

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: P883410

Luminaire Tested: **NVN-SB3D-727-U-T4FT-HSS**

Issue Date: 10/7/2024

**Test Information**

Test Method: LM-79-08  
Report Number: P883410  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2405-108-25)  
Test Lab: INNOVATION CENTER  
Issue Date: 10/7/2024  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: STREETWORKS  
Catalog Number: NVN-SB3D-727-U-T4FT-HSS  
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE  
(3) 70 CRI, 2700K, 900mA LIGHTSQUARES WITH 26 LEDS EACH AND TYPE IV  
FORWARD THROW OPTICS WITH HOUSE SIDE SHIELD  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

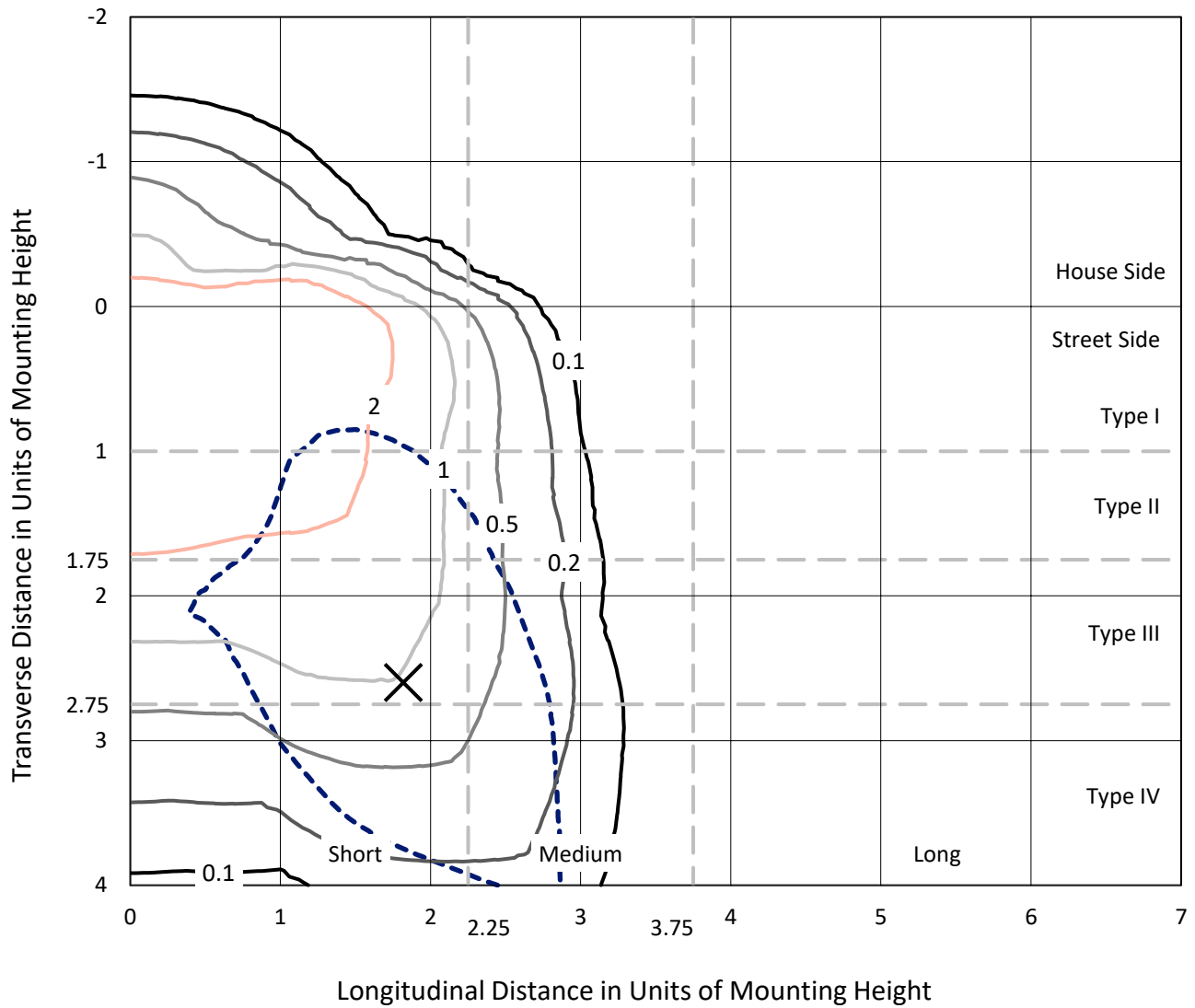
Lumens per Lamp: N/A  
Luminaire Lumens: 20944 lumens  
Efficiency: N/A  
Efficacy: 96.0 lumens/watt  
Luminous Opening: Rectangular (W 0.5' x L: 1.5' x H: 0')  
IES Classification: Type IV - Short  
BUG Rating: B2 - U0 - G4  
  
Input Watts (W): 218.1  
Input Voltage (V): 120.0  
Input Current (Ain): 1.84  
Voltage Rise (V): NR  
Power Factor: 0.998  
Total Harmonic Distortion (THDi): 2.542  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 24 FT



REPORT NUMBER: P883410  
 CATALOG NUMBER: NVN-SB3D-727-U-T4FT-HSS

### Iso-Footcandle Lines of Horizontal Illumination

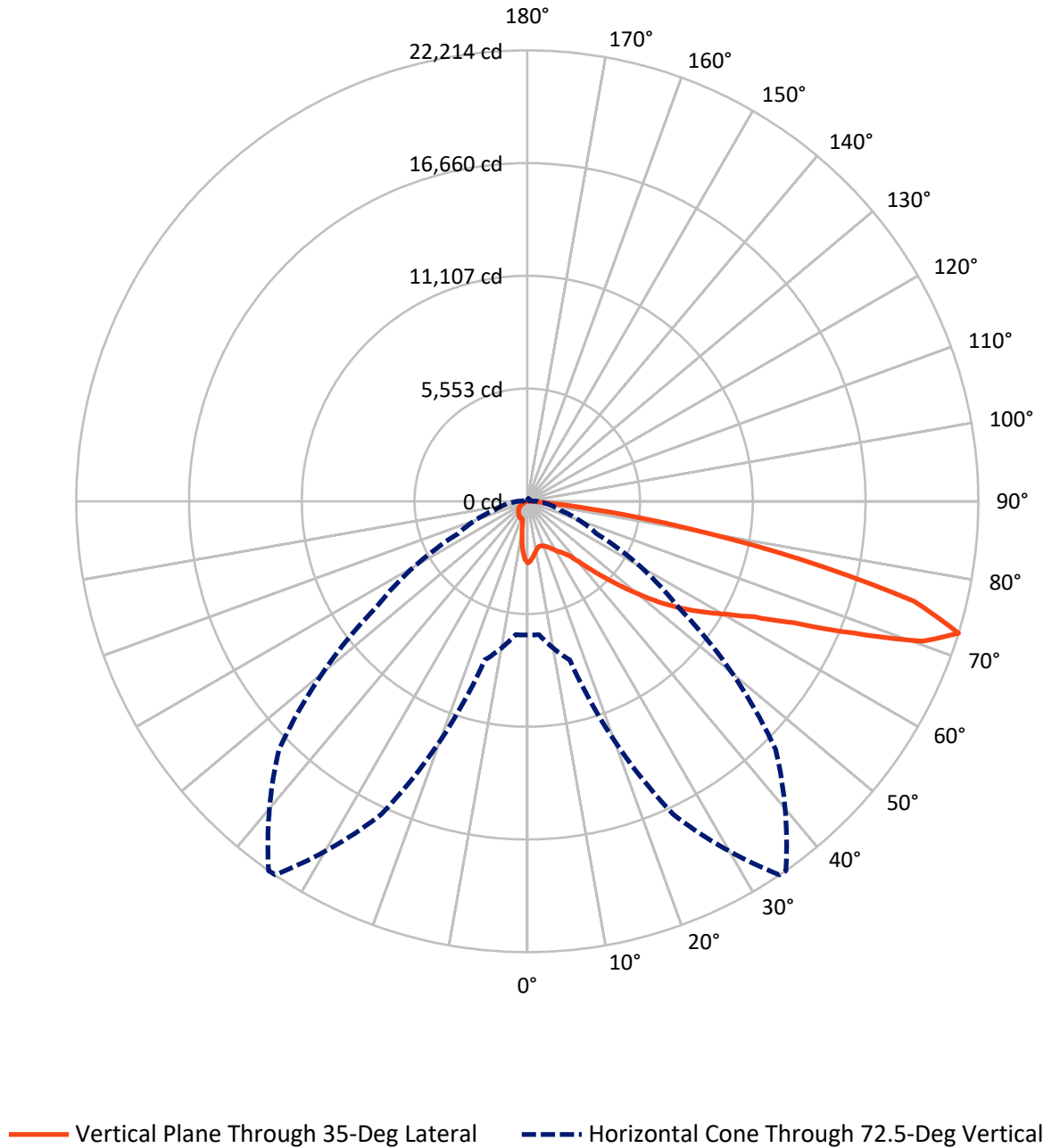
✕ Max cd  
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 4.9 fc  
 Type IV - Short - N/A

REPORT NUMBER: P883410  
CATALOG NUMBER: NVN-SB3D-727-U-T4FT-HSS

### Luminous Intensity Polar Plot



REPORT NUMBER: P883410  
 CATALOG NUMBER: NVN-SB3D-727-U-T4FT-HSS

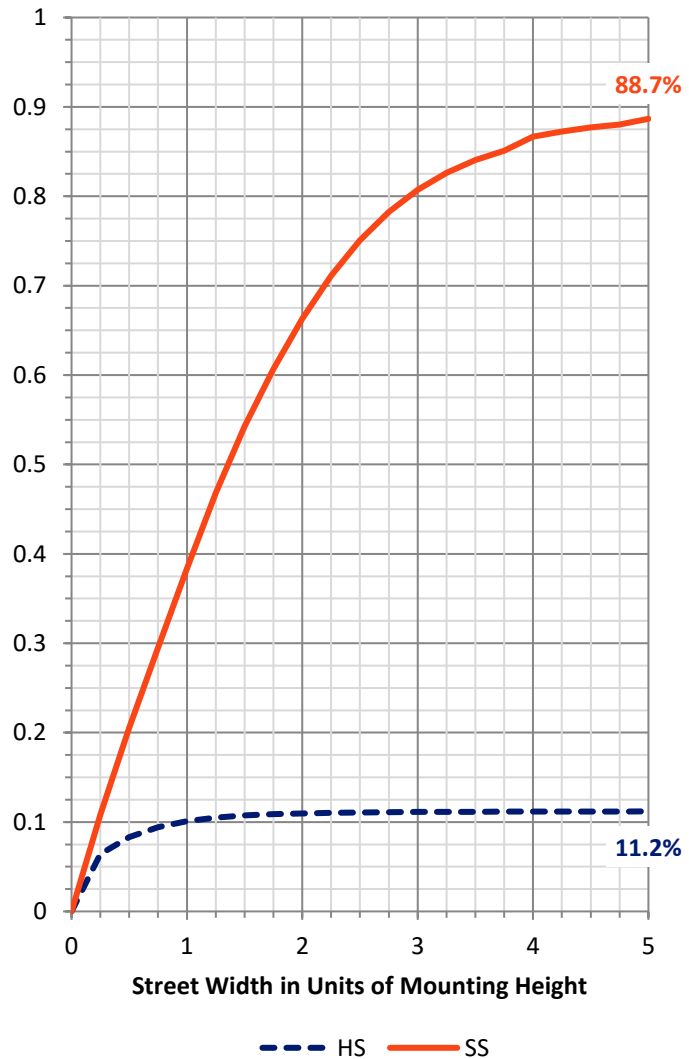
**FLUX DISTRIBUTION:**

|                    |           | Downward | Upward | Total   |
|--------------------|-----------|----------|--------|---------|
| <b>House Side</b>  | Lumens    | 2357.1   | 0.0    | 2357.1  |
|                    | % Fixture | 11.3     | 0.0    | 11.3    |
| <b>Street Side</b> | Lumens    | 18586.9  | 0.0    | 18586.9 |
|                    | % Fixture | 88.7     | 0.0    | 88.7    |
| <b>Total</b>       | Lumens    | 20944.0  | 0.0    | 20944.0 |
|                    | % Fixture | 100.0    | 0.0    | 100.0   |

**ZONAL LUMENS:**

| Zone      | Lumens  | % Fixture |
|-----------|---------|-----------|
| 0°-10°    | 249.4   | 1.2       |
| 10°-20°   | 583.5   | 2.8       |
| 20°-30°   | 947.9   | 4.5       |
| 30°-40°   | 1581.6  | 7.6       |
| 40°-50°   | 2992.4  | 14.3      |
| 50°-60°   | 4755.0  | 22.7      |
| 60°-70°   | 5882.2  | 28.1      |
| 70°-80°   | 3656.4  | 17.5      |
| 80°-90°   | 295.5   | 1.4       |
| 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°    | 20944.0 | 100.0     |
| 0°-180°   | 20944.0 | 100.0     |

**Coefficient of Utilization**



REPORT NUMBER: P883410

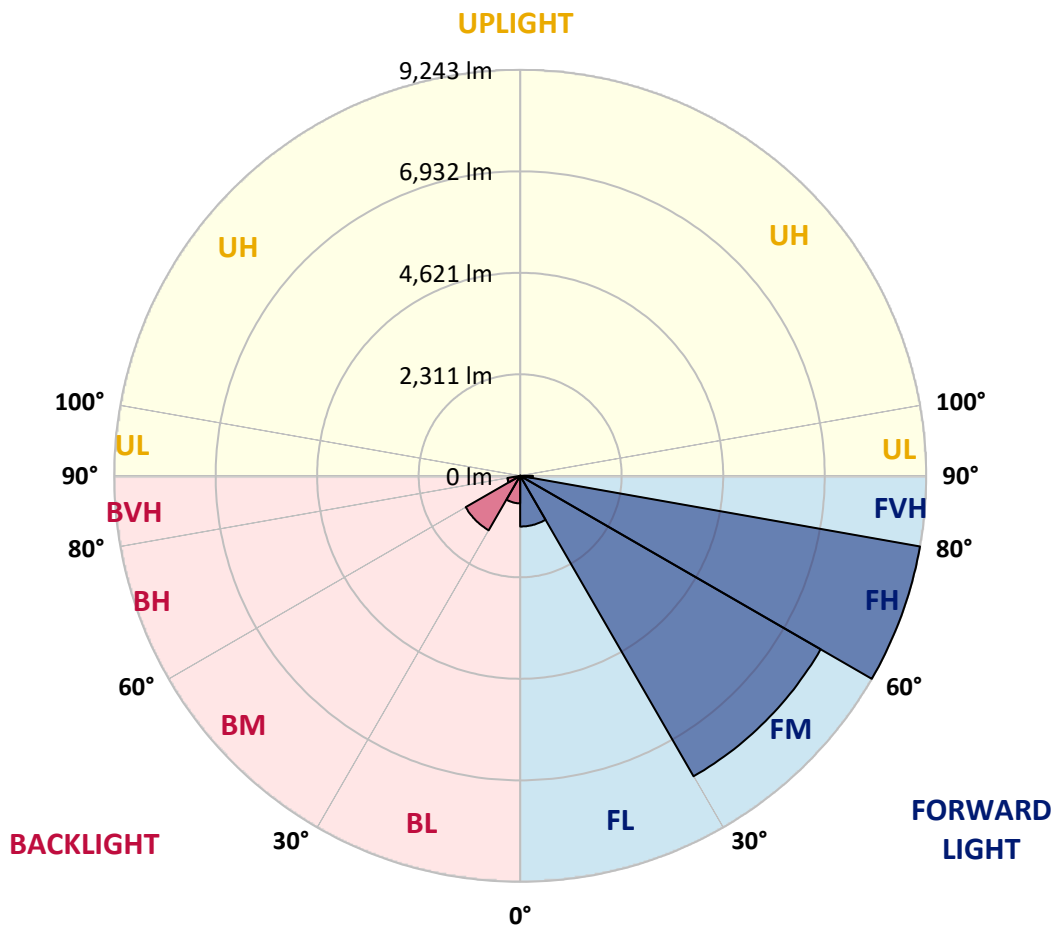
CATALOG NUMBER: NVN-SB3D-727-U-T4FT-HSS

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

| Zone           | Lumens | % Fixture | Zone Rating/Lumen Limit |      |          |
|----------------|--------|-----------|-------------------------|------|----------|
|                |        |           | B                       | U    | G        |
| FL (0°-30°)    | 1154.5 | 5.5       |                         |      |          |
| FM (30°-60°)   | 7898.0 | 37.7      |                         |      |          |
| FH (60°-80°)   | 9242.8 | 44.1      |                         |      | G4/12000 |
| FVH (80°-90°)  | 291.5  | 1.4       |                         |      | G3/500   |
| BL (0°-30°)    | 626.3  | 3.0       | B2/1000                 |      |          |
| BM (30°-60°)   | 1431.0 | 6.8       | B2/2500                 |      |          |
| BH (60°-80°)   | 295.8  | 1.4       | B1/500                  |      | G1/500   |
| BVH (80°-90°)  | 4.0    | 0.0       |                         |      | G0/10    |
| UL (90°-100°)  | 0.0    | 0.0       |                         | U0/0 |          |
| UH (100°-180°) | 0.0    | 0.0       |                         | U0/0 |          |

**BUG Rating: B2-U0-G4**

Type IV Short



REPORT NUMBER: P883410  
 CATALOG NUMBER: NVN-SB3D-727-U-T4FT-HSS

**CANDELA DISTRIBUTION (FULL):**

|       | 0°      | 5°      | 15°     | 25°     | 34°     | 35°     | 45°     | 55°     | 65°     | 75°     | 85°     |
|-------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|
| 0°    | 3035.5  | 3035.5  | 3035.5  | 3035.5  | 3035.5  | 3035.5  | 3035.5  | 3035.5  | 3035.5  | 3035.5  | 3035.5  |
| 2.5°  | 2900.4  | 2925.0  | 2929.6  | 2937.3  | 2937.3  | 2946.5  | 2961.8  | 2983.3  | 3018.6  | 3037.0  | 3049.3  |
| 5°    | 2673.3  | 2691.7  | 2714.8  | 2733.2  | 2768.5  | 2773.1  | 2832.9  | 2891.2  | 2972.6  | 3034.0  | 3076.9  |
| 7.5°  | 2444.7  | 2466.1  | 2496.8  | 2541.3  | 2587.4  | 2601.2  | 2691.7  | 2789.9  | 2918.9  | 3034.0  | 3106.1  |
| 10°   | 2283.5  | 2285.1  | 2312.7  | 2357.2  | 2430.8  | 2447.7  | 2558.2  | 2697.9  | 2859.0  | 3015.5  | 3133.7  |
| 12.5° | 2193.0  | 2203.7  | 2216.0  | 2249.8  | 2320.4  | 2331.1  | 2449.3  | 2613.5  | 2799.2  | 3004.8  | 3165.9  |
| 15°   | 2193.0  | 2200.7  | 2208.3  | 2225.2  | 2282.0  | 2291.2  | 2395.5  | 2559.8  | 2768.5  | 3009.4  | 3218.1  |
| 17.5° | 2216.0  | 2228.3  | 2222.1  | 2242.1  | 2301.9  | 2308.1  | 2400.2  | 2544.4  | 2766.9  | 3038.6  | 3297.9  |
| 20°   | 2271.2  | 2280.5  | 2268.2  | 2280.5  | 2340.3  | 2352.6  | 2447.7  | 2573.6  | 2793.0  | 3089.2  | 3397.7  |
| 22.5° | 2358.7  | 2363.3  | 2334.2  | 2343.4  | 2404.8  | 2420.1  | 2530.6  | 2656.4  | 2855.9  | 3170.5  | 3531.2  |
| 25°   | 2469.2  | 2478.4  | 2433.9  | 2444.7  | 2503.0  | 2521.4  | 2648.8  | 2780.7  | 2955.7  | 3282.6  | 3701.5  |
| 27.5° | 2596.6  | 2601.2  | 2562.8  | 2561.3  | 2636.5  | 2662.6  | 2791.5  | 2934.2  | 3089.2  | 3423.7  | 3916.4  |
| 30°   | 2742.4  | 2756.2  | 2719.4  | 2713.2  | 2808.4  | 2829.8  | 2957.2  | 3123.0  | 3285.6  | 3635.5  | 4221.8  |
| 32.5° | 2857.5  | 2868.2  | 2846.7  | 2862.1  | 2958.8  | 2975.6  | 3158.3  | 3390.0  | 3594.1  | 3936.3  | 4637.6  |
| 35°   | 3023.2  | 3029.3  | 2980.2  | 3007.9  | 3118.4  | 3161.3  | 3433.0  | 3764.4  | 3982.4  | 4313.8  | 5180.9  |
| 37.5° | 3623.2  | 3623.2  | 3414.5  | 3278.0  | 3383.8  | 3422.2  | 3808.9  | 4235.6  | 4461.2  | 4820.3  | 5865.3  |
| 40°   | 4453.5  | 4439.7  | 4134.3  | 3855.0  | 3841.2  | 3916.4  | 4344.5  | 4829.5  | 5079.6  | 5428.0  | 6635.7  |
| 42.5° | 5339.0  | 5317.5  | 4901.6  | 4625.4  | 4579.3  | 4605.4  | 4963.0  | 5561.5  | 5816.2  | 6169.2  | 7464.4  |
| 45°   | 6124.7  | 6118.5  | 5738.0  | 5366.6  | 5283.7  | 5366.6  | 5734.9  | 6417.8  | 6600.4  | 6971.8  | 8291.6  |
| 47.5° | 6783.0  | 6783.0  | 6505.3  | 6262.8  | 6219.8  | 6268.9  | 6780.0  | 7367.7  | 7350.9  | 7826.6  | 9097.3  |
| 50°   | 7541.1  | 7535.0  | 7271.1  | 7166.7  | 7211.2  | 7280.3  | 7983.1  | 8368.3  | 8127.4  | 8666.0  | 9817.0  |
| 52.5° | 8072.1  | 8109.0  | 8018.4  | 8001.5  | 8228.7  | 8348.4  | 9204.7  | 9347.4  | 8822.6  | 9462.5  | 10355.6 |
| 55°   | 8492.6  | 8535.6  | 8639.9  | 8758.1  | 9195.5  | 9352.0  | 10387.9 | 10275.8 | 9404.2  | 10153.1 | 10665.6 |
| 57.5° | 9088.0  | 9026.7  | 9187.8  | 9421.1  | 10128.5 | 10317.3 | 11534.2 | 11152.1 | 9872.2  | 10713.2 | 10699.4 |
| 60°   | 9810.9  | 9820.1  | 9847.7  | 10142.3 | 11060.0 | 11302.5 | 12663.7 | 11980.8 | 10173.0 | 11057.0 | 10325.0 |
| 62.5° | 10679.5 | 10693.3 | 10750.0 | 11202.8 | 12310.8 | 12539.4 | 13866.9 | 12659.1 | 10311.1 | 10960.3 | 9358.1  |
| 65°   | 10619.6 | 10677.9 | 11311.7 | 12860.2 | 14212.2 | 14437.7 | 15271.1 | 13134.9 | 10102.4 | 10076.3 | 7619.4  |
| 67.5° | 9674.3  | 9769.4  | 10829.8 | 14839.8 | 17078.8 | 17330.5 | 16968.3 | 13228.5 | 9201.6  | 7835.8  | 4970.6  |
| 70°   | 8434.3  | 8468.1  | 9743.3  | 16620.0 | 20398.2 | 20653.0 | 18487.6 | 12198.7 | 6982.5  | 4370.6  | 2226.7  |
| 72.5° | 6586.6  | 6594.3  | 8090.5  | 17032.8 | 22199.9 | 22213.7 | 17295.2 | 9055.8  | 3755.2  | 1678.9  | 773.5   |
| 75°   | 4705.2  | 4659.1  | 5418.8  | 13813.2 | 19531.2 | 19687.7 | 12966.0 | 4247.8  | 1434.9  | 793.4   | 385.2   |
| 77.5° | 2522.9  | 2573.6  | 3066.2  | 8191.8  | 13492.4 | 13759.4 | 7074.6  | 1224.6  | 730.5   | 540.2   | 254.7   |
| 80°   | 779.6   | 822.6   | 1256.9  | 3750.6  | 7642.4  | 7803.6  | 2622.7  | 544.8   | 509.5   | 385.2   | 167.3   |
| 82.5° | 245.5   | 254.7   | 586.2   | 1576.1  | 3172.1  | 3245.7  | 759.6   | 308.5   | 348.4   | 254.7   | 98.2    |
| 85°   | 70.6    | 72.1    | 260.9   | 587.8   | 784.2   | 799.5   | 213.3   | 119.7   | 199.5   | 158.1   | 50.6    |
| 87.5° | 7.7     | 24.6    | 98.2    | 98.2    | 69.1    | 67.5    | 23.0    | 26.1    | 56.8    | 20.0    | 9.2     |
| 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: P883410  
 CATALOG NUMBER: NVN-SB3D-727-U-T4FT-HSS

**CANDELA DISTRIBUTION (continued):**

|       | 90°    | 95°    | 105°   | 115°   | 125°   | 135°   | 145°   | 155°   | 165°   | 175°   | 180°   |
|-------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 0°    | 3035.5 | 3035.5 | 3035.5 | 3035.5 | 3035.5 | 3035.5 | 3035.5 | 3035.5 | 3035.5 | 3035.5 | 3035.5 |
| 2.5°  | 3041.6 | 3043.2 | 3023.2 | 2989.4 | 2952.6 | 2921.9 | 2883.6 | 2852.9 | 2831.4 | 2825.2 | 2836.0 |
| 5°    | 3063.1 | 3052.4 | 2995.6 | 2892.8 | 2770.0 | 2664.1 | 2545.9 | 2452.3 | 2390.9 | 2364.9 | 2374.1 |
| 7.5°  | 3095.3 | 3064.6 | 2940.3 | 2737.8 | 2503.0 | 2294.3 | 2082.5 | 1918.3 | 1813.9 | 1761.7 | 1769.4 |
| 10°   | 3123.0 | 3061.6 | 2848.3 | 2513.7 | 2154.6 | 1838.5 | 1553.0 | 1355.1 | 1244.6 | 1192.4 | 1193.9 |
| 12.5° | 3149.1 | 3060.0 | 2728.6 | 2248.2 | 1761.7 | 1375.0 | 1109.5 | 1011.3 | 980.6  | 969.9  | 966.8  |
| 15°   | 3198.2 | 3064.6 | 2578.2 | 1944.4 | 1370.4 | 1038.9 | 942.3  | 940.7  | 946.9  | 943.8  | 942.3  |
| 17.5° | 3265.7 | 3069.2 | 2407.8 | 1622.1 | 1057.4 | 916.2  | 911.6  | 925.4  | 934.6  | 930.0  | 928.4  |
| 20°   | 3353.2 | 3087.7 | 2226.7 | 1302.9 | 908.5  | 885.5  | 896.2  | 908.5  | 916.2  | 908.5  | 907.0  |
| 22.5° | 3475.9 | 3119.9 | 2028.8 | 1046.6 | 860.9  | 867.1  | 876.3  | 890.1  | 897.8  | 887.0  | 885.5  |
| 25°   | 3626.3 | 3170.5 | 1833.9 | 910.0  | 837.9  | 845.6  | 859.4  | 874.7  | 883.9  | 873.2  | 871.7  |
| 27.5° | 3821.2 | 3251.9 | 1654.3 | 879.3  | 814.9  | 819.5  | 839.4  | 862.5  | 874.7  | 860.9  | 860.9  |
| 30°   | 4103.6 | 3385.4 | 1499.3 | 893.2  | 801.1  | 790.3  | 818.0  | 850.2  | 864.0  | 851.7  | 850.2  |
| 32.5° | 4478.0 | 3574.1 | 1404.2 | 914.6  | 794.9  | 756.6  | 782.7  | 824.1  | 847.1  | 839.4  | 839.4  |
| 35°   | 4969.1 | 3861.1 | 1367.4 | 939.2  | 790.3  | 721.3  | 739.7  | 784.2  | 824.1  | 831.8  | 831.8  |
| 37.5° | 5564.5 | 4260.1 | 1378.1 | 949.9  | 776.5  | 692.1  | 701.3  | 739.7  | 791.9  | 816.4  | 822.6  |
| 40°   | 6241.3 | 4725.1 | 1439.5 | 939.2  | 761.2  | 667.6  | 669.1  | 698.3  | 744.3  | 781.1  | 793.4  |
| 42.5° | 6939.6 | 5268.4 | 1553.0 | 899.3  | 747.4  | 646.1  | 641.5  | 661.4  | 692.1  | 718.2  | 728.9  |
| 45°   | 7604.1 | 5827.0 | 1665.1 | 844.0  | 730.5  | 624.6  | 613.8  | 621.5  | 627.7  | 638.4  | 644.5  |
| 47.5° | 8184.2 | 6219.8 | 1632.8 | 793.4  | 707.5  | 600.0  | 581.6  | 578.6  | 560.1  | 558.6  | 557.1  |
| 50°   | 8584.7 | 6305.8 | 1450.2 | 742.8  | 673.7  | 572.4  | 543.3  | 524.8  | 492.6  | 477.3  | 478.8  |
| 52.5° | 8712.1 | 5966.6 | 1184.7 | 692.1  | 618.5  | 535.6  | 494.1  | 465.0  | 425.1  | 411.3  | 409.7  |
| 55°   | 8543.3 | 5302.1 | 946.9  | 630.7  | 541.7  | 486.5  | 440.4  | 402.1  | 369.8  | 353.0  | 353.0  |
| 57.5° | 8130.4 | 4456.6 | 748.9  | 558.6  | 460.4  | 431.2  | 385.2  | 346.8  | 319.2  | 302.3  | 299.3  |
| 60°   | 7446.0 | 3538.8 | 592.4  | 472.7  | 392.9  | 371.4  | 323.8  | 299.3  | 274.7  | 254.7  | 250.1  |
| 62.5° | 6407.1 | 2526.0 | 465.0  | 374.4  | 328.4  | 303.9  | 276.2  | 257.8  | 228.7  | 201.0  | 196.4  |
| 65°   | 4999.8 | 1545.4 | 359.1  | 274.7  | 264.0  | 251.7  | 234.8  | 217.9  | 182.6  | 155.0  | 150.4  |
| 67.5° | 3153.7 | 732.0  | 256.3  | 207.2  | 208.7  | 202.6  | 194.9  | 181.1  | 155.0  | 130.4  | 127.4  |
| 70°   | 1388.8 | 354.5  | 168.8  | 158.1  | 155.0  | 155.0  | 161.1  | 156.5  | 132.0  | 109.0  | 104.4  |
| 72.5° | 472.7  | 190.3  | 125.8  | 119.7  | 112.0  | 110.5  | 135.0  | 130.4  | 105.9  | 84.4   | 79.8   |
| 75°   | 247.1  | 127.4  | 92.1   | 85.9   | 67.5   | 81.3   | 107.4  | 101.3  | 75.2   | 55.2   | 50.6   |
| 77.5° | 161.1  | 90.5   | 62.9   | 55.2   | 38.4   | 53.7   | 79.8   | 70.6   | 44.5   | 27.6   | 24.6   |
| 80°   | 101.3  | 59.9   | 36.8   | 26.1   | 18.4   | 29.2   | 43.0   | 30.7   | 16.9   | 6.1    | 4.6    |
| 82.5° | 53.7   | 30.7   | 13.8   | 9.2    | 7.7    | 9.2    | 10.7   | 7.7    | 3.1    | 0.0    | 0.0    |
| 85°   | 21.5   | 10.7   | 4.6    | 3.1    | 1.5    | 0.0    | 3.1    | 1.5    | 0.0    | 0.0    | 0.0    |
| 87.5° | 7.7    | 1.5    | 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)