

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: P299431

Luminaire Tested: **GLNA-AF-07-LED-E1-SLR-7027-800**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P299431
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P194679)
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-SLR-7027-800
Description: GALLEONNAIRE AREA AND ROADWAY LUMINAIRE
(7) 70 CRI, 2700K CCT 800mA LIGHTSQUARE WITH 16 LEDS EACH AND 90° Spill
Light Eliminator Right OPTICS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 25886.2 lumens
Efficiency: N/A
Efficacy: 87.7 lumens/watt
Luminous Opening: Rectangular (W 2' x L: 1' x H: 0')
IES Classification: Type IV - Short - Non-Cutoff
BUG Rating: B3 - U0 - G4

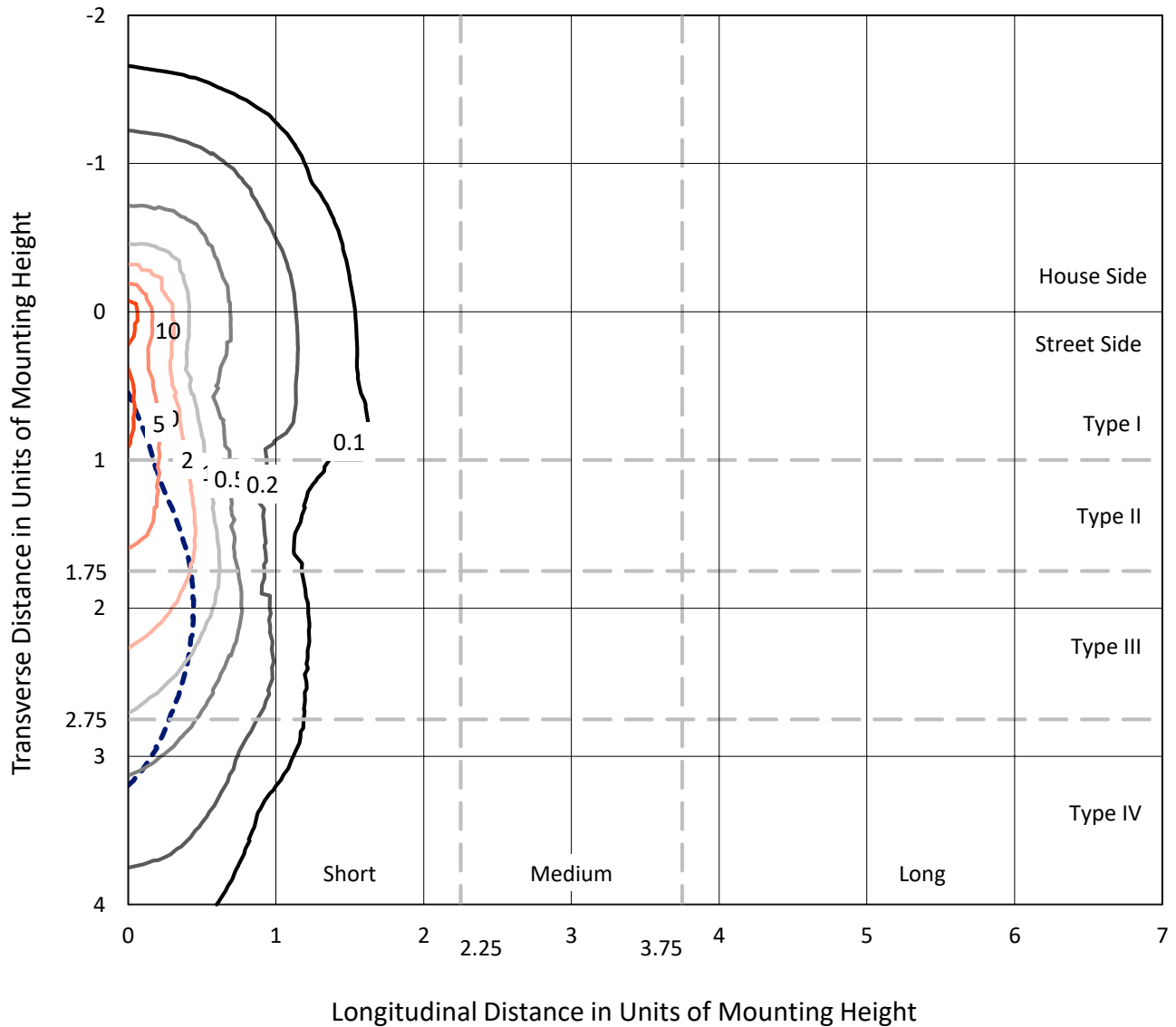
Input Watts (W): 295
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Iso-Footcandle Lines of Horizontal Illumination

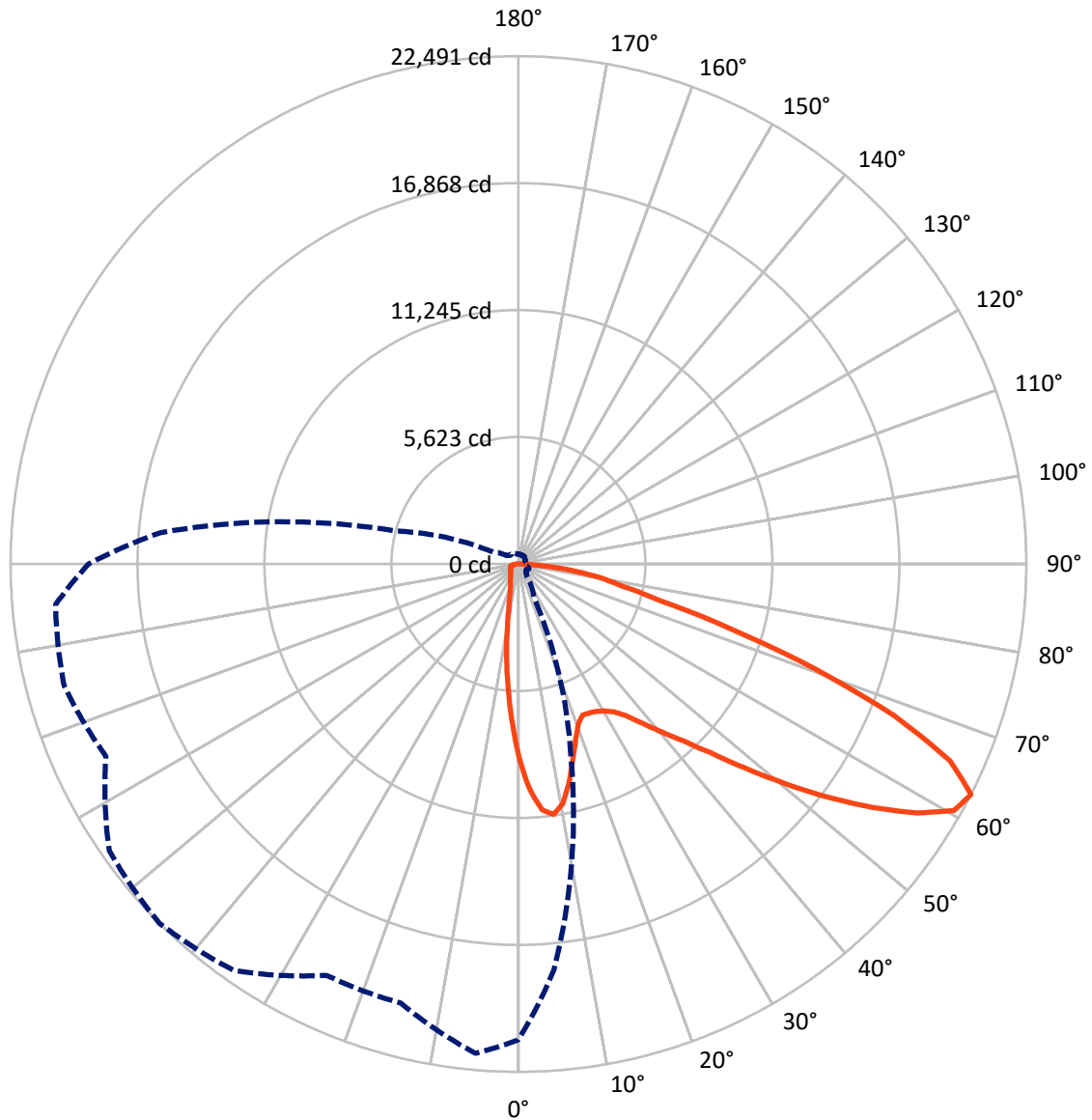
× Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 14 fc
 Type IV - Short - Non-Cutoff

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Luminous Intensity Polar Plot



— Vertical Plane Through 315-Deg Lateral - - - Horizontal Cone Through 62.5-Deg Vertical

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FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	4283.8	0.0	4283.8
	% Fixture	16.5	0.0	16.5
Street Side	Lumens	21602.4	0.0	21602.4
	% Fixture	83.5	0.0	83.5
Total	Lumens	25886.2	0.0	25886.2
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	636.7	2.5
10°-20°	1167.4	4.5
20°-30°	1702.1	6.6
30°-40°	2621.5	10.1
40°-50°	3858.2	14.9
50°-60°	5659.2	21.9
60°-70°	6326.1	24.4
70°-80°	3097.2	12.0
80°-90°	817.7	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°	25886.2	100.0
0°-180°	25886.2	100.0

Coefficient of Utilization



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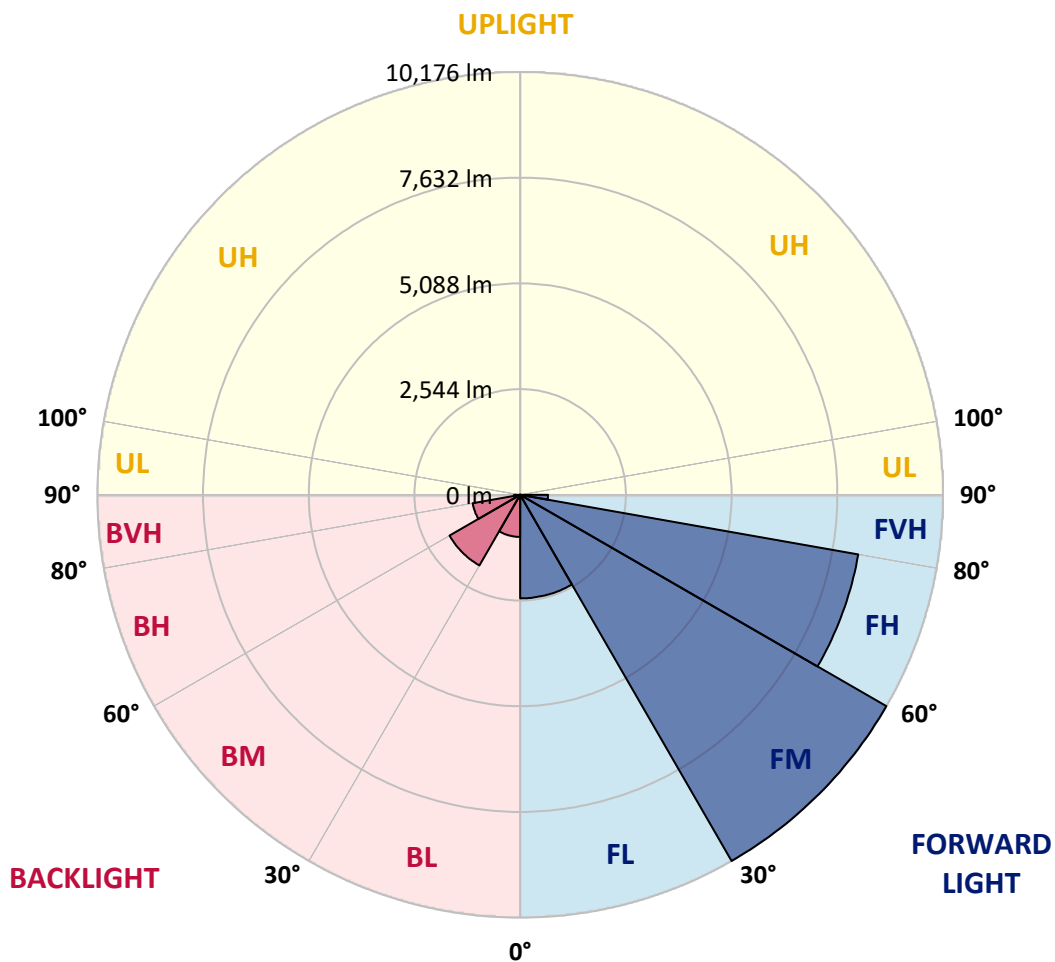
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	2492.8	9.6			
FM	(30°-60°)	10176.1	39.3			
FH	(60°-80°)	8262.0	31.9			G4/12000
FVH	(80°-90°)	671.6	2.6			G4/750
BL	(0°-30°)	1013.5	3.9	B3/2500		
BM	(30°-60°)	1962.8	7.6	B2/2500		
BH	(60°-80°)	1161.4	4.5	B3/2500		G3/2500
BVH	(80°-90°)	146.2	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°	8745.9	8745.9	8745.9	8745.9	8745.9	8745.9	8745.9	8745.9	8745.9	8745.9	8745.9
2.5°	9087.1	8902.3	8594.7	8274.6	8079.9	7852.0	7674.1	7517.7	7204.5	7143.4	7198.9
5°	8545.2	8173.8	7594.4	7011.1	6622.5	6205.5	5881.2	5621.0	5223.8	5154.0	5238.0
7.5°	7675.8	7231.7	6466.2	5721.8	5172.5	4651.7	4301.9	4022.7	3712.6	3579.0	3587.2
10°	6925.8	6424.8	5519.7	4710.3	4260.5	3909.0	3614.3	3328.3	3013.8	2807.5	2750.6
12.5°	6505.8	5929.8	4886.5	4163.6	3746.6	3377.0	3059.5	2753.6	2417.6	2206.9	2147.5
15°	6433.4	5807.1	4649.1	3813.8	3291.2	2823.4	2449.0	2107.4	1761.5	1590.9	1555.2
17.5°	6747.9	6026.3	4572.0	3501.9	2863.0	2285.3	1825.7	1444.4	1162.7	1077.4	1070.1
20°	7351.0	6447.6	4562.1	3209.0	2440.4	1763.2	1272.1	994.7	871.1	846.5	848.2
22.5°	8198.0	7100.7	4684.4	2988.4	2051.9	1314.8	956.4	832.3	784.0	761.2	761.2
25°	9293.5	8000.2	4966.2	2827.7	1714.5	1050.3	843.9	769.8	724.2	708.7	711.7
27.5°	10355.4	8875.2	5293.6	2701.1	1494.0	953.3	799.5	732.8	693.1	677.2	684.5
30°	11183.3	9652.3	5566.7	2528.7	1381.5	926.2	815.5	747.0	690.1	666.0	667.3
32.5°	11869.2	10332.5	5795.9	2404.7	1282.0	793.9	703.1	672.9	666.0	637.6	623.4
35°	12745.8	11073.9	5949.7	2407.7	1235.1	708.7	625.9	573.4	535.0	502.3	502.3
37.5°	13773.2	11924.7	6113.4	2440.4	1218.3	658.7	599.2	546.2	510.9	479.5	473.9
40°	14789.1	12758.7	6262.8	2471.9	1207.9	629.0	577.7	529.4	496.7	465.3	456.6
42.5°	15653.2	13444.6	6396.4	2487.4	1173.9	625.9	562.2	517.8	486.8	452.3	444.1
45°	16292.1	14019.2	6540.3	2511.5	1139.9	637.6	562.2	516.5	478.2	445.4	436.8
47.5°	16862.4	14693.8	6780.6	2511.5	1098.5	616.0	580.7	517.8	476.9	442.4	435.5
50°	17626.7	15618.8	7236.0	2453.4	1040.4	593.2	611.7	512.2	464.0	436.8	428.2
52.5°	18679.5	16804.3	7958.9	2352.1	950.8	549.3	607.4	509.6	451.0	422.6	412.7
55°	19924.9	18073.4	8747.2	2234.1	816.8	517.8	586.3	502.3	436.8	405.4	395.5
57.5°	20896.8	18947.0	9302.1	2051.9	700.0	501.0	519.5	495.4	419.6	386.9	378.7
60°	21283.7	18913.0	9454.6	1808.5	643.2	486.8	454.1	554.9	405.4	372.6	362.7
62.5°	21074.7	18039.4	9027.7	1637.9	630.2	468.3	425.6	513.5	394.2	362.7	348.5
65°	20108.5	16491.1	7896.4	1592.2	667.3	449.7	407.1	402.8	378.7	348.5	334.3
67.5°	18003.6	14177.3	6322.3	1596.5	714.3	431.2	388.6	368.8	357.1	333.0	320.1
70°	14664.1	11209.2	4712.9	1608.1	738.4	409.7	368.8	347.2	334.3	310.2	301.6
72.5°	10782.3	8639.1	3423.9	1534.0	742.7	385.6	341.6	323.1	310.2	284.8	277.4
75°	7376.9	6608.3	2375.0	1270.8	647.5	351.5	311.5	294.7	286.0	254.6	250.3
77.5°	5388.8	4960.6	1519.8	943.4	499.3	308.9	274.8	261.9	256.3	221.9	216.3
80°	4324.7	3924.5	950.8	646.2	365.7	258.9	230.5	223.6	217.5	183.5	179.2
82.5°	2999.6	2628.3	610.4	419.6	274.8	200.7	182.2	179.2	170.6	139.6	135.3
85°	1582.3	1427.2	386.9	286.0	199.0	137.9	126.7	126.7	122.3	92.6	89.6
87.5°	202.0	328.7	196.4	149.5	109.4	61.2	61.2	59.9	64.2	52.6	45.7
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°	8745.9	8745.9	8745.9	8745.9	8745.9	8745.9	8745.9	8745.9	8745.9	8745.9	8745.9
2.5°	7068.0	7136.5	7071.0	7075.3	7147.7	7363.9	7462.2	7543.1	7630.2	7687.0	7712.4
5°	5123.0	5282.4	5336.2	5449.9	5617.9	5894.1	6003.5	6083.2	6136.2	6167.2	6180.1
7.5°	3503.6	3600.1	3708.2	3891.8	4257.5	4419.9	4492.3	4473.8	4414.3	4392.8	4371.7
10°	2641.2	2602.8	2582.6	2683.8	2979.8	3143.5	3194.7	3144.8	3112.0	3119.4	3154.7
12.5°	2046.3	1979.5	1898.5	1886.9	2082.0	2228.5	2261.2	2263.8	2323.7	2376.2	2454.6
15°	1491.4	1484.1	1444.4	1420.3	1531.0	1650.8	1665.0	1690.4	1744.7	1783.0	1851.1
17.5°	1051.6	1089.9	1121.3	1136.9	1220.9	1306.2	1290.6	1277.7	1267.8	1267.8	1300.6
20°	848.2	873.6	913.7	958.9	1044.7	1104.1	1065.8	1014.5	977.5	966.3	970.6
22.5°	764.2	784.0	806.9	846.5	923.6	965.0	923.6	886.6	849.5	836.6	832.3
25°	721.6	747.0	768.5	798.3	855.1	883.6	843.9	816.8	793.9	778.4	766.8
27.5°	697.5	719.9	725.9	740.1	788.3	813.8	793.9	782.7	768.5	754.3	740.1
30°	671.6	667.3	657.4	658.7	697.5	722.9	721.6	724.2	722.9	718.6	716.0
32.5°	613.4	604.8	596.2	604.8	640.2	663.0	664.7	670.3	670.3	669.0	680.2
35°	510.9	526.4	536.3	562.2	604.8	624.6	616.0	601.8	576.4	560.5	559.2
37.5°	472.6	475.2	492.4	527.7	575.1	593.2	580.7	548.0	530.7	527.7	532.0
40°	454.1	456.6	466.5	499.3	546.2	564.8	553.6	529.4	513.5	512.2	519.5
42.5°	441.1	444.1	449.7	472.6	510.9	533.7	535.0	517.8	499.3	501.0	507.9
45°	433.8	435.5	433.8	445.4	480.8	507.9	519.5	507.9	492.4	495.4	503.6
47.5°	432.5	428.2	422.6	425.6	462.7	489.4	503.6	499.3	492.4	495.4	502.3
50°	426.9	417.0	409.7	408.4	445.4	473.9	486.8	486.8	489.4	495.4	502.3
52.5°	409.7	398.5	398.5	394.2	433.8	460.9	469.6	470.9	475.2	485.1	495.4
55°	388.6	384.3	388.6	381.2	425.6	451.0	455.3	458.4	460.9	469.6	483.8
57.5°	370.0	364.4	374.4	371.3	418.3	441.1	441.1	446.7	446.7	458.4	469.6
60°	360.1	348.5	352.8	355.8	408.4	432.5	429.9	435.5	438.1	448.5	456.6
62.5°	347.2	337.3	337.3	344.2	397.2	419.6	418.3	422.6	433.8	436.8	445.4
65°	331.7	327.4	323.1	331.7	385.6	405.4	407.1	412.7	422.6	425.6	432.5
67.5°	315.8	317.5	308.9	317.5	375.6	391.2	391.2	402.8	407.1	412.7	419.6
70°	299.0	300.3	292.9	303.3	368.8	375.6	374.4	389.9	392.9	397.2	404.1
72.5°	277.4	277.4	274.8	289.1	357.1	360.1	357.1	370.0	371.3	375.6	378.7
75°	254.6	254.6	252.0	271.8	350.2	342.9	334.3	344.2	347.2	350.2	350.2
77.5°	224.9	227.9	227.9	252.0	325.7	336.0	307.2	313.2	317.5	318.8	314.5
80°	187.8	195.1	197.7	229.2	273.1	310.2	274.8	278.7	280.4	280.4	274.8
82.5°	143.9	156.4	163.7	197.7	209.4	260.2	239.1	243.4	239.1	230.5	227.9
85°	99.5	116.7	125.4	150.8	158.1	200.7	199.0	199.0	190.8	179.2	177.9
87.5°	54.3	64.2	69.8	89.6	108.1	135.3	146.5	142.2	135.3	127.9	129.7
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°	8745.9	8745.9	8745.9	8745.9	8745.9	8745.9	8745.9	8745.9	8745.9	8745.9	8745.9
2.5°	7846.4	8039.9	8348.7	8584.8	8822.6	9051.8	9299.5	9488.6	9649.3	9712.2	9902.6
5°	6309.8	6551.5	6843.1	7369.5	7742.6	8153.6	8629.2	9258.1	9499.8	9834.5	10382.1
7.5°	4461.3	4680.1	5149.7	5575.3	6103.4	6685.4	7326.9	8194.9	8512.4	9048.8	9940.9
10°	3331.3	3585.9	3962.8	4321.7	4786.9	5381.9	6119.0	7089.5	7475.1	8057.1	9084.5
12.5°	2683.8	2984.1	3383.9	3721.2	4081.3	4500.9	5216.9	6280.9	6797.9	7307.1	8345.7
15°	2061.8	2376.2	2748.0	3176.2	3573.0	4025.7	4775.7	5939.7	6534.2	7065.4	7951.5
17.5°	1427.2	1696.0	2164.3	2611.0	3119.4	3698.3	4653.4	6012.1	6722.1	7334.2	8020.0
20°	1011.9	1165.3	1549.6	2067.8	2701.1	3427.8	4630.6	6393.4	7317.0	8015.7	8458.1
22.5°	850.8	907.7	1131.3	1606.4	2337.9	3225.8	4710.3	6928.4	8119.5	9011.7	9156.9
25°	775.4	809.9	926.2	1260.9	2014.8	3079.3	4979.1	7725.4	9113.0	10008.1	9982.3
27.5°	734.1	769.8	846.5	1064.5	1771.8	2988.4	5247.9	8670.5	10248.5	11089.4	10770.6
30°	721.6	769.8	850.8	1003.3	1598.2	2844.5	5468.5	9499.8	11122.2	11819.6	11129.5
32.5°	711.7	718.6	755.6	865.0	1432.8	2676.5	5617.9	10244.2	11977.3	12514.0	11646.0
35°	575.1	610.4	670.3	775.4	1336.3	2575.7	5617.9	10886.1	12819.9	13215.4	12138.4
37.5°	553.6	585.0	637.6	727.2	1282.0	2525.7	5505.5	11505.1	13680.6	14011.0	12543.8
40°	542.4	567.8	617.8	690.1	1259.2	2468.9	5341.8	12051.4	14521.5	14807.6	12922.4
42.5°	533.7	556.6	603.5	667.3	1229.5	2406.4	5209.6	12489.5	15251.7	15487.8	13283.9
45°	529.4	553.6	604.8	678.9	1169.6	2323.7	5165.6	12963.4	15852.2	16055.6	13675.0
47.5°	529.4	557.9	611.7	703.1	1098.5	2238.4	5303.5	13588.4	16420.0	16519.5	14136.0
50°	525.1	556.6	632.0	678.9	994.7	2130.3	5627.9	14375.1	17034.8	17046.0	14719.7
52.5°	516.5	553.6	680.2	664.7	874.9	1988.1	6066.4	15385.7	17944.2	18012.2	15633.0
55°	506.6	549.3	667.3	632.0	777.1	1818.8	6424.8	16613.5	19221.9	19411.0	16976.6
57.5°	493.7	543.7	646.2	586.3	713.0	1600.8	6554.5	17512.9	20114.1	20589.2	18490.4
60°	482.5	539.4	583.3	559.2	672.9	1417.3	6303.8	17335.0	20052.9	21077.3	19832.3
62.5°	470.9	543.7	532.0	542.4	654.4	1299.3	5649.4	15910.4	19038.4	20573.7	20827.0
65°	458.4	505.3	502.3	527.7	650.5	1252.3	4683.1	13774.5	17077.4	18981.5	21061.8
67.5°	441.1	466.5	480.8	509.6	664.7	1211.0	3779.3	11362.5	14352.2	16594.9	19837.9
70°	422.6	444.1	459.7	486.8	656.1	1192.4	3143.5	8960.5	11388.4	13600.9	17423.3
72.5°	398.5	417.0	431.2	456.6	647.5	1182.5	2655.4	7216.2	8502.5	10103.3	14166.1
75°	370.0	386.9	397.2	422.6	620.3	1083.0	2087.6	6106.0	6362.4	7028.4	11282.8
77.5°	337.3	350.2	358.4	386.9	549.3	900.8	1509.9	4710.3	4940.7	5102.7	8650.3
80°	299.0	311.5	315.8	342.9	455.3	704.3	984.8	3479.1	3695.3	3732.4	5649.4
82.5°	254.6	267.5	267.5	292.9	372.6	506.6	646.2	2383.6	2426.2	2551.6	3993.0
85°	205.1	215.0	215.0	227.9	289.1	378.7	444.1	1196.7	1183.8	1351.8	3459.3
87.5°	146.5	153.8	160.7	163.7	206.3	250.3	267.5	364.4	240.4	276.1	2221.2
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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CATALOG NUMBER: GLNA-AF-07-LED-E1-SLR-7027-800

CANDELA DISTRIBUTION (continued):

	295°	305°	315°	325°	335°	345°	355°	360°
0°	8745.9	8745.9	8745.9	8745.9	8745.9	8745.9	8745.9	8745.9
2.5°	10046.5	10127.5	10044.8	9985.3	9727.7	9515.7	9232.3	9087.1
5°	10799.1	11005.4	10935.6	10685.3	10147.3	9542.4	8855.3	8545.2
7.5°	10708.2	11187.6	11198.8	10731.0	9938.3	9047.5	8117.0	7675.8
10°	9999.5	10612.5	10787.9	10333.8	9492.9	8496.9	7429.4	6925.8
12.5°	9208.2	9808.7	9942.7	9785.8	9083.2	8082.5	6999.9	6505.8
15°	8560.7	8829.9	8988.9	9125.9	8731.7	7917.5	6975.4	6433.4
17.5°	8166.5	8136.8	8182.4	8419.8	8486.6	8106.6	7345.4	6747.9
20°	8024.3	7567.7	7556.1	7883.5	8371.6	8558.1	8068.3	7351.0
22.5°	8102.7	7362.6	7268.7	7657.3	8432.7	9208.2	9016.0	8198.0
25°	8372.9	7379.9	7304.1	7680.1	8654.6	9901.3	10039.2	9293.5
27.5°	8798.5	7488.0	7388.1	7774.1	8949.3	10483.3	11046.8	10355.4
30°	9202.6	7675.8	7551.8	7958.9	9218.1	10713.8	11664.5	11183.3
32.5°	9693.7	8027.4	7809.4	8298.8	9551.1	11080.8	12215.1	11869.2
35°	10174.4	8527.9	8257.8	8823.9	9922.4	11537.9	12844.0	12745.8
37.5°	10702.6	9182.7	8959.2	9502.8	10430.7	11968.7	13646.6	13773.2
40°	11266.0	10050.8	9785.8	10493.2	11219.1	12509.7	14484.9	14789.1
42.5°	11833.8	11014.0	10698.3	11415.1	12085.4	13043.1	15201.8	15653.2
45°	12483.9	12060.0	11910.5	12685.9	12918.1	13551.4	15731.2	16292.1
47.5°	13241.2	13246.8	13487.2	13797.4	13757.7	14126.1	16263.6	16862.4
50°	14124.8	14727.9	15259.0	15465.0	14622.8	14743.8	17002.0	17626.7
52.5°	15186.2	16499.7	17157.1	17021.8	15555.0	15497.7	18171.6	18679.5
55°	16513.9	18375.4	19028.5	18931.5	16626.4	16525.1	19629.0	19924.9
57.5°	18050.6	20192.5	20793.0	20357.5	17912.7	17652.5	20834.3	20896.8
60°	19401.1	21632.6	22159.0	21676.5	19210.7	18851.8	21586.9	21283.7
62.5°	20152.4	22120.7	22490.7	21971.2	20099.8	20129.6	21751.9	21074.7
65°	19816.8	20886.9	21006.2	20963.6	19870.7	20871.0	21158.7	20108.5
67.5°	17978.2	17767.5	17968.3	18245.7	17907.1	19894.8	19514.8	18003.6
70°	14739.5	13582.4	13982.6	14168.7	14322.5	17120.1	16937.8	14664.1
72.5°	11107.9	9515.7	9831.5	9793.2	10504.4	13731.9	13172.7	10782.3
75°	7870.6	6452.0	6491.6	6476.1	7329.9	10743.5	9538.6	7376.9
77.5°	5506.8	4674.5	4696.1	4783.9	4927.8	8102.7	6814.7	5388.8
80°	3786.7	3547.6	3665.6	3672.9	3415.3	5443.0	5034.7	4324.7
82.5°	2820.4	2465.8	2437.4	2478.8	2676.5	4410.0	3868.9	2999.6
85°	2309.5	1460.0	1173.9	1471.6	2371.9	4367.4	2570.1	1582.3
87.5°	1300.6	693.1	313.2	580.7	946.4	2891.5	742.7	202.0
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)