

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: P964685

Luminaire Tested: **NAV-SB3C-827-U-SL4**

Issue Date: 1/21/2025

### Test Information

Test Method: LM-79-08  
Report Number: P964685  
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-827-U-SL4  
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE  
(3) 80 CRI, 2700K, 615mA LIGHTSQUARES WITH 26 LEDS EACH AND TYPE IV SPILL  
LIGHT ELIMINATOR OPTICS  
Light Source: -  
Ballast/Driver: -

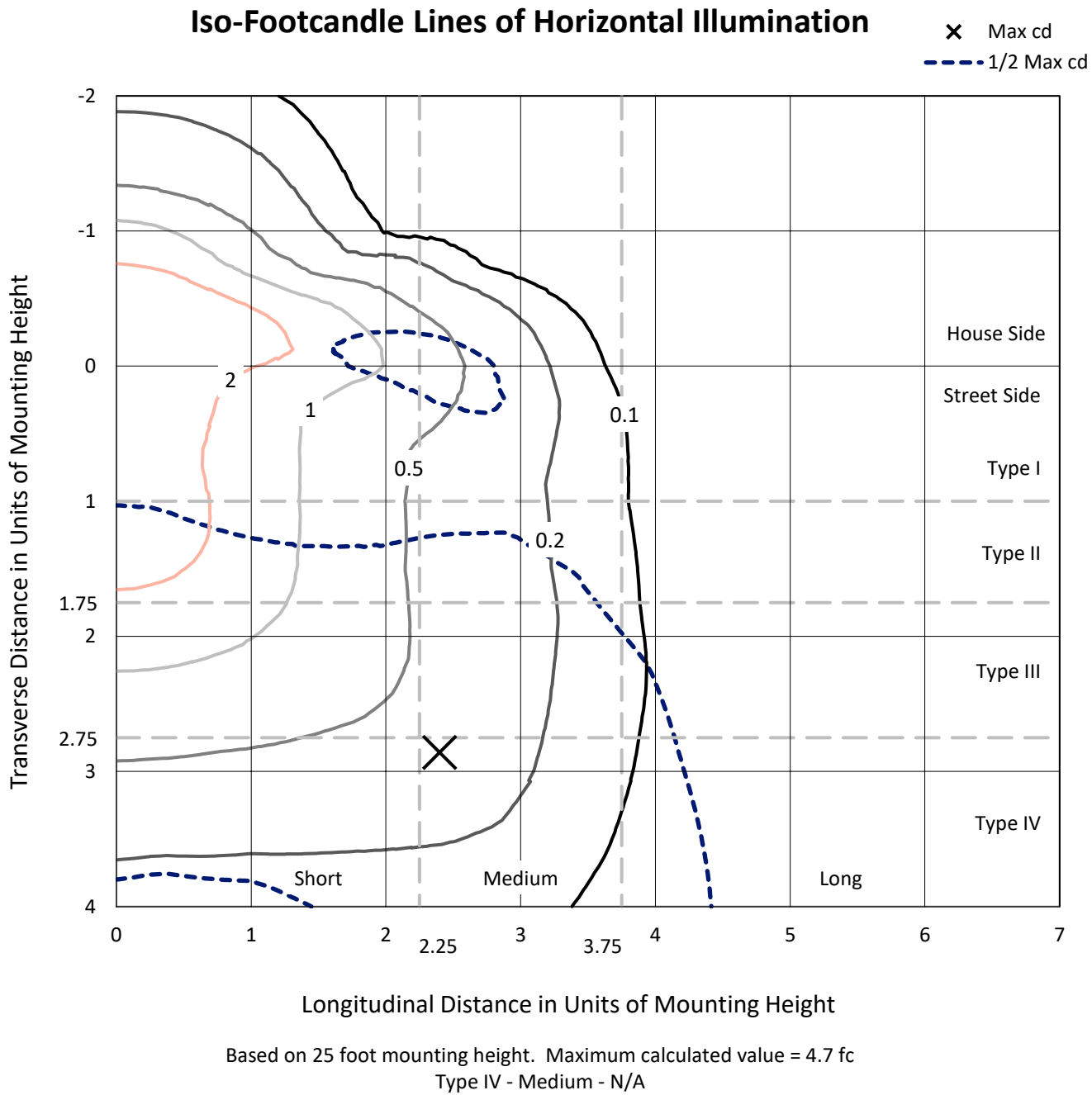
### Summary

Lumens per Lamp: N/A  
Luminaire Lumens: 19852.2 lumens  
Efficiency: N/A  
Efficacy: 133.1 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

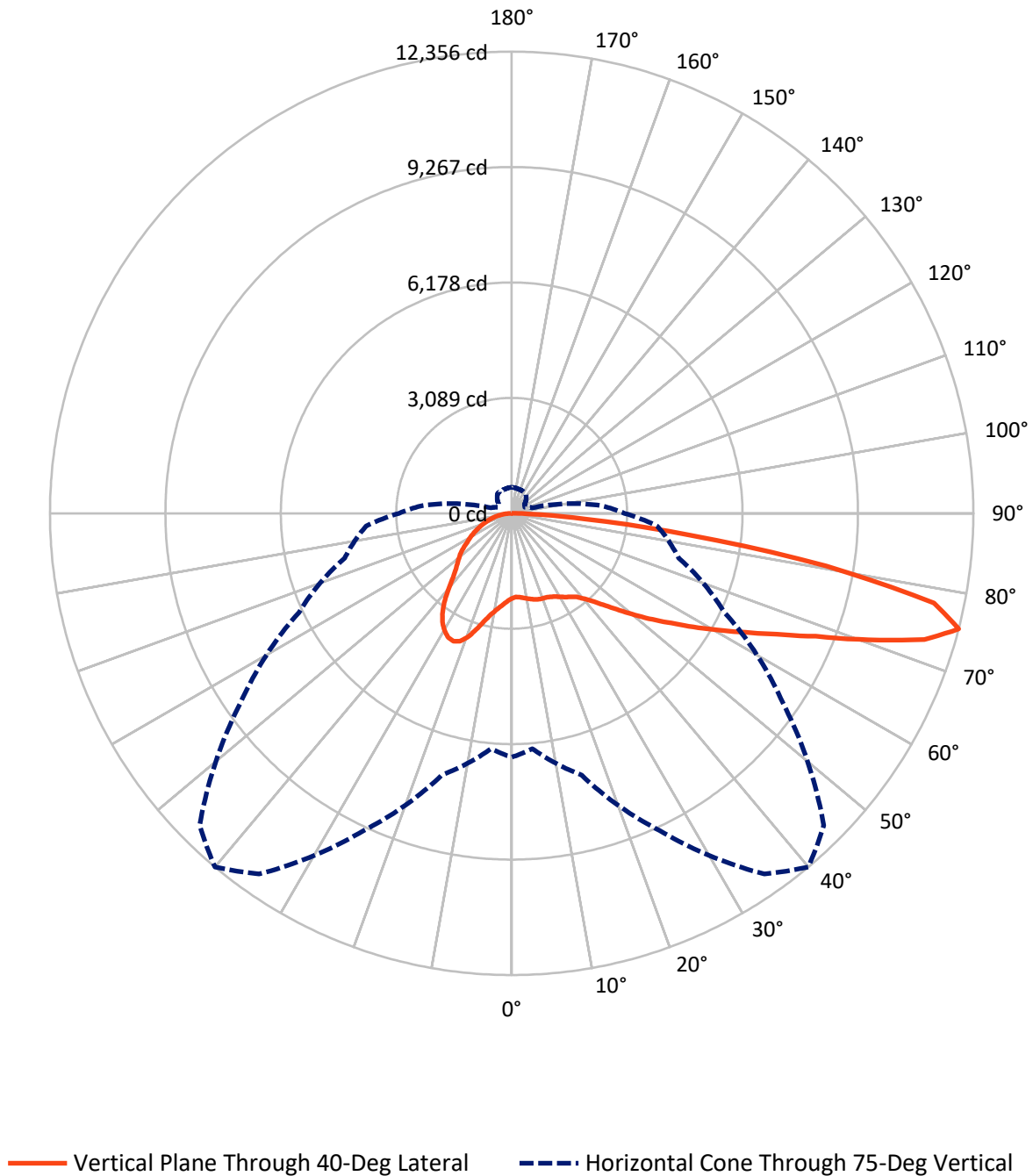


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## Luminous Intensity Polar Plot



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**FLUX DISTRIBUTION:**

|                    |           | Downward | Upward | Total   |
|--------------------|-----------|----------|--------|---------|
| <b>House Side</b>  | Lumens    | 6150.9   | 0.0    | 6150.9  |
|                    | % Fixture | 31.0     | 0.0    | 31.0    |
| <b>Street Side</b> | Lumens    | 13701.3  | 0.0    | 13701.3 |
|                    | % Fixture | 69.0     | 0.0    | 69.0    |
| <b>Total</b>       | Lumens    | 19852.2  | 0.0    | 19852.2 |
|                    | % Fixture | 100.0    | 0.0    | 100.0   |

**ZONAL LUMENS:**

| Zone      | Lumens  | % Fixture |
|-----------|---------|-----------|
| 0°-10°    | 226.6   | 1.1       |
| 10°-20°   | 760.8   | 3.8       |
| 20°-30°   | 1389.2  | 7.0       |
| 30°-40°   | 1970.2  | 9.9       |
| 40°-50°   | 2660.4  | 13.4      |
| 50°-60°   | 3578.9  | 18.0      |
| 60°-70°   | 4542.5  | 22.9      |
| 70°-80°   | 4122.6  | 20.8      |
| 80°-90°   | 600.9   | 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°    | 19852.2 | 100.0     |
| 0°-180°   | 19852.2 | 100.0     |

**Coefficient of Utilization**



REPORT NUMBER: P964685

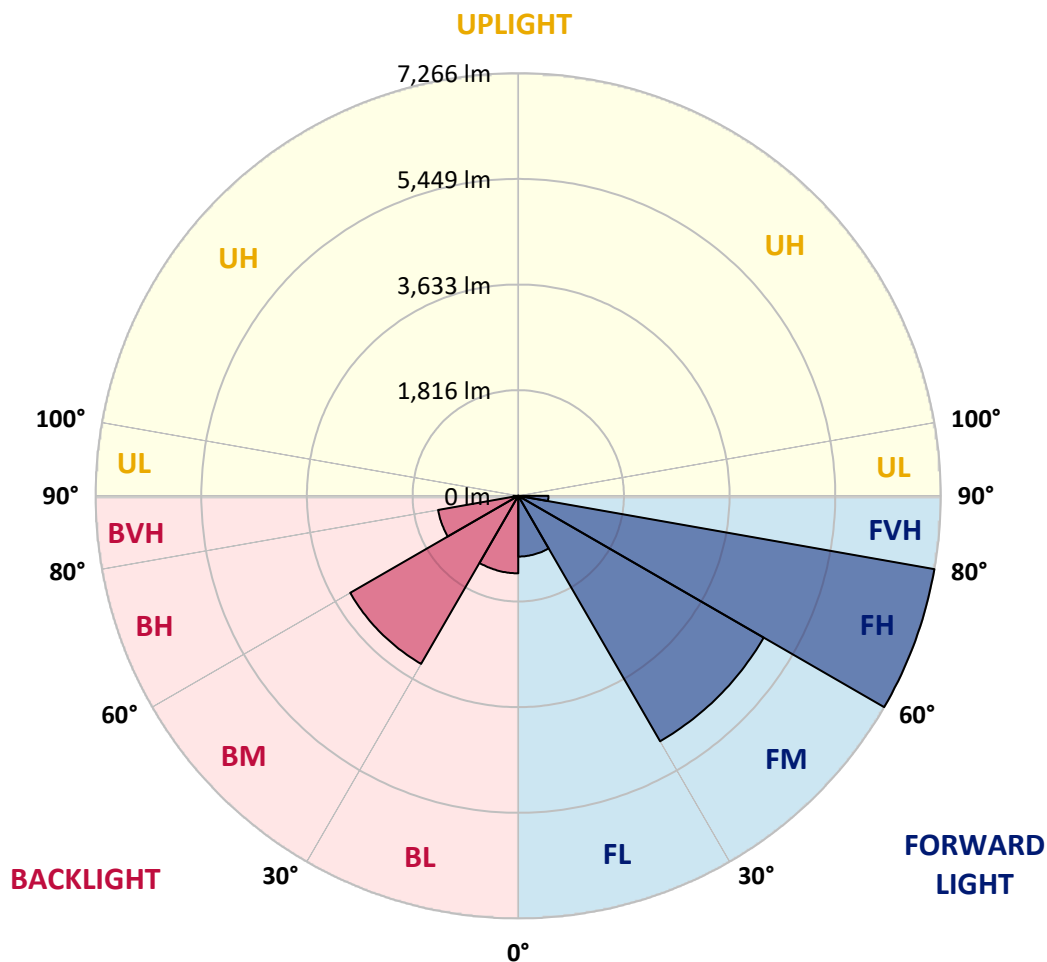
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

| Zone |             | Lumens | % Fixture | Zone Rating/Lumen Limit |      |         |
|------|-------------|--------|-----------|-------------------------|------|---------|
|      |             |        |           | B                       | U    | G       |
| FL   | (0°-30°)    | 1044.2 | 5.3       |                         |      |         |
| FM   | (30°-60°)   | 4873.3 | 24.5      |                         |      |         |
| FH   | (60°-80°)   | 7265.6 | 36.6      |                         |      | G3/7500 |
| FVH  | (80°-90°)   | 518.2  | 2.6       |                         |      | G4/750  |
| BL   | (0°-30°)    | 1332.3 | 6.7       | B3/2500                 |      |         |
| BM   | (30°-60°)   | 3336.3 | 16.8      | B3/5000                 |      |         |
| BH   | (60°-80°)   | 1399.5 | 7.0       | B3/2500                 |      | G3/2500 |
| BVH  | (80°-90°)   | 82.7   | 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



REPORT NUMBER: P964685

CATALOG NUMBER: NAV-SB3C-827-U-SL4

**CANDELA DISTRIBUTION (FULL):**

|       | 0°     | 5°     | 15°    | 25°     | 35°     | 40°     | 45°     | 55°    | 65°    | 75°    | 85°    |
|-------|--------|--------|--------|---------|---------|---------|---------|--------|--------|--------|--------|
| 0°    | 2270.2 | 2270.2 | 2270.2 | 2270.2  | 2270.2  | 2270.2  | 2270.2  | 2270.2 | 2270.2 | 2270.2 | 2270.2 |
| 2.5°  | 2235.4 | 2248.0 | 2244.9 | 2240.6  | 2240.6  | 2241.7  | 2240.6  | 2248.0 | 2255.4 | 2262.8 | 2274.4 |
| 5°    | 2258.6 | 2271.2 | 2264.8 | 2259.6  | 2255.4  | 2254.3  | 2251.2  | 2250.1 | 2254.3 | 2263.8 | 2279.6 |
| 7.5°  | 2303.8 | 2316.5 | 2307.0 | 2297.5  | 2289.0  | 2284.8  | 2280.6  | 2274.4 | 2271.2 | 2276.4 | 2298.6 |
| 10°   | 2354.3 | 2367.0 | 2355.4 | 2338.5  | 2324.9  | 2319.6  | 2315.4  | 2309.1 | 2304.9 | 2308.0 | 2332.3 |
| 12.5° | 2404.9 | 2417.6 | 2401.8 | 2378.6  | 2360.7  | 2357.5  | 2352.3  | 2350.1 | 2349.1 | 2348.1 | 2372.3 |
| 15°   | 2452.3 | 2462.8 | 2442.8 | 2415.4  | 2396.4  | 2391.2  | 2386.0  | 2389.1 | 2394.4 | 2400.7 | 2428.0 |
| 17.5° | 2489.1 | 2499.7 | 2470.1 | 2434.4  | 2416.4  | 2414.4  | 2411.2  | 2421.8 | 2436.5 | 2452.3 | 2485.9 |
| 20°   | 2522.8 | 2533.4 | 2495.5 | 2447.0  | 2426.0  | 2426.0  | 2427.0  | 2449.1 | 2470.1 | 2493.3 | 2539.6 |
| 22.5° | 2570.2 | 2578.6 | 2532.3 | 2465.9  | 2435.4  | 2437.6  | 2446.0  | 2468.1 | 2494.4 | 2526.0 | 2590.2 |
| 25°   | 2640.7 | 2647.1 | 2590.2 | 2501.8  | 2467.1  | 2473.3  | 2480.7  | 2491.3 | 2516.5 | 2553.4 | 2639.7 |
| 27.5° | 2754.5 | 2759.7 | 2685.0 | 2565.0  | 2512.3  | 2522.8  | 2533.4  | 2526.0 | 2537.6 | 2569.2 | 2679.8 |
| 30°   | 2914.5 | 2917.7 | 2823.0 | 2663.9  | 2589.1  | 2594.5  | 2596.5  | 2566.0 | 2543.8 | 2569.2 | 2708.2 |
| 32.5° | 3104.0 | 3103.0 | 2990.3 | 2784.0  | 2676.6  | 2671.3  | 2653.4  | 2593.4 | 2541.8 | 2563.9 | 2733.4 |
| 35°   | 3397.8 | 3386.2 | 3240.9 | 2952.4  | 2775.5  | 2742.9  | 2700.8  | 2623.9 | 2552.4 | 2558.6 | 2755.5 |
| 37.5° | 3884.2 | 3848.5 | 3647.4 | 3228.3  | 2923.0  | 2839.8  | 2777.6  | 2673.4 | 2575.5 | 2556.6 | 2781.8 |
| 40°   | 4432.8 | 4387.6 | 4166.4 | 3606.3  | 3144.1  | 3010.3  | 2910.3  | 2743.9 | 2613.3 | 2566.0 | 2820.8 |
| 42.5° | 5083.6 | 5019.3 | 4781.4 | 4051.7  | 3424.1  | 3230.4  | 3079.8  | 2833.4 | 2669.2 | 2596.5 | 2873.5 |
| 45°   | 5882.8 | 5797.5 | 5460.5 | 4554.0  | 3776.9  | 3518.9  | 3317.8  | 2969.3 | 2754.5 | 2655.5 | 2952.4 |
| 47.5° | 6690.4 | 6711.4 | 6232.3 | 5128.8  | 4200.1  | 3874.8  | 3615.8  | 3173.5 | 2878.7 | 2750.3 | 3079.8 |
| 50°   | 7548.5 | 7563.3 | 6999.9 | 5765.8  | 4680.3  | 4277.0  | 3950.7  | 3402.1 | 3051.4 | 2885.1 | 3270.4 |
| 52.5° | 8218.1 | 8220.3 | 7696.9 | 6432.4  | 5180.5  | 4719.2  | 4311.8  | 3663.1 | 3251.5 | 3064.0 | 3524.2 |
| 55°   | 8637.3 | 8631.9 | 8185.5 | 7063.1  | 5755.4  | 5183.6  | 4711.9  | 3960.1 | 3495.8 | 3274.7 | 3843.2 |
| 57.5° | 8941.5 | 8925.7 | 8522.5 | 7605.3  | 6368.1  | 5732.2  | 5164.7  | 4297.0 | 3784.2 | 3525.2 | 4263.3 |
| 60°   | 9057.3 | 9047.9 | 8750.9 | 8073.9  | 7012.5  | 6338.7  | 5686.9  | 4674.0 | 4111.7 | 3821.1 | 4803.5 |
| 62.5° | 9101.6 | 9119.4 | 8975.2 | 8527.7  | 7702.3  | 7010.4  | 6260.7  | 5124.6 | 4480.3 | 4156.0 | 5373.2 |
| 65°   | 9257.4 | 9290.0 | 9260.6 | 9121.6  | 8481.4  | 7797.0  | 7022.0  | 5660.6 | 4882.5 | 4515.0 | 5968.1 |
| 67.5° | 9565.9 | 9598.5 | 9611.2 | 9832.3  | 9433.3  | 8777.3  | 7971.7  | 6328.1 | 5353.2 | 4887.7 | 6415.6 |
| 70°   | 9558.5 | 9549.1 | 9772.2 | 10397.7 | 10625.2 | 10134.5 | 9252.2  | 7149.4 | 5914.4 | 5197.3 | 6472.4 |
| 72.5° | 8700.4 | 8624.6 | 9152.1 | 10391.4 | 11617.0 | 11551.7 | 10815.7 | 8208.7 | 6398.7 | 5235.2 | 5616.4 |
| 75°   | 6527.1 | 6325.0 | 7256.8 | 9364.8  | 11782.4 | 12356.2 | 11809.7 | 8865.7 | 6283.9 | 4625.5 | 3908.5 |
| 77.5° | 2791.3 | 2588.1 | 3686.3 | 6932.5  | 10545.1 | 11550.7 | 10897.9 | 7734.9 | 5016.1 | 3058.8 | 1919.5 |
| 80°   | 730.7  | 729.7  | 1114.0 | 3143.0  | 7171.5  | 8529.8  | 7483.2  | 4995.1 | 2866.1 | 1093.0 | 529.6  |
| 82.5° | 302.2  | 294.8  | 409.6  | 1222.4  | 3504.2  | 4786.6  | 3906.4  | 2228.0 | 1035.0 | 295.9  | 175.9  |
| 85°   | 112.6  | 111.6  | 199.1  | 422.2   | 1236.1  | 1974.3  | 1428.8  | 569.6  | 258.0  | 144.2  | 78.9   |
| 87.5° | 31.6   | 30.5   | 43.2   | 146.4   | 301.1   | 456.9   | 244.3   | 93.7   | 72.7   | 56.9   | 23.2   |
| 90°   | 0.0    | 0.0    | 0.0    | 0.0     | 0.0     | 0.0     | 0.0     | 0.0    | 0.0    | 0.0    | 0.0    |

REPORT NUMBER: P964685

CATALOG NUMBER: NAV-SB3C-827-U-SL4

**CANDELA DISTRIBUTION (continued):**

|       | 90°    | 95°    | 105°   | 115°   | 125°   | 135°   | 145°   | 155°   | 165°   | 175°   | 180°   |
|-------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 0°    | 2270.2 | 2270.2 | 2270.2 | 2270.2 | 2270.2 | 2270.2 | 2270.2 | 2270.2 | 2270.2 | 2270.2 | 2270.2 |
| 2.5°  | 2277.4 | 2282.8 | 2292.2 | 2299.6 | 2309.1 | 2319.6 | 2334.3 | 2343.9 | 2353.3 | 2359.7 | 2355.4 |
| 5°    | 2287.0 | 2298.6 | 2322.8 | 2346.9 | 2375.4 | 2401.8 | 2432.3 | 2454.4 | 2472.3 | 2477.5 | 2479.7 |
| 7.5°  | 2308.0 | 2327.0 | 2368.1 | 2409.2 | 2454.4 | 2497.5 | 2541.8 | 2579.7 | 2610.3 | 2621.8 | 2622.9 |
| 10°   | 2344.9 | 2370.1 | 2428.0 | 2485.9 | 2546.0 | 2612.3 | 2669.2 | 2723.9 | 2767.1 | 2785.0 | 2786.1 |
| 12.5° | 2391.2 | 2422.8 | 2498.6 | 2578.6 | 2661.8 | 2753.5 | 2827.2 | 2894.5 | 2948.2 | 2972.4 | 2972.4 |
| 15°   | 2451.2 | 2492.3 | 2589.1 | 2696.6 | 2818.7 | 2946.2 | 3039.8 | 3114.6 | 3174.6 | 3204.0 | 3202.0 |
| 17.5° | 2516.5 | 2571.3 | 2693.4 | 2855.5 | 3030.3 | 3197.8 | 3307.3 | 3362.0 | 3424.1 | 3452.6 | 3451.5 |
| 20°   | 2579.7 | 2647.1 | 2821.8 | 3057.7 | 3290.5 | 3468.4 | 3556.9 | 3571.5 | 3575.7 | 3578.9 | 3587.3 |
| 22.5° | 2645.0 | 2735.5 | 2983.0 | 3312.5 | 3562.1 | 3685.3 | 3697.9 | 3634.8 | 3546.3 | 3505.2 | 3516.8 |
| 25°   | 2716.6 | 2836.6 | 3193.6 | 3593.6 | 3795.8 | 3810.5 | 3713.7 | 3559.9 | 3392.5 | 3315.7 | 3327.3 |
| 27.5° | 2786.1 | 2953.4 | 3446.3 | 3862.2 | 3964.3 | 3834.8 | 3626.3 | 3408.3 | 3206.2 | 3125.1 | 3134.6 |
| 30°   | 2855.5 | 3087.2 | 3725.3 | 4096.9 | 4041.2 | 3774.8 | 3488.4 | 3245.1 | 3041.9 | 2956.6 | 2966.1 |
| 32.5° | 2926.1 | 3243.0 | 4046.4 | 4266.5 | 4027.4 | 3647.4 | 3316.7 | 3062.0 | 2882.9 | 2793.4 | 2805.0 |
| 35°   | 3006.1 | 3434.7 | 4350.7 | 4359.1 | 3935.9 | 3460.0 | 3090.4 | 2842.9 | 2687.0 | 2615.5 | 2631.3 |
| 37.5° | 3110.4 | 3677.9 | 4619.3 | 4382.3 | 3775.8 | 3185.1 | 2809.2 | 2583.9 | 2455.5 | 2422.8 | 2446.0 |
| 40°   | 3239.9 | 3970.6 | 4824.6 | 4345.5 | 3538.9 | 2851.3 | 2501.8 | 2321.7 | 2249.1 | 2256.4 | 2281.8 |
| 42.5° | 3408.3 | 4298.0 | 4968.8 | 4250.7 | 3209.4 | 2507.0 | 2232.2 | 2152.2 | 2186.9 | 2216.5 | 2243.8 |
| 45°   | 3627.4 | 4638.1 | 5058.3 | 4089.5 | 2836.6 | 2215.3 | 2073.3 | 2092.2 | 2118.5 | 2121.6 | 2142.8 |
| 47.5° | 3907.4 | 4982.5 | 5117.2 | 3846.4 | 2456.5 | 2010.0 | 1972.1 | 1976.4 | 1971.1 | 1948.9 | 1965.8 |
| 50°   | 4257.0 | 5317.3 | 5169.9 | 3524.2 | 2133.2 | 1881.6 | 1831.1 | 1816.3 | 1743.6 | 1672.1 | 1681.5 |
| 52.5° | 4655.0 | 5624.8 | 5192.0 | 3124.1 | 1881.6 | 1774.2 | 1692.1 | 1599.4 | 1463.6 | 1441.5 | 1448.8 |
| 55°   | 5097.2 | 5909.0 | 5135.1 | 2632.3 | 1669.9 | 1636.3 | 1512.0 | 1400.4 | 1385.7 | 1366.7 | 1369.9 |
| 57.5° | 5625.8 | 6215.5 | 5019.3 | 2083.7 | 1453.0 | 1475.2 | 1354.0 | 1366.7 | 1340.4 | 1310.9 | 1305.6 |
| 60°   | 6203.9 | 6532.4 | 4816.2 | 1583.6 | 1228.8 | 1274.1 | 1313.0 | 1312.0 | 1304.6 | 1280.3 | 1271.9 |
| 62.5° | 6724.0 | 6740.9 | 4416.0 | 1213.0 | 1031.9 | 1118.2 | 1224.6 | 1223.5 | 1217.2 | 1203.5 | 1198.2 |
| 65°   | 7033.6 | 6709.3 | 3748.4 | 955.0  | 869.7  | 989.7  | 1104.5 | 1112.9 | 1114.0 | 1112.9 | 1112.9 |
| 67.5° | 6978.8 | 6339.7 | 2832.4 | 760.2  | 735.9  | 859.2  | 985.5  | 997.1  | 1005.5 | 1007.7 | 1009.7 |
| 70°   | 6359.7 | 5527.9 | 1846.8 | 606.5  | 617.0  | 744.5  | 872.9  | 884.5  | 891.9  | 900.3  | 904.5  |
| 72.5° | 4957.2 | 4064.3 | 1057.2 | 490.7  | 512.8  | 645.4  | 761.3  | 775.0  | 779.2  | 795.0  | 801.2  |
| 75°   | 3020.9 | 2390.2 | 570.7  | 386.4  | 421.2  | 551.8  | 650.7  | 666.6  | 673.8  | 692.8  | 694.9  |
| 77.5° | 1436.2 | 1035.0 | 325.3  | 301.1  | 339.1  | 450.7  | 549.6  | 567.5  | 547.6  | 558.0  | 549.6  |
| 80°   | 485.4  | 384.3  | 205.3  | 229.5  | 259.0  | 351.7  | 440.1  | 458.1  | 415.9  | 413.8  | 409.6  |
| 82.5° | 169.5  | 155.8  | 130.6  | 152.7  | 167.4  | 251.6  | 332.7  | 355.9  | 309.5  | 308.5  | 293.8  |
| 85°   | 66.3   | 63.1   | 72.7   | 83.2   | 100.0  | 154.8  | 219.0  | 230.6  | 190.5  | 153.8  | 151.6  |
| 87.5° | 13.7   | 14.8   | 17.9   | 19.0   | 30.5   | 53.7   | 78.9   | 96.9   | 76.9   | 65.3   | 60.1   |
| 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)