

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: P959273

Luminaire Tested: **NAV-SB1A-730-U-T3R-HSS**

Issue Date: 1/21/2025

Test Information

Test Method: LM-79-08
Report Number: P959273
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2411-289-6)
Test Lab: INNOVATION CENTER
Issue Date: 1/21/2025
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: LUMARK
Catalog Number: NAV-SB1A-730-U-T3R-HSS
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE
(1) 70 CRI, 3000K, 350mA LIGHTSQUARE WITH 26 LEDS AND TYPE III ROADWAY
OPTICS WITH HOUSE SIDE SHIELD
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 3829.4 lumens
Efficiency: N/A
Efficacy: 123.9 lumens/watt
Luminous Opening: Rectangular (W 0.5' x L: 0.5' x H: 0')
IES Classification: Type III - Medium
BUG Rating: B1 - U0 - G1

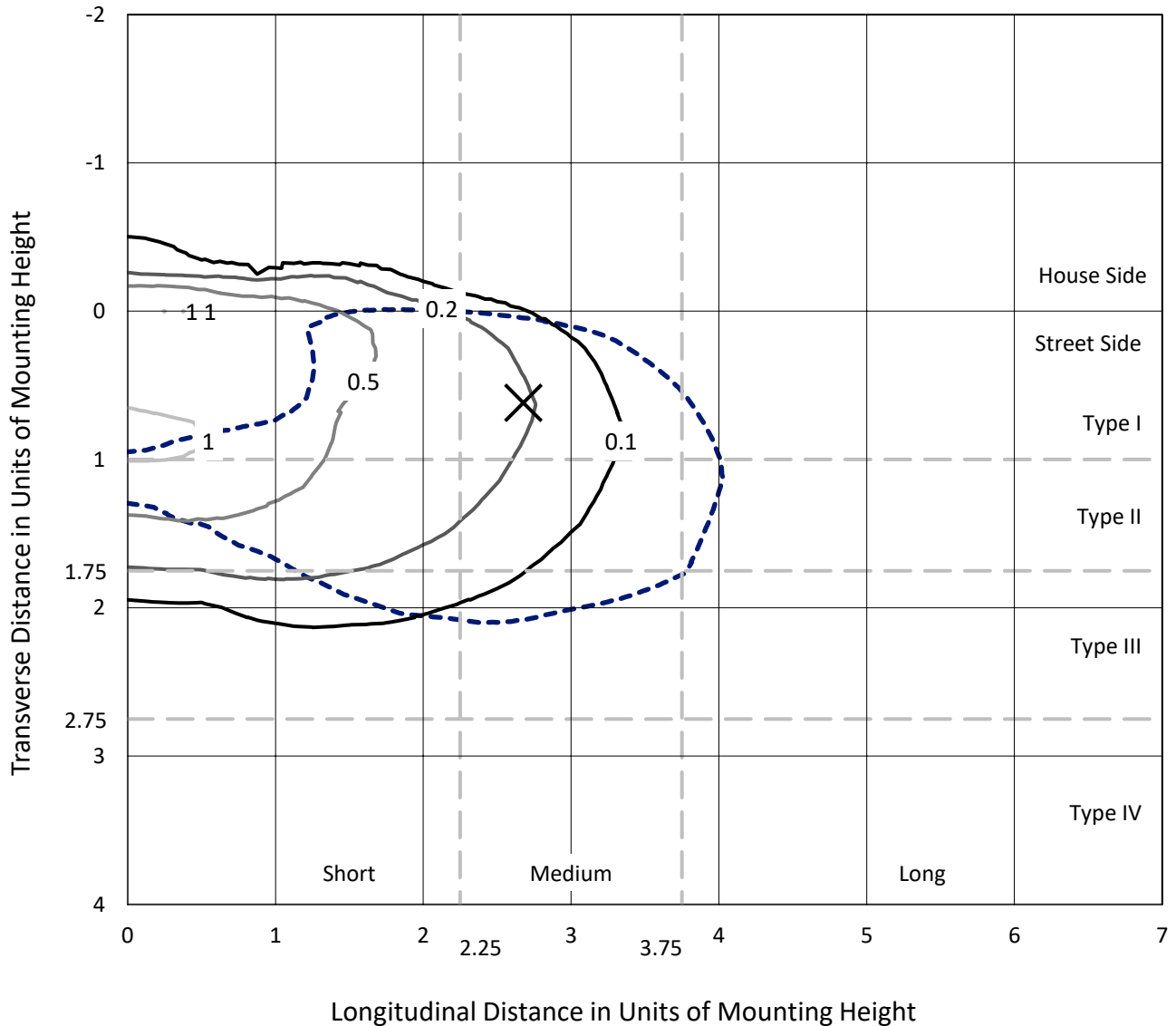
Input Watts (W): 30.9
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Iso-Footcandle Lines of Horizontal Illumination

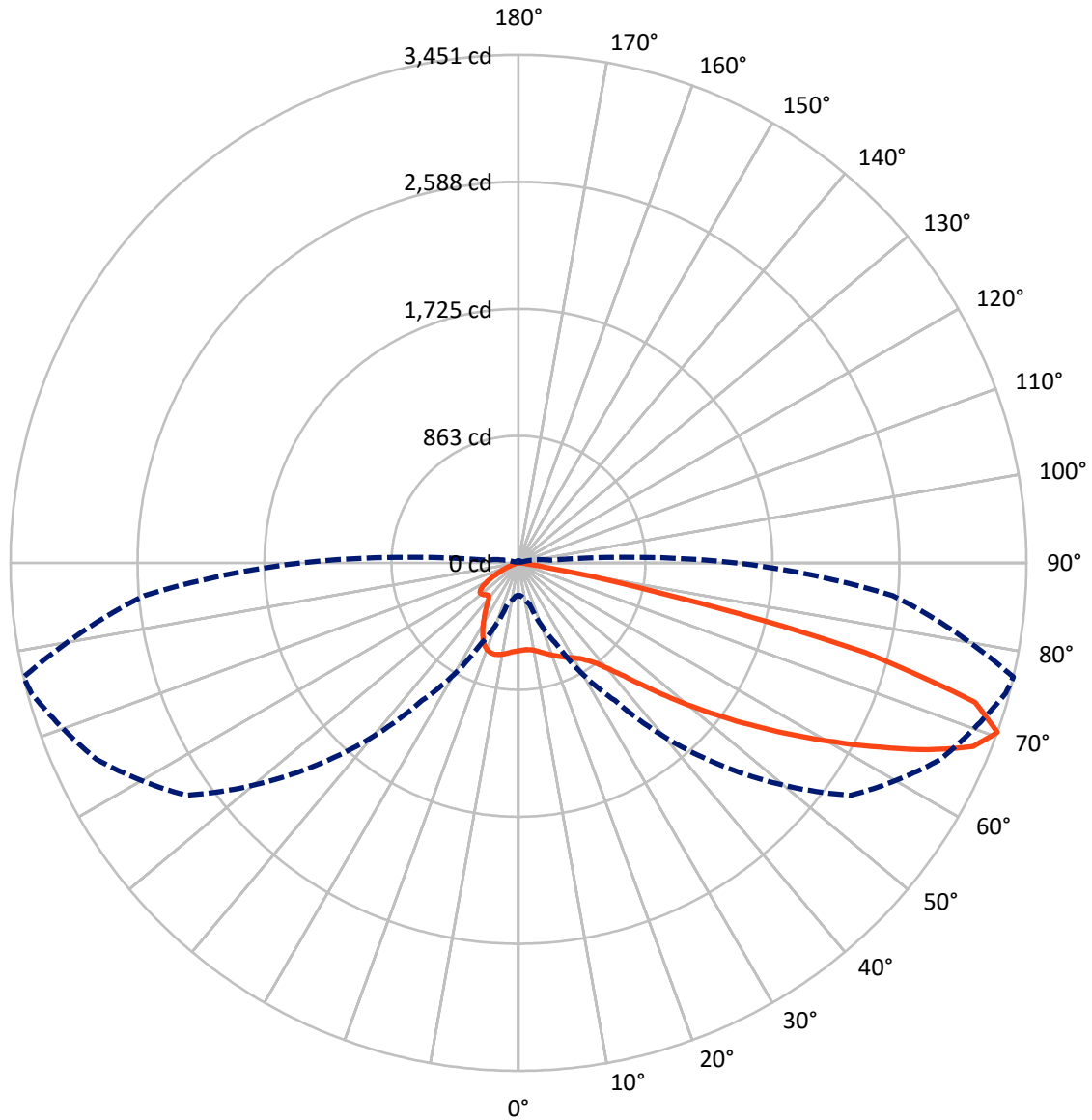
× Max cd
 - - - 1/2 Max cd



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

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Luminous Intensity Polar Plot



— Vertical Plane Through 77-Deg Lateral - - - Horizontal Cone Through 70-Deg Vertical

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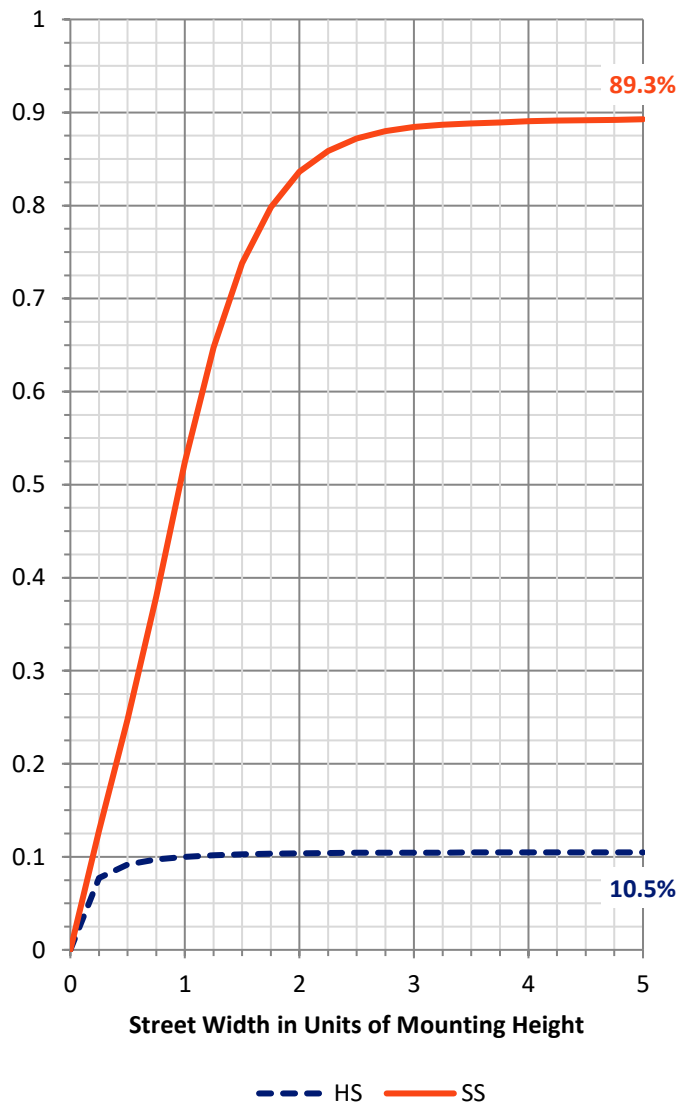
FLUX DISTRIBUTION:

| | | Downward | Upward | Total |
|--------------------|-----------|----------|--------|--------|
| House Side | Lumens | 403.7 | 0.0 | 403.7 |
| | % Fixture | 10.5 | 0.0 | 10.5 |
| Street Side | Lumens | 3425.7 | 0.0 | 3425.7 |
| | % Fixture | 89.5 | 0.0 | 89.5 |
| Total | Lumens | 3829.4 | 0.0 | 3829.4 |
| | % Fixture | 100.0 | 0.0 | 100.0 |

ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10° | 51.5 | 1.3 |
| 10°-20° | 122.2 | 3.2 |
| 20°-30° | 189.0 | 4.9 |
| 30°-40° | 343.0 | 9.0 |
| 40°-50° | 647.4 | 16.9 |
| 50°-60° | 935.5 | 24.4 |
| 60°-70° | 995.8 | 26.0 |
| 70°-80° | 527.7 | 13.8 |
| 80°-90° | 17.3 | 0.5 |
| 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° | 3829.4 | 100.0 |
| 0°-180° | 3829.4 | 100.0 |

Coefficient of Utilization

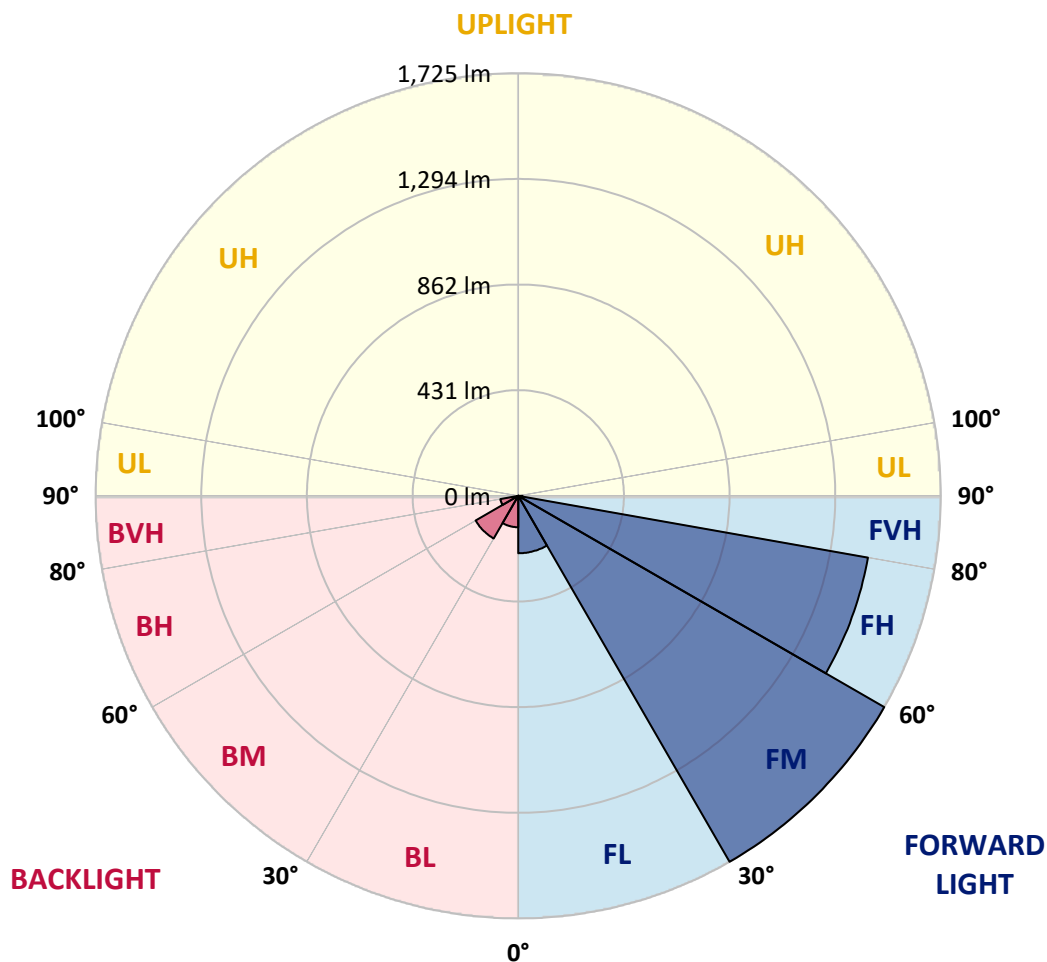


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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

| Zone | Lumens | % Fixture | Zone Rating/Lumen Limit | | |
|----------------|--------|-----------|-------------------------|------|---------|
| | | | B | U | G |
| FL (0°-30°) | 234.4 | 6.1 | | | |
| FM (30°-60°) | 1724.9 | 45.0 | | | |
| FH (60°-80°) | 1449.5 | 37.9 | | | G1/1800 |
| FVH (80°-90°) | 16.9 | 0.4 | | | G1/100 |
| BL (0°-30°) | 128.3 | 3.3 | B1/500 | | |
| BM (30°-60°) | 201.0 | 5.2 | B0/220 | | |
| BH (60°-80°) | 74.0 | 1.9 | B0/110 | | G0/110 |
| BVH (80°-90°) | 0.5 | 0.0 | | | 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 III Medium



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CANDELA DISTRIBUTION (FULL):

| | 0° | 5° | 15° | 25° | 35° | 45° | 55° | 65° | 75° | 77° | 85° |
|-------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 0° | 597.3 | 597.3 | 597.3 | 597.3 | 597.3 | 597.3 | 597.3 | 597.3 | 597.3 | 597.3 | 597.3 |
| 2.5° | 560.8 | 565.9 | 565.2 | 568.6 | 569.8 | 574.6 | 579.4 | 586.0 | 593.2 | 593.0 | 597.8 |
| 5° | 529.1 | 534.2 | 535.5 | 540.0 | 545.8 | 553.3 | 563.2 | 576.3 | 589.8 | 592.0 | 601.7 |
| 7.5° | 491.6 | 496.9 | 500.1 | 509.3 | 520.0 | 535.5 | 551.7 | 570.7 | 593.2 | 596.3 | 615.0 |
| 10° | 454.2 | 459.0 | 463.1 | 476.1 | 493.1 | 516.1 | 542.4 | 570.0 | 600.2 | 604.9 | 631.2 |
| 12.5° | 430.9 | 435.5 | 440.1 | 451.5 | 472.5 | 500.6 | 536.4 | 573.4 | 611.8 | 618.4 | 653.1 |
| 15° | 422.7 | 426.8 | 430.5 | 440.6 | 460.2 | 492.1 | 535.2 | 580.4 | 626.6 | 635.3 | 679.8 |
| 17.5° | 423.9 | 426.1 | 428.6 | 436.2 | 455.4 | 488.2 | 537.3 | 592.4 | 644.0 | 651.7 | 706.4 |
| 20° | 430.9 | 432.1 | 432.3 | 437.7 | 454.6 | 487.8 | 541.7 | 604.1 | 660.4 | 670.9 | 732.8 |
| 22.5° | 439.9 | 440.3 | 439.9 | 443.5 | 459.2 | 491.4 | 547.5 | 618.1 | 678.9 | 688.5 | 759.3 |
| 25° | 481.7 | 472.5 | 460.9 | 453.9 | 467.0 | 498.5 | 556.2 | 636.9 | 698.8 | 708.3 | 785.3 |
| 27.5° | 611.6 | 585.3 | 543.7 | 496.9 | 483.0 | 508.6 | 568.3 | 656.1 | 719.2 | 727.6 | 813.0 |
| 30° | 822.5 | 787.9 | 717.3 | 612.0 | 534.2 | 529.8 | 584.0 | 675.2 | 740.8 | 749.9 | 842.8 |
| 32.5° | 1033.8 | 1025.3 | 943.8 | 798.3 | 649.5 | 577.3 | 610.2 | 701.1 | 769.3 | 776.5 | 882.9 |
| 35° | 1247.6 | 1230.4 | 1163.7 | 1019.8 | 827.3 | 673.7 | 653.6 | 734.9 | 806.8 | 815.0 | 941.5 |
| 37.5° | 1411.3 | 1400.9 | 1359.6 | 1241.1 | 1038.1 | 822.7 | 728.2 | 787.4 | 861.1 | 870.3 | 1016.4 |
| 40° | 1555.9 | 1551.1 | 1537.1 | 1459.0 | 1274.0 | 1017.6 | 844.0 | 868.7 | 936.6 | 947.5 | 1108.3 |
| 42.5° | 1669.6 | 1681.0 | 1688.9 | 1667.2 | 1517.0 | 1240.1 | 999.7 | 982.8 | 1041.8 | 1052.9 | 1225.4 |
| 45° | 1785.9 | 1789.8 | 1821.9 | 1853.4 | 1758.4 | 1472.7 | 1175.3 | 1116.5 | 1172.6 | 1186.4 | 1365.6 |
| 47.5° | 1860.6 | 1876.1 | 1932.7 | 1988.1 | 1961.2 | 1703.4 | 1363.9 | 1274.5 | 1324.3 | 1350.1 | 1522.8 |
| 50° | 1866.2 | 1895.4 | 1973.3 | 2069.8 | 2109.0 | 1923.0 | 1569.0 | 1454.4 | 1507.4 | 1535.9 | 1690.6 |
| 52.5° | 1773.6 | 1819.1 | 1939.7 | 2081.0 | 2188.8 | 2109.0 | 1781.0 | 1634.3 | 1702.2 | 1739.4 | 1864.8 |
| 55° | 1359.8 | 1419.3 | 1813.2 | 2020.5 | 2192.0 | 2250.0 | 1987.6 | 1821.7 | 1919.4 | 1961.4 | 2052.9 |
| 57.5° | 1184.7 | 1214.7 | 1425.6 | 1915.5 | 2133.6 | 2306.8 | 2174.3 | 2000.2 | 2155.7 | 2207.8 | 2230.6 |
| 60° | 985.7 | 1025.1 | 1195.6 | 1743.8 | 2054.6 | 2312.4 | 2339.3 | 2230.4 | 2411.7 | 2470.6 | 2393.6 |
| 62.5° | 669.8 | 712.7 | 882.2 | 1448.8 | 1946.5 | 2309.7 | 2474.4 | 2467.4 | 2696.4 | 2759.5 | 2531.8 |
| 65° | 415.0 | 441.8 | 553.5 | 1183.1 | 1795.3 | 2312.6 | 2615.9 | 2755.2 | 2996.8 | 3060.9 | 2638.6 |
| 67.5° | 327.9 | 340.3 | 398.5 | 908.4 | 1534.9 | 2247.3 | 2757.0 | 3025.8 | 3279.5 | 3330.2 | 2671.3 |
| 70° | 220.3 | 227.8 | 290.0 | 609.0 | 1142.0 | 1946.0 | 2754.4 | 3161.7 | 3425.0 | 3450.5 | 2552.2 |
| 72.5° | 116.0 | 121.9 | 169.5 | 282.0 | 689.7 | 1383.2 | 2321.8 | 2999.1 | 3280.2 | 3242.0 | 2181.5 |
| 75° | 58.0 | 67.8 | 114.2 | 143.2 | 294.6 | 771.4 | 1441.8 | 2364.6 | 2581.8 | 2433.8 | 1399.7 |
| 77.5° | 44.0 | 53.2 | 94.3 | 94.3 | 102.5 | 259.7 | 610.6 | 1289.7 | 1189.5 | 990.6 | 410.8 |
| 80° | 28.1 | 36.3 | 82.5 | 71.3 | 42.8 | 66.0 | 159.1 | 361.3 | 252.7 | 192.3 | 74.7 |
| 82.5° | 16.4 | 23.7 | 68.7 | 47.2 | 24.0 | 24.4 | 45.0 | 76.9 | 65.5 | 51.0 | 23.0 |
| 85° | 6.6 | 15.5 | 47.2 | 18.7 | 9.4 | 6.0 | 13.5 | 16.4 | 13.5 | 10.1 | 5.8 |
| 87.5° | 0.0 | 3.6 | 8.2 | 0.0 | 0.7 | 0.5 | 0.9 | 1.2 | 1.2 | 0.9 | 1.9 |
| 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° | 597.3 | 597.3 | 597.3 | 597.3 | 597.3 | 597.3 | 597.3 | 597.3 | 597.3 | 597.3 | 597.3 |
| 2.5° | 599.9 | 600.4 | 601.9 | 602.2 | 598.8 | 594.4 | 592.8 | 592.0 | 589.1 | 588.9 | 589.4 |
| 5° | 607.2 | 609.4 | 607.2 | 601.0 | 586.0 | 564.9 | 549.0 | 535.9 | 524.1 | 520.4 | 518.2 |
| 7.5° | 621.8 | 623.9 | 617.4 | 592.8 | 555.0 | 513.1 | 475.4 | 448.8 | 424.9 | 415.9 | 412.4 |
| 10° | 642.6 | 645.4 | 624.8 | 575.0 | 508.3 | 441.1 | 377.3 | 332.3 | 297.2 | 282.9 | 276.9 |
| 12.5° | 668.6 | 669.8 | 629.0 | 548.3 | 447.6 | 351.6 | 261.2 | 213.1 | 181.8 | 170.3 | 166.7 |
| 15° | 697.4 | 695.8 | 629.5 | 511.7 | 364.9 | 248.6 | 170.5 | 140.0 | 127.4 | 123.6 | 123.6 |
| 17.5° | 727.6 | 720.7 | 619.8 | 459.0 | 274.2 | 170.0 | 126.5 | 119.2 | 117.1 | 116.0 | 115.8 |
| 20° | 757.4 | 741.7 | 602.2 | 390.1 | 196.8 | 127.0 | 114.9 | 112.6 | 111.5 | 111.0 | 110.5 |
| 22.5° | 784.5 | 757.7 | 571.9 | 310.1 | 142.9 | 112.2 | 108.5 | 106.6 | 104.4 | 103.5 | 103.2 |
| 25° | 810.9 | 766.8 | 529.4 | 235.3 | 114.4 | 105.0 | 102.1 | 98.4 | 95.5 | 94.3 | 93.8 |
| 27.5° | 836.5 | 772.6 | 476.1 | 174.1 | 102.1 | 98.2 | 92.9 | 87.7 | 85.6 | 85.1 | 84.7 |
| 30° | 863.8 | 774.6 | 415.7 | 129.9 | 94.5 | 89.7 | 82.0 | 76.2 | 74.9 | 75.2 | 75.2 |
| 32.5° | 897.2 | 777.5 | 354.8 | 106.4 | 88.3 | 79.5 | 70.4 | 64.4 | 63.3 | 64.4 | 64.1 |
| 35° | 937.1 | 783.3 | 296.0 | 98.0 | 82.7 | 69.2 | 59.2 | 54.1 | 53.2 | 53.9 | 53.7 |
| 37.5° | 991.3 | 792.7 | 241.1 | 96.2 | 78.1 | 60.5 | 49.8 | 45.7 | 45.7 | 45.9 | 45.7 |
| 40° | 1063.3 | 817.8 | 192.0 | 95.0 | 75.6 | 53.9 | 42.1 | 40.4 | 41.1 | 41.6 | 41.6 |
| 42.5° | 1151.1 | 871.4 | 158.9 | 93.6 | 73.1 | 51.0 | 38.2 | 37.5 | 38.6 | 39.2 | 39.2 |
| 45° | 1249.6 | 939.0 | 147.3 | 91.1 | 70.6 | 53.0 | 36.5 | 35.6 | 37.0 | 37.2 | 37.5 |
| 47.5° | 1351.4 | 1005.3 | 145.9 | 88.6 | 68.2 | 55.9 | 36.1 | 33.8 | 35.6 | 35.8 | 36.1 |
| 50° | 1454.4 | 1048.6 | 147.3 | 84.4 | 64.4 | 55.9 | 36.3 | 32.2 | 33.6 | 34.3 | 34.5 |
| 52.5° | 1558.1 | 1068.4 | 146.3 | 75.4 | 57.6 | 52.5 | 36.3 | 30.7 | 32.2 | 32.7 | 32.7 |
| 55° | 1658.7 | 1064.6 | 131.5 | 62.1 | 48.9 | 46.4 | 35.3 | 29.5 | 30.4 | 30.7 | 30.7 |
| 57.5° | 1738.3 | 1010.6 | 104.2 | 48.4 | 39.7 | 38.6 | 32.2 | 28.1 | 28.8 | 28.5 | 28.5 |
| 60° | 1779.8 | 892.1 | 74.5 | 37.2 | 31.2 | 30.4 | 28.3 | 26.1 | 26.6 | 25.4 | 25.1 |
| 62.5° | 1780.3 | 735.4 | 49.8 | 29.5 | 24.9 | 24.2 | 24.2 | 23.5 | 23.0 | 20.6 | 19.8 |
| 65° | 1742.4 | 561.5 | 33.1 | 23.5 | 20.1 | 18.9 | 20.3 | 20.1 | 18.3 | 15.0 | 14.6 |
| 67.5° | 1656.3 | 368.1 | 25.1 | 18.3 | 15.5 | 14.8 | 16.2 | 16.9 | 15.7 | 12.6 | 12.3 |
| 70° | 1479.3 | 214.2 | 20.8 | 14.2 | 11.6 | 10.9 | 13.0 | 14.6 | 13.0 | 10.1 | 9.6 |
| 72.5° | 1228.8 | 115.6 | 16.9 | 10.7 | 8.0 | 7.3 | 10.4 | 11.9 | 10.4 | 7.5 | 7.3 |
| 75° | 797.3 | 61.9 | 13.0 | 7.0 | 4.1 | 4.6 | 7.7 | 8.7 | 7.3 | 4.8 | 4.3 |
| 77.5° | 267.7 | 27.4 | 8.2 | 3.4 | 1.9 | 1.9 | 4.6 | 5.3 | 3.4 | 1.7 | 1.4 |
| 80° | 59.8 | 11.4 | 3.4 | 1.4 | 0.7 | 0.7 | 0.9 | 0.9 | 0.5 | 0.0 | 0.0 |
| 82.5° | 19.6 | 4.6 | 1.4 | 0.5 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 85° | 7.5 | 1.7 | 0.5 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 87.5° | 2.9 | 0.2 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 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)