

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: P298957

Luminaire Tested: **GLNA-AF-08-LED-E1-SLL-7027-800**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P298957  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P191289)  
Test Lab: INNOVATION CENTER P2  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: MCGRAW-EDISON  
Catalog Number: GLNA-AF-08-LED-E1-SLL-7027-800  
Description: GALLEONAIRE AREA AND ROADWAY LUMINAIRE  
(8) 70 CRI, 2700K CCT 800mA LIGHTSQUARE WITH 16 LEDS EACH AND 90° Spill  
Light Eliminator Left OPTICS  
Light Source: -  
Ballast/Driver: -

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 29330.3 lumens  
Efficiency: N/A  
Efficacy: 87.8 lumens/watt  
Luminous Opening: Rectangular (W 2' x L: 1' x H: 0')  
IES Classification: Type IV - Short - Non-Cutoff  
BUG Rating: B3 - U0 - G5

Input Watts (W): 334  
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: 25 FT

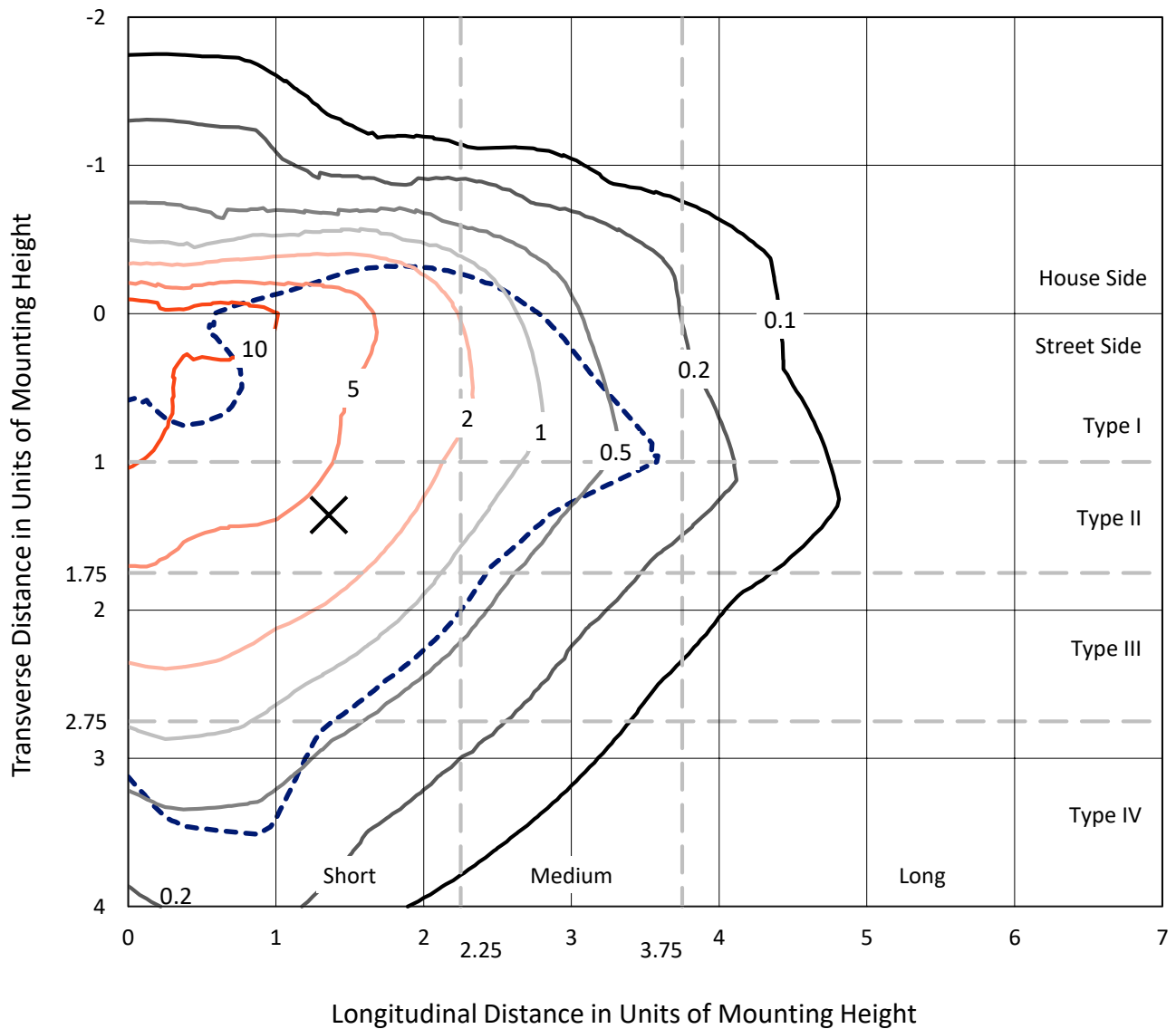


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### Iso-Footcandle Lines of Horizontal Illumination

× Max cd  
 - - - 1/2 Max cd

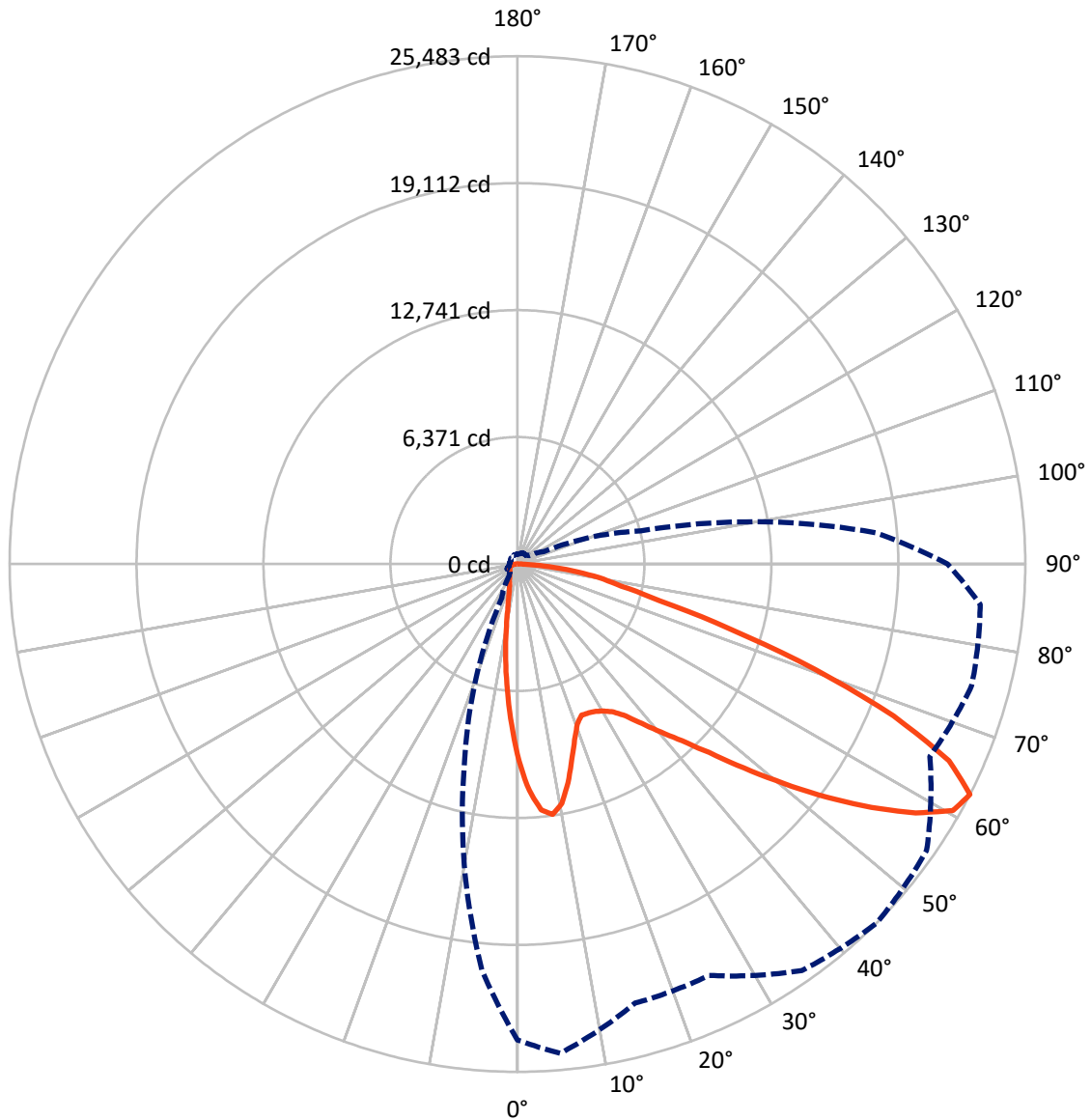


Based on 25 foot mounting height. Maximum calculated value = 18.7 fc  
 Type IV - Short - Non-Cutoff

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### Luminous Intensity Polar Plot



— Vertical Plane Through 45-Deg Lateral      - - - Horizontal Cone Through 62.5-Deg Vertical

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**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	4853.7	0.0	4853.7
	% Fixture	16.5	0.0	16.5
<b>Street Side</b>	Lumens	24476.5	0.0	24476.5
	% Fixture	83.5	0.0	83.5
<b>Total</b>	Lumens	29330.3	0.0	29330.3
	% Fixture	100.0	0.0	100.0

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	721.4	2.5
10°-20°	1322.8	4.5
20°-30°	1928.6	6.6
30°-40°	2970.3	10.1
40°-50°	4371.5	14.9
50°-60°	6412.1	21.9
60°-70°	7167.8	24.4
70°-80°	3509.2	12.0
80°-90°	926.5	3.2
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°	29330.3	100.0
0°-180°	29330.3	100.0

**Coefficient of Utilization**



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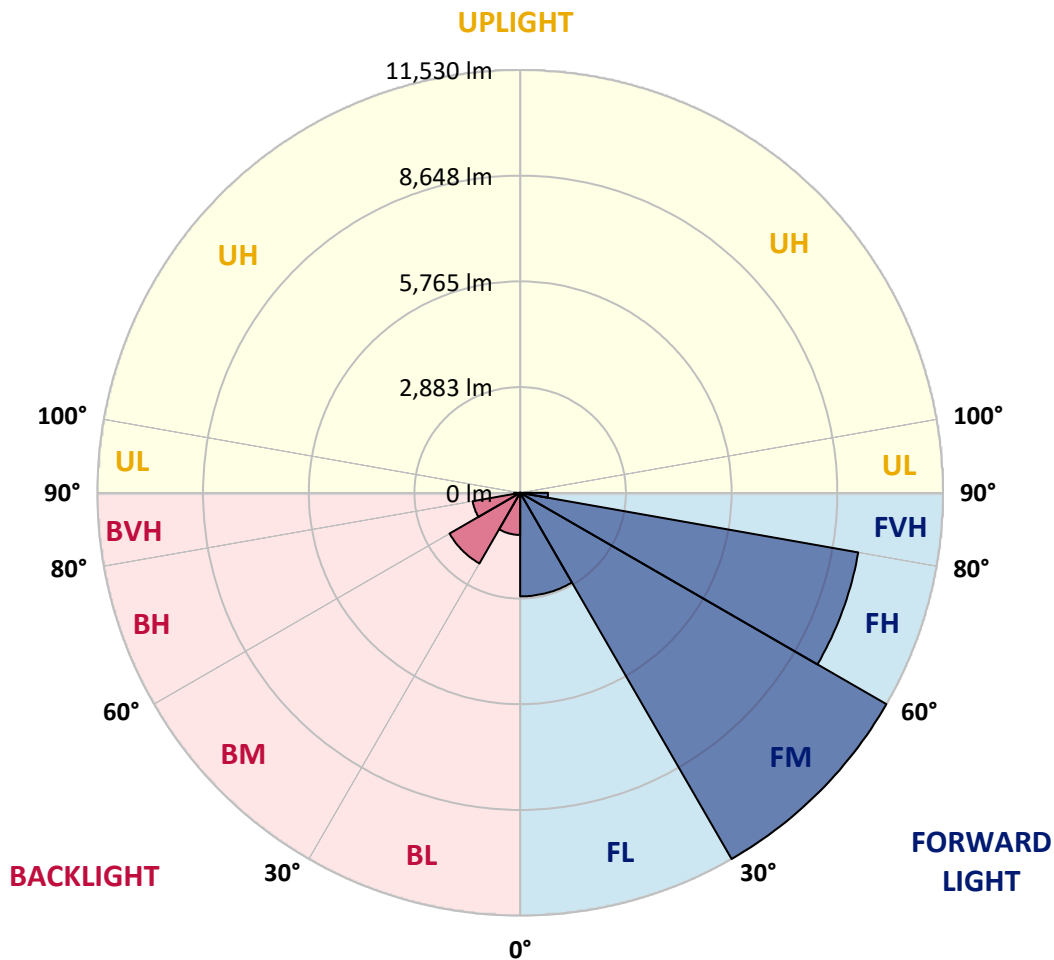
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	2824.4	9.6			
FM	(30°-60°)	11530.0	39.3			
FH	(60°-80°)	9361.2	31.9			G4/12000
FVH	(80°-90°)	760.9	2.6			G5
BL	(0°-30°)	1148.3	3.9	B3/2500		
BM	(30°-60°)	2224.0	7.6	B2/2500		
BH	(60°-80°)	1315.8	4.5	B3/2500		G3/2500
BVH	(80°-90°)	165.6	0.6			G2/225
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

**BUG Rating: B3-U0-G5**

Type IV Short





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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	15°	25°	35°	45°	55°	65°	75°	85°	90°
0°	9909.7	9909.7	9909.7	9909.7	9909.7	9909.7	9909.7	9909.7	9909.7	9909.7	9909.7
2.5°	10295.9	10460.8	10781.7	11021.4	11314.0	11381.5	11475.2	11383.1	11220.3	11004.1	10933.4
5°	9682.0	10033.7	10812.0	11497.7	12106.9	12390.6	12470.2	12235.7	11763.6	11142.8	10763.9
7.5°	8696.9	9196.8	10250.9	11260.6	12158.2	12689.0	12675.9	12132.6	11263.7	10252.5	9644.8
10°	7846.9	8418.0	9627.5	10756.0	11708.6	12223.1	12024.2	11330.2	10292.8	9128.7	8469.8
12.5°	7371.7	7931.2	9158.1	10291.2	11087.9	11265.3	11113.5	10433.1	9455.9	8279.3	7701.9
15°	7289.0	7904.0	8971.2	9893.4	10339.9	10185.5	10004.4	9699.8	9009.4	8005.0	7403.6
17.5°	7645.9	8322.7	9185.8	9616.0	9540.1	9270.6	9219.3	9253.3	9087.4	8309.6	7616.6
20°	8329.5	9141.8	9696.6	9485.7	8932.5	8561.4	8574.5	9092.1	9583.6	9082.2	8290.2
22.5°	9288.4	10215.9	10433.1	9554.8	8676.0	8235.8	8342.6	9181.1	10375.5	10211.1	9199.9
25°	10529.9	11375.2	11218.7	9806.0	8701.6	8276.1	8361.4	9487.3	11310.3	11339.6	10325.8
27.5°	11732.7	12516.8	11877.7	10140.0	8808.4	8371.4	8484.4	9968.8	12203.8	12564.9	11612.3
30°	12671.2	13216.6	12138.9	10444.6	9017.8	8556.7	8696.9	10426.8	12610.4	13391.9	12602.1
32.5°	13448.4	13839.9	12555.0	10822.0	9403.0	8848.2	9095.2	10983.2	13195.6	14179.1	13570.9
35°	14441.3	14552.8	13072.6	11242.8	9998.1	9356.4	9662.6	11528.0	13753.6	14973.6	14525.6
37.5°	15605.9	15462.5	13561.0	11818.5	10767.5	10151.0	10404.3	12126.3	14212.6	15874.9	15500.7
40°	16756.9	16411.4	14174.4	12711.5	11889.7	11087.9	11387.8	12764.9	14641.8	16777.8	16453.8
42.5°	17735.6	17224.3	14778.4	13693.4	12933.9	12121.6	12479.6	13408.1	15051.1	17548.3	17280.8
45°	18459.5	17824.1	15354.1	14636.6	14373.8	13495.0	13664.6	14144.6	15494.4	18192.1	17961.2
47.5°	19105.9	18427.1	16005.3	15588.1	15633.1	15281.4	15008.7	15002.4	16017.3	18717.6	18604.5
50°	19971.6	19264.0	16705.1	16567.9	17522.6	17288.7	16687.3	16003.7	16677.8	19314.2	19301.2
52.5°	21165.0	20589.8	17559.8	17624.2	19287.0	19439.9	18694.5	17207.0	17712.6	20408.7	20331.7
55°	22576.1	22240.1	18724.4	18838.5	21450.3	21560.2	20819.6	18710.8	19235.2	21994.1	21779.5
57.5°	23676.8	23606.2	20001.0	20296.2	23066.0	23559.6	22879.2	20452.7	20950.4	23328.8	22790.2
60°	24115.5	24458.8	21360.2	21766.4	24560.9	25106.8	24510.6	21982.0	22470.9	23882.0	22721.1
62.5°	23878.9	24645.7	22808.0	22774.0	24894.3	25482.6	25063.3	22833.6	23598.3	23311.0	21571.7
65°	22783.9	23973.6	23648.1	22514.4	23752.7	23800.9	23665.3	22453.1	23864.2	21506.8	19349.3
67.5°	20398.7	22111.3	22541.6	20289.9	20673.0	20359.0	20131.3	20370.0	22477.2	18802.9	16261.7
70°	16615.0	19191.8	19397.5	16228.2	16053.9	15842.5	15389.7	16700.3	19741.3	15410.7	12903.6
72.5°	12216.8	14925.5	15558.8	11902.3	11096.2	11139.1	10781.7	12585.3	16050.8	11447.4	9633.8
75°	8358.3	10807.3	12173.4	8304.9	7338.2	7355.4	7309.9	8917.8	12784.2	7963.1	7208.9
77.5°	6106.1	7721.3	9181.1	5583.2	5420.4	5320.4	5296.4	6239.5	9801.3	5782.1	5597.8
80°	4899.6	5704.6	6166.8	3869.5	4161.1	4153.2	4019.2	4290.4	6400.7	4229.1	4186.7
82.5°	3399.0	4384.1	4996.4	3032.6	2808.6	2761.5	2794.5	3195.4	4524.3	2890.8	2748.9
85°	1793.2	2911.7	4948.3	2687.7	1667.1	1330.0	1654.5	2616.5	3919.8	1532.0	1341.0
87.5°	229.3	841.6	3276.0	1072.5	657.9	354.3	785.6	1473.4	2517.1	312.5	272.7
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):**

	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°	185°
0°	9909.7	9909.7	9909.7	9909.7	9909.7	9909.7	9909.7	9909.7	9909.7	9909.7	9909.7
2.5°	10751.3	10536.7	10256.2	9996.0	9727.0	9459.0	9109.4	8890.1	8738.8	8709.5	8645.6
5°	10490.1	9777.2	9238.7	8772.8	8350.4	7753.2	7423.0	7148.7	7002.1	6988.0	6952.4
7.5°	9285.2	8301.8	7574.7	6915.3	6317.0	5834.9	5302.6	5055.1	4953.0	4977.1	5001.2
10°	8032.2	6933.0	6097.7	5423.5	4896.5	4490.3	4063.2	3774.8	3574.3	3534.0	3526.2
12.5°	7116.8	5910.8	5100.1	4623.8	4216.6	3834.0	3381.2	3040.5	2781.4	2692.4	2633.3
15°	6729.4	5411.0	4561.5	4048.6	3598.4	3113.2	2692.4	2336.0	2097.8	2020.4	1976.9
17.5°	6812.1	5272.3	4190.4	3534.0	2958.8	2452.2	1922.0	1616.8	1473.4	1436.8	1436.8
20°	7244.5	5246.6	3883.7	3060.4	2342.2	1755.5	1320.6	1146.3	1099.7	1095.0	1107.5
22.5°	7850.6	5337.2	3655.5	2649.5	1820.4	1281.8	1028.5	964.1	943.2	948.4	962.5
25°	8753.5	5641.8	3489.6	2283.1	1428.4	1049.4	917.0	878.8	868.9	881.9	899.7
27.5°	9823.8	5946.4	3385.9	2007.3	1205.9	959.4	872.0	832.2	838.5	854.7	870.4
30°	10763.9	6196.6	3223.1	1811.0	1136.8	964.1	872.0	817.6	811.3	814.4	819.1
32.5°	11607.6	6365.7	3032.6	1623.6	980.3	856.3	814.4	806.6	770.5	757.4	759.5
35°	12334.6	6365.7	2918.5	1514.2	878.8	759.5	691.9	651.6	633.3	634.9	653.2
37.5°	13036.0	6238.0	2862.0	1452.5	823.8	722.3	662.6	627.0	603.0	598.3	601.4
40°	13654.6	6052.7	2797.6	1426.8	782.0	699.8	643.8	614.0	588.3	580.5	582.0
42.5°	14151.4	5902.5	2726.4	1393.3	755.8	683.6	630.2	604.5	575.7	567.4	565.8
45°	14688.4	5852.7	2633.3	1325.3	768.9	685.1	627.0	599.8	570.5	561.1	558.0
47.5°	15396.0	6009.2	2536.4	1244.7	796.6	693.5	631.8	599.8	568.9	561.1	558.0
50°	16287.4	6376.7	2413.4	1126.9	768.9	716.0	630.2	594.6	568.9	561.1	554.8
52.5°	17432.6	6873.4	2252.7	991.9	752.7	770.5	627.0	585.2	561.1	550.1	538.6
55°	18823.8	7279.5	2060.1	880.4	716.0	755.8	622.3	574.2	548.5	532.3	522.4
57.5°	19842.9	7426.1	1814.1	808.1	664.2	731.7	615.5	559.5	532.3	519.2	506.7
60°	19641.4	7142.4	1605.8	762.6	633.3	661.1	610.8	546.4	517.6	508.2	496.2
62.5°	18027.7	6400.7	1471.8	741.7	614.0	603.0	615.5	533.9	505.1	494.6	491.5
65°	15607.5	5305.8	1419.0	737.0	598.3	568.9	572.6	519.2	489.9	482.1	478.9
67.5°	12874.2	4282.5	1372.4	752.7	577.3	544.9	529.2	499.9	475.3	467.4	461.1
70°	10152.5	3561.8	1350.9	743.2	551.7	520.8	503.5	478.9	458.0	449.6	444.9
72.5°	8175.6	3008.5	1339.4	733.3	517.6	488.3	472.1	451.2	428.7	425.5	420.8
75°	6918.9	2365.3	1227.4	702.9	478.9	449.6	438.6	419.2	396.7	396.7	393.6
77.5°	5337.2	1710.5	1020.6	622.3	438.6	406.2	396.7	382.1	356.4	361.2	359.6
80°	3942.3	1115.9	798.2	516.1	388.9	358.0	352.8	338.6	310.9	317.7	317.7
82.5°	2700.8	731.7	574.2	422.4	331.8	303.1	303.1	288.4	258.0	261.2	271.1
85°	1356.1	503.5	428.7	327.1	258.0	243.4	243.4	232.4	201.5	203.1	216.2
87.5°	413.0	303.1	283.7	234.0	185.3	182.1	173.8	165.9	146.6	145.0	153.4
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):**

	195°	205°	215°	225°	235°	245°	255°	265°	270°	275°	285°
0°	9909.7	9909.7	9909.7	9909.7	9909.7	9909.7	9909.7	9909.7	9909.7	9909.7	9909.7
2.5°	8546.7	8454.6	8344.2	8098.7	8016.5	8011.3	8086.1	8008.1	8156.8	8094.0	8163.1
5°	6892.2	6802.7	6678.2	6365.7	6175.2	6045.9	5985.2	5804.6	5934.9	5839.7	5919.2
7.5°	5069.2	5090.1	5008.0	4824.2	4409.7	4201.9	4079.4	3969.5	4064.8	4054.8	4206.6
10°	3563.4	3619.4	3561.8	3376.5	3040.5	2926.4	2948.9	2992.3	3116.9	3180.7	3414.7
12.5°	2565.2	2562.1	2524.9	2359.0	2138.1	2150.7	2242.8	2318.2	2432.8	2500.8	2739.0
15°	1915.1	1886.4	1870.1	1734.6	1609.0	1636.7	1681.7	1689.6	1762.3	1802.6	1996.3
17.5°	1447.7	1462.4	1479.7	1383.4	1288.1	1270.3	1235.2	1191.3	1212.7	1220.6	1316.9
20°	1149.4	1207.5	1251.5	1183.4	1087.1	1034.8	989.8	961.0	961.0	959.4	986.6
22.5°	1004.4	1046.3	1093.4	1046.3	959.4	913.9	888.2	865.7	862.6	862.6	888.2
25°	925.9	956.3	1001.3	969.3	904.4	870.4	846.3	817.6	806.6	802.9	820.7
27.5°	886.7	899.7	922.2	892.9	838.5	822.3	816.0	790.3	775.2	767.3	785.6
30°	820.7	817.6	819.1	790.3	746.4	744.8	755.8	761.0	755.8	754.2	782.0
32.5°	759.5	752.7	751.1	725.4	685.1	675.7	685.1	695.1	706.1	722.3	754.2
35°	682.0	698.2	707.6	685.1	636.5	607.7	596.7	578.9	568.9	568.9	606.1
37.5°	620.8	657.9	672.6	651.6	598.3	558.0	538.6	535.4	537.0	543.3	578.9
40°	599.8	627.0	639.6	619.2	565.8	529.2	517.6	514.5	517.6	527.6	562.7
42.5°	586.7	606.1	604.5	578.9	535.4	509.8	503.5	499.9	503.5	512.9	551.7
45°	575.7	588.3	575.7	544.9	505.1	491.5	493.0	491.5	494.6	505.1	541.7
47.5°	565.8	570.5	554.8	523.9	482.1	478.9	485.2	489.9	493.0	501.9	540.2
50°	551.7	551.7	537.0	505.1	462.7	464.3	472.1	483.6	485.2	494.6	526.0
52.5°	533.9	532.3	522.4	491.5	446.5	451.2	451.2	464.3	467.4	478.9	511.4
55°	519.2	516.1	511.4	482.1	432.3	440.2	435.5	440.2	448.0	459.6	494.6
57.5°	506.7	499.9	499.9	473.7	420.8	424.0	413.0	419.2	428.7	438.6	475.3
60°	493.0	486.8	489.9	462.7	403.0	399.9	395.2	407.7	411.4	422.4	459.6
62.5°	478.9	473.7	475.3	449.6	390.5	382.1	382.1	393.6	395.2	411.4	446.5
65°	467.4	461.1	459.6	437.0	375.8	366.4	371.1	375.8	378.9	395.2	428.7
67.5°	456.4	443.3	443.3	425.5	359.6	349.6	359.6	358.0	363.2	377.4	404.6
70°	441.8	424.0	425.5	417.7	343.4	331.8	340.2	338.6	341.8	351.2	378.9
72.5°	419.2	404.6	407.7	404.6	327.1	310.9	314.0	314.0	314.0	322.4	351.2
75°	390.5	378.9	388.9	396.7	307.8	285.3	288.4	288.4	283.7	288.4	324.0
77.5°	354.3	348.1	380.5	369.5	285.3	258.0	258.0	254.9	245.5	251.8	290.0
80°	316.1	310.9	351.2	309.3	259.6	224.5	220.9	212.5	203.1	207.8	247.0
82.5°	275.8	271.1	295.2	237.1	224.5	185.3	177.4	162.8	153.4	158.1	193.1
85°	226.1	226.1	227.7	179.0	170.6	141.8	132.4	113.1	101.5	104.7	138.7
87.5°	161.2	165.9	153.4	122.5	101.5	79.0	72.8	61.2	51.3	59.7	72.8
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: P298957

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**CANDELA DISTRIBUTION (continued):**

	295°	305°	315°	325°	335°	345°	355°	360°
0°	9909.7	9909.7	9909.7	9909.7	9909.7	9909.7	9909.7	9909.7
2.5°	8517.9	8695.4	8896.9	9154.4	9375.8	9738.0	10086.6	10295.9
5°	6368.8	6664.0	7030.9	7504.1	7944.3	8604.8	9261.2	9682.0
7.5°	4557.8	4874.0	5270.7	5860.6	6483.4	7326.1	8193.9	8696.9
10°	3771.7	4095.7	4429.1	4827.4	5337.2	6254.2	7279.5	7846.9
12.5°	3120.0	3466.5	3826.1	4245.4	4717.5	5536.6	6718.5	7371.7
15°	2387.8	2774.6	3198.5	3729.3	4320.7	5267.6	6579.8	7289.0
17.5°	1636.7	2069.0	2589.3	3244.1	3967.9	5180.2	6828.4	7645.9
20°	1126.9	1441.5	1997.8	2765.2	3636.1	5169.2	7305.2	8329.5
22.5°	943.2	1083.5	1489.6	2325.0	3385.9	5307.9	8045.8	9288.4
25°	872.0	956.3	1189.7	1942.9	3203.8	5627.1	9064.9	10529.9
27.5°	830.6	906.0	1080.3	1693.2	3060.4	5997.7	10056.2	11732.7
30°	846.3	923.8	1049.4	1565.5	2865.1	6307.1	10936.6	12671.2
32.5°	762.6	796.6	899.7	1452.5	2724.9	6566.7	11707.0	13448.4
35°	650.1	709.2	802.9	1399.6	2728.0	6741.0	12547.1	14441.3
37.5°	619.2	678.9	746.4	1380.2	2765.2	6926.8	13511.2	15605.9
40°	599.8	654.8	712.9	1369.2	2800.8	7095.8	14456.5	16756.9
42.5°	586.7	636.5	709.2	1330.0	2818.5	7247.6	15233.2	17735.6
45°	585.2	636.5	722.3	1291.2	2845.8	7410.4	15884.9	18459.5
47.5°	586.7	657.9	698.2	1244.7	2845.8	7682.6	16649.1	19105.9
50°	580.5	693.5	672.6	1178.7	2779.8	8198.6	17696.9	19971.6
52.5°	577.3	688.8	622.3	1077.2	2665.2	9017.8	19040.0	21165.0
55°	568.9	664.2	586.7	925.9	2531.7	9911.2	20478.3	22576.1
57.5°	561.1	588.3	567.4	793.5	2325.0	10539.8	21468.1	23676.8
60°	628.6	514.5	551.7	728.6	2049.1	10712.0	21429.9	24115.5
62.5°	582.0	482.1	530.7	714.5	1856.0	10228.4	20439.6	23878.9
65°	456.4	461.1	509.8	755.8	1804.2	8947.1	18685.1	22783.9
67.5°	417.7	440.2	488.3	809.7	1809.4	7163.3	16063.9	20398.7
70°	393.6	417.7	464.3	836.9	1822.0	5340.3	12699.9	16615.0
72.5°	366.4	387.3	437.0	841.6	1737.7	3879.0	9788.8	12216.8
75°	333.4	352.8	398.3	733.3	1439.9	2690.8	7487.9	8358.3
77.5°	296.8	310.9	349.6	565.8	1069.3	1722.0	5620.3	6106.1
80°	253.3	261.2	293.6	414.5	731.7	1077.2	4446.9	4899.6
82.5°	203.1	206.2	227.7	310.9	475.3	691.9	2978.2	3399.0
85°	143.4	143.4	156.5	226.1	324.0	438.6	1616.8	1793.2
87.5°	67.5	69.1	69.1	124.0	169.1	223.0	372.7	229.3
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)