

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: P299368

Luminaire Tested: **GLNA-AF-06-LED-E1-SLR**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P299368
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-06-LED-E1-SLR
Description: GALLEONAIRE AREA AND ROADWAY LUMINAIRE
(6) 70 CRI, 4000K CCT 1050mA LIGHTSQUARE WITH 16 LEDS EACH AND 90° Spill
Light Eliminator Right OPTICS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 31184.5 lumens
Efficiency: N/A
Efficacy: 93.6 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 - G5

Input Watts (W): 333
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

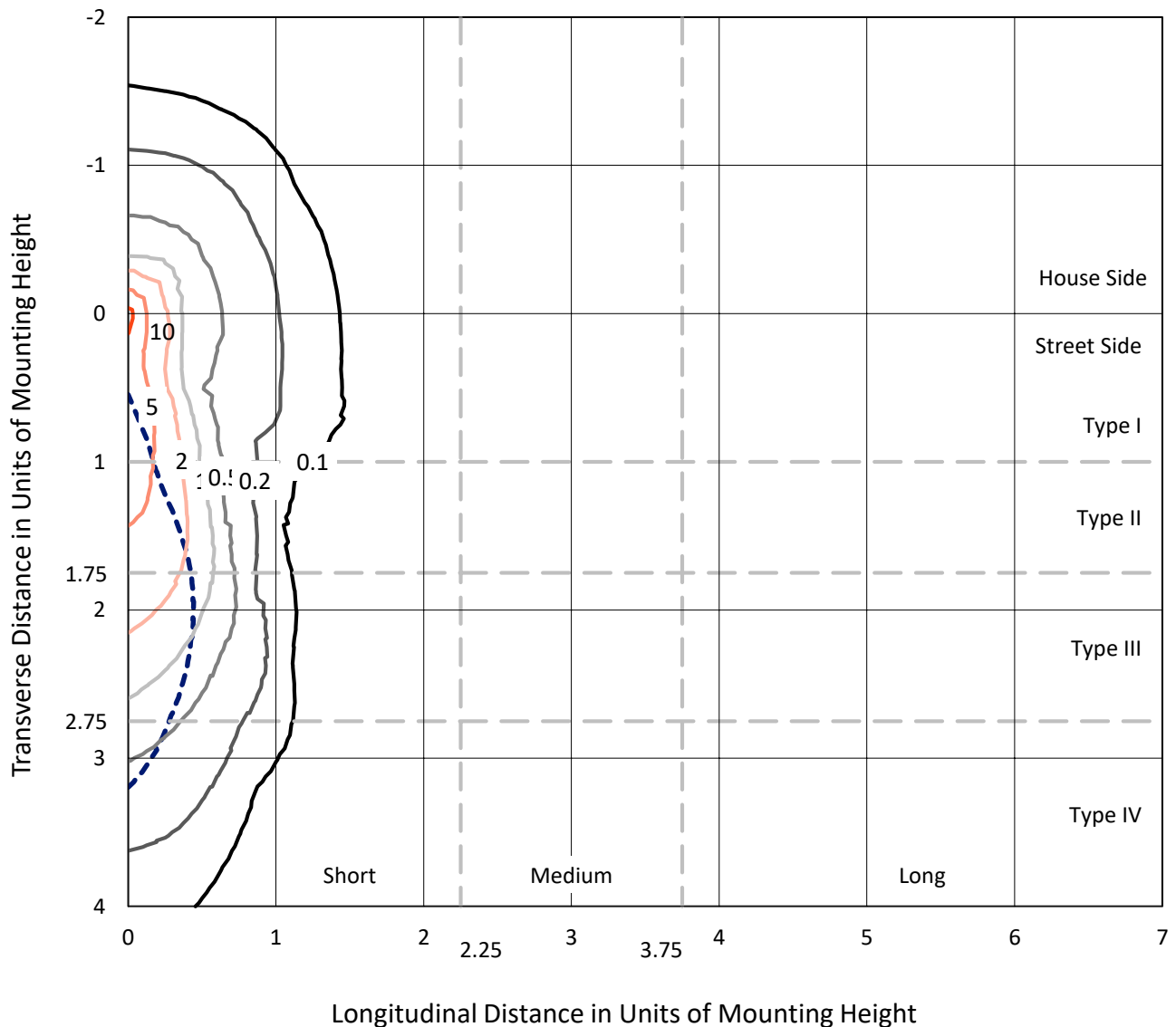


REPORT NUMBER: P299368

CATALOG NUMBER: GLNA-AF-06-LED-E1-SLR

Iso-Footcandle Lines of Horizontal Illumination

× Max cd
 - - - 1/2 Max cd

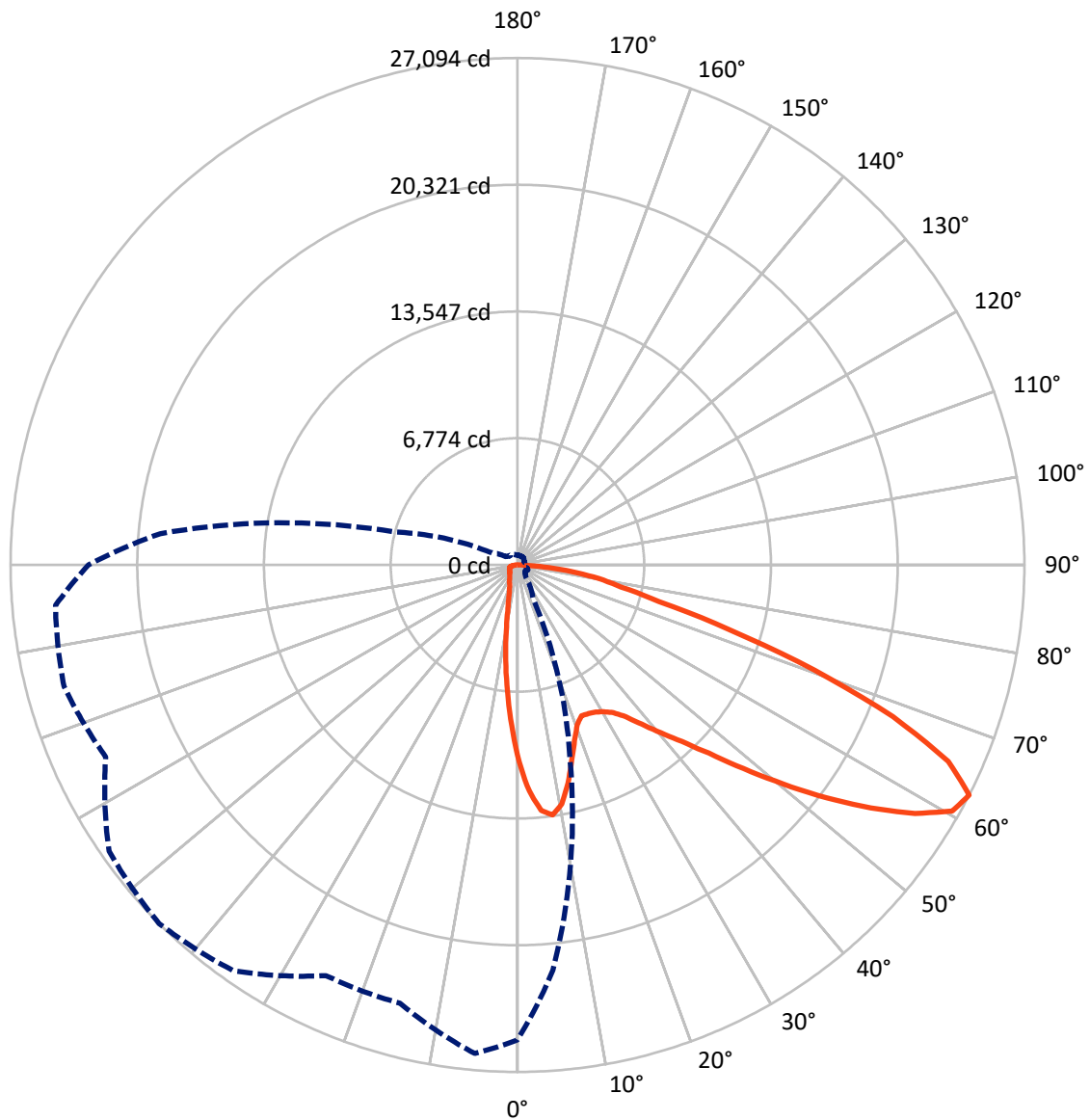


Based on 30 foot mounting height. Maximum calculated value = 11.7 fc
 Type IV - Short - Non-Cutoff

REPORT NUMBER: P299368

CATALOG NUMBER: GLNA-AF-06-LED-E1-SLR

Luminous Intensity Polar Plot



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

REPORT NUMBER: P299368

CATALOG NUMBER: GLNA-AF-06-LED-E1-SLR

FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	5160.6	0.0	5160.6
	% Fixture	16.5	0.0	16.5
Street Side	Lumens	26023.9	0.0	26023.9
	% Fixture	83.5	0.0	83.5
Total	Lumens	31184.5	0.0	31184.5
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	767.0	2.5
10°-20°	1406.4	4.5
20°-30°	2050.5	6.6
30°-40°	3158.1	10.1
40°-50°	4647.9	14.9
50°-60°	6817.5	21.9
60°-70°	7620.9	24.4
70°-80°	3731.1	12.0
80°-90°	985.1	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°	31184.5	100.0
0°-180°	31184.5	100.0



REPORT NUMBER: P299368

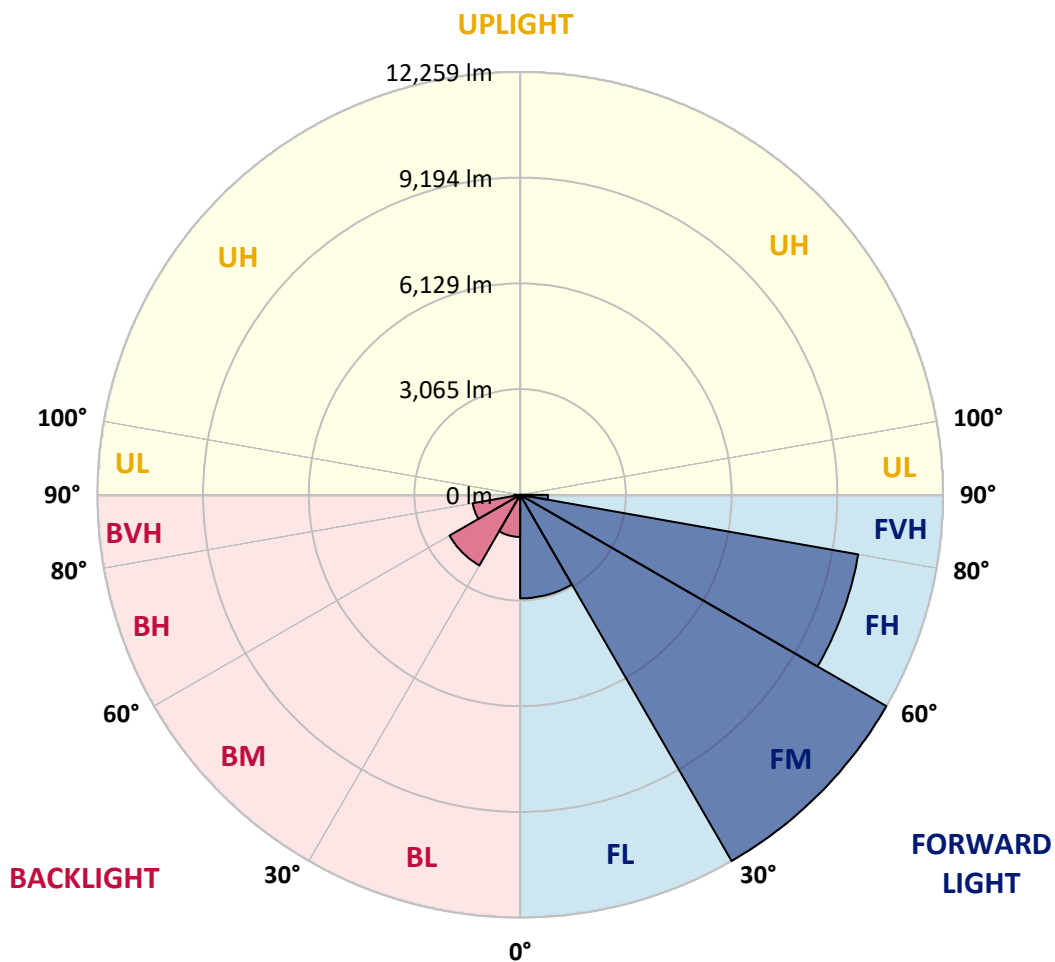
CATALOG NUMBER: GLNA-AF-06-LED-E1-SLR

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	3003.0	9.6			
FM	(30°-60°)	12258.9	39.3			
FH	(60°-80°)	9953.0	31.9			G4/12000
FVH	(80°-90°)	809.0	2.6			G5
BL	(0°-30°)	1220.9	3.9	B3/2500		
BM	(30°-60°)	2364.6	7.6	B2/2500		
BH	(60°-80°)	1399.1	4.5	B3/2500		G3/2500
BVH	(80°-90°)	176.1	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-G5

Type IV Short





REPORT NUMBER: P299368

CATALOG NUMBER: GLNA-AF-06-LED-E1-SLR

CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	75°	85°	90°
0°	10536.0	10536.0	10536.0	10536.0	10536.0	10536.0	10536.0	10536.0	10536.0	10536.0	10536.0
2.5°	10947.0	10724.4	10353.8	9968.3	9733.7	9459.1	9244.8	9056.4	8679.1	8605.5	8672.4
5°	10294.2	9846.8	9148.8	8446.1	7978.0	7475.7	7084.9	6771.4	6293.0	6208.9	6310.1
7.5°	9246.9	8711.8	7789.6	6892.9	6231.2	5603.8	5182.4	4846.1	4472.4	4311.5	4321.4
10°	8343.4	7739.8	6649.5	5674.3	5132.5	4709.1	4354.1	4009.5	3630.7	3382.1	3313.6
12.5°	7837.4	7143.5	5886.6	5015.8	4513.4	4068.2	3685.7	3317.2	2912.4	2658.6	2587.0
15°	7750.2	6995.6	5600.7	4594.4	3964.9	3401.3	2950.3	2538.8	2122.0	1916.5	1873.5
17.5°	8129.0	7259.8	5507.8	4218.7	3449.0	2753.1	2199.4	1740.1	1400.7	1297.9	1289.1
20°	8855.6	7767.3	5495.8	3865.8	2939.9	2124.1	1532.5	1198.3	1049.3	1019.8	1021.8
22.5°	9875.9	8554.1	5643.2	3600.0	2471.8	1583.9	1152.1	1002.6	944.5	917.0	917.0
25°	11195.6	9637.7	5982.6	3406.5	2065.5	1265.2	1016.6	927.4	872.4	853.7	857.3
27.5°	12474.8	10691.7	6377.0	3253.9	1799.8	1148.5	963.2	882.8	835.0	815.8	824.6
30°	13472.3	11627.9	6706.0	3046.3	1664.3	1115.8	982.4	899.9	831.4	802.3	803.9
32.5°	14298.5	12447.3	6982.1	2896.9	1544.4	956.4	846.9	810.6	802.3	768.1	750.9
35°	15354.6	13340.5	7167.4	2900.5	1487.9	853.7	754.1	690.7	644.6	605.1	605.1
37.5°	16592.3	14365.4	7364.6	2939.9	1467.6	793.5	721.9	658.0	615.5	577.6	570.9
40°	17816.0	15370.1	7544.7	2977.8	1455.2	757.7	695.9	637.8	598.4	560.5	550.1
42.5°	18857.1	16196.3	7705.6	2996.5	1414.2	754.1	677.2	623.8	586.4	544.9	535.1
45°	19626.7	16888.6	7878.9	3025.6	1373.2	768.1	677.2	622.2	576.0	536.6	526.2
47.5°	20313.8	17701.3	8168.5	3025.6	1323.4	742.1	699.6	623.8	574.5	533.0	524.7
50°	21234.4	18815.5	8717.0	2955.5	1253.3	714.6	736.9	617.0	558.9	526.2	515.8
52.5°	22502.8	20243.7	9587.9	2833.5	1145.4	661.7	731.7	613.9	543.4	509.1	497.2
55°	24003.1	21772.6	10537.6	2691.3	984.0	623.8	706.3	605.1	526.2	488.3	476.4
57.5°	25173.9	22825.1	11206.0	2471.8	843.3	603.6	625.9	596.8	505.5	466.0	456.2
60°	25639.9	22784.1	11389.7	2178.6	774.8	586.4	547.0	668.4	488.3	448.9	437.0
62.5°	25388.2	21731.6	10875.4	1973.1	759.2	564.1	512.7	618.6	474.9	437.0	419.8
65°	24224.2	19866.4	9512.6	1918.1	803.9	541.8	490.4	485.2	456.2	419.8	402.7
67.5°	21688.5	17079.1	7616.3	1923.3	860.4	519.5	468.1	444.2	430.2	401.2	385.6
70°	17665.5	13503.4	5677.5	1937.3	889.5	493.5	444.2	418.3	402.7	373.7	363.3
72.5°	12989.1	10407.3	4124.7	1848.0	894.7	464.5	411.5	389.2	373.7	343.0	334.2
75°	8886.7	7960.9	2861.0	1530.9	780.0	423.5	375.2	355.0	344.6	306.7	301.5
77.5°	6491.7	5975.9	1830.9	1136.5	601.5	372.1	331.1	315.5	308.8	267.3	260.5
80°	5209.9	4727.8	1145.4	778.4	440.6	311.9	277.6	269.3	262.1	221.1	215.9
82.5°	3613.5	3166.2	735.4	505.5	331.1	241.8	219.5	215.9	205.5	168.1	163.0
85°	1906.2	1719.3	466.0	344.6	239.8	166.1	152.6	152.6	147.4	111.6	107.9
87.5°	243.4	396.0	236.6	180.1	131.8	73.7	73.7	72.1	77.3	63.3	55.0
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: P299368

CATALOG NUMBER: GLNA-AF-06-LED-E1-SLR

CANDELA DISTRIBUTION (continued):

	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°	185°
0°	10536.0	10536.0	10536.0	10536.0	10536.0	10536.0	10536.0	10536.0	10536.0	10536.0	10536.0
2.5°	8514.6	8597.1	8518.3	8523.5	8610.6	8871.2	8989.5	9087.1	9191.9	9260.4	9291.0
5°	6171.5	6363.5	6428.4	6565.4	6767.8	7100.5	7232.3	7328.3	7392.1	7429.5	7445.1
7.5°	4220.7	4337.0	4467.2	4688.3	5128.9	5324.6	5411.8	5389.4	5317.8	5291.9	5266.4
10°	3181.8	3135.6	3111.2	3233.1	3589.7	3786.9	3848.6	3788.4	3749.0	3757.8	3800.4
12.5°	2465.1	2384.6	2287.1	2273.1	2508.2	2684.6	2724.0	2727.2	2799.3	2862.6	2957.1
15°	1796.7	1787.8	1740.1	1711.0	1844.4	1988.7	2005.8	2036.4	2101.8	2148.0	2230.0
17.5°	1266.8	1313.0	1350.9	1369.5	1470.7	1573.5	1554.8	1539.2	1527.3	1527.3	1566.8
20°	1021.8	1052.5	1100.7	1155.2	1258.5	1330.1	1283.9	1222.2	1177.5	1164.0	1169.2
22.5°	920.6	944.5	972.0	1019.8	1112.7	1162.5	1112.7	1068.0	1023.4	1007.8	1002.6
25°	869.3	899.9	925.8	961.6	1030.1	1064.4	1016.6	984.0	956.4	937.8	923.8
27.5°	840.2	867.2	874.5	891.6	949.7	980.3	956.4	943.0	925.8	908.7	891.6
30°	809.1	803.9	791.9	793.5	840.2	870.8	869.3	872.4	870.8	865.6	862.5
32.5°	739.0	728.6	718.2	728.6	771.2	798.7	800.8	807.5	807.5	806.0	819.4
35°	615.5	634.2	646.1	677.2	728.6	752.5	742.1	725.0	694.4	675.2	673.6
37.5°	569.3	572.4	593.2	635.7	692.8	714.6	699.6	660.1	639.4	635.7	640.9
40°	547.0	550.1	562.0	601.5	658.0	680.4	666.9	637.8	618.6	617.0	625.9
42.5°	531.4	535.1	541.8	569.3	615.5	643.0	644.6	623.8	601.5	603.6	611.9
45°	522.6	524.7	522.6	536.6	579.2	611.9	625.9	611.9	593.2	596.8	606.7
47.5°	521.0	515.8	509.1	512.7	557.4	589.5	606.7	601.5	593.2	596.8	605.1
50°	514.3	502.4	493.5	492.0	536.6	570.9	586.4	586.4	589.5	596.8	605.1
52.5°	493.5	480.0	480.0	474.9	522.6	555.3	565.7	567.2	572.4	584.4	596.8
55°	468.1	462.9	468.1	459.3	512.7	543.4	548.5	552.2	555.3	565.7	582.8
57.5°	445.8	439.0	451.0	447.3	503.9	531.4	531.4	538.2	538.2	552.2	565.7
60°	433.9	419.8	425.0	428.7	492.0	521.0	517.9	524.7	527.8	540.2	550.1
62.5°	418.3	406.3	406.3	414.7	478.5	505.5	503.9	509.1	522.6	526.2	536.6
65°	399.6	394.4	389.2	399.6	464.5	488.3	490.4	497.2	509.1	512.7	521.0
67.5°	380.4	382.5	372.1	382.5	452.5	471.2	471.2	485.2	490.4	497.2	505.5
70°	360.2	361.7	352.9	365.4	444.2	452.5	451.0	469.7	473.3	478.5	486.8
72.5°	334.2	334.2	331.1	348.2	430.2	433.9	430.2	445.8	447.3	452.5	456.2
75°	306.7	306.7	303.6	327.5	421.9	413.1	402.7	414.7	418.3	421.9	421.9
77.5°	270.9	274.5	274.5	303.6	392.3	404.8	370.0	377.3	382.5	384.0	378.8
80°	226.3	235.1	238.2	276.1	329.0	373.7	331.1	335.8	337.8	337.8	331.1
82.5°	173.3	188.4	197.2	238.2	252.2	313.5	288.0	293.2	288.0	277.6	274.5
85°	119.9	140.6	151.0	181.6	190.5	241.8	239.8	239.8	229.9	215.9	214.3
87.5°	65.4	77.3	84.1	107.9	130.3	163.0	176.4	171.3	163.0	154.1	156.2
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: P299368

CATALOG NUMBER: GLNA-AF-06-LED-E1-SLR

CANDELA DISTRIBUTION (continued):

	195°	205°	215°	225°	235°	245°	255°	265°	270°	275°	285°
0°	10536.0	10536.0	10536.0	10536.0	10536.0	10536.0	10536.0	10536.0	10536.0	10536.0	10536.0
2.5°	9452.4	9685.4	10057.5	10341.9	10628.4	10904.5	11202.9	11430.7	11624.3	11700.0	11929.4
5°	7601.3	7892.4	8243.7	8877.9	9327.3	9822.4	10395.4	11153.0	11444.2	11847.4	12507.0
7.5°	5374.4	5638.0	6203.7	6716.4	7352.7	8053.8	8826.5	9872.2	10254.7	10900.8	11975.6
10°	4013.1	4319.9	4773.9	5206.2	5766.7	6483.4	7371.4	8540.6	9005.1	9706.2	10943.9
12.5°	3233.1	3594.9	4076.5	4482.8	4916.7	5422.1	6284.6	7566.5	8189.2	8802.7	10053.9
15°	2483.8	2862.6	3310.5	3826.3	4304.3	4849.7	5753.2	7155.5	7871.6	8511.5	9579.0
17.5°	1719.3	2043.2	2607.3	3145.4	3757.8	4455.3	5605.8	7242.7	8097.9	8835.4	9661.5
20°	1219.0	1403.8	1866.7	2491.0	3253.9	4129.4	5578.3	7701.9	8814.6	9656.4	10189.3
22.5°	1025.0	1093.5	1362.8	1935.2	2816.4	3886.0	5674.3	8346.5	9781.4	10856.2	11031.1
25°	934.1	975.7	1115.8	1519.0	2427.2	3709.6	5998.2	9306.6	10978.2	12056.6	12025.4
27.5°	884.3	927.4	1019.8	1282.4	2134.5	3600.0	6322.0	10445.2	12346.1	13359.2	12975.1
30°	869.3	927.4	1025.0	1208.7	1925.4	3426.7	6587.7	11444.2	13398.6	14238.8	13407.4
32.5°	857.3	865.6	910.3	1042.1	1726.1	3224.3	6767.8	12341.0	14428.7	15075.4	14029.7
35°	692.8	735.4	807.5	934.1	1609.8	3102.9	6767.8	13114.2	15443.8	15920.2	14622.8
37.5°	666.9	704.8	768.1	876.0	1544.4	3042.7	6632.4	13860.0	16480.7	16878.8	15111.2
40°	653.4	684.0	744.2	831.4	1516.9	2974.2	6435.1	14518.0	17493.7	17838.3	15567.3
42.5°	643.0	670.5	727.1	803.9	1481.1	2898.9	6275.8	15045.8	18373.4	18657.8	16002.8
45°	637.8	666.9	728.6	817.9	1409.0	2799.3	6222.9	15616.6	19096.8	19341.8	16474.0
47.5°	637.8	672.1	736.9	846.9	1323.4	2696.5	6389.0	16369.7	19780.8	19900.7	17029.3
50°	632.6	670.5	761.3	817.9	1198.3	2566.3	6779.7	17317.3	20521.4	20534.9	17732.5
52.5°	622.2	666.9	819.4	800.8	1054.0	2395.0	7308.0	18534.8	21616.9	21698.9	18832.7
55°	610.3	661.7	803.9	761.3	936.2	2191.1	7739.8	20013.8	23156.2	23384.0	20451.3
57.5°	594.7	654.9	778.4	706.3	858.9	1928.5	7896.0	21097.4	24230.9	24803.3	22275.0
60°	581.2	649.7	702.7	673.6	810.6	1707.4	7594.0	20883.1	24157.2	25391.3	23891.5
62.5°	567.2	654.9	640.9	653.4	788.3	1565.2	6805.7	19166.9	22935.1	24784.7	25089.8
65°	552.2	608.7	605.1	635.7	783.6	1508.6	5641.7	16593.9	20572.8	22866.6	25372.6
67.5°	531.4	562.0	579.2	613.9	800.8	1458.8	4552.9	13688.2	17289.8	19991.5	23898.3
70°	509.1	535.1	553.7	586.4	790.4	1436.5	3786.9	10794.4	13719.3	16384.7	20989.5
72.5°	480.0	502.4	519.5	550.1	780.0	1424.6	3198.9	8693.2	10242.8	12171.3	17065.6
75°	445.8	466.0	478.5	509.1	747.3	1304.7	2514.9	7355.8	7664.6	8466.9	13592.2
77.5°	406.3	421.9	431.8	466.0	661.7	1085.2	1819.0	5674.3	5952.0	6147.1	10420.8
80°	360.2	375.2	380.4	413.1	548.5	848.5	1186.4	4191.1	4451.7	4496.3	6805.7
82.5°	306.7	322.3	322.3	352.9	448.9	610.3	778.4	2871.4	2922.8	3073.8	4810.3
85°	247.0	259.0	259.0	274.5	348.2	456.2	535.1	1441.7	1426.1	1628.5	4167.3
87.5°	176.4	185.3	193.6	197.2	248.6	301.5	322.3	439.0	289.6	332.7	2675.8
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: P299368

CATALOG NUMBER: GLNA-AF-06-LED-E1-SLR

CANDELA DISTRIBUTION (continued):

	295°	305°	315°	325°	335°	345°	355°	360°
0°	10536.0	10536.0	10536.0	10536.0	10536.0	10536.0	10536.0	10536.0
2.5°	12102.7	12200.3	12100.7	12029.1	11718.7	11463.4	11121.9	10947.0
5°	13009.4	13258.0	13173.9	12872.4	12224.2	11495.6	10667.8	10294.2
7.5°	12899.9	13477.5	13491.0	12927.4	11972.5	10899.3	9778.3	9246.9
10°	12046.2	12784.7	12995.9	12448.9	11435.9	10236.0	8950.0	8343.4
12.5°	11092.8	11816.3	11977.7	11788.8	10942.3	9736.8	8432.6	7837.4
15°	10312.8	10637.2	10828.7	10993.7	10518.9	9538.0	8403.1	7750.2
17.5°	9838.0	9802.2	9857.2	10143.1	10223.6	9765.9	8848.8	8129.0
20°	9666.7	9116.6	9102.6	9497.0	10085.0	10309.7	9719.7	8855.6
22.5°	9761.2	8869.6	8756.5	9224.6	10158.7	11092.8	10861.4	9875.9
25°	10086.6	8890.4	8799.0	9252.1	10426.0	11927.9	12093.9	11195.6
27.5°	10599.3	9020.6	8900.2	9365.2	10780.9	12629.0	13307.8	12474.8
30°	11086.1	9246.9	9097.4	9587.9	11104.8	12906.6	14052.0	13472.3
32.5°	11677.7	9670.4	9407.8	9997.3	11505.9	13348.8	14715.2	14298.5
35°	12256.9	10273.4	9948.0	10629.9	11953.3	13899.4	15472.9	15354.6
37.5°	12893.1	11062.2	10792.9	11447.8	12565.7	14418.4	16439.7	16592.3
40°	13571.9	12107.9	11788.8	12640.9	13515.4	15070.2	17449.6	17816.0
42.5°	14255.9	13268.3	12887.9	13751.5	14559.0	15712.7	18313.2	18857.1
45°	15039.0	14528.4	14348.3	15282.4	15562.2	16325.0	18951.0	19626.7
47.5°	15951.4	15958.1	16247.7	16621.4	16573.6	17017.3	19592.4	20313.8
50°	17015.8	17742.3	18382.2	18630.3	17615.7	17761.5	20481.9	21234.4
52.5°	18294.5	19876.8	20668.8	20505.8	18738.7	18669.7	21890.9	22502.8
55°	19893.9	22136.4	22923.1	22806.4	20029.4	19907.4	23646.6	24003.1
57.5°	21745.1	24325.4	25048.8	24524.1	21579.0	21265.6	25098.6	25173.9
60°	23372.0	26060.3	26694.4	26113.2	23142.7	22710.4	26005.3	25639.9
62.5°	24277.1	26648.3	27094.0	26468.2	24213.8	24249.6	26204.0	25388.2
65°	23872.8	25161.9	25305.7	25254.3	23937.7	25142.7	25489.4	24224.2
67.5°	21657.9	21404.1	21646.0	21980.2	21572.3	23966.8	23509.0	21688.5
70°	17756.3	16362.4	16844.5	17068.7	17254.0	20624.1	20404.6	17665.5
72.5°	13381.5	11463.4	11843.8	11797.6	12654.4	16542.5	15868.9	12989.1
75°	9481.5	7772.5	7820.3	7801.6	8830.2	12942.4	11490.9	8886.7
77.5°	6633.9	5631.3	5657.2	5763.1	5936.4	9761.2	8209.5	6491.7
80°	4561.7	4273.7	4415.9	4424.7	4114.3	6557.1	6065.1	5209.9
82.5°	3397.7	2970.5	2936.3	2986.1	3224.3	5312.6	4660.8	3613.5
85°	2782.2	1758.8	1414.2	1772.8	2857.4	5261.3	3096.1	1906.2
87.5°	1566.8	835.0	377.3	699.6	1140.2	3483.3	894.7	243.4
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)