

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: P884836

Luminaire Tested: **NVN-SB5D-830-U-T2-HSS**

Issue Date: 10/7/2024

Test Information

Test Method: LM-79-08
Report Number: P884836
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2405-108-4)
Test Lab: INNOVATION CENTER
Issue Date: 10/7/2024
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: STREETWORKS
Catalog Number: NVN-SB5D-830-U-T2-HSS
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE
(5) 80 CRI, 3000K, 900mA LIGHTSQUARES WITH 26 LEDS EACH AND TYPE II
OPTICS WITH HOUSE SIDE SHIELD
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 32993 lumens
Efficiency: N/A
Efficacy: 90.4 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 1.5' x H: 0')
IES Classification: Type II - Medium
BUG Rating: B3 - U0 - G4

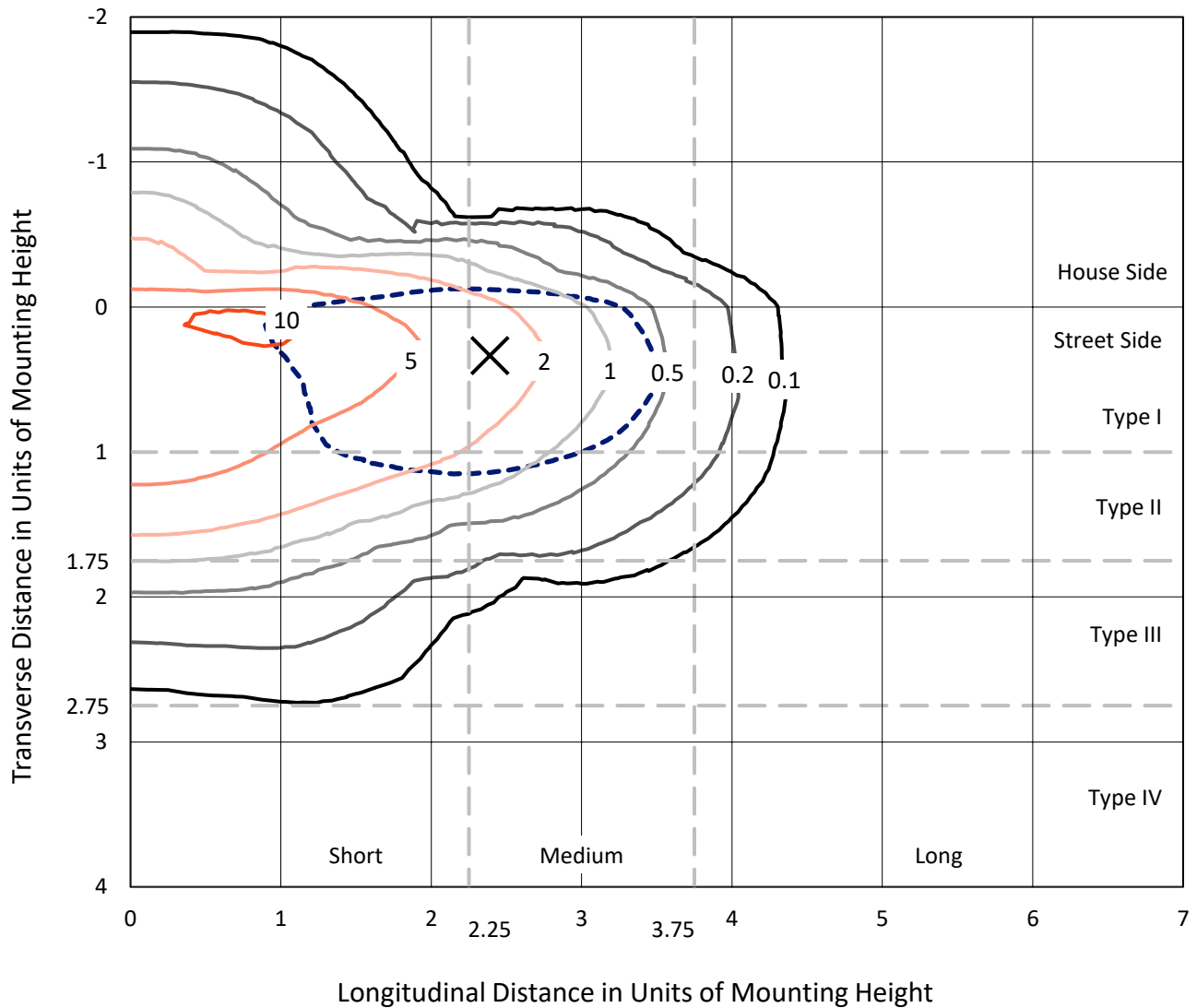
Input Watts (W): 364.9
Input Voltage (V): 120.0
Input Current (Ain): 3.094
Voltage Rise (V): NR
Power Factor: 0.998
Total Harmonic Distortion (THDi): 3.28
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Iso-Footcandle Lines of Horizontal Illumination

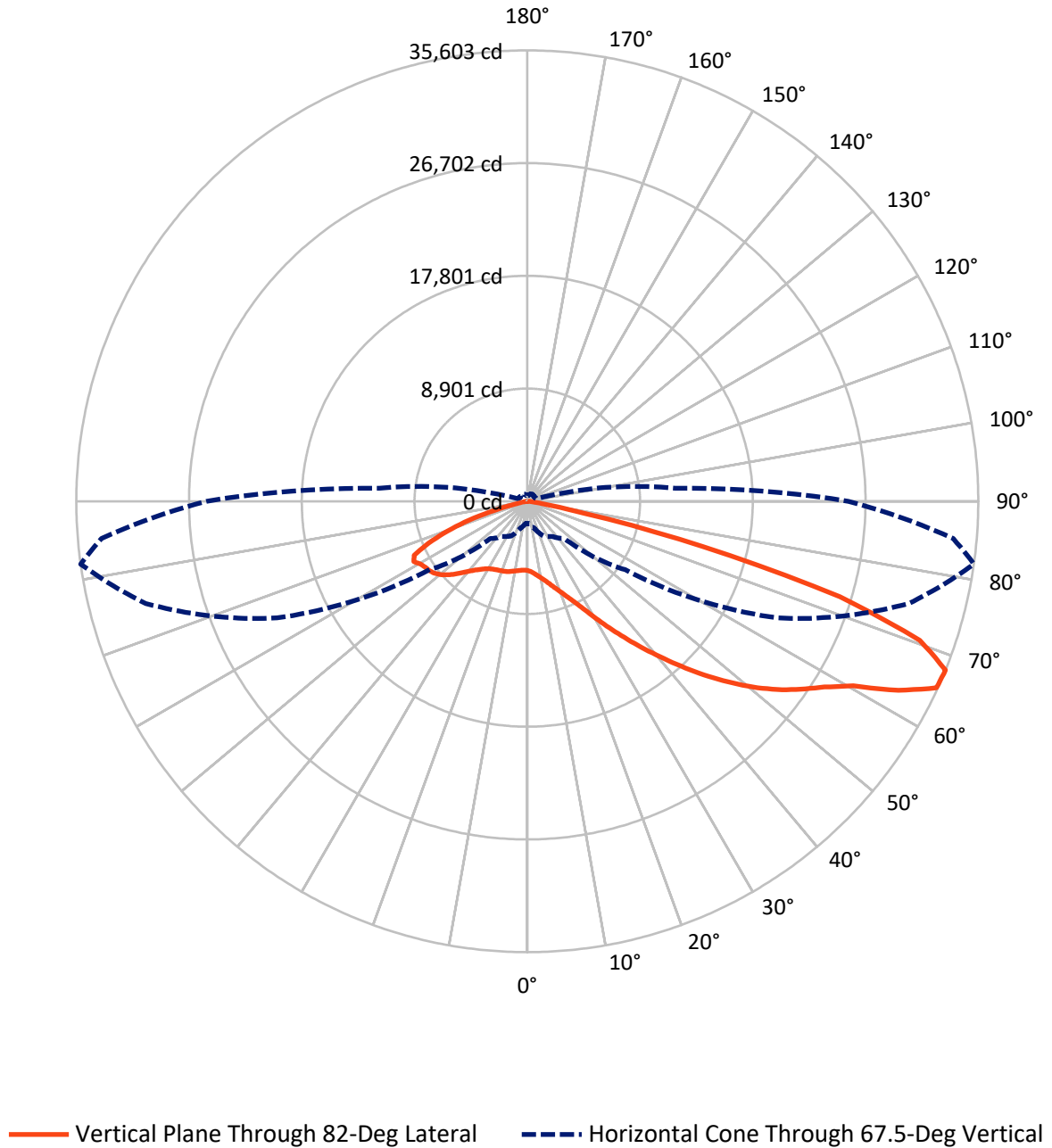
× Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 11.6 fc
 Type II - Medium - N/A

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Luminous Intensity Polar Plot



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FLUX DISTRIBUTION:

| | | Downward | Upward | Total |
|--------------------|-----------|----------|--------|---------|
| House Side | Lumens | 5976.4 | 0.0 | 5976.4 |
| | % Fixture | 18.1 | 0.0 | 18.1 |
| Street Side | Lumens | 27016.6 | 0.0 | 27016.6 |
| | % Fixture | 81.9 | 0.0 | 81.9 |
| Total | Lumens | 32993.0 | 0.0 | 32993.0 |
| | % Fixture | 100.0 | 0.0 | 100.0 |

ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|---------|-----------|
| 0°-10° | 487.0 | 1.5 |
| 10°-20° | 1265.4 | 3.8 |
| 20°-30° | 2026.8 | 6.1 |
| 30°-40° | 3584.0 | 10.9 |
| 40°-50° | 6279.5 | 19.0 |
| 50°-60° | 8375.2 | 25.4 |
| 60°-70° | 7796.8 | 23.6 |
| 70°-80° | 2992.4 | 9.1 |
| 80°-90° | 185.9 | 0.6 |
| 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° | 32993.0 | 100.0 |
| 0°-180° | 32993.0 | 100.0 |

Coefficient of Utilization



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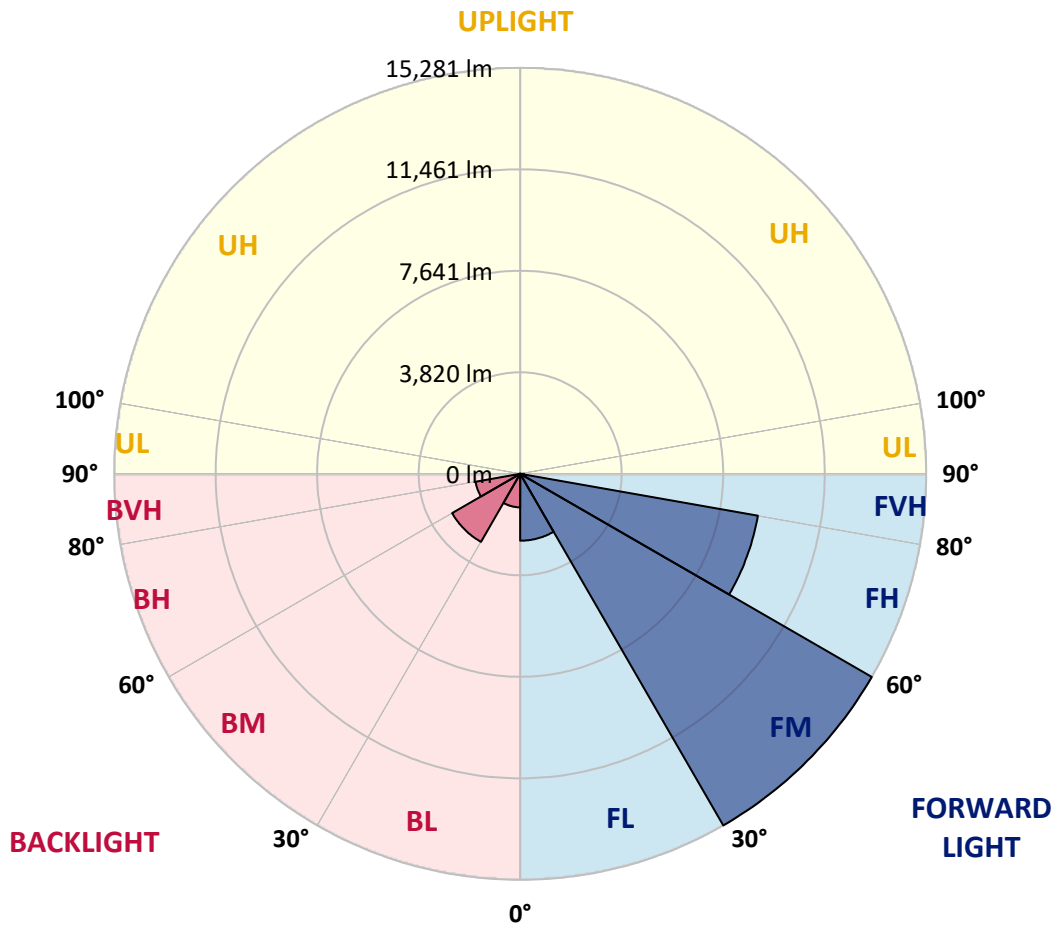
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

| Zone | Lumens | % Fixture | Zone Rating/Lumen Limit | | |
|----------------|---------|-----------|-------------------------|------|----------|
| | | | B | U | G |
| FL (0°-30°) | 2517.0 | 7.6 | | | |
| FM (30°-60°) | 15281.0 | 46.3 | | | |
| FH (60°-80°) | 9083.5 | 27.5 | | | G4/12000 |
| FVH (80°-90°) | 135.1 | 0.4 | | | G2/225 |
| BL (0°-30°) | 1262.2 | 3.8 | B3/2500 | | |
| BM (30°-60°) | 2957.7 | 9.0 | B3/5000 | | |
| BH (60°-80°) | 1705.8 | 5.2 | B3/2500 | | G3/2500 |
| BVH (80°-90°) | 50.7 | 0.2 | | | G1/100 |
| UL (90°-100°) | 0.0 | 0.0 | | U0/0 | |
| UH (100°-180°) | 0.0 | 0.0 | | U0/0 | |

BUG Rating: B3-U0-G4

Type II Medium



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CANDELA DISTRIBUTION (FULL):

| | 0° | 5° | 15° | 25° | 35° | 45° | 55° | 65° | 75° | 82° | 85° |
|-------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|
| 0° | 5465.8 | 5465.8 | 5465.8 | 5465.8 | 5465.8 | 5465.8 | 5465.8 | 5465.8 | 5465.8 | 5465.8 | 5465.8 |
| 2.5° | 5777.0 | 5810.3 | 5791.3 | 5781.8 | 5765.1 | 5741.4 | 5722.4 | 5663.0 | 5601.2 | 5560.8 | 5546.6 |
| 5° | 5893.4 | 5926.7 | 5924.3 | 5933.8 | 5945.7 | 5952.8 | 5948.0 | 5881.5 | 5793.6 | 5724.7 | 5684.4 |
| 7.5° | 5793.6 | 5831.6 | 5862.5 | 5910.0 | 5993.2 | 6081.1 | 6123.8 | 6109.6 | 6019.3 | 5924.3 | 5874.4 |
| 10° | 5511.0 | 5551.3 | 5625.0 | 5736.6 | 5912.4 | 6102.4 | 6261.6 | 6335.2 | 6278.2 | 6173.7 | 6104.8 |
| 12.5° | 4993.1 | 5033.5 | 5178.4 | 5420.7 | 5715.2 | 6045.4 | 6349.5 | 6546.6 | 6560.9 | 6456.4 | 6375.6 |
| 15° | 4411.1 | 4451.5 | 4605.9 | 4910.0 | 5358.9 | 5888.6 | 6397.0 | 6769.9 | 6895.8 | 6805.6 | 6708.2 |
| 17.5° | 4050.1 | 4085.7 | 4202.1 | 4446.8 | 4914.7 | 5575.1 | 6380.4 | 7007.5 | 7294.9 | 7223.6 | 7107.2 |
| 20° | 3940.8 | 3971.7 | 4026.3 | 4197.4 | 4586.9 | 5249.7 | 6271.1 | 7230.8 | 7724.8 | 7684.5 | 7553.8 |
| 22.5° | 4057.2 | 4085.7 | 4102.3 | 4178.4 | 4423.0 | 5035.9 | 6133.3 | 7458.8 | 8223.7 | 8228.4 | 8069.3 |
| 25° | 4325.6 | 4354.1 | 4335.1 | 4382.6 | 4489.5 | 4969.4 | 6081.1 | 7727.2 | 8850.8 | 8903.0 | 8722.5 |
| 27.5° | 4767.5 | 4769.8 | 4724.7 | 4722.3 | 4738.9 | 5069.1 | 6135.7 | 8014.6 | 9641.8 | 9739.2 | 9515.9 |
| 30° | 5653.5 | 5617.8 | 5444.4 | 5256.8 | 5171.3 | 5368.4 | 6287.7 | 8354.3 | 10575.3 | 10748.7 | 10468.4 |
| 32.5° | 7019.3 | 6967.1 | 6648.8 | 6199.8 | 5748.5 | 5850.6 | 6560.9 | 8741.5 | 11592.0 | 11905.6 | 11563.5 |
| 35° | 8501.6 | 8487.3 | 8154.8 | 7487.3 | 6698.7 | 6537.1 | 7005.1 | 9249.9 | 12701.3 | 13200.2 | 12794.0 |
| 37.5° | 9879.3 | 9872.2 | 9682.2 | 8895.9 | 7936.3 | 7494.4 | 7717.7 | 9915.0 | 13889.0 | 14611.2 | 14131.3 |
| 40° | 11138.3 | 11159.7 | 10969.7 | 10266.5 | 9299.7 | 8722.5 | 8686.9 | 10736.9 | 15209.8 | 16148.1 | 15578.0 |
| 42.5° | 12226.2 | 12250.0 | 12057.6 | 11537.4 | 10646.6 | 10081.2 | 9877.0 | 11744.0 | 16499.6 | 17799.0 | 17124.3 |
| 45° | 12965.0 | 13112.3 | 13083.8 | 12668.1 | 12029.1 | 11442.4 | 11307.0 | 13007.8 | 17970.0 | 19549.6 | 18758.6 |
| 47.5° | 13174.0 | 13309.4 | 13523.2 | 13580.2 | 13190.7 | 12613.4 | 12775.0 | 14530.4 | 19457.0 | 21302.7 | 20402.4 |
| 50° | 12658.6 | 12784.5 | 13228.7 | 13820.1 | 14090.9 | 13912.8 | 14202.6 | 16162.3 | 20979.6 | 23051.0 | 22015.3 |
| 52.5° | 11641.9 | 11770.2 | 12330.8 | 13266.7 | 14371.2 | 14931.8 | 15635.0 | 17770.5 | 22454.8 | 24706.7 | 23542.7 |
| 55° | 10171.5 | 10306.9 | 11026.7 | 12086.1 | 13836.8 | 15352.3 | 16829.8 | 19376.2 | 23806.4 | 26196.0 | 24920.4 |
| 57.5° | 8171.4 | 8271.2 | 9019.4 | 10501.7 | 12492.3 | 14934.2 | 17711.1 | 21129.3 | 25079.6 | 27659.3 | 26286.3 |
| 60° | 5325.7 | 5413.6 | 6283.0 | 7936.3 | 10264.2 | 13537.5 | 17886.9 | 23084.3 | 26770.9 | 29562.0 | 28127.3 |
| 62.5° | 3541.7 | 3601.1 | 4116.6 | 5330.4 | 7228.4 | 10855.6 | 16858.3 | 24644.9 | 29250.8 | 32873.3 | 31284.2 |
| 65° | 2430.0 | 2489.4 | 3004.9 | 3850.5 | 4670.1 | 7180.9 | 13900.9 | 24438.2 | 31498.0 | 35502.9 | 33624.0 |
| 67.5° | 1734.1 | 1783.9 | 2221.0 | 3019.1 | 3380.2 | 4171.2 | 9423.3 | 21796.8 | 31174.9 | 35602.7 | 33749.9 |
| 70° | 1242.3 | 1270.8 | 1631.9 | 2351.7 | 2686.6 | 2506.1 | 5240.2 | 16670.6 | 27295.9 | 32875.7 | 31179.7 |
| 72.5° | 869.4 | 878.9 | 1133.1 | 1791.1 | 2164.0 | 1829.1 | 2494.2 | 11114.6 | 20644.7 | 25804.1 | 24172.2 |
| 75° | 589.1 | 601.0 | 762.5 | 1313.6 | 1736.4 | 1396.7 | 1320.7 | 5959.9 | 12119.4 | 14283.4 | 12803.5 |
| 77.5° | 361.1 | 365.8 | 491.7 | 897.9 | 1299.4 | 1064.2 | 850.4 | 2525.1 | 4689.1 | 4603.5 | 3924.2 |
| 80° | 204.3 | 204.3 | 313.6 | 558.2 | 886.0 | 686.5 | 596.2 | 1073.7 | 1484.6 | 1304.1 | 1149.7 |
| 82.5° | 114.0 | 116.4 | 228.0 | 346.8 | 586.7 | 406.2 | 327.8 | 496.5 | 641.4 | 567.7 | 494.1 |
| 85° | 47.5 | 52.3 | 140.1 | 163.9 | 280.3 | 201.9 | 133.0 | 209.0 | 237.5 | 211.4 | 154.4 |
| 87.5° | 4.8 | 7.1 | 42.8 | 30.9 | 33.3 | 40.4 | 19.0 | 40.4 | 33.3 | 33.3 | 23.8 |
| 90° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |

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CATALOG NUMBER: NVN-SB5D-830-U-T2-HSS

CANDELA DISTRIBUTION (continued):

| | 90° | 95° | 105° | 115° | 125° | 135° | 145° | 155° | 165° | 175° | 180° |
|-------|---------|---------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 0° | 5465.8 | 5465.8 | 5465.8 | 5465.8 | 5465.8 | 5465.8 | 5465.8 | 5465.8 | 5465.8 | 5465.8 | 5465.8 |
| 2.5° | 5501.5 | 5465.8 | 5375.6 | 5271.0 | 5133.3 | 5066.8 | 4976.5 | 4914.7 | 4862.5 | 4867.2 | 4819.7 |
| 5° | 5608.3 | 5518.1 | 5316.2 | 5064.4 | 4750.8 | 4527.5 | 4290.0 | 4126.1 | 3993.1 | 3964.6 | 3900.4 |
| 7.5° | 5755.6 | 5613.1 | 5259.2 | 4805.5 | 4275.7 | 3874.3 | 3515.6 | 3285.2 | 3121.3 | 3069.0 | 3016.8 |
| 10° | 5945.7 | 5739.0 | 5185.5 | 4480.0 | 3717.5 | 3206.8 | 2822.0 | 2641.5 | 2529.8 | 2491.8 | 2463.3 |
| 12.5° | 6166.6 | 5883.9 | 5088.1 | 4083.3 | 3142.7 | 2651.0 | 2406.3 | 2316.0 | 2280.4 | 2268.5 | 2261.4 |
| 15° | 6444.5 | 6064.4 | 4940.9 | 3613.0 | 2655.7 | 2311.3 | 2206.8 | 2194.9 | 2199.6 | 2194.9 | 2192.5 |
| 17.5° | 6774.7 | 6261.6 | 4700.9 | 3128.4 | 2327.9 | 2137.9 | 2099.9 | 2109.4 | 2121.2 | 2118.9 | 2114.1 |
| 20° | 7135.7 | 6456.4 | 4394.5 | 2698.5 | 2104.6 | 2014.3 | 1993.0 | 2002.5 | 2012.0 | 2007.2 | 2004.8 |
| 22.5° | 7546.7 | 6665.4 | 4054.8 | 2363.5 | 1955.0 | 1900.3 | 1876.6 | 1879.0 | 1879.0 | 1869.4 | 1864.7 |
| 25° | 8038.4 | 6895.8 | 3698.5 | 2126.0 | 1840.9 | 1798.2 | 1769.7 | 1760.2 | 1745.9 | 1717.4 | 1712.7 |
| 27.5° | 8625.1 | 7140.5 | 3356.5 | 1959.7 | 1750.7 | 1710.3 | 1677.0 | 1653.3 | 1617.7 | 1570.1 | 1565.4 |
| 30° | 9285.5 | 7437.4 | 3066.7 | 1855.2 | 1679.4 | 1639.0 | 1601.0 | 1565.4 | 1513.1 | 1453.8 | 1449.0 |
| 32.5° | 10062.2 | 7755.7 | 2855.2 | 1786.3 | 1615.3 | 1572.5 | 1527.4 | 1484.6 | 1427.6 | 1368.2 | 1370.6 |
| 35° | 10988.7 | 8140.5 | 2731.7 | 1738.8 | 1565.4 | 1508.4 | 1458.5 | 1411.0 | 1368.2 | 1316.0 | 1311.2 |
| 37.5° | 11993.5 | 8549.1 | 2693.7 | 1715.0 | 1532.1 | 1444.3 | 1387.2 | 1354.0 | 1349.2 | 1318.4 | 1316.0 |
| 40° | 13093.3 | 9033.7 | 2722.2 | 1700.8 | 1496.5 | 1382.5 | 1320.7 | 1313.6 | 1325.5 | 1270.8 | 1273.2 |
| 42.5° | 14257.2 | 9608.5 | 2769.7 | 1684.2 | 1446.6 | 1320.7 | 1261.3 | 1261.3 | 1251.8 | 1175.8 | 1175.8 |
| 45° | 15516.2 | 10271.3 | 2817.2 | 1643.8 | 1387.2 | 1259.0 | 1213.8 | 1197.2 | 1156.8 | 1083.2 | 1080.8 |
| 47.5° | 16784.7 | 10945.9 | 2852.9 | 1570.1 | 1316.0 | 1206.7 | 1166.3 | 1128.3 | 1068.9 | 1002.4 | 1000.0 |
| 50° | 17989.0 | 11551.6 | 2814.9 | 1460.9 | 1235.2 | 1156.8 | 1114.1 | 1061.8 | 997.7 | 952.5 | 945.4 |
| 52.5° | 19065.1 | 12076.6 | 2653.3 | 1332.6 | 1149.7 | 1104.6 | 1066.6 | 1011.9 | 959.7 | 912.2 | 907.4 |
| 55° | 20001.0 | 12501.8 | 2368.3 | 1211.5 | 1073.7 | 1059.4 | 1021.4 | 952.5 | 881.3 | 840.9 | 836.1 |
| 57.5° | 20898.9 | 12824.9 | 2012.0 | 1111.7 | 1004.8 | 1009.6 | 952.5 | 890.8 | 824.3 | 781.5 | 776.8 |
| 60° | 22093.7 | 13257.2 | 1650.9 | 1019.1 | 931.2 | 945.4 | 883.7 | 838.5 | 755.4 | 700.7 | 693.6 |
| 62.5° | 24003.5 | 13929.4 | 1311.2 | 905.0 | 845.6 | 850.4 | 824.3 | 769.6 | 669.9 | 605.7 | 601.0 |
| 65° | 25519.1 | 13682.4 | 1033.3 | 781.5 | 748.3 | 755.4 | 755.4 | 696.0 | 589.1 | 515.5 | 508.3 |
| 67.5° | 25348.0 | 11715.5 | 824.3 | 660.4 | 655.6 | 660.4 | 677.0 | 627.1 | 522.6 | 463.2 | 453.7 |
| 70° | 23350.3 | 9318.7 | 660.4 | 548.7 | 570.1 | 558.2 | 605.7 | 572.5 | 470.3 | 410.9 | 403.8 |
| 72.5° | 19053.2 | 6712.9 | 503.6 | 453.7 | 437.1 | 456.1 | 546.3 | 515.5 | 391.9 | 325.4 | 318.3 |
| 75° | 11133.6 | 3582.1 | 375.3 | 358.7 | 315.9 | 380.1 | 484.6 | 439.5 | 299.3 | 239.9 | 232.8 |
| 77.5° | 3624.9 | 1249.5 | 275.5 | 263.7 | 235.2 | 306.4 | 413.3 | 370.6 | 244.7 | 190.0 | 182.9 |
| 80° | 971.5 | 377.7 | 187.7 | 173.4 | 152.0 | 228.0 | 327.8 | 294.6 | 175.8 | 123.5 | 121.1 |
| 82.5° | 389.6 | 159.2 | 109.3 | 97.4 | 83.1 | 156.8 | 258.9 | 237.5 | 130.6 | 78.4 | 78.4 |
| 85° | 125.9 | 52.3 | 40.4 | 30.9 | 38.0 | 97.4 | 154.4 | 161.5 | 92.6 | 40.4 | 30.9 |
| 87.5° | 16.6 | 7.1 | 7.1 | 9.5 | 7.1 | 16.6 | 47.5 | 45.1 | 26.1 | 4.8 | 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)