

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: P453828

Luminaire Tested: **GALN-SA4D-827-U-SLL**

Issue Date: 1/4/2021

Test Information

Test Method: LM-79-08
Report Number: P453828
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-SA4D-827-U-SLL
Description: GALLEON AREA AND ROADWAY LUMINAIRE
(4) 80 CRI, 2700K, 1200mA 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: 19392 lumens
Efficiency: N/A
Efficacy: 79.2 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')
IES Classification: Type III - Medium
BUG Rating: B2 - U0 - G4

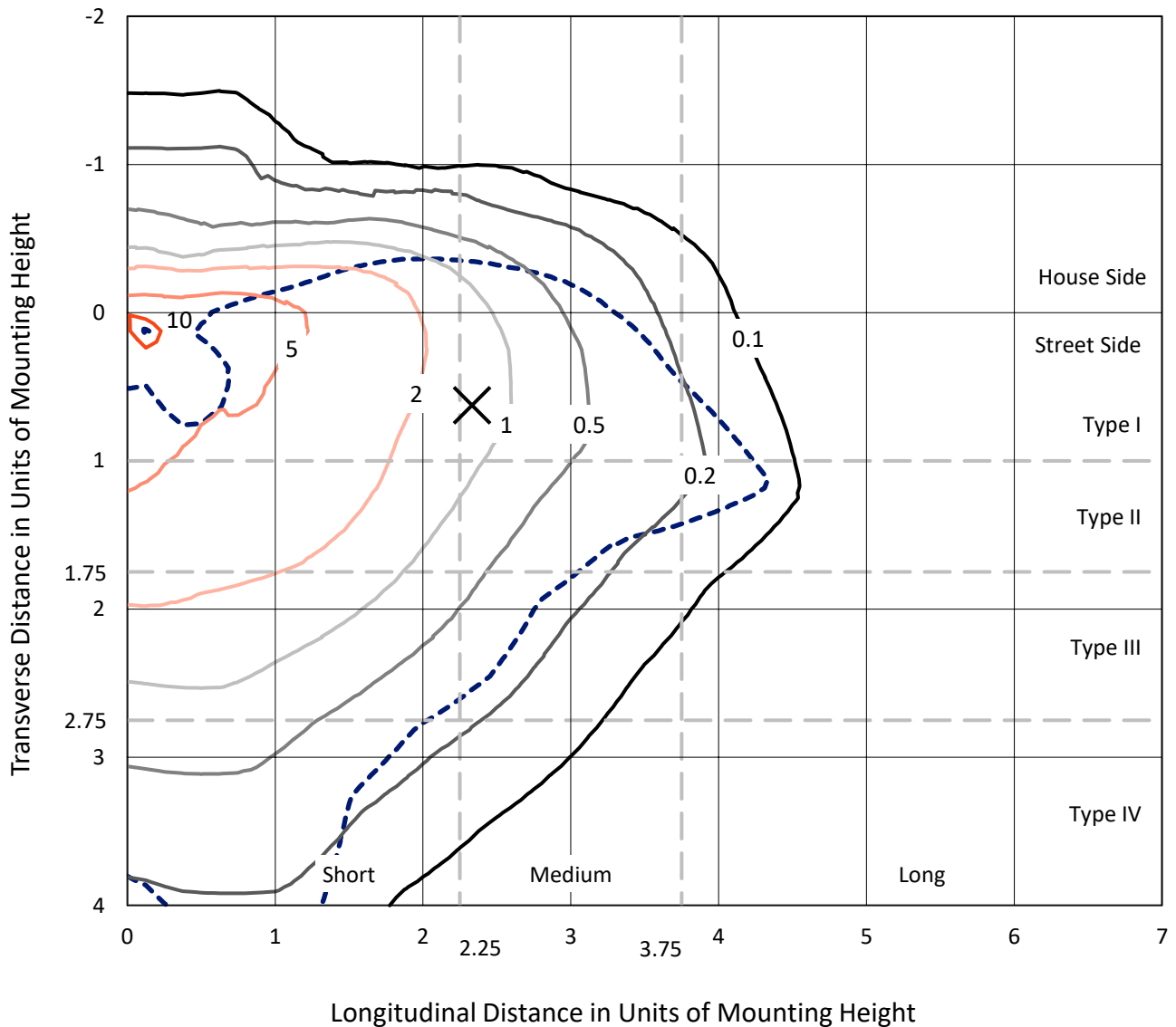
Input Watts (W): 245
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Iso-Footcandle Lines of Horizontal Illumination

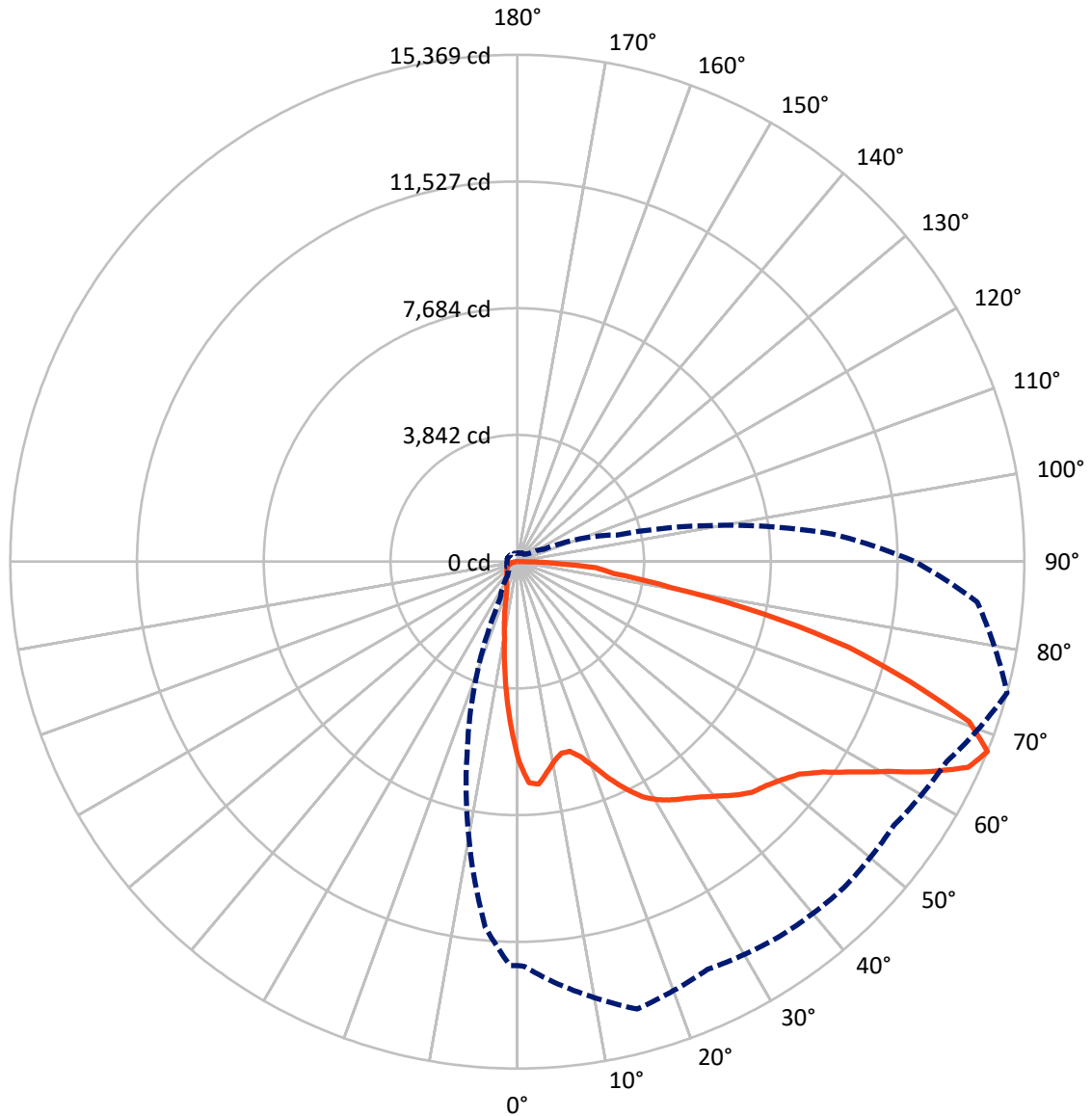
× Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 11.9 fc
 Type III - Medium - N/A

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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
House Side	Lumens	3277.7	0.0	3277.7
	% Fixture	16.9	0.0	16.9
Street Side	Lumens	16114.3	0.0	16114.3
	% Fixture	83.1	0.0	83.1
Total	Lumens	19392.0	0.0	19392.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	459.5	2.4
10°-20°	958.3	4.9
20°-30°	1379.1	7.1
30°-40°	1986.2	10.2
40°-50°	2790.1	14.4
50°-60°	3891.3	20.1
60°-70°	4626.5	23.9
70°-80°	2724.7	14.1
80°-90°	576.2	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°	19392.0	100.0
0°-180°	19392.0	100.0

Coefficient of Utilization



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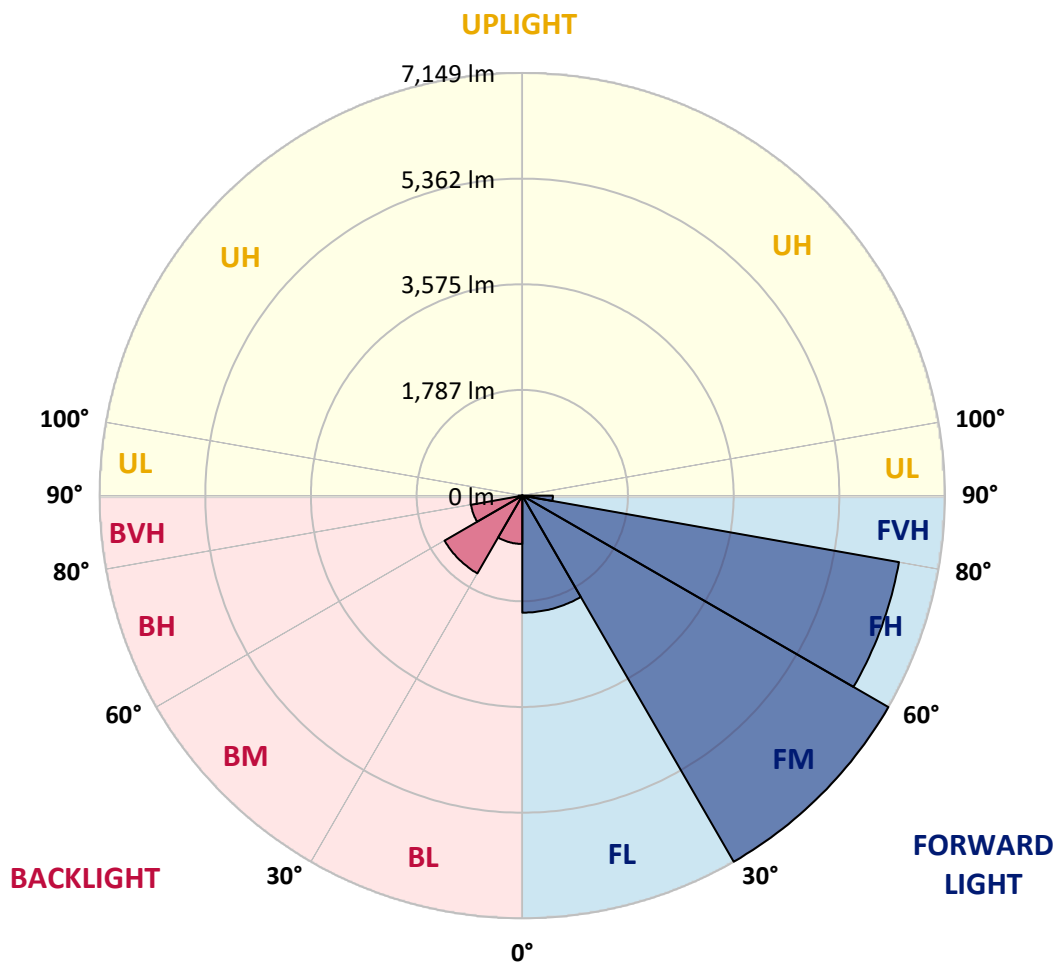
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	1979.4	10.2			
FM	(30°-60°)	7149.1	36.9			
FH	(60°-80°)	6469.2	33.4			G3/7500
FVH	(80°-90°)	516.6	2.7			G4/750
BL	(0°-30°)	817.6	4.2	B2/1000		
BM	(30°-60°)	1518.5	7.8	B2/2500		
BH	(60°-80°)	882.0	4.5	B2/1000		G2/1000
BVH	(80°-90°)	59.6	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-G4

Type III Medium





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CANDELA DISTRIBUTION (FULL):

	0°	1°	5°	15°	25°	35°	45°	55°	65°	75°	85°
0°	6058.5	6058.5	6058.5	6058.5	6058.5	6058.5	6058.5	6058.5	6058.5	6058.5	6058.5
2.5°	6532.3	6541.0	6597.0	6759.9	6871.8	6912.8	6941.4	6888.0	6835.7	6708.9	6517.4
5°	6512.4	6563.4	6708.9	7074.5	7363.0	7487.3	7524.7	7364.2	7099.4	6773.6	6381.8
7.5°	6131.9	6200.3	6424.1	7037.2	7545.8	7836.8	7798.2	7508.5	7031.0	6450.2	5903.1
10°	5680.5	5756.3	6026.2	6767.3	7422.7	7823.1	7823.1	7469.9	6835.7	6145.6	5515.1
12.5°	5322.3	5401.9	5710.3	6490.0	7166.5	7545.8	7609.2	7305.8	6695.2	5952.8	5260.2
15°	5204.2	5281.3	5613.3	6322.1	6895.4	7126.7	7147.9	7048.4	6626.8	5966.5	5249.0
17.5°	5350.9	5450.4	5786.2	6371.9	6646.7	6660.4	6676.6	6754.9	6634.3	6216.4	5475.3
20°	5775.0	5881.9	6232.6	6532.3	6429.1	6287.3	6296.0	6497.5	6722.6	6629.3	6016.2
22.5°	6386.8	6480.1	6839.5	6814.6	6337.1	6044.8	5983.9	6264.9	6853.1	7144.1	6592.0
25°	7047.1	7156.6	7569.4	7233.7	6363.2	5900.6	5862.0	6128.2	6988.7	7625.4	7257.3
27.5°	7803.2	7910.1	8236.0	7656.5	6500.0	5889.4	5843.4	6115.7	7110.6	8070.6	7892.7
30°	8365.3	8463.5	8684.9	8012.1	6667.9	5964.0	5906.8	6214.0	7215.0	8375.2	8512.0
32.5°	8806.7	8908.7	9029.3	8233.5	6889.2	6099.6	5993.9	6393.0	7351.8	8607.8	8970.9
35°	9266.8	9387.5	9378.8	8429.9	7095.6	6256.2	6153.0	6651.7	7566.9	8810.5	9552.9
37.5°	9850.1	9898.6	9836.4	8606.5	7343.1	6538.5	6481.3	7035.9	7872.8	9055.4	10233.1
40°	10442.0	10539.0	10219.4	8820.4	7644.0	7069.5	7063.3	7604.2	8236.0	9342.7	10892.2
42.5°	10949.4	11031.4	10577.5	9006.9	8008.4	7717.4	7764.7	8366.5	8712.2	9676.0	11421.9
45°	11331.1	11404.5	10908.3	9187.3	8488.4	8466.0	8744.6	9183.5	9312.9	9975.7	11732.8
47.5°	11655.7	11726.6	11138.4	9460.8	9081.6	9360.1	9845.1	10035.4	9826.4	10147.3	12081.0
50°	11929.3	11950.4	11296.3	9786.6	9817.7	10455.7	10925.7	11048.8	10333.8	10393.5	12383.2
52.5°	12214.0	12186.7	11568.6	10197.0	10613.6	11495.3	11837.2	11965.3	10820.0	10696.9	12823.4
55°	12852.0	12878.1	12179.2	10714.3	11418.2	12516.2	12966.4	12843.3	11358.5	11255.3	13383.0
57.5°	13623.0	13600.6	13038.5	11523.9	12237.7	13466.3	13802.0	13604.3	12077.2	12022.5	13950.0
60°	13922.7	13952.5	13757.3	12394.3	13046.0	14298.2	14641.4	14334.3	12939.0	12914.1	14377.8
62.5°	13621.7	13789.6	13921.4	13169.1	13734.9	14910.0	15250.8	14900.1	13838.1	14018.4	14677.5
65°	13022.3	13058.4	13507.3	13825.7	14066.9	15010.8	15188.6	15002.0	14589.2	15024.4	14663.8
67.5°	12243.9	12275.0	12801.0	14040.8	13639.1	13866.7	13991.1	13936.3	14356.7	15368.9	13988.6
70°	11502.7	11477.9	12033.7	13492.4	11873.3	11527.6	11630.8	11459.2	12388.1	14527.0	12664.2
72.5°	10060.2	10149.8	10746.7	11967.8	9401.2	8839.1	9064.2	8620.2	9528.0	12441.6	10279.1
75°	7880.3	7901.4	8897.5	10044.1	7091.9	6205.3	6509.9	6324.6	7298.3	10378.6	7098.1
77.5°	5456.6	5409.4	6480.1	7671.4	5057.5	4542.6	4547.6	4459.3	5096.0	7641.5	4822.4
80°	3465.7	3393.6	4056.4	4739.1	3475.7	3718.2	3596.3	3592.6	3317.8	4714.3	2916.1
82.5°	1872.8	1952.4	2562.9	2970.8	2493.3	2873.8	2633.8	2556.7	2276.9	2950.9	1865.3
85°	853.1	927.7	1366.6	2020.8	1893.9	1915.0	1279.6	1509.7	1884.0	2396.3	996.1
87.5°	83.3	106.9	282.3	953.8	646.6	509.9	190.3	366.8	473.8	851.8	79.6
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):

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	6058.5	6058.5	6058.5	6058.5	6058.5	6058.5	6058.5	6058.5	6058.5	6058.5	6058.5
2.5°	6439.0	6374.4	6154.3	5972.7	5780.0	5633.2	5441.7	5313.6	5225.3	5092.3	5076.1
5°	6143.1	5985.2	5602.1	5211.7	4874.7	4621.0	4363.6	4127.3	3988.0	3944.5	3888.5
7.5°	5644.4	5378.3	4885.9	4438.2	4051.4	3673.4	3382.4	3176.0	3038.0	2957.1	2860.1
10°	5234.1	4925.7	4326.3	3777.9	3459.5	3224.5	2968.3	2747.0	2576.6	2431.1	2351.5
12.5°	4958.0	4609.8	3935.8	3490.6	3244.4	2994.4	2694.7	2446.0	2194.8	2029.5	1958.6
15°	4874.7	4506.6	3815.2	3347.6	2994.4	2667.4	2331.6	2007.1	1758.4	1601.7	1549.4
17.5°	5078.6	4633.4	3813.9	3157.3	2701.0	2310.5	1880.2	1575.6	1320.6	1203.7	1166.4
20°	5459.1	4877.2	3825.1	2969.6	2382.6	1833.0	1367.9	1117.9	996.1	946.3	927.7
22.5°	5990.1	5249.0	3858.7	2784.3	2034.4	1407.7	1024.7	897.8	854.3	845.6	841.9
25°	6644.2	5709.1	3971.9	2617.6	1741.0	1074.4	856.8	799.6	774.7	766.0	764.8
27.5°	7246.1	6303.5	4108.7	2474.6	1457.4	926.4	774.7	726.2	701.4	700.1	702.6
30°	7789.5	6800.9	4223.1	2314.2	1242.3	823.2	721.3	672.8	649.1	647.9	655.3
32.5°	8259.6	7210.0	4307.6	2156.3	1122.9	759.8	672.8	620.5	600.6	596.9	600.6
35°	8762.0	7617.9	4269.1	2033.2	1054.5	707.6	636.7	585.7	562.1	550.9	550.9
37.5°	9335.2	8038.2	4203.2	1931.2	1023.4	664.0	605.6	555.9	532.2	521.0	519.8
40°	9960.7	8458.5	4112.4	1840.4	992.3	637.9	584.5	532.2	503.6	492.4	490.0
42.5°	10512.9	8817.9	4037.8	1780.7	941.4	642.9	565.8	514.8	478.8	463.8	462.6
45°	10992.9	9179.8	4024.1	1745.9	899.1	635.4	560.8	501.1	458.9	442.7	440.2
47.5°	11368.4	9556.6	4102.4	1726.0	853.1	595.7	593.2	492.4	441.5	424.0	421.6
50°	11826.1	10091.3	4281.5	1685.0	810.8	558.3	626.7	491.2	427.8	405.4	399.2
52.5°	12435.4	10787.7	4524.0	1611.6	749.9	523.5	598.1	491.2	411.6	389.2	381.8
55°	13356.8	11675.6	4761.5	1508.4	664.0	477.5	539.7	476.3	388.0	368.1	363.1
57.5°	13967.4	12324.7	4913.2	1365.4	557.1	443.9	465.1	452.6	364.4	343.2	343.2
60°	13998.5	12498.8	4841.1	1185.1	490.0	412.9	404.2	456.4	343.2	320.8	318.3
62.5°	13640.4	12072.3	4465.5	1023.4	453.9	379.3	365.6	400.4	322.1	299.7	296.0
65°	13080.8	10984.2	3813.9	946.3	434.0	349.4	329.5	328.3	299.7	278.6	273.6
67.5°	12052.4	9598.9	3133.7	901.6	424.0	315.9	297.2	291.0	273.6	256.2	253.7
70°	10536.5	8039.5	2513.2	882.9	419.1	281.0	266.1	258.7	243.7	230.1	228.8
72.5°	8197.4	6521.1	2074.2	870.5	416.6	248.7	232.5	222.6	213.9	201.5	201.5
75°	5888.2	4797.6	1583.0	784.7	385.5	213.9	196.5	190.3	177.8	167.9	170.4
77.5°	3712.0	3230.7	1042.1	577.0	298.4	171.6	156.7	153.0	143.0	129.3	138.0
80°	2507.0	2271.9	608.1	363.1	187.8	125.6	120.6	119.4	108.2	93.3	94.5
82.5°	1706.1	1673.8	315.9	206.4	108.2	73.4	70.9	73.4	60.9	49.7	49.7
85°	666.5	910.3	149.2	80.8	34.8	11.2	16.2	17.4	9.9	5.0	6.2
87.5°	12.4	93.3	3.7	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°	6058.5	6058.5	6058.5	6058.5	6058.5	6058.5	6058.5	6058.5	6058.5	6058.5	6058.5
2.5°	5051.3	5040.1	5058.7	4979.1	4995.3	5025.1	5040.1	5048.8	5171.9	5143.3	5221.6
5°	3940.8	3929.6	4001.7	4011.7	4049.0	4041.5	4077.6	4086.3	4131.0	4147.2	4256.6
7.5°	2866.4	2914.9	2996.9	3039.2	3102.6	3122.5	3103.9	3149.9	3056.6	3123.8	3143.7
10°	2303.0	2244.6	2209.8	2306.8	2319.2	2411.2	2373.9	2344.1	2398.8	2401.3	2453.5
12.5°	1917.5	1791.9	1708.6	1736.0	1765.8	1805.6	1811.8	1871.5	1911.3	1948.6	1979.7
15°	1503.4	1459.9	1384.1	1346.8	1389.0	1405.2	1443.7	1493.5	1535.8	1547.0	1589.2
17.5°	1154.0	1161.5	1149.0	1126.6	1152.8	1165.2	1167.7	1168.9	1180.1	1172.7	1234.8
20°	928.9	955.0	986.1	991.1	999.8	1006.0	994.8	952.6	953.8	979.9	999.8
22.5°	840.6	845.6	880.4	891.6	919.0	907.8	875.5	855.6	853.1	859.3	869.2
25°	771.0	778.5	803.3	820.7	841.9	822.0	798.4	779.7	777.2	783.4	793.4
27.5°	708.8	720.0	742.4	759.8	779.7	761.0	738.7	722.5	721.3	720.0	726.2
30°	659.1	671.5	687.7	707.6	721.3	705.1	683.9	675.2	674.0	671.5	674.0
32.5°	609.3	629.2	645.4	655.3	669.0	656.6	640.4	635.4	626.7	619.3	615.6
35°	553.4	574.5	599.4	611.8	625.5	613.1	601.9	580.7	565.8	564.6	567.1
37.5°	521.0	529.7	549.6	570.8	584.5	578.2	557.1	536.0	532.2	532.2	534.7
40°	492.4	496.2	504.9	532.2	557.1	538.5	512.3	506.1	506.1	504.9	506.1
42.5°	463.8	467.6	467.6	488.7	528.5	498.7	478.8	478.8	478.8	480.0	483.7
45°	437.7	439.0	437.7	452.6	490.0	465.1	451.4	455.1	457.6	460.1	462.6
47.5°	415.3	416.6	415.3	427.8	446.4	436.5	429.0	434.0	439.0	442.7	445.2
50°	395.4	394.2	396.7	404.2	412.9	415.3	410.4	417.8	420.3	425.3	431.5
52.5°	378.0	376.8	379.3	383.0	395.4	395.4	395.4	401.7	406.6	411.6	420.3
55°	358.1	359.4	363.1	368.1	384.3	381.8	383.0	388.0	393.0	400.4	405.4
57.5°	339.5	342.0	346.9	354.4	370.6	369.3	370.6	373.1	379.3	383.0	388.0
60°	318.3	323.3	329.5	334.5	350.7	349.4	355.7	360.6	364.4	364.4	366.8
62.5°	297.2	304.7	310.9	314.6	332.0	333.3	342.0	345.7	348.2	345.7	349.4
65°	276.1	287.3	289.7	294.7	312.1	313.4	323.3	332.0	329.5	327.1	333.3
67.5°	254.9	268.6	267.4	273.6	291.0	293.5	302.2	317.1	312.1	309.6	314.6
70°	231.3	241.2	242.5	246.2	269.8	266.1	279.8	293.5	289.7	291.0	291.0
72.5°	205.2	213.9	213.9	221.3	246.2	240.0	251.2	266.1	266.1	264.9	264.9
75°	174.1	179.1	184.0	195.2	221.3	213.9	221.3	235.0	237.5	235.0	235.0
77.5°	140.5	148.0	150.5	165.4	184.0	182.8	190.3	196.5	201.5	199.0	199.0
80°	99.5	106.9	116.9	133.1	144.3	148.0	151.7	156.7	159.2	159.2	161.7
82.5°	56.0	67.2	75.9	92.0	97.0	115.6	114.4	118.1	114.4	100.7	111.9
85°	12.4	23.6	33.6	42.3	48.5	67.2	70.9	79.6	65.9	60.9	60.9
87.5°	0.0	0.0	0.0	0.0	0.0	9.9	19.9	27.4	23.6	19.9	19.9
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: P453828
 CATALOG NUMBER: GALN-SA4D-827-U-SLL

CANDELA DISTRIBUTION (continued):

	285°	295°	305°	315°	325°	335°	345°	355°	359°	360°
0°	6058.5	6058.5	6058.5	6058.5	6058.5	6058.5	6058.5	6058.5	6058.5	6058.5
2.5°	5287.5	5395.7	5526.3	5751.4	5909.3	6079.7	6251.3	6434.1	6482.6	6532.3
5°	4286.5	4499.1	4614.8	4917.0	5234.1	5637.0	5966.5	6327.1	6477.6	6512.4
7.5°	3246.9	3391.1	3694.6	4000.5	4393.4	4816.2	5321.1	5883.2	6058.5	6131.9
10°	2574.1	2770.6	3036.7	3365.0	3709.5	4164.6	4734.2	5390.7	5639.4	5680.5
12.5°	2191.1	2410.0	2699.7	3046.7	3372.5	3715.7	4290.2	4967.9	5234.1	5322.3
15°	1752.1	2017.0	2351.5	2717.1	3071.5	3447.1	4029.1	4793.8	5101.0	5204.2
17.5°	1376.6	1590.5	1952.4	2349.0	2769.4	3244.4	3974.3	4877.2	5255.2	5350.9
20°	1053.3	1206.2	1510.9	1930.0	2422.4	3044.2	3988.0	5191.8	5644.4	5775.0
22.5°	910.3	988.6	1173.9	1573.1	2124.0	2870.1	4044.0	5623.3	6169.2	6386.8
25°	824.5	865.5	970.0	1231.1	1839.2	2701.0	4172.1	6204.0	6902.9	7047.1
27.5°	751.1	780.9	845.6	1033.4	1580.5	2544.3	4321.3	6848.2	7588.1	7803.2
30°	681.5	721.3	782.2	917.7	1415.1	2401.3	4509.1	7370.5	8165.1	8365.3
32.5°	628.0	667.8	723.7	836.9	1274.6	2250.8	4621.0	7829.3	8636.4	8806.7
35°	584.5	618.0	676.5	772.2	1167.7	2136.4	4598.6	8193.7	9092.8	9266.8
37.5°	553.4	582.0	640.4	711.3	1086.9	2017.0	4587.4	8674.9	9648.6	9850.1
40°	524.8	554.6	608.1	671.5	1006.0	1876.5	4593.6	9152.4	10240.5	10442.0
42.5°	502.4	536.0	579.5	660.3	922.7	1763.3	4593.6	9567.8	10755.4	10949.4
45°	483.7	519.8	562.1	659.1	856.8	1677.5	4562.5	9924.7	11165.7	11331.1
47.5°	467.6	507.4	568.3	636.7	840.6	1615.4	4535.2	10210.7	11500.2	11655.7
50°	456.4	503.6	604.4	610.6	845.6	1596.7	4667.0	10571.3	11795.0	11929.3
52.5°	447.7	504.9	603.1	572.0	836.9	1609.1	4941.8	11134.6	12204.1	12214.0
55°	430.3	503.6	572.0	528.5	800.8	1630.3	5295.0	11952.9	12844.5	12852.0
57.5°	412.9	490.0	531.0	491.2	727.5	1630.3	5720.3	12727.6	13616.7	13623.0
60°	395.4	509.9	466.3	458.9	631.7	1600.4	6169.2	13068.3	13859.2	13922.7
62.5°	378.0	513.6	416.6	430.3	562.1	1528.3	6503.7	12691.6	13530.9	13621.7
65°	358.1	414.1	384.3	400.4	526.0	1407.7	6398.0	12001.4	12914.1	13022.3
67.5°	334.5	350.7	349.4	369.3	513.6	1229.9	5840.9	11128.4	12250.1	12243.9
70°	305.9	314.6	318.3	339.5	490.0	1091.8	4867.2	9995.6	11363.5	11502.7
72.5°	276.1	283.5	287.3	305.9	466.3	1013.5	3777.9	8434.9	9842.6	10060.2
75°	243.7	248.7	253.7	269.8	441.5	897.8	2691.0	6439.0	7538.3	7880.3
77.5°	210.2	210.2	216.4	232.5	371.8	741.1	1805.6	4516.5	5107.2	5456.6
80°	170.4	171.6	169.1	186.5	273.6	507.4	1025.9	3016.8	3398.6	3465.7
82.5°	130.6	126.8	128.1	136.8	203.9	345.7	547.2	1874.0	1910.1	1872.8
85°	82.1	82.1	79.6	89.5	130.6	180.3	298.4	1147.8	896.6	853.1
87.5°	33.6	27.4	31.1	36.1	62.2	73.4	116.9	236.3	90.8	83.3
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)