

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: P453394

Luminaire Tested: **GALN-SA4B-830-U-SLR-HSS**

Issue Date: 1/4/2021

Test Information

Test Method: LM-79-08
Report Number: P453394
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-SA4B-830-U-SLR-HSS
Description: GALLEON AREA AND ROADWAY LUMINAIRE
(4) 80 CRI, 3000K, 800mA 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: 12846 lumens
Efficiency: N/A
Efficacy: 78.3 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): 164
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

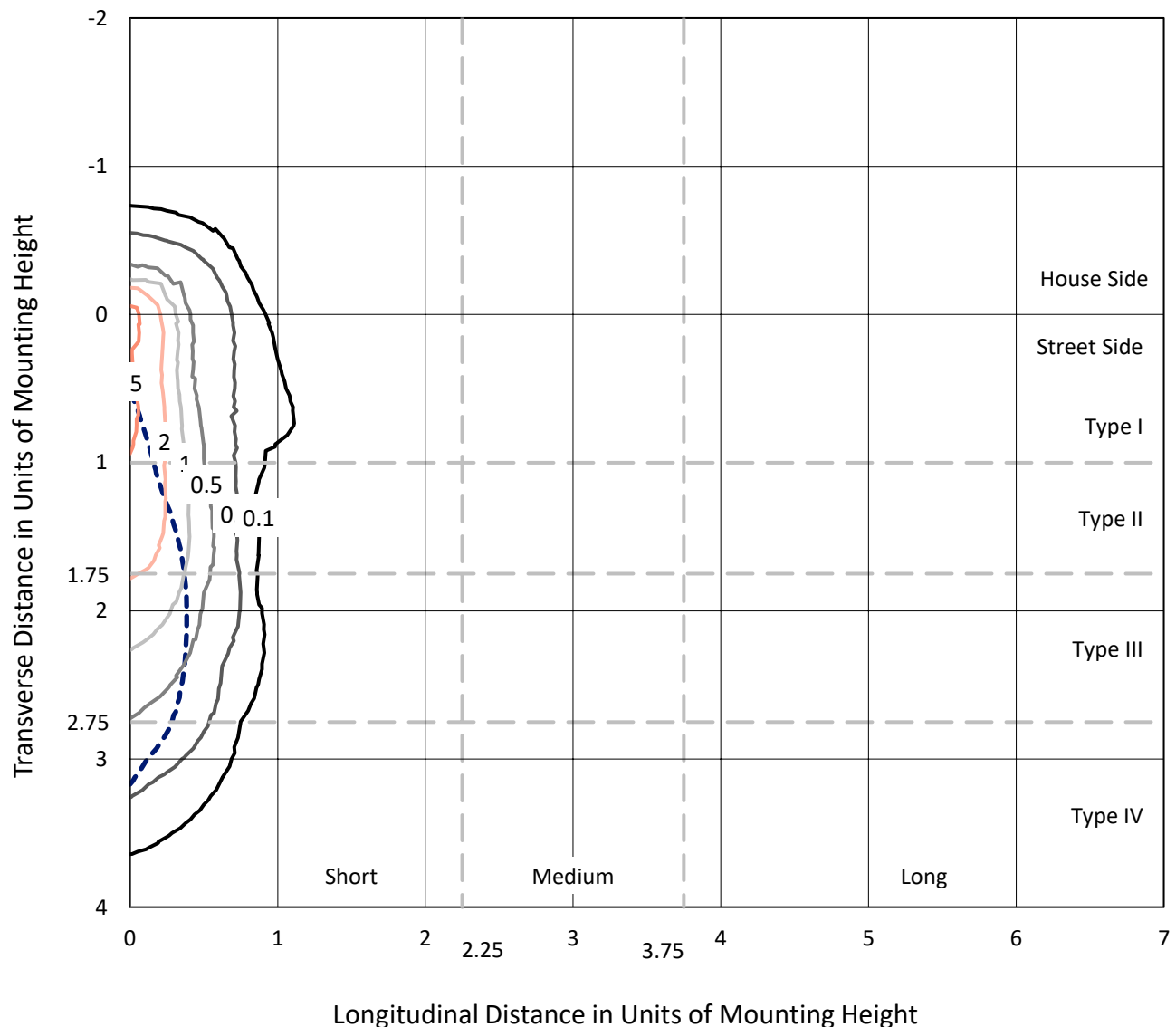


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Iso-Footcandle Lines of Horizontal Illumination

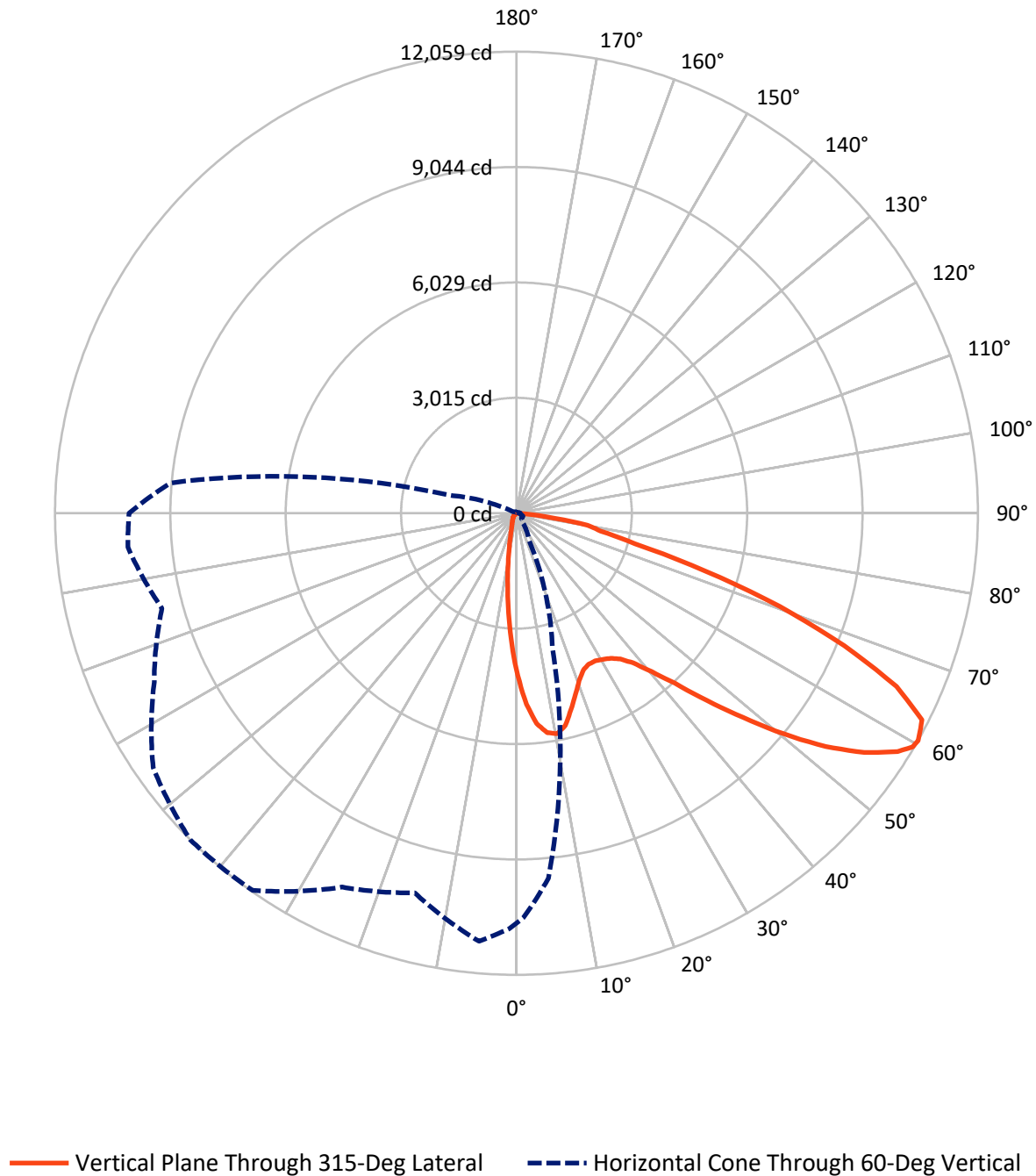
× Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 6.8 fc
 Type IV - Short - N/A

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Luminous Intensity Polar Plot



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FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	1584.4	0.0	1584.4
	% Fixture	12.3	0.0	12.3
Street Side	Lumens	11261.6	0.0	11261.6
	% Fixture	87.7	0.0	87.7
Total	Lumens	12846.0	0.0	12846.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	315.8	2.5
10°-20°	627.2	4.9
20°-30°	919.6	7.2
30°-40°	1367.6	10.6
40°-50°	1990.2	15.5
50°-60°	2870.1	22.3
60°-70°	3156.8	24.6
70°-80°	1414.0	11.0
80°-90°	184.8	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°	12846.0	100.0
0°-180°	12846.0	100.0

Coefficient of Utilization



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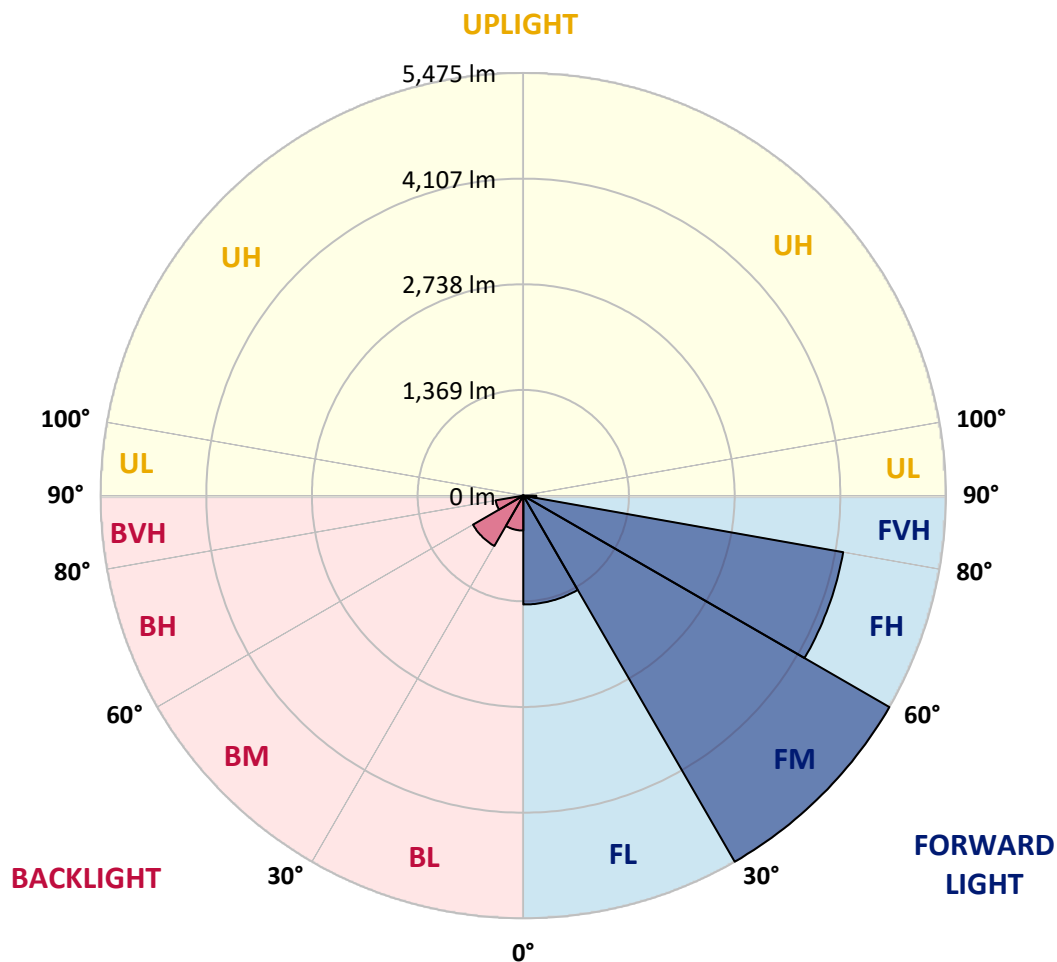
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	1409.8	11.0			
FM	(30°-60°)	5475.4	42.6			
FH	(60°-80°)	4207.4	32.8			G2/5000
FVH	(80°-90°)	169.0	1.3			G2/225
BL	(0°-30°)	452.7	3.5	B1/500		
BM	(30°-60°)	752.6	5.9	B1/1000		
BH	(60°-80°)	363.3	2.8	B1/500		G1/500
BVH	(80°-90°)	15.8	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





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CANDELA DISTRIBUTION (FULL):

	0°	1°	5°	15°	25°	35°	45°	55°	65°	75°	85°
0°	4245.8	4245.8	4245.8	4245.8	4245.8	4245.8	4245.8	4245.8	4245.8	4245.8	4245.8
2.5°	4667.6	4647.1	4600.3	4457.7	4333.7	4171.6	4007.5	3878.6	3799.5	3654.0	3587.6
5°	4522.1	4531.9	4396.2	4103.2	3777.1	3554.4	3311.3	3117.9	2905.1	2770.3	2628.7
7.5°	4142.3	4122.7	3975.3	3567.1	3170.7	2848.4	2540.8	2290.8	2133.6	2007.7	1902.2
10°	3817.1	3802.5	3614.0	3088.6	2662.9	2421.7	2213.7	1995.0	1826.0	1641.5	1494.0
12.5°	3613.0	3579.8	3363.0	2814.2	2467.6	2243.0	2016.5	1788.9	1555.6	1369.0	1190.3
15°	3544.7	3496.8	3255.6	2719.5	2342.6	2057.5	1773.3	1511.6	1243.1	1037.0	902.3
17.5°	3668.7	3589.6	3332.8	2702.9	2193.2	1815.3	1465.7	1124.9	845.6	688.4	605.4
20°	3952.8	3862.0	3528.1	2686.3	2027.2	1543.8	1114.2	794.9	584.9	499.0	453.1
22.5°	4374.7	4249.7	3817.1	2712.7	1873.9	1279.2	804.6	561.5	464.8	411.1	378.9
25°	4881.5	4777.0	4183.3	2806.4	1752.8	1071.2	622.0	459.0	391.6	358.4	334.0
27.5°	5437.1	5270.1	4656.9	2918.7	1642.5	910.1	545.9	410.1	348.6	318.3	305.6
30°	5832.6	5702.7	5053.3	2996.9	1504.8	789.0	499.0	404.3	349.6	313.5	290.0
32.5°	6223.2	6057.2	5385.4	3033.0	1404.2	705.0	431.6	352.5	306.6	288.1	264.6
35°	6641.1	6467.3	5716.4	3013.5	1329.0	649.4	391.6	314.4	262.7	231.4	208.0
37.5°	7063.9	6880.4	6045.5	2943.1	1282.1	626.9	360.3	298.8	248.0	215.8	190.4
40°	7565.9	7320.8	6354.0	2885.5	1233.3	615.2	339.8	289.0	237.3	203.1	177.7
42.5°	7976.0	7742.6	6646.0	2855.3	1200.1	587.8	339.8	281.2	230.5	192.4	166.0
45°	8364.6	8122.5	6961.4	2879.7	1186.4	553.7	343.7	280.3	225.6	184.6	158.2
47.5°	8689.8	8479.9	7285.6	2971.5	1168.9	516.6	323.2	293.9	222.6	177.7	150.4
50°	9073.6	8870.5	7714.3	3157.0	1137.6	479.5	297.8	316.4	221.7	171.9	143.5
52.5°	9614.5	9394.8	8306.0	3367.9	1087.8	422.8	274.4	313.5	217.8	162.1	136.7
55°	10275.6	10097.9	8991.5	3620.8	1019.5	359.3	237.3	278.3	206.0	145.5	125.0
57.5°	10699.4	10548.1	9505.2	3730.2	915.0	293.9	209.0	233.4	188.5	129.9	111.3
59°	10749.2	10612.5	9612.6	3694.1	846.6	268.5	195.3	200.2	183.6	121.1	103.5
60°	10707.2	10565.6	9569.6	3623.8	783.1	251.0	183.6	177.7	184.6	116.2	97.6
62.5°	10437.7	10195.6	9152.7	3267.3	684.5	230.5	163.1	145.5	163.1	104.5	86.9
65°	9917.3	9554.0	8327.5	2765.4	645.5	218.7	138.7	122.1	124.0	91.8	75.2
67.5°	9008.1	8550.2	7229.0	2246.9	628.9	219.7	117.2	109.4	95.7	78.1	66.4
70°	7570.7	7113.7	5800.4	1848.5	621.0	219.7	99.6	93.7	80.1	65.4	57.6
72.5°	5364.8	4872.7	3912.8	1452.0	559.5	218.7	85.0	85.0	65.4	54.7	46.9
75°	3031.0	3034.9	2459.8	1027.3	464.8	180.7	68.4	67.4	47.8	42.0	35.2
77.5°	1766.5	1735.2	1658.1	441.4	215.8	82.0	47.8	41.0	33.2	30.3	25.4
80°	908.1	747.0	727.5	160.1	77.1	51.8	33.2	23.4	21.5	19.5	17.6
82.5°	268.5	269.5	240.2	64.4	43.0	34.2	16.6	12.7	11.7	10.7	10.7
85°	18.6	11.7	13.7	19.5	26.4	13.7	1.0	2.9	2.9	3.9	4.9
87.5°	2.0	1.0	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):

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	4245.8	4245.8	4245.8	4245.8	4245.8	4245.8	4245.8	4245.8	4245.8	4245.8	4245.8
2.5°	3514.4	3557.4	3477.3	3479.2	3412.8	3434.3	3356.2	3381.6	3335.7	3370.8	3474.4
5°	2644.3	2654.1	2589.7	2569.2	2578.9	2619.0	2634.6	2563.3	2593.6	2534.0	2530.1
7.5°	1863.1	1874.9	1837.8	1832.9	1903.2	1886.6	1916.9	1843.6	1774.3	1804.6	1748.9
10°	1447.2	1398.3	1322.2	1300.7	1287.0	1295.8	1295.8	1229.4	1219.6	1193.3	1233.3
12.5°	1142.5	1082.9	1010.7	913.0	888.6	886.7	850.5	791.9	773.4	750.9	784.1
15°	830.0	805.6	745.1	690.4	634.7	624.0	565.4	517.5	454.1	445.3	442.4
17.5°	583.9	547.8	546.8	515.6	483.4	461.9	407.2	352.5	328.1	325.2	325.2
20°	437.5	424.8	404.3	400.4	390.6	366.2	317.4	288.1	276.3	277.3	281.2
22.5°	368.1	359.3	340.8	332.0	328.1	306.6	270.5	251.0	245.1	245.1	246.1
25°	329.1	321.3	300.8	287.1	282.2	266.6	238.3	223.6	218.7	218.7	218.7
27.5°	299.8	290.0	268.5	256.8	248.0	230.5	212.9	198.2	193.3	193.3	194.3
30°	279.3	268.5	249.0	233.4	219.7	204.1	189.4	176.7	170.9	169.9	170.9
32.5°	251.9	242.2	222.6	212.9	197.3	178.7	167.0	155.3	149.4	150.4	149.4
35°	196.3	193.3	179.7	182.6	173.8	158.2	147.5	134.8	127.9	126.9	128.9
37.5°	178.7	167.0	151.4	152.3	149.4	143.5	126.0	112.3	107.4	107.4	108.4
40°	165.0	153.3	135.7	126.9	127.9	127.9	109.4	94.7	89.8	88.9	90.8
42.5°	153.3	141.6	122.1	107.4	103.5	108.4	92.8	78.1	73.2	71.3	73.2
45°	145.5	132.8	110.3	93.7	82.0	87.9	76.2	64.4	58.6	58.6	57.6
47.5°	137.7	126.0	101.6	81.0	68.4	65.4	62.5	51.8	45.9	44.9	45.9
50°	130.8	119.1	91.8	70.3	57.6	50.8	50.8	41.0	37.1	35.2	36.1
52.5°	124.0	111.3	83.0	62.5	49.8	41.0	36.1	33.2	30.3	29.3	30.3
55°	114.2	101.6	74.2	53.7	43.0	34.2	28.3	27.3	25.4	23.4	25.4
57.5°	102.5	90.8	65.4	45.9	34.2	26.4	23.4	22.5	20.5	19.5	19.5
59°	95.7	85.0	60.5	40.0	30.3	23.4	21.5	20.5	18.6	16.6	17.6
60°	91.8	83.0	57.6	37.1	27.3	21.5	19.5	18.6	16.6	15.6	16.6
62.5°	81.0	74.2	50.8	30.3	21.5	15.6	13.7	14.6	13.7	12.7	13.7
65°	71.3	65.4	43.0	23.4	16.6	10.7	9.8	12.7	11.7	10.7	11.7
67.5°	63.5	56.6	36.1	17.6	11.7	5.9	6.8	10.7	10.7	9.8	10.7
70°	54.7	48.8	29.3	12.7	5.9	2.9	4.9	7.8	9.8	8.8	9.8
72.5°	44.9	38.1	22.5	8.8	2.9	0.0	2.9	6.8	9.8	8.8	9.8
75°	35.2	28.3	16.6	4.9	0.0	0.0	1.0	5.9	9.8	8.8	9.8
77.5°	25.4	20.5	9.8	1.0	0.0	0.0	1.0	5.9	9.8	8.8	9.8
80°	16.6	14.6	3.9	0.0	0.0	0.0	1.0	5.9	9.8	9.8	10.7
82.5°	10.7	7.8	0.0	0.0	0.0	0.0	2.0	7.8	10.7	11.7	11.7
85°	4.9	0.0	0.0	0.0	0.0	0.0	3.9	9.8	12.7	12.7	12.7
87.5°	0.0	0.0	0.0	0.0	0.0	2.0	6.8	11.7	14.6	14.6	14.6
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°	4245.8	4245.8	4245.8	4245.8	4245.8	4245.8	4245.8	4245.8	4245.8	4245.8	4245.8
2.5°	3491.9	3553.5	3640.4	3774.1	3882.5	4053.4	4184.3	4363.0	4543.6	4598.3	4683.3
5°	2570.1	2649.2	2846.5	3026.1	3139.4	3500.7	3729.2	4089.5	4412.8	4568.0	4737.0
7.5°	1785.0	1878.8	2029.2	2280.1	2518.4	2812.3	3181.4	3593.5	4067.1	4288.8	4527.0
10°	1252.8	1370.0	1581.9	1788.0	2087.7	2367.0	2731.2	3186.3	3708.7	3970.4	4269.2
12.5°	791.0	895.4	1175.7	1407.1	1781.1	2105.3	2441.2	2853.3	3458.7	3727.3	4040.7
15°	452.1	540.0	670.8	967.7	1382.7	1811.4	2230.3	2708.8	3330.8	3661.8	4000.7
17.5°	336.9	360.3	418.9	586.9	964.8	1465.7	2036.0	2664.8	3417.7	3806.4	4193.1
20°	283.2	298.8	326.1	392.5	615.2	1128.8	1846.5	2672.7	3699.0	4187.2	4554.4
22.5°	253.9	263.7	286.1	329.1	419.9	822.2	1624.9	2718.6	4039.7	4654.9	5078.7
25°	222.6	235.3	254.9	292.0	349.6	570.3	1406.1	2821.1	4517.3	5248.6	5647.1
27.5°	198.2	209.9	229.5	263.7	306.6	435.5	1151.3	2909.0	5021.1	5846.3	6172.4
30°	173.8	185.5	205.1	232.4	271.5	352.5	876.9	2960.7	5510.3	6294.5	6545.4
32.5°	153.3	163.1	181.6	206.0	238.3	298.8	691.4	2907.0	5884.3	6701.7	6869.6
35°	132.8	144.5	160.1	182.6	210.9	254.9	575.2	2721.5	6205.6	7120.6	7181.1
37.5°	111.3	125.0	141.6	162.1	184.6	234.4	461.9	2516.4	6549.3	7643.0	7543.4
40°	93.7	106.4	122.1	144.5	165.0	214.8	355.4	2297.7	6920.4	8133.2	7938.9
42.5°	76.2	89.8	108.4	128.9	163.1	187.5	275.4	2071.1	7253.4	8559.9	8296.3
45°	60.5	72.3	91.8	118.2	162.1	161.1	212.9	1847.5	7504.3	8864.6	8562.9
47.5°	47.8	57.6	77.1	115.2	149.4	136.7	170.9	1708.9	7768.0	9139.0	8766.9
50°	38.1	47.8	66.4	120.1	130.8	117.2	143.5	1731.3	8022.9	9278.6	8850.9
52.5°	32.2	42.0	57.6	94.7	100.6	102.5	126.0	1834.8	8351.9	9428.0	9017.9
55°	28.3	37.1	48.8	66.4	78.1	91.8	115.2	1910.0	8792.3	9748.3	9386.0
57.5°	22.5	32.2	43.9	56.6	64.4	80.1	106.4	1915.9	9190.7	10159.4	9875.3
59°	20.5	29.3	41.0	53.7	57.6	72.3	100.6	1866.1	9205.4	10220.9	10099.9
60°	18.6	28.3	39.1	49.8	54.7	68.4	95.7	1808.5	9072.6	10123.3	10192.6
62.5°	15.6	24.4	34.2	40.0	46.9	56.6	83.0	1599.5	8429.1	9680.9	10020.8
65°	13.7	21.5	29.3	33.2	39.1	48.8	73.2	1280.2	7718.2	9081.4	9528.6
67.5°	12.7	19.5	25.4	28.3	34.2	44.9	65.4	904.2	6797.4	8320.7	8789.4
70°	11.7	18.6	22.5	26.4	30.3	38.1	55.7	527.3	5235.9	6986.8	7481.9
72.5°	11.7	17.6	19.5	22.5	26.4	34.2	51.8	285.1	3579.8	5329.7	5969.3
75°	11.7	16.6	17.6	19.5	23.4	31.2	45.9	149.4	2314.3	3702.9	4570.0
77.5°	11.7	15.6	17.6	18.6	22.5	27.3	40.0	93.7	1541.9	2593.6	3088.6
80°	12.7	15.6	16.6	18.6	21.5	25.4	33.2	62.5	906.2	1560.4	1879.7
82.5°	13.7	15.6	17.6	19.5	22.5	24.4	29.3	39.1	417.9	1032.2	1167.9
85°	14.6	16.6	18.6	20.5	23.4	24.4	27.3	28.3	68.4	465.8	629.8
87.5°	15.6	17.6	19.5	21.5	25.4	25.4	25.4	25.4	23.4	49.8	126.9
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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CATALOG NUMBER: GALN-SA4B-830-U-SLR-HSS

CANDELA DISTRIBUTION (continued):

	285°	295°	305°	315°	325°	335°	345°	355°	359°	360°
0°	4245.8	4245.8	4245.8	4245.8	4245.8	4245.8	4245.8	4245.8	4245.8	4245.8
2.5°	4790.7	4901.0	4978.2	4997.7	4942.0	4916.6	4846.3	4737.0	4670.6	4667.6
5°	5048.5	5307.2	5486.9	5517.2	5409.8	5228.1	5012.3	4734.0	4571.0	4522.1
7.5°	5004.5	5457.6	5746.7	5788.6	5608.0	5261.3	4843.4	4395.2	4217.5	4142.3
10°	4823.9	5376.6	5789.6	5856.0	5614.8	5126.6	4595.4	4095.4	3874.7	3817.1
12.5°	4669.6	5228.1	5595.3	5687.1	5504.5	5017.2	4446.9	3903.0	3666.7	3613.0
15°	4602.2	5052.4	5277.0	5323.8	5293.6	4948.9	4431.3	3873.7	3603.3	3544.7
17.5°	4669.6	4903.0	4931.3	4979.1	5046.5	4942.0	4581.7	4032.9	3740.9	3668.7
20°	4846.3	4773.1	4655.9	4676.4	4830.7	4970.3	4849.3	4385.4	4030.0	3952.8
22.5°	5147.1	4740.9	4475.3	4457.7	4653.0	5065.1	5241.8	4862.9	4450.8	4374.7
25°	5516.2	4821.9	4408.9	4370.8	4583.7	5203.7	5668.5	5447.8	4997.7	4881.5
27.5°	5918.5	4989.9	4408.9	4371.8	4577.8	5326.8	6033.7	5965.4	5564.1	5437.1
30°	6139.2	5128.5	4472.3	4430.3	4650.1	5398.0	6229.0	6425.3	5989.8	5832.6
32.5°	6336.5	5320.9	4596.3	4517.3	4801.4	5503.5	6403.8	6815.9	6328.6	6223.2
35°	6518.1	5526.9	4767.2	4675.4	5000.6	5648.0	6597.2	7226.0	6800.3	6641.1
37.5°	6718.3	5766.2	5033.8	4955.7	5333.6	5929.3	6826.7	7765.1	7264.1	7063.9
40°	6936.0	6043.5	5472.3	5439.1	5862.9	6247.6	7116.7	8340.2	7793.4	7565.9
42.5°	7157.7	6362.8	6009.3	6064.0	6462.4	6693.9	7414.5	8782.6	8226.9	7976.0
45°	7358.8	6771.0	6707.5	6978.0	7161.6	7129.4	7635.2	9094.1	8604.8	8364.6
47.5°	7612.7	7365.7	7552.2	7969.2	7974.0	7603.0	7802.2	9348.9	8930.0	8689.8
50°	7896.9	8067.8	8642.9	9067.7	8953.5	8068.8	7997.5	9650.7	9265.9	9073.6
52.5°	8226.0	8853.9	9650.7	10122.3	9855.7	8576.5	8322.6	9976.8	9799.1	9614.5
55°	8608.8	9389.9	10655.5	11031.4	10762.9	9207.3	8816.7	10419.2	10401.6	10275.6
57.5°	9041.3	9956.3	11237.5	11746.2	11507.0	9947.5	9507.1	10836.1	10769.7	10699.4
59°	9383.1	10247.3	11494.3	12021.6	11877.1	10466.0	9971.0	11095.9	10854.7	10749.2
60°	9590.1	10444.6	11589.0	12058.7	12025.5	10774.6	10264.9	11222.8	10853.7	10707.2
62.5°	10204.3	10789.3	11552.9	11893.7	12023.5	11366.4	11127.1	11362.5	10652.5	10437.7
65°	10423.1	10675.0	10954.3	10912.3	11023.6	11336.1	11677.9	11209.2	10222.9	9917.3
67.5°	9997.3	9422.2	9520.8	9240.5	9185.9	10078.4	11454.2	10459.2	9382.1	9008.1
70°	8427.1	7218.2	7168.4	7297.3	6943.8	8159.6	10285.4	9015.0	7994.5	7570.7
72.5°	6633.3	5101.2	4681.3	5155.9	5145.1	6225.1	8544.3	6397.0	5401.0	5364.8
75°	5216.4	3551.5	3117.0	3194.1	3342.5	4506.5	6805.2	4062.2	3325.9	3031.0
77.5°	3501.7	2516.4	2347.5	2252.8	2412.9	2893.3	4305.4	2203.0	1865.1	1766.5
80°	2018.4	1828.0	2076.0	1884.6	1970.6	1823.1	2141.4	1010.7	838.8	908.1
82.5°	1313.4	1040.9	1109.3	824.2	1126.9	1136.6	687.5	298.8	252.9	268.5
85°	821.2	488.2	274.4	195.3	388.6	714.8	214.8	18.6	21.5	18.6
87.5°	212.9	81.0	34.2	50.8	62.5	55.7	49.8	2.9	1.0	2.0
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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