

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: P324298

Luminaire Tested: **GLEON-SA4D-827-U-SLL-HSS**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P324298  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-1903-205-27)  
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-SLL-HSS  
Description: GALLEON AREA AND ROADWAY LUMINAIRE  
(4) 80 CRI, 2700K, 1200mA LIGHTSQUARES WITH 16 LEDS EACH AND SPILL LIGHT  
ELIMINATOR LEFT OPTICS WITH HOUSE SIDE SHIELD  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 17057 lumens  
Efficiency: N/A  
Efficacy: 66.1 lumens/watt  
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')  
IES Classification: Type III - Medium  
BUG Rating: B2 - U0 - G3

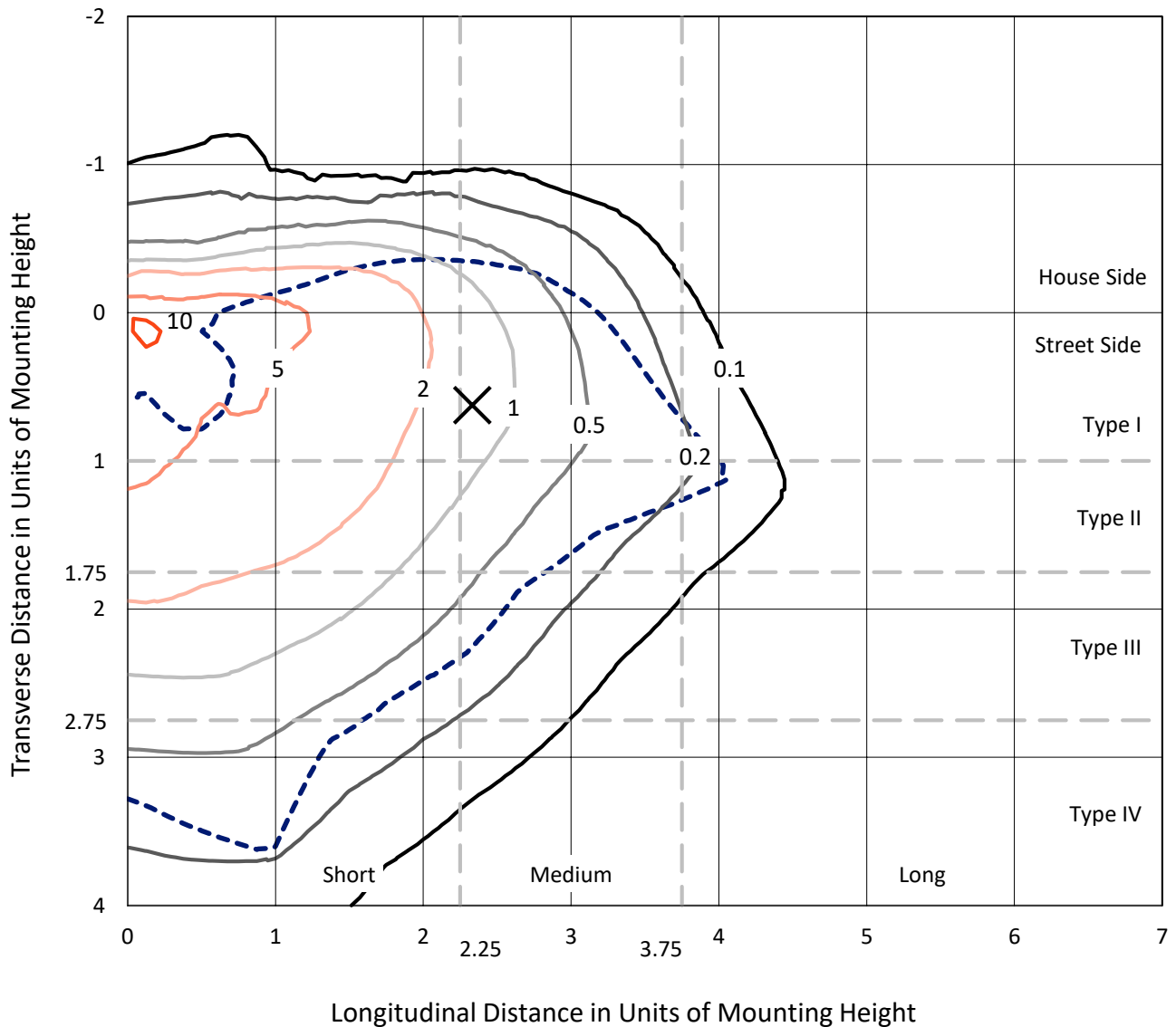
Input Watts (W): 258  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 24 FT



REPORT NUMBER: P324298  
 CATALOG NUMBER: GLEON-SA4D-827-U-SLL-HSS

### Iso-Footcandle Lines of Horizontal Illumination

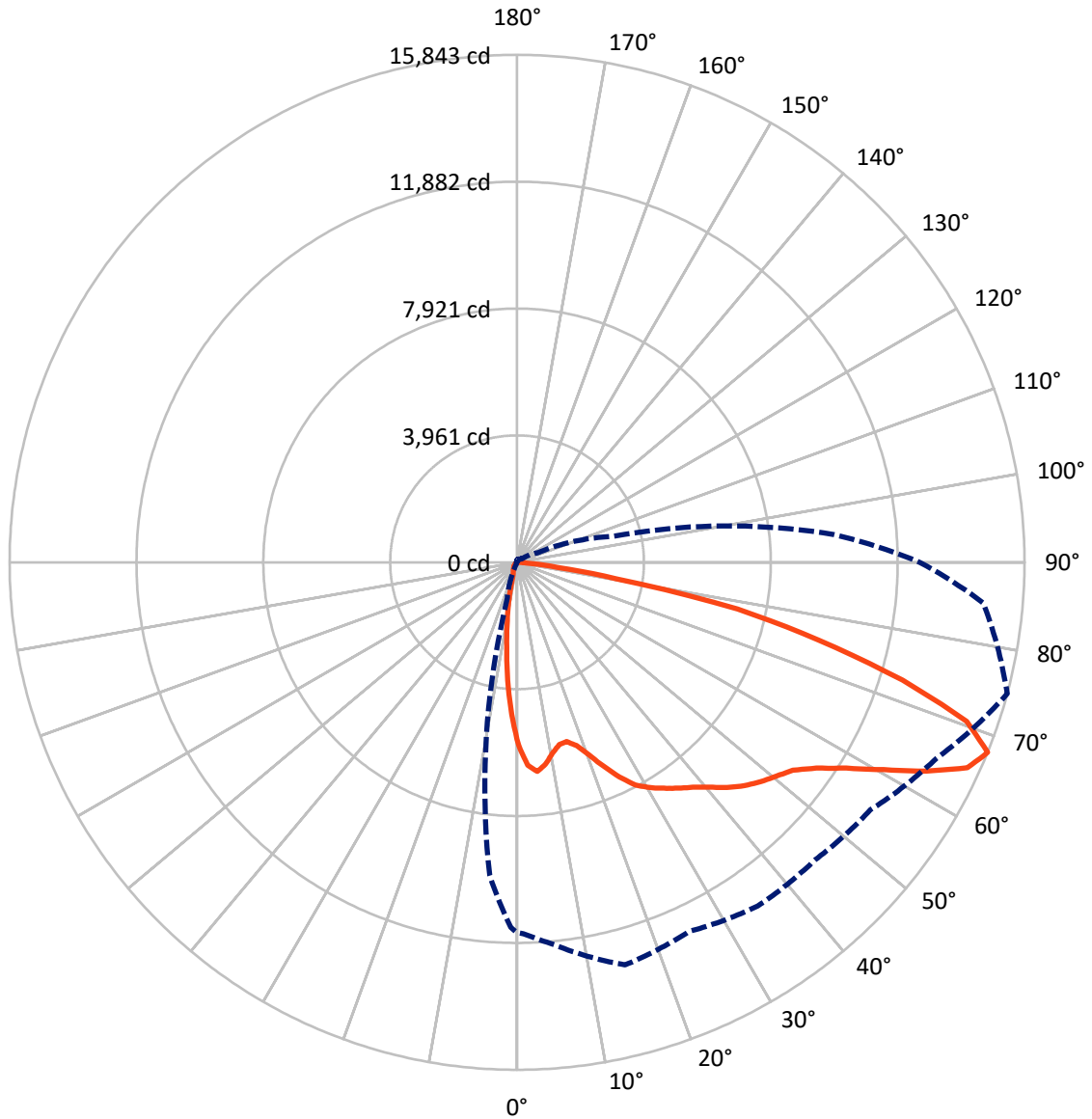
✕ Max cd  
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 11.9 fc  
 Type III - Medium - N/A

REPORT NUMBER: P324298  
CATALOG NUMBER: GLEON-SA4D-827-U-SLL-HSS

### Luminous Intensity Polar Plot



— Vertical Plane Through 75-Deg Lateral      - - - Horizontal Cone Through 67.5-Deg Vertical

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 CATALOG NUMBER: GLEON-SA4D-827-U-SLL-HSS

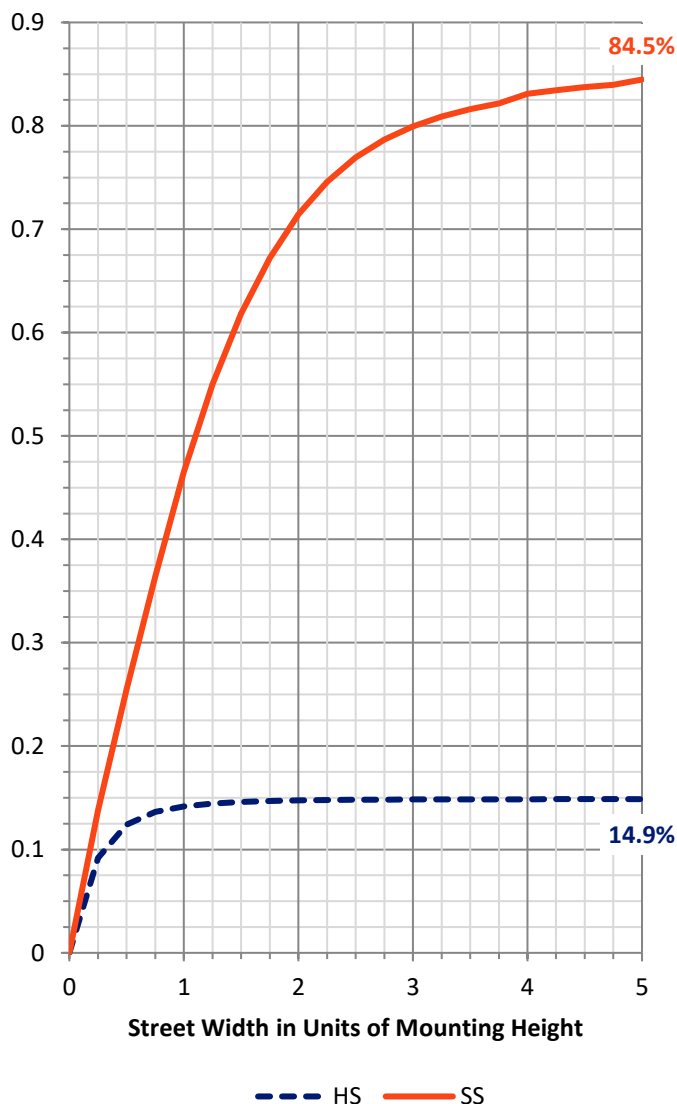
**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	2559.6	0.0	2559.6
	% Fixture	15.0	0.0	15.0
<b>Street Side</b>	Lumens	14497.4	0.0	14497.4
	% Fixture	85.0	0.0	85.0
<b>Total</b>	Lumens	17057.0	0.0	17057.0
	% Fixture	100.0	0.0	100.0

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	434.1	2.5
10°-20°	854.7	5.0
20°-30°	1209.1	7.1
30°-40°	1777.8	10.4
40°-50°	2555.2	15.0
50°-60°	3597.1	21.1
60°-70°	4201.1	24.6
70°-80°	2143.2	12.6
80°-90°	284.7	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°	17057.0	100.0
0°-180°	17057.0	100.0

**Coefficient of Utilization**



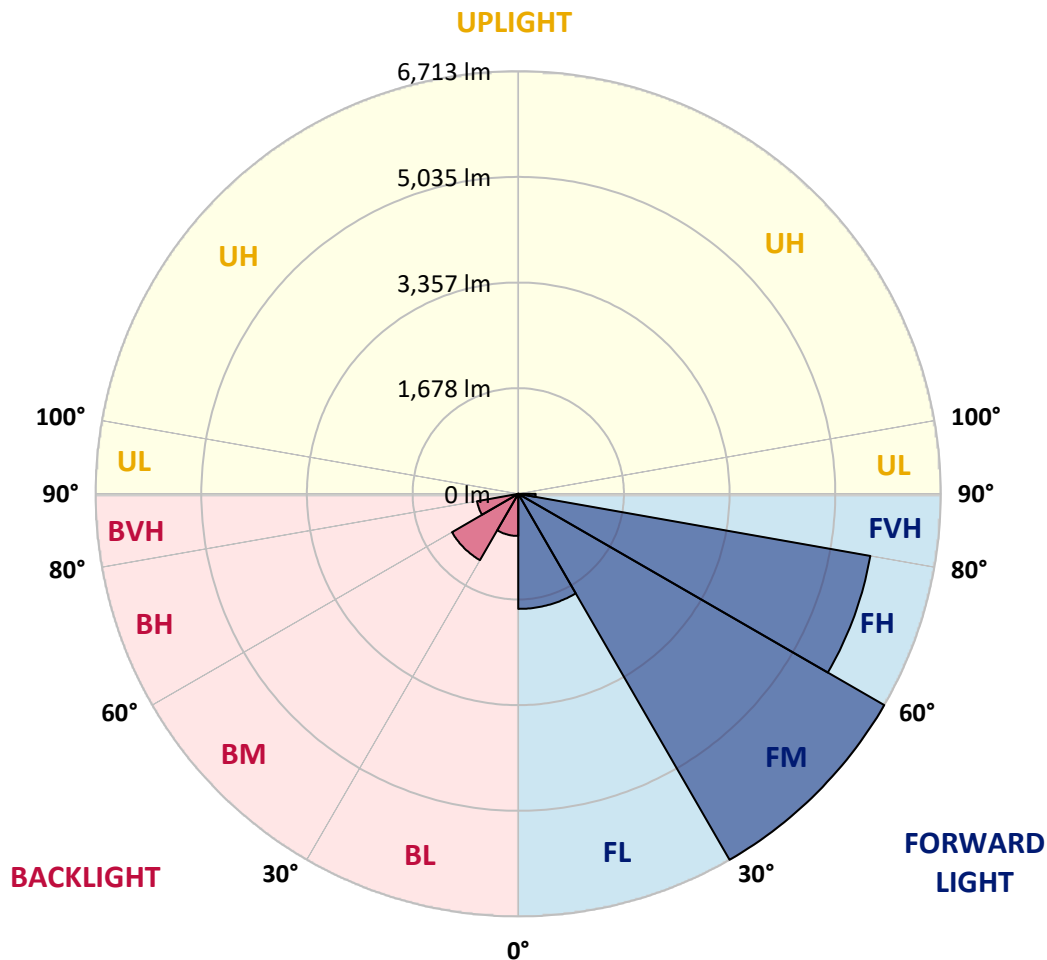
REPORT NUMBER: P324298  
 CATALOG NUMBER: GLEON-SA4D-827-U-SLL-HSS

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

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	1828.5	10.7			
FM (30°-60°)	6713.3	39.4			
FH (60°-80°)	5679.5	33.3			G3/7500
FVH (80°-90°)	276.1	1.6			G3/500
BL (0°-30°)	669.4	3.9	B2/1000		
BM (30°-60°)	1216.7	7.1	B2/2500		
BH (60°-80°)	664.8	3.9	B2/1000		G2/1000
BVH (80°-90°)	8.6	0.1			G0/10
UL (90°-100°)	0.0	0.0		U0/0	
UH (100°-180°)	0.0	0.0		U0/0	

**BUG Rating: B2-U0-G3**

Type III Medium





REPORT NUMBER: P324298  
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**CANDELA DISTRIBUTION (FULL):**

	0°	1°	5°	15°	25°	35°	45°	55°	65°	75°	85°
0°	5722.3	5722.3	5722.3	5722.3	5722.3	5722.3	5722.3	5722.3	5722.3	5722.3	5722.3
2.5°	6203.1	6212.8	6262.9	6379.2	6506.1	6515.8	6601.4	6513.4	6483.5	6341.3	6194.2
5°	6250.0	6287.1	6459.2	6801.0	7097.6	7192.9	7260.8	7087.9	6906.1	6558.6	6187.7
7.5°	5872.6	5934.8	6205.5	6847.1	7377.1	7611.5	7655.9	7385.2	6940.0	6367.9	5810.4
10°	5389.4	5460.5	5787.0	6575.6	7303.6	7705.2	7766.6	7411.9	6771.9	6059.3	5402.4
12.5°	4998.4	5081.6	5415.3	6270.2	7050.7	7495.1	7616.3	7322.2	6626.5	5840.3	5123.6
15°	4818.2	4913.5	5264.2	6073.0	6770.3	7120.2	7220.4	7093.5	6545.7	5805.6	5059.0
17.5°	4921.6	5025.0	5387.0	6090.0	6506.9	6656.4	6737.2	6788.9	6545.7	6014.8	5248.0
20°	5345.8	5457.3	5840.3	6262.1	6288.7	6233.0	6319.5	6501.3	6621.6	6412.4	5702.1
22.5°	5932.4	6063.3	6495.6	6557.0	6182.1	5971.2	5982.5	6267.7	6759.8	6916.6	6332.4
25°	6647.5	6807.5	7247.0	6996.6	6226.5	5815.3	5811.2	6075.4	6894.8	7421.6	7034.5
27.5°	7357.7	7533.9	7920.1	7533.1	6409.9	5787.0	5778.9	6017.3	7026.5	7870.8	7801.3
30°	7953.2	8124.5	8457.4	7921.7	6607.9	5853.2	5814.4	6079.5	7104.8	8162.5	8360.5
32.5°	8438.1	8575.4	8844.5	8189.2	6819.6	5981.7	5897.7	6245.9	7238.2	8409.0	8874.4
35°	8971.3	9116.0	9223.4	8443.7	7057.2	6166.7	6046.3	6510.1	7443.4	8659.5	9437.6
37.5°	9579.8	9723.6	9710.7	8676.4	7358.6	6473.0	6396.2	6928.7	7762.6	8907.5	10066.2
40°	10175.3	10322.3	10217.3	8930.9	7712.5	6978.0	6921.4	7557.3	8190.0	9225.1	10803.1
42.5°	10732.8	10892.0	10667.4	9171.7	8134.2	7614.7	7711.7	8367.0	8724.9	9616.1	11438.2
45°	11182.1	11344.5	11044.7	9406.1	8578.6	8387.2	8678.8	9263.8	9368.1	9946.6	11867.3
47.5°	11508.5	11662.0	11306.5	9640.4	9147.5	9331.7	9840.0	10204.4	9949.0	10233.5	12171.9
50°	11717.0	11836.5	11383.3	9933.7	9894.1	10433.8	11049.5	11227.3	10496.1	10492.0	12541.9
52.5°	11849.5	11903.6	11439.8	10239.9	10673.0	11633.7	12234.1	12289.8	11059.2	10776.4	13040.5
55°	12306.0	12349.6	11840.6	10610.8	11317.0	12685.0	13305.5	13253.8	11696.8	11333.2	13628.7
57.5°	13084.9	13131.0	12668.8	11144.1	11838.2	13334.6	14082.0	14174.9	12444.2	12115.3	14259.0
60°	13476.0	13561.7	13396.8	11819.6	12343.2	13749.9	14611.3	14907.8	13378.2	13146.3	14869.8
62.5°	13121.3	13245.7	13484.9	12568.6	12844.9	13978.6	14776.1	15170.4	14334.9	14347.8	15246.4
65°	12413.5	12512.9	12918.5	12979.1	13135.8	13950.3	14368.9	14803.6	14920.7	15451.6	15226.2
67.5°	11558.6	11595.8	11940.0	13011.4	12714.0	13100.3	13145.5	13467.1	14457.7	15842.7	14614.5
70°	10328.0	10348.2	10648.8	11929.5	10925.9	11010.8	10943.7	11009.1	12429.6	14890.0	13070.4
72.5°	8312.0	8362.9	8790.3	9907.0	7959.7	7714.9	8241.7	8212.6	9572.5	12579.9	9707.4
75°	6119.9	6207.9	6853.5	7979.9	5586.6	5053.3	5437.9	5540.5	6805.1	9730.9	6070.6
77.5°	4284.9	4350.3	4975.7	5866.2	4043.3	3613.4	3474.4	3596.5	4491.7	7039.4	3058.3
80°	2468.5	2492.7	2891.9	3387.2	2724.6	3117.3	2824.0	2908.0	2691.5	3131.8	1315.4
82.5°	1615.2	1619.3	1775.2	2016.0	1696.8	1971.5	1459.3	1865.7	1655.6	1258.1	428.2
85°	872.7	877.5	1029.4	1431.0	960.7	543.0	319.2	655.3	1023.7	288.5	117.2
87.5°	96.2	88.1	310.3	520.4	266.6	49.3	17.0	73.5	164.0	18.6	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



REPORT NUMBER: P324298

CATALOG NUMBER: GLEON-SA4D-827-U-SLL-HSS

**CANDELA DISTRIBUTION (continued):**

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	5722.3	5722.3	5722.3	5722.3	5722.3	5722.3	5722.3	5722.3	5722.3	5722.3	5722.3
2.5°	6119.1	6052.0	5884.7	5707.8	5565.6	5432.3	5298.1	5134.1	5007.2	4981.4	4939.4
5°	5988.2	5775.7	5425.0	5072.7	4789.1	4431.1	4204.1	4027.1	3854.2	3843.7	3809.0
7.5°	5530.8	5251.3	4757.6	4270.3	3871.2	3530.2	3186.0	2955.7	2774.7	2710.9	2672.9
10°	5091.3	4777.0	4160.4	3604.5	3248.2	2946.8	2704.4	2463.6	2245.5	2095.2	2027.3
12.5°	4784.2	4436.8	3757.2	3278.1	3022.8	2736.7	2441.0	2140.4	1889.1	1708.1	1597.4
15°	4665.5	4294.6	3622.3	3148.8	2833.7	2471.7	2093.6	1750.2	1471.4	1307.4	1208.0
17.5°	4806.9	4375.4	3611.8	2991.3	2550.9	2100.8	1683.1	1277.5	1014.9	890.4	826.6
20°	5165.6	4632.3	3607.8	2798.1	2214.8	1661.3	1140.1	840.3	681.2	611.7	581.8
22.5°	5673.0	4960.4	3640.1	2607.5	1864.9	1187.0	787.0	617.3	535.7	498.5	481.6
25°	6325.9	5420.9	3731.4	2434.5	1536.0	885.6	613.3	517.1	459.8	430.7	418.5
27.5°	7021.6	5951.0	3873.6	2284.2	1268.6	706.2	525.2	442.8	401.6	381.4	370.1
30°	7595.3	6565.1	4017.4	2117.0	1074.7	615.7	480.8	404.0	356.3	343.4	332.9
32.5°	8097.1	7029.7	4119.2	1965.9	947.8	547.0	434.7	361.2	328.9	303.8	292.5
35°	8616.6	7416.7	4116.0	1860.0	860.5	495.3	395.9	323.2	284.4	255.3	246.4
37.5°	9179.0	7853.9	4045.7	1769.5	822.6	454.1	374.1	303.0	264.2	235.1	223.8
40°	9837.5	8312.8	3973.8	1684.7	812.1	421.0	358.8	286.8	245.6	217.4	206.0
42.5°	10479.1	8726.5	3910.8	1621.7	766.8	420.2	345.0	274.7	231.1	203.6	190.7
45°	10992.2	9111.9	3898.7	1583.7	719.1	434.7	337.7	266.6	219.8	192.3	180.2
47.5°	11418.8	9530.5	3976.2	1557.0	673.9	396.7	355.5	261.0	209.3	182.6	168.9
50°	11926.2	10044.4	4158.8	1513.4	626.2	357.1	407.2	262.6	200.4	172.9	158.4
52.5°	12634.1	10755.4	4427.1	1439.9	560.8	320.8	400.8	264.2	190.7	162.4	147.9
55°	13427.5	11643.4	4715.6	1317.9	469.5	273.1	343.4	252.9	172.1	151.1	137.4
57.5°	14261.4	12449.0	4886.8	1172.4	373.3	235.9	274.7	230.3	151.9	135.7	126.9
60°	14392.3	12755.3	4808.5	993.9	296.5	205.2	203.6	234.3	135.7	119.6	113.1
62.5°	14066.7	12370.6	4429.5	834.7	248.1	180.2	167.3	204.4	122.8	106.7	100.2
65°	13440.4	11330.7	3815.4	752.3	230.3	154.3	139.0	143.8	107.5	92.9	87.3
67.5°	12569.4	9942.6	3132.7	705.4	227.9	132.5	118.8	109.1	92.9	80.8	76.0
70°	10788.6	8282.9	2499.2	679.5	221.4	111.5	100.2	88.9	77.6	68.7	64.6
72.5°	7940.3	5869.4	1944.1	651.3	223.0	88.9	87.3	73.5	62.2	53.3	51.7
75°	4587.9	3353.2	1275.0	527.6	212.5	68.7	72.7	51.7	43.6	37.2	37.2
77.5°	2445.0	2045.1	485.6	219.8	77.6	43.6	41.2	30.7	27.5	22.6	21.8
80°	1065.8	900.1	146.2	61.4	42.8	23.4	15.4	13.7	12.1	9.7	8.9
82.5°	377.3	325.6	47.7	29.9	18.6	0.0	0.0	0.0	0.0	0.0	0.0
85°	85.6	61.4	0.0	7.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0
87.5°	0.0	0.0	0.0	0.0	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





REPORT NUMBER: P324298

CATALOG NUMBER: GLEON-SA4D-827-U-SLL-HSS

**CANDELA DISTRIBUTION (continued):**

	185°	195°	205°	215°	225°	235°	245°	255°	265°	270°	275°
0°	5722.3	5722.3	5722.3	5722.3	5722.3	5722.3	5722.3	5722.3	5722.3	5722.3	5722.3
2.5°	4853.7	4835.9	4730.9	4734.9	4753.5	4780.2	4717.2	4746.3	4824.6	4899.8	4928.1
5°	3753.2	3757.2	3693.4	3733.0	3768.6	3792.8	3691.0	3692.6	3754.8	3839.7	3884.1
7.5°	2644.6	2638.2	2641.4	2735.9	2803.0	2754.5	2792.5	2660.8	2668.9	2729.5	2684.2
10°	1965.9	1877.0	1826.9	1898.0	1971.5	1944.9	1879.4	1836.6	1866.5	1933.6	1928.7
12.5°	1544.9	1417.3	1342.1	1291.2	1351.8	1301.7	1300.1	1262.9	1222.5	1229.8	1337.3
15°	1161.9	1069.0	980.1	898.5	896.9	879.9	793.5	696.5	688.4	693.3	749.0
17.5°	799.1	767.6	731.2	661.0	642.4	571.3	487.2	448.4	429.1	437.9	456.5
20°	561.6	549.4	553.5	515.5	488.8	421.0	371.7	356.3	353.1	362.0	370.9
22.5°	465.4	443.6	441.2	424.2	397.5	348.3	321.6	312.7	308.7	316.7	323.2
25°	407.2	385.4	376.5	366.0	337.7	303.8	287.7	279.6	275.5	280.4	284.4
27.5°	358.8	338.6	330.5	323.2	295.7	271.5	258.6	251.3	248.1	249.7	253.7
30°	322.4	304.6	294.1	285.2	261.8	244.8	233.5	226.2	223.0	223.0	227.1
32.5°	284.4	274.7	265.0	253.7	231.9	220.6	209.3	201.2	198.0	198.8	202.0
35°	236.7	233.5	235.9	225.4	206.9	197.2	185.8	177.0	174.5	175.3	178.6
37.5°	210.1	195.5	204.4	198.8	188.3	175.3	160.8	152.7	148.7	151.1	152.7
40°	193.1	175.3	168.9	174.5	172.9	151.9	139.0	130.9	127.7	128.5	130.1
42.5°	178.6	157.6	143.0	142.2	151.9	132.5	118.8	111.5	107.5	107.5	109.1
45°	164.8	142.2	124.4	110.7	127.7	112.3	99.4	92.9	88.1	88.1	88.9
47.5°	154.3	129.3	108.3	90.5	96.2	92.1	81.6	75.1	70.3	70.3	71.1
50°	144.6	116.4	93.7	76.0	71.9	76.0	66.3	59.0	55.8	54.9	56.6
52.5°	134.1	103.4	80.0	64.6	56.6	57.4	51.7	46.9	42.8	42.8	44.4
55°	123.6	92.9	69.5	54.9	46.9	42.8	41.2	38.0	34.7	34.7	36.4
57.5°	113.1	81.6	59.0	45.2	37.2	33.9	33.9	31.5	29.1	29.1	30.7
60°	103.4	70.3	48.5	37.2	29.1	28.3	29.1	26.7	25.0	25.0	26.7
62.5°	92.1	59.8	39.6	30.7	23.4	22.6	25.0	23.4	21.8	21.8	23.4
65°	78.4	50.9	31.5	23.4	17.8	17.8	21.0	19.4	17.8	17.8	19.4
67.5°	66.3	42.8	24.2	17.0	12.9	13.7	17.8	16.2	15.4	15.4	17.0
70°	54.9	33.1	17.0	10.5	7.3	10.5	13.7	13.7	13.7	13.7	15.4
72.5°	41.2	22.6	9.7	4.0	3.2	7.3	11.3	12.9	12.1	12.1	14.5
75°	26.7	12.9	3.2	0.0	0.0	4.0	8.9	10.5	10.5	9.7	12.1
77.5°	15.4	4.0	0.0	0.0	0.0	0.0	5.7	4.8	4.0	3.2	5.7
80°	4.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
82.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
85°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
87.5°	0.0	0.0	0.0	0.0	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



REPORT NUMBER: P324298

CATALOG NUMBER: GLEON-SA4D-827-U-SLL-HSS

**CANDELA DISTRIBUTION (continued):**

	285°	295°	305°	315°	325°	335°	345°	355°	359°	360°
0°	5722.3	5722.3	5722.3	5722.3	5722.3	5722.3	5722.3	5722.3	5722.3	5722.3
2.5°	5042.0	5137.3	5271.5	5413.7	5632.6	5806.4	5976.9	6123.1	6179.7	6203.1
5°	3990.8	4130.6	4326.9	4579.0	4974.1	5329.6	5690.0	6052.8	6210.4	6250.0
7.5°	2863.6	3042.2	3291.8	3607.8	4070.8	4531.3	5034.7	5567.2	5811.2	5872.6
10°	2119.4	2337.6	2623.6	2956.5	3398.5	3872.0	4420.6	5029.1	5307.8	5389.4
12.5°	1503.7	1798.6	2181.6	2586.4	2969.4	3392.0	3947.1	4617.8	4910.3	4998.4
15°	883.2	1168.4	1621.7	2163.9	2654.3	3082.6	3646.6	4406.9	4729.3	4818.2
17.5°	506.6	648.8	991.4	1595.8	2261.6	2854.7	3552.0	4459.4	4839.2	4921.6
20°	387.0	432.3	571.3	1027.8	1802.7	2630.9	3552.0	4756.8	5224.6	5345.8
22.5°	338.6	371.7	428.2	613.3	1326.8	2390.9	3593.2	5186.6	5798.3	5932.4
25°	300.6	330.5	379.0	461.4	905.0	2105.7	3691.0	5714.3	6473.8	6647.5
27.5°	269.1	297.3	341.0	404.0	618.9	1761.5	3822.7	6333.2	7218.8	7357.7
30°	240.8	267.5	307.0	351.5	477.5	1371.2	3935.0	6916.6	7803.8	7953.2
32.5°	214.1	238.4	273.9	307.0	391.1	1014.1	3947.1	7378.8	8289.4	8438.1
35°	189.1	210.9	243.2	269.1	324.0	800.7	3758.9	7779.5	8775.0	8971.3
37.5°	164.8	185.8	214.1	233.5	285.2	652.9	3471.2	8226.4	9398.0	9579.8
40°	142.2	160.8	189.9	202.8	269.9	501.8	3158.5	8695.0	10008.8	10175.3
42.5°	121.2	139.0	167.3	192.3	236.7	374.9	2820.8	9134.6	10558.3	10732.8
45°	101.0	119.6	147.9	203.6	196.3	280.4	2459.6	9426.3	10992.2	11182.1
47.5°	81.6	102.6	141.4	193.9	156.8	206.0	2173.5	9702.6	11321.0	11508.5
50°	65.4	86.5	159.2	172.9	128.5	157.6	2054.0	9949.8	11536.8	11717.0
52.5°	53.3	72.7	150.3	132.5	107.5	130.1	2118.6	10350.6	11736.4	11849.5
55°	44.4	57.4	90.5	92.1	91.3	110.7	2198.6	10925.9	12252.7	12306.0
57.5°	38.8	46.1	63.0	71.1	76.8	98.6	2200.2	11751.7	13051.8	13084.9
60°	33.1	40.4	52.5	57.4	66.3	88.1	2120.2	12040.2	13366.1	13476.0
62.5°	29.1	35.6	43.6	47.7	55.8	79.2	1932.8	11622.4	12934.6	13121.3
65°	25.9	32.3	36.4	40.4	49.3	71.1	1624.1	10786.9	12218.7	12413.5
67.5°	22.6	28.3	32.3	36.4	44.4	63.0	1195.9	9816.5	11397.0	11558.6
70°	20.2	25.0	29.1	32.3	38.8	53.3	725.6	8329.8	10260.9	10328.0
72.5°	19.4	22.6	26.7	29.1	33.9	46.9	367.6	6121.5	8202.9	8312.0
75°	17.0	20.2	24.2	25.9	29.9	40.4	149.5	4020.7	5944.5	6119.9
77.5°	13.7	18.6	21.8	23.4	25.9	33.1	76.0	2569.5	4171.8	4284.9
80°	4.8	13.7	18.6	19.4	21.8	24.2	50.1	1406.7	2420.0	2468.5
82.5°	0.0	8.9	14.5	13.7	15.4	18.6	32.3	669.0	1597.4	1615.2
85°	0.0	4.0	11.3	8.9	6.5	12.9	11.3	146.2	837.9	872.7
87.5°	0.0	0.0	0.8	4.0	3.2	4.8	1.6	0.8	76.0	96.2
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)