

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: P300845

Luminaire Tested: **GLNA-AF-01-LED-E1-SL4-7060**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P300845
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P24301)
Test Lab: INNOVATION CENTER P2
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: MCGRAW-EDISON
Catalog Number: GLNA-AF-01-LED-E1-SL4-7060
Description: GALLEONNAIRE AREA AND ROADWAY LUMINAIRE
(1) 70 CRI, 5700K CCT 1050mA LIGHTSQUARE WITH 16 LEDS EACH AND Type V
Square Wide OPTICS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 5901.4 lumens
Efficiency: N/A
Efficacy: 100.0 lumens/watt
Luminous Opening: Rectangular (W 0.5' x L: 0.5' x H: 0')
IES Classification: Type IV - Short - Semi-Cutoff
BUG Rating: B1 - U0 - G2

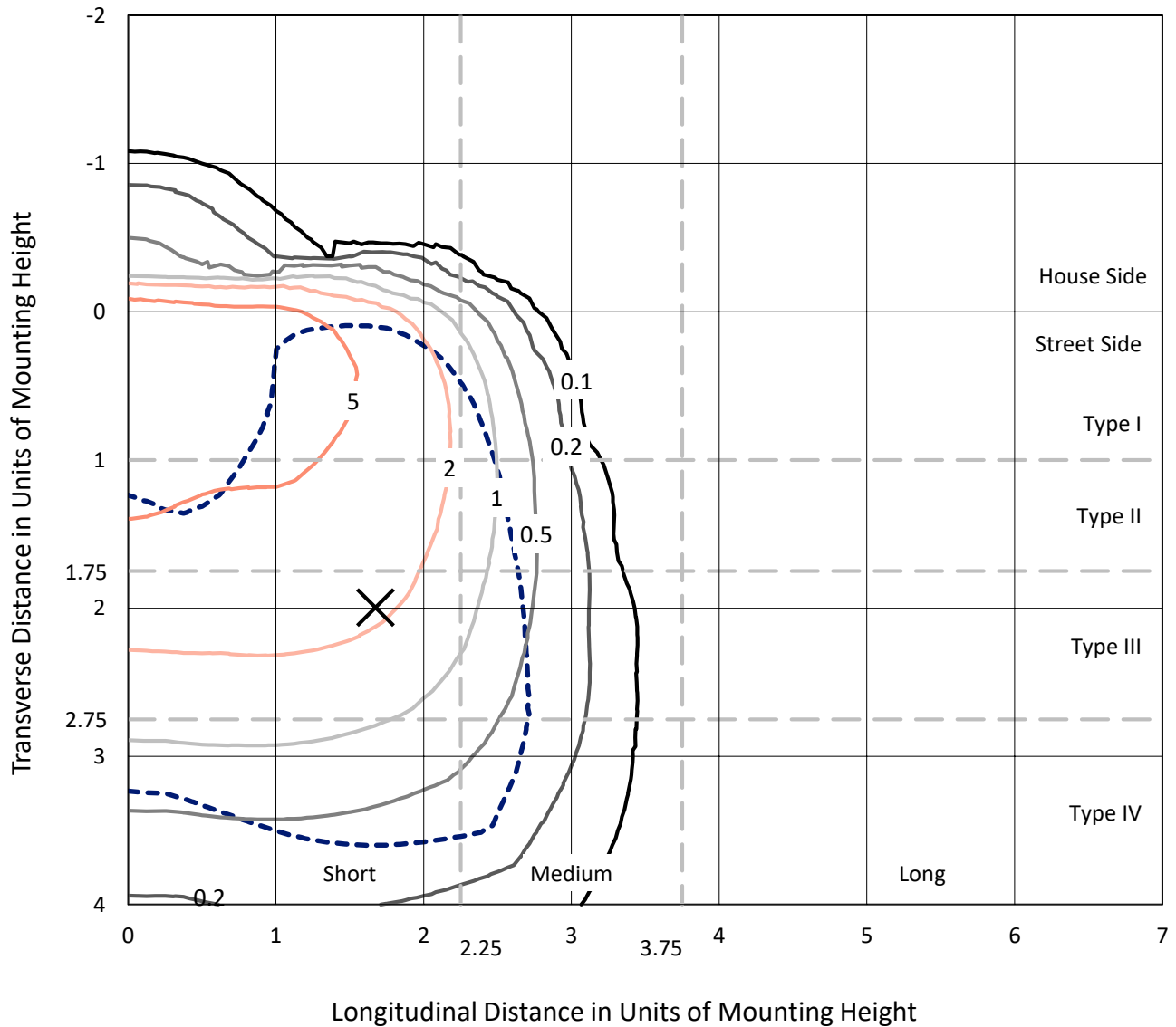
Input Watts (W): 59
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Iso-Footcandle Lines of Horizontal Illumination

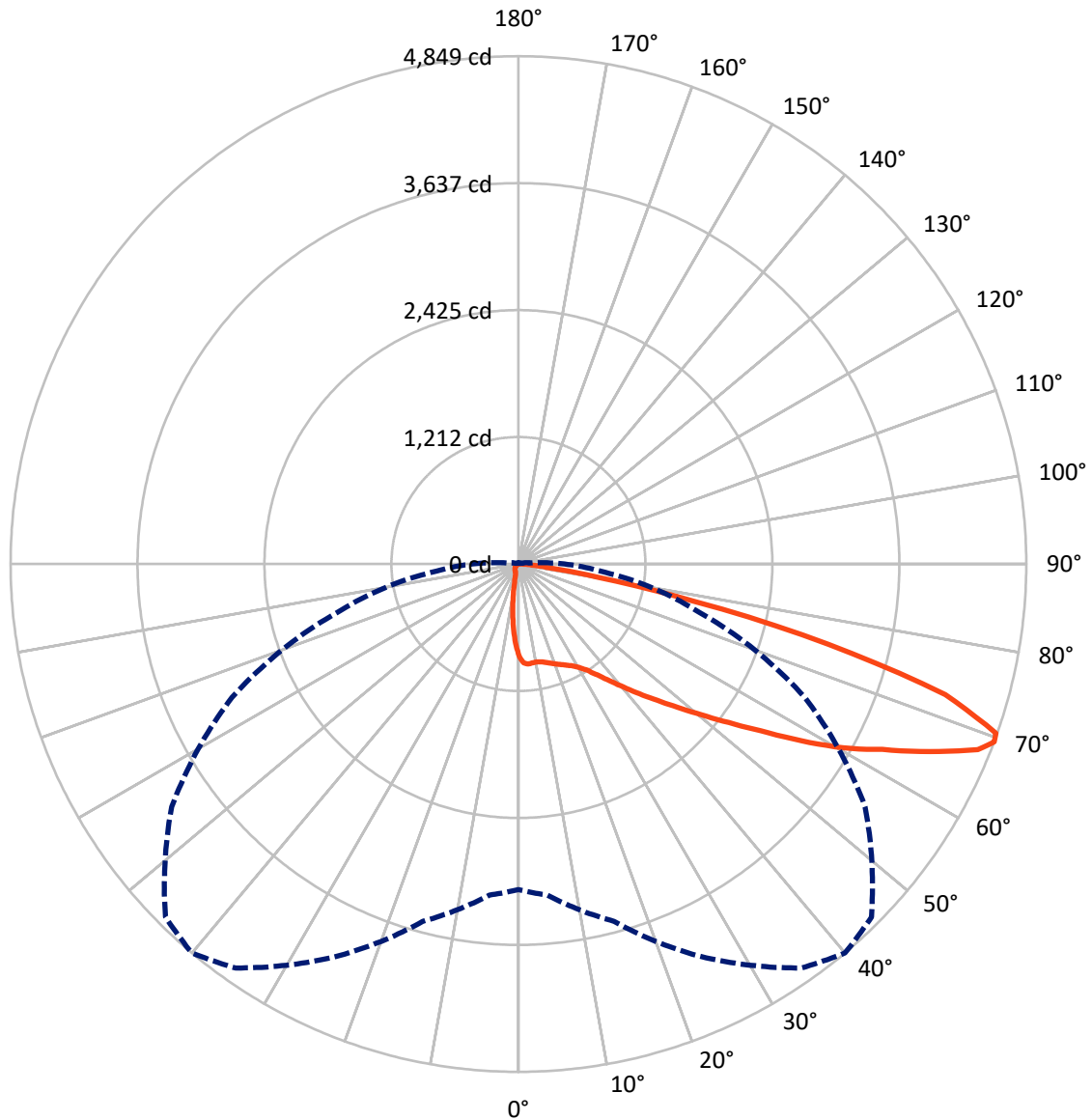
× Max cd
 - - - 1/2 Max cd



Based on 10 foot mounting height. Maximum calculated value = 9.6 fc
 Type IV - Short - Semi-Cutoff

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Luminous Intensity Polar Plot



— Vertical Plane Through 40-Deg Lateral - - - Horizontal Cone Through 69-Deg Vertical

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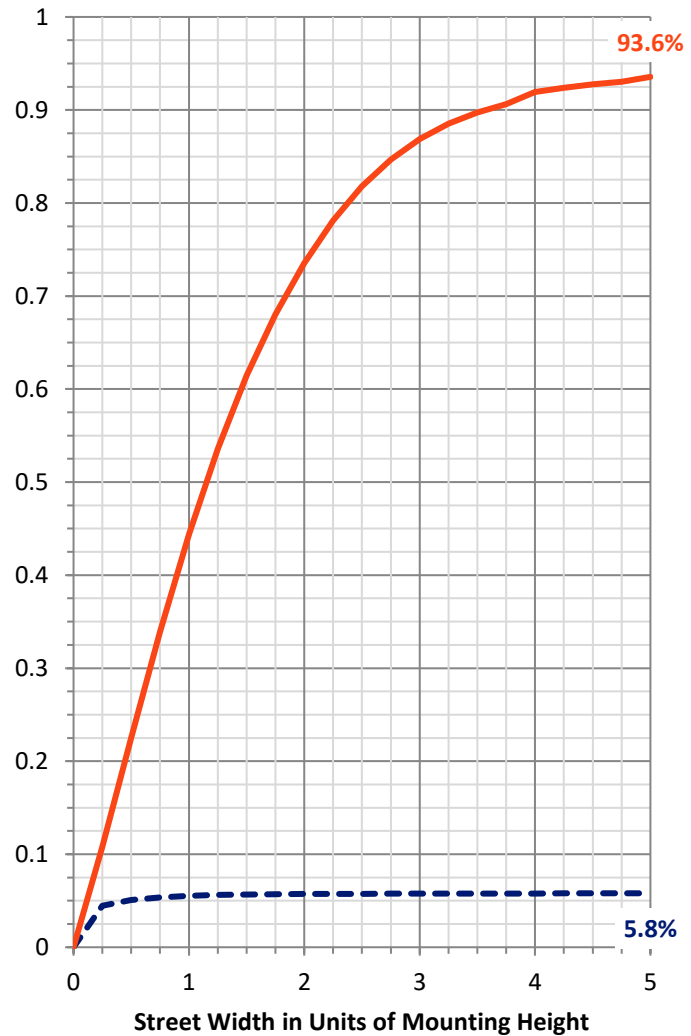
FLUX DISTRIBUTION:

| | | Downward | Upward | Total |
|--------------------|-----------|----------|--------|--------|
| House Side | Lumens | 345.3 | 0.0 | 345.3 |
| | % Fixture | 5.9 | 0.0 | 5.9 |
| Street Side | Lumens | 5556.1 | 0.0 | 5556.1 |
| | % Fixture | 94.1 | 0.0 | 94.1 |
| Total | Lumens | 5901.4 | 0.0 | 5901.4 |
| | % Fixture | 100.0 | 0.0 | 100.0 |

Coefficient of Utilization

ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10° | 71.5 | 1.2 |
| 10°-20° | 175.8 | 3.0 |
| 20°-30° | 296.1 | 5.0 |
| 30°-40° | 484.7 | 8.2 |
| 40°-50° | 839.3 | 14.2 |
| 50°-60° | 1322.0 | 22.4 |
| 60°-70° | 1726.5 | 29.3 |
| 70°-80° | 889.2 | 15.1 |
| 80°-90° | 96.2 | 1.6 |
| 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° | 5901.4 | 100.0 |
| 0°-180° | 5901.4 | 100.0 |



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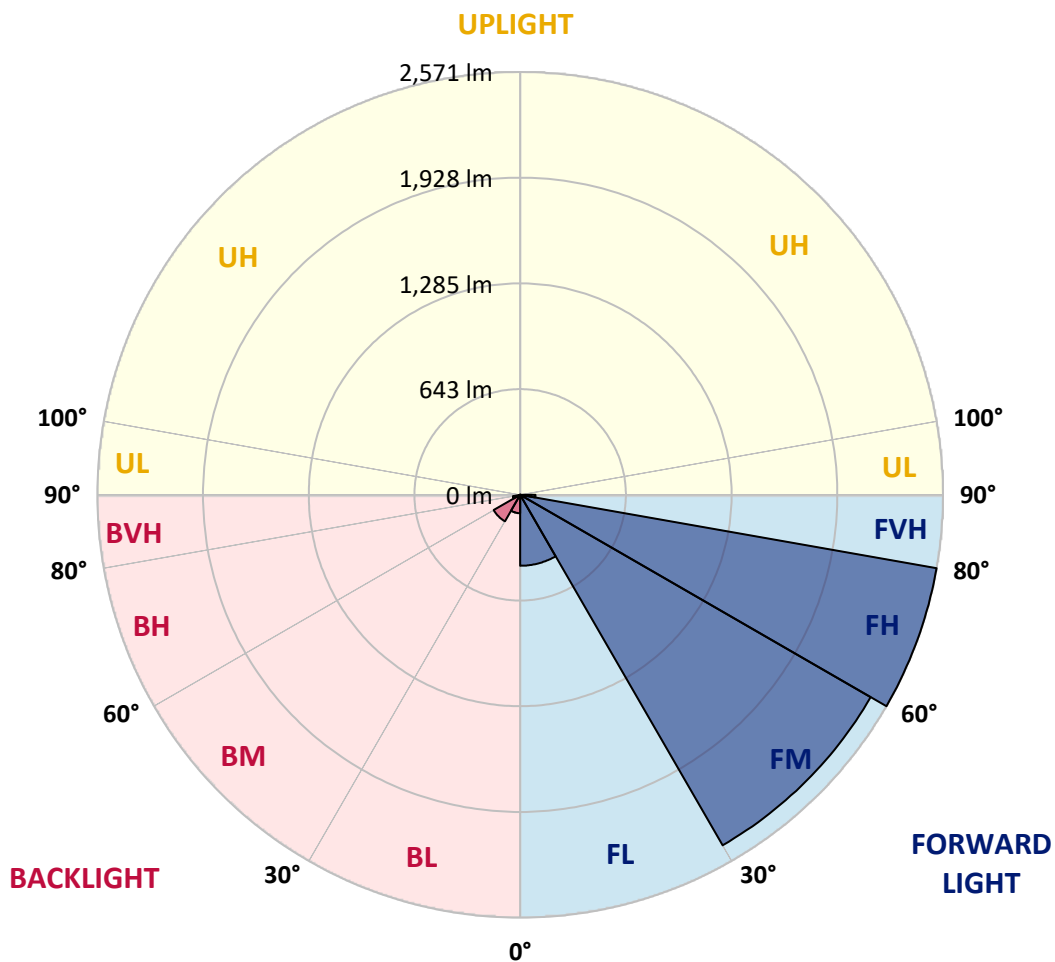
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

| Zone | | Lumens | % Fixture | Zone Rating/Lumen Limit | | |
|------|-------------|--------|-----------|-------------------------|------|---------|
| | | | | B | U | G |
| FL | (0°-30°) | 431.6 | 7.3 | | | |
| FM | (30°-60°) | 2460.5 | 41.7 | | | |
| FH | (60°-80°) | 2570.9 | 43.6 | | | G2/5000 |
| FVH | (80°-90°) | 93.2 | 1.6 | | | G1/100 |
| BL | (0°-30°) | 111.8 | 1.9 | B1/500 | | |
| BM | (30°-60°) | 185.6 | 3.1 | B0/220 | | |
| BH | (60°-80°) | 44.8 | 0.8 | B0/110 | | G0/110 |
| BVH | (80°-90°) | 3.0 | 0.1 | | | 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° | 40° | 45° | 55° | 65° | 75° | 85° |
|-------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 0° | 881.7 | 881.7 | 881.7 | 881.7 | 881.7 | 881.7 | 881.7 | 881.7 | 881.7 | 881.7 | 881.7 |
| 2.5° | 968.1 | 962.8 | 959.7 | 955.5 | 950.2 | 945.6 | 943.9 | 930.9 | 918.6 | 901.7 | 882.4 |
| 5° | 986.0 | 984.3 | 978.6 | 973.0 | 966.7 | 959.7 | 955.8 | 940.4 | 922.8 | 898.2 | 864.5 |
| 7.5° | 987.8 | 985.7 | 978.6 | 970.9 | 962.1 | 953.7 | 947.0 | 931.6 | 915.4 | 890.5 | 849.4 |
| 10° | 985.0 | 982.5 | 977.2 | 968.8 | 957.9 | 949.8 | 943.2 | 928.4 | 914.7 | 892.2 | 846.6 |
| 12.5° | 981.8 | 979.3 | 976.9 | 972.7 | 963.2 | 957.6 | 951.9 | 937.9 | 925.6 | 906.6 | 856.8 |
| 15° | 985.0 | 983.6 | 986.4 | 984.6 | 979.3 | 974.4 | 968.8 | 956.2 | 944.9 | 929.1 | 875.4 |
| 17.5° | 998.3 | 998.3 | 1007.1 | 1008.2 | 1003.2 | 996.2 | 988.1 | 975.5 | 966.0 | 952.7 | 897.5 |
| 20° | 1029.6 | 1028.5 | 1039.8 | 1041.9 | 1029.9 | 1019.0 | 1007.1 | 991.6 | 984.3 | 975.8 | 919.3 |
| 22.5° | 1083.3 | 1078.4 | 1085.1 | 1083.0 | 1059.4 | 1042.6 | 1027.8 | 1008.9 | 1005.0 | 1001.1 | 943.5 |
| 25° | 1153.2 | 1150.4 | 1155.0 | 1134.3 | 1092.8 | 1070.0 | 1052.4 | 1031.0 | 1031.0 | 1034.8 | 970.9 |
| 27.5° | 1254.7 | 1244.2 | 1228.8 | 1192.2 | 1130.0 | 1100.9 | 1081.9 | 1059.1 | 1065.1 | 1079.5 | 1007.1 |
| 30° | 1358.7 | 1347.1 | 1311.7 | 1255.4 | 1175.4 | 1144.8 | 1122.7 | 1098.8 | 1112.8 | 1139.2 | 1055.6 |
| 32.5° | 1461.3 | 1448.3 | 1398.1 | 1327.1 | 1240.3 | 1209.8 | 1188.4 | 1162.0 | 1185.5 | 1229.8 | 1126.5 |
| 35° | 1560.7 | 1549.1 | 1491.2 | 1407.6 | 1326.8 | 1301.5 | 1281.8 | 1259.0 | 1289.2 | 1351.0 | 1226.6 |
| 37.5° | 1672.4 | 1659.8 | 1589.2 | 1498.5 | 1431.8 | 1413.5 | 1399.1 | 1376.3 | 1429.0 | 1519.6 | 1366.1 |
| 40° | 1809.8 | 1788.3 | 1693.1 | 1602.9 | 1553.3 | 1544.5 | 1534.7 | 1531.5 | 1613.4 | 1738.8 | 1551.9 |
| 42.5° | 1967.1 | 1932.0 | 1802.0 | 1712.8 | 1686.8 | 1693.1 | 1690.7 | 1704.7 | 1844.2 | 2011.4 | 1778.1 |
| 45° | 2124.5 | 2079.2 | 1923.2 | 1830.1 | 1833.6 | 1855.8 | 1869.5 | 1925.7 | 2133.3 | 2324.0 | 2021.6 |
| 47.5° | 2258.0 | 2213.4 | 2039.5 | 1956.9 | 1999.1 | 2042.7 | 2079.9 | 2186.3 | 2430.5 | 2631.7 | 2210.9 |
| 50° | 2372.1 | 2330.0 | 2162.8 | 2096.4 | 2191.2 | 2261.5 | 2321.9 | 2479.6 | 2750.1 | 2866.0 | 2343.7 |
| 52.5° | 2465.6 | 2437.5 | 2290.7 | 2256.2 | 2410.8 | 2513.7 | 2602.2 | 2791.2 | 3033.2 | 3056.4 | 2447.0 |
| 55° | 2556.6 | 2536.5 | 2428.0 | 2446.3 | 2668.6 | 2808.8 | 2920.8 | 3121.8 | 3277.0 | 3215.2 | 2546.0 |
| 57.5° | 2661.2 | 2643.0 | 2584.7 | 2687.2 | 3007.6 | 3183.9 | 3306.2 | 3414.7 | 3491.7 | 3377.5 | 2639.5 |
| 60° | 2768.0 | 2757.5 | 2758.9 | 2954.9 | 3396.8 | 3566.1 | 3633.6 | 3661.7 | 3702.4 | 3530.3 | 2644.7 |
| 62.5° | 2869.9 | 2889.9 | 2958.1 | 3252.8 | 3769.5 | 3899.5 | 3933.6 | 3961.3 | 3913.5 | 3554.5 | 2443.5 |
| 65° | 3042.4 | 3075.0 | 3237.7 | 3651.5 | 4179.4 | 4318.5 | 4353.7 | 4258.5 | 3946.9 | 3241.2 | 1987.5 |
| 67.5° | 3126.7 | 3186.4 | 3476.5 | 4023.1 | 4577.1 | 4731.6 | 4718.6 | 4277.8 | 3541.9 | 2471.6 | 1275.5 |
| 69° | 3109.1 | 3172.7 | 3531.7 | 4136.9 | 4709.2 | 4849.3 | 4766.8 | 4041.4 | 3017.4 | 1790.4 | 783.0 |
| 70° | 3039.6 | 3103.8 | 3503.2 | 4132.7 | 4726.0 | 4837.0 | 4677.5 | 3749.5 | 2551.3 | 1309.2 | 489.7 |
| 72.5° | 2538.3 | 2593.8 | 3110.2 | 3735.4 | 4353.7 | 4263.4 | 3913.2 | 2597.7 | 1243.2 | 356.5 | 110.3 |
| 75° | 1562.5 | 1593.4 | 2231.6 | 2814.0 | 3288.3 | 3056.4 | 2607.1 | 1292.3 | 370.6 | 100.8 | 61.1 |
| 77.5° | 825.5 | 839.5 | 1221.7 | 1658.7 | 2084.5 | 1724.7 | 1336.2 | 504.1 | 170.7 | 63.2 | 44.3 |
| 80° | 487.9 | 498.5 | 657.9 | 758.4 | 902.1 | 753.5 | 534.3 | 309.5 | 122.2 | 39.7 | 39.3 |
| 82.5° | 279.3 | 285.9 | 477.0 | 421.5 | 355.5 | 303.5 | 265.9 | 293.3 | 73.4 | 26.7 | 40.7 |
| 85° | 102.6 | 104.0 | 268.4 | 320.7 | 211.5 | 125.8 | 132.1 | 243.1 | 19.7 | 16.9 | 32.0 |
| 87.5° | 47.8 | 46.7 | 138.1 | 196.4 | 123.6 | 79.7 | 102.9 | 53.4 | 7.7 | 10.9 | 8.8 |
| 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° | 881.7 | 881.7 | 881.7 | 881.7 | 881.7 | 881.7 | 881.7 | 881.7 | 881.7 | 881.7 | 881.7 |
| 2.5° | 871.2 | 858.2 | 834.6 | 810.4 | 785.8 | 766.8 | 748.2 | 733.5 | 728.5 | 719.4 | 720.1 |
| 5° | 844.5 | 820.6 | 771.4 | 721.5 | 669.5 | 626.7 | 586.3 | 553.6 | 537.8 | 521.6 | 521.6 |
| 7.5° | 821.3 | 786.5 | 709.6 | 628.4 | 544.5 | 473.9 | 410.3 | 362.5 | 336.2 | 315.1 | 314.7 |
| 10° | 812.5 | 765.4 | 657.9 | 541.7 | 424.7 | 328.4 | 252.9 | 204.4 | 179.5 | 163.3 | 162.6 |
| 12.5° | 816.4 | 758.0 | 618.2 | 461.6 | 314.7 | 211.1 | 146.5 | 115.2 | 104.7 | 99.8 | 99.8 |
| 15° | 827.6 | 755.9 | 578.5 | 383.2 | 222.4 | 132.1 | 97.3 | 88.9 | 88.2 | 88.2 | 88.2 |
| 17.5° | 841.3 | 756.6 | 537.8 | 307.0 | 151.4 | 94.5 | 84.0 | 82.9 | 83.6 | 83.6 | 83.6 |
| 20° | 855.3 | 757.0 | 493.9 | 236.4 | 106.8 | 82.2 | 79.0 | 78.7 | 79.4 | 79.4 | 79.7 |
| 22.5° | 872.6 | 758.7 | 450.0 | 176.7 | 88.2 | 77.6 | 75.2 | 75.2 | 75.5 | 75.5 | 75.2 |
| 25° | 892.2 | 762.3 | 404.3 | 131.0 | 80.4 | 74.5 | 72.4 | 72.0 | 72.4 | 72.0 | 71.7 |
| 27.5° | 916.8 | 767.2 | 353.4 | 102.6 | 76.9 | 71.3 | 69.6 | 69.6 | 69.2 | 68.8 | 68.5 |
| 30° | 947.7 | 772.8 | 296.1 | 87.1 | 73.4 | 68.5 | 66.7 | 66.4 | 66.0 | 65.3 | 65.3 |
| 32.5° | 994.8 | 785.1 | 239.6 | 79.0 | 69.6 | 64.6 | 63.2 | 63.2 | 62.5 | 61.8 | 61.5 |
| 35° | 1067.2 | 809.3 | 189.0 | 74.1 | 65.3 | 60.4 | 58.7 | 58.7 | 58.0 | 57.6 | 57.3 |
| 37.5° | 1167.3 | 846.2 | 146.8 | 69.6 | 61.1 | 55.9 | 54.1 | 53.7 | 53.0 | 52.3 | 52.0 |
| 40° | 1300.4 | 891.9 | 115.6 | 65.3 | 56.9 | 51.3 | 49.9 | 49.2 | 47.8 | 46.7 | 46.7 |
| 42.5° | 1467.6 | 943.9 | 93.8 | 60.8 | 52.0 | 47.1 | 46.0 | 45.0 | 42.5 | 41.5 | 41.1 |
| 45° | 1642.6 | 990.6 | 79.4 | 55.5 | 47.1 | 42.9 | 42.2 | 40.4 | 37.2 | 36.2 | 36.2 |
| 47.5° | 1768.7 | 1001.5 | 69.9 | 50.6 | 42.5 | 38.3 | 37.9 | 34.8 | 32.0 | 31.3 | 30.9 |
| 50° | 1847.3 | 980.1 | 62.2 | 45.7 | 38.3 | 34.1 | 33.0 | 29.2 | 27.4 | 26.7 | 26.3 |
| 52.5° | 1900.4 | 941.8 | 55.9 | 41.5 | 34.4 | 30.2 | 27.8 | 24.9 | 23.5 | 22.8 | 22.8 |
| 55° | 1942.9 | 887.7 | 49.5 | 37.6 | 31.3 | 27.0 | 23.5 | 21.4 | 20.0 | 19.3 | 19.3 |
| 57.5° | 1954.8 | 814.3 | 43.2 | 34.4 | 28.1 | 23.9 | 20.0 | 18.6 | 16.9 | 16.5 | 16.5 |
| 60° | 1868.1 | 681.8 | 38.3 | 30.6 | 25.3 | 20.7 | 17.6 | 15.8 | 14.1 | 13.7 | 13.3 |
| 62.5° | 1639.4 | 527.6 | 33.7 | 27.0 | 22.1 | 17.9 | 15.1 | 13.0 | 11.6 | 11.6 | 11.6 |
| 65° | 1250.5 | 353.7 | 29.5 | 23.5 | 19.3 | 15.1 | 13.0 | 10.5 | 9.8 | 9.8 | 10.2 |
| 67.5° | 748.6 | 192.5 | 25.3 | 20.0 | 16.5 | 12.6 | 10.9 | 9.1 | 8.8 | 9.1 | 9.1 |
| 69° | 438.7 | 113.1 | 22.8 | 17.9 | 14.4 | 11.2 | 9.5 | 8.1 | 8.8 | 9.1 | 9.1 |
| 70° | 270.8 | 76.2 | 21.1 | 16.2 | 13.0 | 10.2 | 8.8 | 7.7 | 8.4 | 8.8 | 8.8 |
| 72.5° | 75.5 | 39.3 | 16.9 | 12.6 | 10.5 | 8.4 | 7.0 | 7.0 | 8.1 | 8.4 | 8.4 |
| 75° | 49.2 | 29.2 | 13.0 | 9.5 | 8.1 | 6.7 | 6.0 | 6.7 | 7.7 | 8.1 | 8.1 |
| 77.5° | 40.7 | 23.9 | 10.5 | 7.7 | 6.7 | 6.3 | 5.6 | 6.0 | 7.0 | 7.4 | 7.4 |
| 80° | 37.2 | 16.9 | 8.4 | 7.0 | 6.0 | 5.6 | 5.3 | 4.9 | 6.3 | 6.7 | 6.7 |
| 82.5° | 35.5 | 13.3 | 7.4 | 6.3 | 5.6 | 4.9 | 4.6 | 4.9 | 5.6 | 6.0 | 6.3 |
| 85° | 22.1 | 8.8 | 6.7 | 6.0 | 4.9 | 4.6 | 4.6 | 4.6 | 5.3 | 5.6 | 5.6 |
| 87.5° | 8.1 | 7.0 | 6.0 | 4.9 | 4.2 | 4.2 | 4.2 | 4.2 | 4.6 | 5.3 | 5.3 |
| 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)