

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: P298909

Luminaire Tested: **GLNA-AF-10-LED-E1-SLL-7027**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P298909
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-10-LED-E1-SLL-7027
Description: GALLEONAIRE AREA AND ROADWAY LUMINAIRE
(10) 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: 44838.2 lumens
Efficiency: N/A
Efficacy: 80.4 lumens/watt
Luminous Opening: Rectangular (W 2.5' x L: 1' x H: 0')
IES Classification: Type IV - Short - Non-Cutoff
BUG Rating: B3 - U0 - G5

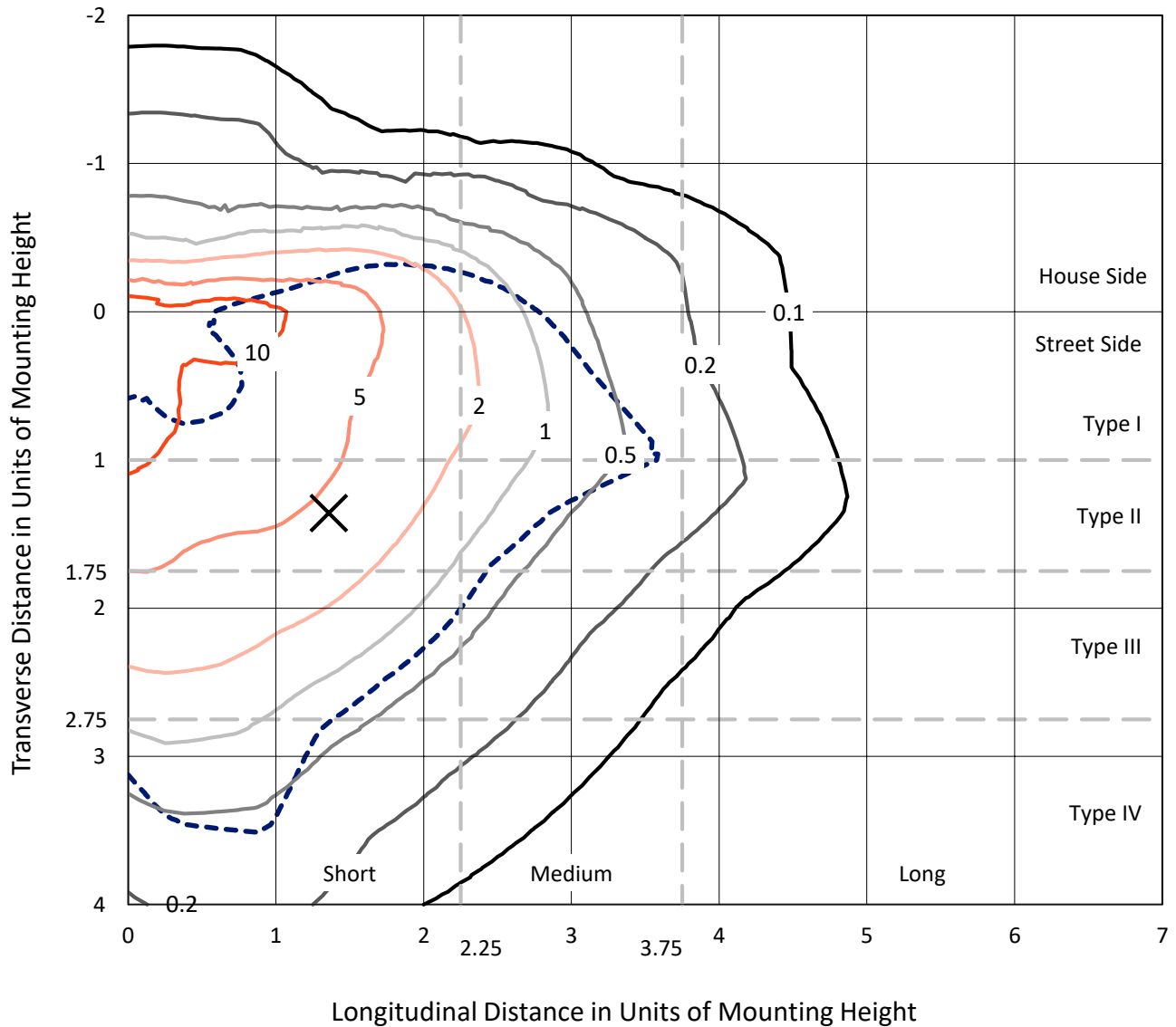
Input Watts (W): 558
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Iso-Footcandle Lines of Horizontal Illumination

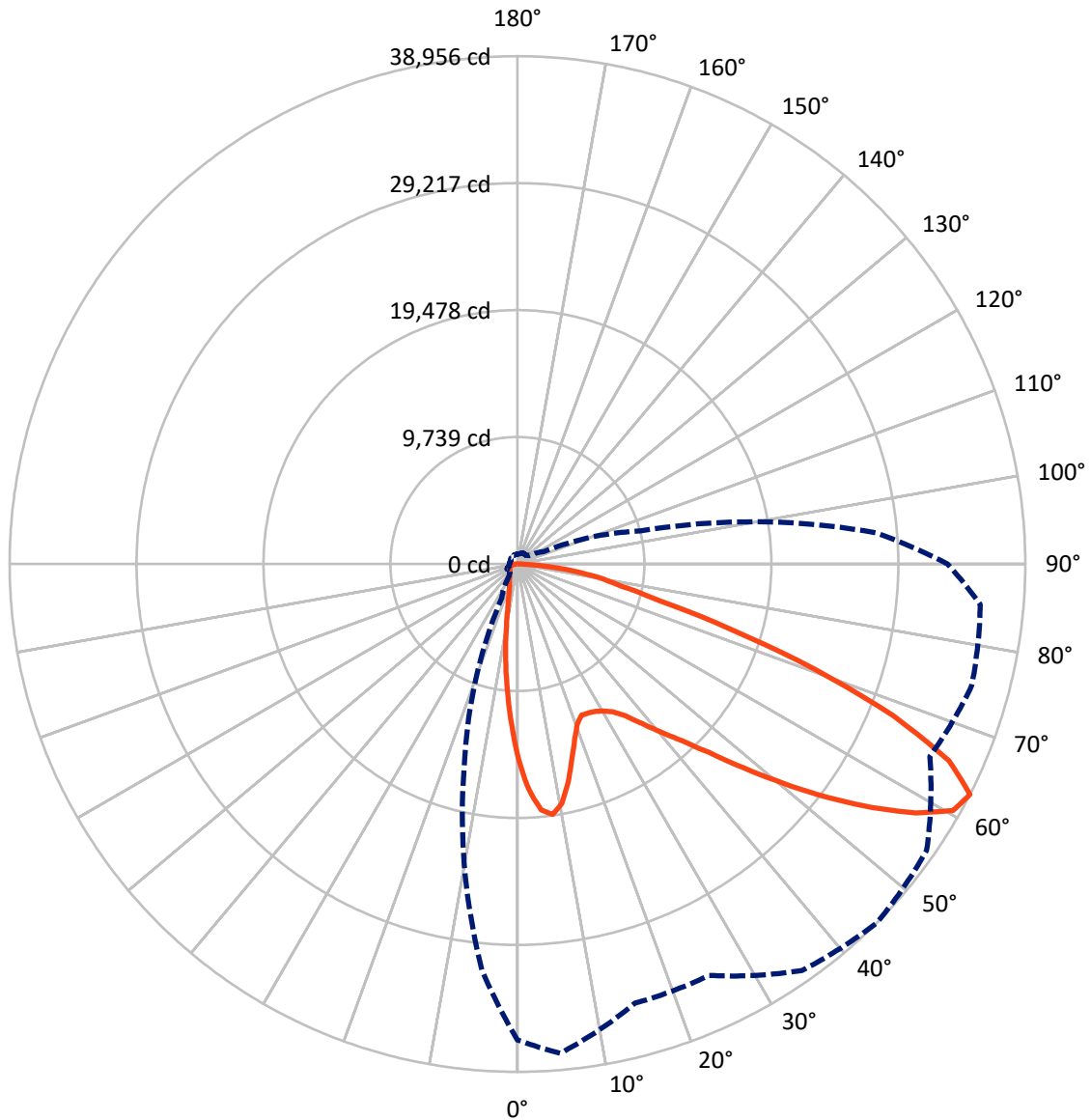
× Max cd
 - - - 1/2 Max cd



Based on 30 foot mounting height. Maximum calculated value = 19.8 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	7420.1	0.0	7420.1
	% Fixture	16.5	0.0	16.5
Street Side	Lumens	37418.1	0.0	37418.1
	% Fixture	83.5	0.0	83.5
Total	Lumens	44838.2	0.0	44838.2
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	1102.8	2.5
10°-20°	2022.2	4.5
20°-30°	2948.3	6.6
30°-40°	4540.9	10.1
40°-50°	6682.9	14.9
50°-60°	9802.4	21.9
60°-70°	10957.7	24.4
70°-80°	5364.7	12.0
80°-90°	1416.4	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°	44838.2	100.0
0°-180°	44838.2	100.0

Coefficient of Utilization



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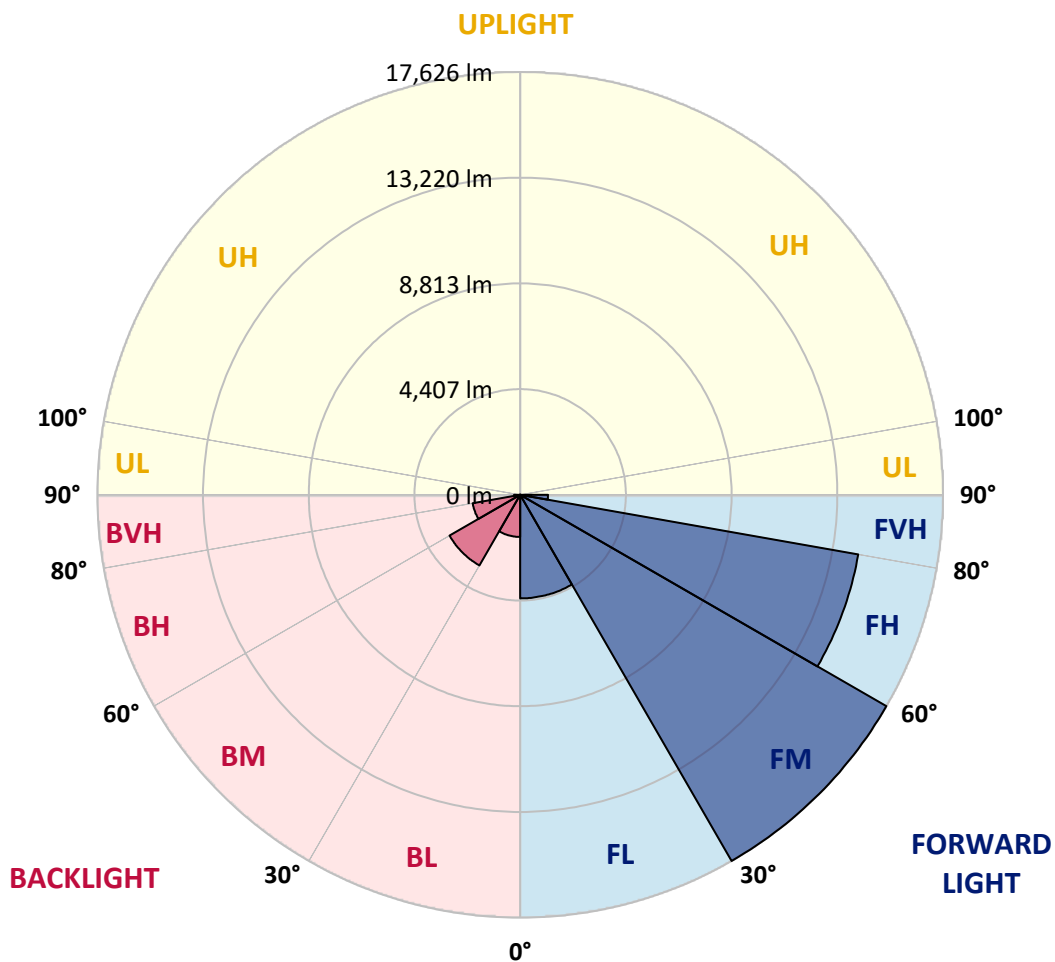
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	4317.8	9.6			
FM	(30°-60°)	17626.3	39.3			
FH	(60°-80°)	14310.8	31.9			G5
FVH	(80°-90°)	1163.2	2.6			G5
BL	(0°-30°)	1755.5	3.9	B3/2500		
BM	(30°-60°)	3399.8	7.6	B3/5000		
BH	(60°-80°)	2011.5	4.5	B3/2500		G3/2500
BVH	(80°-90°)	253.2	0.6			G3/500
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

BUG Rating: B3-U0-G5

Type IV Short





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	75°	85°	90°
0°	15149.3	15149.3	15149.3	15149.3	15149.3	15149.3	15149.3	15149.3	15149.3	15149.3	15149.3
2.5°	15739.8	15991.8	16482.3	16848.8	17296.1	17399.3	17542.5	17401.7	17152.8	16822.4	16714.4
5°	14801.2	15338.9	16528.7	17576.9	18508.3	18942.0	19063.6	18705.1	17983.4	17034.4	16455.1
7.5°	13295.3	14059.5	15671.0	17214.5	18586.7	19398.1	19378.1	18547.5	17219.3	15673.4	14744.4
10°	11995.9	12868.8	14718.0	16443.1	17899.4	18685.9	18381.9	17320.9	15735.0	13955.4	12948.0
12.5°	11269.3	12124.7	14000.2	15732.6	16950.4	17221.7	16989.6	15949.4	14455.5	12656.8	11774.2
15°	11142.9	12083.1	13714.6	15124.5	15807.0	15570.9	15294.1	14828.4	13773.0	12237.5	11318.1
17.5°	11688.6	12723.2	14042.7	14700.4	14584.4	14172.3	14093.9	14145.9	13892.2	12703.2	11643.8
20°	12733.6	13975.4	14823.6	14501.1	13655.4	13088.1	13108.1	13899.4	14650.8	13884.2	12673.6
22.5°	14199.5	15617.3	15949.4	14606.8	13263.3	12590.4	12753.6	14035.5	15861.4	15610.1	14064.3
25°	16097.4	17389.7	17150.4	14990.8	13302.5	12652.0	12782.4	14503.5	17290.5	17335.3	15785.4
27.5°	17936.2	19134.8	18157.8	15501.3	13465.7	12797.6	12970.4	15239.7	18656.3	19208.4	17752.2
30°	19370.9	20204.6	18557.1	15967.0	13785.8	13080.9	13295.3	15939.8	19278.0	20472.7	19265.2
32.5°	20559.1	21157.6	19193.2	16543.9	14374.7	13526.6	13904.2	16790.4	20172.6	21676.1	20746.3
35°	22077.0	22247.4	19984.6	17187.2	15284.5	14303.5	14771.6	17623.3	21025.6	22890.7	22205.8
37.5°	23857.3	23638.1	20731.1	18067.4	16460.7	15518.1	15905.4	18537.9	21727.3	24268.6	23696.5
40°	25616.8	25088.7	21668.9	19432.5	18176.2	16950.4	17408.9	19514.1	22383.4	25648.8	25153.5
42.5°	27113.1	26331.4	22592.3	20933.6	19772.5	18530.7	19078.0	20497.5	23009.1	26826.7	26417.8
45°	28219.7	27248.3	23472.4	22375.4	21973.7	20630.3	20889.5	21623.3	23686.9	27810.9	27458.0
47.5°	29207.9	28170.1	24467.8	23830.1	23898.9	23361.2	22944.3	22934.7	24486.2	28614.2	28441.4
50°	30531.4	29449.6	25537.6	25328.0	26787.5	26429.8	25510.4	24465.4	25496.0	29526.4	29506.4
52.5°	32355.7	31476.3	26844.3	26942.7	29484.8	29718.4	28579.0	26305.0	27077.9	31199.5	31081.9
55°	34512.9	33999.2	28624.6	28799.0	32791.8	32959.8	31827.6	28603.8	29405.6	33623.1	33295.1
57.5°	36195.6	36087.6	30576.2	31027.5	35261.9	36016.4	34976.2	31266.7	32027.6	35663.5	34840.2
60°	36866.2	37391.1	32654.2	33275.1	37547.1	38381.6	37470.3	33604.7	34352.1	36509.3	34734.6
62.5°	36504.5	37676.7	34867.4	34815.4	38056.8	38956.2	38315.2	34906.6	36075.6	35636.3	32977.4
65°	34830.6	36649.3	36151.6	34418.5	36311.7	36385.3	36178.0	34324.9	36482.1	32878.2	29580.0
67.5°	31184.3	33802.4	34460.1	31017.9	31603.6	31123.5	30775.4	31140.3	34361.7	28744.6	24859.9
70°	25400.0	29339.1	29653.6	24808.7	24542.2	24219.0	23526.8	25530.4	30179.3	23558.8	19726.1
72.5°	18676.3	22817.1	23785.3	18195.4	16963.2	17028.8	16482.3	19239.6	24537.4	17500.1	14727.6
75°	12777.6	16521.5	18609.9	12696.0	11218.1	11244.5	11174.9	13633.0	19543.7	12173.5	11020.5
77.5°	9334.6	11803.8	14035.5	8535.2	8286.4	8133.5	8096.7	9538.6	14983.6	8839.3	8557.6
80°	7490.2	8720.8	9427.4	5915.5	6361.2	6349.2	6144.4	6558.8	9785.0	6465.2	6400.4
82.5°	5196.2	6702.1	7638.2	4636.1	4293.6	4221.6	4272.0	4884.9	6916.5	4419.2	4202.4
85°	2741.3	4451.2	7564.6	4108.8	2548.5	2033.2	2529.3	4000.0	5992.3	2342.0	2050.0
87.5°	350.5	1286.6	5008.1	1639.5	1005.8	541.7	1201.0	2252.4	3847.9	477.7	416.9
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°	15149.3	15149.3	15149.3	15149.3	15149.3	15149.3	15149.3	15149.3	15149.3	15149.3	15149.3
2.5°	16435.9	16107.8	15679.0	15281.3	14870.0	14460.3	13925.8	13590.6	13359.3	13314.5	13216.9
5°	16036.6	14946.8	14123.5	13411.3	12765.6	11852.6	11347.7	10928.5	10704.4	10682.8	10628.4
7.5°	14194.7	12691.2	11579.8	10571.6	9657.0	8920.1	8106.3	7727.9	7571.8	7608.6	7645.4
10°	12279.1	10598.8	9321.8	8291.2	7485.4	6864.5	6211.6	5770.7	5464.2	5402.6	5390.6
12.5°	10879.7	9036.1	7796.7	7068.5	6446.0	5861.1	5169.0	4648.1	4252.0	4116.0	4025.6
15°	10287.5	8272.0	6973.3	6189.2	5501.0	4759.3	4116.0	3571.1	3207.0	3088.6	3022.2
17.5°	10414.0	8059.9	6406.0	5402.6	4523.3	3748.7	2938.2	2471.7	2252.4	2196.4	2196.4
20°	11074.9	8020.7	5937.1	4678.5	3580.7	2683.7	2018.8	1752.3	1681.1	1673.9	1693.1
22.5°	12001.5	8159.1	5588.3	4050.4	2782.9	1959.6	1572.3	1473.9	1441.9	1449.9	1471.5
25°	13381.7	8624.8	5334.6	3490.3	2183.6	1604.3	1401.9	1343.5	1328.3	1348.3	1375.5
27.5°	15018.0	9090.5	5176.2	3068.6	1843.5	1466.7	1333.1	1272.2	1281.8	1306.6	1330.7
30°	16455.1	9473.0	4927.3	2768.5	1737.9	1473.9	1333.1	1249.8	1240.2	1245.0	1252.2
32.5°	17745.0	9731.4	4636.1	2482.1	1498.7	1309.0	1245.0	1233.0	1177.8	1157.8	1161.0
35°	18856.4	9731.4	4461.6	2314.8	1343.5	1161.0	1057.8	996.2	968.2	970.6	998.6
37.5°	19928.6	9536.2	4375.2	2220.4	1259.4	1104.2	1013.0	958.6	921.8	914.6	919.4
40°	20874.3	9252.9	4276.8	2181.2	1195.4	1069.8	984.2	938.6	899.4	887.4	889.8
42.5°	21633.7	9023.3	4168.0	2130.0	1155.4	1045.0	963.4	924.2	880.2	867.4	865.0
45°	22454.6	8947.3	4025.6	2026.0	1175.4	1047.4	958.6	917.0	872.2	857.8	853.0
47.5°	23536.4	9186.5	3877.5	1902.8	1217.8	1060.2	965.8	917.0	869.8	857.8	853.0
50°	24899.1	9748.2	3689.5	1722.7	1175.4	1094.6	963.4	909.0	869.8	857.8	848.2
52.5°	26649.8	10507.6	3443.9	1516.3	1150.6	1177.8	958.6	894.6	857.8	841.0	823.4
55°	28776.6	11128.5	3149.4	1345.9	1094.6	1155.4	951.4	877.8	838.6	813.8	798.6
57.5°	30334.5	11352.5	2773.3	1235.4	1015.4	1118.6	941.0	855.4	813.8	793.7	774.5
60°	30026.5	10918.9	2454.9	1165.8	968.2	1010.6	933.8	835.4	791.3	776.9	758.5
62.5°	27559.6	9785.0	2250.0	1133.8	938.6	921.8	941.0	816.2	772.1	756.1	751.3
65°	23859.7	8111.1	2169.2	1126.6	914.6	869.8	875.4	793.7	748.9	736.9	732.1
67.5°	19681.3	6546.8	2098.0	1150.6	882.6	833.0	809.0	764.1	726.5	714.5	704.9
70°	15520.5	5445.0	2065.2	1136.2	843.4	796.2	769.7	732.1	700.1	687.3	680.1
72.5°	12498.4	4599.3	2047.6	1121.0	791.3	746.5	721.7	689.7	655.3	650.5	643.3
75°	10577.2	3615.9	1876.4	1074.6	732.1	687.3	670.5	640.9	606.5	606.5	601.7
77.5°	8159.1	2614.9	1560.3	951.4	670.5	620.9	606.5	584.1	544.9	552.1	549.7
80°	6026.7	1705.9	1220.2	788.9	594.5	547.3	539.3	517.7	475.3	485.7	485.7
82.5°	4128.8	1118.6	877.8	645.7	507.3	463.3	463.3	440.9	394.5	399.3	414.5
85°	2073.2	769.7	655.3	500.1	394.5	372.1	372.1	355.3	308.1	310.5	330.5
87.5°	631.3	463.3	433.7	357.7	283.3	278.5	265.7	253.6	224.0	221.6	234.4
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°	15149.3	15149.3	15149.3	15149.3	15149.3	15149.3	15149.3	15149.3	15149.3	15149.3	15149.3
2.5°	13065.7	12924.8	12756.0	12380.7	12255.1	12247.1	12361.5	12242.3	12469.6	12373.5	12479.2
5°	10536.4	10399.6	10209.1	9731.4	9440.2	9242.5	9149.7	8873.7	9072.9	8927.3	9048.9
7.5°	7749.5	7781.5	7655.8	7375.0	6741.3	6423.6	6236.4	6068.3	6214.0	6198.8	6430.8
10°	5447.4	5533.0	5445.0	5161.8	4648.1	4473.6	4508.1	4574.5	4764.9	4862.5	5220.2
12.5°	3921.5	3916.7	3859.9	3606.3	3268.6	3287.8	3428.6	3543.9	3719.1	3823.1	4187.2
15°	2927.8	2883.7	2858.9	2651.7	2459.7	2502.1	2570.9	2582.9	2694.1	2755.7	3051.8
17.5°	2213.2	2235.6	2262.0	2114.8	1969.2	1942.0	1888.4	1821.1	1854.0	1866.0	2013.2
20°	1757.1	1845.9	1913.2	1809.1	1661.9	1581.9	1513.1	1469.1	1469.1	1466.7	1508.3
22.5°	1535.5	1599.5	1671.5	1599.5	1466.7	1397.1	1357.9	1323.4	1318.6	1318.6	1357.9
25°	1415.5	1461.9	1530.7	1481.9	1382.7	1330.7	1293.8	1249.8	1233.0	1227.4	1254.6
27.5°	1355.5	1375.5	1409.9	1365.1	1281.8	1257.0	1247.4	1208.2	1185.0	1173.0	1201.0
30°	1254.6	1249.8	1252.2	1208.2	1141.0	1138.6	1155.4	1163.4	1155.4	1153.0	1195.4
32.5°	1161.0	1150.6	1148.2	1109.0	1047.4	1033.0	1047.4	1062.6	1079.4	1104.2	1153.0
35°	1042.6	1067.4	1081.8	1047.4	973.0	929.0	912.2	885.0	869.8	869.8	926.6
37.5°	949.0	1005.8	1028.2	996.2	914.6	853.0	823.4	818.6	821.0	830.6	885.0
40°	917.0	958.6	977.8	946.6	865.0	809.0	791.3	786.5	791.3	806.6	860.2
42.5°	897.0	926.6	924.2	885.0	818.6	779.3	769.7	764.1	769.7	784.1	843.4
45°	880.2	899.4	880.2	833.0	772.1	751.3	753.7	751.3	756.1	772.1	828.2
47.5°	865.0	872.2	848.2	801.0	736.9	732.1	741.7	748.9	753.7	767.3	825.8
50°	843.4	843.4	821.0	772.1	707.3	709.7	721.7	739.3	741.7	756.1	804.2
52.5°	816.2	813.8	798.6	751.3	682.5	689.7	689.7	709.7	714.5	732.1	781.7
55°	793.7	788.9	781.7	736.9	660.9	672.9	665.7	672.9	684.9	702.5	756.1
57.5°	774.5	764.1	764.1	724.1	643.3	648.1	631.3	640.9	655.3	670.5	726.5
60°	753.7	744.1	748.9	707.3	616.1	611.3	604.1	623.3	628.9	645.7	702.5
62.5°	732.1	724.1	726.5	687.3	596.9	584.1	584.1	601.7	604.1	628.9	682.5
65°	714.5	704.9	702.5	668.1	574.5	560.1	567.3	574.5	579.3	604.1	655.3
67.5°	697.7	677.7	677.7	650.5	549.7	534.5	549.7	547.3	555.3	576.9	618.5
70°	675.3	648.1	650.5	638.5	524.9	507.3	520.1	517.7	522.5	536.9	579.3
72.5°	640.9	618.5	623.3	618.5	500.1	475.3	480.1	480.1	480.1	492.9	536.9
75°	596.9	579.3	594.5	606.5	470.5	436.1	440.9	440.9	433.7	440.9	495.3
77.5°	541.7	532.1	581.7	564.9	436.1	394.5	394.5	389.7	375.3	384.9	443.3
80°	483.3	475.3	536.9	472.9	396.9	343.3	337.7	324.9	310.5	317.7	377.7
82.5°	421.7	414.5	451.3	362.5	343.3	283.3	271.3	248.8	234.4	241.6	295.3
85°	345.7	345.7	348.1	273.7	260.8	216.8	202.4	172.8	155.2	160.0	212.0
87.5°	246.4	253.6	234.4	187.2	155.2	120.8	111.2	93.6	78.4	91.2	111.2
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: P298909

CATALOG NUMBER: GLNA-AF-10-LED-E1-SLL-7027

CANDELA DISTRIBUTION (continued):

	295°	305°	315°	325°	335°	345°	355°	360°
0°	15149.3	15149.3	15149.3	15149.3	15149.3	15149.3	15149.3	15149.3
2.5°	13021.7	13292.9	13601.0	13994.6	14333.1	14886.8	15419.7	15739.8
5°	9736.2	10187.5	10748.4	11471.8	12144.7	13154.5	14157.9	14801.2
7.5°	6967.7	7451.0	8057.5	8959.3	9911.5	11199.7	12526.4	13295.3
10°	5765.9	6261.2	6770.9	7379.8	8159.1	9561.0	11128.5	11995.9
12.5°	4769.7	5299.4	5849.1	6490.0	7211.8	8464.0	10270.7	11269.3
15°	3650.3	4241.6	4889.7	5701.1	6605.2	8052.7	10058.7	11142.9
17.5°	2502.1	3163.0	3958.3	4959.3	6065.9	7919.1	10438.8	11688.6
20°	1722.7	2203.6	3054.2	4227.2	5558.6	7902.3	11167.7	12733.6
22.5°	1441.9	1656.3	2277.2	3554.3	5176.2	8114.3	12299.9	14199.5
25°	1333.1	1461.9	1818.7	2970.2	4897.7	8602.4	13857.8	16097.4
27.5°	1269.8	1385.1	1651.5	2588.5	4678.5	9168.9	15373.3	17936.2
30°	1293.8	1412.3	1604.3	2393.3	4380.0	9641.8	16719.2	19370.9
32.5°	1165.8	1217.8	1375.5	2220.4	4165.6	10038.7	17897.0	20559.1
35°	993.8	1084.2	1227.4	2139.6	4170.4	10305.1	19181.2	22077.0
37.5°	946.6	1037.8	1141.0	2110.0	4227.2	10589.2	20655.1	23857.3
40°	917.0	1001.0	1089.8	2093.2	4281.6	10847.6	22100.2	25616.8
42.5°	897.0	973.0	1084.2	2033.2	4308.8	11079.7	23287.6	27113.1
45°	894.6	973.0	1104.2	1974.0	4350.4	11328.5	24283.8	28219.7
47.5°	897.0	1005.8	1067.4	1902.8	4350.4	11744.6	25452.0	29207.9
50°	887.4	1060.2	1028.2	1801.9	4249.6	12533.6	27053.9	30531.4
52.5°	882.6	1053.0	951.4	1646.7	4074.4	13785.8	29107.1	32355.7
55°	869.8	1015.4	897.0	1415.5	3870.3	15151.7	31305.9	34512.9
57.5°	857.8	899.4	867.4	1213.0	3554.3	16112.6	32819.0	36195.6
60°	961.0	786.5	843.4	1113.8	3132.6	16375.9	32760.6	36866.2
62.5°	889.8	736.9	811.4	1092.2	2837.3	15636.6	31246.7	36504.5
65°	697.7	704.9	779.3	1155.4	2758.1	13677.8	28564.6	34830.6
67.5°	638.5	672.9	746.5	1237.8	2766.1	10950.9	24557.4	31184.3
70°	601.7	638.5	709.7	1279.4	2785.3	8163.9	19414.9	25400.0
72.5°	560.1	592.1	668.1	1286.6	2656.5	5929.9	14964.4	18676.3
75°	509.7	539.3	608.9	1121.0	2201.2	4113.6	11447.0	12777.6
77.5°	453.7	475.3	534.5	865.0	1634.7	2632.5	8592.0	9334.6
80°	387.3	399.3	448.9	633.7	1118.6	1646.7	6798.1	7490.2
82.5°	310.5	315.3	348.1	475.3	726.5	1057.8	4552.9	5196.2
85°	219.2	219.2	239.2	345.7	495.3	670.5	2471.7	2741.3
87.5°	103.2	105.6	105.6	189.6	258.4	340.9	569.7	350.5
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)