

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: P884830

Luminaire Tested: **NVN-SB5D-827-U-T4FT-HSS**

Issue Date: 10/7/2024

**Test Information**

Test Method: LM-79-08  
Report Number: P884830  
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-SB5D-827-U-T4FT-HSS  
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE  
(5) 80 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**

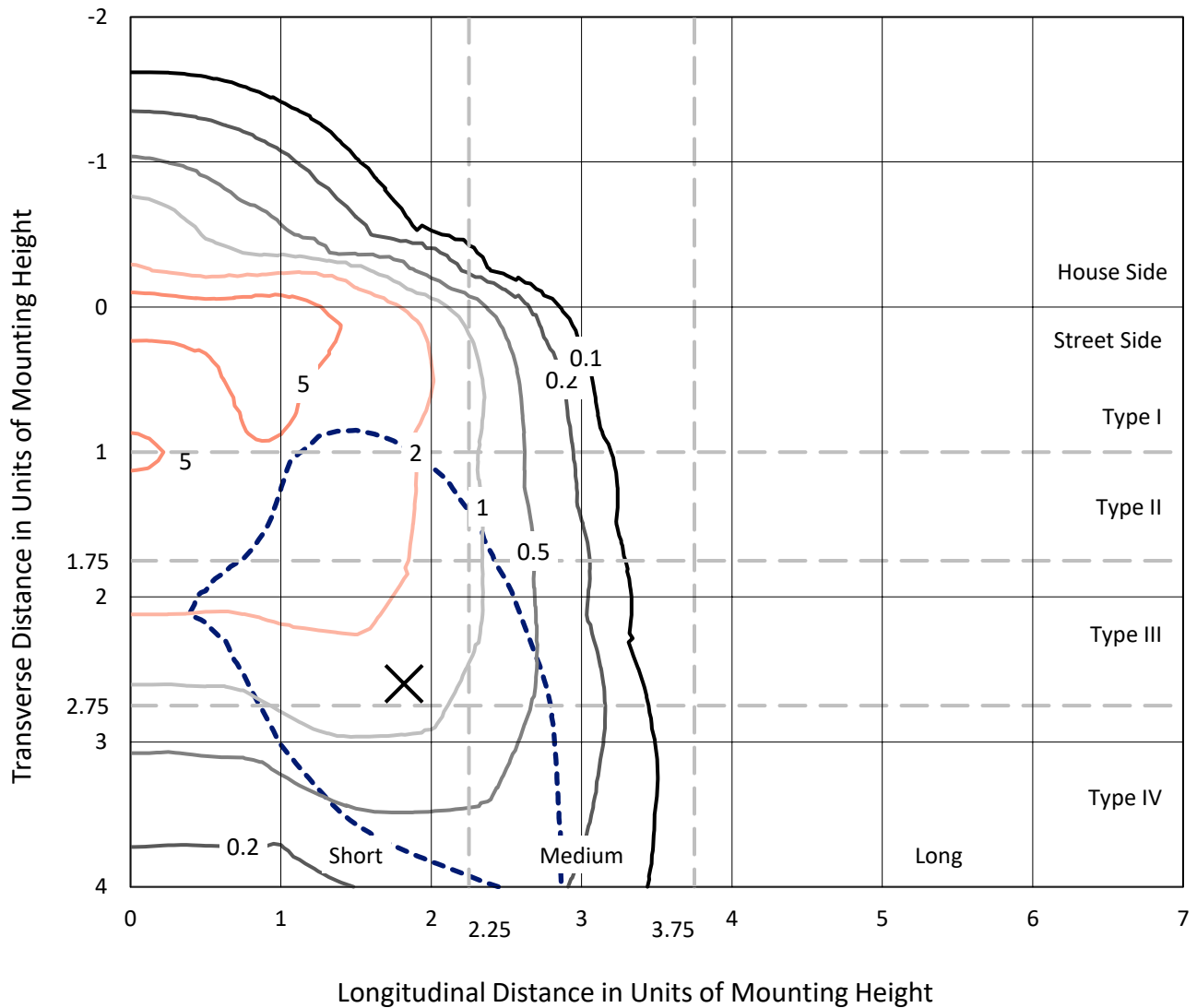
Lumens per Lamp: N/A  
Luminaire Lumens: 31766 lumens  
Efficiency: N/A  
Efficacy: 87.1 lumens/watt  
Luminous Opening: Rectangular (W 1' x L: 1.5' x H: 0')  
IES Classification: Type IV - Short  
BUG Rating: B2 - U0 - G5  
  
Input Watts (W): 364.9  
Input Voltage (V): 120.0  
Input Current (Ain): 3.094  
Voltage Rise (V): NR  
Power Factor: 0.998  
Total Harmonic Distortion (THDi): 3.28  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 24 FT



REPORT NUMBER: P884830  
 CATALOG NUMBER: NVN-SB5D-827-U-T4FT-HSS

### Iso-Footcandle Lines of Horizontal Illumination

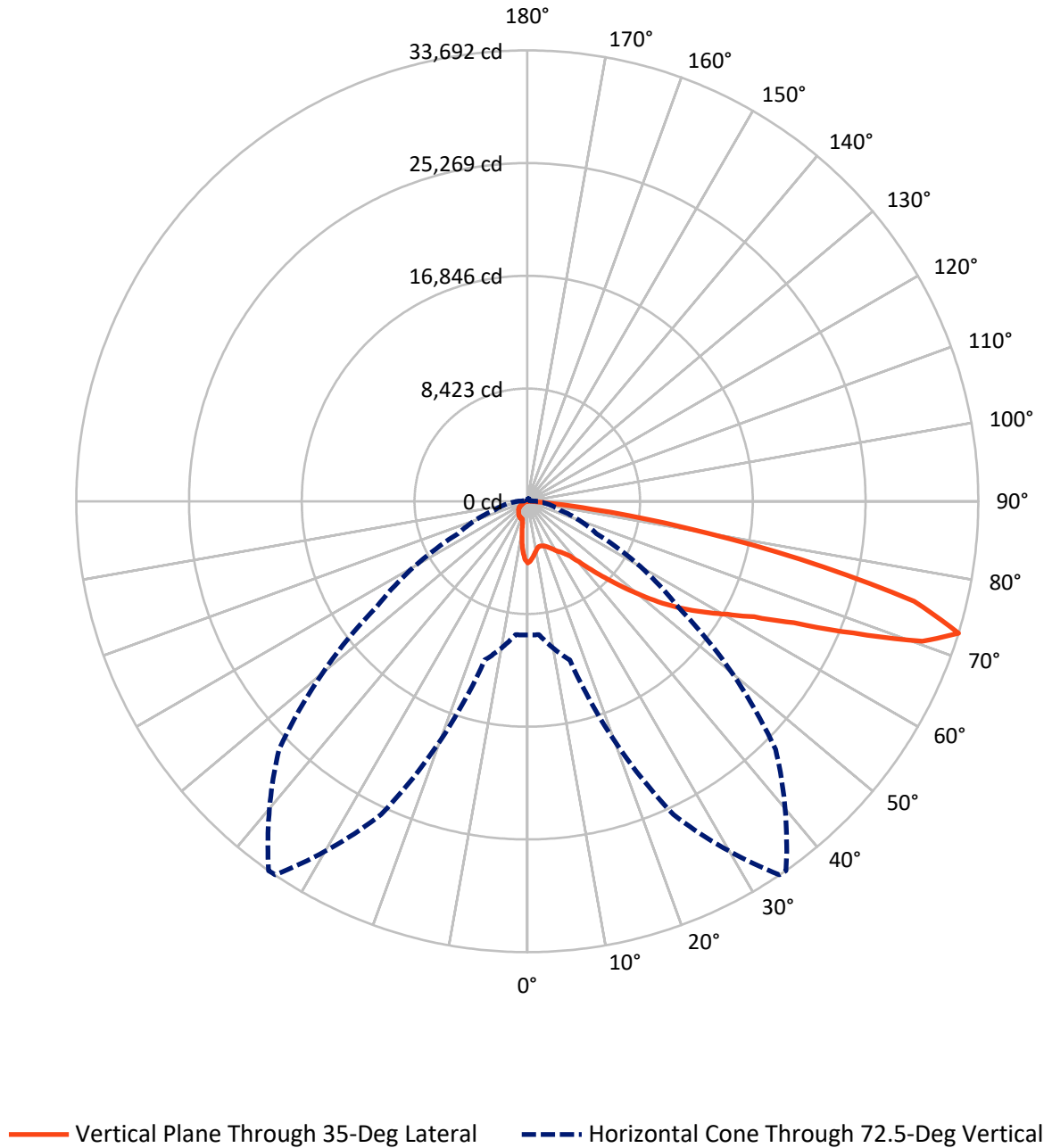
✕ Max cd  
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 7.4 fc  
 Type IV - Short - N/A

REPORT NUMBER: P884830  
CATALOG NUMBER: NVN-SB5D-827-U-T4FT-HSS

### Luminous Intensity Polar Plot



REPORT NUMBER: P884830  
 CATALOG NUMBER: NVN-SB5D-827-U-T4FT-HSS

**FLUX DISTRIBUTION:**

|                    |           | Downward | Upward | Total   |
|--------------------|-----------|----------|--------|---------|
| <b>House Side</b>  | Lumens    | 3575.1   | 0.0    | 3575.1  |
|                    | % Fixture | 11.3     | 0.0    | 11.3    |
| <b>Street Side</b> | Lumens    | 28190.9  | 0.0    | 28190.9 |
|                    | % Fixture | 88.7     | 0.0    | 88.7    |
| <b>Total</b>       | Lumens    | 31766.0  | 0.0    | 31766.0 |
|                    | % Fixture | 100.0    | 0.0    | 100.0   |

**ZONAL LUMENS:**

| Zone      | Lumens  | % Fixture |
|-----------|---------|-----------|
| 0°-10°    | 378.3   | 1.2       |
| 10°-20°   | 885.0   | 2.8       |
| 20°-30°   | 1437.7  | 4.5       |
| 30°-40°   | 2398.8  | 7.6       |
| 40°-50°   | 4538.7  | 14.3      |
| 50°-60°   | 7211.9  | 22.7      |
| 60°-70°   | 8921.6  | 28.1      |
| 70°-80°   | 5545.7  | 17.5      |
| 80°-90°   | 448.2   | 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°    | 31766.0 | 100.0     |
| 0°-180°   | 31766.0 | 100.0     |

**Coefficient of Utilization**



REPORT NUMBER: P884830

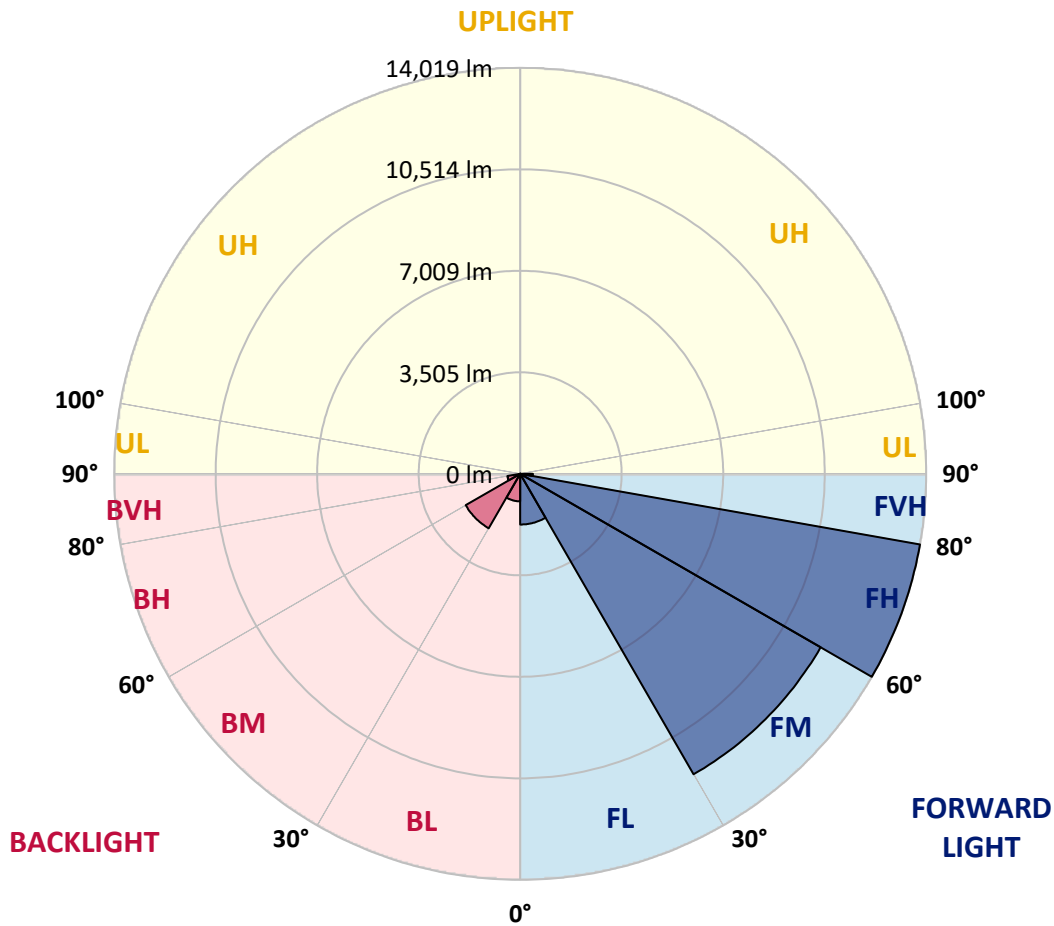
CATALOG NUMBER: NVN-SB5D-827-U-T4FT-HSS

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

| Zone           | Lumens  | % Fixture | Zone Rating/Lumen Limit |      |        |
|----------------|---------|-----------|-------------------------|------|--------|
|                |         |           | B                       | U    | G      |
| FL (0°-30°)    | 1751.1  | 5.5       |                         |      |        |
| FM (30°-60°)   | 11979.0 | 37.7      |                         |      |        |
| FH (60°-80°)   | 14018.7 | 44.1      |                         |      | G5     |
| FVH (80°-90°)  | 442.1   | 1.4       |                         |      | G3/500 |
| BL (0°-30°)    | 950.0   | 3.0       | B2/1000                 |      |        |
| BM (30°-60°)   | 2170.4  | 6.8       | B2/2500                 |      |        |
| BH (60°-80°)   | 448.6   | 1.4       | B1/500                  |      | G1/500 |
| BVH (80°-90°)  | 6.1     | 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-G5**

Type IV Short



REPORT NUMBER: P884830

CATALOG NUMBER: NVN-SB5D-827-U-T4FT-HSS

**CANDELA DISTRIBUTION (FULL):**

|       | 0°      | 5°      | 15°     | 25°     | 34°     | 35°     | 45°     | 55°     | 65°     | 75°     | 85°     |
|-------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|
| 0°    | 4604.0  | 4604.0  | 4604.0  | 4604.0  | 4604.0  | 4604.0  | 4604.0  | 4604.0  | 4604.0  | 4604.0  | 4604.0  |
| 2.5°  | 4399.1  | 4436.4  | 4443.4  | 4455.0  | 4455.0  | 4469.0  | 4492.2  | 4524.8  | 4578.4  | 4606.3  | 4624.9  |
| 5°    | 4054.6  | 4082.6  | 4117.5  | 4145.4  | 4199.0  | 4205.9  | 4296.7  | 4385.2  | 4508.5  | 4601.6  | 4666.8  |
| 7.5°  | 3707.8  | 3740.4  | 3787.0  | 3854.5  | 3924.3  | 3945.3  | 4082.6  | 4231.5  | 4427.1  | 4601.6  | 4711.0  |
| 10°   | 3463.4  | 3465.8  | 3507.7  | 3575.2  | 3686.9  | 3712.5  | 3880.1  | 4091.9  | 4336.3  | 4573.7  | 4752.9  |
| 12.5° | 3326.1  | 3342.4  | 3361.0  | 3412.2  | 3519.3  | 3535.6  | 3714.8  | 3963.9  | 4245.5  | 4557.4  | 4801.8  |
| 15°   | 3326.1  | 3337.8  | 3349.4  | 3375.0  | 3461.1  | 3475.1  | 3633.4  | 3882.4  | 4199.0  | 4564.4  | 4880.9  |
| 17.5° | 3361.0  | 3379.6  | 3370.3  | 3400.6  | 3491.4  | 3500.7  | 3640.3  | 3859.1  | 4196.6  | 4608.6  | 5002.0  |
| 20°   | 3444.8  | 3458.8  | 3440.2  | 3458.8  | 3549.6  | 3568.2  | 3712.5  | 3903.4  | 4236.2  | 4685.4  | 5153.3  |
| 22.5° | 3577.5  | 3584.5  | 3540.3  | 3554.2  | 3647.3  | 3670.6  | 3838.2  | 4029.0  | 4331.6  | 4808.8  | 5355.8  |
| 25°   | 3745.1  | 3759.0  | 3691.5  | 3707.8  | 3796.3  | 3824.2  | 4017.4  | 4217.6  | 4482.9  | 4978.7  | 5614.1  |
| 27.5° | 3938.3  | 3945.3  | 3887.1  | 3884.7  | 3998.8  | 4038.4  | 4233.9  | 4450.3  | 4685.4  | 5192.8  | 5940.0  |
| 30°   | 4159.4  | 4180.3  | 4124.5  | 4115.2  | 4259.5  | 4292.1  | 4485.3  | 4736.6  | 4983.4  | 5514.0  | 6403.2  |
| 32.5° | 4334.0  | 4350.3  | 4317.7  | 4340.9  | 4487.6  | 4513.2  | 4790.2  | 5141.6  | 5451.2  | 5970.2  | 7034.0  |
| 35°   | 4585.3  | 4594.6  | 4520.2  | 4562.1  | 4729.6  | 4794.8  | 5206.8  | 5709.6  | 6040.1  | 6542.8  | 7857.9  |
| 37.5° | 5495.4  | 5495.4  | 5178.9  | 4971.7  | 5132.3  | 5190.5  | 5777.1  | 6424.1  | 6766.3  | 7310.9  | 8896.0  |
| 40°   | 6754.6  | 6733.7  | 6270.5  | 5846.9  | 5825.9  | 5940.0  | 6589.4  | 7324.9  | 7704.3  | 8232.7  | 10064.5 |
| 42.5° | 8097.7  | 8065.1  | 7434.3  | 7015.3  | 6945.5  | 6985.1  | 7527.4  | 8435.2  | 8821.5  | 9356.9  | 11321.4 |
| 45°   | 9289.4  | 9280.1  | 8702.8  | 8139.6  | 8013.9  | 8139.6  | 8698.2  | 9734.0  | 10010.9 | 10574.2 | 12575.9 |
| 47.5° | 10287.9 | 10287.9 | 9866.6  | 9498.9  | 9433.7  | 9508.2  | 10283.3 | 11174.7 | 11149.1 | 11870.7 | 13797.9 |
| 50°   | 11437.7 | 11428.4 | 11028.1 | 10869.8 | 10937.3 | 11042.1 | 12108.1 | 12692.3 | 12326.9 | 13143.9 | 14889.5 |
| 52.5° | 12243.1 | 12298.9 | 12161.6 | 12136.0 | 12480.5 | 12662.0 | 13960.8 | 14177.3 | 13381.3 | 14351.9 | 15706.5 |
| 55°   | 12880.8 | 12946.0 | 13104.3 | 13283.5 | 13946.9 | 14184.3 | 15755.4 | 15585.5 | 14263.4 | 15399.3 | 16176.7 |
| 57.5° | 13783.9 | 13690.8 | 13935.2 | 14289.0 | 15362.0 | 15648.3 | 17494.1 | 16914.5 | 14973.3 | 16248.9 | 16227.9 |
| 60°   | 14880.2 | 14894.2 | 14936.1 | 15383.0 | 16774.9 | 17142.6 | 19207.2 | 18171.4 | 15429.5 | 16770.2 | 15660.0 |
| 62.5° | 16197.6 | 16218.6 | 16304.7 | 16991.4 | 18671.9 | 19018.7 | 21032.0 | 19200.2 | 15639.0 | 16623.6 | 14193.6 |
| 65°   | 16106.9 | 16195.3 | 17156.6 | 19505.1 | 21555.7 | 21897.9 | 23161.8 | 19921.8 | 15322.5 | 15282.9 | 11556.4 |
| 67.5° | 14673.1 | 14817.4 | 16425.8 | 22507.7 | 25903.7 | 26285.4 | 25736.1 | 20063.8 | 13956.2 | 11884.6 | 7539.0  |
| 70°   | 12792.4 | 12843.6 | 14777.8 | 25207.7 | 30938.2 | 31324.6 | 28040.4 | 18502.0 | 10590.5 | 6629.0  | 3377.3  |
| 72.5° | 9990.0  | 10001.6 | 12271.0 | 25833.8 | 33670.8 | 33691.8 | 26231.9 | 13735.1 | 5695.6  | 2546.4  | 1173.1  |
| 75°   | 7136.4  | 7066.5  | 8218.7  | 20950.6 | 29623.1 | 29860.6 | 19665.7 | 6442.7  | 2176.3  | 1203.4  | 584.2   |
| 77.5° | 3826.5  | 3903.4  | 4650.5  | 12424.6 | 20464.1 | 20869.1 | 10730.2 | 1857.4  | 1107.9  | 819.3   | 386.4   |
| 80°   | 1182.4  | 1247.6  | 1906.3  | 5688.6  | 11591.4 | 11835.8 | 3977.8  | 826.3   | 772.8   | 584.2   | 253.7   |
| 82.5° | 372.4   | 386.4   | 889.1   | 2390.4  | 4811.1  | 4922.8  | 1152.2  | 467.8   | 528.4   | 386.4   | 149.0   |
| 85°   | 107.1   | 109.4   | 395.7   | 891.5   | 1189.4  | 1212.7  | 323.5   | 181.6   | 302.6   | 239.7   | 76.8    |
| 87.5° | 11.6    | 37.2    | 149.0   | 149.0   | 104.7   | 102.4   | 34.9    | 39.6    | 86.1    | 30.3    | 14.0    |
| 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: P884830

CATALOG NUMBER: NVN-SB5D-827-U-T4FT-HSS

**CANDELA DISTRIBUTION (continued):**

|       | 90°     | 95°    | 105°   | 115°   | 125°   | 135°   | 145°   | 155°   | 165°   | 175°   | 180°   |
|-------|---------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 0°    | 4604.0  | 4604.0 | 4604.0 | 4604.0 | 4604.0 | 4604.0 | 4604.0 | 4604.0 | 4604.0 | 4604.0 | 4604.0 |
| 2.5°  | 4613.3  | 4615.6 | 4585.3 | 4534.1 | 4478.3 | 4431.7 | 4373.5 | 4327.0 | 4294.4 | 4285.1 | 4301.4 |
| 5°    | 4645.9  | 4629.6 | 4543.4 | 4387.5 | 4201.3 | 4040.7 | 3861.5 | 3719.5 | 3626.4 | 3586.8 | 3600.8 |
| 7.5°  | 4694.7  | 4648.2 | 4459.6 | 4152.4 | 3796.3 | 3479.7 | 3158.5 | 2909.5 | 2751.2 | 2672.1 | 2683.7 |
| 10°   | 4736.6  | 4643.5 | 4320.0 | 3812.6 | 3267.9 | 2788.4 | 2355.5 | 2055.3 | 1887.7 | 1808.5 | 1810.9 |
| 12.5° | 4776.2  | 4641.2 | 4138.4 | 3409.9 | 2672.1 | 2085.5 | 1682.8 | 1533.9 | 1487.3 | 1471.0 | 1466.4 |
| 15°   | 4850.7  | 4648.2 | 3910.3 | 2949.0 | 2078.5 | 1575.8 | 1429.1 | 1426.8 | 1436.1 | 1431.5 | 1429.1 |
| 17.5° | 4953.1  | 4655.2 | 3652.0 | 2460.3 | 1603.7 | 1389.6 | 1382.6 | 1403.5 | 1417.5 | 1410.5 | 1408.2 |
| 20°   | 5085.8  | 4683.1 | 3377.3 | 1976.1 | 1377.9 | 1343.0 | 1359.3 | 1377.9 | 1389.6 | 1377.9 | 1375.6 |
| 22.5° | 5272.0  | 4732.0 | 3077.1 | 1587.4 | 1305.8 | 1315.1 | 1329.0 | 1350.0 | 1361.6 | 1345.3 | 1343.0 |
| 25°   | 5500.1  | 4808.8 | 2781.5 | 1380.3 | 1270.9 | 1282.5 | 1303.4 | 1326.7 | 1340.7 | 1324.4 | 1322.1 |
| 27.5° | 5795.7  | 4932.1 | 2509.1 | 1333.7 | 1235.9 | 1242.9 | 1273.2 | 1308.1 | 1326.7 | 1305.8 | 1305.8 |
| 30°   | 6224.0  | 5134.6 | 2274.0 | 1354.7 | 1215.0 | 1198.7 | 1240.6 | 1289.5 | 1310.4 | 1291.8 | 1289.5 |
| 32.5° | 6791.9  | 5420.9 | 2129.7 | 1387.2 | 1205.7 | 1147.5 | 1187.1 | 1249.9 | 1284.8 | 1273.2 | 1273.2 |
| 35°   | 7536.7  | 5856.2 | 2073.9 | 1424.5 | 1198.7 | 1094.0 | 1121.9 | 1189.4 | 1249.9 | 1261.5 | 1261.5 |
| 37.5° | 8439.8  | 6461.4 | 2090.2 | 1440.8 | 1177.8 | 1049.7 | 1063.7 | 1121.9 | 1201.0 | 1238.3 | 1247.6 |
| 40°   | 9466.3  | 7166.6 | 2183.3 | 1424.5 | 1154.5 | 1012.5 | 1014.8 | 1059.1 | 1128.9 | 1184.7 | 1203.4 |
| 42.5° | 10525.3 | 7990.6 | 2355.5 | 1364.0 | 1133.5 | 979.9  | 972.9  | 1003.2 | 1049.7 | 1089.3 | 1105.6 |
| 45°   | 11533.2 | 8837.8 | 2525.4 | 1280.2 | 1107.9 | 947.3  | 931.0  | 942.7  | 952.0  | 968.3  | 977.6  |
| 47.5° | 12413.0 | 9433.7 | 2476.5 | 1203.4 | 1073.0 | 910.1  | 882.2  | 877.5  | 849.6  | 847.2  | 844.9  |
| 50°   | 13020.5 | 9564.0 | 2199.6 | 1126.5 | 1021.8 | 868.2  | 824.0  | 796.0  | 747.2  | 723.9  | 726.2  |
| 52.5° | 13213.7 | 9049.6 | 1796.9 | 1049.7 | 938.0  | 812.3  | 749.5  | 705.3  | 644.7  | 623.8  | 621.5  |
| 55°   | 12957.7 | 8041.8 | 1436.1 | 956.6  | 821.6  | 737.8  | 668.0  | 609.8  | 560.9  | 535.3  | 535.3  |
| 57.5° | 12331.5 | 6759.3 | 1135.9 | 847.2  | 698.3  | 654.1  | 584.2  | 526.0  | 484.1  | 458.5  | 453.9  |
| 60°   | 11293.4 | 5367.4 | 898.4  | 716.9  | 595.9  | 563.3  | 491.1  | 453.9  | 416.6  | 386.4  | 379.4  |
| 62.5° | 9717.7  | 3831.2 | 705.3  | 567.9  | 498.1  | 460.9  | 419.0  | 391.0  | 346.8  | 304.9  | 297.9  |
| 65°   | 7583.3  | 2343.9 | 544.7  | 416.6  | 400.3  | 381.7  | 356.1  | 330.5  | 277.0  | 235.1  | 228.1  |
| 67.5° | 4783.2  | 1110.3 | 388.7  | 314.2  | 316.6  | 307.2  | 295.6  | 274.7  | 235.1  | 197.8  | 193.2  |
| 70°   | 2106.5  | 537.7  | 256.0  | 239.7  | 235.1  | 235.1  | 244.4  | 237.4  | 200.2  | 165.3  | 158.3  |
| 72.5° | 716.9   | 288.6  | 190.9  | 181.6  | 169.9  | 167.6  | 204.8  | 197.8  | 160.6  | 128.0  | 121.0  |
| 75°   | 374.7   | 193.2  | 139.7  | 130.3  | 102.4  | 123.4  | 162.9  | 153.6  | 114.1  | 83.8   | 76.8   |
| 77.5° | 244.4   | 137.3  | 95.4   | 83.8   | 58.2   | 81.5   | 121.0  | 107.1  | 67.5   | 41.9   | 37.2   |
| 80°   | 153.6   | 90.8   | 55.9   | 39.6   | 27.9   | 44.2   | 65.2   | 46.6   | 25.6   | 9.3    | 7.0    |
| 82.5° | 81.5    | 46.6   | 20.9   | 14.0   | 11.6   | 14.0   | 16.3   | 11.6   | 4.7    | 0.0    | 0.0    |
| 85°   | 32.6    | 16.3   | 7.0    | 4.7    | 2.3    | 0.0    | 4.7    | 2.3    | 0.0    | 0.0    | 0.0    |
| 87.5° | 11.6    | 2.3    | 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)