

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: P299029

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

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P299029
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-7027-600
Description: GALLEONAIRE AREA AND ROADWAY LUMINAIRE
(10) 70 CRI, 2700K CCT 600mA LIGHTSQUARE WITH 16 LEDS EACH AND 90° Spill
Light Eliminator Left 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

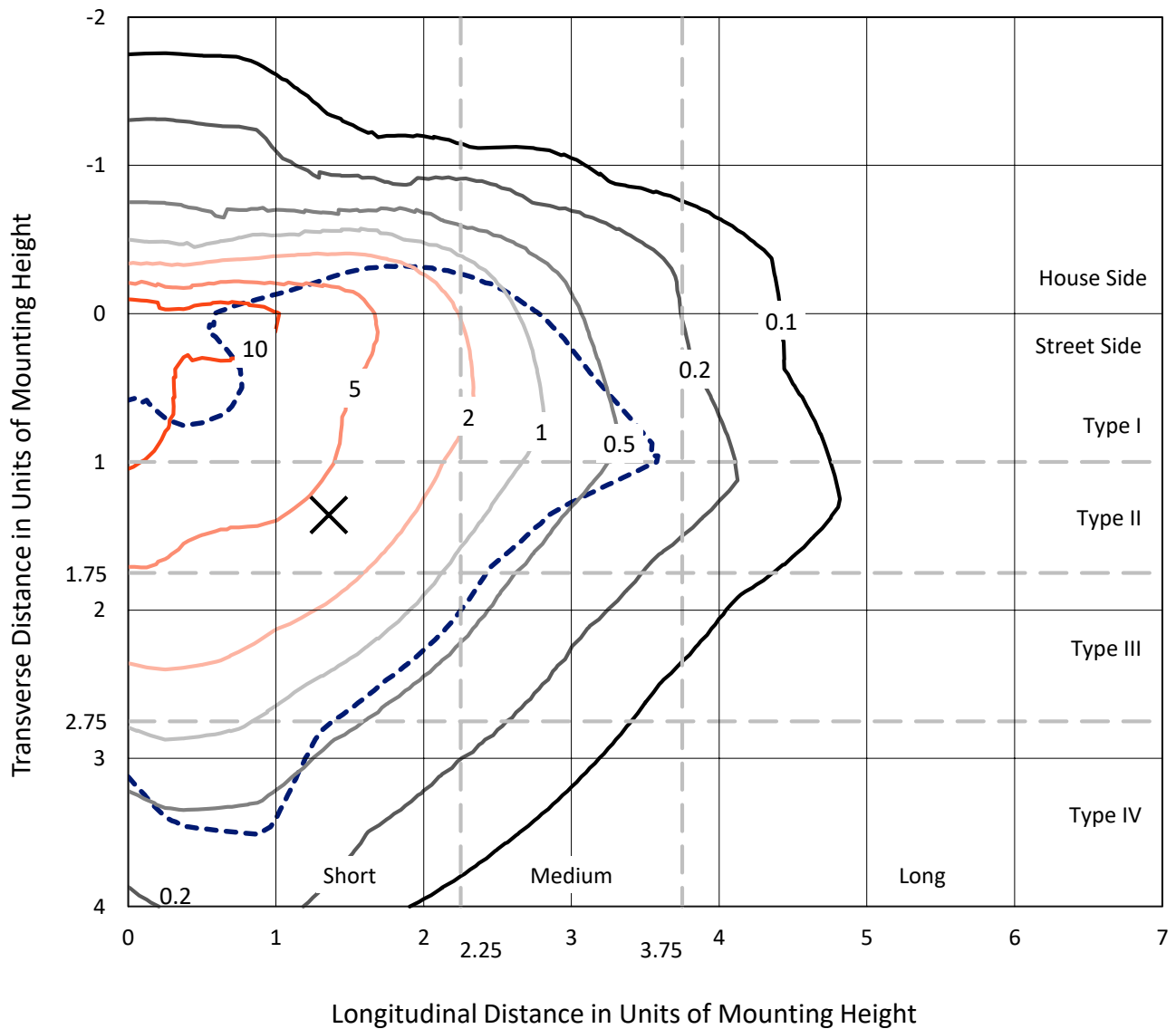


REPORT NUMBER: P299029

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

Iso-Footcandle Lines of Horizontal Illumination

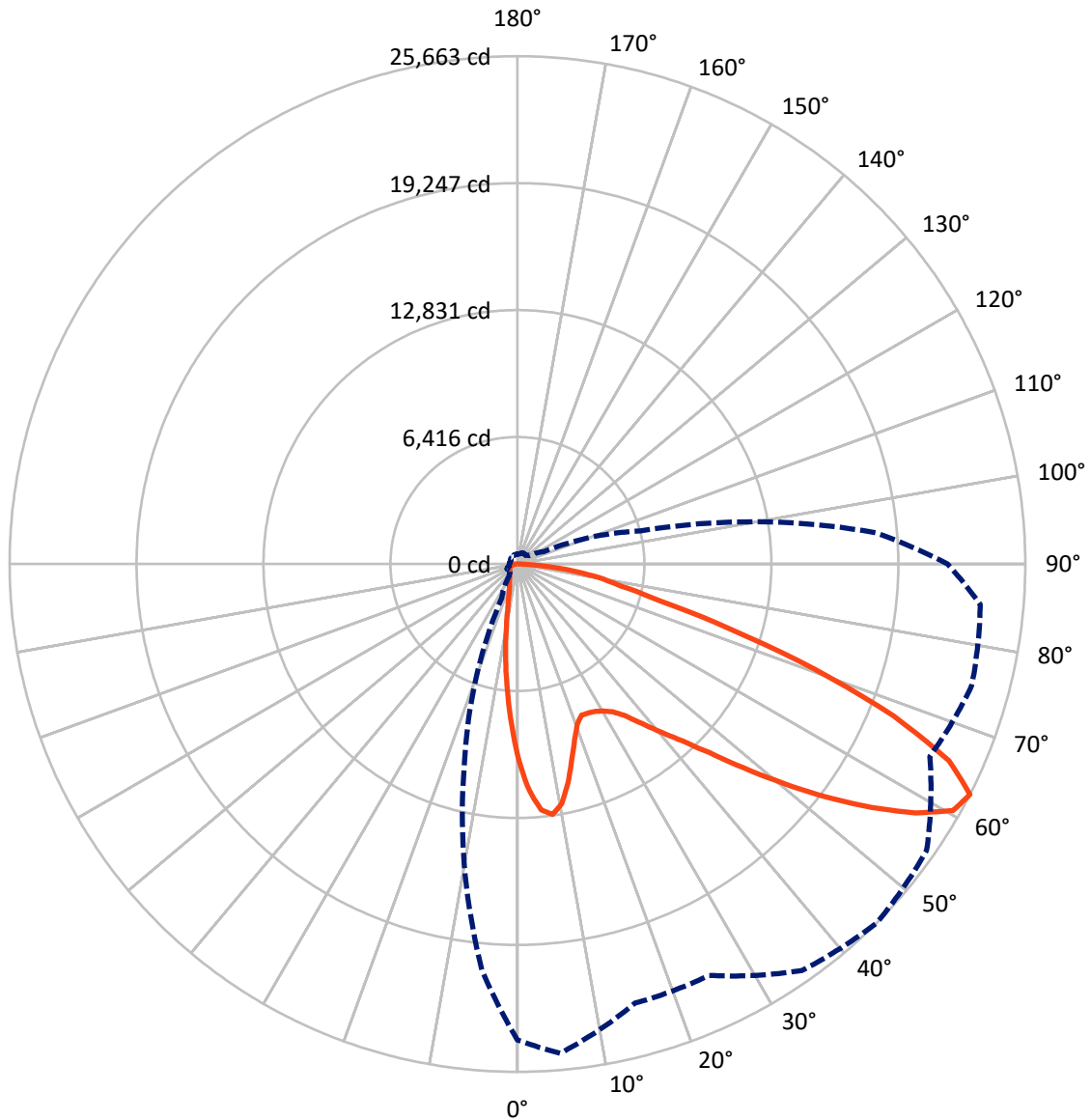
× Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 18.8 fc
 Type IV - Short - Non-Cutoff

REPORT NUMBER: P299029
CATALOG NUMBER: GLNA-AF-10-LED-E1-SLL-7027-600

Luminous Intensity Polar Plot



— Vertical Plane Through 45-Deg Lateral - - - Horizontal Cone Through 62.5-Deg Vertical

REPORT NUMBER: P299029

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

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

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	726.5	2.5
10°-20°	1332.1	4.5
20°-30°	1942.3	6.6
30°-40°	2991.4	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

Coefficient of Utilization



REPORT NUMBER: P299029

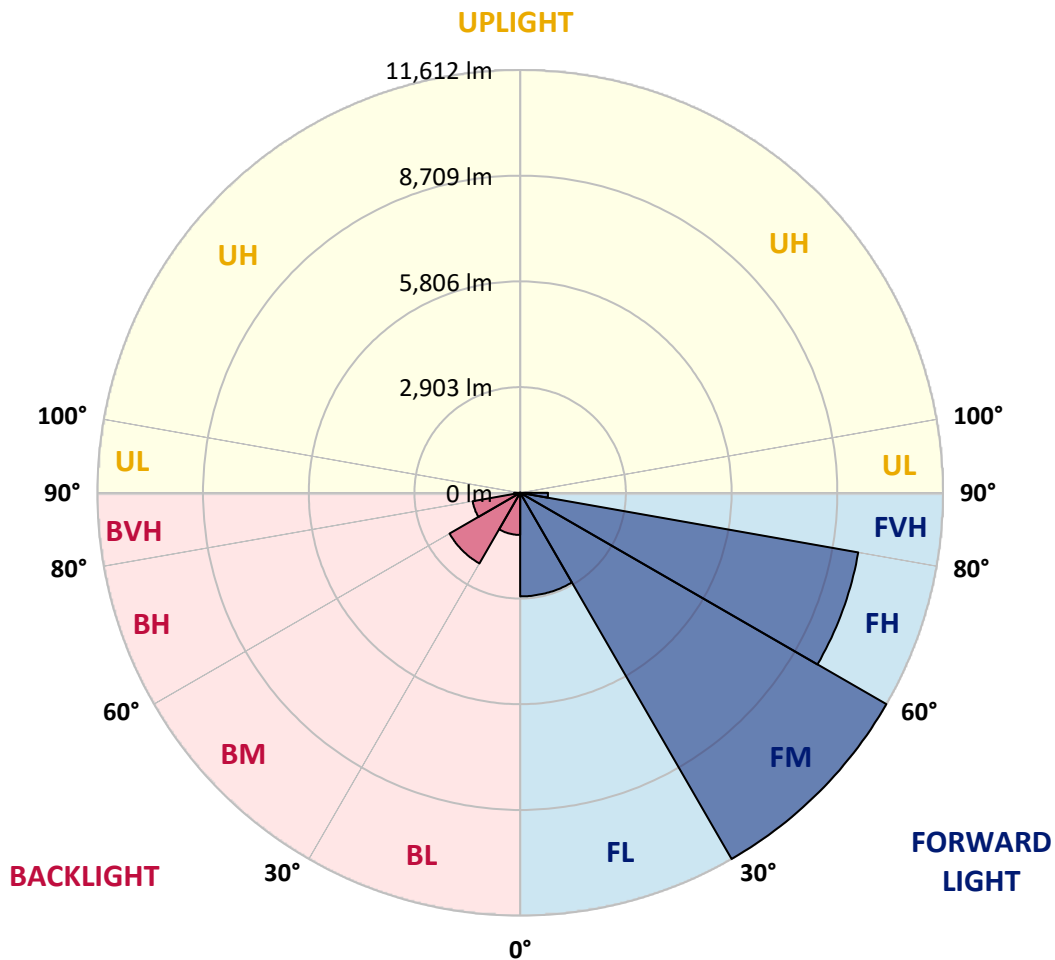
CATALOG NUMBER: GLNA-AF-10-LED-E1-SLL-7027-600

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°)	1325.1	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





REPORT NUMBER: P299029

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

CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	75°	85°	90°
0°	9979.8	9979.8	9979.8	9979.8	9979.8	9979.8	9979.8	9979.8	9979.8	9979.8	9979.8
2.5°	10368.8	10534.8	10858.0	11099.4	11394.0	11462.0	11556.4	11463.6	11299.7	11082.0	11010.8
5°	9750.5	10104.7	10888.5	11579.0	12192.6	12478.3	12558.4	12322.3	11846.8	11221.7	10840.0
7.5°	8758.5	9261.9	10323.5	11340.3	12244.3	12778.7	12765.6	12218.4	11343.4	10325.0	9713.1
10°	7902.4	8477.5	9695.7	10832.1	11791.5	12309.6	12109.3	11410.4	10365.6	9193.3	8529.7
12.5°	7423.8	7987.3	9222.9	10364.0	11166.3	11345.0	11192.1	10506.9	9522.8	8337.8	7756.4
15°	7340.5	7959.9	9034.7	9963.4	10413.1	10257.6	10075.2	9768.4	9073.2	8061.6	7456.0
17.5°	7700.0	8381.6	9250.8	9684.1	9607.6	9336.2	9284.5	9318.8	9151.7	8368.4	7670.5
20°	8388.4	9206.5	9765.3	9552.8	8995.7	8621.9	8635.1	9156.4	9651.4	9146.4	8348.9
22.5°	9354.1	10288.1	10506.9	9622.4	8737.4	8294.1	8401.6	9246.0	10448.9	10283.4	9265.0
25°	10604.4	11455.7	11298.1	9875.4	8763.2	8334.7	8420.6	9554.4	11390.3	11419.9	10398.8
27.5°	11815.7	12605.3	11961.7	10211.7	8870.7	8430.6	8544.5	10039.3	12290.1	12653.8	11694.5
30°	12760.8	13310.1	12224.8	10518.5	9081.6	8617.2	8758.5	10500.6	12699.7	13486.7	12691.2
32.5°	13543.6	13937.9	12643.8	10898.5	9469.5	8910.8	9159.6	11060.9	13289.0	14279.4	13666.9
35°	14543.5	14655.8	13165.1	11322.3	10068.9	9422.6	9731.0	11609.6	13850.9	15079.6	14628.4
37.5°	15716.3	15571.9	13656.9	11902.2	10843.7	10222.8	10477.9	12212.1	14313.2	15987.3	15610.4
40°	16875.4	16527.6	14274.7	12801.4	11973.8	11166.3	11468.3	12855.2	14745.4	16896.5	16570.3
42.5°	17861.1	17346.2	14883.0	13790.3	13025.4	12207.4	12567.9	13503.0	15157.6	17672.4	17403.1
45°	18590.1	17950.2	15462.8	14740.1	14475.5	13590.5	13761.3	14244.6	15604.1	18320.8	18088.3
47.5°	19241.1	18557.5	16118.5	15698.4	15743.7	15389.5	15114.9	15108.6	16130.6	18850.0	18736.1
50°	20113.0	19400.3	16823.3	16685.2	17646.6	17411.0	16805.3	16116.9	16795.9	19450.9	19437.7
52.5°	21314.8	20735.5	17684.0	17748.9	19423.5	19577.4	18826.8	17328.8	17838.0	20553.1	20475.6
55°	22735.9	22397.5	18856.9	18971.8	21602.0	21712.7	20966.9	18843.2	19371.3	22149.7	21933.6
57.5°	23844.4	23773.2	20142.5	20439.8	23229.2	23726.3	23041.1	20597.4	21098.7	23493.8	22951.5
60°	24286.1	24631.9	21511.4	21920.4	24734.7	25284.4	24684.1	22137.6	22629.9	24051.0	22881.9
62.5°	24047.8	24820.1	22969.4	22935.1	25070.4	25662.9	25240.7	22995.2	23765.3	23475.9	21724.3
65°	22945.1	24143.2	23815.4	22673.7	23920.8	23969.3	23832.8	22612.0	24033.1	21659.0	19486.2
67.5°	20543.1	22267.8	22701.1	20433.4	20819.3	20503.0	20273.7	20514.1	22636.2	18935.9	16376.8
70°	16732.6	19327.6	19534.7	16343.1	16167.5	15954.6	15498.6	16818.5	19881.0	15519.7	12994.9
72.5°	12303.3	15031.1	15668.9	11986.5	11174.7	11218.0	10858.0	12674.4	16164.4	11528.4	9702.0
75°	8417.4	10883.8	12259.5	8363.7	7390.1	7407.5	7361.6	8980.9	12874.7	8019.5	7259.9
77.5°	6149.3	7775.9	9246.0	5622.7	5458.8	5358.1	5333.8	6283.7	9870.7	5823.0	5637.4
80°	4934.3	5745.0	6210.4	3896.9	4190.5	4182.6	4047.7	4320.7	6446.0	4259.1	4216.4
82.5°	3423.1	4415.1	5031.8	3054.1	2828.5	2781.0	2814.2	3218.0	4556.3	2911.2	2768.4
85°	1805.9	2932.3	4983.3	2706.7	1678.8	1339.4	1666.2	2635.0	3947.5	1542.9	1350.5
87.5°	230.9	847.6	3299.2	1080.0	662.6	356.9	791.2	1483.8	2534.9	314.7	274.6
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: P299029

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

CANDELA DISTRIBUTION (continued):

	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°	185°
0°	9979.8	9979.8	9979.8	9979.8	9979.8	9979.8	9979.8	9979.8	9979.8	9979.8	9979.8
2.5°	10827.4	10611.3	10328.7	10066.8	9795.8	9525.9	9173.8	8953.0	8800.6	8771.1	8706.8
5°	10564.4	9846.4	9304.0	8834.9	8409.5	7808.1	7475.5	7199.3	7051.7	7037.5	7001.6
7.5°	9350.9	8360.5	7628.3	6964.2	6361.7	5876.2	5340.2	5090.8	4988.0	5012.3	5036.5
10°	8089.0	6982.1	6140.8	5461.9	4931.1	4522.1	4092.0	3801.5	3599.6	3559.1	3551.1
12.5°	7167.1	5952.7	5136.2	4656.5	4246.4	3861.1	3405.1	3062.0	2801.1	2711.5	2651.9
15°	6777.1	5449.3	4593.8	4077.2	3623.9	3135.3	2711.5	2352.5	2112.7	2034.6	1990.9
17.5°	6860.3	5309.6	4220.0	3559.1	2979.8	2469.5	1935.6	1628.2	1483.8	1446.9	1446.9
20°	7295.7	5283.8	3911.2	3082.0	2358.8	1767.9	1329.9	1154.4	1107.5	1102.7	1115.4
22.5°	7906.1	5374.9	3681.3	2668.2	1833.3	1290.9	1035.8	970.9	949.9	955.1	969.4
25°	8815.4	5681.7	3514.2	2299.3	1438.5	1056.9	923.5	885.0	875.0	888.2	906.1
27.5°	9893.3	5988.5	3409.9	2021.5	1214.5	966.2	878.2	838.1	844.4	860.8	876.6
30°	10840.0	6240.5	3245.9	1823.8	1144.9	970.9	878.2	823.3	817.0	820.2	824.9
32.5°	11689.7	6410.7	3054.1	1635.1	987.3	862.4	820.2	812.3	775.9	762.7	764.8
35°	12421.9	6410.7	2939.2	1524.9	885.0	764.8	696.8	656.3	637.8	639.4	657.8
37.5°	13128.2	6282.1	2882.2	1462.7	829.7	727.4	667.3	631.5	607.2	602.5	605.7
40°	13751.3	6095.5	2817.4	1436.9	787.5	704.7	648.3	618.3	592.5	584.6	586.1
42.5°	14251.5	5944.2	2745.7	1403.2	761.1	688.4	634.6	608.8	579.8	571.4	569.8
45°	14792.3	5894.2	2651.9	1334.6	774.3	690.0	631.5	604.1	574.6	565.1	561.9
47.5°	15505.0	6051.8	2554.4	1253.5	802.3	698.4	636.2	604.1	573.0	565.1	561.9
50°	16402.6	6421.8	2430.5	1134.9	774.3	721.1	634.6	598.8	573.0	565.1	558.7
52.5°	17555.9	6922.0	2268.7	998.9	758.0	775.9	631.5	589.3	565.1	554.0	542.4
55°	18957.0	7331.1	2074.7	886.6	721.1	761.1	626.7	578.2	552.4	536.1	526.1
57.5°	19983.3	7478.6	1827.0	813.9	668.9	736.9	619.9	563.5	536.1	522.9	510.2
60°	19780.4	7193.0	1617.2	768.0	637.8	665.7	615.1	550.3	521.3	511.8	499.7
62.5°	18155.3	6446.0	1482.2	746.9	618.3	607.2	619.9	537.7	508.7	498.1	495.0
65°	15717.9	5343.3	1429.0	742.2	602.5	573.0	576.7	522.9	493.4	485.5	482.3
67.5°	12965.3	4312.8	1382.1	758.0	581.4	548.7	532.9	503.4	478.6	470.7	464.4
70°	10224.4	3587.0	1360.5	748.5	555.6	524.5	507.1	482.3	461.2	452.8	448.0
72.5°	8233.5	3029.8	1348.9	738.5	521.3	491.8	475.5	454.4	431.7	428.5	423.8
75°	6967.9	2382.0	1236.1	707.9	482.3	452.8	441.7	422.2	399.5	399.5	396.4
77.5°	5374.9	1722.6	1027.9	626.7	441.7	409.0	399.5	384.8	359.0	363.7	362.1
80°	3970.2	1123.8	803.8	519.7	391.6	360.5	355.3	341.0	313.1	320.0	320.0
82.5°	2719.9	736.9	578.2	425.4	334.2	305.2	305.2	290.4	259.9	263.0	273.0
85°	1365.7	507.1	431.7	329.4	259.9	245.1	245.1	234.0	202.9	204.5	217.7
87.5°	415.9	305.2	285.7	235.6	186.6	183.4	175.0	167.1	147.6	146.0	154.4
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: P299029

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

CANDELA DISTRIBUTION (continued):

	195°	205°	215°	225°	235°	245°	255°	265°	270°	275°	285°
0°	9979.8	9979.8	9979.8	9979.8	9979.8	9979.8	9979.8	9979.8	9979.8	9979.8	9979.8
2.5°	8607.2	8514.4	8403.2	8156.0	8073.2	8068.0	8143.3	8064.8	8214.5	8151.2	8220.8
5°	6941.0	6850.9	6725.4	6410.7	6218.9	6088.7	6027.5	5845.7	5976.9	5881.0	5961.1
7.5°	5105.1	5126.2	5043.4	4858.4	4440.9	4231.6	4108.3	3997.6	4093.5	4083.5	4236.4
10°	3588.6	3645.0	3587.0	3400.4	3062.0	2947.1	2969.7	3013.5	3138.9	3203.3	3438.9
12.5°	2583.4	2580.2	2542.8	2375.7	2153.2	2165.9	2258.7	2334.6	2450.0	2518.5	2758.4
15°	1928.7	1899.7	1883.4	1746.8	1620.3	1648.3	1693.6	1701.5	1774.8	1815.4	2010.4
17.5°	1458.0	1472.7	1490.1	1393.2	1297.2	1279.3	1244.0	1199.7	1221.3	1229.2	1326.2
20°	1157.5	1216.0	1260.3	1191.8	1094.8	1042.1	996.8	967.8	967.8	966.2	993.6
22.5°	1011.5	1053.7	1101.1	1053.7	966.2	920.3	894.5	871.8	868.7	868.7	894.5
25°	932.5	963.0	1008.4	976.2	910.8	876.6	852.3	823.3	812.3	808.6	826.5
27.5°	892.9	906.1	928.8	899.3	844.4	828.1	821.8	795.9	780.7	772.7	791.2
30°	826.5	823.3	824.9	795.9	751.7	750.1	761.1	766.4	761.1	759.6	787.5
32.5°	764.8	758.0	756.4	730.6	690.0	680.5	690.0	700.0	711.1	727.4	759.6
35°	686.8	703.2	712.7	690.0	641.0	612.0	600.9	583.0	573.0	573.0	610.4
37.5°	625.2	662.6	677.3	656.3	602.5	561.9	542.4	539.2	540.8	547.1	583.0
40°	604.1	631.5	644.1	623.6	569.8	532.9	521.3	518.1	521.3	531.3	566.6
42.5°	590.9	610.4	608.8	583.0	539.2	513.4	507.1	503.4	507.1	516.6	555.6
45°	579.8	592.5	579.8	548.7	508.7	495.0	496.5	495.0	498.1	508.7	545.6
47.5°	569.8	574.6	558.7	527.6	485.5	482.3	488.6	493.4	496.5	505.5	544.0
50°	555.6	555.6	540.8	508.7	466.0	467.5	475.5	487.1	488.6	498.1	529.7
52.5°	537.7	536.1	526.1	495.0	449.6	454.4	454.4	467.5	470.7	482.3	515.0
55°	522.9	519.7	515.0	485.5	435.4	443.3	438.6	443.3	451.2	462.8	498.1
57.5°	510.2	503.4	503.4	477.0	423.8	427.0	415.9	422.2	431.7	441.7	478.6
60°	496.5	490.2	493.4	466.0	405.9	402.7	398.0	410.6	414.3	425.4	462.8
62.5°	482.3	477.0	478.6	452.8	393.2	384.8	384.8	396.4	398.0	414.3	449.6
65°	470.7	464.4	462.8	440.1	378.5	369.0	373.7	378.5	381.6	398.0	431.7
67.5°	459.6	446.5	446.5	428.5	362.1	352.1	362.1	360.5	365.8	380.0	407.5
70°	444.9	427.0	428.5	420.6	345.8	334.2	342.6	341.0	344.2	353.7	381.6
72.5°	422.2	407.5	410.6	407.5	329.4	313.1	316.3	316.3	316.3	324.7	353.7
75°	393.2	381.6	391.6	399.5	309.9	287.3	290.4	290.4	285.7	290.4	326.3
77.5°	356.9	350.5	383.2	372.1	287.3	259.9	259.9	256.7	247.2	253.5	292.0
80°	318.4	313.1	353.7	311.5	261.4	226.1	222.4	214.0	204.5	209.3	248.8
82.5°	277.8	273.0	297.3	238.8	226.1	186.6	178.7	163.9	154.4	159.2	194.5
85°	227.7	227.7	229.3	180.3	171.8	142.8	133.4	113.9	102.3	105.4	139.7
87.5°	162.4	167.1	154.4	123.3	102.3	79.6	73.3	61.7	51.7	60.1	73.3
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: P299029

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

CANDELA DISTRIBUTION (continued):

	295°	305°	315°	325°	335°	345°	355°	360°
0°	9979.8	9979.8	9979.8	9979.8	9979.8	9979.8	9979.8	9979.8
2.5°	8578.2	8756.9	8959.8	9219.2	9442.1	9806.9	10157.9	10368.8
5°	6413.9	6711.2	7080.7	7557.2	8000.5	8665.7	9326.7	9750.5
7.5°	4590.1	4908.5	5308.0	5902.1	6529.3	7378.0	8251.9	8758.5
10°	3798.4	4124.6	4460.4	4861.5	5374.9	6298.4	7331.1	7902.4
12.5°	3142.1	3491.1	3853.2	4275.4	4750.8	5575.8	6766.0	7423.8
15°	2404.7	2794.2	3221.2	3755.7	4351.3	5304.8	6626.3	7340.5
17.5°	1648.3	2083.7	2607.6	3267.0	3996.0	5216.8	6876.7	7700.0
20°	1134.9	1451.7	2012.0	2784.7	3661.8	5205.7	7356.9	8388.4
22.5°	949.9	1091.1	1500.2	2341.4	3409.9	5345.4	8102.7	9354.1
25°	878.2	963.0	1198.1	1956.6	3226.4	5667.0	9129.0	10604.4
27.5°	836.5	912.4	1088.0	1705.2	3082.0	6040.2	10127.4	11815.7
30°	852.3	930.4	1056.9	1576.6	2885.4	6351.7	11014.0	12760.8
32.5°	768.0	802.3	906.1	1462.7	2744.1	6613.1	11789.9	13543.6
35°	654.7	714.2	808.6	1409.5	2747.3	6788.7	12635.9	14543.5
37.5°	623.6	683.7	751.7	1390.0	2784.7	6975.8	13606.8	15716.3
40°	604.1	659.4	717.9	1378.9	2820.6	7146.0	14558.8	16875.4
42.5°	590.9	641.0	714.2	1339.4	2838.5	7298.9	15341.0	17861.1
45°	589.3	641.0	727.4	1300.4	2865.9	7462.8	15997.3	18590.1
47.5°	590.9	662.6	703.2	1253.5	2865.9	7736.9	16766.9	19241.1
50°	584.6	698.4	677.3	1187.1	2799.5	8256.7	17822.1	20113.0
52.5°	581.4	693.7	626.7	1084.8	2684.0	9081.6	19174.7	21314.8
55°	573.0	668.9	590.9	932.5	2549.6	9981.4	20623.2	22735.9
57.5°	565.1	592.5	571.4	799.1	2341.4	10614.4	21620.0	23844.4
60°	633.1	518.1	555.6	733.7	2063.6	10787.8	21581.5	24286.1
62.5°	586.1	485.5	534.5	719.5	1869.1	10300.8	20584.2	24047.8
65°	459.6	464.4	513.4	761.1	1817.0	9010.4	18817.3	22945.1
67.5°	420.6	443.3	491.8	815.4	1822.2	7214.0	16177.6	20543.1
70°	396.4	420.6	467.5	842.8	1834.9	5378.1	12789.8	16732.6
72.5°	369.0	390.1	440.1	847.6	1750.0	3906.4	9858.0	12303.3
75°	335.8	355.3	401.1	738.5	1450.1	2709.9	7540.8	8417.4
77.5°	298.9	313.1	352.1	569.8	1076.9	1734.2	5660.1	6149.3
80°	255.1	263.0	295.7	417.5	736.9	1084.8	4478.3	4934.3
82.5°	204.5	207.7	229.3	313.1	478.6	696.8	2999.3	3423.1
85°	144.4	144.4	157.6	227.7	326.3	441.7	1628.2	1805.9
87.5°	68.0	69.6	69.6	124.9	170.3	224.5	375.3	230.9
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)