

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: P964233

Luminaire Tested: **NAV-SB3B-835-U-T3R-HSS**

Issue Date: 1/21/2025

### Test Information

Test Method: LM-79-08  
Report Number: P964233  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2411-289-6)  
Test Lab: INNOVATION CENTER  
Issue Date: 1/21/2025  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: LUMARK  
Catalog Number: NAV-SB3B-835-U-T3R-HSS  
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE  
(3) 80 CRI, 3500K, 450mA LIGHTSQUARES WITH 26 LEDS EACH AND TYPE III  
ROADWAY OPTICS WITH HOUSE SIDE SHIELD  
Light Source: -  
Ballast/Driver: -

### Summary

Lumens per Lamp: N/A  
Luminaire Lumens: 13373.2 lumens  
Efficiency: N/A  
Efficacy: 122.5 lumens/watt  
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')  
IES Classification: Type III - Medium  
BUG Rating: B1 - U0 - G3

Input Watts (W): 109.2  
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

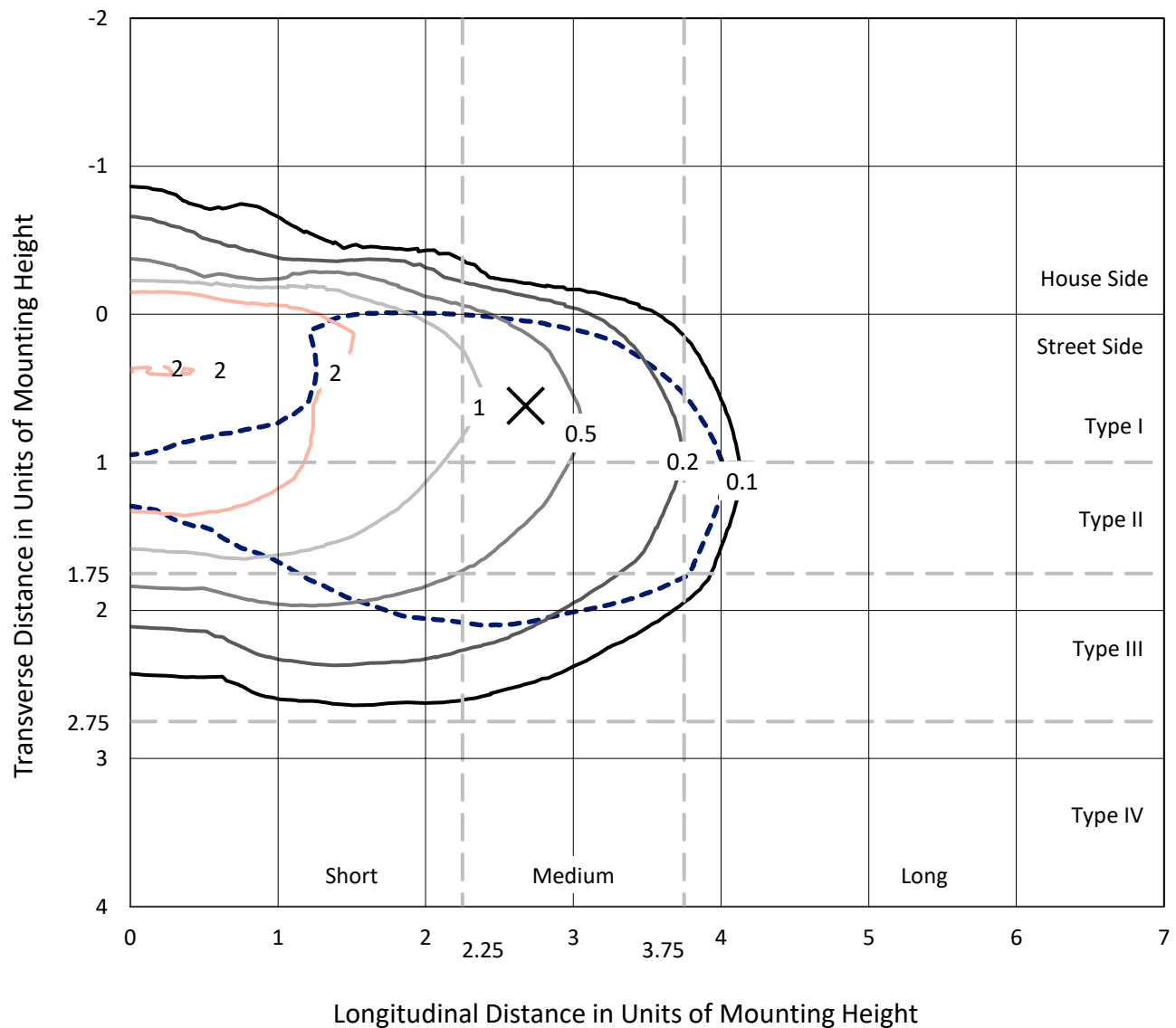


REPORT NUMBER: P964233

CATALOG NUMBER: NAV-SB3B-835-U-T3R-HSS

## Iso-Footcandle Lines of Horizontal Illumination

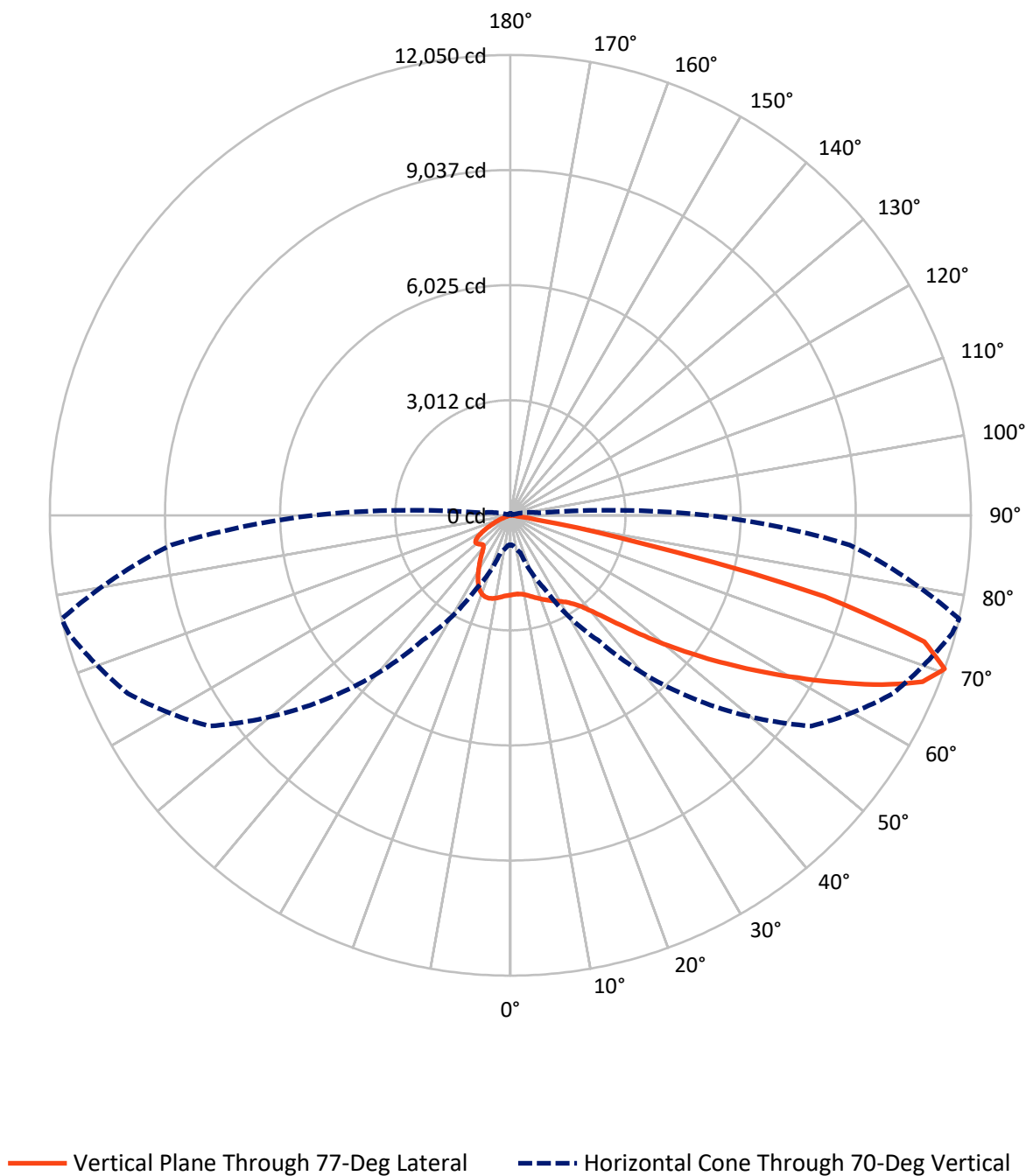
× Max cd  
- - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 3.9 fc  
Type III - Medium - N/A

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CATALOG NUMBER: NAV-SB3B-835-U-T3R-HSS

## Luminous Intensity Polar Plot



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**FLUX DISTRIBUTION:**

|                    |           | Downward | Upward | Total   |
|--------------------|-----------|----------|--------|---------|
| <b>House Side</b>  | Lumens    | 1409.7   | 0.0    | 1409.7  |
|                    | % Fixture | 10.5     | 0.0    | 10.5    |
| <b>Street Side</b> | Lumens    | 11963.4  | 0.0    | 11963.4 |
|                    | % Fixture | 89.5     | 0.0    | 89.5    |
| <b>Total</b>       | Lumens    | 13373.2  | 0.0    | 13373.2 |
|                    | % Fixture | 100.0    | 0.0    | 100.0   |

**ZONAL LUMENS:**

| Zone      | Lumens  | % Fixture |
|-----------|---------|-----------|
| 0°-10°    | 179.8   | 1.3       |
| 10°-20°   | 426.8   | 3.2       |
| 20°-30°   | 660.1   | 4.9       |
| 30°-40°   | 1197.8  | 9.0       |
| 40°-50°   | 2261.0  | 16.9      |
| 50°-60°   | 3266.9  | 24.4      |
| 60°-70°   | 3477.5  | 26.0      |
| 70°-80°   | 1842.8  | 13.8      |
| 80°-90°   | 60.5    | 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°    | 13373.2 | 100.0     |
| 0°-180°   | 13373.2 | 100.0     |

**Coefficient of Utilization**



REPORT NUMBER: P964233

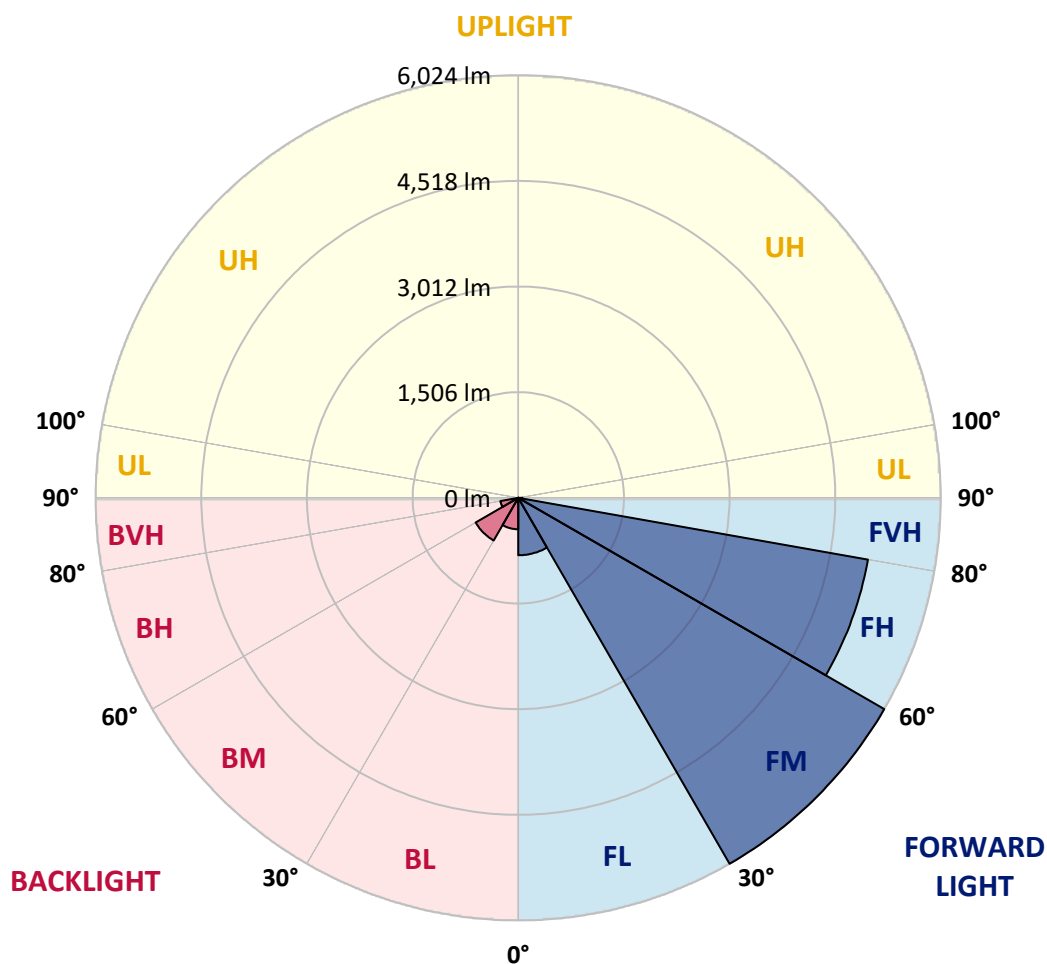
CATALOG NUMBER: NAV-SB3B-835-U-T3R-HSS

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

| Zone |             | Lumens | % Fixture | Zone Rating/Lumen Limit |      |         |
|------|-------------|--------|-----------|-------------------------|------|---------|
|      |             |        |           | B                       | U    | G       |
| FL   | (0°-30°)    | 818.8  | 6.1       |                         |      |         |
| FM   | (30°-60°)   | 6023.9 | 45.0      |                         |      |         |
| FH   | (60°-80°)   | 5061.9 | 37.9      |                         |      | G3/7500 |
| FVH  | (80°-90°)   | 58.9   | 0.4       |                         |      | G1/100  |
| BL   | (0°-30°)    | 447.9  | 3.3       | B1/500                  |      |         |
| BM   | (30°-60°)   | 701.8  | 5.2       | B1/1000                 |      |         |
| BH   | (60°-80°)   | 258.4  | 1.9       | B1/500                  |      | G1/500  |
| BVH  | (80°-90°)   | 1.6    | 0.0       |                         |      | G0/10   |
| UL   | (90°-100°)  | 0.0    | 0.0       |                         | U0/0 |         |
| UH   | (100°-180°) | 0.0    | 0.0       |                         | U0/0 |         |

**BUG Rating: B1-U0-G3**

Type III Medium



REPORT NUMBER: P964233

CATALOG NUMBER: NAV-SB3B-835-U-T3R-HSS

**CANDELA DISTRIBUTION (FULL):**

|       | 0°     | 5°     | 15°    | 25°    | 35°    | 45°    | 55°    | 65°     | 75°     | 77°     | 85°    |
|-------|--------|--------|--------|--------|--------|--------|--------|---------|---------|---------|--------|
| 0°    | 2086.0 | 2086.0 | 2086.0 | 2086.0 | 2086.0 | 2086.0 | 2086.0 | 2086.0  | 2086.0  | 2086.0  | 2086.0 |
| 2.5°  | 1958.5 | 1976.2 | 1973.6 | 1985.4 | 1989.7 | 2006.5 | 2023.5 | 2046.3  | 2071.6  | 2070.8  | 2087.6 |
| 5°    | 1847.8 | 1865.6 | 1869.8 | 1885.8 | 1906.1 | 1932.2 | 1966.9 | 2012.5  | 2059.8  | 2067.4  | 2101.1 |
| 7.5°  | 1716.9 | 1735.5 | 1746.5 | 1778.6 | 1815.7 | 1869.8 | 1926.4 | 1993.1  | 2071.6  | 2082.6  | 2147.6 |
| 10°   | 1586.0 | 1602.9 | 1617.2 | 1662.9 | 1722.0 | 1802.3 | 1894.3 | 1990.5  | 2096.1  | 2112.1  | 2204.2 |
| 12.5° | 1504.9 | 1521.0 | 1537.0 | 1576.8 | 1650.2 | 1748.1 | 1873.2 | 2002.3  | 2136.6  | 2159.5  | 2281.0 |
| 15°   | 1476.2 | 1490.6 | 1503.3 | 1538.7 | 1607.1 | 1718.6 | 1868.9 | 2026.8  | 2188.2  | 2218.6  | 2374.0 |
| 17.5° | 1480.4 | 1488.1 | 1496.5 | 1523.6 | 1590.3 | 1705.1 | 1876.6 | 2069.1  | 2249.0  | 2276.0  | 2466.9 |
| 20°   | 1504.9 | 1509.2 | 1510.0 | 1528.6 | 1587.7 | 1703.4 | 1891.7 | 2109.7  | 2306.4  | 2342.7  | 2558.9 |
| 22.5° | 1536.2 | 1537.9 | 1536.2 | 1548.9 | 1603.7 | 1716.1 | 1912.0 | 2158.6  | 2370.6  | 2404.3  | 2651.8 |
| 25°   | 1682.3 | 1650.2 | 1609.7 | 1585.2 | 1630.8 | 1740.6 | 1942.4 | 2224.5  | 2440.6  | 2473.6  | 2742.2 |
| 27.5° | 2135.8 | 2043.7 | 1898.5 | 1735.5 | 1686.5 | 1776.0 | 1984.6 | 2291.2  | 2511.7  | 2541.2  | 2839.2 |
| 30°   | 2872.3 | 2751.4 | 2504.9 | 2137.5 | 1865.6 | 1850.3 | 2039.5 | 2357.9  | 2586.8  | 2618.9  | 2943.2 |
| 32.5° | 3610.4 | 3580.7 | 3296.2 | 2787.8 | 2268.4 | 2015.9 | 2130.8 | 2448.3  | 2686.4  | 2711.7  | 3083.4 |
| 35°   | 4356.9 | 4296.9 | 4063.8 | 3561.4 | 2889.1 | 2352.9 | 2282.8 | 2566.5  | 2817.3  | 2846.0  | 3287.7 |
| 37.5° | 4928.6 | 4892.3 | 4747.9 | 4334.1 | 3625.5 | 2873.1 | 2542.8 | 2749.8  | 3007.4  | 3039.4  | 3549.6 |
| 40°   | 5433.6 | 5416.8 | 5367.8 | 5095.0 | 4448.9 | 3553.8 | 2947.4 | 3033.5  | 3270.9  | 3308.8  | 3870.5 |
| 42.5° | 5830.6 | 5870.3 | 5898.2 | 5822.1 | 5297.7 | 4330.7 | 3491.3 | 3432.1  | 3638.2  | 3677.1  | 4279.2 |
| 45°   | 6236.8 | 6250.3 | 6362.7 | 6472.5 | 6140.6 | 5143.1 | 4104.4 | 3899.2  | 4095.1  | 4143.3  | 4769.0 |
| 47.5° | 6497.8 | 6551.8 | 6749.4 | 6942.8 | 6849.0 | 5948.8 | 4763.1 | 4450.7  | 4624.6  | 4715.0  | 5318.0 |
| 50°   | 6517.2 | 6619.3 | 6891.3 | 7228.3 | 7365.1 | 6715.7 | 5479.2 | 5079.0  | 5263.9  | 5363.6  | 5904.1 |
| 52.5° | 6193.8 | 6352.5 | 6773.9 | 7267.1 | 7643.8 | 7365.1 | 6219.9 | 5707.3  | 5944.6  | 6074.7  | 6512.1 |
| 55°   | 4748.7 | 4956.5 | 6332.2 | 7056.0 | 7654.8 | 7857.4 | 6941.1 | 6361.8  | 6703.0  | 6850.0  | 7169.2 |
| 57.5° | 4137.3 | 4242.1 | 4978.4 | 6689.5 | 7451.2 | 8055.9 | 7593.1 | 6985.1  | 7528.1  | 7710.5  | 7789.9 |
| 60°   | 3442.3 | 3579.9 | 4175.3 | 6089.8 | 7175.1 | 8075.4 | 8169.0 | 7789.1  | 8422.4  | 8627.6  | 8359.1 |
| 62.5° | 2339.4 | 2488.8 | 3080.8 | 5059.5 | 6797.6 | 8066.0 | 8641.2 | 8616.7  | 9416.5  | 9636.8  | 8841.3 |
| 65°   | 1449.2 | 1542.9 | 1933.2 | 4131.4 | 6269.7 | 8076.2 | 9135.2 | 9621.7  | 10465.4 | 10689.1 | 9214.6 |
| 67.5° | 1145.1 | 1188.3 | 1391.7 | 3172.1 | 5360.2 | 7848.1 | 9628.4 | 10566.7 | 11452.6 | 11630.0 | 9328.6 |
| 70°   | 769.4  | 795.5  | 1012.6 | 2126.5 | 3987.9 | 6795.9 | 9619.1 | 11041.3 | 11961.0 | 12049.7 | 8913.1 |
| 72.5° | 405.4  | 425.7  | 592.0  | 984.7  | 2408.5 | 4830.7 | 8108.3 | 10473.8 | 11455.1 | 11321.6 | 7618.4 |
| 75°   | 202.6  | 236.5  | 398.6  | 500.0  | 1028.6 | 2694.0 | 5035.0 | 8257.7  | 9016.1  | 8499.3  | 4888.1 |
| 77.5° | 153.8  | 185.8  | 329.3  | 329.3  | 358.0  | 907.0  | 2132.4 | 4503.8  | 4154.2  | 3459.2  | 1434.8 |
| 80°   | 98.0   | 126.7  | 288.0  | 249.2  | 149.4  | 230.5  | 555.7  | 1261.7  | 882.5   | 671.4   | 261.0  |
| 82.5° | 57.4   | 82.7   | 239.8  | 164.7  | 83.6   | 85.3   | 157.1  | 268.5   | 228.9   | 178.1   | 80.3   |
| 85°   | 22.8   | 54.0   | 164.7  | 65.0   | 32.9   | 21.1   | 47.3   | 57.4    | 47.3    | 35.5    | 20.3   |
| 87.5° | 0.0    | 12.7   | 28.7   | 0.0    | 2.6    | 1.6    | 3.4    | 4.2     | 4.2     | 3.4     | 6.8    |
| 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: P964233

CATALOG NUMBER: NAV-SB3B-835-U-T3R-HSS

**CANDELA DISTRIBUTION (continued):**

|       | 90°    | 95°    | 105°   | 115°   | 125°   | 135°   | 145°   | 155°   | 165°   | 175°   | 180°   |
|-------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 0°    | 2086.0 | 2086.0 | 2086.0 | 2086.0 | 2086.0 | 2086.0 | 2086.0 | 2086.0 | 2086.0 | 2086.0 | 2086.0 |
| 2.5°  | 2095.3 | 2096.9 | 2102.1 | 2102.9 | 2091.0 | 2075.8 | 2069.9 | 2067.4 | 2057.3 | 2056.5 | 2058.1 |
| 5°    | 2120.6 | 2128.2 | 2120.6 | 2098.7 | 2046.3 | 1972.8 | 1917.1 | 1871.4 | 1830.0 | 1817.4 | 1809.8 |
| 7.5°  | 2171.3 | 2178.8 | 2156.1 | 2069.9 | 1938.2 | 1792.1 | 1660.3 | 1567.4 | 1483.8 | 1452.6 | 1439.9 |
| 10°   | 2243.9 | 2254.1 | 2182.2 | 2008.3 | 1775.2 | 1540.4 | 1317.4 | 1160.4 | 1037.9 | 988.1  | 967.0  |
| 12.5° | 2335.2 | 2339.4 | 2196.6 | 1914.5 | 1563.2 | 1227.9 | 912.0  | 744.0  | 635.1  | 594.5  | 581.9  |
| 15°   | 2435.6 | 2429.7 | 2198.3 | 1787.0 | 1274.4 | 868.2  | 595.4  | 489.0  | 445.1  | 431.5  | 431.5  |
| 17.5° | 2541.2 | 2516.7 | 2164.5 | 1602.9 | 957.7  | 593.7  | 441.7  | 416.4  | 408.8  | 405.4  | 404.6  |
| 20°   | 2645.0 | 2590.2 | 2102.9 | 1362.2 | 687.5  | 443.4  | 401.2  | 393.5  | 389.3  | 387.7  | 385.9  |
| 22.5° | 2739.6 | 2645.9 | 1997.3 | 1082.7 | 499.1  | 391.9  | 379.1  | 372.5  | 364.8  | 361.4  | 360.6  |
| 25°   | 2831.7 | 2678.0 | 1848.7 | 821.7  | 399.4  | 366.5  | 356.4  | 343.7  | 333.6  | 329.3  | 327.7  |
| 27.5° | 2921.2 | 2698.2 | 1662.9 | 608.0  | 356.4  | 342.9  | 324.3  | 306.6  | 299.0  | 297.2  | 295.6  |
| 30°   | 3016.7 | 2705.0 | 1451.7 | 453.5  | 330.3  | 313.3  | 286.3  | 266.0  | 261.8  | 262.6  | 262.6  |
| 32.5° | 3133.2 | 2715.1 | 1238.9 | 371.6  | 308.2  | 277.9  | 245.8  | 224.7  | 221.3  | 224.7  | 223.8  |
| 35°   | 3272.5 | 2735.4 | 1033.7 | 342.0  | 288.8  | 241.5  | 206.9  | 189.2  | 185.8  | 188.3  | 187.5  |
| 37.5° | 3461.7 | 2768.3 | 842.0  | 336.1  | 272.8  | 211.2  | 173.9  | 159.6  | 159.6  | 160.4  | 159.6  |
| 40°   | 3713.4 | 2856.2 | 670.6  | 331.9  | 264.3  | 188.3  | 147.0  | 141.0  | 143.6  | 145.2  | 145.2  |
| 42.5° | 4019.9 | 3042.8 | 554.8  | 326.9  | 255.0  | 178.1  | 133.5  | 130.9  | 135.1  | 136.8  | 136.8  |
| 45°   | 4363.6 | 3279.3 | 514.3  | 318.4  | 246.6  | 184.9  | 127.5  | 124.1  | 129.3  | 130.1  | 130.9  |
| 47.5° | 4719.2 | 3510.7 | 509.2  | 309.1  | 238.1  | 195.1  | 125.9  | 118.2  | 124.1  | 124.9  | 125.9  |
| 50°   | 5079.0 | 3661.8 | 514.3  | 294.8  | 224.7  | 195.1  | 126.7  | 112.3  | 117.4  | 119.9  | 120.7  |
| 52.5° | 5441.3 | 3731.1 | 511.0  | 263.5  | 201.0  | 183.3  | 126.7  | 107.2  | 112.3  | 114.0  | 114.0  |
| 55°   | 5792.6 | 3717.6 | 459.4  | 217.0  | 170.6  | 162.2  | 123.3  | 103.0  | 106.4  | 107.2  | 107.2  |
| 57.5° | 6070.5 | 3529.3 | 364.0  | 168.9  | 138.5  | 135.1  | 112.3  | 98.0   | 100.4  | 99.6   | 99.6   |
| 60°   | 6215.7 | 3115.5 | 260.1  | 130.1  | 109.0  | 106.4  | 98.8   | 91.2   | 92.9   | 88.7   | 87.8   |
| 62.5° | 6217.3 | 2568.2 | 173.9  | 103.0  | 87.0   | 84.5   | 84.5   | 81.9   | 80.3   | 71.8   | 69.3   |
| 65°   | 6084.8 | 1961.0 | 115.7  | 81.9   | 70.1   | 65.9   | 70.9   | 70.1   | 64.2   | 52.4   | 50.6   |
| 67.5° | 5784.2 | 1285.4 | 87.8   | 64.2   | 54.0   | 51.6   | 56.6   | 59.1   | 54.9   | 43.9   | 43.0   |
| 70°   | 5166.0 | 748.2  | 72.7   | 49.8   | 40.5   | 38.0   | 45.6   | 50.6   | 45.6   | 35.5   | 33.8   |
| 72.5° | 4291.1 | 403.6  | 59.1   | 37.2   | 27.9   | 25.3   | 36.3   | 41.4   | 36.3   | 26.1   | 25.3   |
| 75°   | 2784.4 | 216.2  | 45.6   | 24.5   | 14.3   | 16.1   | 27.1   | 30.4   | 25.3   | 16.9   | 15.2   |
| 77.5° | 934.9  | 95.4   | 28.7   | 11.8   | 6.8    | 6.8    | 16.1   | 18.6   | 11.8   | 5.9    | 5.0    |
| 80°   | 208.6  | 39.7   | 11.8   | 5.0    | 2.6    | 2.6    | 3.4    | 3.4    | 1.6    | 0.0    | 0.0    |
| 82.5° | 68.4   | 16.1   | 5.0    | 1.6    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    |
| 85°   | 26.1   | 5.9    | 1.6    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    |
| 87.5° | 10.1   | 0.8    | 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)