

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: P323343

Luminaire Tested: **GLEON-SA9D-827-U-SL2-HSS**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P323343  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-1903-205-21)  
Test Lab: INNOVATION CENTER  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: McGRAW-EDISON  
Catalog Number: GLEON-SA9D-827-U-SL2-HSS  
Description: GALLEON AREA AND ROADWAY LUMINAIRE  
(9) 80 CRI, 2700K, 1200mA LIGHTSQUARES WITH 16 LEDS EACH AND TYPE II  
SPILL LIGHT ELIMINATOR OPTICS WITH HOUSE SIDE SHIELD  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 42236 lumens  
Efficiency: N/A  
Efficacy: 73.5 lumens/watt  
Luminous Opening: Rectangular (W 2.5' x L: 1' x H: 0')  
IES Classification: Type III - Medium  
BUG Rating: B3 - U0 - G5

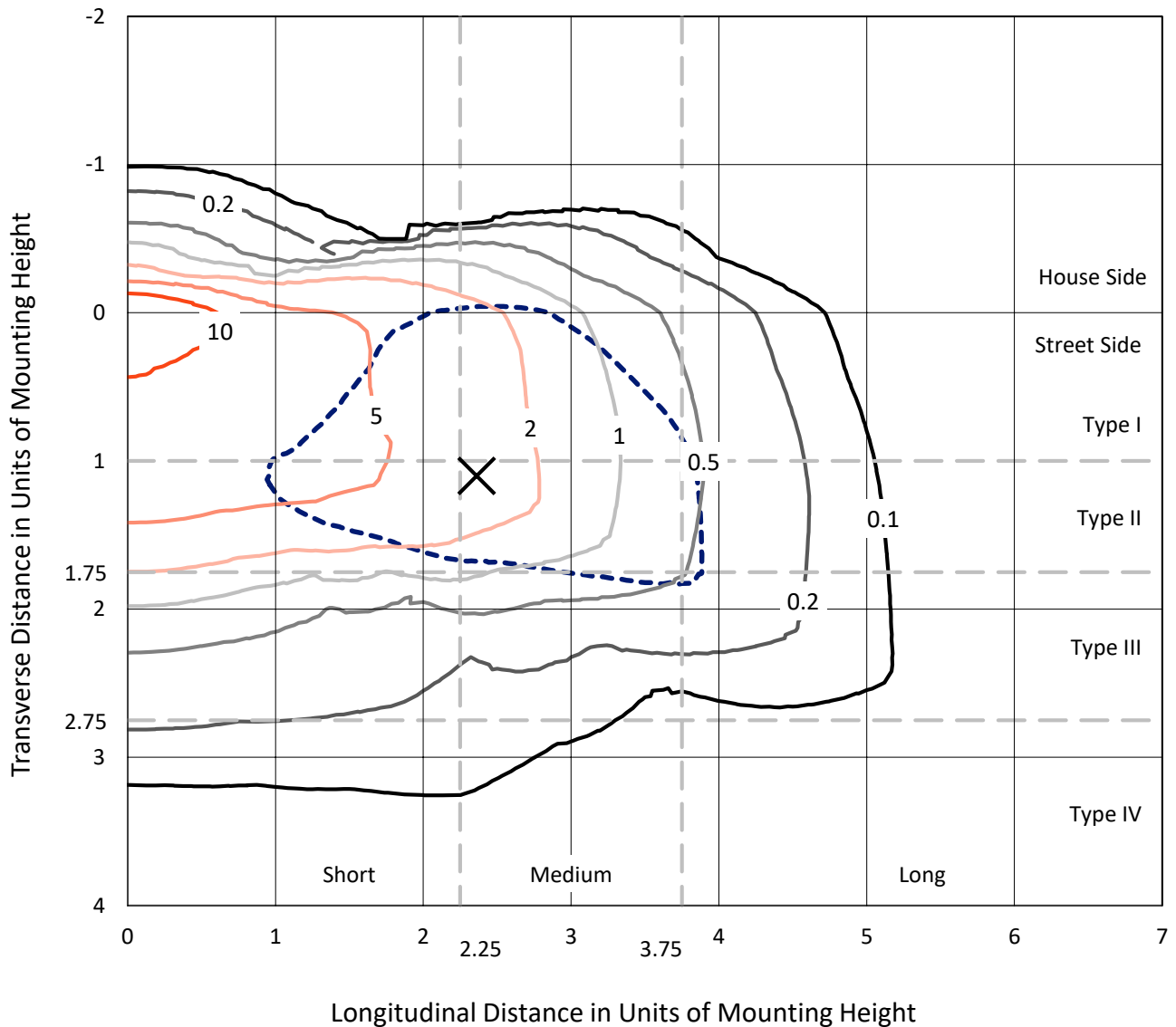
Input Watts (W): 575  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 24 FT



REPORT NUMBER: P323343  
 CATALOG NUMBER: GLEON-SA9D-827-U-SL2-HSS

### Iso-Footcandle Lines of Horizontal Illumination

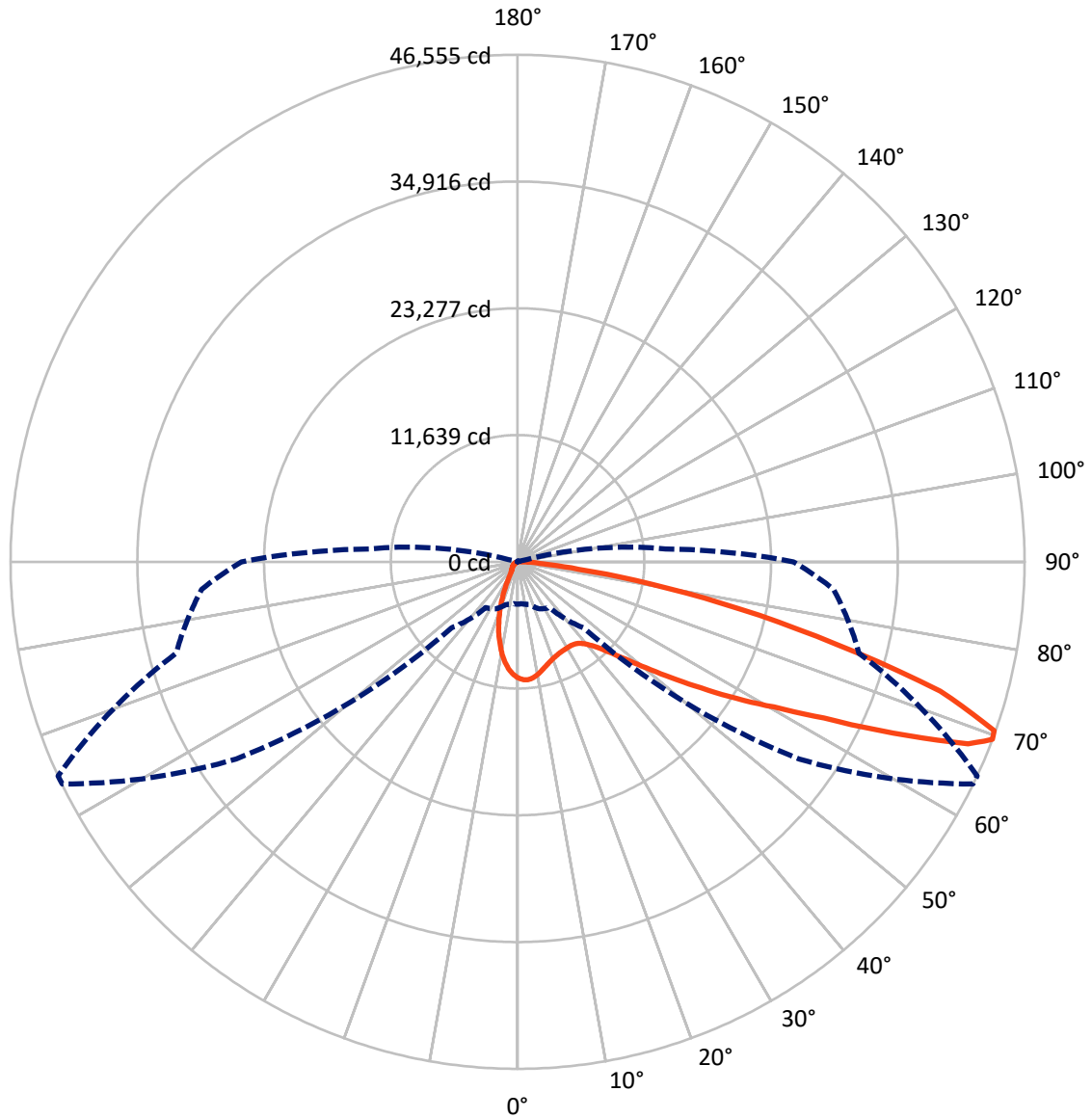
✕ Max cd  
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 17.1 fc  
 Type III - Medium - N/A

REPORT NUMBER: P323343  
CATALOG NUMBER: GLEON-SA9D-827-U-SL2-HSS

### Luminous Intensity Polar Plot



— Vertical Plane Through 65-Deg Lateral      - - - Horizontal Cone Through 69-Deg Vertical

REPORT NUMBER: P323343  
 CATALOG NUMBER: GLEON-SA9D-827-U-SL2-HSS

**FLUX DISTRIBUTION:**

|                    |           | Downward | Upward | Total   |
|--------------------|-----------|----------|--------|---------|
| <b>House Side</b>  | Lumens    | 4978.6   | 0.0    | 4978.6  |
|                    | % Fixture | 11.8     | 0.0    | 11.8    |
| <b>Street Side</b> | Lumens    | 37257.4  | 0.0    | 37257.4 |
|                    | % Fixture | 88.2     | 0.0    | 88.2    |
| <b>Total</b>       | Lumens    | 42236.0  | 0.0    | 42236.0 |
|                    | % Fixture | 100.0    | 0.0    | 100.0   |

**ZONAL LUMENS:**

| Zone      | Lumens  | % Fixture |
|-----------|---------|-----------|
| 0°-10°    | 892.5   | 2.1       |
| 10°-20°   | 1953.7  | 4.6       |
| 20°-30°   | 2706.0  | 6.4       |
| 30°-40°   | 3773.0  | 8.9       |
| 40°-50°   | 5864.4  | 13.9      |
| 50°-60°   | 9414.7  | 22.3      |
| 60°-70°   | 10649.6 | 25.2      |
| 70°-80°   | 6254.6  | 14.8      |
| 80°-90°   | 727.6   | 1.7       |
| 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°    | 42236.0 | 100.0     |
| 0°-180°   | 42236.0 | 100.0     |

**Coefficient of Utilization**

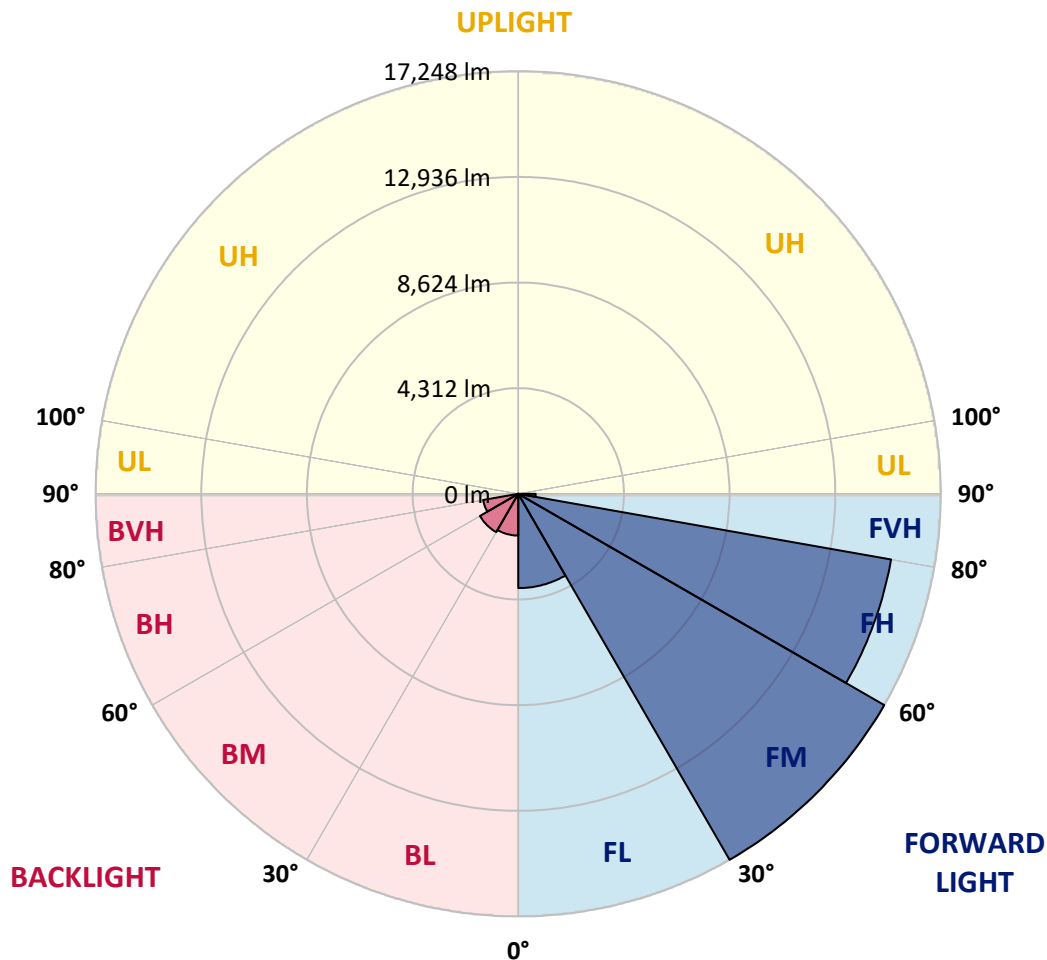


REPORT NUMBER: P323343  
 CATALOG NUMBER: GLEON-SA9D-827-U-SL2-HSS

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

| Zone           | Lumens  | % Fixture | Zone Rating/Lumen Limit |      |         |
|----------------|---------|-----------|-------------------------|------|---------|
|                |         |           | B                       | U    | G       |
| FL (0°-30°)    | 3848.7  | 9.1       |                         |      |         |
| FM (30°-60°)   | 17248.0 | 40.8      |                         |      |         |
| FH (60°-80°)   | 15449.5 | 36.6      |                         |      | G5      |
| FVH (80°-90°)  | 711.2   | 1.7       |                         |      | G4/750  |
| BL (0°-30°)    | 1703.5  | 4.0       | B3/2500                 |      |         |
| BM (30°-60°)   | 1804.1  | 4.3       | B2/2500                 |      |         |
| BH (60°-80°)   | 1454.7  | 3.4       | B3/2500                 |      | G3/2500 |
| BVH (80°-90°)  | 16.4    | 0.0       |                         |      | G1/100  |
| UL (90°-100°)  | 0.0     | 0.0       |                         | U0/0 |         |
| UH (100°-180°) | 0.0     | 0.0       |                         | U0/0 |         |

**BUG Rating: B3-U0-G5**  
 Type III Medium





REPORT NUMBER: P323343

CATALOG NUMBER: GLEON-SA9D-827-U-SL2-HSS

**CANDELA DISTRIBUTION (FULL):**

|       | 0°      | 5°      | 15°     | 25°     | 35°     | 45°     | 55°     | 64°     | 65°     | 75°     | 85°     |
|-------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|
| 0°    | 10673.1 | 10673.1 | 10673.1 | 10673.1 | 10673.1 | 10673.1 | 10673.1 | 10673.1 | 10673.1 | 10673.1 | 10673.1 |
| 2.5°  | 10767.8 | 10741.0 | 10762.5 | 10808.9 | 10832.2 | 10832.2 | 10850.0 | 10828.6 | 10835.7 | 10783.9 | 10708.9 |
| 5°    | 10094.1 | 10053.0 | 10111.9 | 10242.4 | 10403.2 | 10540.9 | 10744.6 | 10851.8 | 10862.6 | 10864.3 | 10776.8 |
| 7.5°  | 9368.5  | 9330.9  | 9418.5  | 9572.2  | 9779.5  | 10035.1 | 10390.7 | 10701.7 | 10719.6 | 10887.6 | 10823.2 |
| 10°   | 8778.7  | 8751.9  | 8853.7  | 9018.2  | 9261.2  | 9547.2  | 9983.3  | 10415.8 | 10467.6 | 10839.3 | 10816.1 |
| 12.5° | 8310.4  | 8289.0  | 8385.5  | 8574.9  | 8823.4  | 9139.7  | 9595.4  | 10097.6 | 10167.3 | 10730.3 | 10780.3 |
| 15°   | 7969.1  | 7965.5  | 8045.9  | 8228.2  | 8503.5  | 8798.3  | 9264.8  | 9802.7  | 9883.2  | 10612.3 | 10775.0 |
| 17.5° | 7790.4  | 7795.7  | 7854.7  | 8010.2  | 8246.1  | 8539.2  | 8986.0  | 9554.3  | 9641.9  | 10506.9 | 10801.8 |
| 20°   | 7772.5  | 7777.9  | 7810.0  | 7897.6  | 8088.8  | 8348.0  | 8759.0  | 9345.2  | 9436.4  | 10428.3 | 10844.7 |
| 22.5° | 7929.8  | 7926.2  | 7935.1  | 7926.2  | 8033.4  | 8230.0  | 8608.9  | 9184.4  | 9289.8  | 10376.4 | 10878.6 |
| 25°   | 8231.8  | 8226.4  | 8222.9  | 8156.7  | 8085.3  | 8190.7  | 8546.4  | 9093.2  | 9193.3  | 10338.9 | 10898.3 |
| 27.5° | 8651.8  | 8648.2  | 8642.9  | 8533.8  | 8319.4  | 8253.3  | 8553.5  | 9059.3  | 9143.3  | 10308.5 | 10894.7 |
| 30°   | 9204.0  | 9229.1  | 9221.9  | 9070.0  | 8735.8  | 8444.5  | 8628.6  | 9041.4  | 9114.7  | 10249.5 | 10857.2 |
| 32.5° | 9852.8  | 9902.8  | 9942.1  | 9779.5  | 9361.3  | 8823.4  | 8801.9  | 9061.1  | 9114.7  | 10204.9 | 10789.3 |
| 35°   | 10526.6 | 10590.9 | 10735.7 | 10678.5 | 10128.0 | 9393.5  | 9100.4  | 9179.0  | 9223.7  | 10229.9 | 10757.1 |
| 37.5° | 11189.6 | 11266.5 | 11581.0 | 11747.2 | 11132.4 | 10147.7 | 9565.1  | 9470.3  | 9493.6  | 10381.8 | 10792.9 |
| 40°   | 11959.9 | 12076.1 | 12553.2 | 12821.3 | 12331.6 | 11157.4 | 10260.3 | 9970.7  | 9979.7  | 10716.0 | 10959.1 |
| 42.5° | 12971.4 | 13091.2 | 13607.7 | 14027.7 | 13682.7 | 12433.5 | 11203.9 | 10735.7 | 10726.7 | 11341.5 | 11350.5 |
| 45°   | 14204.6 | 14329.7 | 14864.1 | 15330.5 | 15175.0 | 13945.5 | 12412.0 | 11852.7 | 11841.9 | 12328.1 | 12092.1 |
| 47.5° | 15602.2 | 15725.5 | 16202.7 | 16683.4 | 16851.4 | 15711.2 | 13950.8 | 13377.1 | 13352.1 | 13698.8 | 13237.7 |
| 50°   | 16801.4 | 16881.8 | 17321.5 | 17968.4 | 18726.2 | 17880.9 | 15864.9 | 15312.7 | 15285.9 | 15520.0 | 14919.5 |
| 52.5° | 17237.5 | 17283.9 | 17730.7 | 18636.8 | 20527.7 | 20819.0 | 18379.5 | 17668.2 | 17648.5 | 17750.4 | 17158.8 |
| 55°   | 16354.6 | 16438.6 | 16987.3 | 18331.2 | 21503.5 | 24139.6 | 21553.5 | 20584.9 | 20436.5 | 20216.7 | 19500.1 |
| 57.5° | 13949.0 | 14083.1 | 14672.8 | 16460.0 | 21047.8 | 26773.9 | 26218.1 | 23884.0 | 23666.0 | 22322.0 | 21403.4 |
| 60°   | 10451.5 | 10615.9 | 11105.6 | 13034.0 | 18615.4 | 27712.2 | 31315.2 | 27560.3 | 27068.8 | 23998.4 | 23153.1 |
| 62.5° | 7172.0  | 7254.2  | 7586.6  | 8843.0  | 13709.6 | 26175.2 | 35579.4 | 32484.0 | 31586.8 | 25821.4 | 25045.7 |
| 65°   | 5477.7  | 5506.3  | 5642.2  | 6074.7  | 8163.9  | 21262.2 | 37275.5 | 38980.4 | 37895.6 | 28001.7 | 27009.8 |
| 67.5° | 4414.4  | 4391.1  | 4578.8  | 5197.2  | 5467.0  | 12971.4 | 35297.0 | 45126.6 | 44619.0 | 30916.6 | 28986.5 |
| 69°   | 3892.5  | 3860.3  | 4051.6  | 4770.0  | 5134.6  | 8574.9  | 31554.7 | 46522.4 | 46554.6 | 32455.4 | 29122.3 |
| 70°   | 3502.9  | 3524.3  | 3713.8  | 4516.2  | 5022.0  | 6730.6  | 27980.3 | 46166.7 | 46420.5 | 33030.9 | 28307.3 |
| 72.5° | 2339.4  | 2396.6  | 2777.3  | 3749.5  | 4829.0  | 5093.5  | 16894.3 | 39616.7 | 40592.5 | 31735.2 | 24286.2 |
| 75°   | 1318.9  | 1361.8  | 1814.0  | 2827.3  | 4550.2  | 4850.4  | 8923.5  | 29186.6 | 30130.3 | 26538.0 | 18728.0 |
| 77.5° | 647.0   | 670.2   | 1025.8  | 1824.7  | 3804.9  | 4621.7  | 5061.3  | 19825.3 | 20903.0 | 17321.5 | 10592.7 |
| 80°   | 273.4   | 286.0   | 512.9   | 1125.9  | 2720.1  | 4410.8  | 3758.5  | 12201.2 | 12335.2 | 6786.0  | 2822.0  |
| 82.5° | 105.4   | 109.0   | 216.3   | 702.4   | 1728.2  | 3438.6  | 3143.7  | 5785.1  | 5645.7  | 1277.8  | 643.4   |
| 85°   | 12.5    | 14.3    | 78.6    | 421.8   | 961.5   | 1769.3  | 2553.9  | 2493.1  | 2307.3  | 253.8   | 330.6   |
| 87.5° | 0.0     | 0.0     | 5.4     | 128.7   | 286.0   | 829.3   | 1327.9  | 1034.8  | 932.9   | 82.2    | 171.6   |
| 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: P323343  
 CATALOG NUMBER: GLEON-SA9D-827-U-SL2-HSS

**CANDELA DISTRIBUTION (continued):**

|       | 90°     | 95°     | 105°    | 115°    | 125°    | 135°    | 145°    | 155°    | 165°    | 175°    | 180°    |
|-------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|
| 0°    | 10673.1 | 10673.1 | 10673.1 | 10673.1 | 10673.1 | 10673.1 | 10673.1 | 10673.1 | 10673.1 | 10673.1 | 10673.1 |
| 2.5°  | 10646.3 | 10628.4 | 10531.9 | 10392.5 | 10260.3 | 10095.8 | 9938.6  | 9843.9  | 9768.8  | 9718.8  | 9777.7  |
| 5°    | 10674.9 | 10596.3 | 10303.2 | 9927.9  | 9559.7  | 9145.1  | 8759.0  | 8432.0  | 8303.3  | 8160.3  | 8224.7  |
| 7.5°  | 10666.0 | 10517.6 | 9990.4  | 9322.0  | 8646.4  | 7947.6  | 7286.4  | 6777.0  | 6512.5  | 6253.4  | 6319.5  |
| 10°   | 10621.3 | 10371.1 | 9572.2  | 8582.1  | 7570.5  | 6566.1  | 5627.9  | 4914.8  | 4516.2  | 4155.2  | 4207.1  |
| 12.5° | 10523.0 | 10174.5 | 9078.9  | 7735.0  | 6382.1  | 5057.8  | 3958.6  | 3045.4  | 2555.7  | 2339.4  | 2366.2  |
| 15°   | 10464.0 | 9983.3  | 8557.1  | 6877.1  | 5113.2  | 3522.6  | 2419.9  | 1799.7  | 1576.3  | 1504.8  | 1513.8  |
| 17.5° | 10435.4 | 9799.2  | 8017.3  | 5895.9  | 3815.7  | 2242.9  | 1563.8  | 1379.7  | 1331.5  | 1318.9  | 1322.5  |
| 20°   | 10406.8 | 9613.3  | 7461.5  | 4925.5  | 2629.0  | 1508.4  | 1285.0  | 1231.4  | 1213.5  | 1197.4  | 1201.0  |
| 22.5° | 10358.6 | 9434.6  | 6864.6  | 3942.5  | 1772.9  | 1224.2  | 1158.1  | 1106.3  | 1068.7  | 1049.1  | 1052.7  |
| 25°   | 10299.6 | 9246.9  | 6255.2  | 2936.4  | 1293.9  | 1092.0  | 1029.4  | 956.1   | 911.5   | 875.7   | 877.5   |
| 27.5° | 10204.9 | 9016.4  | 5626.1  | 2137.5  | 1086.6  | 977.6   | 893.6   | 813.2   | 738.1   | 697.0   | 697.0   |
| 30°   | 10072.6 | 8755.5  | 4927.3  | 1529.8  | 974.0   | 865.0   | 763.1   | 663.0   | 582.6   | 545.1   | 541.5   |
| 32.5° | 9926.1  | 8483.8  | 4221.3  | 1159.9  | 884.7   | 759.6   | 643.4   | 537.9   | 466.5   | 436.1   | 434.3   |
| 35°   | 9801.0  | 8190.7  | 3517.2  | 972.2   | 795.3   | 657.7   | 530.8   | 441.4   | 384.2   | 359.2   | 357.4   |
| 37.5° | 9720.5  | 7897.6  | 2830.9  | 868.6   | 714.9   | 563.0   | 445.0   | 364.6   | 323.5   | 303.8   | 302.0   |
| 40°   | 9708.0  | 7679.6  | 2203.6  | 789.9   | 639.8   | 479.0   | 371.7   | 309.2   | 271.7   | 250.2   | 248.4   |
| 42.5° | 9870.7  | 7554.5  | 1690.7  | 723.8   | 563.0   | 405.7   | 316.3   | 264.5   | 225.2   | 203.7   | 202.0   |
| 45°   | 10297.8 | 7593.8  | 1301.1  | 664.8   | 486.1   | 343.1   | 268.1   | 219.8   | 184.1   | 168.0   | 164.4   |
| 47.5° | 11077.0 | 7865.4  | 1034.8  | 605.9   | 412.8   | 291.3   | 228.8   | 182.3   | 151.9   | 135.8   | 134.0   |
| 50°   | 12463.9 | 8503.5  | 865.0   | 541.5   | 344.9   | 248.4   | 189.4   | 148.3   | 123.3   | 109.0   | 107.2   |
| 52.5° | 14304.7 | 9640.1  | 772.1   | 479.0   | 286.0   | 210.9   | 155.5   | 118.0   | 96.5    | 85.8    | 84.0    |
| 55°   | 16334.9 | 11016.3 | 711.3   | 411.1   | 234.1   | 175.1   | 123.3   | 92.9    | 75.1    | 66.1    | 62.6    |
| 57.5° | 18316.9 | 12208.3 | 654.1   | 344.9   | 194.8   | 143.0   | 98.3    | 73.3    | 59.0    | 50.0    | 48.3    |
| 60°   | 20138.1 | 13303.9 | 588.0   | 277.0   | 159.1   | 112.6   | 76.8    | 57.2    | 46.5    | 37.5    | 37.5    |
| 62.5° | 22087.9 | 14151.0 | 496.8   | 216.3   | 130.5   | 85.8    | 62.6    | 51.8    | 37.5    | 32.2    | 30.4    |
| 65°   | 24153.9 | 14780.1 | 389.6   | 168.0   | 101.9   | 64.3    | 51.8    | 53.6    | 30.4    | 23.2    | 21.4    |
| 67.5° | 25680.2 | 14655.0 | 287.7   | 132.3   | 78.6    | 50.0    | 50.0    | 57.2    | 26.8    | 17.9    | 16.1    |
| 69°   | 25344.2 | 13638.1 | 241.3   | 114.4   | 67.9    | 42.9    | 46.5    | 57.2    | 25.0    | 16.1    | 14.3    |
| 70°   | 24370.2 | 12512.1 | 212.7   | 101.9   | 60.8    | 39.3    | 44.7    | 55.4    | 23.2    | 16.1    | 14.3    |
| 72.5° | 20295.4 | 9423.9  | 166.2   | 76.8    | 48.3    | 32.2    | 37.5    | 48.3    | 23.2    | 16.1    | 12.5    |
| 75°   | 15266.2 | 6031.8  | 126.9   | 55.4    | 35.7    | 25.0    | 28.6    | 35.7    | 23.2    | 14.3    | 12.5    |
| 77.5° | 8306.9  | 2175.0  | 91.1    | 37.5    | 25.0    | 19.7    | 19.7    | 26.8    | 21.4    | 10.7    | 7.1     |
| 80°   | 2135.7  | 546.9   | 57.2    | 25.0    | 19.7    | 14.3    | 12.5    | 17.9    | 12.5    | 1.8     | 0.0     |
| 82.5° | 527.2   | 123.3   | 30.4    | 17.9    | 14.3    | 5.4     | 5.4     | 8.9     | 5.4     | 0.0     | 0.0     |
| 85°   | 289.5   | 60.8    | 19.7    | 12.5    | 7.1     | 0.0     | 0.0     | 1.8     | 0.0     | 0.0     | 0.0     |
| 87.5° | 148.3   | 17.9    | 5.4     | 3.6     | 1.8     | 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)