

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: STREETWORKS

Report Number: P961050

Luminaire Tested: **NVN-SB1D-835-U-AFL-HSS**

Issue Date: 1/21/2025

### Test Information

Test Method: LM-79-08  
Report Number: P961050  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2411-289-15)  
Test Lab: INNOVATION CENTER  
Issue Date: 1/21/2025  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: STREETWORKS  
Catalog Number: NVN-SB1D-835-U-AFL-HSS  
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE  
(1) 80 CRI, 3500K, 900mA LIGHTSQUARE WITH 26 LEDS AND AUTOMOTIVE  
FRONTLINE OPTICS WITH HOUSE SIDE SHIELD  
Light Source: -  
Ballast/Driver: -

### Summary

Lumens per Lamp: N/A  
Luminaire Lumens: 8251.3 lumens  
Efficiency: N/A  
Efficacy: 103.7 lumens/watt  
Luminous Opening: Rectangular (W 0.5' x L: 0.5' x H: 0')  
IES Classification: Type II - Short  
BUG Rating: B1 - U0 - G1  
  
Input Watts (W): 79.6  
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

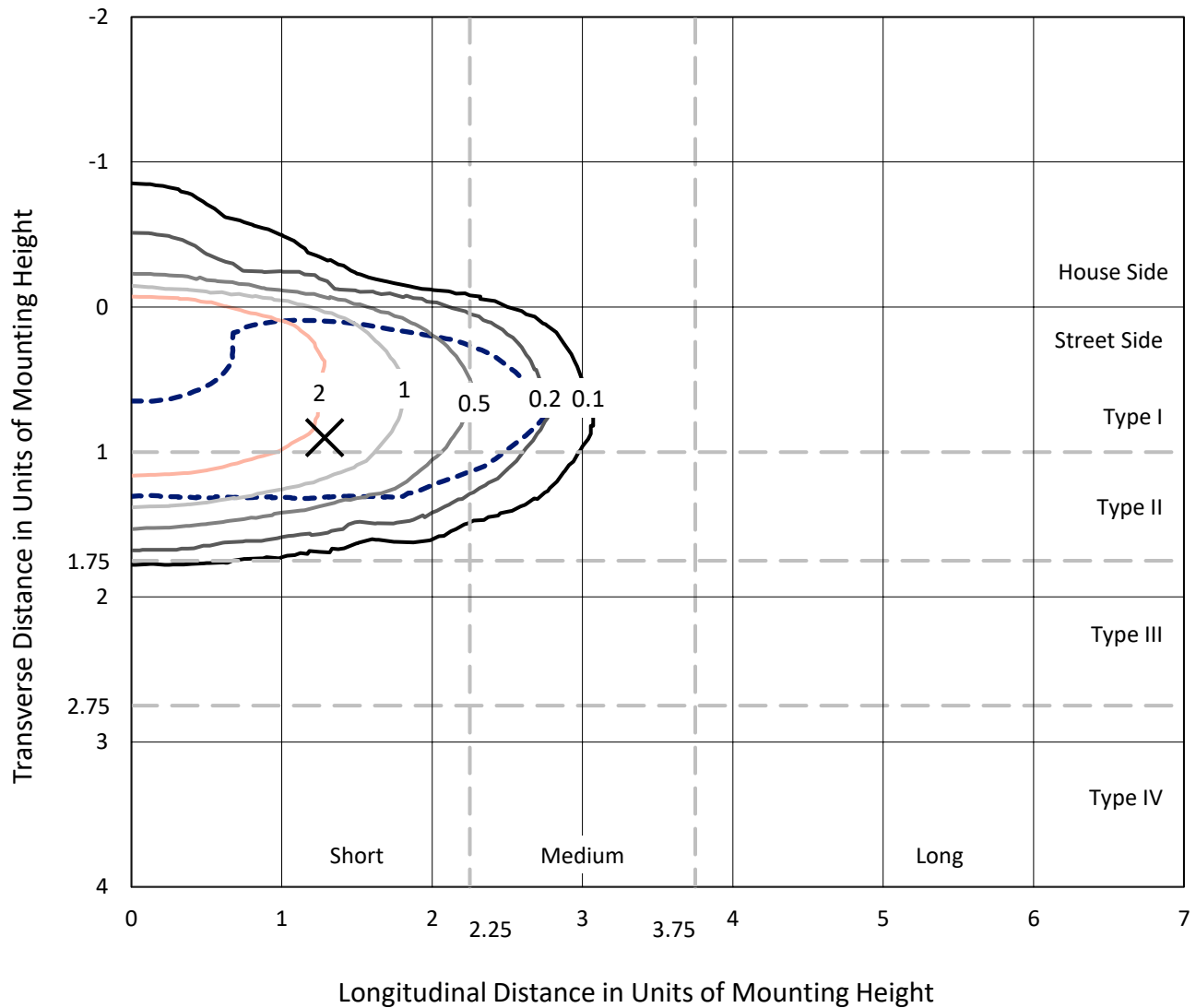


REPORT NUMBER: P961050

CATALOG NUMBER: NVN-SB1D-835-U-AFL-HSS

## Iso-Footcandle Lines of Horizontal Illumination

✕ Max cd  
- - - 1/2 Max cd

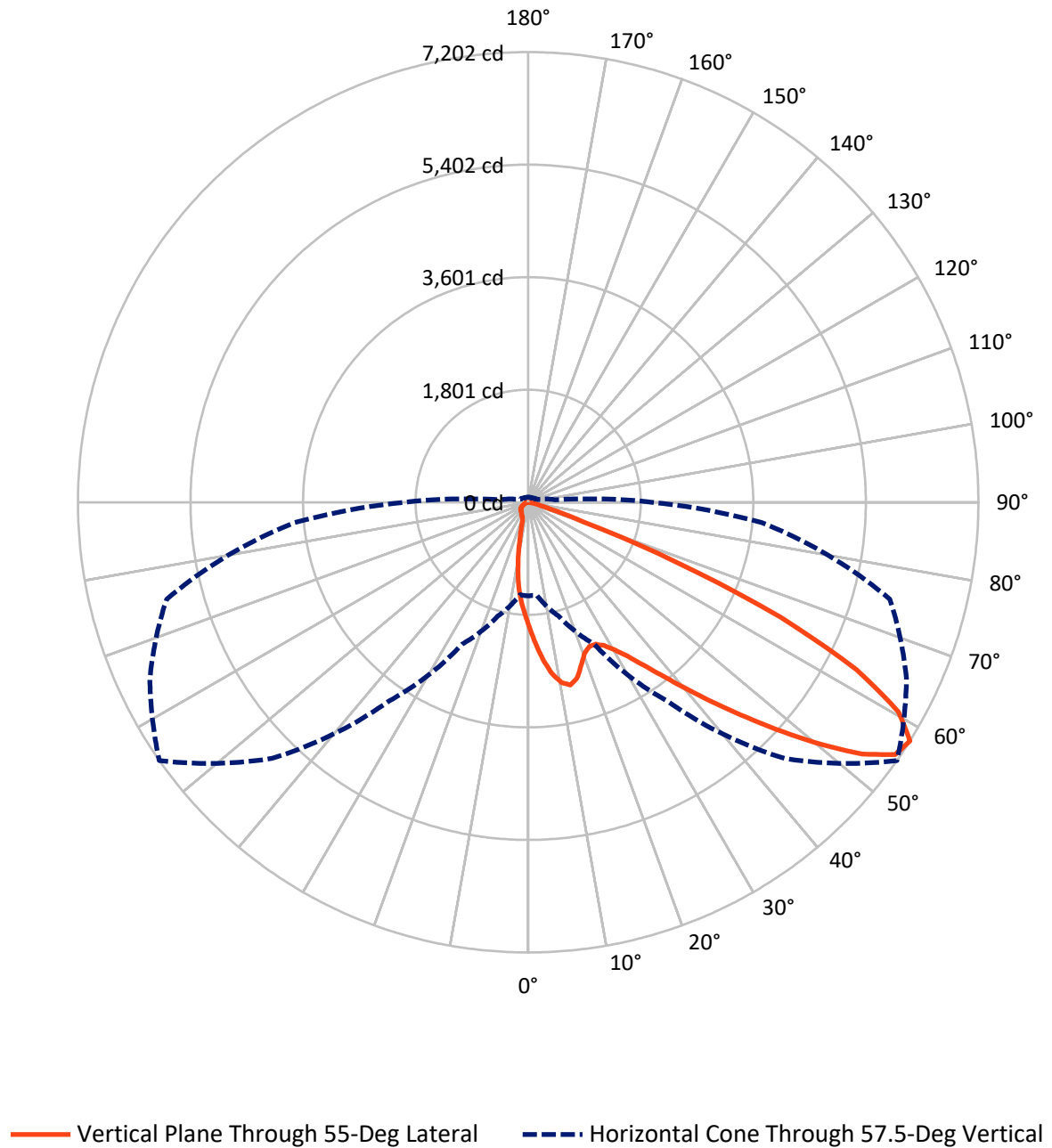


Based on 25 foot mounting height. Maximum calculated value = 4.6 fc  
Type II - Short - N/A

REPORT NUMBER: P961050

CATALOG NUMBER: NVN-SB1D-835-U-AFL-HSS

## Luminous Intensity Polar Plot



REPORT NUMBER: P961050

CATALOG NUMBER: NVN-SB1D-835-U-AFL-HSS

**FLUX DISTRIBUTION:**

|                    |           | Downward | Upward | Total  |
|--------------------|-----------|----------|--------|--------|
| <b>House Side</b>  | Lumens    | 644.4    | 0.0    | 644.4  |
|                    | % Fixture | 7.8      | 0.0    | 7.8    |
| <b>Street Side</b> | Lumens    | 7606.9   | 0.0    | 7606.9 |
|                    | % Fixture | 92.2     | 0.0    | 92.2   |
| <b>Total</b>       | Lumens    | 8251.3   | 0.0    | 8251.3 |
|                    | % Fixture | 100.0    | 0.0    | 100.0  |

**ZONAL LUMENS:**

| Zone      | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10°    | 185.0  | 2.2       |
| 10°-20°   | 446.9  | 5.4       |
| 20°-30°   | 715.0  | 8.7       |
| 30°-40°   | 1210.2 | 14.7      |
| 40°-50°   | 1986.9 | 24.1      |
| 50°-60°   | 2183.7 | 26.5      |
| 60°-70°   | 1252.6 | 15.2      |
| 70°-80°   | 255.9  | 3.1       |
| 80°-90°   | 15.1   | 0.2       |
| 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°    | 8251.3 | 100.0     |
| 0°-180°   | 8251.3 | 100.0     |

**Coefficient of Utilization**



REPORT NUMBER: P961050

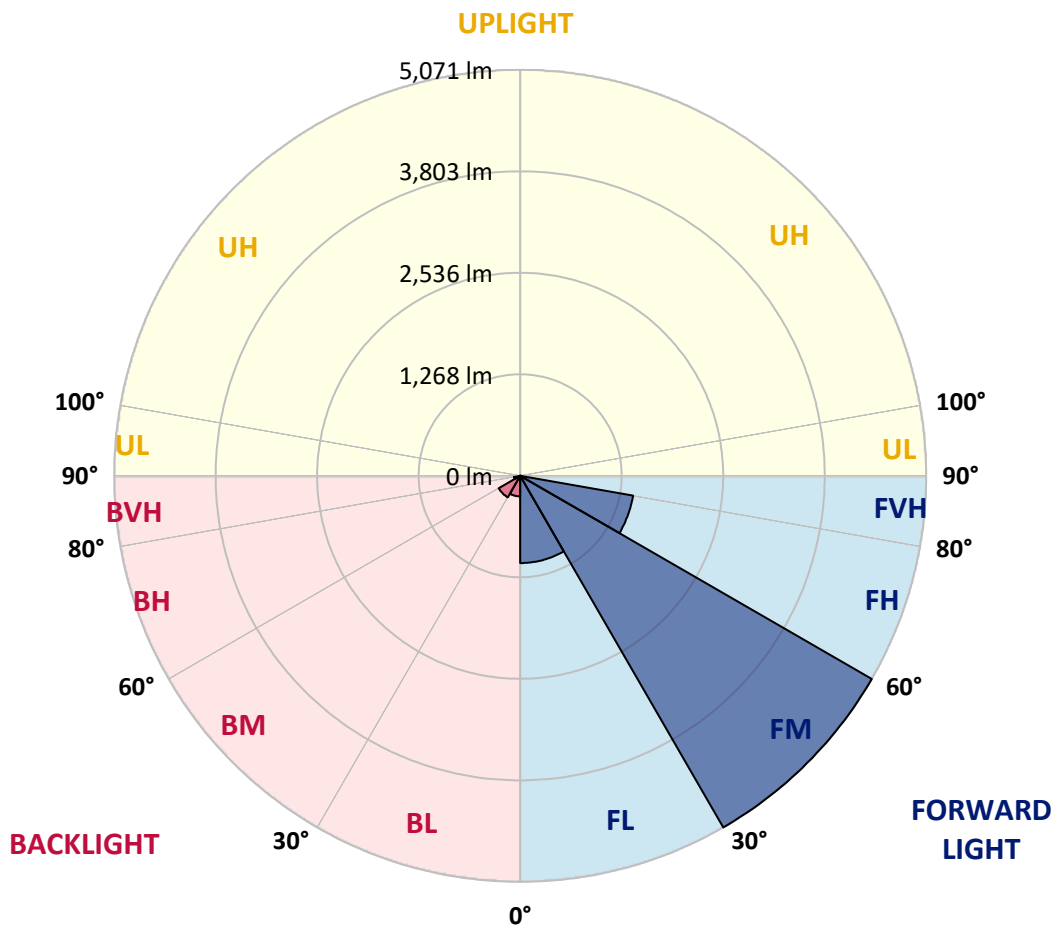
CATALOG NUMBER: NVN-SB1D-835-U-AFL-HSS

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

| Zone |             | Lumens | % Fixture | Zone Rating/Lumen Limit |      |         |
|------|-------------|--------|-----------|-------------------------|------|---------|
|      |             |        |           | B                       | U    | G       |
| FL   | (0°-30°)    | 1089.6 | 13.2      |                         |      |         |
| FM   | (30°-60°)   | 5071.3 | 61.5      |                         |      |         |
| FH   | (60°-80°)   | 1431.9 | 17.4      |                         |      | G1/1800 |
| FVH  | (80°-90°)   | 14.1   | 0.2       |                         |      | G1/100  |
| BL   | (0°-30°)    | 257.3  | 3.1       | B1/500                  |      |         |
| BM   | (30°-60°)   | 309.5  | 3.8       | B1/1000                 |      |         |
| BH   | (60°-80°)   | 76.6   | 0.9       | B0/110                  |      | G0/110  |
| BVH  | (80°-90°)   | 1.0    | 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-G1**

Type II Short



REPORT NUMBER: P961050

CATALOG NUMBER: NVN-SB1D-835-U-AFL-HSS

**CANDELA DISTRIBUTION (FULL):**

|       | 0°     | 5°     | 15°    | 25°    | 35°    | 45°    | 55°    | 65°    | 75°    | 85°    | 90°    |
|-------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 0°    | 1988.4 | 1988.4 | 1988.4 | 1988.4 | 1988.4 | 1988.4 | 1988.4 | 1988.4 | 1988.4 | 1988.4 | 1988.4 |
| 2.5°  | 2467.1 | 2436.1 | 2431.5 | 2425.4 | 2366.4 | 2322.1 | 2258.0 | 2187.8 | 2108.9 | 2028.6 | 1992.9 |
| 5°    | 2850.2 | 2825.8 | 2821.2 | 2792.7 | 2725.6 | 2650.2 | 2536.4 | 2392.4 | 2245.3 | 2072.3 | 1998.0 |
| 7.5°  | 2924.5 | 2919.9 | 2940.8 | 2939.8 | 2930.6 | 2871.1 | 2775.0 | 2603.5 | 2382.6 | 2126.3 | 2011.3 |
| 10°   | 2593.2 | 2605.0 | 2667.0 | 2721.5 | 2868.6 | 2954.0 | 2933.1 | 2791.7 | 2524.1 | 2187.8 | 2026.0 |
| 12.5° | 2291.6 | 2277.9 | 2322.1 | 2383.6 | 2554.6 | 2809.0 | 2998.8 | 2948.9 | 2685.9 | 2257.5 | 2047.8 |
| 15°   | 2102.3 | 2096.7 | 2121.6 | 2150.1 | 2280.4 | 2536.8 | 2922.5 | 3076.6 | 2841.6 | 2339.9 | 2081.0 |
| 17.5° | 2041.8 | 2037.2 | 2044.8 | 2051.9 | 2136.4 | 2334.8 | 2740.8 | 3155.1 | 2990.6 | 2434.1 | 2117.5 |
| 20°   | 2091.1 | 2085.1 | 2084.0 | 2078.4 | 2113.5 | 2248.8 | 2576.5 | 3160.6 | 3124.5 | 2519.6 | 2149.1 |
| 22.5° | 2235.1 | 2227.9 | 2203.0 | 2180.7 | 2183.8 | 2260.5 | 2503.3 | 3104.6 | 3225.3 | 2599.4 | 2169.0 |
| 25°   | 2496.1 | 2484.4 | 2432.5 | 2357.2 | 2309.4 | 2341.9 | 2514.4 | 3030.8 | 3321.4 | 2662.0 | 2159.3 |
| 27.5° | 2822.7 | 2807.5 | 2740.8 | 2628.9 | 2519.6 | 2479.9 | 2595.3 | 2980.0 | 3401.3 | 2709.8 | 2138.5 |
| 30°   | 3142.8 | 3123.0 | 3057.3 | 2970.3 | 2810.5 | 2685.4 | 2741.4 | 3002.3 | 3496.4 | 2759.7 | 2111.0 |
| 32.5° | 3488.3 | 3469.4 | 3382.4 | 3274.6 | 3142.2 | 2973.8 | 2941.3 | 3111.8 | 3612.9 | 2829.4 | 2091.6 |
| 35°   | 3925.3 | 3895.8 | 3772.2 | 3625.1 | 3484.7 | 3314.2 | 3211.9 | 3300.5 | 3768.1 | 2935.7 | 2102.3 |
| 37.5° | 4422.9 | 4383.2 | 4250.0 | 4046.9 | 3863.7 | 3673.0 | 3541.7 | 3560.0 | 3995.6 | 3078.2 | 2135.4 |
| 40°   | 4892.0 | 4855.8 | 4732.7 | 4541.5 | 4311.5 | 4080.0 | 3940.1 | 3899.4 | 4309.4 | 3251.7 | 2193.4 |
| 42.5° | 5173.4 | 5140.8 | 5088.9 | 5008.0 | 4814.1 | 4578.1 | 4401.6 | 4313.5 | 4680.9 | 3459.3 | 2264.1 |
| 45°   | 5189.2 | 5160.7 | 5230.4 | 5324.5 | 5286.3 | 5129.1 | 4913.8 | 4752.6 | 5053.8 | 3654.1 | 2337.4 |
| 47.5° | 4936.8 | 4917.4 | 5129.1 | 5457.8 | 5621.6 | 5687.7 | 5489.3 | 5155.0 | 5361.6 | 3794.0 | 2367.4 |
| 50°   | 4248.9 | 4241.8 | 4677.3 | 5280.7 | 5749.3 | 6177.2 | 6096.3 | 5529.6 | 5600.3 | 3866.3 | 2338.9 |
| 52.5° | 3684.2 | 3658.2 | 3912.1 | 4714.0 | 5563.6 | 6434.6 | 6689.6 | 5896.8 | 5767.2 | 3880.0 | 2272.2 |
| 55°   | 2794.3 | 2771.4 | 3089.9 | 3765.5 | 4964.8 | 6343.1 | 7123.5 | 6275.9 | 5886.7 | 3844.9 | 2152.7 |
| 57.5° | 1498.9 | 1484.6 | 1887.1 | 2506.3 | 3881.1 | 5793.6 | 7202.0 | 6676.8 | 5987.4 | 3751.8 | 1985.3 |
| 60°   | 583.5  | 581.1  | 731.6  | 1216.0 | 2358.7 | 4713.5 | 6806.6 | 6917.5 | 6050.5 | 3637.3 | 1845.4 |
| 62.5° | 353.1  | 360.7  | 385.2  | 545.9  | 1042.0 | 2928.1 | 5895.4 | 6643.7 | 6092.7 | 3532.6 | 1729.9 |
| 65°   | 292.0  | 292.5  | 295.6  | 374.9  | 499.1  | 1225.2 | 4438.1 | 5743.2 | 5988.5 | 3345.8 | 1566.1 |
| 67.5° | 250.3  | 254.9  | 266.6  | 297.7  | 352.1  | 537.3  | 2555.1 | 4448.8 | 5354.0 | 2911.3 | 1310.7 |
| 70°   | 197.4  | 203.6  | 218.2  | 244.8  | 271.7  | 336.3  | 944.3  | 2960.1 | 4090.2 | 2194.4 | 991.1  |
| 72.5° | 166.4  | 165.8  | 173.5  | 199.0  | 215.8  | 236.6  | 363.3  | 1658.7 | 2377.1 | 1047.6 | 490.5  |
| 75°   | 128.7  | 133.8  | 143.5  | 166.4  | 176.5  | 171.5  | 196.9  | 606.0  | 851.7  | 317.4  | 166.9  |
| 77.5° | 100.8  | 104.9  | 113.5  | 135.8  | 146.1  | 121.6  | 113.5  | 216.8  | 273.8  | 114.0  | 75.3   |
| 80°   | 45.3   | 48.9   | 77.3   | 100.2  | 119.1  | 83.9   | 61.6   | 110.9  | 121.6  | 51.9   | 38.1   |
| 82.5° | 8.1    | 13.7   | 45.3   | 52.9   | 61.1   | 54.4   | 32.1   | 57.5   | 59.6   | 20.9   | 13.2   |
| 85°   | 0.5    | 1.0    | 15.8   | 19.4   | 24.4   | 17.8   | 9.6    | 22.9   | 19.9   | 7.1    | 5.1    |
| 87.5° | 0.0    | 0.0    | 0.0    | 0.5    | 0.5    | 2.6    | 3.1    | 4.1    | 3.1    | 2.6    | 2.0    |
| 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: P961050

CATALOG NUMBER: NVN-SB1D-835-U-AFL-HSS

**CANDELA DISTRIBUTION (continued):**

|       | 95°    | 105°   | 115°   | 125°   | 135°   | 145°   | 155°   | 165°   | 175°   | 180°   |
|-------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 0°    | 1988.4 | 1988.4 | 1988.4 | 1988.4 | 1988.4 | 1988.4 | 1988.4 | 1988.4 | 1988.4 | 1988.4 |
| 2.5°  | 1956.3 | 1884.1 | 1813.8 | 1756.3 | 1722.7 | 1665.7 | 1628.1 | 1622.1 | 1606.3 | 1620.0 |
| 5°    | 1918.6 | 1789.4 | 1658.7 | 1541.6 | 1445.5 | 1321.3 | 1228.8 | 1189.5 | 1155.5 | 1167.2 |
| 7.5°  | 1900.9 | 1696.8 | 1493.3 | 1293.3 | 1087.8 | 889.4  | 741.8  | 680.3  | 633.4  | 640.0  |
| 10°   | 1876.9 | 1600.6 | 1281.7 | 976.4  | 701.1  | 505.2  | 403.4  | 365.8  | 344.9  | 345.4  |
| 12.5° | 1858.6 | 1485.6 | 1035.9 | 661.9  | 426.9  | 322.6  | 291.0  | 281.9  | 275.7  | 276.2  |
| 15°   | 1849.4 | 1350.3 | 793.2  | 441.2  | 305.2  | 273.3  | 265.6  | 261.5  | 257.5  | 257.0  |
| 17.5° | 1834.1 | 1199.8 | 580.6  | 322.1  | 267.1  | 255.9  | 249.3  | 244.8  | 239.6  | 238.6  |
| 20°   | 1811.3 | 1028.8 | 424.4  | 272.2  | 250.3  | 241.7  | 232.5  | 226.4  | 220.3  | 219.2  |
| 22.5° | 1769.0 | 848.2  | 326.2  | 251.8  | 238.1  | 228.5  | 217.3  | 210.1  | 204.0  | 203.1  |
| 25°   | 1690.7 | 678.8  | 274.7  | 239.1  | 227.4  | 215.8  | 203.6  | 193.8  | 188.3  | 187.3  |
| 27.5° | 1591.5 | 533.2  | 249.3  | 227.4  | 213.7  | 203.1  | 189.3  | 180.1  | 175.1  | 174.0  |
| 30°   | 1474.5 | 410.6  | 234.5  | 214.2  | 197.4  | 188.3  | 176.0  | 168.4  | 165.3  | 165.3  |
| 32.5° | 1348.3 | 328.2  | 228.5  | 201.0  | 183.2  | 173.0  | 163.3  | 160.3  | 159.3  | 158.8  |
| 35°   | 1229.7 | 285.0  | 225.4  | 190.2  | 170.5  | 160.8  | 156.7  | 157.2  | 159.3  | 159.3  |
| 37.5° | 1124.4 | 271.2  | 223.9  | 182.7  | 159.3  | 150.6  | 153.1  | 157.7  | 155.7  | 155.7  |
| 40°   | 1029.3 | 272.8  | 222.8  | 177.0  | 150.1  | 145.0  | 150.1  | 146.6  | 141.4  | 140.9  |
| 42.5° | 956.5  | 285.5  | 220.8  | 172.5  | 144.5  | 140.9  | 138.9  | 133.4  | 132.8  | 133.8  |
| 45°   | 903.6  | 296.6  | 220.3  | 170.5  | 138.4  | 131.8  | 129.3  | 123.6  | 133.8  | 136.3  |
| 47.5° | 841.0  | 296.6  | 220.3  | 163.3  | 128.2  | 125.7  | 121.6  | 115.5  | 125.7  | 128.2  |
| 50°   | 760.1  | 277.8  | 211.7  | 155.2  | 120.0  | 118.6  | 111.4  | 103.8  | 101.8  | 103.3  |
| 52.5° | 657.8  | 243.7  | 189.7  | 144.0  | 111.9  | 108.9  | 100.2  | 94.6   | 93.1   | 93.1   |
| 55°   | 541.3  | 204.0  | 160.3  | 127.7  | 103.3  | 97.7   | 91.5   | 89.1   | 87.5   | 86.5   |
| 57.5° | 440.1  | 167.4  | 128.7  | 113.5  | 95.1   | 88.0   | 86.0   | 82.9   | 80.4   | 78.8   |
| 60°   | 361.2  | 131.8  | 106.3  | 100.8  | 87.0   | 80.4   | 79.8   | 75.8   | 69.2   | 68.2   |
| 62.5° | 278.8  | 96.7   | 89.6   | 87.5   | 78.8   | 73.3   | 72.3   | 64.1   | 53.9   | 51.9   |
| 65°   | 196.9  | 75.3   | 72.3   | 76.9   | 70.2   | 65.1   | 62.6   | 50.3   | 39.7   | 38.1   |
| 67.5° | 138.4  | 63.1   | 57.0   | 67.1   | 61.1   | 54.4   | 52.9   | 42.7   | 33.1   | 32.1   |
| 70°   | 98.7   | 51.4   | 46.8   | 57.5   | 48.9   | 47.9   | 44.8   | 35.6   | 27.0   | 25.9   |
| 72.5° | 69.7   | 39.2   | 36.1   | 49.8   | 33.6   | 41.2   | 36.6   | 27.5   | 20.4   | 19.4   |
| 75°   | 51.4   | 28.0   | 25.4   | 29.0   | 24.4   | 31.1   | 25.9   | 18.3   | 12.7   | 12.2   |
| 77.5° | 37.6   | 17.8   | 15.3   | 14.2   | 14.2   | 19.4   | 14.2   | 7.6    | 5.6    | 5.1    |
| 80°   | 26.4   | 8.1    | 7.1    | 6.1    | 5.6    | 4.6    | 2.0    | 1.0    | 0.5    | 0.5    |
| 82.5° | 15.8   | 3.6    | 3.6    | 2.6    | 1.5    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    |
| 85°   | 3.6    | 1.5    | 1.5    | 0.5    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    |
| 87.5° | 0.5    | 0.5    | 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    |

(END OF REPORT)