

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: P961375

Luminaire Tested: **NAV-SB2A-730-U-T2R-HSS**

Issue Date: 1/21/2025

Test Information

Test Method: LM-79-08
Report Number: P961375
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2411-289-4)
Test Lab: INNOVATION CENTER
Issue Date: 1/21/2025
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: LUMARK
Catalog Number: NAV-SB2A-730-U-T2R-HSS
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE
(2) 70 CRI, 3000K, 350mA LIGHTSQUARES WITH 26 LEDS EACH AND TYPE II
ROADWAY OPTICS WITH HOUSE SIDE SHIELD
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 7784.9 lumens
Efficiency: N/A
Efficacy: 135.9 lumens/watt
Luminous Opening: Rectangular (W 0.5' x L: 1' x H: 0')
IES Classification: Type II - Medium
BUG Rating: B1 - U0 - G2

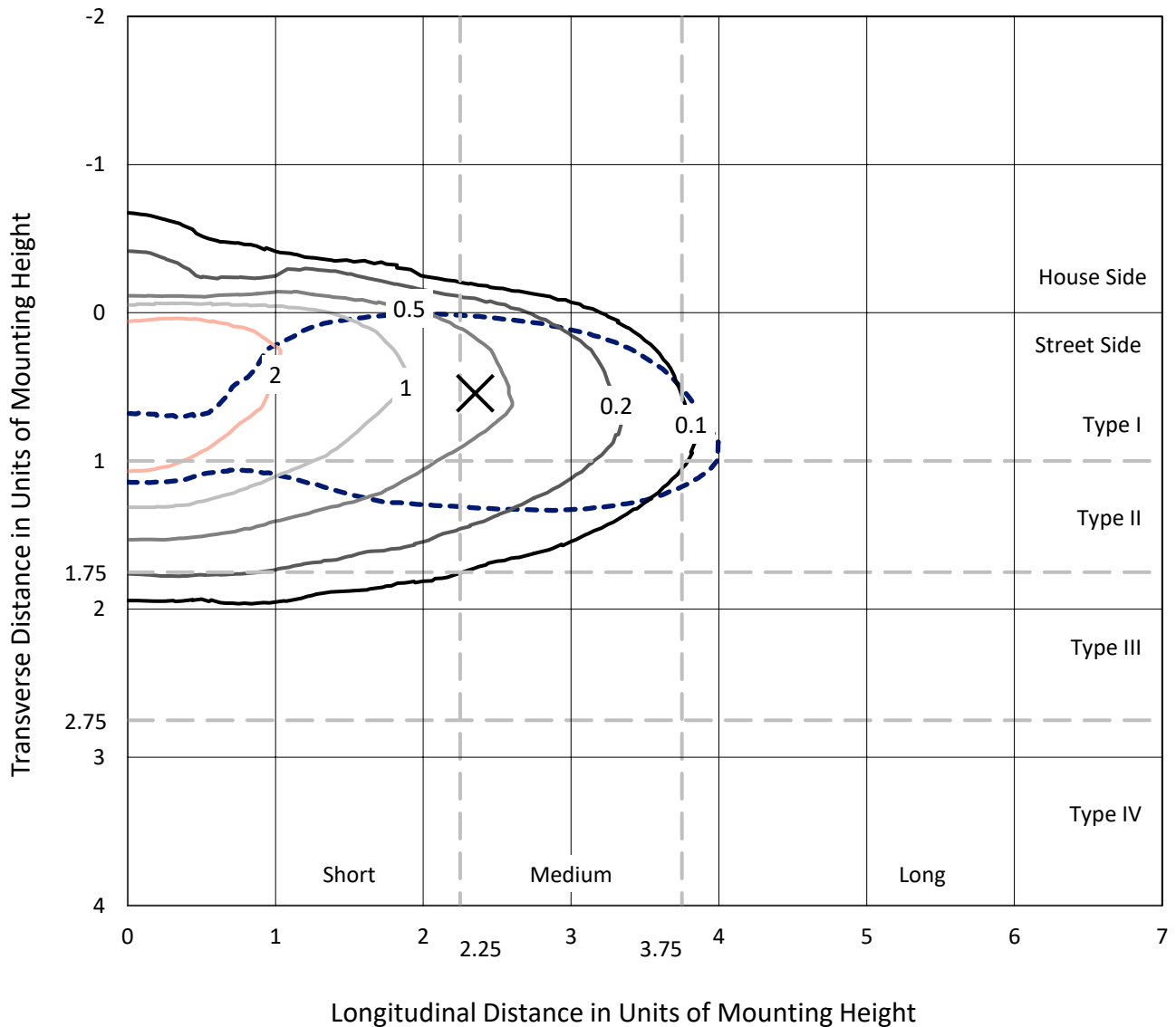
Input Watts (W): 57.3
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Iso-Footcandle Lines of Horizontal Illumination

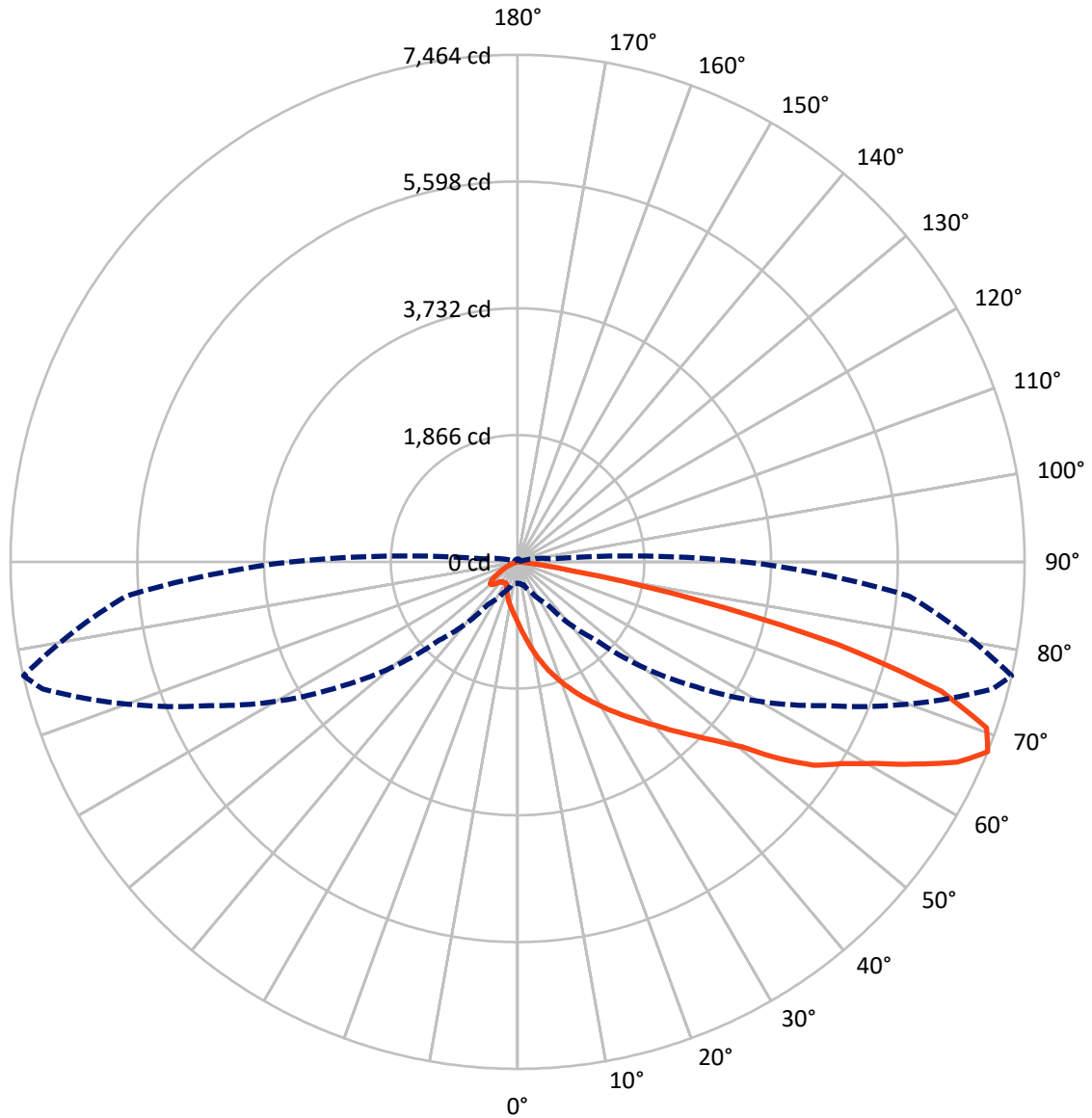
✕ Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 3.4 fc
 Type II - Medium - N/A

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Luminous Intensity Polar Plot



— Vertical Plane Through 77-Deg Lateral - - - Horizontal Cone Through 67.5-Deg Vertical

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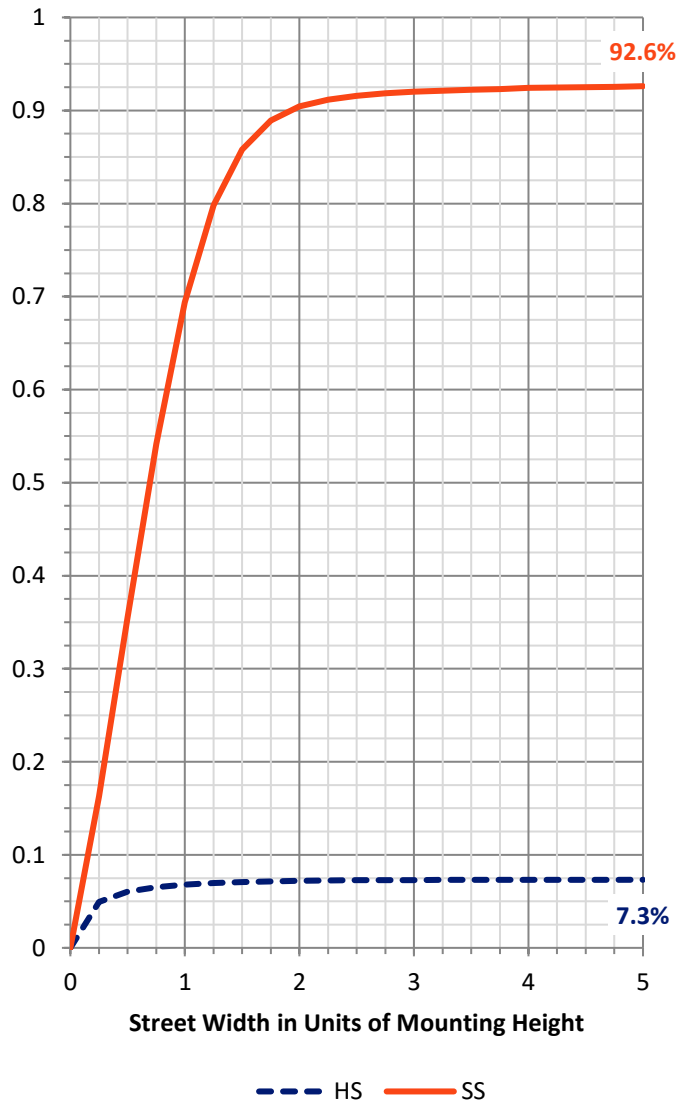
FLUX DISTRIBUTION:

| | | Downward | Upward | Total |
|--------------------|-----------|----------|--------|--------|
| House Side | Lumens | 572.7 | 0.0 | 572.7 |
| | % Fixture | 7.4 | 0.0 | 7.4 |
| Street Side | Lumens | 7212.1 | 0.0 | 7212.1 |
| | % Fixture | 92.6 | 0.0 | 92.6 |
| Total | Lumens | 7784.9 | 0.0 | 7784.9 |
| | % Fixture | 100.0 | 0.0 | 100.0 |

ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10° | 91.6 | 1.2 |
| 10°-20° | 320.9 | 4.1 |
| 20°-30° | 619.2 | 8.0 |
| 30°-40° | 1074.9 | 13.8 |
| 40°-50° | 1560.7 | 20.0 |
| 50°-60° | 1792.3 | 23.0 |
| 60°-70° | 1556.1 | 20.0 |
| 70°-80° | 732.9 | 9.4 |
| 80°-90° | 36.2 | 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° | 7784.9 | 100.0 |
| 0°-180° | 7784.9 | 100.0 |

Coefficient of Utilization

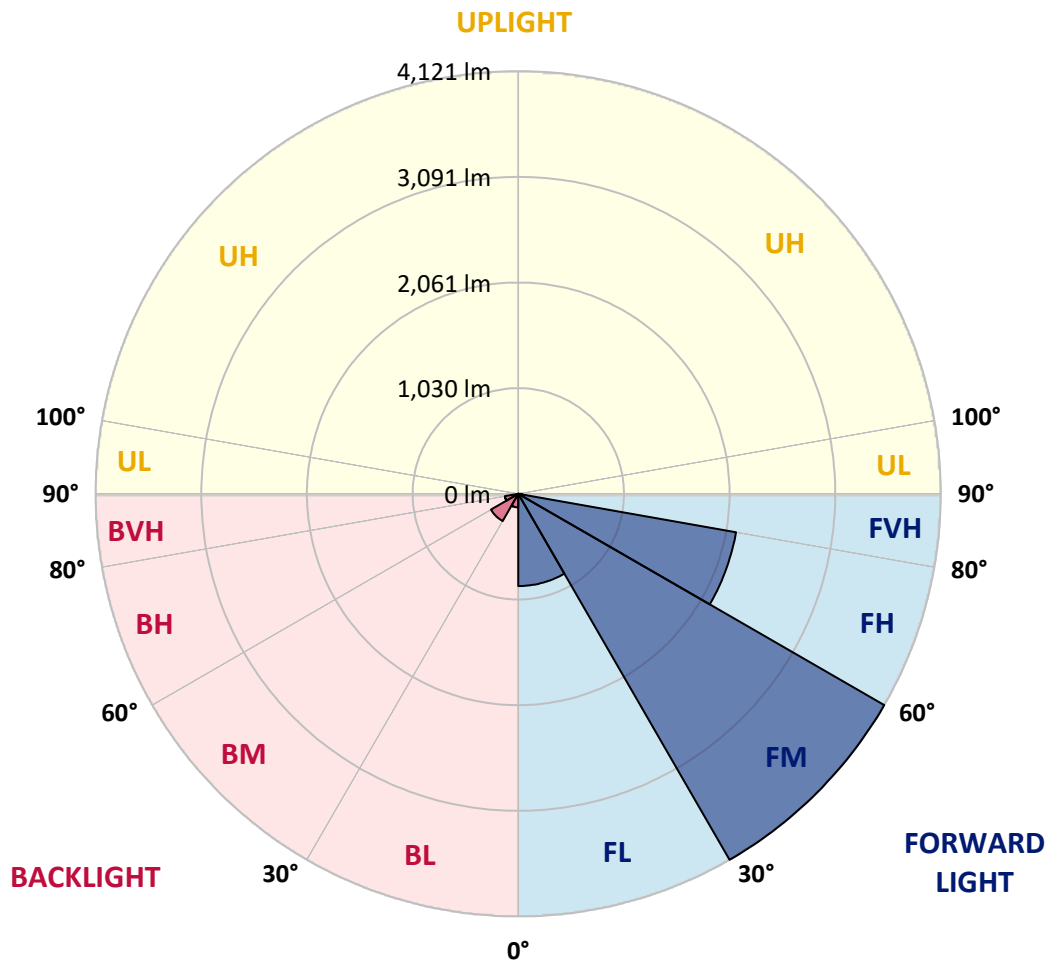


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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

| Zone | Lumens | % Fixture | Zone Rating/Lumen Limit | | |
|----------------|--------|-----------|-------------------------|------|---------|
| | | | B | U | G |
| FL (0°-30°) | 899.1 | 11.5 | | | |
| FM (30°-60°) | 4121.1 | 52.9 | | | |
| FH (60°-80°) | 2156.4 | 27.7 | | | G2/5000 |
| FVH (80°-90°) | 35.6 | 0.5 | | | G1/100 |
| BL (0°-30°) | 132.6 | 1.7 | B1/500 | | |
| BM (30°-60°) | 306.9 | 3.9 | B1/1000 | | |
| BH (60°-80°) | 132.6 | 1.7 | B1/500 | | G1/500 |
| BVH (80°-90°) | 0.7 | 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-G2
 Type II Medium



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CANDELA DISTRIBUTION (FULL):

| | 0° | 5° | 15° | 25° | 35° | 45° | 55° | 65° | 75° | 77° | 85° |
|-------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 0° | 897.7 | 897.7 | 897.7 | 897.7 | 897.7 | 897.7 | 897.7 | 897.7 | 897.7 | 897.7 | 897.7 |
| 2.5° | 1242.9 | 1250.6 | 1239.5 | 1218.2 | 1186.3 | 1165.5 | 1114.8 | 1066.9 | 1013.7 | 996.8 | 943.6 |
| 5° | 1515.1 | 1521.8 | 1509.2 | 1486.0 | 1443.5 | 1402.9 | 1336.2 | 1236.1 | 1132.2 | 1098.8 | 1004.5 |
| 7.5° | 1716.7 | 1720.5 | 1715.6 | 1694.4 | 1653.7 | 1607.8 | 1533.4 | 1415.0 | 1260.8 | 1224.1 | 1079.4 |
| 10° | 1861.6 | 1874.2 | 1872.8 | 1864.6 | 1837.5 | 1800.2 | 1721.0 | 1586.1 | 1404.9 | 1357.4 | 1164.1 |
| 12.5° | 1957.9 | 1971.9 | 1980.1 | 1998.4 | 1997.0 | 1973.3 | 1903.7 | 1761.1 | 1548.4 | 1492.8 | 1259.3 |
| 15° | 1985.9 | 2000.9 | 2032.3 | 2074.8 | 2112.5 | 2124.6 | 2075.8 | 1932.7 | 1706.5 | 1635.4 | 1357.0 |
| 17.5° | 1969.9 | 1993.1 | 2030.8 | 2098.1 | 2180.7 | 2235.3 | 2230.0 | 2098.5 | 1850.0 | 1768.8 | 1452.6 |
| 20° | 2005.2 | 2027.4 | 2057.0 | 2113.5 | 2209.7 | 2308.8 | 2348.5 | 2257.0 | 1992.7 | 1907.5 | 1553.2 |
| 22.5° | 2200.6 | 2196.7 | 2199.5 | 2208.8 | 2266.3 | 2364.4 | 2446.1 | 2401.2 | 2133.8 | 2046.8 | 1659.6 |
| 25° | 2509.9 | 2492.5 | 2463.1 | 2413.3 | 2398.7 | 2446.1 | 2531.1 | 2528.8 | 2282.7 | 2189.4 | 1768.3 |
| 27.5° | 2864.8 | 2861.8 | 2792.7 | 2672.8 | 2605.1 | 2586.8 | 2627.4 | 2653.0 | 2430.2 | 2330.5 | 1877.6 |
| 30° | 3204.6 | 3212.4 | 3119.1 | 2985.6 | 2861.4 | 2789.3 | 2752.6 | 2771.0 | 2580.0 | 2482.9 | 1990.2 |
| 32.5° | 3500.5 | 3508.7 | 3407.1 | 3251.0 | 3097.2 | 3010.2 | 2932.9 | 2887.4 | 2743.4 | 2637.5 | 2114.0 |
| 35° | 3750.4 | 3758.6 | 3642.1 | 3469.5 | 3305.6 | 3226.8 | 3139.4 | 3015.1 | 2907.7 | 2809.1 | 2251.7 |
| 37.5° | 3973.7 | 3971.3 | 3815.2 | 3641.1 | 3480.2 | 3417.8 | 3371.8 | 3172.2 | 3076.9 | 2981.7 | 2404.5 |
| 40° | 4105.6 | 4115.8 | 3982.4 | 3790.4 | 3634.3 | 3588.9 | 3586.0 | 3367.0 | 3272.3 | 3180.0 | 2571.8 |
| 42.5° | 4144.4 | 4162.2 | 4065.6 | 3907.9 | 3766.4 | 3717.1 | 3792.9 | 3577.8 | 3499.5 | 3409.6 | 2760.8 |
| 45° | 4074.8 | 4092.1 | 4048.1 | 3938.9 | 3856.3 | 3824.4 | 3970.8 | 3796.3 | 3742.2 | 3653.2 | 2974.0 |
| 47.5° | 3871.7 | 3893.5 | 3904.1 | 3880.9 | 3879.9 | 3912.3 | 4130.3 | 4026.4 | 4030.3 | 3939.4 | 3221.1 |
| 50° | 3478.6 | 3515.4 | 3613.1 | 3695.2 | 3822.4 | 3981.9 | 4285.5 | 4275.9 | 4355.1 | 4276.8 | 3543.0 |
| 52.5° | 2764.2 | 2816.4 | 3152.9 | 3377.7 | 3663.4 | 3968.9 | 4456.2 | 4676.2 | 4925.1 | 4810.5 | 3996.9 |
| 55° | 2221.3 | 2221.3 | 2495.0 | 2915.5 | 3353.0 | 3882.8 | 4530.6 | 4936.2 | 5313.3 | 5286.2 | 4316.5 |
| 57.5° | 1810.9 | 1832.6 | 2007.2 | 2378.9 | 2903.9 | 3677.9 | 4576.5 | 5099.6 | 5626.0 | 5606.2 | 4628.7 |
| 60° | 1117.7 | 1164.6 | 1494.2 | 1861.2 | 2393.0 | 3312.9 | 4547.5 | 5264.9 | 6005.5 | 6021.5 | 5004.9 |
| 62.5° | 629.5 | 646.8 | 793.8 | 1339.1 | 1860.7 | 2822.2 | 4325.6 | 5357.3 | 6490.9 | 6558.6 | 5392.5 |
| 65° | 434.6 | 443.3 | 499.9 | 833.4 | 1289.8 | 2246.9 | 3892.0 | 5299.8 | 6977.2 | 7114.0 | 5721.2 |
| 67.5° | 315.7 | 320.0 | 355.3 | 509.0 | 765.3 | 1629.1 | 3212.4 | 5009.7 | 7234.9 | 7463.5 | 5784.1 |
| 70° | 242.7 | 245.6 | 271.2 | 334.6 | 452.0 | 1005.5 | 2333.0 | 4432.9 | 7048.3 | 7321.4 | 5462.1 |
| 72.5° | 197.2 | 200.2 | 220.0 | 247.5 | 299.7 | 594.6 | 1414.0 | 3600.0 | 6224.5 | 6519.4 | 4650.0 |
| 75° | 166.3 | 170.1 | 188.1 | 205.9 | 234.9 | 381.9 | 663.3 | 2507.0 | 4681.0 | 4874.3 | 3233.6 |
| 77.5° | 92.4 | 85.1 | 152.7 | 170.7 | 198.2 | 241.7 | 310.4 | 1475.4 | 2621.5 | 2675.2 | 1434.8 |
| 80° | 57.5 | 59.4 | 121.4 | 137.2 | 152.3 | 121.9 | 142.2 | 568.1 | 908.9 | 863.4 | 278.0 |
| 82.5° | 3.4 | 7.7 | 93.3 | 99.1 | 104.4 | 52.2 | 53.7 | 192.9 | 218.9 | 201.1 | 49.3 |
| 85° | 0.0 | 0.0 | 42.5 | 34.3 | 36.3 | 15.0 | 15.5 | 45.0 | 29.5 | 31.9 | 9.6 |
| 87.5° | 0.0 | 0.0 | 0.0 | 0.9 | 0.0 | 1.4 | 2.9 | 3.9 | 1.4 | 1.9 | 3.4 |
| 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° | 897.7 | 897.7 | 897.7 | 897.7 | 897.7 | 897.7 | 897.7 | 897.7 | 897.7 | 897.7 | 897.7 |
| 2.5° | 909.8 | 876.0 | 807.3 | 740.2 | 685.5 | 634.7 | 598.5 | 564.2 | 546.7 | 545.8 | 544.8 |
| 5° | 937.4 | 866.3 | 729.0 | 607.6 | 510.0 | 431.7 | 380.9 | 344.7 | 326.3 | 320.0 | 319.1 |
| 7.5° | 976.0 | 869.2 | 660.3 | 491.6 | 376.6 | 309.3 | 280.3 | 268.8 | 265.0 | 260.6 | 259.6 |
| 10° | 1024.9 | 876.0 | 598.9 | 396.0 | 296.8 | 263.0 | 251.3 | 246.5 | 243.6 | 240.8 | 239.7 |
| 12.5° | 1079.4 | 882.2 | 538.0 | 328.7 | 261.1 | 243.6 | 235.4 | 229.6 | 225.8 | 222.3 | 221.4 |
| 15° | 1132.6 | 886.1 | 474.7 | 281.9 | 242.7 | 228.7 | 220.0 | 213.7 | 208.4 | 204.5 | 204.0 |
| 17.5° | 1185.3 | 891.4 | 415.2 | 253.8 | 227.7 | 213.7 | 205.0 | 197.2 | 192.9 | 188.5 | 188.1 |
| 20° | 1243.8 | 890.4 | 359.2 | 234.0 | 212.7 | 198.6 | 189.5 | 182.2 | 177.9 | 173.0 | 172.6 |
| 22.5° | 1298.0 | 885.6 | 309.9 | 217.1 | 197.2 | 183.7 | 173.5 | 166.3 | 162.0 | 158.1 | 157.6 |
| 25° | 1360.4 | 881.8 | 268.8 | 201.6 | 182.8 | 169.2 | 158.1 | 151.3 | 146.5 | 143.1 | 142.6 |
| 27.5° | 1420.2 | 876.0 | 238.8 | 187.6 | 168.7 | 155.7 | 145.0 | 137.2 | 132.9 | 130.5 | 130.5 |
| 30° | 1479.3 | 874.5 | 227.7 | 174.0 | 156.1 | 143.1 | 132.4 | 125.3 | 121.9 | 120.8 | 120.3 |
| 32.5° | 1550.3 | 878.3 | 232.6 | 169.2 | 144.5 | 131.5 | 121.4 | 116.0 | 112.6 | 112.6 | 112.6 |
| 35° | 1626.3 | 877.4 | 239.7 | 173.5 | 136.8 | 119.9 | 112.1 | 108.8 | 105.4 | 105.4 | 105.4 |
| 37.5° | 1721.5 | 878.8 | 245.6 | 180.8 | 133.9 | 110.2 | 105.9 | 101.5 | 99.6 | 99.6 | 99.6 |
| 40° | 1863.6 | 926.7 | 242.7 | 187.1 | 132.9 | 103.4 | 94.7 | 93.3 | 91.8 | 91.8 | 91.8 |
| 42.5° | 2037.6 | 1030.6 | 246.5 | 187.6 | 132.4 | 98.6 | 87.0 | 89.9 | 86.5 | 86.0 | 85.6 |
| 45° | 2228.0 | 1144.2 | 271.2 | 177.4 | 132.0 | 96.2 | 83.1 | 86.5 | 81.2 | 81.2 | 81.2 |
| 47.5° | 2417.1 | 1256.9 | 296.3 | 162.9 | 130.5 | 95.7 | 79.7 | 77.8 | 76.4 | 76.9 | 76.9 |
| 50° | 2677.7 | 1348.7 | 306.0 | 143.1 | 127.1 | 94.7 | 73.5 | 74.0 | 73.0 | 74.0 | 74.0 |
| 52.5° | 2961.4 | 1368.1 | 294.4 | 120.8 | 117.5 | 91.8 | 69.1 | 71.0 | 70.6 | 71.5 | 71.5 |
| 55° | 3138.3 | 1347.3 | 243.1 | 100.6 | 102.5 | 80.3 | 64.8 | 68.7 | 68.7 | 68.7 | 68.7 |
| 57.5° | 3321.1 | 1258.8 | 172.6 | 81.7 | 85.1 | 65.7 | 60.9 | 66.2 | 65.7 | 65.3 | 65.3 |
| 60° | 3452.6 | 1115.7 | 113.6 | 67.2 | 67.6 | 54.1 | 56.6 | 62.3 | 61.9 | 59.4 | 59.4 |
| 62.5° | 3550.7 | 957.7 | 73.0 | 57.1 | 51.8 | 48.8 | 51.8 | 56.6 | 54.6 | 49.3 | 48.4 |
| 65° | 3539.6 | 738.6 | 56.1 | 48.8 | 42.5 | 42.5 | 45.0 | 49.3 | 43.5 | 34.8 | 33.8 |
| 67.5° | 3333.2 | 499.9 | 46.4 | 41.1 | 35.8 | 35.3 | 37.2 | 41.1 | 37.2 | 29.5 | 28.5 |
| 70° | 2964.3 | 326.8 | 37.2 | 31.9 | 28.5 | 26.1 | 29.9 | 35.3 | 31.5 | 23.7 | 22.8 |
| 72.5° | 2406.0 | 199.2 | 28.1 | 23.2 | 20.8 | 16.9 | 23.7 | 29.0 | 25.1 | 17.4 | 16.4 |
| 75° | 1556.6 | 101.5 | 19.4 | 15.0 | 11.1 | 10.1 | 17.4 | 21.7 | 17.4 | 10.7 | 9.2 |
| 77.5° | 595.5 | 42.5 | 10.7 | 6.8 | 5.8 | 4.8 | 9.6 | 13.0 | 7.3 | 2.5 | 1.9 |
| 80° | 114.6 | 17.9 | 5.3 | 3.4 | 2.9 | 1.9 | 1.4 | 0.9 | 0.0 | 0.0 | 0.0 |
| 82.5° | 19.8 | 5.8 | 1.9 | 0.9 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 85° | 6.8 | 0.9 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 87.5° | 2.5 | 0.0 | 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)