

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: P322031

Luminaire Tested: **GLEON-SA7A-827-U-T2-HSS**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P322031
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-1903-205-13)
Test Lab: INNOVATION CENTER
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: McGRAW-EDISON
Catalog Number: GLEON-SA7A-827-U-T2-HSS
Description: GALLEON AREA AND ROADWAY LUMINAIRE
(7) 80 CRI, 2700K, 615mA 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: 17239 lumens
Efficiency: N/A
Efficacy: 76.3 lumens/watt
Luminous Opening: Rectangular (W 2' x L: 1' x H: 0')
IES Classification: Type II - Medium
BUG Rating: B1 - U0 - G3

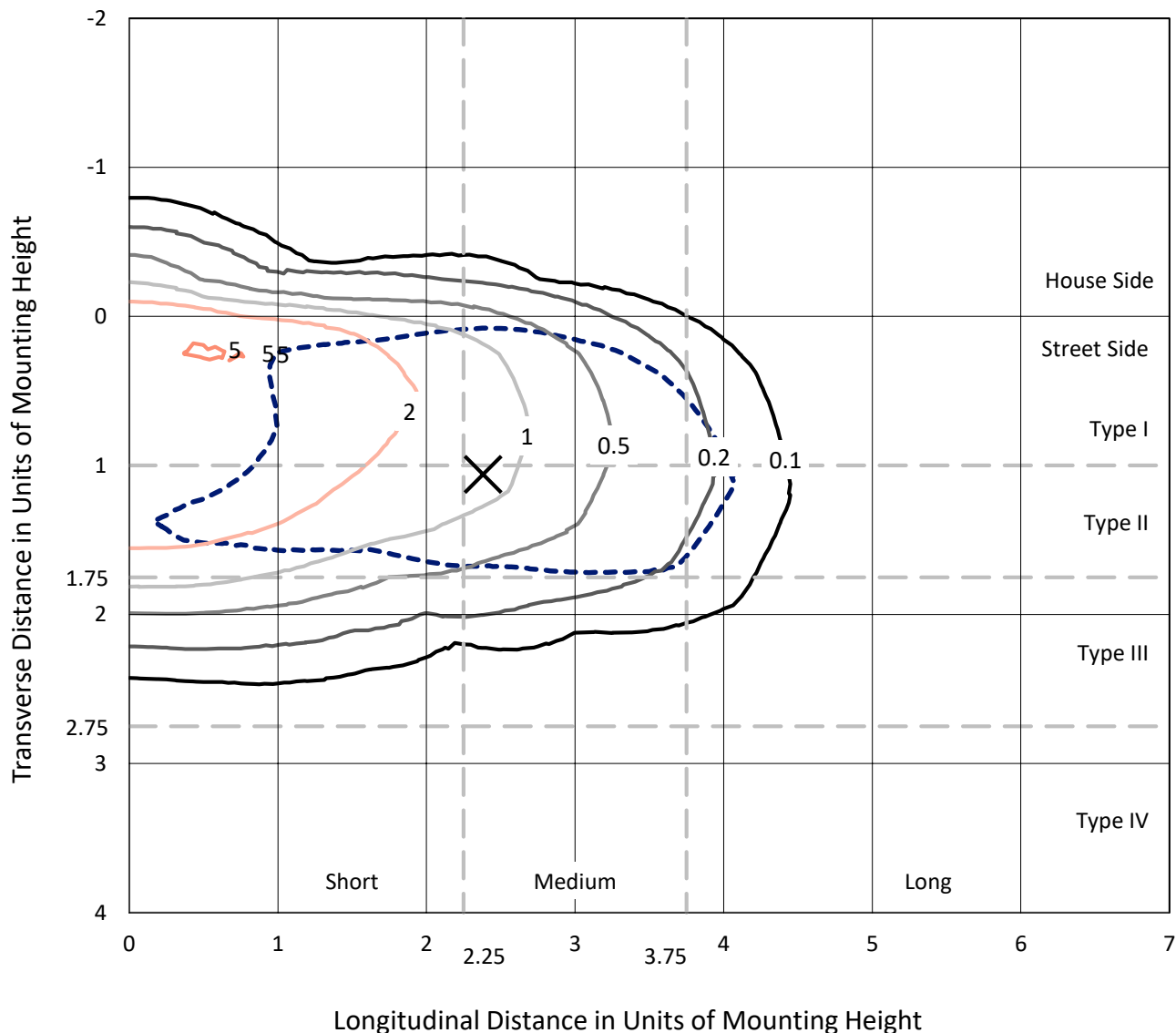
Input Watts (W): 226
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Iso-Footcandle Lines of Horizontal Illumination

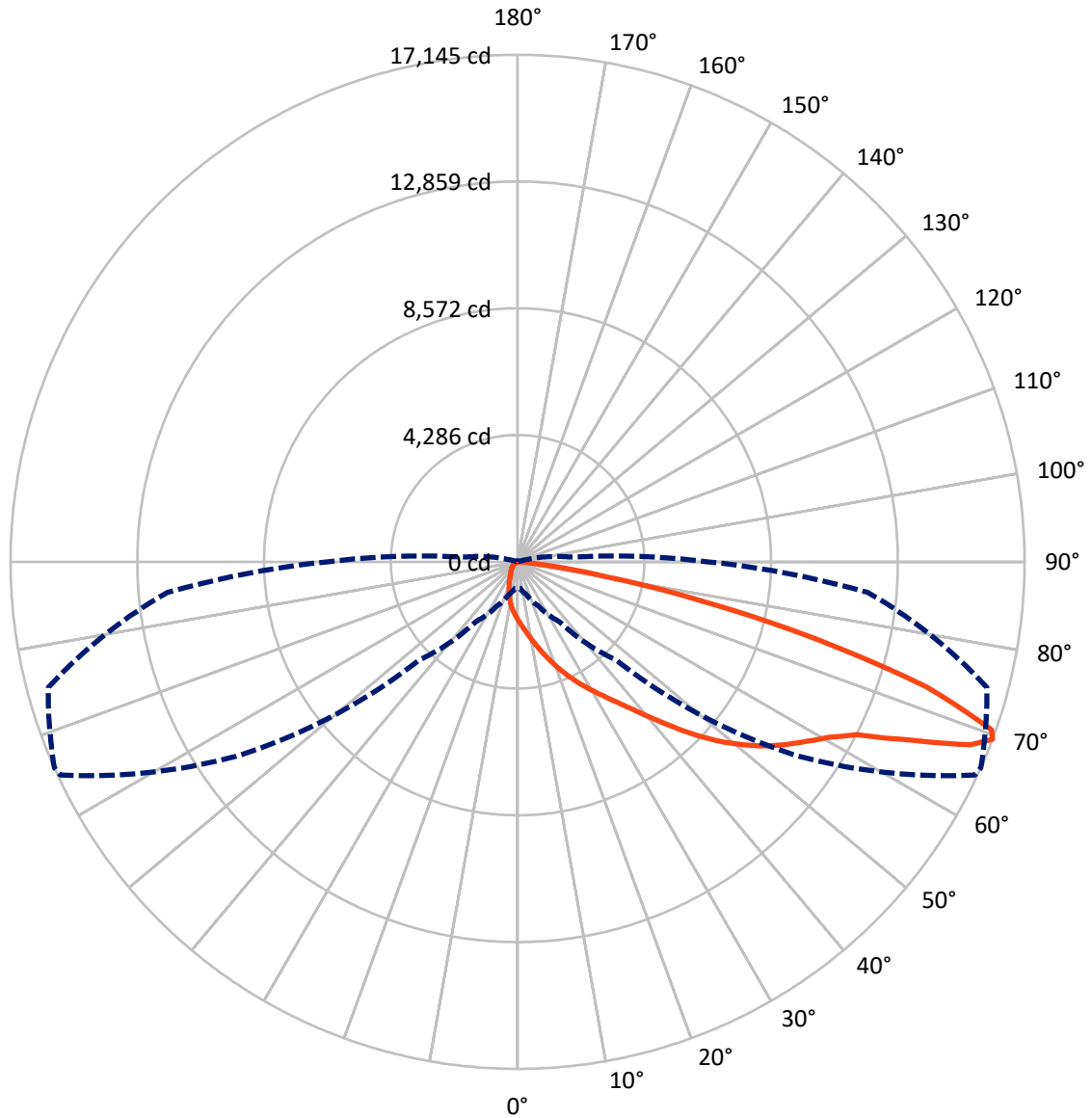
✕ Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 5.2 fc
 Type II - Medium - N/A

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Luminous Intensity Polar Plot



— Vertical Plane Through 66-Deg Lateral - - - Horizontal Cone Through 69-Deg Vertical

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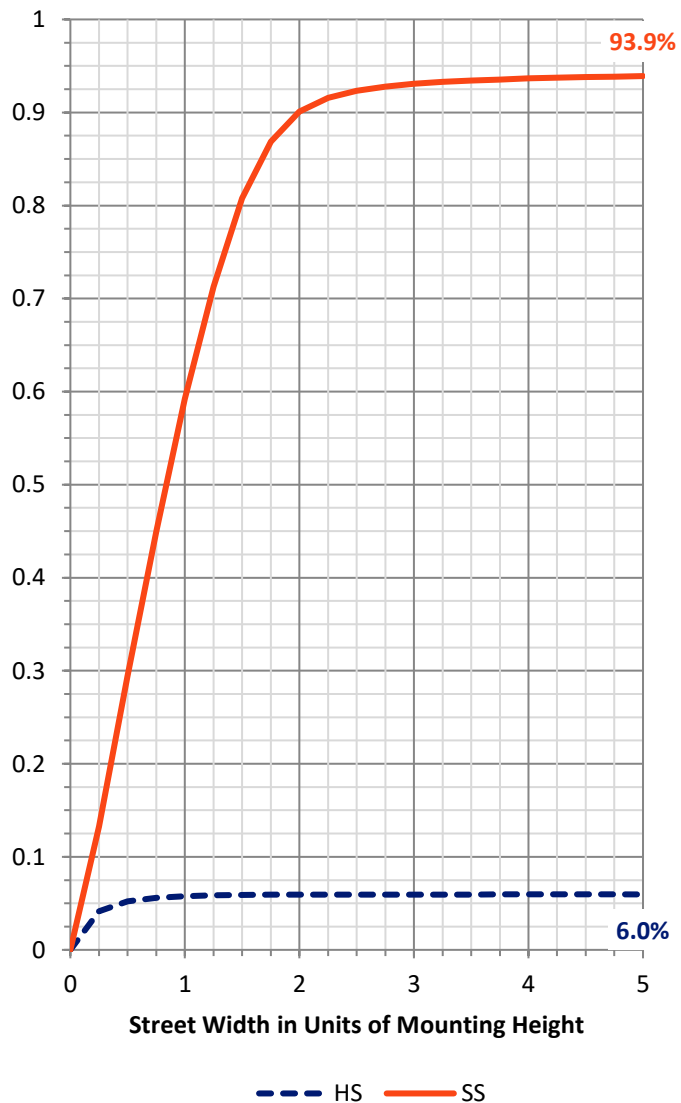
FLUX DISTRIBUTION:

| | | Downward | Upward | Total |
|--------------------|-----------|----------|--------|---------|
| House Side | Lumens | 1034.1 | 0.0 | 1034.1 |
| | % Fixture | 6.0 | 0.0 | 6.0 |
| Street Side | Lumens | 16204.9 | 0.0 | 16204.9 |
| | % Fixture | 94.0 | 0.0 | 94.0 |
| Total | Lumens | 17239.0 | 0.0 | 17239.0 |
| | % Fixture | 100.0 | 0.0 | 100.0 |

ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|---------|-----------|
| 0°-10° | 189.6 | 1.1 |
| 10°-20° | 564.4 | 3.3 |
| 20°-30° | 982.8 | 5.7 |
| 30°-40° | 1724.4 | 10.0 |
| 40°-50° | 2886.3 | 16.7 |
| 50°-60° | 4242.6 | 24.6 |
| 60°-70° | 4356.1 | 25.3 |
| 70°-80° | 2150.5 | 12.5 |
| 80°-90° | 142.2 | 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° | 17239.0 | 100.0 |
| 0°-180° | 17239.0 | 100.0 |

Coefficient of Utilization

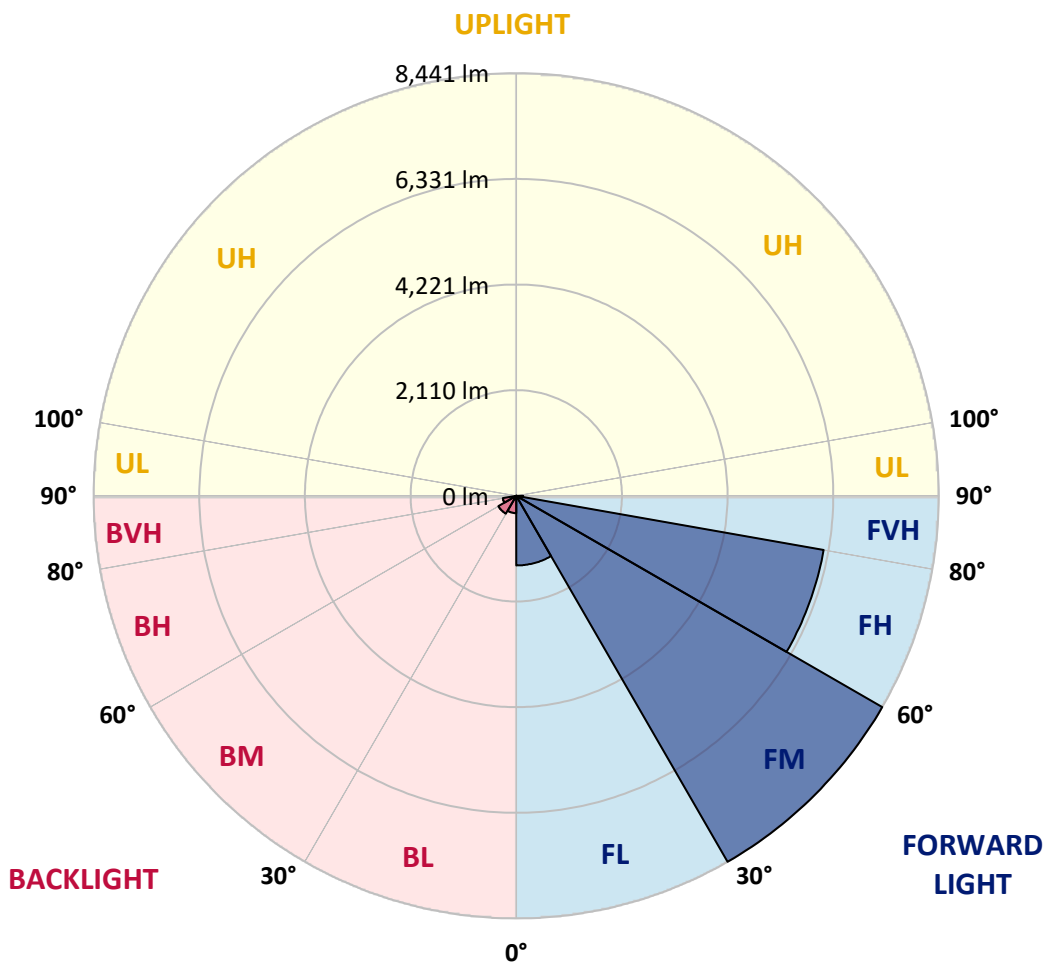


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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

| Zone | Lumens | % Fixture | Zone Rating/Lumen Limit | | |
|----------------|--------|-----------|-------------------------|------|---------|
| | | | B | U | G |
| FL (0°-30°) | 1391.0 | 8.1 | | | |
| FM (30°-60°) | 8441.0 | 49.0 | | | |
| FH (60°-80°) | 6234.1 | 36.2 | | | G3/7500 |
| FVH (80°-90°) | 138.8 | 0.8 | | | G2/225 |
| BL (0°-30°) | 345.8 | 2.0 | B1/500 | | |
| BM (30°-60°) | 412.3 | 2.4 | B1/1000 | | |
| BH (60°-80°) | 272.5 | 1.6 | B1/500 | | G1/500 |
| BVH (80°-90°) | 3.4 | 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-G3
 Type II Medium





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CANDELA DISTRIBUTION (FULL):

| | 0° | 5° | 15° | 25° | 35° | 45° | 55° | 65° | 66° | 75° | 85° |
|-------|--------|--------|--------|--------|--------|---------|---------|---------|---------|---------|---------|
| 0° | 1961.9 | 1961.9 | 1961.9 | 1961.9 | 1961.9 | 1961.9 | 1961.9 | 1961.9 | 1961.9 | 1961.9 | 1961.9 |
| 2.5° | 2309.0 | 2299.2 | 2295.1 | 2277.1 | 2246.0 | 2222.2 | 2176.4 | 2123.2 | 2113.3 | 2061.7 | 1998.7 |
| 5° | 2608.7 | 2600.5 | 2594.8 | 2569.4 | 2537.5 | 2477.7 | 2394.2 | 2295.1 | 2276.3 | 2178.0 | 2051.9 |
| 7.5° | 2817.5 | 2832.2 | 2832.2 | 2815.9 | 2775.7 | 2730.7 | 2628.4 | 2493.3 | 2469.5 | 2318.9 | 2123.2 |
| 10° | 2939.5 | 2957.5 | 2971.4 | 2985.4 | 2979.6 | 2961.6 | 2865.0 | 2712.7 | 2684.0 | 2484.3 | 2205.9 |
| 12.5° | 2951.0 | 2969.0 | 3008.3 | 3066.4 | 3122.9 | 3163.9 | 3103.3 | 2955.9 | 2923.1 | 2675.9 | 2304.1 |
| 15° | 2887.1 | 2905.9 | 2966.5 | 3079.5 | 3216.3 | 3335.8 | 3355.5 | 3225.3 | 3191.7 | 2904.3 | 2426.9 |
| 17.5° | 2775.7 | 2788.0 | 2874.8 | 3031.2 | 3245.7 | 3465.2 | 3583.9 | 3514.3 | 3483.2 | 3165.5 | 2563.7 |
| 20° | 2693.0 | 2702.1 | 2778.2 | 2946.1 | 3227.7 | 3546.2 | 3800.1 | 3821.4 | 3788.6 | 3445.5 | 2711.9 |
| 22.5° | 2834.7 | 2851.1 | 2853.5 | 2933.0 | 3178.6 | 3586.4 | 3990.0 | 4123.5 | 4098.9 | 3742.8 | 2857.6 |
| 25° | 3222.0 | 3240.8 | 3178.6 | 3129.5 | 3220.4 | 3604.4 | 4153.0 | 4433.0 | 4413.4 | 4062.9 | 3004.2 |
| 27.5° | 3733.7 | 3753.4 | 3673.2 | 3526.6 | 3439.0 | 3672.3 | 4297.9 | 4747.4 | 4746.6 | 4401.9 | 3162.2 |
| 30° | 4236.5 | 4256.1 | 4174.3 | 4027.7 | 3826.3 | 3864.8 | 4423.2 | 5076.6 | 5081.5 | 4751.5 | 3330.1 |
| 32.5° | 4763.8 | 4788.4 | 4704.0 | 4515.7 | 4305.3 | 4197.2 | 4599.2 | 5407.4 | 5435.2 | 5156.8 | 3519.2 |
| 35° | 5363.2 | 5366.4 | 5247.7 | 5050.4 | 4808.0 | 4641.8 | 4881.7 | 5778.3 | 5844.6 | 5658.8 | 3759.1 |
| 37.5° | 5951.1 | 5974.8 | 5877.4 | 5566.2 | 5343.5 | 5155.2 | 5301.8 | 6241.7 | 6335.9 | 6272.0 | 4072.7 |
| 40° | 6386.7 | 6436.6 | 6422.7 | 6087.0 | 5875.7 | 5741.5 | 5823.3 | 6792.8 | 6912.3 | 6986.0 | 4468.2 |
| 42.5° | 6660.1 | 6697.8 | 6761.7 | 6559.4 | 6367.8 | 6389.9 | 6439.1 | 7434.7 | 7582.1 | 7799.9 | 4922.6 |
| 45° | 6973.8 | 6991.8 | 7045.0 | 6955.7 | 6826.4 | 7049.1 | 7092.5 | 8157.7 | 8312.5 | 8675.2 | 5427.0 |
| 47.5° | 7357.0 | 7399.5 | 7414.3 | 7332.4 | 7273.4 | 7632.1 | 7722.1 | 8815.2 | 9032.2 | 9612.8 | 5960.9 |
| 50° | 7845.0 | 7856.4 | 7881.8 | 7828.6 | 7769.6 | 8133.2 | 8287.1 | 9505.5 | 9702.8 | 10553.6 | 6487.4 |
| 52.5° | 8322.3 | 8363.3 | 8451.7 | 8418.1 | 8394.4 | 8559.8 | 8790.7 | 10127.8 | 10348.0 | 11338.0 | 7013.1 |
| 55° | 8459.9 | 8495.1 | 8800.5 | 9009.3 | 9202.5 | 9085.4 | 9272.1 | 10685.4 | 10923.7 | 12038.9 | 7519.1 |
| 57.5° | 7910.5 | 7981.7 | 8510.6 | 9054.3 | 9855.9 | 9902.6 | 9933.7 | 11257.7 | 11471.4 | 12576.0 | 8045.6 |
| 60° | 6521.8 | 6535.7 | 7403.6 | 8336.2 | 9747.9 | 10615.8 | 10899.9 | 11872.7 | 12052.0 | 13076.3 | 8676.0 |
| 62.5° | 4148.1 | 4289.7 | 5242.0 | 6558.6 | 8604.8 | 10512.6 | 12068.3 | 12802.8 | 12868.3 | 13676.5 | 9580.0 |
| 65° | 1975.8 | 2067.5 | 2753.6 | 4052.3 | 6232.7 | 9191.9 | 12874.9 | 14485.5 | 14514.9 | 14866.2 | 10787.7 |
| 67.5° | 1093.9 | 1138.1 | 1464.8 | 2181.3 | 3643.7 | 6500.5 | 12549.0 | 16478.4 | 16506.3 | 16081.3 | 11847.3 |
| 69° | 855.6 | 893.3 | 1150.4 | 1644.2 | 2470.3 | 4672.1 | 11356.0 | 17062.2 | 17144.9 | 16429.3 | 11884.9 |
| 70° | 726.3 | 763.1 | 990.8 | 1388.7 | 1986.4 | 3610.1 | 10108.1 | 16917.3 | 17004.9 | 16396.5 | 11604.1 |
| 72.5° | 444.6 | 465.9 | 660.0 | 977.7 | 1331.4 | 1816.1 | 6233.6 | 14307.0 | 14455.2 | 15040.6 | 9973.0 |
| 75° | 299.7 | 311.1 | 412.7 | 674.7 | 952.3 | 935.1 | 3238.4 | 10084.4 | 10405.4 | 11699.9 | 7366.0 |
| 77.5° | 214.5 | 225.2 | 276.8 | 436.4 | 667.3 | 617.4 | 1466.5 | 6267.1 | 6335.9 | 7017.1 | 4017.1 |
| 80° | 122.0 | 131.8 | 195.7 | 259.6 | 452.8 | 411.9 | 583.0 | 2993.5 | 3027.9 | 3009.1 | 1341.2 |
| 82.5° | 63.9 | 72.1 | 107.3 | 171.1 | 290.7 | 269.4 | 242.4 | 1002.2 | 1007.1 | 837.6 | 294.0 |
| 85° | 12.3 | 14.7 | 53.2 | 117.1 | 149.8 | 117.1 | 99.1 | 235.0 | 239.9 | 212.1 | 72.9 |
| 87.5° | 0.0 | 0.8 | 21.3 | 26.2 | 29.5 | 30.3 | 31.9 | 45.9 | 49.1 | 66.3 | 19.7 |
| 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° | 1961.9 | 1961.9 | 1961.9 | 1961.9 | 1961.9 | 1961.9 | 1961.9 | 1961.9 | 1961.9 | 1961.9 | 1961.9 |
| 2.5° | 1970.9 | 1941.4 | 1884.9 | 1819.4 | 1768.6 | 1718.7 | 1679.4 | 1638.4 | 1623.7 | 1616.3 | 1615.5 |
| 5° | 1990.5 | 1928.3 | 1808.7 | 1685.9 | 1585.2 | 1490.2 | 1422.3 | 1357.6 | 1327.3 | 1313.4 | 1307.6 |
| 7.5° | 2023.3 | 1923.4 | 1731.0 | 1543.4 | 1398.5 | 1279.8 | 1185.6 | 1115.2 | 1080.0 | 1065.3 | 1059.5 |
| 10° | 2061.7 | 1916.8 | 1640.1 | 1392.8 | 1207.7 | 1084.9 | 991.6 | 922.0 | 883.5 | 867.1 | 858.9 |
| 12.5° | 2106.8 | 1905.4 | 1535.3 | 1240.5 | 1044.8 | 922.0 | 809.0 | 723.0 | 678.8 | 660.0 | 650.9 |
| 15° | 2162.5 | 1893.9 | 1425.5 | 1097.2 | 901.5 | 751.7 | 628.0 | 569.9 | 560.9 | 557.6 | 558.4 |
| 17.5° | 2217.3 | 1875.9 | 1306.0 | 955.5 | 750.8 | 587.1 | 524.0 | 520.8 | 522.4 | 522.4 | 522.4 |
| 20° | 2266.4 | 1834.9 | 1175.8 | 834.4 | 607.6 | 495.4 | 482.3 | 476.5 | 472.4 | 469.2 | 465.1 |
| 22.5° | 2304.9 | 1780.1 | 1050.5 | 714.0 | 496.2 | 453.6 | 433.1 | 415.1 | 400.4 | 390.6 | 385.7 |
| 25° | 2331.1 | 1707.2 | 935.9 | 598.5 | 446.2 | 412.7 | 375.8 | 345.5 | 322.6 | 308.7 | 303.0 |
| 27.5° | 2350.8 | 1628.6 | 833.5 | 501.1 | 411.9 | 365.2 | 316.9 | 280.8 | 257.1 | 244.8 | 239.9 |
| 30° | 2364.7 | 1539.4 | 743.5 | 440.5 | 373.4 | 315.2 | 263.7 | 228.4 | 211.3 | 204.7 | 201.4 |
| 32.5° | 2377.8 | 1440.3 | 658.3 | 411.9 | 337.3 | 269.4 | 221.1 | 194.1 | 183.4 | 175.2 | 172.8 |
| 35° | 2410.6 | 1348.6 | 577.3 | 381.6 | 300.5 | 230.1 | 190.0 | 170.3 | 159.7 | 154.8 | 153.1 |
| 37.5° | 2488.3 | 1280.6 | 499.5 | 350.4 | 263.7 | 199.0 | 166.2 | 152.3 | 142.5 | 137.6 | 135.9 |
| 40° | 2613.6 | 1246.2 | 434.0 | 316.9 | 227.6 | 175.2 | 150.7 | 137.6 | 126.9 | 119.5 | 117.9 |
| 42.5° | 2797.9 | 1251.1 | 388.1 | 283.3 | 199.0 | 156.4 | 135.9 | 120.4 | 108.9 | 102.4 | 100.7 |
| 45° | 3021.4 | 1287.2 | 356.2 | 250.6 | 175.2 | 141.7 | 119.5 | 103.2 | 92.5 | 86.8 | 85.2 |
| 47.5° | 3263.8 | 1345.3 | 330.0 | 221.1 | 156.4 | 127.7 | 103.2 | 86.0 | 77.0 | 72.1 | 71.2 |
| 50° | 3519.2 | 1401.8 | 303.0 | 192.4 | 140.0 | 113.8 | 86.8 | 71.2 | 63.9 | 59.8 | 58.1 |
| 52.5° | 3778.0 | 1467.3 | 278.4 | 166.2 | 126.1 | 97.4 | 72.1 | 58.1 | 52.4 | 49.1 | 47.5 |
| 55° | 4056.4 | 1516.4 | 254.6 | 145.7 | 112.2 | 82.7 | 59.8 | 48.3 | 43.4 | 39.3 | 38.5 |
| 57.5° | 4383.9 | 1592.6 | 230.1 | 126.1 | 95.8 | 68.8 | 49.1 | 38.5 | 34.4 | 30.3 | 29.5 |
| 60° | 4826.0 | 1681.8 | 203.9 | 111.4 | 78.6 | 56.5 | 40.1 | 31.1 | 26.2 | 22.9 | 22.1 |
| 62.5° | 5409.0 | 1780.9 | 171.1 | 97.4 | 63.9 | 45.9 | 31.9 | 24.6 | 18.8 | 14.7 | 14.7 |
| 65° | 6148.4 | 1942.2 | 140.0 | 81.9 | 52.4 | 37.7 | 24.6 | 18.0 | 10.6 | 6.6 | 6.6 |
| 67.5° | 6579.9 | 1970.0 | 113.0 | 67.1 | 42.6 | 31.9 | 20.5 | 12.3 | 3.3 | 0.8 | 0.0 |
| 69° | 6441.5 | 1808.7 | 95.8 | 57.3 | 36.8 | 30.3 | 18.8 | 9.0 | 1.6 | 0.0 | 0.0 |
| 70° | 6181.1 | 1654.0 | 84.3 | 50.8 | 33.6 | 28.7 | 18.0 | 6.6 | 1.6 | 0.0 | 0.0 |
| 72.5° | 5107.7 | 1177.4 | 63.9 | 37.7 | 24.6 | 25.4 | 16.4 | 4.1 | 1.6 | 0.0 | 0.0 |
| 75° | 3720.6 | 715.6 | 45.9 | 26.2 | 15.6 | 18.8 | 11.5 | 1.6 | 0.8 | 0.0 | 0.0 |
| 77.5° | 2069.9 | 337.3 | 28.7 | 14.7 | 9.8 | 11.5 | 5.7 | 0.0 | 0.0 | 0.0 | 0.0 |
| 80° | 672.2 | 91.7 | 13.1 | 8.2 | 5.7 | 6.6 | 2.5 | 0.0 | 0.0 | 0.0 | 0.0 |
| 82.5° | 124.5 | 26.2 | 7.4 | 4.1 | 1.6 | 1.6 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 85° | 27.0 | 10.6 | 4.1 | 1.6 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 87.5° | 9.0 | 3.3 | 0.8 | 0.0 | 0.0 | 0.0 | 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)