

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: P318189

Luminaire Tested: **GLEON-SA5A-827-U-T2**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P318189
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-1903-205-12)
Test Lab: INNOVATION CENTER
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: McGRAW-EDISON
Catalog Number: GLEON-SA5A-827-U-T2
Description: GALLEON AREA AND ROADWAY LUMINAIRE
(5) 80 CRI, 2700K, 615mA LIGHTSQUARES WITH 16 LEDS EACH AND TYPE II OPTICS
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 16802 lumens
Efficiency: N/A
Efficacy: 103.7 lumens/watt
Luminous Opening: Rectangular (W 1.5' x L: 1' x H: 0')
IES Classification: Type III - Medium
BUG Rating: B2 - U0 - G3

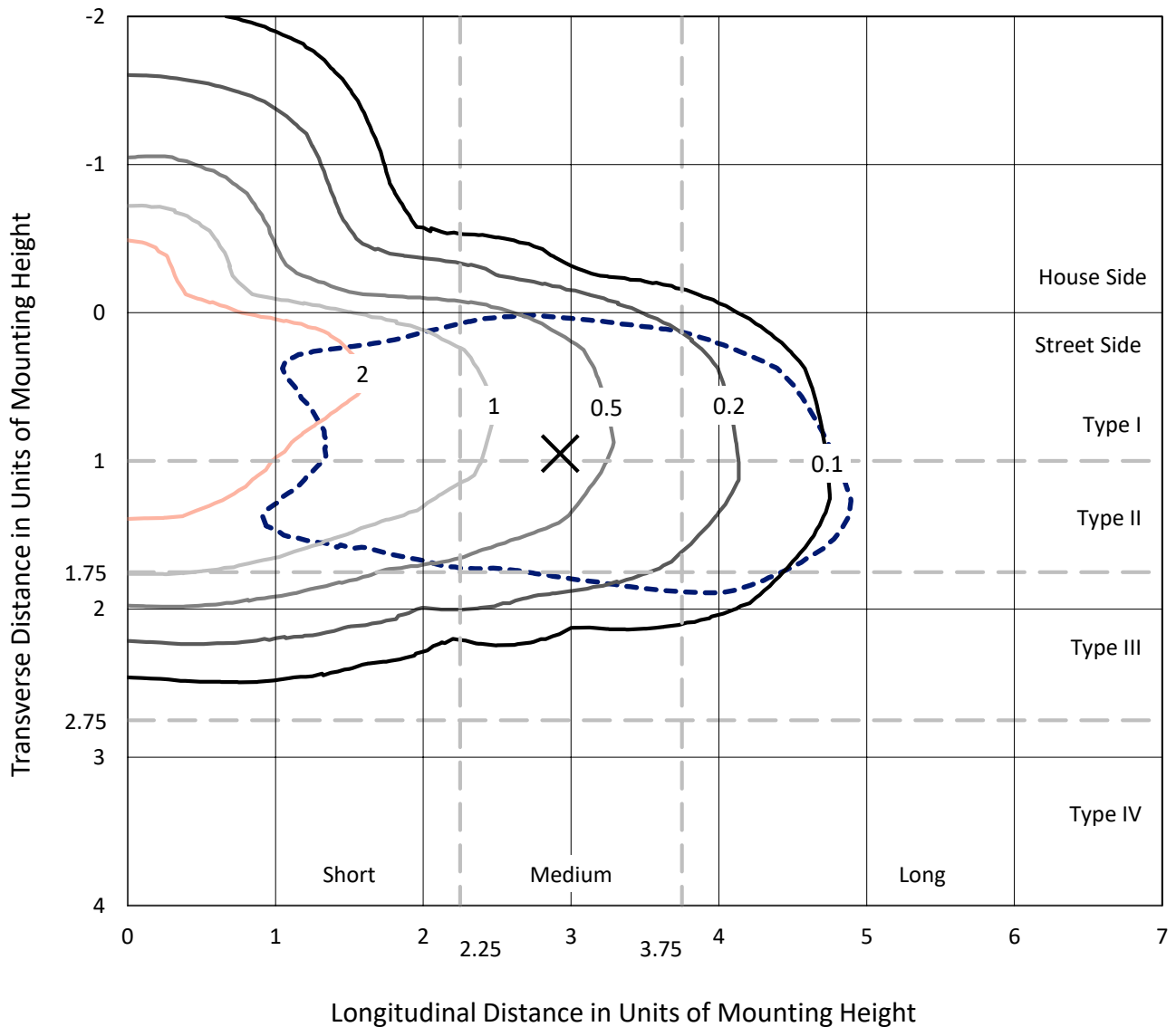
Input Watts (W): 162
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Iso-Footcandle Lines of Horizontal Illumination

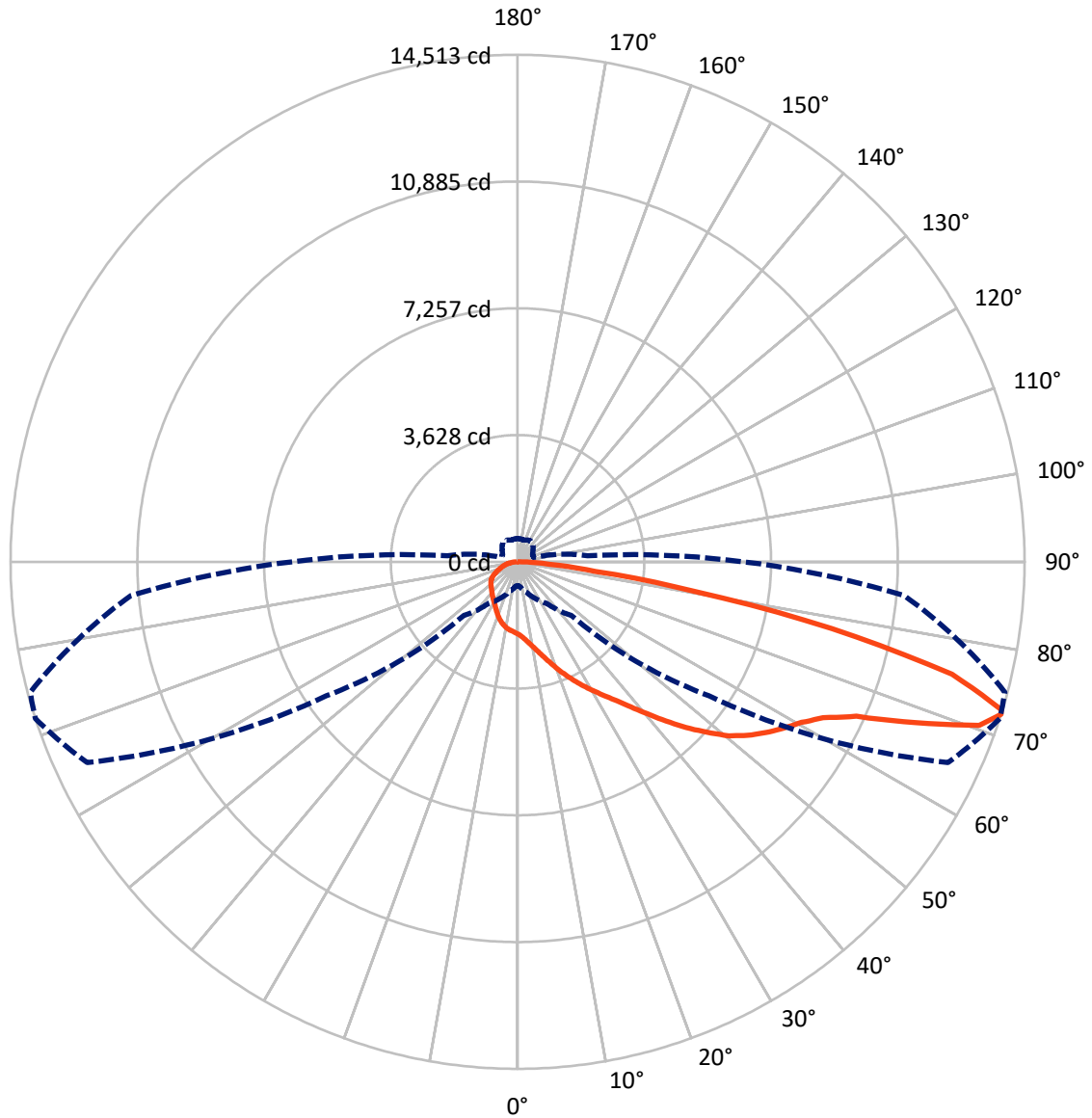
✕ Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 4.6 fc
 Type III - Medium - N/A

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Luminous Intensity Polar Plot



— Vertical Plane Through 72-Deg Lateral - - - Horizontal Cone Through 72-Deg Vertical

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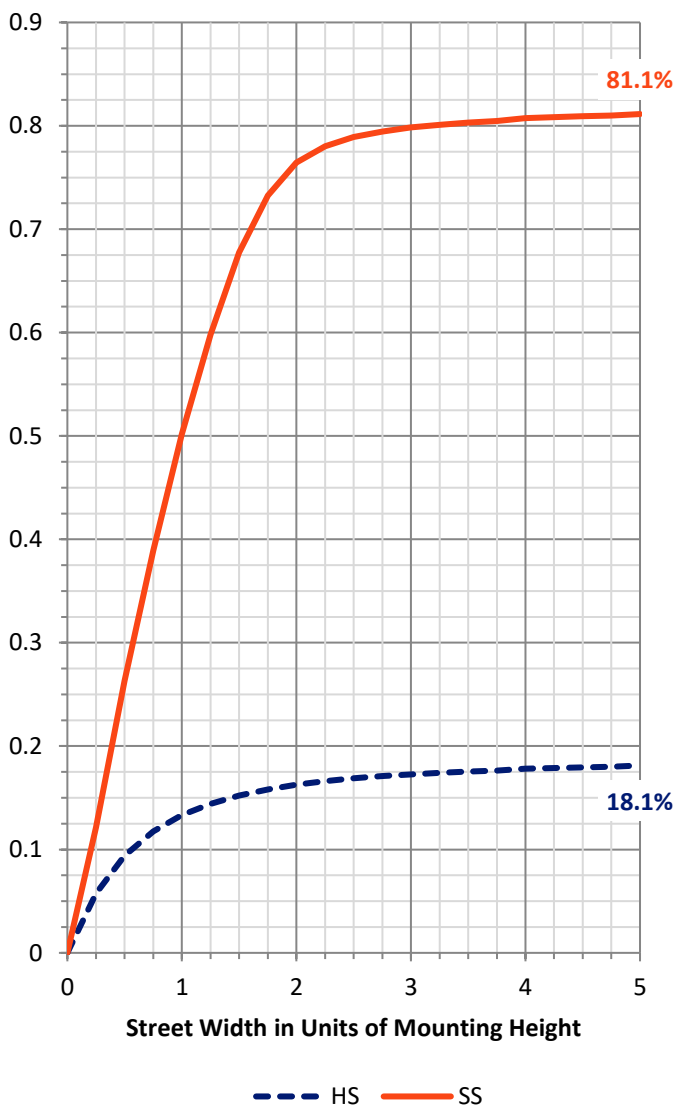
FLUX DISTRIBUTION:

| | | Downward | Upward | Total |
|--------------------|-----------|----------|--------|---------|
| House Side | Lumens | 3116.9 | 0.0 | 3116.9 |
| | % Fixture | 18.6 | 0.0 | 18.6 |
| Street Side | Lumens | 13685.1 | 0.0 | 13685.1 |
| | % Fixture | 81.4 | 0.0 | 81.4 |
| Total | Lumens | 16802.0 | 0.0 | 16802.0 |
| | % Fixture | 100.0 | 0.0 | 100.0 |

ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|---------|-----------|
| 0°-10° | 207.1 | 1.2 |
| 10°-20° | 669.3 | 4.0 |
| 20°-30° | 1172.9 | 7.0 |
| 30°-40° | 1739.0 | 10.4 |
| 40°-50° | 2543.5 | 15.1 |
| 50°-60° | 3499.8 | 20.8 |
| 60°-70° | 3896.3 | 23.2 |
| 70°-80° | 2640.1 | 15.7 |
| 80°-90° | 433.9 | 2.6 |
| 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° | 16802.0 | 100.0 |
| 0°-180° | 16802.0 | 100.0 |

Coefficient of Utilization

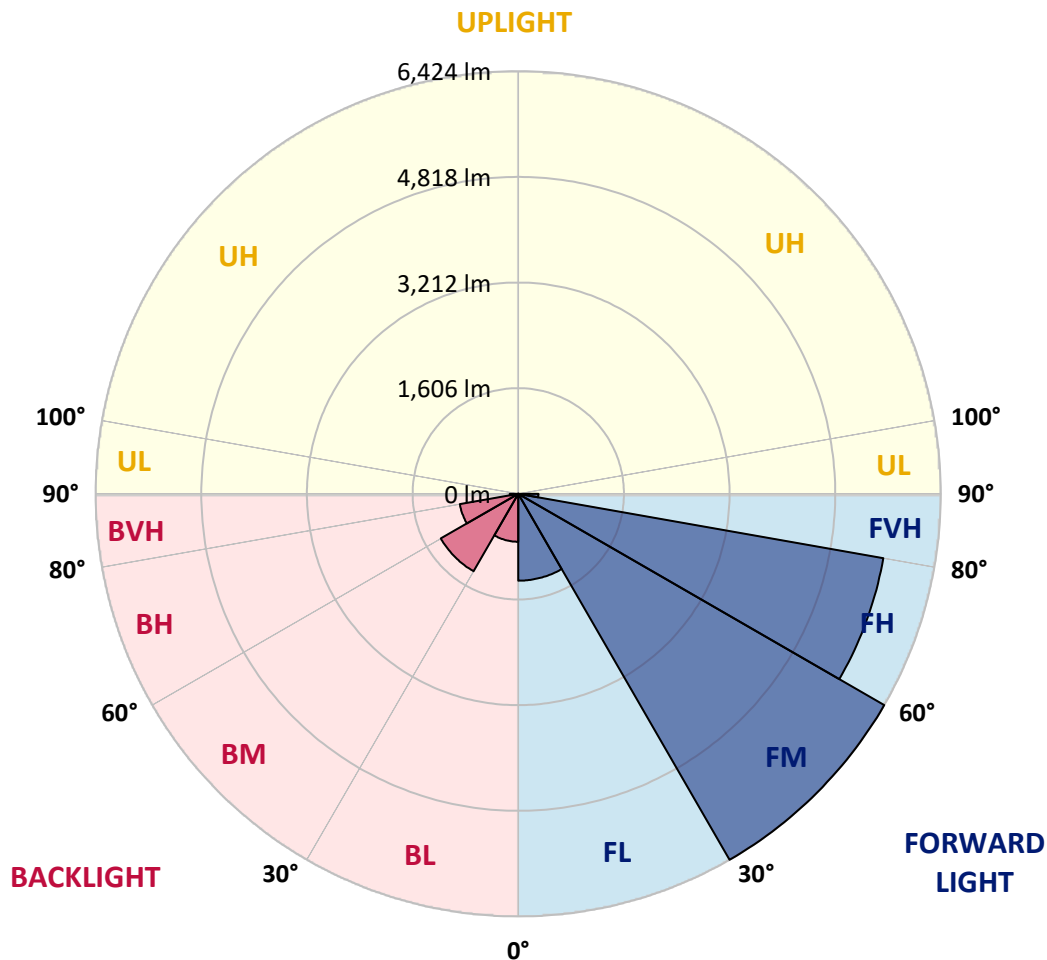


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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

| Zone | Lumens | % Fixture | Zone Rating/Lumen Limit | | |
|----------------|--------|-----------|-------------------------|------|---------|
| | | | B | U | G |
| FL (0°-30°) | 1320.7 | 7.9 | | | |
| FM (30°-60°) | 6423.6 | 38.2 | | | |
| FH (60°-80°) | 5634.7 | 33.5 | | | G3/7500 |
| FVH (80°-90°) | 306.1 | 1.8 | | | G3/500 |
| BL (0°-30°) | 728.6 | 4.3 | B2/1000 | | |
| BM (30°-60°) | 1358.7 | 8.1 | B2/2500 | | |
| BH (60°-80°) | 901.8 | 5.4 | B2/1000 | | G2/1000 |
| BVH (80°-90°) | 127.8 | 0.8 | | | G2/225 |
| UL (90°-100°) | 0.0 | 0.0 | | U0/0 | |
| UH (100°-180°) | 0.0 | 0.0 | | U0/0 | |

BUG Rating: B2-U0-G3
 Type III Medium





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CANDELA DISTRIBUTION (FULL):

| | 0° | 5° | 15° | 25° | 35° | 45° | 55° | 65° | 72° | 75° | 85° |
|-------|--------|--------|--------|--------|--------|--------|---------|---------|---------|---------|---------|
| 0° | 2067.1 | 2067.1 | 2067.1 | 2067.1 | 2067.1 | 2067.1 | 2067.1 | 2067.1 | 2067.1 | 2067.1 | 2067.1 |
| 2.5° | 2283.5 | 2280.0 | 2267.8 | 2267.8 | 2244.7 | 2225.0 | 2188.0 | 2163.1 | 2133.6 | 2123.2 | 2088.5 |
| 5° | 2504.5 | 2505.6 | 2490.6 | 2480.2 | 2446.0 | 2404.4 | 2341.3 | 2284.0 | 2226.8 | 2203.6 | 2132.5 |
| 7.5° | 2690.2 | 2687.8 | 2683.8 | 2675.1 | 2643.3 | 2600.5 | 2515.4 | 2430.4 | 2345.9 | 2311.2 | 2188.6 |
| 10° | 2809.3 | 2814.5 | 2818.0 | 2822.1 | 2808.8 | 2778.1 | 2697.7 | 2594.1 | 2483.6 | 2436.2 | 2255.7 |
| 12.5° | 2869.5 | 2878.8 | 2895.0 | 2922.7 | 2944.7 | 2941.2 | 2882.8 | 2772.9 | 2641.6 | 2582.0 | 2339.6 |
| 15° | 2904.8 | 2916.9 | 2942.4 | 2992.2 | 3054.1 | 3089.3 | 3073.7 | 2974.2 | 2827.9 | 2754.4 | 2442.0 |
| 17.5° | 2926.8 | 2936.6 | 2976.0 | 3042.5 | 3134.5 | 3228.2 | 3269.3 | 3186.0 | 3038.4 | 2954.5 | 2559.4 |
| 20° | 2941.8 | 2949.3 | 2998.5 | 3076.6 | 3195.8 | 3345.1 | 3459.6 | 3438.8 | 3270.4 | 3161.7 | 2682.1 |
| 22.5° | 2975.4 | 2981.7 | 3028.6 | 3107.3 | 3239.2 | 3431.8 | 3643.0 | 3674.2 | 3515.1 | 3391.9 | 2813.4 |
| 25° | 3069.1 | 3069.1 | 3108.4 | 3163.4 | 3287.2 | 3507.0 | 3798.0 | 3936.3 | 3765.1 | 3621.6 | 2934.9 |
| 27.5° | 3247.9 | 3246.1 | 3260.6 | 3279.7 | 3373.4 | 3583.4 | 3936.3 | 4167.7 | 4024.2 | 3867.5 | 3052.9 |
| 30° | 3459.6 | 3471.2 | 3472.9 | 3463.7 | 3507.6 | 3678.9 | 4064.2 | 4411.9 | 4285.2 | 4116.2 | 3173.8 |
| 32.5° | 3732.1 | 3739.6 | 3730.9 | 3700.3 | 3693.9 | 3814.2 | 4189.7 | 4667.6 | 4567.5 | 4376.0 | 3284.3 |
| 35° | 4078.1 | 4063.6 | 4036.4 | 3973.9 | 3914.3 | 3995.3 | 4333.2 | 4923.3 | 4884.5 | 4690.1 | 3436.5 |
| 37.5° | 4448.9 | 4449.5 | 4415.9 | 4274.2 | 4192.0 | 4226.7 | 4531.0 | 5213.1 | 5268.1 | 5063.9 | 3631.4 |
| 40° | 4746.3 | 4761.9 | 4782.7 | 4596.4 | 4490.0 | 4538.0 | 4782.7 | 5549.3 | 5721.7 | 5507.0 | 3885.4 |
| 42.5° | 4953.9 | 4971.9 | 5030.9 | 4914.0 | 4803.5 | 4892.6 | 5078.9 | 5907.9 | 6230.8 | 6018.4 | 4182.8 |
| 45° | 5173.8 | 5183.6 | 5225.3 | 5174.9 | 5104.4 | 5305.1 | 5412.7 | 6279.4 | 6769.4 | 6563.4 | 4515.4 |
| 47.5° | 5405.2 | 5415.6 | 5458.4 | 5424.9 | 5387.8 | 5690.4 | 5761.0 | 6629.4 | 7285.4 | 7162.2 | 4870.6 |
| 50° | 5691.0 | 5697.9 | 5738.4 | 5677.7 | 5689.3 | 5980.8 | 6072.2 | 6950.4 | 7826.3 | 7700.2 | 5227.0 |
| 52.5° | 6080.9 | 6082.7 | 6138.8 | 6083.8 | 6029.4 | 6193.7 | 6340.1 | 7253.0 | 8250.4 | 8190.8 | 5583.4 |
| 55° | 6386.4 | 6404.9 | 6588.9 | 6577.3 | 6546.1 | 6387.0 | 6564.0 | 7541.1 | 8628.8 | 8657.1 | 5961.7 |
| 57.5° | 6191.4 | 6263.7 | 6636.3 | 6899.0 | 7154.7 | 6867.7 | 6866.6 | 7865.7 | 8980.5 | 9114.7 | 6377.7 |
| 60° | 5422.6 | 5520.9 | 6069.9 | 6652.5 | 7452.6 | 7704.3 | 7494.8 | 8262.0 | 9335.7 | 9568.3 | 6899.0 |
| 62.5° | 3872.7 | 4034.7 | 4778.7 | 5708.9 | 7044.2 | 8258.5 | 8773.4 | 8890.8 | 9818.8 | 10093.6 | 7576.4 |
| 65° | 1957.7 | 2080.4 | 2704.0 | 3824.7 | 5627.9 | 7896.3 | 10163.0 | 10267.7 | 10658.2 | 10902.4 | 8619.5 |
| 67.5° | 1189.5 | 1235.7 | 1540.0 | 2127.3 | 3450.3 | 6150.9 | 10616.6 | 12562.8 | 12282.8 | 12412.3 | 10106.9 |
| 70° | 876.5 | 910.6 | 1100.4 | 1412.8 | 1984.4 | 3609.4 | 9224.6 | 14200.6 | 14016.6 | 14002.1 | 11206.1 |
| 72° | 682.7 | 707.5 | 875.3 | 1141.4 | 1451.0 | 2165.4 | 6686.1 | 13596.0 | 14513.0 | 14440.1 | 11105.4 |
| 72.5° | 647.4 | 669.4 | 822.1 | 1074.3 | 1371.1 | 1962.9 | 6011.5 | 13188.1 | 14477.1 | 14444.1 | 10975.3 |
| 75° | 509.7 | 525.3 | 608.6 | 830.8 | 1073.2 | 1113.7 | 3294.1 | 10220.3 | 12842.8 | 13376.7 | 9871.4 |
| 77.5° | 421.7 | 424.1 | 468.0 | 604.6 | 836.6 | 787.4 | 1618.1 | 7091.0 | 9196.3 | 9783.5 | 6992.7 |
| 80° | 343.6 | 346.5 | 367.4 | 424.1 | 632.9 | 582.6 | 768.3 | 4077.5 | 5148.9 | 5155.3 | 3325.4 |
| 82.5° | 273.6 | 274.2 | 297.4 | 310.1 | 454.7 | 416.5 | 440.3 | 1914.4 | 2249.9 | 2164.3 | 1195.2 |
| 85° | 192.7 | 188.6 | 290.4 | 254.6 | 297.4 | 267.3 | 243.0 | 757.9 | 930.3 | 889.8 | 374.3 |
| 87.5° | 64.2 | 66.5 | 129.0 | 164.9 | 173.6 | 151.6 | 108.2 | 290.4 | 351.2 | 348.3 | 118.6 |
| 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° | 2067.1 | 2067.1 | 2067.1 | 2067.1 | 2067.1 | 2067.1 | 2067.1 | 2067.1 | 2067.1 | 2067.1 | 2067.1 |
| 2.5° | 2077.5 | 2059.0 | 2031.8 | 2001.7 | 1978.0 | 1953.7 | 1935.8 | 1926.5 | 1916.1 | 1907.4 | 1917.8 |
| 5° | 2099.5 | 2064.8 | 2006.9 | 1950.2 | 1908.6 | 1871.5 | 1844.9 | 1831.0 | 1818.3 | 1809.6 | 1810.8 |
| 7.5° | 2135.4 | 2079.2 | 1982.0 | 1899.3 | 1841.5 | 1801.5 | 1774.3 | 1765.1 | 1757.0 | 1754.7 | 1757.6 |
| 10° | 2173.5 | 2090.8 | 1949.1 | 1839.1 | 1773.2 | 1740.2 | 1728.1 | 1734.4 | 1740.2 | 1745.4 | 1751.2 |
| 12.5° | 2216.9 | 2101.2 | 1901.0 | 1768.6 | 1712.4 | 1699.7 | 1711.9 | 1739.6 | 1759.9 | 1772.0 | 1779.6 |
| 15° | 2273.6 | 2110.5 | 1845.5 | 1698.0 | 1660.4 | 1674.8 | 1715.9 | 1763.9 | 1799.2 | 1821.8 | 1825.3 |
| 17.5° | 2325.7 | 2109.9 | 1774.3 | 1626.8 | 1618.1 | 1660.4 | 1722.3 | 1790.0 | 1837.4 | 1869.2 | 1875.6 |
| 20° | 2379.5 | 2094.3 | 1691.6 | 1557.4 | 1575.3 | 1644.8 | 1725.2 | 1806.7 | 1864.0 | 1901.0 | 1909.7 |
| 22.5° | 2429.8 | 2067.1 | 1600.8 | 1494.3 | 1539.5 | 1623.9 | 1714.2 | 1796.9 | 1854.2 | 1884.3 | 1893.5 |
| 25° | 2464.0 | 2019.6 | 1508.8 | 1441.1 | 1507.6 | 1598.5 | 1678.3 | 1744.8 | 1787.7 | 1802.7 | 1805.0 |
| 27.5° | 2481.3 | 1957.7 | 1422.0 | 1394.8 | 1474.7 | 1556.8 | 1611.8 | 1644.8 | 1656.9 | 1655.8 | 1653.4 |
| 30° | 2483.6 | 1876.2 | 1347.4 | 1357.2 | 1436.5 | 1495.5 | 1521.5 | 1515.2 | 1499.5 | 1472.9 | 1475.2 |
| 32.5° | 2476.1 | 1784.2 | 1284.9 | 1321.4 | 1387.9 | 1420.9 | 1422.0 | 1391.4 | 1349.7 | 1307.5 | 1295.9 |
| 35° | 2478.4 | 1693.9 | 1230.0 | 1280.9 | 1328.9 | 1343.3 | 1330.0 | 1284.9 | 1228.2 | 1173.8 | 1162.3 |
| 37.5° | 2503.9 | 1615.3 | 1182.5 | 1234.0 | 1263.5 | 1267.0 | 1247.9 | 1200.4 | 1158.8 | 1105.6 | 1100.9 |
| 40° | 2564.6 | 1559.1 | 1137.4 | 1181.4 | 1198.1 | 1199.9 | 1172.7 | 1139.1 | 1142.6 | 1114.2 | 1113.7 |
| 42.5° | 2674.0 | 1534.8 | 1097.5 | 1126.4 | 1136.8 | 1140.3 | 1119.5 | 1098.0 | 1128.1 | 1109.6 | 1103.3 |
| 45° | 2815.1 | 1540.6 | 1063.9 | 1072.6 | 1091.7 | 1107.9 | 1095.2 | 1069.1 | 1080.7 | 1000.3 | 973.7 |
| 47.5° | 2978.3 | 1577.6 | 1037.3 | 1026.3 | 1059.3 | 1089.9 | 1070.3 | 1030.9 | 989.9 | 910.0 | 895.0 |
| 50° | 3169.2 | 1634.9 | 1013.0 | 980.6 | 1024.0 | 1065.7 | 1046.0 | 989.9 | 928.0 | 889.2 | 884.0 |
| 52.5° | 3368.2 | 1704.9 | 988.7 | 930.3 | 979.4 | 1047.1 | 1037.3 | 980.6 | 904.2 | 866.1 | 859.1 |
| 55° | 3593.8 | 1775.5 | 958.0 | 871.8 | 931.4 | 1038.5 | 1033.3 | 947.1 | 886.3 | 864.9 | 859.7 |
| 57.5° | 3874.4 | 1855.9 | 917.5 | 811.1 | 886.3 | 1007.2 | 991.0 | 926.8 | 867.8 | 851.6 | 849.9 |
| 60° | 4240.0 | 1974.5 | 859.1 | 746.3 | 831.3 | 959.2 | 955.7 | 897.3 | 838.3 | 826.7 | 824.4 |
| 62.5° | 4788.5 | 2170.6 | 778.7 | 681.5 | 770.0 | 877.6 | 909.4 | 857.4 | 807.0 | 806.5 | 807.6 |
| 65° | 5638.9 | 2465.7 | 691.3 | 624.8 | 708.1 | 808.8 | 855.6 | 816.3 | 775.2 | 786.8 | 788.5 |
| 67.5° | 6624.7 | 2710.4 | 605.7 | 569.3 | 645.1 | 743.4 | 807.0 | 775.2 | 733.0 | 763.1 | 763.7 |
| 70° | 6952.8 | 2491.7 | 530.5 | 514.3 | 579.7 | 680.4 | 754.4 | 730.1 | 687.3 | 717.4 | 714.5 |
| 72° | 6470.3 | 2011.5 | 481.9 | 472.7 | 530.5 | 628.3 | 707.5 | 687.9 | 645.6 | 665.9 | 658.4 |
| 72.5° | 6318.1 | 1917.8 | 469.8 | 462.2 | 517.2 | 615.0 | 695.4 | 677.5 | 635.2 | 652.6 | 645.6 |
| 75° | 5636.0 | 1665.6 | 403.8 | 405.5 | 451.3 | 550.2 | 627.1 | 621.3 | 578.0 | 579.7 | 577.4 |
| 77.5° | 4087.9 | 1221.3 | 340.2 | 351.7 | 384.1 | 483.7 | 558.3 | 554.8 | 507.4 | 498.7 | 497.0 |
| 80° | 1897.0 | 623.1 | 277.1 | 282.3 | 315.9 | 404.4 | 476.1 | 471.5 | 433.3 | 422.3 | 416.0 |
| 82.5° | 649.7 | 296.2 | 208.3 | 211.7 | 244.7 | 325.7 | 413.1 | 410.2 | 378.4 | 357.0 | 343.6 |
| 85° | 232.0 | 147.5 | 145.8 | 142.3 | 174.7 | 256.3 | 359.8 | 344.2 | 297.4 | 253.4 | 252.2 |
| 87.5° | 75.2 | 63.1 | 75.2 | 74.6 | 101.8 | 173.6 | 261.5 | 222.7 | 215.8 | 179.3 | 175.9 |
| 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)