

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: STREETWORKS

Report Number: P317896

Luminaire Tested: **GAN-SA2D-827-U-T3R**

Issue Date: 3/3/2020

### Test Information

Test Method: LM-79-08  
Report Number: P317896  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-1903-205-10)  
Test Lab: INNOVATION CENTER  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: STREETWORKS  
Catalog Number: GAN-SA2D-827-U-T3R  
Description: GALLEON AREA AND ROADWAY LUMINAIRE  
(2) 80 CRI, 2700K, 1200mA LIGHTSQUARES WITH 16 LEDS EACH AND TYPE III  
ROADWAY OPTICS  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

### Summary

Lumens per Lamp: N/A  
Luminaire Lumens: 11932 lumens  
Efficiency: N/A  
Efficacy: 92.5 lumens/watt  
Luminous Opening: Rectangular (W 0.5' x L: 1' x H: 0')  
IES Classification: Type IV - Medium  
BUG Rating: B2 - U0 - G2

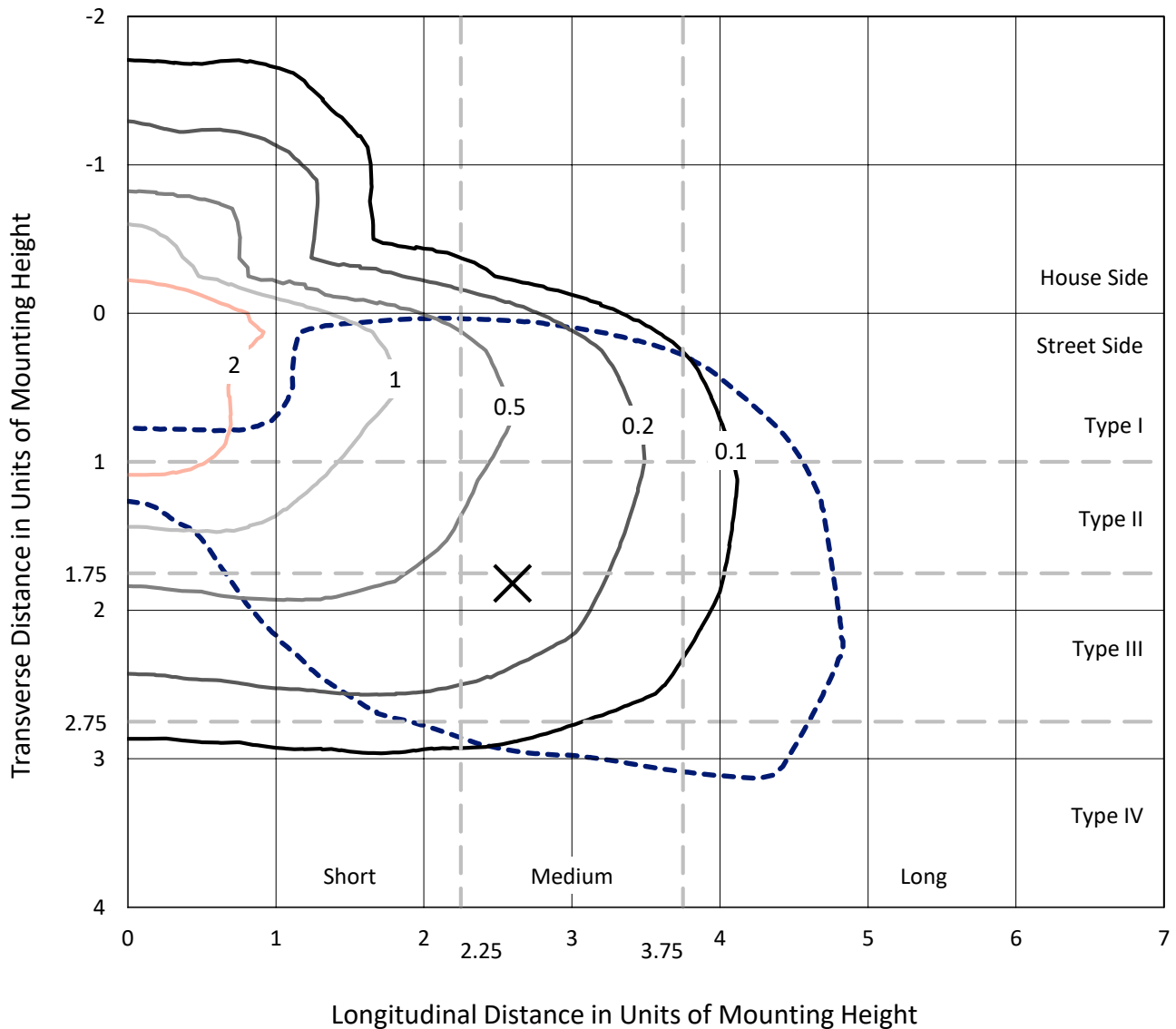
Input Watts (W): 129  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 24 FT



REPORT NUMBER: P317896  
 CATALOG NUMBER: GAN-SA2D-827-U-T3R

## Iso-Footcandle Lines of Horizontal Illumination

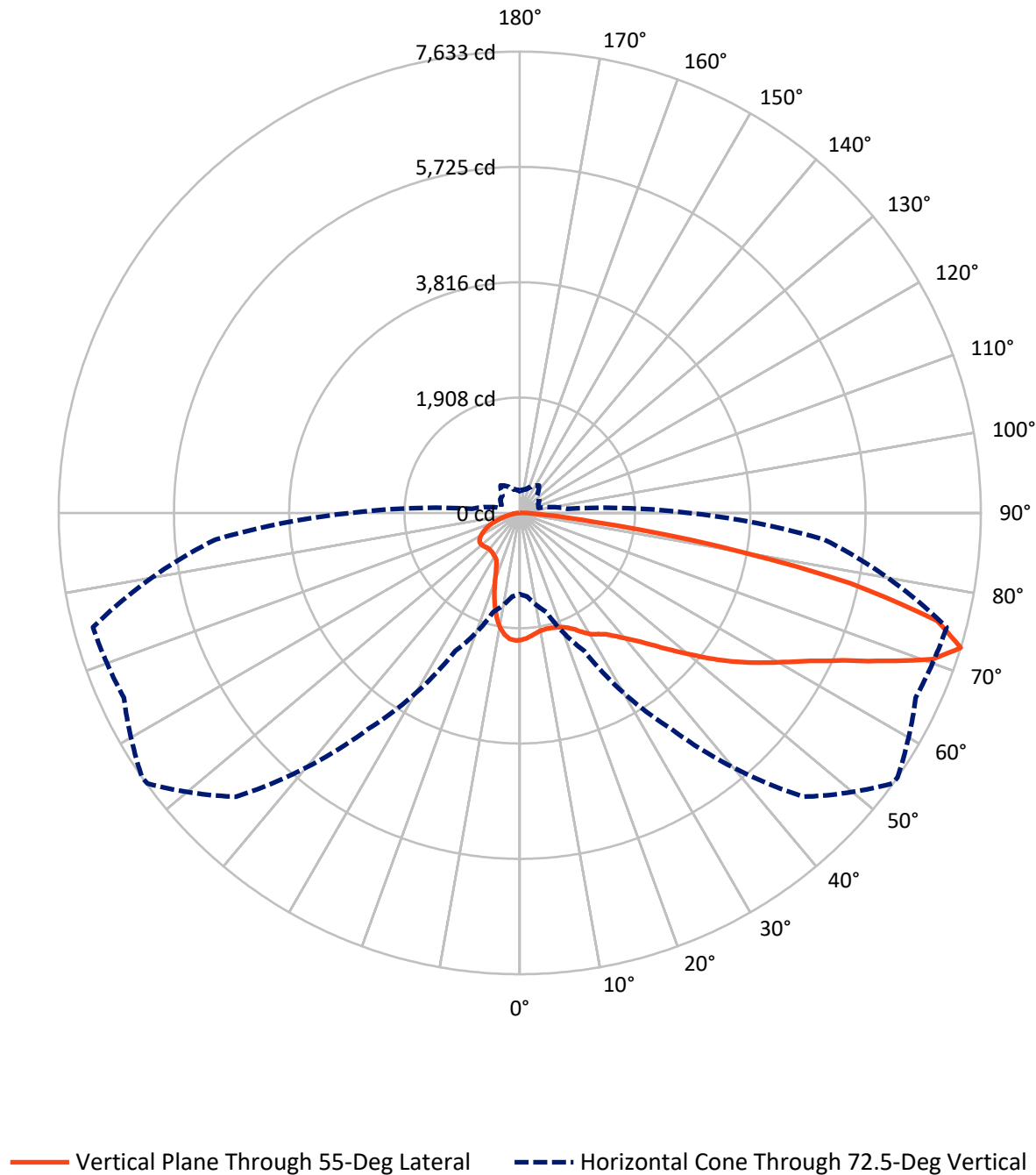
✕ Max cd  
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 3.4 fc  
 Type IV - Medium - N/A

REPORT NUMBER: P317896  
CATALOG NUMBER: GAN-SA2D-827-U-T3R

## Luminous Intensity Polar Plot



REPORT NUMBER: P317896

CATALOG NUMBER: GAN-SA2D-827-U-T3R

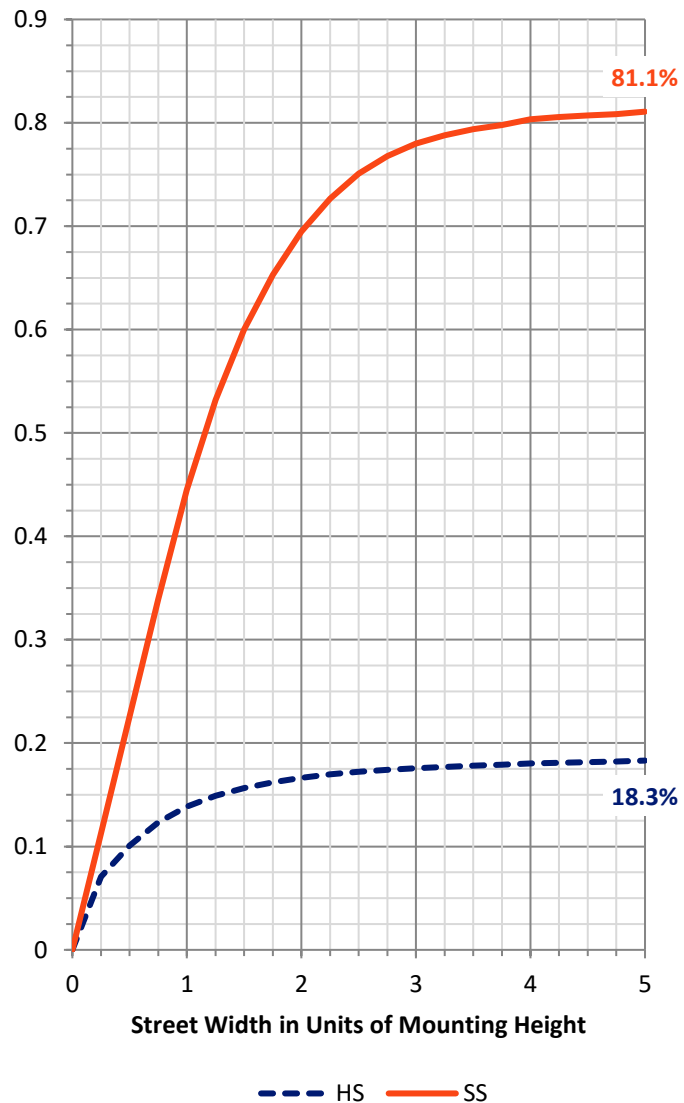
**FLUX DISTRIBUTION:**

|                    |           | Downward | Upward | Total   |
|--------------------|-----------|----------|--------|---------|
| <b>House Side</b>  | Lumens    | 2217.8   | 0.0    | 2217.8  |
|                    | % Fixture | 18.6     | 0.0    | 18.6    |
| <b>Street Side</b> | Lumens    | 9714.2   | 0.0    | 9714.2  |
|                    | % Fixture | 81.4     | 0.0    | 81.4    |
| <b>Total</b>       | Lumens    | 11932.0  | 0.0    | 11932.0 |
|                    | % Fixture | 100.0    | 0.0    | 100.0   |

**ZONAL LUMENS:**

| Zone      | Lumens  | % Fixture |
|-----------|---------|-----------|
| 0°-10°    | 190.4   | 1.6       |
| 10°-20°   | 507.0   | 4.2       |
| 20°-30°   | 835.9   | 7.0       |
| 30°-40°   | 1236.6  | 10.4      |
| 40°-50°   | 1726.0  | 14.5      |
| 50°-60°   | 2247.3  | 18.8      |
| 60°-70°   | 2761.8  | 23.1      |
| 70°-80°   | 2165.0  | 18.1      |
| 80°-90°   | 262.0   | 2.2       |
| 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°    | 11932.0 | 100.0     |
| 0°-180°   | 11932.0 | 100.0     |

**Coefficient of Utilization**



REPORT NUMBER: P317896

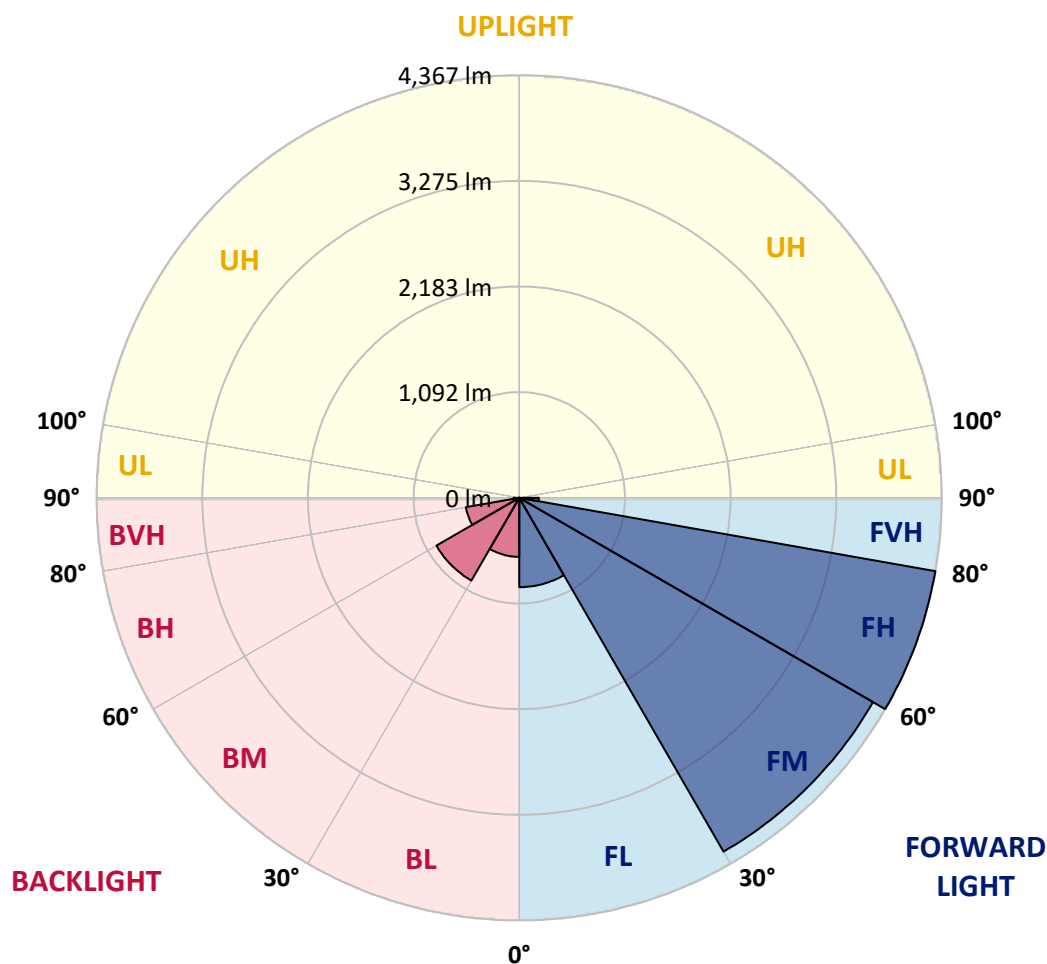
CATALOG NUMBER: GAN-SA2D-827-U-T3R

**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

| Zone |             | Lumens | % Fixture | Zone Rating/Lumen Limit |      |         |
|------|-------------|--------|-----------|-------------------------|------|---------|
|      |             |        |           | B                       | U    | G       |
| FL   | (0°-30°)    | 923.2  | 7.7       |                         |      |         |
| FM   | (30°-60°)   | 4221.8 | 35.4      |                         |      |         |
| FH   | (60°-80°)   | 4366.7 | 36.6      |                         |      | G2/5000 |
| FVH  | (80°-90°)   | 202.6  | 1.7       |                         |      | G2/225  |
| BL   | (0°-30°)    | 610.2  | 5.1       | B2/1000                 |      |         |
| BM   | (30°-60°)   | 988.1  | 8.3       | B1/1000                 |      |         |
| BH   | (60°-80°)   | 560.1  | 4.7       | B2/1000                 |      | G2/1000 |
| BVH  | (80°-90°)   | 59.4   | 0.5       |                         |      | G1/100  |
| UL   | (90°-100°)  | 0.0    | 0.0       |                         | U0/0 |         |
| UH   | (100°-180°) | 0.0    | 0.0       |                         | U0/0 |         |

**BUG Rating: B2-U0-G2**

Type IV Medium





REPORT NUMBER: P317896

CATALOG NUMBER: GAN-SA2D-827-U-T3R

**CANDELA DISTRIBUTION (FULL):**

|       | 0°     | 5°     | 15°    | 25°    | 35°    | 45°    | 54°    | 55°    | 65°    | 75°    | 85°    |
|-------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 0°    | 2104.5 | 2104.5 | 2104.5 | 2104.5 | 2104.5 | 2104.5 | 2104.5 | 2104.5 | 2104.5 | 2104.5 | 2104.5 |
| 2.5°  | 2036.0 | 2031.2 | 2037.2 | 2045.7 | 2055.0 | 2067.5 | 2074.7 | 2077.9 | 2090.4 | 2095.3 | 2105.8 |
| 5°    | 1941.7 | 1939.3 | 1949.4 | 1963.9 | 1984.4 | 2013.5 | 2036.8 | 2041.3 | 2074.3 | 2097.7 | 2119.1 |
| 7.5°  | 1873.2 | 1873.2 | 1884.9 | 1902.2 | 1925.2 | 1964.3 | 1997.3 | 2003.4 | 2059.4 | 2109.8 | 2149.3 |
| 10°   | 1818.8 | 1820.8 | 1834.5 | 1855.1 | 1882.1 | 1923.6 | 1967.5 | 1974.4 | 2055.4 | 2138.0 | 2200.9 |
| 12.5° | 1782.5 | 1787.4 | 1799.9 | 1818.4 | 1851.9 | 1902.2 | 1957.9 | 1967.1 | 2063.8 | 2178.3 | 2262.9 |
| 15°   | 1805.5 | 1813.6 | 1814.8 | 1822.4 | 1841.0 | 1895.8 | 1963.5 | 1973.2 | 2082.0 | 2219.4 | 2333.5 |
| 17.5° | 1906.3 | 1909.1 | 1896.6 | 1880.5 | 1871.6 | 1906.7 | 1980.4 | 1990.5 | 2103.7 | 2260.1 | 2401.2 |
| 20°   | 2059.4 | 2057.8 | 2030.8 | 1987.3 | 1942.1 | 1947.8 | 2008.2 | 2018.7 | 2133.2 | 2296.0 | 2468.9 |
| 22.5° | 2252.9 | 2247.2 | 2205.7 | 2125.5 | 2048.5 | 2016.3 | 2057.0 | 2065.9 | 2177.5 | 2347.2 | 2541.4 |
| 25°   | 2487.4 | 2474.9 | 2420.1 | 2312.5 | 2199.3 | 2116.2 | 2130.3 | 2138.8 | 2242.0 | 2404.4 | 2607.9 |
| 27.5° | 2734.9 | 2722.4 | 2652.6 | 2522.5 | 2371.7 | 2242.4 | 2231.5 | 2238.8 | 2315.3 | 2446.7 | 2657.1 |
| 30°   | 2993.6 | 2980.3 | 2916.6 | 2770.7 | 2554.7 | 2373.0 | 2325.8 | 2328.6 | 2366.9 | 2469.7 | 2697.4 |
| 32.5° | 3253.5 | 3241.1 | 3169.7 | 3000.5 | 2753.4 | 2513.2 | 2393.9 | 2390.3 | 2397.9 | 2493.5 | 2742.9 |
| 35°   | 3517.1 | 3522.0 | 3438.5 | 3251.1 | 2973.4 | 2669.2 | 2474.5 | 2466.9 | 2449.9 | 2542.2 | 2807.4 |
| 37.5° | 3799.2 | 3796.0 | 3688.0 | 3492.1 | 3203.6 | 2838.4 | 2590.2 | 2589.0 | 2530.5 | 2634.5 | 2908.6 |
| 40°   | 3987.8 | 3989.9 | 3924.2 | 3738.8 | 3436.1 | 3025.8 | 2738.5 | 2735.7 | 2659.1 | 2772.7 | 3041.2 |
| 42.5° | 4061.6 | 4074.9 | 4091.8 | 3974.1 | 3679.5 | 3243.1 | 2915.4 | 2911.4 | 2838.4 | 2971.0 | 3197.1 |
| 45°   | 4066.8 | 4093.4 | 4198.2 | 4183.3 | 3926.2 | 3491.7 | 3141.5 | 3130.2 | 3077.8 | 3234.6 | 3383.3 |
| 47.5° | 4021.7 | 4049.1 | 4223.2 | 4307.8 | 4146.6 | 3754.1 | 3405.9 | 3397.0 | 3351.9 | 3564.3 | 3584.8 |
| 50°   | 3923.0 | 3949.2 | 4171.6 | 4368.7 | 4328.0 | 4006.4 | 3710.6 | 3687.2 | 3663.0 | 3945.1 | 3815.3 |
| 52.5° | 3738.0 | 3788.3 | 4102.7 | 4383.2 | 4436.4 | 4230.5 | 4031.0 | 4015.6 | 4028.9 | 4346.9 | 4046.3 |
| 55°   | 3299.9 | 3356.3 | 3925.0 | 4371.1 | 4516.6 | 4418.7 | 4351.4 | 4350.6 | 4419.5 | 4768.5 | 4294.1 |
| 57.5° | 3054.5 | 3094.4 | 3563.1 | 4350.6 | 4611.7 | 4605.7 | 4668.5 | 4676.2 | 4810.4 | 5227.5 | 4553.7 |
| 60°   | 2915.8 | 2957.7 | 3379.7 | 4274.4 | 4759.2 | 4847.5 | 4992.2 | 5007.5 | 5207.8 | 5735.7 | 4866.0 |
| 62.5° | 2789.7 | 2835.6 | 3266.0 | 4119.2 | 4932.9 | 5193.3 | 5379.9 | 5393.6 | 5628.5 | 6258.0 | 5167.9 |
| 65°   | 2574.1 | 2626.1 | 3099.6 | 4017.3 | 5090.9 | 5644.2 | 5872.7 | 5882.0 | 6111.7 | 6805.3 | 5398.8 |
| 67.5° | 2269.4 | 2316.9 | 2785.6 | 3792.0 | 5207.8 | 6191.9 | 6528.0 | 6533.3 | 6590.9 | 7191.8 | 5516.9 |
| 70°   | 1913.5 | 1931.7 | 2338.3 | 3326.9 | 5069.5 | 6704.2 | 7246.2 | 7247.4 | 7027.8 | 7439.3 | 5497.5 |
| 72.5° | 1344.5 | 1387.2 | 1697.5 | 2518.4 | 4356.6 | 6641.7 | 7619.0 | 7632.7 | 7230.9 | 7314.3 | 5058.3 |
| 75°   | 824.6  | 869.7  | 1064.8 | 1526.2 | 2763.9 | 5223.5 | 7039.5 | 7134.6 | 6850.1 | 6521.6 | 4132.1 |
| 77.5° | 551.3  | 568.3  | 694.8  | 889.9  | 1252.2 | 3005.3 | 5412.1 | 5591.0 | 5690.6 | 4756.0 | 2642.6 |
| 80°   | 307.5  | 339.7  | 460.6  | 552.9  | 557.0  | 1194.1 | 3245.1 | 3287.0 | 3166.1 | 1893.8 | 815.3  |
| 82.5° | 162.8  | 180.6  | 307.5  | 324.8  | 303.9  | 399.8  | 1209.5 | 1210.7 | 1011.6 | 507.8  | 242.2  |
| 85°   | 126.1  | 141.1  | 210.8  | 198.3  | 155.2  | 177.3  | 399.0  | 420.7  | 344.2  | 208.0  | 79.0   |
| 87.5° | 62.9   | 78.2   | 143.1  | 125.7  | 60.9   | 50.8   | 142.7  | 152.3  | 135.8  | 81.4   | 28.6   |
| 90°   | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    |



REPORT NUMBER: P317896

CATALOG NUMBER: GAN-SA2D-827-U-T3R

**CANDELA DISTRIBUTION (continued):**

|       | 90°    | 95°    | 105°   | 115°   | 125°   | 135°   | 145°   | 155°   | 165°   | 175°   | 180°   |
|-------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 0°    | 2104.5 | 2104.5 | 2104.5 | 2104.5 | 2104.5 | 2104.5 | 2104.5 | 2104.5 | 2104.5 | 2104.5 | 2104.5 |
| 2.5°  | 2109.8 | 2113.4 | 2117.8 | 2113.0 | 2111.4 | 2105.0 | 2094.1 | 2091.7 | 2086.0 | 2086.4 | 2089.6 |
| 5°    | 2128.3 | 2134.4 | 2132.0 | 2113.4 | 2091.2 | 2060.2 | 2028.0 | 2000.6 | 1982.4 | 1981.2 | 1980.0 |
| 7.5°  | 2163.8 | 2167.8 | 2148.9 | 2096.1 | 2034.0 | 1962.3 | 1894.6 | 1835.3 | 1799.5 | 1790.6 | 1788.6 |
| 10°   | 2219.4 | 2218.6 | 2166.6 | 2060.2 | 1936.5 | 1808.3 | 1699.5 | 1617.3 | 1569.3 | 1555.2 | 1551.6 |
| 12.5° | 2281.5 | 2272.2 | 2172.7 | 1994.9 | 1798.7 | 1620.9 | 1483.1 | 1391.6 | 1341.6 | 1325.5 | 1321.5 |
| 15°   | 2345.6 | 2322.6 | 2157.7 | 1897.4 | 1629.4 | 1419.0 | 1274.3 | 1189.7 | 1162.7 | 1153.8 | 1152.2 |
| 17.5° | 2405.2 | 2360.9 | 2115.0 | 1765.2 | 1436.3 | 1217.9 | 1105.1 | 1071.2 | 1077.7 | 1089.4 | 1089.8 |
| 20°   | 2463.6 | 2386.7 | 2046.5 | 1598.4 | 1232.8 | 1052.3 | 1014.0 | 1039.0 | 1069.6 | 1093.4 | 1096.6 |
| 22.5° | 2521.3 | 2404.8 | 1958.3 | 1405.7 | 1050.7 | 959.2  | 986.2  | 1031.7 | 1066.8 | 1092.6 | 1097.0 |
| 25°   | 2569.6 | 2409.2 | 1836.5 | 1200.2 | 924.1  | 924.1  | 972.9  | 1016.0 | 1050.7 | 1076.1 | 1080.5 |
| 27.5° | 2587.4 | 2379.4 | 1664.9 | 1010.0 | 860.4  | 908.0  | 954.3  | 990.2  | 1019.6 | 1046.6 | 1051.5 |
| 30°   | 2594.2 | 2324.2 | 1466.6 | 857.2  | 834.2  | 890.7  | 929.4  | 960.0  | 987.8  | 1013.2 | 1017.6 |
| 32.5° | 2595.4 | 2257.7 | 1256.2 | 770.6  | 816.1  | 872.5  | 898.3  | 925.3  | 955.1  | 965.2  | 966.8  |
| 35°   | 2603.1 | 2179.1 | 1034.5 | 726.2  | 799.2  | 855.6  | 876.2  | 895.5  | 847.1  | 850.8  | 854.0  |
| 37.5° | 2625.2 | 2101.3 | 849.2  | 701.2  | 788.3  | 846.7  | 871.3  | 801.2  | 763.3  | 754.4  | 753.2  |
| 40°   | 2666.8 | 2018.3 | 711.7  | 681.1  | 784.3  | 851.2  | 840.3  | 748.0  | 682.7  | 633.9  | 626.7  |
| 42.5° | 2724.4 | 1928.8 | 623.9  | 667.8  | 787.1  | 872.5  | 797.2  | 696.8  | 588.4  | 557.0  | 552.9  |
| 45°   | 2789.3 | 1834.9 | 576.3  | 658.5  | 796.8  | 889.1  | 788.3  | 628.7  | 544.5  | 520.7  | 518.7  |
| 47.5° | 2852.1 | 1720.1 | 551.7  | 654.5  | 810.1  | 875.8  | 750.8  | 607.7  | 523.5  | 511.0  | 512.2  |
| 50°   | 2924.3 | 1616.5 | 536.8  | 650.1  | 821.7  | 867.3  | 708.5  | 596.9  | 515.5  | 530.8  | 546.9  |
| 52.5° | 2985.1 | 1509.3 | 523.5  | 641.2  | 826.2  | 852.4  | 697.6  | 598.9  | 515.5  | 544.9  | 560.2  |
| 55°   | 3057.3 | 1428.3 | 508.2  | 622.7  | 817.7  | 810.1  | 690.0  | 611.0  | 521.5  | 503.0  | 504.6  |
| 57.5° | 3150.4 | 1401.7 | 491.3  | 593.6  | 789.5  | 748.4  | 686.3  | 622.7  | 517.9  | 506.2  | 510.2  |
| 60°   | 3279.3 | 1429.9 | 484.4  | 555.8  | 745.6  | 700.0  | 686.7  | 616.6  | 492.5  | 472.3  | 472.7  |
| 62.5° | 3402.3 | 1461.3 | 484.0  | 532.0  | 691.6  | 656.9  | 677.5  | 596.9  | 479.6  | 467.9  | 472.3  |
| 65°   | 3442.6 | 1429.5 | 464.7  | 505.4  | 630.7  | 605.3  | 660.5  | 575.9  | 469.9  | 452.2  | 451.4  |
| 67.5° | 3388.6 | 1330.8 | 425.6  | 462.3  | 561.0  | 545.3  | 638.4  | 550.9  | 454.6  | 440.1  | 437.7  |
| 70°   | 3228.2 | 1110.3 | 377.2  | 405.4  | 481.6  | 477.6  | 603.3  | 521.9  | 434.0  | 421.6  | 411.1  |
| 72.5° | 2796.5 | 791.1  | 318.0  | 337.3  | 392.1  | 405.0  | 555.0  | 484.0  | 405.0  | 378.0  | 361.9  |
| 75°   | 2296.8 | 585.6  | 261.2  | 265.2  | 297.8  | 332.9  | 488.5  | 439.7  | 370.8  | 324.8  | 312.3  |
| 77.5° | 1406.5 | 358.3  | 208.0  | 209.6  | 213.6  | 265.6  | 402.2  | 390.1  | 327.2  | 270.8  | 262.0  |
| 80°   | 455.4  | 195.5  | 150.3  | 158.0  | 145.9  | 194.7  | 311.1  | 332.1  | 280.9  | 226.5  | 216.8  |
| 82.5° | 173.3  | 114.1  | 101.6  | 106.8  | 101.2  | 130.6  | 226.9  | 266.0  | 230.1  | 186.2  | 151.5  |
| 85°   | 83.8   | 64.5   | 60.0   | 67.3   | 62.5   | 66.9   | 145.1  | 195.9  | 174.5  | 121.3  | 112.8  |
| 87.5° | 29.8   | 28.6   | 23.0   | 31.0   | 26.6   | 23.8   | 44.3   | 98.7   | 115.3  | 83.4   | 74.6   |
| 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)