

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: P192082

Luminaire Tested: **GLEON-AF-04-LED-E1-SLL-7050-800**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P192082
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P24296)
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-SLL-7050-800
Description: GALLEON AREA AND ROADWAY LUMINAIRE
(4) 70 CRI, 5000K, 800mA 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: 17049 lumens
Efficiency: N/A
Efficacy: 99.7 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')
IES Classification: Type IV - Short - Non-Cutoff
BUG Rating: B2 - U0 - G3

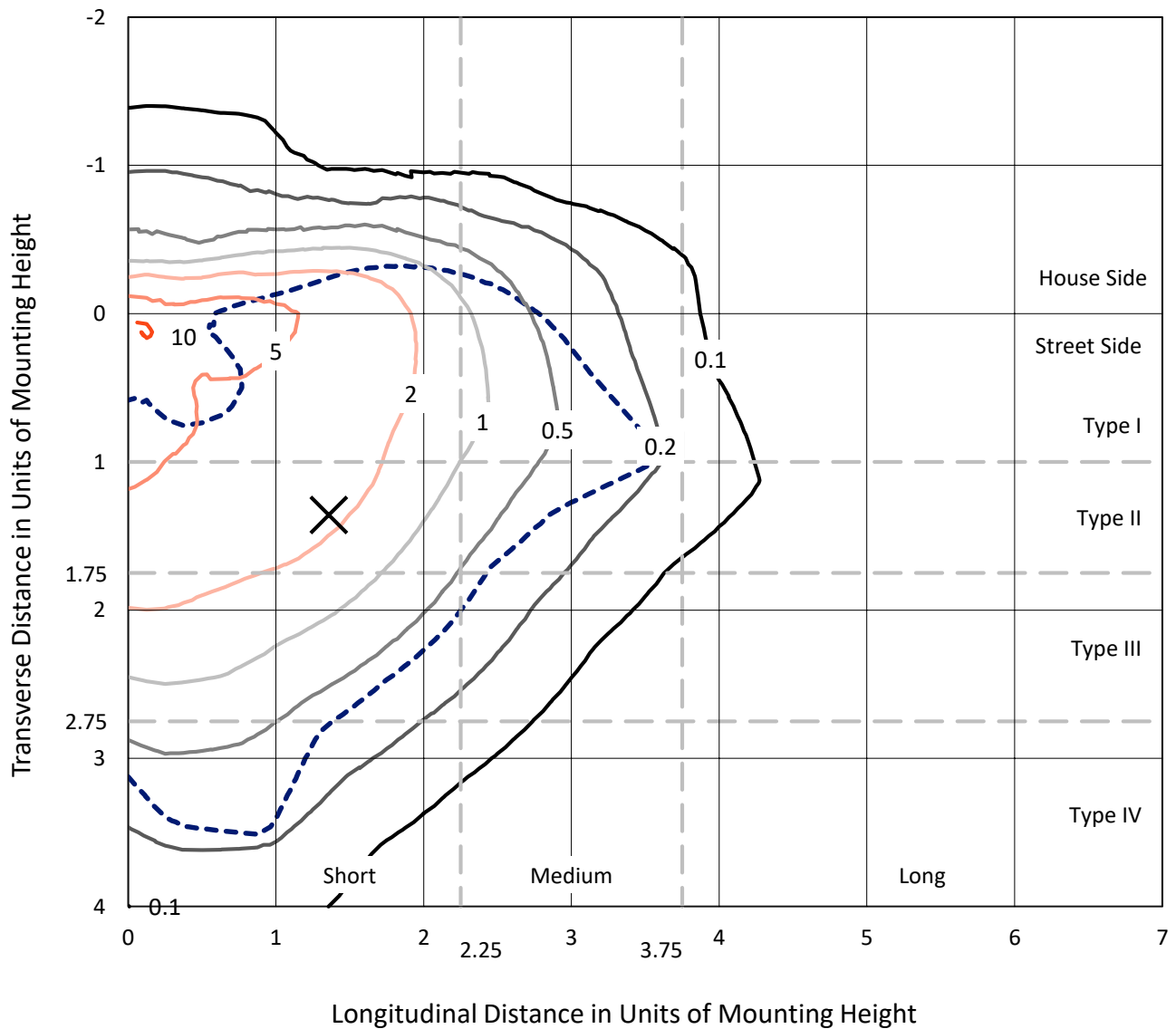
Input Watts (W): 171
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Iso-Footcandle Lines of Horizontal Illumination

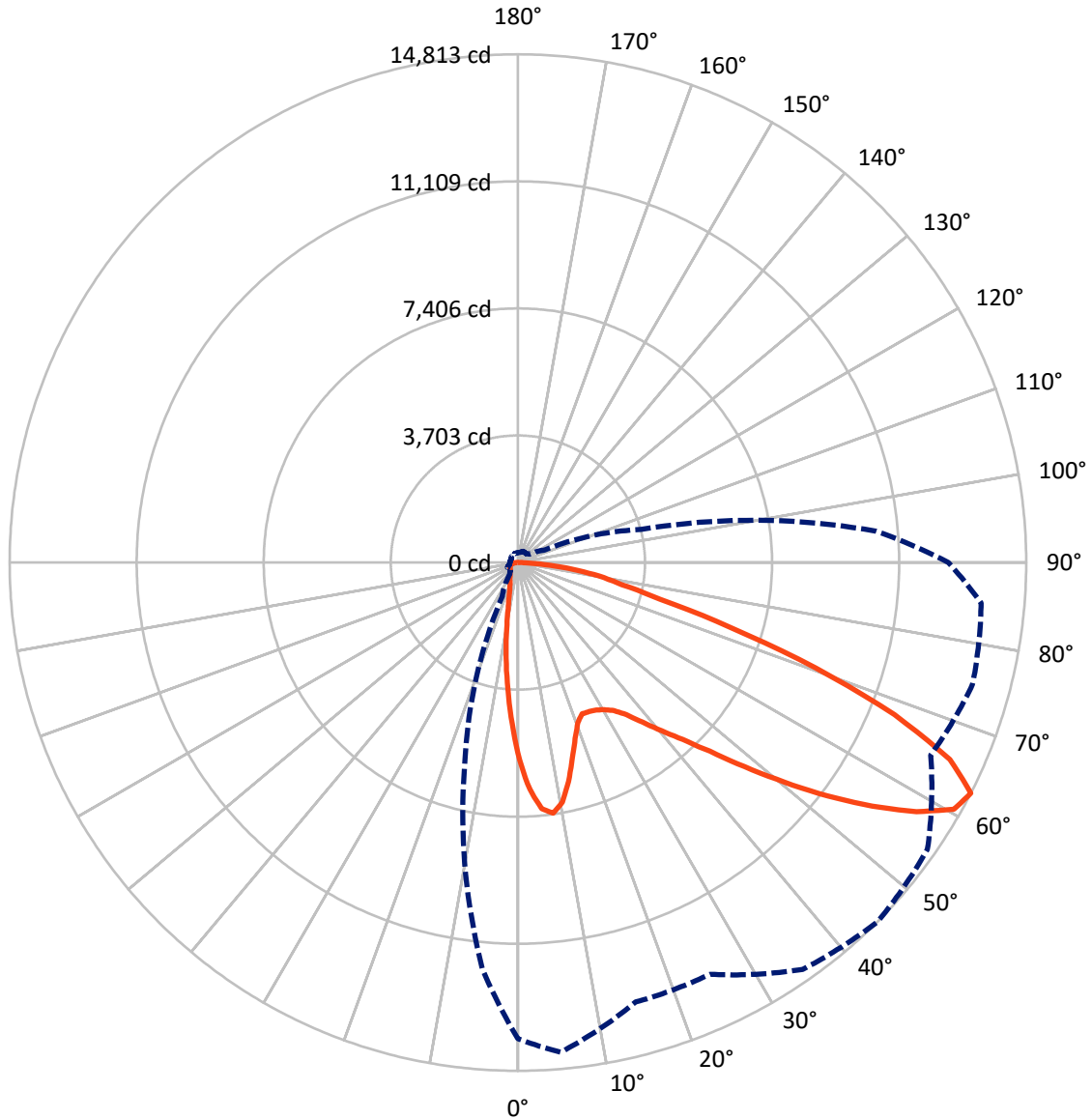
× Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 10.8 fc
 Type IV - Short - Non-Cutoff

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Luminous Intensity Polar Plot



— Vertical Plane Through 45-Deg Lateral - - - Horizontal Cone Through 62.5-Deg Vertical

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FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	2821.4	0.0	2821.4
	% Fixture	16.5	0.0	16.5
Street Side	Lumens	14227.6	0.0	14227.6
	% Fixture	83.5	0.0	83.5
Total	Lumens	17049.0	0.0	17049.0
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	419.3	2.5
10°-20°	768.9	4.5
20°-30°	1121.0	6.6
30°-40°	1726.6	10.1
40°-50°	2541.1	14.9
50°-60°	3727.2	21.9
60°-70°	4166.5	24.4
70°-80°	2039.9	12.0
80°-90°	538.6	3.2
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°	17049.0	100.0
0°-180°	17049.0	100.0



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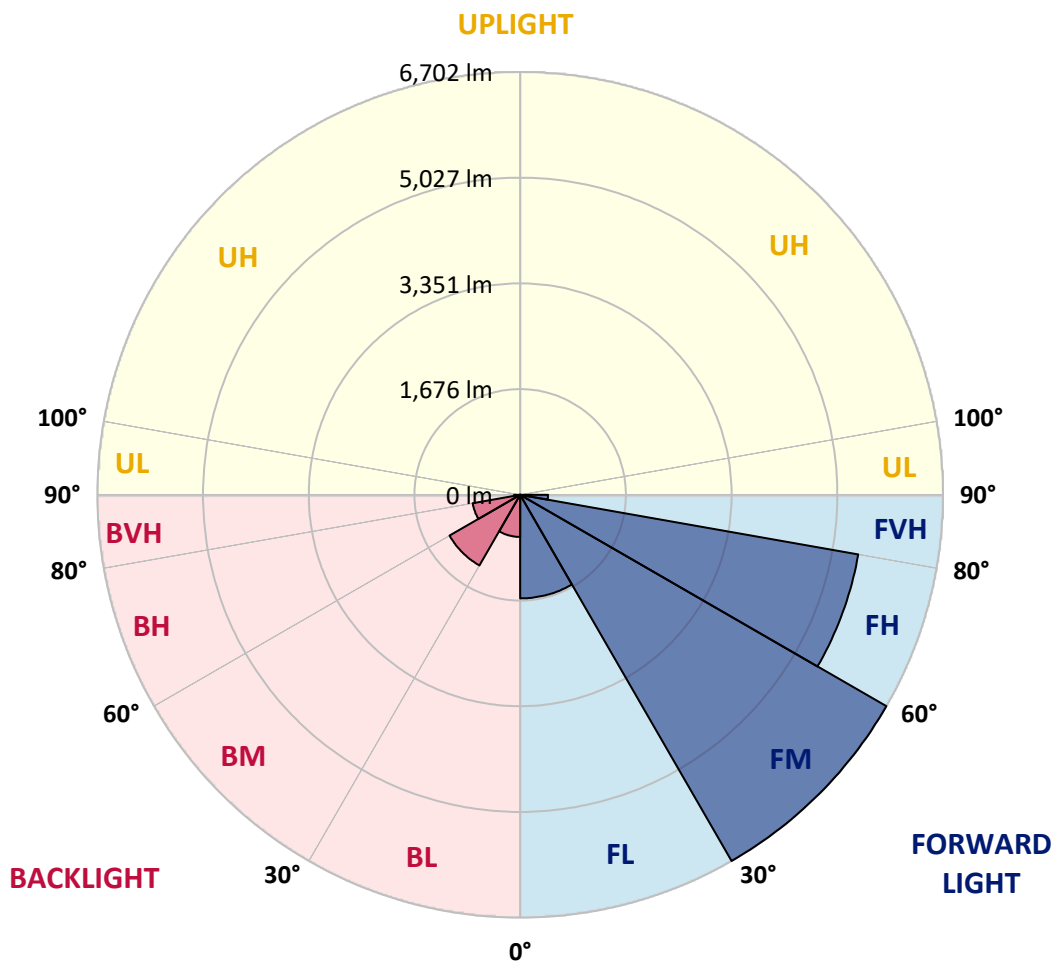
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	1641.8	9.6			
FM	(30°-60°)	6702.1	39.3			
FH	(60°-80°)	5441.5	31.9			G3/7500
FVH	(80°-90°)	442.3	2.6			G3/500
BL	(0°-30°)	667.5	3.9	B2/1000		
BM	(30°-60°)	1292.7	7.6	B2/2500		
BH	(60°-80°)	764.9	4.5	B2/1000		G2/1000
BVH	(80°-90°)	96.3	0.6			G1/100
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

BUG Rating: B2-U0-G3

Type IV Short





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	75°	85°	90°
0°	5760.1	5760.1	5760.1	5760.1	5760.1	5760.1	5760.1	5760.1	5760.1	5760.1	5760.1
2.5°	5985.0	6080.6	6267.1	6406.7	6576.4	6615.7	6670.1	6616.7	6522.0	6396.4	6355.2
5°	5627.9	5832.2	6284.9	6683.2	7037.5	7202.4	7248.4	7112.5	6837.9	6477.0	6256.8
7.5°	5055.3	5345.8	5958.8	6545.4	7067.5	7375.8	7368.3	7052.5	6547.3	5959.7	5606.4
10°	4561.4	4893.2	5596.1	6252.1	6806.0	7105.0	6989.7	6585.7	5983.1	5306.5	4923.1
12.5°	4284.9	4610.1	5323.3	5982.2	6445.2	6548.3	6460.2	6064.7	5496.7	4812.6	4477.0
15°	4237.1	4594.2	5214.6	5750.7	6010.3	5920.3	5815.4	5638.2	5237.1	4653.2	4303.7
17.5°	4444.2	4837.9	5339.3	5589.5	5545.5	5388.9	5358.9	5378.6	5282.1	4830.4	4427.4
20°	4841.6	5314.0	5636.4	5513.6	5192.1	4976.6	4984.1	5284.9	5570.8	5279.3	4819.1
22.5°	5399.2	5938.1	6064.7	5553.9	5043.1	4787.3	4849.1	5336.5	6030.9	5935.3	5347.7
25°	6120.9	6612.0	6521.1	5700.1	5058.1	4810.7	4860.4	5514.5	6574.5	6591.4	6001.9
27.5°	6820.1	7275.5	6904.4	5894.1	5120.0	4866.0	4931.6	5794.7	7093.7	7303.6	6749.8
30°	7365.5	7682.3	7056.2	6071.2	5241.8	4973.8	5055.3	6060.9	7329.9	7784.4	7325.2
32.5°	7817.2	8045.0	7298.0	6290.5	5465.8	5143.4	5286.8	6384.3	7670.1	8241.8	7888.5
35°	8394.6	8459.2	7598.9	6535.1	5811.6	5438.6	5616.7	6701.0	7994.4	8703.8	8443.3
37.5°	9071.2	8987.8	7882.8	6869.7	6258.7	5900.7	6047.8	7048.7	8261.5	9227.7	9010.3
40°	9740.4	9539.8	8239.0	7388.9	6911.0	6445.2	6619.5	7419.9	8510.8	9752.6	9564.2
42.5°	10309.3	10012.2	8590.4	7959.7	7518.3	7045.9	7254.0	7793.8	8748.8	10200.6	10045.0
45°	10730.1	10360.8	8925.0	8508.0	8355.2	7844.4	7942.8	8222.1	9006.6	10574.5	10440.5
47.5°	11105.9	10711.3	9303.6	9060.9	9087.2	8882.8	8724.5	8720.7	9310.2	10880.0	10814.4
50°	11609.2	11197.7	9710.4	9630.7	10185.6	10049.7	9700.1	9302.7	9694.5	11226.8	11219.3
52.5°	12302.7	11968.1	10207.1	10244.6	11210.9	11299.9	10866.9	10001.9	10296.1	11863.2	11818.2
55°	13122.8	12927.8	10883.8	10950.3	12468.6	12532.3	12102.1	10876.3	11180.9	12784.4	12659.8
57.5°	13762.9	13721.6	11626.0	11797.6	13407.7	13694.5	13299.0	11888.5	12178.1	13560.4	13247.4
60°	14017.8	14217.4	12416.1	12652.3	14276.5	14594.2	14247.4	12777.9	13061.8	13881.9	13207.1
62.5°	13880.0	14326.1	13257.7	13238.0	14470.5	14812.5	14568.9	13272.7	13717.0	13550.1	12538.9
65°	13243.7	13935.3	13746.0	13087.2	13806.9	13835.0	13756.3	13051.5	13871.6	12501.4	11247.4
67.5°	11857.5	12852.8	13103.1	11793.8	12016.9	11834.1	11702.0	11840.7	13065.6	10929.7	9452.7
70°	9657.9	11155.6	11275.5	9433.0	9331.8	9209.0	8945.6	9707.6	11475.2	8957.8	7500.5
72.5°	7101.2	8675.7	9044.0	6918.5	6449.9	6475.2	6267.1	7315.8	9329.9	6654.2	5599.8
75°	4858.5	6282.1	7075.9	4827.6	4265.2	4275.5	4249.3	5183.7	7431.1	4628.9	4190.2
77.5°	3549.2	4488.3	5336.5	3245.5	3150.9	3092.8	3078.7	3627.0	5697.3	3360.8	3254.0
80°	2848.2	3315.8	3584.8	2249.3	2418.9	2414.2	2336.5	2493.9	3720.7	2458.3	2433.9
82.5°	1975.6	2548.3	2904.4	1762.9	1632.6	1605.4	1624.2	1857.5	2629.8	1680.4	1597.9
85°	1042.2	1692.6	2876.3	1562.3	969.1	773.2	961.6	1521.1	2278.3	890.3	779.8
87.5°	133.1	489.2	1904.4	623.2	382.4	206.2	456.4	856.6	1463.0	181.8	158.4
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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CANDELA DISTRIBUTION (continued):

	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°	185°
0°	5760.1	5760.1	5760.1	5760.1	5760.1	5760.1	5760.1	5760.1	5760.1	5760.1	5760.1
2.5°	6249.3	6124.6	5961.6	5810.7	5654.2	5498.6	5295.2	5167.8	5079.7	5062.8	5025.3
5°	6097.5	5683.2	5370.2	5099.3	4853.8	4507.0	4314.9	4155.6	4070.3	4061.9	4041.2
7.5°	5397.4	4825.7	4403.0	4019.7	3672.0	3391.7	3082.5	2938.1	2879.1	2893.2	2907.2
10°	4669.2	4030.0	3544.5	3152.8	2846.3	2610.1	2361.8	2194.0	2077.8	2054.4	2049.7
12.5°	4136.8	3435.8	2964.4	2687.9	2450.8	2228.7	1965.3	1767.6	1616.7	1565.1	1530.5
15°	3911.9	3145.3	2651.4	2353.3	2091.8	1809.7	1565.1	1358.0	1219.3	1174.3	1149.0
17.5°	3959.7	3064.7	2435.8	2054.4	1719.8	1425.5	1117.2	940.0	856.6	835.1	835.1
20°	4210.9	3049.7	2257.7	1778.8	1361.8	1020.6	767.6	666.4	639.2	636.4	643.9
22.5°	4563.3	3102.2	2124.6	1539.8	1058.1	745.1	597.9	560.4	548.3	551.1	559.5
25°	5088.1	3279.3	2028.1	1327.1	830.4	610.1	533.3	510.8	505.2	512.7	523.0
27.5°	5710.4	3456.4	1968.1	1166.8	701.0	557.6	507.0	483.6	487.3	496.7	506.1
30°	6256.8	3601.7	1873.5	1052.5	660.7	560.4	507.0	475.2	471.4	473.3	476.1
32.5°	6746.9	3700.1	1762.9	943.8	569.8	497.7	473.3	468.6	448.0	440.5	441.4
35°	7169.6	3700.1	1696.3	880.0	510.8	441.4	402.1	378.6	368.3	369.3	379.6
37.5°	7577.3	3626.1	1663.5	844.4	478.9	419.9	385.2	364.6	350.5	347.7	349.6
40°	7937.2	3518.3	1626.1	829.4	454.5	406.7	373.9	357.1	342.1	337.4	338.3
42.5°	8225.9	3431.1	1584.8	809.7	439.5	397.4	366.4	351.5	334.6	329.9	329.0
45°	8538.0	3402.1	1530.5	770.4	447.0	398.3	364.6	348.6	331.8	326.1	324.3
47.5°	8949.4	3493.0	1474.2	723.5	463.0	403.0	367.4	348.6	330.8	326.1	324.3
50°	9467.7	3706.7	1403.0	655.1	447.0	416.1	366.4	345.8	330.8	326.1	322.4
52.5°	10133.1	3995.3	1309.3	576.4	437.7	448.0	364.6	340.2	326.1	319.6	313.0
55°	10941.9	4231.5	1197.7	511.7	416.1	439.5	361.8	333.6	318.7	309.3	303.7
57.5°	11534.2	4316.8	1054.4	469.5	386.1	425.5	358.0	325.2	309.3	301.8	294.3
60°	11417.0	4151.8	933.5	443.3	368.3	384.3	355.2	317.7	300.8	295.2	288.7
62.5°	10478.9	3720.7	855.7	431.1	357.1	350.5	358.0	310.2	293.3	287.7	285.8
65°	9072.2	3084.3	824.7	428.3	347.7	330.8	332.7	301.8	284.9	280.2	278.4
67.5°	7483.6	2489.2	797.6	437.7	335.5	316.8	307.4	290.5	276.5	271.8	268.0
70°	5901.6	2070.3	785.4	432.1	320.5	302.7	292.4	278.4	266.2	261.5	258.7
72.5°	4752.6	1748.8	778.8	426.4	300.8	284.0	274.6	262.4	249.3	247.4	244.6
75°	4021.6	1374.9	713.2	408.6	278.4	261.5	254.9	243.7	230.6	230.6	228.7
77.5°	3102.2	994.4	593.3	361.8	254.9	236.2	230.6	222.1	207.1	209.9	209.0
80°	2291.5	648.5	463.9	299.9	225.9	208.1	205.2	196.8	180.9	184.6	184.6
82.5°	1569.8	425.5	333.6	245.5	193.1	176.2	176.2	167.8	150.0	151.8	157.5
85°	788.2	292.4	249.3	190.3	150.0	141.5	141.5	135.0	117.2	118.1	125.6
87.5°	239.9	176.2	164.9	135.9	107.8	105.9	101.2	96.5	85.3	84.3	89.0
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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CANDELA DISTRIBUTION (continued):

	195°	205°	215°	225°	235°	245°	255°	265°	270°	275°	285°
0°	5760.1	5760.1	5760.1	5760.1	5760.1	5760.1	5760.1	5760.1	5760.1	5760.1	5760.1
2.5°	4968.1	4914.7	4850.0	4707.6	4659.8	4657.0	4700.1	4655.1	4741.3	4704.8	4745.1
5°	4006.6	3954.1	3881.9	3700.1	3589.5	3514.5	3478.9	3373.9	3449.9	3394.6	3440.5
7.5°	2946.6	2958.8	2911.0	2804.1	2563.3	2442.4	2371.1	2307.4	2362.7	2357.1	2445.2
10°	2071.2	2104.0	2070.3	1962.5	1767.6	1701.0	1714.2	1739.5	1811.6	1849.1	1985.0
12.5°	1491.1	1489.2	1467.7	1371.1	1242.7	1250.2	1303.7	1347.7	1414.2	1453.6	1592.3
15°	1113.4	1096.5	1087.2	1008.4	935.3	951.3	977.5	982.2	1024.4	1047.8	1160.3
17.5°	841.6	850.0	860.4	804.1	748.8	738.5	717.9	692.6	704.8	709.5	765.7
20°	668.2	702.0	727.3	687.9	631.7	601.7	575.4	558.6	558.6	557.6	573.6
22.5°	583.9	608.2	635.4	608.2	557.6	531.4	516.4	503.3	501.4	501.4	516.4
25°	538.0	555.8	582.0	563.3	525.8	506.1	492.0	475.2	468.6	466.7	477.0
27.5°	515.5	523.0	536.1	519.2	487.3	478.0	474.2	459.2	450.8	446.1	456.4
30°	477.0	475.2	476.1	459.2	433.9	433.0	439.5	442.4	439.5	438.6	454.5
32.5°	441.4	437.7	436.7	421.7	398.3	392.7	398.3	403.9	410.5	419.9	438.6
35°	396.4	405.8	411.4	398.3	370.2	353.3	346.8	336.5	330.8	330.8	352.4
37.5°	360.8	382.4	390.8	378.6	347.7	324.3	313.0	311.2	312.1	315.8	336.5
40°	348.6	364.6	372.1	359.9	329.0	307.4	300.8	299.0	300.8	306.5	327.1
42.5°	341.1	352.4	351.5	336.5	311.2	296.2	292.4	290.5	292.4	298.0	320.5
45°	334.6	342.1	334.6	316.8	293.3	285.8	286.8	285.8	287.7	293.3	314.9
47.5°	329.0	331.8	322.4	304.6	280.2	278.4	282.1	284.9	286.8	291.5	314.0
50°	320.5	320.5	312.1	293.3	269.0	269.9	274.6	281.2	282.1	287.7	305.5
52.5°	310.2	309.3	303.7	285.8	259.6	262.4	262.4	269.9	271.8	278.4	297.1
55°	301.8	299.9	297.1	280.2	251.2	255.9	253.0	255.9	260.5	267.1	287.7
57.5°	294.3	290.5	290.5	275.5	244.6	246.5	239.9	243.7	249.3	254.9	276.5
60°	286.8	283.0	284.9	269.0	234.3	232.4	229.6	237.1	239.0	245.5	267.1
62.5°	278.4	275.5	276.5	261.5	226.8	222.1	222.1	228.7	229.6	239.0	259.6
65°	271.8	268.0	267.1	254.0	218.4	212.7	215.6	218.4	220.2	229.6	249.3
67.5°	265.2	257.7	257.7	247.4	209.0	203.4	209.0	208.1	210.9	219.3	235.2
70°	256.8	246.5	247.4	242.7	199.6	193.1	197.8	196.8	198.7	204.3	220.2
72.5°	243.7	235.2	237.1	235.2	190.3	180.9	182.8	182.8	182.8	187.4	204.3
75°	226.8	220.2	225.9	230.6	179.0	165.9	167.8	167.8	164.9	167.8	188.4
77.5°	206.2	202.4	221.2	214.6	165.9	150.0	150.0	148.1	142.5	146.2	168.7
80°	183.7	180.9	204.3	179.9	150.9	130.3	128.4	123.7	118.1	120.9	143.4
82.5°	160.3	157.5	171.5	137.8	130.3	107.8	103.1	94.7	89.0	91.8	112.5
85°	131.2	131.2	132.1	104.0	99.3	82.5	76.9	65.6	59.0	60.9	80.6
87.5°	93.7	96.5	89.0	71.2	59.0	45.9	42.2	35.6	30.0	34.7	42.2
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-SLL-7050-800

CANDELA DISTRIBUTION (continued):

	295°	305°	315°	325°	335°	345°	355°	360°
0°	5760.1	5760.1	5760.1	5760.1	5760.1	5760.1	5760.1	5760.1
2.5°	4951.3	5054.4	5171.5	5321.5	5449.9	5660.7	5863.2	5985.0
5°	3702.0	3873.5	4087.2	4361.8	4617.6	5001.9	5383.3	5627.9
7.5°	2649.5	2833.2	3063.7	3406.7	3768.5	4258.7	4762.9	5055.3
10°	2192.1	2380.5	2574.5	2806.0	3102.2	3635.4	4231.5	4561.4
12.5°	1813.5	2015.0	2224.0	2467.7	2742.3	3218.4	3905.3	4284.9
15°	1388.0	1612.9	1859.4	2167.8	2511.7	3061.9	3824.7	4237.1
17.5°	951.3	1202.4	1505.2	1885.7	2306.5	3011.2	3969.1	4444.2
20°	655.1	837.9	1161.2	1607.3	2113.4	3004.7	4246.5	4841.6
22.5°	548.3	629.8	866.0	1351.5	1968.1	3085.3	4676.7	5399.2
25°	507.0	555.8	691.7	1129.3	1862.2	3270.9	5269.0	6120.9
27.5°	482.7	526.7	627.9	984.1	1778.8	3486.4	5845.4	6820.1
30°	492.0	537.0	610.1	910.0	1665.4	3666.4	6357.1	7365.5
32.5°	443.3	463.0	523.0	844.4	1583.9	3817.2	6805.1	7817.2
35°	377.7	412.4	466.7	813.5	1585.8	3918.5	7293.3	8394.6
37.5°	359.9	394.6	433.9	802.2	1607.3	4026.2	7853.8	9071.2
40°	348.6	380.5	414.2	795.7	1627.9	4124.6	8403.0	9740.4
42.5°	341.1	370.2	412.4	773.2	1638.2	4212.7	8854.7	10309.3
45°	340.2	370.2	419.9	750.7	1654.2	4307.4	9233.4	10730.1
47.5°	341.1	382.4	405.8	723.5	1654.2	4465.8	9677.6	11105.9
50°	337.4	403.0	390.8	685.1	1615.7	4765.7	10286.8	11609.2
52.5°	335.5	400.2	361.8	626.1	1549.2	5241.8	11067.5	12302.7
55°	330.8	386.1	341.1	538.0	1471.4	5761.0	11903.5	13122.8
57.5°	326.1	342.1	329.9	461.1	1351.5	6126.5	12478.9	13762.9
60°	365.5	299.0	320.5	423.6	1191.2	6226.8	12456.4	14017.8
62.5°	338.3	280.2	308.3	415.2	1078.7	5945.6	11881.0	13880.0
65°	265.2	268.0	296.2	439.5	1048.7	5200.6	10861.3	13243.7
67.5°	242.7	255.9	284.0	470.5	1051.5	4164.0	9337.4	11857.5
70°	228.7	242.7	269.9	486.4	1059.0	3104.0	7382.4	9657.9
72.5°	212.7	224.9	254.0	489.2	1010.3	2254.9	5689.8	7101.2
75°	194.0	205.2	231.5	426.4	836.9	1564.2	4352.4	4858.5
77.5°	172.4	180.9	203.4	329.0	621.4	1000.9	3267.1	3549.2
80°	147.1	151.8	170.6	240.9	425.5	626.1	2584.8	2848.2
82.5°	118.1	120.0	132.1	180.9	276.5	402.1	1731.0	1975.6
85°	83.4	83.4	90.9	131.2	188.4	254.9	940.0	1042.2
87.5°	39.4	40.3	40.3	72.2	98.4	129.3	216.5	133.1
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)