

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: P318857

Luminaire Tested: **GLEON-SA3D-827-U-T4FT**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P318857
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-1903-205-16)
Test Lab: INNOVATION CENTER
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: McGRAW-EDISON
Catalog Number: GLEON-SA3D-827-U-T4FT
Description: GALLEON AREA AND ROADWAY LUMINAIRE
(3) 80 CRI, 2700K, 1200mA LIGHTSQUARES WITH 16 LEDS EACH AND TYPE IV
FORWARD THROW OPTICS
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 17519 lumens
Efficiency: N/A
Efficacy: 91.7 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')
IES Classification: Type IV - Short
BUG Rating: B3 - U0 - G4

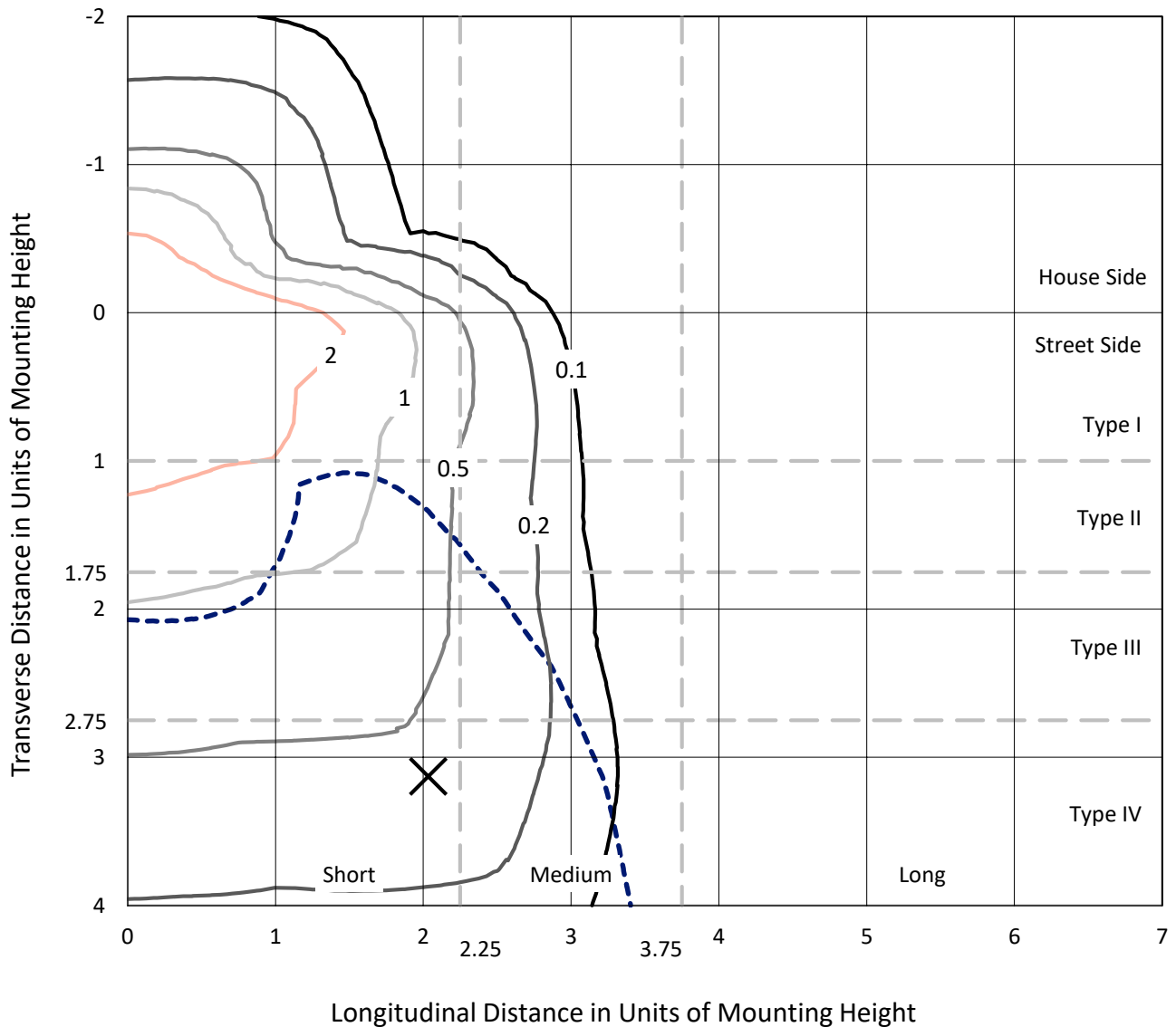
Input Watts (W): 191
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Iso-Footcandle Lines of Horizontal Illumination

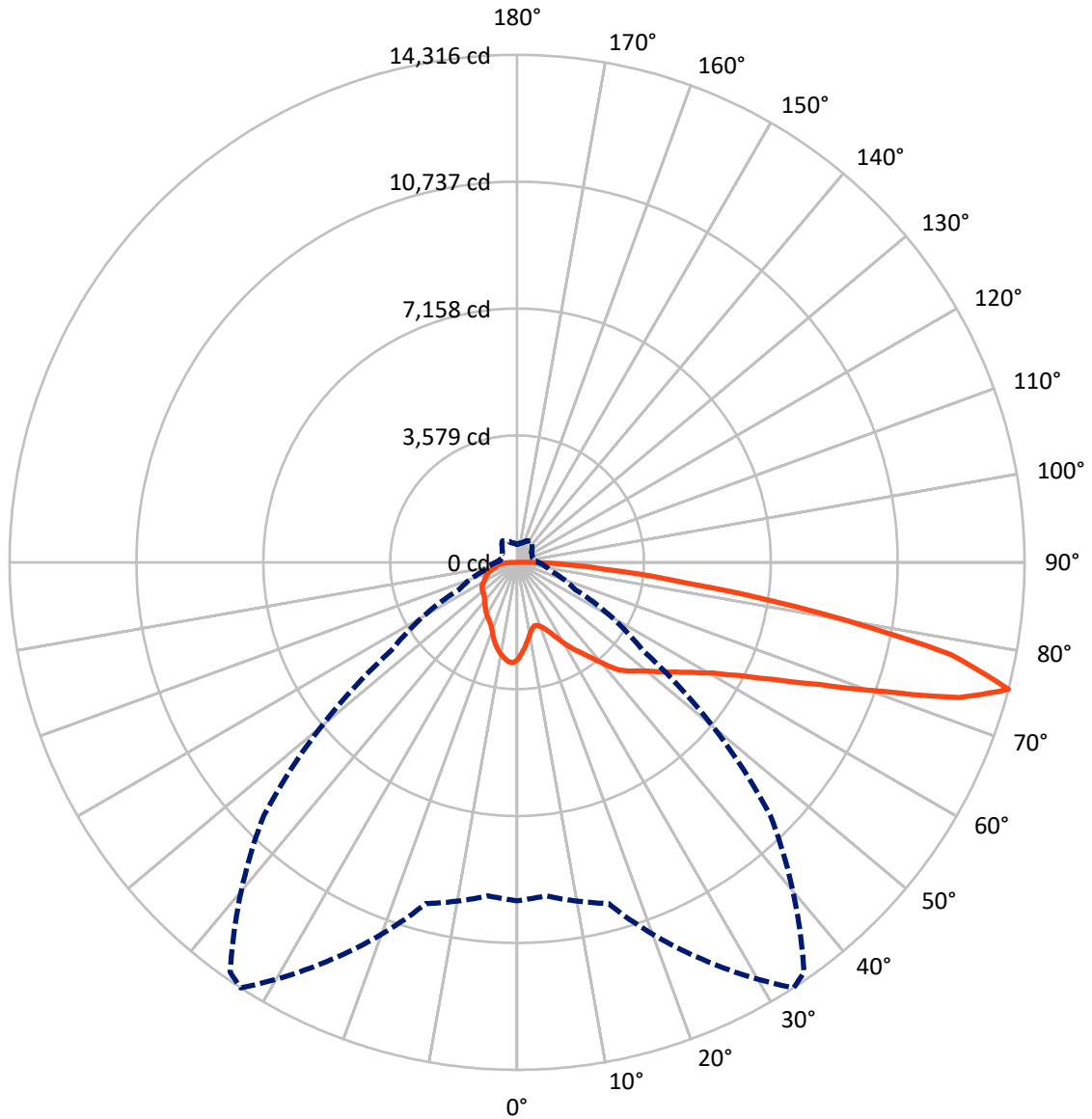
✕ Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 4.4 fc
 Type IV - Short - N/A

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Luminous Intensity Polar Plot



— Vertical Plane Through 33-Deg Lateral - - - Horizontal Cone Through 75-Deg Vertical

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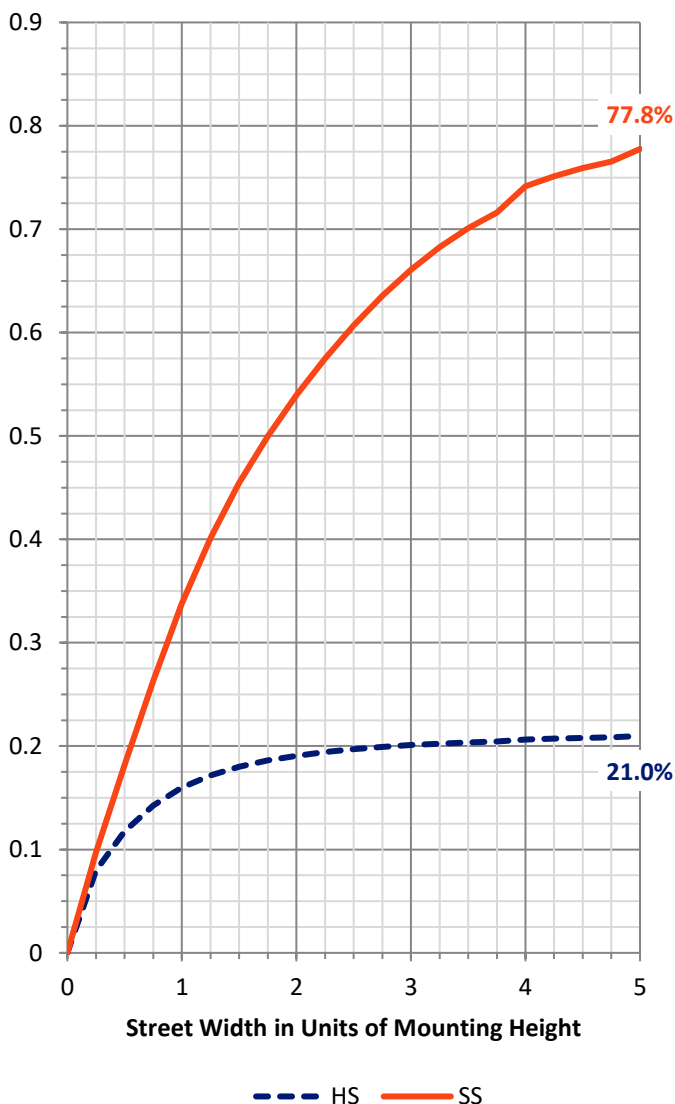
FLUX DISTRIBUTION:

| | | Downward | Upward | Total |
|--------------------|-----------|----------|--------|---------|
| House Side | Lumens | 3761.8 | 0.0 | 3761.8 |
| | % Fixture | 21.5 | 0.0 | 21.5 |
| Street Side | Lumens | 13757.2 | 0.0 | 13757.2 |
| | % Fixture | 78.5 | 0.0 | 78.5 |
| Total | Lumens | 17519.0 | 0.0 | 17519.0 |
| | % Fixture | 100.0 | 0.0 | 100.0 |

ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|---------|-----------|
| 0°-10° | 247.6 | 1.4 |
| 10°-20° | 670.7 | 3.8 |
| 20°-30° | 1095.4 | 6.3 |
| 30°-40° | 1631.3 | 9.3 |
| 40°-50° | 2339.7 | 13.4 |
| 50°-60° | 3212.1 | 18.3 |
| 60°-70° | 4021.4 | 23.0 |
| 70°-80° | 3638.0 | 20.8 |
| 80°-90° | 662.7 | 3.8 |
| 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° | 17519.0 | 100.0 |
| 0°-180° | 17519.0 | 100.0 |

Coefficient of Utilization

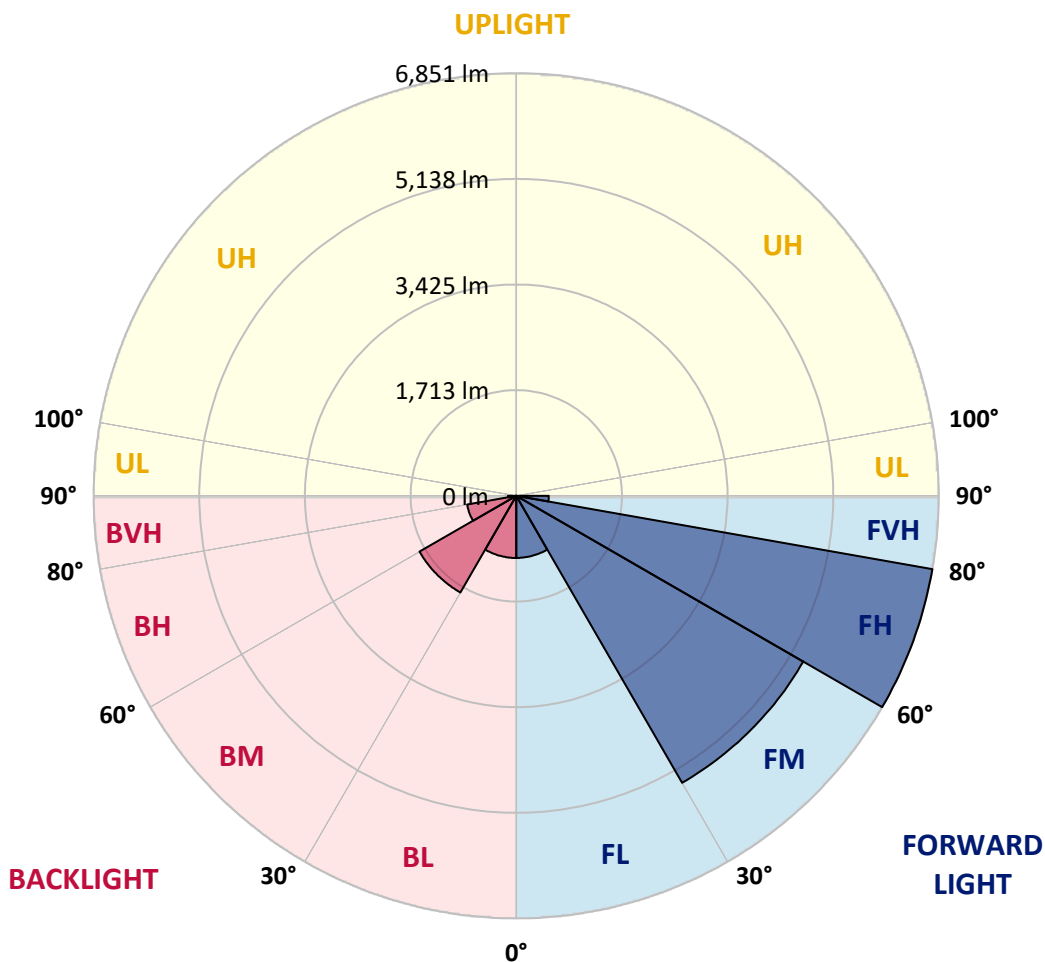


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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

| Zone | Lumens | % Fixture | Zone Rating/Lumen Limit | | |
|----------------|--------|-----------|-------------------------|------|---------|
| | | | B | U | G |
| FL (0°-30°) | 1006.2 | 5.7 | | | |
| FM (30°-60°) | 5372.7 | 30.7 | | | |
| FH (60°-80°) | 6850.5 | 39.1 | | | G3/7500 |
| FVH (80°-90°) | 527.8 | 3.0 | | | G4/750 |
| BL (0°-30°) | 1007.6 | 5.8 | B3/2500 | | |
| BM (30°-60°) | 1810.4 | 10.3 | B2/2500 | | |
| BH (60°-80°) | 808.9 | 4.6 | B2/1000 | | G2/1000 |
| BVH (80°-90°) | 134.9 | 0.8 | | | G2/225 |
| UL (90°-100°) | 0.0 | 0.0 | | U0/0 | |
| UH (100°-180°) | 0.0 | 0.0 | | U0/0 | |

BUG Rating: B3-U0-G4
 Type IV Short





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CANDELA DISTRIBUTION (FULL):

| | 0° | 5° | 15° | 25° | 33° | 35° | 45° | 55° | 65° | 75° | 85° |
|-------|---------|---------|---------|---------|---------|---------|---------|--------|--------|--------|--------|
| 0° | 2738.3 | 2738.3 | 2738.3 | 2738.3 | 2738.3 | 2738.3 | 2738.3 | 2738.3 | 2738.3 | 2738.3 | 2738.3 |
| 2.5° | 2542.9 | 2533.2 | 2551.3 | 2553.7 | 2569.5 | 2575.5 | 2597.3 | 2631.2 | 2659.0 | 2691.1 | 2720.2 |
| 5° | 2312.3 | 2305.6 | 2331.0 | 2349.2 | 2383.7 | 2398.2 | 2449.7 | 2521.7 | 2585.8 | 2658.4 | 2724.4 |
| 7.5° | 2093.2 | 2089.6 | 2118.0 | 2159.2 | 2199.1 | 2219.1 | 2308.1 | 2412.7 | 2519.9 | 2637.3 | 2738.3 |
| 10° | 1908.7 | 1907.4 | 1934.7 | 1975.2 | 2033.9 | 2056.3 | 2171.3 | 2309.3 | 2459.3 | 2620.9 | 2761.9 |
| 12.5° | 1805.2 | 1809.4 | 1822.1 | 1856.0 | 1910.5 | 1932.9 | 2060.5 | 2222.7 | 2408.5 | 2615.5 | 2796.4 |
| 15° | 1830.6 | 1837.2 | 1815.5 | 1814.2 | 1853.0 | 1870.5 | 1990.3 | 2161.0 | 2372.2 | 2624.5 | 2846.6 |
| 17.5° | 1938.9 | 1940.1 | 1882.6 | 1846.3 | 1869.9 | 1879.0 | 1968.6 | 2125.9 | 2351.0 | 2645.1 | 2909.6 |
| 20° | 2091.4 | 2088.4 | 1986.7 | 1926.2 | 1938.9 | 1941.3 | 1999.4 | 2126.5 | 2349.2 | 2680.8 | 2991.3 |
| 22.5° | 2293.5 | 2271.1 | 2134.4 | 2052.1 | 2049.0 | 2045.4 | 2078.7 | 2171.3 | 2375.8 | 2738.9 | 3088.7 |
| 25° | 2557.4 | 2536.2 | 2348.0 | 2235.4 | 2211.2 | 2202.2 | 2207.0 | 2266.9 | 2428.5 | 2801.3 | 3197.6 |
| 27.5° | 2850.9 | 2814.0 | 2632.4 | 2473.3 | 2423.0 | 2410.3 | 2381.3 | 2401.9 | 2486.0 | 2861.2 | 3327.1 |
| 30° | 3096.6 | 3076.6 | 2918.0 | 2729.2 | 2669.9 | 2651.8 | 2575.5 | 2553.1 | 2568.9 | 2942.9 | 3490.5 |
| 32.5° | 3233.9 | 3220.6 | 3124.4 | 2971.9 | 2916.8 | 2891.4 | 2783.7 | 2738.9 | 2702.0 | 3071.8 | 3712.0 |
| 35° | 3400.4 | 3391.9 | 3333.8 | 3223.0 | 3141.3 | 3114.7 | 3031.2 | 2984.6 | 2889.6 | 3249.1 | 3998.2 |
| 37.5° | 3612.2 | 3603.1 | 3604.3 | 3514.7 | 3417.3 | 3392.5 | 3337.4 | 3288.4 | 3132.9 | 3482.1 | 4309.3 |
| 40° | 3851.8 | 3834.3 | 3827.6 | 3823.4 | 3761.6 | 3747.7 | 3718.7 | 3652.1 | 3437.9 | 3760.4 | 4616.1 |
| 42.5° | 4212.5 | 4150.1 | 4017.0 | 4067.2 | 4128.4 | 4121.1 | 4144.7 | 4049.1 | 3776.8 | 4089.6 | 4915.7 |
| 45° | 4560.4 | 4458.2 | 4228.2 | 4239.1 | 4372.8 | 4413.4 | 4590.1 | 4522.3 | 4144.1 | 4450.3 | 5225.5 |
| 47.5° | 4719.0 | 4641.5 | 4446.1 | 4446.7 | 4579.2 | 4663.3 | 5050.6 | 5002.2 | 4530.2 | 4860.0 | 5603.7 |
| 50° | 4896.3 | 4818.8 | 4643.3 | 4709.3 | 4824.9 | 4914.4 | 5495.4 | 5470.6 | 4897.5 | 5308.4 | 6057.0 |
| 52.5° | 5089.9 | 4958.6 | 4847.3 | 4965.3 | 5127.5 | 5231.5 | 5940.8 | 5873.0 | 5234.6 | 5759.8 | 6578.0 |
| 55° | 5092.4 | 5056.7 | 5141.4 | 5227.9 | 5470.6 | 5598.3 | 6407.4 | 6228.2 | 5509.3 | 6203.4 | 7002.2 |
| 57.5° | 5382.2 | 5324.1 | 5503.9 | 5543.8 | 5860.9 | 6004.9 | 6871.5 | 6537.5 | 5788.9 | 6543.5 | 7231.0 |
| 60° | 5765.9 | 5716.3 | 5863.3 | 5968.6 | 6343.8 | 6536.3 | 7367.1 | 6855.2 | 6008.6 | 6800.1 | 7220.1 |
| 62.5° | 6428.5 | 6372.3 | 6370.4 | 6518.1 | 7023.4 | 7247.3 | 7923.3 | 7166.8 | 6095.7 | 6850.9 | 6912.1 |
| 65° | 7398.6 | 7309.0 | 7140.2 | 7210.4 | 7962.0 | 8185.3 | 8544.8 | 7392.6 | 5980.7 | 6578.6 | 6118.7 |
| 67.5° | 8342.6 | 8339.6 | 8132.0 | 8276.1 | 9201.4 | 9380.5 | 9252.8 | 7414.9 | 5621.9 | 5630.3 | 4711.1 |
| 70° | 9283.7 | 9295.8 | 9260.7 | 9761.7 | 10875.8 | 11062.2 | 10006.8 | 7114.2 | 4815.2 | 4066.0 | 2822.4 |
| 72.5° | 10029.2 | 10026.2 | 10202.9 | 11494.9 | 13048.9 | 13007.2 | 10642.2 | 6202.8 | 3457.2 | 2194.9 | 1348.9 |
| 75° | 9546.3 | 9441.0 | 9967.5 | 12353.0 | 14315.5 | 14111.6 | 10101.8 | 4326.8 | 1794.3 | 999.1 | 726.2 |
| 77.5° | 6226.4 | 6326.3 | 7099.1 | 10204.7 | 12521.8 | 12273.7 | 7411.3 | 2018.8 | 845.4 | 655.4 | 526.5 |
| 80° | 2254.8 | 2360.1 | 3324.1 | 5780.4 | 8627.1 | 8586.5 | 3649.7 | 829.7 | 571.9 | 495.0 | 383.7 |
| 82.5° | 775.8 | 814.5 | 1311.4 | 2567.1 | 4870.9 | 5052.4 | 1373.1 | 471.4 | 415.7 | 351.0 | 262.6 |
| 85° | 304.4 | 348.6 | 599.7 | 1235.1 | 2456.9 | 2475.1 | 556.1 | 282.0 | 289.3 | 230.0 | 144.0 |
| 87.5° | 115.6 | 140.4 | 286.8 | 573.7 | 1122.0 | 1030.6 | 199.1 | 134.3 | 164.6 | 136.8 | 68.4 |
| 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° | 2738.3 | 2738.3 | 2738.3 | 2738.3 | 2738.3 | 2738.3 | 2738.3 | 2738.3 | 2738.3 | 2738.3 | 2738.3 |
| 2.5° | 2742.6 | 2755.3 | 2781.9 | 2800.0 | 2819.4 | 2824.9 | 2827.3 | 2832.1 | 2837.0 | 2835.1 | 2835.7 |
| 5° | 2759.5 | 2784.3 | 2827.3 | 2845.4 | 2853.9 | 2844.2 | 2825.5 | 2810.3 | 2799.4 | 2793.4 | 2791.6 |
| 7.5° | 2787.3 | 2822.4 | 2868.4 | 2865.4 | 2846.0 | 2803.1 | 2754.7 | 2718.3 | 2688.1 | 2677.2 | 2671.1 |
| 10° | 2824.2 | 2865.4 | 2897.5 | 2863.0 | 2806.7 | 2732.3 | 2659.6 | 2603.4 | 2558.0 | 2540.4 | 2537.4 |
| 12.5° | 2871.5 | 2913.2 | 2919.3 | 2846.0 | 2752.8 | 2651.2 | 2552.5 | 2478.1 | 2410.3 | 2388.5 | 2383.7 |
| 15° | 2932.6 | 2971.9 | 2934.4 | 2816.4 | 2686.3 | 2549.5 | 2421.8 | 2320.8 | 2249.4 | 2222.7 | 2213.0 |
| 17.5° | 2996.7 | 3034.2 | 2937.4 | 2767.4 | 2599.1 | 2429.1 | 2268.7 | 2165.2 | 2083.5 | 2052.7 | 2049.0 |
| 20° | 3073.6 | 3090.5 | 2924.7 | 2697.2 | 2479.3 | 2273.0 | 2104.1 | 2006.7 | 1963.1 | 1941.3 | 1938.9 |
| 22.5° | 3168.6 | 3150.4 | 2895.7 | 2602.2 | 2327.4 | 2092.6 | 1955.2 | 1909.9 | 1899.0 | 1894.1 | 1895.9 |
| 25° | 3269.0 | 3213.4 | 2852.7 | 2478.1 | 2135.6 | 1912.3 | 1846.3 | 1859.0 | 1873.6 | 1871.7 | 1871.7 |
| 27.5° | 3379.8 | 3277.5 | 2786.7 | 2313.5 | 1923.2 | 1764.6 | 1772.5 | 1819.1 | 1840.9 | 1840.3 | 1839.7 |
| 30° | 3522.0 | 3350.1 | 2702.6 | 2115.6 | 1724.7 | 1660.5 | 1708.3 | 1765.2 | 1794.9 | 1793.7 | 1794.3 |
| 32.5° | 3696.9 | 3430.0 | 2588.2 | 1894.7 | 1581.3 | 1583.7 | 1638.8 | 1695.0 | 1729.5 | 1726.5 | 1727.1 |
| 35° | 3901.4 | 3519.6 | 2433.3 | 1676.9 | 1486.3 | 1522.6 | 1566.1 | 1605.5 | 1638.1 | 1633.9 | 1629.7 |
| 37.5° | 4124.1 | 3607.3 | 2227.6 | 1482.0 | 1408.8 | 1465.7 | 1502.0 | 1508.6 | 1523.8 | 1512.9 | 1505.0 |
| 40° | 4335.9 | 3674.5 | 1962.5 | 1322.3 | 1330.7 | 1417.3 | 1440.9 | 1414.2 | 1387.0 | 1383.4 | 1372.5 |
| 42.5° | 4520.5 | 3696.9 | 1694.4 | 1194.6 | 1248.4 | 1366.4 | 1381.0 | 1325.3 | 1276.3 | 1253.3 | 1243.6 |
| 45° | 4715.4 | 3704.7 | 1444.5 | 1087.5 | 1169.2 | 1321.0 | 1336.8 | 1262.3 | 1193.4 | 1143.7 | 1127.4 |
| 47.5° | 4970.1 | 3761.6 | 1250.2 | 1008.2 | 1108.6 | 1290.8 | 1313.2 | 1212.1 | 1122.6 | 1051.8 | 1036.6 |
| 50° | 5303.6 | 3874.2 | 1092.3 | 947.7 | 1069.3 | 1270.8 | 1296.2 | 1163.1 | 1064.5 | 979.1 | 964.0 |
| 52.5° | 5673.9 | 3977.7 | 964.6 | 898.7 | 1031.2 | 1235.7 | 1274.5 | 1128.0 | 1010.0 | 912.0 | 895.6 |
| 55° | 5932.9 | 3898.4 | 861.7 | 847.8 | 981.6 | 1185.5 | 1244.2 | 1098.4 | 931.9 | 846.6 | 832.1 |
| 57.5° | 5982.5 | 3627.3 | 783.7 | 795.2 | 921.6 | 1122.6 | 1197.6 | 1032.4 | 889.6 | 818.2 | 803.0 |
| 60° | 5847.0 | 3249.7 | 725.6 | 746.8 | 857.5 | 1043.3 | 1110.5 | 985.8 | 849.0 | 787.9 | 775.2 |
| 62.5° | 5506.3 | 2863.0 | 682.6 | 703.2 | 797.6 | 962.8 | 1056.0 | 936.8 | 807.9 | 753.4 | 740.7 |
| 65° | 4818.2 | 2403.7 | 641.5 | 664.5 | 741.9 | 893.2 | 1007.0 | 891.4 | 767.3 | 725.6 | 713.5 |
| 67.5° | 3637.0 | 1800.3 | 602.7 | 623.3 | 692.3 | 832.7 | 953.7 | 846.6 | 728.0 | 701.4 | 686.8 |
| 70° | 2141.6 | 1127.4 | 558.6 | 580.3 | 640.3 | 769.8 | 896.8 | 797.6 | 679.0 | 666.9 | 648.1 |
| 72.5° | 996.7 | 678.4 | 508.3 | 529.5 | 574.9 | 685.6 | 823.6 | 733.4 | 620.9 | 594.3 | 568.8 |
| 75° | 594.9 | 496.2 | 449.0 | 467.8 | 499.9 | 596.1 | 731.6 | 668.1 | 565.8 | 530.7 | 504.1 |
| 77.5° | 444.8 | 379.4 | 383.7 | 403.6 | 429.7 | 521.6 | 648.1 | 616.7 | 523.5 | 496.2 | 478.1 |
| 80° | 320.1 | 288.1 | 312.9 | 334.6 | 361.9 | 474.4 | 620.9 | 570.1 | 473.2 | 436.9 | 420.0 |
| 82.5° | 213.6 | 207.0 | 235.4 | 257.8 | 284.4 | 415.1 | 583.4 | 499.3 | 404.2 | 358.3 | 320.7 |
| 85° | 118.0 | 124.7 | 158.6 | 168.2 | 191.2 | 292.3 | 478.1 | 401.2 | 304.4 | 245.1 | 234.2 |
| 87.5° | 49.0 | 57.5 | 85.3 | 82.3 | 101.7 | 174.3 | 314.7 | 242.1 | 193.6 | 144.6 | 112.6 |
| 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)