

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: P453160

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

Issue Date: 1/4/2021

Test Information

Test Method: LM-79-08
Report Number: P453160
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2011-042-21)
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-SLL-HSS
Description: GALLEON AREA AND ROADWAY LUMINAIRE
(4) 80 CRI, 3000K, 615mA LIGHTSQUARES WITH 16 LEDS EACH AND SPILL LIGHT
ELIMINATOR LEFT 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 III - 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

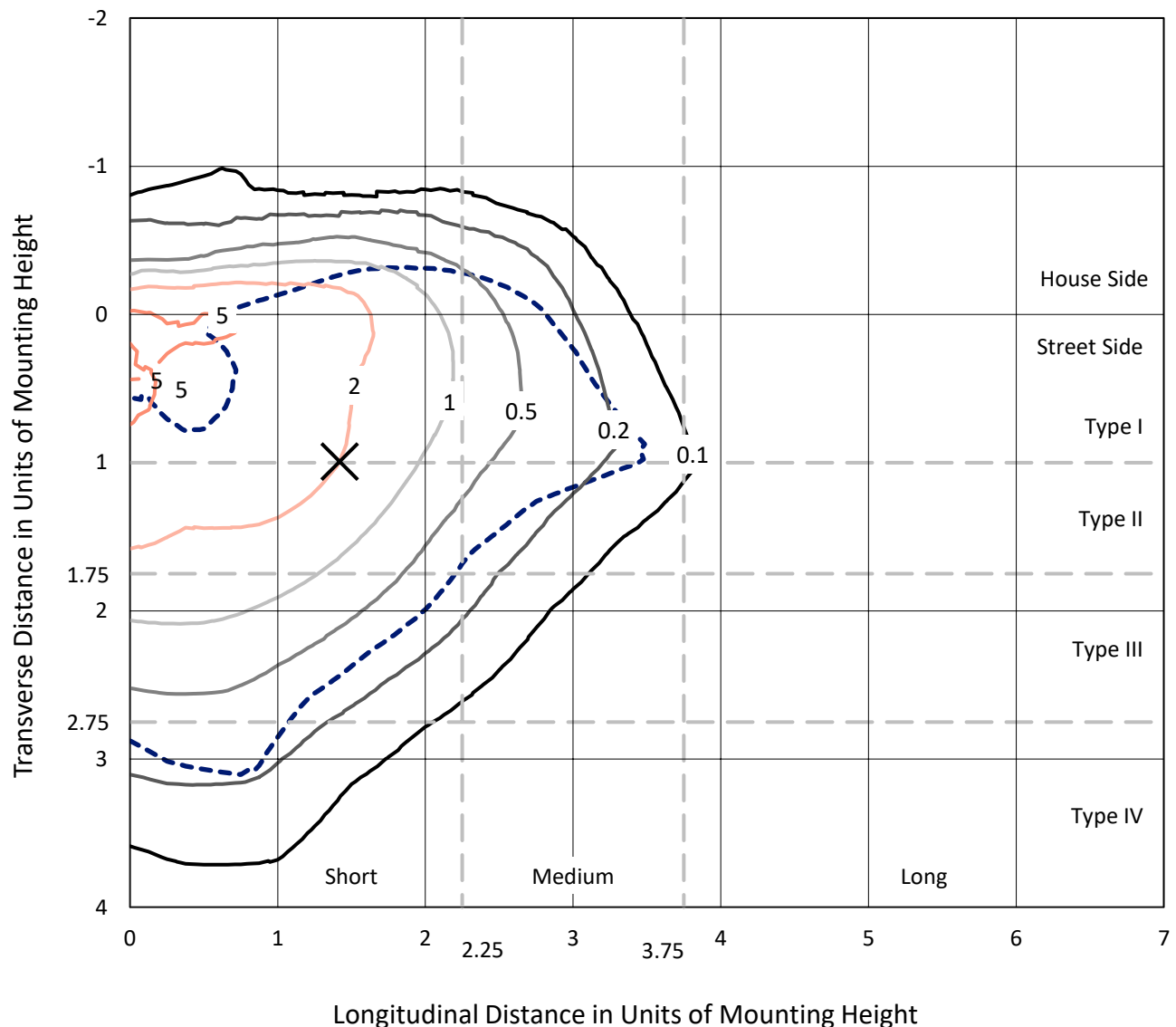


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Iso-Footcandle Lines of Horizontal Illumination

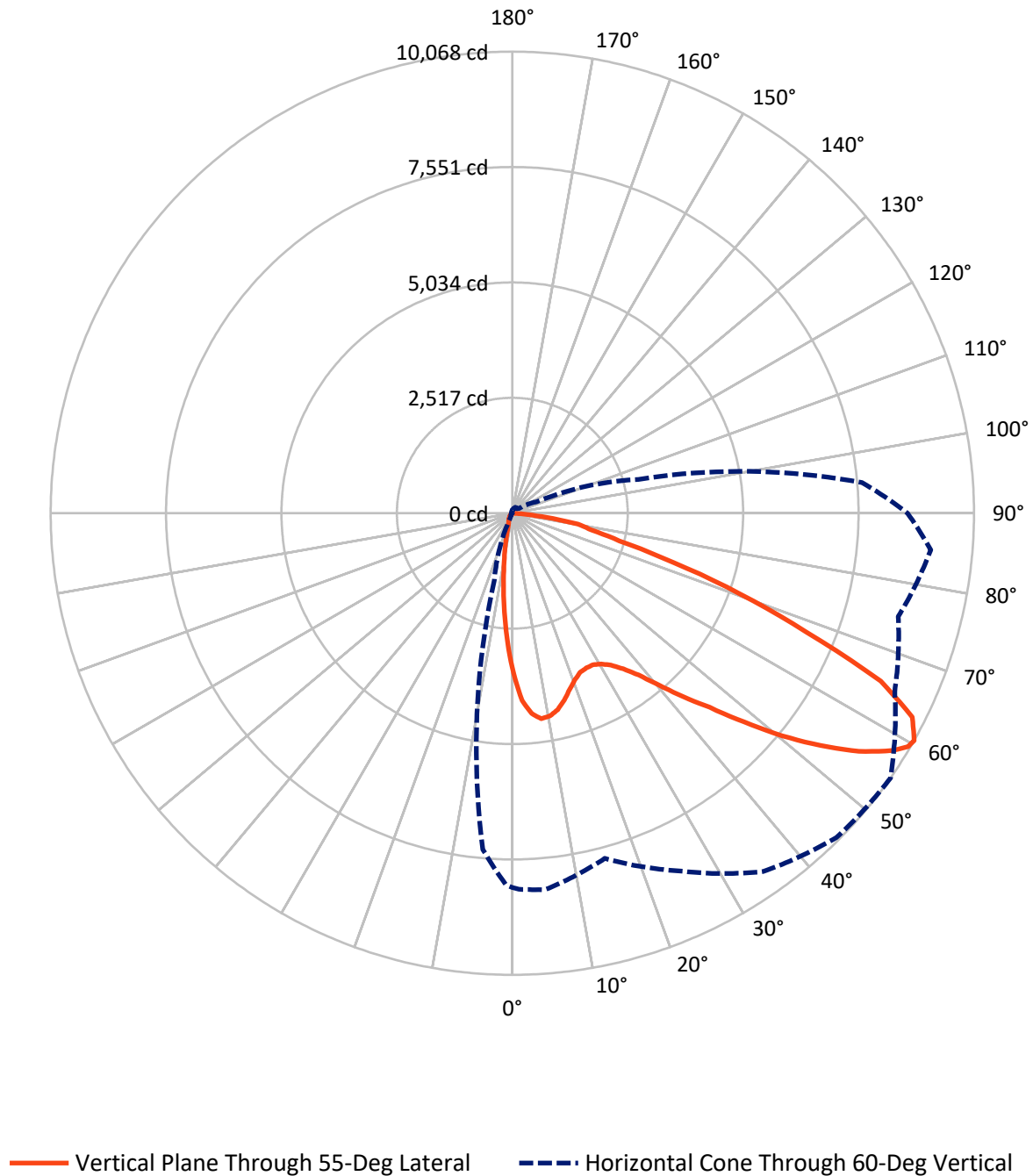
✕ Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 7.2 fc
 Type III - Short - N/A

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Luminous Intensity Polar Plot



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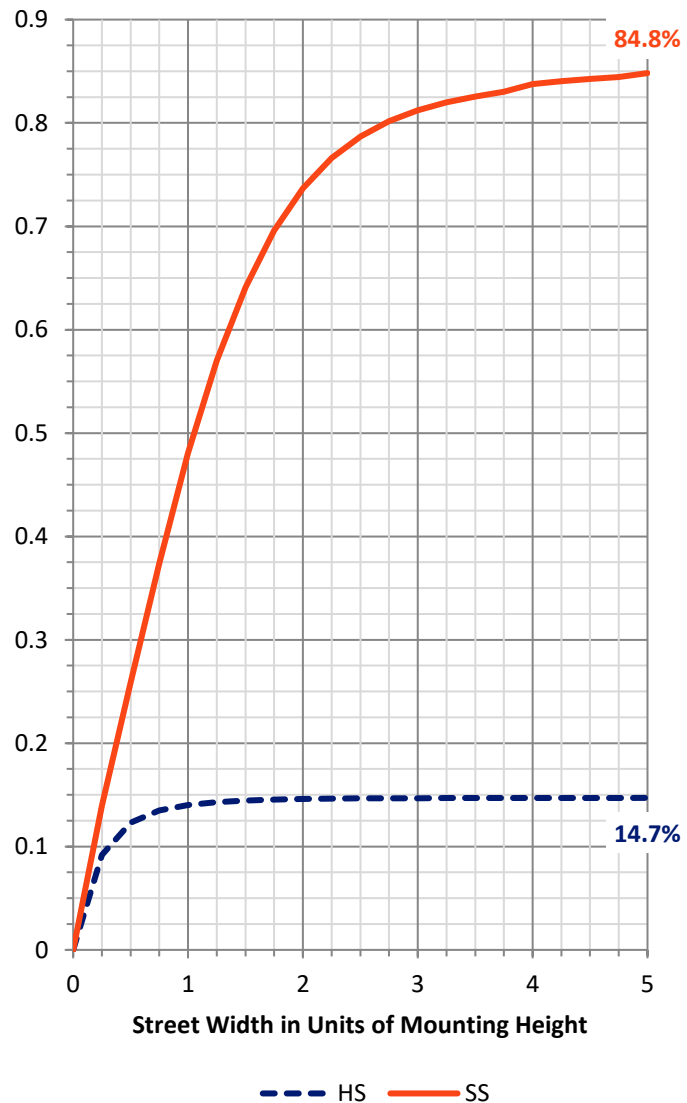
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	1532.2	0.0	1532.2
	% Fixture	14.8	0.0	14.8
Street Side	Lumens	8791.8	0.0	8791.8
	% Fixture	85.2	0.0	85.2
Total	Lumens	10324.0	0.0	10324.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	258.9	2.5
10°-20°	509.8	4.9
20°-30°	754.5	7.3
30°-40°	1124.7	10.9
40°-50°	1647.1	16.0
50°-60°	2378.0	23.0
60°-70°	2501.5	24.2
70°-80°	1029.0	10.0
80°-90°	120.5	1.2
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°	10324.0	100.0
0°-180°	10324.0	100.0

Coefficient of Utilization



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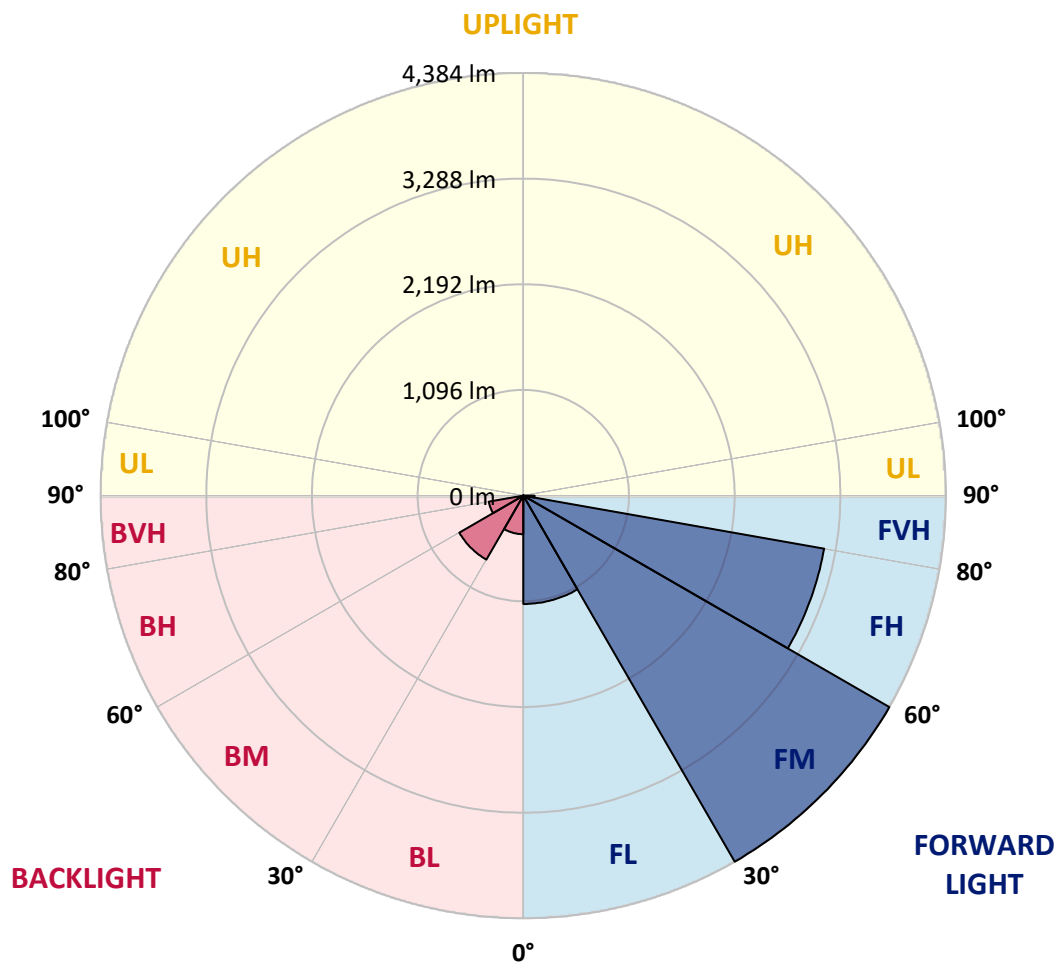
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	1123.4	10.9			
FM	(30°-60°)	4383.6	42.5			
FH	(60°-80°)	3167.9	30.7			G2/5000
FVH	(80°-90°)	117.0	1.1			G2/225
BL	(0°-30°)	399.8	3.9	B1/500		
BM	(30°-60°)	766.2	7.4	B1/1000		
BH	(60°-80°)	362.7	3.5	B1/500		G1/500
BVH	(80°-90°)	3.5	0.0			G0/10
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

BUG Rating: B1-U0-G2

Type III Short





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CANDELA DISTRIBUTION (FULL):

	0°	1°	5°	15°	25°	35°	45°	55°	65°	75°	85°
0°	3495.7	3495.7	3495.7	3495.7	3495.7	3495.7	3495.7	3495.7	3495.7	3495.7	3495.7
2.5°	3819.1	3812.7	3869.2	3961.3	4054.3	4102.8	4093.3	4089.3	4012.2	3955.8	3837.4
5°	3811.2	3843.7	3944.7	4194.2	4383.3	4474.7	4501.7	4388.1	4237.9	4020.1	3751.6
7.5°	3583.1	3623.6	3788.1	4178.3	4514.4	4713.1	4705.9	4524.0	4214.0	3877.1	3494.1
10°	3300.2	3347.9	3541.0	4014.6	4450.9	4713.1	4727.4	4496.9	4111.5	3679.2	3276.4
12.5°	3100.7	3157.2	3370.9	3862.0	4287.2	4545.4	4562.1	4395.2	4034.5	3603.0	3158.0
15°	3033.2	3086.4	3303.4	3784.9	4113.1	4252.2	4248.2	4230.7	4004.3	3621.2	3164.3
17.5°	3149.2	3192.9	3437.7	3819.9	3950.2	3935.9	3956.6	4040.8	4010.6	3774.6	3364.6
20°	3448.8	3493.3	3756.3	3927.2	3825.5	3734.9	3744.4	3885.1	4069.4	4063.1	3677.7
22.5°	3861.2	3936.7	4175.1	4135.4	3808.8	3610.1	3590.2	3773.0	4169.5	4395.2	4100.4
25°	4383.3	4459.6	4645.5	4467.5	3890.6	3580.7	3562.4	3738.8	4291.1	4719.4	4576.4
27.5°	4822.0	4880.0	5065.1	4791.0	4011.4	3593.4	3563.2	3743.6	4389.7	4995.2	4977.7
30°	5173.2	5216.1	5325.0	4941.9	4115.5	3649.0	3614.1	3813.5	4433.4	5129.5	5302.7
32.5°	5456.1	5528.4	5562.6	5103.3	4264.9	3753.9	3694.3	3947.8	4539.9	5295.6	5643.6
35°	5779.5	5862.9	5819.2	5257.4	4462.0	3917.6	3844.5	4165.6	4701.2	5448.9	6039.4
37.5°	6189.6	6285.7	6114.9	5419.5	4670.2	4164.0	4129.8	4471.5	4945.9	5668.3	6463.7
40°	6613.9	6669.5	6401.7	5616.6	4926.1	4522.4	4555.0	4926.1	5266.2	5931.3	6915.1
42.5°	6945.3	6997.7	6696.5	5781.9	5187.5	4947.5	5083.4	5474.4	5633.3	6200.7	7252.0
45°	7198.8	7243.3	6900.8	5962.3	5540.3	5563.4	5820.0	6039.4	6001.2	6365.2	7511.9
47.5°	7395.8	7434.0	7058.1	6156.2	6068.8	6316.7	6709.3	6802.2	6382.7	6543.2	7747.1
50°	7476.9	7488.0	7107.4	6403.3	6668.7	7276.6	7685.9	7629.5	6819.7	6741.0	7997.4
52.5°	7582.6	7580.2	7248.0	6638.5	7232.9	8134.9	8543.3	8415.4	7314.0	7037.4	8278.7
55°	7859.9	7863.1	7549.2	6972.3	7713.7	8827.8	9264.9	9171.9	7835.3	7538.1	8606.9
57.5°	8196.8	8208.8	7977.5	7362.5	8173.0	9330.0	9803.6	9767.9	8540.1	8095.1	8916.8
59°	8240.5	8264.4	8180.2	7637.4	8445.6	9484.2	9988.0	10023.0	8917.6	8462.3	9084.5
60°	8161.1	8200.8	8239.0	7793.2	8605.3	9539.8	9999.1	10067.5	9201.3	8711.8	9160.8
62.5°	7814.6	7877.4	8068.9	8272.3	8804.8	9366.6	9643.9	9786.9	9552.5	9367.4	9167.9
65°	7360.9	7393.5	7670.0	8357.4	8417.8	8557.6	8643.4	8827.0	9130.6	9620.1	8839.7
67.5°	6617.1	6713.2	7051.7	7863.9	7275.8	7110.6	7089.1	6906.3	7694.6	9017.7	8030.8
70°	5466.4	5509.3	5926.5	6447.0	5491.1	5236.8	5338.5	5270.1	5964.7	7763.0	6463.7
72.5°	4133.8	4230.7	4638.4	5139.0	3736.5	3406.7	3687.2	3661.8	4480.3	6238.8	4440.5
75°	2941.0	3003.8	3523.5	4021.7	2616.8	2217.1	2318.0	2412.6	3127.8	4926.1	2623.9
77.5°	2020.8	2074.8	2465.0	2659.7	1908.8	1828.5	1672.7	1764.1	2049.4	2922.7	1428.0
80°	1219.0	1216.6	1473.3	1521.0	1329.5	1544.0	1295.3	1454.2	1238.9	1250.8	553.1
82.5°	791.5	783.5	901.1	982.2	739.8	778.0	522.1	752.5	807.4	348.9	174.8
85°	354.4	369.5	433.1	571.4	324.2	172.4	106.5	231.2	344.1	175.6	0.0
87.5°	36.6	28.6	76.3	139.1	44.5	4.8	15.9	7.9	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



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CANDELA DISTRIBUTION (continued):

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	3495.7	3495.7	3495.7	3495.7	3495.7	3495.7	3495.7	3495.7	3495.7	3495.7	3495.7
2.5°	3782.5	3736.5	3599.0	3470.2	3359.8	3224.7	3137.3	2999.8	2916.4	2890.9	2894.9
5°	3630.8	3498.1	3236.6	3027.6	2794.8	2662.1	2460.2	2266.3	2161.5	2122.5	2105.0
7.5°	3312.9	3170.7	2855.2	2527.0	2277.5	2044.6	1894.5	1723.6	1606.8	1510.6	1493.9
10°	3076.9	2890.2	2499.2	2146.4	1949.3	1774.5	1624.3	1453.4	1315.9	1206.3	1176.1
12.5°	2935.4	2726.5	2290.2	1994.6	1807.8	1628.2	1432.8	1234.9	1094.2	975.8	921.0
15°	2910.0	2667.6	2231.4	1885.7	1655.3	1438.3	1178.5	964.7	820.1	708.0	673.9
17.5°	3063.4	2773.3	2222.6	1772.1	1455.8	1148.3	878.1	700.9	538.0	475.2	450.6
20°	3336.7	2960.1	2221.8	1640.2	1250.8	884.4	616.7	456.9	391.0	360.8	346.5
22.5°	3709.4	3214.4	2264.0	1526.5	1037.8	652.4	440.2	364.0	325.8	301.2	295.6
25°	4164.8	3591.0	2367.3	1449.4	874.9	511.8	363.2	311.5	279.7	268.6	263.8
27.5°	4569.3	3951.8	2480.9	1370.0	758.1	453.0	336.9	285.3	259.9	251.1	244.0
30°	4918.1	4279.2	2535.7	1265.1	664.3	414.8	341.7	305.1	271.8	245.5	233.6
32.5°	5208.9	4530.3	2571.5	1169.7	584.9	339.3	270.2	236.0	220.9	211.4	203.4
35°	5572.9	4802.1	2550.0	1115.7	544.3	309.1	246.3	203.4	178.0	158.9	151.0
37.5°	5954.3	5073.9	2512.7	1071.2	526.1	286.9	234.4	193.1	165.3	145.4	135.1
40°	6349.3	5325.8	2469.0	1029.9	509.4	272.6	227.3	184.4	156.5	135.1	124.0
42.5°	6710.8	5571.3	2451.5	1002.9	482.4	274.9	221.7	180.4	147.8	125.6	116.0
45°	7003.3	5804.1	2475.3	988.5	453.0	271.0	223.3	175.6	140.7	119.2	109.7
47.5°	7315.6	6133.1	2552.4	974.2	424.3	251.9	235.2	174.8	137.5	115.2	104.9
50°	7678.7	6554.3	2728.8	939.3	389.4	231.2	250.3	174.0	133.5	110.5	100.1
52.5°	8162.7	7032.7	2910.8	878.1	338.5	211.4	239.2	171.6	125.6	104.9	94.6
55°	8597.3	7536.5	3065.0	805.8	274.2	182.8	215.4	161.3	112.0	95.4	85.8
57.5°	8776.9	7821.0	3060.2	705.7	219.3	160.5	177.2	147.8	97.7	84.2	76.3
59°	8711.0	7785.2	2957.7	631.7	200.3	148.6	147.0	146.2	91.4	76.3	69.9
60°	8618.0	7654.9	2847.2	595.2	188.3	140.7	135.1	144.6	85.8	71.5	65.2
62.5°	8262.0	7114.5	2480.9	533.2	172.4	119.2	108.1	122.4	76.3	62.0	56.4
65°	7746.3	6284.1	2100.3	515.7	167.7	98.5	89.8	87.4	65.2	52.4	47.7
67.5°	6740.2	5317.8	1701.4	503.8	169.3	82.6	78.7	66.0	54.0	43.7	40.5
70°	5396.5	4146.5	1393.0	490.3	170.9	67.5	66.0	52.4	43.7	36.6	33.4
72.5°	3278.7	2457.9	1096.6	425.9	166.1	54.0	58.8	39.7	31.8	26.2	24.6
75°	2027.2	1682.3	680.2	331.4	109.7	39.7	41.3	24.6	21.5	16.7	16.7
77.5°	1174.5	1062.5	243.2	119.2	48.5	23.8	18.3	12.7	11.9	7.2	7.2
80°	487.1	390.2	84.2	40.5	26.2	11.1	4.0	0.8	0.0	0.0	0.0
82.5°	142.2	126.3	23.0	18.3	7.9	0.0	0.0	0.0	0.0	0.0	0.0
85°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
87.5°	0.0	0.0	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

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CANDELA DISTRIBUTION (continued):

	185°	195°	205°	215°	225°	235°	245°	255°	265°	270°	275°
0°	3495.7	3495.7	3495.7	3495.7	3495.7	3495.7	3495.7	3495.7	3495.7	3495.7	3495.7
2.5°	2827.4	2801.2	2789.2	2829.8	2792.4	2840.1	2803.5	2819.4	2866.3	2887.0	2940.2
5°	2116.2	2089.1	2076.4	2137.6	2134.4	2164.6	2161.5	2189.3	2213.1	2159.9	2214.7
7.5°	1474.1	1455.8	1486.0	1533.7	1584.5	1567.9	1567.9	1530.5	1543.2	1535.3	1532.9
10°	1121.3	1058.5	1042.6	1041.0	1060.1	1064.0	1042.6	990.9	1010.0	1015.6	1048.9
12.5°	882.1	833.6	759.7	726.3	717.6	724.7	654.0	608.7	630.2	617.4	650.0
15°	632.5	592.8	549.1	511.8	501.4	487.1	410.0	356.0	349.6	352.0	357.6
17.5°	451.4	424.3	424.3	384.6	363.2	320.2	281.3	257.5	255.1	257.5	261.4
20°	333.0	318.7	317.1	306.7	282.9	254.3	227.3	222.5	220.9	224.9	226.5
22.5°	286.9	271.8	259.1	258.3	236.0	212.2	199.5	193.1	193.9	195.5	199.5
25°	256.7	240.8	227.3	219.3	203.4	186.7	174.8	171.6	171.6	174.0	174.8
27.5°	235.2	215.4	203.4	192.3	178.0	163.7	153.4	151.0	149.4	151.0	155.0
30°	220.1	200.3	185.2	168.5	157.3	143.8	135.1	131.9	131.1	131.9	135.1
32.5°	188.3	176.4	164.5	149.4	135.9	127.1	117.6	112.0	112.0	113.6	116.8
35°	142.2	135.9	135.1	131.1	120.0	110.5	99.3	93.8	93.8	96.9	98.5
37.5°	125.6	113.6	112.0	110.5	105.7	93.0	82.6	77.9	77.1	79.5	82.6
40°	114.4	100.9	93.8	92.2	93.0	78.7	67.5	62.8	62.8	63.6	66.8
42.5°	105.7	89.8	77.1	75.5	78.7	66.0	54.8	50.1	50.1	50.1	54.0
45°	98.5	80.3	65.2	57.2	62.0	54.0	44.5	39.7	38.1	39.7	41.3
47.5°	93.8	73.1	57.2	46.1	46.1	42.9	35.8	30.2	28.6	29.4	31.8
50°	89.8	66.8	48.5	37.3	33.4	34.2	27.0	23.0	21.5	21.5	23.8
52.5°	83.4	60.4	42.1	31.8	25.4	23.0	19.9	16.7	15.9	16.7	18.3
55°	75.5	54.8	36.6	26.2	19.9	15.9	14.3	11.9	11.1	11.9	14.3
57.5°	66.8	46.1	29.4	20.7	13.5	10.3	9.5	7.9	6.4	7.2	8.7
59°	61.2	41.3	25.4	16.7	10.3	7.2	7.2	5.6	4.0	4.8	7.2
60°	58.8	38.1	21.5	14.3	8.7	5.6	5.6	4.0	2.4	3.2	5.6
62.5°	50.1	31.8	16.7	8.7	4.0	0.8	2.4	0.8	0.0	0.8	2.4
65°	42.1	25.4	11.1	4.0	0.0	0.0	0.0	0.0	0.0	0.0	0.8
67.5°	35.0	19.1	5.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
70°	27.8	12.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
72.5°	19.1	7.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
75°	11.9	2.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
77.5°	4.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
80°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
82.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
85°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
87.5°	0.0	0.0	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: P453160

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

CANDELA DISTRIBUTION (continued):

	285°	295°	305°	315°	325°	335°	345°	355°	359°	360°
0°	3495.7	3495.7	3495.7	3495.7	3495.7	3495.7	3495.7	3495.7	3495.7	3495.7
2.5°	2943.4	3057.0	3127.0	3258.9	3394.0	3498.1	3628.4	3745.2	3793.7	3819.1
5°	2270.3	2428.5	2562.8	2763.8	2950.5	3177.8	3408.3	3680.0	3784.1	3811.2
7.5°	1593.3	1754.6	1895.2	2128.1	2394.3	2698.6	3043.5	3388.4	3540.2	3583.1
10°	1150.7	1323.1	1494.7	1727.6	1976.3	2306.1	2665.3	3092.0	3266.8	3300.2
12.5°	726.3	911.5	1190.4	1478.1	1741.1	2006.5	2382.4	2846.4	3039.5	3100.7
15°	421.2	559.4	770.0	1145.1	1479.6	1830.9	2240.9	2754.3	2970.4	3033.2
17.5°	282.1	329.8	474.4	761.3	1203.1	1668.8	2205.2	2829.8	3068.9	3149.2
20°	237.6	259.1	309.9	464.1	926.6	1524.1	2214.7	3034.8	3348.7	3448.8
22.5°	209.0	228.9	261.4	333.8	646.8	1344.6	2260.0	3328.0	3733.3	3861.2
25°	184.4	204.2	232.8	276.5	434.7	1137.1	2359.3	3757.1	4242.7	4383.3
27.5°	163.7	182.0	206.6	244.0	334.5	905.9	2447.5	4175.1	4707.5	4822.0
30°	144.6	159.7	183.6	212.2	278.1	698.5	2492.0	4540.6	5046.0	5173.2
32.5°	125.6	139.9	162.9	185.9	228.9	532.4	2461.0	4809.2	5375.0	5456.1
35°	107.3	122.4	141.4	162.9	197.9	429.9	2306.1	5111.2	5715.9	5779.5
37.5°	92.2	104.9	124.8	141.4	178.8	344.1	2118.5	5383.0	6098.2	6189.6
40°	77.9	90.6	110.5	125.6	164.5	271.0	1949.3	5684.9	6501.1	6613.9
42.5°	63.6	78.7	96.2	120.8	141.4	206.6	1744.3	5929.7	6803.8	6945.3
45°	50.9	67.5	86.6	120.0	123.2	157.3	1546.4	6120.4	7071.6	7198.8
47.5°	40.5	57.2	83.4	112.0	100.9	124.8	1433.6	6319.9	7294.1	7395.8
50°	32.6	47.7	87.4	98.5	84.2	105.7	1430.4	6542.4	7409.3	7476.9
52.5°	26.2	38.9	73.9	75.5	71.5	93.0	1516.2	6792.7	7527.0	7582.6
55°	22.3	32.6	48.5	55.6	64.4	84.2	1580.6	7178.1	7807.5	7859.9
57.5°	17.5	27.8	37.3	44.5	57.2	77.1	1589.3	7475.3	8162.7	8196.8
59°	15.1	23.8	33.4	39.7	52.4	72.3	1553.5	7493.6	8185.7	8240.5
60°	12.7	21.5	29.4	37.3	48.5	68.3	1514.6	7360.9	8099.9	8161.1
62.5°	9.5	16.7	21.5	30.2	39.7	58.8	1330.2	6897.6	7771.7	7814.6
65°	6.4	11.9	15.9	22.3	31.0	50.9	1083.9	6296.8	7264.7	7360.9
67.5°	4.0	8.7	12.7	16.7	25.4	42.9	772.4	5399.7	6555.1	6617.1
70°	2.4	5.6	9.5	13.5	19.9	34.2	458.5	4268.1	5453.7	5466.4
72.5°	1.6	4.0	6.4	9.5	15.9	31.0	222.5	2782.1	3982.0	4133.8
75°	0.8	2.4	4.0	7.2	12.7	25.4	106.5	1858.7	2897.3	2941.0
77.5°	0.0	0.8	2.4	4.8	9.5	19.9	62.0	1220.6	1975.5	2020.8
80°	0.0	0.0	1.6	4.0	7.2	12.7	37.3	720.0	1196.7	1219.0
82.5°	0.0	0.0	0.8	3.2	4.8	9.5	19.1	316.3	783.5	791.5
85°	0.0	0.0	0.8	3.2	4.0	6.4	7.2	42.9	348.1	354.4
87.5°	0.0	0.0	0.8	4.0	4.0	4.0	4.0	2.4	29.4	36.6
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)