

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: P968816

Luminaire Tested: **NAV-SB5C-740-U-T2R**

Issue Date: 1/21/2025

**Test Information**

Test Method: LM-79-08  
Report Number: P968816  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2411-289-3)  
Test Lab: INNOVATION CENTER  
Issue Date: 1/21/2025  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: LUMARK  
Catalog Number: NAV-SB5C-740-U-T2R  
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE  
(5) 70 CRI, 4000K, 615mA LIGHTSQUARES WITH 26 LEDS EACH AND TYPE II  
ROADWAY OPTICS  
Light Source: -  
Ballast/Driver: -

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 41785.2 lumens  
Efficiency: N/A  
Efficacy: 167.5 lumens/watt  
Luminous Opening: Rectangular (W 1.5' x L: 1' x H: 0')  
IES Classification: Type II - Medium  
BUG Rating: B3 - U0 - G4

Input Watts (W): 249.5  
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



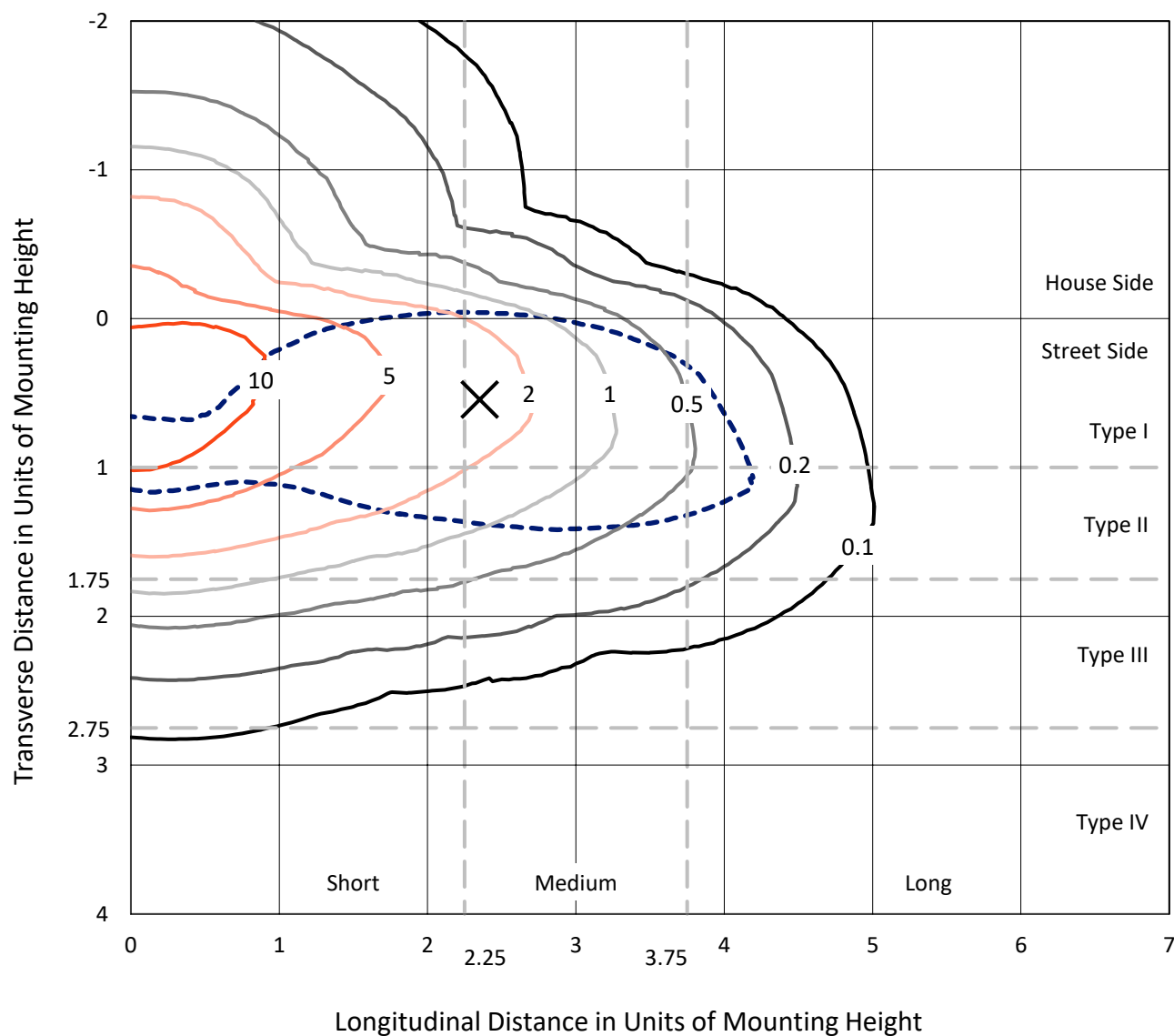
REPORT NUMBER: P968816

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## Iso-Footcandle Lines of Horizontal Illumination

× Max cd

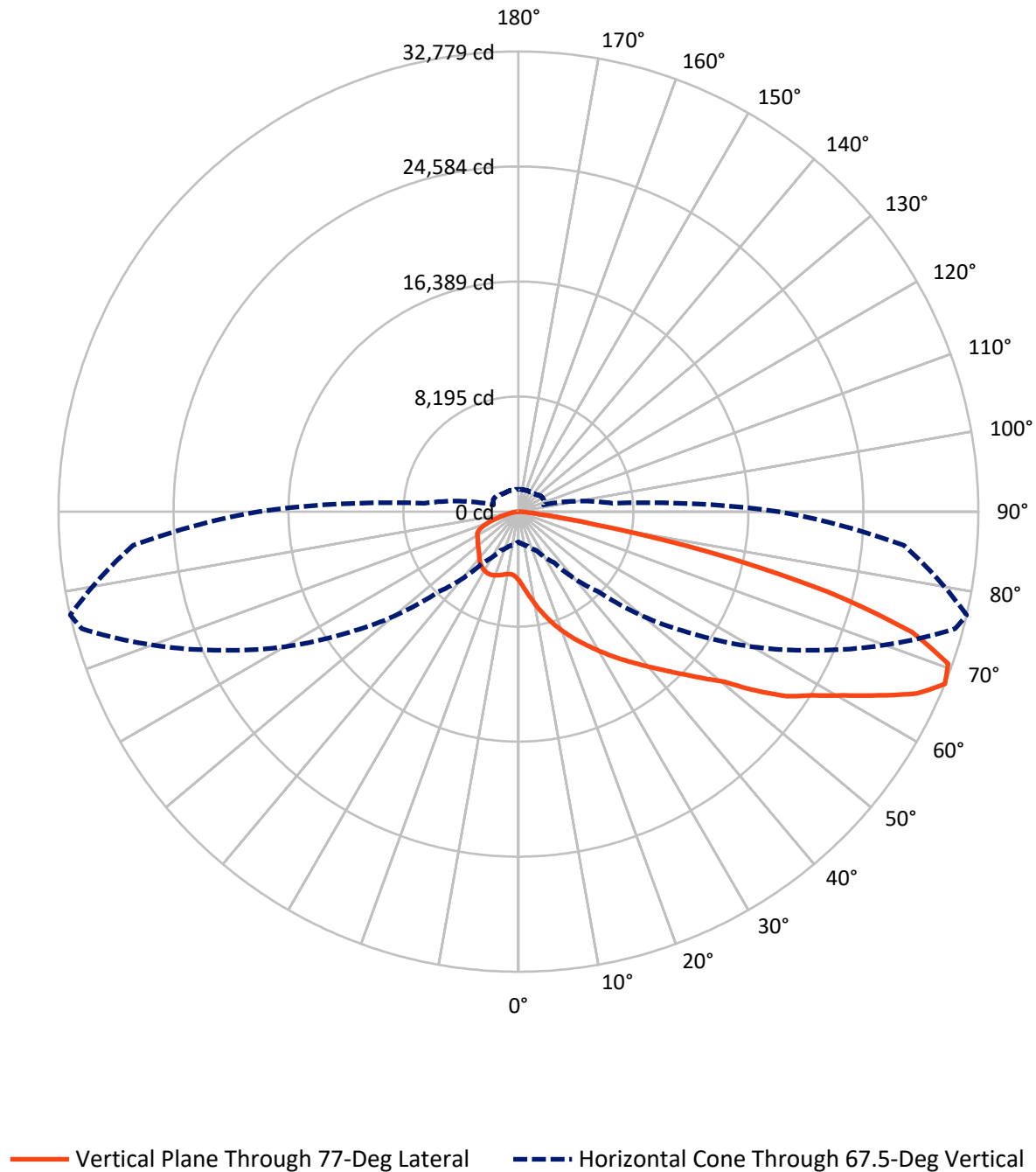
--- 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 15.3 fc  
Type II - Medium - N/A

REPORT NUMBER: P968816  
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## Luminous Intensity Polar Plot



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**FLUX DISTRIBUTION:**

|                    |           | Downward | Upward | Total   |
|--------------------|-----------|----------|--------|---------|
| <b>House Side</b>  | Lumens    | 7904.1   | 0.0    | 7904.1  |
|                    | % Fixture | 18.9     | 0.0    | 18.9    |
| <b>Street Side</b> | Lumens    | 33881.1  | 0.0    | 33881.1 |
|                    | % Fixture | 81.1     | 0.0    | 81.1    |
| <b>Total</b>       | Lumens    | 41785.2  | 0.0    | 41785.2 |
|                    | % Fixture | 100.0    | 0.0    | 100.0   |

**ZONAL LUMENS:**

| Zone      | Lumens  | % Fixture |
|-----------|---------|-----------|
| 0°-10°    | 525.5   | 1.3       |
| 10°-20°   | 1887.9  | 4.5       |
| 20°-30°   | 3564.6  | 8.5       |
| 30°-40°   | 5742.5  | 13.7      |
| 40°-50°   | 7854.7  | 18.8      |
| 50°-60°   | 8860.1  | 21.2      |
| 60°-70°   | 8269.8  | 19.8      |
| 70°-80°   | 4533.3  | 10.8      |
| 80°-90°   | 546.8   | 1.3       |
| 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°    | 41785.2 | 100.0     |
| 0°-180°   | 41785.2 | 100.0     |

**Coefficient of Utilization**



REPORT NUMBER: P968816

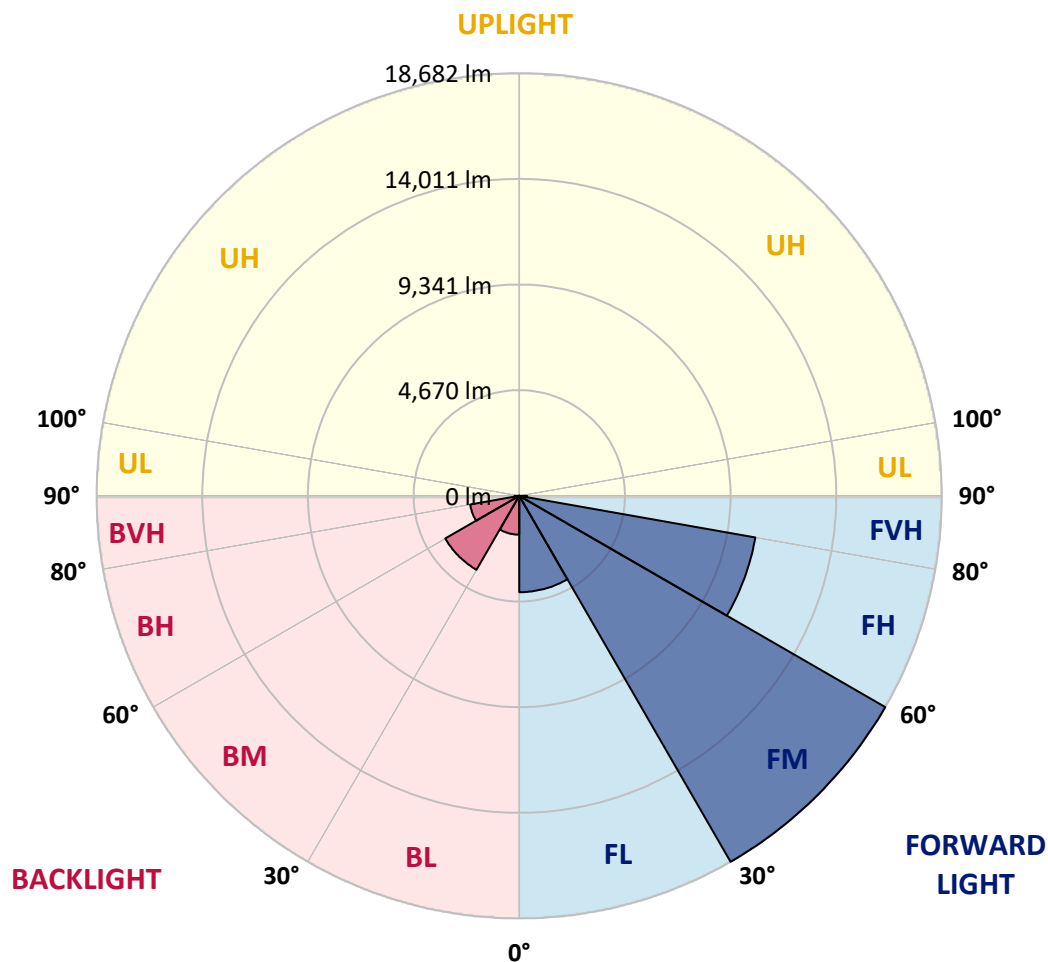
CATALOG NUMBER: NAV-SB5C-740-U-T2R

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

| Zone |             | Lumens  | % Fixture | Zone Rating/Lumen Limit |      |          |
|------|-------------|---------|-----------|-------------------------|------|----------|
|      |             |         |           | B                       | U    | G        |
| FL   | (0°-30°)    | 4259.5  | 10.2      |                         |      |          |
| FM   | (30°-60°)   | 18681.7 | 44.7      |                         |      |          |
| FH   | (60°-80°)   | 10598.0 | 25.4      |                         |      | G4/12000 |
| FVH  | (80°-90°)   | 342.0   | 0.8       |                         |      | G3/500   |
| BL   | (0°-30°)    | 1718.5  | 4.1       | B3/2500                 |      |          |
| BM   | (30°-60°)   | 3775.6  | 9.0       | B3/5000                 |      |          |
| BH   | (60°-80°)   | 2205.1  | 5.3       | B3/2500                 |      | G3/2500  |
| BVH  | (80°-90°)   | 204.8   | 0.5       |                         |      | 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 II Medium



REPORT NUMBER: P968816

CATALOG NUMBER: NAV-SB5C-740-U-T2R

**CANDELA DISTRIBUTION (FULL):**

|       | 0°      | 5°      | 15°     | 25°     | 35°     | 45°     | 55°     | 65°     | 75°     | 77°     | 85°     |
|-------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|
| 0°    | 4902.7  | 4902.7  | 4902.7  | 4902.7  | 4902.7  | 4902.7  | 4902.7  | 4902.7  | 4902.7  | 4902.7  | 4902.7  |
| 2.5°  | 6138.6  | 6181.8  | 6127.9  | 6127.9  | 5946.6  | 5851.7  | 5670.6  | 5532.5  | 5284.5  | 5241.3  | 5077.4  |
| 5°    | 7255.9  | 7309.8  | 7234.3  | 7202.0  | 6988.4  | 6792.2  | 6488.0  | 6188.2  | 5746.0  | 5700.7  | 5314.6  |
| 7.5°  | 8120.9  | 8189.9  | 8123.0  | 8088.5  | 7898.6  | 7678.7  | 7322.8  | 6904.3  | 6281.0  | 6192.5  | 5633.9  |
| 10°   | 8826.2  | 8836.9  | 8815.4  | 8828.3  | 8679.5  | 8498.3  | 8133.8  | 7646.3  | 6867.7  | 6746.9  | 6020.0  |
| 12.5° | 9225.2  | 9274.8  | 9318.0  | 9395.6  | 9369.7  | 9257.5  | 8929.7  | 8347.3  | 7488.9  | 7333.6  | 6440.6  |
| 15°   | 9412.9  | 9499.1  | 9596.2  | 9775.2  | 9919.7  | 9947.7  | 9697.5  | 9100.1  | 8120.9  | 7933.2  | 6865.4  |
| 17.5° | 9479.7  | 9561.6  | 9714.8  | 9973.7  | 10284.2 | 10493.4 | 10381.3 | 9831.3  | 8746.3  | 8530.7  | 7311.9  |
| 20°   | 9818.4  | 9842.0  | 9934.8  | 10180.7 | 10517.2 | 10864.5 | 10948.5 | 10534.4 | 9365.4  | 9121.7  | 7773.6  |
| 22.5° | 10543.0 | 10495.6 | 10521.5 | 10633.7 | 10875.2 | 11211.8 | 11403.6 | 11155.6 | 10001.6 | 9721.3  | 8239.5  |
| 25°   | 11740.1 | 11602.1 | 11464.1 | 11334.7 | 11457.6 | 11647.4 | 11865.3 | 11776.8 | 10668.2 | 10312.3 | 8709.6  |
| 27.5° | 13252.1 | 13083.9 | 12779.8 | 12354.8 | 12206.0 | 12272.9 | 12370.0 | 12352.7 | 11285.0 | 10924.9 | 9195.0  |
| 30°   | 14740.4 | 14544.1 | 14181.8 | 13567.1 | 13174.5 | 12997.6 | 12924.3 | 12874.7 | 11955.8 | 11571.9 | 9684.6  |
| 32.5° | 15928.9 | 15773.6 | 15417.7 | 14729.7 | 14160.3 | 13858.3 | 13614.6 | 13437.6 | 12656.8 | 12272.9 | 10202.2 |
| 35°   | 16968.6 | 16824.0 | 16416.4 | 15665.8 | 15046.7 | 14725.4 | 14406.2 | 14028.7 | 13385.9 | 12997.6 | 10758.7 |
| 37.5° | 17917.6 | 17773.1 | 17214.5 | 16433.6 | 15810.3 | 15588.1 | 15303.4 | 14662.8 | 14117.1 | 13750.4 | 11347.6 |
| 40°   | 18517.2 | 18484.8 | 17962.9 | 17078.6 | 16431.5 | 16321.5 | 16226.6 | 15398.3 | 14928.1 | 14587.3 | 11994.7 |
| 42.5° | 18670.4 | 18741.5 | 18327.4 | 17600.5 | 16983.6 | 16895.2 | 17117.4 | 16230.9 | 15838.3 | 15512.7 | 12728.0 |
| 45°   | 18301.6 | 18506.5 | 18234.6 | 17740.7 | 17376.2 | 17328.8 | 17906.9 | 17141.1 | 16845.6 | 16547.9 | 13612.4 |
| 47.5° | 17367.6 | 17714.9 | 17602.7 | 17533.6 | 17481.9 | 17686.8 | 18601.4 | 18107.4 | 17986.6 | 17727.8 | 14621.8 |
| 50°   | 15482.4 | 16140.3 | 16336.6 | 16772.3 | 17272.7 | 17965.1 | 19233.3 | 19162.2 | 19319.6 | 19058.6 | 15851.2 |
| 52.5° | 12223.3 | 13129.2 | 14268.1 | 15359.5 | 16629.9 | 17872.3 | 19927.8 | 20676.3 | 21340.6 | 21198.3 | 17805.5 |
| 55°   | 10090.1 | 10497.7 | 11373.5 | 13375.1 | 15383.2 | 17481.9 | 20240.6 | 21899.3 | 23346.6 | 23219.3 | 19287.2 |
| 57.5° | 8450.8  | 8815.4  | 9354.6  | 11026.2 | 13498.0 | 16595.4 | 20434.7 | 22645.6 | 24720.5 | 24707.6 | 20749.7 |
| 60°   | 6692.9  | 7079.1  | 7631.2  | 8815.4  | 11295.8 | 15064.0 | 20391.6 | 23495.5 | 26474.1 | 26581.9 | 22533.4 |
| 62.5° | 4708.5  | 5133.5  | 5746.0  | 6850.4  | 9046.1  | 13079.6 | 19511.6 | 24110.2 | 28538.4 | 28831.6 | 24679.5 |
| 65°   | 3095.2  | 3375.6  | 3837.2  | 4790.5  | 6740.4  | 10528.0 | 17831.3 | 24189.9 | 30747.0 | 31243.1 | 26694.2 |
| 67.5° | 2169.8  | 2277.8  | 2549.5  | 3067.1  | 4443.3  | 8073.4  | 15154.5 | 23363.8 | 32220.2 | 32778.8 | 27567.7 |
| 70°   | 1693.2  | 1747.1  | 1885.2  | 2092.2  | 2791.1  | 5429.0  | 11612.9 | 21215.6 | 31905.3 | 32487.7 | 26655.3 |
| 72.5° | 1462.4  | 1514.1  | 1565.9  | 1591.8  | 1872.2  | 3351.9  | 7866.4  | 17738.5 | 28939.5 | 29334.2 | 23176.2 |
| 75°   | 1326.6  | 1339.5  | 1382.6  | 1374.0  | 1427.9  | 2174.2  | 4540.3  | 12924.3 | 22833.2 | 22697.4 | 17108.8 |
| 77.5° | 1115.1  | 1132.4  | 1203.6  | 1192.8  | 1268.2  | 1486.1  | 2357.5  | 8340.8  | 14802.9 | 13879.8 | 9522.9  |
| 80°   | 944.7   | 953.4   | 1031.0  | 1018.0  | 1102.2  | 1076.4  | 1203.6  | 4251.3  | 6278.8  | 5319.0  | 2745.8  |
| 82.5° | 327.9   | 405.5   | 787.3   | 811.0   | 841.2   | 651.4   | 694.5   | 1734.2  | 1917.5  | 1468.8  | 575.9   |
| 85°   | 159.6   | 170.4   | 401.2   | 569.4   | 567.2   | 327.9   | 338.7   | 619.0   | 603.9   | 474.6   | 192.0   |
| 87.5° | 25.9    | 32.4    | 47.5    | 222.1   | 176.9   | 86.3    | 116.4   | 120.7   | 125.2   | 107.8   | 43.2    |
| 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: P968816

CATALOG NUMBER: NAV-SB5C-740-U-T2R

**CANDELA DISTRIBUTION (continued):**

|       | 90°     | 95°    | 105°   | 115°   | 125°   | 135°   | 145°   | 155°   | 165°   | 175°   | 180°   |
|-------|---------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 0°    | 4902.7  | 4902.7 | 4902.7 | 4902.7 | 4902.7 | 4902.7 | 4902.7 | 4902.7 | 4902.7 | 4902.7 | 4902.7 |
| 2.5°  | 4956.6  | 4848.8 | 4622.3 | 4413.0 | 4249.1 | 4091.7 | 4003.2 | 3927.8 | 3884.6 | 3876.0 | 3876.0 |
| 5°    | 5090.4  | 4868.1 | 4456.2 | 4108.9 | 3882.5 | 3714.2 | 3625.8 | 3569.7 | 3541.7 | 3524.5 | 3522.3 |
| 7.5°  | 5282.3  | 4956.6 | 4370.0 | 3975.3 | 3738.0 | 3617.1 | 3571.9 | 3563.2 | 3561.1 | 3563.2 | 3569.7 |
| 10°   | 5547.6  | 5101.1 | 4361.3 | 3942.9 | 3744.4 | 3677.6 | 3675.4 | 3677.6 | 3686.2 | 3688.4 | 3690.5 |
| 12.5° | 5834.5  | 5249.9 | 4395.8 | 3971.0 | 3826.4 | 3789.7 | 3783.3 | 3781.1 | 3787.6 | 3791.9 | 3794.0 |
| 15°   | 6147.2  | 5446.2 | 4454.0 | 4031.3 | 3916.9 | 3878.2 | 3871.7 | 3858.7 | 3856.6 | 3854.4 | 3852.3 |
| 17.5° | 6468.7  | 5640.4 | 4518.7 | 4096.0 | 3975.3 | 3921.3 | 3897.6 | 3867.3 | 3843.6 | 3837.2 | 3843.6 |
| 20°   | 6794.3  | 5832.4 | 4564.0 | 4128.4 | 3979.6 | 3904.0 | 3856.6 | 3804.8 | 3763.8 | 3740.1 | 3748.7 |
| 22.5° | 7141.6  | 6032.9 | 4592.1 | 4119.8 | 3940.7 | 3837.2 | 3750.9 | 3690.5 | 3628.0 | 3587.0 | 3589.1 |
| 25°   | 7480.2  | 6207.6 | 4590.0 | 4074.5 | 3865.2 | 3733.7 | 3623.7 | 3546.0 | 3459.7 | 3416.5 | 3416.5 |
| 27.5° | 7805.9  | 6365.0 | 4536.0 | 3994.6 | 3757.3 | 3610.7 | 3479.2 | 3386.4 | 3302.2 | 3261.2 | 3259.1 |
| 30°   | 8142.4  | 6496.7 | 4451.9 | 3878.2 | 3630.1 | 3468.3 | 3323.9 | 3244.0 | 3168.5 | 3129.7 | 3127.6 |
| 32.5° | 8476.8  | 6617.5 | 4333.3 | 3733.7 | 3483.5 | 3328.2 | 3185.8 | 3112.4 | 3067.1 | 3067.1 | 3069.3 |
| 35°   | 8830.5  | 6701.6 | 4175.8 | 3565.4 | 3328.2 | 3179.3 | 3067.1 | 3024.1 | 3019.6 | 2993.8 | 2987.4 |
| 37.5° | 9203.6  | 6755.5 | 3983.9 | 3392.9 | 3175.0 | 3034.8 | 3000.3 | 2948.5 | 2905.4 | 2849.3 | 2840.7 |
| 40°   | 9596.2  | 6809.4 | 3753.0 | 3213.8 | 3013.2 | 2935.6 | 2920.4 | 2851.4 | 2728.5 | 2590.5 | 2571.0 |
| 42.5° | 10072.9 | 6846.1 | 3513.6 | 3034.8 | 2842.8 | 2816.9 | 2838.5 | 2719.8 | 2523.7 | 2420.0 | 2422.3 |
| 45°   | 10625.0 | 6906.4 | 3293.6 | 2857.9 | 2668.1 | 2668.1 | 2758.7 | 2603.4 | 2441.7 | 2377.0 | 2387.7 |
| 47.5° | 11341.1 | 7046.7 | 3088.7 | 2663.8 | 2506.3 | 2549.5 | 2581.9 | 2463.2 | 2372.7 | 2292.8 | 2290.7 |
| 50°   | 12376.5 | 7383.2 | 2877.4 | 2467.5 | 2383.4 | 2469.6 | 2424.4 | 2355.3 | 2249.7 | 2185.0 | 2178.5 |
| 52.5° | 13662.0 | 7581.6 | 2689.7 | 2290.7 | 2277.8 | 2364.0 | 2299.3 | 2234.6 | 2154.8 | 2068.4 | 2051.2 |
| 55°   | 14537.7 | 7618.3 | 2532.3 | 2161.2 | 2206.5 | 2197.9 | 2174.2 | 2115.9 | 2072.9 | 1958.5 | 1960.6 |
| 57.5° | 15517.0 | 7691.6 | 2402.8 | 2083.6 | 2161.2 | 2066.3 | 2057.7 | 2008.1 | 1952.0 | 1874.4 | 1848.5 |
| 60°   | 16688.1 | 7805.9 | 2290.7 | 2053.4 | 2122.5 | 1980.1 | 1936.9 | 1917.5 | 1861.4 | 1822.7 | 1833.4 |
| 62.5° | 17965.1 | 7909.4 | 2176.4 | 2057.7 | 2077.2 | 1895.9 | 1831.3 | 1824.8 | 1790.3 | 1777.4 | 1777.4 |
| 65°   | 18836.4 | 7626.9 | 2034.0 | 2053.4 | 2005.9 | 1809.6 | 1727.7 | 1725.6 | 1697.5 | 1693.2 | 1691.0 |
| 67.5° | 18532.3 | 6731.8 | 1842.0 | 1993.0 | 1932.6 | 1723.4 | 1632.8 | 1624.2 | 1587.5 | 1589.7 | 1589.7 |
| 70°   | 17009.6 | 5454.8 | 1576.8 | 1844.2 | 1842.0 | 1645.7 | 1533.6 | 1505.5 | 1455.9 | 1464.5 | 1473.2 |
| 72.5° | 14153.7 | 4042.1 | 1220.8 | 1596.1 | 1697.5 | 1574.6 | 1419.2 | 1374.0 | 1311.4 | 1320.0 | 1317.8 |
| 75°   | 10221.7 | 2747.9 | 888.7  | 1214.3 | 1477.5 | 1490.5 | 1307.1 | 1229.5 | 1153.9 | 1166.9 | 1171.2 |
| 77.5° | 5230.6  | 1557.3 | 653.5  | 836.9  | 1160.4 | 1354.5 | 1205.7 | 1102.2 | 1085.0 | 1205.7 | 1188.5 |
| 80°   | 1706.1  | 780.8  | 452.9  | 586.7  | 761.4  | 1108.6 | 1056.9 | 938.3  | 934.0  | 962.0  | 826.2  |
| 82.5° | 509.0   | 330.0  | 291.2  | 386.1  | 420.6  | 849.8  | 912.4  | 709.6  | 610.4  | 642.8  | 664.3  |
| 85°   | 174.7   | 159.6  | 166.0  | 192.0  | 200.6  | 498.3  | 638.5  | 470.2  | 444.3  | 489.6  | 483.2  |
| 87.5° | 41.0    | 56.1   | 47.5   | 43.2   | 43.2   | 120.7  | 248.0  | 196.3  | 271.7  | 181.2  | 174.7  |
| 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)