

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: P453132

Luminaire Tested: **GALN-SA4A-827-U-SLL**

Issue Date: 1/4/2021

Test Information

Test Method: LM-79-08
Report Number: P453132
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-SA4A-827-U-SLL
Description: GALLEON AREA AND ROADWAY LUMINAIRE
(4) 80 CRI, 2700K, 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: 11463 lumens
Efficiency: N/A
Efficacy: 94.7 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')
IES Classification: Type III - Medium
BUG Rating: B2 - U0 - G3

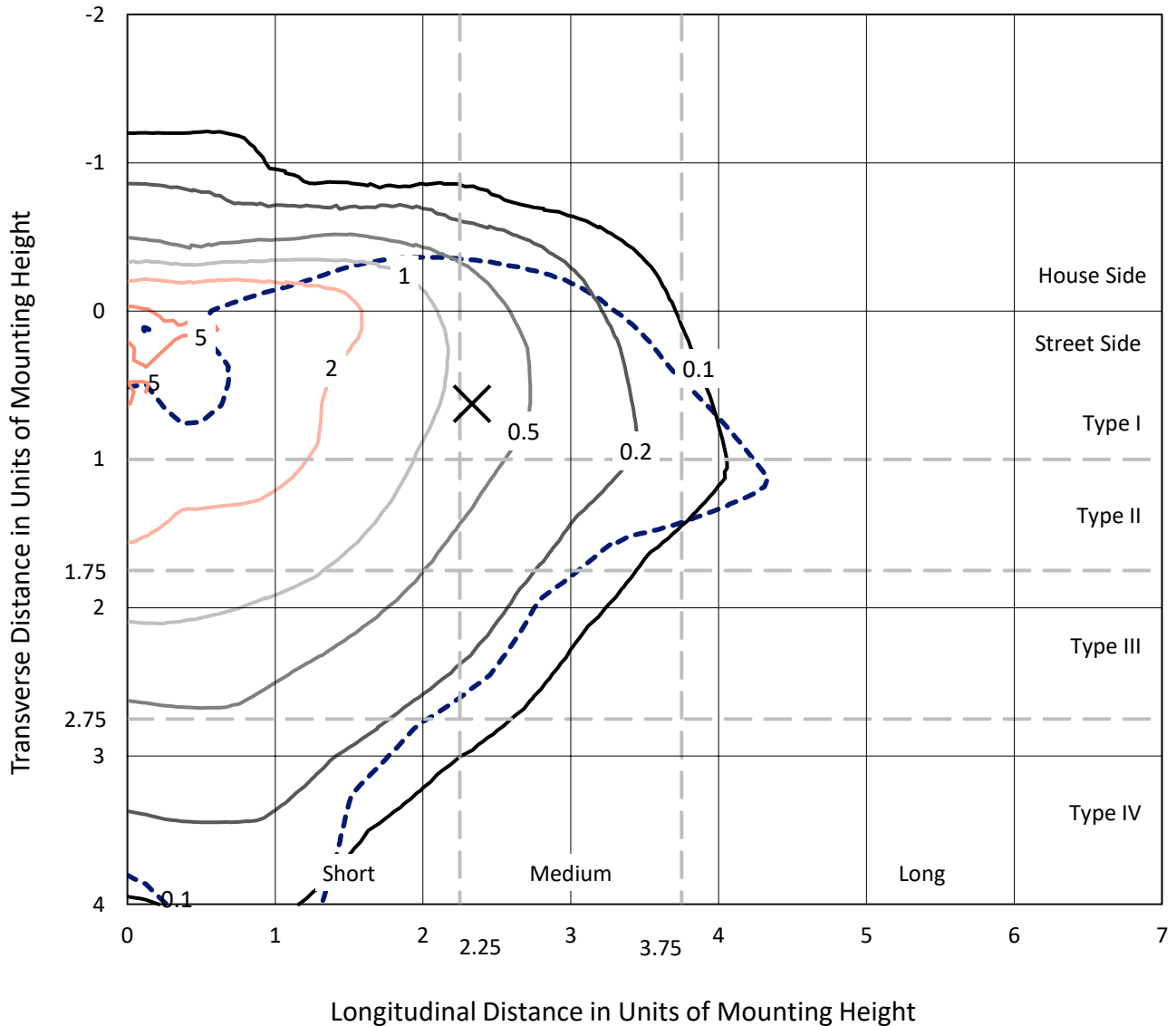
Input Watts (W): 121
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Iso-Footcandle Lines of Horizontal Illumination

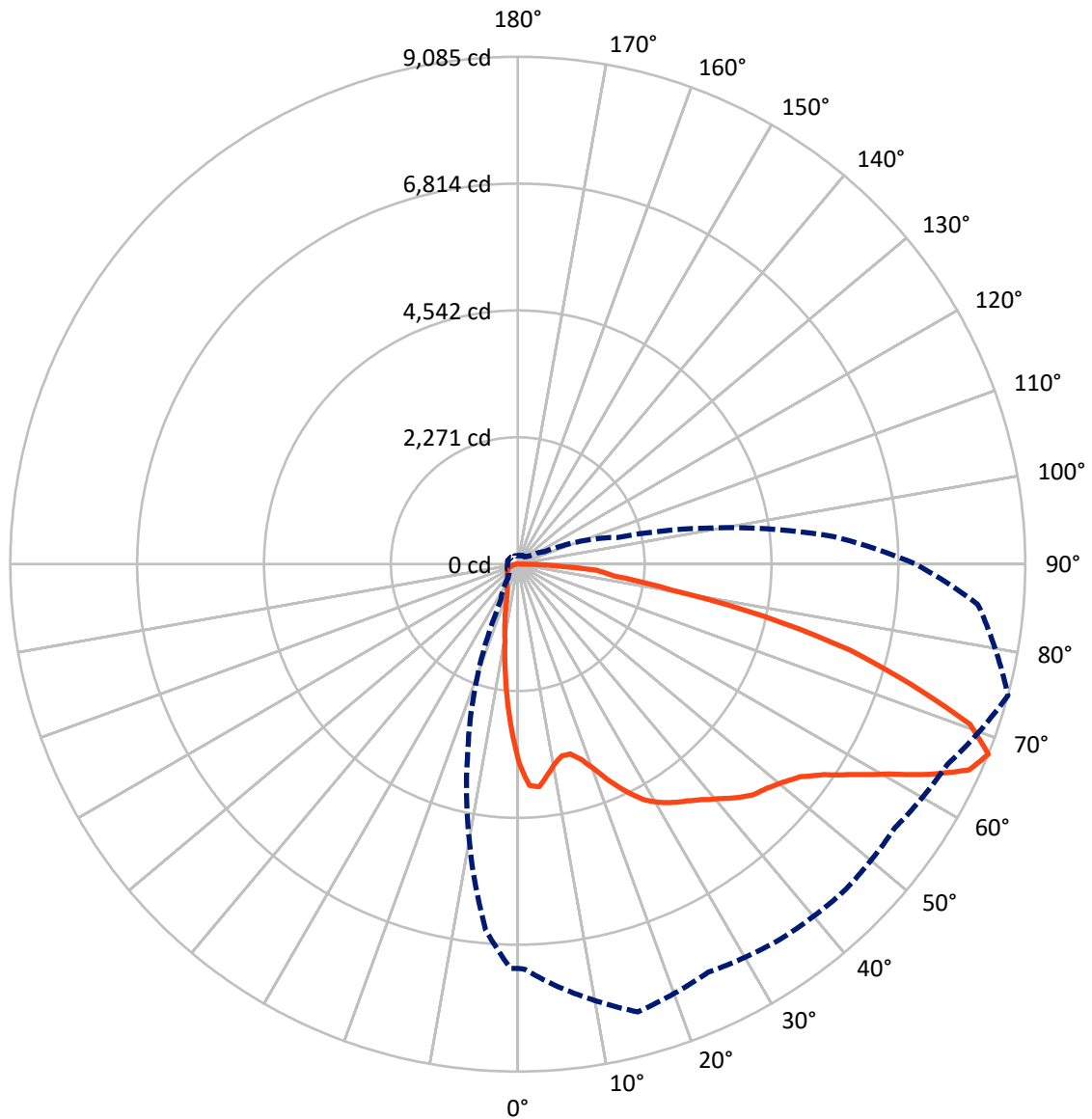
× Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 7.1 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	1937.5	0.0	1937.5
	% Fixture	16.9	0.0	16.9
Street Side	Lumens	9525.5	0.0	9525.5
	% Fixture	83.1	0.0	83.1
Total	Lumens	11463.0	0.0	11463.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	271.6	2.4
10°-20°	566.5	4.9
20°-30°	815.2	7.1
30°-40°	1174.1	10.2
40°-50°	1649.3	14.4
50°-60°	2300.2	20.1
60°-70°	2734.8	23.9
70°-80°	1610.6	14.1
80°-90°	340.6	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°	11463.0	100.0
0°-180°	11463.0	100.0

Coefficient of Utilization



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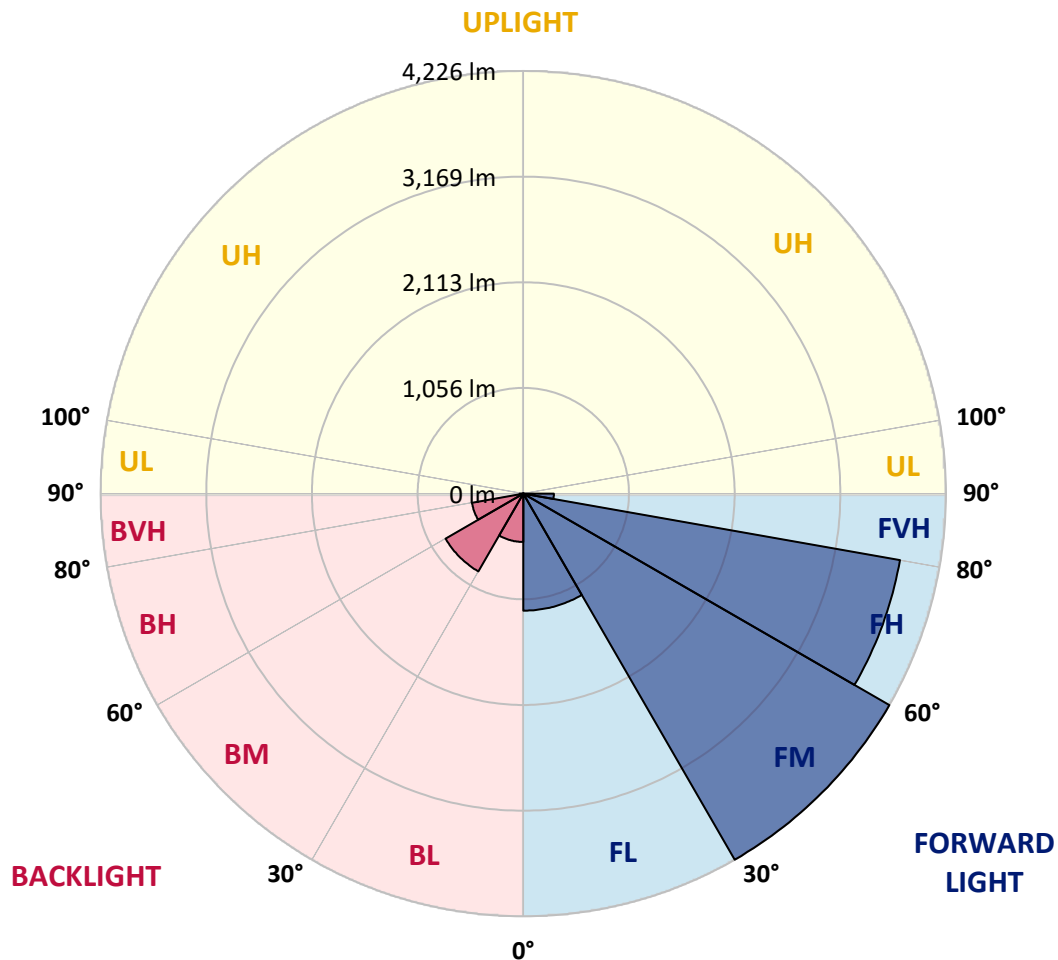
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	1170.1	10.2			
FM	(30°-60°)	4226.0	36.9			
FH	(60°-80°)	3824.1	33.4			G2/5000
FVH	(80°-90°)	305.4	2.7			G3/500
BL	(0°-30°)	483.3	4.2	B1/500		
BM	(30°-60°)	897.6	7.8	B1/1000		
BH	(60°-80°)	521.3	4.5	B2/1000		G2/1000
BVH	(80°-90°)	35.2	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°	3581.3	3581.3	3581.3	3581.3	3581.3	3581.3	3581.3	3581.3	3581.3	3581.3	3581.3
2.5°	3861.4	3866.5	3899.6	3995.9	4062.1	4086.3	4103.2	4071.6	4040.7	3965.8	3852.6
5°	3849.6	3879.8	3965.8	4181.9	4352.4	4425.9	4448.0	4353.1	4196.6	4004.0	3772.4
7.5°	3624.7	3665.1	3797.4	4159.8	4460.5	4632.5	4609.7	4438.4	4156.1	3812.9	3489.4
10°	3357.8	3402.7	3562.2	4000.3	4387.7	4624.4	4624.4	4415.6	4040.7	3632.8	3260.1
12.5°	3146.1	3193.2	3375.5	3836.4	4236.3	4460.5	4498.0	4318.6	3957.7	3518.8	3109.4
15°	3076.3	3121.9	3318.2	3737.1	4076.0	4212.7	4225.2	4166.4	3917.2	3526.9	3102.8
17.5°	3163.1	3221.9	3420.3	3766.6	3929.0	3937.1	3946.6	3993.0	3921.7	3674.7	3236.6
20°	3413.7	3476.9	3684.2	3861.4	3800.4	3716.6	3721.7	3840.8	3973.8	3918.7	3556.3
22.5°	3775.4	3830.5	4042.9	4028.2	3746.0	3573.2	3537.2	3703.3	4051.0	4223.0	3896.7
25°	4165.7	4230.4	4474.4	4276.0	3761.4	3488.0	3465.2	3622.5	4131.2	4507.5	4289.9
27.5°	4612.6	4675.8	4868.4	4525.9	3842.3	3481.3	3454.1	3615.1	4203.2	4770.7	4665.6
30°	4944.9	5003.0	5133.8	4736.1	3941.5	3525.4	3491.6	3673.2	4264.9	4950.8	5031.6
32.5°	5205.8	5266.1	5337.4	4867.0	4072.3	3605.6	3543.1	3779.0	4345.8	5088.2	5302.9
35°	5477.8	5549.1	5544.0	4983.1	4194.4	3698.2	3637.2	3931.9	4473.0	5208.0	5646.9
37.5°	5822.6	5851.2	5814.5	5087.5	4340.7	3865.1	3831.2	4159.1	4653.8	5352.9	6049.0
40°	6172.5	6229.8	6040.9	5213.9	4518.5	4178.9	4175.3	4495.0	4868.4	5522.7	6438.6
42.5°	6472.4	6520.9	6252.6	5324.2	4733.9	4561.9	4589.8	4945.6	5150.0	5719.7	6751.7
45°	6698.1	6741.4	6448.1	5430.8	5017.7	5004.4	5169.1	5428.6	5505.0	5896.8	6935.5
47.5°	6889.9	6931.8	6584.1	5592.5	5368.3	5533.0	5819.6	5932.1	5808.6	5998.3	7141.3
50°	7051.6	7064.1	6677.5	5785.1	5803.5	6180.6	6458.4	6531.2	6108.5	6143.8	7319.9
52.5°	7220.0	7203.8	6838.5	6027.7	6273.9	6795.1	6997.2	7072.9	6395.9	6323.2	7580.2
55°	7597.1	7612.5	7199.4	6333.5	6749.5	7398.6	7664.7	7591.9	6714.2	6653.2	7910.9
57.5°	8052.8	8039.6	7707.3	6812.0	7233.9	7960.2	8158.7	8041.8	7139.1	7106.8	8246.1
60°	8230.0	8247.6	8132.2	7326.5	7711.7	8452.0	8654.8	8473.3	7648.5	7633.8	8499.0
62.5°	8052.1	8151.3	8229.2	7784.5	8119.0	8813.6	9015.0	8807.7	8180.0	8286.6	8676.2
65°	7697.8	7719.1	7984.4	8172.6	8315.2	8873.2	8978.3	8868.0	8624.0	8881.2	8668.1
67.5°	7237.6	7256.0	7566.9	8299.8	8062.4	8196.9	8270.4	8238.0	8486.5	9084.9	8268.9
70°	6799.5	6784.8	7113.4	7975.6	7018.5	6814.2	6875.2	6773.8	7322.9	8587.2	7486.1
72.5°	5946.8	5999.7	6352.6	7074.4	5557.2	5225.0	5358.0	5095.6	5632.2	7354.5	6076.2
75°	4658.2	4670.7	5259.5	5937.2	4192.2	3668.1	3848.1	3738.6	4314.2	6135.0	4195.8
77.5°	3225.5	3197.6	3830.5	4534.7	2989.6	2685.2	2688.2	2636.0	3012.4	4517.1	2850.6
80°	2048.7	2006.0	2397.8	2801.4	2054.6	2197.9	2125.9	2123.6	1961.2	2786.7	1723.8
82.5°	1107.0	1154.1	1515.0	1756.1	1473.8	1698.8	1556.9	1511.3	1345.9	1744.3	1102.6
85°	504.3	548.4	807.9	1194.5	1119.5	1132.0	756.4	892.4	1113.6	1416.5	588.8
87.5°	49.3	63.2	166.9	563.8	382.2	301.4	112.5	216.8	280.1	503.5	47.0
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°	3581.3	3581.3	3581.3	3581.3	3581.3	3581.3	3581.3	3581.3	3581.3	3581.3	3581.3
2.5°	3806.2	3768.0	3637.9	3530.6	3416.7	3329.9	3216.7	3141.0	3088.8	3010.2	3000.6
5°	3631.3	3537.9	3311.5	3080.7	2881.5	2731.6	2579.4	2439.7	2357.4	2331.7	2298.6
7.5°	3336.5	3179.2	2888.1	2623.5	2394.9	2171.4	1999.4	1877.4	1795.8	1748.0	1690.7
10°	3094.0	2911.7	2557.3	2233.2	2045.0	1906.1	1754.6	1623.8	1523.1	1437.1	1390.0
12.5°	2930.8	2724.9	2326.5	2063.4	1917.8	1770.1	1592.9	1445.9	1297.4	1199.7	1157.8
15°	2881.5	2663.9	2255.2	1978.8	1770.1	1576.7	1378.3	1186.4	1039.4	946.8	915.9
17.5°	3002.1	2738.9	2254.5	1866.4	1596.6	1365.8	1111.4	931.3	780.7	711.6	689.5
20°	3227.0	2883.0	2261.1	1755.4	1408.4	1083.5	808.6	660.8	588.8	559.4	548.4
22.5°	3540.9	3102.8	2281.0	1645.8	1202.6	832.1	605.7	530.7	505.0	499.9	497.6
25°	3927.5	3374.8	2347.8	1547.3	1029.1	635.1	506.5	472.7	458.0	452.8	452.1
27.5°	4283.3	3726.1	2428.7	1462.8	861.5	547.6	458.0	429.3	414.6	413.9	415.3
30°	4604.5	4020.2	2496.3	1368.0	734.3	486.6	426.3	397.7	383.7	383.0	387.4
32.5°	4882.4	4262.0	2546.3	1274.6	663.8	449.1	397.7	366.8	355.0	352.8	355.0
35°	5179.4	4503.1	2523.5	1201.9	623.3	418.3	376.4	346.2	332.3	325.6	325.6
37.5°	5518.2	4751.6	2484.6	1141.6	605.0	392.5	358.0	328.6	314.6	308.0	307.3
40°	5888.0	5000.0	2430.9	1087.9	586.6	377.1	345.5	314.6	297.7	291.1	289.6
42.5°	6214.4	5212.5	2386.8	1052.6	556.5	380.0	334.5	304.3	283.0	274.2	273.4
45°	6498.1	5426.4	2378.7	1032.1	531.5	375.6	331.5	296.2	271.2	261.7	260.2
47.5°	6720.1	5649.1	2425.0	1020.3	504.3	352.1	350.6	291.1	261.0	250.7	249.2
50°	6990.6	5965.2	2530.9	996.0	479.3	330.1	370.5	290.4	252.9	239.6	236.0
52.5°	7350.8	6376.8	2674.2	952.7	443.3	309.5	353.6	290.4	243.3	230.1	225.7
55°	7895.5	6901.7	2814.6	891.7	392.5	282.3	319.0	281.5	229.3	217.6	214.6
57.5°	8256.4	7285.4	2904.3	807.1	329.3	262.4	274.9	267.6	215.4	202.9	202.9
60°	8274.8	7388.3	2861.7	700.5	289.6	244.0	238.9	269.8	202.9	189.7	188.2
62.5°	8063.1	7136.2	2639.7	605.0	268.3	224.2	216.1	236.7	190.4	177.2	174.9
65°	7732.3	6493.0	2254.5	559.4	256.5	206.6	194.8	194.1	177.2	164.7	161.7
67.5°	7124.4	5674.1	1852.4	532.9	250.7	186.7	175.7	172.0	161.7	151.4	150.0
70°	6228.3	4752.3	1485.6	521.9	247.7	166.1	157.3	152.9	144.1	136.0	135.3
72.5°	4845.7	3854.8	1226.1	514.6	246.3	147.0	137.5	131.6	126.4	119.1	119.1
75°	3480.6	2835.9	935.8	463.8	227.9	126.4	116.1	112.5	105.1	99.2	100.7
77.5°	2194.2	1909.7	616.0	341.1	176.4	101.4	92.6	90.4	84.5	76.4	81.6
80°	1481.9	1343.0	359.5	214.6	111.0	74.2	71.3	70.6	64.0	55.1	55.9
82.5°	1008.5	989.4	186.7	122.0	64.0	43.4	41.9	43.4	36.0	29.4	29.4
85°	394.0	538.1	88.2	47.8	20.6	6.6	9.6	10.3	5.9	2.9	3.7
87.5°	7.4	55.1	2.2	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°	3581.3	3581.3	3581.3	3581.3	3581.3	3581.3	3581.3	3581.3	3581.3	3581.3	3581.3
2.5°	2985.9	2979.3	2990.3	2943.3	2952.8	2970.5	2979.3	2984.4	3057.2	3040.3	3086.6
5°	2329.5	2322.9	2365.5	2371.4	2393.4	2389.0	2410.3	2415.5	2441.9	2451.5	2516.2
7.5°	1694.4	1723.0	1771.5	1796.5	1834.0	1845.8	1834.8	1862.0	1806.8	1846.5	1858.3
10°	1361.4	1326.8	1306.2	1363.6	1370.9	1425.3	1403.3	1385.6	1418.0	1419.4	1450.3
12.5°	1133.5	1059.3	1010.0	1026.2	1043.8	1067.3	1071.0	1106.3	1129.8	1151.9	1170.2
15°	888.7	863.0	818.1	796.1	821.1	830.6	853.4	882.8	907.8	914.4	939.4
17.5°	682.2	686.6	679.2	666.0	681.4	688.8	690.2	691.0	697.6	693.2	729.9
20°	549.1	564.5	582.9	585.9	591.0	594.7	588.1	563.1	563.8	579.2	591.0
22.5°	496.9	499.9	520.4	527.1	543.2	536.6	517.5	505.7	504.3	507.9	513.8
25°	455.7	460.2	474.9	485.2	497.6	485.9	471.9	460.9	459.4	463.1	469.0
27.5°	419.0	425.6	438.8	449.1	460.9	449.9	436.6	427.1	426.3	425.6	429.3
30°	389.6	396.9	406.5	418.3	426.3	416.8	404.3	399.1	398.4	396.9	398.4
32.5°	360.2	372.0	381.5	387.4	395.5	388.1	378.6	375.6	370.5	366.1	363.9
35°	327.1	339.6	354.3	361.7	369.7	362.4	355.8	343.3	334.5	333.7	335.2
37.5°	308.0	313.1	324.9	337.4	345.5	341.8	329.3	316.8	314.6	314.6	316.1
40°	291.1	293.3	298.4	314.6	329.3	318.3	302.9	299.2	299.2	298.4	299.2
42.5°	274.2	276.4	276.4	288.9	312.4	294.8	283.0	283.0	283.0	283.7	285.9
45°	258.7	259.5	258.7	267.6	289.6	274.9	266.8	269.0	270.5	272.0	273.4
47.5°	245.5	246.3	245.5	252.9	263.9	258.0	253.6	256.5	259.5	261.7	263.2
50°	233.8	233.0	234.5	238.9	244.0	245.5	242.6	247.0	248.5	251.4	255.1
52.5°	223.5	222.7	224.2	226.4	233.8	233.8	233.8	237.4	240.4	243.3	248.5
55°	211.7	212.4	214.6	217.6	227.1	225.7	226.4	229.3	232.3	236.7	239.6
57.5°	200.7	202.1	205.1	209.5	219.1	218.3	219.1	220.5	224.2	226.4	229.3
60°	188.2	191.1	194.8	197.7	207.3	206.6	210.2	213.2	215.4	215.4	216.8
62.5°	175.7	180.1	183.8	186.0	196.3	197.0	202.1	204.4	205.8	204.4	206.6
65°	163.2	169.8	171.3	174.2	184.5	185.2	191.1	196.3	194.8	193.3	197.0
67.5°	150.7	158.8	158.0	161.7	172.0	173.5	178.6	187.4	184.5	183.0	186.0
70°	136.7	142.6	143.3	145.5	159.5	157.3	165.4	173.5	171.3	172.0	172.0
72.5°	121.3	126.4	126.4	130.8	145.5	141.9	148.5	157.3	157.3	156.6	156.6
75°	102.9	105.9	108.8	115.4	130.8	126.4	130.8	138.9	140.4	138.9	138.9
77.5°	83.1	87.5	88.9	97.8	108.8	108.1	112.5	116.1	119.1	117.6	117.6
80°	58.8	63.2	69.1	78.7	85.3	87.5	89.7	92.6	94.1	94.1	95.6
82.5°	33.1	39.7	44.8	54.4	57.3	68.4	67.6	69.8	67.6	59.5	66.2
85°	7.4	14.0	19.8	25.0	28.7	39.7	41.9	47.0	39.0	36.0	36.0
87.5°	0.0	0.0	0.0	0.0	0.0	5.9	11.8	16.2	14.0	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



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CANDELA DISTRIBUTION (continued):

	285°	295°	305°	315°	325°	335°	345°	355°	359°	360°
0°	3581.3	3581.3	3581.3	3581.3	3581.3	3581.3	3581.3	3581.3	3581.3	3581.3
2.5°	3125.6	3189.5	3266.7	3399.7	3493.1	3593.8	3695.2	3803.3	3832.0	3861.4
5°	2533.8	2659.5	2727.9	2906.5	3094.0	3332.1	3526.9	3740.1	3829.0	3849.6
7.5°	1919.3	2004.6	2183.9	2364.8	2597.0	2847.0	3145.4	3477.7	3581.3	3624.7
10°	1521.6	1637.8	1795.1	1989.1	2192.7	2461.8	2798.5	3186.6	3333.6	3357.8
12.5°	1295.2	1424.6	1595.9	1800.9	1993.5	2196.4	2536.0	2936.6	3094.0	3146.1
15°	1035.7	1192.3	1390.0	1606.2	1815.6	2037.6	2381.7	2833.7	3015.3	3076.3
17.5°	813.7	940.2	1154.1	1388.6	1637.0	1917.8	2349.3	2883.0	3106.5	3163.1
20°	622.6	713.0	893.1	1140.8	1431.9	1799.5	2357.4	3069.0	3336.5	3413.7
22.5°	538.1	584.4	693.9	929.9	1255.5	1696.6	2390.5	3324.0	3646.7	3775.4
25°	487.4	511.6	573.4	727.7	1087.2	1596.6	2466.2	3667.3	4080.4	4165.7
27.5°	444.0	461.6	499.9	610.9	934.3	1504.0	2554.4	4048.1	4485.5	4612.6
30°	402.8	426.3	462.4	542.5	836.5	1419.4	2665.4	4356.8	4826.5	4944.9
32.5°	371.2	394.7	427.8	494.7	753.5	1330.5	2731.6	4628.1	5105.1	5205.8
35°	345.5	365.3	399.9	456.5	690.2	1262.9	2718.3	4843.4	5374.9	5477.8
37.5°	327.1	344.0	378.6	420.5	642.5	1192.3	2711.7	5127.9	5703.5	5822.6
40°	310.2	327.8	359.5	396.9	594.7	1109.2	2715.4	5410.2	6053.4	6172.5
42.5°	297.0	316.8	342.5	390.3	545.4	1042.3	2715.4	5655.7	6357.7	6472.4
45°	285.9	307.3	332.3	389.6	506.5	991.6	2697.0	5866.7	6600.3	6698.1
47.5°	276.4	299.9	335.9	376.4	496.9	954.9	2680.8	6035.7	6798.0	6889.9
50°	269.8	297.7	357.2	360.9	499.9	943.8	2758.8	6248.9	6972.2	7051.6
52.5°	264.6	298.4	356.5	338.1	494.7	951.2	2921.2	6581.9	7214.1	7220.0
55°	254.3	297.7	338.1	312.4	473.4	963.7	3130.0	7065.6	7592.6	7597.1
57.5°	244.0	289.6	313.9	290.4	430.0	963.7	3381.4	7523.5	8049.1	8052.8
60°	233.8	301.4	275.7	271.2	373.4	946.0	3646.7	7725.0	8192.5	8230.0
62.5°	223.5	303.6	246.3	254.3	332.3	903.4	3844.5	7502.2	7998.4	8052.1
65°	211.7	244.8	227.1	236.7	310.9	832.1	3782.0	7094.3	7633.8	7697.8
67.5°	197.7	207.3	206.6	218.3	303.6	727.0	3452.7	6578.2	7241.3	7237.6
70°	180.8	186.0	188.2	200.7	289.6	645.4	2877.1	5908.6	6717.2	6799.5
72.5°	163.2	167.6	169.8	180.8	275.7	599.1	2233.2	4986.1	5818.2	5946.8
75°	144.1	147.0	150.0	159.5	261.0	530.7	1590.7	3806.2	4456.1	4658.2
77.5°	124.2	124.2	127.9	137.5	219.8	438.1	1067.3	2669.8	3019.0	3225.5
80°	100.7	101.4	100.0	110.3	161.7	299.9	606.4	1783.3	2009.0	2048.7
82.5°	77.2	75.0	75.7	80.9	120.6	204.4	323.4	1107.8	1129.1	1107.0
85°	48.5	48.5	47.0	52.9	77.2	106.6	176.4	678.5	530.0	504.3
87.5°	19.8	16.2	18.4	21.3	36.8	43.4	69.1	139.7	53.7	49.3
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)