

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: P298999

Luminaire Tested: **GLNA-AF-05-LED-E1-SLL-7027-600**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P298999
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-7027-600
Description: GALLEONAIRE AREA AND ROADWAY LUMINAIRE
(5) 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: 14915.3 lumens
Efficiency: N/A
Efficacy: 92.1 lumens/watt
Luminous Opening: Rectangular (W 1.5' x L: 1' x H: 0')
IES Classification: Type IV - Short - Non-Cutoff
BUG Rating: B2 - U0 - G3

Input Watts (W): 162
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

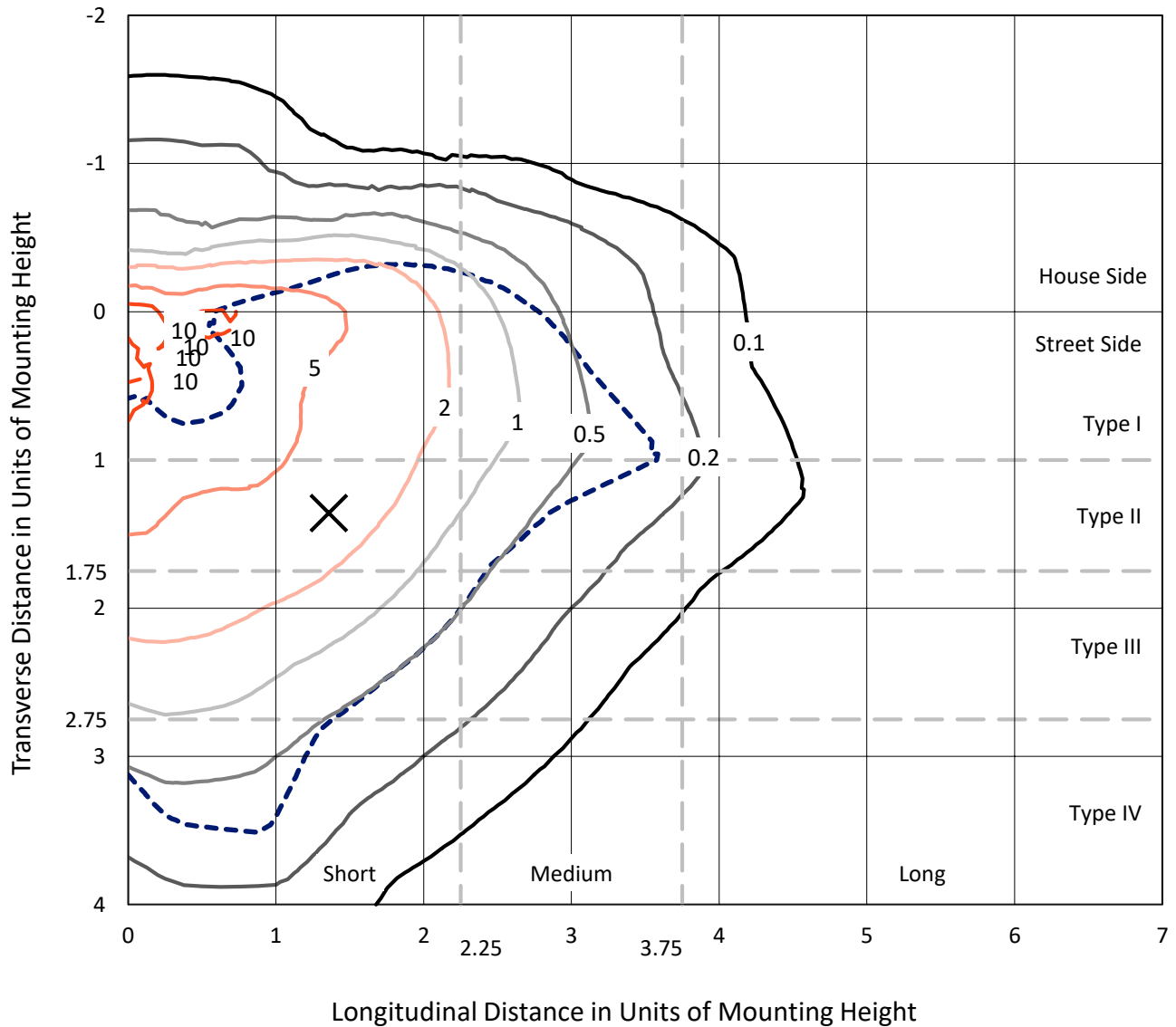


REPORT NUMBER: P298999

CATALOG NUMBER: GLNA-AF-05-LED-E1-SLL-7027-600

Iso-Footcandle Lines of Horizontal Illumination

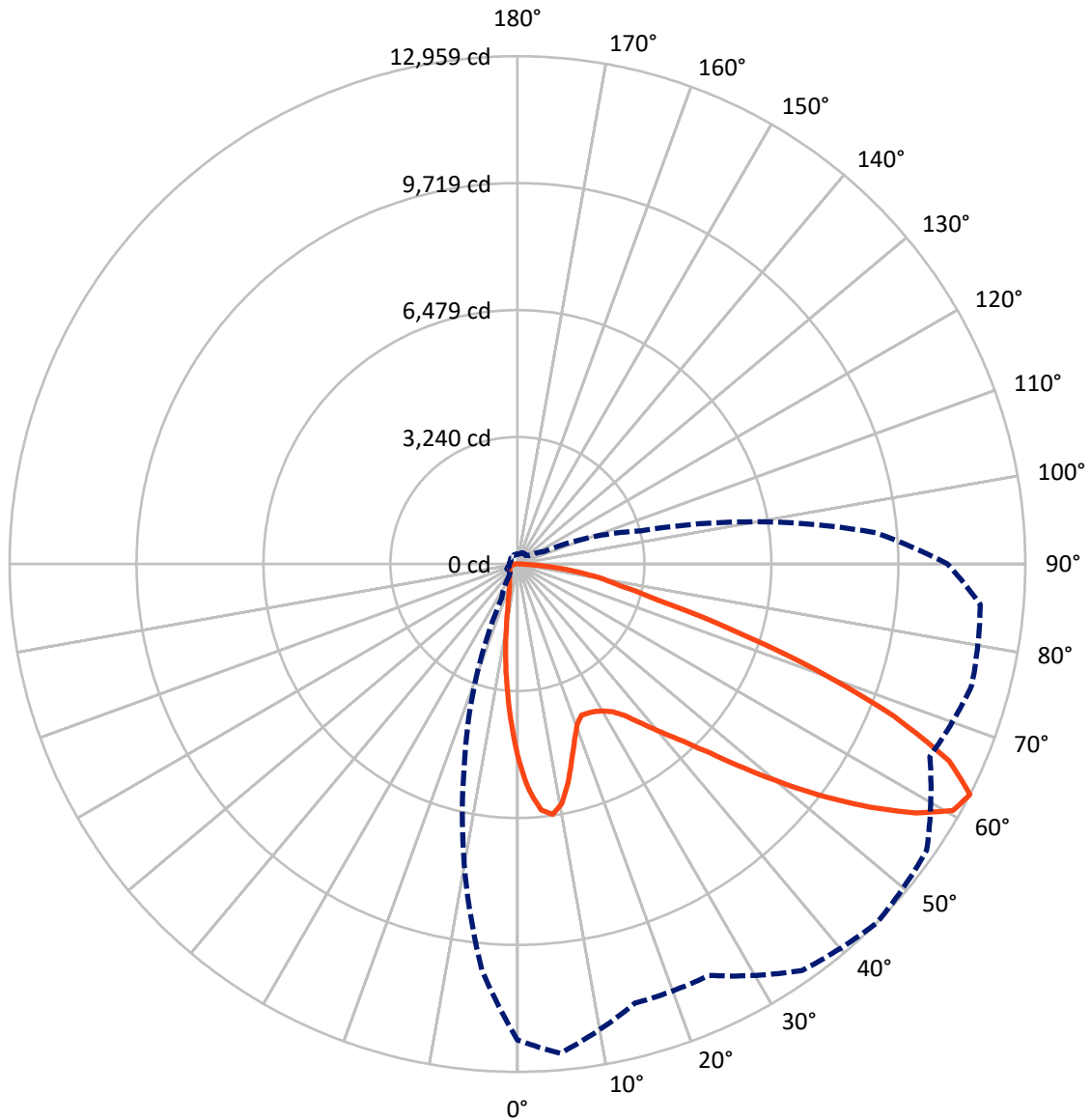
× Max cd
 - - - 1/2 Max cd



Based on 20 foot mounting height. Maximum calculated value = 14.8 fc
 Type IV - Short - Non-Cutoff

REPORT NUMBER: P298999
CATALOG NUMBER: GLNA-AF-05-LED-E1-SLL-7027-600

Luminous Intensity Polar Plot



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

REPORT NUMBER: P298999

CATALOG NUMBER: GLNA-AF-05-LED-E1-SLL-7027-600

FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	2468.3	0.0	2468.3
	% Fixture	16.5	0.0	16.5
Street Side	Lumens	12447.0	0.0	12447.0
	% Fixture	83.5	0.0	83.5
Total	Lumens	14915.3	0.0	14915.3
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	366.8	2.5
10°-20°	672.7	4.5
20°-30°	980.8	6.6
30°-40°	1510.5	10.1
40°-50°	2223.0	14.9
50°-60°	3260.7	21.9
60°-70°	3645.0	24.4
70°-80°	1784.5	12.0
80°-90°	471.2	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°	14915.3	100.0
0°-180°	14915.3	100.0



REPORT NUMBER: P298999

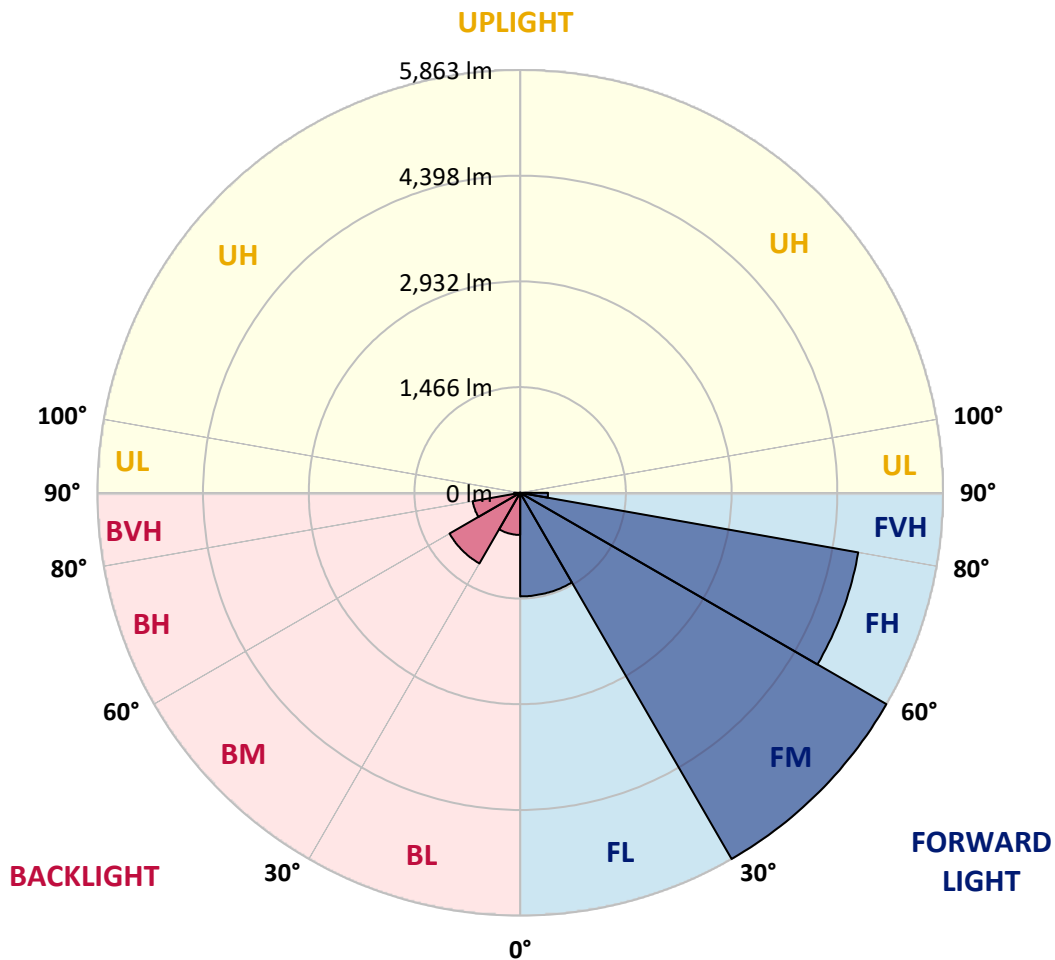
CATALOG NUMBER: GLNA-AF-05-LED-E1-SLL-7027-600

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	1436.3	9.6			
FM	(30°-60°)	5863.3	39.3			
FH	(60°-80°)	4760.4	31.9			G2/5000
FVH	(80°-90°)	386.9	2.6			G3/500
BL	(0°-30°)	584.0	3.9	B2/1000		
BM	(30°-60°)	1130.9	7.6	B2/2500		
BH	(60°-80°)	669.1	4.5	B2/1000		G2/1000
BVH	(80°-90°)	84.2	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





REPORT NUMBER: P298999

CATALOG NUMBER: GLNA-AF-05-LED-E1-SLL-7027-600

CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	75°	85°	90°
0°	5039.3	5039.3	5039.3	5039.3	5039.3	5039.3	5039.3	5039.3	5039.3	5039.3	5039.3
2.5°	5235.8	5319.6	5482.8	5604.7	5753.5	5787.8	5835.5	5788.6	5705.8	5595.9	5560.0
5°	4923.6	5102.4	5498.2	5846.9	6156.7	6301.0	6341.4	6222.2	5982.1	5666.4	5473.7
7.5°	4422.6	4676.8	5212.9	5726.3	6182.8	6452.7	6446.0	6169.8	5727.9	5213.7	4904.7
10°	3990.4	4280.8	4895.9	5469.7	5954.2	6215.8	6114.7	5761.7	5234.2	4642.2	4307.1
12.5°	3748.7	4033.2	4657.1	5233.4	5638.5	5728.7	5651.5	5305.5	4808.6	4210.2	3916.7
15°	3706.6	4019.4	4562.1	5031.1	5258.1	5179.6	5087.5	4932.6	4581.5	4070.8	3764.9
17.5°	3888.2	4232.3	4671.2	4890.0	4851.4	4714.4	4688.3	4705.6	4621.2	4225.7	3873.3
20°	4235.8	4648.9	4931.0	4823.8	4542.4	4353.7	4360.4	4623.6	4873.5	4618.5	4215.8
22.5°	4723.4	5195.1	5305.5	4858.9	4412.0	4188.1	4242.4	4668.8	5276.2	5192.7	4678.4
25°	5354.8	5784.6	5705.0	4986.6	4425.0	4208.6	4252.0	4824.5	5751.6	5766.5	5250.9
27.5°	5966.4	6365.1	6040.1	5156.5	4479.3	4257.1	4314.6	5069.4	6206.0	6389.6	5905.2
30°	6443.6	6721.0	6173.0	5311.4	4585.8	4351.3	4422.6	5302.3	6412.8	6810.2	6408.5
32.5°	6838.9	7038.0	6384.6	5503.3	4781.7	4499.6	4625.2	5585.3	6710.3	7210.5	6901.2
35°	7343.8	7400.5	6647.8	5717.3	5084.3	4758.0	4913.7	5862.3	6994.1	7614.5	7386.7
37.5°	7936.0	7863.1	6896.1	6010.1	5475.6	5162.0	5290.9	6166.6	7227.5	8072.9	7882.5
40°	8521.3	8345.7	7208.1	6464.1	6046.3	5638.5	5791.0	6491.3	7445.8	8532.0	8367.2
42.5°	9019.1	8759.0	7515.2	6963.5	6577.3	6164.2	6346.2	6818.4	7653.9	8923.8	8787.8
45°	9387.2	9064.1	7808.0	7443.1	7309.5	6862.6	6948.8	7192.9	7879.4	9251.2	9133.8
47.5°	9715.9	9370.7	8139.1	7927.0	7949.9	7771.0	7632.3	7629.2	8145.3	9518.4	9460.9
50°	10156.1	9796.3	8495.0	8425.3	8910.7	8791.8	8485.9	8138.3	8481.2	9821.8	9815.2
52.5°	10763.0	10470.5	8929.6	8962.4	9808.0	9885.7	9506.7	8750.3	9007.4	10378.4	10339.3
55°	11480.6	11309.7	9521.9	9579.9	10908.1	10964.0	10587.3	9514.9	9781.6	11184.6	11075.5
57.5°	12040.3	12004.4	10171.1	10321.2	11729.7	11980.7	11634.7	10400.8	10653.9	11863.3	11589.5
60°	12263.4	12438.0	10862.3	11068.8	12489.9	12767.5	12464.3	11178.5	11427.1	12144.7	11554.3
62.5°	12143.1	12533.0	11598.5	11581.2	12659.4	12958.6	12745.4	11611.5	12000.4	11854.3	10969.8
65°	11586.3	12191.3	12025.7	11449.2	12078.9	12103.4	12034.5	11418.0	12135.6	10936.8	9839.7
67.5°	10373.3	11244.2	11463.0	10318.0	10512.8	10353.1	10237.3	10358.7	11430.3	9561.8	8269.6
70°	8449.2	9759.6	9864.2	8252.5	8163.9	8056.4	7826.1	8492.6	10039.0	7836.8	6561.8
72.5°	6212.6	7590.0	7912.1	6052.6	5642.7	5664.6	5482.8	6400.0	8162.3	5821.3	4899.1
75°	4250.4	5495.8	6190.5	4223.3	3731.7	3740.4	3717.3	4535.0	6501.1	4049.5	3665.9
77.5°	3105.1	3926.5	4668.8	2839.2	2756.4	2705.6	2693.3	3173.0	4984.2	2940.4	2846.7
80°	2491.6	2901.0	3136.0	1967.8	2116.0	2112.0	2043.9	2181.8	3255.0	2150.6	2129.1
82.5°	1728.5	2229.4	2540.8	1542.2	1428.3	1404.3	1421.1	1625.0	2300.8	1470.0	1397.9
85°	911.9	1480.7	2516.3	1366.8	847.7	676.3	841.4	1330.6	1993.3	779.1	681.9
87.5°	116.6	428.0	1665.9	545.4	334.6	180.2	399.5	749.3	1280.0	158.9	138.7
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: P298999

CATALOG NUMBER: GLNA-AF-05-LED-E1-SLL-7027-600

CANDELA DISTRIBUTION (continued):

	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°	185°
0°	5039.3	5039.3	5039.3	5039.3	5039.3	5039.3	5039.3	5039.3	5039.3	5039.3	5039.3
2.5°	5467.3	5358.2	5215.5	5083.3	4946.5	4810.2	4632.4	4520.9	4443.9	4429.0	4396.6
5°	5334.5	4972.0	4698.1	4461.2	4246.4	3942.7	3774.8	3635.3	3560.8	3553.6	3535.5
7.5°	4721.8	4221.7	3852.0	3516.6	3212.4	2967.2	2696.5	2570.6	2518.7	2531.0	2543.2
10°	4084.6	3525.7	3100.8	2758.0	2490.0	2283.4	2066.3	1919.6	1817.7	1797.2	1793.2
12.5°	3619.1	3005.8	2593.5	2351.3	2144.2	1949.7	1719.4	1546.2	1414.4	1369.2	1339.1
15°	3422.1	2751.6	2319.6	2058.8	1829.9	1583.2	1369.2	1187.9	1066.8	1027.4	1005.3
17.5°	3464.2	2681.1	2130.9	1797.2	1504.6	1247.0	977.4	822.2	749.3	730.6	730.6
20°	3684.0	2668.1	1975.0	1556.3	1191.1	892.7	671.5	582.9	559.2	556.8	563.2
22.5°	3992.2	2714.1	1858.9	1347.3	925.7	651.8	523.0	490.3	479.6	482.3	489.5
25°	4451.4	2869.0	1774.5	1161.0	726.4	533.7	466.3	446.9	441.8	448.5	457.5
27.5°	4995.7	3023.9	1721.8	1020.8	613.2	487.9	443.4	423.2	426.4	434.7	442.6
30°	5473.7	3151.2	1639.1	920.9	578.1	490.3	443.4	415.8	412.6	414.2	416.6
32.5°	5902.8	3237.1	1542.2	825.7	498.5	435.4	414.2	410.2	391.8	385.1	386.2
35°	6272.5	3237.1	1484.1	770.0	446.9	386.2	351.9	331.4	322.1	322.9	332.2
37.5°	6629.2	3172.2	1455.4	738.6	418.9	367.3	337.0	318.9	306.6	304.2	305.8
40°	6943.8	3078.0	1422.7	725.6	397.7	355.9	327.4	312.2	299.2	295.2	296.0
42.5°	7196.4	3001.6	1386.5	708.5	384.3	347.6	320.5	307.4	292.8	288.5	287.7
45°	7469.5	2976.3	1339.1	673.9	391.0	348.4	318.9	305.0	290.1	285.3	283.7
47.5°	7829.3	3055.9	1289.8	632.9	405.1	352.7	321.3	305.0	289.3	285.3	283.7
50°	8282.6	3242.7	1227.3	573.1	391.0	364.1	320.5	302.4	289.3	285.3	282.1
52.5°	8865.0	3495.3	1145.6	504.4	382.7	391.8	318.9	297.6	285.3	279.7	273.9
55°	9572.4	3701.9	1047.6	447.7	364.1	384.3	316.5	292.0	278.9	270.7	265.6
57.5°	10090.7	3776.4	922.5	411.0	337.8	372.1	313.0	284.5	270.7	264.0	257.6
60°	9988.2	3632.1	816.6	387.8	322.1	336.2	310.6	277.9	263.2	258.4	252.3
62.5°	9167.6	3255.0	748.5	377.2	312.2	306.6	313.0	271.5	256.9	251.5	249.9
65°	7936.8	2698.1	721.6	374.8	304.2	289.3	291.2	264.0	249.1	245.1	243.5
67.5°	6546.9	2177.8	697.9	382.7	293.6	277.1	269.1	254.2	241.7	237.7	234.5
70°	5162.8	1811.3	687.0	378.0	280.5	264.8	256.1	243.5	232.9	228.6	226.2
72.5°	4157.5	1529.9	681.1	372.9	263.2	248.3	240.1	229.4	218.0	216.4	214.0
75°	3518.5	1202.8	624.2	357.5	243.5	228.6	223.0	213.2	201.8	201.8	200.2
77.5°	2714.1	869.8	519.0	316.5	223.0	206.5	201.8	194.3	181.3	183.7	182.9
80°	2004.8	567.5	405.9	262.4	197.8	182.1	179.4	172.2	158.1	161.6	161.6
82.5°	1373.4	372.1	292.0	214.8	168.8	154.1	154.1	146.7	131.2	132.8	137.9
85°	689.6	256.1	218.0	166.4	131.2	123.8	123.8	118.2	102.5	103.3	109.9
87.5°	210.0	154.1	144.3	119.0	94.2	92.6	88.4	84.4	74.5	73.7	78.0
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: P298999

CATALOG NUMBER: GLNA-AF-05-LED-E1-SLL-7027-600

CANDELA DISTRIBUTION (continued):

	195°	205°	215°	225°	235°	245°	255°	265°	270°	275°	285°
0°	5039.3	5039.3	5039.3	5039.3	5039.3	5039.3	5039.3	5039.3	5039.3	5039.3	5039.3
2.5°	4346.2	4299.4	4243.2	4118.4	4076.6	4074.0	4112.0	4072.4	4148.0	4116.0	4151.1
5°	3504.9	3459.4	3396.0	3237.1	3140.2	3074.5	3043.6	2951.8	3018.1	2969.6	3010.1
7.5°	2577.8	2588.5	2546.7	2453.3	2242.5	2136.8	2074.5	2018.6	2067.1	2062.0	2139.2
10°	1812.1	1840.5	1811.3	1717.0	1546.2	1488.1	1499.6	1521.7	1585.0	1617.5	1736.5
12.5°	1304.5	1302.9	1284.0	1199.6	1087.3	1093.7	1140.5	1178.9	1237.1	1271.7	1392.9
15°	973.9	959.3	951.0	882.1	818.2	832.3	855.2	859.2	896.2	916.7	1015.2
17.5°	736.2	743.7	752.5	703.5	655.0	646.0	628.2	605.8	616.7	620.7	669.7
20°	584.5	614.0	636.4	601.8	552.8	526.2	503.3	488.7	488.7	487.9	501.7
22.5°	510.8	532.1	556.0	532.1	487.9	464.7	451.7	440.2	438.6	438.6	451.7
25°	470.8	486.3	509.2	492.9	459.9	442.6	430.4	415.8	410.2	408.3	417.4
27.5°	450.9	457.5	469.0	454.1	426.4	418.1	415.0	401.9	394.2	390.2	399.5
30°	417.4	415.8	416.6	401.9	379.6	378.8	384.3	387.0	384.3	383.5	397.7
32.5°	386.2	382.7	382.0	368.9	348.4	343.6	348.4	353.5	359.1	367.3	383.5
35°	346.8	355.1	359.9	348.4	323.7	309.0	303.4	294.4	289.3	289.3	308.2
37.5°	315.7	334.6	342.0	331.4	304.2	283.7	273.9	272.3	273.1	276.3	294.4
40°	305.0	318.9	325.3	314.9	287.7	269.1	263.2	261.6	263.2	268.3	286.1
42.5°	298.4	308.2	307.4	294.4	272.3	259.2	256.1	254.2	256.1	260.8	280.5
45°	292.8	299.2	292.8	277.1	256.9	249.9	250.7	249.9	251.5	256.9	275.5
47.5°	287.7	290.1	282.1	266.4	245.1	243.5	246.7	249.1	250.7	255.3	274.7
50°	280.5	280.5	273.1	256.9	235.3	236.1	240.1	245.9	246.7	251.5	267.5
52.5°	271.5	270.7	265.6	249.9	227.0	229.4	229.4	236.1	237.7	243.5	260.0
55°	264.0	262.4	260.0	245.1	219.9	223.8	221.5	223.8	227.8	233.7	251.5
57.5°	257.6	254.2	254.2	240.9	214.0	215.6	210.0	213.2	218.0	223.0	241.7
60°	250.7	247.5	249.1	235.3	204.9	203.4	201.0	207.3	209.2	214.8	233.7
62.5°	243.5	240.9	241.7	228.6	198.6	194.3	194.3	200.2	201.0	209.2	227.0
65°	237.7	234.5	233.7	222.2	191.1	186.3	188.7	191.1	192.7	201.0	218.0
67.5°	232.1	225.4	225.4	216.4	182.9	177.8	182.9	182.1	184.7	191.9	205.7
70°	224.6	215.6	216.4	212.4	174.6	168.8	173.0	172.2	173.8	178.6	192.7
72.5°	213.2	205.7	207.3	205.7	166.4	158.1	159.7	159.7	159.7	164.0	178.6
75°	198.6	192.7	197.8	201.8	156.5	145.1	146.7	146.7	144.3	146.7	164.8
77.5°	180.2	177.0	193.5	187.9	145.1	131.2	131.2	129.6	124.8	128.0	147.5
80°	160.8	158.1	178.6	157.3	132.0	114.2	112.3	108.1	103.3	105.7	125.6
82.5°	140.3	137.9	150.1	120.6	114.2	94.2	90.2	82.8	78.0	80.4	98.2
85°	115.0	115.0	115.8	91.0	86.8	72.1	67.3	57.5	51.6	53.2	70.5
87.5°	82.0	84.4	78.0	62.3	51.6	40.2	37.0	31.1	26.1	30.3	37.0
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: P298999

CATALOG NUMBER: GLNA-AF-05-LED-E1-SLL-7027-600

CANDELA DISTRIBUTION (continued):

	295°	305°	315°	325°	335°	345°	355°	360°
0°	5039.3	5039.3	5039.3	5039.3	5039.3	5039.3	5039.3	5039.3
2.5°	4331.6	4421.8	4524.3	4655.3	4767.9	4952.0	5129.3	5235.8
5°	3238.7	3388.8	3575.4	3816.0	4039.9	4375.8	4709.6	4923.6
7.5°	2317.8	2478.5	2680.3	2980.3	3297.0	3725.5	4166.8	4422.6
10°	1918.0	2082.8	2252.3	2454.9	2714.1	3180.4	3701.9	3990.4
12.5°	1586.6	1762.8	1945.7	2158.9	2399.0	2815.5	3416.5	3748.7
15°	1214.3	1411.0	1626.5	1896.4	2197.2	2678.7	3346.0	3706.6
17.5°	832.3	1052.2	1316.7	1649.7	2017.8	2634.3	3472.4	3888.2
20°	573.1	733.0	1016.0	1406.2	1849.1	2628.7	3714.9	4235.8
22.5°	479.6	551.0	757.5	1182.3	1721.8	2699.2	4091.5	4723.4
25°	443.4	486.3	605.0	988.0	1629.2	2861.6	4609.8	5354.8
27.5°	422.4	460.7	549.4	861.1	1556.3	3050.0	5113.9	5966.4
30°	430.4	469.8	533.7	796.1	1457.0	3207.3	5561.6	6443.6
32.5°	387.8	405.1	457.5	738.6	1385.7	3339.3	5953.4	6838.9
35°	330.6	360.7	408.3	711.7	1387.3	3428.0	6380.6	7343.8
37.5°	314.9	345.2	379.6	701.9	1406.2	3522.5	6870.8	7936.0
40°	305.0	333.0	362.5	696.3	1424.3	3608.4	7351.5	8521.3
42.5°	298.4	323.7	360.7	676.3	1433.3	3685.6	7746.5	9019.1
45°	297.6	323.7	367.3	656.6	1447.2	3768.4	8077.9	9387.2
47.5°	298.4	334.6	355.1	632.9	1447.2	3906.8	8466.5	9715.9
50°	295.2	352.7	342.0	599.4	1413.6	4169.2	8999.4	10156.1
52.5°	293.6	350.3	316.5	547.8	1355.3	4585.8	9682.4	10763.0
55°	289.3	337.8	298.4	470.8	1287.5	5040.1	10413.8	11480.6
57.5°	285.3	299.2	288.5	403.5	1182.3	5359.8	10917.1	12040.3
60°	319.7	261.6	280.5	370.5	1042.0	5447.4	10897.7	12263.4
62.5°	296.0	245.1	269.9	363.3	943.8	5201.4	10394.1	12143.1
65°	232.1	234.5	259.2	384.3	917.5	4549.9	9501.9	11586.3
67.5°	212.4	223.8	248.3	411.8	920.1	3642.8	8168.9	10373.3
70°	200.2	212.4	236.1	425.6	926.5	2715.7	6458.3	8449.2
72.5°	186.3	197.0	222.2	428.0	883.7	1972.6	4977.9	6212.6
75°	169.5	179.4	202.6	372.9	732.2	1368.4	3807.8	4250.4
77.5°	150.9	158.1	177.8	287.7	543.8	875.7	2858.1	3105.1
80°	128.8	132.8	149.3	210.8	372.1	547.8	2261.4	2491.6
82.5°	103.3	104.9	115.8	158.1	241.7	351.9	1514.5	1728.5
85°	72.9	72.9	79.6	115.0	164.8	223.0	822.2	911.9
87.5°	34.3	35.1	35.1	63.1	86.0	113.4	189.5	116.6
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)