

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: McGRAW-EDISON

Report Number: P450288

Luminaire Tested: **GALN-SA1A-750-U-SL4**

Issue Date: 1/4/2021

Test Information

Test Method: LM-79-08
Report Number: P450288
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2011-042-18)
Test Lab: INNOVATION CENTER
Issue Date: 1/4/2021
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: MCGRAW-EDISON
Catalog Number: GALN-SA1A-750-U-SL4
Description: GALLEON AREA AND ROADWAY LUMINAIRE
(1) 70 CRI, 5000K, 615mA LIGHTSQUARE WITH 16 LEDS AND TYPE IV SPILL LIGHT
ELIMINATOR OPTICS
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 4529 lumens
Efficiency: N/A
Efficacy: 137.2 lumens/watt
Luminous Opening: Rectangular (W 0.5' x L: 0.5' x H: 0')
IES Classification: Type IV - Short
BUG Rating: B1 - U0 - G2

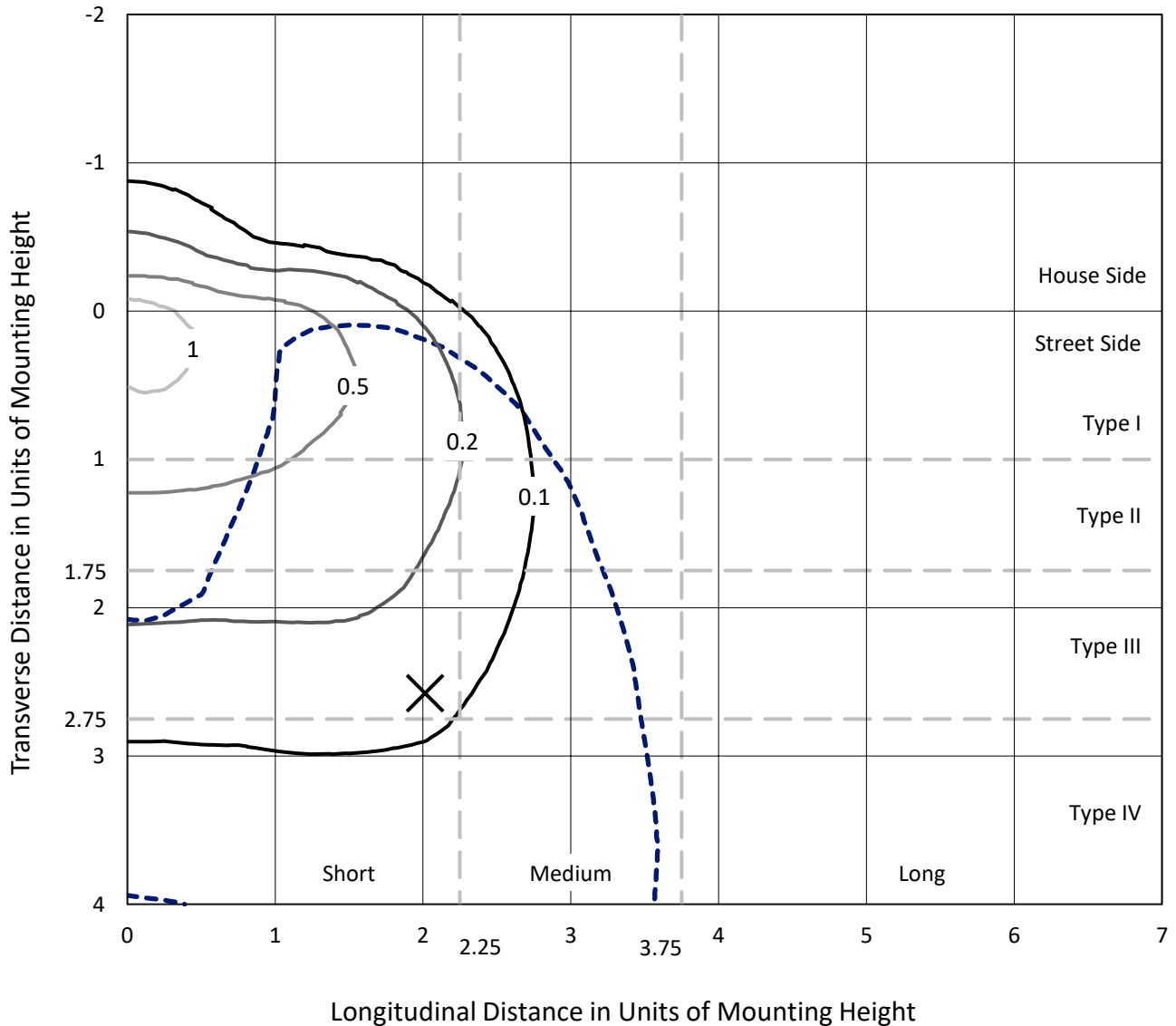
Input Watts (W): 33
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Iso-Footcandle Lines of Horizontal Illumination

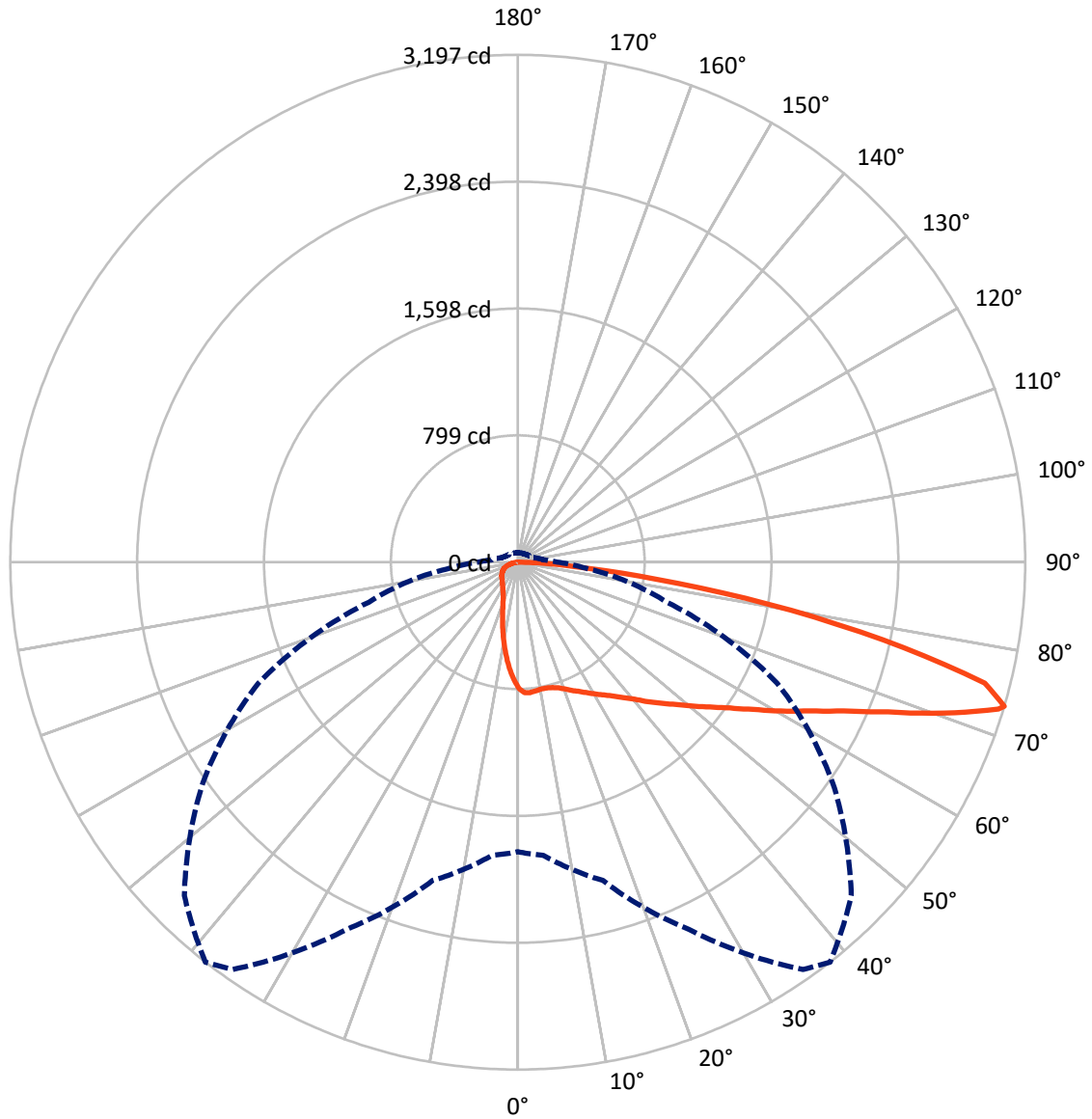
× Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 1.3 fc
 Type IV - Short - N/A

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Luminous Intensity Polar Plot



— Vertical Plane Through 38-Deg Lateral - - - Horizontal Cone Through 73-Deg Vertical

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FLUX DISTRIBUTION:

| | | Downward | Upward | Total |
|--------------------|-----------|----------|--------|--------|
| House Side | Lumens | 608.8 | 0.0 | 608.8 |
| | % Fixture | 13.4 | 0.0 | 13.4 |
| Street Side | Lumens | 3920.2 | 0.0 | 3920.2 |
| | % Fixture | 86.6 | 0.0 | 86.6 |
| Total | Lumens | 4529.0 | 0.0 | 4529.0 |
| | % Fixture | 100.0 | 0.0 | 100.0 |

ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10° | 69.5 | 1.5 |
| 10°-20° | 178.1 | 3.9 |
| 20°-30° | 277.3 | 6.1 |
| 30°-40° | 406.8 | 9.0 |
| 40°-50° | 603.4 | 13.3 |
| 50°-60° | 854.9 | 18.9 |
| 60°-70° | 1084.5 | 23.9 |
| 70°-80° | 902.8 | 19.9 |
| 80°-90° | 151.7 | 3.3 |
| 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° | 4529.0 | 100.0 |
| 0°-180° | 4529.0 | 100.0 |

Coefficient of Utilization



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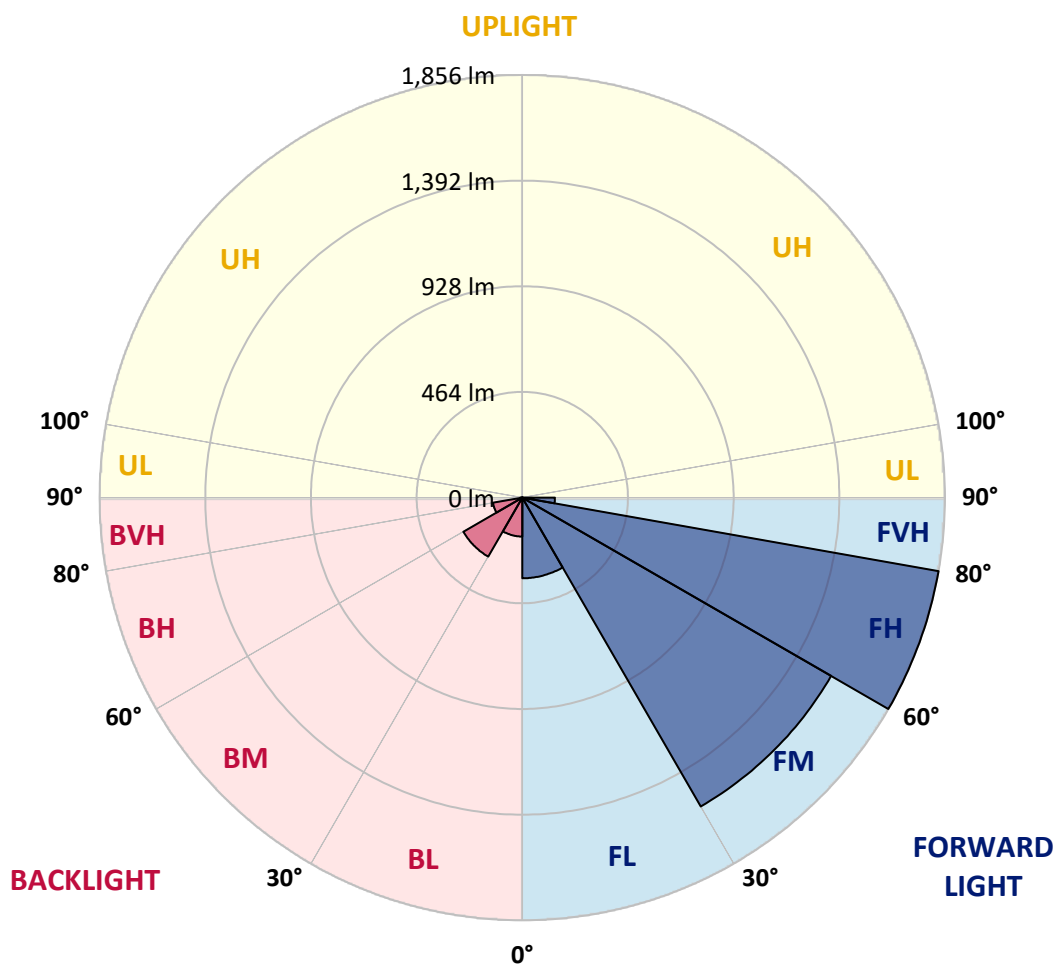
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

| Zone | | Lumens | % Fixture | Zone Rating/Lumen Limit | | |
|------|-------------|--------|-----------|-------------------------|------|---------|
| | | | | B | U | G |
| FL | (0°-30°) | 354.0 | 7.8 | | | |
| FM | (30°-60°) | 1566.2 | 34.6 | | | |
| FH | (60°-80°) | 1856.4 | 41.0 | | | G2/5000 |
| FVH | (80°-90°) | 143.5 | 3.2 | | | G2/225 |
| BL | (0°-30°) | 170.8 | 3.8 | B1/500 | | |
| BM | (30°-60°) | 298.9 | 6.6 | B1/1000 | | |
| BH | (60°-80°) | 130.9 | 2.9 | B1/500 | | G1/500 |
| BVH | (80°-90°) | 8.2 | 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-G2

Type IV Short





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CANDELA DISTRIBUTION (FULL):

| | 0° | 5° | 15° | 25° | 35° | 38° | 45° | 55° | 65° | 75° | 85° |
|-------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 0° | 795.7 | 795.7 | 795.7 | 795.7 | 795.7 | 795.7 | 795.7 | 795.7 | 795.7 | 795.7 | 795.7 |
| 2.5° | 827.6 | 831.7 | 829.7 | 826.9 | 825.1 | 823.3 | 820.7 | 813.3 | 807.4 | 801.0 | 791.1 |
| 5° | 833.8 | 836.3 | 834.5 | 831.0 | 826.9 | 825.1 | 820.2 | 810.5 | 801.0 | 790.3 | 775.5 |
| 7.5° | 830.2 | 831.2 | 829.2 | 824.8 | 821.2 | 817.9 | 812.3 | 801.6 | 790.0 | 777.0 | 757.6 |
| 10° | 817.4 | 821.2 | 821.2 | 817.7 | 814.1 | 812.3 | 806.7 | 796.4 | 785.9 | 771.1 | 748.1 |
| 12.5° | 806.9 | 811.0 | 814.3 | 813.3 | 813.1 | 813.1 | 808.7 | 801.0 | 788.8 | 774.7 | 747.3 |
| 15° | 799.8 | 804.6 | 811.8 | 815.9 | 818.4 | 819.2 | 817.4 | 810.8 | 798.2 | 781.9 | 750.4 |
| 17.5° | 798.2 | 804.1 | 817.2 | 826.1 | 832.8 | 832.5 | 832.0 | 822.8 | 809.0 | 792.1 | 754.2 |
| 20° | 805.1 | 812.8 | 831.0 | 845.0 | 854.7 | 853.0 | 850.1 | 838.1 | 822.0 | 803.1 | 757.8 |
| 22.5° | 825.8 | 833.8 | 853.7 | 869.1 | 878.5 | 878.5 | 870.1 | 854.2 | 837.1 | 815.9 | 762.7 |
| 25° | 855.5 | 864.2 | 885.4 | 901.0 | 905.4 | 902.1 | 893.6 | 874.4 | 854.7 | 834.3 | 772.9 |
| 27.5° | 891.8 | 902.3 | 922.0 | 935.1 | 933.8 | 931.2 | 922.5 | 898.0 | 878.3 | 859.6 | 790.3 |
| 30° | 937.1 | 944.8 | 965.2 | 968.3 | 963.7 | 963.2 | 950.9 | 926.4 | 907.9 | 893.6 | 815.1 |
| 32.5° | 979.8 | 986.7 | 1003.1 | 1004.4 | 996.2 | 997.2 | 985.7 | 963.2 | 952.7 | 947.6 | 856.8 |
| 35° | 1025.1 | 1028.7 | 1042.7 | 1041.2 | 1035.8 | 1035.1 | 1030.5 | 1009.0 | 1012.3 | 1021.5 | 915.9 |
| 37.5° | 1062.9 | 1070.1 | 1078.0 | 1079.3 | 1079.1 | 1081.6 | 1084.7 | 1074.4 | 1093.6 | 1122.5 | 993.4 |
| 40° | 1097.7 | 1103.9 | 1115.6 | 1119.7 | 1129.7 | 1134.8 | 1145.3 | 1145.5 | 1189.8 | 1237.4 | 1088.8 |
| 42.5° | 1121.3 | 1131.7 | 1153.7 | 1161.1 | 1185.4 | 1200.8 | 1216.4 | 1233.0 | 1297.2 | 1358.3 | 1201.3 |
| 45° | 1141.7 | 1155.5 | 1192.1 | 1215.1 | 1248.1 | 1266.8 | 1299.8 | 1334.6 | 1426.9 | 1506.9 | 1315.6 |
| 47.5° | 1172.7 | 1184.9 | 1226.9 | 1267.5 | 1317.4 | 1338.9 | 1388.3 | 1440.2 | 1560.9 | 1648.6 | 1425.1 |
| 50° | 1215.6 | 1223.0 | 1265.8 | 1332.0 | 1395.7 | 1423.3 | 1488.5 | 1563.5 | 1704.1 | 1788.5 | 1521.3 |
| 52.5° | 1270.6 | 1273.7 | 1307.7 | 1395.9 | 1479.8 | 1514.1 | 1600.5 | 1688.0 | 1829.4 | 1910.0 | 1597.5 |
| 55° | 1335.6 | 1330.5 | 1357.1 | 1463.7 | 1576.0 | 1620.7 | 1713.6 | 1814.1 | 1970.4 | 2008.2 | 1653.0 |
| 57.5° | 1399.8 | 1391.8 | 1413.1 | 1546.1 | 1694.7 | 1748.6 | 1856.8 | 1944.0 | 2096.2 | 2100.0 | 1691.9 |
| 60° | 1467.8 | 1461.9 | 1487.2 | 1642.7 | 1840.2 | 1904.1 | 2004.1 | 2078.8 | 2217.9 | 2164.0 | 1698.0 |
| 62.5° | 1537.6 | 1528.2 | 1564.2 | 1751.4 | 2004.1 | 2062.2 | 2159.1 | 2222.0 | 2337.4 | 2187.8 | 1638.9 |
| 65° | 1605.4 | 1601.1 | 1656.8 | 1880.6 | 2190.8 | 2256.8 | 2350.9 | 2393.7 | 2433.0 | 2152.0 | 1492.4 |
| 67.5° | 1677.5 | 1686.2 | 1775.2 | 2053.0 | 2434.3 | 2517.2 | 2618.7 | 2578.6 | 2460.4 | 1982.4 | 1256.8 |
| 70° | 1787.5 | 1793.1 | 1930.7 | 2278.8 | 2748.1 | 2848.1 | 2897.2 | 2644.3 | 2328.4 | 1660.4 | 944.8 |
| 72.5° | 1834.8 | 1859.6 | 2069.6 | 2515.9 | 3104.7 | 3165.8 | 2990.9 | 2497.7 | 1939.7 | 1127.9 | 496.4 |
| 73° | 1824.3 | 1854.0 | 2076.0 | 2552.0 | 3132.5 | 3196.7 | 2970.9 | 2422.3 | 1803.1 | 971.4 | 425.6 |
| 75° | 1693.6 | 1730.2 | 1992.9 | 2521.8 | 3078.3 | 3040.0 | 2650.2 | 2064.5 | 1218.4 | 441.7 | 193.9 |
| 77.5° | 1336.3 | 1346.8 | 1579.1 | 2036.4 | 2424.1 | 2353.0 | 1983.4 | 1290.3 | 497.7 | 164.2 | 110.0 |
| 80° | 670.3 | 709.0 | 890.0 | 1166.5 | 1621.0 | 1597.7 | 1251.9 | 610.2 | 207.4 | 96.4 | 72.9 |
| 82.5° | 322.5 | 349.9 | 433.5 | 568.8 | 895.7 | 874.4 | 620.0 | 333.5 | 131.7 | 56.3 | 43.0 |
| 85° | 207.7 | 228.1 | 276.0 | 271.4 | 368.3 | 351.7 | 278.5 | 252.4 | 78.0 | 29.4 | 29.9 |
| 87.5° | 137.1 | 150.1 | 180.1 | 144.0 | 134.0 | 121.2 | 123.0 | 142.2 | 15.3 | 11.3 | 4.1 |
| 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° | 795.7 | 795.7 | 795.7 | 795.7 | 795.7 | 795.7 | 795.7 | 795.7 | 795.7 | 795.7 | 795.7 |
| 2.5° | 787.0 | 783.6 | 772.7 | 761.9 | 751.7 | 742.0 | 735.6 | 727.1 | 721.5 | 723.0 | 725.3 |
| 5° | 767.3 | 759.9 | 740.4 | 721.5 | 703.6 | 682.4 | 665.2 | 651.4 | 640.9 | 637.1 | 636.3 |
| 7.5° | 746.6 | 734.0 | 706.2 | 673.7 | 643.2 | 616.9 | 586.5 | 571.4 | 553.7 | 547.6 | 545.5 |
| 10° | 734.0 | 717.2 | 678.0 | 632.7 | 587.0 | 543.2 | 510.2 | 483.4 | 459.1 | 454.5 | 452.2 |
| 12.5° | 730.4 | 708.2 | 655.5 | 597.2 | 536.3 | 482.6 | 433.8 | 398.5 | 374.9 | 369.6 | 361.6 |
| 15° | 728.4 | 700.8 | 634.5 | 561.4 | 484.2 | 418.7 | 367.3 | 326.1 | 304.6 | 290.3 | 290.5 |
| 17.5° | 726.6 | 692.3 | 611.0 | 522.3 | 439.1 | 363.7 | 306.9 | 269.8 | 250.1 | 242.5 | 241.7 |
| 20° | 724.1 | 682.4 | 583.9 | 481.1 | 387.7 | 313.6 | 262.2 | 234.5 | 221.2 | 214.8 | 214.6 |
| 22.5° | 723.0 | 672.6 | 557.3 | 439.1 | 342.2 | 274.9 | 232.5 | 213.0 | 204.6 | 200.3 | 200.3 |
| 25° | 725.6 | 665.7 | 529.4 | 399.2 | 301.8 | 241.9 | 212.0 | 198.7 | 193.9 | 191.6 | 190.8 |
| 27.5° | 733.5 | 662.7 | 501.8 | 359.3 | 264.7 | 219.4 | 198.2 | 189.0 | 185.4 | 183.6 | 183.9 |
| 30° | 748.6 | 662.4 | 474.7 | 320.0 | 237.1 | 202.3 | 187.2 | 180.8 | 178.0 | 177.0 | 176.7 |
| 32.5° | 772.9 | 668.0 | 448.1 | 287.5 | 213.8 | 188.0 | 177.0 | 172.4 | 171.1 | 170.3 | 170.1 |
| 35° | 814.1 | 683.9 | 421.7 | 257.8 | 195.9 | 175.2 | 167.3 | 165.0 | 163.2 | 163.9 | 164.2 |
| 37.5° | 869.6 | 711.3 | 396.7 | 234.5 | 182.4 | 165.7 | 159.1 | 157.0 | 156.0 | 156.8 | 157.5 |
| 40° | 944.0 | 750.7 | 375.7 | 215.9 | 172.6 | 157.8 | 151.9 | 150.1 | 149.1 | 150.4 | 150.6 |
| 42.5° | 1026.1 | 796.2 | 358.3 | 201.3 | 164.7 | 151.2 | 145.5 | 143.5 | 142.7 | 143.5 | 143.7 |
| 45° | 1110.5 | 849.1 | 349.4 | 190.8 | 158.1 | 146.3 | 140.4 | 138.1 | 136.3 | 135.8 | 136.6 |
| 47.5° | 1193.6 | 895.2 | 349.1 | 184.4 | 152.7 | 141.9 | 135.6 | 133.0 | 130.7 | 129.4 | 129.2 |
| 50° | 1261.4 | 931.7 | 355.3 | 181.6 | 148.1 | 137.1 | 130.7 | 128.1 | 125.1 | 122.5 | 123.0 |
| 52.5° | 1312.6 | 955.5 | 358.1 | 180.3 | 145.5 | 132.0 | 125.6 | 123.3 | 119.7 | 116.4 | 116.4 |
| 55° | 1345.6 | 961.1 | 351.2 | 179.0 | 143.5 | 126.6 | 119.7 | 117.6 | 114.1 | 110.7 | 110.7 |
| 57.5° | 1356.8 | 943.8 | 326.3 | 176.0 | 141.4 | 122.0 | 113.8 | 112.0 | 109.2 | 105.9 | 105.4 |
| 60° | 1330.7 | 884.9 | 282.9 | 166.8 | 137.3 | 117.1 | 107.4 | 106.7 | 105.6 | 102.8 | 102.6 |
| 62.5° | 1230.2 | 760.1 | 235.6 | 154.7 | 130.4 | 112.0 | 101.5 | 102.8 | 103.6 | 102.0 | 101.8 |
| 65° | 1062.9 | 617.1 | 201.3 | 138.1 | 121.2 | 104.9 | 95.1 | 98.5 | 100.5 | 100.5 | 100.0 |
| 67.5° | 862.2 | 473.9 | 169.6 | 123.8 | 109.7 | 95.1 | 88.0 | 90.5 | 92.1 | 91.6 | 92.8 |
| 70° | 612.8 | 321.0 | 138.1 | 107.4 | 95.1 | 84.1 | 78.8 | 78.8 | 77.8 | 77.2 | 77.2 |
| 72.5° | 297.2 | 183.4 | 112.0 | 89.8 | 81.1 | 71.9 | 67.5 | 65.7 | 63.7 | 63.4 | 62.1 |
| 73° | 248.3 | 164.5 | 106.9 | 86.4 | 77.8 | 70.1 | 65.2 | 62.4 | 61.1 | 60.1 | 59.8 |
| 75° | 151.2 | 124.8 | 89.3 | 72.9 | 66.2 | 60.4 | 56.0 | 53.5 | 52.2 | 51.4 | 51.2 |
| 77.5° | 99.5 | 93.1 | 69.3 | 55.8 | 50.6 | 47.1 | 45.3 | 42.7 | 41.9 | 40.9 | 40.9 |
| 80° | 74.2 | 71.1 | 49.6 | 39.4 | 36.3 | 33.2 | 32.7 | 32.2 | 30.2 | 28.9 | 28.4 |
| 82.5° | 47.8 | 50.6 | 33.8 | 26.3 | 23.0 | 20.5 | 20.7 | 21.5 | 19.4 | 17.6 | 17.1 |
| 85° | 34.0 | 36.6 | 20.5 | 12.0 | 9.7 | 8.4 | 9.5 | 8.4 | 8.7 | 6.9 | 5.6 |
| 87.5° | 5.6 | 9.7 | 3.6 | 1.5 | 0.8 | 0.5 | 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)