

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: P298894

Luminaire Tested: **GLNA-AF-07-LED-E1-SLL**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P298894
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-07-LED-E1-SLL
Description: GALLEONAIRE AREA AND ROADWAY LUMINAIRE
(7) 70 CRI, 4000K CCT 1050mA LIGHTSQUARE WITH 16 LEDS EACH AND 90° Spill
Light Eliminator Left OPTICS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 36879.3 lumens
Efficiency: N/A
Efficacy: 94.3 lumens/watt
Luminous Opening: Rectangular (W 2' x L: 1' x H: 0')
IES Classification: Type IV - Short - Non-Cutoff
BUG Rating: B3 - U0 - G5

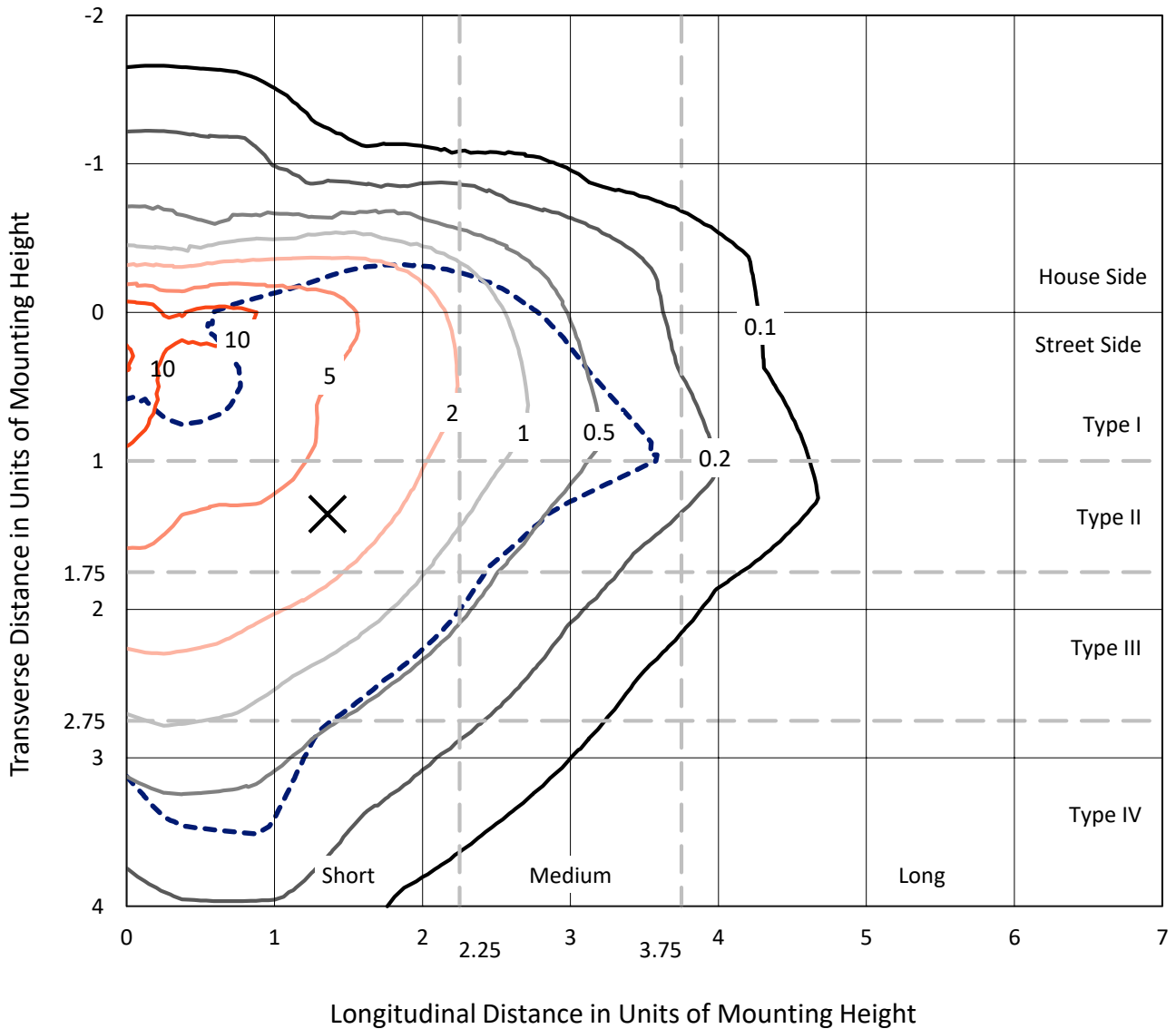
Input Watts (W): 391
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Iso-Footcandle Lines of Horizontal Illumination

× Max cd
 - - - 1/2 Max cd

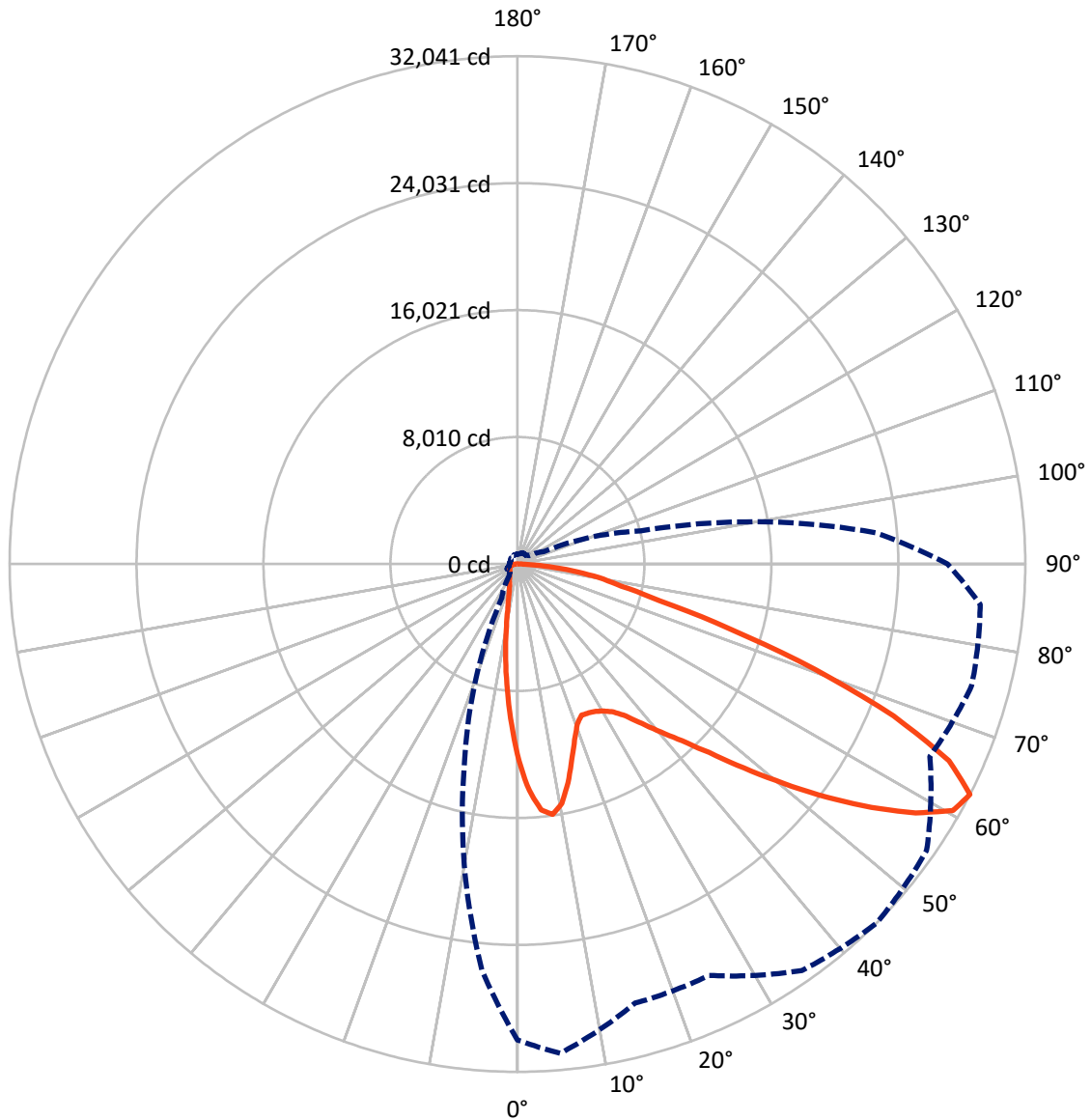


Based on 30 foot mounting height. Maximum calculated value = 16.3 fc
 Type IV - Short - Non-Cutoff

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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	6103.0	0.0	6103.0
	% Fixture	16.5	0.0	16.5
Street Side	Lumens	30776.3	0.0	30776.3
	% Fixture	83.5	0.0	83.5
Total	Lumens	36879.3	0.0	36879.3
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	907.0	2.5
10°-20°	1663.2	4.5
20°-30°	2425.0	6.6
30°-40°	3734.8	10.1
40°-50°	5496.7	14.9
50°-60°	8062.5	21.9
60°-70°	9012.6	24.4
70°-80°	4412.4	12.0
80°-90°	1165.0	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°	36879.3	100.0
0°-180°	36879.3	100.0



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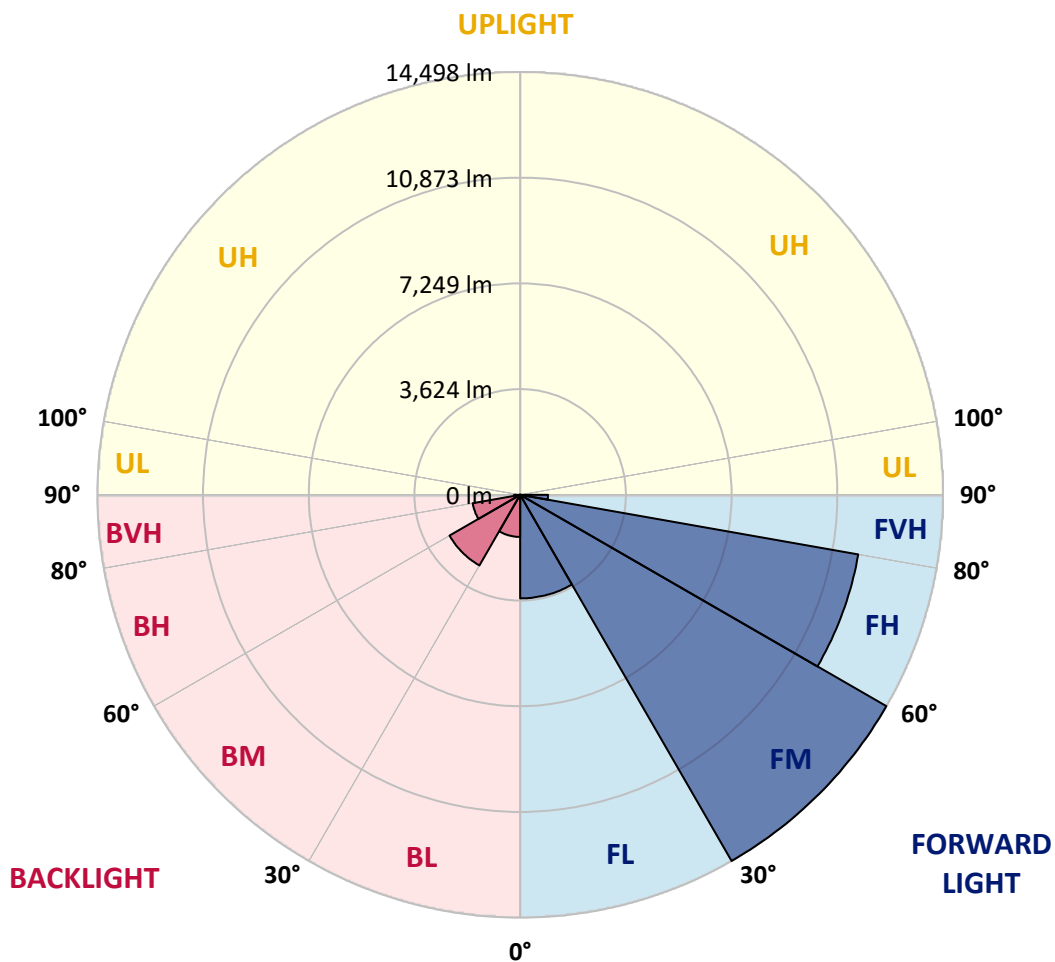
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	3551.4	9.6			
FM	(30°-60°)	14497.6	39.3			
FH	(60°-80°)	11770.6	31.9			G4/12000
FVH	(80°-90°)	956.7	2.6			G5
BL	(0°-30°)	1443.9	3.9	B3/2500		
BM	(30°-60°)	2796.4	7.6	B3/5000		
BH	(60°-80°)	1654.5	4.5	B3/2500		G3/2500
BVH	(80°-90°)	208.3	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°	12460.2	12460.2	12460.2	12460.2	12460.2	12460.2	12460.2	12460.2	12460.2	12460.2	12460.2
2.5°	12945.9	13153.2	13556.6	13858.1	14226.0	14310.9	14428.7	14312.8	14108.1	13836.3	13747.5
5°	12173.9	12616.2	13594.8	14457.0	15223.0	15579.7	15679.7	15384.9	14791.3	14010.7	13534.3
7.5°	10935.3	11563.9	12889.3	14158.8	15287.5	15954.8	15938.4	15255.3	14162.8	12891.3	12127.2
10°	9866.6	10584.6	12105.5	13524.4	14722.2	15369.1	15119.0	14246.4	12942.0	11478.3	10649.7
12.5°	9269.0	9972.5	11515.2	12940.0	13941.6	14164.7	13973.9	13118.3	11889.6	10410.2	9684.3
15°	9165.0	9938.3	11280.2	12439.8	13001.2	12807.0	12579.3	12196.3	11328.2	10065.3	9309.1
17.5°	9613.8	10464.8	11550.0	12091.0	11995.6	11656.6	11592.2	11634.9	11426.3	10448.3	9577.0
20°	10473.3	11494.7	12192.4	11927.1	11231.5	10764.9	10781.3	11432.2	12050.2	11419.7	10424.0
22.5°	11679.0	12845.2	13118.3	12014.0	10909.0	10355.5	10489.8	11544.1	13045.9	12839.3	11567.8
25°	13240.1	14303.0	14106.2	12329.9	10941.3	10406.2	10513.5	11929.1	14221.3	14258.2	12983.4
27.5°	14752.4	15738.3	14934.7	12749.8	11075.5	10526.0	10668.1	12534.6	15344.8	15798.9	14601.1
30°	15932.5	16618.2	15263.2	13132.8	11338.8	10759.0	10935.3	13110.4	15856.1	16838.7	15845.6
32.5°	16909.8	17402.0	15786.4	13607.3	11823.2	11125.5	11436.2	13810.0	16591.9	17828.5	17063.8
35°	18158.2	18298.4	16437.2	14136.4	12571.4	11764.6	12149.6	14495.1	17293.5	18827.5	18264.2
37.5°	19622.5	19442.2	17051.3	14860.4	13538.9	12763.6	13082.1	15247.4	17870.6	19960.8	19490.3
40°	21069.8	20635.4	17822.6	15983.1	14949.9	13941.6	14318.7	16050.3	18410.3	21096.1	20688.7
42.5°	22300.4	21657.5	18582.1	17217.8	16262.8	15241.4	15691.6	16859.1	18924.9	22064.8	21728.5
45°	23210.6	22411.7	19306.0	18403.7	18073.3	16968.3	17181.6	17785.1	19482.4	22874.3	22584.1
47.5°	24023.4	23169.8	20124.7	19600.2	19656.8	19214.5	18871.6	18863.7	20139.8	23535.1	23392.9
50°	25111.9	24222.2	21004.6	20832.2	22032.6	21738.4	20982.2	20122.7	20970.4	24285.3	24268.9
52.5°	26612.5	25889.2	22079.3	22160.3	24251.1	24443.3	23506.1	21635.7	22271.5	25661.5	25564.7
55°	28386.8	27964.2	23543.6	23687.1	26971.1	27109.3	26178.1	23526.5	24186.0	27654.9	27385.1
57.5°	29770.8	29681.9	25148.8	25520.0	29002.8	29623.4	28767.8	25716.8	26342.6	29333.1	28655.9
60°	30322.3	30754.0	26857.9	27368.6	30882.3	31568.8	30819.2	27639.8	28254.5	30028.8	28569.1
62.5°	30024.8	30989.0	28678.3	28635.5	31301.6	32041.3	31514.1	28710.5	29672.1	29310.8	27123.8
65°	28648.0	30143.9	29734.6	28309.1	29866.2	29926.8	29756.3	28232.1	30006.4	27042.2	24329.4
67.5°	25649.0	27802.3	28343.3	25512.1	25993.8	25598.9	25312.7	25612.8	28262.4	23642.4	20447.2
70°	20891.4	24131.3	24390.0	20405.1	20185.9	19920.0	19350.7	20998.7	24822.4	19377.1	16224.7
72.5°	15361.2	18767.0	19563.3	14965.7	13952.2	14006.1	13556.6	15824.5	20182.0	14393.8	12113.4
75°	10509.5	13588.9	15306.6	10442.4	9226.9	9248.6	9191.3	11213.1	16074.6	10012.7	9064.3
77.5°	7677.6	9708.6	11544.1	7020.2	6815.5	6689.8	6659.5	7845.5	12324.0	7270.3	7038.6
80°	6160.7	7172.9	7754.0	4865.5	5232.1	5222.2	5053.7	5394.6	8048.2	5317.6	5264.3
82.5°	4273.8	5512.4	6282.4	3813.2	3531.5	3472.2	3513.7	4017.8	5688.8	3634.8	3456.5
85°	2254.7	3661.1	6221.9	3379.5	2096.1	1672.3	2080.3	3289.9	4928.7	1926.3	1686.1
87.5°	288.3	1058.3	4119.2	1348.5	827.3	445.5	987.8	1852.6	3164.9	392.9	342.9
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°	12460.2	12460.2	12460.2	12460.2	12460.2	12460.2	12460.2	12460.2	12460.2	12460.2	12460.2
2.5°	13518.5	13248.6	12895.9	12568.8	12230.5	11893.6	11453.9	11178.2	10988.0	10951.1	10870.8
5°	13190.1	12293.7	11616.5	11030.8	10499.7	9748.8	9333.5	8988.6	8804.3	8786.6	8741.8
7.5°	11675.1	10438.5	9524.3	8695.1	7942.9	7336.7	6667.4	6356.1	6227.8	6258.1	6288.4
10°	10099.5	8717.5	7667.1	6819.5	6156.7	5646.0	5109.0	4746.4	4494.3	4443.6	4433.8
12.5°	8948.5	7432.2	6412.7	5813.8	5301.8	4820.7	4251.5	3823.0	3497.3	3385.4	3311.0
15°	8461.5	6803.7	5735.5	5090.6	4524.6	3914.5	3385.4	2937.2	2637.8	2540.3	2485.7
17.5°	8565.5	6629.3	5268.9	4443.6	3720.4	3083.3	2416.6	2032.9	1852.6	1806.5	1806.5
20°	9109.1	6597.0	4883.3	3848.0	2945.1	2207.3	1660.4	1441.3	1382.7	1376.8	1392.6
22.5°	9871.2	6710.9	4596.3	3331.4	2288.9	1611.7	1293.2	1212.3	1185.9	1192.5	1210.3
25°	11006.4	7093.9	4387.7	2870.7	1796.0	1319.5	1153.0	1105.0	1092.5	1108.9	1131.3
27.5°	12352.3	7476.9	4257.4	2523.9	1516.3	1206.3	1096.4	1046.4	1054.3	1074.7	1094.5
30°	13534.3	7791.5	4052.7	2277.1	1429.4	1212.3	1096.4	1028.0	1020.1	1024.0	1030.0
32.5°	14595.2	8004.1	3813.2	2041.5	1232.7	1076.7	1024.0	1014.2	968.8	952.3	954.9
35°	15509.3	8004.1	3669.7	1903.9	1105.0	954.9	870.0	819.4	796.3	798.3	821.3
37.5°	16391.2	7843.5	3598.6	1826.3	1035.9	908.2	833.2	788.4	758.2	752.2	756.2
40°	17169.1	7610.5	3517.7	1794.0	983.2	879.9	809.5	772.0	739.7	729.9	731.8
42.5°	17793.6	7421.6	3428.2	1751.9	950.3	859.5	792.4	760.1	723.9	713.4	711.4
45°	18468.9	7359.1	3311.0	1666.4	966.8	861.5	788.4	754.2	717.4	705.5	701.6
47.5°	19358.6	7555.9	3189.3	1565.0	1001.7	872.0	794.4	754.2	715.4	705.5	701.6
50°	20479.4	8017.9	3034.6	1416.9	966.8	900.3	792.4	747.6	715.4	705.5	697.6
52.5°	21919.4	8642.5	2832.6	1247.1	946.4	968.8	788.4	735.8	705.5	691.7	677.2
55°	23668.7	9153.2	2590.4	1107.0	900.3	950.3	782.5	722.0	689.7	669.3	656.8
57.5°	24950.0	9337.4	2281.0	1016.1	835.2	920.1	774.0	703.5	669.3	652.9	637.1
60°	24696.7	8980.7	2019.1	958.9	796.3	831.2	768.0	687.1	650.9	639.0	623.9
62.5°	22667.7	8048.2	1850.6	932.6	772.0	758.2	774.0	671.3	635.1	621.9	618.0
65°	19624.5	6671.4	1784.2	926.6	752.2	715.4	720.0	652.9	616.0	606.1	602.2
67.5°	16187.8	5384.7	1725.6	946.4	725.9	685.1	665.4	628.5	597.6	587.7	579.8
70°	12765.6	4478.5	1698.6	934.5	693.7	654.8	633.1	602.2	575.9	565.3	559.4
72.5°	10279.9	3782.9	1684.1	922.0	650.9	614.0	593.6	567.3	539.0	535.1	529.1
75°	8699.7	2974.1	1543.3	883.9	602.2	565.3	551.5	527.2	498.9	498.9	494.9
77.5°	6710.9	2150.7	1283.3	782.5	551.5	510.7	498.9	480.4	448.2	454.1	452.1
80°	4957.0	1403.1	1003.6	648.9	489.0	450.2	443.6	425.8	390.9	399.5	399.5
82.5°	3395.9	920.1	722.0	531.1	417.2	381.1	381.1	362.6	324.5	328.4	340.9
85°	1705.2	633.1	539.0	411.3	324.5	306.0	306.0	292.2	253.4	255.4	271.8
87.5°	519.3	381.1	356.7	294.2	233.0	229.0	218.5	208.6	184.3	182.3	192.8
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):

	195°	205°	215°	225°	235°	245°	255°	265°	270°	275°	285°
0°	12460.2	12460.2	12460.2	12460.2	12460.2	12460.2	12460.2	12460.2	12460.2	12460.2	12460.2
2.5°	10746.5	10630.6	10491.8	10183.1	10079.8	10073.2	10167.3	10069.3	10256.2	10177.2	10264.1
5°	8666.1	8553.6	8397.0	8004.1	7764.5	7602.0	7525.6	7298.6	7462.4	7342.7	7442.7
7.5°	6373.9	6400.2	6296.9	6065.9	5544.7	5283.4	5129.4	4991.2	5111.0	5098.5	5289.3
10°	4480.5	4550.9	4478.5	4245.5	3823.0	3679.6	3707.9	3762.5	3919.1	3999.4	4293.6
12.5°	3225.5	3221.5	3174.8	2966.2	2688.4	2704.2	2820.1	2914.8	3058.9	3144.5	3443.9
15°	2408.1	2371.9	2351.5	2181.0	2023.1	2057.9	2114.5	2124.4	2215.9	2266.6	2510.1
17.5°	1820.4	1838.8	1860.5	1739.4	1619.6	1597.3	1553.2	1497.9	1524.9	1534.7	1655.8
20°	1445.2	1518.3	1573.6	1488.0	1366.9	1301.1	1244.5	1208.3	1208.3	1206.3	1240.6
22.5°	1262.9	1315.6	1374.8	1315.6	1206.3	1149.1	1116.8	1088.5	1084.6	1084.6	1116.8
25°	1164.2	1202.4	1259.0	1218.8	1137.2	1094.5	1064.2	1028.0	1014.2	1009.6	1031.9
27.5°	1114.9	1131.3	1159.6	1122.8	1054.3	1033.9	1026.0	993.8	974.7	964.8	987.8
30°	1031.9	1028.0	1030.0	993.8	938.5	936.5	950.3	956.9	950.3	948.4	983.2
32.5°	954.9	946.4	944.4	912.2	861.5	849.6	861.5	874.0	887.8	908.2	948.4
35°	857.5	877.9	889.8	861.5	800.3	764.1	750.3	727.9	715.4	715.4	762.1
37.5°	780.5	827.3	845.7	819.4	752.2	701.6	677.2	673.3	675.2	683.1	727.9
40°	754.2	788.4	804.2	778.6	711.4	665.4	650.9	646.9	650.9	663.4	707.5
42.5°	737.8	762.1	760.1	727.9	673.3	641.0	633.1	628.5	633.1	645.0	693.7
45°	723.9	739.7	723.9	685.1	635.1	618.0	620.0	618.0	621.9	635.1	681.2
47.5°	711.4	717.4	697.6	658.8	606.1	602.2	610.1	616.0	620.0	631.1	679.2
50°	693.7	693.7	675.2	635.1	581.8	583.8	593.6	608.1	610.1	621.9	661.4
52.5°	671.3	669.3	656.8	618.0	561.4	567.3	567.3	583.8	587.7	602.2	643.0
55°	652.9	648.9	643.0	606.1	543.6	553.5	547.6	553.5	563.4	577.8	621.9
57.5°	637.1	628.5	628.5	595.6	529.1	533.1	519.3	527.2	539.0	551.5	597.6
60°	620.0	612.1	616.0	581.8	506.8	502.8	496.9	512.7	517.3	531.1	577.8
62.5°	602.2	595.6	597.6	565.3	491.0	480.4	480.4	494.9	496.9	517.3	561.4
65°	587.7	579.8	577.8	549.5	472.5	460.7	466.6	472.5	476.5	496.9	539.0
67.5°	573.9	557.4	557.4	535.1	452.1	439.6	452.1	450.2	456.7	474.5	508.7
70°	555.5	533.1	535.1	525.2	431.7	417.2	427.8	425.8	429.8	441.6	476.5
72.5°	527.2	508.7	512.7	508.7	411.3	390.9	394.9	394.9	394.9	405.4	441.6
75°	491.0	476.5	489.0	498.9	387.0	358.7	362.6	362.6	356.7	362.6	407.4
77.5°	445.5	437.7	478.5	464.6	358.7	324.5	324.5	320.5	308.7	316.6	364.6
80°	397.5	390.9	441.6	388.9	326.4	282.3	277.7	267.2	255.4	261.3	310.6
82.5°	346.8	340.9	371.2	298.1	282.3	233.0	223.1	204.7	192.8	198.8	242.8
85°	284.3	284.3	286.3	225.1	214.5	178.4	166.5	142.2	127.7	131.6	174.4
87.5°	202.7	208.6	192.8	154.0	127.7	99.4	91.5	77.0	64.5	75.0	91.5
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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CATALOG NUMBER: GLNA-AF-07-LED-E1-SLL

CANDELA DISTRIBUTION (continued):

	295°	305°	315°	325°	335°	345°	355°	360°
0°	12460.2	12460.2	12460.2	12460.2	12460.2	12460.2	12460.2	12460.2
2.5°	10710.3	10933.4	11186.7	11510.5	11788.9	12244.3	12682.7	12945.9
5°	8008.0	8379.2	8840.5	9435.5	9989.0	10819.5	11644.8	12173.9
7.5°	5730.9	6128.4	6627.3	7369.0	8152.2	9211.7	10302.9	10935.3
10°	4742.4	5149.8	5569.0	6069.9	6710.9	7863.9	9153.2	9866.6
12.5°	3923.1	4358.7	4810.9	5338.0	5931.6	6961.6	8447.6	9269.0
15°	3002.3	3488.7	4021.8	4689.1	5432.8	6623.3	8273.2	9165.0
17.5°	2057.9	2601.6	3255.7	4079.0	4989.2	6513.4	8585.9	9613.8
20°	1416.9	1812.5	2512.0	3476.9	4572.0	6499.6	9185.4	10473.3
22.5°	1185.9	1362.3	1873.0	2923.4	4257.4	6674.0	10116.6	11679.0
25°	1096.4	1202.4	1495.9	2442.9	4028.4	7075.5	11398.0	13240.1
27.5°	1044.4	1139.2	1358.4	2129.0	3848.0	7541.4	12644.5	14752.4
30°	1064.2	1161.6	1319.5	1968.4	3602.6	7930.4	13751.4	15932.5
32.5°	958.9	1001.7	1131.3	1826.3	3426.2	8256.8	14720.2	16909.8
35°	817.4	891.8	1009.6	1759.8	3430.1	8475.9	15776.5	18158.2
37.5°	778.6	853.6	938.5	1735.5	3476.9	8709.6	16988.7	19622.5
40°	754.2	823.3	896.4	1721.6	3521.6	8922.2	18177.3	21069.8
42.5°	737.8	800.3	891.8	1672.3	3544.0	9113.0	19154.0	22300.4
45°	735.8	800.3	908.2	1623.6	3578.2	9317.7	19973.3	23210.6
47.5°	737.8	827.3	877.9	1565.0	3578.2	9659.9	20934.2	24023.4
50°	729.9	872.0	845.7	1482.1	3495.3	10308.8	22251.7	25111.9
52.5°	725.9	866.1	782.5	1354.4	3351.2	11338.8	23940.5	26612.5
55°	715.4	835.2	737.8	1164.2	3183.3	12462.2	25749.0	28386.8
57.5°	705.5	739.7	713.4	997.7	2923.4	13252.6	26993.5	29770.8
60°	790.4	646.9	693.7	916.1	2576.5	13469.1	26945.5	30322.3
62.5°	731.8	606.1	667.3	898.3	2333.7	12861.0	25700.3	30024.8
65°	573.9	579.8	641.0	950.3	2268.5	11249.9	23494.3	28648.0
67.5°	525.2	553.5	614.0	1018.1	2275.1	9007.0	20198.4	25649.0
70°	494.9	525.2	583.8	1052.3	2290.9	6714.8	15968.7	20891.4
72.5°	460.7	487.0	549.5	1058.3	2185.0	4877.3	12308.2	15361.2
75°	419.2	443.6	500.8	922.0	1810.5	3383.4	9415.1	10509.5
77.5°	373.2	390.9	439.6	711.4	1344.5	2165.2	7066.9	7677.6
80°	318.5	328.4	369.2	521.2	920.1	1354.4	5591.4	6160.7
82.5°	255.4	259.3	286.3	390.9	597.6	870.0	3744.7	4273.8
85°	180.3	180.3	196.8	284.3	407.4	551.5	2032.9	2254.7
87.5°	84.9	86.9	86.9	156.0	212.6	280.4	468.6	288.3
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)