

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: P453162

Luminaire Tested: **GALN-SA4A-830-U-SLR-HSS**

Issue Date: 1/4/2021

Test Information

Test Method: LM-79-08
Report Number: P453162
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2011-042-23)
Test Lab: INNOVATION CENTER
Issue Date: 1/4/2021
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: MCGRAW-EDISON
Catalog Number: GALN-SA4A-830-U-SLR-HSS
Description: GALLEON AREA AND ROADWAY LUMINAIRE
(4) 80 CRI, 3000K, 615mA LIGHTSQUARES WITH 16 LEDS EACH AND SPILL LIGHT
ELIMINATOR RIGHT OPTICS WITH HOUSE SIDE SHIELD
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 10324 lumens
Efficiency: N/A
Efficacy: 85.3 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')
IES Classification: Type IV - Short
BUG Rating: B1 - U0 - G2

Input Watts (W): 121
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

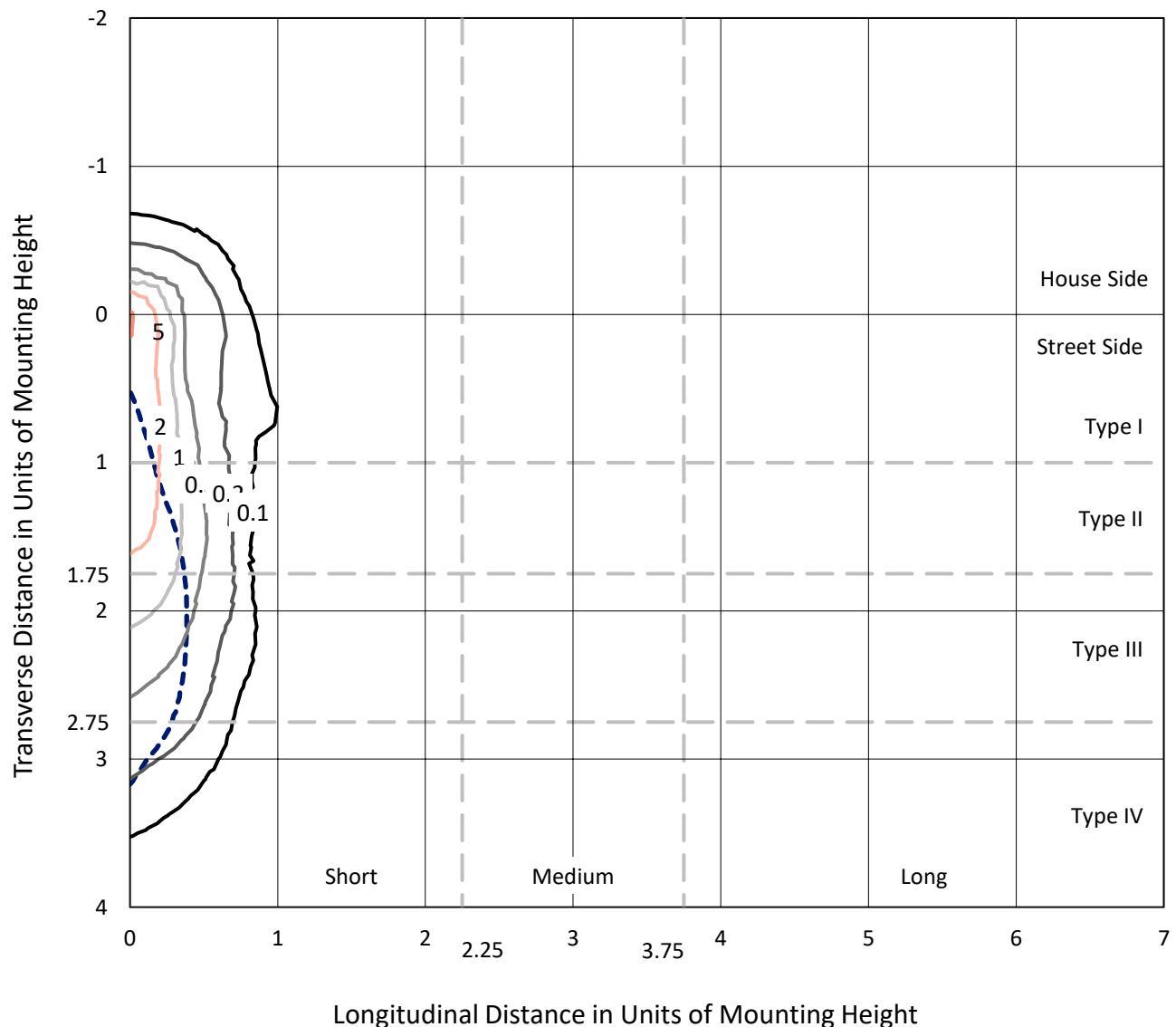


REPORT NUMBER: P453162

CATALOG NUMBER: GALN-SA4A-830-U-SLR-HSS

Iso-Footcandle Lines of Horizontal Illumination

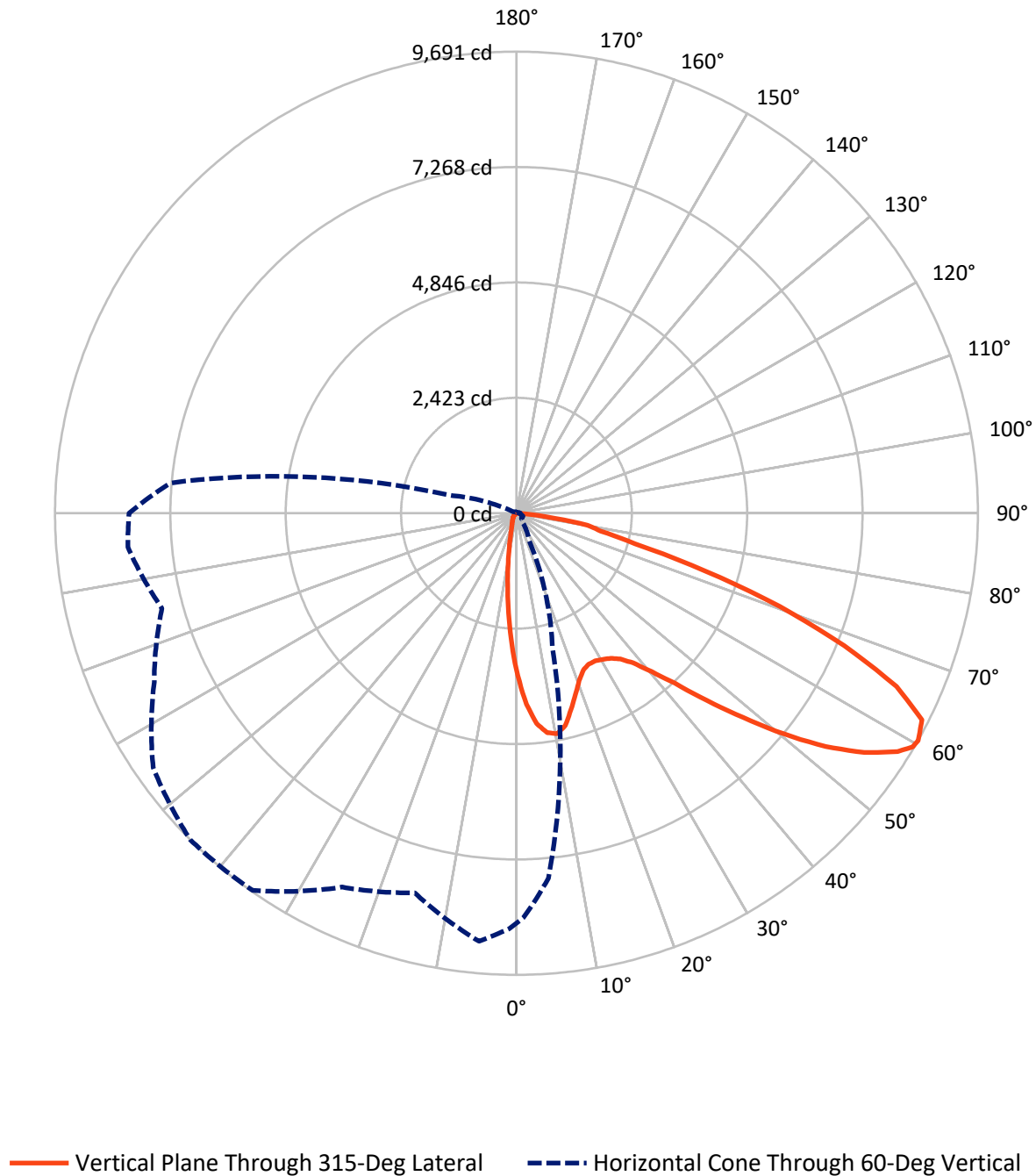
× Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 5.5 fc
 Type IV - Short - N/A

REPORT NUMBER: P453162
CATALOG NUMBER: GALN-SA4A-830-U-SLR-HSS

Luminous Intensity Polar Plot



REPORT NUMBER: P453162

CATALOG NUMBER: GALN-SA4A-830-U-SLR-HSS

FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	1273.4	0.0	1273.4
	% Fixture	12.3	0.0	12.3
Street Side	Lumens	9050.6	0.0	9050.6
	% Fixture	87.7	0.0	87.7
Total	Lumens	10324.0	0.0	10324.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	253.8	2.5
10°-20°	504.0	4.9
20°-30°	739.0	7.2
30°-40°	1099.1	10.6
40°-50°	1599.5	15.5
50°-60°	2306.6	22.3
60°-70°	2537.0	24.6
70°-80°	1136.4	11.0
80°-90°	148.5	1.4
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°	10324.0	100.0
0°-180°	10324.0	100.0

Coefficient of Utilization



REPORT NUMBER: P453162

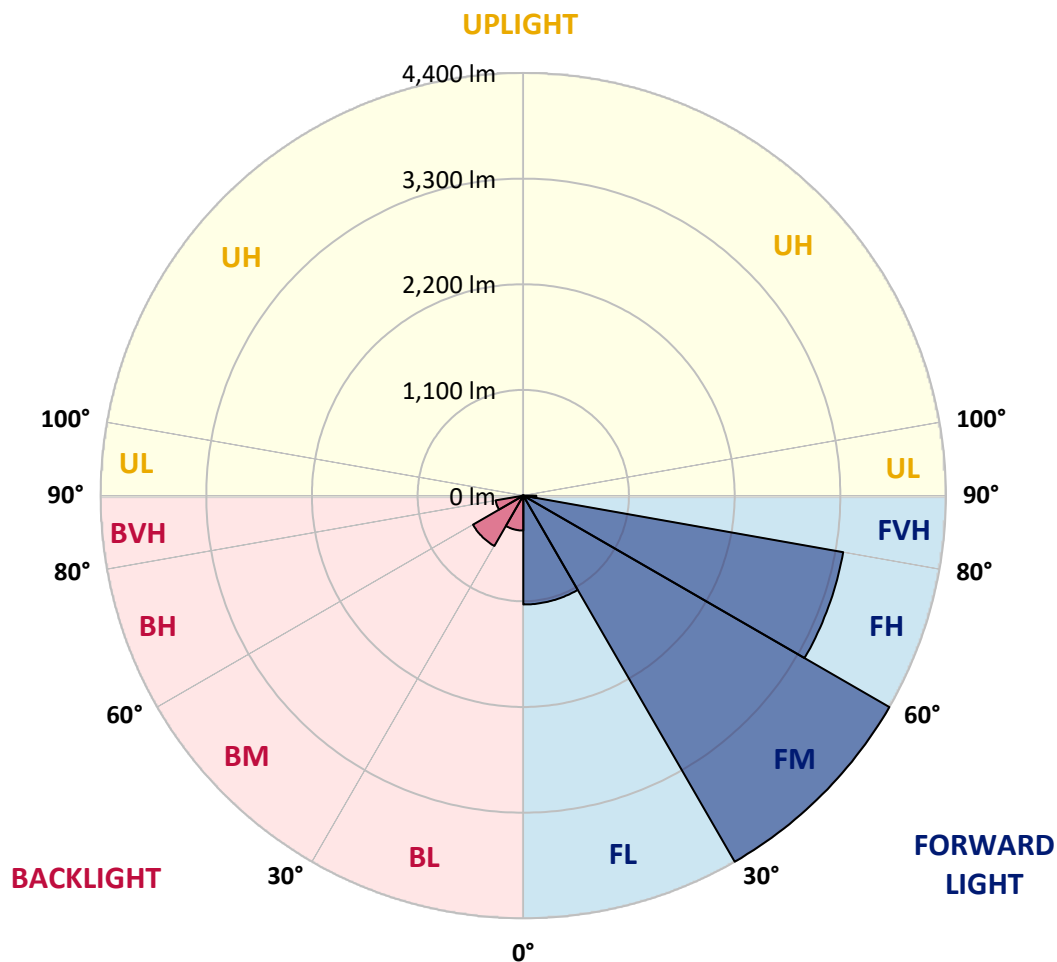
CATALOG NUMBER: GALN-SA4A-830-U-SLR-HSS

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	1133.0	11.0			
FM	(30°-60°)	4400.4	42.6			
FH	(60°-80°)	3381.4	32.8			G2/5000
FVH	(80°-90°)	135.8	1.3			G2/225
BL	(0°-30°)	363.8	3.5	B1/500		
BM	(30°-60°)	604.8	5.9	B1/1000		
BH	(60°-80°)	292.0	2.8	B1/500		G1/500
BVH	(80°-90°)	12.7	0.1			G1/100
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

BUG Rating: B1-U0-G2

Type IV Short



REPORT NUMBER: P453162

CATALOG NUMBER: GALN-SA4A-830-U-SLR-HSS

CANDELA DISTRIBUTION (FULL):

	0°	1°	5°	15°	25°	35°	45°	55°	65°	75°	85°
0°	3412.2	3412.2	3412.2	3412.2	3412.2	3412.2	3412.2	3412.2	3412.2	3412.2	3412.2
2.5°	3751.3	3734.8	3697.1	3582.5	3482.9	3352.6	3220.7	3117.2	3053.6	2936.7	2883.3
5°	3634.3	3642.2	3533.1	3297.7	3035.5	2856.6	2661.2	2505.8	2334.7	2226.4	2112.6
7.5°	3329.0	3313.3	3194.8	2866.8	2548.2	2289.2	2042.0	1841.1	1714.7	1613.5	1528.8
10°	3067.7	3055.9	2904.5	2482.3	2140.1	1946.3	1779.1	1603.3	1467.5	1319.2	1200.7
12.5°	2903.7	2877.0	2702.8	2261.7	1983.1	1802.6	1620.6	1437.7	1250.2	1100.3	956.6
15°	2848.8	2810.3	2616.5	2185.6	1882.7	1653.5	1425.2	1214.8	999.0	833.4	725.1
17.5°	2948.4	2884.9	2678.5	2172.3	1762.6	1458.9	1178.0	904.1	679.6	553.3	486.6
20°	3176.8	3103.8	2835.4	2158.9	1629.2	1240.7	895.4	638.8	470.1	401.0	364.1
22.5°	3515.8	3415.4	3067.7	2180.1	1506.0	1028.1	646.7	451.2	373.6	330.4	304.5
25°	3923.1	3839.2	3362.0	2255.5	1408.7	860.9	499.9	368.8	314.7	288.0	268.4
27.5°	4369.7	4235.5	3742.6	2345.7	1320.0	731.4	438.7	329.6	280.2	255.8	245.6
30°	4687.5	4583.1	4061.2	2408.5	1209.3	634.1	401.0	324.9	281.0	251.9	233.1
32.5°	5001.4	4868.0	4328.1	2437.5	1128.5	566.6	346.9	283.3	246.4	231.5	212.7
35°	5337.3	5197.6	4594.1	2421.8	1068.1	521.9	314.7	252.7	211.1	186.0	167.2
37.5°	5677.1	5529.6	4858.6	2365.3	1030.4	503.8	289.6	240.1	199.3	173.4	153.0
40°	6080.5	5883.5	5106.6	2319.0	991.2	494.4	273.1	232.3	190.7	163.2	142.8
42.5°	6410.1	6222.5	5341.2	2294.7	964.5	472.4	273.1	226.0	185.2	154.6	133.4
45°	6722.4	6527.8	5594.7	2314.3	953.5	445.0	276.2	225.2	181.3	148.3	127.1
47.5°	6983.8	6815.0	5855.3	2388.1	939.4	415.1	259.8	236.2	178.9	142.8	120.9
50°	7292.2	7129.0	6199.8	2537.2	914.3	385.3	239.4	254.3	178.1	138.1	115.4
52.5°	7727.0	7550.4	6675.4	2706.7	874.2	339.8	220.5	251.9	175.0	130.3	109.9
55°	8258.3	8115.4	7226.3	2910.0	819.3	288.8	190.7	223.7	165.6	116.9	100.5
57.5°	8598.8	8477.2	7639.1	2997.9	735.3	236.2	167.9	187.6	151.5	104.4	89.5
59°	8638.9	8529.0	7725.4	2968.8	680.4	215.8	157.0	160.9	147.5	97.3	83.2
60°	8605.1	8491.3	7690.9	2912.3	629.4	201.7	147.5	142.8	148.3	93.4	78.5
62.5°	8388.5	8193.9	7355.8	2625.9	550.1	185.2	131.1	116.9	131.1	84.0	69.8
65°	7970.2	7678.3	6692.6	2222.5	518.7	175.8	111.4	98.1	99.7	73.8	60.4
67.5°	7239.6	6871.5	5809.7	1805.8	505.4	176.6	94.2	87.9	76.9	62.8	53.4
70°	6084.4	5717.1	4661.6	1485.6	499.1	176.6	80.0	75.3	64.4	52.6	46.3
72.5°	4311.6	3916.1	3144.6	1167.0	449.7	175.8	68.3	68.3	52.6	43.9	37.7
75°	2436.0	2439.1	1976.9	825.6	373.6	145.2	54.9	54.1	38.5	33.7	28.3
77.5°	1419.7	1394.6	1332.6	354.7	173.4	65.9	38.5	33.0	26.7	24.3	20.4
80°	729.8	600.4	584.7	128.7	62.0	41.6	26.7	18.8	17.3	15.7	14.1
82.5°	215.8	216.6	193.1	51.8	34.5	27.5	13.3	10.2	9.4	8.6	8.6
85°	14.9	9.4	11.0	15.7	21.2	11.0	0.8	2.4	2.4	3.1	3.9
87.5°	1.6	0.8	0.0	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: P453162

CATALOG NUMBER: GALN-SA4A-830-U-SLR-HSS

CANDELA DISTRIBUTION (continued):

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	3412.2	3412.2	3412.2	3412.2	3412.2	3412.2	3412.2	3412.2	3412.2	3412.2	3412.2
2.5°	2824.4	2859.0	2794.6	2796.2	2742.8	2760.1	2697.3	2717.7	2680.8	2709.1	2792.3
5°	2125.2	2133.0	2081.2	2064.8	2072.6	2104.8	2117.3	2060.1	2084.4	2036.5	2033.4
7.5°	1497.4	1506.8	1477.0	1473.0	1529.5	1516.2	1540.5	1481.7	1425.9	1450.3	1405.5
10°	1163.0	1123.8	1062.6	1045.3	1034.3	1041.4	1041.4	988.0	980.2	959.0	991.2
12.5°	918.2	870.3	812.2	733.8	714.2	712.6	683.5	636.5	621.5	603.5	630.2
15°	667.1	647.4	598.8	554.8	510.1	501.5	454.4	415.9	364.9	357.9	355.5
17.5°	469.3	440.3	439.5	414.4	388.5	371.2	327.3	283.3	263.7	261.3	261.3
20°	351.6	341.4	324.9	321.8	313.9	294.3	255.1	231.5	222.1	222.9	226.0
22.5°	295.9	288.8	273.9	266.8	263.7	246.4	217.4	201.7	197.0	197.0	197.8
25°	264.5	258.2	241.7	230.7	226.8	214.2	191.5	179.7	175.8	175.8	175.8
27.5°	240.9	233.1	215.8	206.4	199.3	185.2	171.1	159.3	155.4	155.4	156.2
30°	224.4	215.8	200.1	187.6	176.6	164.0	152.2	142.0	137.3	136.6	137.3
32.5°	202.5	194.6	178.9	171.1	158.5	143.6	134.2	124.8	120.1	120.9	120.1
35°	157.7	155.4	144.4	146.8	139.7	127.1	118.5	108.3	102.8	102.0	103.6
37.5°	143.6	134.2	121.6	122.4	120.1	115.4	101.2	90.2	86.3	86.3	87.1
40°	132.6	123.2	109.1	102.0	102.8	102.8	87.9	76.1	72.2	71.4	73.0
42.5°	123.2	113.8	98.1	86.3	83.2	87.1	74.6	62.8	58.9	57.3	58.9
45°	116.9	106.7	88.7	75.3	65.9	70.6	61.2	51.8	47.1	47.1	46.3
47.5°	110.7	101.2	81.6	65.1	54.9	52.6	50.2	41.6	36.9	36.1	36.9
50°	105.2	95.7	73.8	56.5	46.3	40.8	40.8	33.0	29.8	28.3	29.0
52.5°	99.7	89.5	66.7	50.2	40.0	33.0	29.0	26.7	24.3	23.5	24.3
55°	91.8	81.6	59.6	43.2	34.5	27.5	22.8	22.0	20.4	18.8	20.4
57.5°	82.4	73.0	52.6	36.9	27.5	21.2	18.8	18.0	16.5	15.7	15.7
59°	76.9	68.3	48.7	32.2	24.3	18.8	17.3	16.5	14.9	13.3	14.1
60°	73.8	66.7	46.3	29.8	22.0	17.3	15.7	14.9	13.3	12.6	13.3
62.5°	65.1	59.6	40.8	24.3	17.3	12.6	11.0	11.8	11.0	10.2	11.0
65°	57.3	52.6	34.5	18.8	13.3	8.6	7.8	10.2	9.4	8.6	9.4
67.5°	51.0	45.5	29.0	14.1	9.4	4.7	5.5	8.6	8.6	7.8	8.6
70°	43.9	39.2	23.5	10.2	4.7	2.4	3.9	6.3	7.8	7.1	7.8
72.5°	36.1	30.6	18.0	7.1	2.4	0.0	2.4	5.5	7.8	7.1	7.8
75°	28.3	22.8	13.3	3.9	0.0	0.0	0.8	4.7	7.8	7.1	7.8
77.5°	20.4	16.5	7.8	0.8	0.0	0.0	0.8	4.7	7.8	7.1	7.8
80°	13.3	11.8	3.1	0.0	0.0	0.0	0.8	4.7	7.8	7.8	8.6
82.5°	8.6	6.3	0.0	0.0	0.0	0.0	1.6	6.3	8.6	9.4	9.4
85°	3.9	0.0	0.0	0.0	0.0	0.0	3.1	7.8	10.2	10.2	10.2
87.5°	0.0	0.0	0.0	0.0	0.0	1.6	5.5	9.4	11.8	11.8	11.8
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: P453162

CATALOG NUMBER: GALN-SA4A-830-U-SLR-HSS

CANDELA DISTRIBUTION (continued):

	185°	195°	205°	215°	225°	235°	245°	255°	265°	270°	275°
0°	3412.2	3412.2	3412.2	3412.2	3412.2	3412.2	3412.2	3412.2	3412.2	3412.2	3412.2
2.5°	2806.4	2855.8	2925.7	3033.2	3120.3	3257.6	3362.8	3506.4	3651.6	3695.5	3763.8
5°	2065.5	2129.1	2287.6	2432.0	2523.1	2813.4	2997.1	3286.7	3546.4	3671.2	3807.0
7.5°	1434.6	1509.9	1630.8	1832.5	2024.0	2260.2	2556.8	2888.0	3268.6	3446.8	3638.2
10°	1006.9	1101.0	1271.3	1436.9	1677.9	1902.3	2195.0	2560.7	2980.6	3190.9	3431.1
12.5°	635.7	719.6	944.9	1130.9	1431.4	1692.0	1962.0	2293.1	2779.7	2995.5	3247.4
15°	363.4	434.0	539.1	777.7	1111.3	1455.8	1792.4	2177.0	2676.9	2942.9	3215.2
17.5°	270.7	289.6	336.7	471.7	775.4	1178.0	1636.3	2141.7	2746.7	3059.1	3369.9
20°	227.6	240.1	262.1	315.5	494.4	907.2	1484.0	2147.9	2972.8	3365.1	3660.2
22.5°	204.0	211.9	229.9	264.5	337.5	660.8	1305.9	2184.8	3246.6	3741.1	4081.6
25°	178.9	189.1	204.8	234.6	281.0	458.3	1130.1	2267.2	3630.4	4218.2	4538.4
27.5°	159.3	168.7	184.4	211.9	246.4	350.0	925.3	2337.9	4035.3	4698.5	4960.6
30°	139.7	149.1	164.8	186.8	218.2	283.3	704.7	2379.5	4428.5	5058.7	5260.4
32.5°	123.2	131.1	146.0	165.6	191.5	240.1	555.6	2336.3	4729.1	5386.0	5520.9
35°	106.7	116.1	128.7	146.8	169.5	204.8	462.2	2187.2	4987.3	5722.6	5771.3
37.5°	89.5	100.5	113.8	130.3	148.3	188.3	371.2	2022.4	5263.5	6142.5	6062.4
40°	75.3	85.5	98.1	116.1	132.6	172.7	285.7	1846.6	5561.7	6536.4	6380.3
42.5°	61.2	72.2	87.1	103.6	131.1	150.7	221.3	1664.5	5829.4	6879.4	6667.5
45°	48.7	58.1	73.8	95.0	130.3	129.5	171.1	1484.8	6031.0	7124.2	6881.7
47.5°	38.5	46.3	62.0	92.6	120.1	109.9	137.3	1373.4	6242.9	7344.8	7045.8
50°	30.6	38.5	53.4	96.5	105.2	94.2	115.4	1391.4	6447.8	7457.0	7113.3
52.5°	25.9	33.7	46.3	76.1	80.8	82.4	101.2	1474.6	6712.2	7577.1	7247.5
55°	22.8	29.8	39.2	53.4	62.8	73.8	92.6	1535.0	7066.2	7834.5	7543.3
57.5°	18.0	25.9	35.3	45.5	51.8	64.4	85.5	1539.7	7386.4	8164.9	7936.5
59°	16.5	23.5	33.0	43.2	46.3	58.1	80.8	1499.7	7398.1	8214.3	8117.0
60°	14.9	22.8	31.4	40.0	43.9	54.9	76.9	1453.4	7291.4	8135.8	8191.5
62.5°	12.6	19.6	27.5	32.2	37.7	45.5	66.7	1285.5	6774.2	7780.3	8053.4
65°	11.0	17.3	23.5	26.7	31.4	39.2	58.9	1028.8	6202.9	7298.5	7657.9
67.5°	10.2	15.7	20.4	22.8	27.5	36.1	52.6	726.7	5462.9	6687.1	7063.8
70°	9.4	14.9	18.0	21.2	24.3	30.6	44.7	423.8	4208.0	5615.1	6013.0
72.5°	9.4	14.1	15.7	18.0	21.2	27.5	41.6	229.2	2877.0	4283.3	4797.4
75°	9.4	13.3	14.1	15.7	18.8	25.1	36.9	120.1	1859.9	2975.9	3672.8
77.5°	9.4	12.6	14.1	14.9	18.0	22.0	32.2	75.3	1239.2	2084.4	2482.3
80°	10.2	12.6	13.3	14.9	17.3	20.4	26.7	50.2	728.3	1254.1	1510.7
82.5°	11.0	12.6	14.1	15.7	18.0	19.6	23.5	31.4	335.9	829.5	938.6
85°	11.8	13.3	14.9	16.5	18.8	19.6	22.0	22.8	54.9	374.3	506.2
87.5°	12.6	14.1	15.7	17.3	20.4	20.4	20.4	20.4	18.8	40.0	102.0
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: P453162

CATALOG NUMBER: GALN-SA4A-830-U-SLR-HSS

CANDELA DISTRIBUTION (continued):

	285°	295°	305°	315°	325°	335°	345°	355°	359°	360°
0°	3412.2	3412.2	3412.2	3412.2	3412.2	3412.2	3412.2	3412.2	3412.2	3412.2
2.5°	3850.1	3938.8	4000.8	4016.5	3971.8	3951.4	3894.9	3807.0	3753.6	3751.3
5°	4057.3	4265.3	4409.7	4434.0	4347.7	4201.7	4028.3	3804.6	3673.6	3634.3
7.5°	4022.0	4386.1	4618.4	4652.2	4507.0	4228.4	3892.5	3532.3	3389.5	3329.0
10°	3876.8	4321.0	4653.0	4706.3	4512.5	4120.1	3693.2	3291.4	3114.0	3067.7
12.5°	3752.8	4201.7	4496.8	4570.6	4423.8	4032.2	3573.9	3136.8	2946.9	2903.7
15°	3698.7	4060.5	4241.0	4278.6	4254.3	3977.3	3561.3	3113.2	2895.8	2848.8
17.5°	3752.8	3940.4	3963.1	4001.6	4055.8	3971.8	3682.2	3241.1	3006.5	2948.4
20°	3894.9	3836.0	3741.8	3758.3	3882.3	3994.5	3897.2	3524.5	3238.8	3176.8
22.5°	4136.6	3810.1	3596.7	3582.5	3739.5	4070.7	4212.7	3908.2	3577.0	3515.8
25°	4433.2	3875.3	3543.3	3512.7	3683.8	4182.1	4555.7	4378.3	4016.5	3923.1
27.5°	4756.6	4010.2	3543.3	3513.5	3679.1	4281.0	4849.2	4794.2	4471.7	4369.7
30°	4933.9	4121.7	3594.3	3560.6	3737.1	4338.3	5006.1	5163.9	4813.8	4687.5
32.5°	5092.4	4276.3	3694.0	3630.4	3858.8	4423.0	5146.6	5477.8	5086.2	5001.4
35°	5238.4	4441.9	3831.3	3757.5	4018.9	4539.2	5302.0	5807.4	5465.2	5337.3
37.5°	5399.3	4634.1	4045.5	3982.8	4286.5	4765.2	5486.4	6240.6	5838.0	5677.1
40°	5574.3	4857.0	4397.9	4371.2	4711.8	5021.0	5719.5	6702.8	6263.3	6080.5
42.5°	5752.4	5113.6	4829.5	4873.5	5193.7	5379.7	5958.8	7058.3	6611.8	6410.1
45°	5914.1	5441.7	5390.7	5608.0	5755.6	5729.7	6136.2	7308.7	6915.5	6722.4
47.5°	6118.2	5919.6	6069.5	6404.6	6408.5	6110.3	6270.4	7513.5	7176.8	6983.8
50°	6346.5	6483.9	6946.1	7287.5	7195.7	6484.6	6427.4	7756.0	7446.8	7292.2
52.5°	6611.0	7115.6	7756.0	8135.0	7920.8	6892.7	6688.7	8018.1	7875.3	7727.0
55°	6918.6	7546.5	8563.5	8865.7	8649.9	7399.7	7085.8	8373.6	8359.5	8258.3
57.5°	7266.3	8001.6	9031.3	9440.1	9247.9	7994.6	7640.6	8708.7	8655.4	8598.8
59°	7541.0	8235.5	9237.7	9661.4	9545.3	8411.3	8013.4	8917.5	8723.6	8638.9
60°	7707.3	8394.0	9313.8	9691.3	9664.6	8659.3	8249.6	9019.5	8722.8	8605.1
62.5°	8201.0	8671.0	9284.7	9558.6	9663.0	9134.9	8942.6	9131.7	8561.2	8388.5
65°	8376.8	8579.2	8803.7	8769.9	8859.4	9110.5	9385.2	9008.5	8215.9	7970.2
67.5°	8034.6	7572.4	7651.6	7426.4	7382.4	8099.7	9205.5	8405.8	7540.2	7239.6
70°	6772.7	5801.1	5761.1	5864.7	5580.6	6557.6	8266.1	7245.1	6425.0	6084.4
72.5°	5331.0	4099.7	3762.2	4143.6	4135.0	5003.0	6866.8	5141.1	4340.6	4311.6
75°	4192.3	2854.2	2505.0	2567.0	2686.3	3621.8	5469.1	3264.7	2673.0	2436.0
77.5°	2814.2	2022.4	1886.6	1810.5	1939.2	2325.3	3460.1	1770.5	1498.9	1419.7
80°	1622.1	1469.1	1668.4	1514.6	1583.7	1465.2	1721.0	812.2	674.1	729.8
82.5°	1055.5	836.6	891.5	662.4	905.6	913.5	552.5	240.1	203.3	215.8
85°	660.0	392.4	220.5	157.0	312.3	574.5	172.7	14.9	17.3	14.9
87.5°	171.1	65.1	27.5	40.8	50.2	44.7	40.0	2.4	0.8	1.6
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

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