

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: P191422

Luminaire Tested: **GLEON-AF-04-LED-E1-T2R-1200**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P191422
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P24657)
Test Lab: INNOVATION CENTER-P2
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: MCGRAW-EDISON
Catalog Number: GLEON-AF-04-LED-E1-T2R-1200
Description: GALLEON AREA AND ROADWAY LUMINAIRE
(4) 70 CRI, 4000K, 1200mA LIGHTSQUARES WITH 16 LEDS EACH AND TYPE II
ROADWAY OPTICS
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 28071.8 lumens
Efficiency: N/A
Efficacy: 108.8 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')
IES Classification: Type II - Short - Full Cutoff
BUG Rating: B3 - U0 - G3

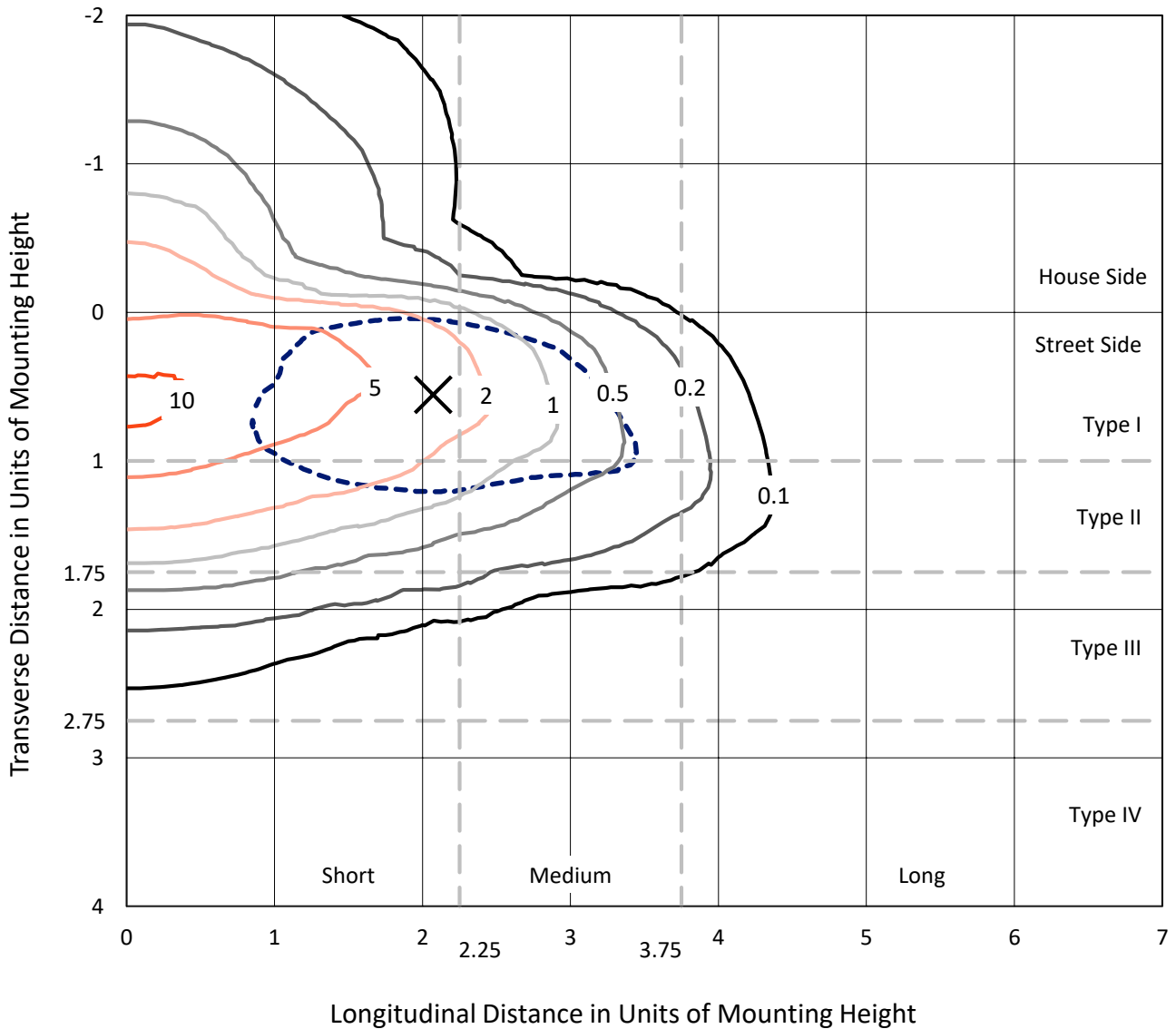
Input Watts (W): 258
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



REPORT NUMBER: P191422
 CATALOG NUMBER: GLEON-AF-04-LED-E1-T2R-1200

Iso-Footcandle Lines of Horizontal Illumination

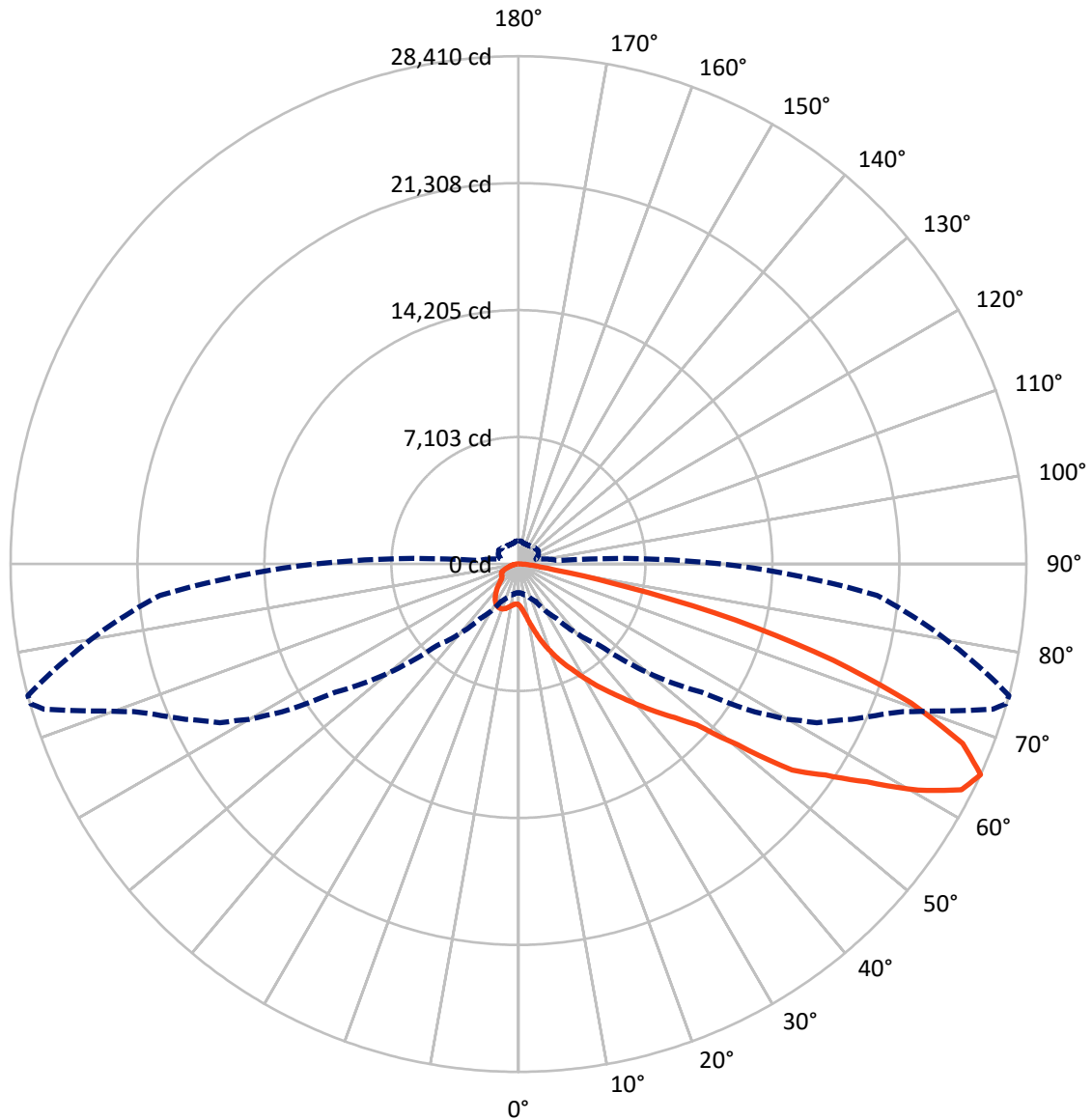
✕ Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 11.3 fc
 Type II - Short - Full Cutoff

REPORT NUMBER: P191422
CATALOG NUMBER: GLEON-AF-04-LED-E1-T2R-1200

Luminous Intensity Polar Plot



— Vertical Plane Through 75-Deg Lateral - - - Horizontal Cone Through 65-Deg Vertical

REPORT NUMBER: P191422

CATALOG NUMBER: GLEON-AF-04-LED-E1-T2R-1200

FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	4328.0	0.0	4328.0
	% Fixture	15.4	0.0	15.4
Street Side	Lumens	23743.8	0.0	23743.8
	% Fixture	84.6	0.0	84.6
Total	Lumens	28071.8	0.0	28071.8
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	282.0	1.0
10°-20°	1101.8	3.9
20°-30°	2260.5	8.1
30°-40°	3803.2	13.5
40°-50°	5254.9	18.7
50°-60°	6559.7	23.4
60°-70°	5903.0	21.0
70°-80°	2474.5	8.8
80°-90°	432.3	1.5
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°	28071.8	100.0
0°-180°	28071.8	100.0

Coefficient of Utilization



REPORT NUMBER: P191422

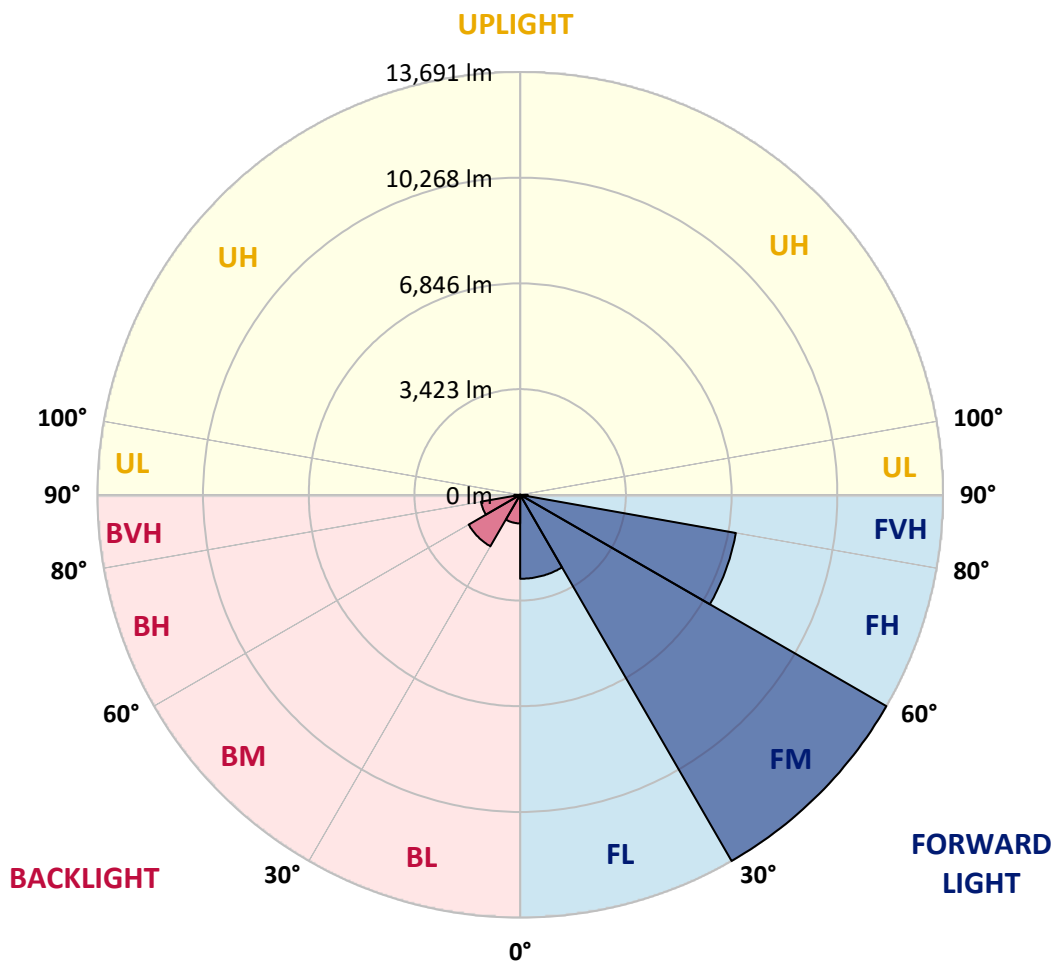
CATALOG NUMBER: GLEON-AF-04-LED-E1-T2R-1200

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	2718.7	9.7			
FM (30°-60°)	13691.3	48.8			
FH (60°-80°)	7090.8	25.3			G3/7500
FVH (80°-90°)	243.0	0.9			G3/500
BL (0°-30°)	925.6	3.3	B2/1000		
BM (30°-60°)	1926.5	6.9	B2/2500		
BH (60°-80°)	1286.7	4.6	B3/2500		G3/2500
BVH (80°-90°)	189.3	0.7			G2/225
UL (90°-100°)	0.0	0.0		U0/0	
UH (100°-180°)	0.0	0.0		U0/0	

BUG Rating: B3-U0-G3

Type II Short





REPORT NUMBER: P191422
 CATALOG NUMBER: GLEON-AF-04-LED-E1-T2R-1200

CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	56°	57°	58°	59°
0°	2281.4	2281.4	2281.4	2281.4	2281.4	2281.4	2281.4	2281.4	2281.4	2281.4	2281.4
2.5°	2896.6	2864.7	2872.7	2819.5	2754.4	2669.4	2575.0	2573.6	2575.0	2565.7	2531.2
5°	4016.6	3978.2	3963.5	3843.9	3668.5	3418.7	3147.7	3118.5	3106.5	3075.9	3005.5
7.5°	4833.7	4812.6	4790.0	4699.6	4540.2	4261.1	3897.0	3834.6	3774.8	3760.2	3680.5
10°	5361.3	5356.0	5308.1	5284.3	5184.6	4942.8	4588.0	4528.2	4463.1	4440.5	4356.7
12.5°	5778.5	5777.2	5754.6	5761.3	5674.8	5499.5	5193.8	5139.4	5091.5	5022.5	4962.6
15°	6066.8	6068.1	6101.4	6138.6	6125.3	6007.1	5720.0	5696.1	5655.0	5607.1	5536.7
17.5°	6303.3	6310.0	6344.5	6412.3	6485.4	6476.1	6248.9	6229.0	6193.0	6128.0	6090.8
20°	6837.5	6862.7	6796.3	6796.3	6804.3	6840.2	6731.2	6715.3	6664.7	6630.2	6601.0
22.5°	7739.6	7768.9	7618.7	7465.9	7315.8	7206.9	7097.8	7117.8	7083.3	7059.4	7042.1
25°	8911.5	8934.1	8691.0	8433.2	8127.7	7729.0	7459.3	7447.4	7428.8	7414.1	7406.2
27.5°	10014.4	10023.7	9793.8	9416.5	9061.7	8489.1	7826.0	7811.5	7788.8	7760.9	7737.0
30°	10957.7	10955.1	10718.6	10358.5	9978.5	9344.8	8382.8	8337.6	8271.2	8195.4	8137.0
32.5°	11774.9	11770.9	11511.8	11138.5	10739.9	10192.5	9145.4	9052.4	8948.8	8801.3	8712.3
35°	12418.0	12415.3	12170.9	11781.5	11324.5	10991.0	10019.7	9905.4	9773.9	9575.9	9439.1
37.5°	12661.2	12661.2	12524.3	12258.5	11854.7	11626.1	10991.0	10852.8	10711.9	10487.4	10333.2
40°	12519.0	12521.6	12550.9	12501.7	12305.1	12129.6	11897.1	11814.8	11693.9	11491.9	11331.1
42.5°	12042.0	12056.6	12250.6	12488.4	12586.7	12558.9	12701.1	12663.8	12578.8	12423.3	12295.8
45°	11437.4	11482.6	11695.2	12144.3	12665.2	12929.6	13374.7	13378.7	13362.7	13279.0	13180.7
47.5°	10607.0	10670.8	10951.1	11558.3	12481.7	13289.7	14058.9	14094.8	14128.1	14073.6	14028.3
50°	9504.1	9579.9	9999.8	10804.9	12108.4	13662.9	15351.7	15513.9	15665.4	15646.7	15677.3
52.5°	8322.9	8411.9	8926.2	9823.1	11466.7	13749.4	16178.2	16442.6	16707.0	16923.6	17153.5
55°	7257.3	7209.6	7723.7	8668.4	10411.7	13360.0	16920.9	17239.8	17534.8	17800.6	18074.2
57.5°	5813.0	5891.5	6406.9	7341.0	9015.2	12261.2	17432.5	17898.9	18322.7	18762.6	19150.5
60°	4249.1	4327.6	4886.9	5835.6	7499.2	10595.0	17041.8	17748.7	18427.7	19101.4	19627.5
62.5°	2565.7	2624.2	3117.1	4020.6	5782.5	8619.3	15301.3	16228.7	17227.9	18033.1	18839.6
65°	1597.1	1630.3	1812.4	2309.3	3713.7	6434.9	12501.7	13512.9	14589.1	15610.8	16449.3
67.5°	1307.4	1319.4	1352.6	1458.9	2039.6	4196.0	9304.9	10200.4	11171.6	12160.2	13093.0
70°	1175.9	1167.9	1167.9	1174.6	1307.4	2256.1	6092.1	6675.4	7484.5	8344.2	9197.2
72.5°	1061.6	1053.6	1039.0	1019.1	1066.9	1376.5	3149.1	3588.8	4172.1	4936.1	5753.3
75°	954.0	943.4	926.1	900.8	934.1	1039.0	1512.0	1696.8	1981.0	2387.7	2843.4
77.5°	842.4	829.1	813.1	794.5	837.1	807.8	886.3	952.7	1061.6	1191.8	1363.3
80°	716.2	704.2	698.9	689.6	740.1	615.2	625.8	667.0	730.8	801.2	881.0
82.5°	560.7	560.7	582.0	585.9	641.8	442.4	467.7	503.6	536.7	574.0	611.2
85°	369.4	372.0	443.8	471.7	506.3	297.7	350.8	362.7	389.3	410.6	426.5
87.5°	115.6	124.9	271.1	300.2	291.0	168.8	215.2	220.5	239.2	253.8	267.1
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: P191422
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CANDELA DISTRIBUTION (continued):

	60°	61°	62°	63°	64°	65°	66°	67°	68°	69°	70°
0°	2281.4	2281.4	2281.4	2281.4	2281.4	2281.4	2281.4	2281.4	2281.4	2281.4	2281.4
2.5°	2531.2	2515.2	2500.6	2499.3	2488.6	2474.0	2479.3	2456.7	2458.0	2446.1	2432.9
5°	2976.3	2965.6	2912.5	2897.9	2858.0	2832.8	2828.8	2775.7	2769.0	2738.4	2705.2
7.5°	3616.7	3582.2	3507.8	3471.9	3404.1	3353.6	3329.7	3259.3	3224.8	3145.1	3109.2
10°	4287.7	4243.8	4152.2	4101.7	4036.6	3955.5	3911.7	3809.4	3769.5	3696.4	3608.8
12.5°	4909.6	4865.7	4771.3	4732.8	4646.4	4560.1	4512.2	4396.6	4344.9	4228.0	4158.8
15°	5484.9	5441.0	5358.6	5318.7	5232.4	5162.0	5098.2	4983.9	4922.8	4813.9	4723.5
17.5°	6042.9	5996.4	5924.6	5888.8	5805.0	5733.3	5664.3	5556.6	5494.2	5385.2	5304.2
20°	6561.1	6526.5	6474.8	6426.9	6343.2	6278.1	6195.7	6102.7	6012.4	5932.6	5855.6
22.5°	7012.8	6999.5	6943.8	6922.5	6850.8	6795.0	6723.2	6631.5	6566.4	6465.5	6393.6
25°	7402.2	7398.2	7371.6	7364.9	7314.5	7261.3	7245.4	7169.7	7109.8	7020.8	6946.4
27.5°	7737.0	7741.0	7734.3	7752.9	7739.6	7715.7	7717.0	7691.9	7657.3	7582.8	7517.8
30°	8109.0	8087.8	8099.7	8126.3	8134.3	8137.0	8180.7	8195.4	8192.7	8143.6	8111.7
32.5°	8635.2	8584.7	8538.2	8534.2	8560.8	8571.4	8645.9	8684.3	8717.6	8729.6	8734.9
35°	9306.2	9205.2	9108.3	9056.4	9011.2	9023.1	9076.3	9138.7	9211.9	9262.3	9322.2
37.5°	10151.3	10027.7	9856.2	9734.0	9703.5	9637.0	9671.6	9720.8	9792.5	9870.9	9974.5
40°	11175.6	10988.3	10795.6	10633.6	10545.9	10423.7	10422.3	10413.0	10456.8	10529.9	10676.0
42.5°	12161.6	11995.4	11790.8	11620.8	11506.6	11343.1	11309.8	11223.5	11243.5	11307.2	11449.4
45°	13085.0	12948.1	12823.2	12626.6	12529.6	12352.8	12297.1	12194.8	12137.6	12166.9	12309.1
47.5°	13979.2	13891.6	13761.3	13633.8	13559.3	13401.3	13329.5	13256.4	13183.3	13180.7	13329.5
50°	15722.4	15676.0	15521.8	15389.0	15424.9	15230.8	15242.8	15046.2	15135.2	15145.8	15458.0
52.5°	17360.7	17522.8	17637.1	17776.6	17867.0	17884.2	17944.1	18033.1	18140.7	18353.3	18643.0
55°	18298.9	18502.1	18620.4	18726.6	18902.1	18939.2	19038.9	19157.1	19251.5	19490.7	19736.5
57.5°	19413.6	19790.9	19974.3	20143.0	20379.5	20469.9	20636.0	20764.9	20887.1	21170.2	21467.7
60°	20100.5	20560.3	20933.7	21200.7	21497.0	21709.6	21960.7	22162.6	22449.7	22788.5	23232.2
62.5°	19554.4	20229.4	20725.0	21183.4	21586.0	21992.6	22352.7	22730.0	23165.8	23678.7	24367.0
65°	17379.3	18066.3	18915.3	19391.0	19923.8	20551.0	21098.4	21709.6	22303.5	23050.3	24068.0
67.5°	13991.2	14789.7	15743.7	16223.4	16835.9	17536.1	18150.0	18896.8	19590.3	20495.1	21753.5
70°	10084.8	11117.2	11919.7	12420.7	13135.5	13857.0	14449.6	15318.6	15892.6	16820.0	18120.8
72.5°	6385.7	7200.2	8183.4	8814.6	9449.7	10180.5	10786.4	11535.7	12071.2	12916.3	14094.8
75°	3433.3	4033.9	4897.6	5496.8	6177.1	6801.6	7511.1	8013.4	8409.4	9077.7	10034.3
77.5°	1609.1	1974.4	2411.6	2872.7	3333.7	3814.7	4282.4	4689.0	4859.0	5241.7	5806.4
80°	976.6	1094.9	1222.4	1364.6	1557.2	1712.7	1918.6	2067.5	2078.1	2199.0	2371.7
82.5°	652.4	696.2	734.8	770.7	819.8	858.4	902.1	954.0	975.3	1003.2	1059.0
85°	445.1	466.4	474.3	496.9	491.6	504.9	522.2	539.4	548.7	547.4	572.6
87.5°	273.7	284.4	289.7	295.0	291.0	285.7	293.7	302.9	305.6	297.7	300.2
90°	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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 CATALOG NUMBER: GLEON-AF-04-LED-E1-T2R-1200

CANDELA DISTRIBUTION (continued):

	71°	72°	73°	74°	75°	85°	90°	95°	105°	115°	125°
0°	2281.4	2281.4	2281.4	2281.4	2281.4	2281.4	2281.4	2281.4	2281.4	2281.4	2281.4
2.5°	2435.5	2423.6	2411.6	2403.6	2401.0	2330.5	2300.0	2280.1	2237.5	2203.0	2175.1
5°	2686.6	2661.4	2641.5	2617.5	2604.2	2426.2	2361.1	2316.0	2241.5	2197.7	2157.8
7.5°	3090.5	3020.2	2978.9	2932.4	2892.6	2571.0	2463.4	2393.0	2289.4	2230.9	2185.7
10°	3548.9	3475.9	3410.7	3339.0	3276.6	2763.7	2606.9	2497.9	2361.1	2285.4	2225.5
12.5°	4060.5	3988.8	3906.3	3814.7	3735.0	3008.2	2790.3	2634.8	2447.4	2346.4	2262.8
15°	4665.1	4538.8	4439.2	4332.9	4239.8	3300.4	3004.2	2789.0	2539.2	2402.3	2290.7
17.5°	5227.1	5094.2	4958.7	4865.7	4758.1	3628.7	3219.4	2945.7	2614.9	2438.2	2296.0
20°	5775.9	5631.0	5514.1	5389.2	5276.3	3968.8	3449.3	3083.9	2664.1	2439.5	2262.8
22.5°	6259.5	6169.1	6038.9	5903.4	5789.1	4309.0	3664.5	3200.8	2682.7	2408.9	2204.4
25°	6809.6	6713.9	6554.5	6440.2	6312.6	4655.8	3875.9	3291.1	2672.0	2351.8	2113.9
27.5°	7396.9	7290.6	7127.1	7007.5	6853.5	5015.8	4069.8	3356.3	2632.2	2258.8	1993.0
30°	8009.4	7912.4	7751.6	7630.7	7475.2	5397.2	4286.4	3400.1	2552.5	2129.9	1852.2
32.5°	8667.1	8586.0	8426.6	8300.3	8134.3	5810.4	4488.3	3413.4	2431.6	1977.1	1703.4
35°	9291.6	9235.8	9101.6	8983.3	8810.6	6201.0	4702.3	3406.7	2288.0	1809.7	1567.9
37.5°	9994.4	9961.2	9894.8	9744.6	9533.4	6731.2	4958.7	3378.9	2112.6	1643.6	1464.3
40°	10743.8	10746.5	10674.8	10572.4	10375.8	7374.2	5264.3	3324.4	1921.3	1497.4	1369.9
42.5°	11537.0	11578.3	11543.7	11470.7	11281.9	8022.7	5629.7	3258.0	1735.2	1355.3	1276.8
45°	12445.9	12496.4	12549.6	12441.9	12258.5	8878.4	6110.7	3171.6	1534.6	1237.1	1213.1
47.5°	13494.3	13573.9	13621.8	13623.1	13439.7	9938.7	6891.9	3119.8	1356.6	1157.3	1182.5
50°	15706.5	15731.8	15844.7	16041.4	15900.5	12392.7	8256.5	3087.9	1235.7	1108.2	1159.9
52.5°	18894.1	19171.7	19367.1	19353.8	19162.4	13951.3	9008.5	2923.1	1163.9	1089.5	1149.3
55°	20192.2	20539.0	20900.4	20996.1	20847.2	15281.4	9719.5	2758.4	1129.4	1102.8	1153.3
57.5°	21922.1	22506.8	23002.4	23211.0	22995.7	16983.4	10654.9	2672.0	1118.8	1138.6	1178.5
60°	23943.1	24665.9	25317.0	25691.7	25691.7	18939.2	11624.8	2636.1	1104.2	1191.8	1221.1
62.5°	25241.2	26302.8	27286.1	27834.9	27818.9	20301.2	12055.3	2513.9	1070.9	1229.1	1279.5
65°	25246.5	26508.8	27761.8	28378.3	28410.2	20133.7	11344.4	2220.2	1009.9	1234.4	1338.0
67.5°	23141.9	24487.9	25948.1	26637.7	26797.1	18534.0	9820.4	1825.7	910.1	1181.2	1359.3
70°	19545.1	20859.2	22350.0	23027.6	23310.7	15799.6	7909.8	1407.1	782.6	1064.3	1315.4
72.5°	15398.3	16687.1	17724.8	18220.4	18440.9	12076.5	5759.9	1062.9	641.8	896.8	1197.2
75°	10902.0	11869.2	12420.7	12530.9	12565.5	7279.9	3499.8	790.5	528.9	697.6	1011.2
77.5°	6153.2	6567.8	6522.5	6571.7	6162.5	2810.1	1524.0	566.0	435.8	530.2	783.9
80°	2402.3	2476.7	2326.5	2280.1	2091.3	1045.7	672.3	394.7	348.1	401.3	548.7
82.5°	1059.0	1093.5	1061.6	1069.6	1023.1	539.4	402.6	285.7	265.8	293.7	364.1
85°	583.3	593.9	591.3	608.6	583.3	215.2	191.3	175.4	186.0	199.3	233.8
87.5°	284.4	287.0	277.7	292.4	283.1	108.9	94.3	99.6	108.9	111.6	111.6
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0



REPORT NUMBER: P191422

CATALOG NUMBER: GLEON-AF-04-LED-E1-T2R-1200

CANDELA DISTRIBUTION (continued):

	135°	145°	155°	165°	175°	180°
0°	2281.4	2281.4	2281.4	2281.4	2281.4	2281.4
2.5°	2155.2	2144.5	2145.8	2143.2	2137.9	2137.9
5°	2136.5	2125.9	2125.9	2123.2	2116.6	2117.9
7.5°	2155.2	2137.9	2131.2	2121.9	2112.6	2112.6
10°	2176.4	2145.8	2127.2	2111.3	2099.3	2099.3
12.5°	2192.4	2144.5	2113.9	2092.7	2080.8	2080.8
15°	2197.7	2135.2	2092.7	2067.5	2056.8	2055.5
17.5°	2180.4	2099.3	2047.5	2018.3	2005.0	2001.0
20°	2127.2	2034.2	1971.7	1938.6	1920.0	1913.3
22.5°	2047.5	1941.3	1868.1	1833.6	1809.7	1805.7
25°	1935.9	1821.7	1749.9	1716.7	1703.4	1699.4
27.5°	1805.7	1699.4	1638.3	1617.0	1605.1	1603.8
30°	1682.1	1591.8	1546.6	1530.6	1516.0	1513.4
32.5°	1566.5	1509.4	1492.1	1469.6	1435.0	1431.0
35°	1484.2	1478.9	1466.9	1416.4	1373.8	1362.0
37.5°	1433.7	1482.9	1421.7	1322.1	1291.5	1288.8
40°	1404.4	1441.6	1336.7	1302.1	1304.8	1302.1
42.5°	1338.0	1376.5	1339.3	1323.4	1334.0	1336.7
45°	1271.5	1314.1	1359.3	1348.7	1373.8	1373.8
47.5°	1234.4	1298.1	1358.0	1358.0	1395.1	1408.4
50°	1191.8	1284.8	1336.7	1355.3	1384.5	1373.8
52.5°	1189.2	1262.2	1306.1	1339.3	1352.6	1340.7
55°	1193.2	1243.7	1275.5	1312.8	1328.7	1330.0
57.5°	1198.5	1233.1	1254.2	1271.5	1319.4	1319.4
60°	1211.8	1223.8	1235.7	1245.0	1307.4	1308.8
62.5°	1233.1	1214.4	1211.8	1221.1	1300.8	1295.5
65°	1266.2	1201.1	1181.2	1190.5	1294.1	1278.2
67.5°	1311.4	1181.2	1142.6	1149.3	1288.8	1254.2
70°	1352.6	1149.3	1094.9	1088.2	1238.4	1177.2
72.5°	1356.6	1112.2	1028.4	1008.5	1076.2	1017.7
75°	1290.1	1086.9	955.3	896.8	888.9	881.0
77.5°	1162.6	1072.3	870.3	778.6	762.7	768.0
80°	972.6	1017.7	768.0	659.0	745.4	736.1
82.5°	726.8	898.2	652.4	583.3	582.0	514.2
85°	404.0	700.2	531.5	437.1	304.2	295.0
87.5°	112.9	389.3	372.0	247.1	168.8	175.4
90°	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)