

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: P959984

Luminaire Tested: **NAV-SB1B-830-U-T2**

Issue Date: 1/21/2025

Test Information

Test Method: LM-79-08
Report Number: P959984
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-SB1B-830-U-T2
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE
(1) 80 CRI, 3000K, 450mA LIGHTSQUARE WITH 26 LEDS AND TYPE II OPTICS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 5140.4 lumens
Efficiency: N/A
Efficacy: 129.2 lumens/watt
Luminous Opening: Rectangular (W 0.5' x L: 0.5' x H: 0')
IES Classification: Type II - Medium
BUG Rating: B1 - U0 - G1

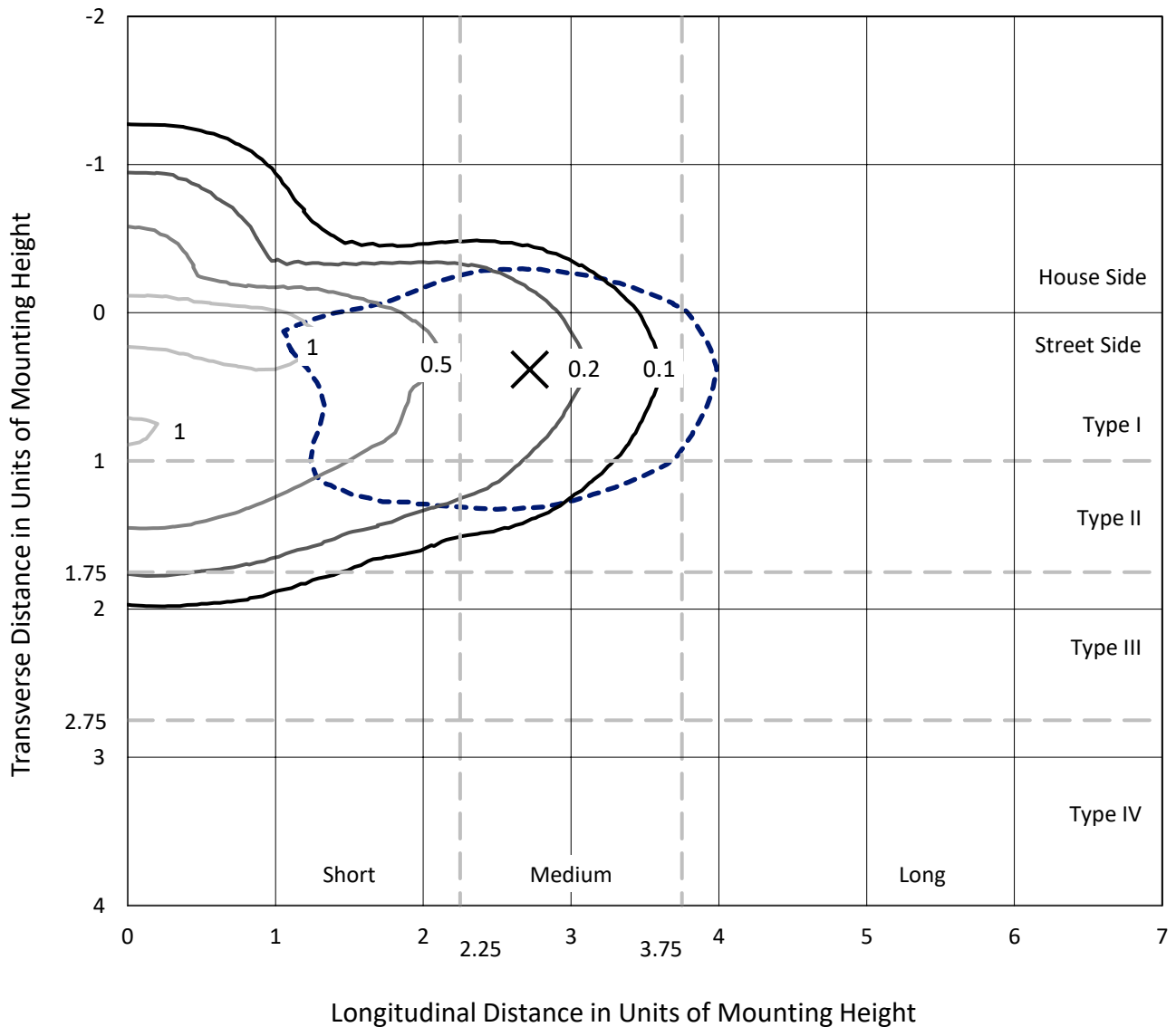
Input Watts (W): 39.8
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Iso-Footcandle Lines of Horizontal Illumination

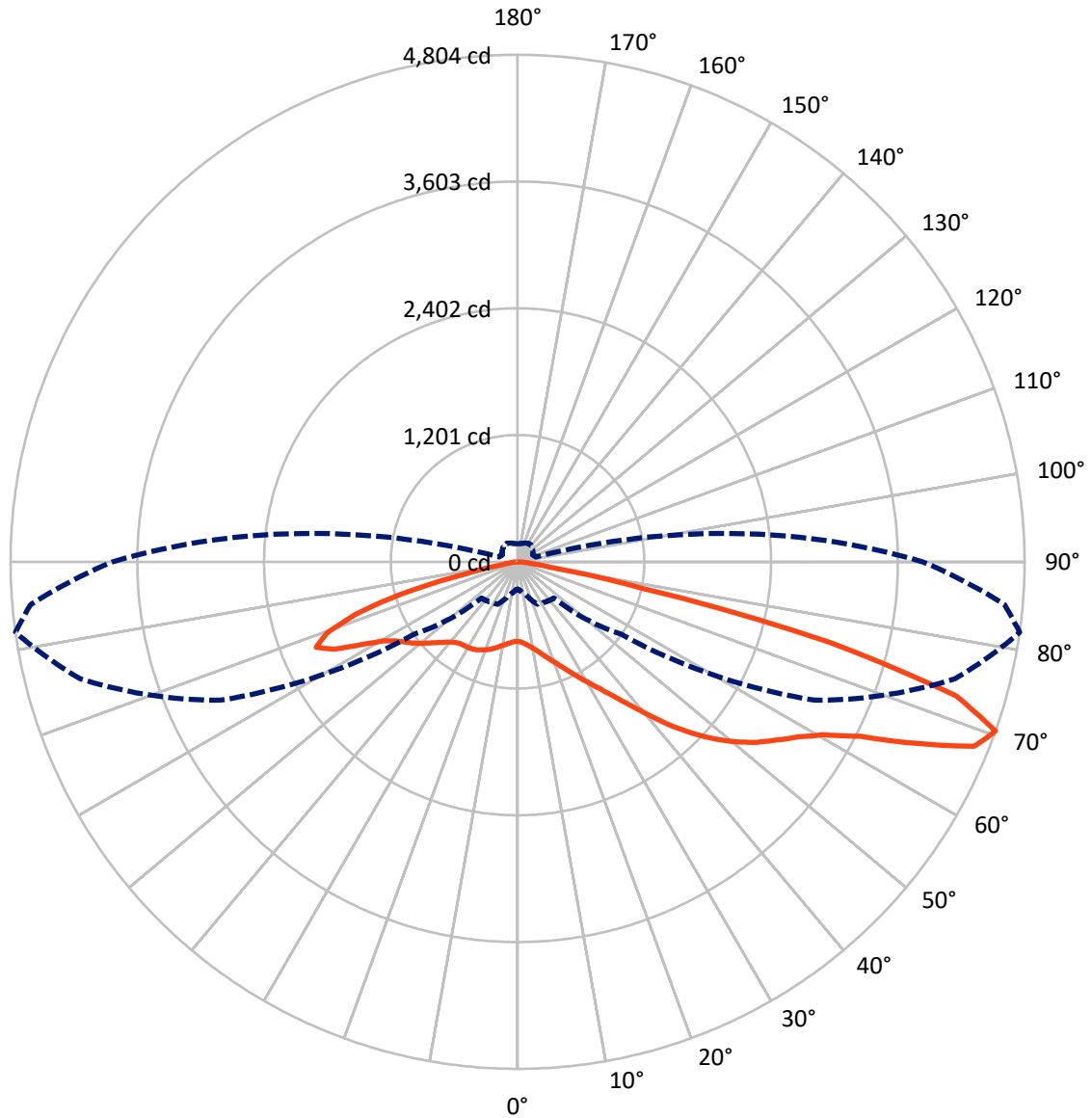
× Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 1.4 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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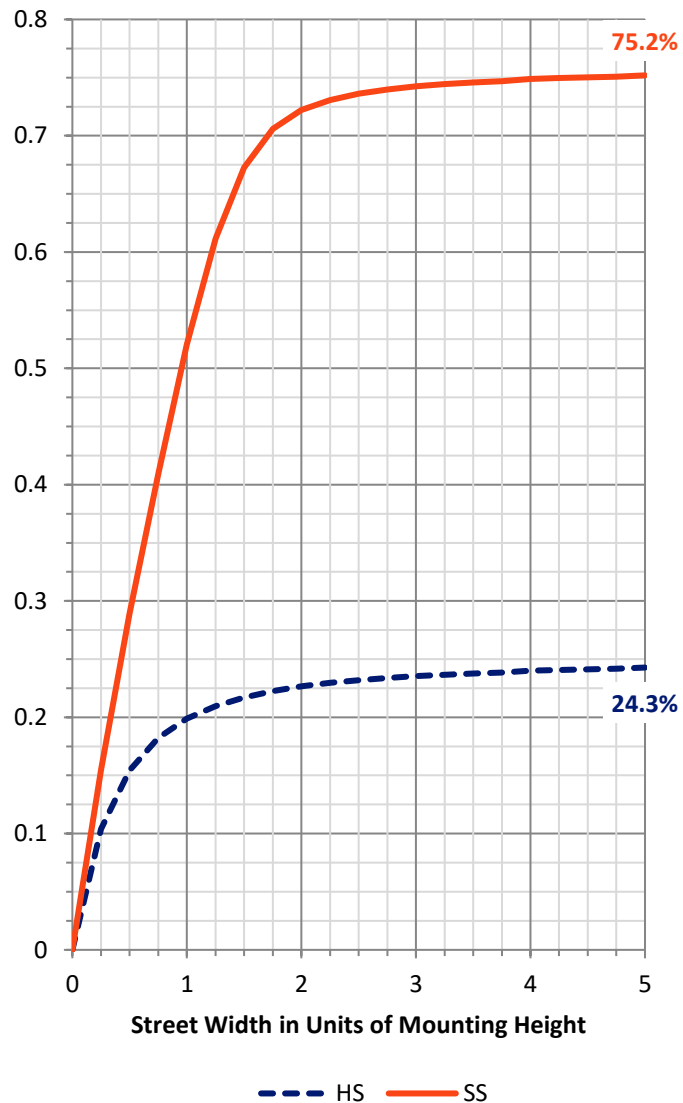
FLUX DISTRIBUTION:

| | | Downward | Upward | Total |
|--------------------|-----------|----------|--------|--------|
| House Side | Lumens | 1267.2 | 0.0 | 1267.2 |
| | % Fixture | 24.7 | 0.0 | 24.7 |
| Street Side | Lumens | 3873.1 | 0.0 | 3873.1 |
| | % Fixture | 75.3 | 0.0 | 75.3 |
| Total | Lumens | 5140.4 | 0.0 | 5140.4 |
| | % Fixture | 100.0 | 0.0 | 100.0 |

ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10° | 71.2 | 1.4 |
| 10°-20° | 204.4 | 4.0 |
| 20°-30° | 342.0 | 6.7 |
| 30°-40° | 534.3 | 10.4 |
| 40°-50° | 850.9 | 16.6 |
| 50°-60° | 1184.2 | 23.0 |
| 60°-70° | 1238.7 | 24.1 |
| 70°-80° | 647.4 | 12.6 |
| 80°-90° | 67.2 | 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° | 5140.4 | 100.0 |
| 0°-180° | 5140.4 | 100.0 |

Coefficient of Utilization

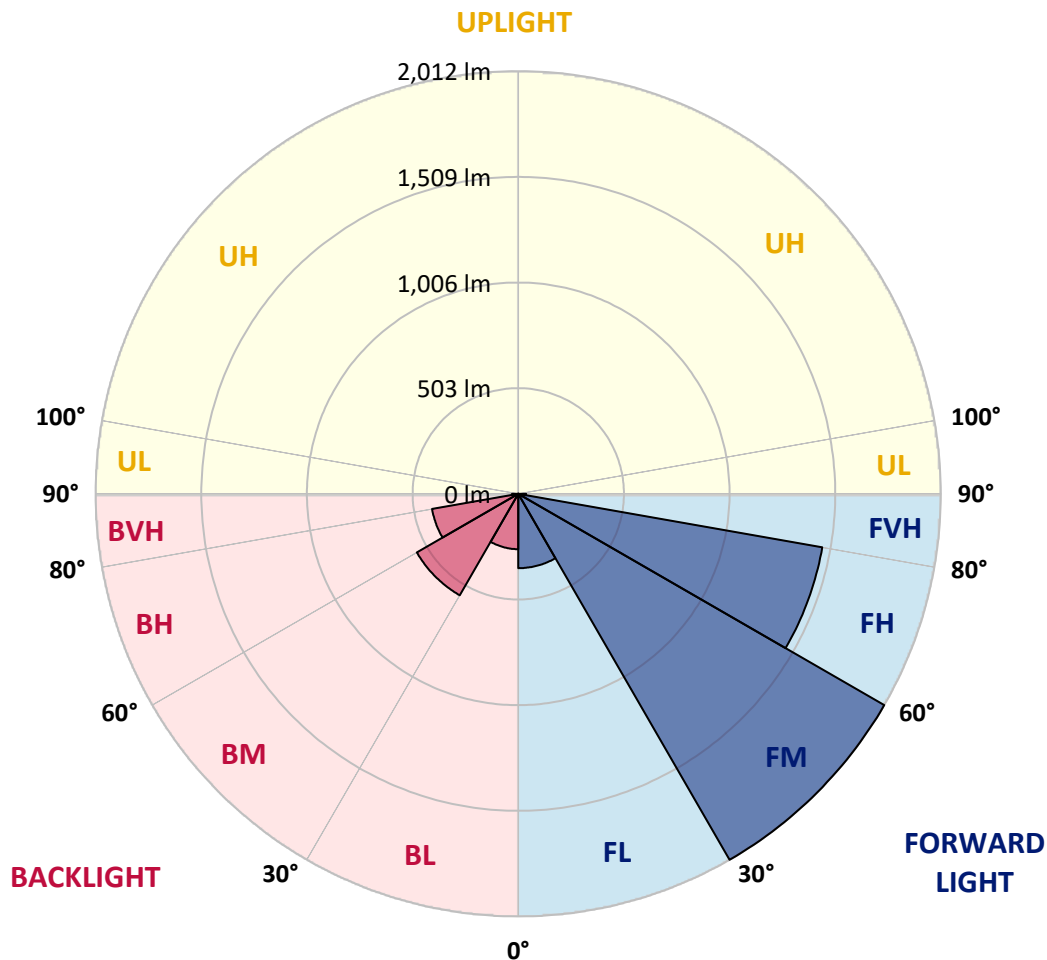


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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

| Zone | Lumens | % Fixture | Zone Rating/Lumen Limit | | |
|----------------|--------|-----------|-------------------------|------|---------|
| | | | B | U | G |
| FL (0°-30°) | 354.0 | 6.9 | | | |
| FM (30°-60°) | 2011.9 | 39.1 | | | |
| FH (60°-80°) | 1469.7 | 28.6 | | | G1/1800 |
| FVH (80°-90°) | 37.6 | 0.7 | | | G1/100 |
| BL (0°-30°) | 263.6 | 5.1 | B1/500 | | |
| BM (30°-60°) | 557.5 | 10.8 | B1/1000 | | |
| BH (60°-80°) | 416.5 | 8.1 | B1/500 | | G1/500 |
| BVH (80°-90°) | 29.6 | 0.6 | | | G1/100 |
| UL (90°-100°) | 0.0 | 0.0 | | U0/0 | |
| UH (100°-180°) | 0.0 | 0.0 | | U0/0 | |

BUG Rating: B1-U0-G1
 Type II Medium



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CANDELA DISTRIBUTION (FULL):

| | 0° | 5° | 15° | 25° | 35° | 45° | 55° | 65° | 75° | 82° | 85° |
|-------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 0° | 753.7 | 753.7 | 753.7 | 753.7 | 753.7 | 753.7 | 753.7 | 753.7 | 753.7 | 753.7 | 753.7 |
| 2.5° | 771.6 | 776.0 | 774.7 | 773.3 | 773.3 | 771.4 | 771.1 | 768.3 | 766.2 | 762.6 | 761.8 |
| 5° | 781.5 | 786.1 | 785.6 | 786.7 | 790.2 | 791.0 | 791.8 | 790.2 | 785.9 | 781.5 | 779.5 |
| 7.5° | 772.7 | 777.9 | 779.5 | 786.1 | 797.0 | 806.9 | 814.2 | 817.2 | 813.1 | 806.9 | 803.8 |
| 10° | 743.2 | 749.0 | 754.7 | 770.3 | 789.7 | 812.8 | 832.5 | 844.2 | 843.4 | 837.4 | 832.2 |
| 12.5° | 683.6 | 689.5 | 701.8 | 732.1 | 767.5 | 808.4 | 845.0 | 869.6 | 878.0 | 873.7 | 864.7 |
| 15° | 635.8 | 641.0 | 650.3 | 681.3 | 727.4 | 789.7 | 849.6 | 897.4 | 918.9 | 916.5 | 905.6 |
| 17.5° | 634.5 | 636.6 | 642.4 | 657.1 | 692.6 | 760.1 | 844.7 | 924.7 | 965.9 | 965.6 | 951.9 |
| 20° | 658.5 | 659.3 | 662.6 | 665.5 | 685.7 | 737.8 | 832.2 | 947.3 | 1018.5 | 1018.5 | 1003.8 |
| 22.5° | 691.8 | 691.2 | 694.4 | 691.8 | 701.5 | 735.9 | 824.3 | 967.2 | 1077.2 | 1081.5 | 1062.9 |
| 25° | 741.7 | 738.9 | 738.1 | 731.8 | 733.7 | 753.7 | 833.0 | 989.8 | 1146.7 | 1155.7 | 1132.5 |
| 27.5° | 808.2 | 803.8 | 800.8 | 786.4 | 781.5 | 790.2 | 859.8 | 1017.1 | 1224.2 | 1239.7 | 1210.2 |
| 30° | 894.9 | 887.0 | 882.6 | 857.5 | 839.9 | 841.2 | 900.2 | 1053.4 | 1305.1 | 1330.2 | 1292.9 |
| 32.5° | 1013.3 | 1001.0 | 989.3 | 948.1 | 915.6 | 905.1 | 952.2 | 1103.6 | 1393.0 | 1433.1 | 1385.1 |
| 35° | 1145.8 | 1136.0 | 1123.5 | 1060.0 | 1010.0 | 985.5 | 1022.5 | 1173.7 | 1495.8 | 1559.4 | 1496.9 |
| 37.5° | 1273.6 | 1265.1 | 1271.1 | 1185.4 | 1121.0 | 1085.4 | 1114.8 | 1267.8 | 1622.7 | 1716.5 | 1637.1 |
| 40° | 1405.6 | 1399.0 | 1399.8 | 1317.9 | 1243.0 | 1202.8 | 1226.6 | 1385.9 | 1768.0 | 1903.3 | 1805.6 |
| 42.5° | 1549.0 | 1544.1 | 1527.8 | 1455.2 | 1370.9 | 1333.5 | 1355.4 | 1522.3 | 1924.0 | 2116.1 | 1990.7 |
| 45° | 1709.7 | 1706.6 | 1691.4 | 1608.2 | 1511.7 | 1469.6 | 1499.1 | 1672.9 | 2081.0 | 2316.3 | 2176.4 |
| 47.5° | 1848.5 | 1850.9 | 1849.1 | 1779.0 | 1678.8 | 1617.2 | 1652.4 | 1829.9 | 2226.8 | 2504.5 | 2354.5 |
| 50° | 1915.3 | 1928.1 | 1947.0 | 1925.2 | 1862.9 | 1800.2 | 1807.1 | 1981.6 | 2365.9 | 2681.0 | 2525.2 |
| 52.5° | 1880.5 | 1904.7 | 1956.0 | 1990.9 | 2014.9 | 2001.8 | 1983.6 | 2132.2 | 2496.9 | 2840.3 | 2686.7 |
| 55° | 1750.3 | 1784.4 | 1869.5 | 1953.8 | 2076.2 | 2171.5 | 2195.4 | 2299.1 | 2624.5 | 2980.5 | 2839.5 |
| 57.5° | 1513.3 | 1568.7 | 1645.0 | 1815.5 | 2021.7 | 2253.6 | 2442.6 | 2530.7 | 2759.8 | 3130.2 | 2999.3 |
| 60° | 1106.9 | 1181.1 | 1276.0 | 1529.6 | 1830.8 | 2209.7 | 2652.9 | 2886.4 | 2952.1 | 3324.2 | 3207.4 |
| 62.5° | 708.4 | 754.2 | 841.4 | 1080.5 | 1426.6 | 1984.6 | 2717.3 | 3330.9 | 3278.1 | 3642.2 | 3519.4 |
| 65° | 484.9 | 514.4 | 594.4 | 728.6 | 922.2 | 1477.3 | 2544.9 | 3664.3 | 3795.8 | 4146.2 | 4053.0 |
| 67.5° | 352.4 | 374.7 | 443.0 | 560.6 | 600.9 | 874.2 | 1974.8 | 3649.0 | 4299.1 | 4665.6 | 4520.5 |
| 70° | 257.0 | 272.8 | 330.0 | 443.0 | 462.4 | 486.4 | 1196.4 | 3101.9 | 4288.1 | 4803.7 | 4629.8 |
| 72.5° | 190.3 | 201.3 | 239.7 | 343.7 | 374.2 | 328.4 | 592.1 | 2254.4 | 3684.8 | 4344.9 | 4205.5 |
| 75° | 137.8 | 146.0 | 174.2 | 262.9 | 299.5 | 250.1 | 295.4 | 1317.4 | 2570.3 | 3056.3 | 3080.8 |
| 77.5° | 105.3 | 111.5 | 130.1 | 192.6 | 239.7 | 187.7 | 183.3 | 606.1 | 1218.7 | 1224.7 | 1293.4 |
| 80° | 84.6 | 88.7 | 98.7 | 135.6 | 183.9 | 140.4 | 119.5 | 244.7 | 385.1 | 326.0 | 342.0 |
| 82.5° | 62.2 | 69.0 | 83.4 | 95.2 | 131.5 | 96.9 | 72.9 | 123.5 | 146.5 | 126.0 | 127.1 |
| 85° | 35.5 | 40.1 | 50.4 | 68.2 | 84.0 | 59.1 | 41.7 | 54.8 | 68.2 | 56.0 | 49.9 |
| 87.5° | 12.5 | 16.4 | 17.7 | 26.8 | 36.6 | 24.5 | 16.1 | 15.8 | 22.3 | 16.6 | 13.9 |
| 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° | 753.7 | 753.7 | 753.7 | 753.7 | 753.7 | 753.7 | 753.7 | 753.7 | 753.7 | 753.7 | 753.7 |
| 2.5° | 759.1 | 757.8 | 752.2 | 744.9 | 737.3 | 729.9 | 727.4 | 722.3 | 718.7 | 716.8 | 719.0 |
| 5° | 774.4 | 770.0 | 757.2 | 740.9 | 723.6 | 705.1 | 692.0 | 680.0 | 671.3 | 663.1 | 666.4 |
| 7.5° | 796.2 | 788.5 | 766.5 | 737.8 | 707.2 | 676.5 | 653.5 | 636.1 | 624.3 | 616.7 | 618.4 |
| 10° | 821.5 | 809.9 | 776.0 | 733.2 | 686.0 | 641.9 | 614.8 | 599.8 | 592.4 | 588.3 | 589.5 |
| 12.5° | 850.7 | 834.1 | 785.9 | 722.5 | 653.5 | 603.1 | 584.6 | 580.2 | 580.5 | 580.7 | 581.3 |
| 15° | 886.7 | 863.6 | 793.8 | 699.4 | 611.3 | 573.4 | 570.1 | 577.2 | 584.6 | 588.0 | 587.8 |
| 17.5° | 927.4 | 894.6 | 795.1 | 661.2 | 569.8 | 554.2 | 564.6 | 579.8 | 591.1 | 596.0 | 597.1 |
| 20° | 971.1 | 926.3 | 785.3 | 607.2 | 535.7 | 538.7 | 557.3 | 576.9 | 589.2 | 595.4 | 597.1 |
| 22.5° | 1020.9 | 960.1 | 761.8 | 550.4 | 507.9 | 521.8 | 543.7 | 562.7 | 575.5 | 581.8 | 583.4 |
| 25° | 1078.0 | 998.0 | 725.0 | 502.7 | 483.9 | 502.7 | 524.5 | 540.4 | 550.7 | 556.5 | 558.1 |
| 27.5° | 1141.2 | 1037.6 | 675.9 | 464.8 | 462.9 | 483.1 | 501.0 | 513.3 | 518.8 | 523.2 | 524.8 |
| 30° | 1204.8 | 1073.6 | 616.4 | 436.1 | 444.6 | 463.7 | 476.5 | 482.0 | 483.6 | 484.4 | 486.4 |
| 32.5° | 1273.6 | 1104.6 | 554.0 | 412.5 | 427.1 | 444.8 | 452.5 | 455.0 | 447.3 | 442.2 | 443.8 |
| 35° | 1356.7 | 1138.0 | 492.9 | 393.6 | 410.0 | 425.3 | 427.7 | 425.5 | 416.5 | 405.9 | 406.4 |
| 37.5° | 1459.6 | 1179.5 | 444.0 | 380.3 | 393.9 | 404.0 | 401.0 | 400.4 | 401.2 | 388.7 | 389.5 |
| 40° | 1585.6 | 1233.4 | 408.4 | 369.8 | 380.8 | 382.9 | 374.5 | 379.1 | 383.2 | 364.2 | 364.7 |
| 42.5° | 1725.5 | 1298.6 | 385.7 | 362.7 | 369.8 | 364.7 | 351.6 | 356.8 | 356.2 | 331.2 | 330.9 |
| 45° | 1868.2 | 1369.5 | 377.8 | 357.6 | 359.8 | 349.4 | 335.0 | 336.3 | 324.8 | 302.2 | 303.0 |
| 47.5° | 2010.0 | 1445.7 | 382.7 | 353.2 | 347.3 | 335.5 | 324.3 | 318.4 | 301.5 | 284.5 | 284.5 |
| 50° | 2149.1 | 1525.6 | 400.7 | 344.5 | 330.0 | 323.2 | 315.1 | 304.4 | 286.4 | 271.9 | 270.8 |
| 52.5° | 2278.2 | 1606.1 | 420.9 | 330.0 | 308.5 | 312.6 | 307.4 | 295.1 | 277.4 | 262.7 | 262.9 |
| 55° | 2400.3 | 1686.5 | 428.8 | 310.2 | 288.3 | 303.3 | 300.3 | 277.7 | 256.4 | 244.4 | 243.3 |
| 57.5° | 2533.4 | 1783.3 | 420.0 | 284.7 | 271.9 | 292.6 | 281.3 | 256.1 | 243.8 | 234.8 | 234.0 |
| 60° | 2717.8 | 1935.2 | 401.2 | 253.4 | 256.4 | 276.9 | 257.2 | 246.8 | 233.5 | 223.3 | 222.8 |
| 62.5° | 3024.2 | 2218.6 | 370.9 | 222.3 | 238.1 | 253.4 | 245.8 | 235.4 | 221.7 | 212.0 | 212.0 |
| 65° | 3476.9 | 2612.5 | 314.0 | 198.0 | 217.7 | 230.5 | 233.5 | 223.1 | 208.9 | 198.5 | 199.2 |
| 67.5° | 3858.8 | 2859.6 | 237.6 | 177.8 | 196.7 | 212.0 | 220.4 | 210.3 | 195.3 | 185.2 | 185.5 |
| 70° | 3837.8 | 2680.2 | 181.4 | 158.0 | 178.1 | 193.6 | 204.6 | 196.7 | 180.6 | 171.1 | 171.8 |
| 72.5° | 3408.7 | 2242.1 | 146.8 | 137.8 | 159.3 | 174.6 | 187.7 | 181.6 | 165.3 | 156.0 | 156.0 |
| 75° | 2504.3 | 1591.6 | 117.3 | 117.3 | 135.8 | 154.7 | 169.1 | 165.3 | 150.3 | 143.7 | 141.9 |
| 77.5° | 1055.5 | 667.7 | 91.9 | 97.4 | 113.0 | 132.8 | 150.9 | 152.2 | 139.1 | 147.3 | 133.7 |
| 80° | 280.6 | 184.1 | 70.1 | 76.7 | 88.7 | 109.7 | 131.2 | 130.7 | 116.4 | 108.9 | 101.2 |
| 82.5° | 106.9 | 72.6 | 49.9 | 54.0 | 64.1 | 84.0 | 103.9 | 107.2 | 93.0 | 80.5 | 80.5 |
| 85° | 41.2 | 31.1 | 30.9 | 32.5 | 37.4 | 55.7 | 78.5 | 81.3 | 70.1 | 59.4 | 61.4 |
| 87.5° | 10.7 | 9.2 | 11.5 | 10.9 | 17.2 | 29.7 | 45.0 | 46.6 | 42.8 | 24.8 | 35.5 |
| 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)