

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: P191272

Luminaire Tested: **GLEON-AF-04-LED-E1-SLL-600**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P191272  
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-600  
Description: GALLEON AREA AND ROADWAY LUMINAIRE  
(4) 70 CRI, 4000K, 615mA 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: 14222.1 lumens  
Efficiency: N/A  
Efficacy: 110.2 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

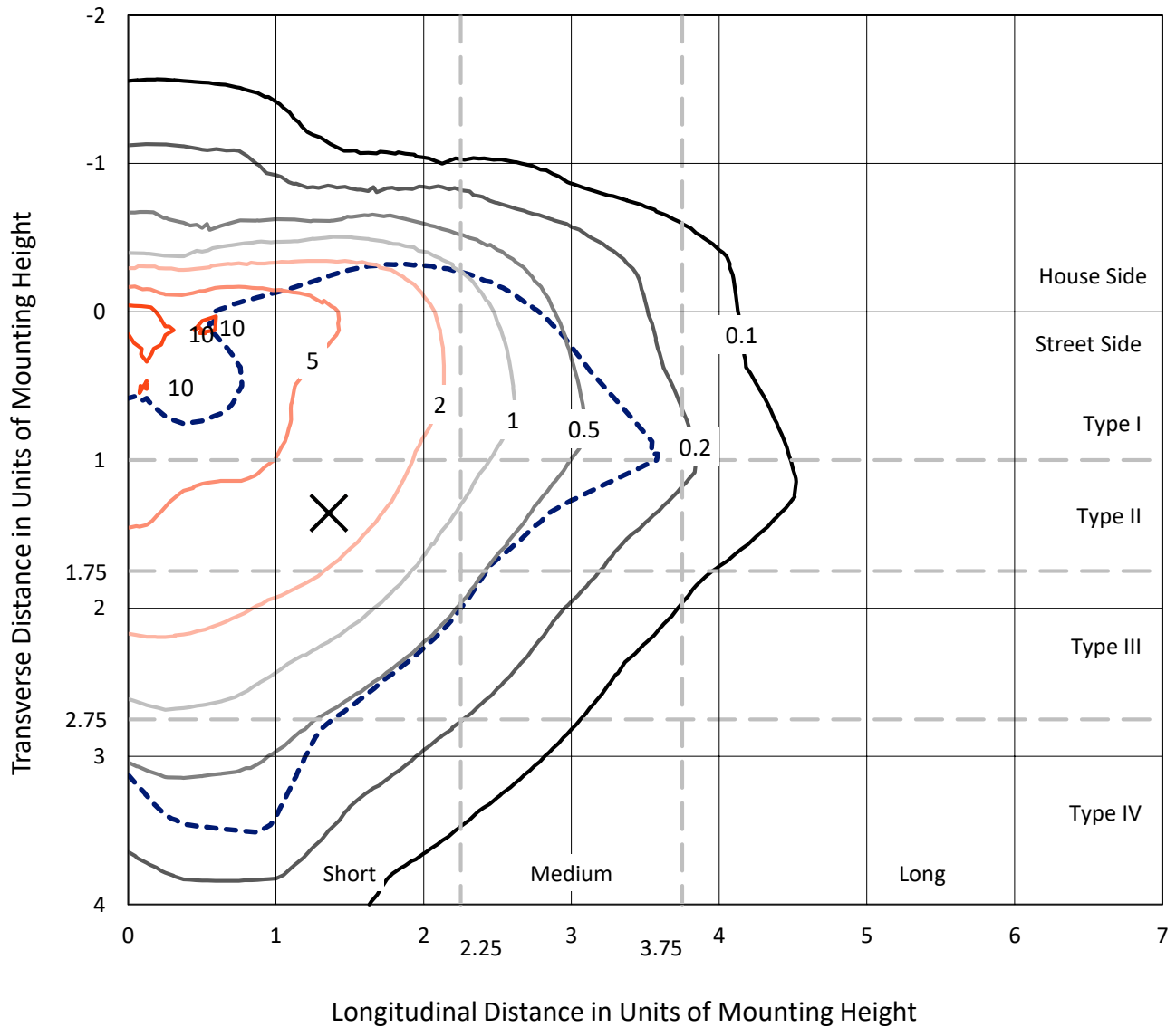
Input Watts (W): 129  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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### Iso-Footcandle Lines of Horizontal Illumination

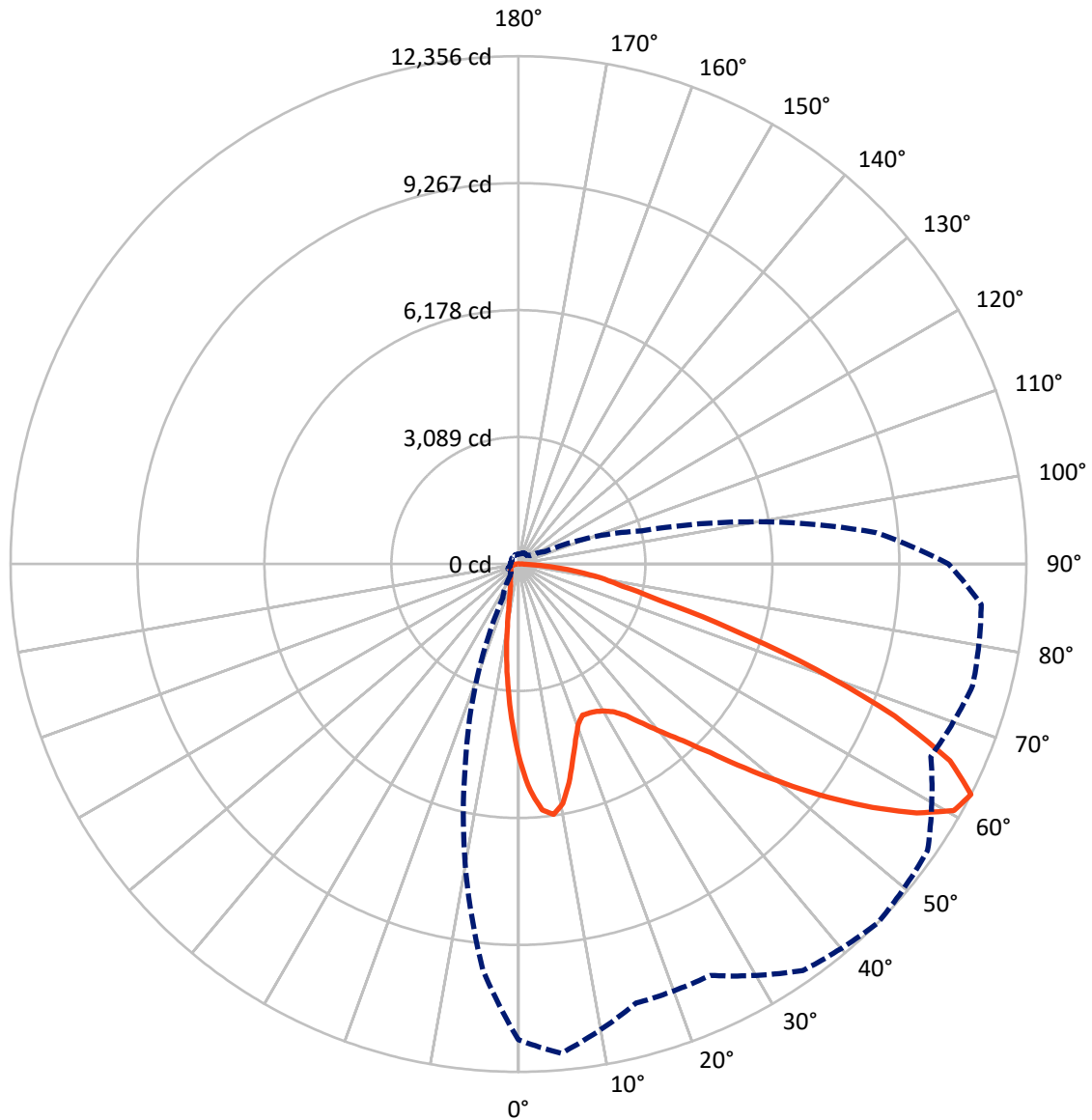
✕ Max cd  
 - - - 1/2 Max cd



Based on 20 foot mounting height. Maximum calculated value = 14.1 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
<b>House Side</b>	Lumens	2353.6	0.0	2353.6
	% Fixture	16.5	0.0	16.5
<b>Street Side</b>	Lumens	11868.5	0.0	11868.5
	% Fixture	83.5	0.0	83.5
<b>Total</b>	Lumens	14222.1	0.0	14222.1
	% Fixture	100.0	0.0	100.0

**Coefficient of Utilization**

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	349.8	2.5
10°-20°	641.4	4.5
20°-30°	935.2	6.6
30°-40°	1440.3	10.1
40°-50°	2119.7	14.9
50°-60°	3109.2	21.9
60°-70°	3475.6	24.4
70°-80°	1701.6	12.0
80°-90°	449.3	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°	14222.1	100.0
0°-180°	14222.1	100.0



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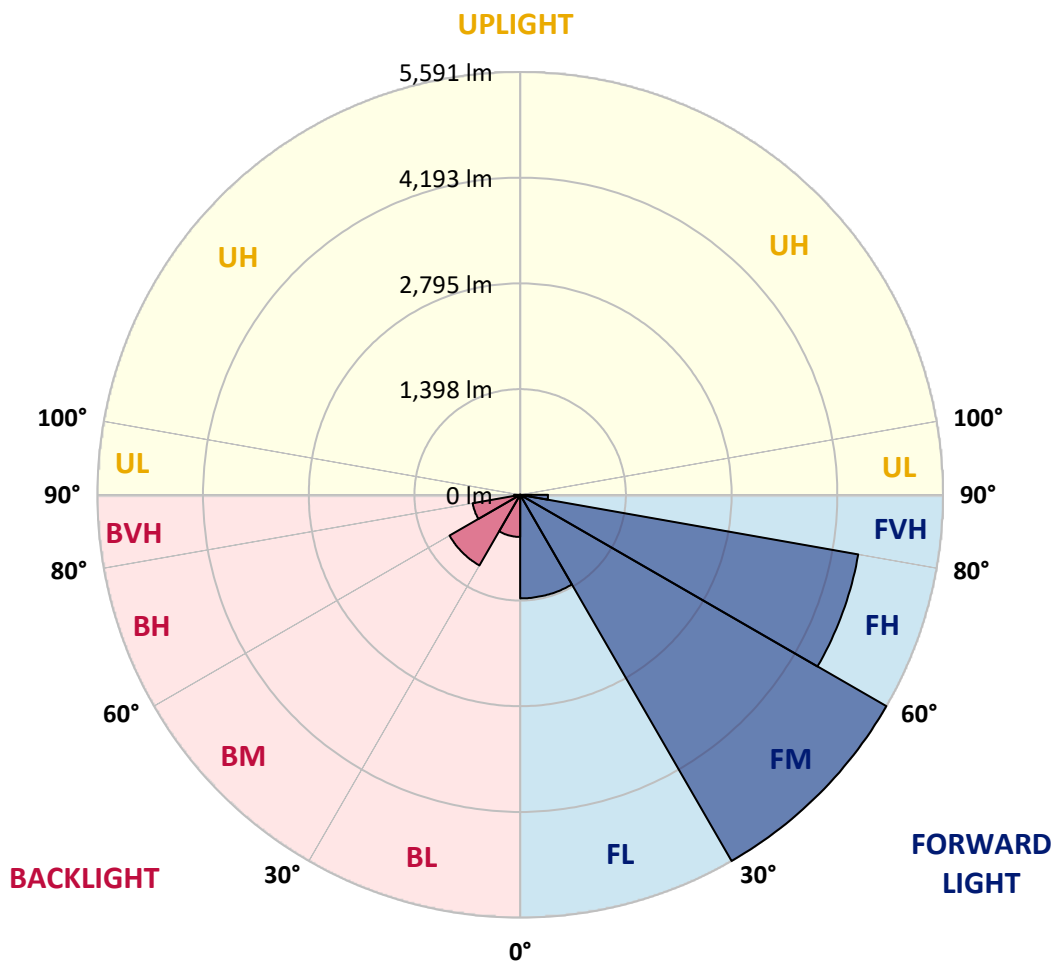
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	1369.5	9.6			
FM	(30°-60°)	5590.8	39.3			
FH	(60°-80°)	4539.2	31.9			G2/5000
FVH	(80°-90°)	369.0	2.6			G3/500
BL	(0°-30°)	556.8	3.9	B2/1000		
BM	(30°-60°)	1078.4	7.6	B2/2500		
BH	(60°-80°)	638.0	4.5	B2/1000		G2/1000
BVH	(80°-90°)	80.3	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°	4805.0	4805.0	4805.0	4805.0	4805.0	4805.0	4805.0	4805.0	4805.0	4805.0	4805.0
2.5°	4992.6	5072.4	5228.0	5344.4	5486.0	5518.8	5564.1	5519.5	5440.6	5335.8	5301.4
5°	4694.7	4865.2	5242.8	5575.1	5870.6	6008.2	6046.5	5933.1	5704.1	5403.0	5219.3
7.5°	4217.1	4459.5	4970.7	5460.1	5895.6	6152.8	6146.6	5883.1	5461.7	4971.5	4676.7
10°	3805.1	4081.8	4668.1	5215.4	5677.5	5926.9	5830.7	5493.8	4991.1	4426.6	4106.8
12.5°	3574.4	3845.7	4440.6	4990.3	5376.5	5462.5	5389.0	5059.1	4585.3	4014.6	3734.7
15°	3534.5	3832.4	4350.0	4797.1	5013.7	4938.7	4851.1	4703.3	4368.7	3881.7	3590.0
17.5°	3707.4	4035.6	4453.9	4662.7	4626.0	4495.4	4470.4	4486.8	4406.3	4029.4	3693.3
20°	4038.8	4432.9	4701.8	4599.4	4331.2	4151.4	4157.7	4408.6	4647.1	4403.9	4020.1
22.5°	4504.0	4953.5	5059.1	4632.9	4206.9	3993.5	4045.1	4451.6	5031.0	4951.2	4461.0
25°	5106.0	5515.6	5439.8	4755.0	4219.4	4013.0	4054.5	4600.1	5484.3	5498.5	5006.7
27.5°	5689.2	6069.2	5759.6	4916.8	4271.0	4059.2	4113.9	4834.0	5917.5	6092.6	5630.5
30°	6144.3	6408.5	5886.3	5064.5	4372.6	4149.1	4217.1	5055.9	6114.5	6493.7	6110.6
32.5°	6521.0	6711.1	6087.9	5247.5	4559.5	4290.6	4410.1	5325.7	6398.4	6875.3	6580.4
35°	7002.6	7056.6	6338.9	5451.5	4848.0	4536.8	4685.3	5589.9	6668.8	7260.6	7043.3
37.5°	7567.1	7497.5	6575.7	5730.7	5220.9	4922.2	5045.0	5879.9	6891.6	7697.7	7516.3
40°	8125.3	7958.0	6872.9	6163.8	5765.0	5376.5	5521.9	6189.6	7099.6	8135.5	7978.3
42.5°	8599.8	8352.1	7166.1	6639.9	6271.6	5877.7	6051.2	6501.5	7298.1	8509.2	8379.4
45°	8950.9	8642.9	7445.1	7097.2	6969.8	6543.7	6625.9	6858.8	7513.2	8821.1	8709.3
47.5°	9264.5	8935.3	7761.0	7558.5	7580.4	7409.9	7277.9	7274.7	7766.4	9076.0	9021.3
50°	9684.3	9341.1	8100.3	8033.8	8496.6	8383.3	8091.7	7760.2	8087.0	9365.2	9359.0
52.5°	10262.8	9983.7	8514.6	8545.9	9352.0	9426.3	9065.1	8343.5	8588.9	9896.1	9858.6
55°	10946.9	10784.3	9079.1	9134.6	10401.2	10454.4	10095.5	9072.9	9327.0	10664.7	10560.6
57.5°	11480.9	11446.4	9698.3	9841.4	11184.5	11423.8	11093.8	9917.2	10158.8	11312.0	11050.8
60°	11693.5	11860.0	10357.4	10554.4	11909.3	12174.3	11885.1	10659.1	10896.1	11580.1	11017.2
62.5°	11578.6	11950.7	11059.4	11043.1	12071.1	12356.4	12153.2	11071.9	11442.5	11303.4	10459.8
65°	11047.8	11624.7	11466.8	10917.1	11517.6	11541.0	11475.4	10887.5	11571.5	10428.6	9382.5
67.5°	9891.4	10721.8	10930.4	9838.2	10024.3	9871.9	9761.6	9877.3	10899.1	9117.5	7885.3
70°	8056.6	9305.9	9405.9	7868.8	7784.5	7682.1	7462.3	8098.0	9572.5	7472.6	6256.8
72.5°	5923.7	7237.2	7544.5	5771.3	5380.4	5401.5	5228.0	6102.8	7782.9	5550.8	4671.3
75°	4052.9	5240.5	5902.6	4027.1	3558.0	3566.6	3544.7	4324.2	6199.0	3861.3	3495.4
77.5°	2960.7	3744.1	4451.6	2707.4	2628.5	2580.0	2568.2	3025.6	4752.6	2803.6	2714.4
80°	2375.9	2766.1	2990.4	1876.3	2017.9	2014.0	1949.0	2080.4	3103.7	2050.7	2030.4
82.5°	1648.1	2125.7	2422.9	1470.6	1362.0	1339.2	1354.9	1549.6	2193.7	1401.7	1333.0
85°	869.4	1412.0	2399.3	1303.2	808.4	645.0	802.1	1268.9	1900.5	742.8	650.5
87.5°	111.0	408.1	1588.6	519.9	319.0	172.0	380.7	714.5	1220.4	151.7	132.2
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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**CANDELA DISTRIBUTION (continued):**

	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°	185°
0°	4805.0	4805.0	4805.0	4805.0	4805.0	4805.0	4805.0	4805.0	4805.0	4805.0	4805.0
2.5°	5213.1	5109.1	4973.1	4847.3	4716.6	4586.9	4417.2	4310.9	4237.4	4223.4	4192.1
5°	5086.4	4740.9	4479.7	4253.8	4048.9	3759.8	3599.5	3466.6	3395.4	3388.3	3371.1
7.5°	4502.4	4025.5	3672.9	3353.1	3063.1	2829.4	2571.4	2451.0	2401.7	2413.4	2425.2
10°	3895.0	3361.7	2956.8	2630.0	2374.4	2177.4	1970.2	1830.2	1733.3	1713.7	1709.9
12.5°	3450.9	2866.1	2472.9	2242.2	2044.5	1859.1	1639.5	1474.5	1348.7	1305.6	1276.6
15°	3263.2	2623.8	2211.7	1963.1	1744.9	1509.7	1305.6	1132.8	1017.1	979.6	958.5
17.5°	3303.1	2556.6	2031.9	1713.7	1434.6	1189.1	931.9	784.2	714.5	696.6	696.6
20°	3512.6	2544.0	1883.4	1483.9	1136.0	851.4	640.3	555.9	533.2	530.8	537.2
22.5°	3806.6	2587.8	1772.4	1284.5	882.7	621.5	498.8	467.5	457.4	459.7	466.8
25°	4244.4	2735.6	1691.9	1107.0	692.6	508.9	444.9	426.1	421.4	427.7	436.3
27.5°	4763.6	2883.3	1641.8	973.3	584.8	465.1	423.0	403.5	406.5	414.4	422.2
30°	5219.3	3004.5	1562.9	878.0	551.2	467.5	423.0	396.4	393.2	394.9	397.1
32.5°	5628.3	3086.5	1470.6	787.3	475.4	415.1	394.9	390.9	373.7	367.4	368.3
35°	5980.8	3086.5	1415.0	734.1	426.1	368.3	335.4	315.9	307.3	308.0	316.6
37.5°	6320.9	3024.8	1387.7	704.4	399.5	350.3	321.3	304.1	292.4	290.0	291.6
40°	6621.2	2934.9	1356.4	691.9	379.2	339.3	311.9	297.9	285.4	281.4	282.2
42.5°	6862.0	2862.2	1322.1	675.5	366.6	331.4	305.7	293.2	279.1	275.2	274.5
45°	7122.3	2838.0	1276.6	642.6	373.0	332.3	304.1	290.8	276.8	272.1	270.5
47.5°	7465.5	2913.8	1229.8	603.5	386.2	336.1	306.5	290.8	276.0	272.1	270.5
50°	7897.8	3092.1	1170.4	546.5	373.0	347.1	305.7	288.5	276.0	272.1	268.9
52.5°	8452.9	3332.9	1092.2	480.8	365.1	373.7	304.1	283.8	272.1	266.6	261.2
55°	9127.6	3529.9	999.1	426.9	347.1	366.6	301.8	278.3	265.9	258.0	253.3
57.5°	9621.7	3601.0	879.5	391.7	322.1	355.0	298.6	271.3	258.0	251.7	245.5
60°	9524.0	3463.4	778.7	369.8	307.3	320.5	296.3	265.0	250.9	246.2	240.8
62.5°	8741.4	3103.7	713.8	359.7	297.9	292.4	298.6	258.8	244.7	240.0	238.4
65°	7567.9	2572.9	688.0	357.3	290.0	276.0	277.5	251.7	237.6	233.7	232.2
67.5°	6242.8	2076.5	665.3	365.1	279.9	264.2	256.5	242.3	230.7	226.7	223.6
70°	4923.1	1727.0	655.2	360.4	267.4	252.6	244.0	232.2	222.1	218.1	215.7
72.5°	3964.5	1458.8	649.7	355.7	250.9	236.9	229.0	218.9	208.0	206.4	204.1
75°	3354.8	1146.9	594.9	340.8	232.2	218.1	212.7	203.3	192.3	192.3	190.8
77.5°	2587.8	829.5	494.9	301.8	212.7	197.0	192.3	185.3	172.8	175.1	174.3
80°	1911.5	541.0	387.0	250.2	188.4	173.6	171.2	164.2	150.9	154.1	154.1
82.5°	1309.5	355.0	278.3	204.8	161.0	147.0	147.0	139.9	125.1	126.6	131.3
85°	657.5	244.0	208.0	158.7	125.1	118.0	118.0	112.6	97.7	98.5	104.8
87.5°	200.2	147.0	137.6	113.3	89.9	88.4	84.4	80.5	71.1	70.4	74.3
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°	4805.0	4805.0	4805.0	4805.0	4805.0	4805.0	4805.0	4805.0	4805.0	4805.0	4805.0
2.5°	4144.4	4099.8	4045.9	3927.0	3887.1	3884.8	3920.8	3883.2	3955.1	3924.7	3958.3
5°	3342.2	3298.4	3238.3	3086.5	2994.3	2931.8	2902.1	2814.5	2877.9	2831.7	2870.0
7.5°	2458.0	2468.2	2428.3	2339.2	2138.3	2037.4	1978.0	1924.8	1970.9	1966.2	2039.8
10°	1727.8	1755.2	1727.0	1637.1	1474.5	1418.9	1429.9	1451.1	1511.2	1542.5	1655.9
12.5°	1243.8	1242.3	1224.3	1143.8	1036.7	1042.9	1087.5	1124.2	1179.8	1212.6	1328.3
15°	928.7	914.7	906.8	841.3	780.2	793.5	815.4	819.4	854.5	874.1	967.9
17.5°	702.1	709.1	717.7	670.7	624.6	616.0	598.8	577.8	587.9	591.8	638.7
20°	557.4	585.5	606.7	573.9	526.9	502.0	480.1	466.0	466.0	465.1	478.4
22.5°	487.0	507.4	530.1	507.4	465.1	443.2	430.8	419.8	418.3	418.3	430.8
25°	448.8	463.6	485.5	469.8	438.6	422.2	410.4	396.4	390.9	389.3	397.9
27.5°	429.9	436.3	447.2	433.1	406.5	398.7	395.6	383.1	376.0	372.1	380.7
30°	397.9	396.4	397.1	383.1	362.0	361.2	366.6	369.0	366.6	365.9	379.2
32.5°	368.3	365.1	364.3	351.8	332.3	327.5	332.3	337.0	342.4	350.3	365.9
35°	330.7	338.5	343.2	332.3	308.8	294.7	289.3	280.7	276.0	276.0	294.0
37.5°	301.0	319.0	326.0	315.9	290.0	270.5	261.2	259.5	260.3	263.5	280.7
40°	290.8	304.1	310.4	300.2	274.5	256.5	250.9	249.4	250.9	255.6	272.8
42.5°	284.6	294.0	293.2	280.7	259.5	247.0	244.0	242.3	244.0	248.6	267.4
45°	279.1	285.4	279.1	264.2	244.7	238.4	239.3	238.4	240.0	244.7	262.7
47.5°	274.5	276.8	268.9	254.1	233.7	232.2	235.3	237.6	239.3	243.2	261.9
50°	267.4	267.4	260.3	244.7	224.3	225.2	229.0	234.6	235.3	240.0	254.9
52.5°	258.8	258.0	253.3	238.4	216.6	218.9	218.9	225.2	226.7	232.2	247.9
55°	251.7	250.2	247.9	233.7	209.5	213.4	211.1	213.4	217.4	222.8	240.0
57.5°	245.5	242.3	242.3	229.9	204.1	205.6	200.2	203.3	208.0	212.7	230.7
60°	239.3	236.1	237.6	224.3	195.5	193.8	191.5	197.8	199.4	204.8	222.8
62.5°	232.2	229.9	230.7	218.1	189.2	185.3	185.3	190.8	191.5	199.4	216.6
65°	226.7	223.6	222.8	211.9	182.2	177.5	179.8	182.2	183.7	191.5	208.0
67.5°	221.3	215.0	215.0	206.4	174.3	169.6	174.3	173.6	175.9	182.9	196.2
70°	214.2	205.6	206.4	202.4	166.5	161.0	165.0	164.2	165.7	170.4	183.7
72.5°	203.3	196.2	197.8	196.2	158.7	150.9	152.4	152.4	152.4	156.4	170.4
75°	189.2	183.7	188.4	192.3	149.4	138.4	139.9	139.9	137.6	139.9	157.1
77.5°	172.0	168.9	184.5	179.0	138.4	125.1	125.1	123.6	118.9	121.9	140.8
80°	153.2	150.9	170.4	150.1	125.8	108.6	107.1	103.2	98.5	100.9	119.6
82.5°	133.7	131.3	143.1	114.9	108.6	89.9	86.0	79.0	74.3	76.6	93.8
85°	109.5	109.5	110.3	86.7	82.9	68.8	64.1	54.7	49.2	50.8	67.2
87.5°	78.2	80.5	74.3	59.4	49.2	38.3	35.2	29.7	25.1	28.9	35.2
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-600

**CANDELA DISTRIBUTION (continued):**

	295°	305°	315°	325°	335°	345°	355°	360°
0°	4805.0	4805.0	4805.0	4805.0	4805.0	4805.0	4805.0	4805.0
2.5°	4130.3	4216.3	4314.0	4439.1	4546.2	4722.1	4891.0	4992.6
5°	3088.2	3231.2	3409.5	3638.5	3851.9	4172.5	4490.7	4694.7
7.5°	2210.2	2363.4	2555.7	2841.9	3143.6	3552.5	3973.1	4217.1
10°	1828.6	1985.8	2147.6	2340.7	2587.8	3032.6	3529.9	3805.1
12.5°	1512.8	1680.9	1855.2	2058.5	2287.5	2684.7	3257.8	3574.4
15°	1157.9	1345.5	1551.1	1808.3	2095.2	2554.2	3190.6	3534.5
17.5°	793.5	1003.1	1255.6	1573.0	1924.1	2512.0	3311.0	3707.4
20°	546.5	699.0	968.6	1340.8	1763.0	2506.4	3542.4	4038.8
22.5°	457.4	525.4	722.4	1127.4	1641.8	2573.7	3901.2	4504.0
25°	423.0	463.6	576.9	942.0	1553.5	2728.5	4395.3	5106.0
27.5°	402.6	439.4	523.9	820.9	1483.9	2908.4	4876.1	5689.2
30°	410.4	448.0	508.9	759.1	1389.3	3058.4	5303.0	6144.3
32.5°	369.8	386.2	436.3	704.4	1321.2	3184.3	5676.7	6521.0
35°	315.1	344.0	389.3	678.6	1322.8	3268.7	6084.0	7002.6
37.5°	300.2	329.2	362.0	669.2	1340.8	3358.7	6551.6	7567.1
40°	290.8	317.4	345.6	663.8	1358.0	3440.7	7009.7	8125.3
42.5°	284.6	308.8	344.0	645.0	1366.6	3514.2	7386.5	8599.8
45°	283.8	308.8	350.3	626.3	1379.9	3593.2	7702.4	8950.9
47.5°	284.6	319.0	338.5	603.5	1379.9	3725.3	8072.9	9264.5
50°	281.4	336.1	326.0	571.5	1347.8	3975.5	8581.1	9684.3
52.5°	279.9	333.8	301.8	522.2	1292.3	4372.6	9232.3	10262.8
55°	276.0	322.1	284.6	448.8	1227.4	4805.7	9929.7	10946.9
57.5°	272.1	285.4	275.2	384.6	1127.4	5110.7	10409.8	11480.9
60°	304.9	249.4	267.4	353.3	993.7	5194.3	10391.0	11693.5
62.5°	282.2	233.7	257.2	346.4	899.9	4959.8	9911.0	11578.6
65°	221.3	223.6	247.0	366.6	874.8	4338.2	9060.4	11047.8
67.5°	202.4	213.4	236.9	392.5	877.2	3473.5	7789.2	9891.4
70°	190.8	202.4	225.2	405.8	883.4	2589.4	6158.3	8056.6
72.5°	177.5	187.6	211.9	408.1	842.8	1881.0	4746.4	5923.7
75°	161.8	171.2	193.1	355.7	698.2	1304.9	3630.8	4052.9
77.5°	143.8	150.9	169.6	274.5	518.3	834.9	2725.3	2960.7
80°	122.8	126.6	142.3	200.9	355.0	522.2	2156.2	2375.9
82.5°	98.5	100.0	110.3	150.9	230.7	335.4	1444.0	1648.1
85°	69.6	69.6	75.8	109.5	157.1	212.7	784.2	869.4
87.5°	32.8	33.7	33.7	60.1	82.0	107.9	180.6	111.0
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)