

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: P967626

Luminaire Tested: **NAV-SB5A-722-U-SL2**

Issue Date: 1/21/2025

Test Information

Test Method: LM-79-08
Report Number: P967626
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2411-289-10)
Test Lab: INNOVATION CENTER
Issue Date: 1/21/2025
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: LUMARK
Catalog Number: NAV-SB5A-722-U-SL2
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE
(5) 70 CRI, 2200K, 350mA LIGHTSQUARES WITH 26 LEDS EACH AND TYPE II SPILL
LIGHT ELIMINATOR OPTICS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 19070.1 lumens
Efficiency: N/A
Efficacy: 134.6 lumens/watt
Luminous Opening: Rectangular (W 1.5' x L: 1' x H: 0')
IES Classification: Type II - Medium
BUG Rating: B3 - U0 - G3

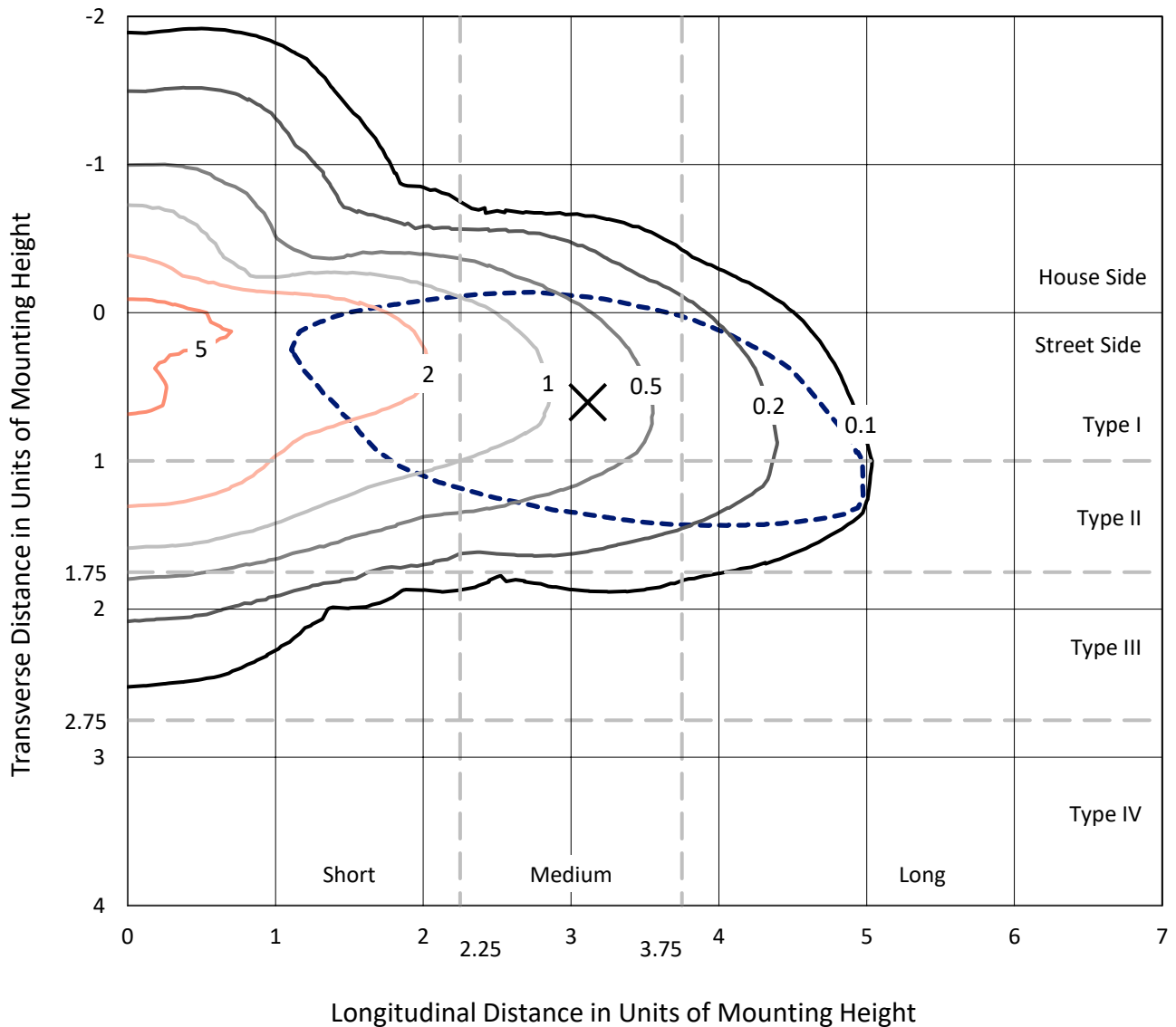
Input Watts (W): 141.7
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Iso-Footcandle Lines of Horizontal Illumination

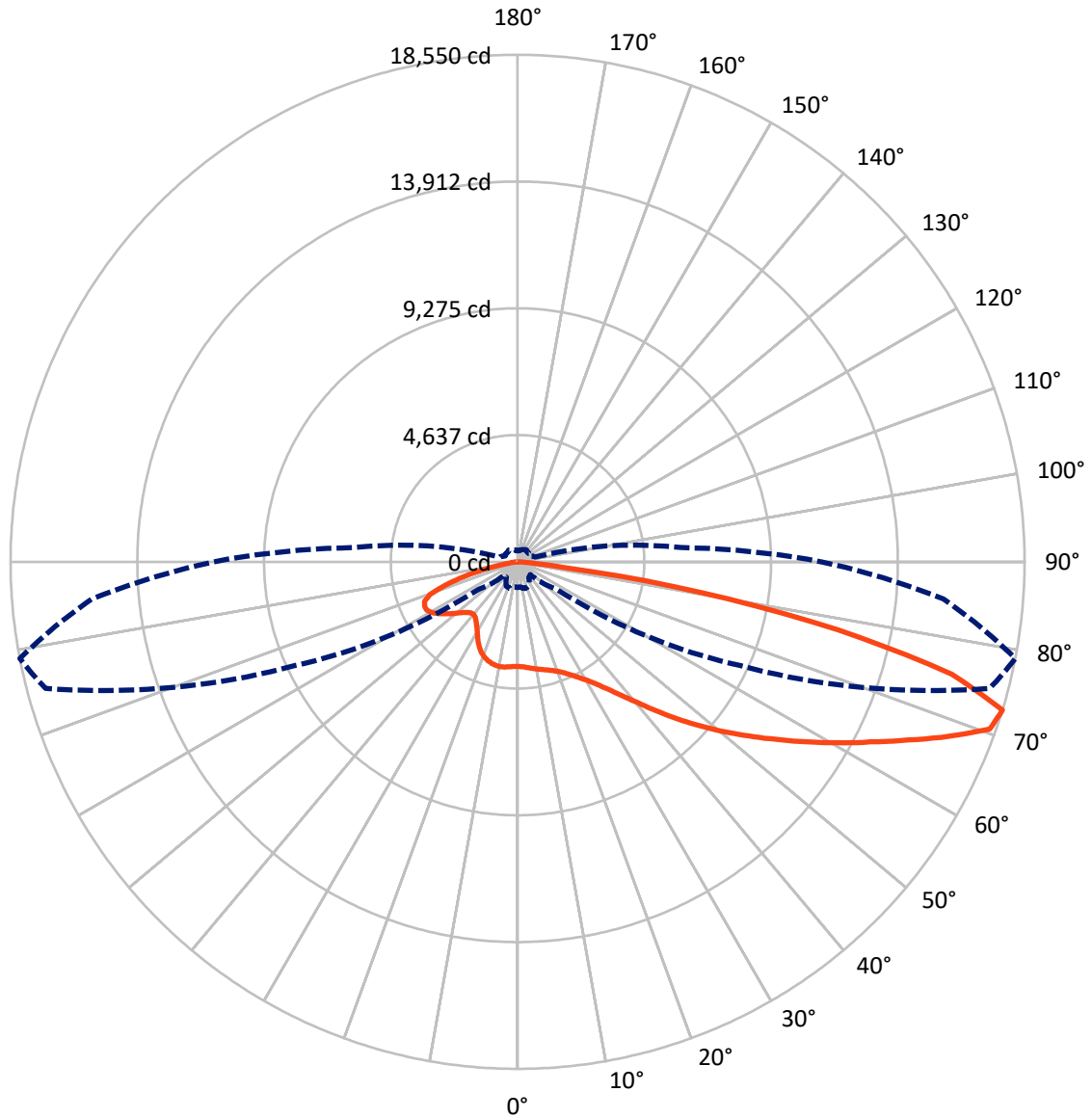
✕ Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 6.2 fc
 Type II - Medium - N/A

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Luminous Intensity Polar Plot



— Vertical Plane Through 79-Deg Lateral - - - Horizontal Cone Through 72.5-Deg Vertical

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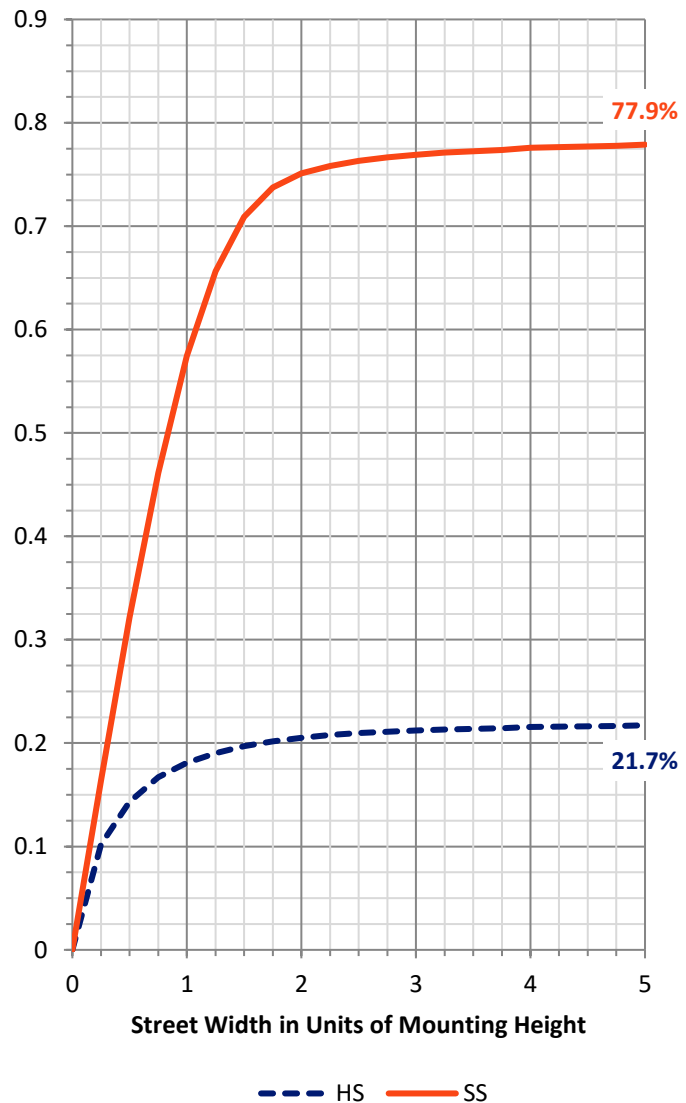
FLUX DISTRIBUTION:

| | | Downward | Upward | Total |
|--------------------|-----------|----------|--------|---------|
| House Side | Lumens | 4196.5 | 0.0 | 4196.5 |
| | % Fixture | 22.0 | 0.0 | 22.0 |
| Street Side | Lumens | 14873.7 | 0.0 | 14873.7 |
| | % Fixture | 78.0 | 0.0 | 78.0 |
| Total | Lumens | 19070.1 | 0.0 | 19070.1 |
| | % Fixture | 100.0 | 0.0 | 100.0 |

ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|---------|-----------|
| 0°-10° | 347.5 | 1.8 |
| 10°-20° | 908.5 | 4.8 |
| 20°-30° | 1465.9 | 7.7 |
| 30°-40° | 2200.2 | 11.5 |
| 40°-50° | 3121.1 | 16.4 |
| 50°-60° | 3941.5 | 20.7 |
| 60°-70° | 4003.1 | 21.0 |
| 70°-80° | 2728.3 | 14.3 |
| 80°-90° | 354.0 | 1.9 |
| 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° | 19070.1 | 100.0 |
| 0°-180° | 19070.1 | 100.0 |

Coefficient of Utilization

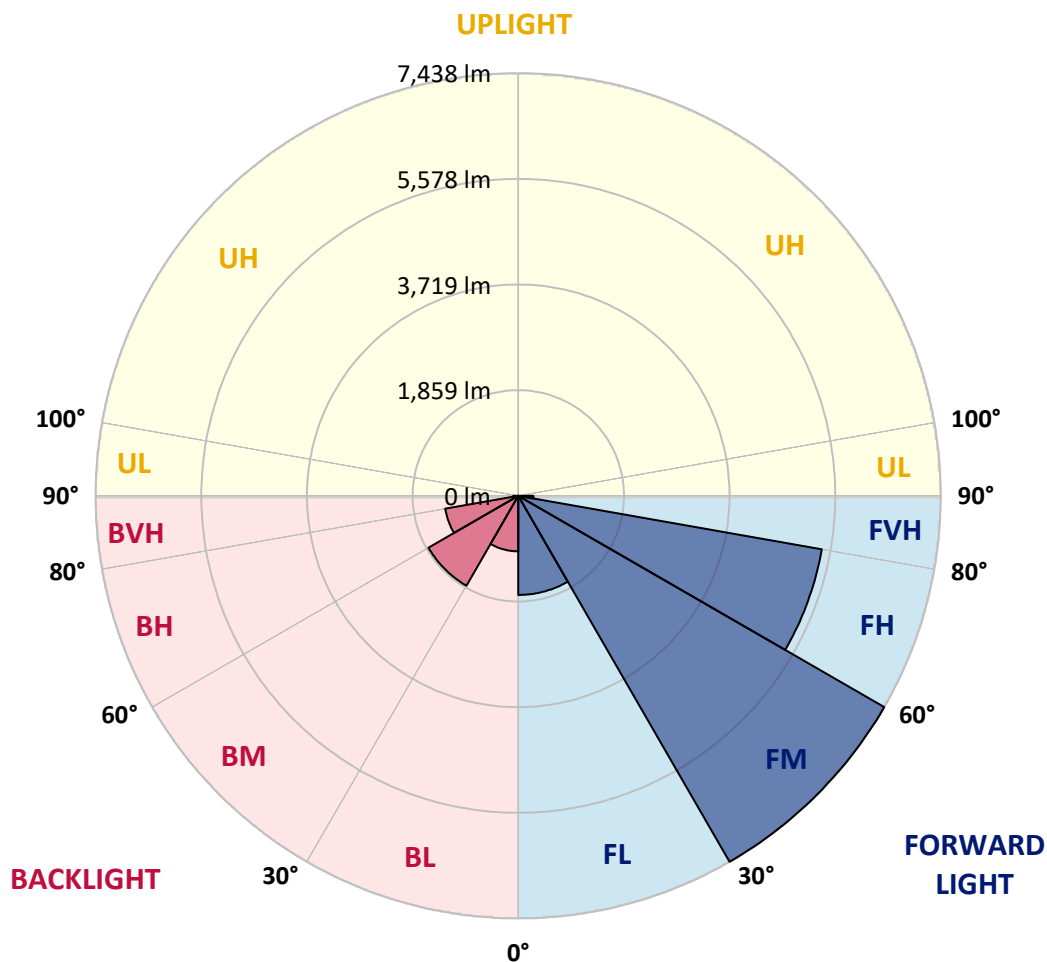


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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

| Zone | Lumens | % Fixture | Zone Rating/Lumen Limit | | |
|----------------|--------|-----------|-------------------------|------|---------|
| | | | B | U | G |
| FL (0°-30°) | 1744.5 | 9.1 | | | |
| FM (30°-60°) | 7437.7 | 39.0 | | | |
| FH (60°-80°) | 5424.8 | 28.4 | | | G3/7500 |
| FVH (80°-90°) | 266.7 | 1.4 | | | G3/500 |
| BL (0°-30°) | 977.5 | 5.1 | B2/1000 | | |
| BM (30°-60°) | 1825.0 | 9.6 | B2/2500 | | |
| BH (60°-80°) | 1306.6 | 6.9 | B3/2500 | | G3/2500 |
| BVH (80°-90°) | 87.3 | 0.5 | | | G1/100 |
| UL (90°-100°) | 0.0 | 0.0 | | U0/0 | |
| UH (100°-180°) | 0.0 | 0.0 | | U0/0 | |

BUG Rating: B3-U0-G3
 Type II Medium



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CANDELA DISTRIBUTION (FULL):

| | 0° | 5° | 15° | 25° | 35° | 45° | 55° | 65° | 75° | 79° | 85° |
|-------|--------|--------|--------|--------|--------|--------|--------|---------|---------|---------|---------|
| 0° | 3828.2 | 3828.2 | 3828.2 | 3828.2 | 3828.2 | 3828.2 | 3828.2 | 3828.2 | 3828.2 | 3828.2 | 3828.2 |
| 2.5° | 3830.1 | 3812.0 | 3823.1 | 3819.0 | 3824.1 | 3830.1 | 3832.2 | 3835.2 | 3845.3 | 3844.3 | 3843.2 |
| 5° | 3822.1 | 3804.0 | 3819.0 | 3814.0 | 3827.1 | 3841.3 | 3853.4 | 3864.5 | 3880.6 | 3887.6 | 3877.6 |
| 7.5° | 3804.9 | 3792.8 | 3808.0 | 3823.1 | 3847.3 | 3868.5 | 3885.7 | 3910.9 | 3934.1 | 3938.0 | 3945.1 |
| 10° | 3705.1 | 3696.0 | 3731.3 | 3770.7 | 3837.2 | 3894.7 | 3932.0 | 3961.3 | 3986.5 | 3990.5 | 4000.7 |
| 12.5° | 3601.1 | 3590.1 | 3629.4 | 3682.9 | 3790.9 | 3894.7 | 3973.4 | 4011.7 | 4033.9 | 4047.0 | 4062.2 |
| 15° | 3584.0 | 3575.0 | 3597.1 | 3643.6 | 3733.4 | 3867.5 | 4001.6 | 4072.2 | 4091.4 | 4106.6 | 4112.6 |
| 17.5° | 3666.7 | 3649.6 | 3658.6 | 3674.8 | 3727.3 | 3842.3 | 4023.8 | 4140.9 | 4170.1 | 4186.2 | 4186.2 |
| 20° | 3858.4 | 3834.2 | 3820.1 | 3787.8 | 3778.8 | 3846.3 | 4021.8 | 4223.6 | 4262.0 | 4282.0 | 4287.2 |
| 22.5° | 4113.6 | 4097.4 | 4067.2 | 3985.5 | 3896.7 | 3895.7 | 4060.1 | 4329.5 | 4401.1 | 4420.3 | 4408.2 |
| 25° | 4422.3 | 4398.1 | 4359.7 | 4248.8 | 4078.3 | 3993.6 | 4124.7 | 4464.7 | 4584.7 | 4589.7 | 4554.5 |
| 27.5° | 4777.3 | 4741.0 | 4688.6 | 4542.3 | 4312.4 | 4146.9 | 4223.6 | 4620.0 | 4795.6 | 4793.5 | 4720.8 |
| 30° | 5151.6 | 5115.3 | 5059.8 | 4882.3 | 4592.7 | 4353.7 | 4360.8 | 4787.5 | 5045.7 | 5034.6 | 4910.5 |
| 32.5° | 5425.0 | 5397.8 | 5386.7 | 5249.4 | 4915.6 | 4597.8 | 4518.1 | 4973.1 | 5354.4 | 5344.2 | 5170.8 |
| 35° | 5634.8 | 5599.5 | 5612.6 | 5543.0 | 5267.6 | 4871.2 | 4710.8 | 5194.0 | 5729.6 | 5728.6 | 5512.8 |
| 37.5° | 5842.6 | 5811.3 | 5822.4 | 5776.0 | 5593.4 | 5218.2 | 4945.8 | 5464.3 | 6194.6 | 6216.8 | 5926.3 |
| 40° | 6032.2 | 5998.9 | 6043.3 | 5999.9 | 5846.6 | 5587.4 | 5213.2 | 5769.9 | 6733.3 | 6775.7 | 6426.6 |
| 42.5° | 6146.2 | 6120.0 | 6193.7 | 6194.6 | 6066.6 | 5899.1 | 5506.7 | 6106.8 | 7356.7 | 7451.5 | 7042.0 |
| 45° | 6185.6 | 6176.4 | 6287.5 | 6310.6 | 6261.2 | 6079.7 | 5771.0 | 6474.1 | 8028.5 | 8197.9 | 7743.1 |
| 47.5° | 6143.2 | 6126.0 | 6279.4 | 6365.1 | 6404.4 | 6164.3 | 5989.9 | 6871.5 | 8714.4 | 8962.6 | 8507.7 |
| 50° | 5929.3 | 5896.0 | 6124.1 | 6304.6 | 6444.8 | 6219.9 | 6210.8 | 7330.5 | 9494.2 | 9765.6 | 9276.4 |
| 52.5° | 5545.0 | 5519.8 | 5779.1 | 6092.8 | 6356.0 | 6247.1 | 6458.9 | 7831.8 | 10234.6 | 10585.7 | 10064.2 |
| 55° | 5053.8 | 5020.4 | 5305.9 | 5715.5 | 6135.1 | 6238.0 | 6707.1 | 8392.7 | 11108.1 | 11464.2 | 10878.2 |
| 57.5° | 4275.0 | 4208.4 | 4569.6 | 5053.8 | 5775.0 | 6226.9 | 6965.3 | 8950.5 | 11995.9 | 12422.6 | 11746.7 |
| 60° | 3139.2 | 3040.4 | 3483.2 | 4057.2 | 5070.9 | 6118.9 | 7285.1 | 9576.0 | 13061.1 | 13445.4 | 12694.9 |
| 62.5° | 1827.8 | 1770.3 | 2059.8 | 2595.5 | 3822.1 | 5483.4 | 7464.7 | 10303.2 | 14108.2 | 14511.6 | 13627.0 |
| 65° | 1419.3 | 1403.1 | 1428.3 | 1469.7 | 2127.4 | 4105.5 | 6910.9 | 11012.4 | 15439.7 | 15722.2 | 14598.4 |
| 67.5° | 1298.3 | 1286.2 | 1297.2 | 1219.5 | 1079.3 | 2286.8 | 5467.3 | 11191.9 | 16866.1 | 17037.6 | 15448.8 |
| 70° | 1153.9 | 1139.9 | 1176.2 | 1109.6 | 849.3 | 1040.0 | 3532.6 | 10540.3 | 18000.8 | 18322.7 | 16095.4 |
| 72.5° | 940.1 | 924.0 | 1008.7 | 978.5 | 715.1 | 667.8 | 1774.4 | 8991.8 | 17881.8 | 18549.6 | 15632.4 |
| 75° | 722.2 | 713.2 | 814.1 | 839.3 | 583.0 | 525.5 | 851.4 | 6683.9 | 15736.2 | 16409.1 | 13472.7 |
| 77.5° | 560.9 | 553.8 | 605.3 | 697.0 | 470.1 | 407.5 | 523.6 | 4239.7 | 11858.6 | 11976.7 | 9284.3 |
| 80° | 420.7 | 400.5 | 447.9 | 539.7 | 366.1 | 297.6 | 355.1 | 2472.4 | 7495.9 | 6794.8 | 4041.0 |
| 82.5° | 263.3 | 253.2 | 292.5 | 360.1 | 258.2 | 204.8 | 231.0 | 1365.8 | 3004.0 | 1769.4 | 779.7 |
| 85° | 150.3 | 146.3 | 159.4 | 205.8 | 140.2 | 118.0 | 132.1 | 603.2 | 548.8 | 377.3 | 235.0 |
| 87.5° | 60.5 | 58.5 | 72.7 | 91.8 | 51.5 | 43.4 | 46.4 | 145.2 | 121.1 | 111.9 | 77.7 |
| 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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CANDELA DISTRIBUTION (continued):

| | 90° | 95° | 105° | 115° | 125° | 135° | 145° | 155° | 165° | 175° | 180° |
|-------|---------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 0° | 3828.2 | 3828.2 | 3828.2 | 3828.2 | 3828.2 | 3828.2 | 3828.2 | 3828.2 | 3828.2 | 3828.2 | 3828.2 |
| 2.5° | 3839.2 | 3839.2 | 3825.1 | 3803.0 | 3777.7 | 3761.5 | 3735.3 | 3728.2 | 3701.1 | 3693.0 | 3706.1 |
| 5° | 3885.7 | 3877.6 | 3834.2 | 3771.7 | 3685.9 | 3607.3 | 3520.5 | 3466.0 | 3389.4 | 3362.1 | 3382.3 |
| 7.5° | 3944.2 | 3922.0 | 3847.3 | 3710.1 | 3530.6 | 3354.0 | 3170.4 | 3031.2 | 2898.1 | 2850.7 | 2856.8 |
| 10° | 3997.6 | 3966.3 | 3839.2 | 3599.2 | 3288.5 | 2982.9 | 2690.3 | 2485.5 | 2330.1 | 2266.6 | 2280.7 |
| 12.5° | 4051.1 | 3993.6 | 3785.7 | 3414.6 | 2944.5 | 2529.9 | 2218.2 | 2058.8 | 1963.0 | 1886.3 | 1911.5 |
| 15° | 4101.5 | 4020.8 | 3703.0 | 3167.5 | 2567.2 | 2146.6 | 1916.5 | 1789.4 | 1712.9 | 1662.3 | 1671.5 |
| 17.5° | 4160.1 | 4044.0 | 3579.0 | 2853.7 | 2208.2 | 1881.3 | 1693.7 | 1617.0 | 1601.9 | 1595.8 | 1599.8 |
| 20° | 4241.8 | 4065.2 | 3415.6 | 2502.6 | 1943.8 | 1669.4 | 1572.7 | 1565.6 | 1564.6 | 1561.5 | 1571.6 |
| 22.5° | 4329.5 | 4090.5 | 3199.7 | 2183.9 | 1718.9 | 1537.3 | 1520.2 | 1506.0 | 1497.0 | 1496.0 | 1507.1 |
| 25° | 4433.4 | 4098.5 | 2929.3 | 1922.7 | 1527.2 | 1474.8 | 1454.6 | 1433.5 | 1427.3 | 1427.3 | 1433.5 |
| 27.5° | 4534.3 | 4071.3 | 2614.7 | 1695.7 | 1419.3 | 1417.3 | 1391.0 | 1384.0 | 1382.9 | 1386.0 | 1394.1 |
| 30° | 4635.2 | 4019.8 | 2301.9 | 1485.8 | 1356.8 | 1356.8 | 1347.7 | 1352.7 | 1356.8 | 1366.8 | 1373.9 |
| 32.5° | 4771.3 | 3965.3 | 2040.7 | 1330.6 | 1302.3 | 1292.2 | 1301.2 | 1311.4 | 1315.4 | 1328.5 | 1339.6 |
| 35° | 4971.0 | 3927.0 | 1832.9 | 1245.8 | 1245.8 | 1232.7 | 1237.7 | 1235.7 | 1226.6 | 1220.6 | 1234.7 |
| 37.5° | 5235.3 | 3925.0 | 1661.4 | 1206.4 | 1198.3 | 1196.4 | 1197.4 | 1184.3 | 1148.9 | 1106.6 | 1107.6 |
| 40° | 5553.0 | 3979.5 | 1529.2 | 1179.2 | 1173.1 | 1185.3 | 1179.2 | 1143.9 | 1047.0 | 973.4 | 971.4 |
| 42.5° | 5979.7 | 4134.8 | 1444.5 | 1145.9 | 1164.1 | 1179.2 | 1155.0 | 1033.0 | 967.4 | 918.0 | 915.9 |
| 45° | 6482.1 | 4387.0 | 1401.2 | 1110.6 | 1147.0 | 1165.1 | 1048.1 | 994.7 | 942.2 | 882.6 | 878.6 |
| 47.5° | 7051.1 | 4704.8 | 1391.0 | 1077.4 | 1108.6 | 1119.7 | 1002.7 | 978.5 | 918.9 | 854.4 | 849.3 |
| 50° | 7670.4 | 5081.0 | 1418.3 | 1038.0 | 1053.1 | 1014.7 | 987.6 | 965.3 | 903.8 | 840.3 | 833.2 |
| 52.5° | 8311.0 | 5495.5 | 1472.7 | 984.5 | 997.6 | 955.3 | 981.5 | 962.4 | 894.7 | 809.0 | 803.0 |
| 55° | 8940.5 | 5913.2 | 1525.2 | 922.0 | 941.2 | 901.8 | 964.3 | 950.3 | 853.4 | 756.6 | 751.5 |
| 57.5° | 9580.0 | 6328.8 | 1576.7 | 866.5 | 886.7 | 850.3 | 937.2 | 918.0 | 807.0 | 708.2 | 706.1 |
| 60° | 10244.7 | 6732.3 | 1600.8 | 813.0 | 827.2 | 803.0 | 895.7 | 862.4 | 754.5 | 658.7 | 655.7 |
| 62.5° | 10867.0 | 7068.2 | 1561.5 | 759.6 | 768.6 | 758.6 | 841.3 | 796.9 | 702.1 | 603.2 | 602.2 |
| 65° | 11491.5 | 7268.0 | 1440.4 | 707.1 | 709.1 | 704.1 | 764.6 | 726.3 | 640.5 | 554.8 | 548.8 |
| 67.5° | 12057.4 | 7379.9 | 1247.8 | 650.7 | 645.5 | 643.6 | 693.0 | 649.6 | 581.1 | 506.4 | 500.3 |
| 70° | 12177.4 | 7095.5 | 953.2 | 584.0 | 584.0 | 579.0 | 614.3 | 569.9 | 515.5 | 454.9 | 452.9 |
| 72.5° | 11122.3 | 5968.7 | 676.9 | 508.4 | 516.5 | 506.4 | 535.7 | 498.4 | 448.8 | 408.6 | 396.5 |
| 75° | 8968.6 | 4376.9 | 492.3 | 430.7 | 444.8 | 427.7 | 454.9 | 428.8 | 386.3 | 385.3 | 347.0 |
| 77.5° | 6162.4 | 2706.4 | 357.1 | 355.1 | 365.2 | 343.0 | 374.2 | 360.1 | 321.7 | 304.6 | 285.5 |
| 80° | 2629.7 | 1079.3 | 260.2 | 274.4 | 274.4 | 254.2 | 290.5 | 294.6 | 261.3 | 253.2 | 253.2 |
| 82.5° | 523.6 | 306.7 | 182.6 | 188.6 | 177.5 | 171.5 | 205.8 | 228.0 | 314.7 | 350.0 | 351.1 |
| 85° | 157.3 | 113.0 | 110.0 | 102.9 | 90.8 | 91.8 | 121.1 | 229.0 | 282.5 | 161.4 | 139.2 |
| 87.5° | 43.4 | 28.3 | 29.2 | 23.2 | 19.2 | 25.2 | 41.3 | 173.5 | 94.8 | 40.4 | 34.3 |
| 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)