

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: P456858

Luminaire Tested: **GALN-SA8A-827-U-T4W-HSS**

Issue Date: 1/4/2021

Test Information

Test Method: LM-79-08
Report Number: P456858
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2011-042-27)
Test Lab: INNOVATION CENTER
Issue Date: 1/4/2021
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: MCGRAW-EDISON
Catalog Number: GALN-SA8A-827-U-T4W-HSS
Description: GALLEON AREA AND ROADWAY LUMINAIRE
(8) 80 CRI, 2700K, 615mA LIGHTSQUARES WITH 16 LEDS EACH AND TYPE IV WIDE OPTICS WITH HOUSE SIDE SHIELD
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 19638 lumens
Efficiency: N/A
Efficacy: 80.5 lumens/watt
Luminous Opening: Rectangular (W 1.5' x L: 1.5' x H: 0')
IES Classification: Type III - Short
BUG Rating: B1 - U0 - G4

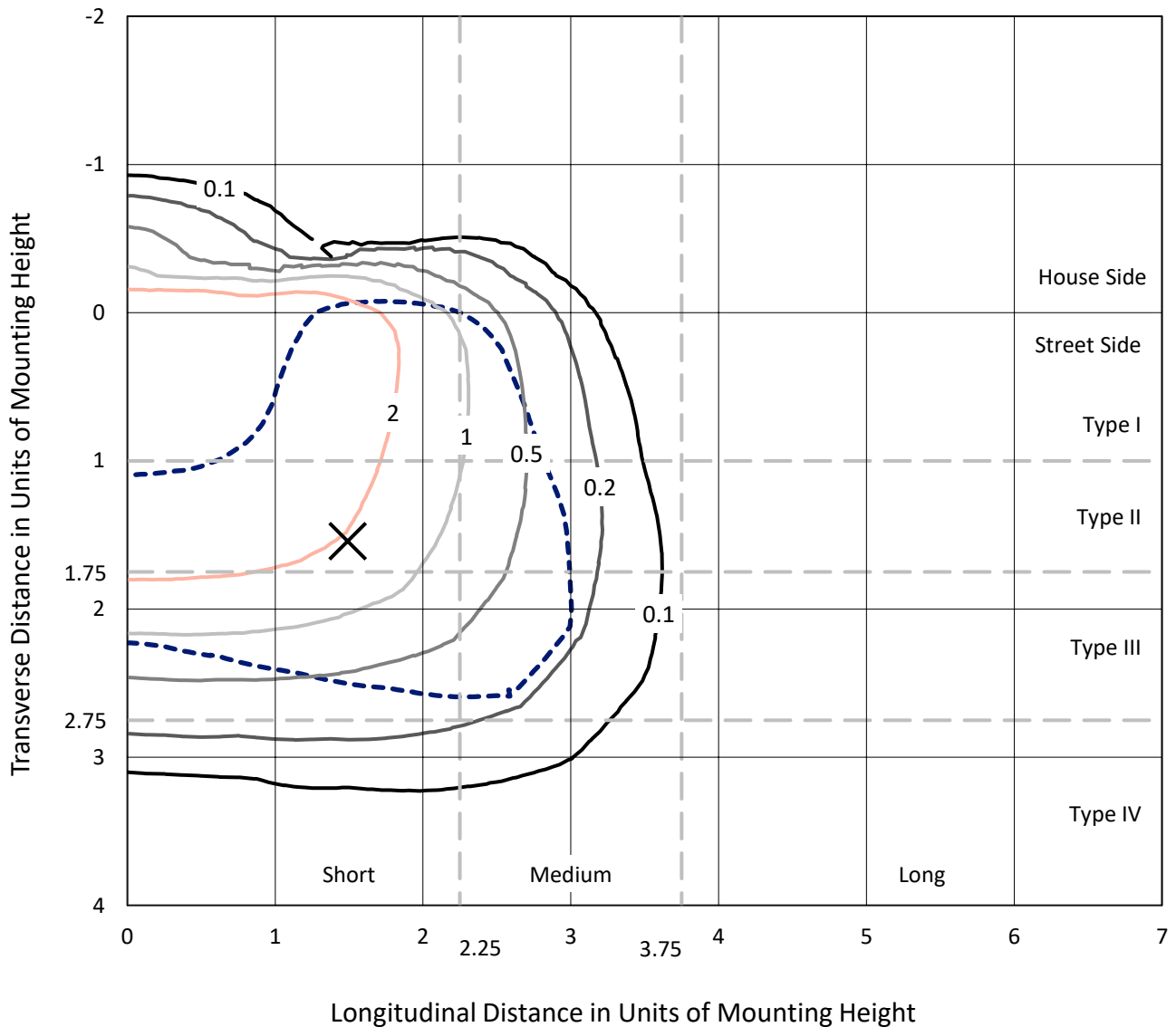
Input Watts (W): 244
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Iso-Footcandle Lines of Horizontal Illumination

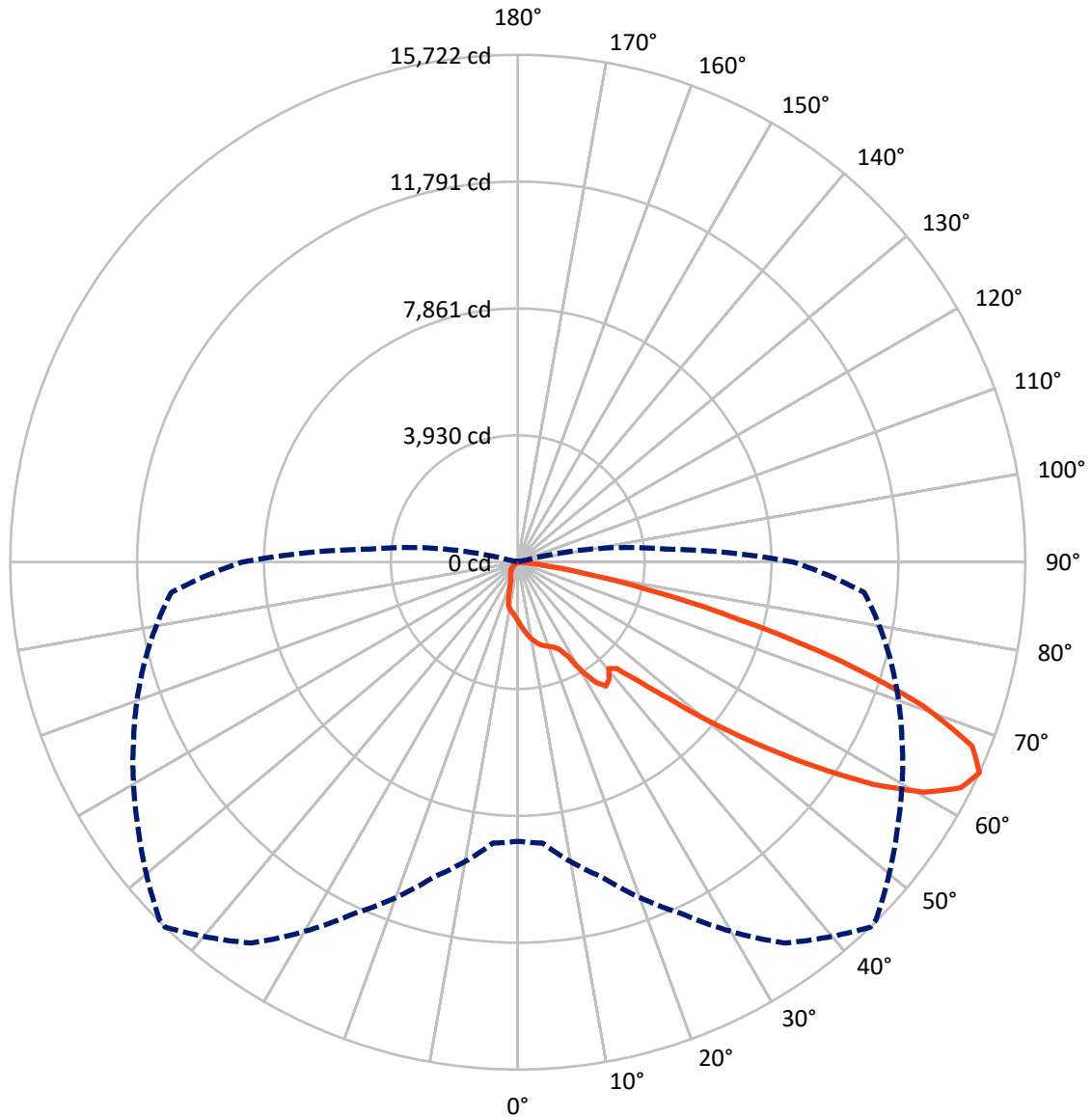
✕ Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 4.2 fc
 Type III - Short - N/A

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Luminous Intensity Polar Plot



— Vertical Plane Through 44-Deg Lateral - - - Horizontal Cone Through 65-Deg Vertical

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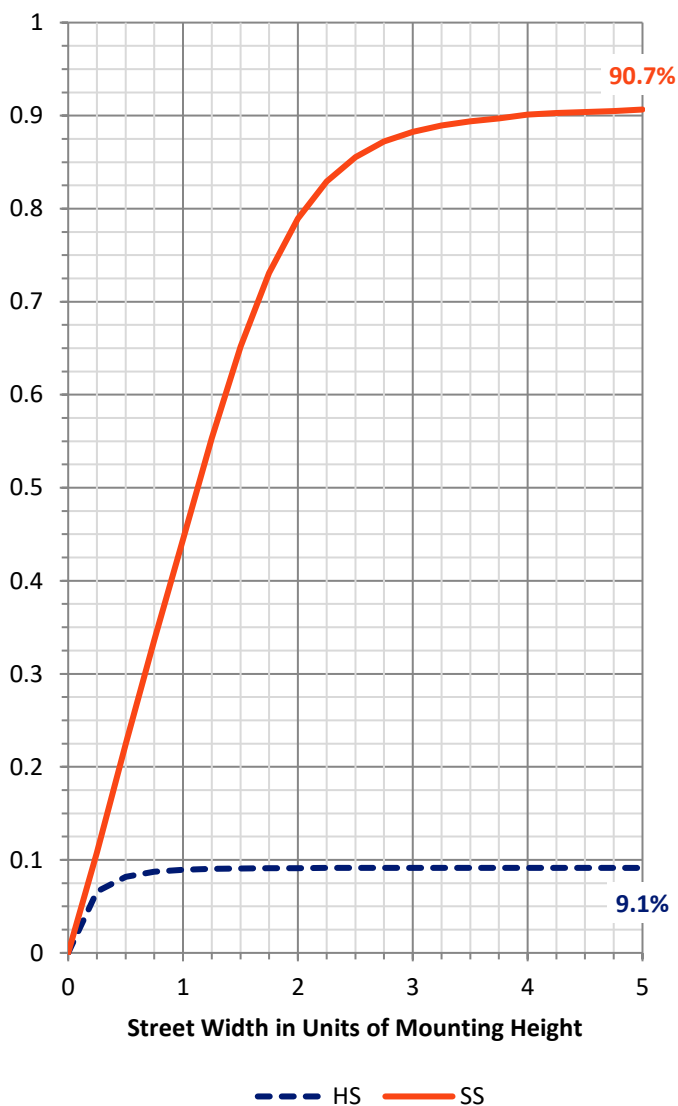
FLUX DISTRIBUTION:

| | | Downward | Upward | Total |
|--------------------|-----------|----------|--------|---------|
| House Side | Lumens | 1809.3 | 0.0 | 1809.3 |
| | % Fixture | 9.2 | 0.0 | 9.2 |
| Street Side | Lumens | 17828.6 | 0.0 | 17828.6 |
| | % Fixture | 90.8 | 0.0 | 90.8 |
| Total | Lumens | 19638.0 | 0.0 | 19638.0 |
| | % Fixture | 100.0 | 0.0 | 100.0 |

Coefficient of Utilization

ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|---------|-----------|
| 0°-10° | 181.8 | 0.9 |
| 10°-20° | 547.1 | 2.8 |
| 20°-30° | 927.7 | 4.7 |
| 30°-40° | 1542.5 | 7.9 |
| 40°-50° | 2693.2 | 13.7 |
| 50°-60° | 5261.5 | 26.8 |
| 60°-70° | 6104.6 | 31.1 |
| 70°-80° | 2223.0 | 11.3 |
| 80°-90° | 156.6 | 0.8 |
| 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° | 19638.0 | 100.0 |
| 0°-180° | 19638.0 | 100.0 |



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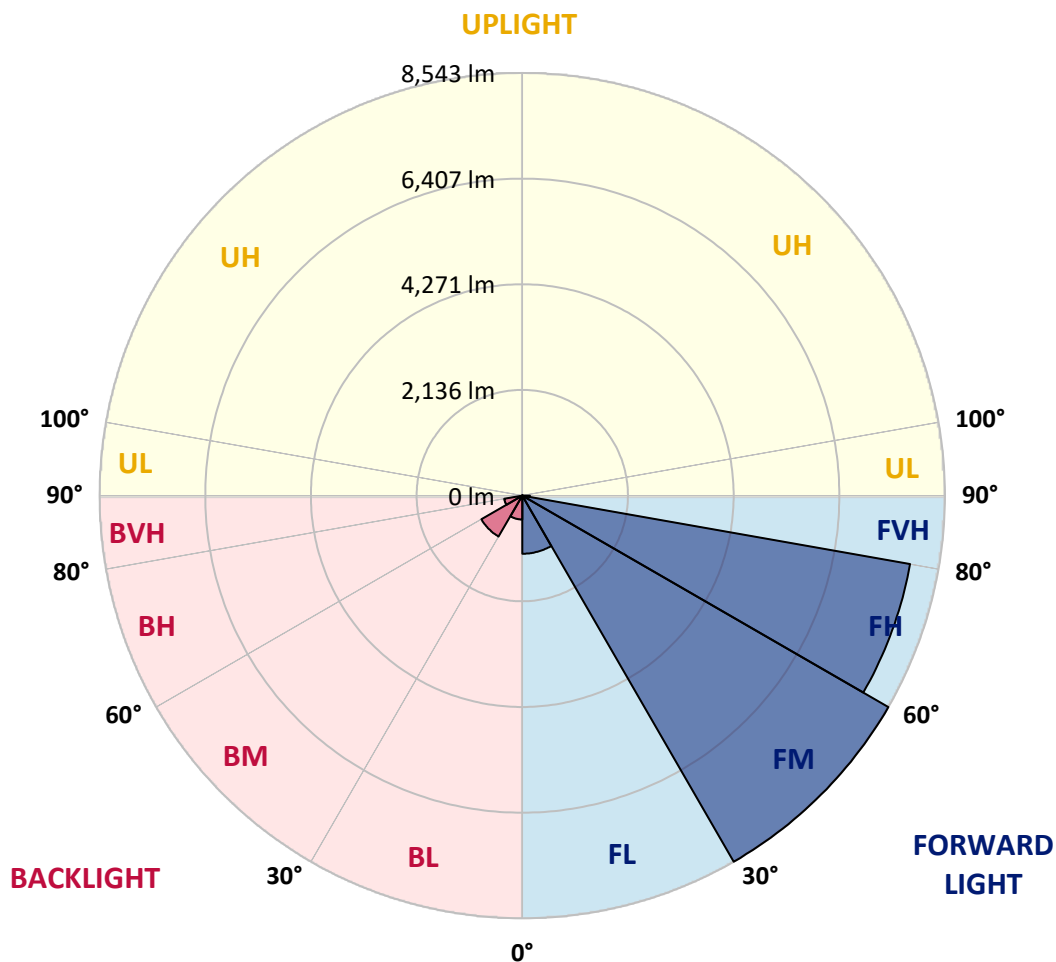
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

| Zone | Lumens | % Fixture | Zone Rating/Lumen Limit | | |
|----------------|--------|-----------|-------------------------|------|----------|
| | | | B | U | G |
| FL (0°-30°) | 1174.5 | 6.0 | | | |
| FM (30°-60°) | 8542.6 | 43.5 | | | |
| FH (60°-80°) | 7957.1 | 40.5 | | | G4/12000 |
| FVH (80°-90°) | 154.5 | 0.8 | | | G2/225 |
| BL (0°-30°) | 482.1 | 2.5 | B1/500 | | |
| BM (30°-60°) | 954.6 | 4.9 | B1/1000 | | |
| BH (60°-80°) | 370.5 | 1.9 | B1/500 | | G1/500 |
| BVH (80°-90°) | 2.1 | 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-G4

Type III Short





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CANDELA DISTRIBUTION (FULL):

| | 0° | 5° | 15° | 25° | 35° | 44° | 45° | 55° | 65° | 75° | 85° |
|-------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|
| 0° | 1827.7 | 1827.7 | 1827.7 | 1827.7 | 1827.7 | 1827.7 | 1827.7 | 1827.7 | 1827.7 | 1827.7 | 1827.7 |
| 2.5° | 2057.3 | 2048.3 | 2043.8 | 2019.8 | 2001.8 | 1979.3 | 1979.3 | 1950.8 | 1917.7 | 1881.7 | 1848.7 |
| 5° | 2286.9 | 2271.9 | 2252.4 | 2231.4 | 2189.4 | 2129.3 | 2129.3 | 2069.3 | 2000.3 | 1938.8 | 1871.2 |
| 7.5° | 2507.5 | 2494.0 | 2461.0 | 2420.4 | 2351.4 | 2288.4 | 2283.9 | 2196.9 | 2114.3 | 2021.3 | 1925.3 |
| 10° | 2701.1 | 2690.5 | 2662.0 | 2584.0 | 2512.0 | 2429.4 | 2427.9 | 2330.4 | 2234.4 | 2120.3 | 2001.8 |
| 12.5° | 2836.1 | 2837.6 | 2800.1 | 2725.1 | 2632.0 | 2554.0 | 2548.0 | 2452.0 | 2351.4 | 2228.4 | 2082.8 |
| 15° | 2932.1 | 2932.1 | 2893.1 | 2809.1 | 2725.1 | 2656.0 | 2650.0 | 2566.0 | 2462.5 | 2328.9 | 2171.3 |
| 17.5° | 2959.2 | 2968.2 | 2926.1 | 2851.1 | 2783.6 | 2723.6 | 2722.1 | 2651.5 | 2569.0 | 2440.0 | 2261.4 |
| 20° | 2948.6 | 2957.7 | 2924.6 | 2866.1 | 2819.6 | 2785.1 | 2780.6 | 2752.1 | 2675.5 | 2554.0 | 2357.4 |
| 22.5° | 2926.1 | 2935.1 | 2911.1 | 2876.6 | 2854.1 | 2864.6 | 2857.1 | 2881.1 | 2840.6 | 2693.5 | 2471.5 |
| 25° | 2930.6 | 2939.6 | 2921.6 | 2902.1 | 2921.6 | 2986.2 | 3005.7 | 3109.2 | 3073.2 | 2870.6 | 2594.5 |
| 27.5° | 3071.7 | 3089.7 | 3064.2 | 3073.2 | 3142.2 | 3292.3 | 3329.8 | 3508.4 | 3349.3 | 3095.7 | 2786.6 |
| 30° | 3385.3 | 3373.3 | 3325.3 | 3368.8 | 3608.9 | 3927.0 | 3916.5 | 3888.0 | 3638.9 | 3355.3 | 3014.7 |
| 32.5° | 3670.4 | 3659.9 | 3656.9 | 3844.5 | 4279.7 | 4434.2 | 4426.7 | 4150.6 | 3898.5 | 3652.4 | 3239.8 |
| 35° | 3786.0 | 3745.5 | 3736.5 | 4191.1 | 4918.9 | 4714.8 | 4668.3 | 4258.7 | 4213.6 | 3976.5 | 3469.4 |
| 37.5° | 4134.1 | 4105.6 | 3966.0 | 4248.2 | 4663.8 | 4596.3 | 4560.3 | 4444.7 | 4549.8 | 4263.2 | 3729.0 |
| 40° | 4851.4 | 4771.9 | 4645.8 | 4369.7 | 4302.2 | 4330.7 | 4366.7 | 4683.3 | 4947.4 | 4654.8 | 4075.6 |
| 42.5° | 5742.7 | 5724.7 | 5490.6 | 4975.9 | 4470.2 | 4509.3 | 4555.8 | 5181.5 | 5519.2 | 5244.5 | 4641.3 |
| 45° | 6812.7 | 6838.2 | 6500.5 | 5892.8 | 5229.5 | 5262.6 | 5330.1 | 5916.8 | 6293.5 | 6161.4 | 5531.2 |
| 47.5° | 7785.0 | 7765.5 | 7651.5 | 7019.7 | 6407.5 | 6334.0 | 6443.5 | 6860.7 | 7364.9 | 7385.9 | 6635.6 |
| 50° | 8763.4 | 8867.0 | 8697.4 | 8449.8 | 7995.1 | 7840.6 | 7800.0 | 8004.1 | 8772.4 | 8671.9 | 7962.1 |
| 52.5° | 10169.5 | 10223.5 | 9905.4 | 9842.3 | 9945.9 | 9444.7 | 9404.2 | 9453.7 | 10141.0 | 9795.8 | 8955.5 |
| 55° | 11053.3 | 11021.8 | 10903.2 | 11395.4 | 11805.1 | 11179.4 | 11128.3 | 10928.8 | 11276.9 | 10589.6 | 9911.4 |
| 57.5° | 11332.4 | 11377.4 | 11653.5 | 12543.4 | 13512.8 | 12981.6 | 12888.5 | 12321.3 | 12096.2 | 11329.4 | 10790.7 |
| 60° | 11207.9 | 11290.4 | 11886.1 | 13209.6 | 14554.2 | 14474.6 | 14395.1 | 13442.2 | 12684.4 | 11947.7 | 11407.4 |
| 62.5° | 10321.0 | 10436.6 | 11389.4 | 13091.1 | 14906.8 | 15403.5 | 15304.5 | 14141.5 | 13076.1 | 12247.8 | 11515.5 |
| 65° | 8649.4 | 8734.9 | 10103.4 | 12015.2 | 14405.6 | 15721.6 | 15685.6 | 14360.6 | 13137.6 | 11973.2 | 10775.7 |
| 67.5° | 6165.9 | 6457.0 | 7725.0 | 10125.9 | 12923.0 | 15178.4 | 15239.9 | 14098.0 | 12559.9 | 10786.2 | 8924.0 |
| 70° | 3876.0 | 4074.1 | 4983.4 | 7249.3 | 10360.0 | 13316.2 | 13518.8 | 12896.0 | 10900.2 | 8407.8 | 5973.8 |
| 72.5° | 1848.7 | 1995.8 | 2644.0 | 4588.8 | 7312.3 | 10477.1 | 10637.6 | 10586.6 | 8428.8 | 5297.1 | 3082.2 |
| 75° | 823.8 | 879.3 | 1262.0 | 2342.4 | 4720.8 | 7042.2 | 7457.9 | 7526.9 | 5267.1 | 2591.5 | 1199.0 |
| 77.5° | 420.2 | 421.7 | 591.2 | 1134.4 | 2357.4 | 4201.6 | 4284.2 | 4525.8 | 2855.6 | 1141.9 | 417.2 |
| 80° | 223.6 | 238.6 | 313.6 | 535.7 | 1223.0 | 2069.3 | 2058.8 | 2262.9 | 1266.5 | 559.7 | 139.6 |
| 82.5° | 100.5 | 111.0 | 177.1 | 280.6 | 597.2 | 784.8 | 846.3 | 925.9 | 543.2 | 357.1 | 61.5 |
| 85° | 30.0 | 36.0 | 87.0 | 141.1 | 216.1 | 226.6 | 253.6 | 327.1 | 307.6 | 253.6 | 31.5 |
| 87.5° | 4.5 | 4.5 | 36.0 | 39.0 | 31.5 | 40.5 | 42.0 | 46.5 | 99.0 | 93.0 | 16.5 |
| 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° | 1827.7 | 1827.7 | 1827.7 | 1827.7 | 1827.7 | 1827.7 | 1827.7 | 1827.7 | 1827.7 | 1827.7 | 1827.7 |
| 2.5° | 1830.7 | 1820.2 | 1782.7 | 1751.2 | 1724.2 | 1707.7 | 1688.2 | 1676.2 | 1670.2 | 1665.6 | 1667.1 |
| 5° | 1838.2 | 1812.7 | 1748.2 | 1697.2 | 1658.1 | 1616.1 | 1587.6 | 1571.1 | 1563.6 | 1551.6 | 1551.6 |
| 7.5° | 1880.2 | 1839.7 | 1749.7 | 1671.7 | 1604.1 | 1547.1 | 1493.1 | 1473.6 | 1460.1 | 1457.1 | 1454.1 |
| 10° | 1940.3 | 1889.2 | 1766.2 | 1658.1 | 1562.1 | 1484.1 | 1407.5 | 1340.0 | 1287.5 | 1256.0 | 1251.5 |
| 12.5° | 2015.3 | 1941.8 | 1791.7 | 1649.1 | 1526.1 | 1388.0 | 1185.5 | 1048.9 | 957.4 | 928.9 | 933.4 |
| 15° | 2084.3 | 2004.8 | 1817.2 | 1641.6 | 1460.1 | 1150.9 | 921.4 | 765.3 | 718.8 | 714.3 | 715.8 |
| 17.5° | 2166.8 | 2072.3 | 1847.2 | 1631.1 | 1278.5 | 879.3 | 684.3 | 642.3 | 651.3 | 666.3 | 664.8 |
| 20° | 2252.4 | 2144.3 | 1883.2 | 1568.1 | 1020.4 | 661.8 | 604.7 | 609.2 | 622.7 | 636.2 | 639.2 |
| 22.5° | 2343.9 | 2226.9 | 1925.3 | 1416.6 | 778.8 | 576.2 | 573.2 | 579.2 | 592.7 | 607.7 | 610.7 |
| 25° | 2470.0 | 2330.4 | 1956.8 | 1218.5 | 589.7 | 532.7 | 538.7 | 549.2 | 561.2 | 577.7 | 580.7 |
| 27.5° | 2632.0 | 2470.0 | 1973.3 | 960.4 | 510.2 | 493.7 | 495.2 | 510.2 | 525.2 | 540.2 | 540.2 |
| 30° | 2842.1 | 2636.5 | 1940.3 | 726.3 | 471.2 | 456.2 | 450.2 | 459.2 | 478.7 | 493.7 | 495.2 |
| 32.5° | 3029.7 | 2794.1 | 1853.2 | 555.2 | 442.7 | 421.7 | 406.7 | 408.2 | 415.7 | 424.7 | 426.2 |
| 35° | 3217.3 | 2947.1 | 1704.7 | 466.7 | 412.7 | 388.7 | 366.1 | 354.1 | 348.1 | 343.6 | 348.1 |
| 37.5° | 3457.3 | 3137.7 | 1506.6 | 424.7 | 387.2 | 357.1 | 325.6 | 300.1 | 279.1 | 265.6 | 268.6 |
| 40° | 3766.5 | 3401.8 | 1272.5 | 397.7 | 363.1 | 327.1 | 285.1 | 252.1 | 216.1 | 204.1 | 198.1 |
| 42.5° | 4276.7 | 3802.5 | 1026.4 | 375.1 | 339.1 | 295.6 | 243.1 | 198.1 | 165.1 | 153.1 | 156.1 |
| 45° | 5082.5 | 4308.2 | 790.8 | 351.1 | 315.1 | 261.1 | 204.1 | 156.1 | 129.1 | 123.0 | 126.0 |
| 47.5° | 6150.9 | 4962.4 | 609.2 | 324.1 | 285.1 | 223.6 | 160.6 | 123.0 | 106.5 | 105.0 | 103.5 |
| 50° | 7156.3 | 5571.7 | 508.7 | 294.1 | 249.1 | 186.1 | 132.1 | 103.5 | 93.0 | 91.5 | 91.5 |
| 52.5° | 8065.6 | 6008.3 | 414.2 | 259.6 | 210.1 | 153.1 | 111.0 | 91.5 | 82.5 | 78.0 | 78.0 |
| 55° | 8874.5 | 6293.5 | 336.1 | 217.6 | 165.1 | 121.5 | 96.0 | 82.5 | 72.0 | 66.0 | 64.5 |
| 57.5° | 9485.2 | 6328.0 | 252.1 | 174.1 | 123.0 | 94.5 | 82.5 | 72.0 | 60.0 | 52.5 | 49.5 |
| 60° | 9746.3 | 6029.3 | 186.1 | 132.1 | 91.5 | 75.0 | 66.0 | 58.5 | 45.0 | 37.5 | 36.0 |
| 62.5° | 9483.7 | 5448.6 | 138.1 | 100.5 | 70.5 | 55.5 | 46.5 | 43.5 | 31.5 | 22.5 | 21.0 |
| 65° | 8542.8 | 4609.8 | 109.5 | 76.5 | 52.5 | 40.5 | 30.0 | 28.5 | 19.5 | 10.5 | 9.0 |
| 67.5° | 6844.2 | 3610.4 | 87.0 | 57.0 | 37.5 | 27.0 | 19.5 | 18.0 | 10.5 | 3.0 | 3.0 |
| 70° | 4450.7 | 2307.9 | 70.5 | 42.0 | 24.0 | 18.0 | 12.0 | 9.0 | 6.0 | 1.5 | 0.0 |
| 72.5° | 2201.4 | 1078.9 | 57.0 | 33.0 | 16.5 | 9.0 | 4.5 | 3.0 | 4.5 | 0.0 | 0.0 |
| 75° | 853.8 | 384.1 | 42.0 | 22.5 | 9.0 | 4.5 | 3.0 | 0.0 | 1.5 | 0.0 | 0.0 |
| 77.5° | 283.6 | 127.5 | 25.5 | 12.0 | 6.0 | 3.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 80° | 105.0 | 49.5 | 13.5 | 7.5 | 3.0 | 1.5 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 82.5° | 42.0 | 19.5 | 9.0 | 6.0 | 3.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 85° | 21.0 | 12.0 | 6.0 | 4.5 | 3.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 87.5° | 15.0 | 9.0 | 6.0 | 4.5 | 3.0 | 1.5 | 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)