

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: P454089

Luminaire Tested: **GALN-SA5A-830-U-SLL**

Issue Date: 1/4/2021

Test Information

Test Method: LM-79-08
Report Number: P454089
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-SA5A-830-U-SLL
Description: GALLEON AREA AND ROADWAY LUMINAIRE
(5) 80 CRI, 3000K, 615mA 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: 15687 lumens
Efficiency: N/A
Efficacy: 101.9 lumens/watt
Luminous Opening: Rectangular (W 1.5' x L: 1' x H: 0')
IES Classification: Type III - Medium
BUG Rating: B2 - U0 - G3

Input Watts (W): 154
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

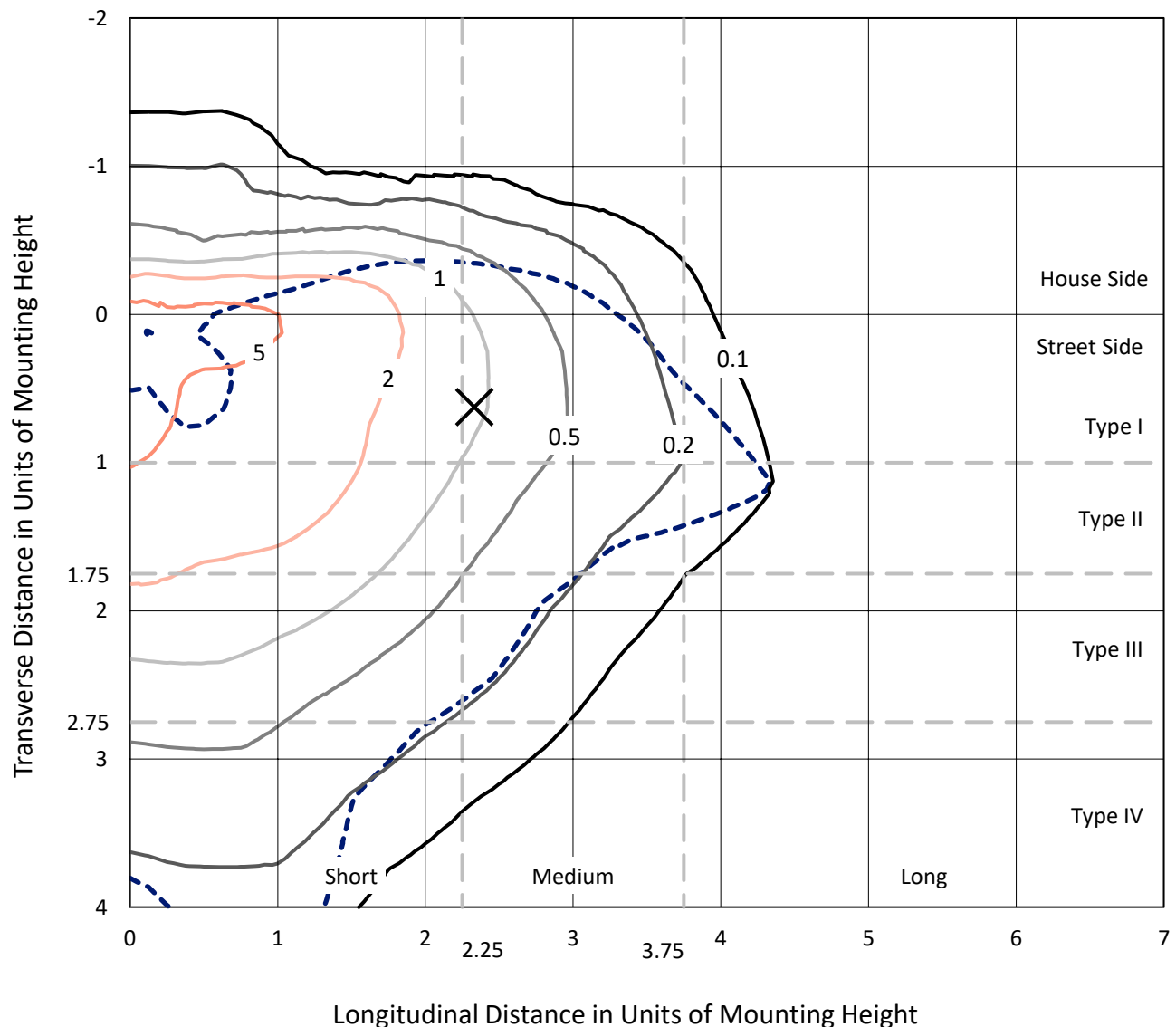


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Iso-Footcandle Lines of Horizontal Illumination

× Max cd
 - - - 1/2 Max cd

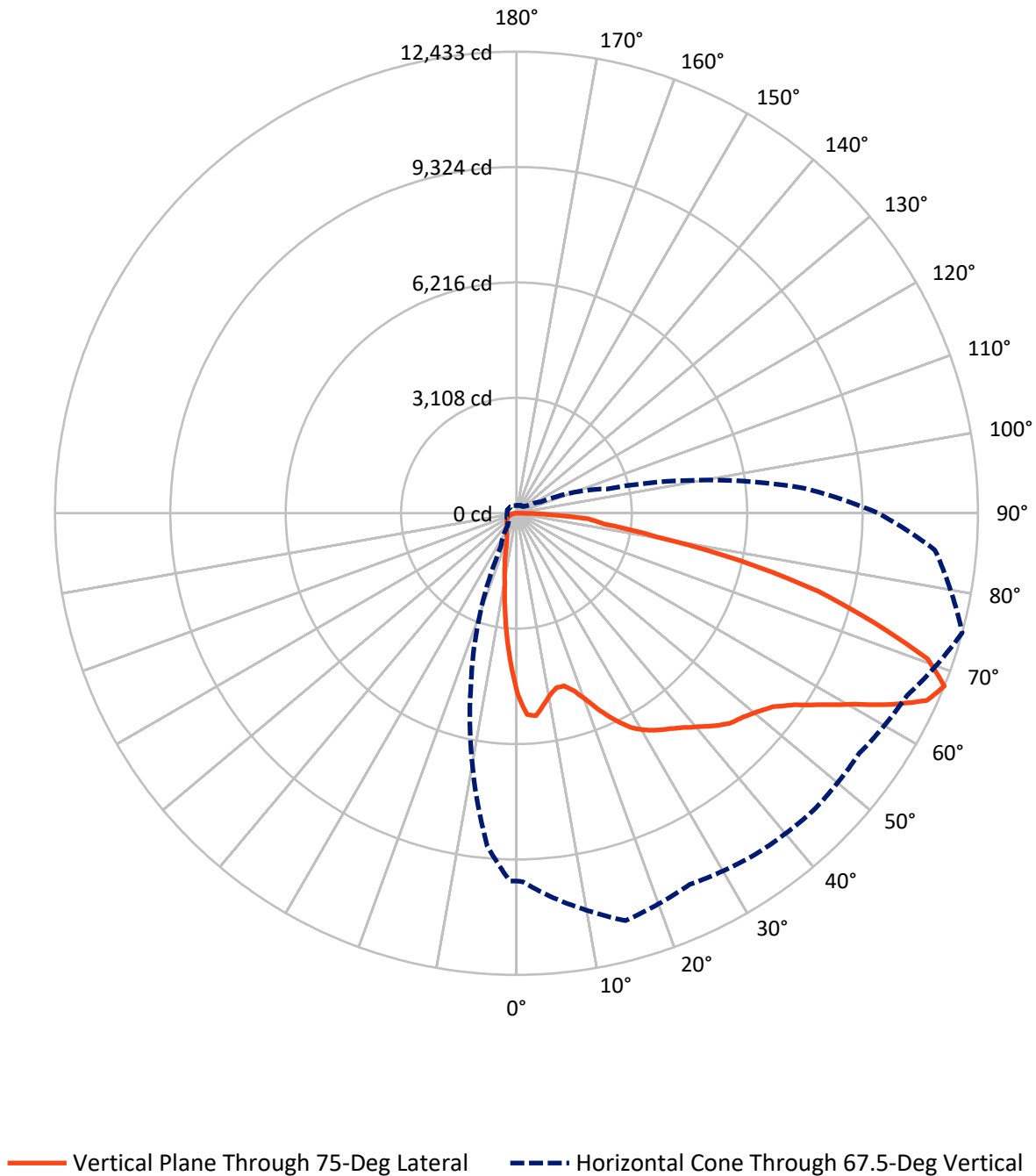


Based on 25 foot mounting height. Maximum calculated value = 9.7 fc
 Type III - Medium - N/A

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Luminous Intensity Polar Plot



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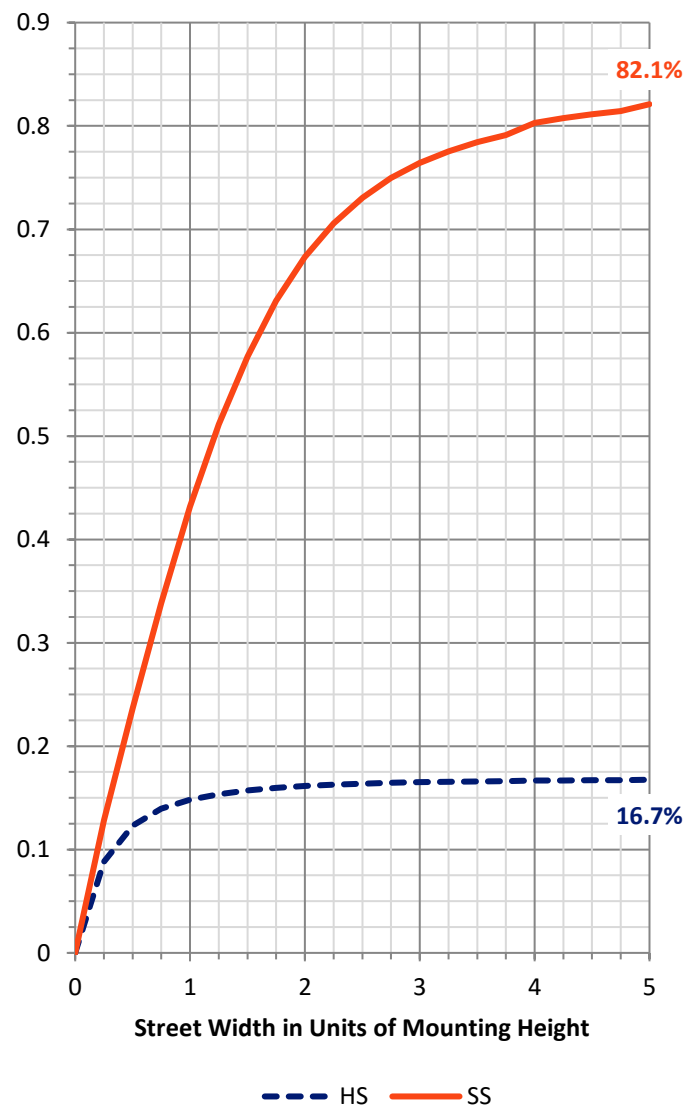
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	2651.4	0.0	2651.4
	% Fixture	16.9	0.0	16.9
Street Side	Lumens	13035.6	0.0	13035.6
	% Fixture	83.1	0.0	83.1
Total	Lumens	15687.0	0.0	15687.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	371.7	2.4
10°-20°	775.2	4.9
20°-30°	1115.6	7.1
30°-40°	1606.8	10.2
40°-50°	2257.1	14.4
50°-60°	3147.8	20.1
60°-70°	3742.5	23.9
70°-80°	2204.2	14.1
80°-90°	466.1	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°	15687.0	100.0
0°-180°	15687.0	100.0

Coefficient of Utilization



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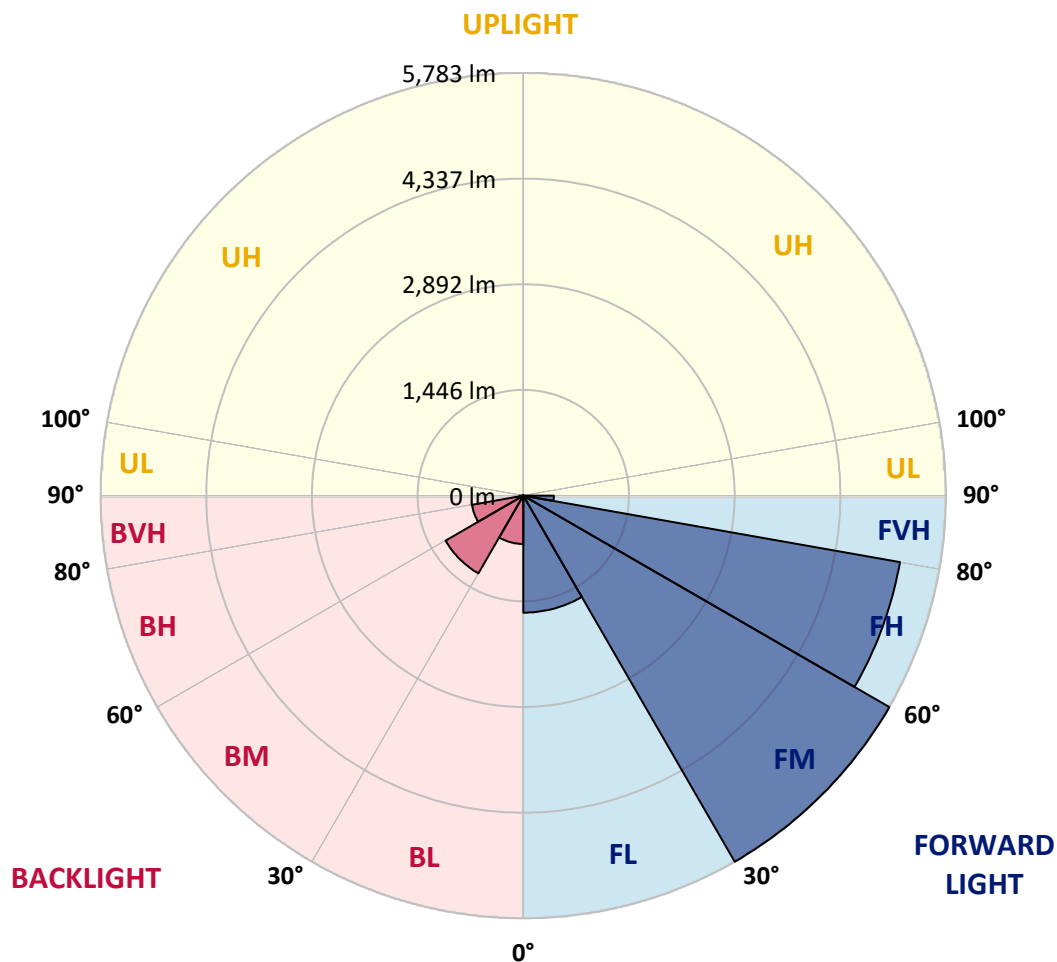
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	1601.2	10.2			
FM	(30°-60°)	5783.2	36.9			
FH	(60°-80°)	5233.2	33.4			G3/7500
FVH	(80°-90°)	417.9	2.7			G3/500
BL	(0°-30°)	661.4	4.2	B2/1000		
BM	(30°-60°)	1228.4	7.8	B2/2500		
BH	(60°-80°)	713.5	4.5	B2/1000		G2/1000
BVH	(80°-90°)	48.2	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



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CANDELA DISTRIBUTION (FULL):

	0°	1°	5°	15°	25°	35°	45°	55°	65°	75°	85°
0°	4901.0	4901.0	4901.0	4901.0	4901.0	4901.0	4901.0	4901.0	4901.0	4901.0	4901.0
2.5°	5284.3	5291.3	5336.6	5468.3	5558.9	5592.1	5615.2	5572.0	5529.7	5427.1	5272.2
5°	5268.2	5309.4	5427.1	5722.9	5956.2	6056.8	6087.0	5957.2	5743.0	5479.4	5162.5
7.5°	4960.3	5015.7	5196.7	5692.7	6104.1	6339.5	6308.3	6073.9	5687.6	5217.9	4775.2
10°	4595.2	4656.5	4874.8	5474.4	6004.5	6328.4	6328.4	6042.7	5529.7	4971.4	4461.4
12.5°	4305.5	4369.8	4619.3	5250.1	5797.3	6104.1	6155.4	5910.0	5416.0	4815.5	4255.2
15°	4209.9	4272.3	4540.9	5114.3	5578.0	5765.1	5782.2	5701.7	5360.7	4826.5	4246.1
17.5°	4328.6	4409.1	4680.7	5154.5	5376.8	5387.9	5400.9	5464.3	5366.7	5028.7	4429.2
20°	4671.6	4758.1	5041.8	5284.3	5200.8	5086.1	5093.1	5256.1	5438.2	5362.7	4866.8
22.5°	5166.6	5242.0	5532.7	5512.6	5126.3	4889.9	4840.6	5068.0	5543.8	5779.2	5332.5
25°	5700.7	5789.2	6123.2	5851.6	5147.4	4773.2	4742.0	4957.3	5653.4	6168.5	5870.7
27.5°	6312.3	6398.9	6662.4	6193.6	5258.1	4764.2	4727.0	4947.3	5752.0	6528.6	6384.8
30°	6767.0	6846.5	7025.6	6481.3	5393.9	4824.5	4778.3	5026.7	5836.5	6775.1	6885.7
32.5°	7124.1	7206.6	7304.2	6660.4	5573.0	4934.2	4848.7	5171.6	5947.2	6963.2	7256.9
35°	7496.3	7593.9	7586.9	6819.3	5740.0	5060.9	4977.4	5380.8	6121.2	7127.2	7727.7
37.5°	7968.1	8007.4	7957.1	6962.2	5940.1	5289.3	5243.0	5691.7	6368.7	7325.3	8278.0
40°	8447.0	8525.4	8266.9	7135.2	6183.6	5718.8	5713.8	6151.4	6662.4	7557.7	8811.1
42.5°	8857.4	8923.8	8556.6	7286.1	6478.3	6242.9	6281.2	6768.0	7047.7	7827.3	9239.7
45°	9166.2	9225.6	8824.2	7432.0	6866.6	6848.5	7073.8	7428.9	7533.6	8069.7	9491.1
47.5°	9428.8	9486.1	9010.3	7653.3	7346.5	7571.8	7964.1	8118.0	7949.0	8208.6	9772.8
50°	9650.1	9667.2	9138.1	7916.8	7942.0	8458.0	8838.3	8937.9	8359.4	8407.7	10017.3
52.5°	9880.4	9858.3	9358.4	8248.8	8585.8	9299.0	9575.6	9679.3	8752.8	8653.2	10373.4
55°	10396.5	10417.6	9852.3	8667.3	9236.6	10124.9	10489.0	10389.5	9188.4	9104.9	10826.0
57.5°	11020.2	11002.1	10547.4	9322.1	9899.6	10893.4	11165.0	11005.1	9769.8	9725.5	11284.8
60°	11262.6	11286.8	11128.8	10026.3	10553.4	11566.4	11844.1	11595.6	10466.9	10446.8	11630.8
62.5°	11019.2	11155.0	11261.6	10653.0	11110.7	12061.3	12337.0	12053.3	11194.2	11340.1	11873.2
65°	10534.3	10563.5	10926.6	11184.2	11379.3	12142.8	12286.7	12135.8	11801.8	12153.9	11862.2
67.5°	9904.6	9929.7	10355.3	11358.2	11033.3	11217.4	11317.9	11273.7	11613.7	12432.5	11315.9
70°	9305.0	9284.9	9734.6	10914.6	9604.8	9325.2	9408.7	9269.8	10021.3	11751.5	10244.6
72.5°	8138.1	8210.6	8693.4	9681.3	7605.0	7150.3	7332.4	6973.2	7707.6	10064.5	8315.2
75°	6374.7	6391.8	7197.6	8125.1	5736.9	5019.7	5266.1	5116.3	5903.9	8395.7	5742.0
77.5°	4414.1	4375.9	5242.0	6205.7	4091.2	3674.7	3678.8	3607.3	4122.4	6181.6	3901.1
80°	2803.6	2745.2	3281.4	3833.7	2811.6	3007.8	2909.2	2906.2	2683.9	3813.6	2359.0
82.5°	1515.0	1579.3	2073.3	2403.2	2016.9	2324.8	2130.6	2068.2	1841.9	2387.1	1508.9
85°	690.1	750.4	1105.5	1634.7	1532.1	1549.2	1035.1	1221.2	1524.0	1938.5	805.8
87.5°	67.4	86.5	228.4	771.6	523.1	412.4	153.9	296.8	383.3	689.1	64.4
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°	4901.0	4901.0	4901.0	4901.0	4901.0	4901.0	4901.0	4901.0	4901.0	4901.0	4901.0
2.5°	5208.8	5156.5	4978.4	4831.6	4675.7	4557.0	4402.0	4298.4	4227.0	4119.4	4106.3
5°	4969.4	4841.6	4531.8	4215.9	3943.3	3738.1	3529.9	3338.7	3226.1	3190.9	3145.6
7.5°	4566.0	4350.7	3952.4	3590.2	3277.4	2971.6	2736.2	2569.2	2457.5	2392.1	2313.7
10°	4234.0	3984.6	3499.7	3056.1	2798.6	2608.4	2401.2	2222.1	2084.3	1966.6	1902.3
12.5°	4010.7	3729.1	3183.8	2823.7	2624.5	2422.3	2179.9	1978.7	1775.5	1641.7	1584.4
15°	3943.3	3645.6	3086.3	2708.0	2422.3	2157.8	1886.2	1623.6	1422.4	1295.7	1253.4
17.5°	4108.3	3748.2	3085.2	2554.1	2184.9	1869.1	1521.0	1274.5	1068.3	973.8	943.6
20°	4416.1	3945.3	3094.3	2402.2	1927.4	1482.8	1106.5	904.3	805.8	765.5	750.4
22.5°	4845.7	4246.1	3121.5	2252.3	1645.7	1138.7	828.9	726.3	691.1	684.0	681.0
25°	5374.8	4618.3	3213.0	2117.5	1408.3	869.1	693.1	646.8	626.7	619.7	618.7
27.5°	5861.7	5099.2	3323.7	2001.8	1179.0	749.4	626.7	587.5	567.4	566.4	568.4
30°	6301.3	5501.5	3416.2	1872.1	1004.9	665.9	583.5	544.2	525.1	524.1	530.1
32.5°	6681.5	5832.5	3484.6	1744.3	908.4	614.6	544.2	502.0	485.9	482.9	485.9
35°	7087.9	6162.5	3453.4	1644.7	853.0	572.4	515.0	473.8	454.7	445.6	445.6
37.5°	7551.7	6502.5	3400.1	1562.2	827.9	537.2	489.9	449.7	430.5	421.5	420.5
40°	8057.7	6842.5	3326.7	1488.8	802.7	516.1	472.8	430.5	407.4	398.4	396.3
42.5°	8504.3	7133.2	3266.3	1440.5	761.5	520.1	457.7	416.5	387.3	375.2	374.2
45°	8892.6	7425.9	3255.3	1412.4	727.3	514.0	453.7	405.4	371.2	358.1	356.1
47.5°	9196.4	7730.7	3318.6	1396.3	690.1	481.9	479.8	398.4	357.1	343.0	341.0
50°	9566.6	8163.3	3463.5	1363.1	655.9	451.7	507.0	397.4	346.0	327.9	322.9
52.5°	10059.5	8726.6	3659.6	1303.7	606.6	423.5	483.9	397.4	333.0	314.9	308.8
55°	10804.9	9444.9	3851.8	1220.2	537.2	386.3	436.6	385.3	313.9	297.8	293.7
57.5°	11298.8	9970.0	3974.5	1104.5	450.7	359.1	376.2	366.2	294.7	277.6	277.6
60°	11324.0	10110.8	3916.2	958.7	396.3	334.0	326.9	369.2	277.6	259.5	257.5
62.5°	11034.3	9765.8	3612.4	827.9	367.2	306.8	295.7	323.9	260.5	242.4	239.4
65°	10581.6	8885.6	3085.2	765.5	351.1	282.7	266.6	265.6	242.4	225.3	221.3
67.5°	9749.7	7764.9	2535.0	729.3	343.0	255.5	240.4	235.4	221.3	207.2	205.2
70°	8523.4	6503.5	2033.0	714.2	339.0	227.3	215.3	209.2	197.2	186.1	185.1
72.5°	6631.2	5275.2	1677.9	704.2	337.0	201.2	188.1	180.1	173.0	163.0	163.0
75°	4763.2	3881.0	1280.6	634.8	311.8	173.0	158.9	153.9	143.9	135.8	137.8
77.5°	3002.8	2613.5	843.0	466.8	241.4	138.8	126.7	123.7	115.7	104.6	111.7
80°	2028.0	1837.9	491.9	293.7	151.9	101.6	97.6	96.6	87.5	75.4	76.5
82.5°	1380.2	1354.0	255.5	167.0	87.5	59.4	57.3	59.4	49.3	40.2	40.2
85°	539.2	736.4	120.7	65.4	28.2	9.1	13.1	14.1	8.0	4.0	5.0
87.5°	10.1	75.4	3.0	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°	4901.0	4901.0	4901.0	4901.0	4901.0	4901.0	4901.0	4901.0	4901.0	4901.0	4901.0
2.5°	4086.2	4077.1	4092.2	4027.8	4040.9	4065.0	4077.1	4084.2	4183.7	4160.6	4224.0
5°	3187.9	3178.8	3237.1	3245.2	3275.4	3269.3	3298.5	3305.6	3341.8	3354.8	3443.4
7.5°	2318.7	2357.9	2424.3	2458.5	2509.8	2525.9	2510.9	2548.1	2472.6	2526.9	2543.0
10°	1863.0	1815.7	1787.6	1866.0	1876.1	1950.5	1920.4	1896.2	1940.5	1942.5	1984.7
12.5°	1551.2	1449.6	1382.2	1404.3	1428.4	1460.6	1465.7	1514.0	1546.1	1576.3	1601.5
15°	1216.2	1181.0	1119.6	1089.4	1123.6	1136.7	1167.9	1208.1	1242.3	1251.4	1285.6
17.5°	933.5	939.6	929.5	911.4	932.5	942.6	944.6	945.6	954.6	948.6	998.9
20°	751.4	772.6	797.7	801.7	808.8	813.8	804.8	770.6	771.6	792.7	808.8
22.5°	680.0	684.0	712.2	721.3	743.4	734.3	708.2	692.1	690.1	695.1	703.2
25°	623.7	629.7	649.8	663.9	681.0	664.9	645.8	630.7	628.7	633.7	641.8
27.5°	573.4	582.4	600.6	614.6	630.7	615.6	597.5	584.5	583.5	582.4	587.5
30°	533.2	543.2	556.3	572.4	583.5	570.4	553.3	546.2	545.2	543.2	545.2
32.5°	492.9	509.0	522.1	530.1	541.2	531.1	518.1	514.0	507.0	501.0	497.9
35°	447.6	464.7	484.9	494.9	506.0	495.9	486.9	469.8	457.7	456.7	458.7
37.5°	421.5	428.5	444.6	461.7	472.8	467.8	450.7	433.6	430.5	430.5	432.6
40°	398.4	401.4	408.4	430.5	450.7	435.6	414.5	409.4	409.4	408.4	409.4
42.5°	375.2	378.2	378.2	395.3	427.5	403.4	387.3	387.3	387.3	388.3	391.3
45°	354.1	355.1	354.1	366.2	396.3	376.2	365.2	368.2	370.2	372.2	374.2
47.5°	336.0	337.0	336.0	346.0	361.1	353.1	347.1	351.1	355.1	358.1	360.1
50°	319.9	318.9	320.9	326.9	334.0	336.0	332.0	338.0	340.0	344.0	349.1
52.5°	305.8	304.8	306.8	309.8	319.9	319.9	319.9	324.9	328.9	333.0	340.0
55°	289.7	290.7	293.7	297.8	310.8	308.8	309.8	313.9	317.9	323.9	327.9
57.5°	274.6	276.6	280.7	286.7	299.8	298.8	299.8	301.8	306.8	309.8	313.9
60°	257.5	261.5	266.6	270.6	283.7	282.7	287.7	291.7	294.7	294.7	296.8
62.5°	240.4	246.5	251.5	254.5	268.6	269.6	276.6	279.7	281.7	279.7	282.7
65°	223.3	232.4	234.4	238.4	252.5	253.5	261.5	268.6	266.6	264.6	269.6
67.5°	206.2	217.3	216.3	221.3	235.4	237.4	244.4	256.5	252.5	250.5	254.5
70°	187.1	195.2	196.2	199.2	218.3	215.3	226.3	237.4	234.4	235.4	235.4
72.5°	166.0	173.0	173.0	179.1	199.2	194.1	203.2	215.3	215.3	214.3	214.3
75°	140.8	144.9	148.9	157.9	179.1	173.0	179.1	190.1	192.1	190.1	190.1
77.5°	113.7	119.7	121.7	133.8	148.9	147.9	153.9	158.9	163.0	161.0	161.0
80°	80.5	86.5	94.6	107.6	116.7	119.7	122.7	126.7	128.8	128.8	130.8
82.5°	45.3	54.3	61.4	74.4	78.5	93.6	92.5	95.6	92.5	81.5	90.5
85°	10.1	19.1	27.2	34.2	39.2	54.3	57.3	64.4	53.3	49.3	49.3
87.5°	0.0	0.0	0.0	0.0	0.0	8.0	16.1	22.1	19.1	16.1	16.1
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-SA5A-830-U-SLL

CANDELA DISTRIBUTION (continued):

	285°	295°	305°	315°	325°	335°	345°	355°	359°	360°
0°	4901.0	4901.0	4901.0	4901.0	4901.0	4901.0	4901.0	4901.0	4901.0	4901.0
2.5°	4277.3	4364.8	4470.4	4652.5	4780.3	4918.1	5056.9	5204.8	5244.0	5284.3
5°	3467.5	3639.5	3733.1	3977.5	4234.0	4560.0	4826.5	5118.3	5240.0	5268.2
7.5°	2626.5	2743.2	2988.7	3236.1	3554.0	3896.0	4304.5	4759.2	4901.0	4960.3
10°	2082.3	2241.3	2456.5	2722.1	3000.7	3368.9	3829.7	4360.8	4562.0	4595.2
12.5°	1772.5	1949.5	2183.9	2464.6	2728.1	3005.8	3470.5	4018.8	4234.0	4305.5
15°	1417.4	1631.7	1902.3	2198.0	2484.7	2788.5	3259.3	3877.9	4126.4	4209.9
17.5°	1113.6	1286.6	1579.3	1900.2	2240.3	2624.5	3215.0	3945.3	4251.1	4328.6
20°	852.0	975.8	1222.2	1561.2	1959.6	2462.6	3226.1	4199.8	4566.0	4671.6
22.5°	736.4	799.7	949.6	1272.5	1718.2	2321.7	3271.4	4548.9	4990.5	5166.6
25°	666.9	700.1	784.6	995.9	1487.8	2184.9	3375.0	5018.7	5584.0	5700.7
27.5°	607.6	631.7	684.0	835.9	1278.6	2058.2	3495.7	5539.8	6138.3	6312.3
30°	551.3	583.5	632.7	742.4	1144.8	1942.5	3647.6	5962.3	6605.1	6767.0
32.5°	508.0	540.2	585.5	677.0	1031.1	1820.8	3738.1	6333.5	6986.3	7124.1
35°	472.8	500.0	547.2	624.7	944.6	1728.2	3720.0	6628.2	7355.5	7496.3
37.5°	447.6	470.8	518.1	575.4	879.2	1631.7	3711.0	7017.5	7805.2	7968.1
40°	424.5	448.7	491.9	543.2	813.8	1518.0	3716.0	7403.8	8284.0	8447.0
42.5°	406.4	433.6	468.8	534.2	746.4	1426.4	3716.0	7739.8	8700.5	8857.4
45°	391.3	420.5	454.7	533.2	693.1	1357.0	3690.8	8028.5	9032.4	9166.2
47.5°	378.2	410.4	459.7	515.0	680.0	1306.7	3668.7	8259.9	9303.0	9428.8
50°	369.2	407.4	488.9	493.9	684.0	1291.6	3775.3	8551.6	9541.4	9650.1
52.5°	362.1	408.4	487.9	462.7	677.0	1301.7	3997.6	9007.3	9872.4	9880.4
55°	348.1	407.4	462.7	427.5	647.8	1318.8	4283.3	9669.2	10390.5	10396.5
57.5°	334.0	396.3	429.5	397.4	588.5	1318.8	4627.4	10295.9	11015.2	11020.2
60°	319.9	412.4	377.2	371.2	511.0	1294.7	4990.5	10571.5	11211.3	11262.6
62.5°	305.8	415.5	337.0	348.1	454.7	1236.3	5261.1	10266.7	10945.7	11019.2
65°	289.7	335.0	310.8	323.9	425.5	1138.7	5175.6	9708.4	10446.8	10534.3
67.5°	270.6	283.7	282.7	298.8	415.5	994.9	4724.9	9002.2	9909.6	9904.6
70°	247.5	254.5	257.5	274.6	396.3	883.2	3937.3	8085.8	9192.4	9305.0
72.5°	223.3	229.4	232.4	247.5	377.2	819.8	3056.1	6823.4	7962.1	8138.1
75°	197.2	201.2	205.2	218.3	357.1	726.3	2176.9	5208.8	6098.1	6374.7
77.5°	170.0	170.0	175.0	188.1	300.8	599.5	1460.6	3653.6	4131.4	4414.1
80°	137.8	138.8	136.8	150.9	221.3	410.4	829.9	2440.4	2749.3	2803.6
82.5°	105.6	102.6	103.6	110.7	165.0	279.7	442.6	1516.0	1545.1	1515.0
85°	66.4	66.4	64.4	72.4	105.6	145.9	241.4	928.5	725.3	690.1
87.5°	27.2	22.1	25.1	29.2	50.3	59.4	94.6	191.1	73.4	67.4
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)