

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: P320793

Luminaire Tested: **GLEON-SA9A-830-U-SLR**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P320793
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-1903-205-26)
Test Lab: INNOVATION CENTER
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: McGRAW-EDISON
Catalog Number: GLEON-SA9A-830-U-SLR
Description: GALLEON AREA AND ROADWAY LUMINAIRE
(9) 80 CRI, 3000K, 615mA LIGHTSQUARES WITH 16 LEDS EACH AND SPILL LIGHT
ELIMINATOR RIGHT OPTICS
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 29094 lumens
Efficiency: N/A
Efficacy: 100.3 lumens/watt
Luminous Opening: Rectangular (W 2.5' x L: 1' x H: 0')
IES Classification: Type IV - Medium
BUG Rating: B3 - U0 - G5

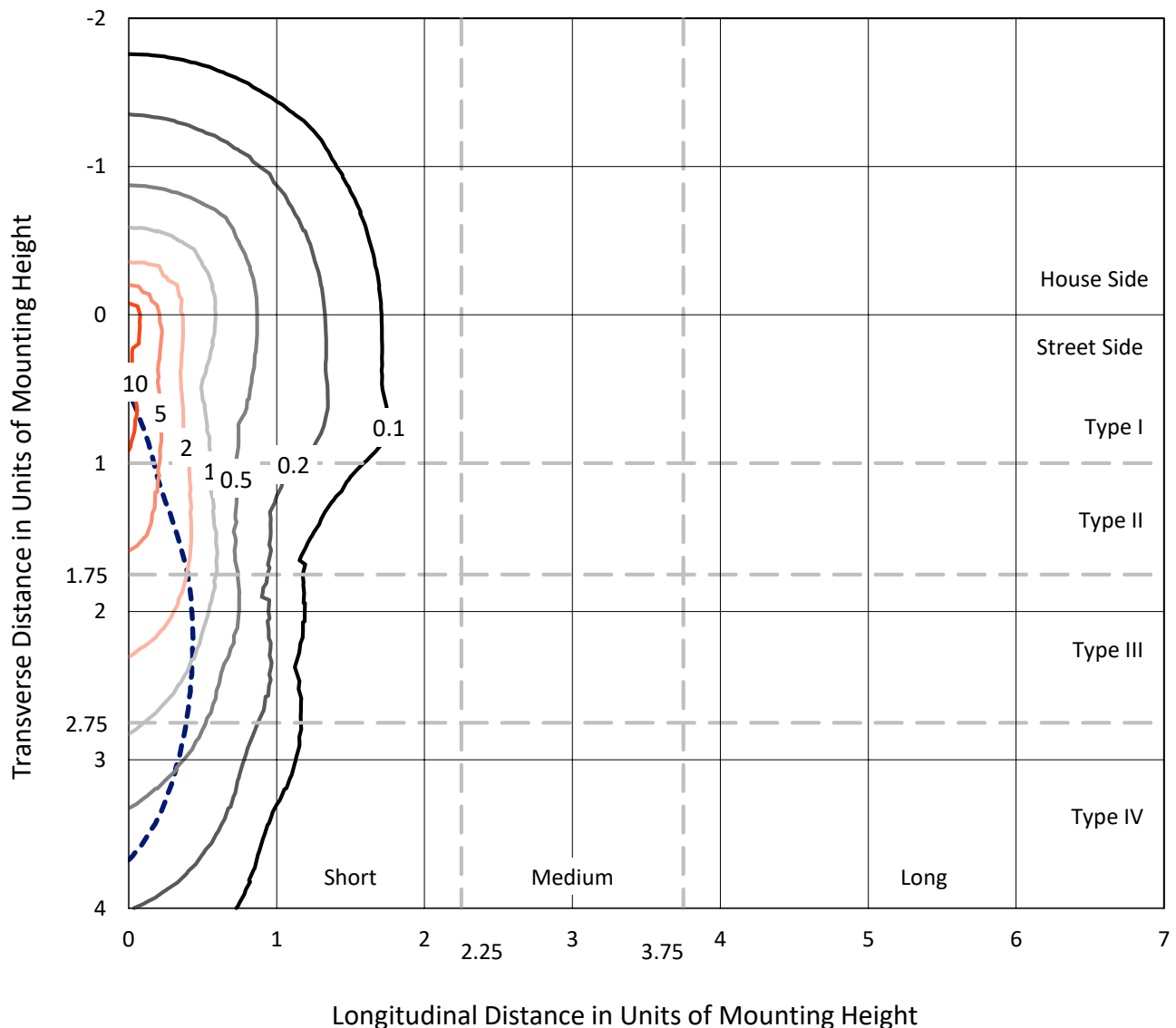
Input Watts (W): 290
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Iso-Footcandle Lines of Horizontal Illumination

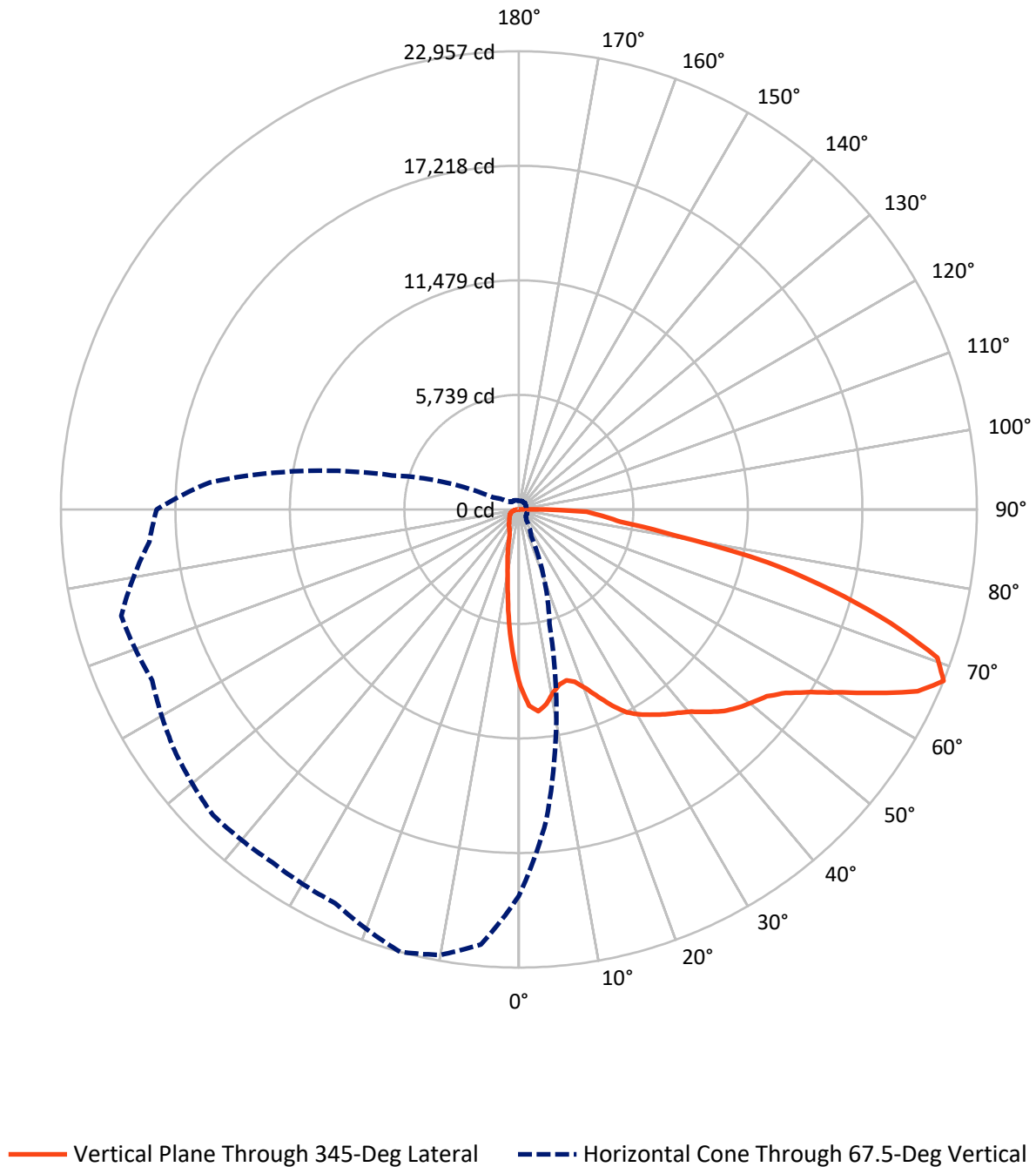
× Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 14.2 fc
 Type IV - Medium - N/A

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Luminous Intensity Polar Plot



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FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	5029.7	0.0	5029.7
	% Fixture	17.3	0.0	17.3
Street Side	Lumens	24064.3	0.0	24064.3
	% Fixture	82.7	0.0	82.7
Total	Lumens	29094.0	0.0	29094.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	684.1	2.4
10°-20°	1421.1	4.9
20°-30°	2021.1	6.9
30°-40°	2912.4	10.0
40°-50°	4104.4	14.1
50°-60°	5705.8	19.6
60°-70°	6900.1	23.7
70°-80°	4241.3	14.6
80°-90°	1103.6	3.8
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°	29094.0	100.0
0°-180°	29094.0	100.0

Coefficient of Utilization



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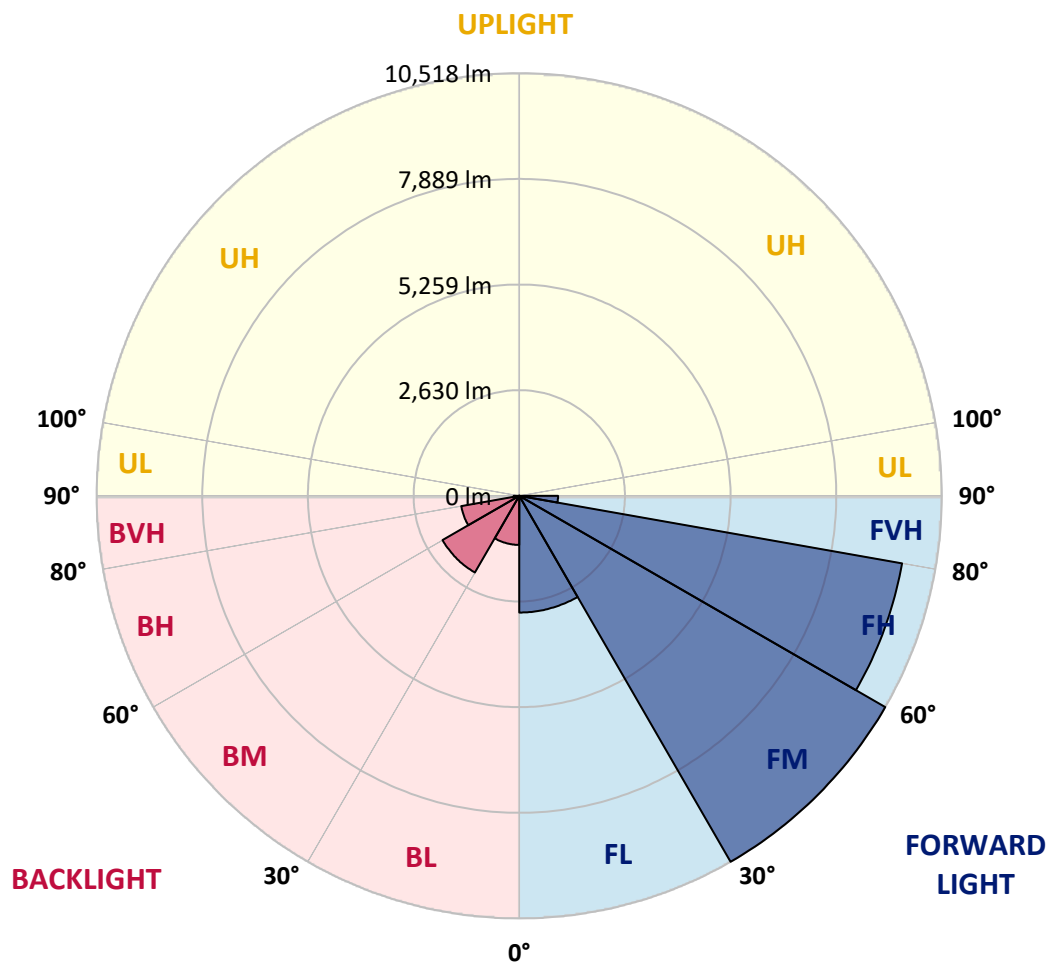
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	2905.1	10.0			
FM	(30°-60°)	10518.2	36.2			
FH	(60°-80°)	9675.7	33.3			G4/12000
FVH	(80°-90°)	965.3	3.3			G5
BL	(0°-30°)	1221.2	4.2	B3/2500		
BM	(30°-60°)	2204.5	7.6	B2/2500		
BH	(60°-80°)	1465.8	5.0	B3/2500		G3/2500
BVH	(80°-90°)	138.4	0.5			G2/225
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

BUG Rating: B3-U0-G5

Type IV Medium



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CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	8863.7	8863.7	8863.7	8863.7	8863.7	8863.7	8863.7	8863.7	8863.7	8863.7	8863.7
2.5°	9495.3	9411.6	9284.8	9158.0	9063.8	8968.4	8860.2	8752.0	8628.7	8504.3	8431.0
5°	9338.3	9105.6	8803.2	8500.8	8300.7	8100.6	7873.8	7647.0	7422.5	7198.0	7077.0
7.5°	8631.0	8282.1	7888.9	7495.7	7204.9	6913.0	6598.9	6283.7	6004.5	5724.2	5550.9
10°	7935.4	7516.7	7065.4	6612.9	6240.6	5868.4	5553.2	5236.8	5026.2	4815.7	4656.3
12.5°	7436.4	6972.3	6475.6	5977.8	5605.5	5233.3	5033.2	4833.2	4658.7	4484.2	4300.4
15°	7238.7	6714.1	6205.7	5696.3	5357.8	5019.3	4797.1	4573.8	4340.0	4105.0	3879.3
17.5°	7413.2	6799.0	6246.5	5693.9	5250.7	4807.6	4497.0	4185.2	3877.0	3568.7	3307.0
20°	7957.5	7173.5	6451.2	5727.7	5137.9	4548.2	4131.7	3714.1	3318.6	2923.2	2626.5
22.5°	8721.8	7684.2	6740.8	5797.5	5035.6	4272.5	3750.2	3226.8	2759.1	2291.5	2000.7
25°	9650.0	8361.2	7158.4	5954.5	4993.7	4031.7	3389.6	2747.5	2254.3	1759.9	1552.9
27.5°	10628.3	9168.5	7677.2	6184.8	5000.7	3816.5	3086.0	2354.3	1910.0	1465.6	1323.7
30°	11443.7	10090.9	8282.1	6472.1	5027.4	3582.7	2799.9	2017.0	1650.6	1284.2	1192.3
32.5°	12189.3	10734.1	8738.1	6740.8	5057.7	3373.3	2578.8	1783.2	1484.3	1184.2	1108.5
35°	12959.4	11305.3	9056.8	6807.1	5005.3	3202.3	2427.6	1652.9	1377.2	1100.4	1036.4
37.5°	13807.3	11922.9	9363.9	6803.6	4916.9	3030.2	2310.1	1588.9	1307.5	1024.8	978.3
40°	14753.0	12605.7	9696.5	6787.4	4836.6	2884.8	2222.9	1559.9	1269.1	977.1	937.6
42.5°	15677.8	13257.1	10006.0	6754.8	4771.5	2787.1	2136.8	1486.6	1234.2	980.6	924.8
45°	16372.2	13826.0	10274.7	6722.2	4722.6	2723.1	2069.4	1415.6	1201.6	987.6	916.6
47.5°	16899.2	14397.1	10572.4	6746.6	4718.0	2689.4	2021.7	1354.0	1139.9	924.8	895.7
50°	17569.2	15083.4	11006.3	6929.3	4782.0	2634.7	1965.8	1295.8	1080.6	865.4	905.0
52.5°	18403.2	16062.8	11678.7	7293.4	4915.7	2538.1	1877.4	1216.7	1008.5	799.1	860.8
55°	19628.1	17317.9	12538.3	7757.5	5077.4	2396.2	1743.7	1089.9	913.1	735.2	789.8
57.5°	20727.3	18585.8	13363.0	8139.0	5178.6	2217.1	1575.0	932.9	806.1	679.3	710.7
60°	21217.0	19239.6	13749.2	8257.7	5118.1	1978.6	1385.4	791.0	711.9	632.8	627.0
62.5°	21026.3	18824.3	13368.8	7913.3	4822.7	1732.0	1217.9	703.7	644.4	583.9	571.1
65°	20467.9	17519.2	12303.3	7087.5	4323.7	1559.9	1112.0	664.2	597.9	531.6	517.6
67.5°	19367.5	15661.5	10793.5	5925.4	3689.7	1454.0	1051.5	649.1	568.8	487.4	471.1
70°	17392.4	13425.8	9054.5	4681.9	3036.0	1388.9	1012.0	635.1	537.4	438.5	423.4
72.5°	14285.4	10764.4	7230.5	3695.5	2538.1	1380.7	1007.3	634.0	511.8	389.7	375.7
75°	10228.1	8176.2	5519.4	2861.5	2078.7	1295.8	956.2	616.5	476.9	336.2	323.4
77.5°	6882.7	5659.0	3836.3	2012.4	1542.4	1072.5	803.8	535.1	408.3	281.5	268.7
80°	4420.2	3916.5	2570.7	1224.9	1000.4	775.9	574.6	373.4	297.8	221.0	210.5
82.5°	3243.0	2915.0	1786.7	658.4	556.0	452.5	351.3	250.1	203.6	157.0	152.4
85°	2061.2	2272.9	1315.6	358.3	293.1	228.0	188.4	148.9	117.5	86.1	86.1
87.5°	400.1	553.7	364.1	173.3	126.8	80.3	68.6	55.8	31.4	5.8	7.0
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
92.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
95°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
97.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
100°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
102.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
105°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
107.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
110°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0



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CANDELA DISTRIBUTION (continued):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
115°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
117.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
120°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
122.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
125°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
127.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
130°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
132.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
135°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
137.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
140°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
142.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
145°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
147.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
150°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
152.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
155°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
157.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
160°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
162.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
165°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
167.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
170°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
172.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
175°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
177.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
180°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0



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CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°	95°	100°	105°
0°	8863.7	8863.7	8863.7	8863.7	8863.7	8863.7	8863.7	8863.7	8863.7	8863.7	8863.7
2.5°	8356.5	8276.3	8196.0	8105.3	8013.4	7928.5	7842.4	7748.2	7765.6	7693.5	7621.4
5°	6956.0	6828.1	6698.9	6587.3	6475.6	6379.1	6281.4	6194.1	6269.7	6218.5	6167.4
7.5°	5376.4	5218.2	5058.8	4925.0	4791.3	4687.8	4583.1	4510.9	4585.4	4576.1	4566.8
10°	4497.0	4343.4	4188.7	4041.0	3893.3	3767.6	3640.9	3533.8	3515.2	3461.7	3407.1
12.5°	4115.5	3904.9	3693.2	3538.5	3383.8	3233.7	3083.7	2958.1	2901.1	2812.7	2723.1
15°	3653.7	3404.7	3155.8	2980.2	2803.3	2657.9	2511.4	2403.2	2367.1	2298.5	2229.9
17.5°	3045.3	2773.1	2500.9	2322.9	2143.8	2027.5	1910.0	1837.9	1837.9	1818.1	1798.3
20°	2329.9	2086.8	1843.7	1707.6	1571.5	1509.9	1447.0	1416.8	1426.1	1427.3	1427.3
22.5°	1708.8	1559.9	1411.0	1356.3	1300.5	1278.4	1256.3	1243.5	1248.1	1249.3	1250.5
25°	1345.8	1288.8	1230.7	1202.8	1173.7	1159.7	1145.8	1141.1	1151.6	1152.7	1152.7
27.5°	1181.8	1146.9	1110.9	1093.4	1074.8	1069.0	1063.2	1055.0	1065.5	1065.5	1064.3
30°	1099.2	1062.0	1024.8	1002.7	980.6	982.9	984.1	981.8	988.7	993.4	996.9
32.5°	1031.8	995.7	959.7	937.6	914.3	910.8	907.3	905.0	920.1	928.2	936.4
35°	971.3	931.7	892.2	871.2	850.3	842.2	834.0	828.2	842.2	852.6	863.1
37.5°	930.6	889.9	848.0	828.2	807.3	796.8	786.3	779.4	785.2	789.8	794.5
40°	898.0	856.1	813.1	789.8	766.6	756.1	745.6	739.8	743.3	744.5	745.6
42.5°	867.8	827.0	786.3	760.7	734.0	721.2	708.4	701.4	703.7	706.1	707.2
45°	845.7	804.9	763.1	732.8	701.4	687.5	673.5	665.4	666.5	666.5	666.5
47.5°	866.6	807.3	746.8	711.9	675.8	659.5	643.3	635.1	632.8	630.5	628.1
50°	943.4	842.2	739.8	695.6	650.2	632.8	614.2	604.9	599.1	596.7	594.4
52.5°	921.3	834.0	745.6	688.6	630.5	609.5	588.6	573.5	567.6	564.2	560.7
55°	843.3	788.7	732.8	664.2	595.6	577.0	557.2	546.7	536.2	533.9	531.6
57.5°	741.0	718.9	696.8	627.0	557.2	539.7	521.1	514.1	504.8	504.8	503.7
60°	620.0	652.6	685.1	604.9	523.4	503.7	483.9	478.1	474.6	473.4	472.3
62.5°	557.2	610.7	663.0	578.1	492.0	471.1	450.2	443.2	442.0	443.2	443.2
65°	503.7	520.0	536.2	496.7	457.1	436.2	414.1	407.1	409.5	412.9	416.4
67.5°	454.8	451.3	447.8	433.9	418.8	401.3	382.7	375.7	376.9	381.5	386.2
70°	408.3	403.6	397.8	387.4	376.9	361.8	346.6	342.0	340.8	346.6	351.3
72.5°	361.8	355.9	349.0	340.8	331.5	318.7	305.9	302.4	303.6	307.1	310.6
75°	310.6	305.9	300.1	293.1	285.0	273.4	261.7	259.4	261.7	265.2	268.7
77.5°	254.7	253.6	251.3	245.4	239.6	226.8	212.9	211.7	215.2	218.7	221.0
80°	198.9	200.1	201.2	196.6	191.9	178.0	162.8	161.7	165.2	168.7	172.2
82.5°	146.6	150.1	152.4	146.6	140.7	124.5	108.2	105.9	117.5	121.0	124.5
85°	84.9	89.6	94.2	89.6	84.9	68.6	52.3	51.2	61.7	67.5	73.3
87.5°	7.0	9.3	11.6	10.5	9.3	4.7	0.0	0.0	1.2	5.8	10.5
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
92.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
95°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
97.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
100°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
102.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
105°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
107.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
110°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0



REPORT NUMBER: P320793
 CATALOG NUMBER: GLEON-SA9A-830-U-SLR

CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°	95°	100°	105°
112.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
115°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
117.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
120°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
122.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
125°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
127.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
130°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
132.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
135°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
137.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
140°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
142.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
145°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
147.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
150°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
152.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
155°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
157.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
160°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
162.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
165°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
167.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
170°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
172.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
175°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
177.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
180°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0



REPORT NUMBER: P320793

CATALOG NUMBER: GLEON-SA9A-830-U-SLR

CANDELA DISTRIBUTION (continued):

	110°	115°	120°	125°	130°	135°	140°	145°	150°	155°	160°
0°	8863.7	8863.7	8863.7	8863.7	8863.7	8863.7	8863.7	8863.7	8863.7	8863.7	8863.7
2.5°	7576.0	7530.6	7516.7	7502.7	7451.5	7399.2	7452.7	7505.1	7527.2	7549.3	7492.3
5°	6160.4	6152.2	6152.2	6151.1	6104.5	6056.9	6092.9	6127.8	6049.9	5971.9	5963.8
7.5°	4616.8	4666.8	4707.5	4747.1	4732.0	4716.8	4750.6	4784.3	4685.4	4585.4	4536.5
10°	3418.7	3429.2	3473.4	3517.6	3528.0	3537.3	3579.2	3619.9	3543.1	3466.4	3432.6
12.5°	2667.2	2611.4	2617.2	2621.9	2642.8	2662.6	2706.8	2749.8	2718.4	2685.9	2689.4
15°	2160.1	2089.1	2060.1	2029.8	2053.1	2076.3	2107.7	2138.0	2139.2	2139.2	2169.4
17.5°	1763.4	1727.4	1698.3	1668.0	1699.5	1729.7	1733.2	1736.7	1737.8	1739.0	1736.7
20°	1444.7	1462.2	1452.9	1443.5	1455.2	1465.6	1475.0	1483.1	1472.6	1461.0	1431.9
22.5°	1266.7	1281.9	1293.5	1304.0	1323.7	1342.3	1333.0	1322.6	1301.6	1279.5	1257.4
25°	1163.2	1173.7	1185.3	1196.9	1213.2	1228.4	1212.1	1195.8	1180.7	1165.5	1150.4
27.5°	1076.0	1086.4	1096.9	1106.2	1121.3	1135.3	1120.2	1105.1	1092.3	1079.5	1067.8
30°	1005.0	1012.0	1020.1	1028.3	1042.2	1055.0	1042.2	1028.3	1019.0	1008.5	1000.4
32.5°	944.5	951.5	955.0	958.5	971.3	984.1	974.8	965.5	957.3	949.2	943.4
35°	878.2	892.2	894.5	896.8	909.6	922.4	916.6	909.6	900.3	891.0	880.6
37.5°	810.8	827.0	836.4	844.5	857.3	870.1	864.3	858.5	845.7	832.9	814.2
40°	753.8	760.7	778.2	794.5	815.4	835.2	823.6	810.8	791.0	771.2	761.9
42.5°	706.1	704.9	721.2	737.5	768.9	799.1	778.2	757.3	738.6	720.0	717.7
45°	664.2	660.7	668.8	677.0	710.7	743.3	722.4	700.3	689.8	679.3	679.3
47.5°	627.0	624.6	630.5	635.1	656.1	675.8	665.4	654.9	649.1	643.3	644.4
50°	593.2	590.9	596.7	601.4	609.5	616.5	618.8	620.0	616.5	613.0	615.3
52.5°	561.8	561.8	564.2	565.3	575.8	586.3	586.3	585.1	585.1	585.1	587.4
55°	535.1	537.4	537.4	537.4	553.7	568.8	564.2	559.5	560.7	560.7	563.0
57.5°	508.3	511.8	514.1	516.5	532.8	549.0	544.4	539.7	539.7	539.7	540.9
60°	478.1	482.7	487.4	492.0	508.3	524.6	520.0	514.1	515.3	516.5	517.6
62.5°	449.0	453.7	458.3	463.0	479.2	495.5	490.9	485.1	488.5	490.9	490.9
65°	421.1	424.6	429.2	433.9	449.0	464.1	459.5	454.8	459.5	463.0	465.3
67.5°	389.7	392.0	396.7	401.3	416.4	431.6	426.9	421.1	426.9	431.6	436.2
70°	353.6	355.9	361.8	366.4	381.5	396.7	390.8	385.0	390.8	396.7	401.3
72.5°	314.1	316.4	322.2	326.9	344.3	361.8	354.8	347.8	354.8	361.8	364.1
75°	271.0	273.4	280.3	286.2	303.6	321.0	315.2	308.3	314.1	319.9	321.0
77.5°	224.5	228.0	237.3	246.6	260.6	274.5	271.0	267.5	271.0	274.5	274.5
80°	175.6	179.1	190.8	201.2	209.4	217.5	218.7	219.8	221.0	222.2	221.0
82.5°	130.3	134.9	145.4	155.9	155.9	155.9	165.2	173.3	173.3	172.2	171.0
85°	80.3	86.1	95.4	104.7	98.9	93.1	108.2	122.1	122.1	121.0	118.6
87.5°	16.3	22.1	31.4	39.5	33.7	27.9	43.0	58.2	59.3	59.3	57.0
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
92.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
95°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
97.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
100°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
102.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
105°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
107.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
110°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0



REPORT NUMBER: P320793
 CATALOG NUMBER: GLEON-SA9A-830-U-SLR

CANDELA DISTRIBUTION (continued):

	110°	115°	120°	125°	130°	135°	140°	145°	150°	155°	160°
112.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
115°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
117.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
120°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
122.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
125°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
127.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
130°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
132.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
135°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
137.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
140°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
142.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
145°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
147.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
150°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
152.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
155°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
157.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
160°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
162.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
165°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
167.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
170°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
172.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
175°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
177.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
180°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0



REPORT NUMBER: P320793

CATALOG NUMBER: GLEON-SA9A-830-U-SLR

CANDELA DISTRIBUTION (continued):

	165°	170°	175°	180°	185°	190°	195°	200°	205°	210°	215°
0°	8863.7	8863.7	8863.7	8863.7	8863.7	8863.7	8863.7	8863.7	8863.7	8863.7	8863.7
2.5°	7434.1	7524.8	7614.4	7637.7	7672.6	7687.7	7701.6	7815.6	7928.5	8061.1	8193.7
5°	5954.5	6022.0	6089.4	6099.9	6136.0	6154.6	6173.2	6311.6	6448.9	6633.8	6818.8
7.5°	4487.7	4504.0	4520.2	4517.9	4548.2	4588.9	4628.4	4776.2	4922.7	5121.6	5319.4
10°	3398.9	3436.1	3472.2	3505.9	3572.2	3649.0	3724.6	3875.8	4027.0	4223.6	4419.0
12.5°	2692.8	2735.9	2777.8	2815.0	2891.7	2994.1	3095.3	3276.8	3458.2	3693.2	3927.0
15°	2198.5	2195.0	2191.5	2217.1	2284.6	2396.2	2506.7	2698.7	2890.6	3148.8	3405.9
17.5°	1734.4	1716.9	1699.5	1719.2	1782.0	1873.9	1964.7	2127.5	2289.2	2539.3	2789.4
20°	1402.8	1391.2	1379.6	1398.2	1437.7	1476.1	1514.5	1632.0	1748.3	1951.9	2154.3
22.5°	1234.2	1233.0	1230.7	1241.1	1259.8	1279.5	1298.1	1355.1	1411.0	1542.4	1672.7
25°	1135.3	1134.1	1133.0	1137.6	1152.7	1167.9	1183.0	1220.2	1257.4	1320.2	1383.1
27.5°	1056.2	1053.9	1051.5	1052.7	1056.2	1079.5	1101.6	1119.0	1135.3	1178.3	1220.2
30°	992.2	991.1	989.9	989.9	986.4	994.5	1002.7	1029.4	1055.0	1099.2	1143.4
32.5°	937.6	931.7	925.9	913.1	905.0	916.6	928.2	956.2	984.1	1024.8	1065.5
35°	868.9	853.8	837.5	830.5	831.7	843.3	855.0	882.9	909.6	953.8	996.9
37.5°	794.5	789.8	784.0	782.8	786.3	798.0	809.6	834.0	857.3	901.5	944.5
40°	752.6	750.3	747.9	745.6	747.9	759.6	771.2	794.5	816.6	859.6	901.5
42.5°	715.4	714.2	713.1	713.1	714.2	727.0	739.8	763.1	785.2	823.6	861.9
45°	679.3	680.5	680.5	682.8	686.3	699.1	710.7	736.3	761.9	799.1	836.4
47.5°	645.6	649.1	651.4	657.2	660.7	674.7	687.5	715.4	743.3	789.8	835.2
50°	616.5	620.0	622.3	627.0	636.3	652.6	668.8	702.6	735.2	813.1	889.9
52.5°	589.7	593.2	596.7	601.4	613.0	631.6	650.2	692.1	732.8	823.6	914.3
55°	565.3	568.8	571.1	578.1	589.7	606.0	621.2	672.3	723.5	789.8	856.1
57.5°	542.1	545.5	547.9	552.5	558.3	575.8	592.1	646.7	701.4	747.9	793.3
60°	517.6	520.0	521.1	521.1	525.8	545.5	565.3	635.1	703.7	695.6	686.3
62.5°	490.9	493.2	494.4	490.9	496.7	517.6	538.6	629.3	720.0	664.2	608.4
65°	466.4	465.3	464.1	460.6	467.6	488.5	508.3	553.7	599.1	577.0	554.9
67.5°	439.7	436.2	432.7	428.1	435.0	453.7	471.1	486.2	501.3	503.7	506.0
70°	406.0	401.3	396.7	395.5	399.0	414.1	429.2	439.7	449.0	453.7	457.1
72.5°	366.4	362.9	359.4	357.1	358.3	371.1	382.7	392.0	401.3	404.8	407.1
75°	322.2	322.2	321.0	314.1	314.1	324.5	333.8	342.0	350.1	354.8	359.4
77.5°	274.5	275.7	275.7	266.4	265.2	275.7	285.0	292.0	297.8	302.4	305.9
80°	219.8	217.5	215.2	209.4	207.1	219.8	231.5	237.3	241.9	243.1	243.1
82.5°	168.7	164.0	158.2	145.4	146.6	160.5	173.3	178.0	182.6	182.6	182.6
85°	115.2	105.9	95.4	84.9	86.1	101.2	115.2	119.8	124.5	126.8	128.0
87.5°	54.7	45.4	34.9	26.8	26.8	39.5	51.2	53.5	55.8	60.5	65.1
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
92.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
95°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
97.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
100°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
102.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
105°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
107.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
110°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0



REPORT NUMBER: P320793
 CATALOG NUMBER: GLEON-SA9A-830-U-SLR

CANDELA DISTRIBUTION (continued):

	165°	170°	175°	180°	185°	190°	195°	200°	205°	210°	215°
112.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
115°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
117.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
120°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
122.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
125°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
127.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
130°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
132.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
135°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
137.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
140°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
142.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
145°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
147.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
150°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
152.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
155°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
157.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
160°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
162.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
165°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
167.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
170°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
172.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
175°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
177.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
180°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

REPORT NUMBER: P320793

CATALOG NUMBER: GLEON-SA9A-830-U-SLR

CANDELA DISTRIBUTION (continued):

	220°	225°	230°	235°	240°	245°	250°	255°	260°	265°	270°
0°	8863.7	8863.7	8863.7	8863.7	8863.7	8863.7	8863.7	8863.7	8863.7	8863.7	8863.7
2.5°	8294.9	8394.9	8498.4	8602.0	8720.6	8839.3	8977.7	9114.9	9232.4	9349.9	9447.6
5°	6978.1	7137.5	7324.8	7512.0	7750.5	7989.0	8280.9	8571.7	8831.1	9090.5	9391.8
7.5°	5527.6	5734.6	5978.9	6223.2	6531.4	6839.7	7217.7	7595.8	7962.2	8327.4	8790.4
10°	4636.6	4854.1	5094.9	5334.5	5648.6	5961.5	6361.6	6760.6	7172.4	7583.0	8106.4
12.5°	4169.0	4409.7	4621.4	4833.2	5087.9	5341.5	5728.8	6116.2	6600.1	7082.8	7586.5
15°	3669.9	3932.8	4186.4	4440.0	4718.0	4994.8	5371.7	5748.6	6277.9	6807.1	7386.4
17.5°	3066.2	3343.1	3652.5	3960.7	4323.7	4685.4	5168.2	5650.9	6277.9	6903.7	7586.5
20°	2436.9	2719.6	3089.5	3459.4	3910.7	4360.9	4986.7	5612.5	6457.0	7300.3	8171.6
22.5°	1922.8	2171.7	2575.4	2977.8	3498.9	4020.1	4822.7	5624.1	6728.0	7830.8	9006.8
25°	1558.7	1734.4	2131.0	2526.5	3127.9	3729.3	4722.6	5714.9	7122.4	8528.7	9987.4
27.5°	1335.4	1450.5	1820.4	2189.2	2846.4	3502.4	4681.9	5860.3	7622.5	9384.8	11054.0
30°	1223.7	1304.0	1616.9	1928.6	2596.3	3264.0	4633.1	6002.2	8104.1	10204.9	11888.0
32.5°	1130.6	1194.6	1462.2	1728.5	2379.9	3031.3	4538.9	6045.2	8440.3	10835.3	12594.1
35°	1051.5	1105.1	1337.7	1570.3	2210.1	2849.9	4380.7	5911.5	8650.8	11390.2	13329.3
37.5°	987.6	1029.4	1244.6	1459.8	2063.5	2667.2	4200.4	5733.5	8838.1	11942.7	14156.3
40°	937.6	973.6	1174.8	1376.1	1924.0	2471.8	4045.7	5618.3	9096.3	12574.3	15029.9
42.5°	909.6	956.2	1114.4	1271.4	1791.3	2311.3	3921.2	5531.1	9336.0	13139.7	15794.1
45°	902.7	969.0	1083.0	1196.9	1692.5	2188.0	3810.7	5432.2	9490.7	13549.1	16369.9
47.5°	891.0	945.7	1058.5	1171.4	1643.6	2114.7	3751.4	5386.8	9645.4	13902.7	16848.0
50°	898.0	905.0	1038.7	1171.4	1636.6	2101.9	3818.8	5535.7	9980.4	14423.9	17394.7
52.5°	885.2	855.0	1001.5	1148.1	1635.5	2122.9	4013.1	5903.3	10602.7	15300.9	17986.8
55°	817.7	778.2	931.7	1085.3	1611.1	2135.7	4244.6	6352.3	11437.9	16522.3	19051.1
57.5°	758.4	722.4	852.6	981.8	1536.6	2091.5	4483.0	6873.4	12320.8	17766.9	20250.4
60°	679.3	671.2	764.2	857.3	1421.4	1984.4	4679.6	7373.6	12914.0	18453.2	20712.2
62.5°	614.2	618.8	687.5	756.1	1277.2	1797.2	4744.7	7691.2	12897.7	18104.3	20246.9
65°	564.2	572.3	639.8	707.2	1153.9	1600.6	4530.7	7459.7	12245.2	17029.4	19326.8
67.5°	515.3	524.6	604.9	684.0	1044.6	1404.0	3995.6	6586.1	11071.5	15555.7	18156.6
70°	468.8	480.4	567.6	654.9	965.5	1274.9	3305.9	5336.8	9602.3	13866.7	16801.5
72.5°	418.8	430.4	523.4	616.5	915.4	1213.2	2695.2	4175.9	7792.4	11407.6	14371.5
75°	367.6	375.7	476.9	577.0	846.8	1116.7	2114.7	3111.6	5963.8	8816.0	10855.1
77.5°	316.4	326.9	411.8	495.5	718.9	941.0	1593.6	2246.2	4376.0	6504.7	7549.3
80°	252.4	261.7	322.2	381.5	554.9	727.0	1095.7	1464.5	3011.6	4558.6	5147.2
82.5°	193.1	203.6	244.3	283.8	395.5	507.2	664.2	821.2	2000.7	3179.1	3227.9
85°	132.6	136.1	165.2	193.1	244.3	295.5	380.4	465.3	1323.7	2182.2	1818.1
87.5°	66.3	66.3	86.1	105.9	131.4	157.0	201.2	244.3	423.4	602.5	346.6
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
92.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
95°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
97.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
100°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
102.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
105°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
107.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
110°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0



REPORT NUMBER: P320793
 CATALOG NUMBER: GLEON-SA9A-830-U-SLR

CANDELA DISTRIBUTION (continued):

	220°	225°	230°	235°	240°	245°	250°	255°	260°	265°	270°
112.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
115°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
117.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
120°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
122.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
125°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
127.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
130°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
132.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
135°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
137.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
140°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
142.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
145°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
147.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
150°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
152.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
155°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
157.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
160°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
162.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
165°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
167.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
170°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
172.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
175°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
177.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
180°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0



REPORT NUMBER: P320793

CATALOG NUMBER: GLEON-SA9A-830-U-SLR

CANDELA DISTRIBUTION (continued):

	275°	280°	285°	290°	295°	300°	305°	310°	315°	320°	325°
0°	8863.7	8863.7	8863.7	8863.7	8863.7	8863.7	8863.7	8863.7	8863.7	8863.7	8863.7
2.5°	9572.1	9657.0	9743.1	9808.2	9874.5	9969.9	10065.3	10082.7	10101.3	10064.1	10026.9
5°	9695.4	9952.5	10210.7	10449.1	10687.6	10830.7	10973.8	11002.8	11031.9	10942.4	10851.6
7.5°	9238.2	9686.1	10133.9	10544.5	10955.1	11204.1	11454.2	11510.0	11567.0	11420.4	11273.9
10°	8627.6	9177.8	9728.0	10268.9	10809.7	11171.5	11533.3	11605.4	11677.5	11494.9	11312.3
12.5°	8155.3	8742.7	9330.1	9900.1	10471.3	10845.8	11220.4	11309.9	11399.5	11266.9	11133.1
15°	8009.9	8562.4	9114.9	9611.6	10109.5	10415.4	10722.5	10758.6	10795.8	10774.8	10753.9
17.5°	8273.9	8773.0	9273.1	9543.0	9814.0	9936.2	10059.5	10099.0	10139.7	10192.1	10245.6
20°	8913.7	9265.0	9617.5	9605.8	9593.0	9533.7	9473.2	9462.7	9452.3	9602.3	9753.5
22.5°	9868.7	10008.3	10149.0	9822.2	9495.3	9296.4	9096.3	9056.8	9016.1	9175.4	9336.0
25°	10905.1	10879.5	10852.8	10230.5	9607.0	9227.8	8848.6	8804.4	8760.2	8896.3	9033.5
27.5°	11931.1	11763.6	11596.1	10750.4	9904.8	9354.6	8804.4	8760.2	8716.0	8836.9	8957.9
30°	12683.7	12415.0	12146.3	11189.0	10231.6	9577.9	8924.2	8852.1	8778.8	8927.7	9076.6
32.5°	13271.1	12910.5	12549.9	11544.9	10539.9	9832.6	9125.4	9012.6	8899.7	9098.7	9297.6
35°	13857.4	13350.2	12841.9	11862.5	10881.9	10133.9	9384.8	9246.4	9108.0	9381.3	9654.7
37.5°	14594.8	13866.7	13137.3	12219.6	11301.8	10585.2	9867.5	9725.6	9583.7	9931.5	10280.5
40°	15395.1	14423.9	13452.6	12610.4	11768.2	11209.9	10650.4	10515.5	10379.4	10802.8	11226.2
42.5°	16060.5	14942.6	13824.8	13081.5	12337.0	11943.9	11549.5	11548.4	11546.1	11975.3	12404.5
45°	16601.4	15375.4	14148.2	13541.0	12932.6	12727.9	12523.2	12687.2	12851.2	13238.5	13627.0
47.5°	17005.0	15738.3	14470.4	14066.7	13663.1	13693.4	13723.6	14057.4	14391.3	14640.2	14890.3
50°	17267.9	16067.5	14865.9	14741.4	14616.9	14888.0	15160.2	15542.9	15926.7	16096.6	16266.4
52.5°	17650.6	16514.1	15376.5	15516.1	15655.7	16209.4	16763.1	17150.4	17537.8	17600.6	17664.6
55°	18535.8	17335.4	16133.8	16401.3	16670.0	17481.9	18295.0	18597.5	18899.9	18923.2	18946.4
57.5°	19793.2	18485.8	17178.3	17466.8	17755.3	18692.8	19631.6	19957.3	20284.1	20238.8	20192.2
60°	20734.3	19578.1	18420.7	18711.5	19002.3	19916.5	20830.8	21205.4	21581.1	21481.1	21381.0
62.5°	20792.4	20174.8	19555.9	19818.8	20082.9	20978.6	21874.2	22259.3	22644.3	22469.8	22295.3
65°	19867.7	20144.5	20421.4	20508.6	20595.9	21431.0	22267.4	22561.7	22857.1	22768.7	22680.3
67.5°	18594.0	19614.1	20635.4	20459.8	20284.1	20676.1	21068.1	21371.7	21675.3	21625.3	21574.1
70°	17322.6	18684.7	20046.8	19183.7	18319.5	18157.8	17996.1	18322.9	18651.0	18448.6	18245.0
72.5°	15157.8	16609.5	18062.4	16472.3	14882.2	14329.6	13777.1	14192.4	14607.6	14285.4	13962.1
75°	11898.5	13502.6	15107.8	13210.6	11313.4	10575.9	9838.5	10195.6	10552.7	10331.7	10109.5
77.5°	8857.9	10438.7	12019.5	10090.9	8161.1	7613.2	7064.2	7170.0	7277.1	7239.8	7201.5
80°	6008.0	7109.6	8212.3	6928.1	5643.9	5685.8	5728.8	5678.8	5627.6	5702.1	5776.5
82.5°	3834.0	4684.3	5535.7	4854.1	4172.4	4563.3	4954.1	4762.2	4569.1	4640.1	4712.2
85°	2188.0	3019.7	3852.6	3590.8	3328.0	3555.9	3785.1	3487.3	3189.5	3319.8	3451.3
87.5°	577.0	1670.4	2765.0	2510.2	2255.5	1960.0	1664.6	1270.2	875.9	1279.5	1683.2
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
92.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
95°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
97.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
100°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
102.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
105°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
107.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
110°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0



REPORT NUMBER: P320793
 CATALOG NUMBER: GLEON-SA9A-830-U-SLR

CANDELA DISTRIBUTION (continued):

	275°	280°	285°	290°	295°	300°	305°	310°	315°	320°	325°
112.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
115°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
117.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
120°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
122.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
125°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
127.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
130°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
132.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
135°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
137.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
140°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
142.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
145°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
147.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
150°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
152.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
155°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
157.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
160°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
162.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
165°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
167.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
170°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
172.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
175°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
177.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
180°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

REPORT NUMBER: P320793

CATALOG NUMBER: GLEON-SA9A-830-U-SLR

CANDELA DISTRIBUTION (continued):

	330°	335°	340°	345°	350°	355°	360°
0°	8863.7	8863.7	8863.7	8863.7	8863.7	8863.7	8863.7
2.5°	10007.1	9987.4	9916.4	9844.3	9737.3	9648.9	9495.3
5°	10726.0	10600.4	10384.0	10166.5	9924.5	9646.5	9338.3
7.5°	10980.7	10686.4	10271.2	9854.7	9480.2	9040.5	8631.0
10°	10872.6	10431.7	9892.0	9351.1	8896.3	8390.3	7935.4
12.5°	10665.5	10196.7	9602.3	9006.8	8489.1	7945.9	7436.4
15°	10380.5	10006.0	9448.8	8891.6	8370.5	7842.4	7238.7
17.5°	10068.8	9890.8	9488.3	9084.7	8633.4	8121.6	7413.2
20°	9817.5	9882.7	9722.1	9561.6	9199.9	8753.2	7957.5
22.5°	9647.7	9960.6	10083.9	10208.4	9990.8	9641.9	8721.8
25°	9552.3	10071.1	10484.0	10898.1	10801.6	10532.9	9650.0
27.5°	9594.2	10230.5	10871.4	11513.5	11603.1	11528.6	10628.3
30°	9719.8	10364.2	11144.8	11926.4	12283.5	12383.6	11443.7
32.5°	9929.2	10560.8	11411.1	12262.6	12802.3	13121.1	12189.3
35°	10245.6	10836.5	11722.9	12609.2	13307.2	13888.8	12959.4
37.5°	10788.8	11297.1	12114.9	12933.8	13838.8	14712.3	13807.3
40°	11584.4	11943.9	12634.8	13326.9	14465.7	15645.2	14753.0
42.5°	12588.3	12773.3	13321.1	13869.0	15120.6	16492.0	15677.8
45°	13675.9	13724.8	14069.1	14414.5	15639.4	17069.0	16372.2
47.5°	14722.8	14555.3	14692.6	14829.8	16037.2	17480.8	16899.2
50°	15799.9	15333.5	15261.4	15189.2	16435.0	17965.8	17569.2
52.5°	16895.7	16126.8	15841.8	15555.7	16909.6	18609.1	18403.2
55°	17968.2	16989.9	16606.0	16222.2	17635.5	19394.3	19628.1
57.5°	19083.7	17975.1	17619.2	17263.3	18702.2	20388.8	20727.3
60°	20284.1	19186.0	18901.1	18614.9	20028.2	21463.6	21217.0
62.5°	21422.9	20550.5	20400.4	20249.2	21369.4	22289.5	21026.3
65°	22183.6	21685.8	21825.4	21966.1	22383.7	22495.4	20467.9
67.5°	21675.3	21776.5	22366.3	22957.2	22669.9	21883.5	19367.5
70°	18851.0	19458.2	20855.3	22253.4	21616.0	20244.6	17392.4
72.5°	14643.7	15326.5	17400.5	19475.7	18888.3	17208.6	14285.4
75°	10879.5	11650.7	13940.0	16229.2	15413.7	12872.1	10228.1
77.5°	7717.9	8234.4	10494.5	12755.8	11426.2	8568.2	6882.7
80°	5618.3	5460.1	6719.9	7979.6	7758.6	5667.2	4420.2
82.5°	4326.0	3939.8	4533.0	5126.3	5093.7	3932.8	3243.0
85°	3296.5	3141.8	3666.4	4191.1	3742.1	2663.8	2061.2
87.5°	1921.6	2161.3	2778.9	3397.7	2549.8	808.4	400.1
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0
92.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0
95°	0.0	0.0	0.0	0.0	0.0	0.0	0.0
97.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0
100°	0.0	0.0	0.0	0.0	0.0	0.0	0.0
102.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0
105°	0.0	0.0	0.0	0.0	0.0	0.0	0.0
107.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0
110°	0.0	0.0	0.0	0.0	0.0	0.0	0.0



REPORT NUMBER: P320793
 CATALOG NUMBER: GLEON-SA9A-830-U-SLR

CANDELA DISTRIBUTION (continued):

	330°	335°	340°	345°	350°	355°	360°
112.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0
115°	0.0	0.0	0.0	0.0	0.0	0.0	0.0
117.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0
120°	0.0	0.0	0.0	0.0	0.0	0.0	0.0
122.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0
125°	0.0	0.0	0.0	0.0	0.0	0.0	0.0
127.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0
130°	0.0	0.0	0.0	0.0	0.0	0.0	0.0
132.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0
135°	0.0	0.0	0.0	0.0	0.0	0.0	0.0
137.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0
140°	0.0	0.0	0.0	0.0	0.0	0.0	0.0
142.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0
145°	0.0	0.0	0.0	0.0	0.0	0.0	0.0
147.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0
150°	0.0	0.0	0.0	0.0	0.0	0.0	0.0
152.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0
155°	0.0	0.0	0.0	0.0	0.0	0.0	0.0
157.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0
160°	0.0	0.0	0.0	0.0	0.0	0.0	0.0
162.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0
165°	0.0	0.0	0.0	0.0	0.0	0.0	0.0
167.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0
170°	0.0	0.0	0.0	0.0	0.0	0.0	0.0
172.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0
175°	0.0	0.0	0.0	0.0	0.0	0.0	0.0
177.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0
180°	0.0	0.0	0.0	0.0	0.0	0.0	0.0

LM-79-2019: Approved Method: Electrical and Photometric Measurements of Solid-State Lighting Products

Report Prepared for

Cooper Lighting Solutions

MCGRAW EDISON

Report Number: SP1-2408-195-9

Test Date: 08/07/2024

Luminaire Tested: GALN-SB1A-830-U-5WQ

Data in this report applies to families of products including GALN-SB1A-830-U-5WQ.

Test Information

Test Method: LM-79-2019
 Report Number: SP1-2408-195-9
 Test Lab: COOPER LIGHTING SOLUTIONS
 Photometer: SP1 - 76IN SPHERE
 Measurement Geometry: 4π
 Issue Date: 08/07/2024
 Manufacturer: COOPER LIGHTING SOLUTIONS
 Product Line: MCGRAW EDISON
 Catalog Number: **GALN-SB1A-830-U-5WQ**
 Description: GALLEON AREA AND ROADWAY LUMINAIRE. (1) 80 CRI, 3000K, 350MA HIGH DENSITY LIGHTSQUARE WITH 26 LEDS AND TYPE V WIDE OPTICS

Spectral Parameters

CCT (K): 3050
 CIE u' : 0.2476
 CIE v' : 0.5251
 Duv: 0.0034
 CIE x: 0.4383
 CIE y: 0.4131
 CIE z: 0.1487
 Peak Wavelength (nm): 603
 Dominant Wavelength (nm): 581
 Purity: 55.55201
 R_f: 81.5
 R_g: 99.2

CRI (Ra): 81.0
 R1: 79.6
 R2: 85.6
 R3: 92.0
 R4: 82.6
 R5: 78.9
 R6: 81.7
 R7: 85.2
 R8: 62.0
 R9: 7.1
 R10: 67.0
 R11: 82.7
 R12: 63.2
 R13: 80.3
 R14: 95.0
 R15: 71.7



Test Conditions

Stabilization Time: 20M
 Operation Time: 1H 20M
 Sphere Temperature (°C): 24.2

REPORT NUMBER: SP1-2408-195-9

Measurement and Test Equipment			
Instrument	Identification Number	Calibration Date	Calibration Due Date
Photometer	IN0058	6/18/2024	12/18/2024
Power Meter	INXT2011004	2/8/2024	2/8/2025
AC Power Source	IN0063	10/24/2023	10/24/2024
DC Power Source	IN0208	10/24/2023	10/24/2024
Sphere Thermometer	IN0085	10/24/2023	10/24/2024
Room Thermometer	IN0046	10/24/2023	10/24/2024

REPORT NUMBER: SP1-2408-195-9

CIE 1931 Chromaticity Diagram



CIE 1931 Chromaticity Diagram with 2017 ANSI 7-Step and 4-Step Quadrangles



Point lies inside the ANSI 3000K 4-step quadrangle

REPORT NUMBER: SP1-2408-195-9

Photopic Flux vs. Wavelength



Photopic Lumens: NR

λ (nm)	Power $\text{W}^{\wedge}/\text{nm}$	Lumens (ϕ/nm)	λ (nm)	Power $\text{W}^{\wedge}/\text{nm}$	Lumens (ϕ/nm)	λ (nm)	Power $\text{W}^{\wedge}/\text{nm}$	Lumens (ϕ/nm)	λ (nm)	Power $\text{W}^{\wedge}/\text{nm}$	Lumens (ϕ/nm)	λ (nm)	Power $\text{W}^{\wedge}/\text{nm}$	Lumens (ϕ/nm)
360	0	NR	490	168	NR	620	940	NR	750	35	NR	880	1	NR
365	0	NR	495	233	NR	625	897	NR	755	30	NR	885	1	NR
370	0	NR	500	300	NR	630	847	NR	760	26	NR	890	1	NR
375	0	NR	505	372	NR	635	790	NR	765	22	NR	895	1	NR
380	0	NR	510	430	NR	640	730	NR	770	19	NR	900	1	NR
385	0	NR	515	483	NR	645	668	NR	775	16	NR	905	1	NR
390	0	NR	520	524	NR	650	605	NR	780	14	NR	910	0	NR
395	2	NR	525	555	NR	655	545	NR	785	12	NR	915	0	NR
400	4	NR	530	581	NR	660	485	NR	790	10	NR	920	0	NR
405	7	NR	535	604	NR	665	430	NR	795	9	NR	925	0	NR
410	17	NR	540	623	NR	670	378	NR	800	8	NR	930	0	NR
415	34	NR	545	645	NR	675	331	NR	805	7	NR	935	0	NR
420	68	NR	550	667	NR	680	290	NR	810	6	NR	940	0	NR
425	128	NR	555	693	NR	685	251	NR	815	5	NR	945	0	NR
430	214	NR	560	719	NR	690	218	NR	820	4	NR	950	0	NR
435	339	NR	565	754	NR	695	188	NR	825	4	NR	955	0	NR
440	507	NR	570	791	NR	700	162	NR	830	3	NR	960	0	NR
445	573	NR	575	830	NR	705	139	NR	835	3	NR	965	0	NR
450	356	NR	580	873	NR	710	119	NR	840	3	NR	970	0	NR
455	217	NR	585	913	NR	715	102	NR	845	2	NR	975	0	NR
460	168	NR	590	948	NR	720	88	NR	850	2	NR	980	0	NR
465	113	NR	595	974	NR	725	76	NR	855	2	NR	985	0	NR
470	85	NR	600	994	NR	730	65	NR	860	1	NR	990	0	NR
475	85	NR	605	998	NR	735	55	NR	865	1	NR	995	0	NR
480	94	NR	610	994	NR	740	47	NR	870	1	NR	1000	0	NR
485	120	NR	615	973	NR	745	41	NR	875	1	NR			

REPORT NUMBER: SP1-2408-195-9

Scotopic Flux vs. Wavelength



Scotopic Lumens: NR

S/P: 1.27

λ (nm)	Power W [^] /nm	Lumens (Φ/nm)	λ (nm)	Power W [^] /nm	Lumens (Φ/nm)	λ (nm)	Power W [^] /nm	Lumens (Φ/nm)	λ (nm)	Power W [^] /nm	Lumens (Φ/nm)	λ (nm)	Power W [^] /nm	Lumens (Φ/nm)
360	0	NR	490	168	NR	620	940	NR	750	35	NR	880	1	NR
365	0	NR	495	233	NR	625	897	NR	755	30	NR	885	1	NR
370	0	NR	500	300	NR	630	847	NR	760	26	NR	890	1	NR
375	0	NR	505	372	NR	635	790	NR	765	22	NR	895	1	NR
380	0	NR	510	430	NR	640	730	NR	770	19	NR	900	1	NR
385	0	NR	515	483	NR	645	668	NR	775	16	NR	905	1	NR
390	0	NR	520	524	NR	650	605	NR	780	14	NR	910	0	NR
395	2	NR	525	555	NR	655	545	NR	785	12	NR	915	0	NR
400	4	NR	530	581	NR	660	485	NR	790	10	NR	920	0	NR
405	7	NR	535	604	NR	665	430	NR	795	9	NR	925	0	NR
410	17	NR	540	623	NR	670	378	NR	800	8	NR	930	0	NR
415	34	NR	545	645	NR	675	331	NR	805	7	NR	935	0	NR
420	68	NR	550	667	NR	680	290	NR	810	6	NR	940	0	NR
425	128	NR	555	693	NR	685	251	NR	815	5	NR	945	0	NR
430	214	NR	560	719	NR	690	218	NR	820	4	NR	950	0	NR
435	339	NR	565	754	NR	695	188	NR	825	4	NR	955	0	NR
440	507	NR	570	791	NR	700	162	NR	830	3	NR	960	0	NR
445	573	NR	575	830	NR	705	139	NR	835	3	NR	965	0	NR
450	356	NR	580	873	NR	710	119	NR	840	3	NR	970	0	NR
455	217	NR	585	913	NR	715	102	NR	845	2	NR	975	0	NR
460	168	NR	590	948	NR	720	88	NR	850	2	NR	980	0	NR
465	113	NR	595	974	NR	725	76	NR	855	2	NR	985	0	NR
470	85	NR	600	994	NR	730	65	NR	860	1	NR	990	0	NR
475	85	NR	605	998	NR	735	55	NR	865	1	NR	995	0	NR
480	94	NR	610	994	NR	740	47	NR	870	1	NR	1000	0	NR
485	120	NR	615	973	NR	745	41	NR	875	1	NR			

REPORT NUMBER: SP1-2408-195-9

Melanopic Flux vs. Wavelength

Melanopic Lumens: NR
M/P: 2.32

λ (nm)	Power $\text{W}^\wedge/\text{nm}$	Lumens (ϕ/nm)	λ (nm)	Power $\text{W}^\wedge/\text{nm}$	Lumens (ϕ/nm)	λ (nm)	Power $\text{W}^\wedge/\text{nm}$	Lumens (ϕ/nm)	λ (nm)	Power $\text{W}^\wedge/\text{nm}$	Lumens (ϕ/nm)	λ (nm)	Power $\text{W}^\wedge/\text{nm}$	Lumens (ϕ/nm)
360	0	NR	490	168	NR	620	940	NR	750	35	NR	880	1	NR
365	0	NR	495	233	NR	625	897	NR	755	30	NR	885	1	NR
370	0	NR	500	300	NR	630	847	NR	760	26	NR	890	1	NR
375	0	NR	505	372	NR	635	790	NR	765	22	NR	895	1	NR
380	0	NR	510	430	NR	640	730	NR	770	19	NR	900	1	NR
385	0	NR	515	483	NR	645	668	NR	775	16	NR	905	1	NR
390	0	NR	520	524	NR	650	605	NR	780	14	NR	910	0	NR
395	2	NR	525	555	NR	655	545	NR	785	12	NR	915	0	NR
400	4	NR	530	581	NR	660	485	NR	790	10	NR	920	0	NR
405	7	NR	535	604	NR	665	430	NR	795	9	NR	925	0	NR
410	17	NR	540	623	NR	670	378	NR	800	8	NR	930	0	NR
415	34	NR	545	645	NR	675	331	NR	805	7	NR	935	0	NR
420	68	NR	550	667	NR	680	290	NR	810	6	NR	940	0	NR
425	128	NR	555	693	NR	685	251	NR	815	5	NR	945	0	NR
430	214	NR	560	719	NR	690	218	NR	820	4	NR	950	0	NR
435	339	NR	565	754	NR	695	188	NR	825	4	NR	955	0	NR
440	507	NR	570	791	NR	700	162	NR	830	3	NR	960	0	NR
445	573	NR	575	830	NR	705	139	NR	835	3	NR	965	0	NR
450	356	NR	580	873	NR	710	119	NR	840	3	NR	970	0	NR
455	217	NR	585	913	NR	715	102	NR	845	2	NR	975	0	NR
460	168	NR	590	948	NR	720	88	NR	850	2	NR	980	0	NR
465	113	NR	595	974	NR	725	76	NR	855	2	NR	985	0	NR
470	85	NR	600	994	NR	730	65	NR	860	1	NR	990	0	NR
475	85	NR	605	998	NR	735	55	NR	865	1	NR	995	0	NR
480	94	NR	610	994	NR	740	47	NR	870	1	NR	1000	0	NR
485	120	NR	615	973	NR	745	41	NR	875	1	NR			

REPORT NUMBER: SP1-2408-195-9

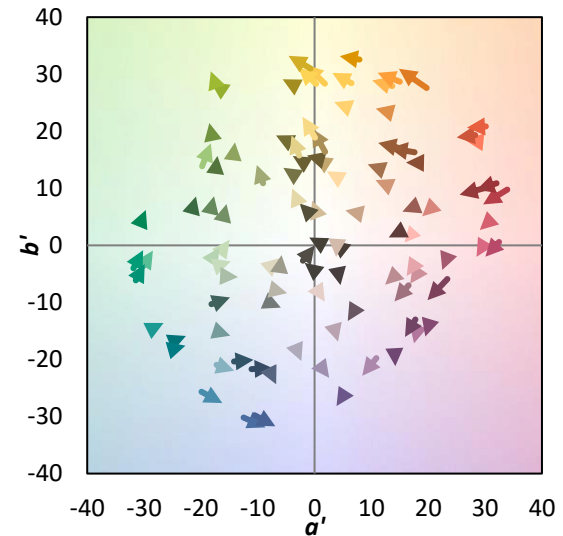
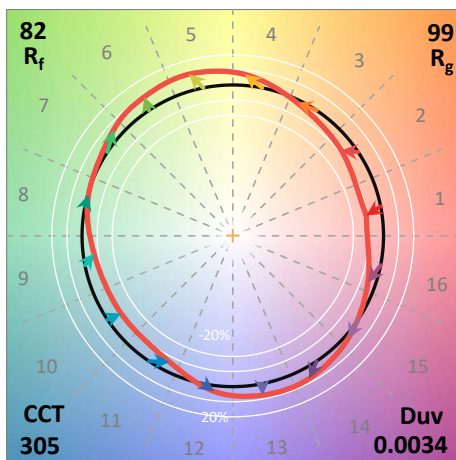
TM-30-18

Summary

$R_f = 81.5$
 $R_g = 99.2$
 $CIE R_a = 81.0$
 $R_9 = 7.1$



Color Vector Graphics



Individual Sample Fidelity Index ($R_{f,i}$)

CES01 = 86	CES26 = 74	CES51 = 89	CES76 = 70
CES02 = 63	CES27 = 88	CES52 = 92	CES77 = 86
CES03 = 31	CES28 = 89	CES53 = 81	CES78 = 72
CES04 = 70	CES29 = 67	CES54 = 87	CES79 = 90
CES05 = 50	CES30 = 68	CES55 = 85	CES80 = 88
CES06 = 51	CES31 = 71	CES56 = 78	CES81 = 78
CES07 = 42	CES32 = 70	CES57 = 76	CES82 = 95
CES08 = 41	CES33 = 71	CES58 = 78	CES83 = 90
CES09 = 29	CES34 = 82	CES59 = 92	CES84 = 94
CES10 = 76	CES35 = 90	CES60 = 95	CES85 = 86
CES11 = 59	CES36 = 93	CES61 = 93	CES86 = 72
CES12 = 65	CES37 = 87	CES62 = 83	CES87 = 85
CES13 = 43	CES38 = 75	CES63 = 77	CES88 = 83
CES14 = 74	CES39 = 94	CES64 = 83	CES89 = 75
CES15 = 71	CES40 = 89	CES65 = 77	CES90 = 81
CES16 = 47	CES41 = 85	CES66 = 80	CES91 = 96
CES17 = 50	CES42 = 86	CES67 = 79	CES92 = 73
CES18 = 56	CES43 = 81	CES68 = 84	CES93 = 84
CES19 = 72	CES44 = 99	CES69 = 91	CES94 = 64
CES20 = 66	CES45 = 87	CES70 = 78	CES95 = 80
CES21 = 87	CES46 = 82	CES71 = 76	CES96 = 84
CES22 = 79	CES47 = 77	CES72 = 92	CES97 = 87
CES23 = 92	CES48 = 71	CES73 = 71	CES98 = 81
CES24 = 91	CES49 = 81	CES74 = 93	CES99 = 74
CES25 = 72	CES50 = 89	CES75 = 74	



Color Rendition by Hue-Angle Bin



Measure Comparisons



(END OF REPORT)