.9 | 703.1 | 715.3 | 862.9 | 1011.9 | 1025.3 | 1033.8 | 1043.6 | 1048.5 |
| 72.5° | 5746.5 | 4711.4 | 1225.5 | 568.8 | 594.4 | 748.2 | 882.5 | 898.3 | 903.2 | 921.5 | 928.9 |
| 75° | 3501.8 | 2770.7 | 661.6 | 448.0 | 488.2 | 639.6 | 754.3 | 772.6 | 781.2 | 803.1 | 805.6 |
| 77.5° | 1664.9 | 1199.8 | 377.2 | 349.1 | 393.0 | 522.4 | 637.1 | 657.9 | 634.7 | 646.9 | 637.1 |
| 80° | 562.7 | 445.5 | 238.0 | 266.1 | 300.3 | 407.7 | 510.2 | 531.0 | 482.1 | 479.7 | 474.8 |
| 82.5° | 196.5 | 180.6 | 151.4 | 177.0 | 194.1 | 291.7 | 385.7 | 412.6 | 358.9 | 357.6 | 340.5 |
| 85° | 76.9 | 73.2 | 84.2 | 96.4 | 116.0 | 179.4 | 253.9 | 267.3 | 220.9 | 178.2 | 175.8 |
| 87.5° | 15.9 | 17.1 | 20.7 | 22.0 | 35.4 | 62.2 | 91.5 | 112.3 | 89.1 | 75.7 | 69.6 |
| 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)