

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: LUMARK

Report Number: P968199

Luminaire Tested: **NAV-SB5B-727-U-T2**

Issue Date: 1/21/2025

Test Information

Test Method: LM-79-08
Report Number: P968199
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2405-108-3)
Test Lab: INNOVATION CENTER
Issue Date: 1/21/2025
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: LUMARK
Catalog Number: NAV-SB5B-727-U-T2
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE
(5) 70 CRI, 2700K, 450mA LIGHTSQUARES WITH 26 LEDS EACH AND TYPE II OPTICS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 26795.5 lumens
Efficiency: N/A
Efficacy: 146.7 lumens/watt
Luminous Opening: Rectangular (W 1.5' x L: 1' x H: 0')
IES Classification: Type II - Medium
BUG Rating: B3 - U0 - G4

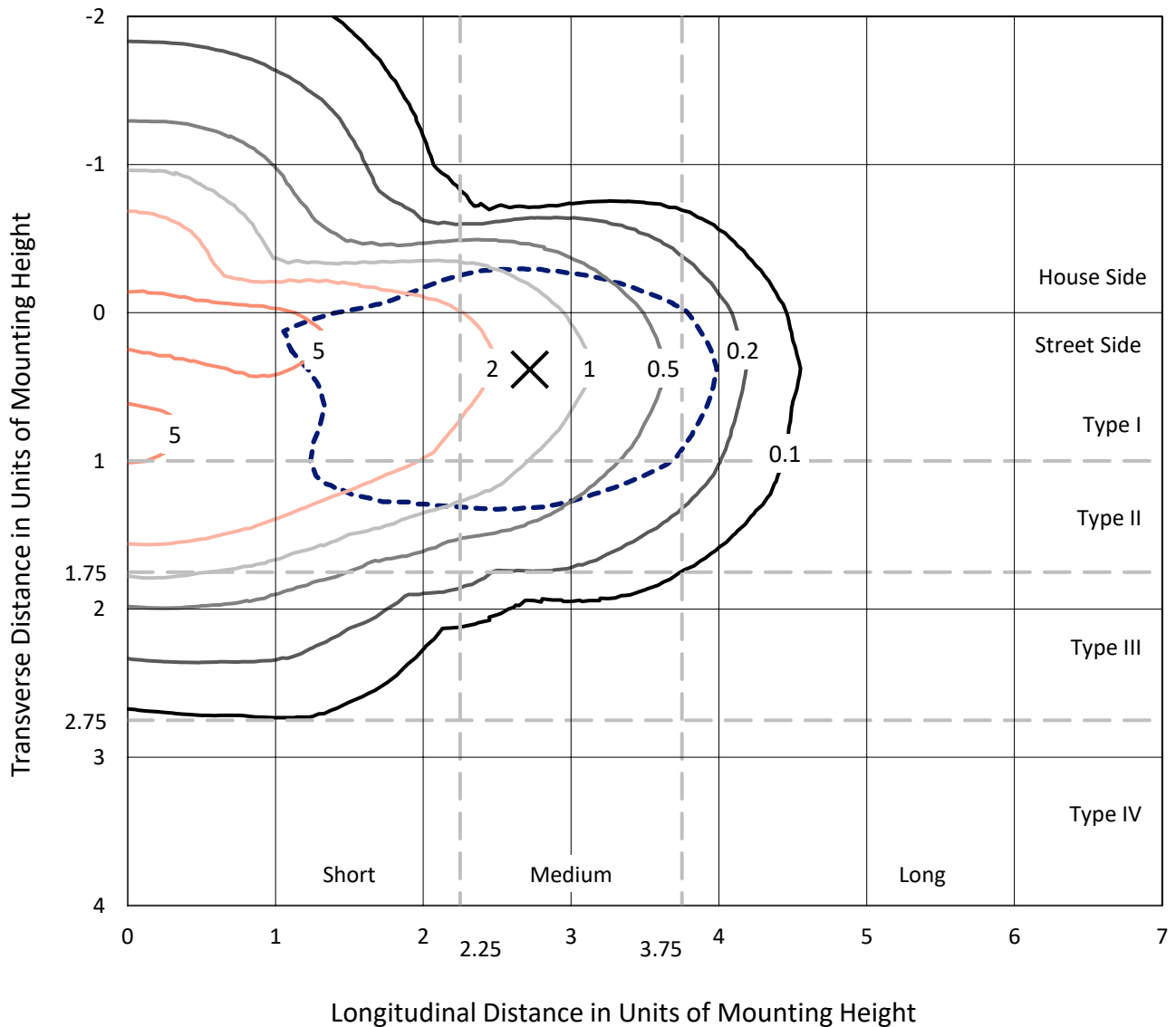
Input Watts (W): 182.7
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Iso-Footcandle Lines of Horizontal Illumination

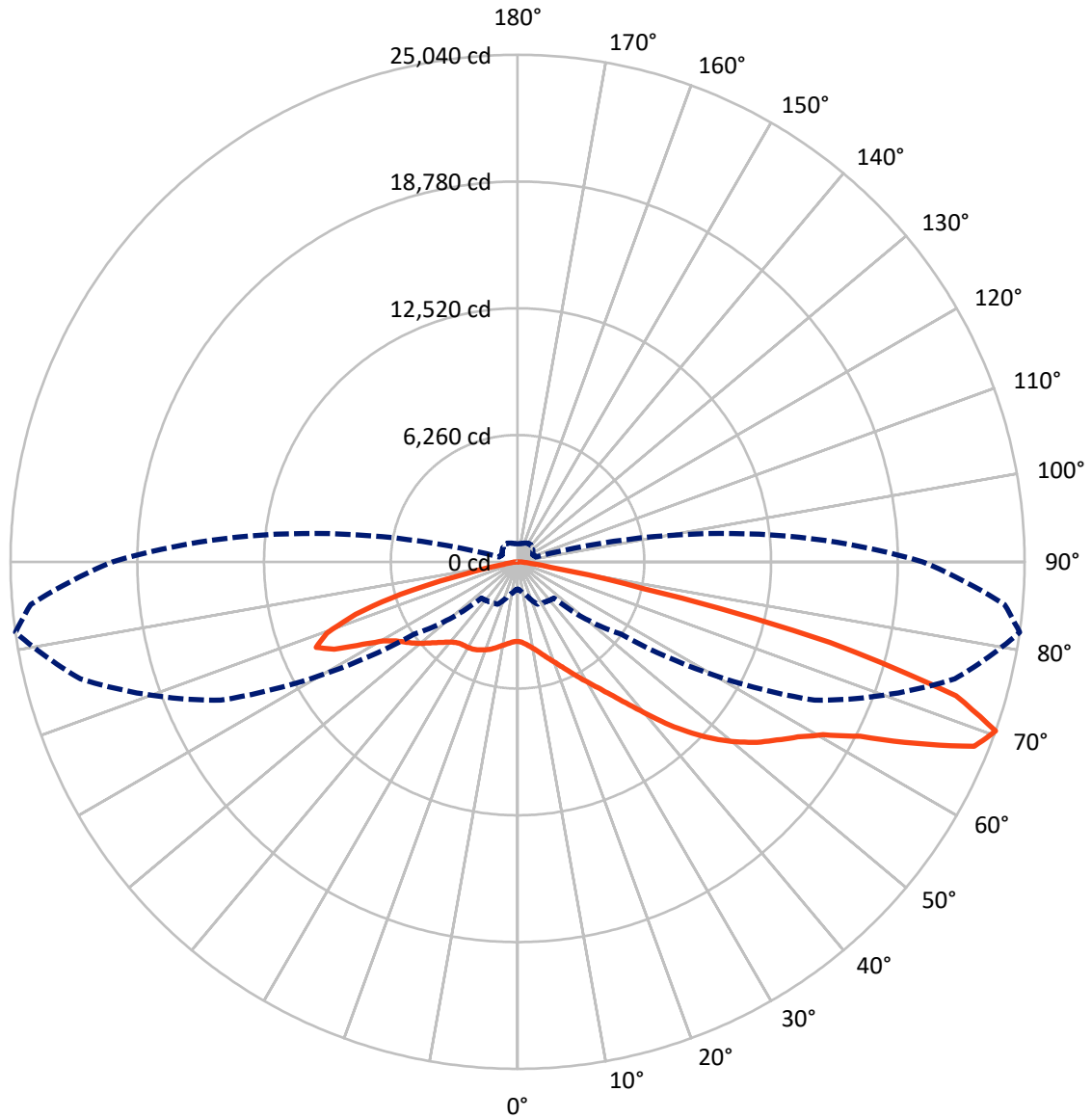
× Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 7.1 fc
 Type II - Medium - N/A

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Luminous Intensity Polar Plot



— Vertical Plane Through 82-Deg Lateral - - - Horizontal Cone Through 70-Deg Vertical

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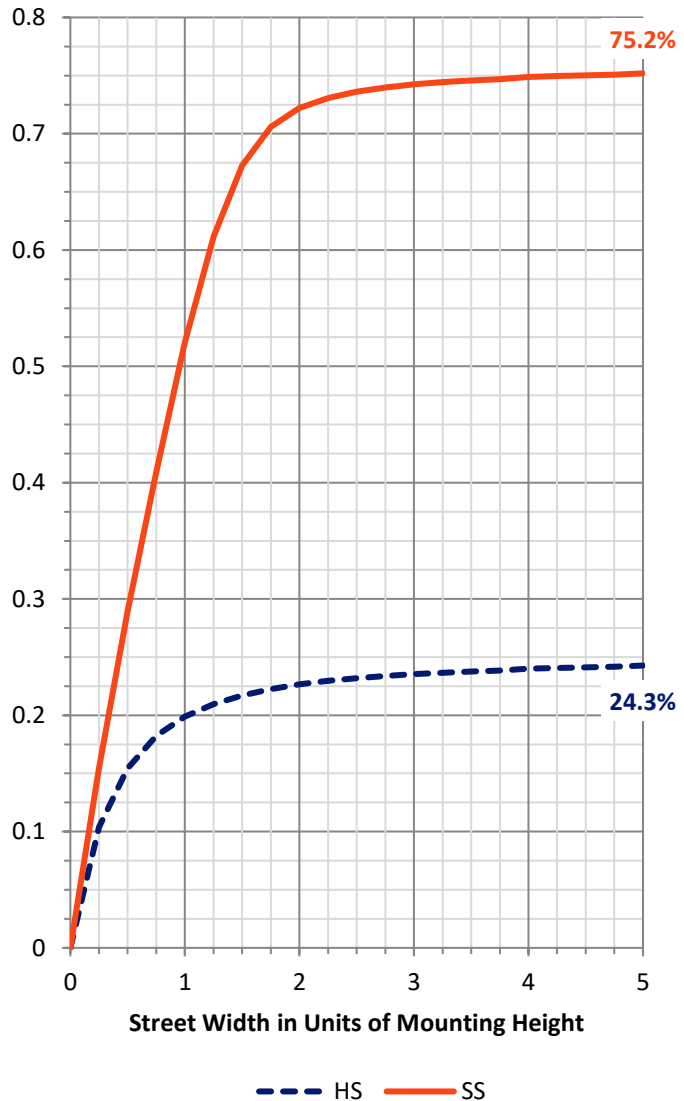
FLUX DISTRIBUTION:

| | | Downward | Upward | Total |
|--------------------|-----------|----------|--------|---------|
| House Side | Lumens | 6605.8 | 0.0 | 6605.8 |
| | % Fixture | 24.7 | 0.0 | 24.7 |
| Street Side | Lumens | 20189.8 | 0.0 | 20189.8 |
| | % Fixture | 75.3 | 0.0 | 75.3 |
| Total | Lumens | 26795.5 | 0.0 | 26795.5 |
| | % Fixture | 100.0 | 0.0 | 100.0 |

ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|---------|-----------|
| 0°-10° | 370.9 | 1.4 |
| 10°-20° | 1065.7 | 4.0 |
| 20°-30° | 1782.8 | 6.7 |
| 30°-40° | 2785.2 | 10.4 |
| 40°-50° | 4435.7 | 16.6 |
| 50°-60° | 6172.9 | 23.0 |
| 60°-70° | 6457.1 | 24.1 |
| 70°-80° | 3374.8 | 12.6 |
| 80°-90° | 350.4 | 1.3 |
| 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° | 26795.5 | 100.0 |
| 0°-180° | 26795.5 | 100.0 |

Coefficient of Utilization

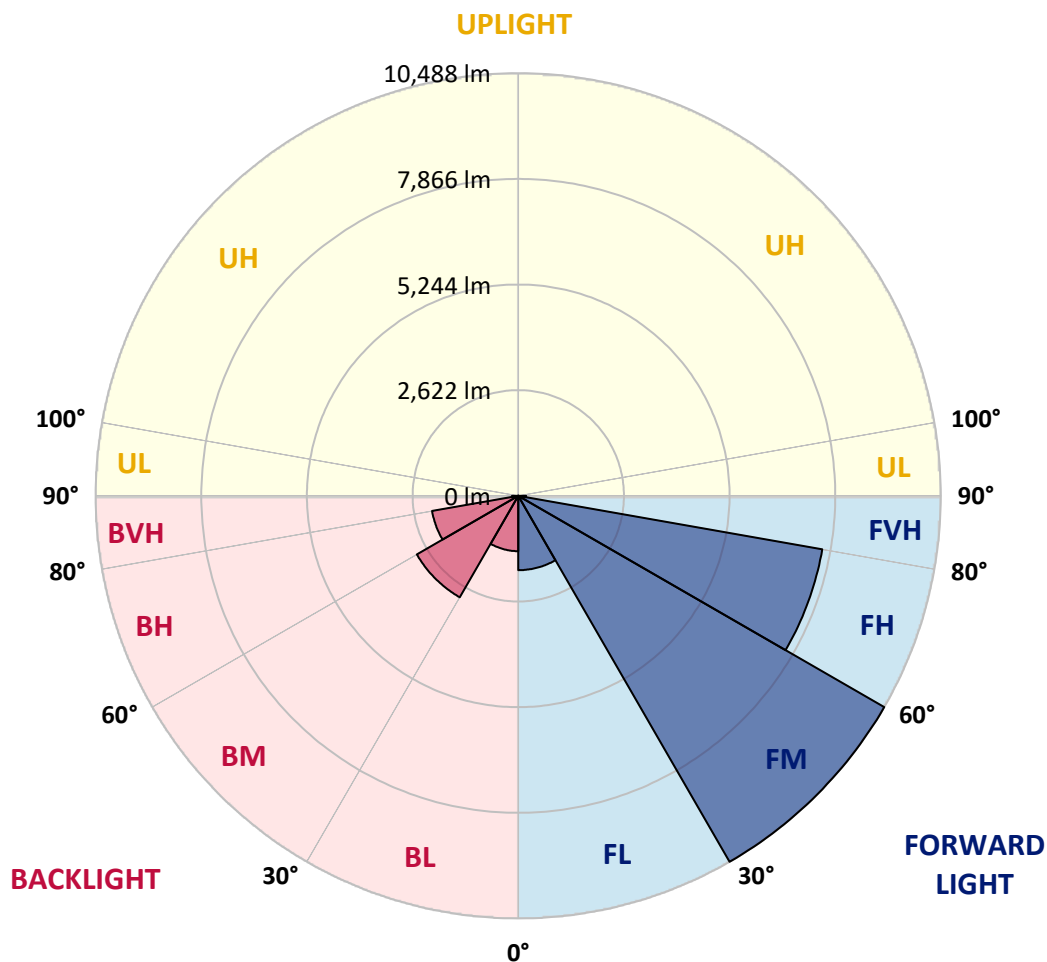


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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

| Zone | Lumens | % Fixture | Zone Rating/Lumen Limit | | |
|----------------|---------|-----------|-------------------------|------|----------|
| | | | B | U | G |
| FL (0°-30°) | 1845.2 | 6.9 | | | |
| FM (30°-60°) | 10487.5 | 39.1 | | | |
| FH (60°-80°) | 7660.9 | 28.6 | | | G4/12000 |
| FVH (80°-90°) | 196.2 | 0.7 | | | G2/225 |
| BL (0°-30°) | 1374.2 | 5.1 | B3/2500 | | |
| BM (30°-60°) | 2906.3 | 10.8 | B3/5000 | | |
| BH (60°-80°) | 2171.0 | 8.1 | B3/2500 | | G3/2500 |
| BVH (80°-90°) | 154.3 | 0.6 | | | G2/225 |
| 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° | 3928.5 | 3928.5 | 3928.5 | 3928.5 | 3928.5 | 3928.5 | 3928.5 | 3928.5 | 3928.5 | 3928.5 | 3928.5 |
| 2.5° | 4022.4 | 4045.2 | 4038.1 | 4030.9 | 4030.9 | 4021.0 | 4019.5 | 4005.4 | 3994.0 | 3975.5 | 3971.3 |
| 5° | 4073.6 | 4097.7 | 4094.9 | 4100.6 | 4119.1 | 4123.4 | 4127.6 | 4119.1 | 4096.3 | 4073.6 | 4063.6 |
| 7.5° | 4028.0 | 4055.1 | 4063.6 | 4097.7 | 4154.6 | 4205.8 | 4244.2 | 4259.9 | 4238.5 | 4205.8 | 4190.2 |
| 10° | 3874.5 | 3904.4 | 3934.3 | 4015.3 | 4116.3 | 4237.1 | 4339.4 | 4400.6 | 4396.3 | 4365.1 | 4338.0 |
| 12.5° | 3563.1 | 3594.5 | 3658.4 | 3816.3 | 4001.1 | 4214.4 | 4404.8 | 4532.9 | 4576.9 | 4554.2 | 4507.2 |
| 15° | 3314.3 | 3341.3 | 3389.7 | 3551.7 | 3792.1 | 4116.3 | 4429.0 | 4677.9 | 4790.2 | 4777.4 | 4720.5 |
| 17.5° | 3307.3 | 3318.5 | 3348.5 | 3425.2 | 3610.0 | 3962.6 | 4403.5 | 4820.1 | 5034.8 | 5033.4 | 4962.2 |
| 20° | 3432.3 | 3436.6 | 3453.6 | 3469.3 | 3574.5 | 3846.1 | 4338.0 | 4938.0 | 5309.2 | 5309.2 | 5232.4 |
| 22.5° | 3605.8 | 3603.0 | 3620.0 | 3605.8 | 3657.0 | 3836.2 | 4296.8 | 5041.9 | 5614.8 | 5637.6 | 5540.9 |
| 25° | 3866.0 | 3851.7 | 3847.5 | 3814.8 | 3824.8 | 3928.5 | 4342.3 | 5159.8 | 5977.5 | 6024.3 | 5903.5 |
| 27.5° | 4213.0 | 4190.2 | 4174.5 | 4099.2 | 4073.6 | 4119.1 | 4481.7 | 5302.0 | 6381.2 | 6462.3 | 6308.8 |
| 30° | 4665.1 | 4623.9 | 4601.1 | 4470.3 | 4377.9 | 4385.0 | 4692.1 | 5491.1 | 6803.5 | 6934.3 | 6739.6 |
| 32.5° | 5282.1 | 5218.2 | 5157.1 | 4942.3 | 4773.1 | 4717.7 | 4963.7 | 5752.8 | 7261.4 | 7470.4 | 7220.1 |
| 35° | 5973.2 | 5922.0 | 5856.5 | 5525.3 | 5265.1 | 5137.1 | 5330.5 | 6118.2 | 7797.4 | 8128.7 | 7803.1 |
| 37.5° | 6638.6 | 6594.5 | 6625.8 | 6179.3 | 5843.8 | 5657.5 | 5811.1 | 6608.8 | 8458.6 | 8947.6 | 8533.9 |
| 40° | 7326.8 | 7292.7 | 7296.9 | 6870.4 | 6479.3 | 6270.3 | 6394.1 | 7224.4 | 9216.4 | 9921.7 | 9412.6 |
| 42.5° | 8074.6 | 8049.1 | 7963.7 | 7585.5 | 7146.2 | 6951.4 | 7065.1 | 7935.3 | 10029.7 | 11030.6 | 10376.6 |
| 45° | 8912.2 | 8896.5 | 8816.8 | 8383.2 | 7879.9 | 7661.0 | 7814.5 | 8720.2 | 10847.3 | 12074.3 | 11344.9 |
| 47.5° | 9635.8 | 9648.6 | 9638.7 | 9273.3 | 8751.4 | 8430.1 | 8613.6 | 9539.2 | 11607.9 | 13055.4 | 12273.3 |
| 50° | 9984.2 | 10051.0 | 10149.1 | 10035.4 | 9711.3 | 9384.2 | 9419.8 | 10329.7 | 12333.1 | 13975.4 | 13163.5 |
| 52.5° | 9802.2 | 9928.8 | 10196.1 | 10378.0 | 10503.2 | 10434.9 | 10339.7 | 11114.6 | 13015.6 | 14805.7 | 14005.2 |
| 55° | 9124.0 | 9301.8 | 9745.3 | 10184.7 | 10823.1 | 11319.3 | 11444.4 | 11984.7 | 13681.0 | 15536.5 | 14801.4 |
| 57.5° | 7888.4 | 8177.0 | 8575.2 | 9463.8 | 10538.7 | 11747.3 | 12732.7 | 13191.9 | 14386.3 | 16317.1 | 15634.6 |
| 60° | 5769.8 | 6156.6 | 6651.4 | 7973.7 | 9543.5 | 11518.3 | 13828.9 | 15046.0 | 15388.6 | 17328.0 | 16719.5 |
| 62.5° | 3692.6 | 3931.4 | 4386.4 | 5632.0 | 7436.3 | 10345.3 | 14164.5 | 17363.6 | 17087.8 | 18985.9 | 18346.1 |
| 65° | 2528.1 | 2681.6 | 3098.2 | 3797.7 | 4807.2 | 7700.7 | 13265.9 | 19101.1 | 19786.4 | 21613.5 | 21127.2 |
| 67.5° | 1837.0 | 1953.6 | 2309.1 | 2921.9 | 3132.3 | 4557.0 | 10294.2 | 19021.4 | 22409.7 | 24320.7 | 23564.2 |
| 70° | 1339.4 | 1421.9 | 1720.5 | 2309.1 | 2410.0 | 2535.1 | 6236.2 | 16169.3 | 22352.9 | 25040.1 | 24134.4 |
| 72.5° | 992.4 | 1049.3 | 1249.8 | 1791.5 | 1950.8 | 1711.9 | 3086.8 | 11751.5 | 19207.7 | 22648.6 | 21922.1 |
| 75° | 718.0 | 760.7 | 908.6 | 1370.6 | 1561.2 | 1303.8 | 1539.9 | 6867.5 | 13398.1 | 15931.8 | 16059.8 |
| 77.5° | 548.8 | 581.6 | 678.2 | 1003.8 | 1249.8 | 978.3 | 955.5 | 3159.4 | 6352.8 | 6384.1 | 6742.3 |
| 80° | 440.7 | 462.1 | 514.8 | 706.6 | 958.4 | 732.3 | 622.8 | 1275.4 | 2007.7 | 1699.1 | 1783.0 |
| 82.5° | 324.2 | 359.8 | 435.1 | 496.2 | 685.3 | 504.7 | 379.7 | 644.1 | 763.5 | 656.9 | 662.6 |
| 85° | 184.8 | 209.0 | 263.0 | 355.5 | 437.9 | 308.5 | 217.5 | 285.8 | 355.5 | 291.5 | 260.2 |
| 87.5° | 65.4 | 85.3 | 92.5 | 139.3 | 190.5 | 127.9 | 83.8 | 82.5 | 116.5 | 86.7 | 72.5 |
| 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: NAV-SB5B-727-U-T2

CANDELA DISTRIBUTION (continued):

| | 90° | 95° | 105° | 115° | 125° | 135° | 145° | 155° | 165° | 175° | 180° |
|-------|---------|---------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 0° | 3928.5 | 3928.5 | 3928.5 | 3928.5 | 3928.5 | 3928.5 | 3928.5 | 3928.5 | 3928.5 | 3928.5 | 3928.5 |
| 2.5° | 3957.0 | 3949.9 | 3921.4 | 3883.1 | 3843.2 | 3804.9 | 3792.1 | 3765.0 | 3746.6 | 3736.6 | 3748.0 |
| 5° | 4036.7 | 4013.9 | 3947.1 | 3861.7 | 3772.2 | 3675.4 | 3607.2 | 3544.7 | 3499.1 | 3456.5 | 3473.6 |
| 7.5° | 4150.3 | 4110.6 | 3995.3 | 3846.1 | 3686.8 | 3526.2 | 3406.8 | 3315.8 | 3254.6 | 3214.8 | 3223.3 |
| 10° | 4282.6 | 4221.5 | 4045.2 | 3821.9 | 3575.9 | 3345.6 | 3204.9 | 3126.7 | 3088.2 | 3066.9 | 3072.6 |
| 12.5° | 4434.8 | 4348.0 | 4096.3 | 3766.5 | 3406.8 | 3143.7 | 3047.0 | 3024.3 | 3025.7 | 3027.1 | 3030.0 |
| 15° | 4622.4 | 4501.6 | 4137.6 | 3645.6 | 3186.3 | 2988.7 | 2971.7 | 3008.6 | 3047.0 | 3065.5 | 3064.0 |
| 17.5° | 4834.3 | 4663.6 | 4144.7 | 3446.6 | 2970.2 | 2889.2 | 2943.2 | 3022.8 | 3081.1 | 3106.8 | 3112.4 |
| 20° | 5061.8 | 4828.6 | 4093.5 | 3165.0 | 2792.5 | 2808.2 | 2904.8 | 3007.2 | 3071.2 | 3103.9 | 3112.4 |
| 22.5° | 5322.0 | 5004.9 | 3971.3 | 2869.3 | 2647.5 | 2720.0 | 2833.7 | 2933.2 | 3000.1 | 3032.8 | 3041.4 |
| 25° | 5619.2 | 5202.5 | 3779.3 | 2620.4 | 2522.3 | 2620.4 | 2734.2 | 2816.7 | 2870.7 | 2900.5 | 2909.1 |
| 27.5° | 5949.0 | 5408.7 | 3523.3 | 2422.8 | 2412.8 | 2518.1 | 2611.9 | 2675.9 | 2704.4 | 2727.1 | 2735.6 |
| 30° | 6280.3 | 5596.4 | 3213.4 | 2273.6 | 2317.6 | 2417.2 | 2484.0 | 2512.4 | 2520.9 | 2525.2 | 2535.1 |
| 32.5° | 6638.6 | 5758.4 | 2887.7 | 2149.8 | 2226.6 | 2319.1 | 2358.8 | 2371.6 | 2331.9 | 2304.8 | 2313.3 |
| 35° | 7072.3 | 5932.0 | 2569.3 | 2051.7 | 2137.0 | 2216.7 | 2229.5 | 2218.1 | 2171.2 | 2115.7 | 2118.6 |
| 37.5° | 7608.3 | 6148.1 | 2314.8 | 1982.0 | 2053.2 | 2105.8 | 2090.1 | 2087.3 | 2091.5 | 2026.1 | 2030.4 |
| 40° | 8265.2 | 6429.6 | 2128.5 | 1928.0 | 1984.9 | 1996.3 | 1952.2 | 1976.4 | 1997.7 | 1898.2 | 1901.0 |
| 42.5° | 8994.6 | 6769.4 | 2010.5 | 1891.0 | 1928.0 | 1901.0 | 1832.8 | 1859.8 | 1856.9 | 1726.1 | 1724.7 |
| 45° | 9738.2 | 7139.1 | 1969.2 | 1864.1 | 1875.4 | 1821.4 | 1746.0 | 1753.2 | 1693.4 | 1575.4 | 1579.6 |
| 47.5° | 10477.6 | 7535.8 | 1994.9 | 1841.3 | 1810.0 | 1748.9 | 1690.5 | 1659.3 | 1571.1 | 1483.0 | 1483.0 |
| 50° | 11202.7 | 7952.4 | 2088.6 | 1795.8 | 1720.5 | 1684.9 | 1642.3 | 1586.8 | 1492.9 | 1417.6 | 1411.9 |
| 52.5° | 11875.2 | 8371.8 | 2193.9 | 1720.5 | 1608.1 | 1629.4 | 1602.4 | 1538.4 | 1446.0 | 1369.2 | 1370.6 |
| 55° | 12512.3 | 8791.3 | 2235.1 | 1616.6 | 1502.9 | 1581.1 | 1565.5 | 1447.4 | 1336.5 | 1274.0 | 1268.3 |
| 57.5° | 13206.1 | 9296.0 | 2189.6 | 1484.4 | 1417.6 | 1525.6 | 1466.0 | 1335.2 | 1271.1 | 1224.3 | 1220.0 |
| 60° | 14167.2 | 10088.0 | 2091.5 | 1320.9 | 1336.5 | 1443.2 | 1340.8 | 1286.8 | 1217.1 | 1164.5 | 1161.6 |
| 62.5° | 15764.0 | 11565.3 | 1933.7 | 1158.8 | 1241.3 | 1320.9 | 1281.0 | 1227.0 | 1156.0 | 1104.7 | 1104.7 |
| 65° | 18124.3 | 13618.5 | 1636.5 | 1032.3 | 1134.7 | 1201.5 | 1217.1 | 1163.1 | 1089.2 | 1035.1 | 1037.9 |
| 67.5° | 20114.9 | 14906.7 | 1238.4 | 927.0 | 1025.1 | 1104.7 | 1148.8 | 1096.2 | 1018.0 | 965.4 | 966.9 |
| 70° | 20005.3 | 13971.1 | 945.6 | 823.3 | 928.4 | 1009.5 | 1066.4 | 1025.1 | 941.3 | 891.5 | 895.7 |
| 72.5° | 17768.8 | 11687.6 | 765.0 | 718.0 | 830.4 | 910.0 | 978.3 | 947.0 | 861.6 | 813.3 | 813.3 |
| 75° | 13054.0 | 8296.5 | 611.4 | 611.4 | 708.1 | 806.2 | 881.5 | 861.6 | 783.4 | 749.3 | 739.3 |
| 77.5° | 5502.5 | 3480.7 | 479.2 | 507.6 | 588.7 | 692.5 | 786.3 | 793.3 | 725.2 | 767.8 | 696.7 |
| 80° | 1463.1 | 959.7 | 365.4 | 399.5 | 462.1 | 571.5 | 683.9 | 681.1 | 607.1 | 567.3 | 527.5 |
| 82.5° | 557.4 | 378.2 | 260.2 | 281.6 | 334.2 | 437.9 | 541.7 | 558.8 | 484.8 | 419.4 | 419.4 |
| 85° | 214.7 | 162.1 | 160.6 | 169.2 | 194.7 | 290.1 | 409.5 | 423.7 | 365.4 | 310.0 | 319.9 |
| 87.5° | 55.5 | 48.4 | 59.8 | 56.9 | 89.6 | 155.0 | 234.6 | 243.1 | 223.2 | 129.4 | 184.8 |
| 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)