

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: P959856

Luminaire Tested: **NAV-SB1B-740-U-T2R-HSS**

Issue Date: 1/21/2025

**Test Information**

Test Method: LM-79-08  
Report Number: P959856  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2411-289-4)  
Test Lab: INNOVATION CENTER  
Issue Date: 1/21/2025  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: LUMARK  
Catalog Number: NAV-SB1B-740-U-T2R-HSS  
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE  
(1) 70 CRI, 4000K, 450mA LIGHTSQUARE WITH 26 LEDS AND TYPE II ROADWAY  
OPTICS WITH HOUSE SIDE SHIELD  
Light Source: -  
Ballast/Driver: -

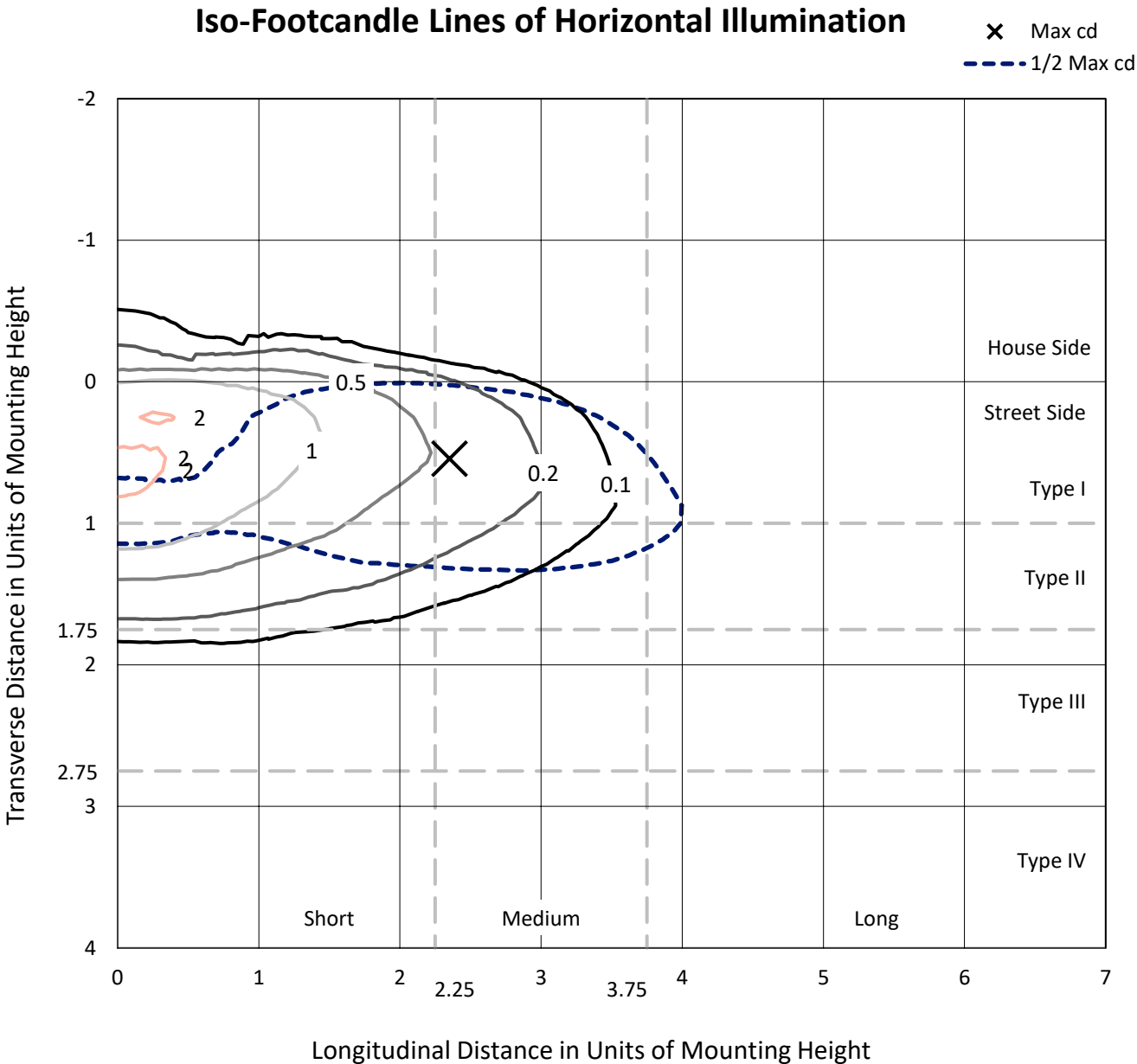
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 5172.1 lumens  
Efficiency: N/A  
Efficacy: 130.0 lumens/watt  
Luminous Opening: Rectangular (W 0.5' x L: 0.5' x H: 0')  
IES Classification: Type II - Medium  
BUG Rating: B0 - U0 - G1

Input Watts (W): 39.8  
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



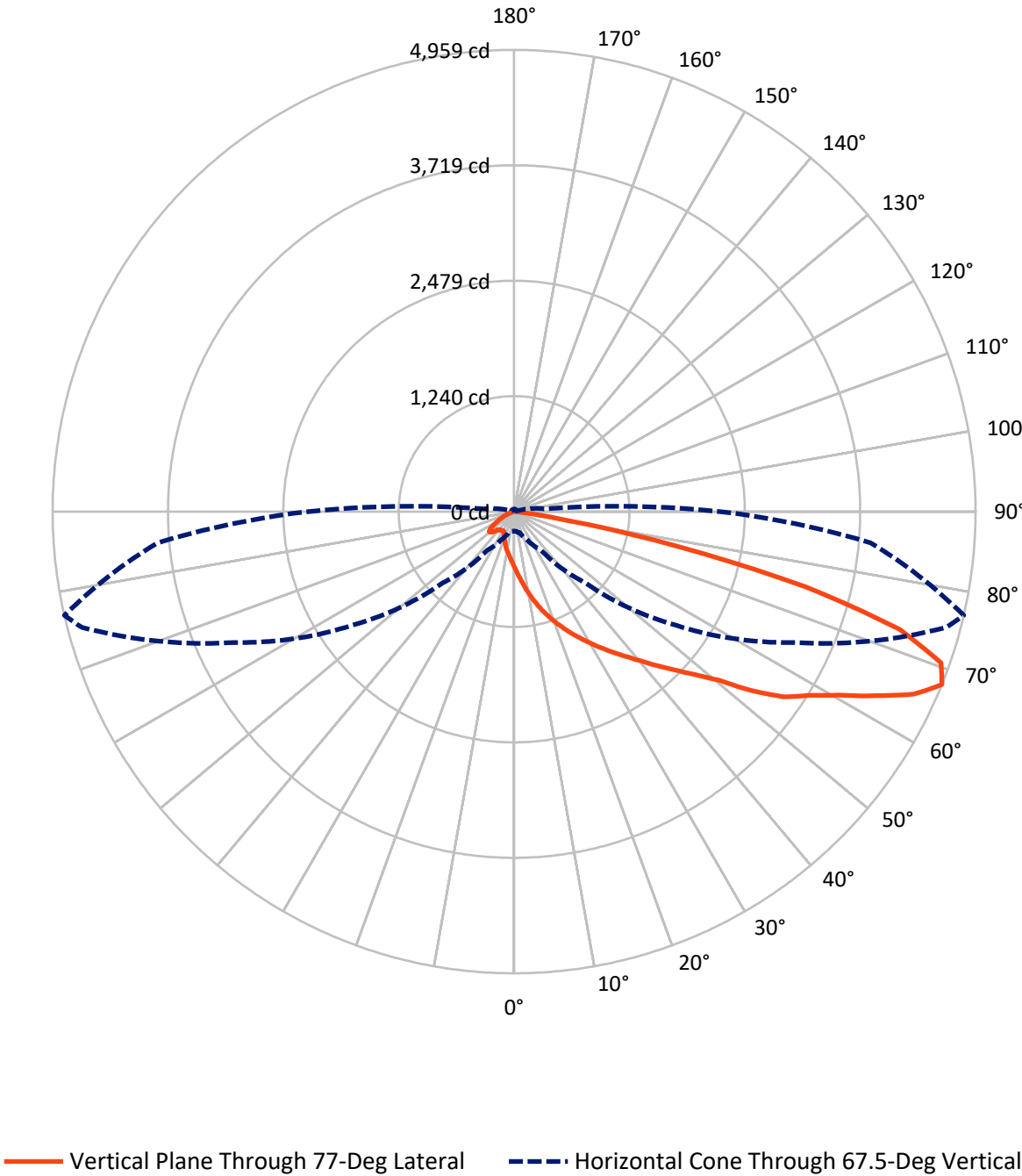
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CATALOG NUMBER: NAV-SB1B-740-U-T2R-HSS



Based on 25 foot mounting height. Maximum calculated value = 2.2 fc  
Type II - Medium - N/A

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CATALOG NUMBER: NAV-SB1B-740-U-T2R-HSS

Luminous Intensity Polar Plot



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**FLUX DISTRIBUTION:**

|                    |           | Downward | Upward | Total  |
|--------------------|-----------|----------|--------|--------|
| <b>House Side</b>  | Lumens    | 380.5    | 0.0    | 380.5  |
|                    | % Fixture | 7.4      | 0.0    | 7.4    |
| <b>Street Side</b> | Lumens    | 4791.6   | 0.0    | 4791.6 |
|                    | % Fixture | 92.6     | 0.0    | 92.6   |
| <b>Total</b>       | Lumens    | 5172.1   | 0.0    | 5172.1 |
|                    | % Fixture | 100.0    | 0.0    | 100.0  |

**ZONAL LUMENS:**

| Zone      | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10°    | 60.9   | 1.2       |
| 10°-20°   | 213.2  | 4.1       |
| 20°-30°   | 411.4  | 8.0       |
| 30°-40°   | 714.2  | 13.8      |
| 40°-50°   | 1036.9 | 20.0      |
| 50°-60°   | 1190.8 | 23.0      |
| 60°-70°   | 1033.8 | 20.0      |
| 70°-80°   | 486.9  | 9.4       |
| 80°-90°   | 24.1   | 0.5       |
| 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°    | 5172.1 | 100.0     |
| 0°-180°   | 5172.1 | 100.0     |

**Coefficient of Utilization**



REPORT NUMBER: P959856

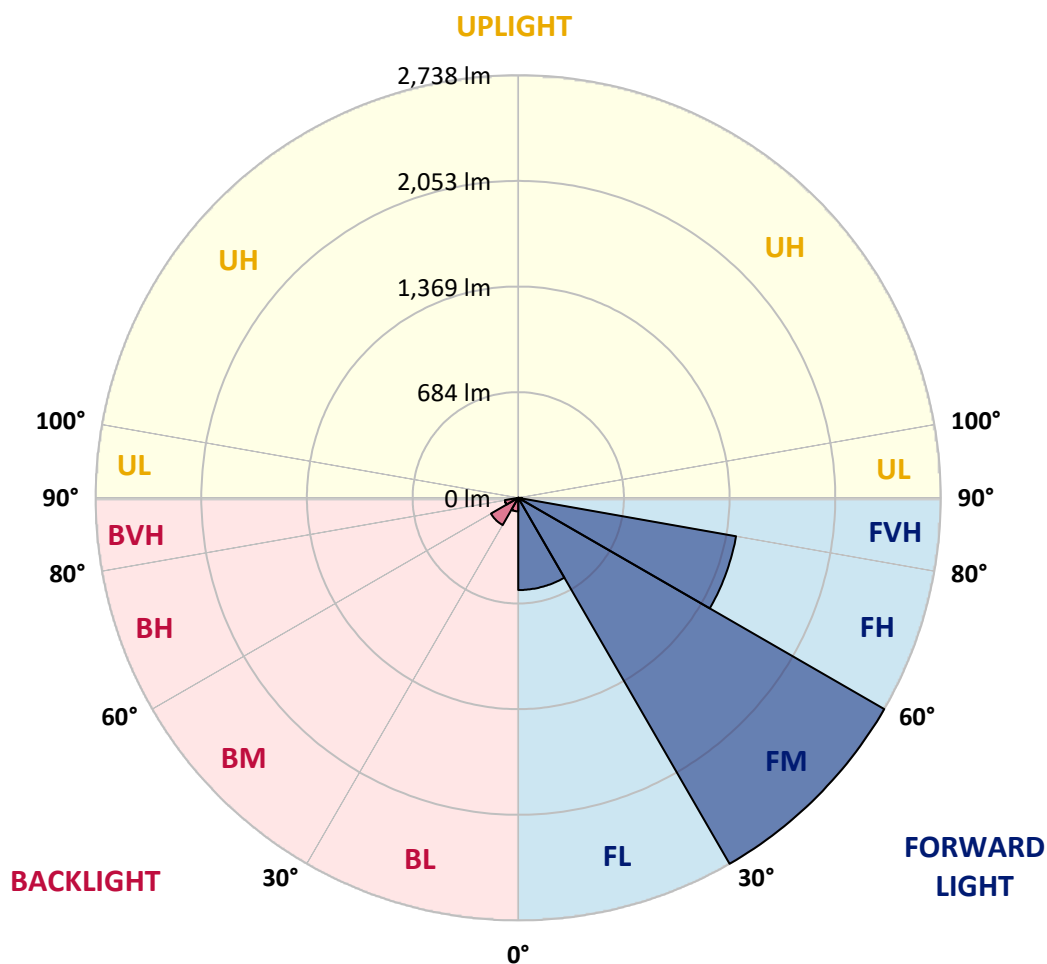
CATALOG NUMBER: NAV-SB1B-740-U-T2R-HSS

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

| Zone |             | Lumens | % Fixture | Zone Rating/Lumen Limit |      |         |
|------|-------------|--------|-----------|-------------------------|------|---------|
|      |             |        |           | B                       | U    | G       |
| FL   | (0°-30°)    | 597.3  | 11.5      |                         |      |         |
| FM   | (30°-60°)   | 2738.0 | 52.9      |                         |      |         |
| FH   | (60°-80°)   | 1432.7 | 27.7      |                         |      | G1/1800 |
| FVH  | (80°-90°)   | 23.6   | 0.5       |                         |      | G1/100  |
| BL   | (0°-30°)    | 88.1   | 1.7       | B0/110                  |      |         |
| BM   | (30°-60°)   | 203.9  | 3.9       | B0/220                  |      |         |
| BH   | (60°-80°)   | 88.1   | 1.7       | B0/110                  |      | G0/110  |
| BVH  | (80°-90°)   | 0.4    | 0.0       |                         |      | G0/10   |
| UL   | (90°-100°)  | 0.0    | 0.0       |                         | U0/0 |         |
| UH   | (100°-180°) | 0.0    | 0.0       |                         | U0/0 |         |

**BUG Rating: B0-U0-G1**

Type II Medium



REPORT NUMBER: P959856

CATALOG NUMBER: NAV-SB1B-740-U-T2R-HSS

**CANDELA DISTRIBUTION (FULL):**

|       | 0°     | 5°     | 15°    | 25°    | 35°    | 45°    | 55°    | 65°    | 75°    | 77°    | 85°    |
|-------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 0°    | 596.4  | 596.4  | 596.4  | 596.4  | 596.4  | 596.4  | 596.4  | 596.4  | 596.4  | 596.4  | 596.4  |
| 2.5°  | 825.7  | 830.9  | 823.5  | 809.3  | 788.1  | 774.4  | 740.7  | 708.8  | 673.5  | 662.3  | 626.9  |
| 5°    | 1006.6 | 1011.1 | 1002.8 | 987.3  | 959.0  | 932.0  | 887.8  | 821.2  | 752.1  | 730.0  | 667.4  |
| 7.5°  | 1140.5 | 1143.1 | 1139.9 | 1125.8 | 1098.7 | 1068.3 | 1018.7 | 940.1  | 837.6  | 813.2  | 717.2  |
| 10°   | 1236.9 | 1245.2 | 1244.2 | 1238.8 | 1220.8 | 1196.1 | 1143.4 | 1053.8 | 933.4  | 901.9  | 773.4  |
| 12.5° | 1300.7 | 1310.1 | 1315.6 | 1327.8 | 1326.8 | 1311.1 | 1264.7 | 1170.0 | 1028.7 | 991.8  | 836.7  |
| 15°   | 1319.4 | 1329.3 | 1350.2 | 1378.5 | 1403.5 | 1411.5 | 1379.1 | 1284.0 | 1133.8 | 1086.5 | 901.6  |
| 17.5° | 1308.8 | 1324.2 | 1349.3 | 1393.9 | 1448.8 | 1485.1 | 1481.6 | 1394.2 | 1229.2 | 1175.2 | 965.1  |
| 20°   | 1332.2 | 1347.1 | 1366.6 | 1404.1 | 1468.1 | 1533.9 | 1560.3 | 1499.6 | 1323.9 | 1267.4 | 1032.0 |
| 22.5° | 1462.0 | 1459.4 | 1461.3 | 1467.5 | 1505.7 | 1570.9 | 1625.1 | 1595.3 | 1417.7 | 1359.9 | 1102.6 |
| 25°   | 1667.6 | 1656.0 | 1636.4 | 1603.3 | 1593.7 | 1625.1 | 1681.7 | 1680.1 | 1516.6 | 1454.6 | 1174.9 |
| 27.5° | 1903.3 | 1901.4 | 1855.5 | 1775.8 | 1730.8 | 1718.6 | 1745.6 | 1762.6 | 1614.6 | 1548.4 | 1247.4 |
| 30°   | 2129.1 | 2134.3 | 2072.2 | 1983.6 | 1901.1 | 1853.2 | 1828.8 | 1841.0 | 1714.1 | 1649.5 | 1322.2 |
| 32.5° | 2325.6 | 2331.1 | 2263.6 | 2159.9 | 2057.8 | 2000.0 | 1948.6 | 1918.4 | 1822.7 | 1752.3 | 1404.5 |
| 35°   | 2491.7 | 2497.1 | 2419.7 | 2305.1 | 2196.2 | 2143.9 | 2085.7 | 2003.2 | 1931.9 | 1866.3 | 1496.1 |
| 37.5° | 2640.1 | 2638.5 | 2534.7 | 2419.1 | 2312.2 | 2270.7 | 2240.2 | 2107.6 | 2044.3 | 1981.0 | 1597.6 |
| 40°   | 2727.7 | 2734.5 | 2645.8 | 2518.3 | 2414.6 | 2384.5 | 2382.5 | 2237.0 | 2174.0 | 2112.7 | 1708.7 |
| 42.5° | 2753.5 | 2765.3 | 2701.1 | 2596.4 | 2502.3 | 2469.5 | 2520.0 | 2377.1 | 2325.0 | 2265.2 | 1834.2 |
| 45°   | 2707.2 | 2718.7 | 2689.5 | 2616.9 | 2562.0 | 2540.9 | 2638.1 | 2522.2 | 2486.2 | 2427.1 | 1975.9 |
| 47.5° | 2572.3 | 2586.8 | 2593.9 | 2578.4 | 2577.8 | 2599.3 | 2744.1 | 2675.0 | 2677.6 | 2617.2 | 2140.0 |
| 50°   | 2311.2 | 2335.6 | 2400.4 | 2455.1 | 2539.5 | 2645.5 | 2847.2 | 2840.8 | 2893.5 | 2841.4 | 2353.9 |
| 52.5° | 1836.5 | 1871.1 | 2094.7 | 2244.0 | 2433.9 | 2636.8 | 2960.6 | 3106.8 | 3272.1 | 3196.1 | 2655.5 |
| 55°   | 1475.8 | 1475.8 | 1657.6 | 1937.0 | 2227.6 | 2579.7 | 3010.1 | 3279.5 | 3530.1 | 3512.1 | 2867.7 |
| 57.5° | 1203.1 | 1217.6 | 1333.5 | 1580.6 | 1929.4 | 2443.5 | 3040.6 | 3388.1 | 3737.9 | 3724.6 | 3075.3 |
| 60°   | 742.5  | 773.7  | 992.7  | 1236.6 | 1589.8 | 2201.0 | 3021.3 | 3497.9 | 3990.0 | 4000.6 | 3325.1 |
| 62.5° | 418.2  | 429.8  | 527.4  | 889.7  | 1236.3 | 1875.0 | 2873.9 | 3559.3 | 4312.5 | 4357.4 | 3582.7 |
| 65°   | 288.7  | 294.5  | 332.1  | 553.7  | 856.9  | 1492.8 | 2585.8 | 3521.1 | 4635.6 | 4726.5 | 3801.1 |
| 67.5° | 209.7  | 212.6  | 236.1  | 338.2  | 508.4  | 1082.4 | 2134.3 | 3328.4 | 4806.7 | 4958.6 | 3842.8 |
| 70°   | 161.2  | 163.2  | 180.2  | 222.2  | 300.3  | 668.1  | 1550.0 | 2945.2 | 4682.7 | 4864.2 | 3629.0 |
| 72.5° | 131.0  | 132.9  | 146.2  | 164.4  | 199.2  | 395.0  | 939.4  | 2391.8 | 4135.5 | 4331.3 | 3089.4 |
| 75°   | 110.5  | 113.1  | 124.9  | 136.8  | 156.1  | 253.7  | 440.6  | 1665.6 | 3110.0 | 3238.4 | 2148.4 |
| 77.5° | 61.3   | 56.5   | 101.5  | 113.4  | 131.7  | 160.6  | 206.2  | 980.2  | 1741.8 | 1777.4 | 953.2  |
| 80°   | 38.2   | 39.5   | 80.6   | 91.2   | 101.2  | 81.0   | 94.4   | 377.4  | 603.8  | 573.6  | 184.7  |
| 82.5° | 2.3    | 5.1    | 62.0   | 65.8   | 69.4   | 34.6   | 35.7   | 128.1  | 145.4  | 133.7  | 32.8   |
| 85°   | 0.0    | 0.0    | 28.3   | 22.8   | 24.1   | 9.9    | 10.2   | 29.8   | 19.6   | 21.2   | 6.5    |
| 87.5° | 0.0    | 0.0    | 0.0    | 0.6    | 0.0    | 0.9    | 1.9    | 2.6    | 0.9    | 1.3    | 2.3    |
| 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: P959856

CATALOG NUMBER: NAV-SB1B-740-U-T2R-HSS

**CANDELA DISTRIBUTION (continued):**

|       | 90°    | 95°   | 105°  | 115°  | 125°  | 135°  | 145°  | 155°  | 165°  | 175°  | 180°  |
|-------|--------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| 0°    | 596.4  | 596.4 | 596.4 | 596.4 | 596.4 | 596.4 | 596.4 | 596.4 | 596.4 | 596.4 | 596.4 |
| 2.5°  | 604.4  | 582.0 | 536.4 | 491.7 | 455.4 | 421.7 | 397.6 | 374.8 | 363.3 | 362.6 | 361.9 |
| 5°    | 622.8  | 575.5 | 484.3 | 403.7 | 338.9 | 286.8 | 253.1 | 229.0 | 216.8 | 212.6 | 212.0 |
| 7.5°  | 648.4  | 577.5 | 438.7 | 326.7 | 250.2 | 205.5 | 186.2 | 178.6 | 176.0 | 173.1 | 172.5 |
| 10°   | 680.9  | 582.0 | 397.9 | 263.0 | 197.2 | 174.8 | 167.0 | 163.8 | 161.8 | 159.9 | 159.3 |
| 12.5° | 717.2  | 586.2 | 357.5 | 218.4 | 173.4 | 161.8 | 156.4 | 152.5 | 150.0 | 147.7 | 147.1 |
| 15°   | 752.6  | 588.8 | 315.4 | 187.3 | 161.2 | 151.9 | 146.2 | 142.0 | 138.5 | 135.8 | 135.5 |
| 17.5° | 787.5  | 592.2 | 275.9 | 168.6 | 151.3 | 142.0 | 136.2 | 131.0 | 128.1 | 125.3 | 124.9 |
| 20°   | 826.4  | 591.6 | 238.6 | 155.5 | 141.3 | 132.0 | 125.9 | 121.1 | 118.2 | 115.0 | 114.7 |
| 22.5° | 862.3  | 588.3 | 205.9 | 144.2 | 131.0 | 122.1 | 115.3 | 110.5 | 107.6 | 105.1 | 104.7 |
| 25°   | 903.7  | 585.8 | 178.6 | 134.0 | 121.4 | 112.4 | 105.1 | 100.6 | 97.3  | 95.0  | 94.7  |
| 27.5° | 943.6  | 582.0 | 158.7 | 124.6 | 112.1 | 103.4 | 96.4  | 91.2  | 88.4  | 86.7  | 86.7  |
| 30°   | 982.8  | 581.0 | 151.3 | 115.6 | 103.7 | 95.0  | 88.0  | 83.2  | 81.0  | 80.3  | 79.9  |
| 32.5° | 1030.0 | 583.5 | 154.5 | 112.4 | 96.0  | 87.3  | 80.6  | 77.1  | 74.8  | 74.8  | 74.8  |
| 35°   | 1080.5 | 582.9 | 159.3 | 115.3 | 90.9  | 79.6  | 74.5  | 72.3  | 70.0  | 70.0  | 70.0  |
| 37.5° | 1143.7 | 583.9 | 163.2 | 120.1 | 89.0  | 73.2  | 70.3  | 67.4  | 66.1  | 66.1  | 66.1  |
| 40°   | 1238.1 | 615.7 | 161.2 | 124.3 | 88.4  | 68.8  | 62.9  | 62.0  | 61.0  | 61.0  | 61.0  |
| 42.5° | 1353.7 | 684.7 | 163.8 | 124.6 | 88.0  | 65.5  | 57.8  | 59.8  | 57.5  | 57.2  | 56.9  |
| 45°   | 1480.3 | 760.2 | 180.2 | 117.9 | 87.6  | 64.0  | 55.2  | 57.5  | 53.9  | 53.9  | 53.9  |
| 47.5° | 1605.9 | 835.1 | 196.9 | 108.2 | 86.7  | 63.6  | 53.0  | 51.7  | 50.7  | 51.0  | 51.0  |
| 50°   | 1779.0 | 896.1 | 203.3 | 95.0  | 84.5  | 62.9  | 48.8  | 49.1  | 48.5  | 49.1  | 49.1  |
| 52.5° | 1967.5 | 909.0 | 195.6 | 80.3  | 78.0  | 61.0  | 45.9  | 47.3  | 46.8  | 47.6  | 47.6  |
| 55°   | 2085.1 | 895.1 | 161.5 | 66.8  | 68.1  | 53.3  | 43.0  | 45.6  | 45.6  | 45.6  | 45.6  |
| 57.5° | 2206.5 | 836.3 | 114.7 | 54.3  | 56.5  | 43.7  | 40.5  | 44.0  | 43.7  | 43.4  | 43.4  |
| 60°   | 2293.8 | 741.3 | 75.4  | 44.7  | 45.0  | 36.0  | 37.6  | 41.4  | 41.1  | 39.5  | 39.5  |
| 62.5° | 2359.0 | 636.2 | 48.5  | 37.9  | 34.3  | 32.4  | 34.3  | 37.6  | 36.3  | 32.8  | 32.1  |
| 65°   | 2351.7 | 490.8 | 37.2  | 32.4  | 28.3  | 28.3  | 29.8  | 32.8  | 28.9  | 23.2  | 22.4  |
| 67.5° | 2214.5 | 332.1 | 30.9  | 27.3  | 23.8  | 23.5  | 24.7  | 27.3  | 24.7  | 19.6  | 19.0  |
| 70°   | 1969.4 | 217.1 | 24.7  | 21.2  | 19.0  | 17.3  | 19.9  | 23.5  | 20.9  | 15.8  | 15.1  |
| 72.5° | 1598.5 | 132.3 | 18.7  | 15.4  | 13.8  | 11.3  | 15.8  | 19.3  | 16.7  | 11.6  | 11.0  |
| 75°   | 1034.2 | 67.4  | 12.8  | 9.9   | 7.4   | 6.8   | 11.6  | 14.5  | 11.6  | 7.1   | 6.1   |
| 77.5° | 395.6  | 28.3  | 7.1   | 4.5   | 3.9   | 3.2   | 6.5   | 8.7   | 4.8   | 1.6   | 1.3   |
| 80°   | 76.2   | 11.9  | 3.5   | 2.3   | 1.9   | 1.3   | 0.9   | 0.6   | 0.0   | 0.0   | 0.0   |
| 82.5° | 13.1   | 3.9   | 1.3   | 0.6   | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   |
| 85°   | 4.5    | 0.6   | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   |
| 87.5° | 1.6    | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   |
| 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)