

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: P652024

Luminaire Tested: **GALN-SA7A-840-U-T2R**

Issue Date: 1/4/2021

Test Information

Test Method: LM-79-08
Report Number: P652024
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2011-042-6)
Test Lab: INNOVATION CENTER
Issue Date: 1/4/2021
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: McGRAW-EDISON
Catalog Number: GALN-SA7A-840-U-T2R
Description: GALLEON AREA AND ROADWAY LUMINAIRE
(7) 80 CRI, 4000K, 615mA LIGHTSQUARES WITH 16 LEDS EACH AND TYPE II
ROADWAY OPTICS
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 27300.5 lumens
Efficiency: N/A
Efficacy: 127.0 lumens/watt
Luminous Opening: Rectangular (W 1.5' x L: 1.5' x H: 0')
IES Classification: Type II - Short
BUG Rating: B3 - U0 - G3

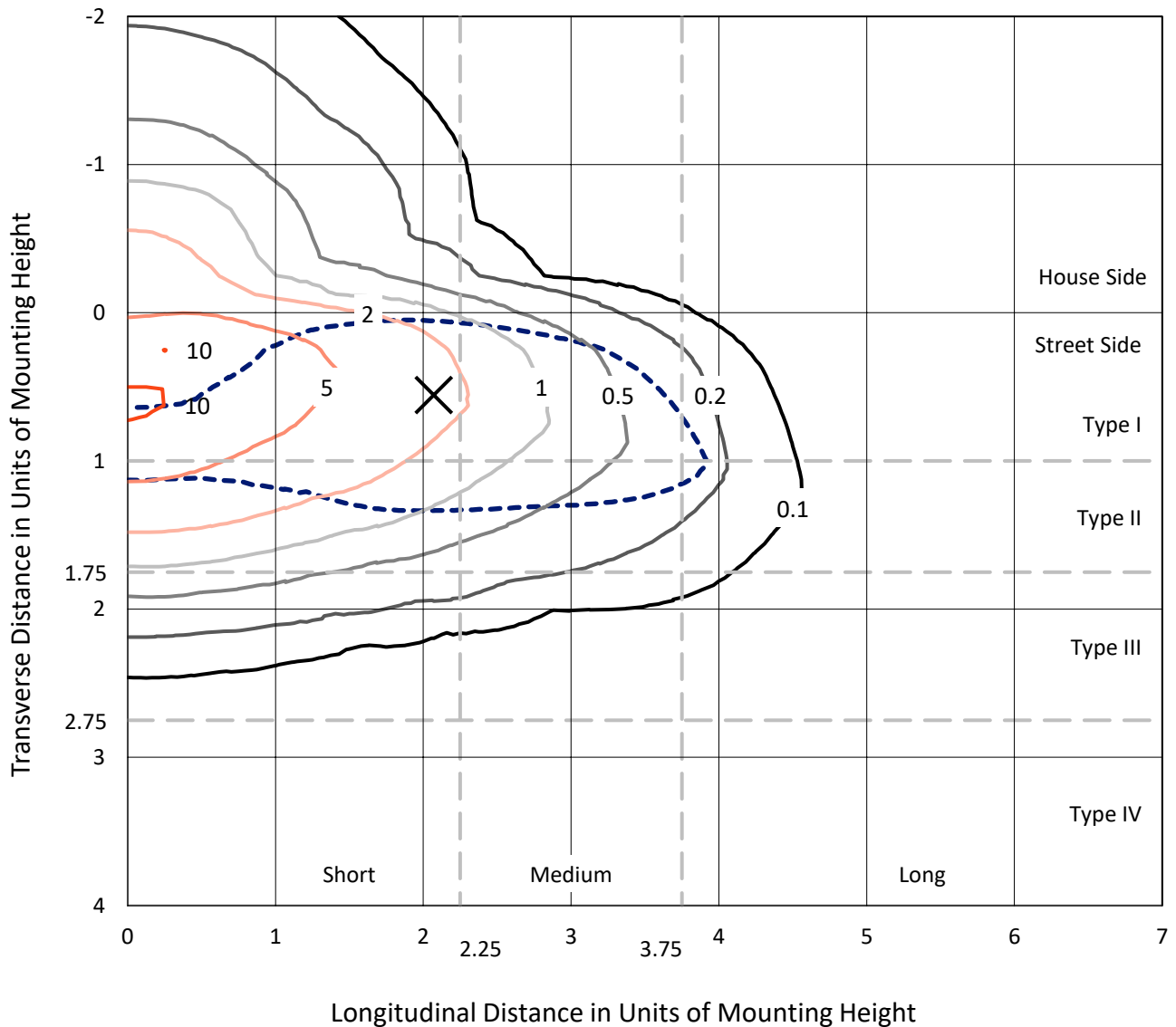
Input Watts (W): 215
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Iso-Footcandle Lines of Horizontal Illumination

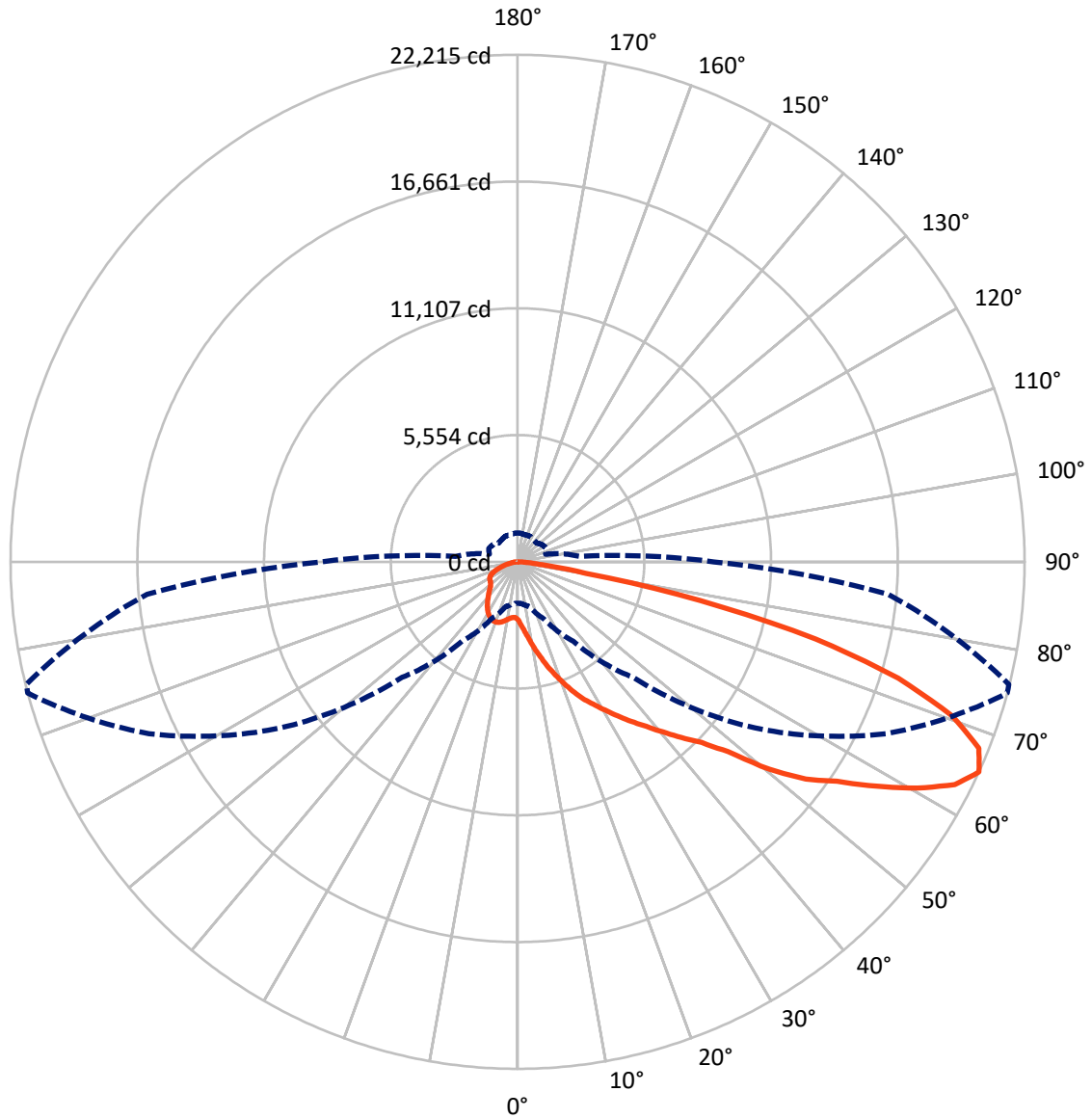
✕ Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 10.5 fc
 Type II - Short - N/A

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Luminous Intensity Polar Plot



— Vertical Plane Through 75-Deg Lateral - - - Horizontal Cone Through 65-Deg Vertical

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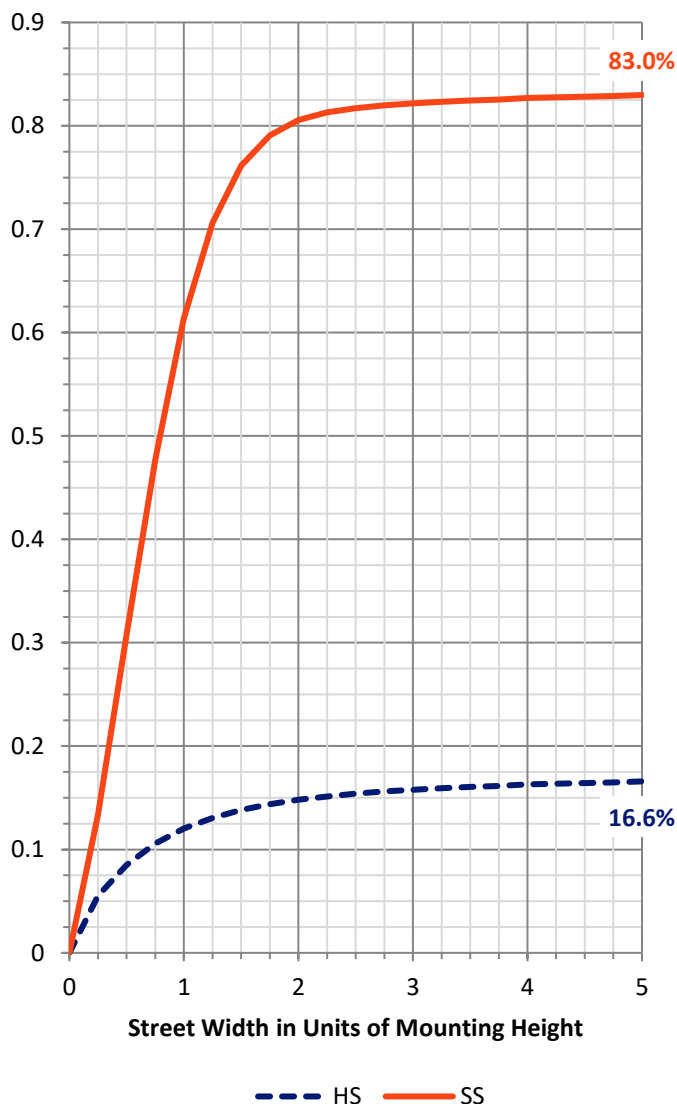
FLUX DISTRIBUTION:

| | | Downward | Upward | Total |
|--------------------|-----------|----------|--------|---------|
| House Side | Lumens | 4589.6 | 0.0 | 4589.6 |
| | % Fixture | 16.8 | 0.0 | 16.8 |
| Street Side | Lumens | 22711.0 | 0.0 | 22711.0 |
| | % Fixture | 83.2 | 0.0 | 83.2 |
| Total | Lumens | 27300.5 | 0.0 | 27300.5 |
| | % Fixture | 100.0 | 0.0 | 100.0 |

ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|---------|-----------|
| 0°-10° | 308.2 | 1.1 |
| 10°-20° | 1207.1 | 4.4 |
| 20°-30° | 2331.7 | 8.5 |
| 30°-40° | 3787.5 | 13.9 |
| 40°-50° | 5210.0 | 19.1 |
| 50°-60° | 6151.2 | 22.5 |
| 60°-70° | 5389.5 | 19.7 |
| 70°-80° | 2573.0 | 9.4 |
| 80°-90° | 342.4 | 1.3 |
| 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° | 27300.5 | 100.0 |
| 0°-180° | 27300.5 | 100.0 |

Coefficient of Utilization



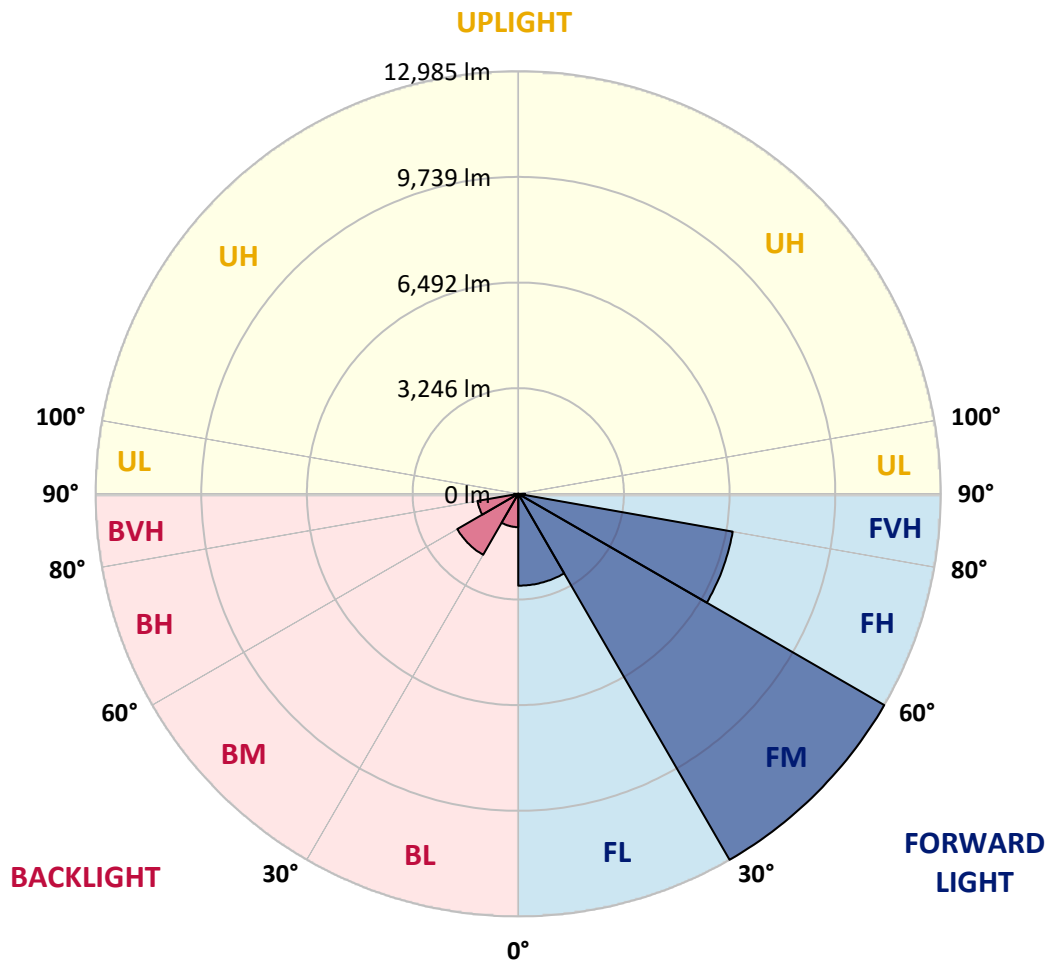
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

| Zone | Lumens | % Fixture | Zone Rating/Lumen Limit | | |
|----------------|---------|-----------|-------------------------|------|---------|
| | | | B | U | G |
| FL (0°-30°) | 2822.4 | 10.3 | | | |
| FM (30°-60°) | 12984.7 | 47.6 | | | |
| FH (60°-80°) | 6689.9 | 24.5 | | | G3/7500 |
| FVH (80°-90°) | 214.0 | 0.8 | | | G2/225 |
| BL (0°-30°) | 1024.6 | 3.8 | B3/2500 | | |
| BM (30°-60°) | 2164.0 | 7.9 | B2/2500 | | |
| BH (60°-80°) | 1272.6 | 4.7 | B3/2500 | | G3/2500 |
| BVH (80°-90°) | 128.4 | 0.5 | | | 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° | 2536.5 | 2536.5 | 2536.5 | 2536.5 | 2536.5 | 2536.5 | 2536.5 | 2536.5 | 2536.5 | 2536.5 | 2536.5 |
| 2.5° | 3370.2 | 3348.0 | 3324.3 | 3259.2 | 3189.6 | 3111.1 | 2998.6 | 2890.4 | 2746.9 | 2742.4 | 2635.8 |
| 5° | 4304.6 | 4289.8 | 4184.6 | 4123.9 | 3962.5 | 3747.8 | 3565.7 | 3282.8 | 3020.8 | 2989.7 | 2782.4 |
| 7.5° | 5163.5 | 5105.7 | 5065.8 | 4956.2 | 4796.2 | 4520.8 | 4168.4 | 3786.4 | 3348.0 | 3306.6 | 2963.0 |
| 10° | 5810.6 | 5804.7 | 5783.9 | 5689.1 | 5569.2 | 5295.3 | 4904.3 | 4356.5 | 3762.6 | 3681.2 | 3182.2 |
| 12.5° | 6294.8 | 6299.2 | 6296.2 | 6294.8 | 6208.9 | 5976.4 | 5552.9 | 4975.4 | 4181.7 | 4123.9 | 3435.4 |
| 15° | 6613.1 | 6657.5 | 6675.4 | 6749.4 | 6756.8 | 6601.3 | 6237.0 | 5573.6 | 4654.1 | 4568.2 | 3707.9 |
| 17.5° | 6823.4 | 6845.7 | 6928.6 | 7054.4 | 7156.6 | 7128.5 | 6804.2 | 6127.4 | 5136.8 | 4993.2 | 3990.7 |
| 20° | 7024.8 | 7063.3 | 7127.0 | 7298.7 | 7479.3 | 7562.3 | 7334.3 | 6694.6 | 5615.1 | 5523.3 | 4303.1 |
| 22.5° | 7443.9 | 7498.6 | 7520.8 | 7608.2 | 7762.2 | 7908.8 | 7805.2 | 7238.0 | 6139.3 | 6014.9 | 4634.8 |
| 25° | 8153.2 | 8210.9 | 8148.7 | 8127.9 | 8178.3 | 8250.9 | 8228.7 | 7750.4 | 6633.9 | 6456.2 | 4948.8 |
| 27.5° | 9077.2 | 9084.6 | 8963.1 | 8847.7 | 8723.3 | 8686.2 | 8618.1 | 8205.0 | 7063.3 | 6915.2 | 5264.2 |
| 30° | 10069.3 | 10033.7 | 9832.3 | 9623.6 | 9413.3 | 9206.0 | 9010.5 | 8643.3 | 7541.6 | 7371.3 | 5573.6 |
| 32.5° | 10990.3 | 10971.0 | 10747.5 | 10423.2 | 10067.8 | 9872.3 | 9477.0 | 9086.0 | 8053.9 | 7889.6 | 5892.0 |
| 35° | 11680.3 | 11708.5 | 11462.7 | 11108.8 | 10720.8 | 10547.6 | 10048.5 | 9551.0 | 8584.0 | 8404.9 | 6238.5 |
| 37.5° | 12170.4 | 12155.6 | 11938.0 | 11631.5 | 11290.9 | 11139.9 | 10716.4 | 10058.9 | 9154.1 | 8982.4 | 6617.6 |
| 40° | 12345.2 | 12336.3 | 12174.9 | 11951.3 | 11735.1 | 11681.8 | 11415.3 | 10606.8 | 9807.2 | 9605.8 | 7073.7 |
| 42.5° | 12234.1 | 12253.4 | 12146.8 | 12086.1 | 12046.1 | 12084.6 | 12109.7 | 11325.0 | 10519.4 | 10334.3 | 7568.2 |
| 45° | 11893.6 | 11883.2 | 11868.4 | 11967.6 | 12192.6 | 12445.9 | 12796.8 | 12003.2 | 11293.9 | 11145.8 | 8231.6 |
| 47.5° | 11285.0 | 11359.1 | 11396.1 | 11670.0 | 12161.6 | 12761.3 | 13587.6 | 12912.4 | 12417.8 | 12288.9 | 9243.0 |
| 50° | 10433.5 | 10492.7 | 10711.9 | 11199.1 | 11932.1 | 12879.7 | 14360.6 | 14399.0 | 14292.5 | 14051.1 | 10341.7 |
| 52.5° | 9103.8 | 9195.6 | 9647.3 | 10540.2 | 11461.1 | 12830.9 | 14828.4 | 15674.0 | 15814.7 | 15634.0 | 11424.1 |
| 55° | 7615.6 | 7744.4 | 8221.3 | 9392.5 | 10812.6 | 12564.4 | 15151.3 | 16412.9 | 16974.1 | 16806.8 | 12466.6 |
| 57.5° | 6158.6 | 6294.8 | 6784.9 | 7919.2 | 9681.3 | 11975.0 | 15363.1 | 17236.2 | 18552.6 | 18335.0 | 13763.8 |
| 60° | 4615.6 | 4757.7 | 5178.3 | 6346.6 | 8070.2 | 10823.0 | 15219.4 | 17950.0 | 20129.7 | 20036.3 | 15062.4 |
| 62.5° | 2977.8 | 3134.8 | 3500.6 | 4467.5 | 6203.0 | 9248.9 | 14450.9 | 18343.8 | 21495.0 | 21382.3 | 16010.1 |
| 65° | 1814.0 | 1831.7 | 2033.1 | 2773.4 | 4245.4 | 7161.0 | 12693.2 | 17821.1 | 22214.6 | 22180.5 | 16298.9 |
| 67.5° | 1172.8 | 1200.9 | 1292.7 | 1661.4 | 2545.5 | 4973.9 | 10149.2 | 16096.0 | 21794.0 | 21782.2 | 15702.1 |
| 70° | 990.6 | 999.5 | 1041.0 | 1121.0 | 1479.3 | 3016.3 | 7127.0 | 13346.2 | 20196.3 | 20196.3 | 14267.2 |
| 72.5° | 885.5 | 897.3 | 912.1 | 937.3 | 1055.8 | 1708.8 | 4252.8 | 10389.1 | 17437.6 | 17553.1 | 12143.8 |
| 75° | 804.1 | 801.1 | 810.0 | 814.4 | 900.3 | 1116.5 | 2199.0 | 7683.7 | 13489.8 | 13258.9 | 8794.3 |
| 77.5° | 688.5 | 693.0 | 688.5 | 707.8 | 795.2 | 850.0 | 1116.5 | 5156.1 | 8175.4 | 7876.2 | 4414.2 |
| 80° | 565.7 | 573.1 | 580.5 | 592.3 | 679.7 | 645.6 | 670.8 | 2350.0 | 3023.7 | 2960.1 | 1363.8 |
| 82.5° | 425.0 | 435.4 | 447.2 | 475.3 | 534.5 | 426.5 | 423.5 | 1004.0 | 1091.4 | 999.5 | 502.0 |
| 85° | 171.7 | 202.8 | 306.5 | 334.6 | 336.1 | 234.0 | 260.6 | 419.1 | 445.7 | 435.4 | 197.0 |
| 87.5° | 39.9 | 47.3 | 99.2 | 149.5 | 137.7 | 87.4 | 96.2 | 136.2 | 155.5 | 143.6 | 66.6 |
| 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° | 2536.5 | 2536.5 | 2536.5 | 2536.5 | 2536.5 | 2536.5 | 2536.5 | 2536.5 | 2536.5 | 2536.5 | 2536.5 |
| 2.5° | 2586.9 | 2535.1 | 2446.2 | 2378.1 | 2329.2 | 2286.3 | 2259.7 | 2243.4 | 2237.5 | 2236.0 | 2237.5 |
| 5° | 2674.3 | 2582.5 | 2441.8 | 2352.9 | 2304.1 | 2275.9 | 2259.7 | 2258.2 | 2259.7 | 2261.1 | 2256.7 |
| 7.5° | 2794.2 | 2662.4 | 2478.8 | 2395.9 | 2358.8 | 2338.1 | 2330.7 | 2327.8 | 2329.2 | 2327.8 | 2327.8 |
| 10° | 2954.2 | 2773.4 | 2551.3 | 2465.5 | 2434.4 | 2410.7 | 2398.9 | 2391.5 | 2385.5 | 2379.6 | 2376.7 |
| 12.5° | 3130.4 | 2896.4 | 2629.9 | 2547.0 | 2502.5 | 2465.5 | 2438.8 | 2419.6 | 2406.3 | 2392.9 | 2390.0 |
| 15° | 3327.3 | 3026.7 | 2717.2 | 2601.7 | 2538.1 | 2483.2 | 2437.4 | 2406.3 | 2382.6 | 2363.3 | 2361.9 |
| 17.5° | 3515.4 | 3149.6 | 2776.5 | 2626.9 | 2533.6 | 2456.6 | 2395.9 | 2352.9 | 2323.3 | 2298.2 | 2295.2 |
| 20° | 3716.7 | 3266.6 | 2803.1 | 2610.6 | 2489.2 | 2395.9 | 2315.9 | 2264.1 | 2230.1 | 2201.9 | 2197.4 |
| 22.5° | 3919.6 | 3365.8 | 2800.1 | 2558.7 | 2412.2 | 2302.6 | 2218.2 | 2163.4 | 2123.4 | 2095.3 | 2084.9 |
| 25° | 4113.6 | 3445.7 | 2763.1 | 2475.8 | 2305.6 | 2191.6 | 2105.7 | 2055.3 | 2019.7 | 1985.7 | 1985.7 |
| 27.5° | 4288.3 | 3493.2 | 2693.6 | 2375.2 | 2196.0 | 2076.0 | 2007.9 | 1962.1 | 1929.4 | 1907.2 | 1893.9 |
| 30° | 4460.1 | 3515.4 | 2598.8 | 2247.8 | 2080.5 | 1978.3 | 1923.5 | 1896.9 | 1867.3 | 1842.0 | 1839.1 |
| 32.5° | 4614.1 | 3510.9 | 2480.3 | 2123.4 | 1970.9 | 1898.4 | 1876.1 | 1855.4 | 1824.3 | 1788.8 | 1779.9 |
| 35° | 4763.7 | 3481.3 | 2339.7 | 1987.2 | 1879.1 | 1851.0 | 1856.9 | 1827.2 | 1771.0 | 1726.6 | 1719.2 |
| 37.5° | 4926.5 | 3428.0 | 2185.6 | 1876.1 | 1802.1 | 1828.8 | 1843.6 | 1778.4 | 1686.6 | 1617.0 | 1600.7 |
| 40° | 5114.6 | 3367.3 | 2025.7 | 1765.1 | 1741.4 | 1808.1 | 1808.1 | 1688.1 | 1562.2 | 1519.3 | 1507.4 |
| 42.5° | 5335.2 | 3316.9 | 1892.4 | 1671.8 | 1691.1 | 1757.7 | 1750.3 | 1568.1 | 1516.3 | 1494.1 | 1488.1 |
| 45° | 5684.7 | 3299.2 | 1754.7 | 1590.3 | 1649.6 | 1698.5 | 1637.8 | 1526.7 | 1497.1 | 1479.3 | 1473.3 |
| 47.5° | 6237.0 | 3319.9 | 1633.3 | 1529.6 | 1602.2 | 1639.2 | 1511.9 | 1498.6 | 1477.8 | 1452.7 | 1449.7 |
| 50° | 6749.4 | 3300.7 | 1547.4 | 1495.6 | 1560.7 | 1568.1 | 1460.1 | 1464.5 | 1452.7 | 1424.5 | 1418.6 |
| 52.5° | 7168.4 | 3240.0 | 1492.6 | 1477.8 | 1525.2 | 1443.7 | 1411.2 | 1427.4 | 1423.1 | 1387.5 | 1381.6 |
| 55° | 7629.0 | 3202.9 | 1465.9 | 1477.8 | 1501.5 | 1335.7 | 1365.3 | 1389.0 | 1383.0 | 1357.9 | 1356.4 |
| 57.5° | 8187.2 | 3210.3 | 1446.7 | 1482.3 | 1477.8 | 1280.8 | 1319.4 | 1347.5 | 1346.0 | 1338.6 | 1338.6 |
| 60° | 8758.8 | 3213.3 | 1417.1 | 1480.7 | 1449.7 | 1238.0 | 1272.0 | 1312.0 | 1314.9 | 1319.4 | 1319.4 |
| 62.5° | 8948.3 | 3084.5 | 1359.3 | 1454.1 | 1387.5 | 1196.5 | 1227.5 | 1282.4 | 1279.4 | 1291.3 | 1292.7 |
| 65° | 8594.4 | 2727.6 | 1273.4 | 1393.4 | 1307.5 | 1166.9 | 1193.5 | 1243.8 | 1227.5 | 1258.6 | 1264.6 |
| 67.5° | 7822.9 | 2256.7 | 1140.2 | 1283.9 | 1218.7 | 1135.8 | 1171.3 | 1190.5 | 1160.9 | 1221.6 | 1223.2 |
| 70° | 6761.2 | 1762.1 | 971.4 | 1128.4 | 1118.0 | 1103.1 | 1153.5 | 1123.9 | 1082.5 | 1156.5 | 1141.7 |
| 72.5° | 5653.6 | 1346.0 | 775.9 | 922.5 | 983.2 | 1054.3 | 1122.4 | 1038.0 | 980.3 | 1002.5 | 975.8 |
| 75° | 4246.9 | 995.1 | 623.4 | 722.6 | 818.9 | 984.7 | 1094.3 | 934.4 | 845.5 | 824.8 | 818.9 |
| 77.5° | 2164.9 | 650.1 | 466.4 | 540.5 | 614.5 | 889.9 | 1055.8 | 812.9 | 700.4 | 667.8 | 653.0 |
| 80° | 773.0 | 404.3 | 328.7 | 373.2 | 414.6 | 765.6 | 922.5 | 672.3 | 543.5 | 537.5 | 543.5 |
| 82.5° | 358.4 | 260.6 | 220.6 | 244.3 | 245.8 | 510.9 | 703.3 | 502.0 | 413.1 | 627.8 | 530.1 |
| 85° | 154.0 | 130.3 | 124.4 | 121.4 | 112.5 | 228.1 | 395.4 | 269.5 | 420.5 | 188.0 | 173.2 |
| 87.5° | 45.9 | 51.8 | 45.9 | 34.1 | 25.1 | 25.1 | 39.9 | 14.8 | 10.3 | 7.4 | 7.4 |
| 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)