

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: P959235

Luminaire Tested: **NAV-SB1A-727-U-T2-HSS**

Issue Date: 1/21/2025

Test Information

Test Method: LM-79-08
Report Number: P959235
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2405-108-4)
Test Lab: INNOVATION CENTER
Issue Date: 1/21/2025
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: LUMARK
Catalog Number: NAV-SB1A-727-U-T2-HSS
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE
(1) 70 CRI, 2700K, 350mA LIGHTSQUARE WITH 26 LEDS AND TYPE II OPTICS WITH
HOUSE SIDE SHIELD
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 3115 lumens
Efficiency: N/A
Efficacy: 100.8 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

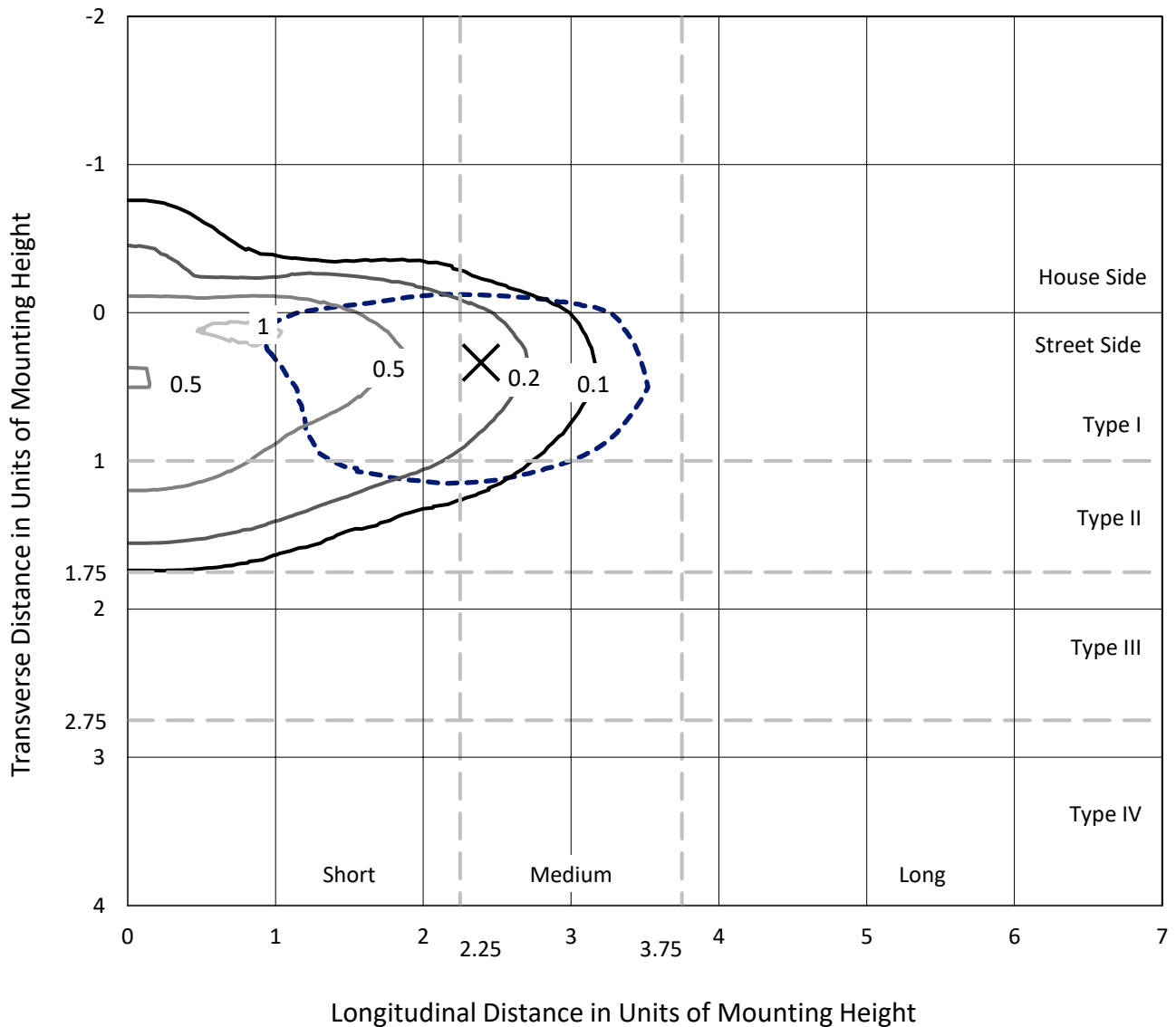
Input Watts (W): 30.9
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Iso-Footcandle Lines of Horizontal Illumination

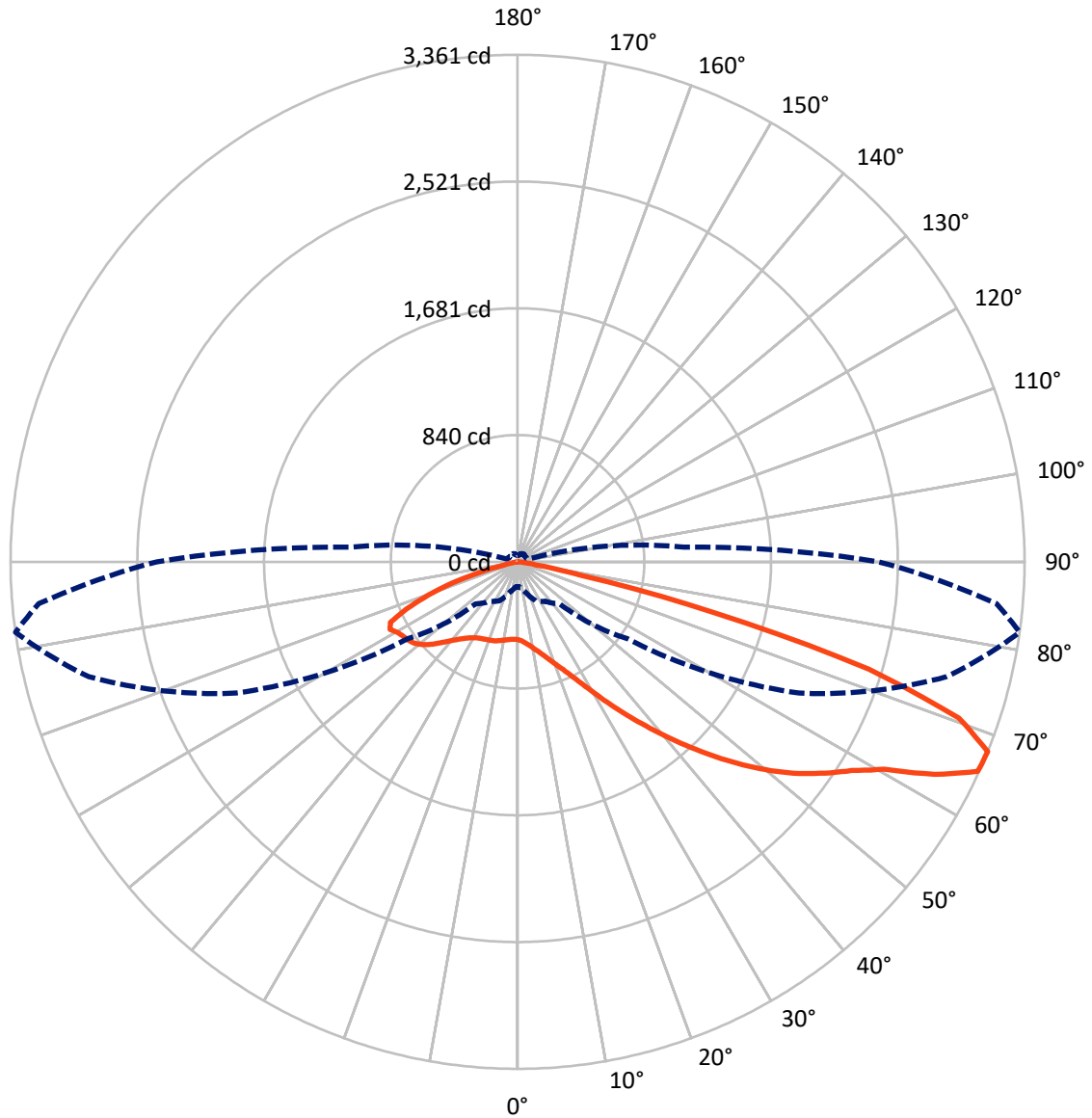
× Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 1.1 fc
 Type II - Medium - N/A

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Luminous Intensity Polar Plot



— Vertical Plane Through 82-Deg Lateral - - - Horizontal Cone Through 67.5-Deg Vertical

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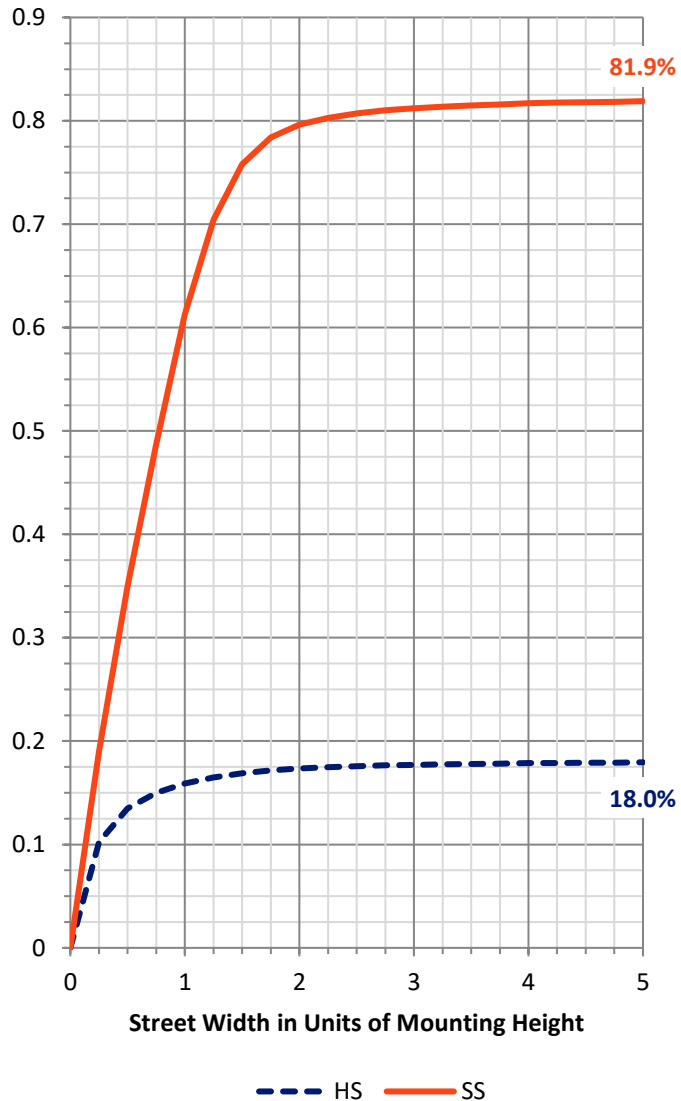
FLUX DISTRIBUTION:

| | | Downward | Upward | Total |
|--------------------|-----------|----------|--------|--------|
| House Side | Lumens | 564.2 | 0.0 | 564.2 |
| | % Fixture | 18.1 | 0.0 | 18.1 |
| Street Side | Lumens | 2550.7 | 0.0 | 2550.7 |
| | % Fixture | 81.9 | 0.0 | 81.9 |
| Total | Lumens | 3115.0 | 0.0 | 3115.0 |
| | % Fixture | 100.0 | 0.0 | 100.0 |

ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10° | 46.0 | 1.5 |
| 10°-20° | 119.5 | 3.8 |
| 20°-30° | 191.4 | 6.1 |
| 30°-40° | 338.4 | 10.9 |
| 40°-50° | 592.9 | 19.0 |
| 50°-60° | 790.7 | 25.4 |
| 60°-70° | 736.1 | 23.6 |
| 70°-80° | 282.5 | 9.1 |
| 80°-90° | 17.5 | 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° | 3115.0 | 100.0 |
| 0°-180° | 3115.0 | 100.0 |

Coefficient of Utilization



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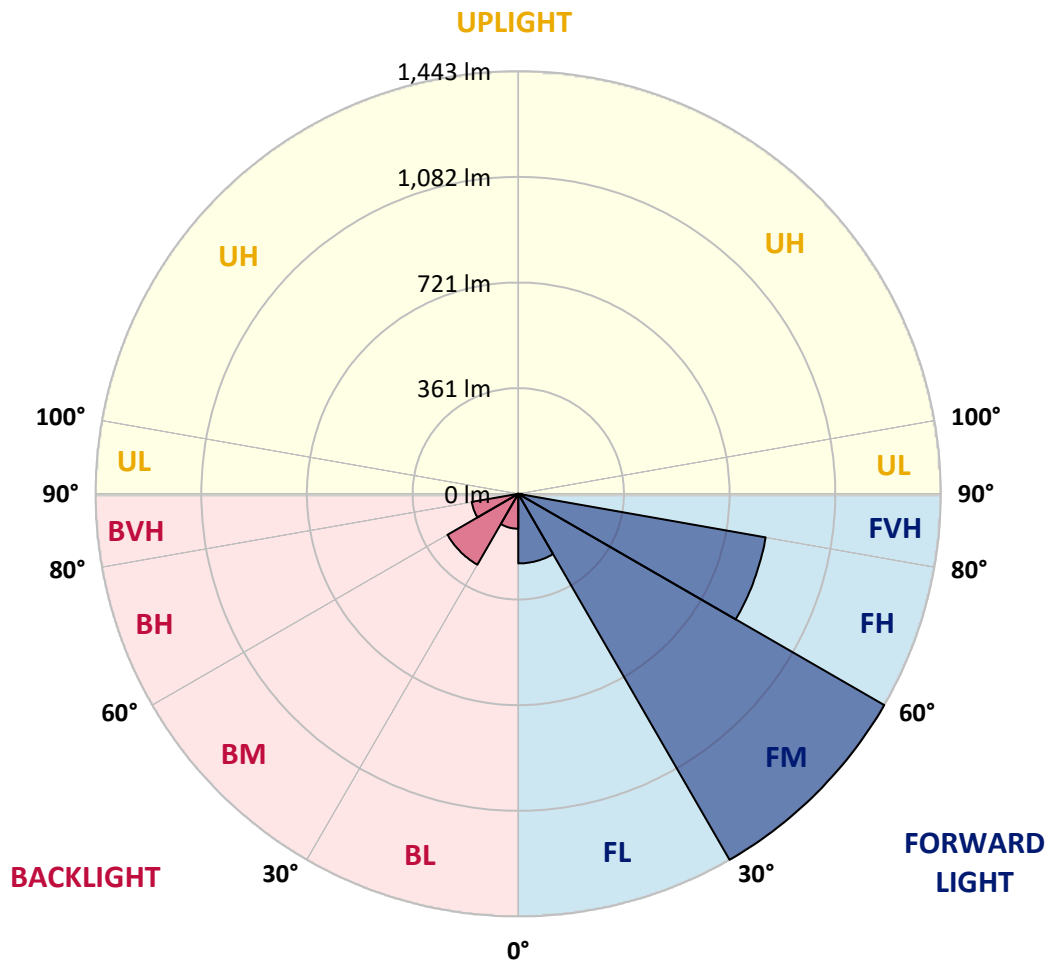
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

| Zone | Lumens | % Fixture | Zone Rating/Lumen Limit | | |
|----------------|--------|-----------|-------------------------|------|---------|
| | | | B | U | G |
| FL (0°-30°) | 237.6 | 7.6 | | | |
| FM (30°-60°) | 1442.7 | 46.3 | | | |
| FH (60°-80°) | 857.6 | 27.5 | | | G1/1800 |
| FVH (80°-90°) | 12.8 | 0.4 | | | G1/100 |
| BL (0°-30°) | 119.2 | 3.8 | B1/500 | | |
| BM (30°-60°) | 279.2 | 9.0 | B1/1000 | | |
| BH (60°-80°) | 161.0 | 5.2 | B1/500 | | G1/500 |
| BVH (80°-90°) | 4.8 | 0.2 | | | G0/10 |
| 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° | 516.1 | 516.1 | 516.1 | 516.1 | 516.1 | 516.1 | 516.1 | 516.1 | 516.1 | 516.1 | 516.1 |
| 2.5° | 545.4 | 548.6 | 546.7 | 545.9 | 544.3 | 542.0 | 540.3 | 534.6 | 528.8 | 525.0 | 523.7 |
| 5° | 556.4 | 559.5 | 559.3 | 560.3 | 561.4 | 562.0 | 561.6 | 555.2 | 547.0 | 540.5 | 536.7 |
| 7.5° | 547.0 | 550.6 | 553.5 | 558.0 | 565.8 | 574.1 | 578.2 | 576.9 | 568.3 | 559.3 | 554.6 |
| 10° | 520.3 | 524.1 | 531.1 | 541.6 | 558.2 | 576.2 | 591.2 | 598.1 | 592.8 | 582.9 | 576.4 |
| 12.5° | 471.4 | 475.2 | 488.9 | 511.8 | 539.6 | 570.7 | 599.5 | 618.1 | 619.4 | 609.6 | 602.0 |
| 15° | 416.5 | 420.2 | 434.9 | 463.6 | 505.9 | 556.0 | 603.9 | 639.2 | 651.1 | 642.6 | 633.3 |
| 17.5° | 382.4 | 385.7 | 396.8 | 419.8 | 464.0 | 526.3 | 602.4 | 661.6 | 688.7 | 682.0 | 671.1 |
| 20° | 372.1 | 374.9 | 380.2 | 396.3 | 433.1 | 495.6 | 592.0 | 682.6 | 729.3 | 725.5 | 713.2 |
| 22.5° | 383.0 | 385.7 | 387.3 | 394.5 | 417.6 | 475.5 | 579.0 | 704.2 | 776.4 | 776.8 | 761.9 |
| 25° | 408.4 | 411.1 | 409.3 | 413.8 | 423.8 | 469.1 | 574.1 | 729.6 | 835.6 | 840.6 | 823.5 |
| 27.5° | 450.1 | 450.4 | 446.1 | 445.9 | 447.4 | 478.6 | 579.3 | 756.7 | 910.3 | 919.5 | 898.4 |
| 30° | 533.7 | 530.4 | 514.0 | 496.3 | 488.2 | 506.9 | 593.7 | 788.7 | 998.5 | 1014.9 | 988.4 |
| 32.5° | 662.8 | 657.7 | 627.7 | 585.4 | 542.7 | 552.4 | 619.4 | 825.3 | 1094.4 | 1124.0 | 1091.7 |
| 35° | 802.7 | 801.3 | 769.9 | 706.9 | 632.4 | 617.2 | 661.3 | 873.3 | 1199.1 | 1246.3 | 1208.0 |
| 37.5° | 932.7 | 932.0 | 914.1 | 839.9 | 749.3 | 707.6 | 728.7 | 936.1 | 1311.3 | 1379.4 | 1334.1 |
| 40° | 1051.6 | 1053.6 | 1035.7 | 969.3 | 878.0 | 823.5 | 820.2 | 1013.7 | 1436.0 | 1524.6 | 1470.8 |
| 42.5° | 1154.4 | 1156.6 | 1138.4 | 1089.3 | 1005.2 | 951.8 | 932.5 | 1108.7 | 1557.8 | 1680.5 | 1616.7 |
| 45° | 1224.1 | 1238.0 | 1235.3 | 1196.1 | 1135.7 | 1080.4 | 1067.5 | 1228.2 | 1696.6 | 1845.7 | 1771.1 |
| 47.5° | 1243.8 | 1256.5 | 1276.7 | 1282.2 | 1245.4 | 1190.8 | 1206.1 | 1371.9 | 1837.0 | 2011.3 | 1926.3 |
| 50° | 1195.1 | 1207.0 | 1249.0 | 1304.8 | 1330.3 | 1313.5 | 1340.9 | 1525.9 | 1980.7 | 2176.3 | 2078.5 |
| 52.5° | 1099.1 | 1111.3 | 1164.2 | 1252.6 | 1356.8 | 1409.8 | 1476.1 | 1677.7 | 2120.0 | 2332.6 | 2222.7 |
| 55° | 960.3 | 973.1 | 1041.1 | 1141.1 | 1306.4 | 1449.5 | 1589.0 | 1829.4 | 2247.6 | 2473.2 | 2352.8 |
| 57.5° | 771.5 | 780.9 | 851.6 | 991.5 | 1179.5 | 1410.0 | 1672.2 | 1994.9 | 2367.9 | 2611.4 | 2481.7 |
| 60° | 502.9 | 511.1 | 593.2 | 749.3 | 969.0 | 1278.1 | 1688.8 | 2179.5 | 2527.5 | 2791.1 | 2655.6 |
| 62.5° | 334.4 | 340.0 | 388.7 | 503.3 | 682.4 | 1024.9 | 1591.6 | 2326.9 | 2761.7 | 3103.7 | 2953.6 |
| 65° | 229.4 | 235.0 | 283.7 | 363.6 | 441.0 | 677.9 | 1312.4 | 2307.3 | 2973.8 | 3352.0 | 3174.5 |
| 67.5° | 163.7 | 168.4 | 209.7 | 285.1 | 319.2 | 393.8 | 889.7 | 2057.9 | 2943.3 | 3361.4 | 3186.4 |
| 70° | 117.3 | 120.0 | 154.1 | 222.0 | 253.7 | 236.6 | 494.8 | 1573.9 | 2577.1 | 3103.9 | 2943.8 |
| 72.5° | 82.1 | 83.0 | 107.0 | 169.1 | 204.3 | 172.7 | 235.4 | 1049.4 | 1949.1 | 2436.2 | 2282.2 |
| 75° | 55.7 | 56.8 | 72.0 | 124.0 | 163.9 | 131.9 | 124.7 | 562.7 | 1144.2 | 1348.5 | 1208.8 |
| 77.5° | 34.1 | 34.5 | 46.4 | 84.8 | 122.7 | 100.4 | 80.3 | 238.4 | 442.7 | 434.6 | 370.5 |
| 80° | 19.3 | 19.3 | 29.6 | 52.7 | 83.6 | 64.8 | 56.3 | 101.4 | 140.2 | 123.1 | 108.5 |
| 82.5° | 10.8 | 11.0 | 21.5 | 32.7 | 55.4 | 38.3 | 31.0 | 46.8 | 60.6 | 53.6 | 46.6 |
| 85° | 4.5 | 4.9 | 13.2 | 15.5 | 26.4 | 19.1 | 12.6 | 19.8 | 22.4 | 20.0 | 14.6 |
| 87.5° | 0.4 | 0.7 | 4.0 | 2.9 | 3.2 | 3.8 | 1.8 | 3.8 | 3.2 | 3.2 | 2.3 |
| 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° | 516.1 | 516.1 | 516.1 | 516.1 | 516.1 | 516.1 | 516.1 | 516.1 | 516.1 | 516.1 | 516.1 |
| 2.5° | 519.4 | 516.1 | 507.5 | 497.6 | 484.6 | 478.4 | 469.9 | 464.0 | 459.1 | 459.5 | 455.0 |
| 5° | 529.5 | 521.0 | 501.9 | 478.2 | 448.5 | 427.4 | 405.1 | 389.6 | 377.0 | 374.3 | 368.3 |
| 7.5° | 543.5 | 529.9 | 496.5 | 453.7 | 403.6 | 365.8 | 331.9 | 310.2 | 294.7 | 289.8 | 284.8 |
| 10° | 561.4 | 541.8 | 489.5 | 423.0 | 351.0 | 302.8 | 266.4 | 249.4 | 238.8 | 235.2 | 232.6 |
| 12.5° | 582.2 | 555.6 | 480.4 | 385.5 | 296.7 | 250.3 | 227.1 | 218.6 | 215.2 | 214.2 | 213.5 |
| 15° | 608.4 | 572.6 | 466.5 | 341.1 | 250.7 | 218.2 | 208.4 | 207.3 | 207.7 | 207.3 | 207.0 |
| 17.5° | 639.6 | 591.2 | 443.8 | 295.4 | 219.8 | 201.8 | 198.2 | 199.2 | 200.3 | 200.1 | 199.6 |
| 20° | 673.7 | 609.6 | 414.9 | 254.8 | 198.7 | 190.1 | 188.2 | 189.0 | 189.9 | 189.5 | 189.3 |
| 22.5° | 712.5 | 629.3 | 382.8 | 223.1 | 184.6 | 179.4 | 177.2 | 177.4 | 177.4 | 176.5 | 176.1 |
| 25° | 758.9 | 651.1 | 349.2 | 200.7 | 173.8 | 169.7 | 167.1 | 166.2 | 164.8 | 162.2 | 161.7 |
| 27.5° | 814.4 | 674.1 | 316.9 | 185.0 | 165.3 | 161.4 | 158.4 | 156.1 | 152.7 | 148.2 | 147.8 |
| 30° | 876.7 | 702.2 | 289.6 | 175.2 | 158.6 | 154.8 | 151.2 | 147.8 | 142.9 | 137.2 | 136.8 |
| 32.5° | 950.0 | 732.3 | 269.6 | 168.6 | 152.5 | 148.4 | 144.2 | 140.2 | 134.8 | 129.1 | 129.4 |
| 35° | 1037.5 | 768.5 | 257.9 | 164.2 | 147.8 | 142.4 | 137.7 | 133.2 | 129.1 | 124.2 | 123.8 |
| 37.5° | 1132.3 | 807.2 | 254.3 | 162.0 | 144.6 | 136.3 | 131.0 | 127.8 | 127.4 | 124.4 | 124.2 |
| 40° | 1236.1 | 852.9 | 257.0 | 160.6 | 141.2 | 130.5 | 124.7 | 124.0 | 125.2 | 120.0 | 120.2 |
| 42.5° | 1346.0 | 907.1 | 261.5 | 159.0 | 136.5 | 124.7 | 119.1 | 119.1 | 118.2 | 111.0 | 111.0 |
| 45° | 1464.9 | 969.8 | 266.0 | 155.2 | 131.0 | 118.9 | 114.6 | 113.1 | 109.3 | 102.3 | 102.1 |
| 47.5° | 1584.6 | 1033.4 | 269.4 | 148.2 | 124.2 | 114.0 | 110.1 | 106.5 | 101.0 | 94.6 | 94.4 |
| 50° | 1698.4 | 1090.6 | 265.8 | 138.0 | 116.6 | 109.3 | 105.2 | 100.2 | 94.2 | 89.9 | 89.3 |
| 52.5° | 1800.0 | 1140.2 | 250.5 | 125.8 | 108.5 | 104.2 | 100.7 | 95.5 | 90.6 | 86.1 | 85.7 |
| 55° | 1888.4 | 1180.3 | 223.6 | 114.4 | 101.4 | 100.0 | 96.5 | 89.9 | 83.2 | 79.4 | 78.9 |
| 57.5° | 1973.1 | 1210.8 | 189.9 | 105.0 | 94.9 | 95.3 | 89.9 | 84.2 | 77.8 | 73.8 | 73.3 |
| 60° | 2086.0 | 1251.6 | 155.9 | 96.2 | 87.9 | 89.3 | 83.4 | 79.1 | 71.3 | 66.1 | 65.5 |
| 62.5° | 2266.3 | 1315.1 | 123.8 | 85.5 | 79.8 | 80.3 | 77.8 | 72.7 | 63.2 | 57.2 | 56.8 |
| 65° | 2409.4 | 1291.8 | 97.6 | 73.8 | 70.6 | 71.3 | 71.3 | 65.7 | 55.7 | 48.7 | 48.0 |
| 67.5° | 2393.2 | 1106.1 | 77.8 | 62.3 | 61.9 | 62.3 | 64.0 | 59.2 | 49.3 | 43.8 | 42.8 |
| 70° | 2204.6 | 879.9 | 62.3 | 51.8 | 53.8 | 52.7 | 57.2 | 54.0 | 44.4 | 38.8 | 38.1 |
| 72.5° | 1798.9 | 633.8 | 47.6 | 42.8 | 41.3 | 43.0 | 51.6 | 48.7 | 37.0 | 30.7 | 30.0 |
| 75° | 1051.1 | 338.2 | 35.5 | 33.8 | 29.8 | 35.9 | 45.7 | 41.5 | 28.3 | 22.7 | 21.9 |
| 77.5° | 342.2 | 118.0 | 26.0 | 24.9 | 22.2 | 28.9 | 39.1 | 35.0 | 23.1 | 17.9 | 17.2 |
| 80° | 91.7 | 35.7 | 17.7 | 16.4 | 14.3 | 21.5 | 31.0 | 27.8 | 16.6 | 11.7 | 11.5 |
| 82.5° | 36.8 | 15.1 | 10.4 | 9.2 | 7.9 | 14.8 | 24.4 | 22.4 | 12.3 | 7.4 | 7.4 |
| 85° | 11.9 | 4.9 | 3.8 | 2.9 | 3.6 | 9.2 | 14.6 | 15.3 | 8.7 | 3.8 | 2.9 |
| 87.5° | 1.5 | 0.7 | 0.7 | 0.9 | 0.7 | 1.5 | 4.5 | 4.3 | 2.5 | 0.4 | 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)