

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: P299509

Luminaire Tested: **GLNA-AF-10-LED-E1-SLR-7027-600**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P299509
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-10-LED-E1-SLR-7027-600
Description: GALLEONAIRE AREA AND ROADWAY LUMINAIRE
(10) 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: 29537.8 lumens
Efficiency: N/A
Efficacy: 91.4 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

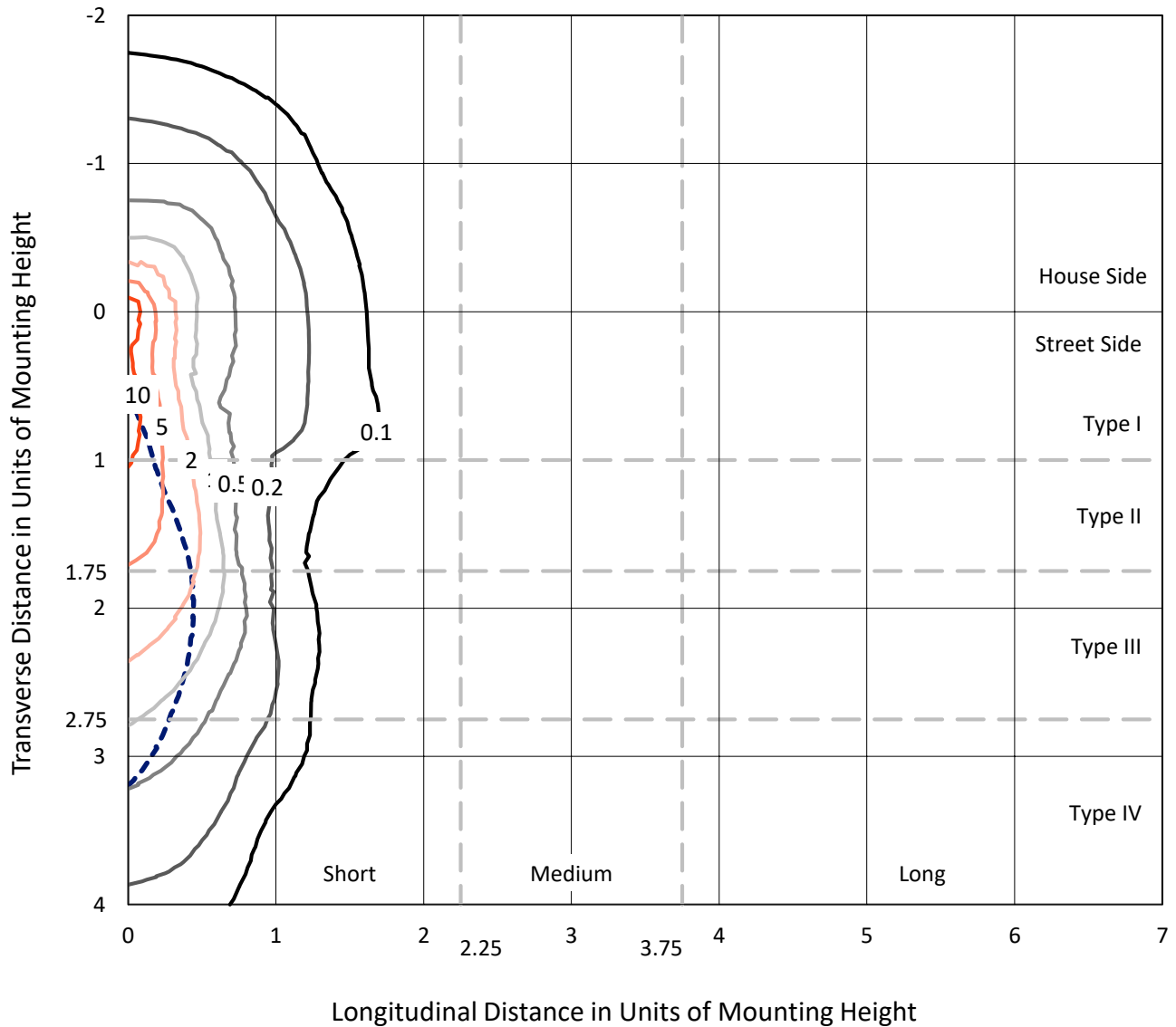
Input Watts (W): 323
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Iso-Footcandle Lines of Horizontal Illumination

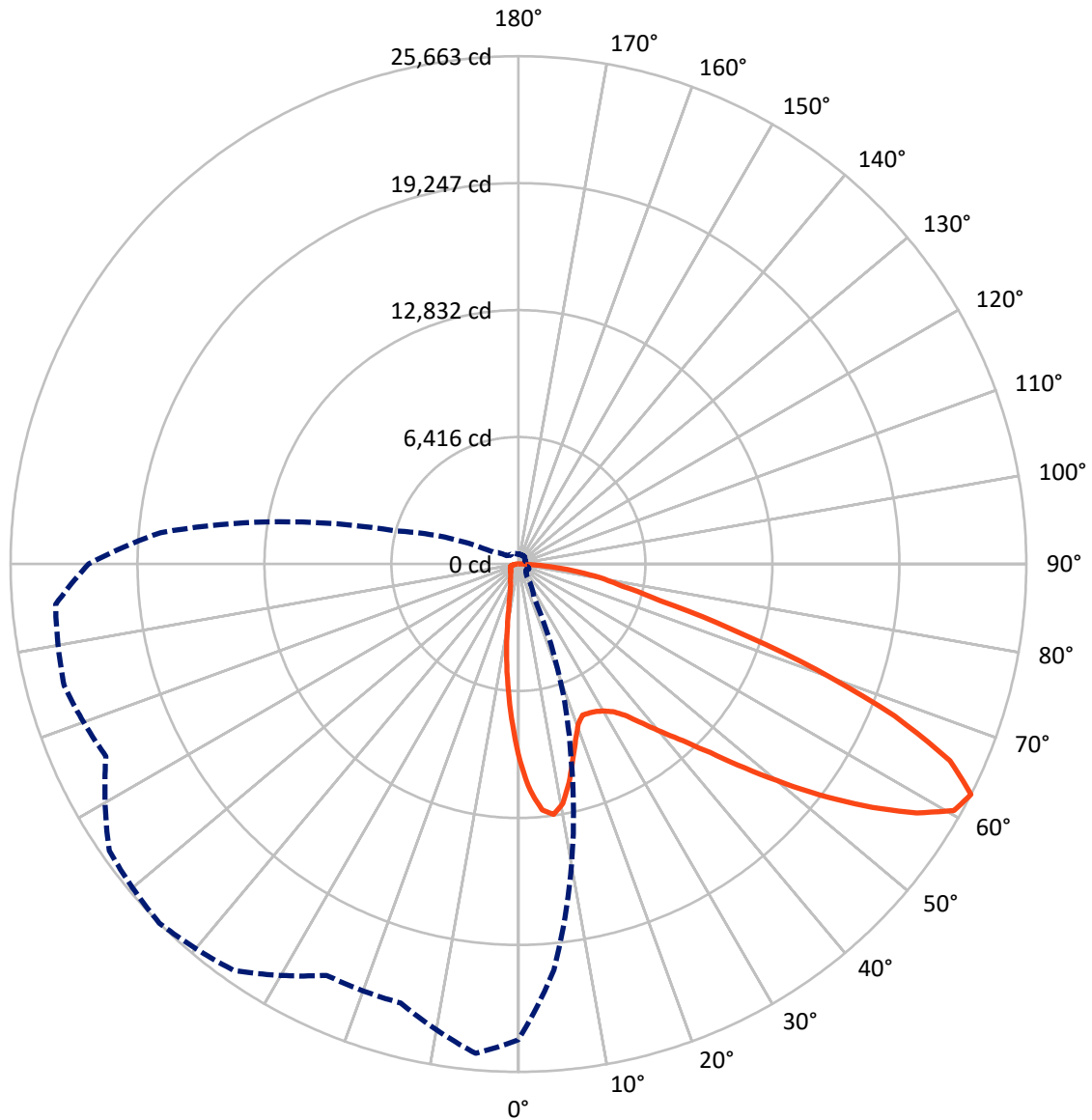
× Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 16 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	4888.1	0.0	4888.1
	% Fixture	16.5	0.0	16.5
Street Side	Lumens	24649.7	0.0	24649.7
	% Fixture	83.5	0.0	83.5
Total	Lumens	29537.8	0.0	29537.8
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	726.5	2.5
10°-20°	1332.1	4.5
20°-30°	1942.2	6.6
30°-40°	2991.3	10.1
40°-50°	4402.5	14.9
50°-60°	6457.5	21.9
60°-70°	7218.5	24.4
70°-80°	3534.1	12.0
80°-90°	933.1	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°	29537.8	100.0
0°-180°	29537.8	100.0



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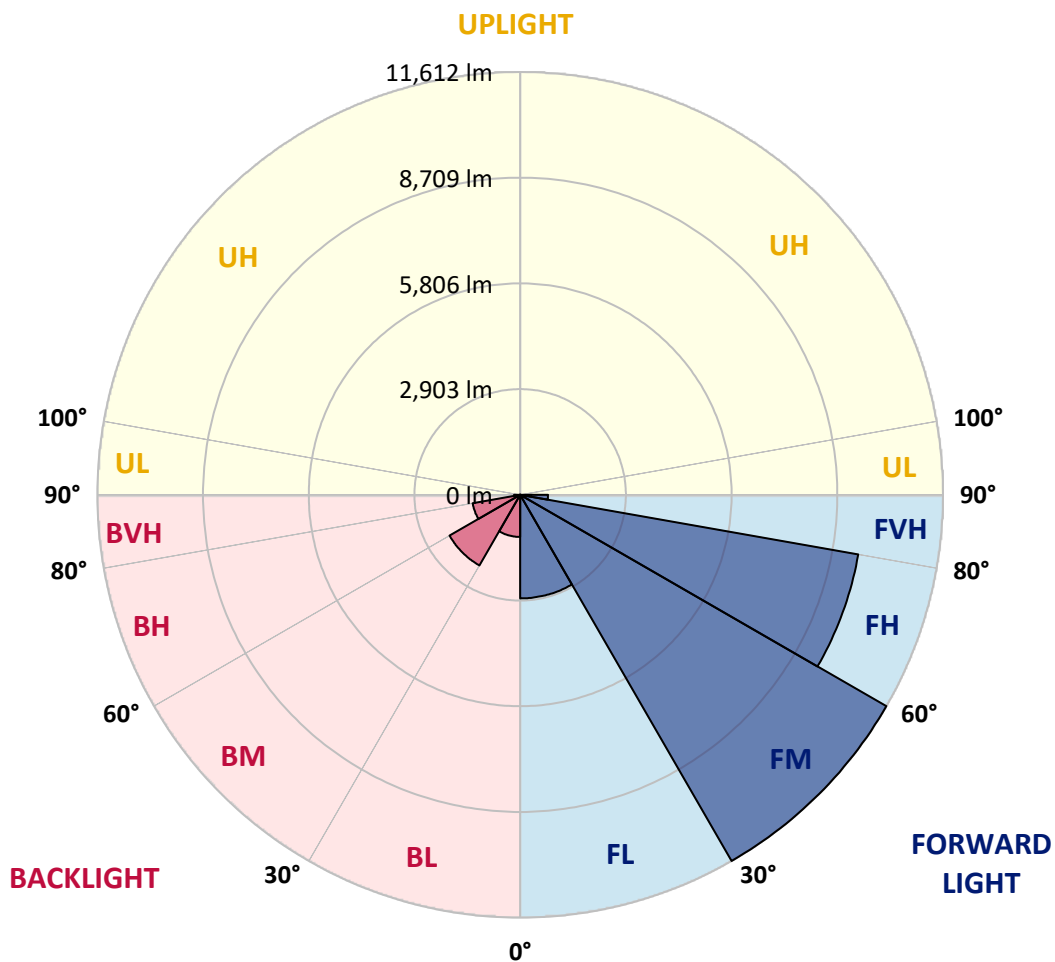
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	2844.4	9.6			
FM	(30°-60°)	11611.6	39.3			
FH	(60°-80°)	9427.4	31.9			G4/12000
FVH	(80°-90°)	766.3	2.6			G5
BL	(0°-30°)	1156.4	3.9	B3/2500		
BM	(30°-60°)	2239.7	7.6	B2/2500		
BH	(60°-80°)	1325.2	4.5	B3/2500		G3/2500
BVH	(80°-90°)	166.8	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





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	75°	85°	90°
0°	9979.6	9979.6	9979.6	9979.6	9979.6	9979.6	9979.6	9979.6	9979.6	9979.6	9979.6
2.5°	10368.9	10158.1	9807.1	9441.9	9219.7	8959.6	8756.6	8578.2	8220.8	8151.0	8214.4
5°	9750.6	9326.8	8665.7	8000.1	7556.7	7080.9	6710.8	6413.9	5960.6	5881.0	5976.9
7.5°	8758.6	8251.8	7378.3	6528.9	5902.1	5307.9	4908.7	4590.2	4236.3	4083.9	4093.2
10°	7902.8	7331.1	6298.3	5374.7	4861.5	4460.4	4124.2	3797.8	3438.9	3203.5	3138.6
12.5°	7423.5	6766.3	5575.8	4750.9	4275.1	3853.3	3491.1	3142.0	2758.6	2518.3	2450.4
15°	7340.9	6626.2	5304.9	4351.8	3755.5	3221.7	2794.5	2404.7	2010.0	1815.3	1774.5
17.5°	7699.8	6876.4	5216.9	3995.9	3266.9	2607.7	2083.2	1648.2	1326.7	1229.4	1221.0
20°	8388.0	7357.2	5205.6	3661.6	2784.7	2012.0	1451.6	1135.0	993.9	965.9	967.9
22.5°	9354.4	8102.4	5345.2	3409.9	2341.3	1500.2	1091.3	949.7	894.6	868.6	868.6
25°	10604.4	9128.7	5666.7	3226.6	1956.4	1198.4	963.0	878.4	826.3	808.6	812.1
27.5°	11816.1	10127.1	6040.3	3082.1	1704.7	1087.8	912.3	836.1	790.9	772.7	781.1
30°	12760.9	11013.9	6351.9	2885.5	1576.4	1056.9	930.5	852.4	787.5	760.0	761.4
32.5°	13543.4	11790.0	6613.4	2743.9	1462.9	905.9	802.2	767.8	760.0	727.5	711.3
35°	14543.8	12636.0	6788.9	2747.3	1409.3	808.6	714.2	654.3	610.5	573.2	573.2
37.5°	15716.1	13606.8	6975.7	2784.7	1390.1	751.6	683.8	623.3	583.0	547.1	540.7
40°	16875.2	14558.5	7146.3	2820.6	1378.3	717.7	659.2	604.1	566.8	530.9	521.1
42.5°	17861.3	15341.1	7298.7	2838.3	1339.5	714.2	641.5	590.9	555.5	516.1	506.8
45°	18590.3	15996.8	7462.9	2865.8	1300.7	727.5	641.5	589.4	545.6	508.3	498.4
47.5°	19241.1	16766.6	7737.1	2865.8	1253.5	702.9	662.6	590.9	544.2	504.8	497.0
50°	20113.1	17822.0	8256.7	2799.4	1187.1	676.9	698.0	584.5	529.4	498.4	488.6
52.5°	21314.5	19174.7	9081.6	2683.9	1084.9	626.7	693.1	581.5	514.7	482.2	470.9
55°	22735.6	20622.9	9981.1	2549.2	932.0	590.9	669.0	573.2	498.4	462.6	451.3
57.5°	23844.5	21619.8	10614.2	2341.3	798.8	571.7	592.8	565.3	478.8	441.4	432.1
60°	24286.0	21580.9	10788.2	2063.6	733.9	555.5	518.1	633.1	462.6	425.2	413.9
62.5°	24047.6	20584.0	10301.1	1868.9	719.2	534.3	485.7	585.9	449.8	413.9	397.7
65°	22945.0	18817.4	9010.3	1816.8	761.4	513.2	464.5	459.6	432.1	397.7	381.4
67.5°	20543.2	16177.2	7214.1	1821.7	815.0	492.1	443.4	420.8	407.5	380.0	365.2
70°	16732.7	12790.4	5377.7	1835.0	842.5	467.5	420.8	396.2	381.4	353.9	344.1
72.5°	12303.2	9857.7	3906.9	1750.4	847.4	439.9	389.8	368.7	353.9	324.9	316.6
75°	8417.5	7540.5	2710.0	1450.1	738.8	401.1	355.4	336.2	326.4	290.5	285.6
77.5°	6148.9	5660.3	1734.2	1076.5	569.7	352.4	313.6	298.9	292.5	253.2	246.8
80°	4934.8	4478.1	1084.9	737.3	417.3	295.4	263.0	255.1	248.2	209.4	204.5
82.5°	3422.7	2999.0	696.5	478.8	313.6	229.1	207.9	204.5	194.7	159.3	154.3
85°	1805.5	1628.5	441.4	326.4	227.1	157.3	144.5	144.5	139.6	105.7	102.2
87.5°	230.5	375.1	224.2	170.6	124.9	69.8	69.8	68.3	73.2	60.0	52.1
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°	9979.6	9979.6	9979.6	9979.6	9979.6	9979.6	9979.6	9979.6	9979.6	9979.6	9979.6
2.5°	8065.0	8143.2	8068.5	8073.4	8155.9	8402.7	8514.8	8607.2	8706.5	8771.4	8800.4
5°	5845.6	6027.5	6088.9	6218.7	6410.4	6725.5	6850.4	6941.3	7001.8	7037.2	7051.9
7.5°	3997.9	4108.0	4231.3	4440.7	4858.1	5043.4	5126.0	5104.8	5037.0	5012.4	4988.3
10°	3013.7	2970.0	2946.9	3062.4	3400.1	3586.9	3645.4	3588.4	3551.0	3559.4	3599.7
12.5°	2334.9	2258.7	2166.3	2153.0	2375.7	2542.8	2580.2	2583.1	2651.5	2711.4	2800.9
15°	1701.8	1693.4	1648.2	1620.7	1747.0	1883.7	1899.9	1928.9	1990.8	2034.6	2112.2
17.5°	1199.9	1243.6	1279.5	1297.2	1393.1	1490.4	1472.7	1458.0	1446.7	1446.7	1484.0
20°	967.9	996.9	1042.6	1094.2	1192.0	1259.9	1216.1	1157.6	1115.3	1102.6	1107.5
22.5°	872.0	894.6	920.7	965.9	1053.9	1101.1	1053.9	1011.6	969.4	954.6	949.7
25°	823.4	852.4	876.9	910.9	975.7	1008.2	963.0	932.0	905.9	888.2	875.0
27.5°	795.8	821.4	828.3	844.5	899.6	928.6	905.9	893.2	876.9	860.7	844.5
30°	766.3	761.4	750.1	751.6	795.8	824.8	823.4	826.3	824.8	819.9	817.0
32.5°	700.0	690.1	680.3	690.1	730.5	756.5	758.5	764.9	764.9	763.4	776.2
35°	583.0	600.7	612.0	641.5	690.1	712.8	702.9	686.7	657.7	639.5	638.0
37.5°	539.2	542.2	561.9	602.2	656.2	676.9	662.6	625.3	605.6	602.2	607.1
40°	518.1	521.1	532.4	569.7	623.3	644.4	631.7	604.1	585.9	584.5	592.8
42.5°	503.4	506.8	513.2	539.2	583.0	609.0	610.5	590.9	569.7	571.7	579.5
45°	495.0	497.0	495.0	508.3	548.6	579.5	592.8	579.5	561.9	565.3	574.6
47.5°	493.5	488.6	482.2	485.7	527.9	558.4	574.6	569.7	561.9	565.3	573.2
50°	487.1	475.8	467.5	466.0	508.3	540.7	555.5	555.5	558.4	565.3	573.2
52.5°	467.5	454.7	454.7	449.8	495.0	526.0	535.8	537.3	542.2	553.5	565.3
55°	443.4	438.5	443.4	435.0	485.7	514.7	519.6	523.0	526.0	535.8	552.0
57.5°	422.2	415.9	427.2	423.7	477.3	503.4	503.4	509.7	509.7	523.0	535.8
60°	410.9	397.7	402.6	406.0	466.0	493.5	490.6	497.0	499.9	511.7	521.1
62.5°	396.2	384.9	384.9	392.8	453.2	478.8	477.3	482.2	495.0	498.4	508.3
65°	378.5	373.6	368.7	378.5	439.9	462.6	464.5	470.9	482.2	485.7	493.5
67.5°	360.3	362.3	352.4	362.3	428.6	446.3	446.3	459.6	464.5	470.9	478.8
70°	341.1	342.6	334.3	346.1	420.8	428.6	427.2	444.9	448.3	453.2	461.1
72.5°	316.6	316.6	313.6	329.8	407.5	410.9	407.5	422.2	423.7	428.6	432.1
75°	290.5	290.5	287.6	310.2	399.6	391.3	381.4	392.8	396.2	399.6	399.6
77.5°	256.6	260.0	260.0	287.6	371.6	383.4	350.5	357.4	362.3	363.8	358.8
80°	214.3	222.7	225.6	261.5	311.6	353.9	313.6	318.0	320.0	320.0	313.6
82.5°	164.2	178.4	186.8	225.6	238.9	296.9	272.8	277.7	272.8	263.0	260.0
85°	113.6	133.2	143.0	172.0	180.4	229.1	227.1	227.1	217.8	204.5	203.0
87.5°	61.9	73.2	79.6	102.2	123.4	154.3	167.1	162.2	154.3	146.0	148.0
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°	9979.6	9979.6	9979.6	9979.6	9979.6	9979.6	9979.6	9979.6	9979.6	9979.6	9979.6
2.5°	8953.3	9174.0	9526.4	9795.8	10067.1	10328.6	10611.3	10827.1	11010.4	11082.2	11299.5
5°	7199.9	7475.6	7808.4	8409.1	8834.8	9303.7	9846.4	10564.1	10839.9	11221.8	11846.6
7.5°	5090.6	5340.3	5876.1	6361.8	6964.4	7628.5	8360.4	9350.9	9713.2	10325.2	11343.2
10°	3801.2	4091.7	4521.9	4931.3	5462.2	6141.0	6982.1	8089.6	8529.5	9193.6	10366.0
12.5°	3062.4	3405.0	3861.2	4246.1	4657.0	5135.8	5952.8	7166.9	7756.8	8337.8	9523.0
15°	2352.6	2711.4	3135.7	3624.3	4077.0	4593.6	5449.4	6777.6	7456.0	8062.1	9073.2
17.5°	1628.5	1935.3	2469.6	2979.3	3559.4	4220.0	5309.8	6860.2	7670.3	8368.8	9151.4
20°	1154.7	1329.7	1768.1	2359.5	3082.1	3911.3	5283.8	7295.2	8349.1	9146.4	9651.3
22.5°	970.8	1035.7	1290.8	1833.0	2667.7	3680.8	5374.7	7905.7	9264.9	10282.9	10448.6
25°	884.8	924.1	1056.9	1438.8	2299.0	3513.7	5681.4	8815.1	10398.4	11419.9	11390.4
27.5°	837.6	878.4	965.9	1214.6	2021.8	3409.9	5988.2	9893.6	11694.2	12653.7	12290.0
30°	823.4	878.4	970.8	1144.8	1823.7	3245.8	6239.9	10839.9	12691.1	13486.9	12699.4
32.5°	812.1	819.9	862.2	987.1	1634.9	3054.1	6410.4	11689.3	13666.8	14279.3	13288.8
35°	656.2	696.5	764.9	884.8	1524.8	2939.0	6410.4	12421.7	14628.3	15079.6	13850.7
37.5°	631.7	667.5	727.5	829.8	1462.9	2882.0	6282.1	13128.1	15610.4	15987.5	14313.2
40°	618.9	647.9	704.9	787.5	1436.8	2817.1	6095.3	13751.4	16570.0	16896.4	14745.3
42.5°	609.0	635.1	688.7	761.4	1402.9	2745.8	5944.4	14251.3	17403.2	17672.5	15157.7
45°	604.1	631.7	690.1	774.7	1334.6	2651.5	5894.3	14792.0	18088.4	18320.4	15604.1
47.5°	604.1	636.6	698.0	802.2	1253.5	2554.1	6051.6	15505.2	18736.3	18849.8	16130.0
50°	599.2	635.1	721.1	774.7	1135.0	2430.8	6421.7	16402.8	19437.7	19450.5	16796.1
52.5°	589.4	631.7	776.2	758.5	998.4	2268.5	6922.1	17556.0	20475.4	20553.1	17838.2
55°	578.1	626.7	761.4	721.1	886.8	2075.4	7331.1	18957.0	21933.4	22149.2	19371.4
57.5°	563.3	620.3	737.3	669.0	813.5	1826.6	7479.1	19983.4	22951.4	23493.6	21098.7
60°	550.5	615.4	665.6	638.0	767.8	1617.2	7193.0	19780.3	22881.6	24050.5	22629.9
62.5°	537.3	620.3	607.1	618.9	746.7	1482.5	6446.3	18154.8	21724.0	23475.9	23764.9
65°	523.0	576.6	573.2	602.2	742.3	1429.0	5343.7	15717.6	19486.4	21659.1	24032.8
67.5°	503.4	532.4	548.6	581.5	758.5	1381.8	4312.4	12965.4	16376.8	18935.8	22636.3
70°	482.2	506.8	524.5	555.5	748.6	1360.6	3586.9	10224.4	12994.9	15519.5	19881.1
72.5°	454.7	475.8	492.1	521.1	738.8	1349.3	3030.0	8234.1	9701.9	11528.5	16164.4
75°	422.2	441.4	453.2	482.2	707.8	1235.8	2382.1	6967.4	7259.8	8019.8	12874.4
77.5°	384.9	399.6	409.0	441.4	626.7	1027.9	1722.9	5374.7	5637.7	5822.5	9870.5
80°	341.1	355.4	360.3	391.3	519.6	803.7	1123.7	3969.8	4216.6	4258.9	6446.3
82.5°	290.5	305.3	305.3	334.3	425.2	578.1	737.3	2719.8	2768.5	2911.5	4556.3
85°	234.0	245.3	245.3	260.0	329.8	432.1	506.8	1365.6	1350.8	1542.5	3947.2
87.5°	167.1	175.5	183.4	186.8	235.5	285.6	305.3	415.9	274.3	315.1	2534.5
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: P299509

CATALOG NUMBER: GLNA-AF-10-LED-E1-SLR-7027-600

CANDELA DISTRIBUTION (continued):

	295°	305°	315°	325°	335°	345°	355°	360°
0°	9979.6	9979.6	9979.6	9979.6	9979.6	9979.6	9979.6	9979.6
2.5°	11463.6	11556.1	11461.7	11393.8	11099.9	10858.0	10534.6	10368.9
5°	12322.4	12557.9	12478.2	12192.6	11578.7	10888.5	10104.5	9750.6
7.5°	12218.7	12765.8	12778.6	12244.7	11340.3	10323.7	9262.0	8758.6
10°	11410.1	12109.6	12309.6	11791.5	10832.0	9695.5	8477.4	7902.8
12.5°	10507.1	11192.3	11345.2	11166.3	10364.5	9222.6	7987.3	7423.5
15°	9768.3	10075.5	10256.9	10413.2	9963.4	9034.4	7959.3	7340.9
17.5°	9318.5	9284.6	9336.7	9607.5	9683.7	9250.2	8381.6	7699.8
20°	9156.3	8635.2	8621.9	8995.5	9552.5	9765.3	9206.4	8388.0
22.5°	9245.7	8401.2	8294.1	8737.5	9622.3	10507.1	10287.8	9354.4
25°	9553.9	8420.9	8334.4	8763.5	9875.4	11298.0	11455.3	10604.4
27.5°	10039.6	8544.3	8430.2	8870.7	10211.6	11962.1	12605.0	11816.1
30°	10500.7	8758.6	8617.0	9081.6	10518.4	12225.1	13309.9	12760.9
32.5°	11061.1	9159.7	8911.0	9469.4	10898.4	12643.9	13938.2	13543.4
35°	11609.6	9730.9	9422.7	10068.6	11322.1	13165.4	14655.8	14543.8
37.5°	12212.3	10478.1	10223.0	10843.3	11902.1	13657.0	15571.6	15716.1
40°	12855.3	11468.6	11166.3	11973.4	12801.7	14274.4	16528.2	16875.2
42.5°	13503.1	12567.7	12207.4	13025.3	13790.2	14882.9	17346.1	17861.3
45°	14244.9	13761.2	13590.6	14475.4	14740.4	15463.0	17950.3	18590.3
47.5°	15109.1	15115.4	15389.7	15743.7	15698.4	16118.7	18557.8	19241.1
50°	16117.2	16805.4	17411.5	17646.5	16685.5	16823.6	19400.4	20113.1
52.5°	17328.4	18827.2	19577.3	19423.0	17749.2	17683.8	20734.9	21314.5
55°	18843.4	20967.5	21712.7	21602.1	18971.7	18856.2	22397.9	22735.6
57.5°	20596.8	23040.8	23726.1	23229.1	20439.5	20142.6	23773.3	23844.5
60°	22137.9	24684.1	25284.8	24734.3	21920.6	21511.1	24632.0	24286.0
62.5°	22995.1	25241.1	25663.3	25070.5	22935.2	22969.1	24820.3	24047.6
65°	22612.2	23833.2	23969.4	23920.7	22673.7	23815.1	24143.4	22945.0
67.5°	20514.2	20273.9	20502.9	20819.5	20433.1	22701.2	22267.6	20543.2
70°	16818.7	15498.4	15955.0	16167.4	16342.9	19535.0	19327.1	16732.7
72.5°	12674.9	10858.0	11218.4	11174.6	11986.2	15668.9	15030.9	12303.2
75°	8980.8	7362.1	7407.3	7389.6	8363.9	12259.0	10884.1	8417.5
77.5°	6283.6	5333.9	5358.5	5458.8	5622.9	9245.7	7776.0	6148.9
80°	4320.8	4048.0	4182.7	4191.0	3897.1	6210.8	5744.9	4934.8
82.5°	3218.2	2813.7	2781.2	2828.4	3054.1	5032.1	4414.7	3422.7
85°	2635.2	1665.9	1339.5	1679.2	2706.5	4983.4	2932.6	1805.5
87.5°	1484.0	790.9	357.4	662.6	1080.0	3299.3	847.4	230.5
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)