

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: P298969

Luminaire Tested: **GLNA-AF-10-LED-E1-SLL-7027-800**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P298969
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-7027-800
Description: GALLEONAIRE AREA AND ROADWAY LUMINAIRE
(10) 70 CRI, 2700K CCT 800mA LIGHTSQUARE WITH 16 LEDS EACH AND 90° Spill
Light Eliminator Left OPTICS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 36223.9 lumens
Efficiency: N/A
Efficacy: 86.5 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): 419
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

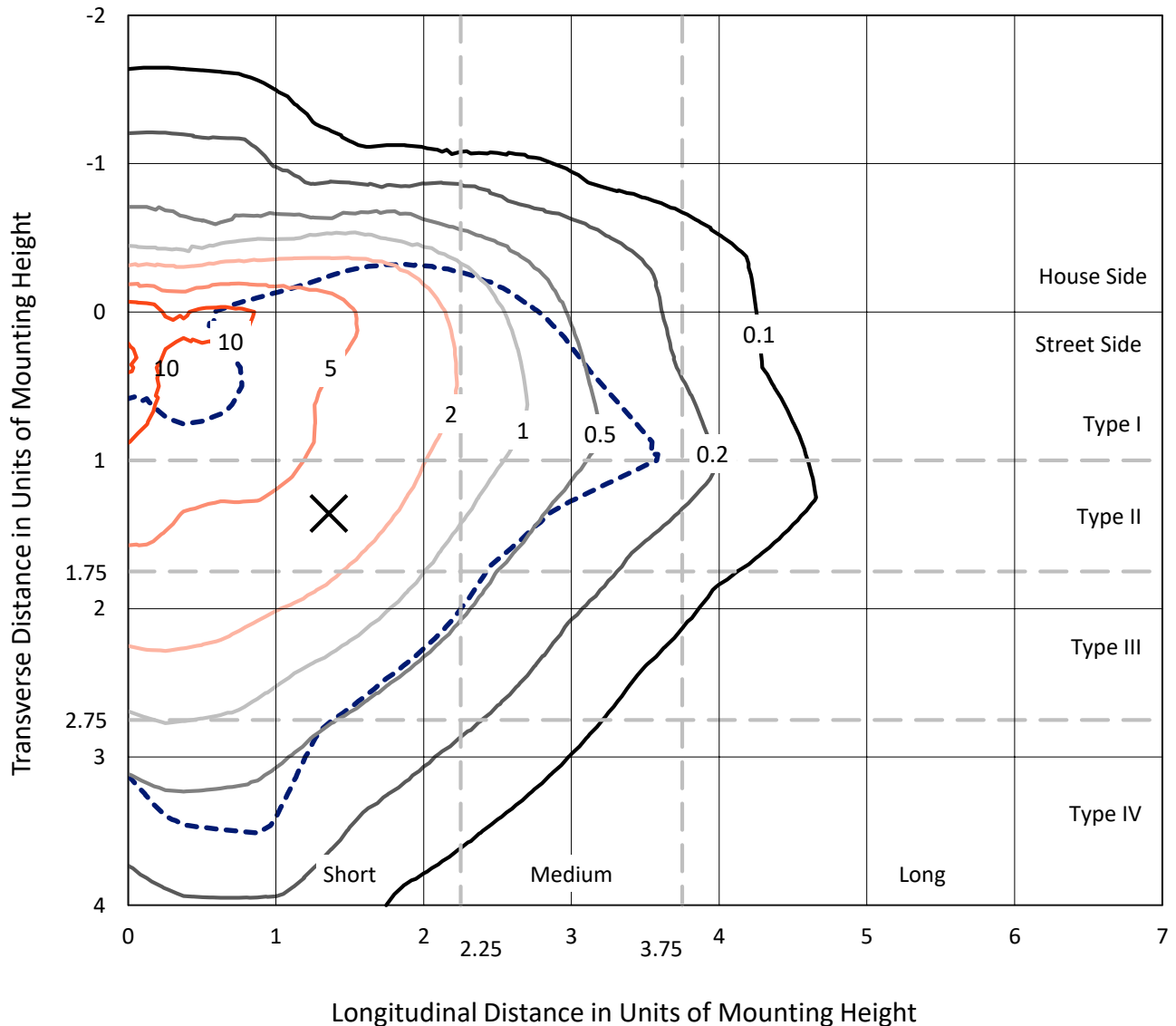


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Iso-Footcandle Lines of Horizontal Illumination

× Max cd
 - - - 1/2 Max cd

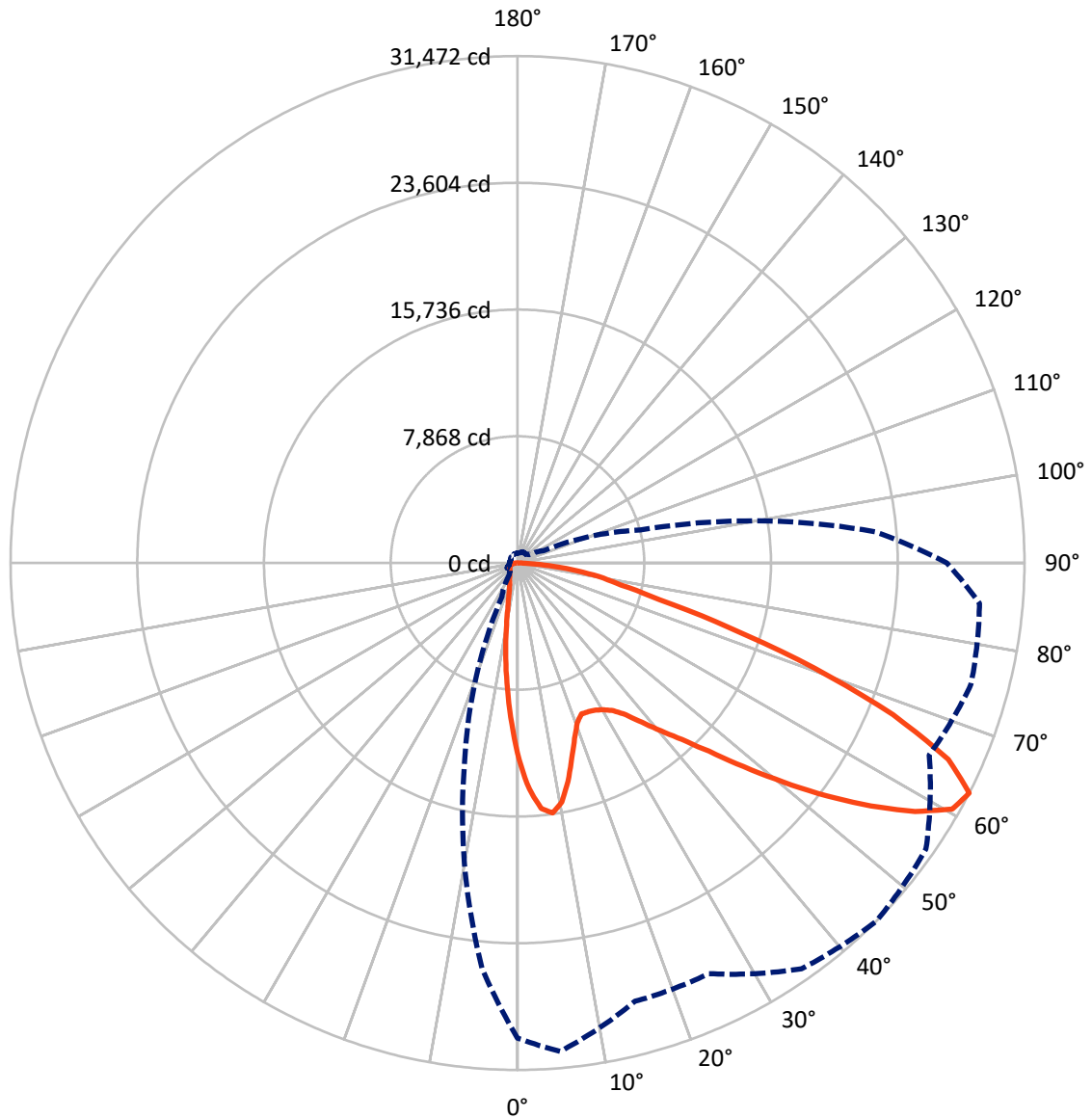


Based on 30 foot mounting height. Maximum calculated value = 16 fc
 Type IV - Short - Non-Cutoff

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Luminous Intensity Polar Plot



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

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FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	5994.5	0.0	5994.5
	% Fixture	16.5	0.0	16.5
Street Side	Lumens	30229.4	0.0	30229.4
	% Fixture	83.5	0.0	83.5
Total	Lumens	36223.9	0.0	36223.9
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	890.9	2.5
10°-20°	1633.7	4.5
20°-30°	2381.9	6.6
30°-40°	3668.5	10.1
40°-50°	5399.0	14.9
50°-60°	7919.2	21.9
60°-70°	8852.5	24.4
70°-80°	4334.0	12.0
80°-90°	1144.3	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°	36223.9	100.0
0°-180°	36223.9	100.0

Coefficient of Utilization



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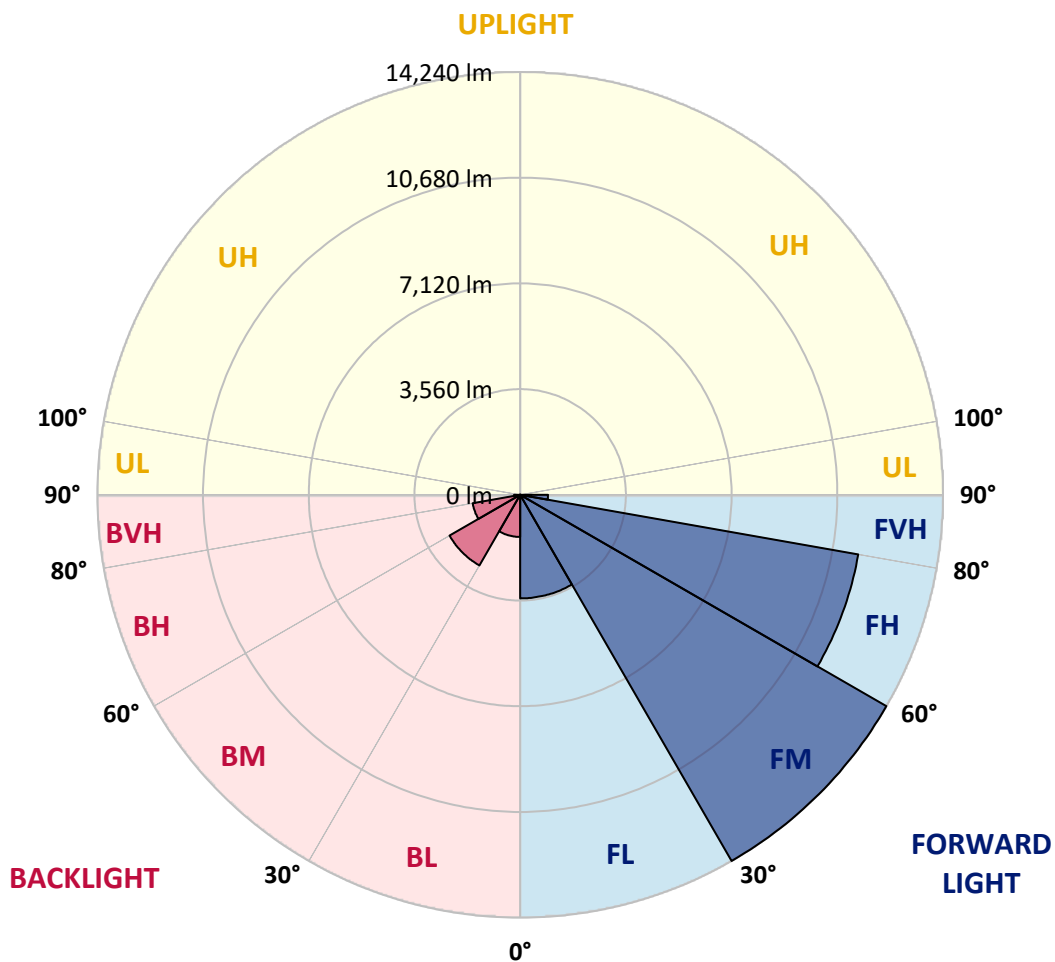
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	3488.3	9.6			
FM	(30°-60°)	14240.0	39.3			
FH	(60°-80°)	11561.4	31.9			G4/12000
FVH	(80°-90°)	939.7	2.6			G5
BL	(0°-30°)	1418.2	3.9	B3/2500		
BM	(30°-60°)	2746.7	7.6	B3/5000		
BH	(60°-80°)	1625.1	4.5	B3/2500		G3/2500
BVH	(80°-90°)	204.6	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°	12238.8	12238.8	12238.8	12238.8	12238.8	12238.8	12238.8	12238.8	12238.8	12238.8	12238.8
2.5°	12715.9	12919.5	13315.7	13611.8	13973.2	14056.6	14172.3	14058.5	13857.5	13590.5	13503.2
5°	11957.6	12392.0	13353.2	14200.1	14952.5	15302.9	15401.1	15111.5	14528.4	13761.8	13293.8
7.5°	10741.0	11358.4	12660.3	13907.2	15015.8	15671.3	15655.2	14984.2	13911.1	12662.2	11911.7
10°	9691.2	10396.5	11890.4	13284.1	14460.6	15096.0	14850.4	13993.2	12712.0	11274.3	10460.5
12.5°	9104.3	9795.3	11310.5	12710.0	13693.9	13913.0	13725.6	12885.2	11678.3	10225.2	9512.2
15°	9002.1	9761.7	11079.8	12218.8	12770.2	12579.5	12355.8	11979.6	11126.9	9886.5	9143.7
17.5°	9443.0	10278.8	11344.8	11876.2	11782.4	11449.5	11386.2	11428.2	11223.3	10262.7	9406.8
20°	10287.2	11290.5	11975.7	11715.2	11031.9	10573.6	10589.8	11229.1	11836.1	11216.8	10238.8
22.5°	11471.5	12617.0	12885.2	11800.5	10715.2	10171.5	10303.4	11339.0	12814.1	12611.1	11362.2
25°	13004.8	14048.8	13855.5	12110.8	10746.8	10221.3	10326.7	11717.1	13968.6	14004.8	12752.7
27.5°	14490.3	15458.7	14669.4	12523.2	10878.7	10339.0	10478.6	12311.8	15072.1	15518.1	14341.6
30°	15649.3	16322.9	14991.9	12899.4	11137.3	10567.8	10741.0	12877.5	15574.4	16539.5	15564.0
32.5°	16609.3	17092.8	15505.8	13365.5	11613.1	10927.8	11233.0	13564.6	16297.1	17511.7	16760.6
35°	17835.6	17973.3	16145.2	13885.2	12348.0	11555.5	11933.7	14237.6	16986.2	18493.0	17939.6
37.5°	19273.9	19096.7	16748.3	14596.3	13298.3	12536.8	12849.7	14976.4	17553.1	19606.1	19143.9
40°	20695.4	20268.7	17505.9	15699.1	14684.2	13693.9	14064.3	15765.1	18083.1	20721.2	20321.1
42.5°	21904.2	21272.6	18251.9	16911.8	15973.9	14970.6	15412.8	16559.5	18588.6	21672.8	21342.4
45°	22798.2	22013.4	18962.9	18076.7	17752.2	16666.8	16876.3	17469.0	19136.2	22467.9	22182.8
47.5°	23596.5	22758.1	19767.1	19251.9	19307.5	18873.1	18536.3	18528.5	19782.0	23116.9	22977.2
50°	24665.7	23791.7	20631.4	20462.0	21641.1	21352.1	20609.4	19765.1	20597.7	23853.8	23837.6
52.5°	26139.6	25429.1	21687.0	21766.5	23820.2	24008.9	23088.4	21251.3	21875.7	25205.5	25110.5
55°	27882.3	27467.3	23125.3	23266.2	26491.9	26627.6	25712.9	23108.5	23756.2	27163.5	26898.5
57.5°	29241.8	29154.5	24701.9	25066.5	28487.4	29097.0	28256.6	25259.8	25874.5	28811.9	28146.7
60°	29783.5	30207.5	26380.7	26882.3	30333.6	31007.8	30271.5	27148.6	27752.4	29495.2	28061.4
62.5°	29491.3	30438.3	28168.7	28126.7	30745.4	31471.9	30954.1	28200.4	29144.8	28789.9	26641.8
65°	28139.0	29608.3	29206.2	27806.0	29335.5	29395.0	29227.5	27730.4	29473.2	26561.7	23897.1
67.5°	25193.2	27308.3	27839.7	25058.7	25531.9	25144.1	24862.9	25157.6	27760.2	23222.2	20083.8
70°	20520.2	23702.5	23956.6	20042.5	19827.2	19566.0	19006.9	20625.5	24381.3	19032.7	15936.4
72.5°	15088.2	18433.5	19215.7	14699.7	13704.2	13757.3	13315.7	15543.3	19823.3	14138.0	11898.1
75°	10322.8	13347.4	15034.6	10256.9	9062.9	9084.2	9028.0	11013.8	15789.0	9834.7	8903.2
77.5°	7541.2	9536.1	11339.0	6895.4	6694.4	6570.9	6541.2	7706.1	12105.0	7141.1	6913.5
80°	6051.2	7045.4	7616.2	4779.0	5139.1	5129.4	4963.9	5298.8	7905.2	5223.1	5170.8
82.5°	4197.9	5414.5	6170.8	3745.4	3468.7	3410.5	3451.3	3946.4	5587.7	3570.2	3395.0
85°	2214.7	3596.1	6111.3	3319.4	2058.9	1642.6	2043.4	3231.5	4841.1	1892.1	1656.1
87.5°	283.1	1039.5	4046.0	1324.5	812.6	437.6	970.3	1819.7	3108.7	385.9	336.8
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°	12238.8	12238.8	12238.8	12238.8	12238.8	12238.8	12238.8	12238.8	12238.8	12238.8	12238.8
2.5°	13278.3	13013.2	12666.7	12345.5	12013.2	11682.2	11250.4	10979.6	10792.7	10756.5	10677.7
5°	12955.7	12075.3	11410.1	10834.8	10313.1	9575.5	9167.6	8828.9	8647.9	8630.4	8586.5
7.5°	11467.6	10253.0	9355.1	8540.6	7801.7	7206.4	6549.0	6243.2	6117.1	6146.9	6176.6
10°	9920.1	8562.6	7530.9	6698.3	6047.3	5545.7	5018.2	4662.0	4414.4	4364.7	4355.0
12.5°	8789.5	7300.1	6298.8	5710.5	5207.6	4735.1	4175.9	3755.1	3435.1	3325.2	3252.2
15°	8311.1	6682.8	5633.6	5000.1	4444.2	3844.9	3325.2	2885.0	2590.9	2495.2	2441.6
17.5°	8413.2	6511.5	5175.3	4364.7	3654.3	3028.5	2373.7	1996.8	1819.7	1774.4	1774.4
20°	8947.2	6479.8	4796.5	3779.7	2892.8	2168.1	1630.9	1415.7	1358.1	1352.3	1367.8
22.5°	9695.8	6591.6	4514.6	3272.2	2248.3	1583.1	1270.2	1190.7	1164.9	1171.3	1188.8
25°	10810.8	6967.8	4309.7	2819.7	1764.1	1296.1	1132.5	1085.4	1073.1	1089.2	1111.2
27.5°	12132.8	7344.1	4181.7	2479.0	1489.4	1184.9	1076.9	1027.8	1035.6	1055.6	1075.0
30°	13293.8	7653.0	3980.7	2236.6	1404.0	1190.7	1076.9	1009.7	1002.0	1005.8	1011.7
32.5°	14335.8	7861.8	3745.4	2005.2	1210.8	1057.6	1005.8	996.1	951.5	935.4	938.0
35°	15233.7	7861.8	3604.5	1870.1	1085.4	938.0	854.6	804.8	782.2	784.1	806.7
37.5°	16099.9	7704.1	3534.7	1793.8	1017.5	892.1	818.4	774.4	744.7	738.9	742.7
40°	16864.0	7475.3	3455.2	1762.2	965.8	864.3	795.1	758.3	726.6	716.9	718.8
42.5°	17477.4	7289.8	3367.2	1720.8	933.4	844.2	778.3	746.6	711.1	700.7	698.8
45°	18140.7	7228.3	3252.2	1636.8	949.6	846.2	774.4	740.8	704.6	693.0	689.1
47.5°	19014.6	7421.6	3132.6	1537.2	983.9	856.5	780.2	740.8	702.7	693.0	689.1
50°	20115.5	7875.4	2980.7	1391.8	949.6	884.3	778.3	734.3	702.7	693.0	685.2
52.5°	21529.9	8488.9	2782.2	1225.0	929.6	951.5	774.4	722.7	693.0	679.4	665.2
55°	23248.1	8990.5	2544.3	1087.3	884.3	933.4	768.6	709.1	677.5	657.4	645.1
57.5°	24506.7	9171.5	2240.5	998.1	820.3	903.7	760.2	691.0	657.4	641.3	625.7
60°	24257.8	8821.1	1983.2	941.8	782.2	816.4	754.4	674.9	639.3	627.7	612.8
62.5°	22264.9	7905.2	1817.8	916.0	758.3	744.7	760.2	659.4	623.8	610.9	607.0
65°	19275.8	6552.8	1752.5	910.2	738.9	702.7	707.2	641.3	605.1	595.4	591.5
67.5°	15900.2	5289.1	1694.9	929.6	713.0	672.9	653.5	617.3	587.0	577.3	569.5
70°	12538.7	4398.9	1668.4	917.9	681.3	643.2	621.9	591.5	565.6	555.3	549.5
72.5°	10097.2	3715.7	1654.2	905.6	639.3	603.1	583.1	557.2	529.4	525.5	519.7
75°	8545.1	2921.2	1515.9	868.2	591.5	555.3	541.7	517.8	490.0	490.0	486.1
77.5°	6591.6	2112.5	1260.5	768.6	541.7	501.6	490.0	471.9	440.2	446.0	444.1
80°	4868.9	1378.2	985.8	637.4	480.3	442.2	435.7	418.2	384.0	392.4	392.4
82.5°	3335.6	903.7	709.1	521.7	409.8	374.3	374.3	356.2	318.7	322.6	334.8
85°	1674.9	621.9	529.4	404.0	318.7	300.6	300.6	287.0	248.9	250.8	267.0
87.5°	510.0	374.3	350.4	289.0	228.8	225.0	214.6	204.9	181.0	179.1	189.4
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°	12238.8	12238.8	12238.8	12238.8	12238.8	12238.8	12238.8	12238.8	12238.8	12238.8	12238.8
2.5°	10555.5	10441.7	10305.3	10002.2	9900.7	9894.2	9986.6	9890.3	10073.9	9996.3	10081.7
5°	8512.1	8401.6	8247.8	7861.8	7626.5	7466.9	7391.9	7168.9	7329.8	7212.2	7310.4
7.5°	6260.6	6286.5	6185.0	5958.1	5446.1	5189.5	5038.3	4902.5	5020.2	5007.9	5195.3
10°	4400.9	4470.0	4398.9	4170.1	3755.1	3614.2	3642.0	3695.6	3849.5	3928.3	4217.3
12.5°	3168.1	3164.3	3118.4	2913.4	2640.7	2656.2	2769.9	2863.0	3004.6	3088.6	3382.8
15°	2365.3	2329.7	2309.7	2142.3	1987.1	2021.4	2077.0	2086.7	2176.5	2226.3	2465.5
17.5°	1788.0	1806.1	1827.4	1708.5	1590.9	1568.9	1525.6	1471.3	1497.8	1507.5	1626.4
20°	1419.6	1491.3	1545.6	1461.6	1342.6	1278.0	1222.4	1186.8	1186.8	1184.9	1218.5
22.5°	1240.5	1292.2	1350.4	1292.2	1184.9	1128.7	1097.0	1069.2	1065.3	1065.3	1097.0
25°	1143.5	1181.0	1236.6	1197.2	1117.0	1075.0	1045.3	1009.7	996.1	991.6	1013.6
27.5°	1095.0	1111.2	1139.0	1102.8	1035.6	1015.5	1007.8	976.1	957.4	947.7	970.3
30°	1013.6	1009.7	1011.7	976.1	921.8	919.9	933.4	939.9	933.4	931.5	965.8
32.5°	938.0	929.6	927.6	895.9	846.2	834.5	846.2	858.5	872.0	892.1	931.5
35°	842.3	862.3	874.0	846.2	786.1	750.5	736.9	714.9	702.7	702.7	748.6
37.5°	766.7	812.6	830.7	804.8	738.9	689.1	665.2	661.3	663.2	671.0	714.9
40°	740.8	774.4	789.9	764.7	698.8	653.5	639.3	635.4	639.3	651.6	694.9
42.5°	724.6	748.6	746.6	714.9	661.3	629.6	621.9	617.3	621.9	633.5	681.3
45°	711.1	726.6	711.1	672.9	623.8	607.0	608.9	607.0	610.9	623.8	669.1
47.5°	698.8	704.6	685.2	647.1	595.4	591.5	599.2	605.1	608.9	619.9	667.1
50°	681.3	681.3	663.2	623.8	571.4	573.4	583.1	597.3	599.2	610.9	649.7
52.5°	659.4	657.4	645.1	607.0	551.4	557.2	557.2	573.4	577.3	591.5	631.6
55°	641.3	637.4	631.6	595.4	533.9	543.6	537.8	543.6	553.3	567.6	610.9
57.5°	625.7	617.3	617.3	585.0	519.7	523.6	510.0	517.8	529.4	541.7	587.0
60°	608.9	601.2	605.1	571.4	497.7	493.9	488.1	503.6	508.1	521.7	567.6
62.5°	591.5	585.0	587.0	555.3	482.2	471.9	471.9	486.1	488.1	508.1	551.4
65°	577.3	569.5	567.6	539.8	464.1	452.5	458.3	464.1	468.0	488.1	529.4
67.5°	563.7	547.5	547.5	525.5	444.1	431.8	444.1	442.2	448.6	466.1	499.7
70°	545.6	523.6	525.5	515.8	424.1	409.8	420.2	418.2	422.1	433.8	468.0
72.5°	517.8	499.7	503.6	499.7	404.0	384.0	387.9	387.9	387.9	398.2	433.8
75°	482.2	468.0	480.3	490.0	380.1	352.3	356.2	356.2	350.4	356.2	400.1
77.5°	437.6	429.9	470.0	456.4	352.3	318.7	318.7	314.8	303.2	310.9	358.1
80°	390.4	384.0	433.8	382.0	320.6	277.3	272.8	262.4	250.8	256.6	305.1
82.5°	340.7	334.8	364.6	292.8	277.3	228.8	219.1	201.0	189.4	195.2	238.5
85°	279.3	279.3	281.2	221.1	210.7	175.2	163.5	139.6	125.4	129.3	171.3
87.5°	199.1	204.9	189.4	151.3	125.4	97.6	89.9	75.6	63.3	73.7	89.9
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: P298969

CATALOG NUMBER: GLNA-AF-10-LED-E1-SLL-7027-800

CANDELA DISTRIBUTION (continued):

	295°	305°	315°	325°	335°	345°	355°	360°
0°	12238.8	12238.8	12238.8	12238.8	12238.8	12238.8	12238.8	12238.8
2.5°	10520.0	10739.1	10988.0	11306.0	11579.4	12026.8	12457.3	12715.9
5°	7865.7	8230.3	8683.5	9267.8	9811.5	10627.3	11437.9	11957.6
7.5°	5629.1	6019.5	6509.5	7238.0	8007.3	9048.0	10119.8	10741.0
10°	4658.2	5058.3	5470.1	5962.0	6591.6	7724.2	8990.5	9691.2
12.5°	3853.4	4281.3	4725.4	5243.2	5826.2	6837.9	8297.5	9104.3
15°	2949.0	3426.7	3950.3	4605.8	5336.3	6505.6	8126.2	9002.1
17.5°	2021.4	2555.3	3197.9	4006.6	4900.6	6397.7	8433.3	9443.0
20°	1391.8	1780.3	2467.4	3415.1	4490.7	6384.1	9022.2	10287.2
22.5°	1164.9	1338.1	1839.7	2871.4	4181.7	6555.4	9936.9	11471.5
25°	1076.9	1181.0	1469.3	2399.5	3956.8	6949.7	11195.5	13004.8
27.5°	1025.9	1119.0	1334.2	2091.2	3779.7	7407.4	12419.8	14490.3
30°	1045.3	1140.9	1296.1	1933.5	3538.5	7789.4	13507.1	15649.3
32.5°	941.8	983.9	1111.2	1793.8	3365.3	8110.1	14458.6	16609.3
35°	802.9	875.9	991.6	1728.5	3369.2	8325.3	15496.1	17835.6
37.5°	764.7	838.4	921.8	1704.6	3415.1	8554.8	16686.9	19273.9
40°	740.8	808.7	880.4	1691.1	3459.0	8763.6	17854.3	20695.4
42.5°	724.6	786.1	875.9	1642.6	3481.0	8951.1	18813.6	21904.2
45°	722.7	786.1	892.1	1594.7	3514.6	9152.1	19618.4	22798.2
47.5°	724.6	812.6	862.3	1537.2	3514.6	9488.3	20562.2	23596.5
50°	716.9	856.5	830.7	1455.8	3433.2	10125.6	21856.3	24665.7
52.5°	713.0	850.7	768.6	1330.3	3291.6	11137.3	23515.1	26139.6
55°	702.7	820.3	724.6	1143.5	3126.8	12240.7	25291.4	27882.3
57.5°	693.0	726.6	700.7	980.0	2871.4	13017.1	26513.8	29241.8
60°	776.4	635.4	681.3	899.8	2530.8	13229.8	26466.7	29783.5
62.5°	718.8	595.4	655.5	882.4	2292.2	12632.5	25243.6	29491.3
65°	563.7	569.5	629.6	933.4	2228.2	11050.0	23076.8	28139.0
67.5°	515.8	543.6	603.1	1000.0	2234.7	8847.0	19839.5	25193.2
70°	486.1	515.8	573.4	1033.6	2250.2	6595.5	15684.9	20520.2
72.5°	452.5	478.4	539.8	1039.5	2146.1	4790.7	12089.5	15088.2
75°	411.8	435.7	491.9	905.6	1778.3	3323.3	9247.8	10322.8
77.5°	366.5	384.0	431.8	698.8	1320.7	2126.7	6941.3	7541.2
80°	312.9	322.6	362.6	512.0	903.7	1330.3	5492.0	6051.2
82.5°	250.8	254.7	281.2	384.0	587.0	854.6	3678.2	4197.9
85°	177.1	177.1	193.3	279.3	400.1	541.7	1996.8	2214.7
87.5°	83.4	85.3	85.3	153.2	208.8	275.4	460.3	283.1
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)