

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: P320498

Luminaire Tested: **GLEON-SA4D-830-U-SLL**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P320498
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-SA4D-830-U-SLL
Description: GALLEON AREA AND ROADWAY LUMINAIRE
(4) 80 CRI, 3000K, 1200mA LIGHTSQUARES WITH 16 LEDS EACH AND SPILL LIGHT
ELIMINATOR LEFT OPTICS
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 21857 lumens
Efficiency: N/A
Efficacy: 84.7 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')
IES Classification: Type III - Medium
BUG Rating: B3 - U0 - G4

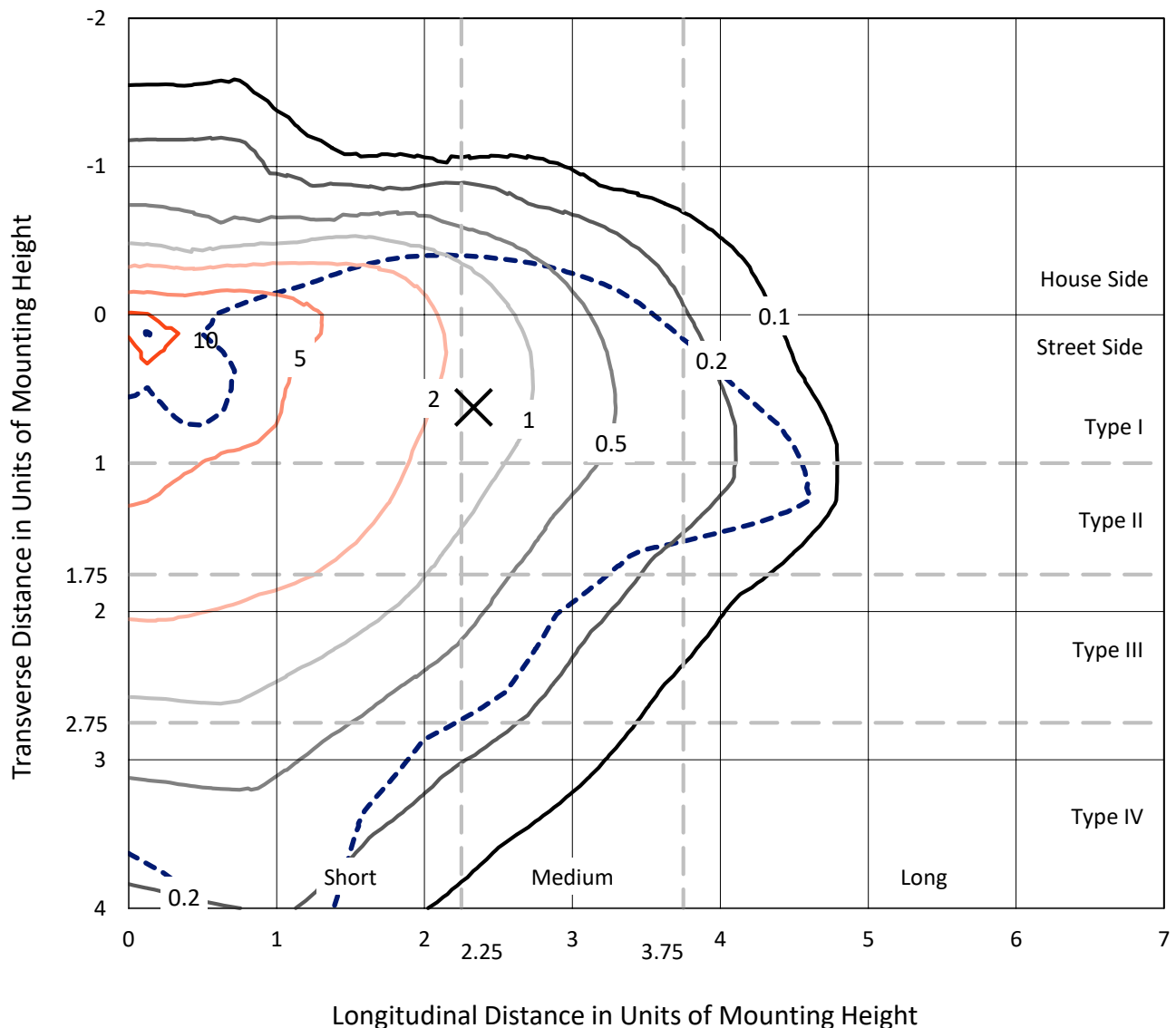
Input Watts (W): 258
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Iso-Footcandle Lines of Horizontal Illumination

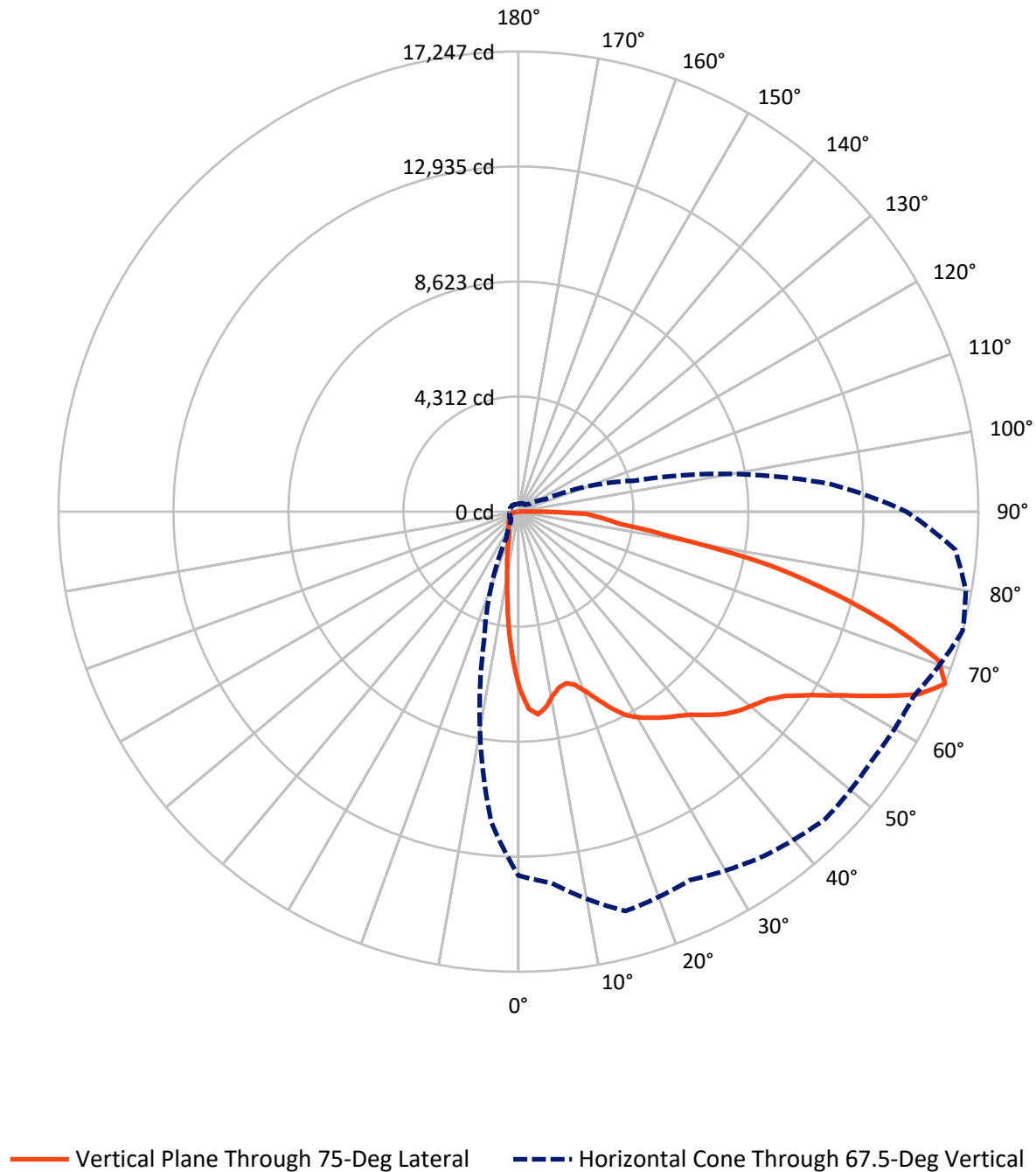
✕ Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 13.4 fc
 Type III - Medium - N/A

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Luminous Intensity Polar Plot



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FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	3849.6	0.0	3849.6
	% Fixture	17.6	0.0	17.6
Street Side	Lumens	18007.4	0.0	18007.4
	% Fixture	82.4	0.0	82.4
Total	Lumens	21857.0	0.0	21857.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	513.9	2.4
10°-20°	1067.6	4.9
20°-30°	1518.4	6.9
30°-40°	2188.0	10.0
40°-50°	3083.5	14.1
50°-60°	4286.5	19.6
60°-70°	5183.7	23.7
70°-80°	3186.3	14.6
80°-90°	829.1	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°	21857.0	100.0
0°-180°	21857.0	100.0

Coefficient of Utilization



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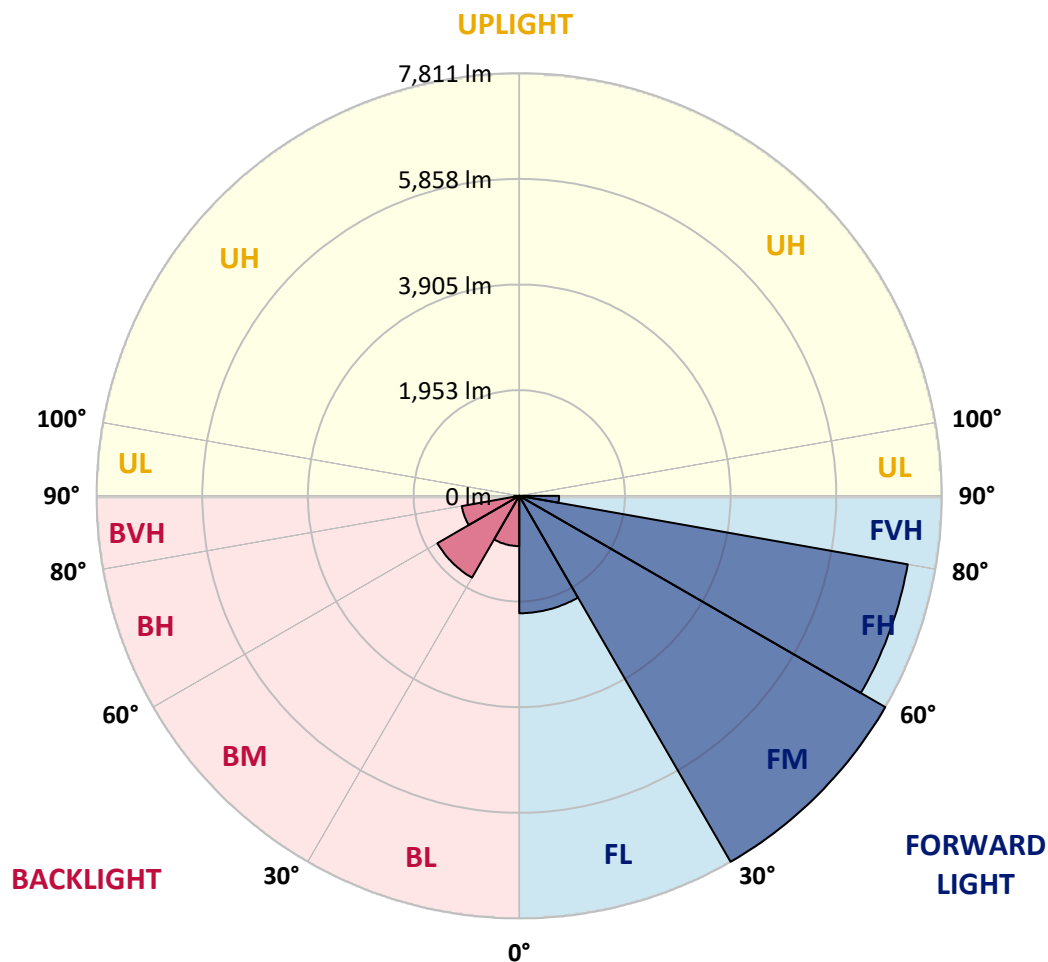
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	2170.2	9.9			
FM	(30°-60°)	7810.5	35.7			
FH	(60°-80°)	7290.8	33.4			G3/7500
FVH	(80°-90°)	736.0	3.4			G4/750
BL	(0°-30°)	929.7	4.3	B2/1000		
BM	(30°-60°)	1747.4	8.0	B2/2500		
BH	(60°-80°)	1079.3	4.9	B3/2500		G3/2500
BVH	(80°-90°)	93.2	0.4			G1/100
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

BUG Rating: B3-U0-G4

Type III Medium





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CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	6658.8	6658.8	6658.8	6658.8	6658.8	6658.8	6658.8	6658.8	6658.8	6658.8	6658.8
2.5°	7097.5	7191.0	7255.7	7319.5	7369.3	7418.2	7489.9	7561.5	7575.5	7588.6	7560.7
5°	7055.6	7283.6	7477.6	7670.8	7849.9	8029.1	8136.5	8244.0	8265.9	8287.7	8220.4
7.5°	6603.8	6940.2	7276.7	7613.1	7921.6	8230.0	8417.9	8604.9	8647.8	8689.7	8579.6
10°	6090.0	6481.4	6894.8	7308.1	7714.5	8120.8	8392.6	8664.4	8718.5	8772.7	8635.5
12.5°	5699.3	6126.7	6568.0	7009.3	7438.3	7866.5	8147.9	8429.3	8496.6	8563.9	8464.2
15°	5549.0	6017.4	6432.5	6847.6	7221.6	7594.7	7825.4	8055.3	8083.2	8110.3	8094.6
17.5°	5699.3	6215.8	6591.5	6966.4	7170.0	7372.8	7465.4	7557.2	7587.8	7617.5	7657.7
20°	6138.9	6696.4	6961.2	7225.1	7216.4	7206.7	7162.2	7116.7	7108.9	7101.0	7214.6
22.5°	6766.3	7413.9	7519.6	7624.5	7378.9	7133.3	6983.9	6833.6	6803.9	6773.3	6893.9
25°	7503.0	8192.5	8173.2	8153.1	7685.6	7217.2	6932.4	6647.5	6614.3	6581.1	6684.2
27.5°	8304.3	8963.2	8837.4	8711.5	8076.2	7440.9	7027.6	6614.3	6581.1	6547.9	6638.7
30°	8930.9	9528.6	9326.7	9124.9	8405.7	7686.5	7195.4	6704.3	6650.1	6595.0	6706.9
32.5°	9461.3	9969.9	9699.0	9428.1	8673.1	7918.1	7386.8	6855.5	6770.7	6685.9	6835.4
35°	10013.6	10410.3	10029.3	9647.4	8911.7	8175.0	7613.1	7050.3	6946.3	6842.3	7047.7
37.5°	10634.9	10964.4	10417.3	9869.4	9179.9	8490.5	7952.2	7413.0	7306.4	7199.8	7461.9
40°	11291.2	11565.6	10835.9	10106.2	9473.6	8840.9	8421.4	8001.1	7899.7	7797.5	8115.6
42.5°	11865.3	12065.4	11225.6	10385.9	9827.5	9268.2	8972.8	8676.6	8675.7	8674.0	8996.4
45°	12297.9	12471.8	11550.7	10628.8	10172.6	9715.6	9561.8	9408.0	9531.2	9654.4	9946.3
47.5°	12657.0	12775.0	11823.4	10870.9	10567.6	10264.4	10287.1	10309.8	10560.6	10811.4	10999.3
50°	13067.8	12972.5	12070.7	11168.0	11074.5	10981.0	11185.4	11389.1	11677.4	11964.9	12092.5
52.5°	13512.5	13260.0	12406.2	11551.6	11656.5	11761.3	12177.3	12593.2	12884.2	13175.2	13223.3
55°	14312.1	13925.0	13023.2	12120.5	12322.3	12523.3	13134.2	13744.1	13971.3	14198.5	14216.0
57.5°	15213.1	14869.7	13887.4	12905.2	13121.9	13338.6	14043.9	14748.2	14993.7	15238.4	15204.3
60°	15560.0	15576.6	14708.0	13838.5	14057.0	14275.4	14962.3	15649.1	15931.4	16212.8	16137.6
62.5°	15210.5	15620.3	15156.3	14691.4	14889.8	15087.2	15760.1	16433.0	16722.2	17011.5	16880.4
65°	14519.2	14925.6	15133.6	15341.5	15407.1	15472.6	16100.9	16728.4	16950.3	17171.4	17105.0
67.5°	13640.1	13968.7	14736.0	15502.3	15370.4	15238.4	15532.9	15827.4	16055.5	16283.6	16246.0
70°	12622.1	13013.6	14036.9	15060.2	14411.8	13762.5	13641.0	13519.5	13766.0	14011.5	13859.5
72.5°	10796.6	11387.3	12478.8	13569.3	12374.8	11180.2	10765.1	10350.0	10662.0	10974.0	10731.9
75°	8154.9	8938.7	10144.7	11349.7	9924.5	8499.2	7945.2	7391.1	7659.4	7927.7	7761.7
77.5°	5671.4	6654.5	7842.0	9029.6	7580.8	6131.0	5719.4	5307.0	5387.4	5466.9	5438.9
80°	3866.8	4513.5	5341.9	6169.5	5204.7	4240.0	4272.3	4303.8	4266.2	4227.8	4283.7
82.5°	2425.0	2880.3	3519.9	4158.7	3646.6	3134.5	3428.2	3721.8	3577.6	3432.5	3486.7
85°	1365.8	1643.7	2269.4	2894.2	2697.6	2500.1	2672.3	2843.6	2619.8	2396.1	2494.9
87.5°	260.4	433.4	1255.7	2077.2	1885.8	1694.4	1472.5	1250.5	954.3	658.0	961.2
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



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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°	6658.8	6658.8	6658.8	6658.8	6658.8	6658.8	6658.8	6658.8	6658.8	6658.8	6658.8
2.5°	7532.7	7517.8	7503.0	7449.7	7395.5	7315.1	7248.7	7133.3	7070.4	6975.2	6879.9
5°	8152.3	8057.9	7963.5	7801.0	7637.6	7455.8	7246.9	7015.4	6840.6	6613.4	6386.2
7.5°	8469.5	8249.3	8028.2	7716.2	7403.4	7122.0	6791.7	6484.1	6221.9	5926.5	5631.2
10°	8498.3	8168.0	7836.8	7431.3	7025.0	6683.3	6303.2	5961.5	5646.9	5307.8	4967.9
12.5°	8363.7	8012.5	7660.3	7213.7	6766.3	6378.3	5969.4	5586.6	5237.9	4864.8	4490.8
15°	8078.9	7798.4	7517.0	7098.4	6679.8	6288.3	5891.6	5438.1	5043.9	4662.1	4279.3
17.5°	7697.0	7564.2	7430.5	7128.1	6824.9	6485.8	6101.3	5569.1	5107.7	4692.6	4277.6
20°	7327.3	7376.3	7424.3	7303.7	7183.2	6911.4	6575.8	5978.1	5389.1	4846.4	4302.9
22.5°	7013.6	7248.7	7482.9	7576.4	7669.0	7505.6	7243.5	6552.2	5772.7	5064.0	4355.3
25°	6786.4	7176.2	7565.9	7877.0	8187.2	8114.7	7912.8	7249.6	6281.3	5377.8	4473.3
27.5°	6729.6	7207.6	7685.6	8168.0	8649.5	8716.8	8660.9	7984.5	6887.8	5767.5	4646.3
30°	6818.8	7302.9	7786.1	8373.4	8959.7	9228.0	9303.1	8597.1	7580.8	6221.9	4862.2
32.5°	6984.8	7459.3	7933.8	8573.5	9212.3	9617.7	9857.2	9157.2	8064.0	6564.5	5064.0
35°	7253.1	7697.0	8140.9	8806.8	9472.7	9997.0	10433.9	9735.7	8493.1	6803.9	5113.8
37.5°	7723.2	8105.1	8487.0	9102.2	9716.5	10396.4	11052.6	10372.8	8957.1	7034.6	5111.2
40°	8433.7	8703.7	8972.8	9492.8	10011.9	10867.4	11753.5	11083.2	9470.1	7284.5	5099.0
42.5°	9318.9	9457.8	9595.9	10007.5	10419.1	11359.3	12389.6	11777.9	9959.4	7517.0	5074.5
45°	10237.3	10274.0	10310.7	10570.2	10828.9	11749.1	12823.1	12299.6	10386.7	7718.8	5050.1
47.5°	11186.3	11060.5	10934.7	11037.8	11140.9	12048.0	13132.4	12695.5	10815.8	7942.5	5068.4
50°	12220.1	11869.7	11519.3	11465.1	11410.9	12346.8	13496.8	13198.8	11331.4	8268.5	5205.6
52.5°	13270.5	12692.9	12115.2	11901.1	11686.2	12703.3	13980.1	13825.4	12067.2	8773.6	5479.1
55°	14233.5	13498.6	12763.6	12475.3	12186.9	13248.6	14569.9	14745.6	13010.1	9419.4	5827.8
57.5°	15169.4	14336.6	13503.8	13236.4	12969.0	14050.0	15317.1	15571.4	13962.6	10038.9	6114.4
60°	16062.5	15238.4	14413.5	14199.4	13984.4	15046.2	16124.5	15939.3	14453.7	10329.1	6203.6
62.5°	16749.3	16093.9	15438.5	15325.8	15212.2	16053.7	16745.0	15796.0	14141.7	10043.3	5944.9
65°	17038.6	16665.4	16291.4	16397.2	16502.0	16815.7	16899.6	15376.5	13161.3	9242.9	5324.4
67.5°	16207.5	16283.6	16359.6	16803.5	17246.6	17030.7	16440.0	14549.8	11765.7	8108.6	4451.5
70°	13706.5	14162.7	14618.0	15668.4	16717.9	16239.0	15208.7	13066.0	10086.1	6802.2	3517.3
72.5°	10489.0	11001.9	11514.0	13073.0	14631.1	14189.8	12927.9	10731.9	8086.7	5431.9	2776.3
75°	7594.7	8174.1	8752.6	10472.4	12192.1	11579.6	9670.2	7683.9	6142.4	4146.5	2149.7
77.5°	5410.1	5798.1	6186.1	7884.9	9582.8	8584.8	6436.9	5170.6	4251.3	2882.0	1511.8
80°	4339.6	4220.8	4101.9	5048.3	5994.7	5828.7	4257.5	3320.7	2942.3	1931.2	920.2
82.5°	3540.0	3249.9	2959.8	3405.4	3851.1	3826.6	2954.5	2436.3	2189.9	1342.3	494.6
85°	2592.8	2476.5	2360.3	2754.4	3148.5	2812.1	2001.1	1548.5	1707.5	988.3	269.1
87.5°	1264.5	1444.5	1623.6	2088.5	2552.6	1916.4	607.3	300.6	416.0	273.5	130.2
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: P320498
 CATALOG NUMBER: GLEON-SA4D-830-U-SLL

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: P320498

CATALOG NUMBER: GLEON-SA4D-830-U-SLL

CANDELA DISTRIBUTION (continued):

	110°	115°	120°	125°	130°	135°	140°	145°	150°	155°	160°
0°	6658.8	6658.8	6658.8	6658.8	6658.8	6658.8	6658.8	6658.8	6658.8	6658.8	6658.8
2.5°	6809.1	6737.5	6656.2	6574.9	6482.3	6388.8	6333.8	6277.8	6217.5	6157.2	6089.1
5°	6235.9	6085.6	5915.2	5744.8	5576.1	5407.5	5316.6	5225.7	5129.6	5032.6	4948.7
7.5°	5412.7	5193.4	4957.4	4720.6	4510.9	4300.3	4170.1	4039.0	3920.2	3800.4	3699.9
10°	4688.3	4408.6	4171.8	3934.1	3776.0	3617.8	3498.1	3378.4	3263.0	3146.8	3035.8
12.5°	4211.1	3931.5	3781.2	3630.9	3499.8	3368.7	3230.7	3091.7	2933.6	2774.5	2658.3
15°	4025.0	3770.7	3603.8	3436.0	3260.4	3083.9	2914.3	2744.8	2557.8	2370.8	2238.8
17.5°	3944.6	3611.7	3378.4	3144.2	2912.6	2681.0	2484.4	2287.8	2083.3	1878.8	1745.1
20°	3859.9	3416.8	3104.0	2790.2	2493.1	2196.0	1973.2	1750.3	1567.7	1385.1	1282.8
22.5°	3783.0	3209.7	2817.3	2424.1	2072.8	1721.5	1503.0	1283.7	1171.9	1060.0	1018.9
25°	3751.5	3028.8	2546.4	2064.1	1693.5	1322.2	1166.6	1011.1	968.2	924.5	903.6
27.5°	3756.7	2867.1	2318.4	1768.7	1434.9	1101.1	994.5	887.8	861.6	834.5	821.4
30°	3776.8	2691.5	2103.4	1515.3	1240.0	964.7	895.7	825.8	797.8	769.9	753.3
32.5°	3799.6	2534.2	1937.4	1339.6	1115.0	889.6	832.8	775.1	748.0	720.9	704.3
35°	3760.2	2405.7	1823.8	1241.8	1034.7	826.7	778.6	729.7	700.0	670.3	654.5
37.5°	3693.8	2276.4	1735.5	1193.7	982.2	769.9	734.9	699.1	668.5	637.0	622.2
40°	3633.5	2167.2	1670.0	1171.9	953.4	734.0	704.3	674.6	643.2	610.8	593.4
42.5°	3584.6	2093.8	1605.3	1116.8	927.2	736.7	694.7	651.9	621.3	590.7	571.5
45°	3547.9	2045.7	1554.6	1063.5	902.7	741.9	688.6	635.3	604.7	573.3	550.5
47.5°	3544.4	2020.4	1518.8	1017.2	856.4	694.7	672.9	651.0	606.5	561.0	534.8
50°	3592.5	1979.3	1476.8	973.5	811.8	650.2	679.9	708.7	632.7	555.8	522.6
52.5°	3692.9	1906.8	1410.4	914.1	757.6	600.3	646.7	692.1	626.6	560.1	517.3
55°	3814.4	1800.2	1309.9	818.8	686.0	552.3	593.4	633.6	592.5	550.5	499.0
57.5°	3890.4	1665.6	1183.2	700.8	605.6	510.3	533.9	556.7	540.0	523.4	471.0
60°	3845.0	1486.4	1040.8	594.2	534.8	475.4	471.0	465.8	490.2	514.7	454.4
62.5°	3623.0	1301.2	914.9	528.7	484.1	438.7	429.1	418.6	458.8	498.1	434.3
65°	3248.1	1171.9	835.4	499.0	449.2	399.4	388.9	378.4	390.6	402.9	373.1
67.5°	2771.9	1092.3	790.0	487.6	427.3	366.1	353.9	341.7	339.1	336.4	326.0
70°	2280.8	1043.4	760.3	477.1	403.7	329.4	318.1	306.7	303.2	298.9	291.0
72.5°	1906.8	1037.3	756.8	476.3	384.5	292.7	282.3	271.8	267.4	262.2	256.0
75°	1561.6	973.5	718.3	463.1	358.3	252.5	242.9	233.3	229.8	225.5	220.2
77.5°	1158.7	805.7	603.8	402.0	306.7	211.5	201.9	191.4	190.5	188.8	184.4
80°	751.5	582.9	431.7	280.5	223.7	166.0	158.2	149.4	150.3	151.2	147.7
82.5°	417.7	339.9	263.9	187.9	152.9	118.0	114.5	110.1	112.7	114.5	110.1
85°	220.2	171.3	141.6	111.9	88.3	64.7	64.7	63.8	67.3	70.8	67.3
87.5°	95.3	60.3	51.6	41.9	23.6	4.4	5.2	5.2	7.0	8.7	7.9
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: P320498
 CATALOG NUMBER: GLEON-SA4D-830-U-SLL

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: P320498

CATALOG NUMBER: GLEON-SA4D-830-U-SLL

CANDELA DISTRIBUTION (continued):

	165°	170°	175°	180°	185°	190°	195°	200°	205°	210°	215°
0°	6658.8	6658.8	6658.8	6658.8	6658.8	6658.8	6658.8	6658.8	6658.8	6658.8	6658.8
2.5°	6020.0	5956.3	5891.6	5820.8	5833.9	5779.7	5725.6	5691.5	5657.4	5646.9	5636.4
5°	4864.8	4792.3	4718.9	4653.3	4710.1	4671.7	4633.2	4628.0	4621.9	4621.9	4621.0
7.5°	3599.4	3521.7	3443.0	3388.8	3444.8	3437.8	3430.8	3468.4	3505.9	3536.5	3566.2
10°	2924.8	2830.4	2735.2	2654.8	2640.8	2600.6	2559.5	2568.3	2576.1	2609.4	2642.6
12.5°	2542.1	2429.3	2316.6	2222.2	2179.4	2113.0	2045.7	2003.8	1961.8	1966.2	1969.7
15°	2106.0	1996.8	1886.7	1805.4	1778.3	1726.8	1675.2	1622.8	1569.5	1547.6	1524.9
17.5°	1610.5	1523.1	1434.9	1380.7	1380.7	1365.8	1351.0	1324.8	1297.7	1275.8	1253.1
20°	1180.6	1134.3	1087.1	1064.4	1071.4	1072.2	1072.2	1085.3	1098.4	1091.5	1084.5
22.5°	977.0	960.4	943.8	934.2	937.7	938.5	939.4	951.6	963.0	971.7	979.6
25°	881.7	871.2	860.8	857.3	865.1	866.0	866.0	873.9	881.7	890.5	899.2
27.5°	807.4	803.1	798.7	792.6	800.5	800.5	799.6	808.3	816.2	824.1	831.0
30°	736.7	738.4	739.3	737.5	742.8	746.3	748.9	755.0	760.3	766.4	772.5
32.5°	686.9	684.2	681.6	679.9	691.2	697.3	703.5	709.6	714.8	717.4	720.1
35°	638.8	632.7	626.6	622.2	632.7	640.5	648.4	659.8	670.3	672.0	673.7
37.5°	606.5	598.6	590.7	585.5	589.9	593.4	596.8	609.1	621.3	628.3	634.4
40°	575.9	568.0	560.1	555.8	558.4	559.3	560.1	566.3	571.5	584.6	596.8
42.5°	551.4	541.8	532.2	526.9	528.7	530.4	531.3	530.4	529.6	541.8	554.0
45°	526.9	516.5	506.0	499.8	500.7	500.7	500.7	499.0	496.4	502.5	508.6
47.5°	507.7	495.5	483.2	477.1	475.4	473.6	471.9	471.0	469.3	473.6	477.1
50°	488.5	475.4	461.4	454.4	450.0	448.3	446.5	445.7	443.9	448.3	451.8
52.5°	473.6	457.9	442.2	430.8	426.4	423.8	421.2	422.1	422.1	423.8	424.7
55°	447.4	433.4	418.6	410.7	402.9	401.1	399.4	402.0	403.7	403.7	403.7
57.5°	418.6	405.5	391.5	386.2	379.3	379.3	378.4	381.9	384.5	386.2	388.0
60°	393.2	378.4	363.5	359.2	356.5	355.7	354.8	359.2	362.7	366.1	369.6
62.5°	369.6	353.9	338.2	332.9	332.1	332.9	332.9	337.3	340.8	344.3	347.8
65°	343.4	327.7	311.1	305.9	307.6	310.2	312.8	316.3	319.0	322.5	326.0
67.5°	314.6	301.5	287.5	282.3	283.1	286.6	290.1	292.7	294.5	298.0	301.5
70°	283.1	271.8	260.4	256.9	256.0	260.4	263.9	265.7	267.4	271.8	275.3
72.5°	249.1	239.4	229.8	227.2	228.1	230.7	233.3	235.9	237.7	242.1	245.6
75°	214.1	205.4	196.6	194.9	196.6	199.2	201.9	203.6	205.4	210.6	215.0
77.5°	180.0	170.4	159.9	159.0	161.7	164.3	166.0	168.7	171.3	178.3	185.3
80°	144.2	133.7	122.3	121.5	124.1	126.7	129.3	132.0	134.6	143.3	151.2
82.5°	105.7	93.5	81.3	79.5	88.3	90.9	93.5	97.9	101.4	109.2	117.1
85°	63.8	51.6	39.3	38.4	46.3	50.7	55.1	60.3	64.7	71.7	78.6
87.5°	7.0	3.5	0.0	0.0	0.9	4.4	7.9	12.2	16.6	23.6	29.7
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: P320498

CATALOG NUMBER: GLEON-SA4D-830-U-SLL

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: P320498

CATALOG NUMBER: GLEON-SA4D-830-U-SLL

CANDELA DISTRIBUTION (continued):

	220°	225°	230°	235°	240°	245°	250°	255°	260°	265°	270°
0°	6658.8	6658.8	6658.8	6658.8	6658.8	6658.8	6658.8	6658.8	6658.8	6658.8	6658.8
2.5°	5598.0	5558.6	5598.8	5638.2	5654.8	5671.4	5628.6	5584.9	5653.0	5720.3	5737.8
5°	4586.0	4550.2	4577.3	4603.5	4545.0	4486.4	4480.3	4473.3	4524.0	4574.7	4582.5
7.5°	3554.9	3543.5	3568.9	3594.2	3519.9	3444.8	3408.1	3371.4	3383.6	3395.8	3394.1
10°	2650.4	2657.4	2688.9	2719.5	2661.8	2604.1	2578.8	2553.4	2581.4	2608.5	2633.8
12.5°	1985.4	2000.3	2033.5	2065.8	2042.2	2017.8	2020.4	2023.0	2055.3	2086.8	2114.7
15°	1542.4	1559.8	1583.4	1606.2	1607.0	1607.0	1629.8	1651.6	1649.0	1646.4	1665.6
17.5°	1276.7	1299.4	1302.1	1304.7	1305.6	1306.4	1304.7	1302.9	1289.8	1276.7	1291.6
20°	1093.2	1101.1	1108.1	1114.2	1106.3	1097.6	1075.7	1053.9	1045.1	1036.4	1050.4
22.5°	994.5	1008.4	1001.4	993.6	977.9	961.2	944.6	927.2	926.3	924.5	932.4
25°	911.4	922.8	910.6	898.3	887.0	875.6	864.3	852.9	852.0	851.1	854.6
27.5°	842.4	852.9	841.5	830.2	820.6	810.9	802.2	793.5	791.7	790.0	790.8
30°	783.0	792.6	783.0	772.5	765.5	757.6	751.5	745.4	744.5	743.7	743.7
32.5°	729.7	739.3	732.3	725.3	719.2	713.1	708.7	704.3	700.0	695.6	686.0
35°	683.4	693.0	688.6	683.4	676.4	669.4	661.5	652.8	641.4	629.2	623.9
37.5°	644.0	653.6	649.3	644.9	635.3	625.7	611.7	596.8	593.4	589.0	588.1
40°	612.6	627.4	618.7	609.1	594.2	579.4	572.4	565.4	563.6	561.9	560.1
42.5°	577.6	600.3	584.6	568.9	554.9	540.9	539.2	537.4	536.6	535.7	535.7
45°	533.9	558.4	542.7	526.1	518.2	510.3	510.3	510.3	511.2	511.2	513.0
47.5°	492.9	507.7	499.8	492.0	487.6	483.2	484.1	485.0	487.6	489.4	493.7
50°	457.9	463.1	464.9	465.8	463.1	460.5	462.3	463.1	465.8	467.5	471.0
52.5°	432.6	440.4	440.4	439.6	439.6	439.6	441.3	443.0	445.7	448.3	451.8
55°	416.0	427.3	423.8	420.3	421.2	421.2	422.9	424.7	427.3	429.1	434.3
57.5°	400.2	412.5	409.0	405.5	405.5	405.5	406.3	407.2	409.8	411.6	415.1
60°	381.9	394.1	390.6	386.2	387.1	388.0	388.9	388.9	390.6	391.5	391.5
62.5°	360.0	372.3	368.8	364.4	367.0	368.8	368.8	368.8	370.5	371.4	368.8
65°	337.3	348.7	345.2	341.7	345.2	347.8	349.5	350.4	349.5	348.7	346.0
67.5°	312.8	324.2	320.7	316.3	320.7	324.2	327.7	330.3	327.7	325.1	321.6
70°	286.6	298.0	293.6	289.2	293.6	298.0	301.5	305.0	301.5	298.0	297.1
72.5°	258.7	271.8	266.5	261.3	266.5	271.8	273.5	275.3	272.6	270.0	268.3
75°	228.1	241.2	236.8	231.6	235.9	240.3	241.2	242.1	242.1	241.2	235.9
77.5°	195.7	206.2	203.6	201.0	203.6	206.2	206.2	206.2	207.1	207.1	200.1
80°	157.3	163.4	164.3	165.2	166.0	166.9	166.0	165.2	163.4	161.7	157.3
82.5°	117.1	117.1	124.1	130.2	130.2	129.3	128.5	126.7	123.2	118.8	109.2
85°	74.3	69.9	81.3	91.8	91.8	90.9	89.1	86.5	79.5	71.7	63.8
87.5°	25.3	21.0	32.3	43.7	44.6	44.6	42.8	41.1	34.1	26.2	20.1
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: P320498
 CATALOG NUMBER: GLEON-SA4D-830-U-SLL

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: P320498

CATALOG NUMBER: GLEON-SA4D-830-U-SLL

CANDELA DISTRIBUTION (continued):

	275°	280°	285°	290°	295°	300°	305°	310°	315°	320°	325°
0°	6658.8	6658.8	6658.8	6658.8	6658.8	6658.8	6658.8	6658.8	6658.8	6658.8	6658.8
2.5°	5764.0	5775.4	5785.8	5871.5	5956.3	6055.9	6155.5	6231.5	6306.7	6384.4	6462.2
5°	4609.6	4623.6	4637.6	4741.6	4844.7	4983.6	5122.6	5242.3	5362.0	5502.7	5643.4
7.5°	3416.8	3447.4	3477.1	3588.1	3698.2	3847.6	3996.2	4152.6	4308.1	4491.7	4675.2
10°	2683.6	2741.3	2798.1	2911.7	3025.3	3173.0	3319.8	3483.2	3646.6	3827.5	4007.5
12.5°	2172.4	2249.3	2325.3	2461.7	2598.0	2774.5	2950.2	3131.9	3312.8	3471.9	3630.9
15°	1716.3	1800.2	1883.2	2027.4	2171.6	2365.5	2558.7	2757.0	2954.5	3145.0	3335.5
17.5°	1338.8	1407.8	1476.0	1598.3	1719.8	1907.6	2095.5	2303.5	2511.5	2743.9	2975.5
20°	1080.1	1108.9	1137.8	1226.0	1313.4	1466.3	1618.4	1830.7	2043.1	2321.0	2598.9
22.5°	946.4	961.2	975.2	1018.1	1060.0	1158.7	1256.6	1444.5	1631.5	1934.7	2237.1
25°	866.0	877.4	888.7	916.7	944.6	991.8	1039.0	1171.0	1302.9	1600.9	1898.0
27.5°	793.5	810.9	827.5	840.7	852.9	885.2	916.7	1003.2	1089.7	1367.6	1644.6
30°	741.0	747.2	753.3	773.4	792.6	825.8	859.0	919.3	979.6	1214.7	1448.9
32.5°	679.9	688.6	697.3	718.3	739.3	769.9	800.5	849.4	897.5	1098.4	1298.6
35°	624.8	633.6	642.3	663.3	683.4	716.6	748.9	790.0	830.2	1004.9	1179.7
37.5°	590.7	599.5	608.2	626.6	644.0	677.2	709.6	741.9	773.4	935.0	1096.7
40°	561.9	570.6	579.4	596.8	613.5	645.8	677.2	704.3	731.4	882.6	1033.8
42.5°	536.6	546.2	555.8	573.3	589.9	618.7	647.5	683.4	718.3	837.2	955.1
45°	515.6	525.2	533.9	553.2	572.4	600.3	628.3	678.1	727.9	813.6	899.2
47.5°	496.4	506.8	516.5	537.4	558.4	593.4	627.4	669.4	710.5	795.2	880.0
50°	478.0	490.2	502.5	527.8	552.3	610.8	668.5	674.6	679.9	780.4	880.0
52.5°	460.5	474.5	488.5	519.9	550.5	618.7	686.9	665.0	642.3	752.4	862.5
55°	443.0	455.3	466.6	505.1	543.5	593.4	643.2	614.3	584.6	700.0	815.3
57.5°	419.5	432.6	444.8	485.9	526.9	561.9	596.0	569.8	542.7	640.5	737.5
60°	395.0	409.8	424.7	477.1	528.7	522.6	515.6	510.3	504.2	574.1	644.0
62.5°	373.1	388.9	404.6	472.8	540.9	499.0	457.0	461.4	464.9	516.5	568.0
65°	351.3	367.0	381.9	416.0	450.0	433.4	416.8	423.8	429.9	480.6	531.3
67.5°	326.8	340.8	353.9	365.3	376.6	378.4	380.1	387.1	394.1	454.4	513.8
70°	299.7	311.1	322.5	330.3	337.3	340.8	343.4	352.2	360.9	426.4	492.0
72.5°	269.1	278.8	287.5	294.5	301.5	304.1	305.9	314.6	323.3	393.2	463.1
75°	235.9	243.8	250.8	256.9	263.0	266.5	270.0	276.1	282.3	358.3	433.4
77.5°	199.2	207.1	214.1	219.3	223.7	227.2	229.8	237.7	245.6	309.3	372.3
80°	155.5	165.2	173.9	178.3	181.8	182.6	182.6	189.6	196.6	242.1	286.6
82.5°	110.1	120.6	130.2	133.7	137.2	137.2	137.2	145.1	152.9	183.5	213.2
85°	64.7	76.0	86.5	90.0	93.5	95.3	96.1	99.6	102.2	124.1	145.1
87.5°	20.1	29.7	38.4	40.2	41.9	45.4	48.9	49.8	49.8	64.7	79.5
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: P320498

CATALOG NUMBER: GLEON-SA4D-830-U-SLL

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: P320498

CATALOG NUMBER: GLEON-SA4D-830-U-SLL

CANDELA DISTRIBUTION (continued):

	330°	335°	340°	345°	350°	355°	360°
0°	6658.8	6658.8	6658.8	6658.8	6658.8	6658.8	6658.8
2.5°	6551.4	6640.5	6744.5	6847.6	6935.9	7024.1	7097.5
5°	5822.6	6001.7	6221.0	6439.5	6634.4	6829.2	7055.6
7.5°	4906.7	5138.3	5422.3	5706.3	5981.6	6256.0	6603.8
10°	4243.5	4478.5	4779.2	5078.9	5388.2	5696.7	6090.0
12.5°	3822.3	4012.8	4303.8	4594.8	4958.3	5321.0	5699.3
15°	3544.4	3752.4	4035.5	4318.6	4716.2	5113.8	5549.0
17.5°	3248.1	3519.9	3882.6	4245.2	4716.2	5186.4	5699.3
20°	2937.9	3276.1	3746.3	4216.4	4850.8	5484.4	6138.9
22.5°	2628.6	3020.1	3623.0	4225.1	5054.4	5882.8	6766.3
25°	2349.8	2801.6	3547.9	4293.3	5350.7	6407.2	7503.0
27.5°	2138.3	2631.2	3517.3	4402.5	5726.4	7050.3	8304.3
30°	1950.5	2452.1	3480.6	4509.1	6088.2	7666.4	8930.9
32.5°	1787.9	2277.3	3409.8	4541.5	6340.8	8140.0	9461.3
35°	1660.3	2141.0	3291.0	4441.0	6498.9	8556.9	10013.6
37.5°	1550.2	2003.8	3155.5	4307.3	6639.6	8972.0	10634.9
40°	1445.4	1857.0	3039.3	4220.8	6833.6	9446.5	11291.2
42.5°	1345.7	1736.4	2945.8	4155.2	7013.6	9871.2	11865.3
45°	1271.5	1643.7	2862.8	4080.9	7129.8	10178.8	12297.9
47.5°	1234.8	1588.7	2818.2	4046.9	7246.1	10444.4	12657.0
50°	1229.5	1579.1	2868.9	4158.7	7497.7	10835.9	13067.8
52.5°	1228.7	1594.8	3014.8	4434.9	7965.3	11494.8	13512.5
55°	1210.3	1604.4	3188.7	4772.2	8592.7	12412.4	14312.1
57.5°	1154.4	1571.2	3367.9	5163.7	9256.0	13347.4	15213.1
60°	1067.9	1490.8	3515.6	5539.4	9701.6	13863.0	15560.0
62.5°	959.5	1350.1	3564.5	5778.0	9689.4	13600.8	15210.5
65°	866.9	1202.4	3403.7	5604.1	9199.2	12793.4	14519.2
67.5°	784.7	1054.8	3001.7	4947.8	8317.4	11686.2	13640.1
70°	725.3	957.8	2483.5	4009.3	7213.7	10417.3	12622.1
72.5°	687.7	911.4	2024.7	3137.2	5854.0	8570.0	10796.6
75°	636.2	838.9	1588.7	2337.6	4480.3	6623.0	8154.9
77.5°	540.0	707.0	1197.2	1687.4	3287.5	4886.6	5671.4
80°	416.8	546.2	823.2	1100.2	2262.4	3424.7	3866.8
82.5°	297.1	381.0	499.0	616.9	1503.0	2388.3	2425.0
85°	183.5	222.0	285.8	349.5	994.5	1639.4	1365.8
87.5°	98.7	118.0	151.2	183.5	318.1	452.7	260.4
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: P320498
 CATALOG NUMBER: GLEON-SA4D-830-U-SLL

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
 Rf: 81.5
 Rg: 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

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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

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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

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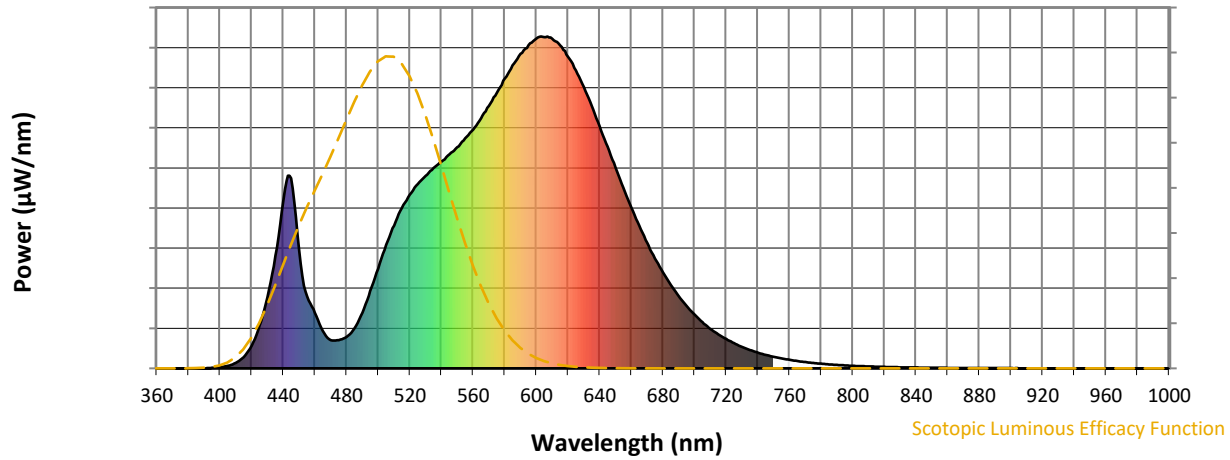
Photopic Flux vs. Wavelength



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 $\text{W}^\wedge/\text{nm}$	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

Melanopic Flux vs. Wavelength



Melanopic Lumens: NR

M/P: 2.32

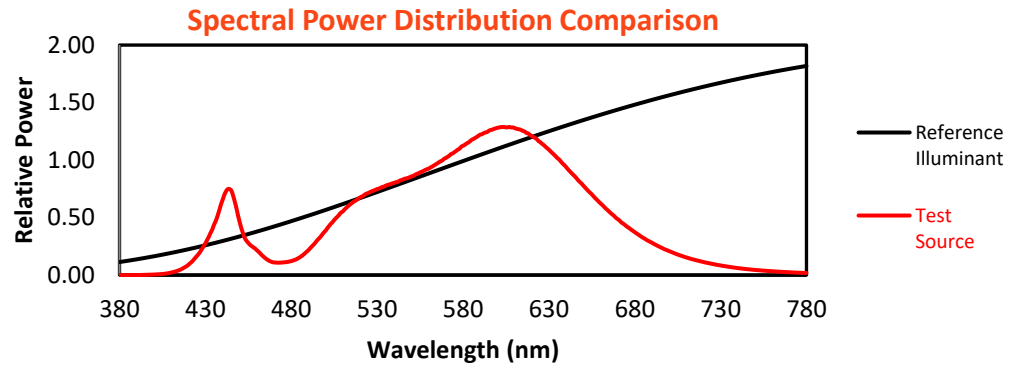
λ (nm)	Power $\text{W}^{\wedge}/\text{nm}$	Lumens (ϕ/nm)	λ (nm)	Power $\text{W}^{\wedge}/\text{nm}$	Lumens (ϕ/nm)	λ (nm)	Power $\text{W}^{\wedge}/\text{nm}$	Lumens (ϕ/nm)	λ (nm)	Power $\text{W}^{\wedge}/\text{nm}$	Lumens (ϕ/nm)	λ (nm)	Power $\text{W}^{\wedge}/\text{nm}$	Lumens (ϕ/nm)
360	0	NR	490	168	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

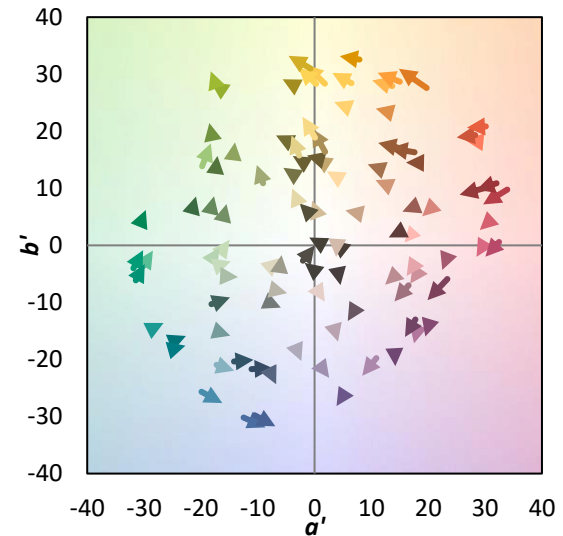
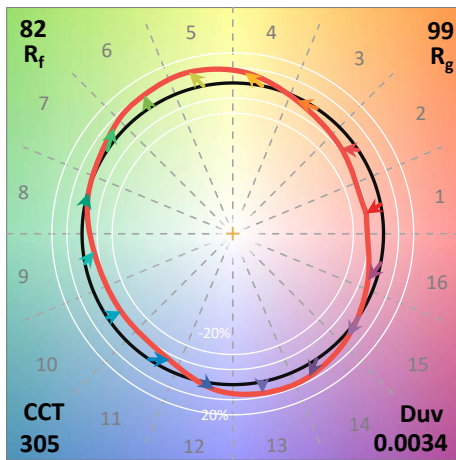
TM-30-18

Summary

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



Color Vector Graphics

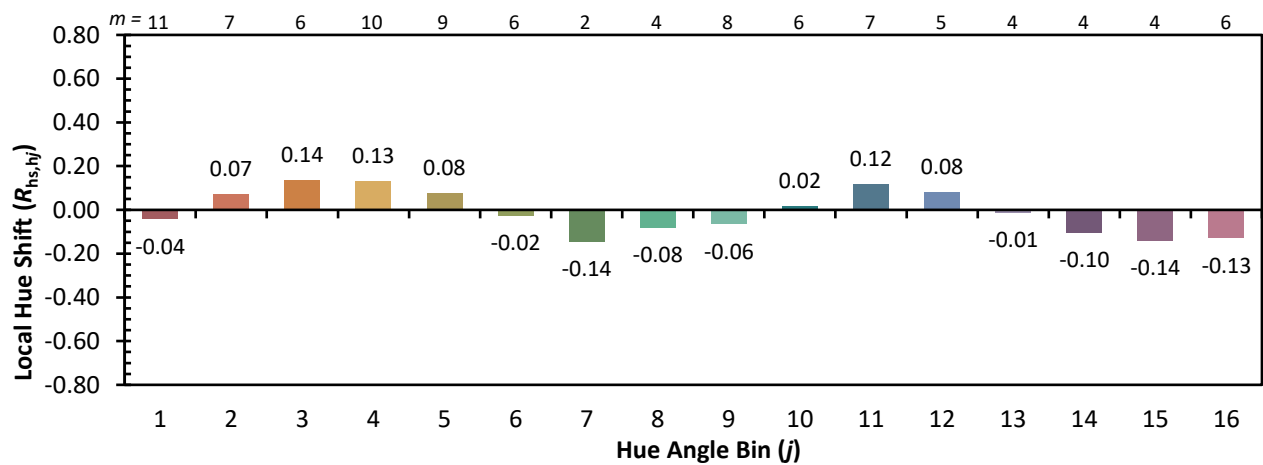


Individual Sample Fidelity Index ($R_{f,i}$)

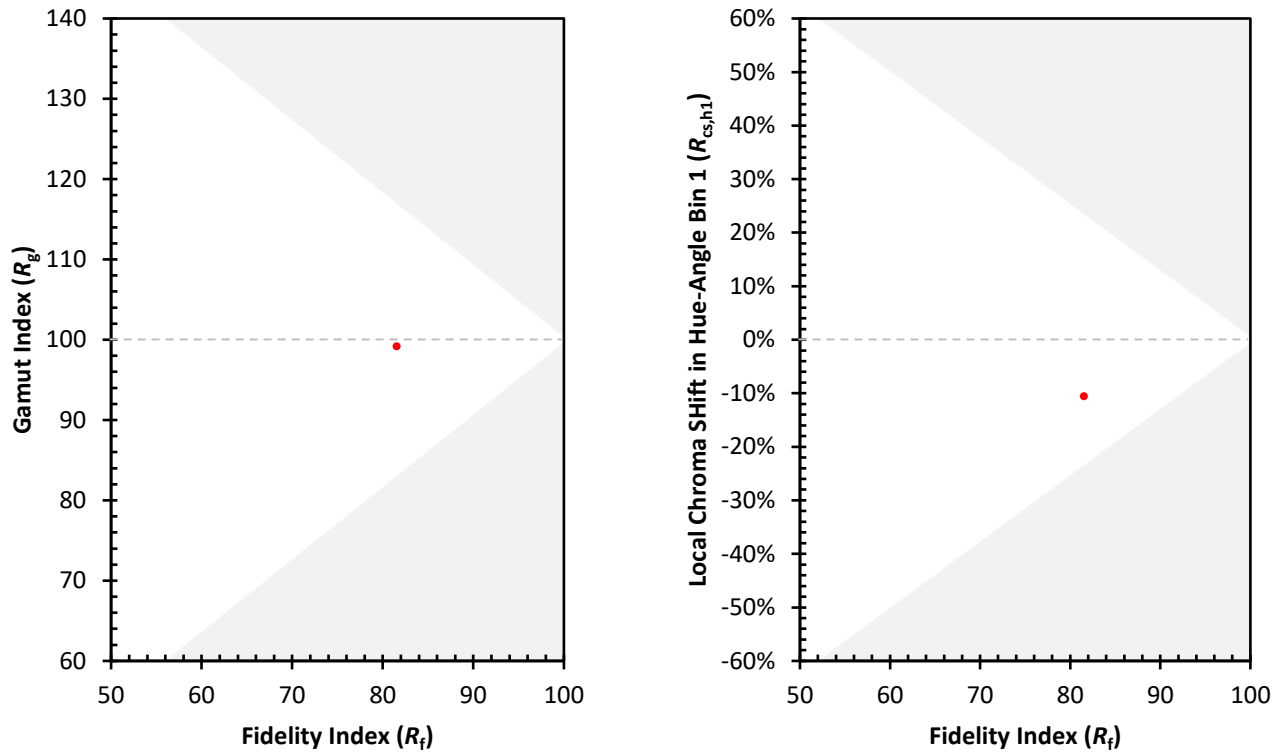
CES01 = 86	CES26 = 74	CES51 = 89	CES76 = 70
CES02 = 63	CES27 = 88	CES52 = 92	CES77 = 86
CES03 = 31	CES28 = 89	CES53 = 81	CES78 = 72
CES04 = 70	CES29 = 67	CES54 = 87	CES79 = 90
CES05 = 50	CES30 = 68	CES55 = 85	CES80 = 88
CES06 = 51	CES31 = 71	CES56 = 78	CES81 = 78
CES07 = 42	CES32 = 70	CES57 = 76	CES82 = 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)