

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: P960988

Luminaire Tested: **NVN-SB1D-827-U-AFL-HSS**

Issue Date: 1/21/2025

Test Information

Test Method: LM-79-08
Report Number: P960988
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-827-U-AFL-HSS
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE
(1) 80 CRI, 2700K, 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: 7735.7 lumens
Efficiency: N/A
Efficacy: 97.2 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

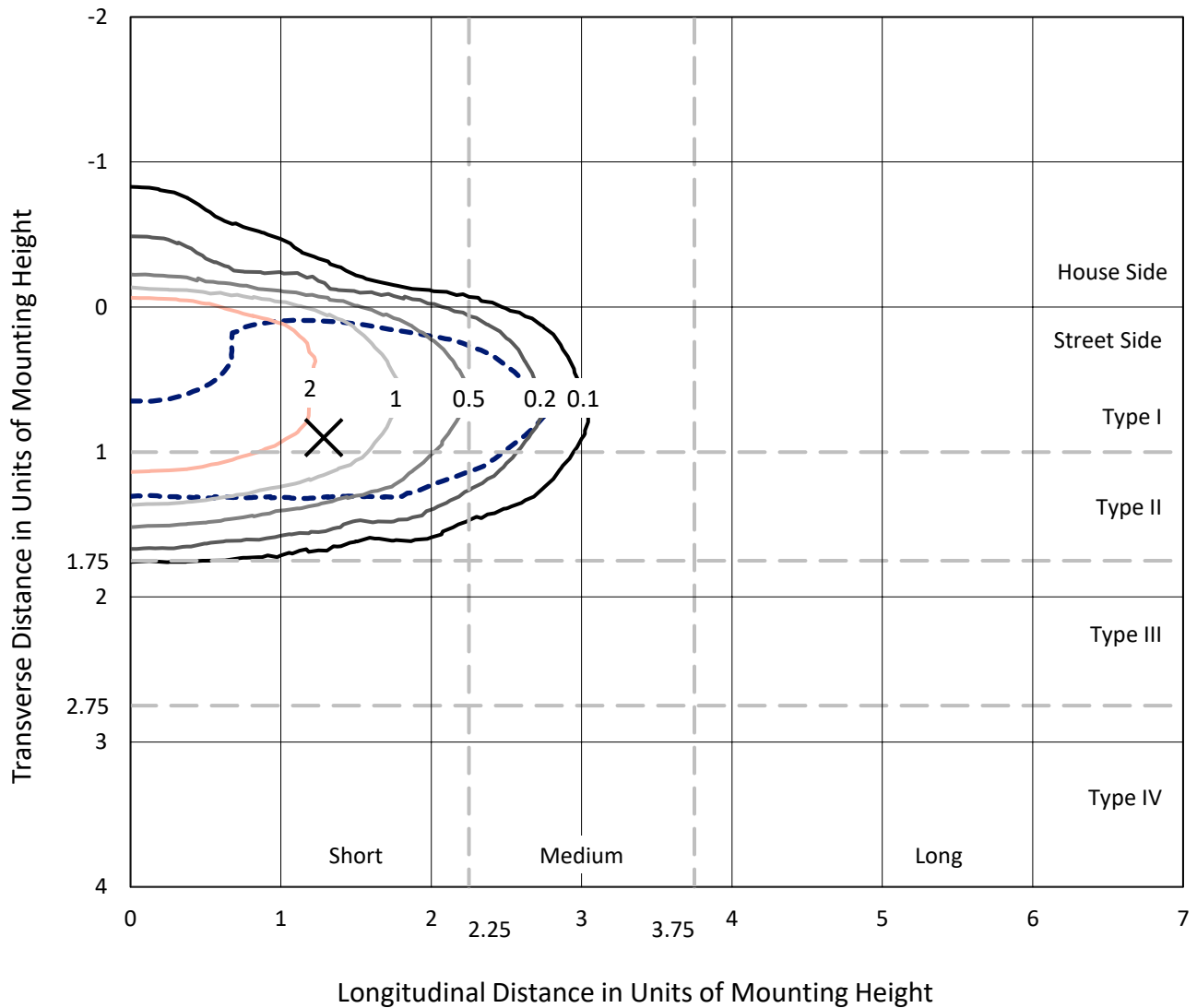
Input Watts (W): 79.6
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



REPORT NUMBER: P960988
 CATALOG NUMBER: NVN-SB1D-827-U-AFL-HSS

Iso-Footcandle Lines of Horizontal Illumination

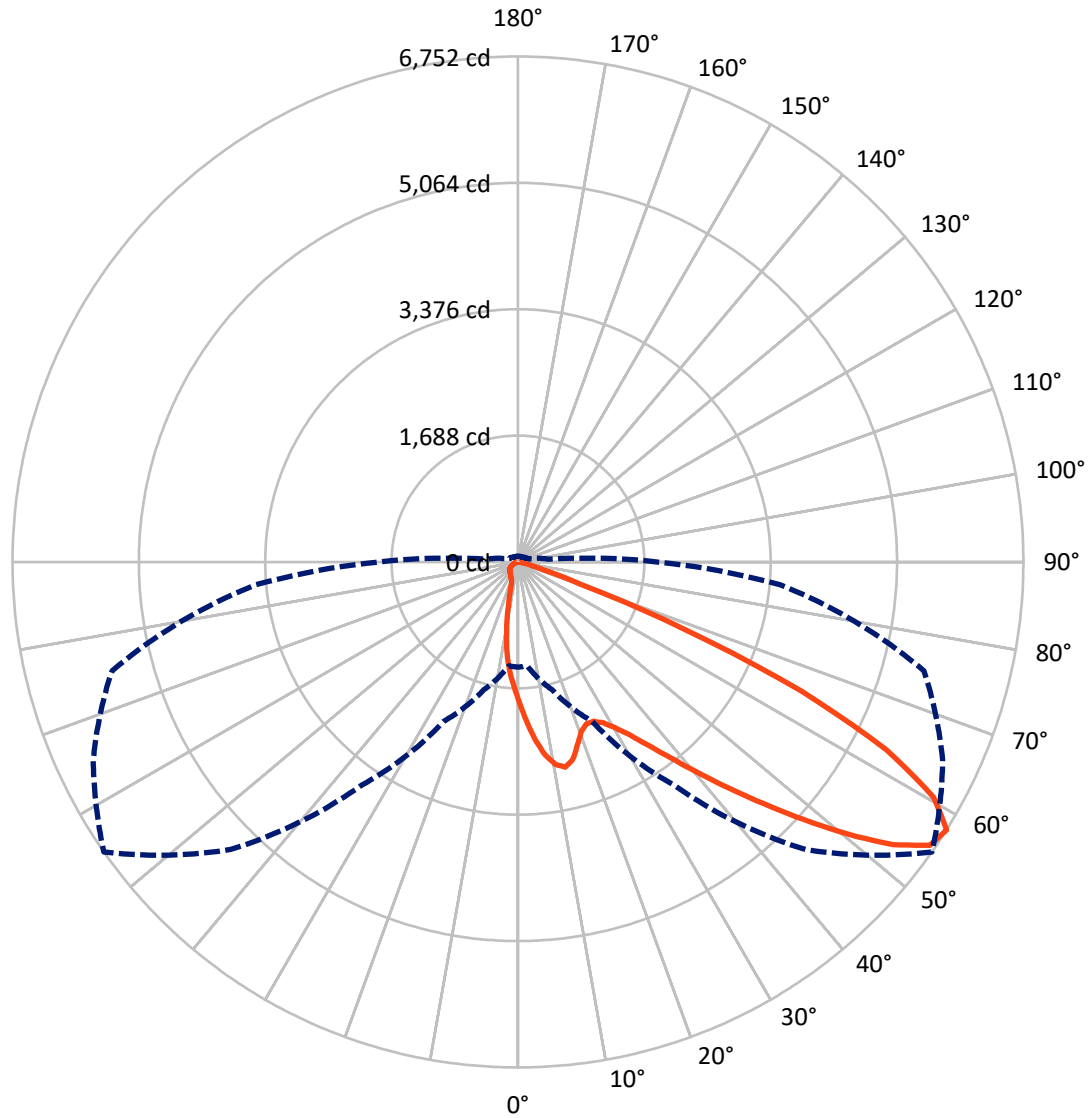
✕ Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 4.3 fc
 Type II - Short - N/A

REPORT NUMBER: P960988
CATALOG NUMBER: NVN-SB1D-827-U-AFL-HSS

Luminous Intensity Polar Plot



— Vertical Plane Through 55-Deg Lateral - - - Horizontal Cone Through 57.5-Deg Vertical

REPORT NUMBER: P960988
 CATALOG NUMBER: NVN-SB1D-827-U-AFL-HSS

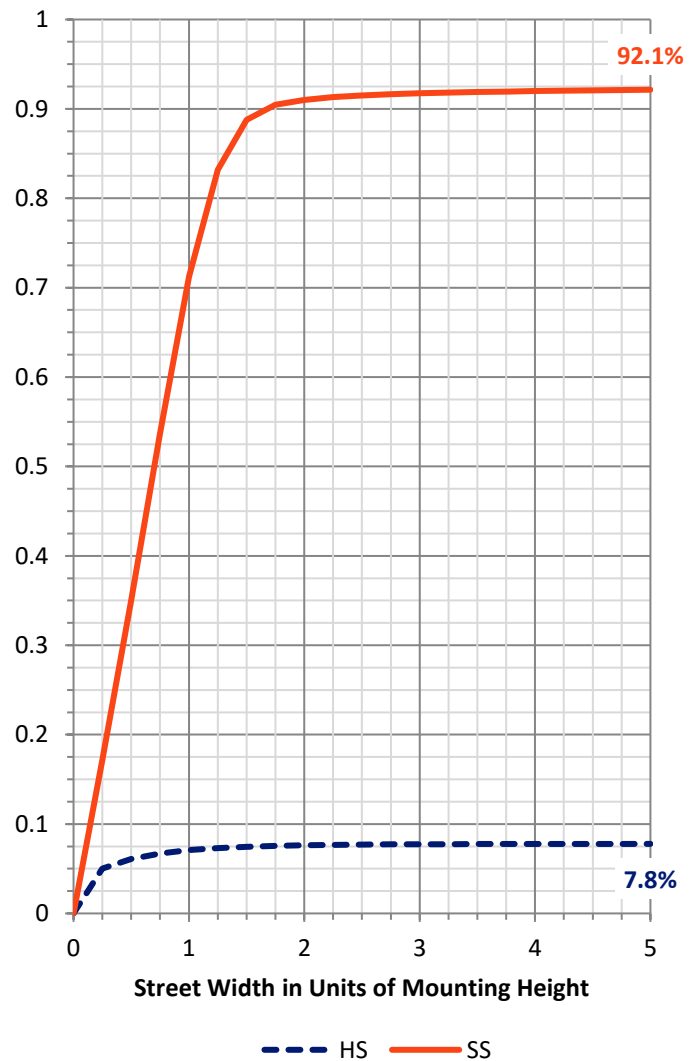
FLUX DISTRIBUTION:

| | | Downward | Upward | Total |
|--------------------|-----------|----------|--------|--------|
| House Side | Lumens | 604.1 | 0.0 | 604.1 |
| | % Fixture | 7.8 | 0.0 | 7.8 |
| Street Side | Lumens | 7131.6 | 0.0 | 7131.6 |
| | % Fixture | 92.2 | 0.0 | 92.2 |
| Total | Lumens | 7735.7 | 0.0 | 7735.7 |
| | % Fixture | 100.0 | 0.0 | 100.0 |

ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10° | 173.4 | 2.2 |
| 10°-20° | 419.0 | 5.4 |
| 20°-30° | 670.3 | 8.7 |
| 30°-40° | 1134.6 | 14.7 |
| 40°-50° | 1862.7 | 24.1 |
| 50°-60° | 2047.3 | 26.5 |
| 60°-70° | 1174.3 | 15.2 |
| 70°-80° | 239.9 | 3.1 |
| 80°-90° | 14.2 | 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° | 7735.7 | 100.0 |
| 0°-180° | 7735.7 | 100.0 |

Coefficient of Utilization



REPORT NUMBER: P960988

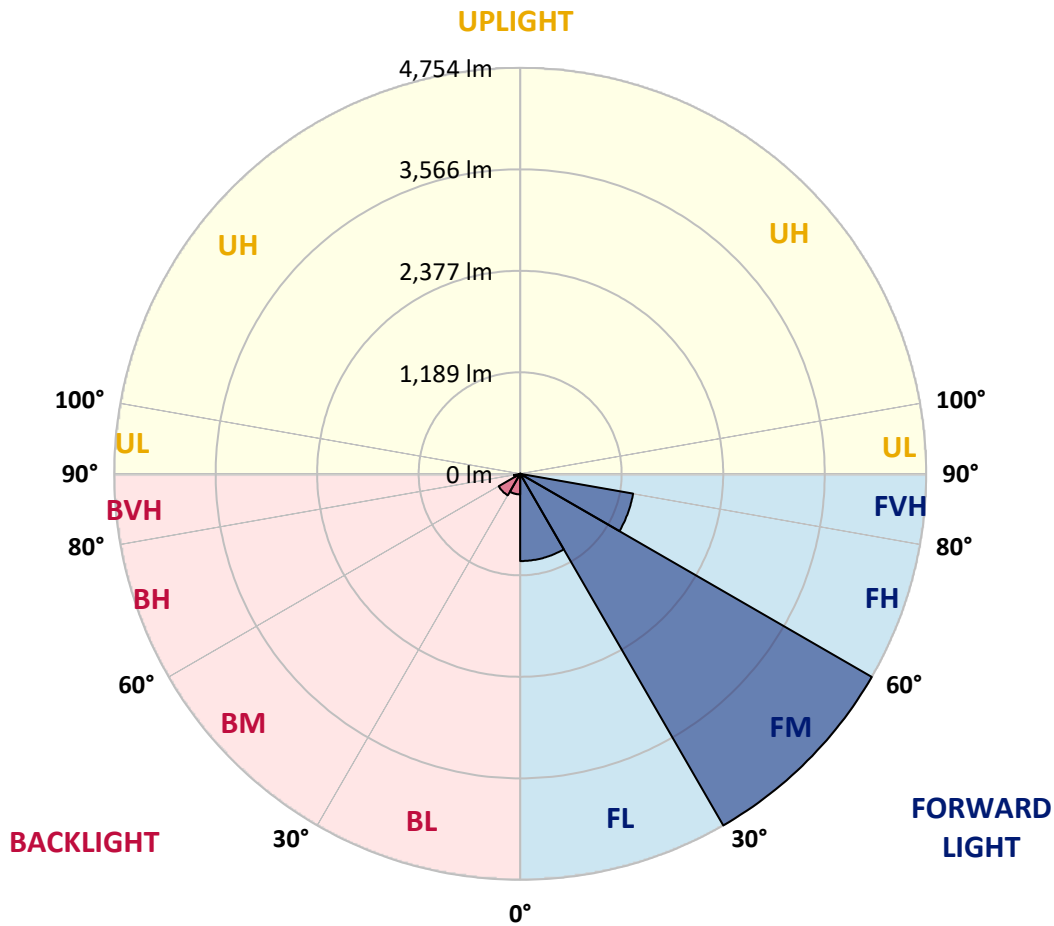
CATALOG NUMBER: NVN-SB1D-827-U-AFL-HSS

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

| Zone | Lumens | % Fixture | Zone Rating/Lumen Limit | | |
|----------------|--------|-----------|-------------------------|------|---------|
| | | | B | U | G |
| FL (0°-30°) | 1021.5 | 13.2 | | | |
| FM (30°-60°) | 4754.4 | 61.5 | | | |
| FH (60°-80°) | 1342.4 | 17.4 | | | G1/1800 |
| FVH (80°-90°) | 13.2 | 0.2 | | | G1/100 |
| BL (0°-30°) | 241.2 | 3.1 | B1/500 | | |
| BM (30°-60°) | 290.1 | 3.8 | B1/1000 | | |
| BH (60°-80°) | 71.8 | 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: P960988

CATALOG NUMBER: NVN-SB1D-827-U-AFL-HSS

CANDELA DISTRIBUTION (FULL):

| | 0° | 5° | 15° | 25° | 35° | 45° | 55° | 65° | 75° | 85° | 90° |
|-------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 0° | 1864.1 | 1864.1 | 1864.1 | 1864.1 | 1864.1 | 1864.1 | 1864.1 | 1864.1 | 1864.1 | 1864.1 | 1864.1 |
| 2.5° | 2312.9 | 2283.9 | 2279.6 | 2273.9 | 2218.5 | 2177.0 | 2116.9 | 2051.1 | 1977.1 | 1901.8 | 1868.4 |
| 5° | 2672.2 | 2649.2 | 2644.9 | 2618.3 | 2555.3 | 2484.7 | 2377.8 | 2242.8 | 2104.9 | 1942.8 | 1873.2 |
| 7.5° | 2741.8 | 2737.5 | 2757.0 | 2756.1 | 2747.5 | 2691.6 | 2601.6 | 2440.8 | 2233.8 | 1993.4 | 1885.6 |
| 10° | 2431.3 | 2442.3 | 2500.4 | 2551.4 | 2689.3 | 2769.4 | 2749.9 | 2617.3 | 2366.4 | 2051.1 | 1899.4 |
| 12.5° | 2148.4 | 2135.5 | 2177.0 | 2234.7 | 2395.0 | 2633.5 | 2811.5 | 2764.6 | 2518.1 | 2116.4 | 1919.9 |
| 15° | 1971.0 | 1965.7 | 1989.1 | 2015.8 | 2137.9 | 2378.3 | 2739.8 | 2884.5 | 2664.1 | 2193.7 | 1950.9 |
| 17.5° | 1914.2 | 1909.9 | 1917.1 | 1923.7 | 2003.0 | 2189.0 | 2569.6 | 2957.8 | 2803.8 | 2282.0 | 1985.2 |
| 20° | 1960.4 | 1954.8 | 1953.8 | 1948.5 | 1981.4 | 2108.3 | 2415.5 | 2963.1 | 2929.2 | 2362.1 | 2014.8 |
| 22.5° | 2095.4 | 2088.7 | 2065.4 | 2044.4 | 2047.2 | 2119.3 | 2346.8 | 2910.6 | 3023.6 | 2436.9 | 2033.4 |
| 25° | 2340.2 | 2329.2 | 2280.5 | 2209.9 | 2165.1 | 2195.7 | 2357.3 | 2841.5 | 3113.8 | 2495.7 | 2024.4 |
| 27.5° | 2646.3 | 2632.1 | 2569.6 | 2464.6 | 2362.1 | 2324.9 | 2433.1 | 2793.7 | 3188.8 | 2540.5 | 2004.8 |
| 30° | 2946.5 | 2927.8 | 2866.3 | 2784.7 | 2635.0 | 2517.6 | 2570.1 | 2814.8 | 3278.0 | 2587.2 | 1979.1 |
| 32.5° | 3270.3 | 3252.6 | 3171.0 | 3070.0 | 2946.0 | 2788.1 | 2757.6 | 2917.4 | 3387.1 | 2652.6 | 1960.9 |
| 35° | 3680.1 | 3652.4 | 3536.5 | 3398.6 | 3267.0 | 3107.2 | 3011.2 | 3094.3 | 3532.7 | 2752.2 | 1971.0 |
| 37.5° | 4146.5 | 4109.3 | 3984.4 | 3794.0 | 3622.4 | 3443.5 | 3320.4 | 3337.5 | 3745.9 | 2885.8 | 2001.9 |
| 40° | 4586.4 | 4552.4 | 4437.0 | 4257.6 | 4042.1 | 3825.1 | 3693.9 | 3655.7 | 4040.1 | 3048.5 | 2056.4 |
| 42.5° | 4850.1 | 4819.5 | 4771.0 | 4695.1 | 4513.4 | 4292.0 | 4126.5 | 4044.0 | 4388.3 | 3243.1 | 2122.7 |
| 45° | 4864.9 | 4838.2 | 4903.5 | 4991.8 | 4956.0 | 4808.6 | 4606.9 | 4455.7 | 4738.1 | 3425.8 | 2191.3 |
| 47.5° | 4628.3 | 4610.1 | 4808.6 | 5116.8 | 5270.3 | 5332.4 | 5146.3 | 4833.0 | 5026.6 | 3557.0 | 2219.4 |
| 50° | 3983.5 | 3976.7 | 4385.1 | 4950.8 | 5390.1 | 5791.2 | 5715.4 | 5184.0 | 5250.4 | 3624.7 | 2192.8 |
| 52.5° | 3453.9 | 3429.6 | 3667.7 | 4419.4 | 5216.0 | 6032.6 | 6271.6 | 5528.4 | 5406.8 | 3637.6 | 2130.3 |
| 55° | 2619.7 | 2598.2 | 2896.9 | 3530.3 | 4654.5 | 5946.7 | 6678.5 | 5883.8 | 5518.9 | 3604.7 | 2018.2 |
| 57.5° | 1405.3 | 1391.8 | 1769.2 | 2349.7 | 3638.5 | 5431.6 | 6751.9 | 6259.7 | 5613.3 | 3517.4 | 1861.2 |
| 60° | 547.1 | 544.7 | 685.9 | 1140.0 | 2211.3 | 4418.9 | 6381.2 | 6485.3 | 5672.5 | 3410.1 | 1730.1 |
| 62.5° | 331.1 | 338.1 | 361.1 | 511.8 | 976.9 | 2745.2 | 5527.0 | 6228.6 | 5712.0 | 3311.8 | 1621.8 |
| 65° | 273.8 | 274.3 | 277.2 | 351.6 | 467.9 | 1148.6 | 4160.9 | 5384.3 | 5614.2 | 3136.7 | 1468.2 |
| 67.5° | 234.7 | 238.9 | 250.0 | 279.0 | 330.0 | 503.7 | 2395.5 | 4170.8 | 5019.4 | 2729.4 | 1228.8 |
| 70° | 185.1 | 190.8 | 204.6 | 229.4 | 254.7 | 315.3 | 885.3 | 2775.2 | 3834.6 | 2057.3 | 929.2 |
| 72.5° | 156.0 | 155.5 | 162.7 | 186.5 | 202.2 | 221.8 | 340.6 | 1555.0 | 2228.6 | 982.2 | 459.8 |
| 75° | 120.6 | 125.5 | 134.5 | 156.0 | 165.5 | 160.7 | 184.6 | 568.1 | 798.5 | 297.7 | 156.4 |
| 77.5° | 94.4 | 98.3 | 106.4 | 127.4 | 136.9 | 114.0 | 106.4 | 203.2 | 256.7 | 106.8 | 70.6 |
| 80° | 42.4 | 45.8 | 72.5 | 94.0 | 111.6 | 78.7 | 57.7 | 103.9 | 114.0 | 48.7 | 35.8 |
| 82.5° | 7.6 | 12.9 | 42.4 | 49.6 | 57.2 | 51.0 | 30.0 | 53.9 | 55.8 | 19.6 | 12.4 |
| 85° | 0.5 | 0.9 | 14.8 | 18.1 | 22.9 | 16.7 | 9.0 | 21.4 | 18.6 | 6.7 | 4.8 |
| 87.5° | 0.0 | 0.0 | 0.0 | 0.5 | 0.5 | 2.4 | 2.9 | 3.8 | 2.9 | 2.4 | 1.9 |
| 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: P960988
 CATALOG NUMBER: NVN-SB1D-827-U-AFL-HSS

CANDELA DISTRIBUTION (continued):

| | 95° | 105° | 115° | 125° | 135° | 145° | 155° | 165° | 175° | 180° |
|-------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 0° | 1864.1 | 1864.1 | 1864.1 | 1864.1 | 1864.1 | 1864.1 | 1864.1 | 1864.1 | 1864.1 | 1864.1 |
| 2.5° | 1834.0 | 1766.3 | 1700.5 | 1646.6 | 1615.1 | 1561.7 | 1526.4 | 1520.7 | 1505.9 | 1518.7 |
| 5° | 1798.8 | 1677.6 | 1555.0 | 1445.4 | 1355.2 | 1238.7 | 1152.0 | 1115.2 | 1083.2 | 1094.2 |
| 7.5° | 1782.1 | 1590.8 | 1399.9 | 1212.6 | 1019.8 | 833.8 | 695.5 | 637.8 | 593.9 | 600.0 |
| 10° | 1759.6 | 1500.6 | 1201.6 | 915.3 | 657.3 | 473.7 | 378.2 | 343.0 | 323.4 | 323.9 |
| 12.5° | 1742.5 | 1392.9 | 971.2 | 620.5 | 400.2 | 302.4 | 272.9 | 264.2 | 258.5 | 259.0 |
| 15° | 1733.9 | 1266.0 | 743.6 | 413.6 | 286.2 | 256.1 | 249.0 | 245.2 | 241.4 | 240.9 |
| 17.5° | 1719.5 | 1124.7 | 544.3 | 302.0 | 250.4 | 240.0 | 233.7 | 229.4 | 224.7 | 223.8 |
| 20° | 1698.1 | 964.5 | 397.8 | 255.2 | 234.7 | 226.5 | 218.0 | 212.3 | 206.5 | 205.6 |
| 22.5° | 1658.6 | 795.2 | 305.8 | 236.2 | 223.2 | 214.1 | 203.7 | 197.0 | 191.3 | 190.3 |
| 25° | 1585.1 | 636.3 | 257.6 | 224.2 | 213.2 | 202.2 | 190.8 | 181.7 | 176.5 | 175.6 |
| 27.5° | 1492.1 | 499.9 | 233.7 | 213.2 | 200.4 | 190.3 | 177.4 | 168.8 | 164.1 | 163.2 |
| 30° | 1382.3 | 384.9 | 219.9 | 200.8 | 185.1 | 176.5 | 165.0 | 157.8 | 155.0 | 155.0 |
| 32.5° | 1264.0 | 307.7 | 214.1 | 188.4 | 171.7 | 162.2 | 153.1 | 150.3 | 149.3 | 148.8 |
| 35° | 1152.9 | 267.1 | 211.4 | 178.4 | 159.8 | 150.8 | 146.9 | 147.4 | 149.3 | 149.3 |
| 37.5° | 1054.2 | 254.2 | 209.9 | 171.3 | 149.3 | 141.1 | 143.6 | 147.9 | 146.0 | 146.0 |
| 40° | 964.9 | 255.6 | 208.9 | 165.9 | 140.7 | 135.9 | 140.7 | 137.4 | 132.6 | 132.1 |
| 42.5° | 896.8 | 267.6 | 207.0 | 161.7 | 135.5 | 132.1 | 130.2 | 124.9 | 124.5 | 125.5 |
| 45° | 847.2 | 278.1 | 206.5 | 159.8 | 129.8 | 123.5 | 121.2 | 115.9 | 125.5 | 127.8 |
| 47.5° | 788.4 | 278.1 | 206.5 | 153.1 | 120.2 | 117.8 | 114.0 | 108.2 | 117.8 | 120.2 |
| 50° | 712.7 | 260.5 | 198.4 | 145.4 | 112.5 | 111.1 | 104.4 | 97.3 | 95.4 | 96.9 |
| 52.5° | 616.7 | 228.5 | 177.9 | 135.0 | 105.0 | 102.1 | 94.0 | 88.8 | 87.3 | 87.3 |
| 55° | 507.5 | 191.3 | 150.3 | 119.7 | 96.9 | 91.5 | 85.9 | 83.4 | 82.0 | 81.1 |
| 57.5° | 412.6 | 156.9 | 120.6 | 106.4 | 89.2 | 82.5 | 80.6 | 77.8 | 75.3 | 73.9 |
| 60° | 338.7 | 123.5 | 99.7 | 94.4 | 81.6 | 75.3 | 74.9 | 71.0 | 64.9 | 64.0 |
| 62.5° | 261.4 | 90.6 | 83.9 | 82.0 | 73.9 | 68.7 | 67.8 | 60.1 | 50.5 | 48.7 |
| 65° | 184.6 | 70.6 | 67.8 | 72.1 | 65.8 | 61.1 | 58.6 | 47.3 | 37.2 | 35.8 |
| 67.5° | 129.8 | 59.1 | 53.4 | 62.9 | 57.2 | 51.0 | 49.6 | 40.1 | 31.0 | 30.0 |
| 70° | 92.6 | 48.2 | 43.9 | 53.9 | 45.8 | 44.8 | 42.0 | 33.4 | 25.3 | 24.3 |
| 72.5° | 65.4 | 36.7 | 33.8 | 46.7 | 31.5 | 38.6 | 34.3 | 25.7 | 19.1 | 18.1 |
| 75° | 48.2 | 26.2 | 23.9 | 27.2 | 22.9 | 29.1 | 24.3 | 17.2 | 11.9 | 11.5 |
| 77.5° | 35.3 | 16.7 | 14.3 | 13.3 | 13.3 | 18.1 | 13.3 | 7.2 | 5.2 | 4.8 |
| 80° | 24.8 | 7.6 | 6.7 | 5.7 | 5.2 | 4.3 | 1.9 | 0.9 | 0.5 | 0.5 |
| 82.5° | 14.8 | 3.4 | 3.4 | 2.4 | 1.4 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 85° | 3.4 | 1.4 | 1.4 | 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)