

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: P191297

Luminaire Tested: **GLEON-AF-09-LED-E1-SLL**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P191297
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-09-LED-E1-SLL
Description: GALLEON AREA AND ROADWAY LUMINAIRE
(9) 70 CRI, 4000K, 1050mA 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: 47838.3 lumens
Efficiency: N/A
Efficacy: 95.5 lumens/watt
Luminous Opening: Rectangular (W 2.5' x L: 1' x H: 0')
IES Classification: Type IV - Short - Non-Cutoff
BUG Rating: B3 - U0 - G5

Input Watts (W): 501
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

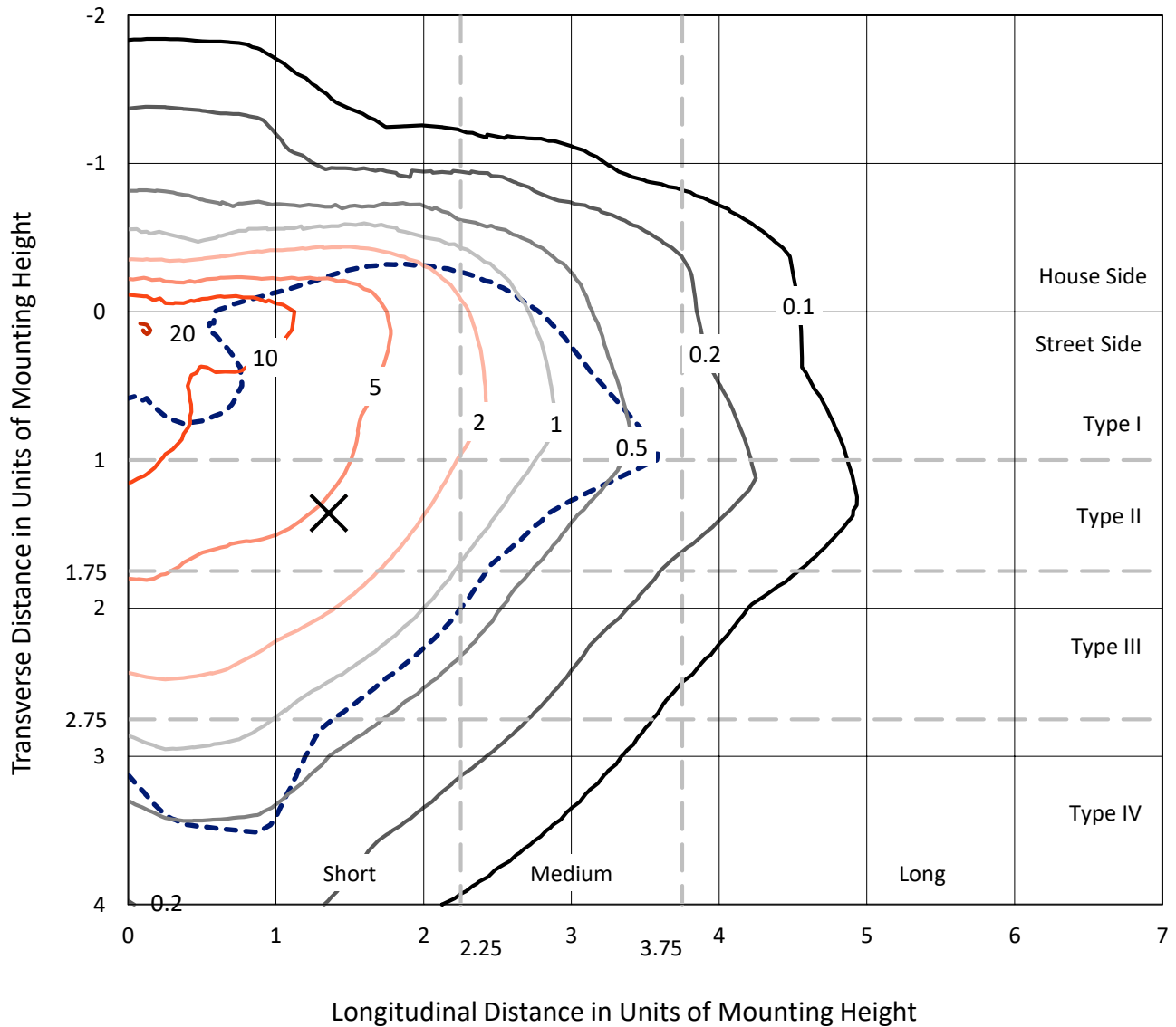


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Iso-Footcandle Lines of Horizontal Illumination

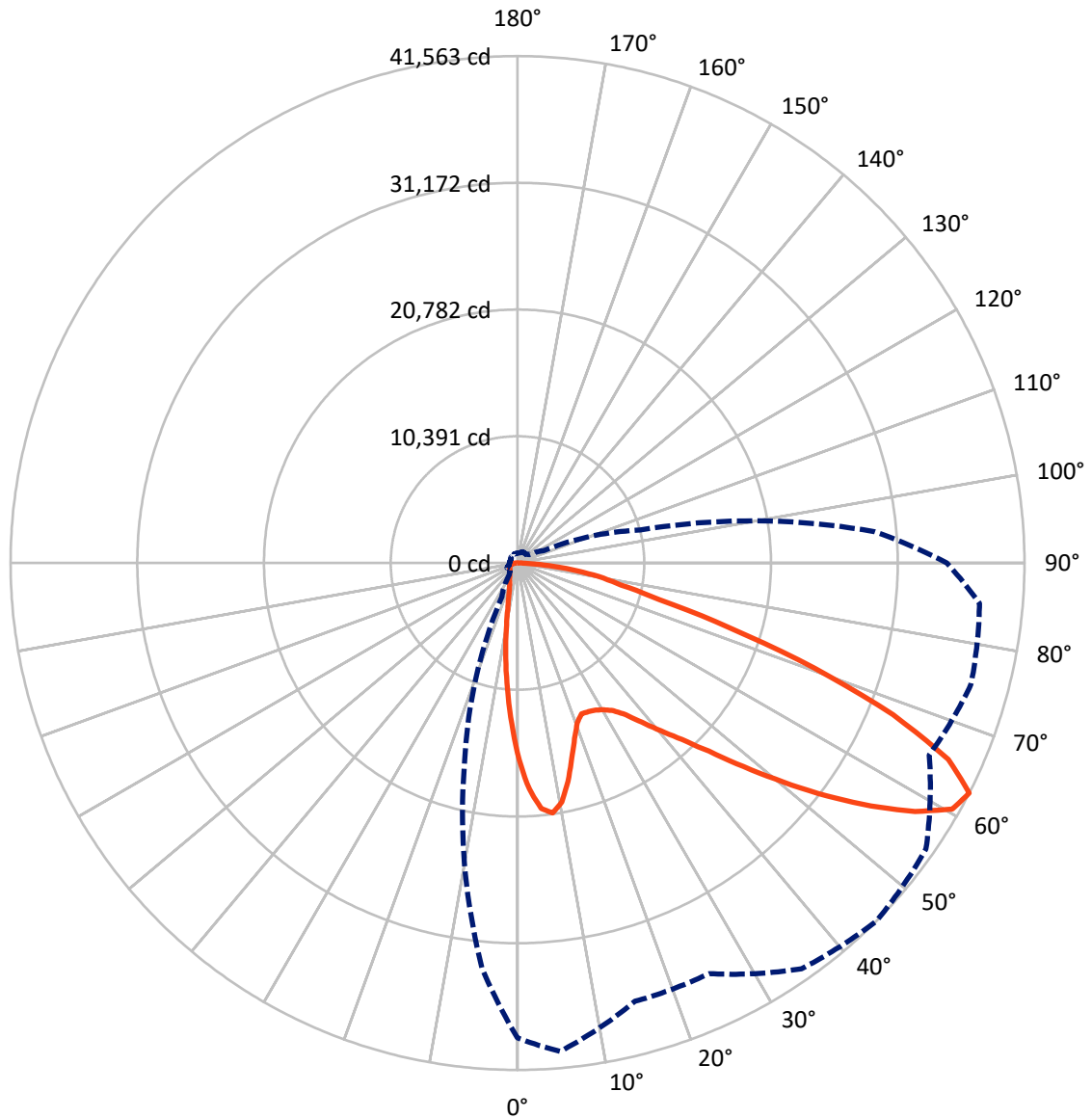
✕ Max cd
 - - - 1/2 Max cd



Based on 30 foot mounting height. Maximum calculated value = 21.1 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	7916.6	0.0	7916.6
	% Fixture	16.5	0.0	16.5
Street Side	Lumens	39921.7	0.0	39921.7
	% Fixture	83.5	0.0	83.5
Total	Lumens	47838.3	0.0	47838.3
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	1176.5	2.5
10°-20°	2157.5	4.5
20°-30°	3145.6	6.6
30°-40°	4844.7	10.1
40°-50°	7130.1	14.9
50°-60°	10458.3	21.9
60°-70°	11690.8	24.4
70°-80°	5723.7	12.0
80°-90°	1511.2	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°	47838.3	100.0
0°-180°	47838.3	100.0



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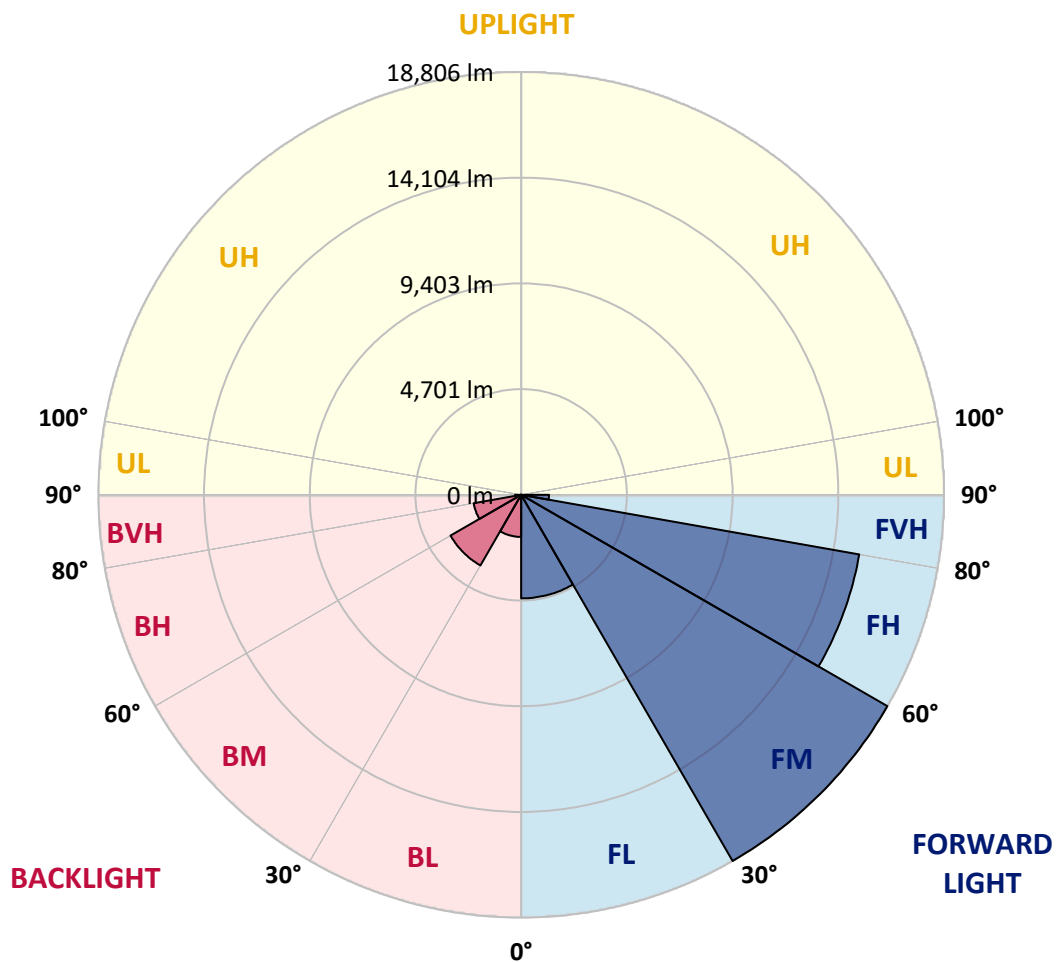
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	4606.7	9.6			
FM	(30°-60°)	18805.7	39.3			
FH	(60°-80°)	15268.3	31.9			G5
FVH	(80°-90°)	1241.1	2.6			G5
BL	(0°-30°)	1872.9	3.9	B3/2500		
BM	(30°-60°)	3627.3	7.6	B3/5000		
BH	(60°-80°)	2146.2	4.5	B3/2500		G3/2500
BVH	(80°-90°)	270.1	0.6			G3/500
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 Short





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	75°	85°	90°
0°	16162.3	16162.3	16162.3	16162.3	16162.3	16162.3	16162.3	16162.3	16162.3	16162.3	16162.3
2.5°	16793.5	17061.7	17585.0	17976.8	18452.8	18563.3	18715.8	18565.9	18300.3	17948.0	17832.3
5°	15791.6	16364.9	17635.0	18752.6	19746.6	20209.5	20338.4	19957.1	19186.6	18174.1	17556.1
7.5°	14184.7	15000.0	16719.8	18366.1	19830.8	20696.0	20675.0	19788.8	18371.4	16722.5	15731.0
10°	12799.0	13729.8	15702.2	17543.0	19097.2	19936.0	19612.5	18479.2	16788.3	14889.6	13814.0
12.5°	12023.2	12935.6	14936.9	16785.6	18084.6	18373.9	18126.8	17017.0	15423.4	13503.7	12562.2
15°	11889.0	12890.9	14631.9	16136.0	16864.5	16612.0	16317.5	15820.4	14695.0	13056.6	12075.7
17.5°	12470.2	13574.7	14981.6	15683.8	15560.1	15121.0	15036.9	15092.0	14821.2	13553.7	12422.9
20°	13585.2	14910.6	15815.2	15470.7	14568.8	13963.9	13985.0	14829.1	15631.1	14813.2	13522.1
22.5°	15149.9	16662.0	17017.0	15583.8	14150.6	13432.7	13606.3	14973.7	16922.4	16654.2	15005.3
25°	17174.8	18552.7	18297.7	15994.0	14192.7	13498.4	13637.8	15473.4	18447.6	18495.0	16840.8
27.5°	19136.5	20414.6	19373.3	16538.5	14366.2	13653.6	13837.7	16259.7	19904.5	20493.5	18939.3
30°	20667.1	21555.9	19799.3	17035.4	14708.1	13956.0	14184.7	17006.5	20567.1	21842.6	20554.0
32.5°	21934.6	22573.7	20477.7	17650.8	15336.6	14432.0	14834.3	17913.7	21521.8	23125.8	22134.5
35°	23554.6	23736.0	21321.9	18337.1	16307.0	15260.4	15760.0	18802.7	22431.7	24422.3	23691.2
37.5°	25453.2	25219.1	22118.8	19276.0	17561.4	16556.8	16969.7	19778.2	23181.1	25892.4	25282.2
40°	27330.8	26768.1	23118.0	20732.9	19391.7	18084.6	18573.8	20819.6	23880.6	27365.1	26836.4
42.5°	28927.1	28093.5	24104.2	22334.4	21095.7	19770.4	20354.2	21868.8	24548.6	28622.1	28185.5
45°	30107.8	29071.8	25043.0	23872.7	23444.1	22010.9	22287.0	23070.7	25271.8	29671.3	29295.3
47.5°	31162.4	30055.2	26105.4	25424.3	25497.9	24924.6	24480.2	24469.7	26123.8	30528.6	30344.5
50°	32574.5	31420.0	27246.7	27023.2	28579.9	28198.7	27217.8	26102.7	27202.0	31501.6	31480.6
52.5°	34520.5	33581.7	28640.5	28745.6	31456.9	31706.7	30491.8	28064.6	28890.3	33287.2	33161.0
55°	36821.5	36274.6	30539.1	30725.9	34986.0	35164.9	33957.8	30518.1	31372.8	35872.2	35522.5
57.5°	38617.6	38501.9	32621.9	33103.1	37621.0	38425.7	37315.9	33358.2	34170.8	38049.7	37171.3
60°	39333.0	39893.0	34838.7	35501.4	40058.8	40950.3	39977.2	35853.8	36650.6	38951.6	37058.2
62.5°	38946.4	40198.2	37200.2	37145.0	40603.1	41563.0	40879.3	37242.3	38488.8	38020.7	35183.3
65°	37160.8	39101.6	38570.4	36721.6	38741.3	38820.2	38599.2	36621.7	38922.7	35078.0	31559.5
67.5°	33271.4	36064.2	36766.3	33092.6	33718.5	33205.7	32834.9	33224.1	36661.1	30668.0	26523.5
70°	27099.4	31301.8	31638.3	26468.2	26184.3	25839.7	25100.9	27238.8	32198.5	25135.0	21045.8
72.5°	19925.5	24343.5	25377.0	19412.7	18097.8	18168.8	17585.0	20527.8	26179.1	18671.1	15712.6
75°	13632.6	17627.1	19854.5	13545.8	11967.9	11996.9	11923.2	14545.0	20851.2	12988.3	11757.6
77.5°	9958.8	12593.8	14973.7	9106.8	8841.2	8678.1	8638.7	10177.0	15986.2	9430.3	9130.4
80°	7991.8	9304.0	10058.8	6311.4	6787.4	6774.2	6555.9	6997.7	10440.0	6897.8	6829.4
82.5°	5543.5	7150.2	8149.5	4946.6	4581.0	4504.8	4557.3	5212.1	7379.1	4715.1	4483.7
85°	2924.3	4749.3	8070.7	4383.8	2719.1	2169.6	2698.1	4268.1	6392.9	2498.3	2188.0
87.5°	373.4	1372.7	5343.6	1748.7	1073.0	578.6	1280.6	2403.6	4105.0	510.1	444.5
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°	16162.3	16162.3	16162.3	16162.3	16162.3	16162.3	16162.3	16162.3	16162.3	16162.3	16162.3
2.5°	17535.1	17185.4	16727.7	16304.4	15865.1	15428.7	14858.1	14500.3	14253.2	14205.8	14100.7
5°	17109.1	15946.7	15068.4	14308.4	13619.4	12646.4	12107.3	11660.2	11420.9	11397.3	11339.4
7.5°	15144.7	13540.5	12354.5	11279.0	10303.3	9517.0	8649.2	8244.3	8078.5	8118.0	8157.4
10°	13101.3	11307.9	9945.6	8846.5	7986.5	7323.8	6627.0	6156.2	5830.1	5764.4	5751.2
12.5°	11607.6	9640.6	8317.8	7542.1	6876.8	6253.5	5514.5	4959.7	4536.3	4391.6	4294.3
15°	10976.5	8825.4	7439.5	6603.2	5869.6	5078.0	4391.6	3810.5	3421.3	3295.0	3224.0
17.5°	11110.7	8599.2	6834.6	5764.4	4825.6	3999.8	3134.6	2637.6	2403.6	2343.1	2343.1
20°	11815.4	8557.2	6335.0	4991.3	3821.0	2863.8	2153.7	1869.7	1793.4	1785.6	1806.6
22.5°	12804.2	8704.4	5961.7	4320.6	2969.0	2090.6	1677.7	1572.6	1538.4	1546.3	1569.9
25°	14276.8	9201.4	5690.8	3723.7	2330.0	1711.9	1496.3	1433.3	1417.4	1438.5	1467.4
27.5°	16023.0	9698.5	5522.4	3274.1	1967.0	1564.7	1422.7	1356.9	1367.5	1393.8	1420.1
30°	17556.1	10106.0	5256.8	2953.2	1854.0	1572.6	1422.7	1333.3	1322.8	1328.0	1335.9
32.5°	18931.4	10382.2	4946.6	2648.1	1598.9	1396.4	1328.0	1314.9	1257.0	1235.9	1238.6
35°	20117.5	10382.2	4759.8	2469.3	1433.3	1238.6	1128.1	1062.4	1033.5	1036.1	1065.0
37.5°	21261.4	10174.5	4667.8	2369.4	1343.7	1178.1	1080.8	1023.0	983.6	975.6	980.9
40°	22271.3	9872.0	4562.6	2327.3	1275.4	1141.3	1049.2	1001.9	959.8	946.7	949.3
42.5°	23081.1	9627.5	4446.9	2272.1	1233.4	1115.0	1028.3	986.1	938.9	925.7	923.0
45°	23956.9	9546.0	4294.3	2161.6	1254.3	1117.7	1023.0	978.2	930.9	915.1	909.9
47.5°	25111.3	9801.0	4136.6	2030.1	1299.0	1130.8	1030.8	978.2	928.3	915.1	909.9
50°	26565.6	10400.6	3936.7	1838.1	1254.3	1167.6	1028.3	970.4	928.3	915.1	904.6
52.5°	28432.7	11210.5	3673.7	1617.3	1228.1	1257.0	1023.0	954.6	915.1	896.7	878.3
55°	30702.1	11873.3	3360.8	1435.8	1167.6	1233.4	1015.1	936.2	894.1	867.8	852.0
57.5°	32364.1	12112.6	2958.5	1317.5	1083.4	1193.9	1004.5	912.5	867.8	846.8	825.7
60°	32035.4	11649.8	2619.3	1243.9	1033.5	1078.2	996.7	891.5	844.1	828.4	810.0
62.5°	29403.1	10440.0	2401.0	1209.6	1001.9	983.6	1004.5	870.4	823.1	807.3	802.1
65°	25455.8	8654.5	2314.1	1201.8	975.6	928.3	933.5	846.8	799.4	786.2	781.0
67.5°	20998.4	6984.6	2237.9	1228.1	941.4	888.8	862.6	815.2	775.8	762.6	752.1
70°	16559.4	5809.1	2203.7	1212.3	899.4	849.4	820.5	781.0	746.9	733.7	725.8
72.5°	13335.4	4907.1	2185.3	1196.5	844.1	796.8	770.5	736.3	699.5	694.3	686.4
75°	11284.2	3857.9	2001.2	1146.5	781.0	733.7	715.2	683.7	646.9	646.9	641.7
77.5°	8704.4	2790.1	1664.6	1015.1	715.2	662.7	646.9	623.3	581.1	589.0	586.5
80°	6429.7	1819.7	1301.7	841.5	633.7	583.8	575.9	552.3	507.6	518.0	518.0
82.5°	4404.8	1193.9	936.2	689.0	541.8	494.4	494.4	470.8	420.7	426.1	441.8
85°	2211.6	820.5	699.5	533.9	420.7	397.1	397.1	378.7	328.7	331.3	352.4
87.5°	673.2	494.4	462.8	381.4	302.4	297.2	284.0	270.9	239.3	236.7	249.8
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°	16162.3	16162.3	16162.3	16162.3	16162.3	16162.3	16162.3	16162.3	16162.3	16162.3	16162.3
2.5°	13940.3	13790.3	13608.9	13209.2	13075.1	13067.2	13188.1	13061.9	13303.8	13201.3	13314.3
5°	11242.1	11094.8	10892.4	10382.2	10071.9	9861.6	9761.6	9467.0	9680.1	9524.9	9653.8
7.5°	8267.9	8302.1	8168.0	7868.1	7192.4	6853.1	6653.3	6474.4	6629.5	6613.8	6860.9
10°	5811.7	5903.8	5809.1	5506.6	4959.7	4773.0	4809.8	4880.8	5083.2	5188.5	5569.8
12.5°	4183.9	4178.7	4118.2	3847.3	3487.0	3508.1	3658.0	3781.5	3968.2	4078.7	4467.9
15°	3124.1	3076.8	3050.5	2829.6	2624.5	2669.2	2742.8	2755.9	2874.3	2940.1	3255.6
17.5°	2361.5	2385.2	2414.1	2256.3	2101.1	2072.2	2014.4	1943.4	1977.6	1990.7	2148.5
20°	1875.0	1969.7	2040.7	1930.2	1772.5	1688.3	1614.6	1567.4	1567.4	1564.7	1609.4
22.5°	1638.4	1706.7	1783.0	1706.7	1564.7	1491.1	1449.0	1412.2	1406.9	1406.9	1449.0
25°	1509.5	1559.4	1633.0	1580.5	1475.3	1420.1	1380.6	1333.3	1314.9	1309.6	1338.5
27.5°	1446.4	1467.4	1504.2	1456.9	1367.5	1341.2	1330.7	1288.6	1264.9	1251.8	1280.6
30°	1338.5	1333.3	1335.9	1288.6	1217.6	1215.0	1233.4	1241.2	1233.4	1230.7	1275.4
32.5°	1238.6	1228.1	1225.5	1183.3	1117.7	1101.8	1117.7	1133.4	1151.8	1178.1	1230.7
35°	1112.4	1138.6	1154.5	1117.7	1038.7	991.4	973.0	944.1	928.3	928.3	988.8
37.5°	1012.4	1073.0	1096.6	1062.4	975.6	909.9	878.3	873.1	875.7	886.2	944.1
40°	978.2	1023.0	1044.0	1009.9	923.0	862.6	844.1	838.9	844.1	859.9	917.8
42.5°	957.2	988.8	986.1	944.1	873.1	831.0	820.5	815.2	820.5	836.3	899.4
45°	938.9	959.8	938.9	888.8	823.1	802.1	804.7	802.1	807.3	823.1	883.6
47.5°	923.0	930.9	904.6	854.7	786.2	781.0	791.6	799.4	804.7	817.8	881.0
50°	899.4	899.4	875.7	823.1	754.7	757.4	770.5	788.9	791.6	807.3	857.3
52.5°	870.4	867.8	852.0	802.1	728.4	736.3	736.3	757.4	762.6	781.0	833.6
55°	846.8	841.5	833.6	786.2	704.8	717.9	710.0	717.9	731.1	749.5	807.3
57.5°	825.7	815.2	815.2	773.1	686.4	691.6	673.2	683.7	699.5	715.2	775.8
60°	804.7	794.2	799.4	754.7	657.5	652.1	644.3	665.3	670.5	689.0	749.5
62.5°	781.0	773.1	775.8	733.7	636.4	623.3	623.3	641.7	644.3	670.5	728.4
65°	762.6	752.1	749.5	712.7	612.7	597.0	604.9	612.7	618.0	644.3	699.5
67.5°	744.2	723.2	723.2	694.3	586.5	570.6	586.5	583.8	591.7	615.4	660.1
70°	720.6	691.6	694.3	681.1	560.2	541.8	554.8	552.3	557.5	573.3	618.0
72.5°	683.7	660.1	665.3	660.1	533.9	507.6	512.8	512.8	512.8	525.9	573.3
75°	636.4	618.0	633.7	646.9	502.3	465.4	470.8	470.8	462.8	470.8	528.6
77.5°	578.6	568.0	620.6	602.2	465.4	420.7	420.7	415.5	399.8	410.2	473.3
80°	515.5	507.6	573.3	504.9	423.4	365.5	360.3	347.1	331.3	339.2	402.3
82.5°	449.7	441.8	481.2	386.6	365.5	302.4	289.3	265.6	249.8	257.7	315.6
85°	368.2	368.2	370.8	292.0	278.8	231.4	215.6	184.1	165.7	170.9	226.2
87.5°	263.0	270.9	249.8	199.9	165.7	128.9	118.4	99.9	84.2	97.3	118.4
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: P191297

CATALOG NUMBER: GLEON-AF-09-LED-E1-SLL

CANDELA DISTRIBUTION (continued):

	295°	305°	315°	325°	335°	345°	355°	360°
0°	16162.3	16162.3	16162.3	16162.3	16162.3	16162.3	16162.3	16162.3
2.5°	13892.9	14182.2	14510.9	14931.6	15291.9	15883.6	16451.6	16793.5
5°	10387.5	10868.6	11468.3	12238.8	12956.7	14034.9	15105.2	15791.6
7.5°	7434.3	7949.7	8596.6	9559.1	10574.1	11949.5	13364.3	14184.7
10°	6150.9	6679.6	7223.9	7873.4	8704.4	10200.8	11873.3	12799.0
12.5°	5088.6	5654.0	6240.4	6924.0	7694.6	9030.5	10958.2	12023.2
15°	3894.7	4525.7	5217.4	6082.6	7047.7	8591.4	10732.0	11889.0
17.5°	2669.2	3374.0	4223.4	5291.0	6471.8	8449.4	11137.0	12470.2
20°	1838.1	2350.9	3258.2	4510.0	5930.0	8431.0	11915.3	13585.2
22.5°	1538.4	1767.1	2429.9	3792.1	5522.4	8657.1	13122.4	15149.9
25°	1422.7	1559.4	1940.7	3168.8	5225.3	9177.8	14784.4	17174.8
27.5°	1354.3	1478.0	1761.9	2761.3	4991.3	9782.6	16401.7	19136.5
30°	1380.6	1506.8	1711.9	2553.5	4673.0	10287.5	17837.5	20667.1
32.5°	1243.9	1299.0	1467.4	2369.4	4444.2	10710.9	19094.5	21934.6
35°	1059.8	1157.1	1309.6	2282.6	4449.5	10994.9	20464.6	23554.6
37.5°	1009.9	1107.1	1217.6	2251.0	4510.0	11297.4	22037.2	25453.2
40°	978.2	1067.7	1162.4	2232.7	4567.9	11573.5	23578.2	27330.8
42.5°	957.2	1038.7	1157.1	2169.6	4596.7	11820.7	24845.7	28927.1
45°	954.6	1038.7	1178.1	2106.5	4641.4	12086.3	25908.2	30107.8
47.5°	957.2	1073.0	1138.6	2030.1	4641.4	12530.7	27154.6	31162.4
50°	946.7	1130.8	1096.6	1922.3	4533.6	13372.2	28864.0	32574.5
52.5°	941.4	1122.9	1015.1	1756.7	4346.9	14708.1	31054.5	34520.5
55°	928.3	1083.4	957.2	1509.5	4128.7	16165.0	33400.3	36821.5
57.5°	915.1	959.8	925.7	1293.8	3792.1	17190.6	35014.9	38617.6
60°	1025.6	838.9	899.4	1188.7	3342.4	17472.0	34951.8	39333.0
62.5°	949.3	786.2	865.2	1164.9	3026.8	16683.0	33337.1	38946.4
65°	744.2	752.1	831.0	1233.4	2942.7	14592.4	30476.0	37160.8
67.5°	681.1	717.9	796.8	1320.1	2950.6	11683.9	26200.0	33271.4
70°	641.7	681.1	757.4	1364.8	2971.6	8709.7	20714.4	27099.4
72.5°	597.0	631.2	712.7	1372.7	2834.9	6327.2	15965.1	19925.5
75°	544.3	575.9	649.6	1196.5	2348.4	4389.1	12212.5	13632.6
77.5°	483.9	507.6	570.6	923.0	1743.5	2808.5	9167.3	9958.8
80°	412.9	426.1	478.6	675.9	1193.9	1756.7	7252.8	7991.8
82.5°	331.3	336.7	370.8	507.6	775.8	1128.1	4857.1	5543.5
85°	234.1	234.1	255.1	368.2	528.6	715.2	2637.6	2924.3
87.5°	110.5	113.0	113.0	202.4	276.1	362.9	607.4	373.4
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)