

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: P451512

Luminaire Tested: **GALN-SA2B-827-U-T2-HSS**

Issue Date: 1/4/2021

Test Information

Test Method: LM-79-08
Report Number: P451512
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2011-042-11)
Test Lab: INNOVATION CENTER
Issue Date: 1/4/2021
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: MCGRAW-EDISON
Catalog Number: GALN-SA2B-827-U-T2-HSS
Description: GALLEON AREA AND ROADWAY LUMINAIRE
(2) 80 CRI, 2700K, 800mA LIGHTSQUARES WITH 16 LEDS EACH AND TYPE II OPTICS WITH HOUSE SIDE SHIELD
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 6288 lumens
Efficiency: N/A
Efficacy: 76.7 lumens/watt
Luminous Opening: Rectangular (W 0.5' x L: 1' x H: 0')
IES Classification: Type II - Short
BUG Rating: B1 - U0 - G2

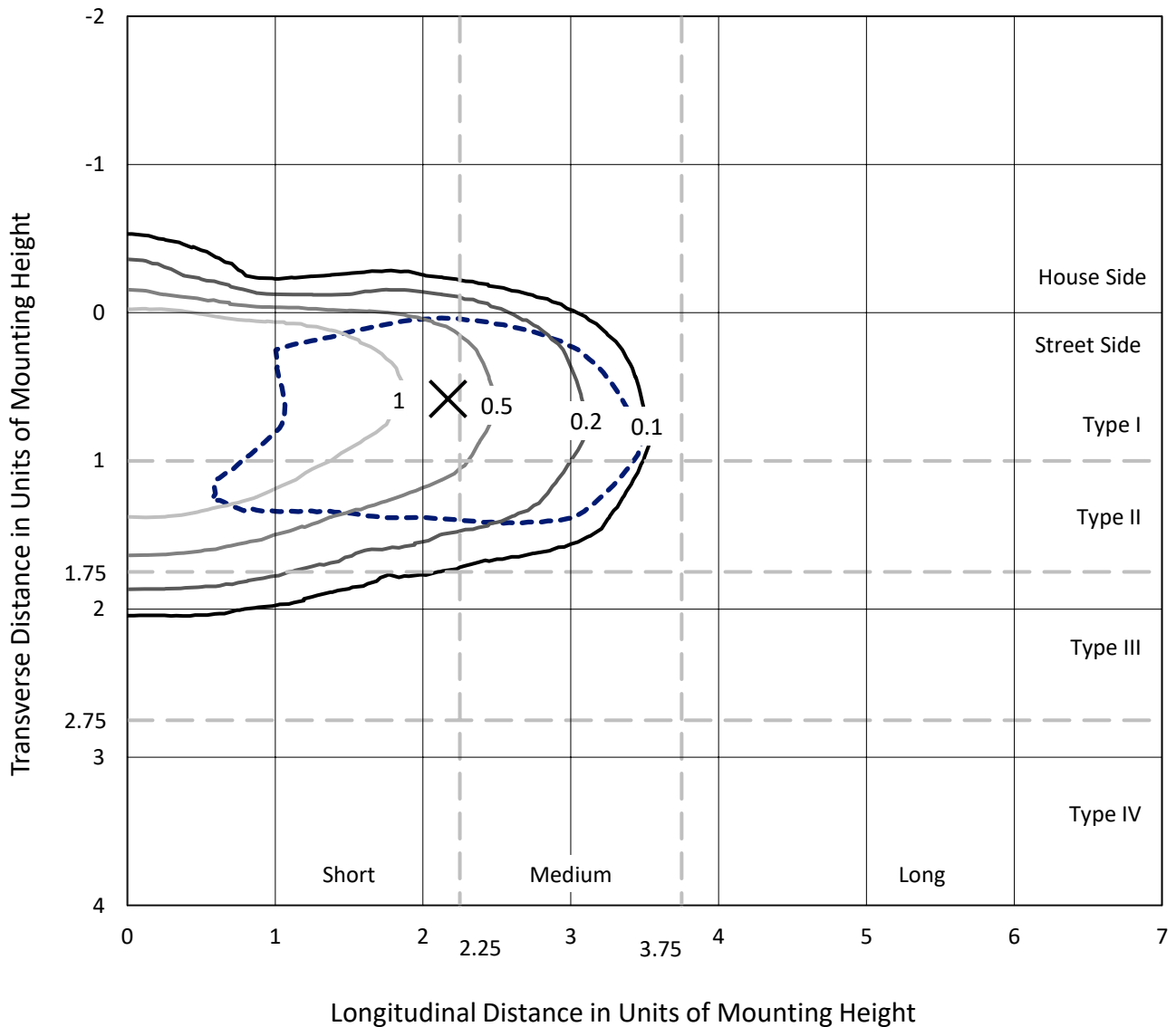
Input Watts (W): 82
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Iso-Footcandle Lines of Horizontal Illumination

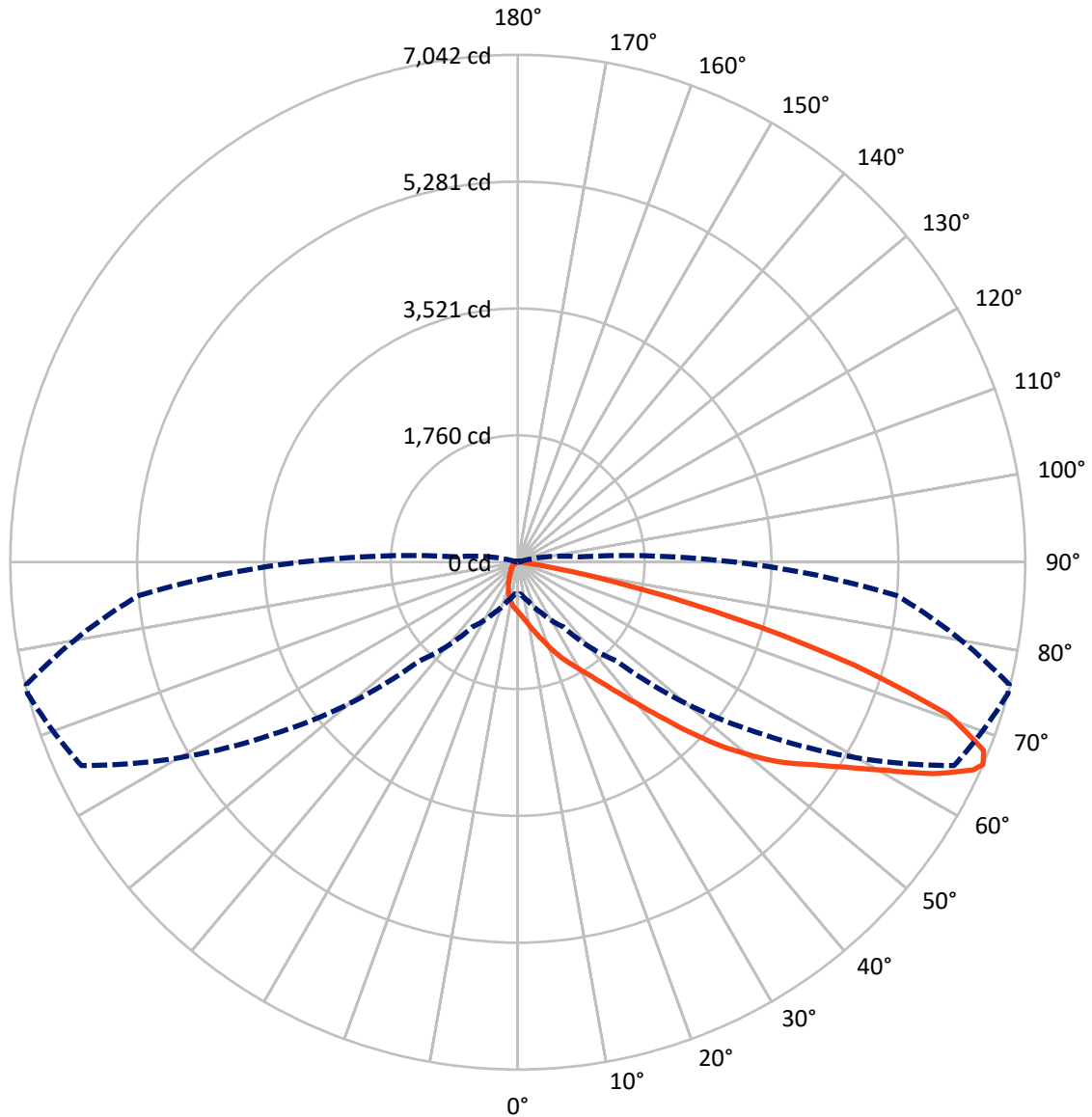
× Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 1.9 fc
 Type II - Short - N/A

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Luminous Intensity Polar Plot



— Vertical Plane Through 75-Deg Lateral - - - Horizontal Cone Through 66-Deg Vertical

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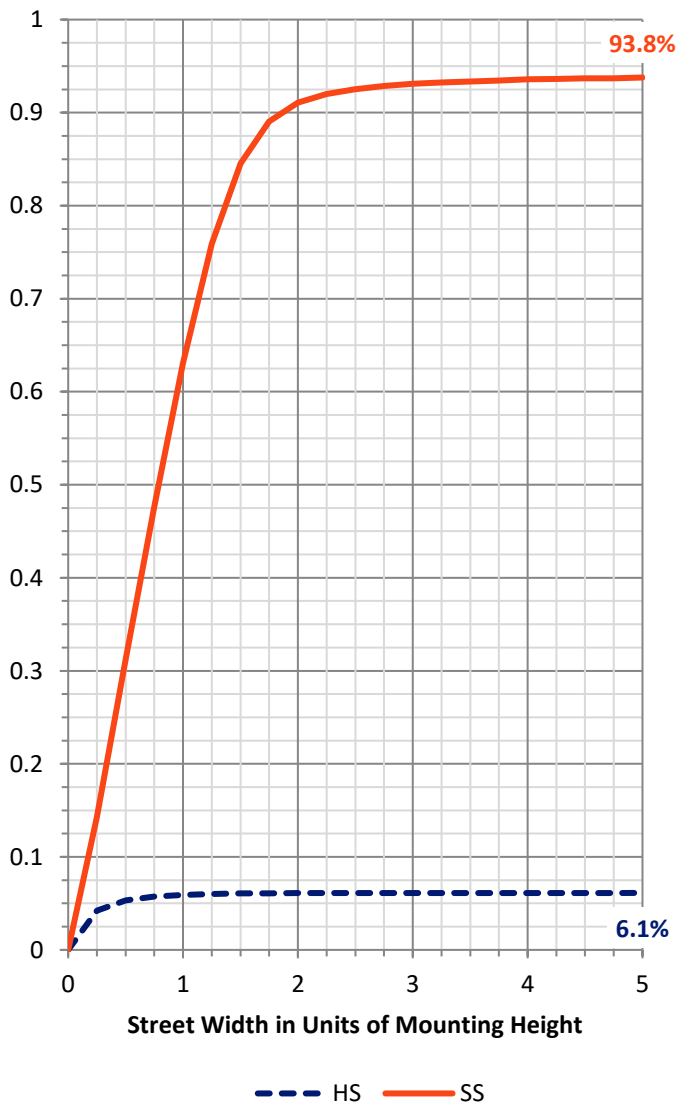
FLUX DISTRIBUTION:

| | | Downward | Upward | Total |
|--------------------|-----------|----------|--------|--------|
| House Side | Lumens | 388.2 | 0.0 | 388.2 |
| | % Fixture | 6.2 | 0.0 | 6.2 |
| Street Side | Lumens | 5899.8 | 0.0 | 5899.8 |
| | % Fixture | 93.8 | 0.0 | 93.8 |
| Total | Lumens | 6288.0 | 0.0 | 6288.0 |
| | % Fixture | 100.0 | 0.0 | 100.0 |

ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10° | 66.3 | 1.1 |
| 10°-20° | 195.2 | 3.1 |
| 20°-30° | 337.1 | 5.4 |
| 30°-40° | 608.0 | 9.7 |
| 40°-50° | 1098.4 | 17.5 |
| 50°-60° | 1712.4 | 27.2 |
| 60°-70° | 1626.7 | 25.9 |
| 70°-80° | 609.6 | 9.7 |
| 80°-90° | 34.4 | 0.5 |
| 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° | 6288.0 | 100.0 |
| 0°-180° | 6288.0 | 100.0 |

Coefficient of Utilization



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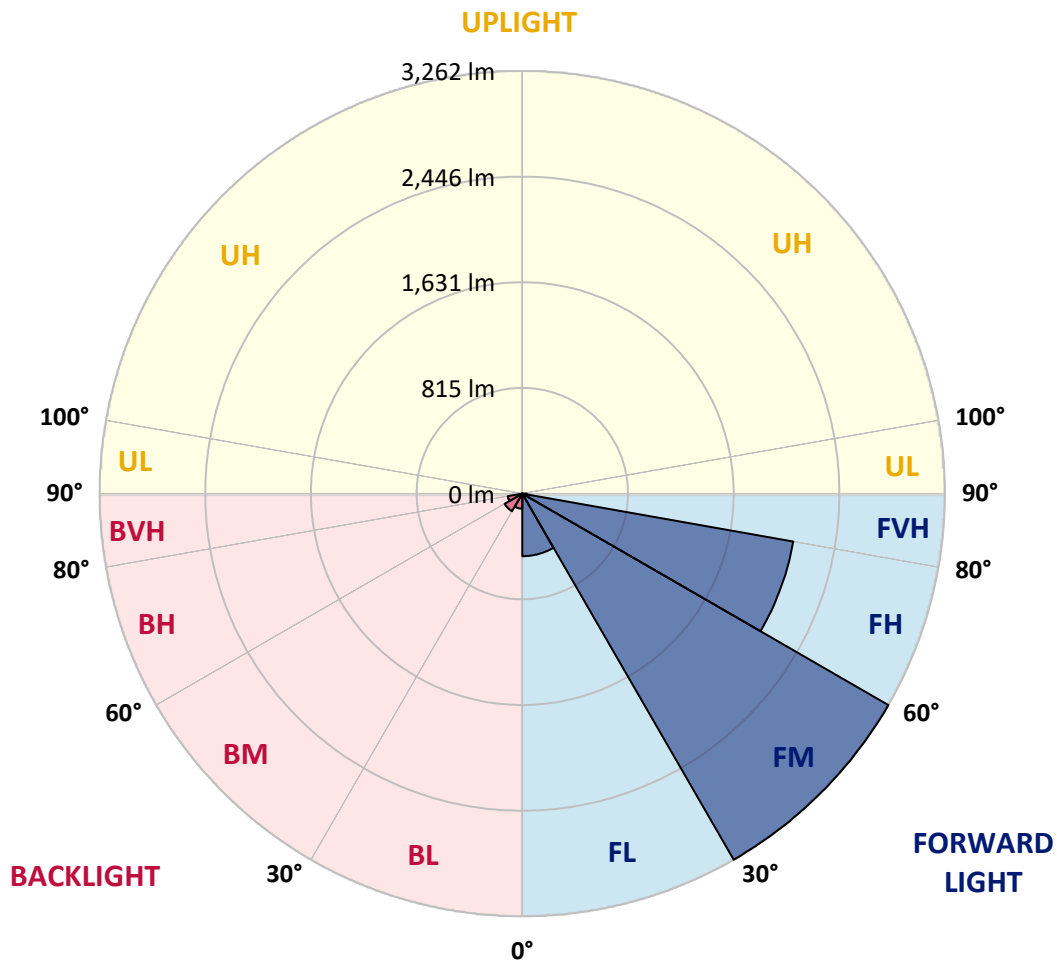
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

| Zone | Lumens | % Fixture | Zone Rating/Lumen Limit | | |
|----------------|--------|-----------|-------------------------|------|---------|
| | | | B | U | G |
| FL (0°-30°) | 482.7 | 7.7 | | | |
| FM (30°-60°) | 3261.6 | 51.9 | | | |
| FH (60°-80°) | 2122.9 | 33.8 | | | G2/5000 |
| FVH (80°-90°) | 32.6 | 0.5 | | | G1/100 |
| BL (0°-30°) | 115.9 | 1.8 | B1/500 | | |
| BM (30°-60°) | 157.1 | 2.5 | B0/220 | | |
| BH (60°-80°) | 113.4 | 1.8 | B1/500 | | G1/500 |
| BVH (80°-90°) | 1.8 | 0.0 | | | 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 II Short





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CANDELA DISTRIBUTION (FULL):

| | 0° | 5° | 15° | 25° | 35° | 45° | 55° | 65° | 75° | 76° | 85° |
|-------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 0° | 687.7 | 687.7 | 687.7 | 687.7 | 687.7 | 687.7 | 687.7 | 687.7 | 687.7 | 687.7 | 687.7 |
| 2.5° | 821.6 | 811.3 | 814.6 | 809.9 | 799.2 | 783.4 | 769.5 | 749.5 | 729.5 | 726.2 | 703.9 |
| 5° | 929.9 | 927.1 | 923.4 | 909.9 | 902.5 | 878.3 | 849.5 | 815.1 | 773.7 | 766.2 | 725.8 |
| 7.5° | 1003.8 | 1002.4 | 1004.3 | 997.3 | 990.8 | 968.9 | 938.3 | 891.3 | 827.1 | 823.0 | 755.5 |
| 10° | 1028.0 | 1031.7 | 1038.7 | 1049.8 | 1060.1 | 1053.1 | 1029.9 | 971.3 | 896.4 | 884.3 | 789.5 |
| 12.5° | 1014.0 | 1018.2 | 1035.0 | 1064.7 | 1097.7 | 1116.8 | 1107.5 | 1064.7 | 969.9 | 960.1 | 827.6 |
| 15° | 978.2 | 983.4 | 1007.1 | 1053.1 | 1112.2 | 1166.1 | 1189.3 | 1158.6 | 1055.4 | 1039.6 | 873.6 |
| 17.5° | 925.2 | 932.7 | 966.6 | 1027.5 | 1108.4 | 1201.4 | 1267.0 | 1256.7 | 1146.6 | 1131.7 | 923.8 |
| 20° | 885.3 | 890.8 | 919.7 | 989.4 | 1092.6 | 1220.9 | 1340.9 | 1369.7 | 1259.1 | 1233.5 | 982.9 |
| 22.5° | 911.8 | 913.6 | 923.4 | 965.2 | 1064.3 | 1226.1 | 1406.0 | 1487.4 | 1378.6 | 1355.8 | 1044.3 |
| 25° | 1041.5 | 1022.9 | 1013.1 | 1003.8 | 1058.2 | 1221.4 | 1465.0 | 1610.1 | 1497.6 | 1473.4 | 1105.2 |
| 27.5° | 1246.1 | 1237.7 | 1188.4 | 1122.4 | 1109.8 | 1227.5 | 1504.1 | 1726.3 | 1609.6 | 1583.6 | 1164.7 |
| 30° | 1468.8 | 1454.4 | 1424.1 | 1327.4 | 1230.2 | 1270.2 | 1532.5 | 1839.3 | 1742.2 | 1707.7 | 1219.1 |
| 32.5° | 1673.3 | 1682.6 | 1637.5 | 1538.0 | 1425.5 | 1361.4 | 1569.2 | 1962.5 | 1894.2 | 1851.4 | 1282.3 |
| 35° | 1911.9 | 1930.5 | 1861.2 | 1765.9 | 1634.3 | 1526.0 | 1640.8 | 2101.6 | 2087.1 | 2033.2 | 1380.0 |
| 37.5° | 2154.1 | 2165.3 | 2122.9 | 1989.0 | 1870.5 | 1735.2 | 1775.6 | 2273.1 | 2324.7 | 2278.7 | 1496.7 |
| 40° | 2357.7 | 2373.1 | 2341.9 | 2222.9 | 2096.4 | 1977.4 | 1971.4 | 2460.0 | 2607.4 | 2560.0 | 1670.6 |
| 42.5° | 2513.5 | 2525.1 | 2526.1 | 2441.9 | 2328.0 | 2274.1 | 2221.0 | 2698.5 | 2961.7 | 2906.8 | 1872.3 |
| 45° | 2710.2 | 2726.9 | 2717.1 | 2660.0 | 2574.9 | 2565.1 | 2537.7 | 2986.8 | 3385.7 | 3316.5 | 2134.1 |
| 47.5° | 3014.2 | 3025.4 | 3001.2 | 2933.8 | 2847.3 | 2862.7 | 2846.4 | 3309.9 | 3818.1 | 3758.6 | 2405.2 |
| 50° | 3225.3 | 3243.9 | 3278.3 | 3305.3 | 3242.5 | 3185.8 | 3137.5 | 3611.7 | 4228.7 | 4175.2 | 2682.3 |
| 52.5° | 3223.0 | 3253.7 | 3362.5 | 3498.3 | 3635.4 | 3618.2 | 3479.2 | 3945.1 | 4620.6 | 4554.6 | 2942.6 |
| 55° | 3005.9 | 3065.4 | 3225.3 | 3466.2 | 3846.0 | 4035.3 | 3972.0 | 4331.0 | 4959.1 | 4914.5 | 3244.4 |
| 57.5° | 2557.7 | 2593.9 | 2816.2 | 3152.8 | 3728.4 | 4231.5 | 4543.0 | 4854.0 | 5365.0 | 5344.1 | 3713.1 |
| 60° | 1720.3 | 1736.6 | 2022.5 | 2438.6 | 3174.2 | 4035.7 | 4961.4 | 5486.8 | 5864.8 | 5854.6 | 4260.3 |
| 62.5° | 985.7 | 992.7 | 1200.0 | 1551.1 | 2258.7 | 3420.1 | 4996.8 | 6267.5 | 6464.1 | 6469.7 | 4893.6 |
| 65° | 530.5 | 534.2 | 701.6 | 910.4 | 1374.4 | 2437.7 | 4493.2 | 6695.2 | 6948.6 | 6959.3 | 5286.0 |
| 66° | 458.0 | 440.3 | 558.4 | 776.0 | 1093.6 | 1940.2 | 4174.7 | 6679.9 | 7041.6 | 7030.0 | 5272.0 |
| 67.5° | 348.2 | 364.1 | 445.9 | 596.5 | 810.4 | 1379.5 | 3446.6 | 6382.8 | 6970.9 | 6934.7 | 5057.7 |
| 70° | 249.2 | 255.7 | 317.6 | 425.4 | 551.9 | 756.9 | 2202.4 | 5301.3 | 6335.8 | 6287.0 | 4406.3 |
| 72.5° | 160.9 | 167.8 | 225.0 | 307.8 | 398.9 | 413.3 | 1233.0 | 3830.2 | 4884.7 | 4877.7 | 3318.3 |
| 75° | 114.8 | 121.4 | 148.8 | 220.4 | 299.9 | 255.7 | 593.7 | 2581.4 | 3105.4 | 3084.5 | 2052.7 |
| 77.5° | 83.2 | 86.5 | 99.5 | 144.1 | 214.3 | 183.2 | 275.2 | 1378.6 | 1545.9 | 1618.9 | 907.1 |
| 80° | 47.9 | 50.7 | 69.3 | 87.9 | 145.1 | 125.1 | 131.6 | 553.3 | 570.5 | 543.1 | 283.6 |
| 82.5° | 23.7 | 27.0 | 41.4 | 60.0 | 90.7 | 84.2 | 60.4 | 166.5 | 175.7 | 171.1 | 71.6 |
| 85° | 5.6 | 7.0 | 23.2 | 39.5 | 44.2 | 37.7 | 29.3 | 48.8 | 60.4 | 59.0 | 27.4 |
| 87.5° | 0.5 | 0.9 | 8.4 | 7.0 | 7.4 | 12.6 | 10.2 | 12.6 | 19.5 | 18.1 | 9.8 |
| 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° | 687.7 | 687.7 | 687.7 | 687.7 | 687.7 | 687.7 | 687.7 | 687.7 | 687.7 | 687.7 | 687.7 |
| 2.5° | 693.7 | 684.9 | 659.3 | 634.2 | 613.3 | 591.4 | 571.4 | 559.8 | 555.1 | 550.0 | 552.4 |
| 5° | 703.5 | 682.1 | 630.5 | 585.8 | 542.1 | 504.9 | 475.2 | 456.1 | 446.8 | 445.4 | 443.1 |
| 7.5° | 716.5 | 679.8 | 599.8 | 530.0 | 472.8 | 431.5 | 397.5 | 370.1 | 361.7 | 354.3 | 348.2 |
| 10° | 732.3 | 675.6 | 561.7 | 471.5 | 410.5 | 358.5 | 313.8 | 281.3 | 264.6 | 259.9 | 263.2 |
| 12.5° | 749.0 | 667.7 | 521.7 | 417.5 | 347.3 | 280.8 | 239.4 | 223.2 | 218.5 | 216.7 | 217.1 |
| 15° | 765.8 | 657.9 | 479.8 | 365.4 | 276.6 | 224.1 | 205.0 | 200.9 | 199.0 | 198.1 | 197.1 |
| 17.5° | 781.1 | 642.1 | 432.9 | 314.8 | 224.1 | 191.6 | 184.6 | 180.9 | 177.1 | 175.7 | 173.4 |
| 20° | 799.2 | 624.0 | 390.6 | 258.0 | 189.7 | 173.4 | 165.1 | 158.1 | 152.5 | 148.8 | 148.3 |
| 22.5° | 816.4 | 600.7 | 346.4 | 213.9 | 173.0 | 155.8 | 142.3 | 134.8 | 128.3 | 123.7 | 125.1 |
| 25° | 825.7 | 572.3 | 306.9 | 186.4 | 157.6 | 138.1 | 123.2 | 113.9 | 106.9 | 104.6 | 104.1 |
| 27.5° | 825.7 | 537.5 | 268.3 | 170.6 | 143.7 | 122.3 | 106.9 | 98.1 | 93.5 | 90.2 | 90.7 |
| 30° | 819.2 | 498.9 | 232.5 | 158.5 | 131.6 | 108.3 | 93.9 | 86.0 | 82.3 | 80.0 | 79.5 |
| 32.5° | 814.1 | 462.2 | 201.8 | 146.9 | 119.0 | 96.2 | 83.7 | 77.6 | 73.9 | 71.6 | 71.6 |
| 35° | 822.0 | 430.5 | 178.1 | 135.3 | 107.4 | 86.9 | 75.8 | 70.2 | 66.5 | 64.6 | 64.2 |
| 37.5° | 842.9 | 401.7 | 159.9 | 122.7 | 96.7 | 79.0 | 70.2 | 63.7 | 60.0 | 57.7 | 56.7 |
| 40° | 894.6 | 385.4 | 146.5 | 111.1 | 86.5 | 72.5 | 63.7 | 57.7 | 53.0 | 50.7 | 50.2 |
| 42.5° | 977.3 | 385.9 | 133.4 | 100.4 | 78.6 | 67.0 | 58.1 | 51.1 | 46.0 | 43.7 | 43.2 |
| 45° | 1101.9 | 403.6 | 123.2 | 90.2 | 71.6 | 60.9 | 52.1 | 44.6 | 40.0 | 37.7 | 37.7 |
| 47.5° | 1251.2 | 438.0 | 114.4 | 81.4 | 65.1 | 55.3 | 46.0 | 38.6 | 33.9 | 32.1 | 32.1 |
| 50° | 1413.0 | 482.6 | 105.5 | 72.1 | 59.5 | 49.3 | 39.5 | 33.5 | 29.8 | 28.4 | 28.4 |
| 52.5° | 1578.0 | 536.5 | 96.7 | 64.6 | 53.5 | 42.8 | 33.9 | 29.8 | 26.5 | 25.6 | 25.1 |
| 55° | 1794.7 | 605.4 | 87.4 | 56.7 | 47.0 | 36.7 | 30.2 | 26.0 | 22.3 | 20.9 | 20.5 |
| 57.5° | 2128.1 | 709.0 | 77.2 | 49.7 | 38.6 | 30.7 | 26.0 | 21.9 | 17.7 | 15.3 | 14.9 |
| 60° | 2530.2 | 835.5 | 66.5 | 43.7 | 31.2 | 25.1 | 20.9 | 16.7 | 13.0 | 10.2 | 9.8 |
| 62.5° | 2906.8 | 915.9 | 56.3 | 36.7 | 24.6 | 19.1 | 14.9 | 12.6 | 9.3 | 6.5 | 6.0 |
| 65° | 3073.3 | 889.0 | 46.5 | 29.8 | 19.5 | 13.5 | 9.8 | 8.8 | 5.6 | 2.8 | 2.3 |
| 66° | 3018.0 | 849.0 | 42.8 | 27.0 | 17.7 | 11.6 | 8.4 | 7.4 | 4.2 | 1.4 | 1.4 |
| 67.5° | 2854.8 | 754.6 | 37.2 | 23.2 | 15.3 | 9.3 | 6.5 | 5.6 | 2.3 | 0.5 | 0.0 |
| 70° | 2446.1 | 610.5 | 29.3 | 17.2 | 11.2 | 6.5 | 3.7 | 2.8 | 1.4 | 0.0 | 0.0 |
| 72.5° | 1878.8 | 454.7 | 23.2 | 13.0 | 7.9 | 3.7 | 1.9 | 0.9 | 1.4 | 0.0 | 0.0 |
| 75° | 1151.2 | 259.9 | 18.1 | 9.8 | 5.1 | 2.3 | 1.4 | 0.0 | 1.4 | 0.5 | 0.0 |
| 77.5° | 511.0 | 116.7 | 12.1 | 6.5 | 3.7 | 1.9 | 0.9 | 0.0 | 0.9 | 0.5 | 0.0 |
| 80° | 129.3 | 38.1 | 7.0 | 4.6 | 2.8 | 1.4 | 0.5 | 0.0 | 0.9 | 0.9 | 0.5 |
| 82.5° | 35.3 | 13.9 | 5.1 | 3.7 | 2.3 | 1.4 | 0.5 | 0.0 | 0.9 | 0.9 | 0.9 |
| 85° | 13.9 | 6.5 | 4.6 | 3.7 | 2.8 | 1.4 | 0.5 | 0.0 | 0.9 | 0.9 | 0.9 |
| 87.5° | 6.5 | 4.6 | 4.6 | 4.2 | 3.3 | 1.4 | 0.5 | 0.0 | 0.9 | 0.5 | 0.9 |
| 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)