

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: P324733

Luminaire Tested: **GAN-SA9C-727-U-AFL-HSS**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P324733  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-1903-205-30)  
Test Lab: INNOVATION CENTER  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: STREETWORKS  
Catalog Number: GAN-SA9C-727-U-AFL-HSS  
Description: GALLEON AREA AND ROADWAY LUMINAIRE  
(9) 70 CRI, 2700K, 1050mA LIGHTSQUARES WITH 16 LEDS EACH AND AUTOMOTIVE  
FRONTLINE OPTICS WITH HOUSE SIDE SHIELD  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 43290 lumens  
Efficiency: N/A  
Efficacy: 86.4 lumens/watt  
Luminous Opening: Rectangular (W 2.5' x L: 1' x H: 0')  
IES Classification: Type II - Short  
BUG Rating: B3 - U0 - G3

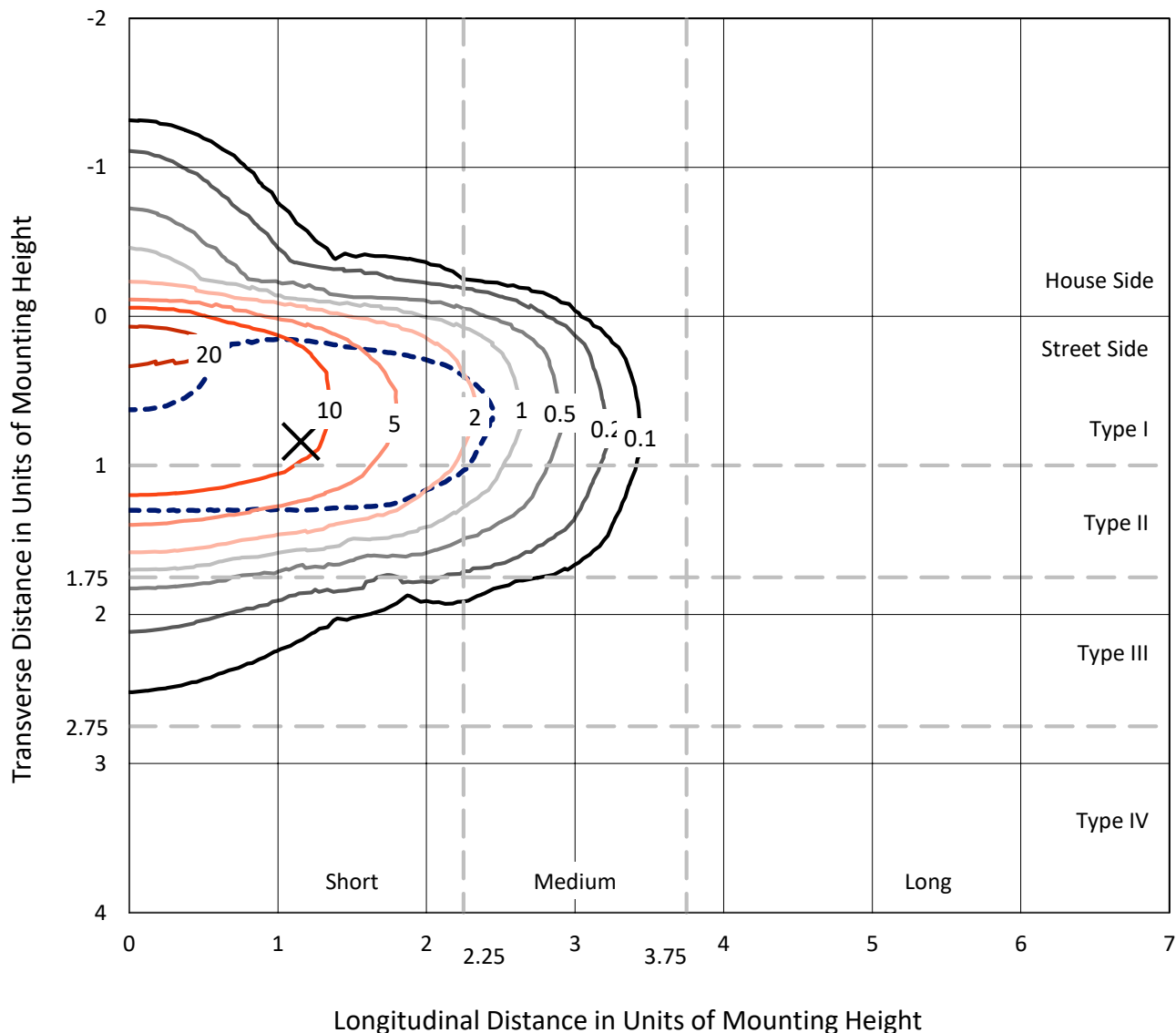
Input Watts (W): 501  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 24 FT



REPORT NUMBER: P324733  
 CATALOG NUMBER: GAN-SA9C-727-U-AFL-HSS

## Iso-Footcandle Lines of Horizontal Illumination

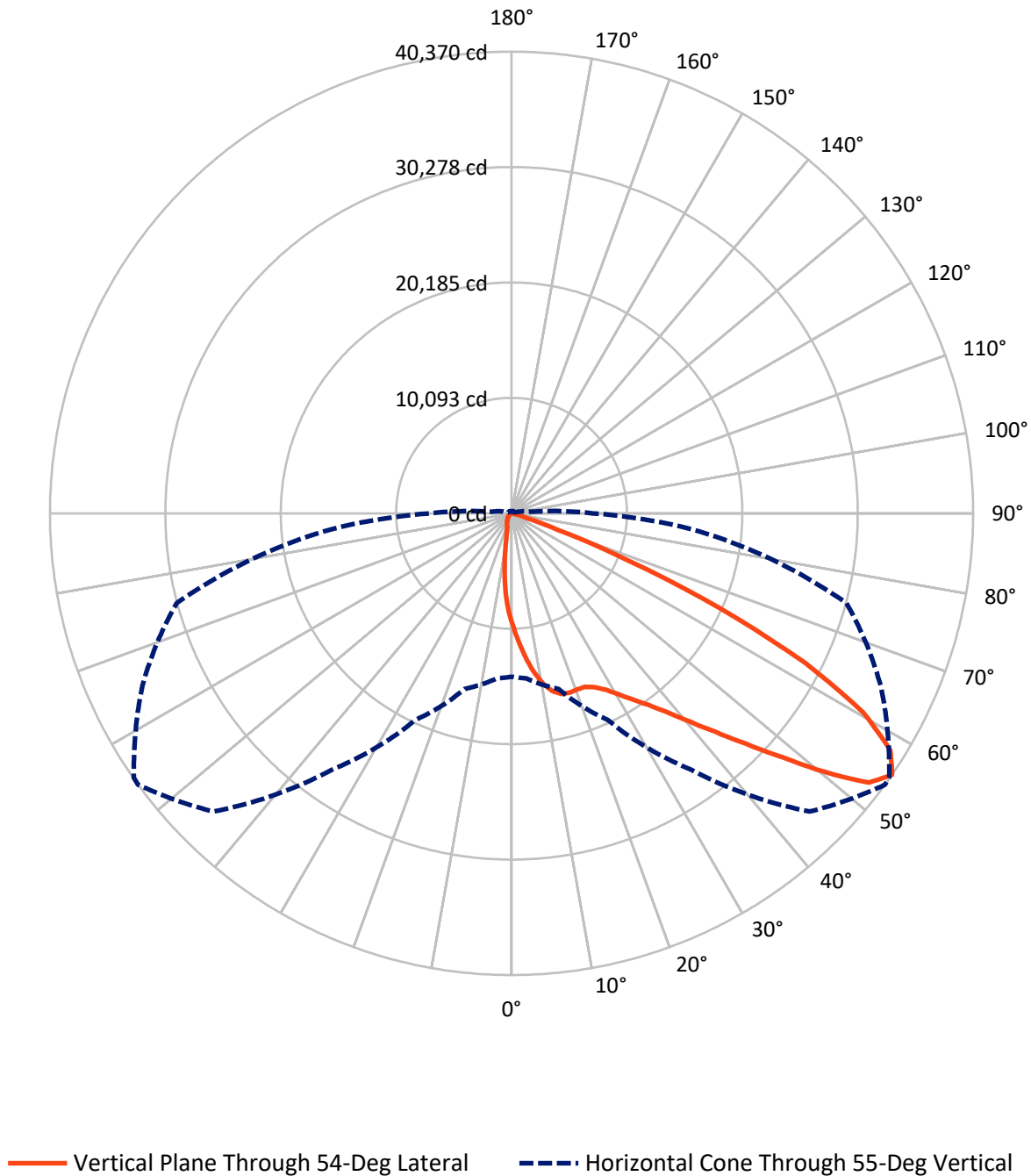
× Max cd  
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 23.8 fc  
 Type II - Short - N/A

REPORT NUMBER: P324733  
CATALOG NUMBER: GAN-SA9C-727-U-AFL-HSS

## Luminous Intensity Polar Plot



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**FLUX DISTRIBUTION:**

|                    |           | Downward | Upward | Total   |
|--------------------|-----------|----------|--------|---------|
| <b>House Side</b>  | Lumens    | 2159.8   | 0.0    | 2159.8  |
|                    | % Fixture | 5.0      | 0.0    | 5.0     |
| <b>Street Side</b> | Lumens    | 41130.1  | 0.0    | 41130.1 |
|                    | % Fixture | 95.0     | 0.0    | 95.0    |
| <b>Total</b>       | Lumens    | 43290.0  | 0.0    | 43290.0 |
|                    | % Fixture | 100.0    | 0.0    | 100.0   |

**ZONAL LUMENS:**

| Zone      | Lumens  | % Fixture |
|-----------|---------|-----------|
| 0°-10°    | 892.8   | 2.1       |
| 10°-20°   | 2448.6  | 5.7       |
| 20°-30°   | 4180.5  | 9.7       |
| 30°-40°   | 6709.1  | 15.5      |
| 40°-50°   | 10721.1 | 24.8      |
| 50°-60°   | 11488.0 | 26.5      |
| 60°-70°   | 5898.3  | 13.6      |
| 70°-80°   | 893.4   | 2.1       |
| 80°-90°   | 58.2    | 0.1       |
| 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°    | 43290.0 | 100.0     |
| 0°-180°   | 43290.0 | 100.0     |

**Coefficient of Utilization**



REPORT NUMBER: P324733

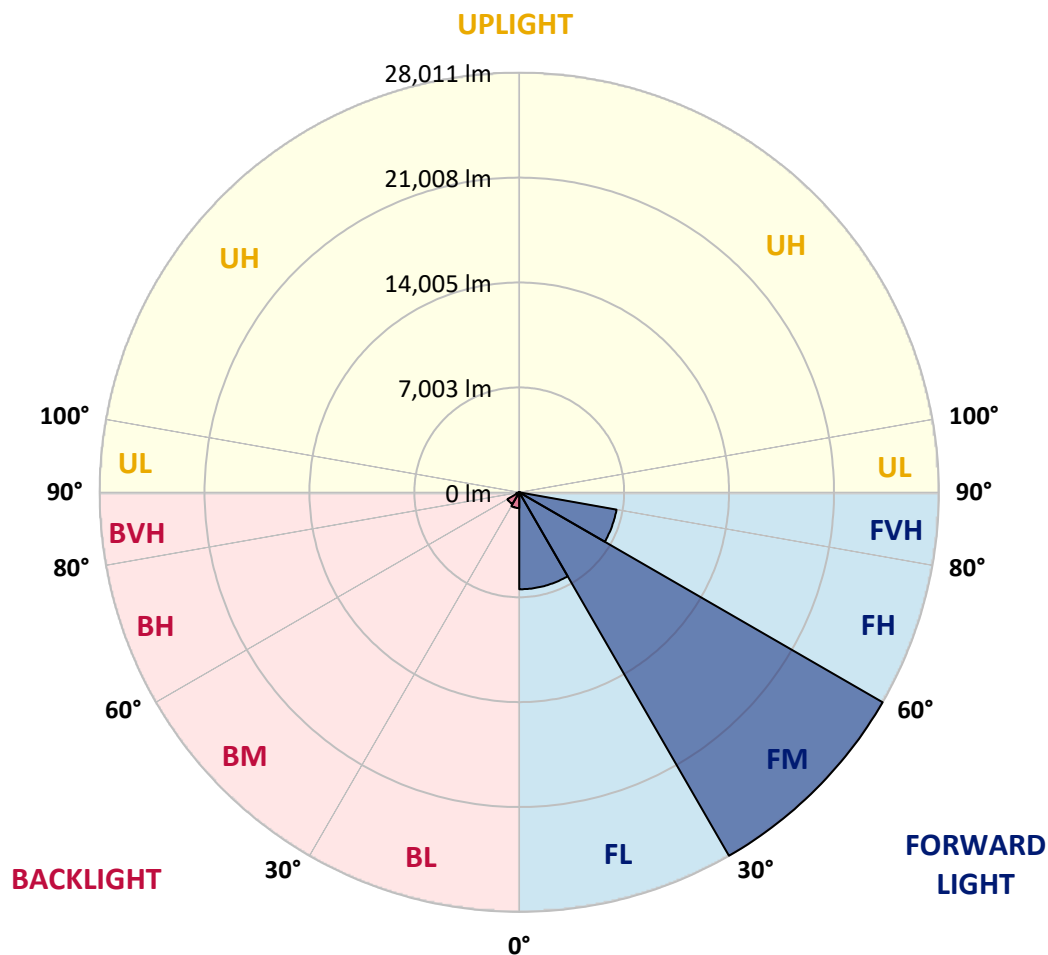
CATALOG NUMBER: GAN-SA9C-727-U-AFL-HSS

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

| Zone |             | Lumens  | % Fixture | Zone Rating/Lumen Limit |      |         |
|------|-------------|---------|-----------|-------------------------|------|---------|
|      |             |         |           | B                       | U    | G       |
| FL   | (0°-30°)    | 6471.1  | 14.9      |                         |      |         |
| FM   | (30°-60°)   | 28010.5 | 64.7      |                         |      |         |
| FH   | (60°-80°)   | 6592.7  | 15.2      |                         |      | G3/7500 |
| FVH  | (80°-90°)   | 55.8    | 0.1       |                         |      | G1/100  |
| BL   | (0°-30°)    | 1050.8  | 2.4       | B3/2500                 |      |         |
| BM   | (30°-60°)   | 907.6   | 2.1       | B1/1000                 |      |         |
| BH   | (60°-80°)   | 199.0   | 0.5       | B1/500                  |      | G1/500  |
| BVH  | (80°-90°)   | 2.3     | 0.0       |                         |      | G0/10   |
| UL   | (90°-100°)  | 0.0     | 0.0       |                         | U0/0 |         |
| UH   | (100°-180°) | 0.0     | 0.0       |                         | U0/0 |         |

**BUG Rating: B3-U0-G3**

Type II Short





REPORT NUMBER: P324733

CATALOG NUMBER: GAN-SA9C-727-U-AFL-HSS

**CANDELA DISTRIBUTION (FULL):**

|       | 0°      | 5°      | 15°     | 25°     | 35°     | 45°     | 54°     | 55°     | 65°     | 75°     | 85°     |
|-------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|
| 0°    | 9695.2  | 9695.2  | 9695.2  | 9695.2  | 9695.2  | 9695.2  | 9695.2  | 9695.2  | 9695.2  | 9695.2  | 9695.2  |
| 2.5°  | 12166.7 | 11985.4 | 11991.0 | 11908.7 | 11607.7 | 11372.2 | 11127.3 | 11069.3 | 10687.9 | 10287.9 | 9902.7  |
| 5°    | 14269.9 | 14137.2 | 14105.4 | 13946.5 | 13527.7 | 13084.6 | 12609.8 | 12499.5 | 11753.5 | 10934.7 | 10128.9 |
| 7.5°  | 15350.5 | 15352.3 | 15326.2 | 15268.2 | 15006.5 | 14576.5 | 13996.9 | 13881.0 | 12865.9 | 11637.6 | 10364.5 |
| 10°   | 15036.4 | 15107.4 | 15253.2 | 15445.8 | 15645.8 | 15591.6 | 15156.0 | 15051.3 | 13948.3 | 12381.7 | 10626.2 |
| 12.5° | 14303.5 | 14312.9 | 14475.5 | 14791.5 | 15367.3 | 15958.0 | 15965.5 | 15930.0 | 14982.2 | 13159.4 | 10914.1 |
| 15°   | 13939.0 | 13974.5 | 14034.3 | 14238.1 | 14784.0 | 15730.0 | 16406.7 | 16457.2 | 15930.0 | 13985.7 | 11220.7 |
| 17.5° | 14178.3 | 14228.8 | 14178.3 | 14202.6 | 14518.5 | 15369.2 | 16483.4 | 16612.4 | 16758.2 | 14802.7 | 11510.5 |
| 20°   | 14827.0 | 14873.7 | 14784.0 | 14684.9 | 14746.6 | 15264.5 | 16429.2 | 16603.0 | 17406.9 | 15528.1 | 11753.5 |
| 22.5° | 15701.9 | 15720.6 | 15584.1 | 15421.5 | 15376.6 | 15619.7 | 16474.0 | 16653.5 | 17926.6 | 16184.3 | 11906.8 |
| 25°   | 16664.7 | 16681.5 | 16511.4 | 16324.5 | 16217.9 | 16317.0 | 16842.3 | 16976.9 | 18384.7 | 16810.5 | 11994.7 |
| 27.5° | 17713.5 | 17728.5 | 17515.3 | 17285.4 | 17162.0 | 17165.7 | 17449.9 | 17593.9 | 18872.6 | 17524.7 | 12065.7 |
| 30°   | 18822.1 | 18814.6 | 18618.3 | 18298.7 | 18141.6 | 18137.9 | 18324.8 | 18470.7 | 19579.3 | 18440.7 | 12163.0 |
| 32.5° | 20067.2 | 20052.2 | 19773.7 | 19377.4 | 19199.8 | 19225.9 | 19392.3 | 19476.4 | 20456.1 | 19416.6 | 12336.8 |
| 35°   | 21706.8 | 21663.8 | 21243.1 | 20751.4 | 20424.3 | 20414.9 | 20555.1 | 20622.4 | 21574.0 | 20598.1 | 12626.6 |
| 37.5° | 23834.2 | 23795.0 | 23224.8 | 22510.6 | 22050.7 | 21878.7 | 22045.1 | 22131.1 | 23168.7 | 22114.3 | 13092.1 |
| 40°   | 25931.8 | 25892.6 | 25554.2 | 24899.9 | 24191.3 | 23778.2 | 23909.0 | 24000.6 | 25159.7 | 23953.9 | 13679.1 |
| 42.5° | 27378.8 | 27412.5 | 27530.2 | 27584.5 | 26920.8 | 26053.3 | 26113.2 | 26208.5 | 27251.7 | 25920.6 | 14350.3 |
| 45°   | 27760.2 | 27833.1 | 28498.6 | 29805.4 | 30054.1 | 29377.3 | 28751.0 | 28803.4 | 29377.3 | 27887.3 | 15021.4 |
| 47.5° | 26614.2 | 26748.8 | 28033.1 | 30463.5 | 32568.5 | 33047.1 | 31861.9 | 31792.7 | 31416.9 | 29478.3 | 15498.1 |
| 50°   | 24010.0 | 24133.4 | 25797.2 | 29392.3 | 33331.3 | 36550.6 | 35589.7 | 35385.9 | 33206.0 | 30429.8 | 15666.4 |
| 52.5° | 20241.1 | 20390.6 | 21742.3 | 26019.7 | 31893.7 | 38113.5 | 39119.3 | 38949.1 | 34518.4 | 30504.6 | 15694.4 |
| 55°   | 14294.2 | 14475.5 | 15905.7 | 19941.9 | 27337.7 | 36870.3 | 40370.0 | 40319.5 | 35608.4 | 30306.5 | 15754.3 |
| 57.5° | 8033.2  | 8164.1  | 9706.4  | 12783.6 | 20022.3 | 32114.3 | 39063.2 | 39397.8 | 36266.4 | 29962.5 | 15844.0 |
| 60°   | 3567.0  | 3602.5  | 4400.8  | 6363.8  | 11721.8 | 24542.8 | 35322.3 | 35886.9 | 35701.8 | 29502.6 | 15995.4 |
| 62.5° | 1977.9  | 1948.0  | 1948.0  | 2645.3  | 5094.4  | 15193.4 | 28803.4 | 29736.3 | 33292.0 | 28958.5 | 16002.9 |
| 65°   | 1549.8  | 1521.8  | 1441.4  | 1452.6  | 1940.5  | 6743.3  | 19945.7 | 21603.9 | 28715.5 | 27363.9 | 15464.5 |
| 67.5° | 1314.3  | 1290.0  | 1209.6  | 1177.8  | 1205.8  | 2224.7  | 10959.0 | 12680.8 | 21789.0 | 23219.2 | 13395.0 |
| 70°   | 1110.5  | 1093.7  | 1052.5  | 1013.3  | 942.2   | 1099.3  | 4193.3  | 5363.6  | 13426.7 | 15445.8 | 9143.7  |
| 72.5° | 893.6   | 886.1   | 901.1   | 867.4   | 781.5   | 732.8   | 1433.9  | 1736.8  | 6031.0  | 6892.8  | 3767.0  |
| 75°   | 770.2   | 766.5   | 774.0   | 740.3   | 643.1   | 510.4   | 729.1   | 796.4   | 1701.2  | 1686.3  | 762.8   |
| 77.5° | 501.0   | 506.6   | 641.2   | 626.3   | 553.4   | 340.2   | 377.6   | 407.6   | 516.0   | 387.0   | 231.8   |
| 80°   | 319.7   | 315.9   | 325.3   | 519.7   | 497.3   | 259.9   | 188.8   | 198.2   | 248.6   | 190.7   | 112.2   |
| 82.5° | 194.4   | 190.7   | 213.1   | 243.0   | 250.5   | 181.3   | 115.9   | 117.8   | 155.2   | 123.4   | 59.8    |
| 85°   | 16.8    | 22.4    | 129.0   | 119.6   | 86.0    | 56.1    | 56.1    | 59.8    | 82.3    | 72.9    | 33.7    |
| 87.5° | 0.0     | 0.0     | 22.4    | 33.7    | 18.7    | 20.6    | 20.6    | 22.4    | 31.8    | 31.8    | 16.8    |
| 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: P324733

CATALOG NUMBER: GAN-SA9C-727-U-AFL-HSS

**CANDELA DISTRIBUTION (continued):**

|       | 90°    | 95°    | 105°   | 115°   | 125°   | 135°   | 145°   | 155°   | 165°   | 175°   | 180°   |
|-------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 0°    | 9695.2 | 9695.2 | 9695.2 | 9695.2 | 9695.2 | 9695.2 | 9695.2 | 9695.2 | 9695.2 | 9695.2 | 9695.2 |
| 2.5°  | 9702.7 | 9508.3 | 9115.7 | 8738.0 | 8418.4 | 8109.9 | 7758.4 | 7410.7 | 7248.0 | 7182.6 | 7115.3 |
| 5°    | 9719.5 | 9319.5 | 8510.0 | 7694.9 | 6849.8 | 6089.0 | 5440.2 | 4774.7 | 4441.9 | 4296.1 | 4228.8 |
| 7.5°  | 9742.0 | 9132.5 | 7823.9 | 6455.4 | 5094.4 | 4062.4 | 3161.3 | 2581.8 | 2331.3 | 2292.0 | 2194.8 |
| 10°   | 9745.7 | 8906.3 | 7027.4 | 5086.9 | 3415.6 | 2449.0 | 1884.5 | 1585.3 | 1475.0 | 1456.3 | 1424.6 |
| 12.5° | 9753.2 | 8639.0 | 6143.2 | 3767.0 | 2277.0 | 1637.7 | 1362.9 | 1263.8 | 1233.9 | 1232.0 | 1232.0 |
| 15°   | 9775.6 | 8358.5 | 5225.3 | 2714.5 | 1635.8 | 1297.4 | 1196.5 | 1157.2 | 1146.0 | 1151.6 | 1149.7 |
| 17.5° | 9775.6 | 8027.6 | 4324.2 | 2022.8 | 1321.7 | 1166.6 | 1110.5 | 1084.3 | 1080.6 | 1086.2 | 1088.0 |
| 20°   | 9704.6 | 7625.7 | 3497.8 | 1574.1 | 1172.2 | 1082.4 | 1032.0 | 1007.7 | 998.3  | 1002.1 | 1003.9 |
| 22.5° | 9534.4 | 7132.1 | 2824.8 | 1303.0 | 1073.1 | 1005.8 | 951.6  | 914.2  | 899.2  | 901.1  | 901.1  |
| 25°   | 9269.0 | 6547.0 | 2209.7 | 1127.3 | 992.7  | 923.5  | 860.0  | 817.0  | 807.6  | 805.8  | 809.5  |
| 27.5° | 8928.7 | 5900.1 | 1759.2 | 992.7  | 897.4  | 831.9  | 768.4  | 732.8  | 725.4  | 727.2  | 729.1  |
| 30°   | 8594.1 | 5229.0 | 1387.2 | 878.7  | 790.8  | 729.1  | 680.5  | 663.7  | 663.7  | 669.3  | 671.2  |
| 32.5° | 8287.5 | 4584.0 | 1097.4 | 779.6  | 695.5  | 639.4  | 611.3  | 609.5  | 618.8  | 622.5  | 624.4  |
| 35°   | 8023.9 | 3987.6 | 908.6  | 702.9  | 620.7  | 572.1  | 562.7  | 570.2  | 581.4  | 588.9  | 590.8  |
| 37.5° | 7836.9 | 3454.8 | 794.5  | 639.4  | 562.7  | 523.5  | 521.6  | 536.5  | 551.5  | 568.3  | 572.1  |
| 40°   | 7758.4 | 3004.3 | 716.0  | 583.3  | 516.0  | 486.1  | 480.5  | 501.0  | 529.1  | 553.4  | 557.1  |
| 42.5° | 7693.0 | 2636.0 | 648.7  | 529.1  | 478.6  | 435.6  | 433.7  | 459.9  | 493.5  | 517.9  | 523.5  |
| 45°   | 7636.9 | 2340.6 | 587.0  | 471.1  | 430.0  | 373.9  | 379.5  | 413.2  | 439.3  | 465.5  | 471.1  |
| 47.5° | 7521.0 | 2097.6 | 519.7  | 409.4  | 355.2  | 319.7  | 330.9  | 360.8  | 381.4  | 420.6  | 426.2  |
| 50°   | 7313.5 | 1899.4 | 450.5  | 334.6  | 289.8  | 276.7  | 293.5  | 314.1  | 340.2  | 373.9  | 377.6  |
| 52.5° | 7173.3 | 1749.9 | 390.7  | 280.4  | 239.3  | 243.0  | 259.9  | 267.3  | 282.3  | 295.4  | 291.6  |
| 55°   | 7092.9 | 1667.6 | 342.1  | 243.0  | 203.8  | 215.0  | 218.7  | 209.4  | 201.9  | 188.8  | 183.2  |
| 57.5° | 7083.5 | 1592.8 | 304.7  | 211.3  | 179.5  | 185.1  | 172.0  | 140.2  | 114.0  | 99.1   | 95.3   |
| 60°   | 7068.6 | 1501.2 | 274.8  | 177.6  | 158.9  | 151.4  | 123.4  | 76.6   | 54.2   | 50.5   | 50.5   |
| 62.5° | 6905.9 | 1359.1 | 252.4  | 149.6  | 134.6  | 114.0  | 71.0   | 35.5   | 29.9   | 31.8   | 31.8   |
| 65°   | 6388.1 | 1161.0 | 229.9  | 121.5  | 106.6  | 82.3   | 35.5   | 20.6   | 11.2   | 13.1   | 13.1   |
| 67.5° | 5430.9 | 925.4  | 205.6  | 93.5   | 80.4   | 52.3   | 20.6   | 9.3    | 0.0    | 0.0    | 0.0    |
| 70°   | 3636.2 | 573.9  | 173.9  | 65.4   | 52.3   | 31.8   | 15.0   | 1.9    | 0.0    | 0.0    | 0.0    |
| 72.5° | 1394.6 | 310.3  | 140.2  | 39.3   | 33.7   | 22.4   | 9.3    | 0.0    | 0.0    | 0.0    | 0.0    |
| 75°   | 314.1  | 203.8  | 97.2   | 28.0   | 24.3   | 15.0   | 3.7    | 0.0    | 0.0    | 0.0    | 0.0    |
| 77.5° | 119.6  | 147.7  | 56.1   | 18.7   | 16.8   | 9.3    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    |
| 80°   | 58.0   | 87.9   | 26.2   | 11.2   | 9.3    | 3.7    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    |
| 82.5° | 29.9   | 33.7   | 11.2   | 5.6    | 3.7    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    |
| 85°   | 16.8   | 16.8   | 5.6    | 3.7    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    |
| 87.5° | 9.3    | 5.6    | 1.9    | 1.9    | 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)