

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: P450897

Luminaire Tested: **GALN-SA1D-727-U-SL4**

Issue Date: 1/4/2021

Test Information

Test Method: LM-79-08
Report Number: P450897
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-SA1D-727-U-SL4
Description: GALLEON AREA AND ROADWAY LUMINAIRE
(1) 70 CRI, 2700K, 1200mA 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: 6408 lumens
Efficiency: N/A
Efficacy: 98.6 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): 65
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

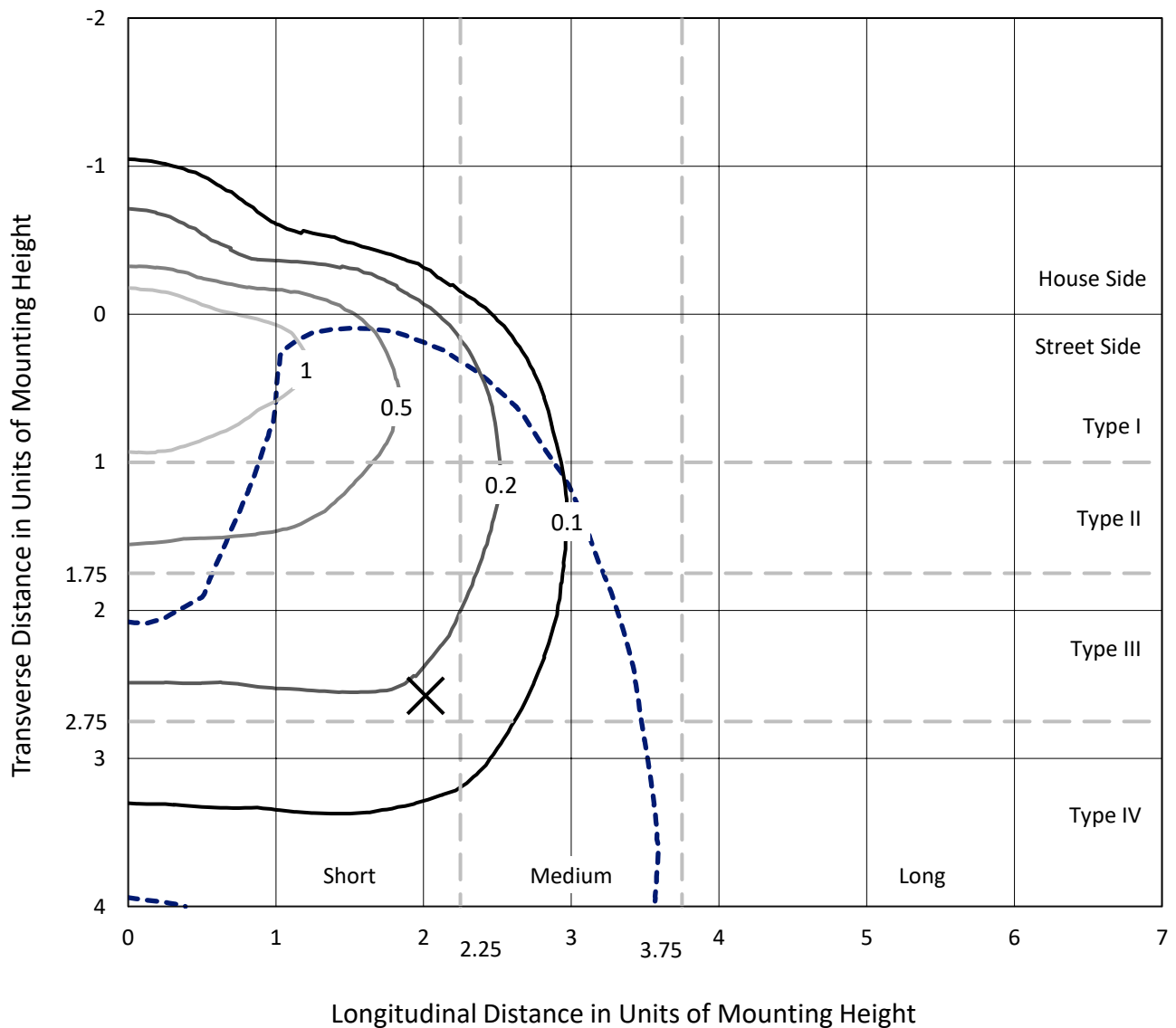




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Iso-Footcandle Lines of Horizontal Illumination

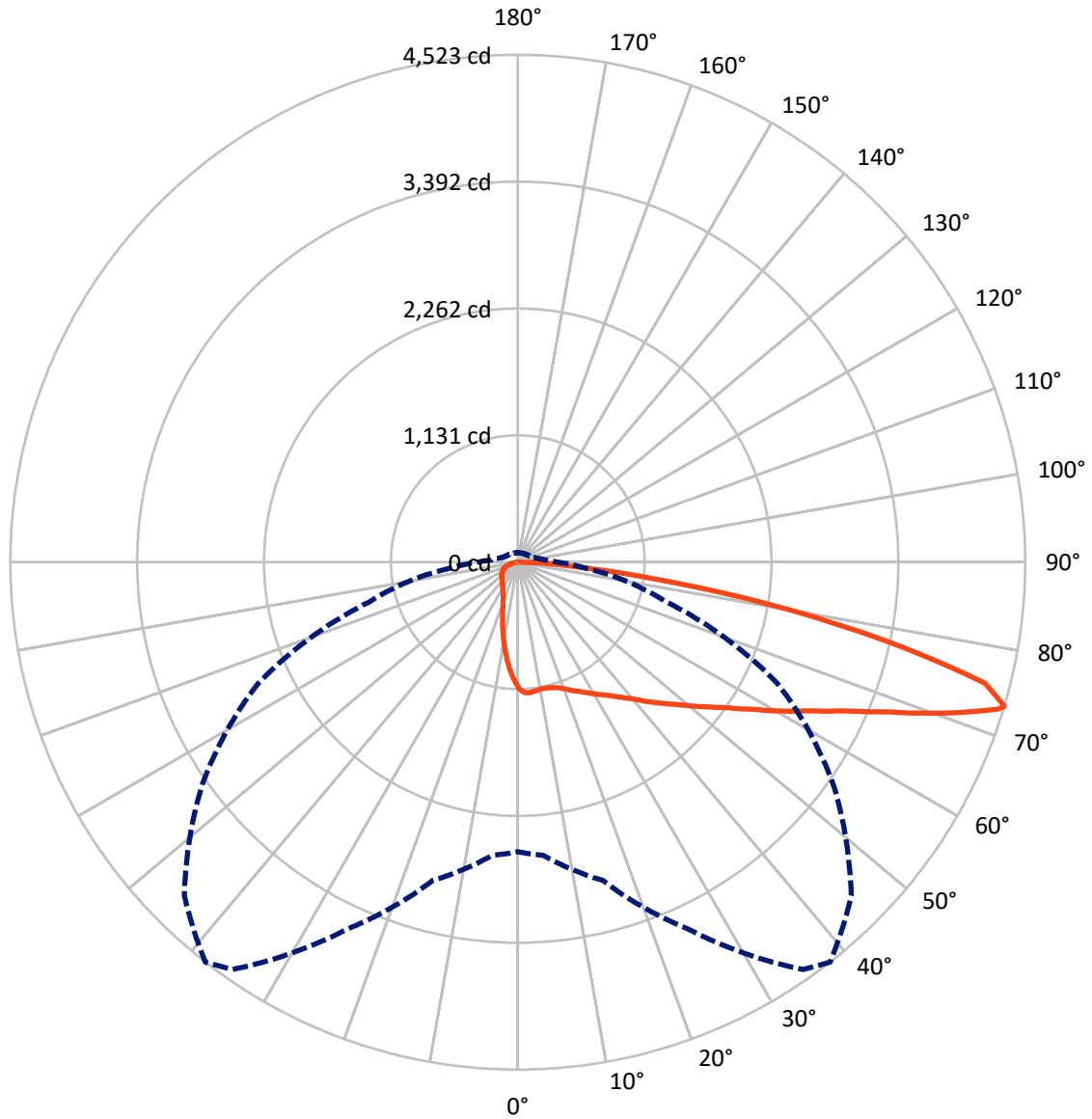
× Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 1.8 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 | 861.4 | 0.0 | 861.4 |
| | % Fixture | 13.4 | 0.0 | 13.4 |
| Street Side | Lumens | 5546.6 | 0.0 | 5546.6 |
| | % Fixture | 86.6 | 0.0 | 86.6 |
| Total | Lumens | 6408.0 | 0.0 | 6408.0 |
| | % Fixture | 100.0 | 0.0 | 100.0 |

ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10° | 98.3 | 1.5 |
| 10°-20° | 252.0 | 3.9 |
| 20°-30° | 392.4 | 6.1 |
| 30°-40° | 575.6 | 9.0 |
| 40°-50° | 853.8 | 13.3 |
| 50°-60° | 1209.6 | 18.9 |
| 60°-70° | 1534.5 | 23.9 |
| 70°-80° | 1277.3 | 19.9 |
| 80°-90° | 214.6 | 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° | 6408.0 | 100.0 |
| 0°-180° | 6408.0 | 100.0 |

Coefficient of Utilization

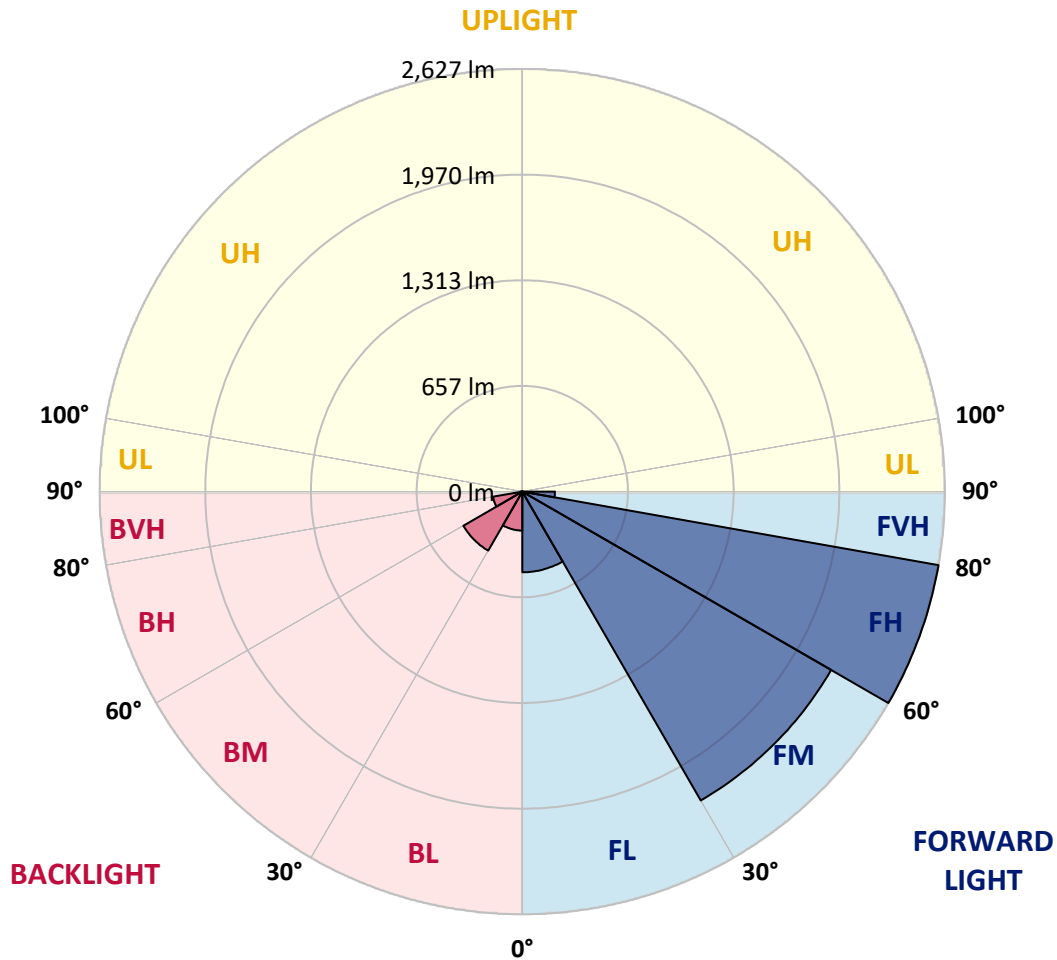


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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

| Zone | Lumens | % Fixture | Zone Rating/Lumen Limit | | |
|----------------|--------|-----------|-------------------------|------|---------|
| | | | B | U | G |
| FL (0°-30°) | 500.9 | 7.8 | | | |
| FM (30°-60°) | 2216.1 | 34.6 | | | |
| FH (60°-80°) | 2626.6 | 41.0 | | | G2/5000 |
| FVH (80°-90°) | 203.0 | 3.2 | | | G2/225 |
| BL (0°-30°) | 241.7 | 3.8 | B1/500 | | |
| BM (30°-60°) | 422.9 | 6.6 | B1/1000 | | |
| BH (60°-80°) | 185.2 | 2.9 | B1/500 | | G1/500 |
| BVH (80°-90°) | 11.6 | 0.2 | | | G1/100 |
| 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° | 1125.8 | 1125.8 | 1125.8 | 1125.8 | 1125.8 | 1125.8 | 1125.8 | 1125.8 | 1125.8 | 1125.8 | 1125.8 |
| 2.5° | 1171.0 | 1176.8 | 1173.9 | 1169.9 | 1167.4 | 1164.9 | 1161.2 | 1150.7 | 1142.4 | 1133.4 | 1119.3 |
| 5° | 1179.7 | 1183.3 | 1180.8 | 1175.7 | 1169.9 | 1167.4 | 1160.5 | 1146.8 | 1133.4 | 1118.2 | 1097.2 |
| 7.5° | 1174.6 | 1176.1 | 1173.2 | 1167.0 | 1162.0 | 1157.3 | 1149.3 | 1134.1 | 1117.8 | 1099.4 | 1071.9 |
| 10° | 1156.5 | 1162.0 | 1162.0 | 1156.9 | 1151.8 | 1149.3 | 1141.3 | 1126.9 | 1112.0 | 1091.0 | 1058.5 |
| 12.5° | 1141.7 | 1147.5 | 1152.2 | 1150.7 | 1150.4 | 1150.4 | 1144.2 | 1133.4 | 1116.0 | 1096.1 | 1057.4 |
| 15° | 1131.6 | 1138.4 | 1148.6 | 1154.4 | 1158.0 | 1159.1 | 1156.5 | 1147.1 | 1129.4 | 1106.2 | 1061.7 |
| 17.5° | 1129.4 | 1137.7 | 1156.2 | 1168.8 | 1178.2 | 1177.9 | 1177.2 | 1164.1 | 1144.6 | 1120.7 | 1067.2 |
| 20° | 1139.2 | 1150.0 | 1175.7 | 1195.6 | 1209.4 | 1206.8 | 1202.9 | 1185.8 | 1163.0 | 1136.3 | 1072.2 |
| 22.5° | 1168.5 | 1179.7 | 1207.9 | 1229.6 | 1243.0 | 1243.0 | 1231.1 | 1208.6 | 1184.4 | 1154.4 | 1079.1 |
| 25° | 1210.5 | 1222.8 | 1252.8 | 1274.9 | 1281.0 | 1276.3 | 1264.4 | 1237.2 | 1209.4 | 1180.4 | 1093.6 |
| 27.5° | 1261.8 | 1276.7 | 1304.5 | 1323.0 | 1321.2 | 1317.6 | 1305.3 | 1270.5 | 1242.7 | 1216.2 | 1118.2 |
| 30° | 1325.9 | 1336.7 | 1365.7 | 1370.0 | 1363.5 | 1362.8 | 1345.4 | 1310.7 | 1284.6 | 1264.4 | 1153.3 |
| 32.5° | 1386.3 | 1396.1 | 1419.3 | 1421.1 | 1409.5 | 1410.9 | 1394.6 | 1362.8 | 1348.0 | 1340.7 | 1212.3 |
| 35° | 1450.4 | 1455.4 | 1475.3 | 1473.2 | 1465.6 | 1464.5 | 1458.0 | 1427.6 | 1432.3 | 1445.3 | 1295.9 |
| 37.5° | 1503.9 | 1514.1 | 1525.3 | 1527.1 | 1526.7 | 1530.3 | 1534.7 | 1520.2 | 1547.4 | 1588.2 | 1405.5 |
| 40° | 1553.1 | 1561.8 | 1578.5 | 1584.3 | 1598.4 | 1605.6 | 1620.5 | 1620.8 | 1683.4 | 1750.7 | 1540.5 |
| 42.5° | 1586.4 | 1601.3 | 1632.4 | 1642.9 | 1677.3 | 1699.0 | 1721.1 | 1744.6 | 1835.4 | 1921.9 | 1699.7 |
| 45° | 1615.4 | 1634.9 | 1686.7 | 1719.2 | 1765.9 | 1792.3 | 1839.0 | 1888.2 | 2018.9 | 2132.1 | 1861.5 |
| 47.5° | 1659.2 | 1676.5 | 1735.9 | 1793.4 | 1864.0 | 1894.4 | 1964.2 | 2037.7 | 2208.5 | 2332.6 | 2016.3 |
| 50° | 1720.0 | 1730.5 | 1790.9 | 1884.6 | 1974.7 | 2013.8 | 2106.1 | 2212.1 | 2411.1 | 2530.6 | 2152.4 |
| 52.5° | 1797.8 | 1802.1 | 1850.2 | 1975.1 | 2093.8 | 2142.3 | 2264.6 | 2388.3 | 2588.5 | 2702.4 | 2260.2 |
| 55° | 1889.7 | 1882.4 | 1920.1 | 2071.0 | 2229.8 | 2293.2 | 2424.5 | 2566.7 | 2787.8 | 2841.4 | 2338.8 |
| 57.5° | 1980.5 | 1969.3 | 1999.3 | 2187.5 | 2397.7 | 2474.1 | 2627.2 | 2750.6 | 2965.9 | 2971.3 | 2393.8 |
| 60° | 2076.8 | 2068.4 | 2104.3 | 2324.3 | 2603.7 | 2694.1 | 2835.6 | 2941.3 | 3138.1 | 3061.8 | 2402.5 |
| 62.5° | 2175.6 | 2162.2 | 2213.2 | 2478.1 | 2835.6 | 2917.8 | 3054.9 | 3143.9 | 3307.1 | 3095.4 | 2318.9 |
| 65° | 2271.5 | 2265.3 | 2344.2 | 2660.8 | 3099.8 | 3193.1 | 3326.3 | 3386.7 | 3442.5 | 3044.8 | 2111.5 |
| 67.5° | 2373.5 | 2385.8 | 2511.7 | 2904.7 | 3444.3 | 3561.5 | 3705.2 | 3648.4 | 3481.2 | 2804.9 | 1778.2 |
| 70° | 2529.1 | 2537.1 | 2731.8 | 3224.3 | 3888.3 | 4029.8 | 4099.3 | 3741.4 | 3294.5 | 2349.3 | 1336.7 |
| 72.5° | 2596.1 | 2631.2 | 2928.3 | 3559.7 | 4392.7 | 4479.2 | 4231.7 | 3534.0 | 2744.4 | 1595.8 | 702.4 |
| 73° | 2581.2 | 2623.2 | 2937.3 | 3610.7 | 4432.2 | 4523.0 | 4203.5 | 3427.3 | 2551.2 | 1374.4 | 602.2 |
| 75° | 2396.3 | 2448.0 | 2819.7 | 3568.0 | 4355.5 | 4301.2 | 3749.7 | 2921.0 | 1723.9 | 624.9 | 274.3 |
| 77.5° | 1890.8 | 1905.6 | 2234.2 | 2881.2 | 3429.8 | 3329.2 | 2806.3 | 1825.6 | 704.2 | 232.3 | 155.6 |
| 80° | 948.5 | 1003.1 | 1259.3 | 1650.5 | 2293.5 | 2260.6 | 1771.4 | 863.4 | 293.5 | 136.4 | 103.1 |
| 82.5° | 456.3 | 495.0 | 613.4 | 804.8 | 1267.3 | 1237.2 | 877.2 | 471.9 | 186.4 | 79.6 | 60.8 |
| 85° | 293.8 | 322.8 | 390.5 | 383.9 | 521.1 | 497.6 | 394.1 | 357.2 | 110.4 | 41.6 | 42.3 |
| 87.5° | 194.0 | 212.4 | 254.8 | 203.7 | 189.6 | 171.5 | 174.1 | 201.2 | 21.7 | 15.9 | 5.8 |
| 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° | 1125.8 | 1125.8 | 1125.8 | 1125.8 | 1125.8 | 1125.8 | 1125.8 | 1125.8 | 1125.8 | 1125.8 | 1125.8 |
| 2.5° | 1113.5 | 1108.8 | 1093.2 | 1078.0 | 1063.5 | 1049.8 | 1040.7 | 1028.8 | 1020.8 | 1023.0 | 1026.3 |
| 5° | 1085.6 | 1075.1 | 1047.6 | 1020.8 | 995.5 | 965.5 | 941.2 | 921.7 | 906.8 | 901.4 | 900.3 |
| 7.5° | 1056.3 | 1038.6 | 999.1 | 953.2 | 910.1 | 872.8 | 829.8 | 808.4 | 783.4 | 774.8 | 771.9 |
| 10° | 1038.6 | 1014.7 | 959.3 | 895.3 | 830.5 | 768.6 | 721.9 | 683.9 | 649.6 | 643.0 | 639.8 |
| 12.5° | 1033.5 | 1002.0 | 927.5 | 845.0 | 758.8 | 682.8 | 613.7 | 563.8 | 530.5 | 522.9 | 511.7 |
| 15° | 1030.6 | 991.5 | 897.8 | 794.3 | 685.0 | 592.4 | 519.6 | 461.4 | 431.0 | 410.7 | 411.1 |
| 17.5° | 1028.1 | 979.6 | 864.5 | 738.9 | 621.3 | 514.6 | 434.2 | 381.8 | 353.9 | 343.1 | 342.0 |
| 20° | 1024.5 | 965.5 | 826.1 | 680.7 | 548.6 | 443.7 | 370.9 | 331.8 | 313.0 | 304.0 | 303.6 |
| 22.5° | 1023.0 | 951.7 | 788.5 | 621.3 | 484.2 | 389.0 | 328.9 | 301.4 | 289.5 | 283.3 | 283.3 |
| 25° | 1026.6 | 941.9 | 749.1 | 564.9 | 427.0 | 342.3 | 300.0 | 281.2 | 274.3 | 271.0 | 270.0 |
| 27.5° | 1037.8 | 937.6 | 710.0 | 508.4 | 374.5 | 310.5 | 280.4 | 267.4 | 262.4 | 259.8 | 260.2 |
| 30° | 1059.2 | 937.2 | 671.6 | 452.7 | 335.5 | 286.2 | 264.9 | 255.8 | 251.9 | 250.4 | 250.1 |
| 32.5° | 1093.6 | 945.2 | 634.0 | 406.7 | 302.5 | 266.0 | 250.4 | 243.9 | 242.1 | 241.0 | 240.6 |
| 35° | 1151.8 | 967.6 | 596.7 | 364.8 | 277.2 | 247.9 | 236.7 | 233.4 | 230.9 | 232.0 | 232.3 |
| 37.5° | 1230.4 | 1006.4 | 561.3 | 331.8 | 258.0 | 234.5 | 225.1 | 222.2 | 220.7 | 221.8 | 222.9 |
| 40° | 1335.7 | 1062.1 | 531.6 | 305.4 | 244.3 | 223.3 | 215.0 | 212.4 | 211.0 | 212.8 | 213.1 |
| 42.5° | 1451.8 | 1126.5 | 507.0 | 284.8 | 233.0 | 213.9 | 205.9 | 203.0 | 201.9 | 203.0 | 203.4 |
| 45° | 1571.2 | 1201.4 | 494.3 | 270.0 | 223.6 | 207.0 | 198.7 | 195.4 | 192.9 | 192.2 | 193.2 |
| 47.5° | 1688.8 | 1266.5 | 494.0 | 260.9 | 216.0 | 200.8 | 191.8 | 188.2 | 184.9 | 183.1 | 182.7 |
| 50° | 1784.7 | 1318.3 | 502.6 | 256.9 | 209.5 | 194.0 | 184.9 | 181.3 | 177.0 | 173.3 | 174.1 |
| 52.5° | 1857.1 | 1351.9 | 506.6 | 255.1 | 205.9 | 186.7 | 177.7 | 174.4 | 169.4 | 164.7 | 164.7 |
| 55° | 1903.8 | 1359.9 | 496.8 | 253.3 | 203.0 | 179.1 | 169.4 | 166.5 | 161.4 | 156.7 | 156.7 |
| 57.5° | 1919.7 | 1335.3 | 461.7 | 249.0 | 200.1 | 172.6 | 161.0 | 158.5 | 154.5 | 149.8 | 149.1 |
| 60° | 1882.8 | 1252.1 | 400.2 | 235.9 | 194.3 | 165.7 | 152.0 | 150.9 | 149.5 | 145.5 | 145.1 |
| 62.5° | 1740.6 | 1075.5 | 333.3 | 218.9 | 184.6 | 158.5 | 143.7 | 145.5 | 146.6 | 144.4 | 144.0 |
| 65° | 1503.9 | 873.2 | 284.8 | 195.4 | 171.5 | 148.4 | 134.6 | 139.3 | 142.2 | 142.2 | 141.5 |
| 67.5° | 1219.9 | 670.5 | 239.9 | 175.1 | 155.2 | 134.6 | 124.5 | 128.1 | 130.3 | 129.5 | 131.4 |
| 70° | 867.0 | 454.1 | 195.4 | 152.0 | 134.6 | 119.1 | 111.5 | 111.5 | 110.0 | 109.3 | 109.3 |
| 72.5° | 420.5 | 259.5 | 158.5 | 127.0 | 114.7 | 101.7 | 95.5 | 93.0 | 90.1 | 89.7 | 87.9 |
| 73° | 351.4 | 232.7 | 151.3 | 122.3 | 110.0 | 99.2 | 92.3 | 88.3 | 86.5 | 85.0 | 84.7 |
| 75° | 213.9 | 176.6 | 126.3 | 103.1 | 93.7 | 85.4 | 79.2 | 75.6 | 73.8 | 72.7 | 72.4 |
| 77.5° | 140.8 | 131.7 | 98.1 | 78.9 | 71.7 | 66.6 | 64.1 | 60.4 | 59.3 | 57.9 | 57.9 |
| 80° | 104.9 | 100.6 | 70.2 | 55.7 | 51.4 | 47.0 | 46.3 | 45.6 | 42.7 | 40.9 | 40.2 |
| 82.5° | 67.7 | 71.7 | 47.8 | 37.3 | 32.6 | 28.9 | 29.3 | 30.4 | 27.5 | 25.0 | 24.2 |
| 85° | 48.1 | 51.7 | 28.9 | 17.0 | 13.8 | 11.9 | 13.4 | 11.9 | 12.3 | 9.8 | 8.0 |
| 87.5° | 8.0 | 13.8 | 5.1 | 2.2 | 1.1 | 0.7 | 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)