

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: P966192

Luminaire Tested: **NAV-SB4B-740-U-T4W**

Issue Date: 1/21/2025

### Test Information

Test Method: LM-79-08  
Report Number: P966192  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2411-289-1)  
Test Lab: INNOVATION CENTER  
Issue Date: 1/21/2025  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: LUMARK  
Catalog Number: NAV-SB4B-740-U-T4W  
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE  
(4) 70 CRI, 4000K, 450mA LIGHTSQUARES WITH 26 LEDS EACH AND TYPE IV WIDE OPTICS  
Light Source: -  
Ballast/Driver: -

### Summary

Lumens per Lamp: N/A  
Luminaire Lumens: 24425.8 lumens  
Efficiency: N/A  
Efficacy: 166.2 lumens/watt  
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')  
IES Classification: Type IV - Short  
BUG Rating: B3 - U0 - G4

Input Watts (W): 147  
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



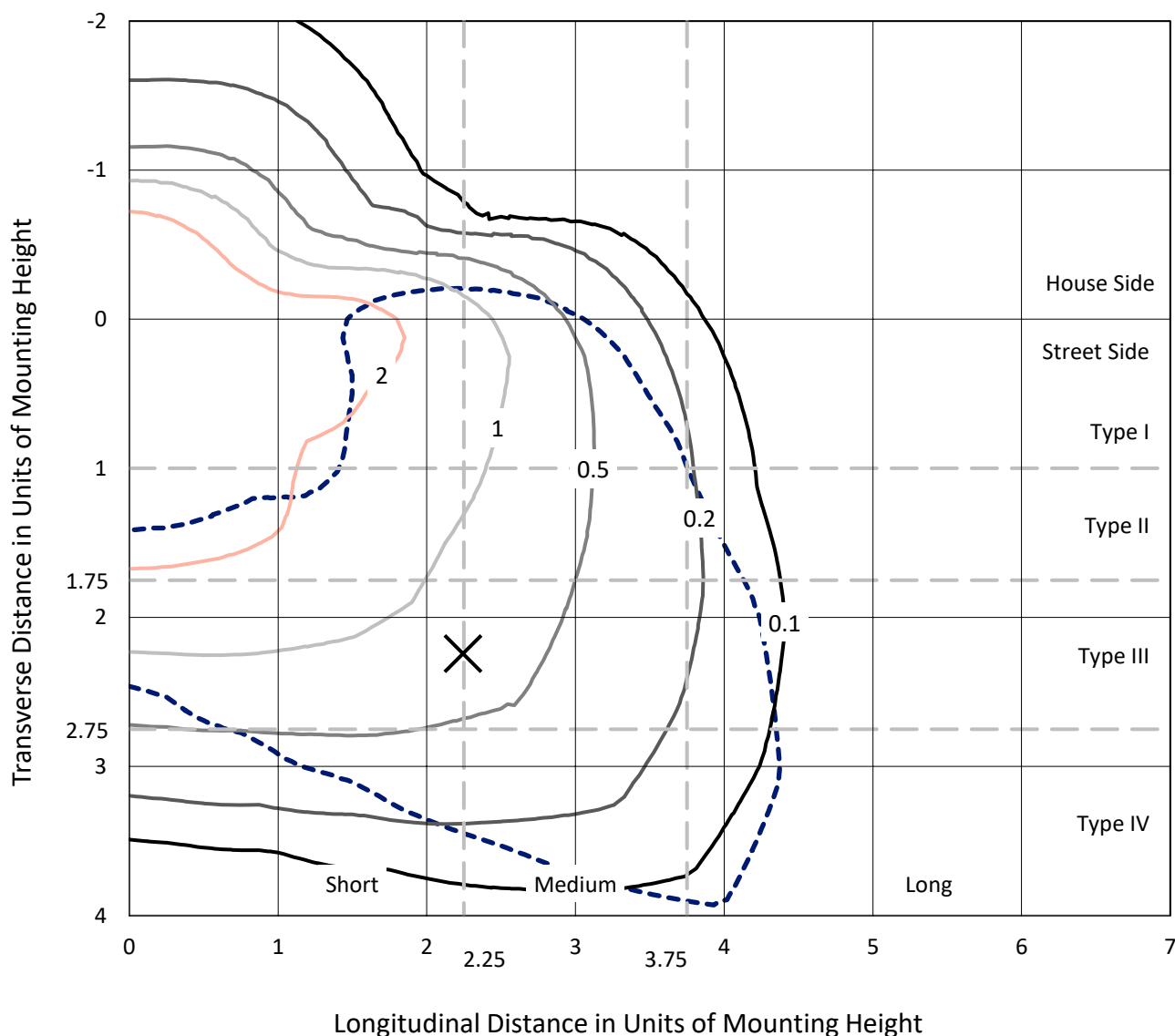
REPORT NUMBER: P966192

CATALOG NUMBER: NAV-SB4B-740-U-T4W

## Iso-Footcandle Lines of Horizontal Illumination

× Max cd

--- 1/2 Max cd

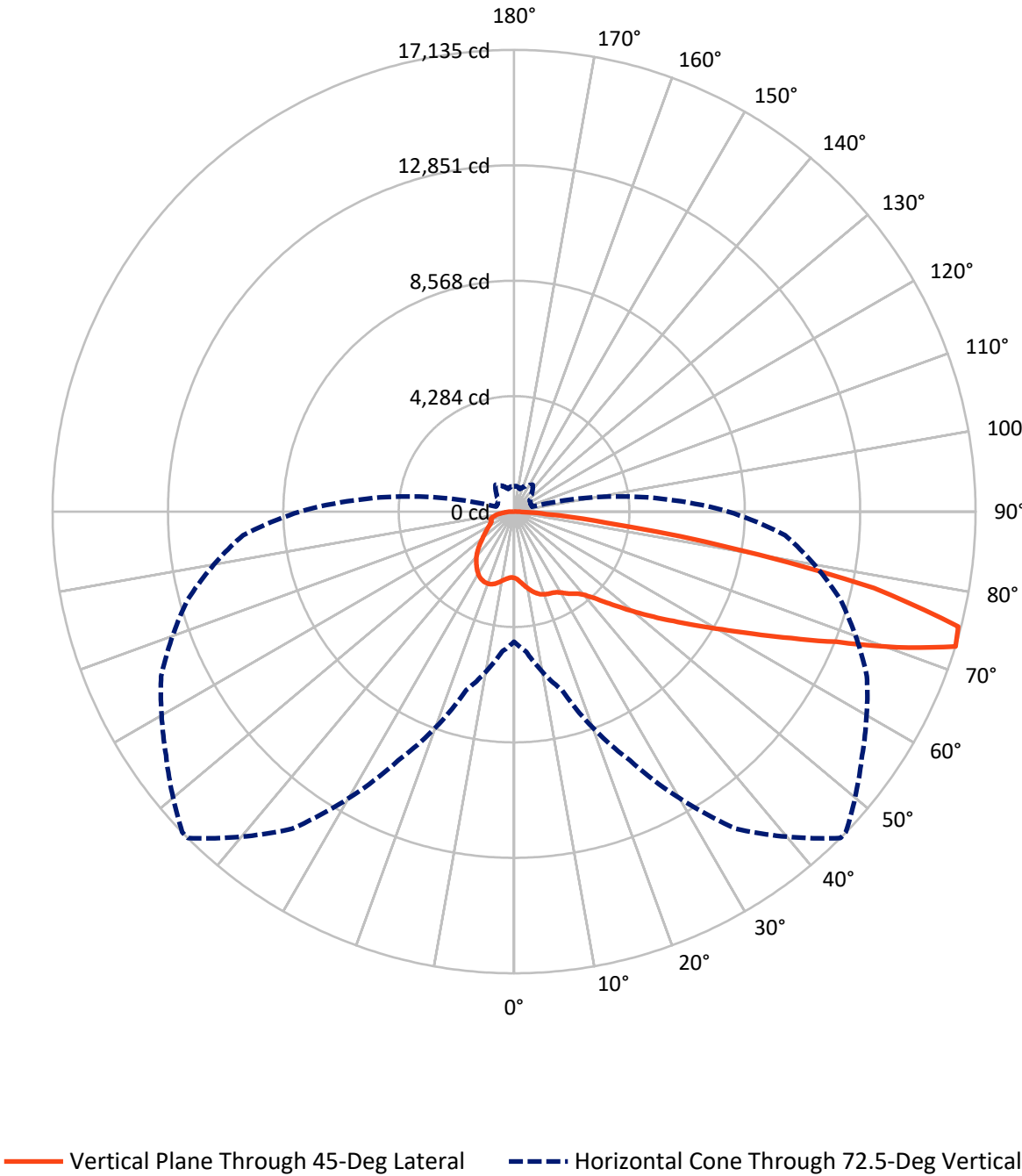


Based on 25 foot mounting height. Maximum calculated value = 4.9 fc

Type IV - Short - N/A

REPORT NUMBER: P966192  
CATALOG NUMBER: NAV-SB4B-740-U-T4W

Luminous Intensity Polar Plot



REPORT NUMBER: P966192

CATALOG NUMBER: NAV-SB4B-740-U-T4W

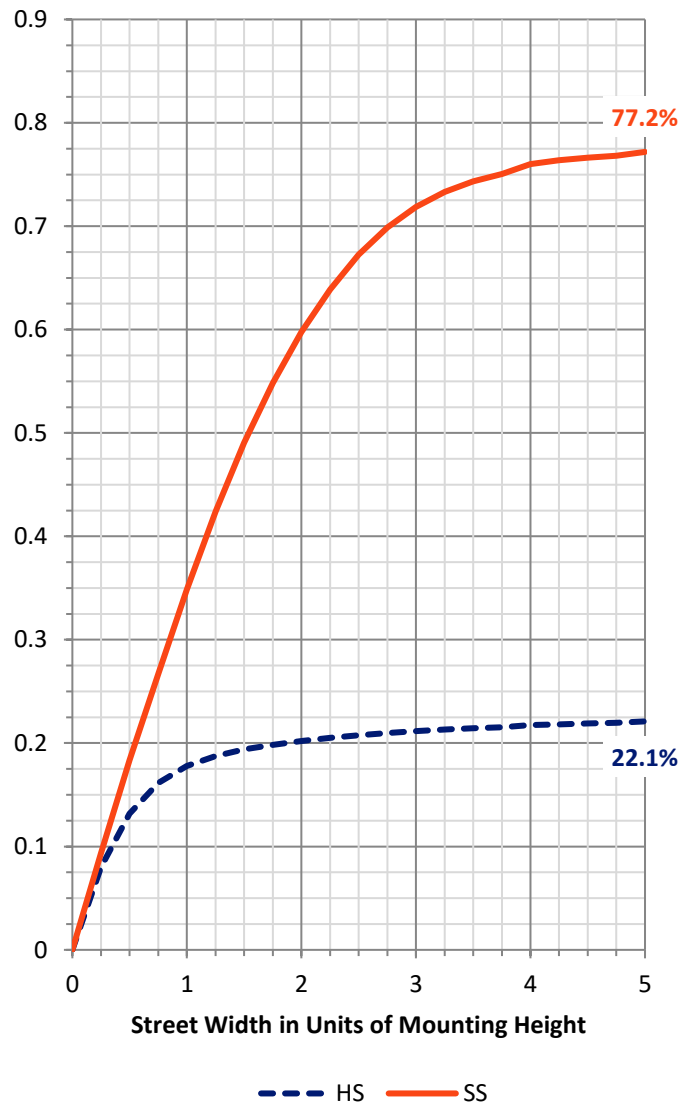
**FLUX DISTRIBUTION:**

|                    |           | Downward | Upward | Total   |
|--------------------|-----------|----------|--------|---------|
| <b>House Side</b>  | Lumens    | 5521.8   | 0.0    | 5521.8  |
|                    | % Fixture | 22.6     | 0.0    | 22.6    |
| <b>Street Side</b> | Lumens    | 18903.9  | 0.0    | 18903.9 |
|                    | % Fixture | 77.4     | 0.0    | 77.4    |
| <b>Total</b>       | Lumens    | 24425.8  | 0.0    | 24425.8 |
|                    | % Fixture | 100.0    | 0.0    | 100.0   |

**ZONAL LUMENS:**

| Zone      | Lumens  | % Fixture |
|-----------|---------|-----------|
| 0°-10°    | 250.8   | 1.0       |
| 10°-20°   | 836.2   | 3.4       |
| 20°-30°   | 1454.6  | 6.0       |
| 30°-40°   | 2085.2  | 8.5       |
| 40°-50°   | 2936.1  | 12.0      |
| 50°-60°   | 4497.3  | 18.4      |
| 60°-70°   | 6515.0  | 26.7      |
| 70°-80°   | 5202.6  | 21.3      |
| 80°-90°   | 648.0   | 2.7       |
| 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°    | 24425.8 | 100.0     |
| 0°-180°   | 24425.8 | 100.0     |

**Coefficient of Utilization**



REPORT NUMBER: P966192

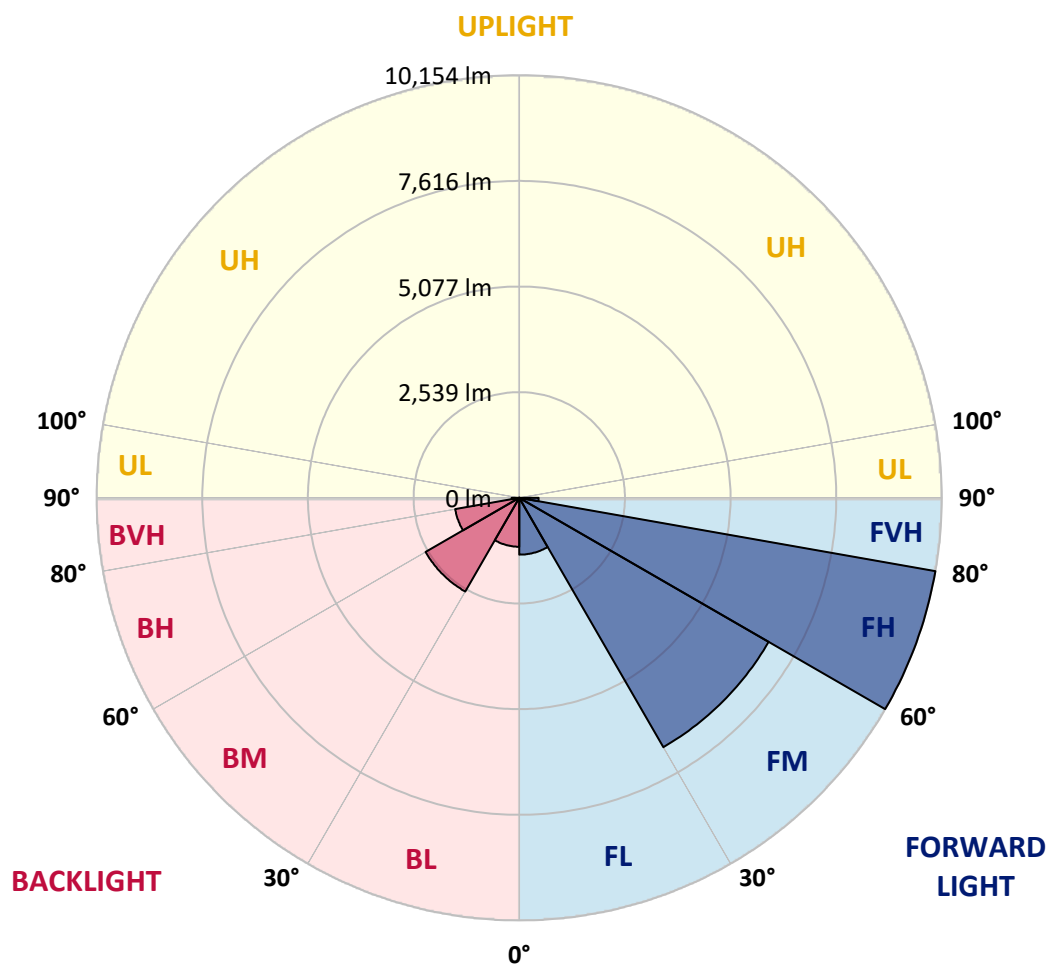
CATALOG NUMBER: NAV-SB4B-740-U-T4W

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

| Zone |             | Lumens  | % Fixture | Zone Rating/Lumen Limit |      |          |
|------|-------------|---------|-----------|-------------------------|------|----------|
|      |             |         |           | B                       | U    | G        |
| FL   | (0°-30°)    | 1365.9  | 5.6       |                         |      |          |
| FM   | (30°-60°)   | 6918.6  | 28.3      |                         |      |          |
| FH   | (60°-80°)   | 10154.5 | 41.6      |                         |      | G4/12000 |
| FVH  | (80°-90°)   | 464.9   | 1.9       |                         |      | G3/500   |
| BL   | (0°-30°)    | 1175.6  | 4.8       | B3/2500                 |      |          |
| BM   | (30°-60°)   | 2600.0  | 10.6      | B3/5000                 |      |          |
| BH   | (60°-80°)   | 1563.1  | 6.4       | B3/2500                 |      | G3/2500  |
| BVH  | (80°-90°)   | 183.1   | 0.7       |                         |      | G2/225   |
| 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 Short



REPORT NUMBER: P966192

CATALOG NUMBER: NAV-SB4B-740-U-T4W

**CANDELA DISTRIBUTION (FULL):**

|       | 0°     | 5°     | 15°     | 25°     | 35°     | 45°     | 46°     | 55°     | 65°     | 75°     | 85°     |
|-------|--------|--------|---------|---------|---------|---------|---------|---------|---------|---------|---------|
| 0°    | 2464.1 | 2464.1 | 2464.1  | 2464.1  | 2464.1  | 2464.1  | 2464.1  | 2464.1  | 2464.1  | 2464.1  | 2464.1  |
| 2.5°  | 2560.6 | 2577.4 | 2561.9  | 2547.7  | 2541.3  | 2524.6  | 2523.2  | 2513.0  | 2506.5  | 2488.5  | 2483.4  |
| 5°    | 2739.4 | 2761.4 | 2735.6  | 2707.2  | 2681.5  | 2640.4  | 2635.2  | 2605.7  | 2572.1  | 2533.6  | 2511.7  |
| 7.5°  | 2941.4 | 2960.7 | 2931.2  | 2888.7  | 2843.7  | 2775.5  | 2774.2  | 2720.1  | 2667.4  | 2601.8  | 2564.4  |
| 10°   | 3117.7 | 3143.5 | 3103.6  | 3045.7  | 2989.1  | 2911.8  | 2902.9  | 2841.1  | 2774.2  | 2689.3  | 2632.6  |
| 12.5° | 3273.4 | 3291.5 | 3252.8  | 3182.1  | 3116.4  | 3039.2  | 3027.6  | 2959.5  | 2884.9  | 2788.3  | 2716.2  |
| 15°   | 3397.0 | 3420.1 | 3368.7  | 3292.7  | 3223.2  | 3147.4  | 3137.0  | 3075.3  | 3000.7  | 2899.0  | 2806.3  |
| 17.5° | 3478.0 | 3497.3 | 3444.6  | 3359.6  | 3292.7  | 3229.7  | 3222.0  | 3170.5  | 3104.8  | 3001.9  | 2902.9  |
| 20°   | 3508.9 | 3529.5 | 3474.1  | 3387.9  | 3326.2  | 3277.3  | 3273.4  | 3236.1  | 3191.1  | 3097.1  | 2996.8  |
| 22.5° | 3539.8 | 3559.1 | 3487.0  | 3397.0  | 3342.9  | 3312.1  | 3310.7  | 3286.3  | 3268.3  | 3191.1  | 3093.2  |
| 25°   | 3664.6 | 3669.7 | 3573.3  | 3443.3  | 3366.1  | 3339.0  | 3337.8  | 3336.5  | 3344.2  | 3283.7  | 3197.5  |
| 27.5° | 3772.7 | 3771.4 | 3689.1  | 3566.8  | 3447.2  | 3390.5  | 3389.3  | 3402.1  | 3426.6  | 3376.4  | 3305.6  |
| 30°   | 3931.0 | 3916.8 | 3819.0  | 3691.6  | 3582.3  | 3494.7  | 3487.0  | 3475.5  | 3494.7  | 3454.9  | 3413.7  |
| 32.5° | 4266.8 | 4221.8 | 4063.5  | 3837.0  | 3694.2  | 3627.3  | 3617.0  | 3545.0  | 3552.6  | 3528.3  | 3507.7  |
| 35°   | 4748.0 | 4688.9 | 4477.8  | 4112.4  | 3833.2  | 3738.0  | 3732.8  | 3641.4  | 3626.0  | 3604.1  | 3611.8  |
| 37.5° | 5320.6 | 5247.3 | 5001.5  | 4511.2  | 4072.5  | 3866.6  | 3858.9  | 3776.5  | 3713.5  | 3690.3  | 3734.1  |
| 40°   | 5895.8 | 5803.1 | 5599.9  | 4997.7  | 4425.0  | 4081.6  | 4057.1  | 3932.2  | 3860.2  | 3821.6  | 3914.3  |
| 42.5° | 6454.2 | 6377.0 | 6203.3  | 5543.2  | 4859.9  | 4395.5  | 4341.4  | 4127.8  | 4073.8  | 4037.8  | 4205.1  |
| 45°   | 6948.4 | 6878.9 | 6751.5  | 6126.1  | 5369.5  | 4822.6  | 4769.9  | 4421.2  | 4404.4  | 4404.4  | 4646.3  |
| 47.5° | 7349.8 | 7334.4 | 7199.2  | 6720.6  | 5970.4  | 5309.0  | 5217.7  | 4829.1  | 4874.1  | 4943.6  | 5273.0  |
| 50°   | 7795.0 | 7752.5 | 7608.4  | 7306.0  | 6676.8  | 5866.2  | 5791.6  | 5329.6  | 5498.2  | 5688.6  | 6178.9  |
| 52.5° | 8204.2 | 8227.4 | 8066.4  | 7916.0  | 7474.6  | 6487.6  | 6356.4  | 5920.2  | 6284.4  | 6599.7  | 7240.4  |
| 55°   | 8625.0 | 8626.2 | 8581.2  | 8560.6  | 8311.0  | 7174.8  | 7030.7  | 6630.5  | 7209.5  | 7600.7  | 8478.3  |
| 57.5° | 9020.0 | 9022.6 | 9089.4  | 9270.9  | 9281.2  | 7967.4  | 7804.0  | 7502.9  | 8237.6  | 8636.5  | 9754.7  |
| 60°   | 9372.5 | 9390.5 | 9573.3  | 9997.8  | 10134.3 | 8875.9  | 8721.4  | 8533.5  | 9300.4  | 9701.9  | 11096.8 |
| 62.5° | 9490.9 | 9556.5 | 9963.1  | 10566.6 | 10977.0 | 9990.2  | 9838.4  | 9726.3  | 10417.4 | 10790.5 | 12218.7 |
| 65°   | 9290.2 | 9440.8 | 10226.9 | 11036.3 | 11844.3 | 11314.2 | 11163.7 | 11041.4 | 11578.0 | 11929.3 | 13140.1 |
| 67.5° | 8797.4 | 8991.6 | 10211.5 | 11529.1 | 12896.9 | 12907.2 | 12766.9 | 12480.0 | 12822.2 | 12957.3 | 13439.9 |
| 70°   | 7499.0 | 7789.9 | 9312.0  | 11713.1 | 14105.1 | 15085.5 | 14950.4 | 14211.9 | 14063.9 | 13410.3 | 12595.8 |
| 72.5° | 4831.6 | 5222.8 | 6856.9  | 10198.6 | 14374.0 | 17135.3 | 17127.6 | 15775.3 | 14456.4 | 12530.1 | 10102.1 |
| 75°   | 1762.8 | 2002.1 | 3185.9  | 6401.4  | 12065.7 | 17031.1 | 17081.3 | 15507.6 | 13196.7 | 9678.8  | 6293.4  |
| 77.5° | 642.1  | 702.5  | 1039.7  | 2460.2  | 7420.6  | 13665.1 | 13769.2 | 12397.6 | 9393.1  | 4857.4  | 2493.7  |
| 80°   | 337.1  | 370.5  | 532.7   | 954.8   | 3179.5  | 8115.4  | 8278.8  | 7367.8  | 4414.8  | 1463.0  | 747.6   |
| 82.5° | 186.5  | 202.0  | 298.5   | 518.5   | 1432.1  | 3470.3  | 3568.1  | 2910.6  | 1553.1  | 620.2   | 308.8   |
| 85°   | 100.3  | 106.8  | 140.2   | 283.1   | 700.0   | 1203.0  | 1230.1  | 869.8   | 618.9   | 364.2   | 149.2   |
| 87.5° | 29.6   | 36.0   | 46.3    | 90.1    | 274.1   | 270.2   | 276.6   | 172.4   | 244.5   | 184.0   | 48.9    |
| 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: P966192

CATALOG NUMBER: NAV-SB4B-740-U-T4W

**CANDELA DISTRIBUTION (continued):**

|       | 90°     | 95°    | 105°   | 115°   | 125°   | 135°   | 145°   | 155°   | 165°   | 175°   | 180°   |
|-------|---------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 0°    | 2464.1  | 2464.1 | 2464.1 | 2464.1 | 2464.1 | 2464.1 | 2464.1 | 2464.1 | 2464.1 | 2464.1 | 2464.1 |
| 2.5°  | 2475.7  | 2471.8 | 2457.6 | 2451.2 | 2443.5 | 2442.2 | 2448.6 | 2450.0 | 2451.2 | 2452.5 | 2457.6 |
| 5°    | 2498.8  | 2485.9 | 2473.1 | 2465.3 | 2467.9 | 2469.2 | 2482.1 | 2491.1 | 2497.5 | 2502.6 | 2505.3 |
| 7.5°  | 2543.8  | 2533.6 | 2511.7 | 2510.4 | 2514.2 | 2525.8 | 2542.6 | 2563.1 | 2574.7 | 2583.7 | 2586.3 |
| 10°   | 2610.8  | 2591.5 | 2565.8 | 2569.6 | 2577.4 | 2594.1 | 2628.8 | 2645.5 | 2664.8 | 2681.5 | 2677.7 |
| 12.5° | 2678.9  | 2662.2 | 2632.6 | 2635.2 | 2648.1 | 2677.7 | 2711.1 | 2731.7 | 2744.5 | 2757.5 | 2762.6 |
| 15°   | 2767.7  | 2738.2 | 2706.0 | 2706.0 | 2729.2 | 2761.4 | 2776.7 | 2793.5 | 2801.2 | 2815.4 | 2820.5 |
| 17.5° | 2859.1  | 2820.5 | 2778.1 | 2775.5 | 2803.8 | 2819.3 | 2828.2 | 2830.8 | 2833.4 | 2848.8 | 2854.0 |
| 20°   | 2950.5  | 2908.0 | 2847.6 | 2842.4 | 2848.8 | 2846.2 | 2845.0 | 2842.4 | 2846.2 | 2865.6 | 2873.3 |
| 22.5° | 3040.6  | 2991.7 | 2908.0 | 2884.9 | 2866.8 | 2842.4 | 2841.1 | 2839.8 | 2842.4 | 2861.7 | 2874.5 |
| 25°   | 3146.0  | 3086.9 | 2975.0 | 2905.5 | 2845.0 | 2811.5 | 2815.4 | 2816.6 | 2819.3 | 2834.6 | 2855.2 |
| 27.5° | 3260.5  | 3194.9 | 3036.7 | 2899.0 | 2789.6 | 2766.5 | 2760.0 | 2763.9 | 2772.9 | 2797.3 | 2821.8 |
| 30°   | 3375.1  | 3297.8 | 3093.2 | 2873.3 | 2720.1 | 2688.0 | 2667.4 | 2676.4 | 2704.7 | 2729.2 | 2756.1 |
| 32.5° | 3479.3  | 3402.1 | 3138.3 | 2816.6 | 2631.4 | 2581.2 | 2554.2 | 2565.8 | 2594.1 | 2603.1 | 2635.2 |
| 35°   | 3601.5  | 3514.0 | 3157.6 | 2726.6 | 2534.8 | 2457.6 | 2421.7 | 2404.9 | 2419.0 | 2410.1 | 2438.4 |
| 37.5° | 3738.0  | 3646.5 | 3155.1 | 2608.2 | 2421.7 | 2332.8 | 2282.7 | 2219.6 | 2190.0 | 2159.2 | 2178.4 |
| 40°   | 3940.0  | 3808.7 | 3124.2 | 2465.3 | 2281.3 | 2200.3 | 2110.3 | 2003.5 | 1936.5 | 1876.1 | 1880.0 |
| 42.5° | 4215.3  | 4033.9 | 3067.5 | 2308.4 | 2123.1 | 2047.2 | 1925.0 | 1800.1 | 1694.6 | 1594.3 | 1585.3 |
| 45°   | 4625.8  | 4328.6 | 2996.8 | 2141.1 | 1952.0 | 1877.3 | 1744.8 | 1604.5 | 1484.9 | 1356.2 | 1340.8 |
| 47.5° | 5217.7  | 4724.8 | 2929.9 | 1950.7 | 1771.8 | 1703.7 | 1583.9 | 1454.0 | 1312.5 | 1187.7 | 1173.5 |
| 50°   | 6030.9  | 5293.6 | 2868.2 | 1765.4 | 1594.3 | 1542.8 | 1447.6 | 1315.1 | 1172.2 | 1071.8 | 1065.4 |
| 52.5° | 7065.4  | 6066.9 | 2842.4 | 1586.5 | 1428.2 | 1409.0 | 1333.0 | 1209.5 | 1074.4 | 989.5  | 983.1  |
| 55°   | 8253.1  | 6992.0 | 2842.4 | 1415.4 | 1282.9 | 1289.3 | 1236.6 | 1122.1 | 1004.9 | 929.1  | 921.3  |
| 57.5° | 9465.2  | 7928.8 | 2790.9 | 1257.2 | 1159.4 | 1186.3 | 1152.9 | 1052.6 | 947.0  | 868.6  | 855.7  |
| 60°   | 10582.0 | 8713.7 | 2582.5 | 1113.0 | 1050.0 | 1092.4 | 1070.5 | 984.3  | 855.7  | 790.1  | 779.7  |
| 62.5° | 11440.3 | 9156.3 | 2181.0 | 998.5  | 959.9  | 1008.8 | 997.2  | 894.3  | 839.0  | 811.9  | 802.9  |
| 65°   | 11870.0 | 9084.3 | 1667.6 | 896.9  | 884.0  | 959.9  | 935.4  | 931.6  | 887.9  | 857.0  | 846.6  |
| 67.5° | 11606.3 | 8464.1 | 1209.5 | 822.3  | 840.2  | 914.8  | 1008.8 | 1024.3 | 943.2  | 882.7  | 872.4  |
| 70°   | 10449.5 | 7342.1 | 900.7  | 751.4  | 784.9  | 916.1  | 1150.4 | 1071.8 | 925.2  | 854.3  | 842.9  |
| 72.5° | 7949.4  | 5475.0 | 698.7  | 676.8  | 712.9  | 922.6  | 1213.4 | 1050.0 | 873.7  | 944.4  | 936.7  |
| 75°   | 4546.0  | 3005.8 | 561.0  | 585.5  | 622.8  | 862.1  | 1181.2 | 993.3  | 833.8  | 867.3  | 867.3  |
| 77.5° | 1733.2  | 1155.5 | 463.2  | 495.4  | 500.5  | 752.8  | 1129.8 | 989.5  | 793.9  | 774.6  | 706.4  |
| 80°   | 600.9   | 451.6  | 383.5  | 393.7  | 387.3  | 669.1  | 1083.4 | 860.8  | 649.7  | 581.6  | 562.3  |
| 82.5° | 245.8   | 225.2  | 303.7  | 290.8  | 275.3  | 519.9  | 874.9  | 703.9  | 531.5  | 469.7  | 464.5  |
| 85°   | 106.8   | 142.8  | 200.7  | 176.3  | 159.6  | 360.3  | 701.3  | 595.7  | 449.1  | 387.3  | 386.0  |
| 87.5° | 21.8    | 54.0   | 85.0   | 79.7   | 82.3   | 240.6  | 497.9  | 423.3  | 317.9  | 238.0  | 186.5  |
| 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)