

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: P298882

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

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P298882  
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  
Description: GALLEONAIRE AREA AND ROADWAY LUMINAIRE  
(5) 70 CRI, 4000K 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: 26059.3 lumens  
Efficiency: N/A  
Efficacy: 93.4 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

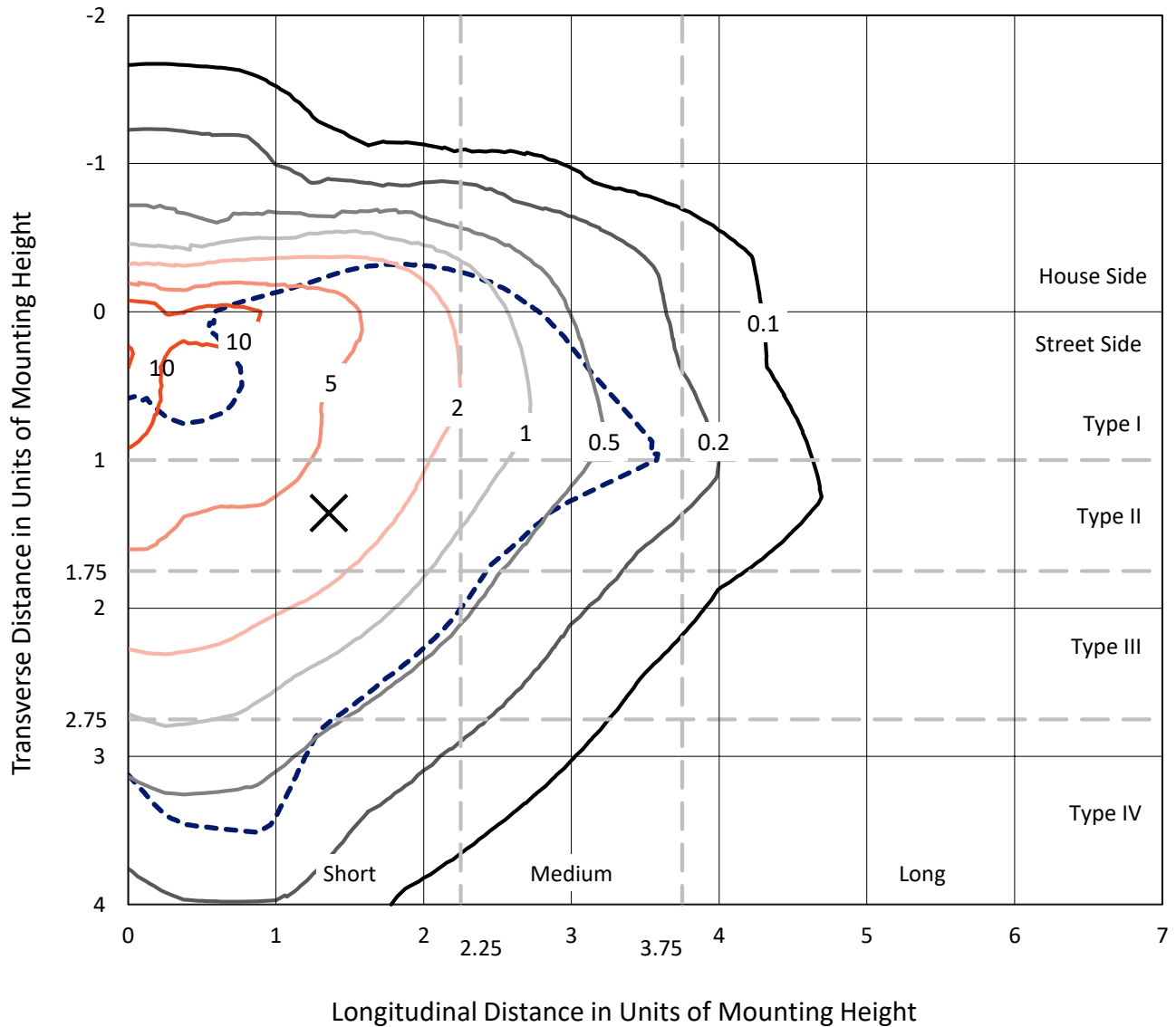


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### Iso-Footcandle Lines of Horizontal Illumination

× Max cd  
 - - - 1/2 Max cd

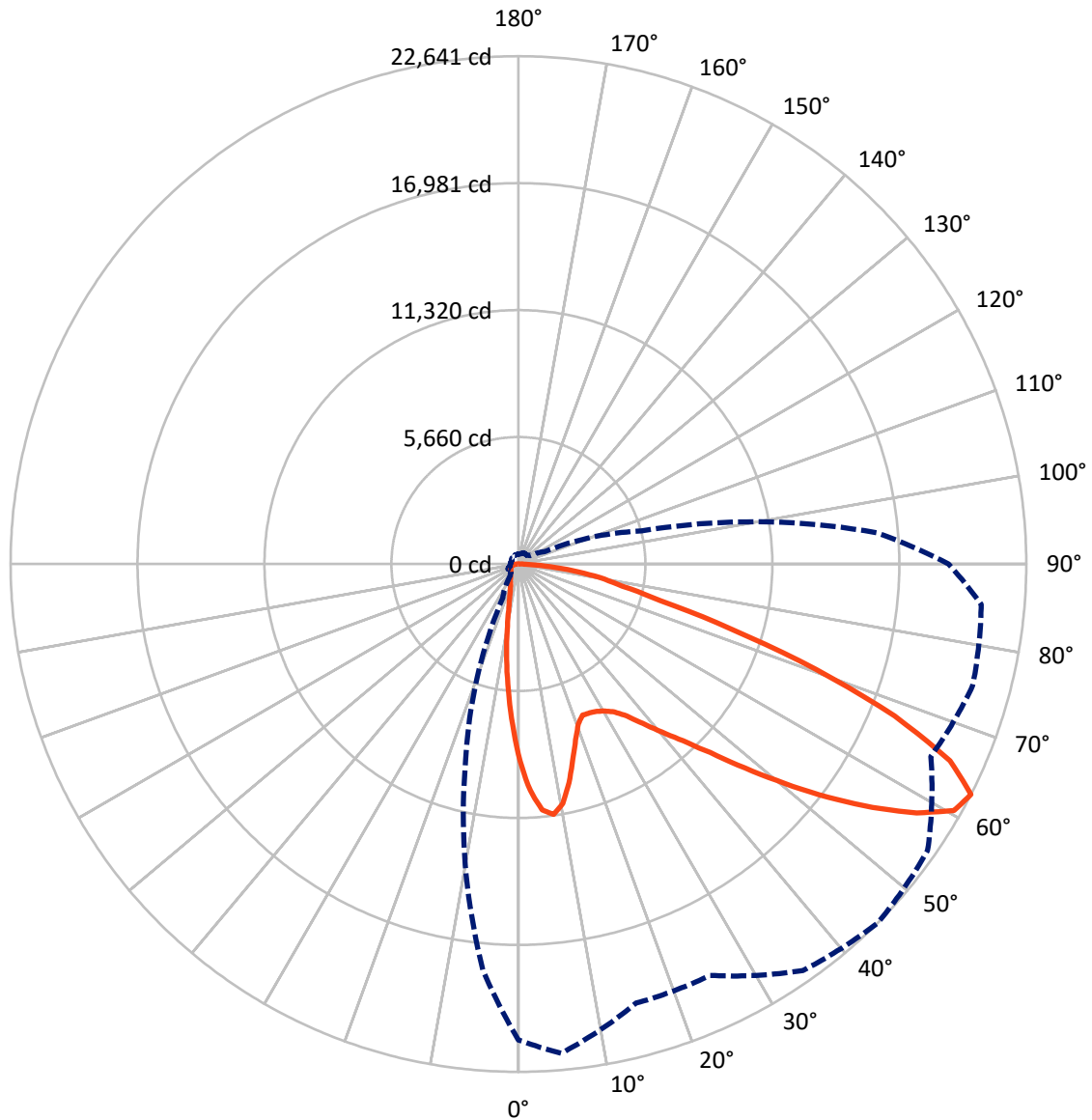


Based on 25 foot mounting height. Maximum calculated value = 16.6 fc  
 Type IV - Short - Non-Cutoff

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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	4312.4	0.0	4312.4
	% Fixture	16.5	0.0	16.5
<b>Street Side</b>	Lumens	21746.8	0.0	21746.8
	% Fixture	83.5	0.0	83.5
<b>Total</b>	Lumens	26059.3	0.0	26059.3
	% Fixture	100.0	0.0	100.0

**Coefficient of Utilization**

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	640.9	2.5
10°-20°	1175.2	4.5
20°-30°	1713.5	6.6
30°-40°	2639.1	10.1
40°-50°	3884.0	14.9
50°-60°	5697.0	21.9
60°-70°	6368.4	24.4
70°-80°	3117.9	12.0
80°-90°	823.2	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°	26059.3	100.0
0°-180°	26059.3	100.0



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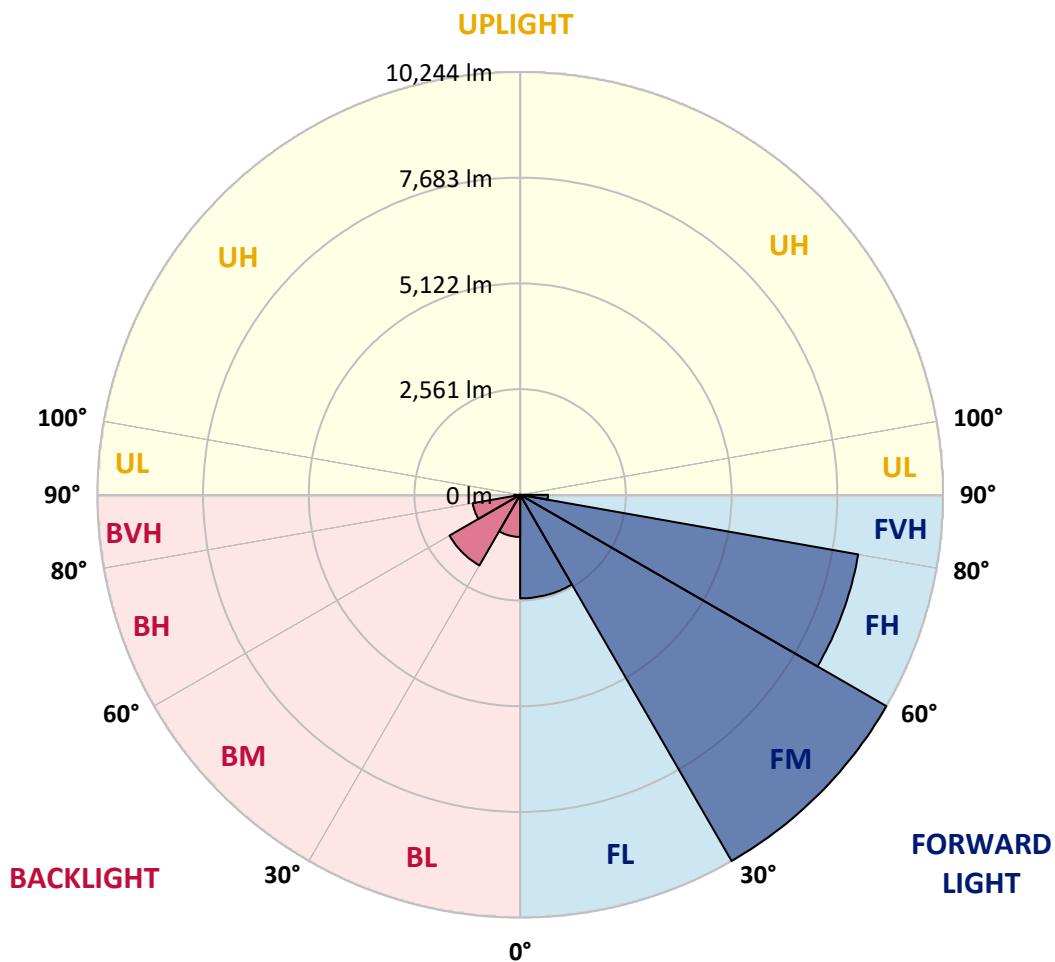
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	2509.4	9.6			
FM	(30°-60°)	10244.1	39.3			
FH	(60°-80°)	8317.2	31.9			G4/12000
FVH	(80°-90°)	676.0	2.6			G4/750
BL	(0°-30°)	1020.3	3.9	B3/2500		
BM	(30°-60°)	1975.9	7.6	B2/2500		
BH	(60°-80°)	1169.1	4.5	B3/2500		G3/2500
BVH	(80°-90°)	147.2	0.6			G2/225
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

**BUG Rating: B3-U0-G4**

Type IV Short





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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	15°	25°	35°	45°	55°	65°	75°	85°	90°
0°	8804.5	8804.5	8804.5	8804.5	8804.5	8804.5	8804.5	8804.5	8804.5	8804.5	8804.5
2.5°	9147.7	9294.2	9579.3	9792.2	10052.2	10112.2	10195.4	10113.6	9969.0	9776.9	9714.1
5°	8602.2	8914.7	9606.2	10215.4	10756.7	11008.8	11079.5	10871.1	10451.7	9900.1	9563.4
7.5°	7727.0	8171.1	9107.7	10004.8	10802.3	11273.8	11262.2	10779.5	10007.6	9109.1	8569.2
10°	6971.8	7479.2	8553.9	9556.5	10402.8	10860.0	10683.3	10066.6	9144.9	8110.7	7525.2
12.5°	6549.6	7046.7	8136.7	9143.5	9851.3	10009.0	9874.1	9269.5	8401.3	7355.9	6843.0
15°	6476.1	7022.5	7970.7	8790.1	9186.8	9049.6	8888.7	8618.0	8004.6	7112.2	6577.9
17.5°	6793.2	7394.5	8161.4	8543.6	8476.2	8236.7	8191.1	8221.4	8073.9	7382.9	6767.2
20°	7400.6	8122.3	8615.2	8427.8	7936.3	7606.6	7618.2	8078.1	8514.8	8069.3	7365.7
22.5°	8252.5	9076.6	9269.5	8489.2	7708.4	7317.3	7412.2	8157.2	9218.4	9072.4	8173.9
25°	9355.6	10106.6	9967.6	8712.4	7731.2	7353.1	7428.9	8429.2	10048.9	10075.0	9174.2
27.5°	10424.2	11120.8	10553.0	9009.1	7826.1	7437.8	7538.2	8857.1	10842.8	11163.6	10317.3
30°	11258.0	11742.6	10785.1	9279.8	8012.1	7602.4	7727.0	9264.0	11204.1	11898.4	11196.7
32.5°	11948.6	12296.5	11154.8	9615.1	8354.4	7861.4	8080.9	9758.3	11724.0	12597.8	12057.4
35°	12830.8	12929.8	11614.7	9989.0	8883.1	8313.0	8585.0	10242.4	12219.7	13303.7	12905.7
37.5°	13865.5	13738.1	12048.6	10500.5	9566.7	9018.9	9244.0	10773.9	12627.6	14104.5	13772.0
40°	14888.1	14581.2	12593.6	11293.8	10563.7	9851.3	10117.8	11341.3	13008.9	14906.7	14618.8
42.5°	15757.7	15303.4	13130.3	12166.2	11491.5	10769.7	11087.8	11912.8	13372.5	15591.2	15353.6
45°	16400.9	15836.3	13641.8	13004.2	12770.8	11990.0	12140.7	12567.1	13766.4	16163.2	15958.1
47.5°	16975.2	16372.0	14220.3	13849.7	13889.7	13577.2	13334.9	13329.3	14231.0	16630.1	16529.7
50°	17744.3	17115.6	14842.1	14720.2	15568.4	15360.6	14826.2	14218.9	14817.9	17160.3	17148.6
52.5°	18804.6	18293.6	15601.5	15658.7	17136.1	17271.9	16609.7	15288.0	15737.3	18132.6	18064.3
55°	20058.4	19759.8	16636.2	16737.5	19058.1	19155.7	18497.7	16624.1	17090.0	19541.2	19350.6
57.5°	21036.3	20973.5	17770.4	18032.7	20493.6	20932.2	20327.6	18171.7	18614.0	20727.1	20248.6
60°	21426.0	21731.1	18978.1	19338.9	21821.8	22306.8	21777.1	19530.5	19964.9	21218.6	20187.2
62.5°	21215.8	21897.1	20264.4	20234.1	22118.0	22640.7	22268.2	20287.2	20966.6	20711.3	19166.0
65°	20243.0	21300.0	21010.8	20003.5	21103.8	21146.5	21026.1	19949.1	21202.8	19108.3	17191.4
67.5°	18123.8	19645.4	20027.7	18027.1	18367.5	18088.5	17886.2	18098.2	19970.5	16705.9	14448.2
70°	14762.1	17051.4	17234.2	14418.4	14263.6	14075.7	13673.4	14837.9	17539.7	13692.0	11464.5
72.5°	10854.4	13260.9	13823.6	10574.9	9858.7	9896.9	9579.3	11181.8	14260.8	10170.8	8559.4
75°	7426.1	9602.0	10815.8	7378.7	6519.8	6535.1	6494.7	7923.3	11358.5	7075.0	6404.9
77.5°	5425.1	6860.2	8157.2	4960.5	4815.9	4727.1	4705.7	5543.7	8708.2	5137.2	4973.6
80°	4353.2	5068.4	5479.0	3438.0	3697.0	3690.1	3571.0	3811.9	5686.9	3757.5	3719.8
82.5°	3019.9	3895.1	4439.2	2694.4	2495.4	2453.5	2482.8	2839.0	4019.8	2568.4	2442.4
85°	1593.2	2587.0	4396.4	2388.0	1481.1	1181.7	1470.0	2324.7	3482.6	1361.2	1191.4
87.5°	203.7	747.8	2910.7	952.9	584.5	314.8	698.0	1309.1	2236.4	277.6	242.3
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°	8804.5	8804.5	8804.5	8804.5	8804.5	8804.5	8804.5	8804.5	8804.5	8804.5	8804.5
2.5°	9552.3	9361.6	9112.4	8881.2	8642.2	8404.1	8093.5	7898.6	7764.2	7738.2	7681.4
5°	9320.2	8686.9	8208.3	7794.5	7419.2	6888.6	6595.1	6351.4	6221.2	6208.7	6177.1
7.5°	8249.7	7375.9	6730.0	6144.0	5612.5	5184.2	4711.3	4491.3	4400.6	4422.0	4443.4
10°	7136.4	6159.9	5417.7	4818.7	4350.4	3989.5	3610.1	3353.8	3175.7	3139.9	3132.9
12.5°	6323.1	5251.6	4531.3	4108.1	3746.3	3406.4	3004.1	2701.4	2471.2	2392.1	2339.6
15°	5979.0	4807.5	4052.8	3597.0	3197.1	2766.0	2392.1	2075.5	1863.9	1795.0	1756.4
17.5°	6052.4	4684.3	3723.1	3139.9	2628.8	2178.7	1707.6	1436.5	1309.1	1276.5	1276.5
20°	6436.6	4661.5	3450.6	2719.1	2081.0	1559.7	1173.3	1018.4	977.0	972.9	984.0
22.5°	6975.1	4742.0	3247.8	2354.0	1617.4	1138.9	913.8	856.6	838.0	842.6	855.2
25°	7777.2	5012.6	3100.4	2028.5	1269.1	932.4	814.7	780.8	772.0	783.6	799.4
27.5°	8728.2	5283.3	3008.3	1783.4	1071.4	852.4	774.7	739.4	745.0	759.4	773.4
30°	9563.4	5505.6	2863.7	1609.0	1010.1	856.6	774.7	726.4	720.8	723.6	727.8
32.5°	10313.1	5655.8	2694.4	1442.5	871.0	760.8	723.6	716.6	684.5	672.9	674.8
35°	10959.0	5655.8	2593.0	1345.3	780.8	674.8	614.8	579.0	562.7	564.1	580.4
37.5°	11582.2	5542.3	2542.8	1290.5	732.0	641.7	588.7	557.1	535.7	531.5	534.3
40°	12131.8	5377.7	2485.6	1267.7	694.8	621.8	572.0	545.5	522.7	515.7	517.1
42.5°	12573.2	5244.2	2422.4	1237.9	671.5	607.3	559.9	537.1	511.5	504.1	502.7
45°	13050.3	5200.0	2339.6	1177.5	683.1	608.7	557.1	532.9	506.9	498.5	495.7
47.5°	13679.0	5339.1	2253.6	1105.9	707.8	616.2	561.3	532.9	505.5	498.5	495.7
50°	14471.0	5665.5	2144.3	1001.2	683.1	636.2	559.9	528.3	505.5	498.5	492.9
52.5°	15488.5	6106.8	2001.5	881.2	668.7	684.5	557.1	519.9	498.5	488.8	478.5
55°	16724.5	6467.7	1830.4	782.2	636.2	671.5	552.9	510.1	487.4	472.9	464.1
57.5°	17629.9	6597.9	1611.8	718.0	590.1	650.1	546.9	497.1	472.9	461.3	450.2
60°	17450.9	6345.9	1426.7	677.6	562.7	587.3	542.7	485.5	459.9	451.5	440.9
62.5°	16017.2	5686.9	1307.7	659.0	545.5	535.7	546.9	474.3	448.8	439.5	436.7
65°	13866.9	4714.1	1260.7	654.8	531.5	505.5	508.7	461.3	435.3	428.3	425.5
67.5°	11438.5	3804.9	1219.3	668.7	512.9	484.1	470.2	444.1	422.3	415.3	409.7
70°	9020.3	3164.6	1200.3	660.3	490.1	462.7	447.4	425.5	406.9	399.5	395.3
72.5°	7263.8	2673.0	1190.0	651.5	459.9	433.9	419.5	400.9	380.9	378.1	373.9
75°	6147.3	2101.5	1090.5	624.5	425.5	399.5	389.7	372.5	352.5	352.5	349.7
77.5°	4742.0	1519.7	906.8	552.9	389.7	360.9	352.5	339.5	316.7	320.9	319.5
80°	3502.6	991.5	709.2	458.5	345.5	318.1	313.4	300.9	276.2	282.3	282.3
82.5°	2399.6	650.1	510.1	375.3	294.8	269.3	269.3	256.2	229.3	232.1	240.9
85°	1204.9	447.4	380.9	290.6	229.3	216.2	216.2	206.5	179.0	180.4	192.1
87.5°	366.9	269.3	252.0	207.9	164.6	161.8	154.4	147.4	130.2	128.8	136.3
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°	8804.5	8804.5	8804.5	8804.5	8804.5	8804.5	8804.5	8804.5	8804.5	8804.5	8804.5
2.5°	7593.6	7511.7	7413.6	7195.5	7122.5	7117.8	7184.3	7115.0	7247.1	7191.3	7252.7
5°	6123.6	6044.1	5933.4	5655.8	5486.5	5371.6	5317.7	5157.2	5273.0	5188.4	5259.1
7.5°	4503.9	4522.5	4449.5	4286.2	3917.9	3733.3	3624.5	3526.8	3611.5	3602.6	3737.5
10°	3166.0	3215.7	3164.6	2999.9	2701.4	2600.0	2620.0	2658.6	2769.3	2826.0	3033.9
12.5°	2279.1	2276.3	2243.3	2095.9	1899.7	1910.8	1992.7	2059.6	2161.5	2221.9	2433.5
15°	1701.6	1676.0	1661.6	1541.1	1429.5	1454.2	1494.2	1501.1	1565.8	1601.6	1773.6
17.5°	1286.3	1299.3	1314.7	1229.1	1144.5	1128.6	1097.5	1058.4	1077.5	1084.5	1170.0
20°	1021.2	1072.8	1111.9	1051.4	965.9	919.4	879.4	853.8	853.8	852.4	876.6
22.5°	892.4	929.6	971.5	929.6	852.4	812.0	789.2	769.2	766.4	766.4	789.2
25°	822.6	849.6	889.6	861.2	803.6	773.4	752.0	726.4	716.6	713.4	729.2
27.5°	787.8	799.4	819.4	793.3	745.0	730.6	725.0	702.2	688.7	681.7	698.0
30°	729.2	726.4	727.8	702.2	663.1	661.7	671.5	676.2	671.5	670.1	694.8
32.5°	674.8	668.7	667.3	644.5	608.7	600.4	608.7	617.6	627.3	641.7	670.1
35°	605.9	620.4	628.7	608.7	565.5	539.9	530.1	514.3	505.5	505.5	538.5
37.5°	551.5	584.5	597.6	579.0	531.5	495.7	478.5	475.7	477.1	482.7	514.3
40°	532.9	557.1	568.3	550.1	502.7	470.2	459.9	457.1	459.9	468.8	499.9
42.5°	521.3	538.5	537.1	514.3	475.7	452.9	447.4	444.1	447.4	455.7	490.1
45°	511.5	522.7	511.5	484.1	448.8	436.7	438.1	436.7	439.5	448.8	481.3
47.5°	502.7	506.9	492.9	465.5	428.3	425.5	431.1	435.3	438.1	446.0	479.9
50°	490.1	490.1	477.1	448.8	411.1	412.5	419.5	429.7	431.1	439.5	467.4
52.5°	474.3	472.9	464.1	436.7	396.7	400.9	400.9	412.5	415.3	425.5	454.3
55°	461.3	458.5	454.3	428.3	384.1	391.1	386.9	391.1	398.1	408.3	439.5
57.5°	450.2	444.1	444.1	420.9	373.9	376.7	366.9	372.5	380.9	389.7	422.3
60°	438.1	432.5	435.3	411.1	358.1	355.3	351.1	362.3	365.5	375.3	408.3
62.5°	425.5	420.9	422.3	399.5	346.9	339.5	339.5	349.7	351.1	365.5	396.7
65°	415.3	409.7	408.3	388.3	333.9	325.5	329.7	333.9	336.7	351.1	380.9
67.5°	405.5	393.9	393.9	378.1	319.5	310.6	319.5	318.1	322.7	335.3	359.5
70°	392.5	376.7	378.1	371.1	305.1	294.8	302.3	300.9	303.7	312.0	336.7
72.5°	372.5	359.5	362.3	359.5	290.6	276.2	279.0	279.0	279.0	286.5	312.0
75°	346.9	336.7	345.5	352.5	273.4	253.4	256.2	256.2	252.0	256.2	287.9
77.5°	314.8	309.2	338.1	328.3	253.4	229.3	229.3	226.5	218.1	223.7	257.6
80°	280.9	276.2	312.0	274.8	230.7	199.5	196.2	188.8	180.4	184.6	219.5
82.5°	245.1	240.9	262.3	210.7	199.5	164.6	157.6	144.6	136.3	140.4	171.6
85°	200.9	200.9	202.3	159.0	151.6	126.0	117.7	100.4	90.2	93.0	123.2
87.5°	143.2	147.4	136.3	108.8	90.2	70.2	64.6	54.4	45.6	53.0	64.6
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: P298882

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

**CANDELA DISTRIBUTION (continued):**

	295°	305°	315°	325°	335°	345°	355°	360°
0°	8804.5	8804.5	8804.5	8804.5	8804.5	8804.5	8804.5	8804.5
2.5°	7568.0	7725.6	7904.7	8133.5	8330.2	8652.0	8961.7	9147.7
5°	5658.5	5920.8	6246.8	6667.2	7058.3	7645.2	8228.3	8602.2
7.5°	4049.5	4330.4	4682.9	5207.0	5760.4	6509.1	7280.1	7727.0
10°	3351.0	3638.9	3935.1	4289.0	4742.0	5556.7	6467.7	6971.8
12.5°	2772.1	3079.9	3399.4	3771.9	4191.4	4919.1	5969.2	6549.6
15°	2121.5	2465.2	2841.8	3313.4	3838.9	4680.1	5846.0	6476.1
17.5°	1454.2	1838.3	2300.5	2882.3	3525.4	4602.5	6066.8	6793.2
20°	1001.2	1280.7	1775.0	2456.8	3230.6	4592.7	6490.5	7400.6
22.5°	838.0	962.6	1323.5	2065.7	3008.3	4715.9	7148.5	8252.5
25°	774.7	849.6	1057.0	1726.2	2846.5	4999.6	8053.9	9355.6
27.5°	738.0	805.0	959.8	1504.4	2719.1	5328.8	8934.7	10424.2
30°	752.0	820.8	932.4	1390.9	2545.6	5603.7	9716.9	11258.0
32.5°	677.6	707.8	799.4	1290.5	2421.0	5834.3	10401.4	11948.6
35°	577.6	630.1	713.4	1243.5	2423.8	5989.2	11147.8	12830.8
37.5°	550.1	603.2	663.1	1226.3	2456.8	6154.3	12004.4	13865.5
40°	532.9	581.8	633.4	1216.5	2488.4	6304.5	12844.3	14888.1
42.5°	521.3	565.5	630.1	1181.7	2504.2	6439.3	13534.4	15757.7
45°	519.9	565.5	641.7	1147.2	2528.4	6584.0	14113.4	16400.9
47.5°	521.3	584.5	620.4	1105.9	2528.4	6825.8	14792.3	16975.2
50°	515.7	616.2	597.6	1047.3	2469.8	7284.3	15723.3	17744.3
52.5°	512.9	612.0	552.9	957.0	2368.0	8012.1	16916.6	18804.6
55°	505.5	590.1	521.3	822.6	2249.4	8805.9	18194.5	20058.4
57.5°	498.5	522.7	504.1	705.0	2065.7	9364.4	19073.9	21036.3
60°	558.5	457.1	490.1	647.3	1820.6	9517.4	19039.9	21426.0
62.5°	517.1	428.3	471.5	634.8	1649.0	9087.7	18160.1	21215.8
65°	405.5	409.7	452.9	671.5	1603.0	7949.3	16601.3	20243.0
67.5°	371.1	391.1	433.9	719.4	1607.6	6364.5	14272.4	18123.8
70°	349.7	371.1	412.5	743.6	1618.8	4744.8	11283.6	14762.1
72.5°	325.5	344.1	388.3	747.8	1543.9	3446.4	8697.1	10854.4
75°	296.2	313.4	353.9	651.5	1279.3	2390.7	6652.8	7426.1
77.5°	263.7	276.2	310.6	502.7	950.1	1530.0	4993.5	5425.1
80°	225.1	232.1	260.9	368.3	650.1	957.0	3950.9	4353.2
82.5°	180.4	183.2	202.3	276.2	422.3	614.8	2646.0	3019.9
85°	127.4	127.4	139.0	200.9	287.9	389.7	1436.5	1593.2
87.5°	60.0	61.4	61.4	110.2	150.2	198.1	331.1	203.7
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)