

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: P299473

Luminaire Tested: **GLNA-AF-04-LED-E1-SLR-7027-600**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P299473
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-04-LED-E1-SLR-7027-600
Description: GALLEONNAIRE AREA AND ROADWAY LUMINAIRE
(4) 70 CRI, 2700K CCT 600mA LIGHTSQUARE WITH 16 LEDS EACH AND 90° Spill
Light Eliminator Right OPTICS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 12038 lumens
Efficiency: N/A
Efficacy: 93.3 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')
IES Classification: Type IV - Short - Non-Cutoff
BUG Rating: B2 - U0 - G3

Input Watts (W): 129
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

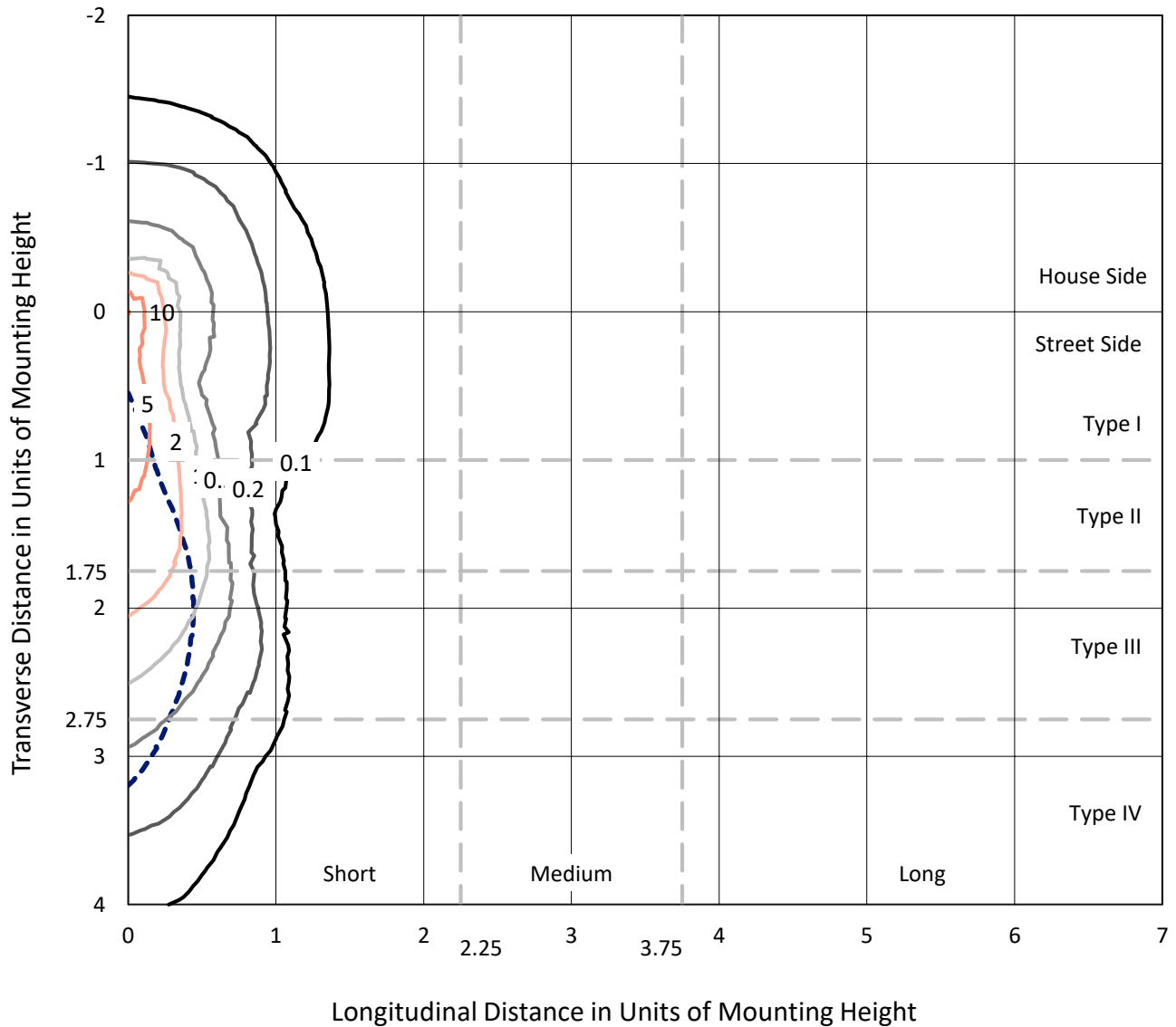


REPORT NUMBER: P299473

CATALOG NUMBER: GLNA-AF-04-LED-E1-SLR-7027-600

Iso-Footcandle Lines of Horizontal Illumination

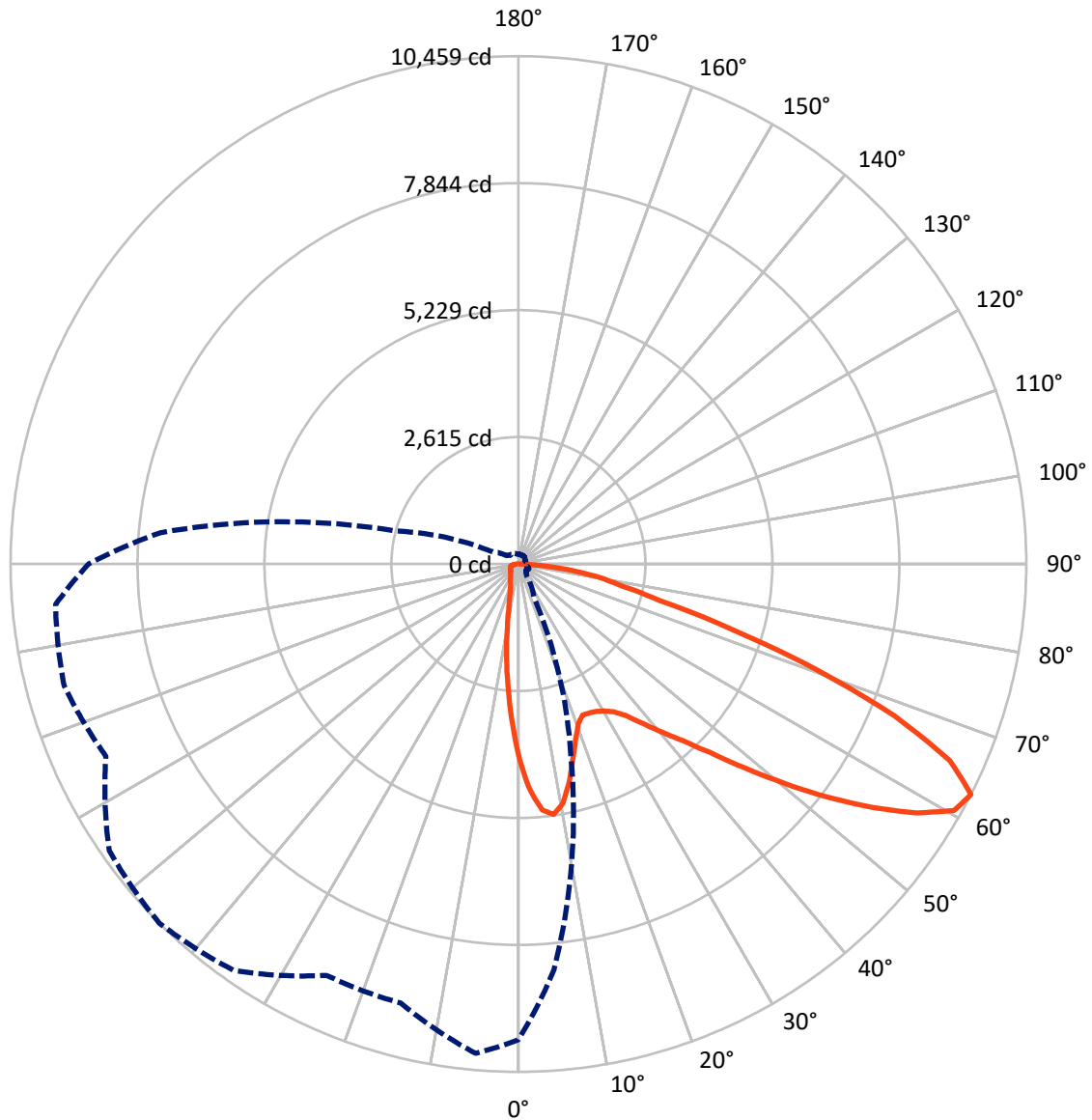
× Max cd
 - - - 1/2 Max cd



Based on 20 foot mounting height. Maximum calculated value = 10.2 fc
 Type IV - Short - Non-Cutoff

REPORT NUMBER: P299473
CATALOG NUMBER: GLNA-AF-04-LED-E1-SLR-7027-600

Luminous Intensity Polar Plot



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

REPORT NUMBER: P299473

CATALOG NUMBER: GLNA-AF-04-LED-E1-SLR-7027-600

FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	1992.1	0.0	1992.1
	% Fixture	16.5	0.0	16.5
Street Side	Lumens	10045.8	0.0	10045.8
	% Fixture	83.5	0.0	83.5
Total	Lumens	12038.0	0.0	12038.0
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	296.1	2.5
10°-20°	542.9	4.5
20°-30°	791.6	6.6
30°-40°	1219.1	10.1
40°-50°	1794.2	14.9
50°-60°	2631.7	21.9
60°-70°	2941.9	24.4
70°-80°	1440.3	12.0
80°-90°	380.3	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°	12038.0	100.0
0°-180°	12038.0	100.0



REPORT NUMBER: P299473

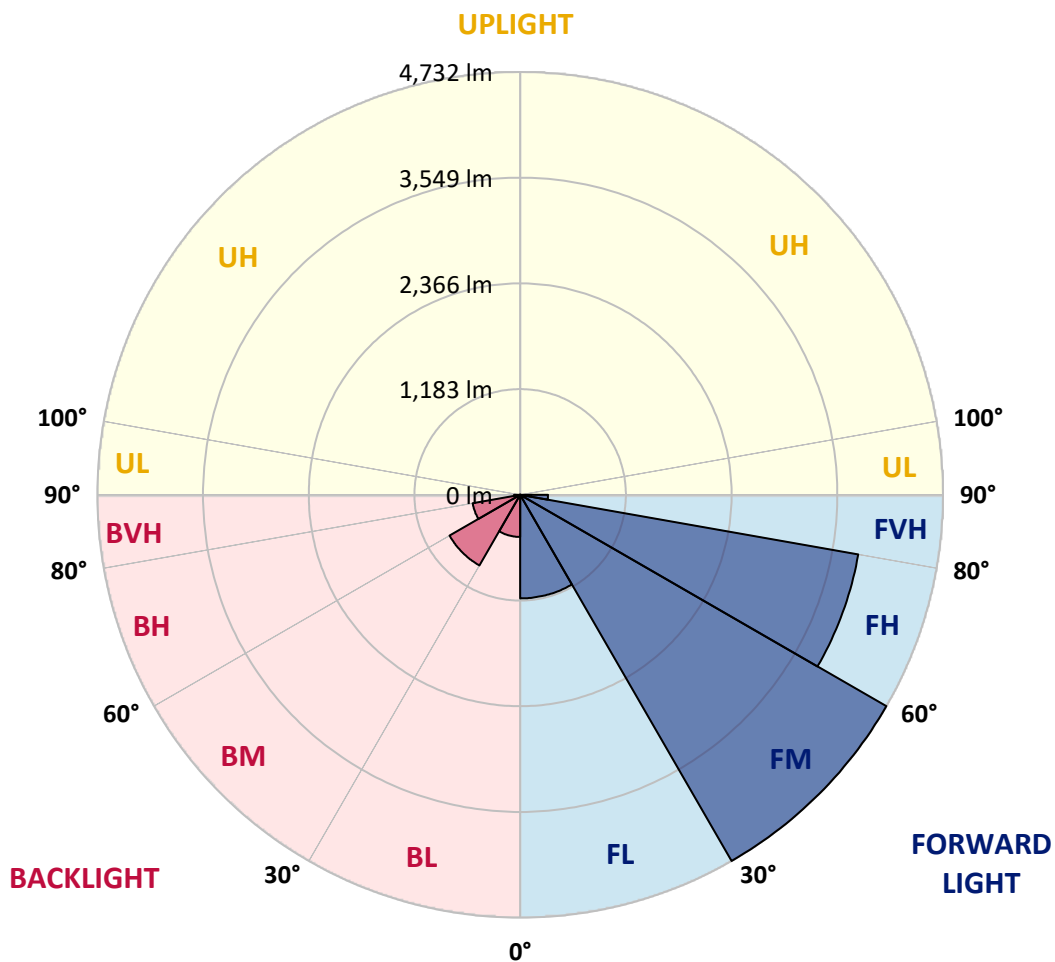
CATALOG NUMBER: GLNA-AF-04-LED-E1-SLR-7027-600

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	1159.2	9.6			
FM (30°-60°)	4732.2	39.3			
FH (60°-80°)	3842.1	31.9			G2/5000
FVH (80°-90°)	312.3	2.6			G3/500
BL (0°-30°)	471.3	3.9	B1/500		
BM (30°-60°)	912.8	7.6	B1/1000		
BH (60°-80°)	540.1	4.5	B2/1000		G2/1000
BVH (80°-90°)	68.0	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: P299473

CATALOG NUMBER: GLNA-AF-04-LED-E1-SLR-7027-600

CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	75°	85°	90°
0°	4067.1	4067.1	4067.1	4067.1	4067.1	4067.1	4067.1	4067.1	4067.1	4067.1	4067.1
2.5°	4225.8	4139.9	3996.8	3848.0	3757.4	3651.5	3568.7	3496.0	3350.4	3321.9	3347.8
5°	3973.8	3801.1	3531.7	3260.4	3079.7	2885.8	2734.9	2613.9	2429.2	2396.8	2435.8
7.5°	3569.5	3363.0	3007.0	2660.8	2405.4	2163.2	2000.5	1870.7	1726.5	1664.4	1668.2
10°	3220.7	2987.8	2566.9	2190.4	1981.3	1817.8	1680.8	1547.8	1401.5	1305.6	1279.1
12.5°	3025.4	2757.6	2272.4	1936.2	1742.3	1570.4	1422.8	1280.5	1124.3	1026.3	998.7
15°	2991.8	2700.5	2162.0	1773.5	1530.5	1313.0	1138.9	980.0	819.2	739.8	723.2
17.5°	3138.0	2802.4	2126.1	1628.5	1331.4	1062.8	849.0	671.7	540.7	501.0	497.6
20°	3418.5	2998.4	2121.5	1492.3	1134.9	820.0	591.6	462.6	405.1	393.7	394.5
22.5°	3812.3	3302.1	2178.4	1389.7	954.2	611.4	444.7	387.0	364.6	354.0	354.0
25°	4321.8	3720.4	2309.4	1315.0	797.3	488.4	392.5	358.0	336.8	329.5	330.9
27.5°	4815.6	4127.2	2461.7	1256.1	694.8	443.3	371.8	340.8	322.3	314.9	318.3
30°	5200.6	4488.6	2588.7	1176.0	642.5	430.7	379.2	347.4	320.9	309.7	310.3
32.5°	5519.6	4805.0	2695.3	1118.3	596.2	369.2	326.9	312.9	309.7	296.5	289.9
35°	5927.2	5149.7	2766.8	1119.7	574.4	329.5	291.1	266.6	248.8	233.6	233.6
37.5°	6405.0	5545.4	2842.9	1134.9	566.5	306.3	278.7	254.0	237.6	223.0	220.4
40°	6877.4	5933.2	2912.4	1149.5	561.7	292.5	268.6	246.2	231.0	216.4	212.4
42.5°	7279.3	6252.2	2974.5	1156.7	545.9	291.1	261.4	240.8	226.4	210.3	206.5
45°	7576.4	6519.4	3041.4	1167.9	530.1	296.5	261.4	240.2	222.4	207.1	203.1
47.5°	7841.6	6833.1	3153.2	1167.9	510.8	286.5	270.0	240.8	221.8	205.7	202.5
50°	8197.0	7263.2	3365.0	1140.9	483.8	275.9	284.5	238.2	215.8	203.1	199.1
52.5°	8686.6	7814.6	3701.1	1093.8	442.1	255.4	282.5	237.0	209.7	196.5	191.9
55°	9265.8	8404.7	4067.7	1038.9	379.8	240.8	272.7	233.6	203.1	188.5	183.9
57.5°	9717.7	8811.0	4325.8	954.2	325.5	233.0	241.6	230.4	195.1	179.9	176.1
60°	9897.6	8795.2	4396.7	841.0	299.1	226.4	211.2	258.0	188.5	173.3	168.7
62.5°	9800.5	8388.9	4198.2	761.7	293.1	217.8	197.9	238.8	183.3	168.7	162.1
65°	9351.1	7668.9	3672.1	740.4	310.3	209.1	189.3	187.3	176.1	162.1	155.5
67.5°	8372.3	6592.9	2940.1	742.4	332.2	200.5	180.7	171.5	166.1	154.9	148.8
70°	6819.3	5212.6	2191.6	747.8	343.4	190.5	171.5	161.5	155.5	144.2	140.2
72.5°	5014.1	4017.5	1592.2	713.4	345.4	179.3	158.9	150.2	144.2	132.4	129.0
75°	3430.5	3073.1	1104.4	591.0	301.1	163.5	144.8	137.0	133.0	118.4	116.4
77.5°	2506.0	2306.8	706.8	438.7	232.2	143.6	127.8	121.8	119.2	103.2	100.6
80°	2011.1	1825.0	442.1	300.5	170.1	120.4	107.2	104.0	101.2	85.3	83.3
82.5°	1394.9	1222.2	283.9	195.1	127.8	93.4	84.7	83.3	79.3	64.9	62.9
85°	735.8	663.7	179.9	133.0	92.6	64.1	58.9	58.9	56.9	43.1	41.7
87.5°	94.0	152.9	91.4	69.5	50.9	28.4	28.4	27.8	29.8	24.4	21.2
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: P299473

CATALOG NUMBER: GLNA-AF-04-LED-E1-SLR-7027-600

CANDELA DISTRIBUTION (continued):

	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°	185°
0°	4067.1	4067.1	4067.1	4067.1	4067.1	4067.1	4067.1	4067.1	4067.1	4067.1	4067.1
2.5°	3286.9	3318.7	3288.3	3290.3	3323.9	3424.5	3470.2	3507.8	3548.3	3574.7	3586.5
5°	2382.4	2456.5	2481.5	2534.4	2612.5	2740.9	2791.8	2828.9	2853.5	2868.0	2874.0
7.5°	1629.3	1674.2	1724.5	1809.8	1979.9	2055.4	2089.1	2080.4	2052.8	2042.8	2033.0
10°	1228.2	1210.4	1201.0	1248.1	1385.7	1461.8	1485.7	1462.4	1447.2	1450.6	1467.0
12.5°	951.6	920.5	882.9	877.5	968.2	1036.3	1051.5	1052.7	1080.6	1105.0	1141.5
15°	693.6	690.1	671.7	660.5	712.0	767.7	774.3	786.1	811.3	829.2	860.8
17.5°	489.0	506.8	521.5	528.7	567.7	607.4	600.2	594.2	589.6	589.6	604.8
20°	394.5	406.3	424.9	445.9	485.8	513.5	495.6	471.8	454.6	449.3	451.3
22.5°	355.4	364.6	375.2	393.7	429.5	448.7	429.5	412.3	395.1	389.0	387.0
25°	335.6	347.4	357.4	371.2	397.7	410.9	392.5	379.8	369.2	362.0	356.6
27.5°	324.3	334.8	337.6	344.2	366.6	378.4	369.2	364.0	357.4	350.8	344.2
30°	312.3	310.3	305.7	306.3	324.3	336.2	335.6	336.8	336.2	334.2	333.0
32.5°	285.3	281.3	277.3	281.3	297.7	308.3	309.1	311.7	311.7	311.1	316.3
35°	237.6	244.8	249.4	261.4	281.3	290.5	286.5	279.9	268.0	260.6	260.0
37.5°	219.8	221.0	229.0	245.4	267.4	275.9	270.0	254.8	246.8	245.4	247.4
40°	211.2	212.4	217.0	232.2	254.0	262.6	257.4	246.2	238.8	238.2	241.6
42.5°	205.1	206.5	209.1	219.8	237.6	248.2	248.8	240.8	232.2	233.0	236.2
45°	201.7	202.5	201.7	207.1	223.6	236.2	241.6	236.2	229.0	230.4	234.2
47.5°	201.1	199.1	196.5	197.9	215.2	227.6	234.2	232.2	229.0	230.4	233.6
50°	198.5	193.9	190.5	189.9	207.1	220.4	226.4	226.4	227.6	230.4	233.6
52.5°	190.5	185.3	185.3	183.3	201.7	214.4	218.4	219.0	221.0	225.6	230.4
55°	180.7	178.7	180.7	177.3	197.9	209.7	211.8	213.2	214.4	218.4	225.0
57.5°	172.1	169.5	174.1	172.7	194.5	205.1	205.1	207.7	207.7	213.2	218.4
60°	167.5	162.1	164.1	165.5	189.9	201.1	199.9	202.5	203.7	208.5	212.4
62.5°	161.5	156.9	156.9	160.1	184.7	195.1	194.5	196.5	201.7	203.1	207.1
65°	154.3	152.3	150.2	154.3	179.3	188.5	189.3	191.9	196.5	197.9	201.1
67.5°	146.8	147.6	143.6	147.6	174.7	181.9	181.9	187.3	189.3	191.9	195.1
70°	139.0	139.6	136.2	141.0	171.5	174.7	174.1	181.3	182.7	184.7	187.9
72.5°	129.0	129.0	127.8	134.4	166.1	167.5	166.1	172.1	172.7	174.7	176.1
75°	118.4	118.4	117.2	126.4	162.9	159.5	155.5	160.1	161.5	162.9	162.9
77.5°	104.6	106.0	106.0	117.2	151.5	156.3	142.8	145.6	147.6	148.2	146.2
80°	87.3	90.8	92.0	106.6	127.0	144.2	127.8	129.6	130.4	130.4	127.8
82.5°	66.9	72.7	76.1	92.0	97.4	121.0	111.2	113.2	111.2	107.2	106.0
85°	46.3	54.3	58.3	70.1	73.5	93.4	92.6	92.6	88.7	83.3	82.7
87.5°	25.2	29.8	32.5	41.7	50.3	62.9	68.1	66.1	62.9	59.5	60.3
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: P299473

CATALOG NUMBER: GLNA-AF-04-LED-E1-SLR-7027-600

CANDELA DISTRIBUTION (continued):

	195°	205°	215°	225°	235°	245°	255°	265°	270°	275°	285°
0°	4067.1	4067.1	4067.1	4067.1	4067.1	4067.1	4067.1	4067.1	4067.1	4067.1	4067.1
2.5°	3648.9	3738.8	3882.4	3992.2	4102.8	4209.4	4324.6	4412.5	4487.2	4516.5	4605.0
5°	2934.3	3046.7	3182.3	3427.1	3600.6	3791.7	4012.9	4305.3	4417.7	4573.4	4828.0
7.5°	2074.6	2176.4	2394.8	2592.7	2838.3	3109.0	3407.3	3810.9	3958.6	4208.0	4622.9
10°	1549.2	1667.6	1842.9	2009.7	2226.1	2502.8	2845.5	3296.9	3476.2	3746.8	4224.6
12.5°	1248.1	1387.7	1573.6	1730.5	1897.9	2093.1	2426.0	2920.8	3161.2	3398.0	3881.0
15°	958.8	1105.0	1277.9	1477.0	1661.6	1872.1	2220.9	2762.2	3038.6	3285.6	3697.7
17.5°	663.7	788.7	1006.5	1214.2	1450.6	1719.9	2164.0	2795.8	3126.0	3410.7	3729.6
20°	470.6	541.9	720.6	961.6	1256.1	1594.0	2153.4	2973.1	3402.6	3727.6	3933.3
22.5°	395.7	422.1	526.1	747.0	1087.2	1500.1	2190.4	3221.9	3775.9	4190.7	4258.3
25°	360.6	376.6	430.7	586.4	937.0	1432.0	2315.4	3592.6	4237.8	4654.1	4642.1
27.5°	341.4	358.0	393.7	495.0	824.0	1389.7	2440.4	4032.1	4765.9	5157.0	5008.7
30°	335.6	358.0	395.7	466.6	743.2	1322.8	2543.0	4417.7	5172.2	5496.5	5175.6
32.5°	330.9	334.2	351.4	402.3	666.3	1244.7	2612.5	4763.9	5569.8	5819.5	5415.8
35°	267.4	283.9	311.7	360.6	621.4	1197.8	2612.5	5062.4	5961.7	6145.6	5644.8
37.5°	257.4	272.1	296.5	338.2	596.2	1174.5	2560.2	5350.3	6361.9	6515.6	5833.3
40°	252.2	264.0	287.3	320.9	585.6	1148.1	2484.1	5604.3	6753.0	6886.0	6009.4
42.5°	248.2	258.8	280.7	310.3	571.7	1119.1	2422.6	5808.0	7092.6	7202.3	6177.4
45°	246.2	257.4	281.3	315.7	543.9	1080.6	2402.2	6028.4	7371.8	7466.4	6359.3
47.5°	246.2	259.4	284.5	326.9	510.8	1040.9	2466.3	6319.1	7635.9	7682.1	6573.7
50°	244.2	258.8	293.9	315.7	462.6	990.6	2617.1	6684.9	7921.7	7926.9	6845.2
52.5°	240.2	257.4	316.3	309.1	406.9	924.5	2821.1	7154.9	8344.6	8376.3	7269.9
55°	235.6	255.4	310.3	293.9	361.4	845.8	2987.8	7725.8	8938.8	9026.8	7894.7
57.5°	229.6	252.8	300.5	272.7	331.5	744.4	3048.1	8144.1	9353.7	9574.7	8598.7
60°	224.4	250.8	271.2	260.0	312.9	659.1	2931.5	8061.4	9325.3	9801.7	9222.7
62.5°	219.0	252.8	247.4	252.2	304.3	604.2	2627.2	7398.9	8853.5	9567.5	9685.3
65°	213.2	235.0	233.6	245.4	302.5	582.4	2177.8	6405.6	7941.6	8827.0	9794.4
67.5°	205.1	217.0	223.6	237.0	309.1	563.1	1757.5	5284.0	6674.3	7717.2	9225.3
70°	196.5	206.5	213.8	226.4	305.1	554.5	1461.8	4166.9	5296.0	6324.9	8102.4
72.5°	185.3	193.9	200.5	212.4	301.1	549.9	1234.8	3355.8	3954.0	4698.4	6587.7
75°	172.1	179.9	184.7	196.5	288.5	503.6	970.8	2839.5	2958.7	3268.4	5246.9
77.5°	156.9	162.9	166.7	179.9	255.4	418.9	702.2	2190.4	2297.6	2372.9	4022.7
80°	139.0	144.8	146.8	159.5	211.8	327.5	458.0	1617.9	1718.4	1735.7	2627.2
82.5°	118.4	124.4	124.4	136.2	173.3	235.6	300.5	1108.4	1128.3	1186.6	1856.9
85°	95.4	100.0	100.0	106.0	134.4	176.1	206.5	556.5	550.5	628.6	1608.7
87.5°	68.1	71.5	74.7	76.1	96.0	116.4	124.4	169.5	111.8	128.4	1032.9
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: P299473

CATALOG NUMBER: GLNA-AF-04-LED-E1-SLR-7027-600

CANDELA DISTRIBUTION (continued):

	295°	305°	315°	325°	335°	345°	355°	360°
0°	4067.1	4067.1	4067.1	4067.1	4067.1	4067.1	4067.1	4067.1
2.5°	4671.9	4709.6	4671.1	4643.5	4523.7	4425.1	4293.3	4225.8
5°	5021.9	5117.9	5085.4	4969.0	4718.8	4437.6	4118.0	3973.8
7.5°	4979.7	5202.6	5207.8	4990.3	4621.7	4207.4	3774.7	3569.5
10°	4650.1	4935.2	5016.7	4805.6	4414.5	3951.4	3454.9	3220.7
12.5°	4282.1	4561.4	4623.7	4550.7	4224.0	3758.6	3255.2	3025.4
15°	3981.0	4106.2	4180.1	4243.8	4060.5	3681.9	3243.8	2991.8
17.5°	3797.7	3783.9	3805.1	3915.5	3946.5	3769.9	3415.9	3138.0
20°	3731.6	3519.2	3513.8	3666.1	3893.1	3979.8	3752.0	3418.5
22.5°	3768.0	3423.9	3380.2	3560.9	3921.5	4282.1	4192.8	3812.3
25°	3893.7	3431.9	3396.6	3571.5	4024.7	4604.4	4668.5	4321.8
27.5°	4091.6	3482.2	3435.7	3615.2	4161.7	4875.1	5137.1	4815.6
30°	4279.5	3569.5	3511.8	3701.1	4286.7	4982.3	5424.4	5200.6
32.5°	4507.9	3733.0	3631.6	3859.2	4441.6	5152.9	5680.4	5519.6
35°	4731.4	3965.8	3840.2	4103.4	4614.3	5365.5	5972.9	5927.2
37.5°	4977.1	4270.3	4166.3	4419.1	4850.6	5565.8	6346.1	6405.0
40°	5239.1	4674.0	4550.7	4879.7	5217.3	5817.4	6736.0	6877.4
42.5°	5503.1	5121.9	4975.0	5308.4	5620.1	6065.5	7069.3	7279.3
45°	5805.4	5608.3	5538.8	5899.4	6007.4	6301.9	7315.5	7576.4
47.5°	6157.6	6160.2	6272.0	6416.2	6397.8	6569.1	7563.1	7841.6
50°	6568.5	6849.0	7096.0	7191.7	6800.1	6856.4	7906.5	8197.0
52.5°	7062.1	7672.9	7978.6	7915.7	7233.6	7207.0	8450.4	8686.6
55°	7679.5	8545.2	8848.9	8803.8	7731.8	7684.7	9128.1	9265.8
57.5°	8394.1	9390.2	9669.4	9466.9	8330.0	8209.0	9688.7	9717.7
60°	9022.2	10059.9	10304.7	10080.3	8933.6	8766.7	10038.6	9897.6
62.5°	9371.5	10286.9	10458.9	10217.3	9347.1	9360.9	10115.4	9800.5
65°	9215.5	9713.1	9768.6	9748.8	9240.5	9705.7	9839.5	9351.1
67.5°	8360.5	8262.5	8355.9	8484.9	8327.4	9251.7	9075.0	8372.3
70°	6854.4	6316.3	6502.4	6588.9	6660.4	7961.4	7876.7	6819.3
72.5°	5165.6	4425.1	4572.0	4554.2	4884.9	6385.8	6125.8	5014.1
75°	3660.1	3000.4	3018.8	3011.6	3408.7	4996.1	4435.8	3430.5
77.5°	2560.8	2173.8	2183.8	2224.7	2291.6	3768.0	3169.1	2506.0
80°	1760.9	1649.7	1704.6	1708.0	1588.2	2531.2	2341.3	2011.1
82.5°	1311.6	1146.7	1133.5	1152.7	1244.7	2050.8	1799.2	1394.9
85°	1074.0	678.9	545.9	684.3	1103.0	2031.0	1195.2	735.8
87.5°	604.8	322.3	145.6	270.0	440.1	1344.6	345.4	94.0
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

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