

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: P298879

Luminaire Tested: **GLNA-AF-05-LED-E1-SLL-7027**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P298879
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-05-LED-E1-SLL-7027
Description: GALLEONNAIRE AREA AND ROADWAY LUMINAIRE
(5) 70 CRI, 2700K CCT 1050mA LIGHTSQUARE WITH 16 LEDS EACH AND 90° Spill
Light Eliminator Left OPTICS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 22641.3 lumens
Efficiency: N/A
Efficacy: 81.2 lumens/watt
Luminous Opening: Rectangular (W 1.5' x L: 1' x H: 0')
IES Classification: Type IV - Short - Non-Cutoff
BUG Rating: B3 - U0 - G4

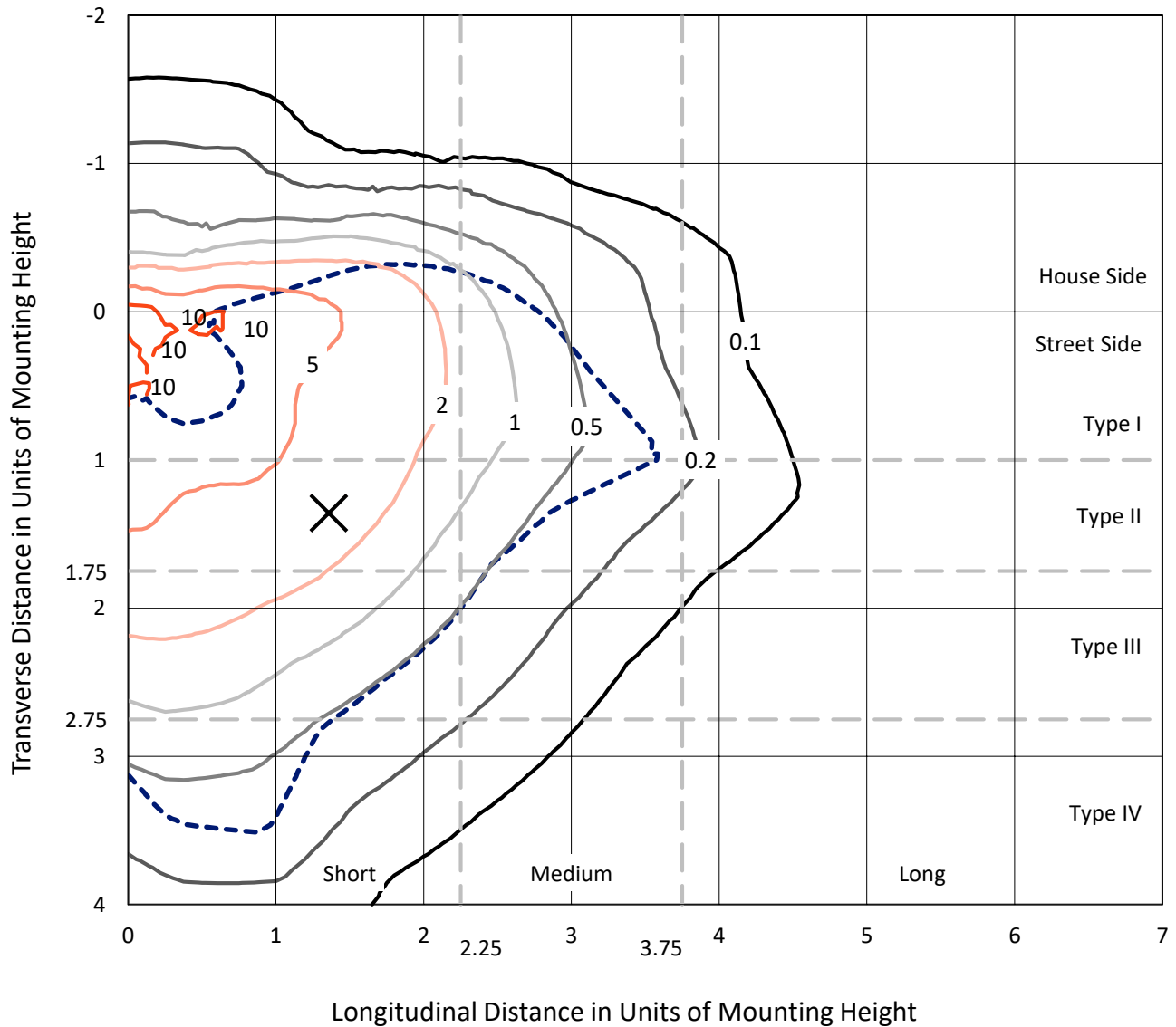
Input Watts (W): 279
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



REPORT NUMBER: P298879
 CATALOG NUMBER: GLNA-AF-05-LED-E1-SLL-7027

Iso-Footcandle Lines of Horizontal Illumination

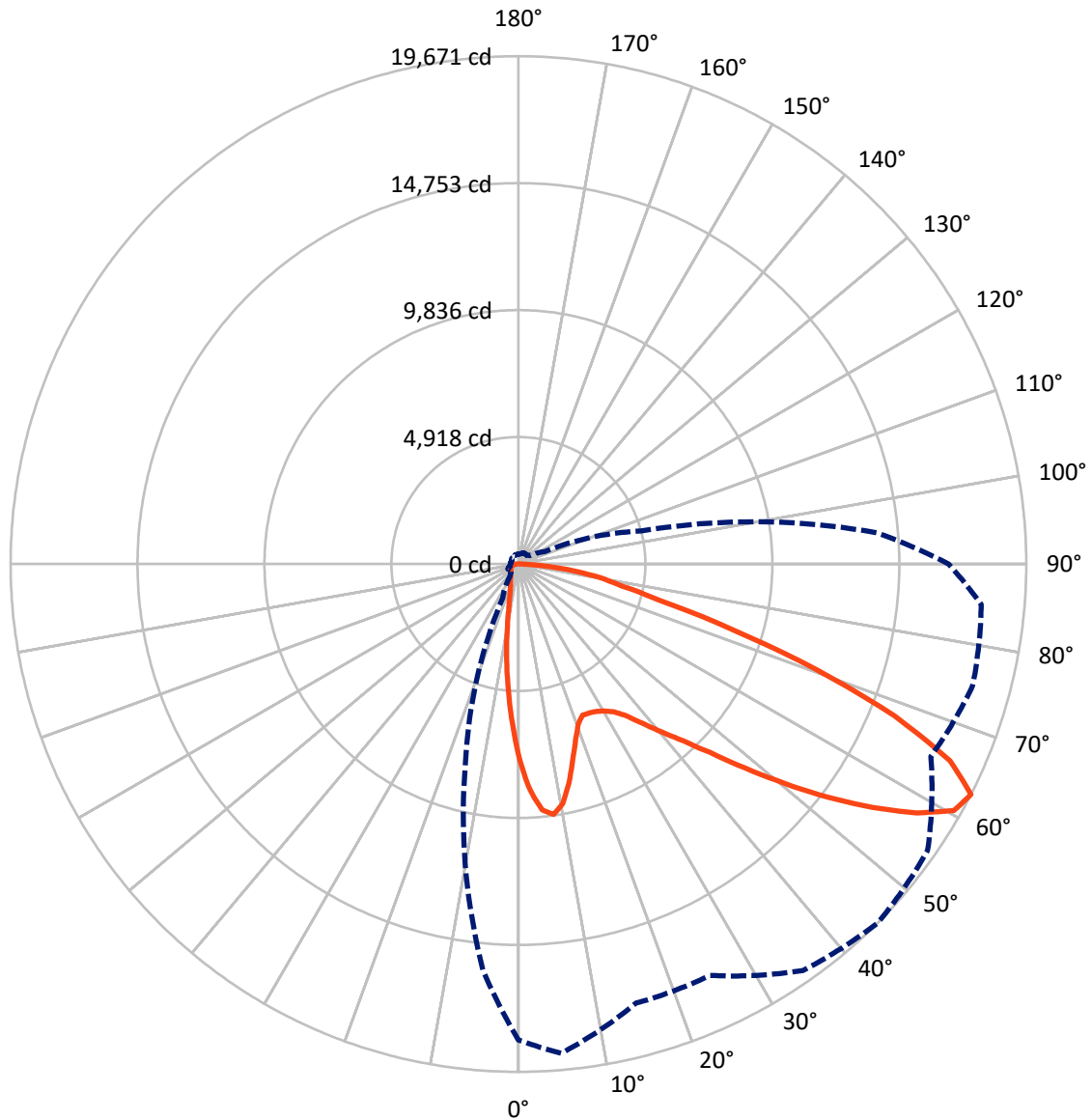
✕ Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 14.4 fc
 Type IV - Short - Non-Cutoff

REPORT NUMBER: P298879
CATALOG NUMBER: GLNA-AF-05-LED-E1-SLL-7027

Luminous Intensity Polar Plot



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

REPORT NUMBER: P298879

CATALOG NUMBER: GLNA-AF-05-LED-E1-SLL-7027

FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	3746.8	0.0	3746.8
	% Fixture	16.5	0.0	16.5
Street Side	Lumens	18894.5	0.0	18894.5
	% Fixture	83.5	0.0	83.5
Total	Lumens	22641.3	0.0	22641.3
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	556.8	2.5
10°-20°	1021.1	4.5
20°-30°	1488.8	6.6
30°-40°	2292.9	10.1
40°-50°	3374.6	14.9
50°-60°	4949.8	21.9
60°-70°	5533.1	24.4
70°-80°	2708.9	12.0
80°-90°	715.2	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°	22641.3	100.0
0°-180°	22641.3	100.0



REPORT NUMBER: P298879

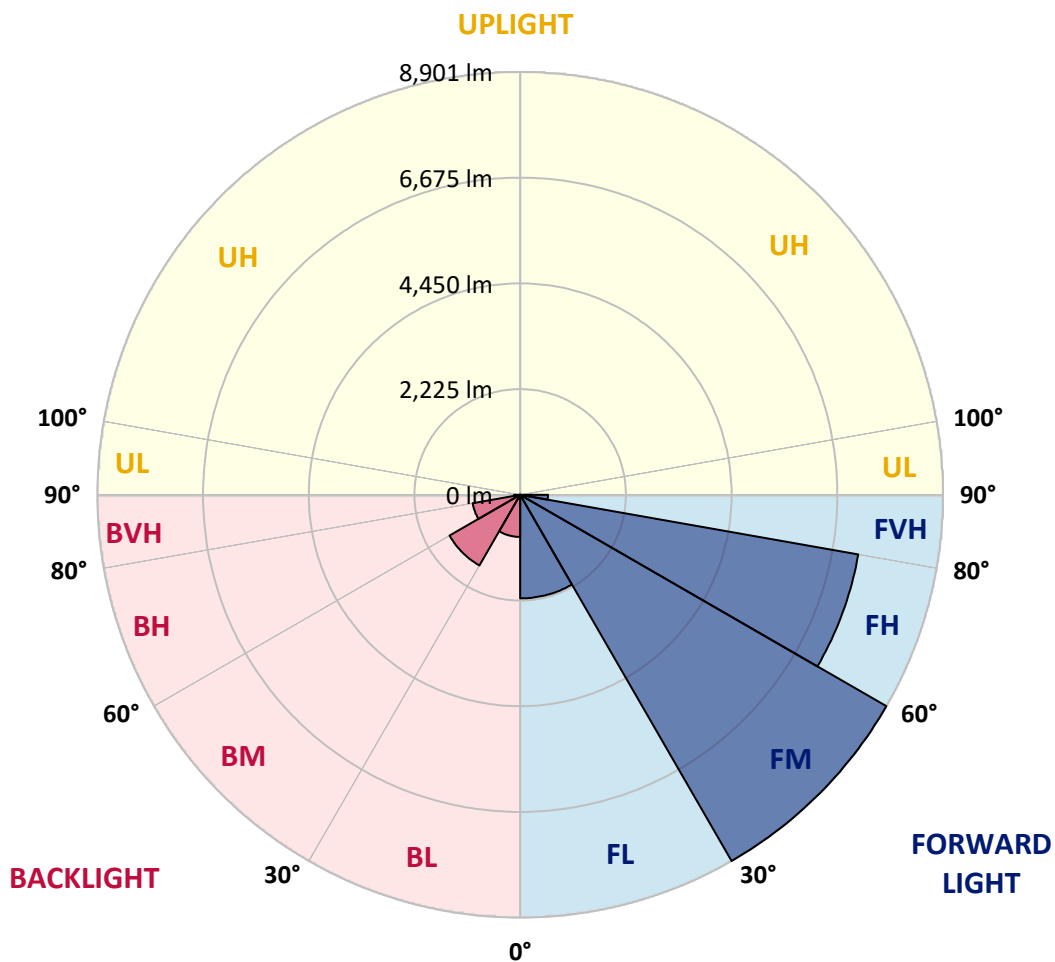
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	2180.3	9.6			
FM	(30°-60°)	8900.5	39.3			
FH	(60°-80°)	7226.3	31.9			G3/7500
FVH	(80°-90°)	587.4	2.6			G4/750
BL	(0°-30°)	886.4	3.9	B2/1000		
BM	(30°-60°)	1716.8	7.6	B2/2500		
BH	(60°-80°)	1015.7	4.5	B3/2500		G3/2500
BVH	(80°-90°)	127.9	0.6			G2/225
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

BUG Rating: B3-U0-G4

Type IV Short





REPORT NUMBER: P298879

CATALOG NUMBER: GLNA-AF-05-LED-E1-SLL-7027

CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	75°	85°	90°
0°	7649.7	7649.7	7649.7	7649.7	7649.7	7649.7	7649.7	7649.7	7649.7	7649.7	7649.7
2.5°	7947.9	8075.2	8322.8	8507.9	8733.7	8785.9	8858.2	8787.1	8661.4	8494.5	8440.0
5°	7473.9	7745.5	8346.3	8875.6	9345.9	9564.9	9626.3	9445.3	9080.8	8601.6	8309.1
7.5°	6713.5	7099.4	7913.1	8692.5	9385.5	9795.2	9785.1	9365.7	8695.0	7914.3	7445.3
10°	6057.4	6498.2	7431.9	8303.0	9038.4	9435.6	9282.0	8746.3	7945.5	7046.9	6538.2
12.5°	5690.5	6122.4	7069.5	7944.2	8559.2	8696.2	8579.0	8053.7	7299.4	6391.1	5945.5
15°	5626.7	6101.4	6925.3	7637.2	7981.8	7862.6	7722.8	7487.7	6954.7	6179.4	5715.2
17.5°	5902.2	6424.6	7090.9	7423.0	7364.4	7156.4	7116.8	7143.0	7015.0	6414.5	5879.6
20°	6429.9	7057.0	7485.3	7322.4	6895.4	6608.9	6619.0	7018.6	7398.0	7010.9	6399.6
22.5°	7170.1	7886.1	8053.7	7375.8	6697.4	6357.6	6440.0	7087.3	8009.3	7882.4	7101.8
25°	8128.5	8781.0	8660.2	7569.7	6717.2	6388.7	6454.5	7323.6	8730.9	8753.5	7970.9
27.5°	9057.0	9662.2	9168.9	7827.5	6799.6	6462.2	6549.5	7695.4	9420.6	9699.4	8964.0
30°	9781.4	10202.4	9370.5	8062.6	6961.2	6605.3	6713.5	8048.9	9734.5	10337.8	9728.1
32.5°	10381.4	10683.6	9691.7	8353.9	7258.6	6830.3	7021.0	8478.4	10186.3	10945.5	10476.0
35°	11147.9	11233.9	10091.3	8678.8	7718.0	7222.6	7459.0	8899.0	10617.0	11558.8	11212.9
37.5°	12046.9	11936.2	10468.3	9123.2	8311.9	7836.0	8031.5	9360.8	10971.3	12254.5	11965.7
40°	12935.4	12668.7	10941.8	9812.5	9178.2	8559.2	8790.7	9853.7	11302.6	12951.5	12701.4
42.5°	13690.9	13296.2	11408.1	10570.5	9984.2	9357.2	9633.5	10350.3	11618.6	13546.3	13339.8
45°	14249.7	13759.2	11852.5	11298.6	11095.8	10417.4	10548.3	10918.8	11960.8	14043.2	13865.1
47.5°	14748.7	14224.7	12355.2	12033.1	12067.9	11796.4	11585.9	11581.0	12364.4	14448.9	14361.6
50°	15417.0	14870.7	12895.4	12789.5	13526.5	13345.9	12881.6	12353.9	12874.3	14909.5	14899.4
52.5°	16338.2	15894.1	13555.2	13604.9	14888.5	15006.5	14431.1	13282.8	13673.1	15754.3	15695.0
55°	17427.5	17168.1	14454.1	14542.2	16558.4	16643.2	16071.5	14443.6	14848.5	16978.2	16812.5
57.5°	18277.2	18222.6	15439.6	15667.5	17805.7	18186.7	17661.4	15788.3	16172.5	18008.5	17592.7
60°	18615.8	18880.8	16488.9	16802.4	18959.6	19381.0	18920.8	16968.9	17346.3	18435.6	17539.4
62.5°	18433.1	19025.1	17606.5	17580.2	19217.0	19671.1	19347.5	17626.3	18216.6	17994.8	16652.1
65°	17587.9	18506.3	18255.0	17379.8	18335.8	18372.9	18268.3	17332.5	18421.8	16602.0	14936.6
67.5°	15746.7	17068.7	17400.8	15662.6	15958.4	15716.0	15540.2	15724.4	17351.1	14514.8	12553.1
70°	12825.9	14815.0	14973.7	12527.3	12392.7	12229.5	11880.0	12891.7	15239.2	11896.2	9960.8
72.5°	9430.7	11521.6	12010.5	9187.9	8565.7	8598.8	8322.8	9715.2	12390.3	8836.8	7436.8
75°	6452.1	8342.6	9397.2	6410.9	5664.6	5678.0	5642.8	6884.0	9868.7	6147.1	5564.9
77.5°	4713.5	5960.4	7087.3	4309.9	4184.2	4107.1	4088.5	4816.6	7566.1	4463.4	4321.2
80°	3782.2	4403.6	4760.4	2987.1	3212.1	3206.1	3102.6	3311.9	4941.0	3264.6	3231.9
82.5°	2623.8	3384.2	3857.0	2341.0	2168.1	2131.7	2157.2	2466.7	3492.5	2231.5	2122.0
85°	1384.2	2247.7	3819.8	2074.7	1286.9	1026.7	1277.2	2019.8	3025.9	1182.6	1035.2
87.5°	177.0	649.7	2528.9	827.9	507.9	273.5	606.5	1137.4	1943.0	241.2	210.5
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: P298879

CATALOG NUMBER: GLNA-AF-05-LED-E1-SLL-7027

CANDELA DISTRIBUTION (continued):

	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°	185°
0°	7649.7	7649.7	7649.7	7649.7	7649.7	7649.7	7649.7	7649.7	7649.7	7649.7	7649.7
2.5°	8299.4	8133.7	7917.2	7716.4	7508.7	7301.8	7031.9	6862.6	6745.9	6723.2	6673.9
5°	8097.8	7547.5	7131.7	6772.1	6446.1	5985.1	5730.1	5518.4	5405.3	5394.3	5366.9
7.5°	7167.7	6408.5	5847.3	5338.2	4876.4	4504.2	4093.3	3902.2	3823.4	3842.0	3860.6
10°	6200.4	5351.9	4707.1	4186.7	3779.8	3466.3	3136.6	2913.9	2759.2	2728.1	2722.0
12.5°	5493.7	4562.8	3937.0	3569.3	3255.0	2959.6	2610.1	2347.1	2147.1	2078.4	2032.7
15°	5194.7	4177.0	3521.2	3125.3	2777.8	2403.2	2078.4	1803.2	1619.4	1559.6	1526.1
17.5°	5258.6	4069.9	3234.7	2728.1	2284.0	1892.9	1483.6	1248.1	1137.4	1109.1	1109.1
20°	5592.3	4050.1	2998.0	2362.4	1808.1	1355.2	1019.4	884.8	848.9	845.3	854.9
22.5°	6060.2	4120.0	2821.8	2045.3	1405.3	989.5	793.9	744.2	728.1	732.1	743.0
25°	6757.2	4355.2	2693.7	1762.4	1102.6	810.1	707.9	678.4	670.7	680.8	694.5
27.5°	7583.4	4590.3	2613.7	1549.5	930.9	740.6	673.1	642.4	647.3	659.8	671.9
30°	8309.1	4783.4	2488.1	1398.0	877.6	744.2	673.1	631.1	626.3	628.7	632.3
32.5°	8960.4	4913.9	2341.0	1253.3	756.8	661.0	628.7	622.6	594.7	584.6	586.3
35°	9521.6	4913.9	2252.9	1168.9	678.4	586.3	534.1	503.0	488.9	490.1	504.2
37.5°	10063.0	4815.4	2209.3	1121.2	636.0	557.6	511.5	484.0	465.5	461.8	464.2
40°	10540.6	4672.3	2159.6	1101.4	603.6	540.2	497.0	473.9	454.1	448.1	449.3
42.5°	10924.0	4556.4	2104.6	1075.6	583.4	527.7	486.5	466.7	444.4	438.0	436.8
45°	11338.6	4518.0	2032.7	1023.0	593.5	528.9	484.0	463.0	440.4	433.1	430.7
47.5°	11884.9	4638.8	1958.0	960.8	614.9	535.4	487.7	463.0	439.2	433.1	430.7
50°	12572.9	4922.4	1863.0	869.9	593.5	552.7	486.5	459.0	439.2	433.1	428.3
52.5°	13457.0	5305.9	1739.0	765.7	581.0	594.7	484.0	451.7	433.1	424.6	415.8
55°	14530.9	5619.4	1590.3	679.6	552.7	583.4	480.4	443.2	423.4	410.9	403.2
57.5°	15317.6	5732.5	1400.4	623.8	512.7	564.8	475.2	431.9	410.9	400.8	391.1
60°	15162.0	5513.5	1239.6	588.7	488.9	510.3	471.5	421.8	399.6	392.3	383.0
62.5°	13916.4	4941.0	1136.2	572.5	473.9	465.5	475.2	412.1	389.9	381.8	379.4
65°	12048.1	4095.8	1095.4	568.9	461.8	439.2	442.0	400.8	378.2	372.1	369.7
67.5°	9938.2	3305.9	1059.4	581.0	445.7	420.6	408.5	385.9	366.9	360.8	356.0
70°	7837.2	2749.5	1042.8	573.7	425.9	402.0	388.7	369.7	353.5	347.1	343.4
72.5°	6311.1	2322.4	1033.9	566.1	399.6	377.0	364.4	348.3	330.9	328.5	324.8
75°	5341.0	1825.9	947.5	542.6	369.7	347.1	338.6	323.6	306.3	306.3	303.8
77.5°	4120.0	1320.4	787.9	480.4	338.6	313.5	306.3	294.9	275.2	278.8	277.6
80°	3043.2	861.4	616.2	398.4	300.2	276.4	272.3	261.4	240.0	245.3	245.3
82.5°	2084.8	564.8	443.2	326.1	256.2	233.9	233.9	222.6	199.2	201.6	209.3
85°	1046.9	388.7	330.9	252.5	199.2	187.9	187.9	179.4	155.6	156.8	166.9
87.5°	318.8	233.9	219.0	180.6	143.0	140.6	134.1	128.1	113.1	111.9	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: P298879

CATALOG NUMBER: GLNA-AF-05-LED-E1-SLL-7027

CANDELA DISTRIBUTION (continued):

	195°	205°	215°	225°	235°	245°	255°	265°	270°	275°	285°
0°	7649.7	7649.7	7649.7	7649.7	7649.7	7649.7	7649.7	7649.7	7649.7	7649.7	7649.7
2.5°	6597.6	6526.5	6441.2	6251.7	6188.3	6184.2	6242.0	6181.8	6296.6	6248.1	6301.4
5°	5320.4	5251.3	5155.2	4913.9	4766.9	4667.1	4620.2	4480.8	4581.4	4507.9	4569.3
7.5°	3913.1	3929.3	3865.9	3724.0	3404.0	3243.6	3149.1	3064.2	3137.8	3130.1	3247.3
10°	2750.7	2793.9	2749.5	2606.5	2347.1	2259.0	2276.4	2309.9	2406.1	2455.4	2636.0
12.5°	1980.2	1977.8	1949.1	1821.0	1650.5	1660.2	1731.3	1789.5	1878.0	1930.5	2114.3
15°	1478.4	1456.2	1443.6	1339.0	1242.0	1263.4	1298.2	1304.2	1360.4	1391.5	1541.0
17.5°	1117.6	1128.9	1142.2	1067.9	994.3	980.6	953.5	919.6	936.2	942.2	1016.6
20°	887.3	932.1	966.1	913.5	839.2	798.8	764.0	741.8	741.8	740.6	761.6
22.5°	775.4	807.7	844.0	807.7	740.6	705.5	685.7	668.3	665.9	665.9	685.7
25°	714.7	738.2	772.9	748.3	698.2	671.9	653.3	631.1	622.6	619.8	633.5
27.5°	684.4	694.5	711.9	689.3	647.3	634.7	629.9	610.1	598.4	592.3	606.5
30°	633.5	631.1	632.3	610.1	576.2	574.9	583.4	587.5	583.4	582.2	603.6
32.5°	586.3	581.0	579.8	560.0	528.9	521.6	528.9	536.6	545.1	557.6	582.2
35°	526.5	539.0	546.3	528.9	491.3	469.1	460.6	446.9	439.2	439.2	467.9
37.5°	479.2	507.9	519.2	503.0	461.8	430.7	415.8	413.3	414.5	419.4	446.9
40°	463.0	484.0	493.7	478.0	436.8	408.5	399.6	397.2	399.6	407.3	434.3
42.5°	452.9	467.9	466.7	446.9	413.3	393.5	388.7	385.9	388.7	396.0	425.9
45°	444.4	454.1	444.4	420.6	389.9	379.4	380.6	379.4	381.8	389.9	418.2
47.5°	436.8	440.4	428.3	404.4	372.1	369.7	374.5	378.2	380.6	387.5	417.0
50°	425.9	425.9	414.5	389.9	357.2	358.4	364.4	373.3	374.5	381.8	406.1
52.5°	412.1	410.9	403.2	379.4	344.6	348.3	348.3	358.4	360.8	369.7	394.7
55°	400.8	398.4	394.7	372.1	333.7	339.8	336.2	339.8	345.9	354.7	381.8
57.5°	391.1	385.9	385.9	365.7	324.8	327.3	318.8	323.6	330.9	338.6	366.9
60°	380.6	375.8	378.2	357.2	311.1	308.7	305.1	314.7	317.6	326.1	354.7
62.5°	369.7	365.7	366.9	347.1	301.4	294.9	294.9	303.8	305.1	317.6	344.6
65°	360.8	356.0	354.7	337.4	290.1	282.8	286.5	290.1	292.5	305.1	330.9
67.5°	352.3	342.2	342.2	328.5	277.6	269.9	277.6	276.4	280.4	291.3	312.3
70°	341.0	327.3	328.5	322.4	265.1	256.2	262.6	261.4	263.8	271.1	292.5
72.5°	323.6	312.3	314.7	312.3	252.5	240.0	242.4	242.4	242.4	248.9	271.1
75°	301.4	292.5	300.2	306.3	237.6	220.2	222.6	222.6	219.0	222.6	250.1
77.5°	273.5	268.7	293.7	285.3	220.2	199.2	199.2	196.8	189.5	194.3	223.8
80°	244.0	240.0	271.1	238.8	200.4	173.3	170.5	164.0	156.8	160.4	190.7
82.5°	212.9	209.3	227.9	183.0	173.3	143.0	137.0	125.7	118.4	122.0	149.1
85°	174.5	174.5	175.8	138.2	131.7	109.5	102.2	87.3	78.4	80.8	107.1
87.5°	124.4	128.1	118.4	94.5	78.4	61.0	56.2	47.3	39.6	46.1	56.2
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: P298879

CATALOG NUMBER: GLNA-AF-05-LED-E1-SLL-7027

CANDELA DISTRIBUTION (continued):

	295°	305°	315°	325°	335°	345°	355°	360°
0°	7649.7	7649.7	7649.7	7649.7	7649.7	7649.7	7649.7	7649.7
2.5°	6575.4	6712.3	6867.9	7066.7	7237.6	7517.2	7786.3	7947.9
5°	4916.4	5144.2	5427.5	5792.7	6132.5	6642.4	7149.1	7473.9
7.5°	3518.4	3762.4	4068.7	4524.0	5004.8	5655.4	6325.3	6713.5
10°	2911.5	3161.6	3419.0	3726.5	4120.0	4827.9	5619.4	6057.4
12.5°	2408.5	2676.0	2953.5	3277.2	3641.6	4273.9	5186.3	5690.5
15°	1843.2	2141.8	2469.1	2878.8	3335.4	4066.3	5079.2	5626.7
17.5°	1263.4	1597.2	1998.8	2504.2	3063.0	3998.8	5271.1	5902.2
20°	869.9	1112.7	1542.2	2134.5	2806.9	3990.3	5639.2	6429.9
22.5°	728.1	836.4	1149.9	1794.7	2613.7	4097.4	6210.9	7170.1
25°	673.1	738.2	918.4	1499.8	2473.1	4343.8	6997.6	8128.5
27.5°	641.2	699.4	833.9	1307.1	2362.4	4629.9	7762.8	9057.0
30°	653.3	713.1	810.1	1208.5	2211.7	4868.7	8442.4	9781.4
32.5°	588.7	614.9	694.5	1121.2	2103.4	5069.1	9037.2	10381.4
35°	501.8	547.5	619.8	1080.4	2105.9	5203.6	9685.7	11147.9
37.5°	478.0	524.0	576.2	1065.5	2134.5	5347.1	10429.9	12046.9
40°	463.0	505.5	550.3	1057.0	2162.0	5477.6	11159.6	12935.4
42.5°	452.9	491.3	547.5	1026.7	2175.8	5594.7	11759.2	13690.9
45°	451.7	491.3	557.6	996.8	2196.8	5720.4	12262.2	14249.7
47.5°	452.9	507.9	539.0	960.8	2196.8	5930.5	12852.1	14748.7
50°	448.1	535.4	519.2	909.9	2145.9	6328.9	13661.0	15417.0
52.5°	445.7	531.7	480.4	831.5	2057.4	6961.2	14697.8	16338.2
55°	439.2	512.7	452.9	714.7	1954.3	7650.9	15808.1	17427.5
57.5°	433.1	454.1	438.0	612.5	1794.7	8136.2	16572.1	18277.2
60°	485.3	397.2	425.9	562.4	1581.8	8269.1	16542.6	18615.8
62.5°	449.3	372.1	409.7	551.5	1432.7	7895.8	15778.2	18433.1
65°	352.3	356.0	393.5	583.4	1392.7	6906.7	14423.8	17587.9
67.5°	322.4	339.8	377.0	625.1	1396.8	5529.7	12400.4	15746.7
70°	303.8	322.4	358.4	646.1	1406.5	4122.4	9803.6	12825.9
72.5°	282.8	299.0	337.4	649.7	1341.4	2994.3	7556.4	9430.7
75°	257.4	272.3	307.5	566.1	1111.5	2077.2	5780.2	6452.1
77.5°	229.1	240.0	269.9	436.8	825.5	1329.3	4338.6	4713.5
80°	195.6	201.6	226.7	320.0	564.8	831.5	3432.7	3782.2
82.5°	156.8	159.2	175.8	240.0	366.9	534.1	2299.0	2623.8
85°	110.7	110.7	120.8	174.5	250.1	338.6	1248.1	1384.2
87.5°	52.1	53.3	53.3	95.8	130.5	172.1	287.7	177.0
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)