

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: P320138

Luminaire Tested: **GLEON-SA4D-827-U-SL4**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P320138  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-1903-205-24)  
Test Lab: INNOVATION CENTER  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: McGRAW-EDISON  
Catalog Number: GLEON-SA4D-827-U-SL4  
Description: GALLEON AREA AND ROADWAY LUMINAIRE  
(4) 80 CRI, 2700K, 1200mA LIGHTSQUARES WITH 16 LEDS EACH AND TYPE IV  
SPILL LIGHT ELIMINATOR OPTICS  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 21863 lumens  
Efficiency: N/A  
Efficacy: 84.7 lumens/watt  
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')  
IES Classification: Type IV - Short  
BUG Rating: B2 - U0 - G5

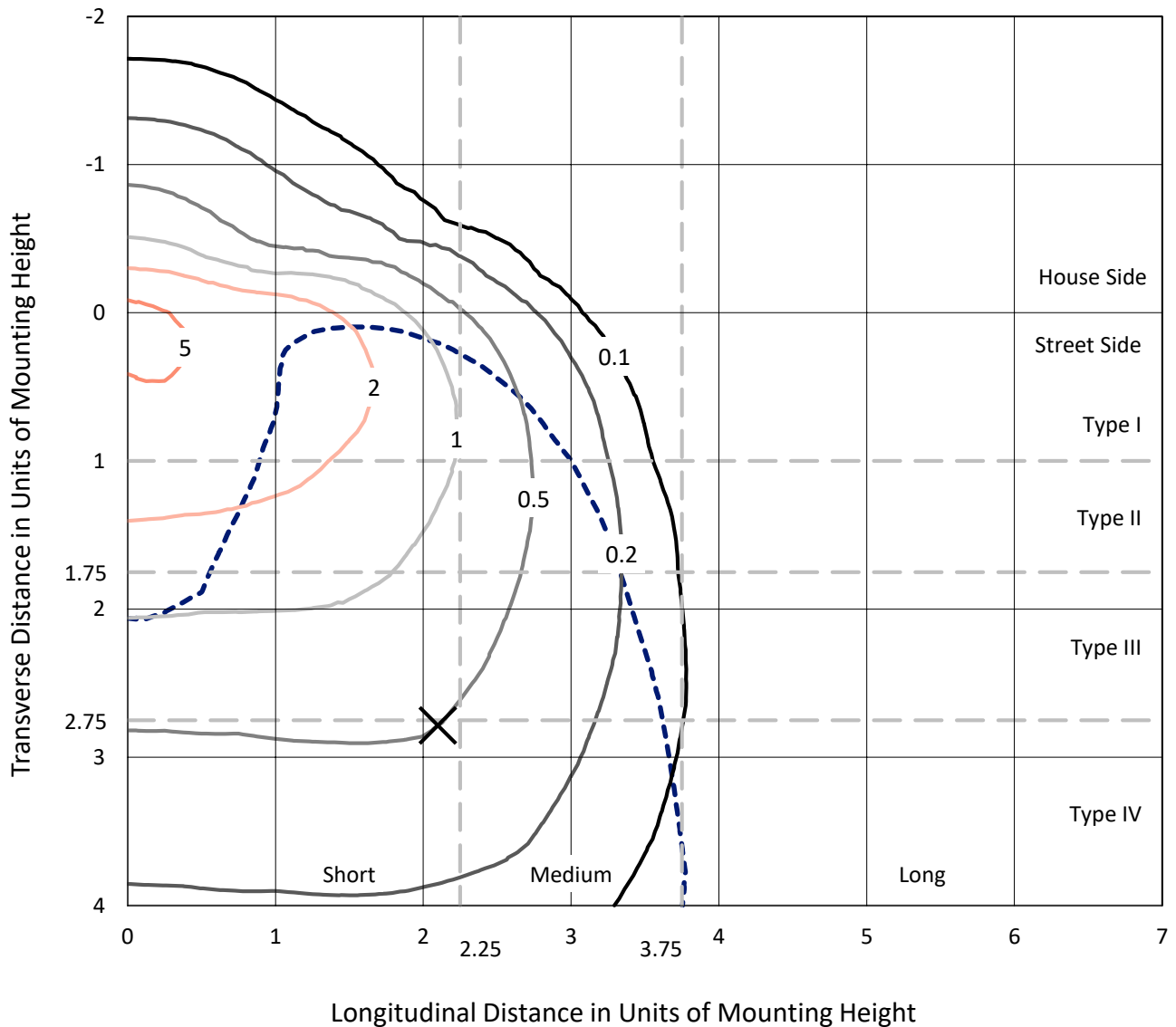
Input Watts (W): 258  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 24 FT



REPORT NUMBER: P320138  
 CATALOG NUMBER: GLEON-SA4D-827-U-SL4

### Iso-Footcandle Lines of Horizontal Illumination

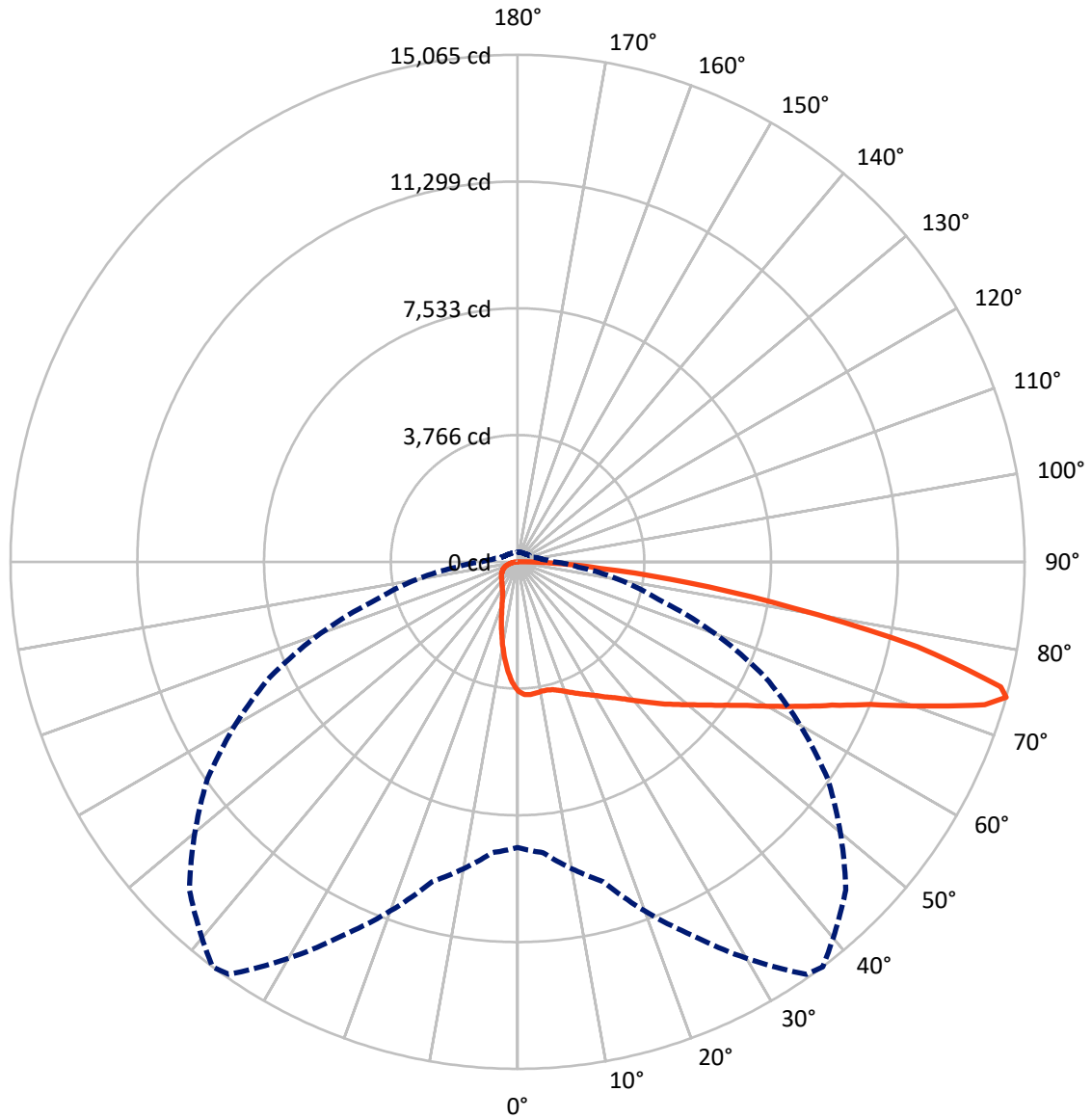
✕ Max cd  
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 6.3 fc  
 Type IV - Short - N/A

REPORT NUMBER: P320138  
CATALOG NUMBER: GLEON-SA4D-827-U-SL4

### Luminous Intensity Polar Plot



— Vertical Plane Through 37-Deg Lateral      - - - Horizontal Cone Through 74-Deg Vertical

REPORT NUMBER: P320138  
 CATALOG NUMBER: GLEON-SA4D-827-U-SL4

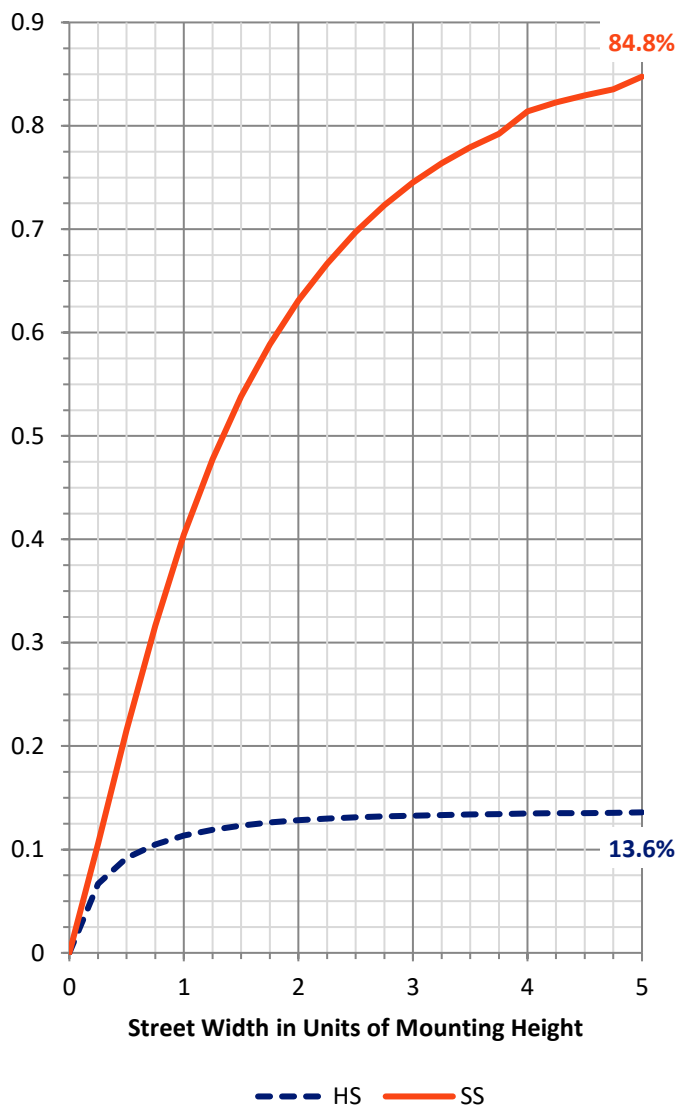
**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	3008.2	0.0	3008.2
	% Fixture	13.8	0.0	13.8
<b>Street Side</b>	Lumens	18854.8	0.0	18854.8
	% Fixture	86.2	0.0	86.2
<b>Total</b>	Lumens	21863.0	0.0	21863.0
	% Fixture	100.0	0.0	100.0

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	339.2	1.6
10°-20°	869.5	4.0
20°-30°	1339.8	6.1
30°-40°	1948.2	8.9
40°-50°	2867.5	13.1
50°-60°	4026.8	18.4
60°-70°	5096.7	23.3
70°-80°	4487.9	20.5
80°-90°	887.3	4.1
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°	21863.0	100.0
0°-180°	21863.0	100.0

**Coefficient of Utilization**



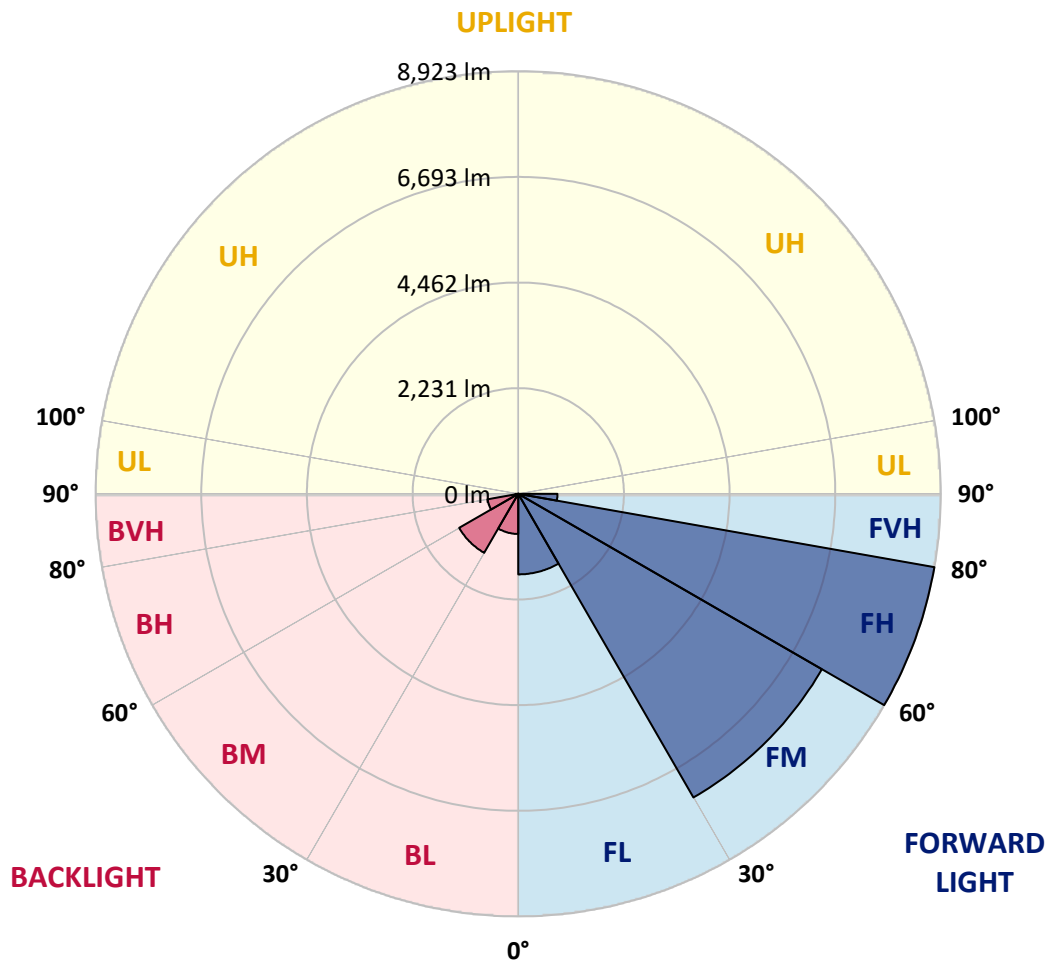
REPORT NUMBER: P320138  
 CATALOG NUMBER: GLEON-SA4D-827-U-SL4

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

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	1701.2	7.8			
FM (30°-60°)	7403.0	33.9			
FH (60°-80°)	8923.4	40.8			G4/12000
FVH (80°-90°)	827.3	3.8			G5
BL (0°-30°)	847.3	3.9	B2/1000		
BM (30°-60°)	1439.5	6.6	B2/2500		
BH (60°-80°)	661.2	3.0	B2/1000		G2/1000
BVH (80°-90°)	60.1	0.3			G1/100
UL (90°-100°)	0.0	0.0		U0/0	
UH (100°-180°)	0.0	0.0		U0/0	

**BUG Rating: B2-U0-G5**

Type IV Short





REPORT NUMBER: P320138

CATALOG NUMBER: GLEON-SA4D-827-U-SL4

**CANDELA DISTRIBUTION (FULL):**

	0°	5°	15°	25°	35°	37°	45°	55°	65°	75°	85°
0°	3852.2	3852.2	3852.2	3852.2	3852.2	3852.2	3852.2	3852.2	3852.2	3852.2	3852.2
2.5°	3983.9	3984.6	3983.9	3977.7	3963.1	3950.8	3940.7	3926.1	3893.8	3869.1	3832.2
5°	4021.6	4017.0	4013.9	4002.4	3979.2	3965.4	3946.1	3918.4	3865.3	3816.0	3755.9
7.5°	4003.9	3998.5	3991.6	3977.7	3951.5	3940.0	3913.0	3876.8	3812.9	3748.2	3662.0
10°	3949.2	3947.7	3944.6	3941.5	3919.2	3909.9	3885.3	3846.8	3783.6	3705.1	3604.2
12.5°	3888.4	3892.2	3904.5	3920.7	3910.7	3906.1	3890.7	3864.5	3799.8	3715.1	3593.4
15°	3849.9	3860.6	3893.8	3936.1	3944.6	3943.1	3939.2	3922.3	3853.7	3759.8	3618.1
17.5°	3836.8	3854.5	3917.6	3987.7	4012.4	4017.8	4019.3	3990.0	3913.8	3814.4	3643.5
20°	3860.6	3883.0	3975.4	4071.7	4110.9	4114.0	4107.1	4056.3	3970.8	3861.4	3657.3
22.5°	3933.0	3953.1	4068.6	4177.2	4221.8	4226.5	4205.7	4128.7	4030.8	3916.9	3676.6
25°	4072.4	4097.1	4212.6	4321.2	4344.3	4345.1	4315.0	4219.5	4109.4	3994.6	3718.2
27.5°	4254.2	4278.8	4382.8	4489.1	4476.7	4469.8	4429.0	4333.5	4211.8	4101.7	3792.1
30°	4456.7	4483.7	4582.3	4657.7	4628.5	4614.6	4581.5	4458.3	4354.3	4248.0	3905.3
32.5°	4666.2	4690.8	4777.1	4828.7	4791.7	4785.6	4735.5	4623.1	4539.9	4471.4	4088.6
35°	4881.1	4898.8	4983.5	5012.8	4963.5	4961.9	4948.1	4844.9	4792.5	4824.8	4355.1
37.5°	5100.6	5105.2	5177.6	5179.1	5164.5	5170.6	5185.3	5120.6	5135.2	5236.1	4701.6
40°	5296.2	5308.5	5360.9	5377.0	5402.4	5424.0	5497.2	5454.8	5568.0	5746.7	5132.9
42.5°	5440.9	5464.8	5548.8	5590.4	5672.8	5706.6	5809.8	5849.1	6077.1	6345.1	5645.8
45°	5563.4	5600.4	5735.1	5820.6	5960.0	6019.3	6167.2	6298.9	6652.4	6994.3	6185.7
47.5°	5695.9	5742.8	5911.5	6074.8	6264.2	6331.2	6600.0	6797.1	7266.1	7647.4	6694.7
50°	5890.7	5926.9	6091.7	6348.2	6584.6	6670.8	7042.8	7325.4	7890.0	8269.6	7136.0
52.5°	6162.6	6148.7	6288.1	6647.7	6965.0	7071.3	7515.7	7887.6	8522.2	8832.6	7508.7
55°	6436.0	6412.8	6510.7	6961.2	7408.6	7520.3	8036.3	8452.1	9123.7	9339.3	7794.5
57.5°	6740.2	6696.3	6778.7	7314.7	7913.8	8047.1	8619.3	9052.1	9715.2	9749.0	7976.2
60°	7053.6	6994.3	7086.7	7752.9	8555.3	8712.4	9301.6	9637.4	10272.7	10077.1	8034.7
62.5°	7327.8	7286.2	7428.6	8241.9	9278.5	9451.0	9971.6	10259.6	10822.6	10213.4	7823.7
65°	7567.3	7574.2	7820.6	8791.8	10084.8	10268.9	10740.2	11026.7	11255.4	10132.6	7330.1
67.5°	7853.0	7892.3	8312.8	9515.7	11099.8	11301.6	11858.4	11863.0	11497.2	9658.2	6358.2
70°	8269.6	8350.5	8989.7	10519.9	12543.1	12820.3	13250.0	12354.4	11157.6	8372.1	5002.7
72.5°	8639.3	8790.2	9709.8	11669.0	14302.0	14512.3	14064.1	12071.0	9738.3	6274.2	3116.7
74°	8489.1	8676.3	9840.7	12235.0	14964.3	15065.2	13789.1	11243.9	8119.5	4345.1	1811.3
75°	8165.7	8369.0	9649.7	12229.6	14880.4	14824.2	13125.3	10298.9	6687.0	2963.4	1205.2
77.5°	6590.0	6804.8	8131.0	10481.4	12201.1	12148.0	10082.5	6908.8	2928.8	971.9	612.3
80°	3831.4	3995.4	5047.4	6656.2	8227.3	8323.5	6630.8	3418.6	1152.1	546.0	415.1
82.5°	1702.0	1815.2	2438.2	3397.8	4965.0	5089.0	3472.5	1791.3	711.6	331.9	249.5
85°	1116.7	1200.6	1480.2	1618.0	2364.3	2449.0	1699.7	1394.7	469.8	182.5	183.3
87.5°	803.2	884.1	1099.7	960.3	1085.1	1027.3	924.9	1290.7	188.7	104.0	61.6
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: P320138  
 CATALOG NUMBER: GLEON-SA4D-827-U-SL4

**CANDELA DISTRIBUTION (continued):**

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	3852.2	3852.2	3852.2	3852.2	3852.2	3852.2	3852.2	3852.2	3852.2	3852.2	3852.2
2.5°	3816.0	3803.7	3775.9	3723.6	3694.3	3669.7	3628.8	3605.0	3594.2	3593.4	3598.0
5°	3721.3	3692.8	3621.1	3533.3	3463.3	3399.3	3320.0	3272.3	3238.4	3218.4	3223.8
7.5°	3611.1	3566.5	3454.0	3313.9	3201.4	3077.4	2955.0	2881.8	2824.8	2782.5	2790.2
10°	3535.7	3474.0	3310.0	3108.2	2921.1	2740.9	2572.2	2471.3	2391.2	2329.6	2334.3
12.5°	3510.2	3427.1	3199.9	2930.3	2667.7	2421.3	2201.0	2046.2	1963.8	1893.7	1899.1
15°	3514.1	3402.4	3107.5	2770.1	2439.8	2129.4	1862.2	1681.2	1569.5	1521.0	1521.8
17.5°	3517.2	3373.9	3010.4	2598.4	2214.1	1856.8	1566.4	1383.1	1277.6	1233.0	1233.7
20°	3507.2	3327.7	2890.3	2401.3	1978.5	1606.5	1325.4	1169.8	1089.7	1055.1	1055.1
22.5°	3494.1	3273.0	2754.7	2203.3	1745.9	1389.3	1152.9	1034.3	988.1	965.0	964.2
25°	3500.2	3232.2	2616.1	2000.0	1531.8	1216.0	1038.1	959.6	928.8	914.1	913.4
27.5°	3533.3	3213.0	2488.3	1797.5	1344.6	1085.9	961.1	905.7	885.6	876.4	876.4
30°	3593.4	3213.0	2355.0	1625.0	1189.1	989.6	901.8	864.1	850.2	844.1	844.1
32.5°	3698.2	3230.7	2226.4	1454.0	1065.1	914.1	852.5	827.1	816.3	813.3	813.3
35°	3878.4	3290.8	2100.9	1292.3	965.0	852.5	805.6	790.9	783.2	782.4	784.8
37.5°	4131.7	3413.2	1983.1	1172.9	894.1	802.5	766.3	754.7	750.1	754.0	757.0
40°	4450.6	3579.6	1876.0	1065.1	840.2	762.4	730.1	722.4	720.1	725.5	730.1
42.5°	4835.6	3804.4	1788.2	987.3	798.6	728.5	699.3	690.0	687.7	693.9	700.0
45°	5252.3	4046.2	1726.6	929.5	766.3	703.1	672.3	662.3	657.7	660.8	667.7
47.5°	5631.2	4275.0	1702.0	888.7	735.5	681.6	648.4	636.1	628.4	626.9	632.3
50°	5950.8	4445.2	1713.5	864.1	710.8	657.7	625.3	611.5	599.9	593.0	596.8
52.5°	6183.4	4552.2	1724.3	853.3	691.6	631.5	599.9	586.8	571.4	559.9	559.9
55°	6352.0	4576.9	1700.4	844.8	676.9	603.0	571.4	559.1	543.7	530.6	529.1
57.5°	6418.2	4507.6	1611.9	832.5	666.9	576.1	541.4	532.2	519.1	503.7	502.9
60°	6328.9	4293.5	1440.9	806.3	653.8	553.7	511.4	505.2	499.0	484.4	483.6
62.5°	5970.0	3823.7	1219.9	753.2	627.7	529.8	483.6	486.7	487.5	477.5	475.9
65°	5319.3	3178.3	1004.2	683.9	588.4	501.4	455.1	469.8	478.2	476.7	474.4
67.5°	4373.6	2473.6	851.0	610.7	536.8	462.1	424.3	441.3	448.2	453.6	452.1
70°	3246.1	1744.3	703.9	533.7	474.4	415.9	384.3	392.8	388.1	394.3	396.6
72.5°	1809.8	1046.6	573.7	456.7	409.7	362.0	339.6	338.1	328.1	328.1	328.1
74°	1085.9	767.8	504.4	408.9	370.4	326.5	307.3	300.3	291.1	291.9	291.1
75°	873.3	660.0	462.8	377.4	342.7	305.7	286.5	277.2	270.3	270.3	269.5
77.5°	551.4	501.4	372.7	300.3	274.2	251.8	238.7	226.4	226.4	225.6	224.9
80°	416.6	398.9	290.3	227.2	210.2	193.3	184.8	179.4	179.4	181.8	181.0
82.5°	285.7	300.3	204.1	158.6	150.2	137.9	136.3	137.1	134.8	131.7	130.9
85°	208.7	225.6	137.9	100.1	91.6	83.9	90.1	93.2	89.3	82.4	79.3
87.5°	80.1	147.9	73.9	41.6	38.5	33.1	38.5	40.0	43.1	33.9	34.7
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)