

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: P317579

Luminaire Tested: **GLEON-SA5D-827-U-T2R**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P317579
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-1903-205-8)
Test Lab: INNOVATION CENTER
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: McGRAW-EDISON
Catalog Number: GLEON-SA5D-827-U-T2R
Description: GALLEON AREA AND ROADWAY LUMINAIRE
(5) 80 CRI, 2700K, 1200mA LIGHTSQUARES WITH 16 LEDS EACH AND TYPE II
ROADWAY OPTICS
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 29700 lumens
Efficiency: N/A
Efficacy: 92.8 lumens/watt
Luminous Opening: Rectangular (W 1.5' x L: 1' x H: 0')
IES Classification: Type II - Short
BUG Rating: B3 - U0 - G3

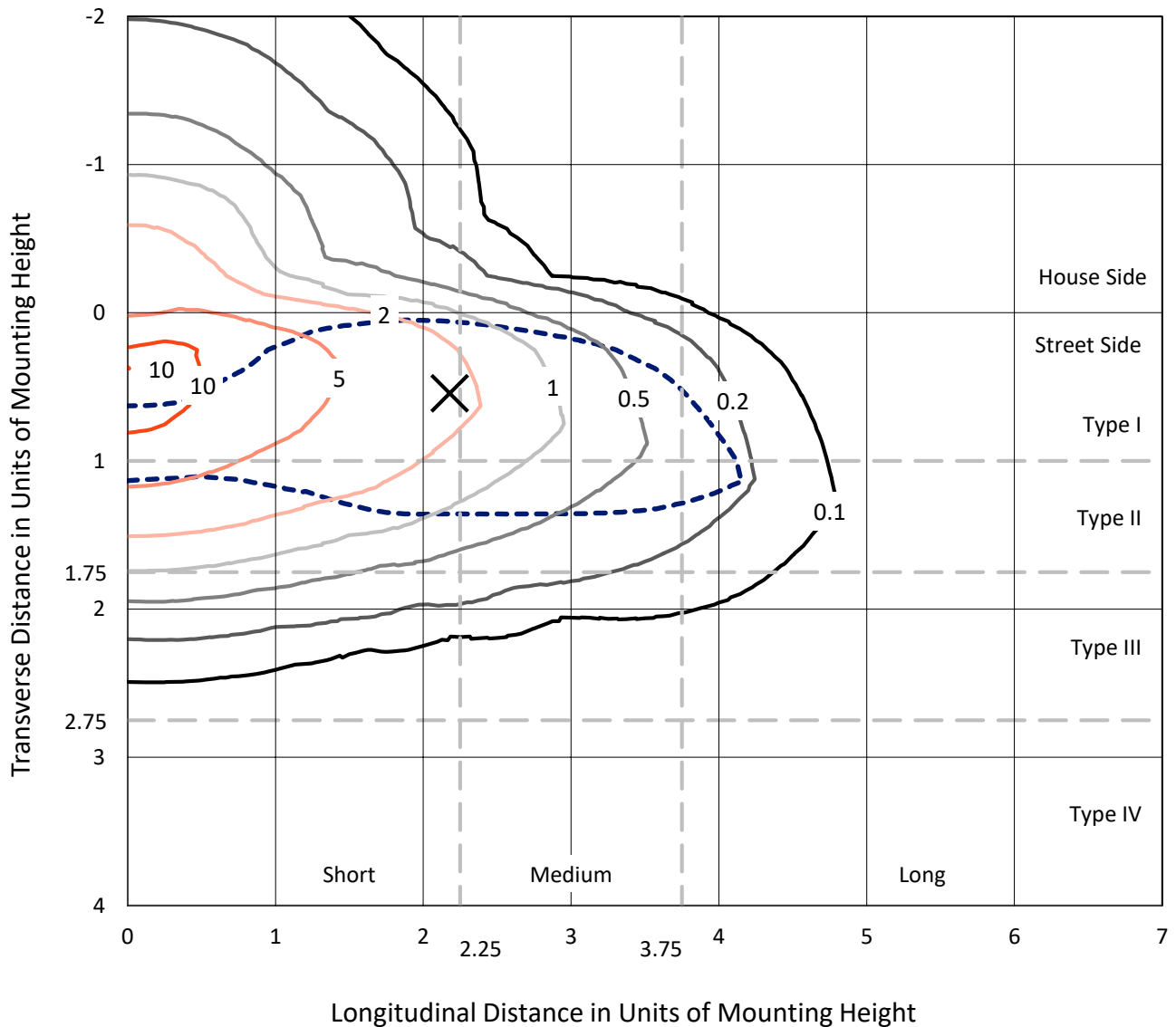
Input Watts (W): 320
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Iso-Footcandle Lines of Horizontal Illumination

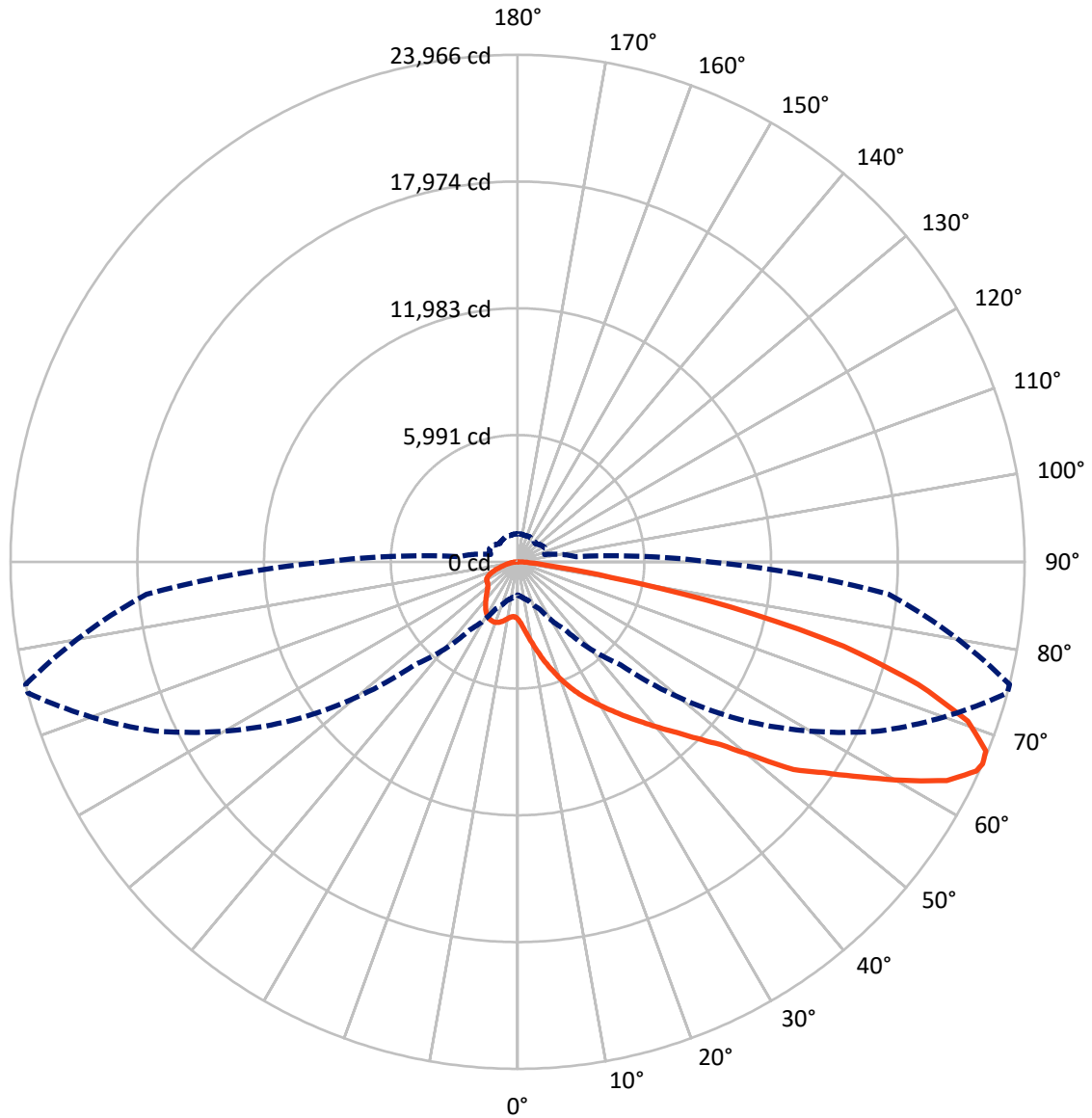
✕ Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 11.5 fc
 Type II - Short - N/A

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Luminous Intensity Polar Plot



— Vertical Plane Through 76-Deg Lateral - - - Horizontal Cone Through 66-Deg Vertical

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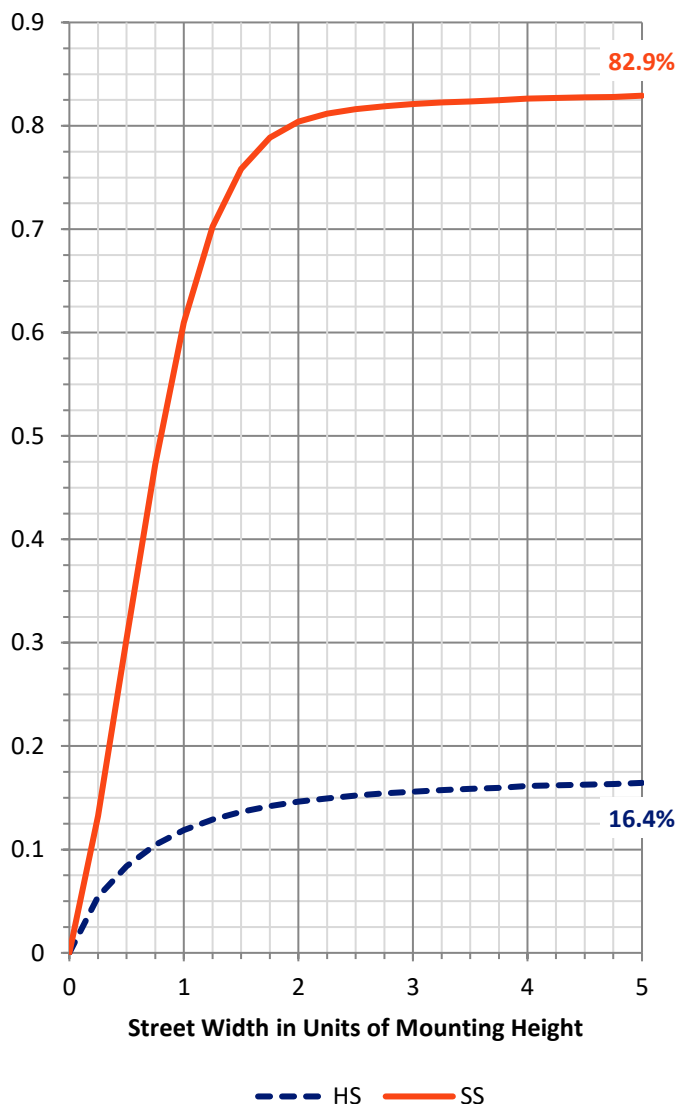
FLUX DISTRIBUTION:

| | | Downward | Upward | Total |
|--------------------|-----------|----------|--------|---------|
| House Side | Lumens | 4997.5 | 0.0 | 4997.5 |
| | % Fixture | 16.8 | 0.0 | 16.8 |
| Street Side | Lumens | 24702.5 | 0.0 | 24702.5 |
| | % Fixture | 83.2 | 0.0 | 83.2 |
| Total | Lumens | 29700.0 | 0.0 | 29700.0 |
| | % Fixture | 100.0 | 0.0 | 100.0 |

ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|---------|-----------|
| 0°-10° | 328.0 | 1.1 |
| 10°-20° | 1295.2 | 4.4 |
| 20°-30° | 2516.9 | 8.5 |
| 30°-40° | 4108.1 | 13.8 |
| 40°-50° | 5612.7 | 18.9 |
| 50°-60° | 6537.7 | 22.0 |
| 60°-70° | 5861.1 | 19.7 |
| 70°-80° | 2962.0 | 10.0 |
| 80°-90° | 478.3 | 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° | 29700.0 | 100.0 |
| 0°-180° | 29700.0 | 100.0 |

Coefficient of Utilization



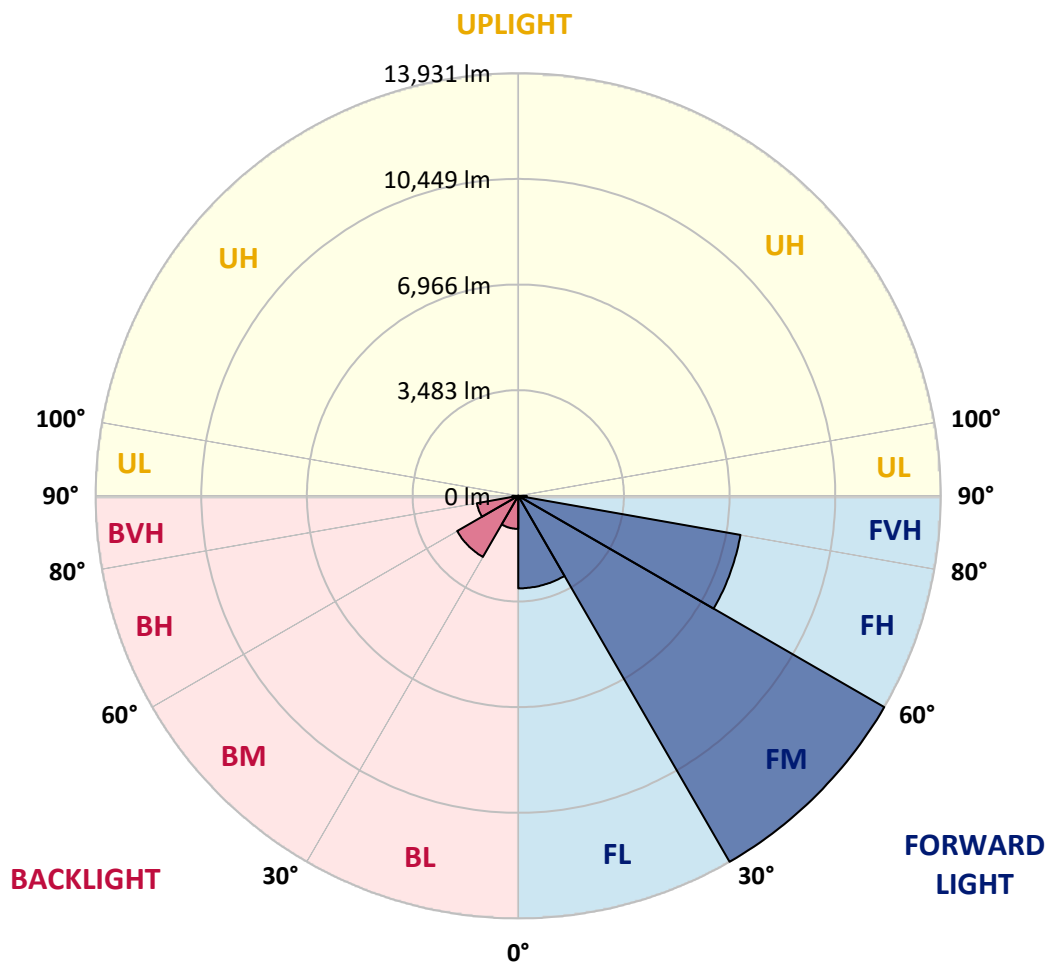
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

| Zone | Lumens | % Fixture | Zone Rating/Lumen Limit | | |
|----------------|---------|-----------|-------------------------|------|---------|
| | | | B | U | G |
| FL (0°-30°) | 3050.1 | 10.3 | | | |
| FM (30°-60°) | 13931.4 | 46.9 | | | |
| FH (60°-80°) | 7438.6 | 25.0 | | | G3/7500 |
| FVH (80°-90°) | 282.5 | 1.0 | | | G3/500 |
| BL (0°-30°) | 1090.0 | 3.7 | B3/2500 | | |
| BM (30°-60°) | 2327.1 | 7.8 | B2/2500 | | |
| BH (60°-80°) | 1384.5 | 4.7 | B3/2500 | | G3/2500 |
| BVH (80°-90°) | 195.8 | 0.7 | | | G2/225 |
| UL (90°-100°) | 0.0 | 0.0 | | U0/0 | |
| UH (100°-180°) | 0.0 | 0.0 | | U0/0 | |

BUG Rating: B3-U0-G3

Type II Short





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CANDELA DISTRIBUTION (FULL):

| | 0° | 5° | 15° | 25° | 35° | 45° | 55° | 65° | 75° | 76° | 85° |
|-------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|
| 0° | 2712.3 | 2712.3 | 2712.3 | 2712.3 | 2712.3 | 2712.3 | 2712.3 | 2712.3 | 2712.3 | 2712.3 | 2712.3 |
| 2.5° | 3600.6 | 3546.1 | 3541.1 | 3461.4 | 3443.3 | 3291.0 | 3179.1 | 3062.2 | 2929.1 | 2902.8 | 2798.0 |
| 5° | 4625.0 | 4620.0 | 4550.4 | 4420.3 | 4318.5 | 4058.3 | 3801.2 | 3529.0 | 3230.5 | 3182.1 | 2946.2 |
| 7.5° | 5546.6 | 5538.5 | 5485.1 | 5344.9 | 5197.7 | 4878.1 | 4511.1 | 4093.6 | 3609.7 | 3538.1 | 3146.8 |
| 10° | 6246.3 | 6243.3 | 6225.1 | 6122.3 | 5997.3 | 5690.7 | 5285.4 | 4715.7 | 4050.3 | 3952.5 | 3397.9 |
| 12.5° | 6786.7 | 6792.8 | 6804.9 | 6768.6 | 6709.1 | 6448.0 | 6032.6 | 5375.2 | 4520.1 | 4423.3 | 3677.2 |
| 15° | 7152.8 | 7170.9 | 7233.4 | 7284.8 | 7316.1 | 7155.8 | 6753.5 | 6049.7 | 5046.5 | 4930.5 | 3986.7 |
| 17.5° | 7337.3 | 7357.4 | 7465.3 | 7620.6 | 7763.8 | 7747.6 | 7428.0 | 6693.0 | 5551.6 | 5439.7 | 4319.5 |
| 20° | 7496.6 | 7511.7 | 7632.7 | 7819.2 | 8072.3 | 8184.2 | 8004.8 | 7312.1 | 6105.2 | 5972.1 | 4672.4 |
| 22.5° | 7958.4 | 7977.5 | 8013.8 | 8119.7 | 8343.5 | 8549.2 | 8462.5 | 7897.9 | 6612.3 | 6488.3 | 5007.1 |
| 25° | 8849.7 | 8872.9 | 8794.2 | 8704.5 | 8746.9 | 8890.0 | 8906.2 | 8432.3 | 7126.5 | 6986.4 | 5367.1 |
| 27.5° | 9923.5 | 9956.8 | 9822.7 | 9591.8 | 9390.1 | 9334.7 | 9315.5 | 8869.9 | 7617.6 | 7455.2 | 5723.0 |
| 30° | 10975.2 | 11032.6 | 10858.2 | 10558.7 | 10188.7 | 9928.6 | 9736.0 | 9298.4 | 8101.5 | 7946.3 | 6058.8 |
| 32.5° | 12002.6 | 11979.4 | 11726.3 | 11433.9 | 11000.4 | 10674.7 | 10208.9 | 9758.2 | 8646.0 | 8467.6 | 6392.5 |
| 35° | 12706.4 | 12714.4 | 12479.5 | 12132.7 | 11719.3 | 11469.2 | 10842.1 | 10254.2 | 9201.6 | 9037.2 | 6771.6 |
| 37.5° | 13305.3 | 13268.0 | 13001.8 | 12678.1 | 12322.2 | 12215.3 | 11583.1 | 10800.7 | 9803.5 | 9624.1 | 7174.9 |
| 40° | 13504.9 | 13461.6 | 13287.1 | 13054.2 | 12768.9 | 12759.8 | 12400.9 | 11419.8 | 10484.1 | 10306.7 | 7629.7 |
| 42.5° | 13383.9 | 13328.5 | 13256.9 | 13193.4 | 13105.7 | 13146.0 | 13169.2 | 12145.8 | 11232.3 | 11033.6 | 8156.0 |
| 45° | 12937.3 | 12853.6 | 12904.0 | 13042.1 | 13232.7 | 13460.6 | 13862.9 | 12949.4 | 12070.1 | 11903.8 | 8774.1 |
| 47.5° | 12250.6 | 12175.0 | 12332.3 | 12627.7 | 13146.0 | 13722.7 | 14519.3 | 13836.7 | 13070.4 | 12905.0 | 9654.3 |
| 50° | 11284.7 | 11306.9 | 11531.7 | 12069.1 | 12852.6 | 13843.7 | 15327.9 | 15011.3 | 14524.3 | 14370.0 | 10855.2 |
| 52.5° | 9699.7 | 9703.7 | 10336.9 | 11219.2 | 12332.3 | 13781.2 | 15776.6 | 16512.6 | 16509.6 | 16323.1 | 11998.6 |
| 55° | 8227.6 | 8317.3 | 8818.4 | 9991.1 | 11489.4 | 13531.2 | 16090.2 | 17242.6 | 17813.3 | 17594.5 | 13064.3 |
| 57.5° | 6789.8 | 6842.2 | 7317.1 | 8494.8 | 10286.5 | 12864.7 | 16411.8 | 18118.8 | 19315.7 | 19177.5 | 14389.2 |
| 60° | 5154.3 | 5235.0 | 5726.0 | 6814.0 | 8747.9 | 11682.0 | 16442.1 | 19033.3 | 21111.4 | 20972.3 | 15868.3 |
| 62.5° | 3345.5 | 3484.6 | 3944.4 | 4963.8 | 6886.6 | 9981.0 | 15740.3 | 19631.3 | 22813.4 | 22764.0 | 17181.1 |
| 65° | 1922.8 | 2027.7 | 2347.3 | 3133.7 | 4751.0 | 7845.4 | 14071.6 | 19401.4 | 23861.0 | 23832.8 | 17672.2 |
| 66° | 1570.9 | 1636.4 | 1881.5 | 2449.1 | 3920.2 | 6889.6 | 13101.6 | 18916.4 | 23964.9 | 23965.9 | 17615.7 |
| 67.5° | 1256.3 | 1285.6 | 1395.5 | 1753.4 | 2892.8 | 5460.9 | 11368.4 | 17846.6 | 23835.8 | 23871.1 | 17251.7 |
| 70° | 1039.5 | 1054.7 | 1088.9 | 1175.7 | 1579.0 | 3293.1 | 8069.3 | 15066.8 | 22540.2 | 22567.4 | 15831.0 |
| 72.5° | 932.7 | 941.7 | 954.8 | 966.9 | 1114.2 | 1840.1 | 4928.5 | 12053.0 | 19762.3 | 19797.6 | 13666.3 |
| 75° | 844.9 | 850.0 | 848.0 | 849.0 | 934.7 | 1172.6 | 2546.9 | 8998.9 | 15979.3 | 15908.7 | 10469.0 |
| 77.5° | 742.1 | 747.1 | 737.1 | 739.1 | 826.8 | 901.4 | 1267.4 | 6299.7 | 10783.6 | 10285.5 | 5898.5 |
| 80° | 627.2 | 631.2 | 627.2 | 634.2 | 719.9 | 680.6 | 737.1 | 3544.1 | 4768.2 | 4510.0 | 2097.2 |
| 82.5° | 473.9 | 491.0 | 503.1 | 531.4 | 592.9 | 484.0 | 493.1 | 1380.3 | 1451.9 | 1382.4 | 643.3 |
| 85° | 207.7 | 253.1 | 379.1 | 406.3 | 445.7 | 290.4 | 323.7 | 562.6 | 590.9 | 572.7 | 233.9 |
| 87.5° | 54.4 | 59.5 | 187.5 | 235.9 | 247.0 | 131.1 | 168.4 | 256.1 | 270.2 | 256.1 | 77.6 |
| 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° | 2712.3 | 2712.3 | 2712.3 | 2712.3 | 2712.3 | 2712.3 | 2712.3 | 2712.3 | 2712.3 | 2712.3 | 2712.3 |
| 2.5° | 2742.5 | 2693.1 | 2604.4 | 2525.7 | 2466.3 | 2425.9 | 2385.6 | 2365.4 | 2353.3 | 2341.2 | 2343.2 |
| 5° | 2830.2 | 2730.4 | 2578.2 | 2470.3 | 2409.8 | 2371.5 | 2351.3 | 2343.2 | 2338.2 | 2326.1 | 2326.1 |
| 7.5° | 2962.3 | 2821.2 | 2611.5 | 2500.5 | 2453.2 | 2423.9 | 2411.8 | 2407.8 | 2401.7 | 2387.6 | 2389.6 |
| 10° | 3128.7 | 2931.1 | 2681.0 | 2573.1 | 2529.8 | 2497.5 | 2480.4 | 2474.3 | 2463.2 | 2447.1 | 2449.1 |
| 12.5° | 3324.3 | 3067.2 | 2772.8 | 2659.8 | 2607.4 | 2564.1 | 2535.8 | 2518.7 | 2499.5 | 2478.4 | 2479.4 |
| 15° | 3538.1 | 3215.4 | 2871.6 | 2737.5 | 2665.9 | 2605.4 | 2560.0 | 2530.8 | 2500.5 | 2474.3 | 2473.3 |
| 17.5° | 3754.8 | 3358.6 | 2947.2 | 2779.8 | 2683.0 | 2603.4 | 2541.9 | 2496.5 | 2459.2 | 2426.9 | 2423.9 |
| 20° | 3988.8 | 3487.6 | 2989.6 | 2775.8 | 2650.8 | 2556.0 | 2474.3 | 2417.9 | 2376.5 | 2344.3 | 2339.2 |
| 22.5° | 4226.7 | 3608.6 | 2996.6 | 2734.5 | 2579.2 | 2463.2 | 2377.5 | 2315.0 | 2272.7 | 2239.4 | 2227.3 |
| 25° | 4444.5 | 3702.4 | 2967.4 | 2654.8 | 2479.4 | 2354.3 | 2270.7 | 2207.1 | 2172.8 | 2133.5 | 2121.4 |
| 27.5° | 4643.1 | 3768.0 | 2908.9 | 2553.0 | 2367.4 | 2244.4 | 2165.8 | 2111.3 | 2074.0 | 2043.8 | 2033.7 |
| 30° | 4821.6 | 3803.2 | 2813.1 | 2432.0 | 2252.5 | 2140.6 | 2074.0 | 2036.7 | 2004.5 | 1966.2 | 1959.1 |
| 32.5° | 4991.0 | 3803.2 | 2690.1 | 2299.9 | 2138.6 | 2048.8 | 2009.5 | 1986.3 | 1950.0 | 1912.7 | 1902.6 |
| 35° | 5160.4 | 3780.1 | 2544.9 | 2161.8 | 2033.7 | 1983.3 | 1981.3 | 1954.1 | 1898.6 | 1848.2 | 1835.1 |
| 37.5° | 5338.9 | 3732.7 | 2381.6 | 2032.7 | 1948.0 | 1954.1 | 1971.2 | 1910.7 | 1832.0 | 1760.5 | 1741.3 |
| 40° | 5540.5 | 3667.1 | 2212.2 | 1920.8 | 1876.4 | 1940.9 | 1944.0 | 1848.2 | 1694.9 | 1629.4 | 1612.2 |
| 42.5° | 5777.5 | 3601.6 | 2054.9 | 1822.0 | 1819.9 | 1901.6 | 1892.5 | 1713.1 | 1621.3 | 1588.0 | 1579.0 |
| 45° | 6089.0 | 3564.3 | 1905.7 | 1728.2 | 1775.6 | 1838.1 | 1804.8 | 1638.5 | 1600.1 | 1581.0 | 1572.9 |
| 47.5° | 6580.1 | 3583.4 | 1768.5 | 1653.6 | 1731.2 | 1774.6 | 1641.5 | 1608.2 | 1581.0 | 1557.8 | 1549.7 |
| 50° | 7195.1 | 3572.3 | 1657.6 | 1602.2 | 1680.8 | 1708.0 | 1567.9 | 1568.9 | 1554.8 | 1528.6 | 1516.5 |
| 52.5° | 7657.9 | 3485.6 | 1586.0 | 1572.9 | 1636.4 | 1590.1 | 1521.5 | 1530.6 | 1523.5 | 1485.2 | 1472.1 |
| 55° | 8104.6 | 3411.0 | 1549.7 | 1561.8 | 1604.2 | 1442.9 | 1467.1 | 1489.2 | 1482.2 | 1444.9 | 1438.8 |
| 57.5° | 8660.1 | 3396.9 | 1527.5 | 1564.9 | 1577.0 | 1369.2 | 1414.6 | 1443.9 | 1438.8 | 1422.7 | 1419.7 |
| 60° | 9340.7 | 3400.9 | 1507.4 | 1569.9 | 1546.7 | 1314.8 | 1365.2 | 1402.5 | 1405.5 | 1402.5 | 1400.5 |
| 62.5° | 9714.8 | 3291.0 | 1457.0 | 1555.8 | 1493.3 | 1267.4 | 1313.8 | 1368.2 | 1369.2 | 1375.3 | 1374.3 |
| 65° | 9397.2 | 2962.3 | 1363.2 | 1506.4 | 1403.5 | 1228.1 | 1269.4 | 1328.9 | 1313.8 | 1341.0 | 1341.0 |
| 66° | 9088.7 | 2772.8 | 1316.8 | 1474.1 | 1365.2 | 1213.0 | 1255.3 | 1308.8 | 1289.6 | 1326.9 | 1326.9 |
| 67.5° | 8458.5 | 2453.2 | 1233.1 | 1405.5 | 1310.8 | 1191.8 | 1239.2 | 1275.5 | 1249.3 | 1304.7 | 1300.7 |
| 70° | 7307.0 | 1897.6 | 1064.7 | 1250.3 | 1221.0 | 1160.5 | 1217.0 | 1208.9 | 1170.6 | 1255.3 | 1239.2 |
| 72.5° | 6160.6 | 1441.8 | 855.0 | 1046.6 | 1084.9 | 1121.2 | 1185.7 | 1124.2 | 1075.8 | 1135.3 | 1100.0 |
| 75° | 4780.3 | 1083.9 | 675.5 | 813.7 | 916.5 | 1059.7 | 1148.4 | 1026.4 | 956.9 | 950.8 | 931.7 |
| 77.5° | 2584.2 | 744.1 | 535.4 | 621.1 | 728.0 | 983.1 | 1123.2 | 921.6 | 816.7 | 792.5 | 777.4 |
| 80° | 1023.4 | 484.0 | 389.2 | 470.9 | 509.2 | 872.2 | 1062.7 | 799.6 | 673.5 | 649.3 | 626.1 |
| 82.5° | 422.5 | 286.4 | 251.1 | 315.6 | 331.7 | 746.1 | 953.8 | 655.4 | 520.3 | 719.9 | 764.3 |
| 85° | 181.5 | 157.3 | 149.2 | 163.3 | 187.5 | 523.3 | 759.2 | 500.1 | 561.6 | 501.1 | 398.3 |
| 87.5° | 54.4 | 66.5 | 63.5 | 62.5 | 68.6 | 125.0 | 404.3 | 278.3 | 412.4 | 156.3 | 117.0 |
| 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)