

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: P882398

Luminaire Tested: **NAV-SB2B-730-U-T3-HSS**

Issue Date: 10/7/2024

Test Information

Test Method: LM-79-08
Report Number: P882398
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2405-108-6)
Test Lab: INNOVATION CENTER
Issue Date: 10/7/2024
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: LUMARK
Catalog Number: NAV-SB2B-730-U-T3-HSS
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE
(2) 70 CRI, 3000K, 450mA LIGHTSQUARES WITH 26 LEDS EACH AND TYPE III
OPTICS WITH HOUSE SIDE SHIELD
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 8860 lumens
Efficiency: N/A
Efficacy: 119.9 lumens/watt
Luminous Opening: Rectangular (W 0.5' x L: 1' x H: 0')
IES Classification: Type III - Short
BUG Rating: B1 - U0 - G2

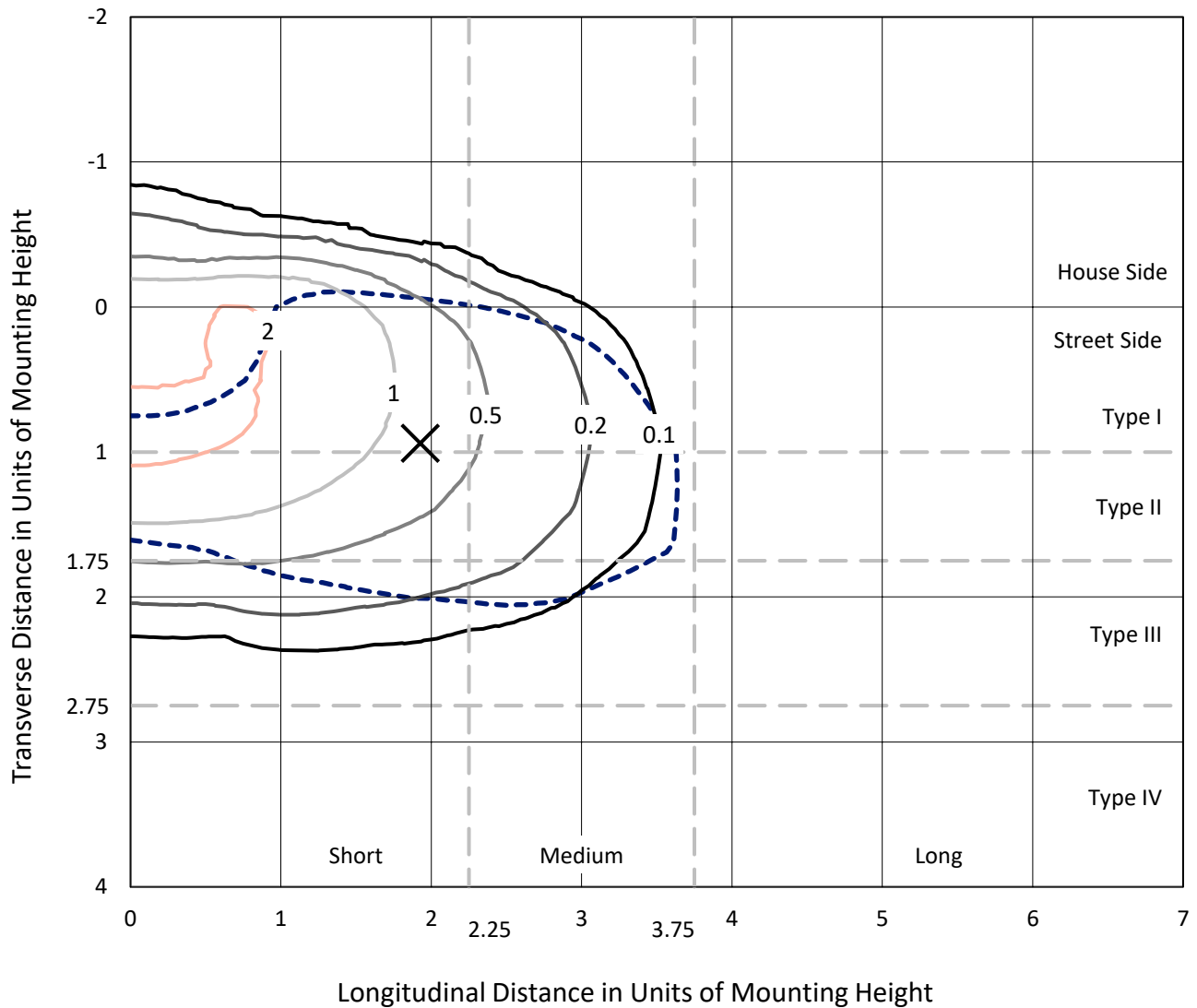
Input Watts (W): 73.9
Input Voltage (V): 120.0
Input Current (Ain): 0.627
Voltage Rise (V): NR
Power Factor: 0.988
Total Harmonic Distortion (THDi): 13.593
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Iso-Footcandle Lines of Horizontal Illumination

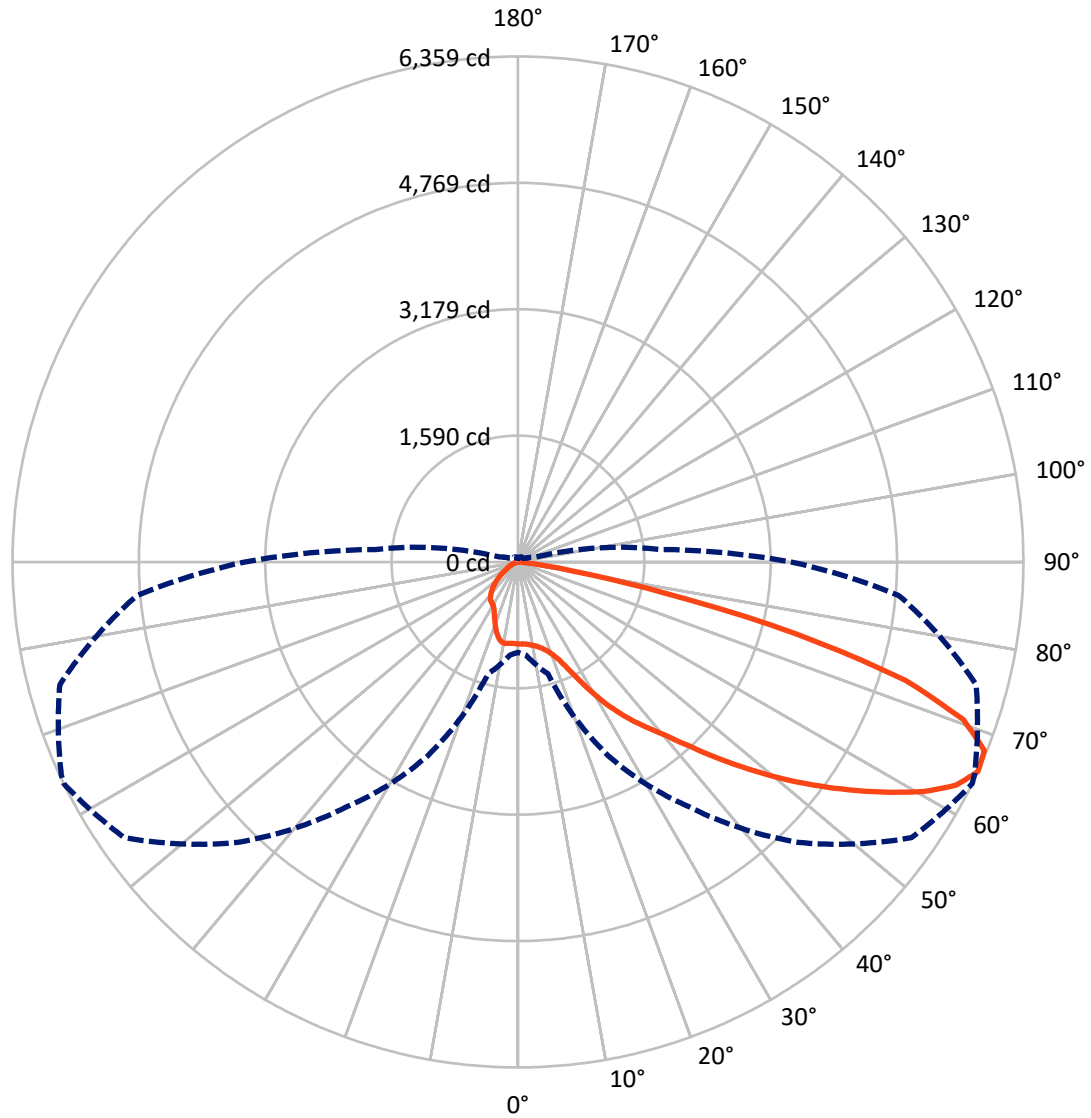
✕ Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 2.6 fc
 Type III - Short - N/A

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Luminous Intensity Polar Plot



— Vertical Plane Through 64-Deg Lateral - - - Horizontal Cone Through 65-Deg Vertical

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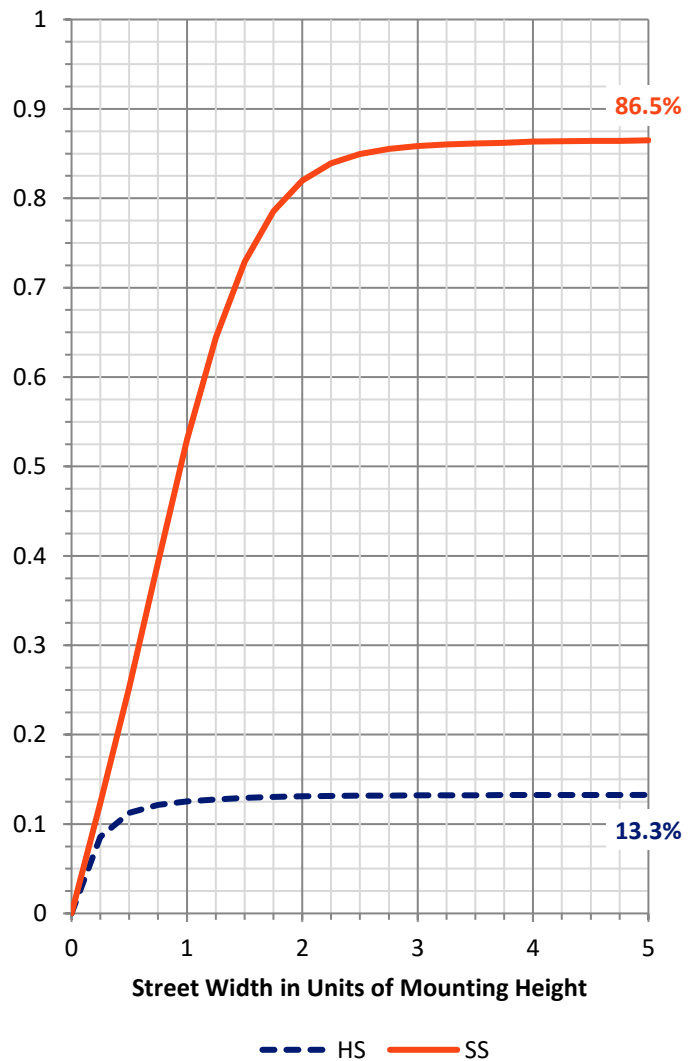
FLUX DISTRIBUTION:

| | | Downward | Upward | Total |
|--------------------|-----------|----------|--------|--------|
| House Side | Lumens | 1184.9 | 0.0 | 1184.9 |
| | % Fixture | 13.4 | 0.0 | 13.4 |
| Street Side | Lumens | 7675.1 | 0.0 | 7675.1 |
| | % Fixture | 86.6 | 0.0 | 86.6 |
| Total | Lumens | 8860.0 | 0.0 | 8860.0 |
| | % Fixture | 100.0 | 0.0 | 100.0 |

ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10° | 95.1 | 1.1 |
| 10°-20° | 257.9 | 2.9 |
| 20°-30° | 488.6 | 5.5 |
| 30°-40° | 988.8 | 11.2 |
| 40°-50° | 1684.4 | 19.0 |
| 50°-60° | 2290.7 | 25.9 |
| 60°-70° | 2151.0 | 24.3 |
| 70°-80° | 861.8 | 9.7 |
| 80°-90° | 41.8 | 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° | 8860.0 | 100.0 |
| 0°-180° | 8860.0 | 100.0 |

Coefficient of Utilization



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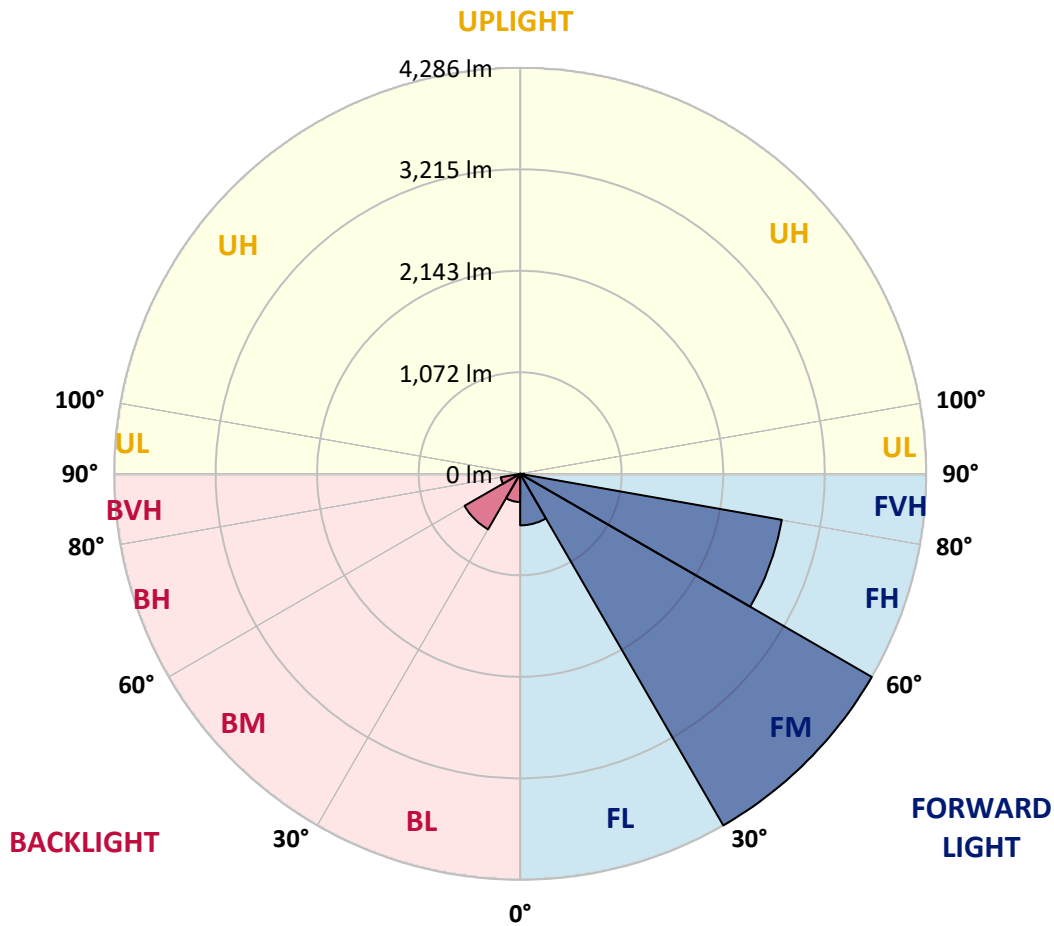
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

| Zone | Lumens | % Fixture | Zone Rating/Lumen Limit | | |
|----------------|--------|-----------|-------------------------|------|---------|
| | | | B | U | G |
| FL (0°-30°) | 544.1 | 6.1 | | | |
| FM (30°-60°) | 4286.5 | 48.4 | | | |
| FH (60°-80°) | 2804.9 | 31.7 | | | G2/5000 |
| FVH (80°-90°) | 39.7 | 0.4 | | | G1/100 |
| BL (0°-30°) | 297.5 | 3.4 | B1/500 | | |
| BM (30°-60°) | 677.4 | 7.6 | B1/1000 | | |
| BH (60°-80°) | 208.0 | 2.3 | B1/500 | | G1/500 |
| BVH (80°-90°) | 2.0 | 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 III Short



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CANDELA DISTRIBUTION (FULL):

| | 0° | 5° | 15° | 25° | 35° | 45° | 55° | 64° | 65° | 75° | 85° |
|-------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 0° | 1030.5 | 1030.5 | 1030.5 | 1030.5 | 1030.5 | 1030.5 | 1030.5 | 1030.5 | 1030.5 | 1030.5 | 1030.5 |
| 2.5° | 1026.9 | 1034.1 | 1032.3 | 1030.5 | 1029.9 | 1031.1 | 1031.7 | 1031.1 | 1031.1 | 1031.1 | 1031.7 |
| 5° | 1007.3 | 1013.3 | 1013.3 | 1017.4 | 1023.4 | 1030.5 | 1035.9 | 1037.0 | 1038.2 | 1040.0 | 1039.4 |
| 7.5° | 969.9 | 974.7 | 978.2 | 991.9 | 1006.8 | 1025.8 | 1041.8 | 1050.1 | 1051.3 | 1057.8 | 1060.2 |
| 10° | 944.4 | 950.3 | 956.3 | 970.5 | 991.9 | 1020.4 | 1047.7 | 1067.9 | 1070.9 | 1086.3 | 1093.5 |
| 12.5° | 943.2 | 949.1 | 956.9 | 972.3 | 997.2 | 1027.5 | 1060.8 | 1089.9 | 1095.3 | 1117.8 | 1132.7 |
| 15° | 955.7 | 962.8 | 969.9 | 988.9 | 1015.7 | 1052.5 | 1088.1 | 1124.4 | 1129.7 | 1161.8 | 1177.8 |
| 17.5° | 981.2 | 990.7 | 996.1 | 1015.1 | 1043.6 | 1084.6 | 1131.5 | 1173.1 | 1177.8 | 1215.2 | 1235.4 |
| 20° | 1031.7 | 1043.0 | 1044.8 | 1060.2 | 1088.1 | 1132.1 | 1187.9 | 1239.6 | 1245.5 | 1288.3 | 1310.9 |
| 22.5° | 1136.2 | 1152.3 | 1138.0 | 1145.7 | 1170.7 | 1214.6 | 1275.2 | 1340.6 | 1348.9 | 1397.6 | 1417.8 |
| 25° | 1320.4 | 1342.9 | 1306.1 | 1293.0 | 1303.7 | 1349.5 | 1425.5 | 1508.0 | 1517.6 | 1556.8 | 1566.9 |
| 27.5° | 1682.1 | 1653.0 | 1597.1 | 1542.5 | 1510.4 | 1536.6 | 1622.1 | 1724.2 | 1736.1 | 1774.1 | 1762.3 |
| 30° | 2079.4 | 2053.9 | 1978.5 | 1857.3 | 1781.3 | 1777.1 | 1856.1 | 1970.1 | 1983.8 | 2020.0 | 1983.8 |
| 32.5° | 2477.4 | 2453.0 | 2371.1 | 2222.0 | 2090.1 | 2024.8 | 2079.4 | 2205.9 | 2213.1 | 2236.2 | 2182.8 |
| 35° | 2868.8 | 2843.9 | 2761.9 | 2609.2 | 2447.1 | 2298.6 | 2287.9 | 2430.5 | 2432.8 | 2457.2 | 2377.6 |
| 37.5° | 3262.6 | 3241.8 | 3154.5 | 3004.8 | 2845.0 | 2640.1 | 2540.9 | 2643.1 | 2646.1 | 2669.8 | 2587.3 |
| 40° | 3543.5 | 3552.4 | 3492.4 | 3376.6 | 3239.4 | 3015.5 | 2824.8 | 2869.4 | 2851.6 | 2891.4 | 2842.1 |
| 42.5° | 3784.7 | 3802.5 | 3750.2 | 3692.0 | 3612.4 | 3415.2 | 3176.5 | 3168.7 | 3140.2 | 3161.6 | 3110.5 |
| 45° | 3993.2 | 4008.0 | 3961.1 | 3947.4 | 3945.6 | 3807.2 | 3560.8 | 3514.4 | 3474.6 | 3470.5 | 3409.3 |
| 47.5° | 4069.8 | 4098.3 | 4118.5 | 4164.2 | 4253.3 | 4195.1 | 3958.1 | 3886.2 | 3841.7 | 3809.0 | 3712.2 |
| 50° | 4098.9 | 4129.2 | 4198.1 | 4331.1 | 4542.0 | 4566.9 | 4353.7 | 4272.9 | 4218.3 | 4158.9 | 4016.3 |
| 52.5° | 4059.7 | 4113.7 | 4206.4 | 4430.3 | 4736.2 | 4865.1 | 4733.2 | 4662.5 | 4600.2 | 4503.4 | 4291.9 |
| 55° | 3828.6 | 3882.7 | 4072.1 | 4429.1 | 4833.0 | 5074.1 | 5092.0 | 5060.5 | 4990.4 | 4837.8 | 4514.6 |
| 57.5° | 3341.6 | 3421.8 | 3721.7 | 4278.2 | 4831.2 | 5254.1 | 5443.6 | 5466.2 | 5387.8 | 5169.2 | 4689.9 |
| 60° | 2666.9 | 2775.5 | 3141.4 | 3943.9 | 4682.1 | 5351.5 | 5751.8 | 5864.7 | 5781.5 | 5495.9 | 4831.8 |
| 62.5° | 1860.9 | 1986.8 | 2333.1 | 3420.0 | 4341.2 | 5281.4 | 5977.0 | 6185.4 | 6122.5 | 5788.1 | 4886.5 |
| 65° | 1135.0 | 1175.4 | 1454.6 | 2691.2 | 3761.5 | 4988.0 | 6046.5 | 6358.9 | 6338.1 | 5966.9 | 4805.7 |
| 67.5° | 756.1 | 790.0 | 870.1 | 1845.4 | 2919.9 | 4401.8 | 5880.1 | 6328.6 | 6334.5 | 5937.8 | 4509.9 |
| 70° | 455.6 | 484.7 | 536.9 | 1073.3 | 1892.3 | 3484.1 | 5365.2 | 5942.5 | 5977.0 | 5548.7 | 3949.2 |
| 72.5° | 187.7 | 207.3 | 254.8 | 486.4 | 980.0 | 2211.3 | 4272.3 | 5102.1 | 5182.2 | 4665.5 | 3030.9 |
| 75° | 106.3 | 116.4 | 149.7 | 244.1 | 425.3 | 1030.5 | 2587.9 | 3621.9 | 3740.1 | 3215.7 | 1823.4 |
| 77.5° | 70.7 | 75.4 | 96.8 | 158.0 | 239.4 | 351.6 | 1105.9 | 1887.0 | 2112.7 | 1756.3 | 789.4 |
| 80° | 47.5 | 51.7 | 66.5 | 105.7 | 155.6 | 150.9 | 352.2 | 699.1 | 860.0 | 603.5 | 192.4 |
| 82.5° | 32.1 | 32.7 | 47.5 | 69.5 | 98.6 | 73.1 | 103.9 | 217.4 | 273.2 | 174.6 | 73.1 |
| 85° | 18.4 | 17.8 | 35.0 | 40.4 | 44.0 | 30.3 | 31.5 | 65.3 | 85.5 | 73.7 | 41.6 |
| 87.5° | 2.4 | 3.6 | 13.7 | 10.7 | 5.9 | 6.5 | 6.5 | 11.3 | 16.6 | 17.8 | 8.9 |
| 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° | 1030.5 | 1030.5 | 1030.5 | 1030.5 | 1030.5 | 1030.5 | 1030.5 | 1030.5 | 1030.5 | 1030.5 | 1030.5 |
| 2.5° | 1031.7 | 1031.1 | 1029.3 | 1027.5 | 1023.4 | 1021.0 | 1022.2 | 1021.0 | 1020.4 | 1021.0 | 1023.4 |
| 5° | 1039.4 | 1037.6 | 1032.9 | 1026.9 | 1018.6 | 1008.5 | 1002.0 | 992.5 | 983.6 | 978.2 | 979.4 |
| 7.5° | 1060.2 | 1058.4 | 1051.9 | 1035.3 | 1008.5 | 966.4 | 927.8 | 893.9 | 868.4 | 853.5 | 854.1 |
| 10° | 1093.5 | 1090.5 | 1080.4 | 1043.6 | 973.5 | 881.4 | 804.8 | 741.3 | 699.7 | 680.1 | 678.3 |
| 12.5° | 1132.7 | 1129.1 | 1111.3 | 1035.9 | 907.0 | 763.2 | 657.5 | 586.8 | 548.2 | 531.0 | 529.2 |
| 15° | 1179.0 | 1174.2 | 1139.2 | 999.0 | 810.2 | 632.6 | 535.7 | 482.9 | 457.9 | 442.5 | 443.1 |
| 17.5° | 1236.6 | 1228.3 | 1160.0 | 943.8 | 705.0 | 532.8 | 460.9 | 421.1 | 399.1 | 384.3 | 383.1 |
| 20° | 1311.5 | 1297.8 | 1176.6 | 877.9 | 608.2 | 469.8 | 410.4 | 377.2 | 360.5 | 347.5 | 345.1 |
| 22.5° | 1416.0 | 1396.4 | 1196.8 | 806.6 | 539.9 | 426.5 | 373.0 | 348.7 | 335.0 | 320.1 | 317.8 |
| 25° | 1545.5 | 1522.3 | 1221.8 | 740.7 | 493.0 | 389.0 | 345.7 | 325.5 | 309.4 | 292.2 | 290.4 |
| 27.5° | 1726.6 | 1685.0 | 1251.5 | 686.6 | 452.6 | 357.0 | 320.7 | 298.2 | 279.8 | 265.5 | 262.5 |
| 30° | 1928.6 | 1860.3 | 1277.6 | 653.9 | 415.8 | 327.3 | 288.1 | 265.5 | 248.3 | 238.2 | 236.4 |
| 32.5° | 2119.8 | 2027.2 | 1294.8 | 639.7 | 382.5 | 293.4 | 252.4 | 228.1 | 215.0 | 212.0 | 213.8 |
| 35° | 2300.4 | 2178.0 | 1293.0 | 626.0 | 352.8 | 259.6 | 217.4 | 192.4 | 182.3 | 184.1 | 184.1 |
| 37.5° | 2508.3 | 2339.0 | 1280.6 | 604.6 | 328.5 | 228.7 | 187.1 | 165.1 | 156.2 | 156.8 | 159.2 |
| 40° | 2750.0 | 2524.9 | 1272.8 | 564.3 | 301.7 | 200.2 | 162.1 | 144.3 | 137.8 | 135.4 | 134.8 |
| 42.5° | 3007.8 | 2704.9 | 1274.0 | 518.5 | 268.5 | 174.6 | 144.9 | 130.1 | 124.1 | 122.4 | 121.8 |
| 45° | 3266.7 | 2876.5 | 1275.8 | 471.0 | 233.4 | 155.0 | 132.5 | 120.0 | 116.4 | 114.0 | 114.0 |
| 47.5° | 3510.3 | 3022.6 | 1242.6 | 419.9 | 199.0 | 140.2 | 122.4 | 114.0 | 111.1 | 108.1 | 108.1 |
| 50° | 3737.2 | 3120.0 | 1162.4 | 360.5 | 171.7 | 128.3 | 114.6 | 108.7 | 105.7 | 102.8 | 102.8 |
| 52.5° | 3913.6 | 3135.5 | 1029.9 | 299.4 | 152.6 | 119.4 | 109.9 | 104.5 | 101.0 | 98.0 | 97.4 |
| 55° | 3992.0 | 3038.7 | 841.6 | 242.3 | 137.8 | 111.7 | 105.1 | 99.8 | 95.6 | 92.7 | 92.1 |
| 57.5° | 3971.8 | 2834.9 | 656.3 | 194.8 | 123.5 | 103.9 | 99.2 | 95.6 | 90.9 | 86.1 | 85.5 |
| 60° | 3872.6 | 2562.3 | 494.8 | 162.1 | 110.5 | 95.6 | 92.7 | 89.7 | 83.2 | 76.0 | 74.8 |
| 62.5° | 3700.9 | 2219.6 | 352.8 | 134.2 | 96.2 | 86.1 | 84.9 | 82.6 | 73.1 | 60.0 | 58.8 |
| 65° | 3438.4 | 1803.2 | 237.6 | 111.7 | 82.6 | 75.4 | 76.0 | 71.9 | 59.4 | 44.5 | 43.4 |
| 67.5° | 3054.7 | 1318.6 | 152.1 | 91.5 | 68.9 | 63.0 | 63.6 | 61.2 | 50.5 | 38.0 | 36.2 |
| 70° | 2565.9 | 873.1 | 99.2 | 69.5 | 55.2 | 48.7 | 52.3 | 52.9 | 42.8 | 30.9 | 29.7 |
| 72.5° | 1881.1 | 515.6 | 69.5 | 51.7 | 40.4 | 33.9 | 42.8 | 44.0 | 34.4 | 23.2 | 22.0 |
| 75° | 1072.1 | 244.7 | 52.3 | 37.4 | 24.9 | 23.8 | 33.3 | 33.3 | 23.8 | 15.4 | 14.3 |
| 77.5° | 450.2 | 102.2 | 36.8 | 24.4 | 14.3 | 13.7 | 22.6 | 20.8 | 11.9 | 7.1 | 7.1 |
| 80° | 130.1 | 45.7 | 19.6 | 11.9 | 5.9 | 5.3 | 8.9 | 6.5 | 3.0 | 1.2 | 1.2 |
| 82.5° | 51.1 | 20.2 | 7.7 | 4.8 | 2.4 | 2.4 | 1.2 | 0.0 | 0.0 | 0.0 | 0.0 |
| 85° | 30.3 | 8.3 | 3.6 | 1.8 | 0.6 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 87.5° | 7.7 | 1.8 | 1.2 | 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)