

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: P320866

Luminaire Tested: **GAN-SA2A-727-U-AFL**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P320866  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-1903-205-29)  
Test Lab: INNOVATION CENTER  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: STREETWORKS  
Catalog Number: GAN-SA2A-727-U-AFL  
Description: GALLEON AREA AND ROADWAY LUMINAIRE  
(2) 70 CRI, 2700K, 615mA LIGHTSQUARES WITH 16 LEDS EACH AND AUTOMOTIVE  
FRONTLINE OPTICS  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 8180 lumens  
Efficiency: N/A  
Efficacy: 123.9 lumens/watt  
Luminous Opening: Rectangular (W 0.5' x L: 1' x H: 0')  
IES Classification: Type II - Short  
BUG Rating: B1 - U0 - G1

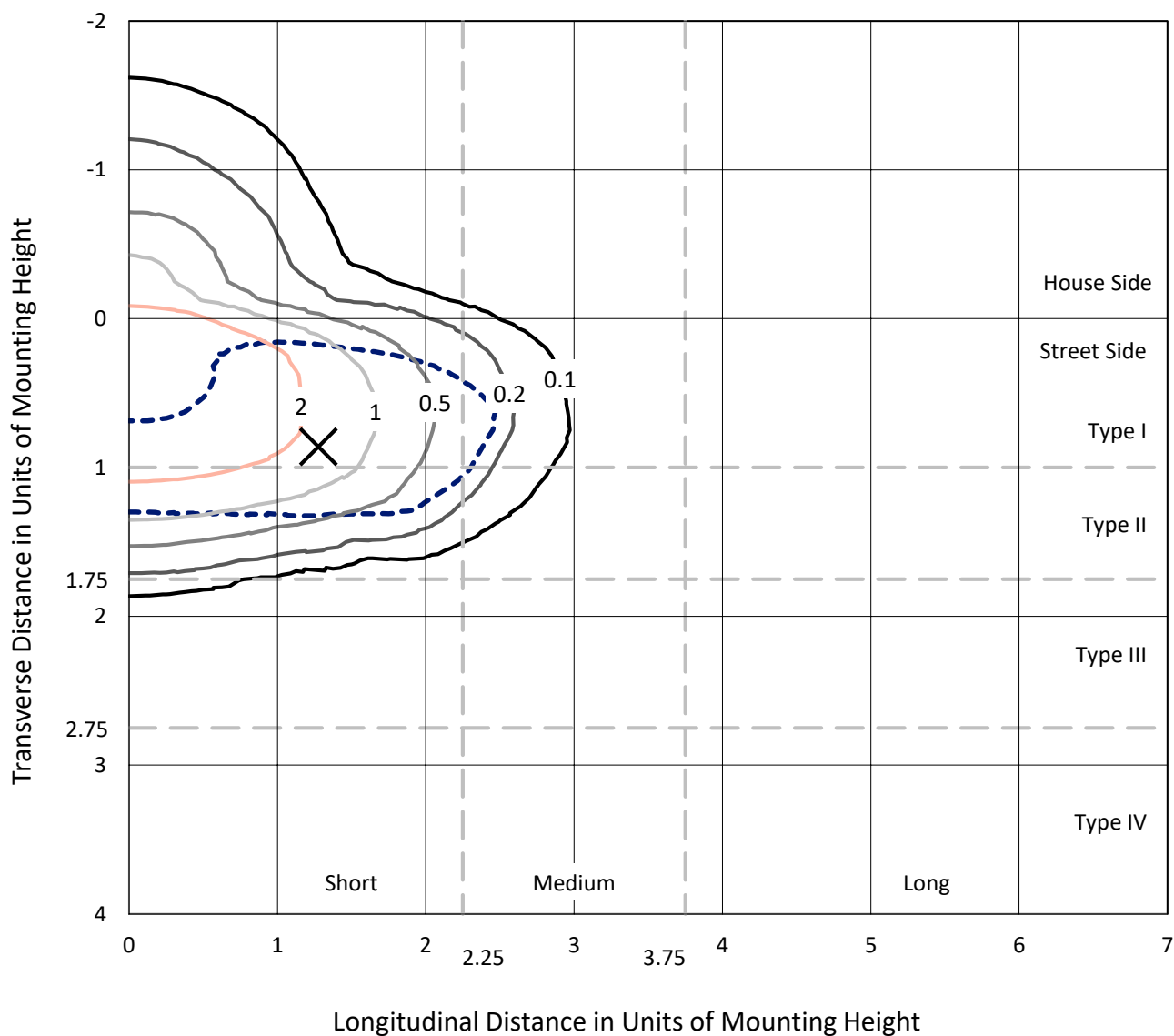
Input Watts (W): 66  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 24 FT



REPORT NUMBER: P320866  
 CATALOG NUMBER: GAN-SA2A-727-U-AFL

## Iso-Footcandle Lines of Horizontal Illumination

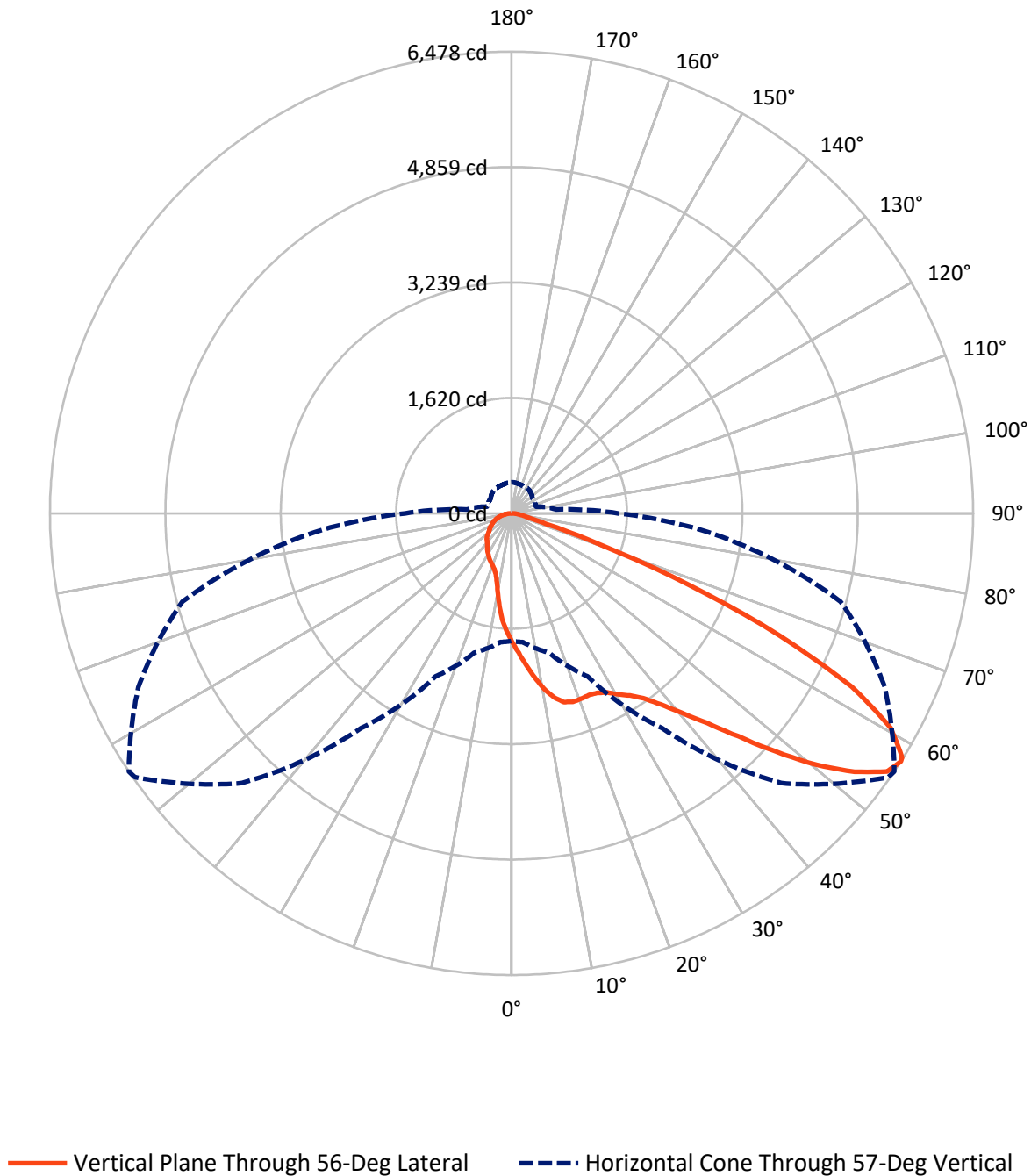
✕ Max cd  
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 4 fc  
 Type II - Short - N/A

REPORT NUMBER: P320866  
CATALOG NUMBER: GAN-SA2A-727-U-AFL

## Luminous Intensity Polar Plot



REPORT NUMBER: P320866

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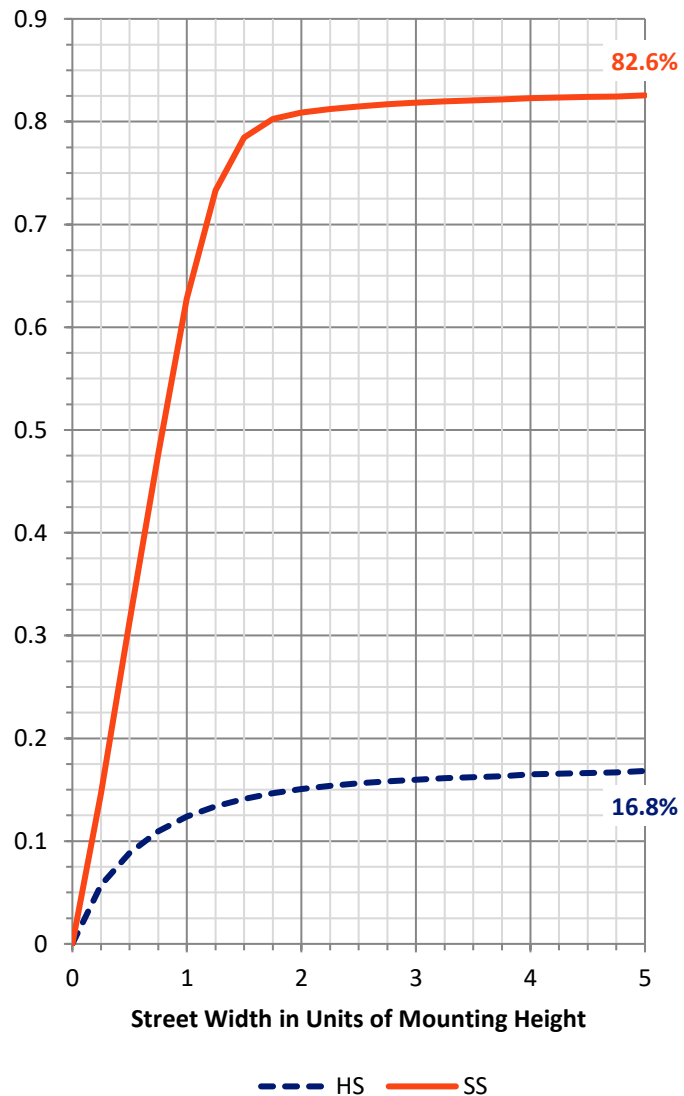
**FLUX DISTRIBUTION:**

|                    |           | Downward | Upward | Total  |
|--------------------|-----------|----------|--------|--------|
| <b>House Side</b>  | Lumens    | 1410.1   | 0.0    | 1410.1 |
|                    | % Fixture | 17.2     | 0.0    | 17.2   |
| <b>Street Side</b> | Lumens    | 6769.9   | 0.0    | 6769.9 |
|                    | % Fixture | 82.8     | 0.0    | 82.8   |
| <b>Total</b>       | Lumens    | 8180.0   | 0.0    | 8180.0 |
|                    | % Fixture | 100.0    | 0.0    | 100.0  |

**ZONAL LUMENS:**

| Zone      | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10°    | 173.3  | 2.1       |
| 10°-20°   | 490.0  | 6.0       |
| 20°-30°   | 798.1  | 9.8       |
| 30°-40°   | 1193.1 | 14.6      |
| 40°-50°   | 1809.7 | 22.1      |
| 50°-60°   | 2028.3 | 24.8      |
| 60°-70°   | 1198.0 | 14.6      |
| 70°-80°   | 392.5  | 4.8       |
| 80°-90°   | 97.0   | 1.2       |
| 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°    | 8180.0 | 100.0     |
| 0°-180°   | 8180.0 | 100.0     |

**Coefficient of Utilization**



REPORT NUMBER: P320866

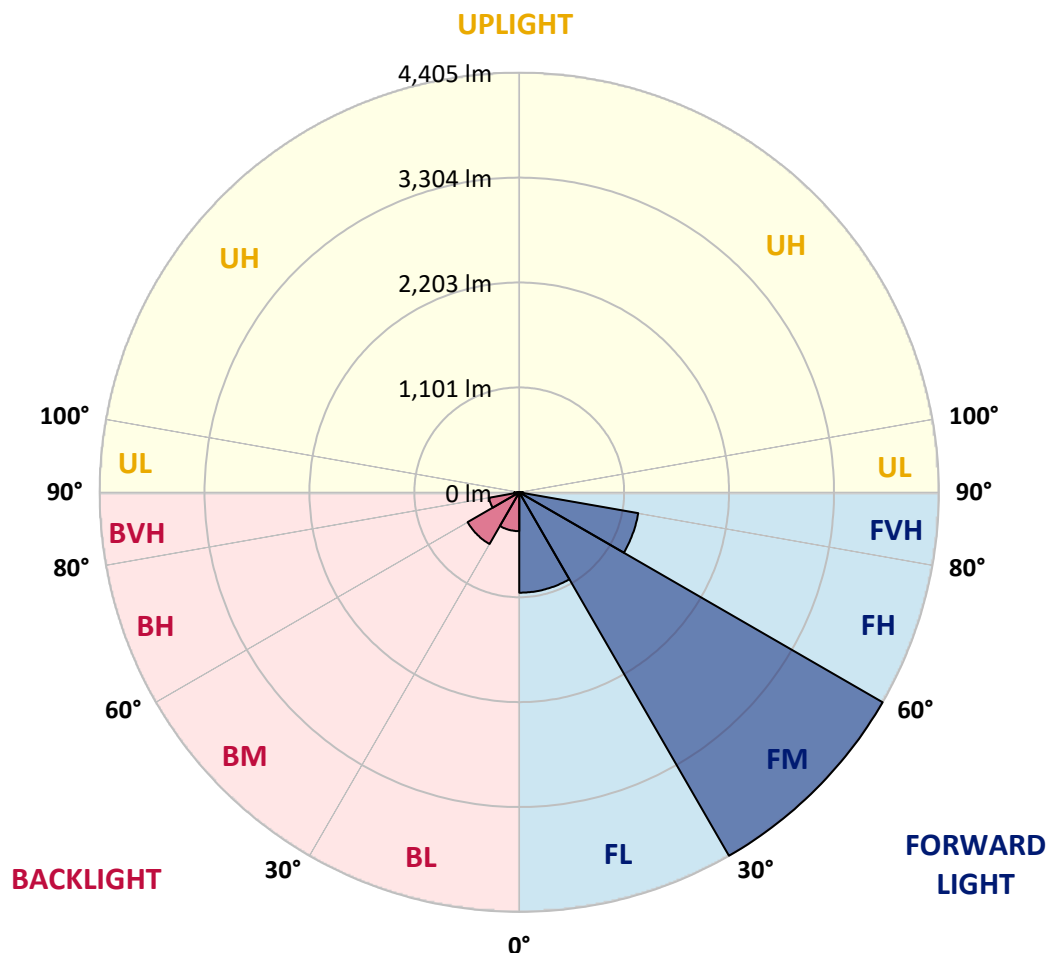
CATALOG NUMBER: GAN-SA2A-727-U-AFL

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

| Zone |             | Lumens | % Fixture | Zone Rating/Lumen Limit |      |         |
|------|-------------|--------|-----------|-------------------------|------|---------|
|      |             |        |           | B                       | U    | G       |
| FL   | (0°-30°)    | 1053.7 | 12.9      |                         |      |         |
| FM   | (30°-60°)   | 4405.2 | 53.9      |                         |      |         |
| FH   | (60°-80°)   | 1268.3 | 15.5      |                         |      | G1/1800 |
| FVH  | (80°-90°)   | 42.7   | 0.5       |                         |      | G1/100  |
| BL   | (0°-30°)    | 407.7  | 5.0       | B1/500                  |      |         |
| BM   | (30°-60°)   | 625.9  | 7.7       | B1/1000                 |      |         |
| BH   | (60°-80°)   | 322.2  | 3.9       | B1/500                  |      | G1/500  |
| BVH  | (80°-90°)   | 54.3   | 0.7       |                         |      | G1/100  |
| UL   | (90°-100°)  | 0.0    | 0.0       |                         | U0/0 |         |
| UH   | (100°-180°) | 0.0    | 0.0       |                         | U0/0 |         |

**BUG Rating: B1-U0-G1**

Type II Short





REPORT NUMBER: P320866

CATALOG NUMBER: GAN-SA2A-727-U-AFL

**CANDELA DISTRIBUTION (FULL):**

|       | 0°     | 5°     | 15°    | 25°    | 35°    | 45°    | 55°    | 56°    | 65°    | 75°    | 85°    |
|-------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 0°    | 1814.3 | 1814.3 | 1814.3 | 1814.3 | 1814.3 | 1814.3 | 1814.3 | 1814.3 | 1814.3 | 1814.3 | 1814.3 |
| 2.5°  | 2083.4 | 2102.5 | 2094.0 | 2064.8 | 2042.3 | 2010.6 | 1975.1 | 1964.4 | 1927.1 | 1885.2 | 1834.9 |
| 5°    | 2413.1 | 2403.6 | 2389.8 | 2344.2 | 2296.2 | 2240.2 | 2151.4 | 2137.3 | 2054.1 | 1959.4 | 1859.3 |
| 7.5°  | 2600.9 | 2600.1 | 2591.9 | 2565.2 | 2521.3 | 2448.3 | 2341.1 | 2324.6 | 2198.9 | 2046.5 | 1891.4 |
| 10°   | 2573.6 | 2571.7 | 2585.2 | 2613.0 | 2626.2 | 2611.0 | 2520.8 | 2504.2 | 2349.9 | 2143.0 | 1928.5 |
| 12.5° | 2418.7 | 2419.9 | 2441.5 | 2500.0 | 2579.5 | 2675.1 | 2660.5 | 2652.3 | 2506.4 | 2252.0 | 1973.4 |
| 15°   | 2298.1 | 2300.7 | 2317.8 | 2368.7 | 2462.6 | 2636.0 | 2745.4 | 2748.2 | 2658.0 | 2372.3 | 2026.0 |
| 17.5° | 2245.3 | 2250.6 | 2258.5 | 2294.2 | 2380.2 | 2558.2 | 2765.6 | 2780.8 | 2790.7 | 2497.2 | 2076.6 |
| 20°   | 2262.2 | 2267.2 | 2269.5 | 2292.2 | 2362.8 | 2510.9 | 2751.6 | 2778.8 | 2892.4 | 2614.7 | 2127.2 |
| 22.5° | 2337.8 | 2340.9 | 2342.3 | 2348.2 | 2403.0 | 2524.4 | 2742.3 | 2771.0 | 2966.1 | 2720.1 | 2165.4 |
| 25°   | 2463.2 | 2460.9 | 2451.9 | 2444.3 | 2481.1 | 2577.8 | 2763.7 | 2790.9 | 3025.9 | 2815.7 | 2190.5 |
| 27.5° | 2613.3 | 2610.5 | 2593.0 | 2572.2 | 2593.3 | 2661.1 | 2825.2 | 2846.9 | 3079.6 | 2905.1 | 2203.1 |
| 30°   | 2793.5 | 2786.2 | 2753.3 | 2728.5 | 2736.7 | 2785.9 | 2926.7 | 2946.4 | 3162.6 | 3006.6 | 2215.5 |
| 32.5° | 3001.8 | 2993.9 | 2946.4 | 2905.3 | 2905.3 | 2946.4 | 3031.3 | 3047.6 | 3232.8 | 3121.2 | 2235.4 |
| 35°   | 3262.6 | 3252.8 | 3191.0 | 3122.1 | 3102.7 | 3123.5 | 3173.8 | 3185.3 | 3359.4 | 3265.7 | 2271.7 |
| 37.5° | 3570.2 | 3557.0 | 3476.9 | 3384.7 | 3342.2 | 3341.1 | 3377.3 | 3401.0 | 3561.5 | 3455.5 | 2333.3 |
| 40°   | 3878.6 | 3869.3 | 3799.3 | 3726.8 | 3643.6 | 3616.9 | 3672.8 | 3680.1 | 3825.7 | 3691.1 | 2412.0 |
| 42.5° | 4117.0 | 4115.3 | 4102.3 | 4111.9 | 4026.7 | 3972.8 | 4016.6 | 4022.5 | 4148.4 | 3946.0 | 2495.8 |
| 45°   | 4242.9 | 4245.7 | 4308.4 | 4447.3 | 4478.8 | 4439.4 | 4461.1 | 4462.7 | 4517.3 | 4203.3 | 2572.5 |
| 47.5° | 4142.0 | 4156.6 | 4315.2 | 4625.8 | 4883.6 | 5014.3 | 4978.3 | 4999.1 | 4874.9 | 4424.2 | 2632.7 |
| 50°   | 3748.7 | 3766.7 | 4036.6 | 4546.2 | 5072.5 | 5570.6 | 5551.8 | 5547.0 | 5163.3 | 4586.1 | 2665.3 |
| 52.5° | 3261.5 | 3275.6 | 3498.2 | 4132.7 | 4933.9 | 5878.2 | 6051.1 | 6026.3 | 5419.7 | 4707.3 | 2671.5 |
| 55°   | 2519.7 | 2541.6 | 2755.0 | 3307.3 | 4373.3 | 5760.7 | 6418.2 | 6396.0 | 5653.3 | 4770.8 | 2664.1 |
| 57°   | 1791.3 | 1814.3 | 2026.3 | 2524.2 | 3679.0 | 5353.9 | 6454.7 | 6478.3 | 5779.5 | 4781.5 | 2672.3 |
| 57.5° | 1598.4 | 1622.0 | 1832.0 | 2315.6 | 3462.5 | 5206.9 | 6423.3 | 6462.6 | 5802.3 | 4779.8 | 2676.8 |
| 60°   | 804.8  | 813.8  | 947.6  | 1292.6 | 2188.8 | 4209.5 | 6012.5 | 6114.0 | 5822.8 | 4697.2 | 2696.2 |
| 62.5° | 500.4  | 493.9  | 489.7  | 595.4  | 1064.9 | 2791.5 | 5165.0 | 5360.3 | 5430.1 | 4497.0 | 2649.3 |
| 65°   | 439.9  | 427.9  | 381.5  | 373.0  | 470.3  | 1355.8 | 3889.5 | 4132.7 | 4590.9 | 4181.6 | 2537.4 |
| 67.5° | 413.2  | 401.4  | 349.1  | 317.7  | 317.9  | 537.5  | 2414.8 | 2688.6 | 3576.4 | 3648.3 | 2273.4 |
| 70°   | 385.7  | 375.0  | 326.1  | 289.0  | 270.7  | 297.7  | 1111.0 | 1318.7 | 2331.3 | 2867.7 | 1900.1 |
| 72.5° | 350.3  | 343.0  | 296.6  | 258.3  | 238.9  | 222.9  | 425.3  | 502.4  | 1349.6 | 1925.9 | 1319.6 |
| 75°   | 313.2  | 306.4  | 266.8  | 230.2  | 206.6  | 175.4  | 239.5  | 258.1  | 685.6  | 985.3  | 649.7  |
| 77.5° | 272.4  | 268.5  | 237.3  | 203.5  | 184.7  | 145.3  | 169.5  | 178.5  | 294.0  | 422.5  | 325.8  |
| 80°   | 216.7  | 224.3  | 207.5  | 181.3  | 163.9  | 116.4  | 120.0  | 125.9  | 171.2  | 206.3  | 185.0  |
| 82.5° | 141.1  | 154.3  | 162.5  | 147.3  | 134.9  | 91.6   | 86.3   | 88.8   | 111.6  | 125.9  | 80.4   |
| 85°   | 58.8   | 66.1   | 106.8  | 96.4   | 89.7   | 66.9   | 57.9   | 59.0   | 69.2   | 71.7   | 32.9   |
| 87.5° | 26.1   | 27.8   | 46.9   | 44.1   | 38.0   | 23.1   | 24.7   | 27.0   | 36.8   | 34.9   | 12.7   |
| 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: P320866

CATALOG NUMBER: GAN-SA2A-727-U-AFL

**CANDELA DISTRIBUTION (continued):**

|       | 90°    | 95°    | 105°   | 115°   | 125°   | 135°   | 145°   | 155°   | 165°   | 175°   | 180°   |
|-------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 0°    | 1814.3 | 1814.3 | 1814.3 | 1814.3 | 1814.3 | 1814.3 | 1814.3 | 1814.3 | 1814.3 | 1814.3 | 1814.3 |
| 2.5°  | 1816.0 | 1792.4 | 1751.9 | 1707.2 | 1670.7 | 1641.4 | 1611.9 | 1591.7 | 1568.1 | 1555.4 | 1549.0 |
| 5°    | 1817.4 | 1771.0 | 1685.9 | 1598.4 | 1520.3 | 1448.9 | 1380.8 | 1328.6 | 1279.6 | 1253.2 | 1245.9 |
| 7.5°  | 1823.3 | 1753.6 | 1615.9 | 1471.9 | 1333.1 | 1206.3 | 1108.4 | 1047.2 | 1003.0 | 983.3  | 977.7  |
| 10°   | 1828.1 | 1733.1 | 1529.3 | 1316.2 | 1127.3 | 998.8  | 922.9  | 888.6  | 873.4  | 870.9  | 868.4  |
| 12.5° | 1839.4 | 1712.0 | 1438.2 | 1153.7 | 967.3  | 878.5  | 852.1  | 849.8  | 854.0  | 860.2  | 860.2  |
| 15°   | 1857.1 | 1691.2 | 1334.2 | 1014.3 | 865.6  | 834.4  | 839.7  | 852.1  | 863.6  | 873.2  | 874.6  |
| 17.5° | 1870.0 | 1665.6 | 1222.3 | 902.7  | 811.3  | 819.7  | 838.9  | 856.3  | 868.1  | 877.4  | 878.2  |
| 20°   | 1879.3 | 1626.0 | 1102.8 | 817.5  | 780.1  | 806.2  | 830.1  | 845.6  | 853.8  | 863.0  | 864.4  |
| 22.5° | 1874.5 | 1572.9 | 996.8  | 756.5  | 754.8  | 786.6  | 809.3  | 827.9  | 821.7  | 812.7  | 818.6  |
| 25°   | 1851.4 | 1499.8 | 887.8  | 710.9  | 728.1  | 760.1  | 788.3  | 775.9  | 755.1  | 751.1  | 753.4  |
| 27.5° | 1810.4 | 1406.4 | 786.8  | 668.8  | 697.2  | 735.7  | 734.0  | 721.6  | 714.3  | 709.3  | 712.4  |
| 30°   | 1766.3 | 1305.2 | 698.6  | 632.0  | 662.9  | 694.6  | 688.2  | 687.9  | 680.6  | 672.4  | 676.4  |
| 32.5° | 1722.7 | 1203.5 | 628.6  | 601.6  | 637.0  | 641.2  | 655.3  | 659.5  | 645.2  | 628.0  | 626.9  |
| 35°   | 1684.7 | 1107.3 | 575.4  | 574.0  | 605.8  | 606.4  | 626.9  | 621.0  | 585.3  | 567.6  | 567.6  |
| 37.5° | 1656.3 | 1011.5 | 535.0  | 549.3  | 564.8  | 579.4  | 589.8  | 565.3  | 559.4  | 549.6  | 549.3  |
| 40°   | 1644.0 | 927.1  | 509.7  | 530.5  | 535.8  | 554.4  | 527.7  | 537.2  | 540.0  | 535.0  | 535.0  |
| 42.5° | 1631.0 | 853.8  | 487.7  | 516.1  | 515.3  | 512.8  | 499.3  | 511.6  | 522.9  | 523.2  | 522.3  |
| 45°   | 1618.1 | 790.5  | 468.3  | 485.5  | 497.3  | 470.0  | 472.6  | 485.8  | 501.5  | 507.1  | 507.1  |
| 47.5° | 1603.8 | 740.5  | 450.6  | 453.2  | 471.4  | 453.2  | 451.2  | 461.3  | 479.9  | 488.9  | 490.8  |
| 50°   | 1572.3 | 695.5  | 430.4  | 424.8  | 429.8  | 436.0  | 437.7  | 442.5  | 463.0  | 477.3  | 480.7  |
| 52.5° | 1528.7 | 655.3  | 404.5  | 398.6  | 398.6  | 422.0  | 429.8  | 431.2  | 448.7  | 465.8  | 469.2  |
| 55°   | 1492.5 | 629.7  | 377.8  | 376.7  | 375.6  | 407.1  | 420.6  | 422.8  | 434.9  | 448.4  | 450.1  |
| 57°   | 1495.0 | 627.7  | 357.3  | 358.4  | 358.1  | 391.9  | 411.8  | 416.6  | 422.8  | 434.3  | 436.3  |
| 57.5° | 1496.4 | 629.1  | 352.8  | 353.4  | 353.1  | 387.7  | 409.3  | 414.6  | 419.4  | 431.5  | 433.5  |
| 60°   | 1517.5 | 632.8  | 334.5  | 328.3  | 329.8  | 365.2  | 395.0  | 401.7  | 404.8  | 420.8  | 423.4  |
| 62.5° | 1486.3 | 616.5  | 319.9  | 305.0  | 305.0  | 341.6  | 375.0  | 385.7  | 390.5  | 412.1  | 416.3  |
| 65°   | 1395.7 | 570.7  | 302.8  | 278.6  | 281.4  | 317.9  | 351.1  | 368.5  | 375.9  | 402.8  | 407.3  |
| 67.5° | 1256.0 | 517.5  | 284.5  | 255.0  | 257.8  | 293.2  | 326.4  | 345.2  | 356.7  | 392.7  | 396.4  |
| 70°   | 1074.1 | 452.6  | 259.8  | 230.0  | 233.3  | 266.2  | 297.1  | 318.5  | 335.7  | 383.2  | 384.3  |
| 72.5° | 791.9  | 371.1  | 225.2  | 202.4  | 206.1  | 234.7  | 267.6  | 292.4  | 315.4  | 359.3  | 358.7  |
| 75°   | 470.9  | 290.1  | 186.9  | 174.6  | 177.1  | 203.8  | 240.9  | 271.0  | 305.6  | 350.0  | 355.3  |
| 77.5° | 285.6  | 218.4  | 152.4  | 146.2  | 149.3  | 176.5  | 221.8  | 253.8  | 301.4  | 330.0  | 328.3  |
| 80°   | 172.6  | 156.0  | 121.7  | 117.8  | 120.9  | 151.0  | 205.2  | 240.9  | 263.4  | 282.0  | 282.0  |
| 82.5° | 90.2   | 95.3   | 89.4   | 86.3   | 90.5   | 122.6  | 186.7  | 210.3  | 232.8  | 199.9  | 186.7  |
| 85°   | 36.8   | 49.8   | 54.3   | 54.0   | 56.5   | 84.9   | 161.1  | 179.9  | 150.1  | 142.5  | 145.9  |
| 87.5° | 12.4   | 21.1   | 26.4   | 22.8   | 23.9   | 53.4   | 111.6  | 86.9   | 103.2  | 72.0   | 68.3   |
| 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)