

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: P301572

Luminaire Tested: **GLNA-AF-03-LED-E1-T2R-7027**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P301572
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P194759)
Test Lab: INNOVATION CENTER-P2
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: MCGRAW-EDISON
Catalog Number: GLNA-AF-03-LED-E1-T2R-7027
Description: GALLEONAIRE AREA AND ROADWAY LUMINAIRE
(3) 70 CRI, 2700K CCT 1050mA LIGHTSQUARE WITH 16 LEDS EACH AND Type II
Roadway OPTICS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 16390.2 lumens
Efficiency: N/A
Efficacy: 98.7 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')
IES Classification: Type II - Short - Full Cutoff
BUG Rating: B2 - U0 - G2

Input Watts (W): 166
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

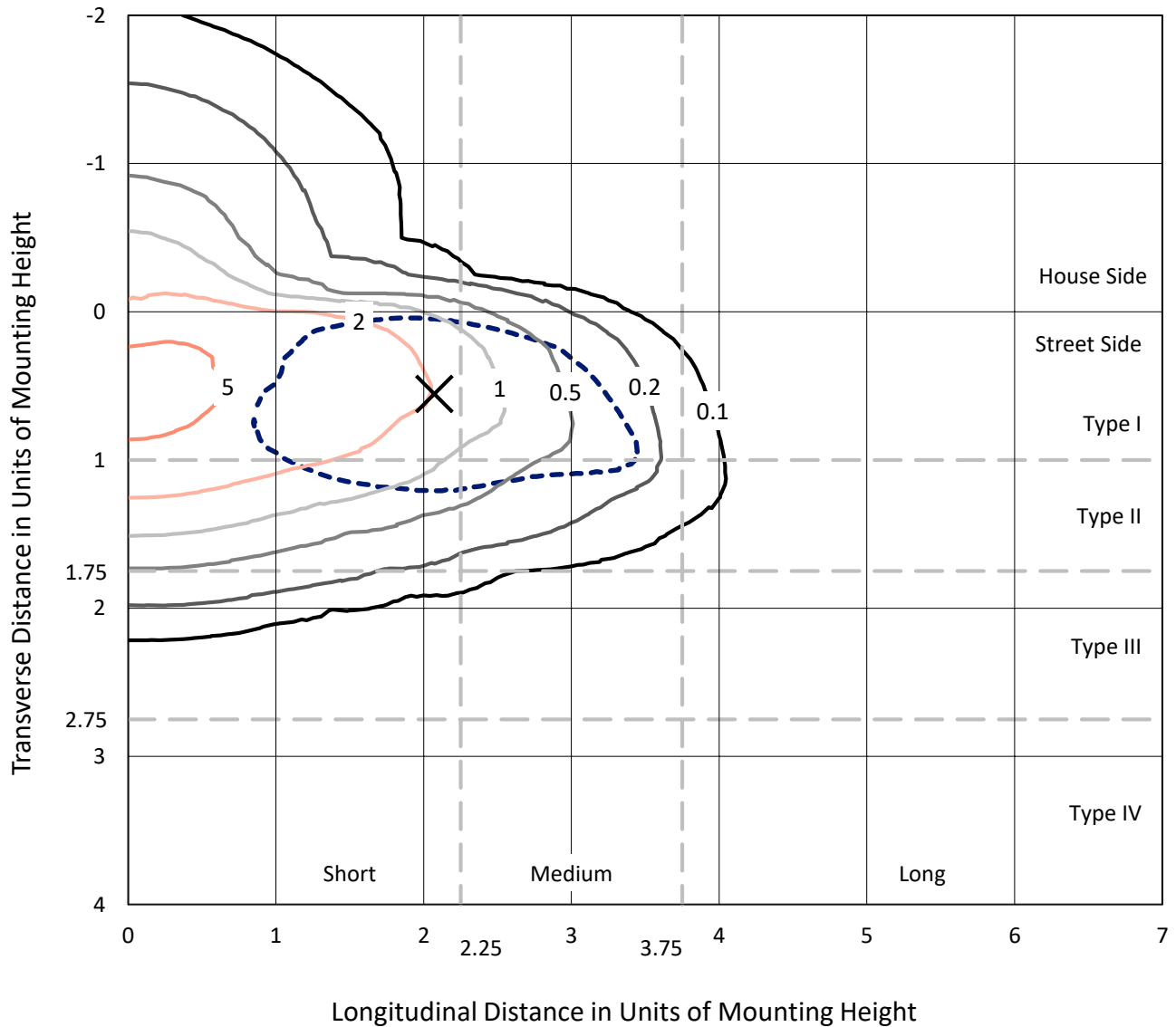


REPORT NUMBER: P301572

CATALOG NUMBER: GLNA-AF-03-LED-E1-T2R-7027

Iso-Footcandle Lines of Horizontal Illumination

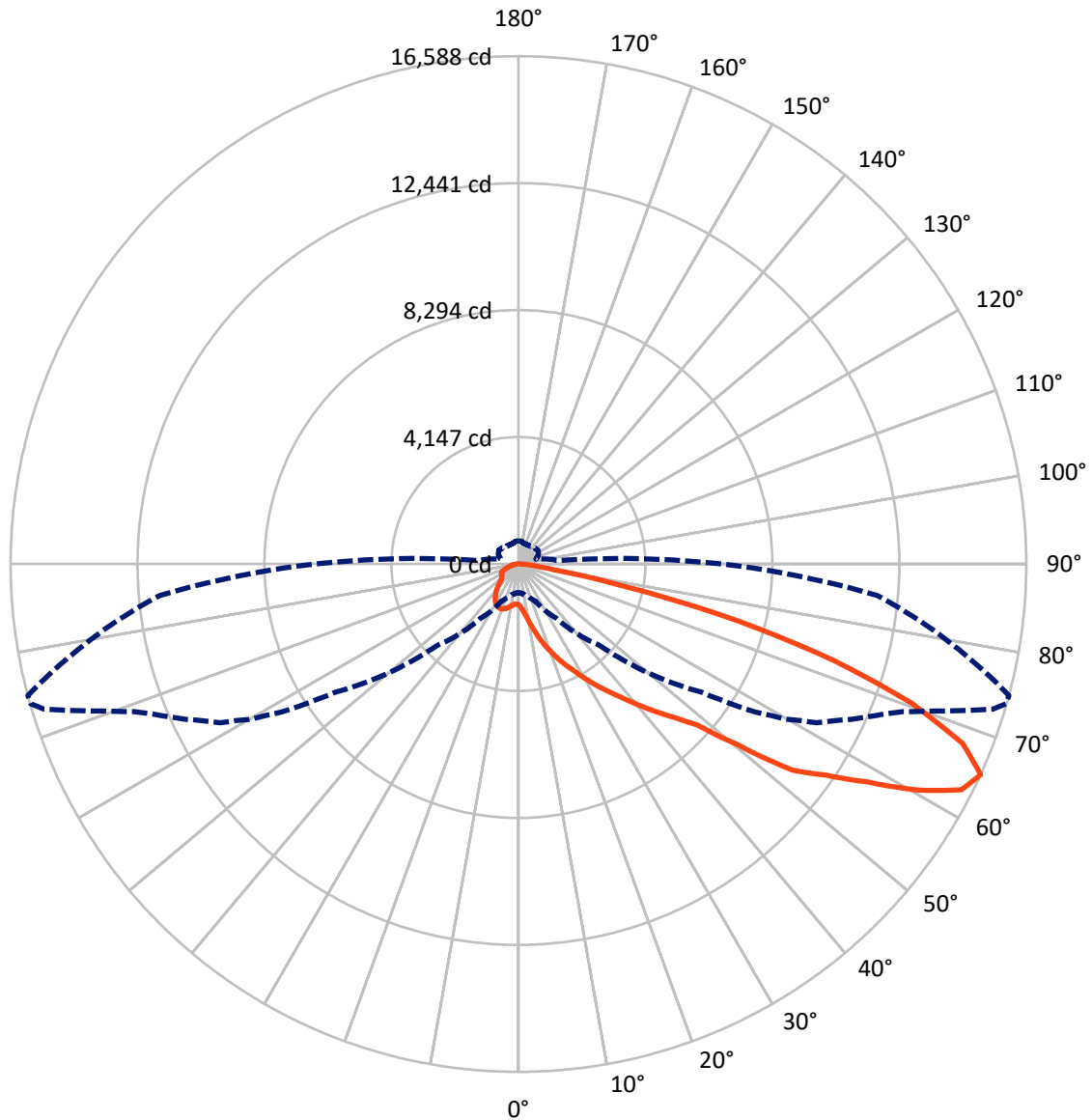
× Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 6.6 fc
 Type II - Short - Full Cutoff

REPORT NUMBER: P301572
CATALOG NUMBER: GLNA-AF-03-LED-E1-T2R-7027

Luminous Intensity Polar Plot



— Vertical Plane Through 75-Deg Lateral - - - Horizontal Cone Through 65-Deg Vertical

REPORT NUMBER: P301572

CATALOG NUMBER: GLNA-AF-03-LED-E1-T2R-7027

FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	2527.0	0.0	2527.0
	% Fixture	15.4	0.0	15.4
Street Side	Lumens	13863.2	0.0	13863.2
	% Fixture	84.6	0.0	84.6
Total	Lumens	16390.2	0.0	16390.2
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	164.6	1.0
10°-20°	643.3	3.9
20°-30°	1319.8	8.1
30°-40°	2220.5	13.5
40°-50°	3068.2	18.7
50°-60°	3830.0	23.4
60°-70°	3446.6	21.0
70°-80°	1444.8	8.8
80°-90°	252.4	1.5
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°	16390.2	100.0
0°-180°	16390.2	100.0



REPORT NUMBER: P301572

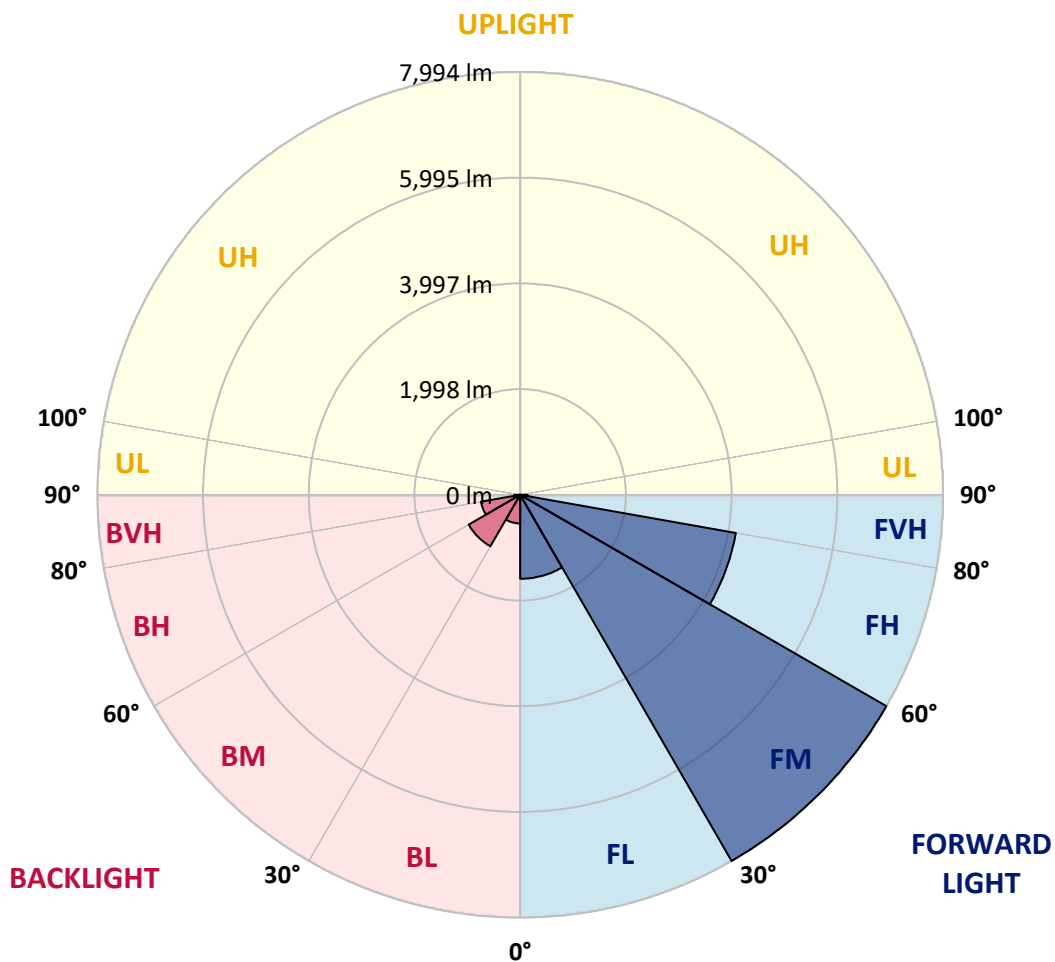
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	1587.3	9.7			
FM	(30°-60°)	7993.9	48.8			
FH	(60°-80°)	4140.1	25.3			G2/5000
FVH	(80°-90°)	141.9	0.9			G2/225
BL	(0°-30°)	540.4	3.3	B2/1000		
BM	(30°-60°)	1124.8	6.9	B2/2500		
BH	(60°-80°)	751.2	4.6	B2/1000		G2/1000
BVH	(80°-90°)	110.5	0.7			G2/225
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

BUG Rating: B2-U0-G2

Type II Short





REPORT NUMBER: P301572

CATALOG NUMBER: GLNA-AF-03-LED-E1-T2R-7027

CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	56°	57°	58°	59°
0°	1332.0	1332.0	1332.0	1332.0	1332.0	1332.0	1332.0	1332.0	1332.0	1332.0	1332.0
2.5°	1691.3	1672.6	1677.2	1646.1	1608.2	1558.5	1503.5	1502.8	1503.5	1497.9	1477.9
5°	2345.1	2322.7	2314.2	2244.3	2141.9	1996.2	1837.9	1820.8	1813.7	1796.0	1754.8
7.5°	2822.4	2809.9	2796.6	2743.9	2650.9	2488.0	2275.3	2239.0	2204.0	2195.5	2149.0
10°	3130.3	3127.1	3099.2	3085.2	3027.2	2885.9	2678.8	2643.8	2605.8	2592.7	2543.7
12.5°	3373.8	3373.1	3360.0	3363.9	3313.2	3211.1	3032.5	3000.7	2972.9	2932.4	2897.6
15°	3542.2	3542.9	3562.5	3584.1	3576.3	3507.2	3339.7	3325.7	3301.7	3273.9	3232.7
17.5°	3680.3	3684.2	3704.2	3743.8	3786.6	3781.1	3648.5	3636.8	3615.9	3577.9	3556.3
20°	3992.1	4006.9	3968.2	3968.2	3972.8	3993.7	3930.0	3920.8	3891.3	3871.1	3854.1
22.5°	4518.9	4535.9	4448.3	4359.2	4271.5	4207.8	4144.3	4155.8	4135.7	4121.7	4111.6
25°	5203.1	5216.5	5074.5	4924.0	4745.4	4512.7	4355.3	4348.2	4337.3	4328.8	4324.2
27.5°	5847.0	5852.5	5718.4	5497.9	5290.8	4956.4	4569.3	4560.8	4547.7	4531.3	4517.3
30°	6398.0	6396.3	6258.3	6047.9	5826.1	5456.0	4894.5	4868.0	4829.1	4784.9	4750.9
32.5°	6875.0	6872.7	6721.3	6503.4	6270.7	5951.0	5339.8	5285.5	5225.0	5138.7	5086.9
35°	7250.4	7249.0	7106.1	6878.9	6612.0	6417.3	5850.2	5783.5	5706.6	5591.1	5511.3
37.5°	7392.4	7392.4	7312.5	7157.4	6921.5	6788.0	6417.3	6336.5	6254.4	6123.2	6033.2
40°	7309.3	7310.9	7327.9	7299.4	7184.6	7082.1	6946.4	6898.3	6827.6	6709.8	6615.9
42.5°	7030.8	7039.3	7152.8	7291.6	7348.9	7332.8	7415.6	7394.0	7344.3	7253.6	7179.0
45°	6677.8	6704.3	6828.3	7090.7	7394.7	7549.1	7808.9	7811.2	7802.0	7753.2	7695.7
47.5°	6193.1	6230.2	6394.0	6748.5	7287.7	7759.4	8208.4	8229.4	8248.9	8217.2	8190.7
50°	5549.2	5593.4	5838.5	6308.7	7069.7	7977.4	8963.3	9058.1	9146.5	9135.6	9153.4
52.5°	4859.5	4911.5	5211.6	5735.4	6695.1	8027.8	9445.9	9600.3	9754.7	9881.0	10015.2
55°	4237.2	4209.4	4509.7	5061.1	6079.0	7800.4	9879.7	10065.8	10238.0	10393.1	10553.0
57.5°	3394.0	3439.8	3740.8	4286.2	5263.6	7158.8	10178.1	10450.6	10698.0	10954.8	11181.3
60°	2480.8	2526.6	2853.2	3407.1	4378.5	6186.0	9950.1	10362.9	10759.2	11152.5	11459.8
62.5°	1497.9	1532.2	1819.9	2347.6	3376.3	5032.6	8933.8	9475.3	10058.7	10528.9	10999.7
65°	932.5	951.8	1058.2	1348.4	2168.3	3757.2	7299.4	7889.7	8518.0	9114.7	9604.2
67.5°	763.4	770.3	789.8	851.7	1190.7	2450.0	5432.8	5955.6	6522.7	7099.9	7644.6
70°	686.5	681.9	681.9	685.8	763.4	1317.3	3557.0	3897.6	4370.0	4871.9	5370.0
72.5°	619.8	615.1	606.6	595.1	623.0	803.6	1838.5	2095.4	2436.0	2882.0	3359.0
75°	556.9	550.7	540.8	526.1	545.4	606.6	882.8	990.7	1156.7	1394.2	1660.2
77.5°	491.8	484.0	474.8	464.0	488.8	471.8	517.3	556.2	619.8	695.9	796.0
80°	418.2	411.2	408.0	402.7	432.2	359.2	365.5	389.4	426.7	467.9	514.3
82.5°	327.5	327.5	339.7	342.2	374.7	258.4	273.2	294.1	313.4	335.1	356.9
85°	215.6	217.2	259.1	275.5	295.5	173.8	204.8	211.7	227.4	239.8	249.0
87.5°	67.4	73.0	158.3	175.4	169.8	98.5	125.7	128.9	139.7	148.2	156.0
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: P301572

CATALOG NUMBER: GLNA-AF-03-LED-E1-T2R-7027

CANDELA DISTRIBUTION (continued):

	60°	61°	62°	63°	64°	65°	66°	67°	68°	69°	70°
0°	1332.0	1332.0	1332.0	1332.0	1332.0	1332.0	1332.0	1332.0	1332.0	1332.0	1332.0
2.5°	1477.9	1468.5	1460.0	1459.3	1453.1	1444.6	1447.5	1434.4	1435.1	1428.2	1420.4
5°	1737.7	1731.5	1700.5	1691.9	1668.7	1654.0	1651.7	1620.6	1616.7	1599.0	1579.4
7.5°	2111.7	2091.5	2048.0	2027.0	1987.4	1958.0	1944.2	1903.0	1882.7	1836.2	1815.3
10°	2503.4	2477.9	2424.2	2394.8	2356.8	2309.4	2283.9	2224.2	2200.8	2158.2	2107.1
12.5°	2866.6	2841.0	2785.8	2763.2	2712.8	2662.4	2634.6	2567.1	2536.8	2468.4	2428.1
15°	3202.3	3176.8	3128.7	3105.4	3055.0	3013.8	2976.6	2910.0	2874.4	2810.6	2757.9
17.5°	3528.2	3501.0	3459.1	3438.2	3389.4	3347.5	3307.3	3244.2	3207.8	3144.3	3096.9
20°	3830.8	3810.6	3780.4	3752.3	3703.5	3665.6	3617.5	3563.2	3510.5	3463.7	3418.9
22.5°	4094.5	4086.7	4054.3	4041.8	4000.0	3967.3	3925.4	3872.0	3833.8	3774.9	3733.0
25°	4321.9	4319.6	4304.0	4300.1	4270.6	4239.5	4230.3	4186.1	4151.2	4099.2	4055.9
27.5°	4517.3	4519.6	4515.9	4526.7	4518.9	4504.9	4505.8	4491.1	4470.8	4427.3	4389.3
30°	4734.6	4722.1	4729.3	4744.7	4749.3	4750.9	4776.4	4784.9	4783.6	4754.8	4736.2
32.5°	5041.8	5012.3	4985.2	4982.9	4998.3	5004.5	5048.0	5070.5	5089.9	5096.8	5100.0
35°	5433.5	5374.6	5317.9	5287.8	5261.3	5268.2	5299.3	5335.9	5378.5	5407.9	5442.9
37.5°	5926.9	5854.8	5754.7	5683.4	5665.4	5626.8	5646.8	5675.6	5717.5	5763.3	5823.8
40°	6525.0	6415.7	6303.1	6208.6	6157.5	6085.9	6085.2	6079.7	6105.5	6148.0	6233.4
42.5°	7100.8	7003.7	6884.2	6785.0	6718.3	6622.8	6603.5	6553.1	6564.6	6601.9	6684.9
45°	7639.8	7559.9	7487.0	7372.3	7315.5	7212.4	7179.7	7120.1	7086.8	7103.8	7186.9
47.5°	8161.9	8110.8	8034.7	7960.3	7916.8	7824.6	7782.7	7739.9	7697.3	7695.7	7782.7
50°	9179.8	9152.7	9062.7	8985.1	9006.1	8892.8	8899.7	8784.9	8836.9	8843.1	9025.4
52.5°	10136.3	10231.1	10297.8	10379.1	10432.0	10442.1	10476.9	10528.9	10591.7	10715.7	10884.9
55°	10684.0	10802.7	10871.8	10933.9	11036.3	11057.9	11116.2	11185.2	11240.2	11379.9	11523.5
57.5°	11335.0	11555.3	11662.3	11760.8	11898.9	11951.6	12048.7	12123.9	12195.3	12360.5	12534.3
60°	11735.9	12004.5	12222.4	12378.2	12551.3	12675.6	12822.2	12940.0	13107.5	13305.4	13564.6
62.5°	11417.2	11811.2	12100.7	12368.3	12603.3	12840.8	13050.9	13271.4	13525.7	13825.1	14227.1
65°	10147.3	10548.2	11043.9	11321.7	11632.8	11999.0	12318.6	12675.6	13022.1	13458.2	14052.5
67.5°	8169.1	8635.1	9192.2	9472.3	9830.0	10238.7	10597.2	11033.1	11438.1	11966.3	12701.1
70°	5888.2	6490.9	6959.5	7252.0	7669.5	8090.6	8436.7	8943.9	9279.0	9820.5	10580.2
72.5°	3728.4	4203.9	4778.0	5146.5	5517.2	5944.1	6297.9	6735.3	7047.9	7541.3	8229.4
75°	2004.7	2355.2	2859.4	3209.5	3606.7	3971.2	4385.4	4678.6	4909.9	5300.2	5858.8
77.5°	939.4	1152.7	1408.0	1677.2	1946.5	2227.2	2500.4	2737.7	2837.1	3060.6	3390.1
80°	570.3	639.3	713.6	796.7	909.3	999.9	1120.3	1207.1	1213.3	1283.9	1384.7
82.5°	380.9	406.4	429.0	449.9	478.7	501.2	526.8	556.9	569.4	585.7	618.4
85°	259.8	272.2	276.9	290.2	287.0	294.8	304.9	315.1	320.3	319.7	334.4
87.5°	159.7	165.9	169.1	172.1	169.8	166.8	171.4	177.0	178.4	173.8	175.4
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: P301572

CATALOG NUMBER: GLNA-AF-03-LED-E1-T2R-7027

CANDELA DISTRIBUTION (continued):

	71°	72°	73°	74°	75°	85°	90°	95°	105°	115°	125°
0°	1332.0	1332.0	1332.0	1332.0	1332.0	1332.0	1332.0	1332.0	1332.0	1332.0	1332.0
2.5°	1422.0	1415.1	1408.0	1403.4	1401.7	1360.8	1342.8	1331.3	1306.5	1286.2	1269.9
5°	1568.6	1553.9	1542.4	1528.3	1520.5	1416.5	1378.5	1352.3	1308.8	1283.2	1259.8
7.5°	1804.5	1763.3	1739.4	1712.2	1689.0	1501.2	1438.3	1397.1	1336.6	1302.6	1276.1
10°	2072.1	2029.6	1991.4	1949.5	1913.1	1613.7	1522.1	1458.4	1378.5	1334.3	1299.3
12.5°	2370.8	2329.0	2280.9	2227.2	2180.8	1756.4	1629.1	1538.4	1428.9	1370.0	1321.2
15°	2723.9	2650.0	2591.8	2529.9	2475.6	1927.1	1754.1	1628.4	1482.5	1402.7	1337.5
17.5°	3051.8	2974.3	2895.3	2841.0	2778.2	2118.6	1879.7	1719.8	1526.7	1423.6	1340.5
20°	3372.4	3287.7	3219.6	3146.6	3080.6	2317.2	2013.9	1800.6	1555.5	1424.3	1321.2
22.5°	3654.8	3601.8	3525.9	3446.7	3380.0	2515.8	2139.6	1868.9	1566.3	1406.6	1286.9
25°	3975.8	3920.1	3826.9	3760.2	3685.8	2718.3	2262.9	1921.6	1560.1	1373.2	1234.2
27.5°	4318.7	4256.8	4161.3	4091.6	4001.6	2928.5	2376.1	1959.6	1536.8	1318.9	1163.6
30°	4676.3	4619.7	4525.8	4455.4	4364.5	3151.2	2502.7	1985.1	1490.3	1243.6	1081.4
32.5°	5060.4	5013.0	4920.0	4846.4	4749.3	3392.4	2620.5	1993.0	1419.7	1154.4	994.6
35°	5425.0	5392.5	5314.0	5245.0	5144.2	3620.5	2745.5	1989.0	1335.9	1056.5	915.5
37.5°	5835.5	5816.0	5777.3	5689.6	5566.3	3930.0	2895.3	1972.7	1233.5	959.7	854.9
40°	6273.0	6274.6	6232.7	6172.9	6058.1	4305.6	3073.7	1941.0	1121.7	874.3	799.7
42.5°	6736.0	6760.2	6739.9	6697.4	6587.1	4684.2	3287.0	1902.3	1013.3	791.2	745.6
45°	7266.7	7296.2	7327.2	7264.4	7157.4	5183.8	3567.8	1851.9	895.9	722.2	708.4
47.5°	7878.9	7925.4	7953.2	7954.1	7847.1	5802.8	4023.9	1821.5	792.1	675.7	690.4
50°	9170.4	9185.3	9251.2	9366.0	9283.8	7235.6	4820.6	1802.9	721.5	646.9	677.3
52.5°	11031.5	11193.7	11307.9	11300.0	11188.2	8145.6	5259.7	1706.7	679.6	636.1	671.1
55°	11789.5	11992.1	12203.1	12258.8	12172.0	8922.3	5674.9	1610.5	659.3	643.9	673.4
57.5°	12799.6	13140.9	13430.4	13552.1	13426.5	9916.0	6221.0	1560.1	653.1	664.9	688.1
60°	13979.5	14401.6	14781.7	15000.4	15000.4	11057.9	6787.3	1539.1	644.6	695.9	713.0
62.5°	14737.6	15357.3	15931.5	16251.8	16242.4	11853.1	7038.7	1467.8	625.3	717.6	747.0
65°	14740.6	15477.7	16209.0	16569.2	16587.6	11755.5	6623.7	1296.3	589.6	720.8	781.3
67.5°	13511.9	14297.5	15150.2	15552.9	15645.9	10821.4	5733.8	1066.0	531.4	689.7	793.7
70°	11411.7	12178.9	13049.3	13445.1	13610.4	9224.7	4618.1	821.6	457.0	621.4	768.0
72.5°	8990.4	9743.0	10348.9	10638.2	10767.1	7051.1	3363.0	620.7	374.7	523.6	698.9
75°	6365.3	6930.0	7252.0	7316.4	7336.4	4250.6	2043.4	461.6	308.8	407.3	590.3
77.5°	3592.6	3834.7	3808.3	3837.0	3598.1	1640.9	889.9	330.5	254.5	309.5	457.7
80°	1402.7	1446.2	1358.5	1331.3	1221.1	610.5	392.6	230.4	203.2	234.3	320.3
82.5°	618.4	638.4	619.8	624.6	597.4	315.1	235.0	166.8	155.1	171.4	212.6
85°	340.6	346.8	345.2	355.3	340.6	125.7	111.6	102.4	108.6	116.4	136.5
87.5°	165.9	167.5	162.2	170.8	165.2	63.5	55.0	58.2	63.5	65.1	65.1
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: P301572

CATALOG NUMBER: GLNA-AF-03-LED-E1-T2R-7027

CANDELA DISTRIBUTION (continued):

	135°	145°	155°	165°	175°	180°
0°	1332.0	1332.0	1332.0	1332.0	1332.0	1332.0
2.5°	1258.4	1252.2	1252.9	1251.2	1248.2	1248.2
5°	1247.6	1241.3	1241.3	1239.7	1235.8	1236.5
7.5°	1258.4	1248.2	1244.3	1238.8	1233.5	1233.5
10°	1270.8	1252.9	1242.0	1232.8	1225.7	1225.7
12.5°	1280.0	1252.2	1234.2	1221.8	1214.9	1214.9
15°	1283.2	1246.6	1221.8	1207.1	1200.8	1200.1
17.5°	1273.1	1225.7	1195.5	1178.5	1170.7	1168.4
20°	1242.0	1187.7	1151.4	1131.8	1121.0	1117.1
22.5°	1195.5	1133.4	1090.8	1070.6	1056.5	1054.2
25°	1130.4	1063.7	1021.8	1002.2	994.6	992.1
27.5°	1054.2	992.1	956.4	944.0	937.1	936.4
30°	982.2	929.3	903.0	893.6	885.1	883.7
32.5°	914.6	881.2	871.3	857.9	837.9	835.6
35°	866.5	863.5	856.6	826.9	802.2	795.1
37.5°	837.0	865.8	830.1	771.9	754.1	752.5
40°	820.0	841.8	780.4	760.4	761.7	760.4
42.5°	781.3	803.6	782.0	772.8	778.8	780.4
45°	742.4	767.3	793.7	787.5	802.2	802.2
47.5°	720.8	757.8	792.8	792.8	814.7	822.3
50°	695.9	750.2	780.4	791.2	808.5	802.2
52.5°	694.3	736.9	762.7	782.0	789.8	782.7
55°	696.6	726.1	744.7	766.6	775.8	776.5
57.5°	699.8	719.9	732.3	742.4	770.3	770.3
60°	707.4	714.6	721.5	727.0	763.4	764.0
62.5°	719.9	709.0	707.4	713.0	759.4	756.5
65°	739.4	701.2	689.7	695.0	755.5	746.3
67.5°	765.7	689.7	667.2	671.1	752.5	732.3
70°	789.8	671.1	639.3	635.4	723.1	687.4
72.5°	792.1	649.4	600.4	588.9	628.5	594.2
75°	753.2	634.5	557.8	523.6	519.0	514.3
77.5°	678.9	626.0	508.1	454.5	445.3	448.3
80°	568.0	594.2	448.3	384.8	435.2	429.9
82.5°	424.4	524.5	380.9	340.6	339.7	300.3
85°	235.9	408.9	310.2	255.2	177.7	172.1
87.5°	66.0	227.4	217.2	144.3	98.5	102.4
90°	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)