

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: P299011

Luminaire Tested: **GLNA-AF-07-LED-E1-SLL-7027-600**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P299011
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P191289)
Test Lab: INNOVATION CENTER P2
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: MCGRAW-EDISON
Catalog Number: GLNA-AF-07-LED-E1-SLL-7027-600
Description: GALLEONAIRE AREA AND ROADWAY LUMINAIRE
(7) 70 CRI, 2700K CCT 600mA LIGHTSQUARE WITH 16 LEDS EACH AND 90° Spill
Light Eliminator Left OPTICS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 21108.2 lumens
Efficiency: N/A
Efficacy: 93.4 lumens/watt
Luminous Opening: Rectangular (W 2' x L: 1' x H: 0')
IES Classification: Type IV - Short - Non-Cutoff
BUG Rating: B2 - U0 - G4

Input Watts (W): 226
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

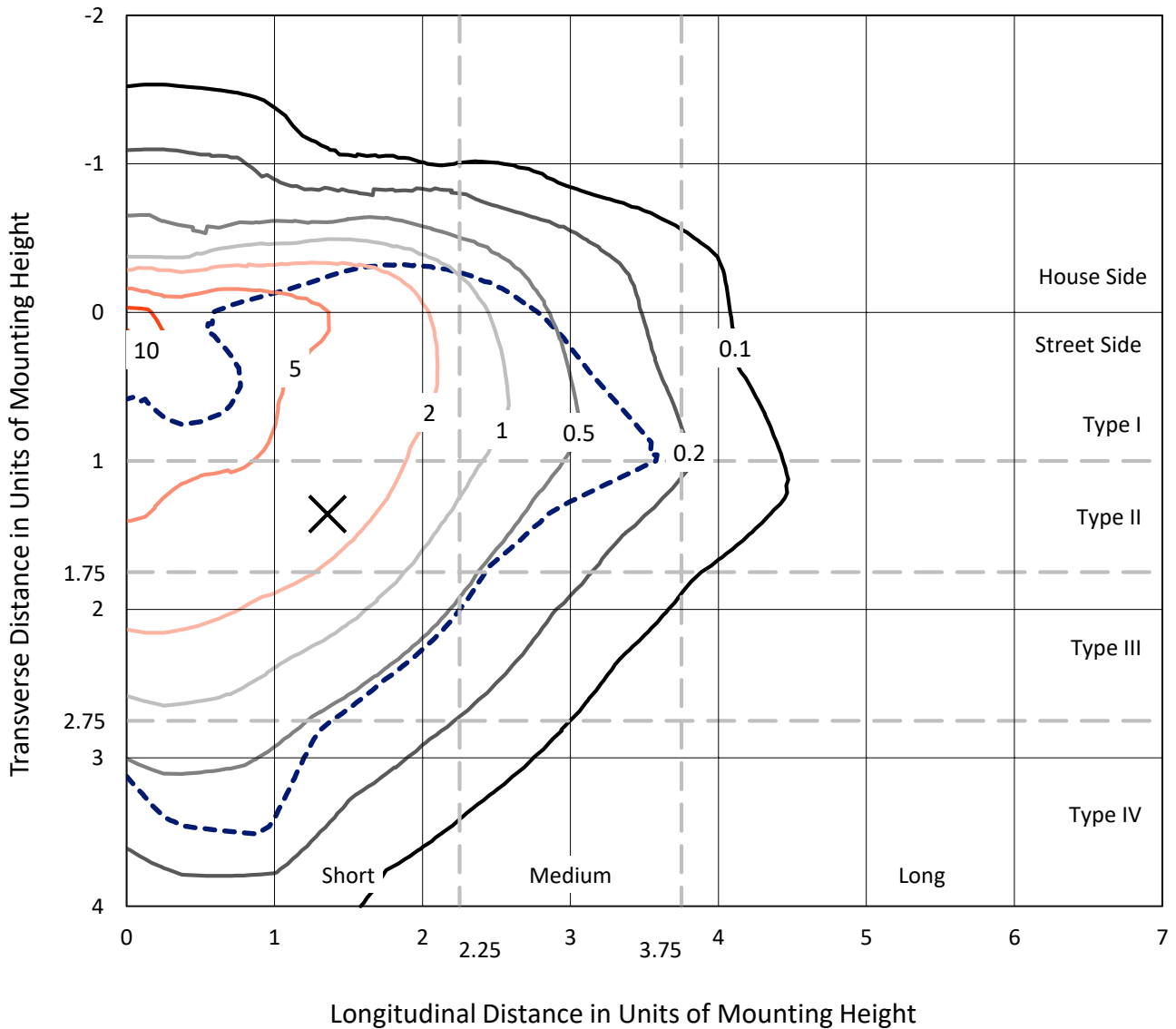


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Iso-Footcandle Lines of Horizontal Illumination

× Max cd
 - - - 1/2 Max cd

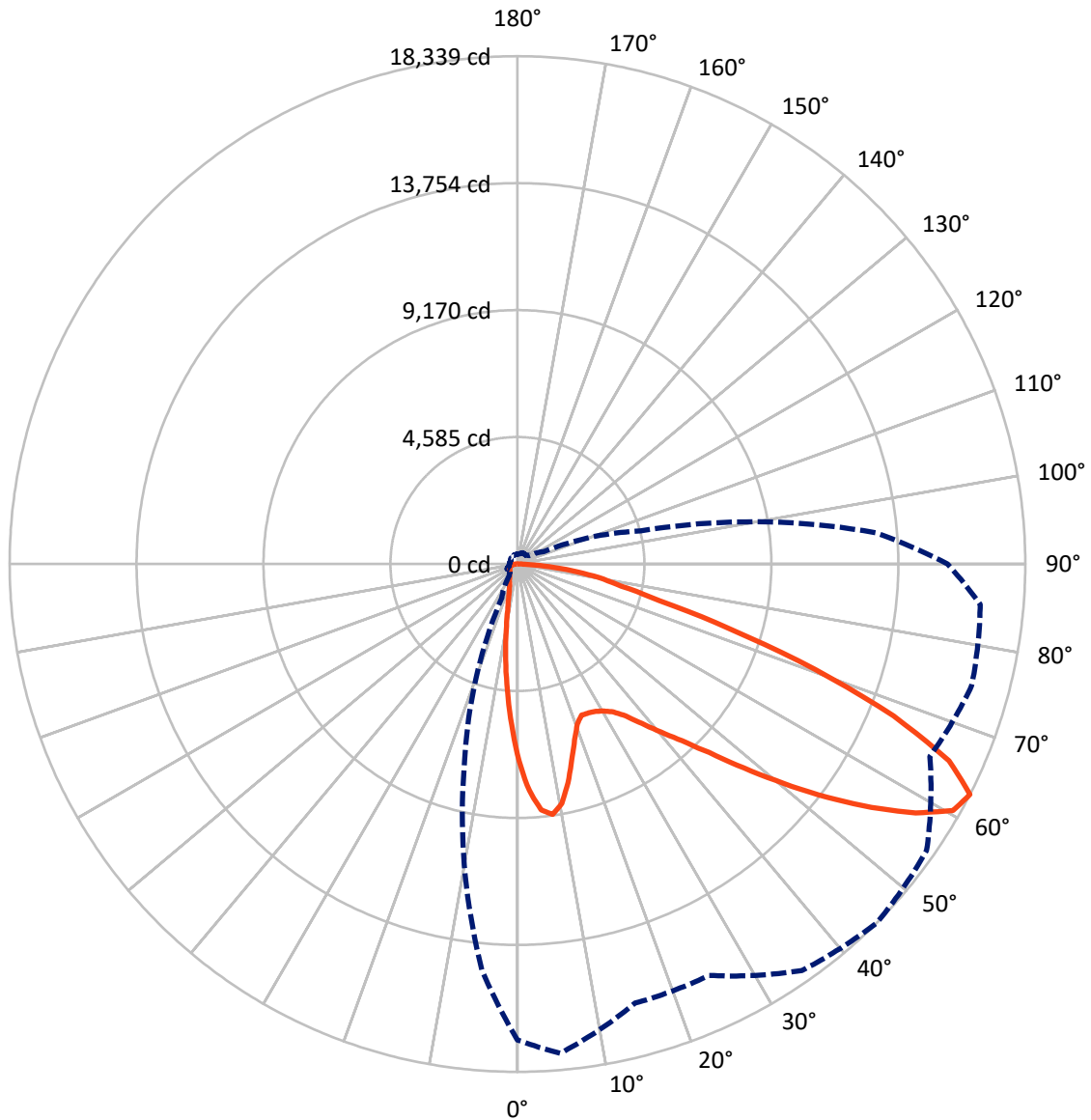


Based on 25 foot mounting height. Maximum calculated value = 13.4 fc
 Type IV - Short - Non-Cutoff

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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	3493.1	0.0	3493.1
	% Fixture	16.5	0.0	16.5
Street Side	Lumens	17615.1	0.0	17615.1
	% Fixture	83.5	0.0	83.5
Total	Lumens	21108.2	0.0	21108.2
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	519.1	2.5
10°-20°	952.0	4.5
20°-30°	1388.0	6.6
30°-40°	2137.7	10.1
40°-50°	3146.1	14.9
50°-60°	4614.6	21.9
60°-70°	5158.5	24.4
70°-80°	2525.5	12.0
80°-90°	666.8	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°	21108.2	100.0
0°-180°	21108.2	100.0



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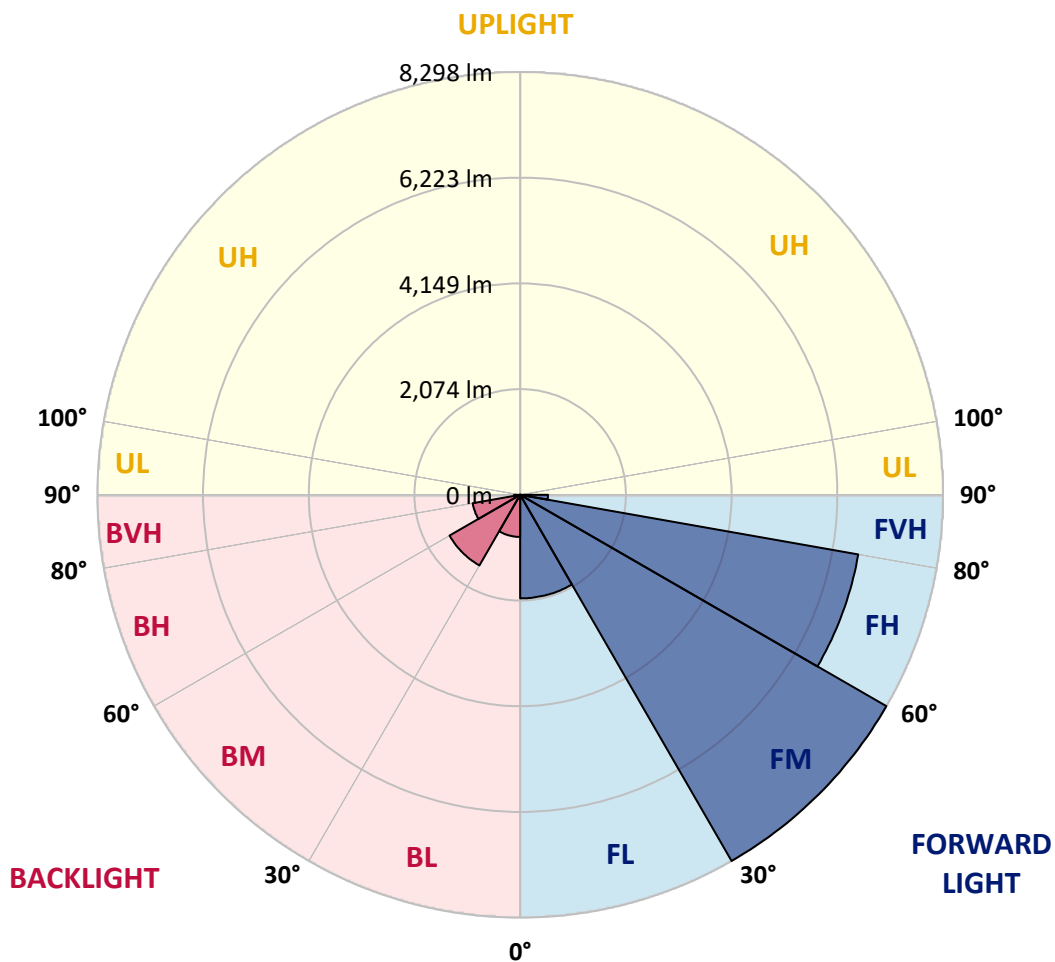
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	2032.7	9.6			
FM	(30°-60°)	8297.8	39.3			
FH	(60°-80°)	6737.0	31.9			G3/7500
FVH	(80°-90°)	547.6	2.6			G4/750
BL	(0°-30°)	826.4	3.9	B2/1000		
BM	(30°-60°)	1600.5	7.6	B2/2500		
BH	(60°-80°)	947.0	4.5	B2/1000		G2/1000
BVH	(80°-90°)	119.2	0.6			G2/225
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

BUG Rating: B2-U0-G4

Type IV Short





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	75°	85°	90°
0°	7131.7	7131.7	7131.7	7131.7	7131.7	7131.7	7131.7	7131.7	7131.7	7131.7	7131.7
2.5°	7409.7	7528.4	7759.3	7931.8	8142.4	8191.0	8258.4	8192.1	8074.9	7919.4	7868.5
5°	6967.9	7221.0	7781.1	8274.6	8713.0	8917.2	8974.5	8805.7	8465.9	8019.2	7746.5
7.5°	6259.0	6618.7	7377.3	8103.9	8749.9	9131.9	9122.5	8731.5	8106.2	7378.4	6941.1
10°	5647.2	6058.2	6928.7	7740.8	8426.4	8796.7	8653.5	8154.0	7407.5	6569.7	6095.5
12.5°	5305.2	5707.9	6590.8	7406.3	7979.6	8107.3	7998.1	7508.4	6805.1	5958.4	5542.9
15°	5245.7	5688.3	6456.3	7120.0	7441.4	7330.2	7199.9	6980.7	6483.8	5761.0	5328.2
17.5°	5502.6	5989.6	6610.8	6920.4	6865.8	6671.8	6634.9	6659.4	6540.0	5980.2	5481.5
20°	5994.5	6579.1	6978.4	6826.6	6428.5	6161.4	6170.8	6543.3	6897.0	6536.2	5966.3
22.5°	6684.6	7352.1	7508.4	6876.3	6243.9	5927.1	6003.9	6607.4	7467.0	7348.7	6620.9
25°	7578.1	8186.4	8073.8	7057.1	6262.3	5956.1	6017.5	6827.7	8139.7	8160.8	7431.2
27.5°	8443.7	9008.0	8548.0	7297.5	6339.2	6024.7	6106.0	7174.3	8782.7	9042.6	8357.1
30°	9119.1	9511.6	8736.0	7516.7	6489.9	6158.0	6259.0	7503.9	9075.4	9637.8	9069.4
32.5°	9678.5	9960.2	9035.5	7788.3	6767.1	6367.8	6545.6	7904.3	9496.5	10204.3	9766.6
35°	10393.0	10473.3	9408.0	8091.1	7195.4	6733.6	6953.9	8296.4	9898.1	10776.1	10453.7
37.5°	11231.2	11127.9	9759.5	8505.5	7749.1	7305.4	7487.7	8727.0	10228.4	11424.8	11155.4
40°	12059.5	11810.9	10200.9	9148.1	8556.7	7979.6	8195.5	9186.5	10537.3	12074.5	11841.4
42.5°	12763.9	12395.9	10635.6	9854.8	9308.2	8723.6	8981.2	9649.5	10831.9	12629.0	12436.5
45°	13284.8	12827.5	11050.0	10533.5	10344.4	9712.0	9834.0	10179.5	11150.9	13092.3	12926.2
47.5°	13750.0	13261.5	11518.6	11218.3	11250.7	10997.6	10801.4	10796.8	11527.2	13470.5	13389.2
50°	14373.1	13863.8	12022.2	11923.5	12610.6	12442.2	12009.4	11517.4	12002.6	13899.9	13890.5
52.5°	15231.9	14817.9	12637.3	12683.6	13880.4	13990.4	13454.0	12383.4	12747.3	14687.6	14632.2
55°	16247.4	16005.6	13475.4	13557.5	15437.2	15516.3	14983.3	13465.6	13843.1	15828.6	15674.1
57.5°	17039.6	16988.7	14394.2	14606.6	16600.0	16955.2	16465.5	14719.2	15077.5	16789.1	16401.5
60°	17355.3	17602.4	15372.4	15664.7	17675.8	18068.7	17639.6	15819.9	16171.7	17187.3	16351.8
62.5°	17185.0	17736.8	16414.3	16389.8	17915.8	18339.1	18037.4	16432.8	16983.1	16776.3	15524.6
65°	16397.0	17253.2	17018.9	16203.0	17094.2	17128.9	17031.3	16158.9	17174.4	15477.9	13925.2
67.5°	14680.4	15912.9	16222.6	14602.1	14877.8	14651.8	14487.9	14659.7	16176.2	13531.9	11703.1
70°	11957.4	13811.8	13959.8	11679.0	11553.6	11401.4	11075.6	12018.8	14207.3	11090.7	9286.3
72.5°	8792.1	10741.5	11197.3	8565.8	7985.7	8016.5	7759.3	9057.3	11551.3	8238.4	6933.2
75°	6015.2	7777.7	8760.9	5976.8	5281.1	5293.5	5260.7	6417.9	9200.5	5730.8	5188.0
77.5°	4394.4	5556.8	6607.4	4018.1	3900.9	3829.0	3811.6	4490.4	7053.7	4161.2	4028.6
80°	3526.1	4105.5	4438.1	2784.8	2994.6	2989.0	2892.5	3087.7	4606.4	3043.6	3013.1
82.5°	2446.2	3155.1	3595.8	2182.5	2021.3	1987.4	2011.1	2299.6	3256.0	2080.4	1978.3
85°	1290.5	2095.5	3561.2	1934.3	1199.7	957.1	1190.7	1883.0	2821.0	1102.5	965.1
87.5°	165.0	605.7	2357.7	771.8	473.5	255.0	565.4	1060.4	1811.5	224.9	196.3
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):

	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°	185°
0°	7131.7	7131.7	7131.7	7131.7	7131.7	7131.7	7131.7	7131.7	7131.7	7131.7	7131.7
2.5°	7737.4	7583.0	7381.1	7193.9	7000.3	6807.4	6555.8	6397.9	6289.1	6268.0	6222.0
5°	7549.5	7036.4	6648.8	6313.6	6009.6	5579.8	5342.1	5144.7	5039.3	5029.1	5003.5
7.5°	6682.3	5974.6	5451.3	4976.7	4546.2	4199.3	3816.2	3638.0	3564.5	3581.9	3599.2
10°	5780.6	4989.5	4388.3	3903.2	3523.9	3231.6	2924.2	2716.6	2572.4	2543.4	2537.7
12.5°	5121.7	4253.9	3670.4	3327.6	3034.6	2759.2	2433.4	2188.1	2001.7	1937.7	1895.1
15°	4843.0	3894.1	3282.8	2913.6	2589.7	2240.5	1937.7	1681.1	1509.7	1454.0	1422.7
17.5°	4902.5	3794.3	3015.7	2543.4	2129.4	1764.8	1383.2	1163.6	1060.4	1034.0	1034.0
20°	5213.7	3775.9	2795.0	2202.5	1685.7	1263.4	950.4	824.9	791.4	788.0	797.1
22.5°	5649.9	3841.0	2630.7	1906.8	1310.1	922.5	740.2	693.8	678.8	682.5	692.7
25°	6299.6	4060.3	2511.3	1643.1	1028.0	755.2	659.9	632.4	625.3	634.7	647.5
27.5°	7069.9	4279.5	2436.8	1444.6	867.9	690.5	627.6	598.9	603.4	615.1	626.4
30°	7746.5	4459.5	2319.6	1303.3	818.2	693.8	627.6	588.4	583.9	586.1	589.5
32.5°	8353.7	4581.2	2182.5	1168.5	705.5	616.3	586.1	580.5	554.5	545.1	546.6
35°	8876.9	4581.2	2100.4	1089.7	632.4	546.6	498.0	469.0	455.8	456.9	470.1
37.5°	9381.6	4489.3	2059.7	1045.3	592.9	519.8	476.9	451.3	433.9	430.5	432.8
40°	9826.9	4356.0	2013.4	1026.8	562.8	503.6	463.3	441.8	423.4	417.7	418.9
42.5°	10184.4	4247.8	1962.1	1002.7	543.9	491.9	453.5	435.1	414.4	408.3	407.2
45°	10570.8	4212.1	1895.1	953.8	553.3	493.1	451.3	431.7	410.6	403.8	401.5
47.5°	11080.1	4324.7	1825.4	895.8	573.3	499.1	454.7	431.7	409.5	403.8	401.5
50°	11721.6	4589.1	1736.9	811.0	553.3	515.3	453.5	427.9	409.5	403.8	399.3
52.5°	12545.8	4946.6	1621.2	713.8	541.7	554.5	451.3	421.1	403.8	395.9	387.6
55°	13547.0	5238.9	1482.6	633.6	515.3	543.9	447.9	413.2	394.8	383.1	375.9
57.5°	14280.4	5344.4	1305.6	581.6	478.0	526.6	443.0	402.7	383.1	373.7	364.6
60°	14135.4	5140.2	1155.7	548.8	455.8	475.7	439.6	393.3	372.5	365.8	357.1
62.5°	12974.1	4606.4	1059.2	533.8	441.8	433.9	443.0	384.2	363.5	356.0	353.7
65°	11232.3	3818.4	1021.2	530.4	430.5	409.5	412.1	373.7	352.6	346.9	344.7
67.5°	9265.3	3082.0	987.7	541.7	415.5	392.1	380.8	359.7	342.0	336.4	331.9
70°	7306.5	2563.3	972.2	534.9	397.0	374.8	362.4	344.7	329.6	323.6	320.2
72.5°	5883.8	2165.2	963.9	527.7	372.5	351.4	339.8	324.7	308.5	306.2	302.9
75°	4979.4	1702.2	883.3	505.9	344.7	323.6	315.7	301.7	285.5	285.5	283.3
77.5°	3841.0	1231.0	734.5	447.9	315.7	292.3	285.5	275.0	256.5	259.9	258.8
80°	2837.2	803.1	574.4	371.4	279.9	257.7	253.9	243.7	223.7	228.6	228.6
82.5°	1943.7	526.6	413.2	304.0	238.8	218.1	218.1	207.6	185.7	188.0	195.1
85°	976.0	362.4	308.5	235.4	185.7	175.2	175.2	167.2	145.0	146.2	155.6
87.5°	297.2	218.1	204.2	168.4	133.3	131.1	125.1	119.4	105.5	104.3	110.4
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):

	195°	205°	215°	225°	235°	245°	255°	265°	270°	275°	285°
0°	7131.7	7131.7	7131.7	7131.7	7131.7	7131.7	7131.7	7131.7	7131.7	7131.7	7131.7
2.5°	6150.8	6084.5	6005.1	5828.4	5769.3	5765.5	5819.4	5763.2	5870.2	5825.0	5874.7
5°	4960.2	4895.7	4806.1	4581.2	4444.1	4351.1	4307.4	4177.4	4271.2	4202.6	4259.9
7.5°	3648.2	3663.2	3604.1	3471.9	3173.5	3024.0	2935.9	2856.8	2925.3	2918.2	3027.4
10°	2564.5	2604.8	2563.3	2430.0	2188.1	2106.0	2122.2	2153.5	2243.1	2289.1	2457.5
12.5°	1846.1	1843.9	1817.1	1697.7	1538.7	1547.8	1614.1	1668.3	1750.8	1799.8	1971.2
15°	1378.3	1357.6	1345.9	1248.3	1157.9	1177.9	1210.3	1215.9	1268.3	1297.3	1436.7
17.5°	1041.9	1052.4	1064.9	995.6	927.0	914.2	889.0	857.3	872.8	878.4	947.7
20°	827.2	869.0	900.6	851.7	782.4	744.7	712.3	691.6	691.6	690.5	710.0
22.5°	722.9	753.0	786.9	753.0	690.5	657.7	639.2	623.0	620.8	620.8	639.2
25°	666.4	688.2	720.6	697.6	650.9	626.4	609.1	588.4	580.5	577.8	590.6
27.5°	638.1	647.5	663.7	642.6	603.4	591.8	587.2	568.8	557.9	552.2	565.4
30°	590.6	588.4	589.5	568.8	537.1	536.0	543.9	547.7	543.9	542.8	562.8
32.5°	546.6	541.7	540.5	522.1	493.1	486.3	493.1	500.2	508.1	519.8	542.8
35°	490.8	502.5	509.3	493.1	458.0	437.3	429.4	416.6	409.5	409.5	436.2
37.5°	446.7	473.5	484.0	469.0	430.5	401.5	387.6	385.3	386.5	391.0	416.6
40°	431.7	451.3	460.3	445.6	407.2	380.8	372.5	370.3	372.5	379.7	404.9
42.5°	422.3	436.2	435.1	416.6	385.3	366.9	362.4	359.7	362.4	369.1	397.0
45°	414.4	423.4	414.4	392.1	363.5	353.7	354.8	353.7	356.0	363.5	389.9
47.5°	407.2	410.6	399.3	377.1	346.9	344.7	349.2	352.6	354.8	361.2	388.7
50°	397.0	397.0	386.5	363.5	333.0	334.1	339.8	348.1	349.2	356.0	378.6
52.5°	384.2	383.1	375.9	353.7	321.3	324.7	324.7	334.1	336.4	344.7	368.0
55°	373.7	371.4	368.0	346.9	311.1	316.8	313.4	316.8	322.4	330.7	356.0
57.5°	364.6	359.7	359.7	340.9	302.9	305.1	297.2	301.7	308.5	315.7	342.0
60°	354.8	350.3	352.6	333.0	290.0	287.8	284.4	293.4	296.1	304.0	330.7
62.5°	344.7	340.9	342.0	323.6	281.0	275.0	275.0	283.3	284.4	296.1	321.3
65°	336.4	331.9	330.7	314.5	270.5	263.7	267.1	270.5	272.7	284.4	308.5
67.5°	328.5	319.0	319.0	306.2	258.8	251.6	258.8	257.7	261.4	271.6	291.2
70°	317.9	305.1	306.2	300.6	247.1	238.8	244.8	243.7	246.0	252.8	272.7
72.5°	301.7	291.2	293.4	291.2	235.4	223.7	226.0	226.0	226.0	232.0	252.8
75°	281.0	272.7	279.9	285.5	221.5	205.3	207.6	207.6	204.2	207.6	233.2
77.5°	255.0	250.5	273.8	265.9	205.3	185.7	185.7	183.4	176.7	181.2	208.7
80°	227.5	223.7	252.8	222.6	186.8	161.6	159.0	152.9	146.2	149.5	177.8
82.5°	198.5	195.1	212.4	170.6	161.6	133.3	127.7	117.1	110.4	113.8	139.0
85°	162.7	162.7	163.9	128.8	122.8	102.1	95.3	81.4	73.1	75.3	99.8
87.5°	116.0	119.4	110.4	88.1	73.1	56.9	52.4	44.1	36.9	42.9	52.4
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: P299011

CATALOG NUMBER: GLNA-AF-07-LED-E1-SLL-7027-600

CANDELA DISTRIBUTION (continued):

	295°	305°	315°	325°	335°	345°	355°	360°
0°	7131.7	7131.7	7131.7	7131.7	7131.7	7131.7	7131.7	7131.7
2.5°	6130.1	6257.8	6402.8	6588.2	6747.5	7008.2	7259.0	7409.7
5°	4583.5	4795.9	5060.0	5400.5	5717.3	6192.7	6665.0	6967.9
7.5°	3280.1	3507.7	3793.2	4217.7	4666.0	5272.4	5897.0	6259.0
10°	2714.4	2947.5	3187.5	3474.1	3841.0	4501.0	5238.9	5647.2
12.5°	2245.4	2494.8	2753.5	3055.3	3395.0	3984.5	4835.1	5305.2
15°	1718.4	1996.8	2301.9	2683.9	3109.5	3790.9	4735.3	5245.7
17.5°	1177.9	1489.0	1863.4	2334.7	2855.6	3728.0	4914.2	5502.6
20°	811.0	1037.4	1437.8	1990.0	2616.8	3720.1	5257.4	5994.5
22.5°	678.8	779.7	1072.0	1673.2	2436.8	3819.9	5790.4	6684.6
25°	627.6	688.2	856.2	1398.2	2305.7	4049.7	6523.8	7578.1
27.5°	597.8	652.0	777.5	1218.6	2202.5	4316.4	7237.2	8443.7
30°	609.1	664.8	755.2	1126.7	2062.0	4539.0	7870.8	9119.1
32.5°	548.8	573.3	647.5	1045.3	1961.0	4725.9	8425.2	9678.5
35°	467.8	510.4	577.8	1007.2	1963.3	4851.3	9029.8	10393.0
37.5°	445.6	488.6	537.1	993.3	1990.0	4985.0	9723.7	11231.2
40°	431.7	471.2	513.0	985.4	2015.6	5106.7	10404.0	12059.5
42.5°	422.3	458.0	510.4	957.1	2028.4	5215.9	10963.0	12763.9
45°	421.1	458.0	519.8	929.3	2048.0	5333.1	11431.9	13284.8
47.5°	422.3	473.5	502.5	895.8	2048.0	5528.9	11981.9	13750.0
50°	417.7	499.1	484.0	848.3	2000.6	5900.3	12736.0	14373.1
52.5°	415.5	495.7	447.9	775.2	1918.1	6489.9	13702.6	15231.9
55°	409.5	478.0	422.3	666.4	1822.0	7132.9	14737.7	16247.4
57.5°	403.8	423.4	408.3	571.1	1673.2	7585.2	15450.0	17039.6
60°	452.4	370.3	397.0	524.3	1474.7	7709.2	15422.5	17355.3
62.5°	418.9	346.9	382.0	514.2	1335.7	7361.1	14709.8	17185.0
65°	328.5	331.9	366.9	543.9	1298.4	6439.0	13447.2	16397.0
67.5°	300.6	316.8	351.4	582.7	1302.2	5155.3	11560.8	14680.4
70°	283.3	300.6	334.1	602.3	1311.2	3843.3	9139.8	11957.4
72.5°	263.7	278.7	314.5	605.7	1250.6	2791.6	7044.7	8792.1
75°	239.9	253.9	286.7	527.7	1036.3	1936.5	5388.8	6015.2
77.5°	213.6	223.7	251.6	407.2	769.6	1239.3	4044.8	4394.4
80°	182.3	188.0	211.3	298.3	526.6	775.2	3200.3	3526.1
82.5°	146.2	148.4	163.9	223.7	342.0	498.0	2143.3	2446.2
85°	103.2	103.2	112.6	162.7	233.2	315.7	1163.6	1290.5
87.5°	48.6	49.7	49.7	89.3	121.7	160.5	268.2	165.0
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)