

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: P453596

Luminaire Tested: **GALN-SA4C-827-U-SLL**

Issue Date: 1/4/2021

**Test Information**

Test Method: LM-79-08  
Report Number: P453596  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2011-042-20)  
Test Lab: INNOVATION CENTER  
Issue Date: 1/4/2021  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: MCGRAW-EDISON  
Catalog Number: GALN-SA4C-827-U-SLL  
Description: GALLEON AREA AND ROADWAY LUMINAIRE  
(4) 80 CRI, 2700K, 1050mA LIGHTSQUARES WITH 16 LEDS EACH AND SPILL LIGHT  
ELIMINATOR LEFT OPTICS  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 17623 lumens  
Efficiency: N/A  
Efficacy: 82.7 lumens/watt  
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')  
IES Classification: Type III - Medium  
BUG Rating: B2 - U0 - G3

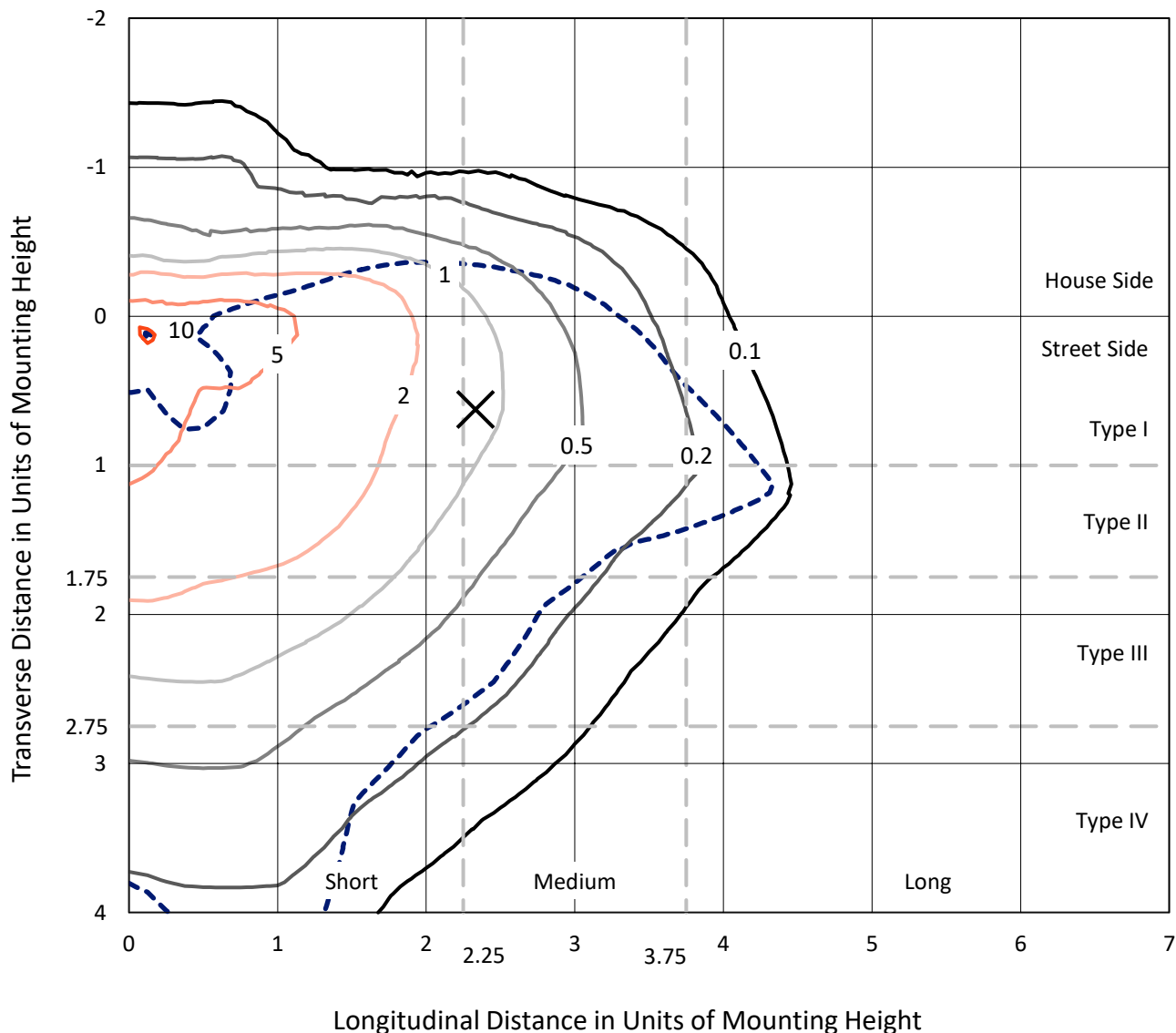
Input Watts (W): 213  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 24 FT



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### Iso-Footcandle Lines of Horizontal Illumination

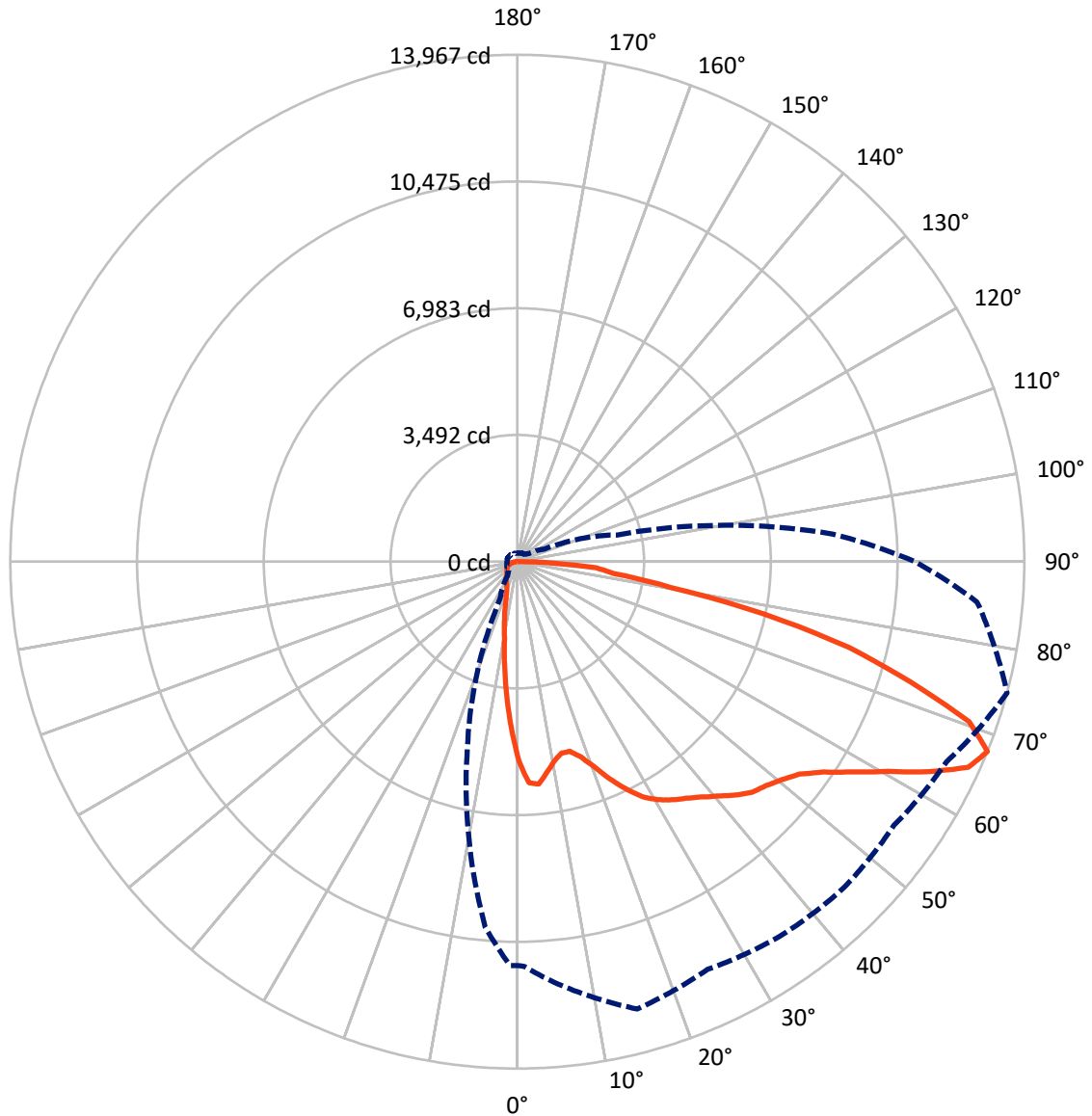
× Max cd  
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 10.9 fc  
 Type III - Medium - N/A

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CATALOG NUMBER: GALN-SA4C-827-U-SLL

### Luminous Intensity Polar Plot



— Vertical Plane Through 75-Deg Lateral      - - - Horizontal Cone Through 67.5-Deg Vertical

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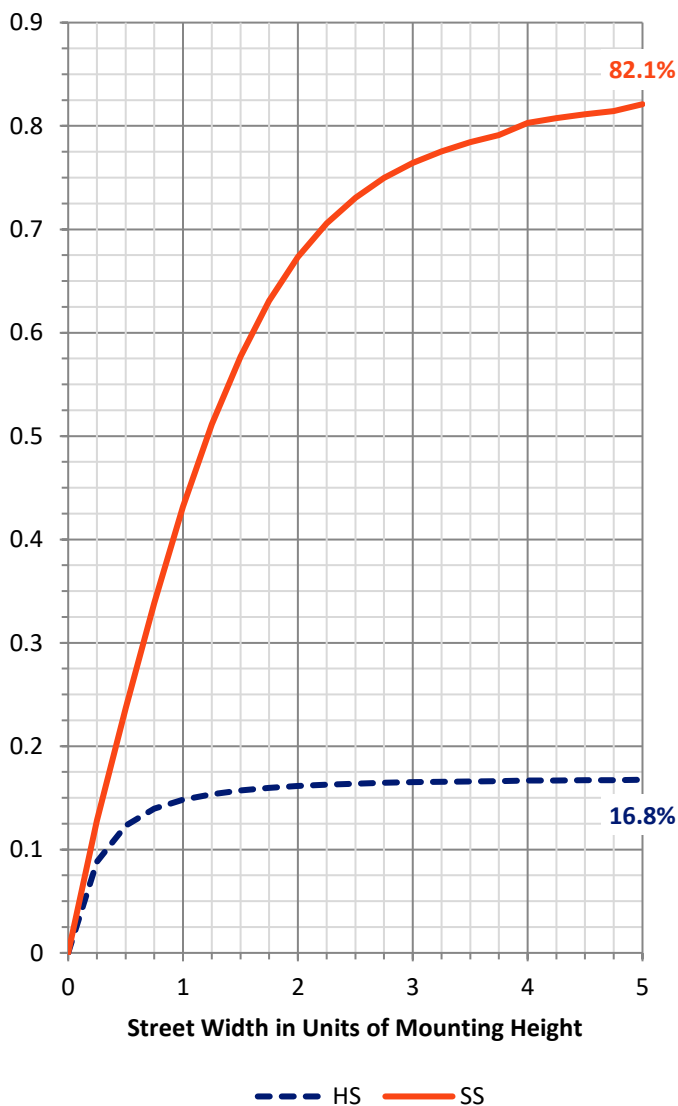
**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	2978.7	0.0	2978.7
	% Fixture	16.9	0.0	16.9
<b>Street Side</b>	Lumens	14644.3	0.0	14644.3
	% Fixture	83.1	0.0	83.1
<b>Total</b>	Lumens	17623.0	0.0	17623.0
	% Fixture	100.0	0.0	100.0

**Coefficient of Utilization**

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	417.6	2.4
10°-20°	870.9	4.9
20°-30°	1253.3	7.1
30°-40°	1805.1	10.2
40°-50°	2535.6	14.4
50°-60°	3536.3	20.1
60°-70°	4204.4	23.9
70°-80°	2476.2	14.1
80°-90°	523.6	3.0
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°	17623.0	100.0
0°-180°	17623.0	100.0



REPORT NUMBER: P453596

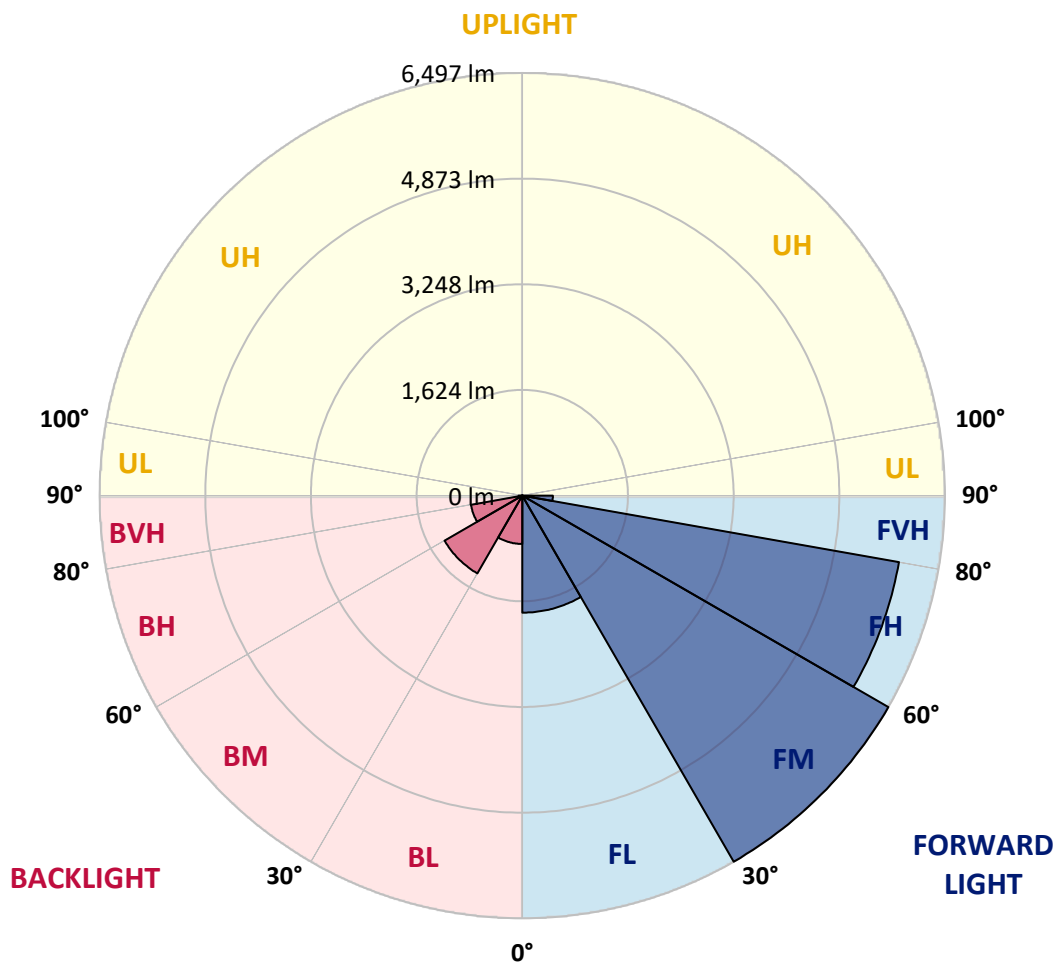
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	1798.8	10.2			
FM	(30°-60°)	6496.9	36.9			
FH	(60°-80°)	5879.1	33.4			G3/7500
FVH	(80°-90°)	469.5	2.7			G3/500
BL	(0°-30°)	743.0	4.2	B2/1000		
BM	(30°-60°)	1380.0	7.8	B2/2500		
BH	(60°-80°)	801.5	4.5	B2/1000		G2/1000
BVH	(80°-90°)	54.2	0.3			G1/100
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

**BUG Rating: B2-U0-G3**

Type III Medium





REPORT NUMBER: P453596  
 CATALOG NUMBER: GALN-SA4C-827-U-SLL

**CANDELA DISTRIBUTION (FULL):**

	0°	1°	5°	15°	25°	35°	45°	55°	65°	75°	85°
0°	5505.8	5505.8	5505.8	5505.8	5505.8	5505.8	5505.8	5505.8	5505.8	5505.8	5505.8
2.5°	5936.4	5944.3	5995.2	6143.2	6244.9	6282.2	6308.2	6259.6	6212.2	6096.9	5922.8
5°	5918.3	5964.7	6096.9	6429.1	6691.3	6804.3	6838.2	6692.4	6451.7	6155.6	5799.7
7.5°	5572.5	5634.7	5838.1	6395.2	6857.4	7121.9	7086.9	6823.5	6389.6	5861.8	5364.6
10°	5162.3	5231.2	5476.5	6150.0	6745.6	7109.5	7109.5	6788.5	6212.2	5584.9	5012.0
12.5°	4836.8	4909.1	5189.4	5898.0	6512.8	6857.4	6915.1	6639.3	6084.5	5409.8	4780.3
15°	4729.5	4799.5	5101.3	5745.4	6266.4	6476.6	6495.8	6405.4	6022.3	5422.2	4770.1
17.5°	4862.8	4953.2	5258.4	5790.6	6040.4	6052.8	6067.5	6138.7	6029.1	5649.4	4975.8
20°	5248.2	5345.4	5664.1	5936.4	5842.6	5713.8	5721.7	5904.8	6109.3	6024.6	5467.4
22.5°	5804.2	5888.9	6215.5	6192.9	5759.0	5493.4	5438.0	5693.4	6228.0	6492.4	5990.7
25°	6404.3	6503.7	6878.9	6573.8	5782.7	5362.3	5327.3	5569.1	6351.2	6929.8	6595.3
27.5°	7091.4	7188.6	7484.6	6958.0	5907.0	5352.1	5310.3	5557.8	6461.9	7334.3	7172.7
30°	7602.2	7691.5	7892.6	7281.2	6059.6	5420.0	5368.0	5647.1	6556.8	7611.2	7735.5
32.5°	8003.4	8096.0	8205.6	7482.4	6260.7	5543.1	5447.1	5809.8	6681.1	7822.5	8152.5
35°	8421.5	8531.1	8523.2	7660.9	6448.3	5685.5	5591.7	6044.9	6876.7	8006.8	8681.4
37.5°	8951.5	8995.6	8939.1	7821.4	6673.2	5942.1	5890.1	6394.1	7154.7	8229.4	9299.6
40°	9489.4	9577.6	9287.2	8015.8	6946.7	6424.6	6419.0	6910.6	7484.6	8490.4	9898.5
42.5°	9950.5	10025.1	9612.6	8185.3	7277.8	7013.4	7056.3	7603.3	7917.5	8793.3	10380.0
45°	10297.5	10364.1	9913.2	8349.2	7714.1	7693.7	7946.9	8345.8	8463.3	9065.7	10662.5
47.5°	10592.4	10656.8	10122.3	8597.8	8253.1	8506.3	8947.0	9119.9	8930.0	9221.6	10978.9
50°	10841.0	10860.3	10265.8	8893.9	8922.1	9501.9	9929.0	10040.9	9391.1	9445.4	11253.5
52.5°	11099.8	11075.0	10513.3	9266.8	9645.4	10446.6	10757.4	10873.8	9833.0	9721.1	11653.6
55°	11679.6	11703.3	11068.2	9736.9	10376.6	11374.4	11783.5	11671.7	10322.3	10228.5	12162.1
57.5°	12380.2	12359.9	11849.1	10472.6	11121.3	12237.8	12543.0	12363.3	10975.5	10925.8	12677.5
60°	12652.6	12679.7	12502.3	11263.7	11855.9	12993.9	13305.8	13026.7	11758.7	11736.1	13066.2
62.5°	12379.1	12531.7	12651.5	11967.7	12481.9	13549.9	13859.5	13540.8	12575.7	12739.6	13338.6
65°	11834.4	11867.2	12275.1	12564.4	12783.7	13641.4	13803.0	13633.5	13258.3	13653.9	13326.1
67.5°	11127.0	11155.2	11633.2	12759.9	12394.9	12601.7	12714.7	12665.0	13047.0	13966.9	12712.5
70°	10453.4	10430.8	10936.0	12261.6	10790.2	10476.0	10569.8	10413.9	11258.0	13201.8	11508.9
72.5°	9142.5	9223.9	9766.3	10876.1	8543.5	8032.7	8237.3	7833.8	8658.8	11306.6	9341.4
75°	7161.4	7180.6	8085.9	9127.8	6445.0	5639.2	5916.1	5747.7	6632.6	9431.8	6450.6
77.5°	4958.9	4915.9	5888.9	6971.6	4596.1	4128.3	4132.8	4052.5	4631.1	6944.5	4382.5
80°	3149.6	3084.0	3686.4	4306.8	3158.6	3379.0	3268.2	3264.9	3015.1	4284.2	2650.1
82.5°	1701.9	1774.3	2329.1	2699.8	2265.8	2611.7	2393.5	2323.5	2069.2	2681.7	1695.1
85°	775.2	843.1	1242.0	1836.4	1721.1	1740.4	1162.9	1371.9	1712.1	2177.7	905.2
87.5°	75.7	97.2	256.5	866.8	587.7	463.3	172.9	333.4	430.6	774.1	72.3
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: P453596  
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**CANDELA DISTRIBUTION (continued):**

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	5505.8	5505.8	5505.8	5505.8	5505.8	5505.8	5505.8	5505.8	5505.8	5505.8	5505.8
2.5°	5851.7	5792.9	5592.9	5427.9	5252.7	5119.3	4945.3	4828.9	4748.7	4627.8	4613.1
5°	5582.7	5439.2	5091.1	4736.2	4430.0	4199.4	3965.5	3750.8	3624.2	3584.7	3533.8
7.5°	5129.5	4887.7	4440.2	4033.3	3681.9	3338.3	3073.9	2886.3	2760.8	2687.4	2599.2
10°	4756.6	4476.3	3931.6	3433.2	3143.9	2930.3	2697.5	2496.4	2341.6	2209.3	2137.0
12.5°	4505.7	4189.3	3576.8	3172.2	2948.4	2721.3	2448.9	2222.9	1994.6	1844.3	1779.9
15°	4430.0	4095.5	3467.1	3042.2	2721.3	2424.1	2118.9	1824.0	1598.0	1455.6	1408.1
17.5°	4615.3	4210.7	3466.0	2869.3	2454.6	2099.7	1708.7	1431.8	1200.2	1093.9	1060.0
20°	4961.1	4432.2	3476.2	2698.7	2165.3	1665.8	1243.1	1016.0	905.2	860.0	843.1
22.5°	5443.7	4770.1	3506.7	2530.3	1848.8	1279.3	931.2	815.9	776.4	768.5	765.1
25°	6038.1	5188.3	3609.5	2378.9	1582.1	976.4	778.6	726.7	704.1	696.1	695.0
27.5°	6585.1	5728.5	3733.8	2248.9	1324.5	841.9	704.1	660.0	637.4	636.2	638.5
30°	7078.9	6180.5	3837.8	2103.1	1129.0	748.1	655.5	611.4	589.9	588.8	595.6
32.5°	7506.1	6552.3	3914.7	1959.6	1020.5	690.5	611.4	563.9	545.8	542.4	545.8
35°	7962.7	6923.0	3879.6	1847.7	958.3	643.0	578.6	532.3	510.8	500.6	500.6
37.5°	8483.7	7305.0	3819.7	1755.0	930.1	603.5	550.4	505.2	483.7	473.5	472.4
40°	9052.1	7686.9	3737.2	1672.5	901.8	579.7	531.1	483.7	457.7	447.5	445.3
42.5°	9553.9	8013.5	3669.4	1618.3	855.5	584.3	514.2	467.9	435.1	421.5	420.4
45°	9990.1	8342.4	3657.0	1586.7	817.1	577.5	509.7	455.4	417.0	402.3	400.1
47.5°	10331.4	8684.8	3728.2	1568.6	775.2	541.3	539.1	447.5	401.2	385.4	383.1
50°	10747.2	9170.8	3890.9	1531.3	736.8	507.4	569.6	446.4	388.8	368.4	362.8
52.5°	11301.0	9803.6	4111.3	1464.6	681.4	475.8	543.6	446.4	374.1	353.7	346.9
55°	12138.4	10610.5	4327.1	1370.8	603.5	434.0	490.5	432.8	352.6	334.5	330.0
57.5°	12693.3	11200.4	4465.0	1240.8	506.3	403.4	422.7	411.4	331.1	311.9	311.9
60°	12721.5	11358.6	4399.5	1077.0	445.3	375.2	367.3	414.7	311.9	291.6	289.3
62.5°	12396.1	10971.0	4058.2	930.1	412.5	344.7	332.2	363.9	292.7	272.4	269.0
65°	11887.5	9982.2	3466.0	860.0	394.4	317.6	299.5	298.3	272.4	253.1	248.6
67.5°	10952.9	8723.2	2847.8	819.3	385.4	287.0	270.1	264.4	248.6	232.8	230.5
70°	9575.3	7306.1	2283.9	802.4	380.8	255.4	241.8	235.1	221.5	209.1	207.9
72.5°	7449.6	5926.2	1885.0	791.1	378.6	226.0	211.3	202.3	194.4	183.1	183.1
75°	5351.0	4359.9	1438.6	713.1	350.3	194.4	178.6	172.9	161.6	152.6	154.8
77.5°	3373.3	2936.0	947.0	524.4	271.2	156.0	142.4	139.0	130.0	117.5	125.4
80°	2278.3	2064.7	552.6	330.0	170.6	114.1	109.6	108.5	98.3	84.8	85.9
82.5°	1550.5	1521.1	287.0	187.6	98.3	66.7	64.4	66.7	55.4	45.2	45.2
85°	605.7	827.2	135.6	73.5	31.6	10.2	14.7	15.8	9.0	4.5	5.7
87.5°	11.3	84.8	3.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
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: P453596

CATALOG NUMBER: GALN-SA4C-827-U-SLL

**CANDELA DISTRIBUTION (continued):**

	185°	195°	205°	215°	225°	235°	245°	255°	265°	270°	275°
0°	5505.8	5505.8	5505.8	5505.8	5505.8	5505.8	5505.8	5505.8	5505.8	5505.8	5505.8
2.5°	4590.5	4580.3	4597.2	4524.9	4539.6	4566.7	4580.3	4588.2	4700.1	4674.1	4745.3
5°	3581.3	3571.1	3636.7	3645.7	3679.6	3672.8	3705.6	3713.5	3754.2	3768.9	3868.3
7.5°	2604.9	2649.0	2723.5	2762.0	2819.6	2837.7	2820.7	2862.5	2777.8	2838.8	2856.9
10°	2092.9	2039.8	2008.2	2096.3	2107.6	2191.3	2157.4	2130.2	2180.0	2182.2	2229.7
12.5°	1742.6	1628.5	1552.8	1577.6	1604.7	1640.9	1646.6	1700.8	1737.0	1770.9	1799.1
15°	1366.3	1326.7	1257.8	1223.9	1262.3	1277.0	1312.0	1357.2	1395.7	1405.8	1444.3
17.5°	1048.7	1055.5	1044.2	1023.9	1047.6	1058.9	1061.2	1062.3	1072.5	1065.7	1122.2
20°	844.2	867.9	896.2	900.7	908.6	914.3	904.1	865.7	866.8	890.5	908.6
22.5°	763.9	768.5	800.1	810.3	835.1	825.0	795.6	777.5	775.2	780.9	789.9
25°	700.7	707.4	730.0	745.9	765.1	747.0	725.5	708.6	706.3	712.0	721.0
27.5°	644.2	654.3	674.7	690.5	708.6	691.6	671.3	656.6	655.5	654.3	660.0
30°	599.0	610.3	624.9	643.0	655.5	640.8	621.6	613.6	612.5	610.3	612.5
32.5°	553.7	571.8	586.5	595.6	608.0	596.7	582.0	577.5	569.6	562.8	559.4
35°	502.9	522.1	544.7	556.0	568.4	557.1	547.0	527.8	514.2	513.1	515.3
37.5°	473.5	481.4	499.5	518.7	531.1	525.5	506.3	487.1	483.7	483.7	485.9
40°	447.5	450.9	458.8	483.7	506.3	489.3	465.6	460.0	460.0	458.8	460.0
42.5°	421.5	424.9	424.9	444.1	480.3	453.2	435.1	435.1	435.1	436.2	439.6
45°	397.8	398.9	397.8	411.4	445.3	422.7	410.2	413.6	415.9	418.1	420.4
47.5°	377.5	378.6	377.5	388.8	405.7	396.7	389.9	394.4	398.9	402.3	404.6
50°	359.4	358.2	360.5	367.3	375.2	377.5	372.9	379.7	382.0	386.5	392.1
52.5°	343.6	342.4	344.7	348.1	359.4	359.4	359.4	365.0	369.5	374.1	382.0
55°	325.5	326.6	330.0	334.5	349.2	346.9	348.1	352.6	357.1	363.9	368.4
57.5°	308.5	310.8	315.3	322.1	336.8	335.6	336.8	339.0	344.7	348.1	352.6
60°	289.3	293.8	299.5	304.0	318.7	317.6	323.2	327.7	331.1	331.1	333.4
62.5°	270.1	276.9	282.5	285.9	301.7	302.9	310.8	314.2	316.4	314.2	317.6
65°	250.9	261.1	263.3	267.8	283.7	284.8	293.8	301.7	299.5	297.2	302.9
67.5°	231.7	244.1	243.0	248.6	264.4	266.7	274.6	288.2	283.7	281.4	285.9
70°	210.2	219.2	220.4	223.8	245.2	241.8	254.3	266.7	263.3	264.4	264.4
72.5°	186.5	194.4	194.4	201.2	223.8	218.1	228.3	241.8	241.8	240.7	240.7
75°	158.2	162.7	167.3	177.4	201.2	194.4	201.2	213.6	215.8	213.6	213.6
77.5°	127.7	134.5	136.7	150.3	167.3	166.1	172.9	178.6	183.1	180.8	180.8
80°	90.4	97.2	106.2	120.9	131.1	134.5	137.9	142.4	144.7	144.7	146.9
82.5°	50.9	61.0	68.9	83.6	88.1	105.1	104.0	107.4	104.0	91.5	101.7
85°	11.3	21.5	30.5	38.4	44.1	61.0	64.4	72.3	59.9	55.4	55.4
87.5°	0.0	0.0	0.0	0.0	0.0	9.0	18.1	24.9	21.5	18.1	18.1
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: P453596  
 CATALOG NUMBER: GALN-SA4C-827-U-SLL

**CANDELA DISTRIBUTION (continued):**

	285°	295°	305°	315°	325°	335°	345°	355°	359°	360°
0°	5505.8	5505.8	5505.8	5505.8	5505.8	5505.8	5505.8	5505.8	5505.8	5505.8
2.5°	4805.2	4903.5	5022.2	5226.7	5370.2	5525.1	5681.0	5847.1	5891.2	5936.4
5°	3895.5	4088.7	4193.8	4468.4	4756.6	5122.7	5422.2	5749.9	5886.7	5918.3
7.5°	2950.7	3081.8	3357.5	3635.5	3992.6	4376.9	4835.7	5346.5	5505.8	5572.5
10°	2339.3	2517.9	2759.7	3058.0	3371.1	3784.7	4302.3	4899.0	5125.0	5162.3
12.5°	1991.2	2190.1	2453.4	2768.7	3064.8	3376.7	3898.8	4514.7	4756.6	4836.8
15°	1592.3	1833.0	2137.0	2469.3	2791.3	3132.6	3661.5	4356.5	4635.7	4729.5
17.5°	1251.0	1445.4	1774.3	2134.8	2516.7	2948.4	3611.8	4432.2	4775.8	4862.8
20°	957.2	1096.2	1373.1	1753.9	2201.4	2766.5	3624.2	4718.2	5129.5	5248.2
22.5°	827.2	898.4	1066.8	1429.6	1930.2	2608.3	3675.1	5110.3	5606.4	5804.2
25°	749.3	786.5	881.5	1118.8	1671.4	2454.6	3791.5	5638.1	6273.2	6404.3
27.5°	682.6	709.7	768.5	939.1	1436.4	2312.2	3927.1	6223.5	6895.9	7091.4
30°	619.3	655.5	710.8	834.0	1286.1	2182.2	4097.7	6698.1	7420.2	7602.2
32.5°	570.7	606.9	657.7	760.6	1158.4	2045.5	4199.4	7115.1	7848.5	8003.4
35°	531.1	561.7	614.8	701.8	1061.2	1941.5	4179.1	7446.2	8263.3	8421.5
37.5°	502.9	528.9	582.0	646.4	987.7	1833.0	4168.9	7883.6	8768.4	8951.5
40°	476.9	504.0	552.6	610.3	914.3	1705.3	4174.6	8317.5	9306.4	9489.4
42.5°	456.6	487.1	526.6	600.1	838.5	1602.5	4174.6	8695.0	9774.2	9950.5
45°	439.6	472.4	510.8	599.0	778.6	1524.5	4146.3	9019.3	10147.2	10297.5
47.5°	424.9	461.1	516.5	578.6	763.9	1468.0	4121.5	9279.2	10451.2	10592.4
50°	414.7	457.7	549.2	554.9	768.5	1451.0	4241.3	9607.0	10719.0	10841.0
52.5°	406.8	458.8	548.1	519.8	760.6	1462.3	4491.0	10118.9	11090.8	11099.8
55°	391.0	457.7	519.8	480.3	727.8	1481.6	4812.0	10862.5	11672.8	11679.6
57.5°	375.2	445.3	482.6	446.4	661.1	1481.6	5198.5	11566.6	12374.6	12380.2
60°	359.4	463.3	423.8	417.0	574.1	1454.4	5606.4	11876.2	12595.0	12652.6
62.5°	343.6	466.7	378.6	391.0	510.8	1388.9	5910.4	11533.8	12296.6	12379.1
65°	325.5	376.3	349.2	363.9	478.0	1279.3	5814.4	10906.6	11736.1	11834.4
67.5°	304.0	318.7	317.6	335.6	466.7	1117.7	5308.1	10113.3	11132.6	11127.0
70°	278.0	285.9	289.3	308.5	445.3	992.2	4423.2	9083.7	10326.8	10453.4
72.5°	250.9	257.7	261.1	278.0	423.8	921.0	3433.2	7665.5	8944.7	9142.5
75°	221.5	226.0	230.5	245.2	401.2	815.9	2445.5	5851.7	6850.7	7161.4
77.5°	191.0	191.0	196.6	211.3	337.9	673.5	1640.9	4104.5	4641.3	4958.9
80°	154.8	156.0	153.7	169.5	248.6	461.1	932.3	2741.6	3088.6	3149.6
82.5°	118.7	115.3	116.4	124.3	185.3	314.2	497.2	1703.1	1735.8	1701.9
85°	74.6	74.6	72.3	81.4	118.7	163.9	271.2	1043.1	814.8	775.2
87.5°	30.5	24.9	28.3	32.8	56.5	66.7	106.2	214.7	82.5	75.7
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)