

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: P298904

Luminaire Tested: **GLNA-AF-09-LED-E1-SLL-7030**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P298904
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-09-LED-E1-SLL-7030
Description: GALLEONAIRE AREA AND ROADWAY LUMINAIRE
(9) 70 CRI, 3000K CCT 1050mA LIGHTSQUARE WITH 16 LEDS EACH AND 90° Spill
Light Eliminator Left OPTICS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 45086.9 lumens
Efficiency: N/A
Efficacy: 90.0 lumens/watt
Luminous Opening: Rectangular (W 2.5' x L: 1' x H: 0')
IES Classification: Type IV - Short - Non-Cutoff
BUG Rating: B3 - U0 - G5

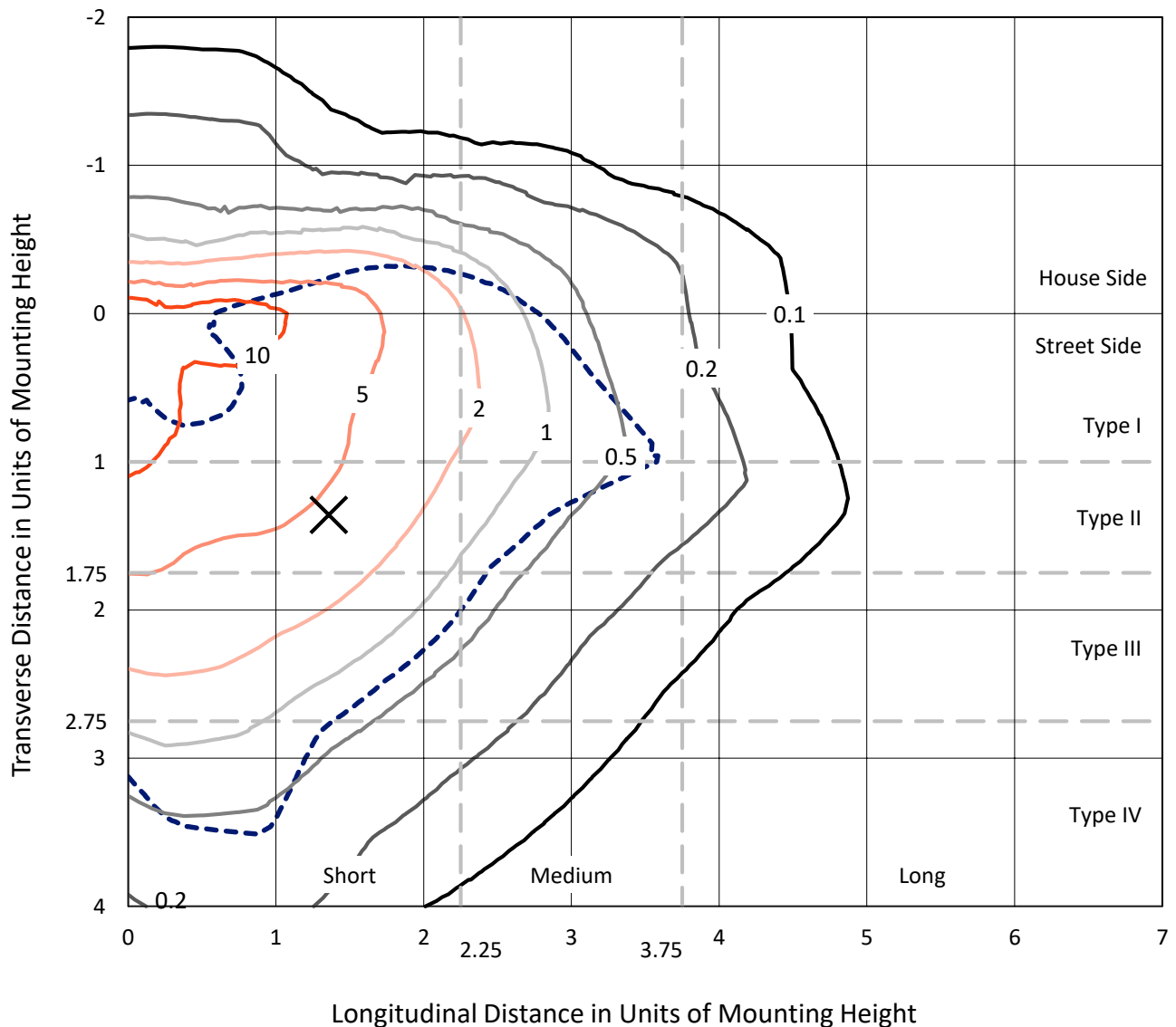
Input Watts (W): 501
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Iso-Footcandle Lines of Horizontal Illumination

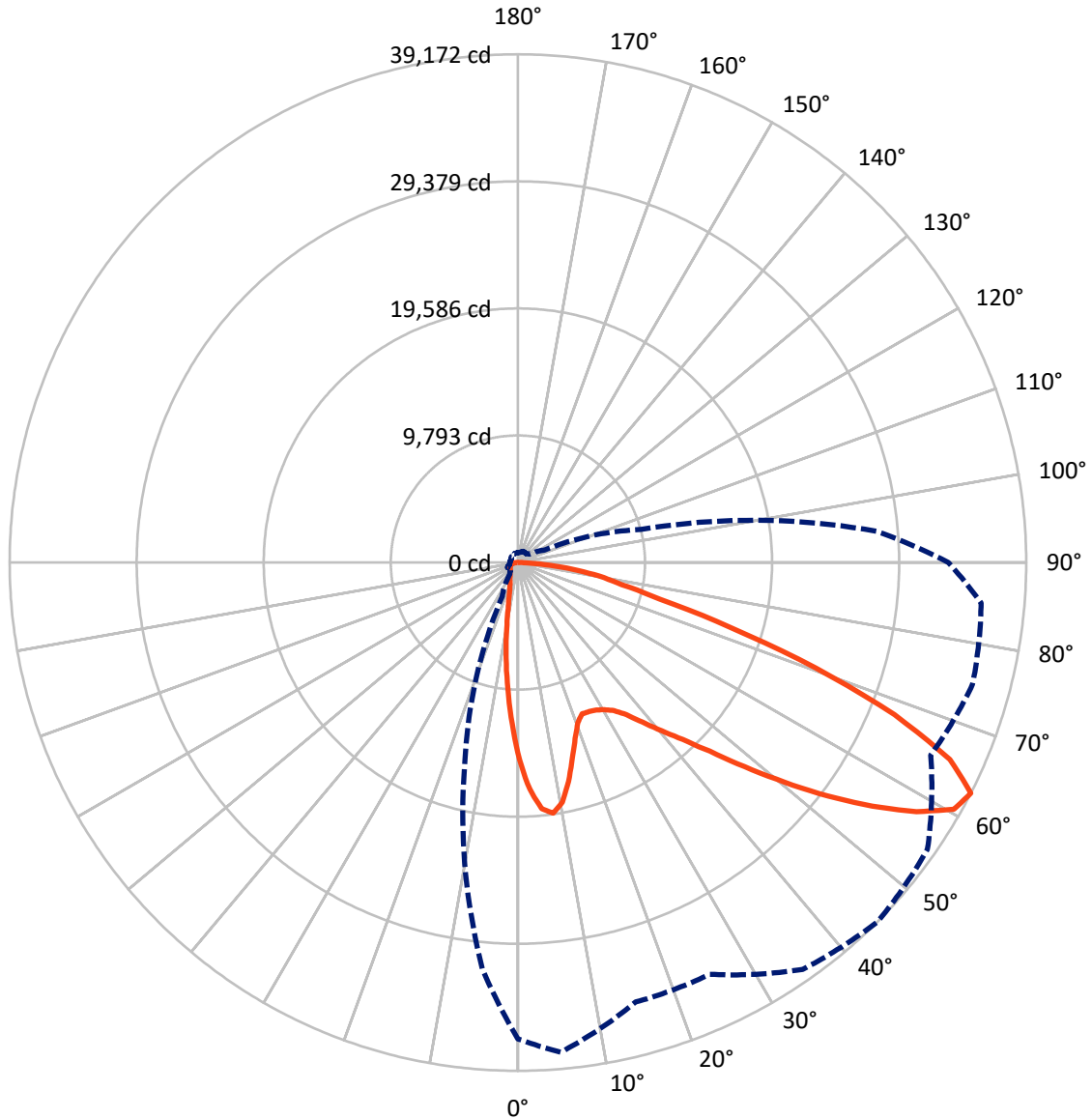
✕ Max cd
 - - - 1/2 Max cd



Based on 30 foot mounting height. Maximum calculated value = 19.9 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
House Side	Lumens	7461.2	0.0	7461.2
	% Fixture	16.5	0.0	16.5
Street Side	Lumens	37625.7	0.0	37625.7
	% Fixture	83.5	0.0	83.5
Total	Lumens	45086.9	0.0	45086.9
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	1108.9	2.5
10°-20°	2033.4	4.5
20°-30°	2964.7	6.6
30°-40°	4566.0	10.1
40°-50°	6720.0	14.9
50°-60°	9856.8	21.9
60°-70°	11018.4	24.4
70°-80°	5394.4	12.0
80°-90°	1424.3	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°	45086.9	100.0
0°-180°	45086.9	100.0

Coefficient of Utilization



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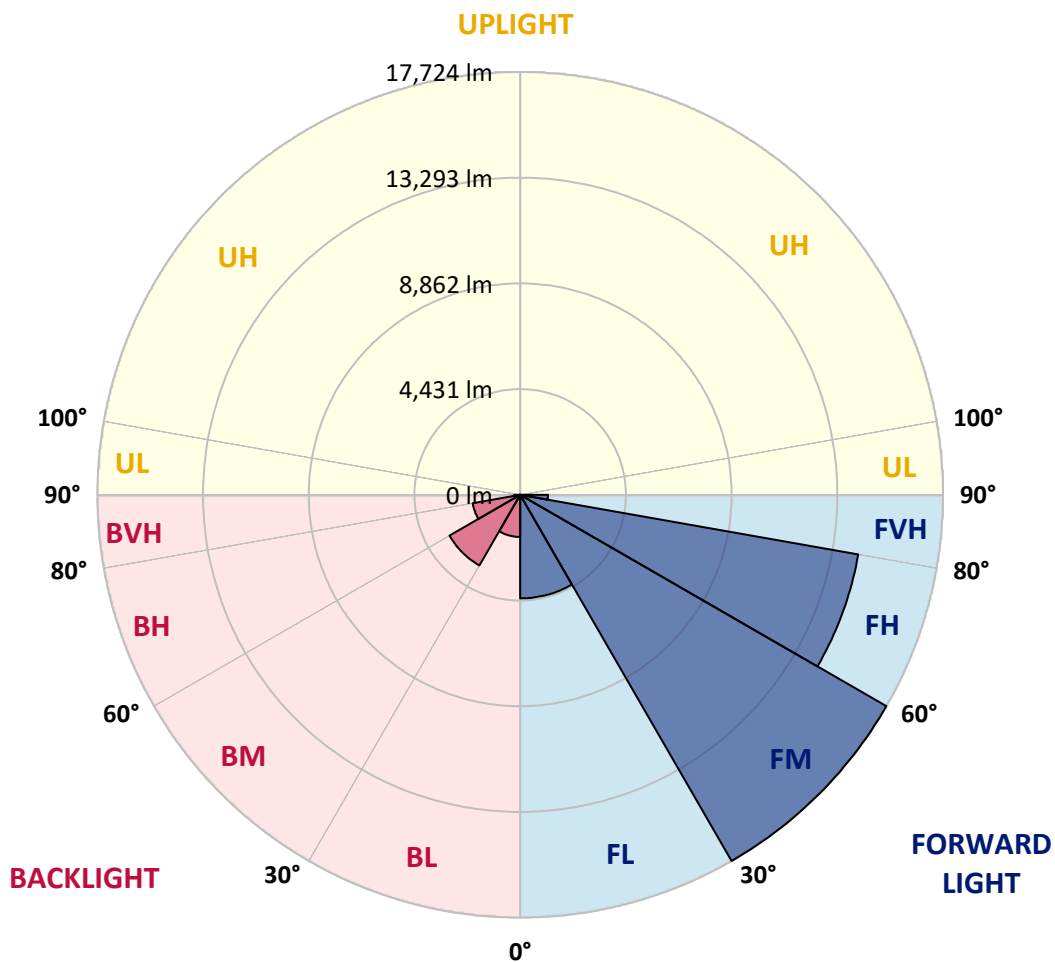
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	4341.7	9.6			
FM	(30°-60°)	17724.1	39.3			
FH	(60°-80°)	14390.2	31.9			G5
FVH	(80°-90°)	1169.7	2.6			G5
BL	(0°-30°)	1765.2	3.9	B3/2500		
BM	(30°-60°)	3418.7	7.6	B3/5000		
BH	(60°-80°)	2022.7	4.5	B3/2500		G3/2500
BVH	(80°-90°)	254.6	0.6			G3/500
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°	15233.3	15233.3	15233.3	15233.3	15233.3	15233.3	15233.3	15233.3	15233.3	15233.3	15233.3
2.5°	15827.1	16080.5	16573.7	16942.2	17392.0	17495.8	17639.8	17498.2	17248.0	16915.7	16807.1
5°	14883.3	15424.0	16620.4	17674.4	18611.0	19047.0	19169.3	18808.9	18083.1	17128.9	16546.4
7.5°	13369.1	14137.4	15757.9	17309.9	18689.8	19505.7	19485.5	18650.4	17314.8	15760.3	14826.2
10°	12062.4	12940.2	14799.6	16534.3	17998.7	18789.6	18483.8	17416.9	15822.3	14032.8	13019.9
12.5°	11331.8	12191.9	14077.9	15819.8	17044.4	17317.2	17083.8	16037.9	14535.7	12727.0	11839.5
15°	11204.7	12150.1	13790.7	15208.3	15894.7	15657.3	15378.9	14910.7	13849.4	12305.4	11380.9
17.5°	11753.4	12793.8	14120.5	14781.9	14665.3	14250.9	14172.0	14224.3	13969.3	12773.7	11708.4
20°	12804.2	14053.0	14905.8	14581.6	13731.1	13160.7	13180.8	13976.5	14732.0	13961.2	12743.9
22.5°	14278.2	15704.0	16037.9	14687.8	13336.9	12660.2	12824.4	14113.3	15949.4	15696.7	14142.3
25°	16186.7	17486.1	17245.6	15074.0	13376.3	12722.2	12853.3	14584.0	17386.4	17431.4	15872.9
27.5°	18035.7	19241.0	18258.5	15587.3	13540.4	12868.6	13042.4	15324.2	18759.8	19315.0	17850.6
30°	19478.3	20316.7	18660.0	16055.6	13862.3	13153.4	13369.1	16028.2	19385.0	20586.2	19372.1
32.5°	20673.1	21275.0	19299.7	16635.7	14454.4	13601.6	13981.4	16883.5	20284.5	21796.3	20861.4
35°	22199.4	22370.8	20095.4	17282.6	15369.3	14382.8	14853.5	17721.1	21142.2	23017.7	22329.0
37.5°	23989.6	23769.2	20846.1	18167.6	16552.0	15604.2	15993.6	18640.7	21847.8	24403.2	23827.9
40°	25758.9	25227.9	21789.1	19540.3	18277.1	17044.4	17505.5	19622.3	22507.6	25791.1	25293.1
42.5°	27263.5	26477.4	22717.6	21049.7	19882.2	18633.5	19183.8	20611.2	23136.8	26975.5	26564.3
45°	28376.3	27399.5	23602.6	22499.5	22095.6	20744.7	21005.4	21743.2	23818.3	27965.1	27610.3
47.5°	29369.9	28326.4	24603.5	23962.3	24031.5	23490.8	23071.6	23061.9	24622.0	28772.9	28599.1
50°	30700.7	29612.9	25679.3	25468.5	26936.0	26576.4	25651.9	24601.1	25637.4	29690.2	29670.0
52.5°	32535.2	31650.9	26993.2	27092.1	29648.3	29883.3	28737.5	26450.9	27228.1	31372.6	31254.3
55°	34704.4	34187.8	28783.4	28958.8	32973.7	33142.6	32004.2	28762.5	29568.7	33809.7	33479.8
57.5°	36396.4	36287.8	30745.8	31199.6	35457.5	36216.2	35170.2	31440.1	32205.3	35861.4	35033.4
60°	37070.7	37598.5	32835.3	33459.7	37755.4	38594.5	37678.1	33791.1	34542.6	36711.8	34927.2
62.5°	36707.0	37885.7	35060.8	35008.5	38267.9	39172.2	38527.8	35100.2	36275.7	35834.0	33160.3
65°	35023.8	36852.6	36352.2	34609.4	36513.1	36587.1	36378.7	34515.3	36684.5	33060.6	29744.1
67.5°	31357.3	33989.9	34651.3	31189.9	31778.9	31296.1	30946.1	31313.0	34552.3	28904.1	24997.8
70°	25540.9	29501.9	29818.1	24946.3	24678.4	24353.3	23657.3	25672.0	30346.7	23689.5	19835.5
72.5°	18779.9	22943.7	23917.2	18296.4	17057.3	17123.3	16573.7	19346.4	24673.5	17597.2	14809.3
75°	12848.5	16613.2	18713.1	12766.4	11280.3	11306.9	11236.9	13708.6	19652.1	12241.0	11081.6
77.5°	9386.3	11869.3	14113.3	8582.6	8332.3	8178.7	8141.6	9591.5	15066.7	8888.3	8605.1
80°	7531.8	8769.2	9479.7	5948.3	6396.5	6384.4	6178.4	6595.2	9839.3	6501.1	6435.9
82.5°	5225.0	6739.2	7680.6	4661.8	4317.4	4245.0	4295.7	4912.0	6954.9	4443.7	4225.7
85°	2756.5	4475.9	7606.6	4131.6	2562.6	2044.5	2543.3	4022.1	6025.6	2355.0	2061.4
87.5°	352.4	1293.8	5035.9	1648.6	1011.4	544.7	1207.7	2264.9	3869.3	480.3	419.2
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°	15233.3	15233.3	15233.3	15233.3	15233.3	15233.3	15233.3	15233.3	15233.3	15233.3	15233.3
2.5°	16527.1	16197.2	15765.9	15366.0	14952.5	14540.5	14003.1	13666.0	13433.4	13388.4	13290.2
5°	16125.6	15029.7	14201.8	13485.7	12836.4	11918.4	11410.7	10989.1	10763.8	10742.1	10687.4
7.5°	14273.4	12761.6	11644.0	10630.2	9710.6	8969.6	8151.3	7770.7	7613.8	7650.8	7687.9
10°	12347.2	10657.6	9373.5	8337.2	7526.9	6902.6	6246.0	5802.7	5494.5	5432.6	5420.5
12.5°	10940.0	9086.2	7839.9	7107.7	6481.8	5893.6	5197.6	4673.9	4275.6	4138.8	4047.9
15°	10344.6	8317.8	7012.0	6223.5	5531.6	4785.7	4138.8	3590.9	3224.8	3105.7	3038.9
17.5°	10471.7	8104.6	6441.5	5432.6	4548.3	3769.5	2954.5	2485.4	2264.9	2208.6	2208.6
20°	11136.3	8065.2	5970.1	4704.4	3600.5	2698.6	2030.0	1762.1	1690.4	1683.2	1702.5
22.5°	12068.0	8204.4	5619.3	4072.8	2798.4	1970.4	1581.0	1482.1	1449.9	1457.9	1479.6
25°	13456.0	8672.7	5364.2	3509.6	2195.7	1613.2	1409.6	1350.9	1335.6	1355.7	1383.1
27.5°	15101.3	9140.9	5204.9	3085.6	1853.8	1474.8	1340.4	1279.3	1289.0	1313.9	1338.0
30°	16546.4	9525.5	4954.7	2783.9	1747.6	1482.1	1340.4	1256.8	1247.1	1251.9	1259.2
32.5°	17843.4	9785.4	4661.8	2495.8	1507.0	1316.3	1251.9	1239.9	1184.4	1164.2	1167.5
35°	18961.0	9785.4	4486.4	2327.7	1350.9	1167.5	1063.7	1001.7	973.6	976.0	1004.1
37.5°	20039.1	9589.1	4399.5	2232.7	1266.4	1110.3	1018.6	963.9	926.9	919.6	924.5
40°	20990.1	9304.3	4300.5	2193.3	1202.1	1075.7	989.6	943.8	904.4	892.3	894.7
42.5°	21753.7	9073.4	4191.1	2141.8	1161.8	1050.8	968.7	929.3	885.0	872.2	869.8
45°	22579.2	8996.9	4047.9	2037.2	1181.9	1053.2	963.9	922.1	877.0	862.5	857.7
47.5°	23667.0	9237.5	3899.0	1913.3	1224.6	1066.1	971.1	922.1	874.6	862.5	857.7
50°	25037.2	9802.3	3710.0	1732.3	1181.9	1100.7	968.7	914.0	874.6	862.5	852.9
52.5°	26797.7	10565.9	3463.0	1524.7	1157.0	1184.4	963.9	899.5	862.5	845.6	827.9
55°	28936.3	11190.2	3166.9	1353.3	1100.7	1161.8	956.7	882.6	843.2	818.3	803.0
57.5°	30502.8	11415.5	2788.7	1242.3	1021.0	1124.8	946.2	860.1	818.3	798.2	778.8
60°	30193.0	10979.4	2468.5	1172.3	973.6	1016.2	939.0	840.0	795.7	781.3	762.8
62.5°	27712.5	9839.3	2262.5	1140.1	943.8	926.9	946.2	820.7	776.4	760.3	755.5
65°	23992.1	8156.1	2181.2	1132.9	919.6	874.6	880.2	798.2	753.1	741.0	736.2
67.5°	19790.5	6583.2	2109.6	1157.0	887.5	837.6	813.4	768.4	730.6	718.5	708.8
70°	15606.6	5475.2	2076.6	1142.5	848.0	800.6	774.0	736.2	704.0	691.1	683.9
72.5°	12567.7	4624.8	2058.9	1127.2	795.7	750.7	725.7	693.6	659.0	654.1	646.9
75°	10635.9	3635.9	1886.8	1080.6	736.2	691.1	674.2	644.5	609.9	609.9	605.1
77.5°	8204.4	2629.4	1568.9	956.7	674.2	624.4	609.9	587.4	547.9	555.2	552.8
80°	6060.2	1715.4	1227.0	793.3	597.8	550.3	542.3	520.6	477.9	488.4	488.4
82.5°	4151.7	1124.8	882.6	649.3	510.1	465.9	465.9	443.3	396.7	401.5	416.8
85°	2084.7	774.0	659.0	502.9	396.7	374.1	374.1	357.2	309.8	312.2	332.3
87.5°	634.8	465.9	436.1	359.7	284.8	280.0	267.1	255.1	225.3	222.9	235.7
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):

	195°	205°	215°	225°	235°	245°	255°	265°	270°	275°	285°
0°	15233.3	15233.3	15233.3	15233.3	15233.3	15233.3	15233.3	15233.3	15233.3	15233.3	15233.3
2.5°	13138.1	12996.5	12826.8	12449.4	12323.1	12315.0	12430.1	12310.2	12538.7	12442.2	12548.4
5°	10594.8	10457.2	10265.8	9785.4	9492.5	9293.8	9200.5	8922.9	9123.2	8976.8	9099.1
7.5°	7792.4	7824.6	7698.3	7415.9	6778.7	6459.2	6271.0	6102.0	6248.4	6233.2	6466.5
10°	5477.6	5563.7	5475.2	5190.4	4673.9	4498.5	4533.1	4599.8	4791.3	4889.5	5249.1
12.5°	3943.3	3938.5	3881.3	3626.3	3286.7	3306.1	3447.7	3563.5	3739.7	3844.3	4210.4
15°	2944.0	2899.7	2874.8	2666.4	2473.3	2516.0	2585.1	2597.2	2709.1	2771.0	3068.7
17.5°	2225.5	2248.0	2274.6	2126.5	1980.1	1952.7	1898.8	1831.2	1864.2	1876.3	2024.3
20°	1766.9	1856.2	1923.8	1819.2	1671.1	1590.7	1521.5	1477.2	1477.2	1474.8	1516.7
22.5°	1544.0	1608.4	1680.8	1608.4	1474.8	1404.8	1365.4	1330.8	1326.0	1326.0	1365.4
25°	1423.3	1470.0	1539.2	1490.1	1390.3	1338.0	1301.0	1256.8	1239.9	1234.2	1261.6
27.5°	1363.0	1383.1	1417.7	1372.6	1289.0	1264.0	1254.4	1214.9	1191.6	1179.5	1207.7
30°	1261.6	1256.8	1259.2	1214.9	1147.3	1144.9	1161.8	1169.9	1161.8	1159.4	1202.1
32.5°	1167.5	1157.0	1154.6	1115.2	1053.2	1038.7	1053.2	1068.5	1085.4	1110.3	1159.4
35°	1048.4	1073.3	1087.8	1053.2	978.4	934.1	917.2	889.9	874.6	874.6	931.7
37.5°	954.2	1011.4	1033.9	1001.7	919.6	857.7	827.9	823.1	825.5	835.2	889.9
40°	922.1	963.9	983.2	951.8	869.8	813.4	795.7	790.9	795.7	811.0	864.9
42.5°	901.9	931.7	929.3	889.9	823.1	783.7	774.0	768.4	774.0	788.5	848.0
45°	885.0	904.4	885.0	837.6	776.4	755.5	757.9	755.5	760.3	776.4	832.8
47.5°	869.8	877.0	852.9	805.4	741.0	736.2	745.9	753.1	757.9	771.6	830.3
50°	848.0	848.0	825.5	776.4	711.3	713.7	725.7	743.4	745.9	760.3	808.6
52.5°	820.7	818.3	803.0	755.5	686.3	693.6	693.6	713.7	718.5	736.2	786.1
55°	798.2	793.3	786.1	741.0	664.6	676.7	669.4	676.7	688.7	706.4	760.3
57.5°	778.8	768.4	768.4	728.2	646.9	651.7	634.8	644.5	659.0	674.2	730.6
60°	757.9	748.3	753.1	711.3	619.5	614.7	607.5	626.8	632.4	649.3	706.4
62.5°	736.2	728.2	730.6	691.1	600.2	587.4	587.4	605.1	607.5	632.4	686.3
65°	718.5	708.8	706.4	671.8	577.7	563.2	570.5	577.7	582.5	607.5	659.0
67.5°	701.6	681.5	681.5	654.1	552.8	537.5	552.8	550.3	558.4	580.1	621.9
70°	679.1	651.7	654.1	642.1	527.8	510.1	523.0	520.6	525.4	539.9	582.5
72.5°	644.5	621.9	626.8	621.9	502.9	477.9	482.8	482.8	482.8	495.6	539.9
75°	600.2	582.5	597.8	609.9	473.1	438.5	443.3	443.3	436.1	443.3	498.0
77.5°	544.7	535.1	584.9	568.0	438.5	396.7	396.7	391.8	377.4	387.0	445.7
80°	486.0	477.9	539.9	475.5	399.1	345.2	339.5	326.7	312.2	319.4	379.8
82.5°	424.0	416.8	453.8	364.5	345.2	284.8	272.8	250.2	235.7	243.0	296.9
85°	347.6	347.6	350.0	275.2	262.3	218.0	203.6	173.8	156.1	160.9	213.2
87.5°	247.8	255.1	235.7	188.3	156.1	121.5	111.8	94.1	78.8	91.7	111.8
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: P298904

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CANDELA DISTRIBUTION (continued):

	295°	305°	315°	325°	335°	345°	355°	360°
0°	15233.3	15233.3	15233.3	15233.3	15233.3	15233.3	15233.3	15233.3
2.5°	13093.9	13366.6	13676.4	14072.3	14412.6	14969.4	15505.2	15827.1
5°	9790.2	10244.0	10808.1	11535.4	12212.1	13227.5	14236.4	14883.3
7.5°	7006.4	7492.3	8102.2	9009.0	9966.4	11261.8	12595.8	13369.1
10°	5797.9	6295.9	6808.4	7420.7	8204.4	9614.0	11190.2	12062.4
12.5°	4796.2	5328.8	5881.5	6526.0	7251.8	8510.9	10327.7	11331.8
15°	3670.5	4265.1	4916.8	5732.7	6641.9	8097.4	10114.5	11204.7
17.5°	2516.0	3180.5	3980.3	4986.8	6099.6	7963.0	10496.7	11753.4
20°	1732.3	2215.8	3071.1	4250.6	5589.5	7946.1	11229.7	12804.2
22.5°	1449.9	1665.5	2289.9	3574.0	5204.9	8159.3	12368.1	14278.2
25°	1340.4	1470.0	1828.8	2986.6	4924.9	8650.1	13934.7	16186.7
27.5°	1276.9	1392.7	1660.7	2602.8	4704.4	9219.8	15458.6	18035.7
30°	1301.0	1420.1	1613.2	2406.5	4404.3	9695.3	16811.9	19478.3
32.5°	1172.3	1224.6	1383.1	2232.7	4188.7	10094.4	17996.3	20673.1
35°	999.3	1090.2	1234.2	2151.5	4193.5	10362.3	19287.6	22199.4
37.5°	951.8	1043.6	1147.3	2121.7	4250.6	10647.9	20769.7	23989.6
40°	922.1	1006.5	1095.9	2104.8	4305.4	10907.8	22222.8	25758.9
42.5°	901.9	978.4	1090.2	2044.5	4332.7	11141.2	23416.8	27263.5
45°	899.5	978.4	1110.3	1984.9	4374.6	11391.4	24418.5	28376.3
47.5°	901.9	1011.4	1073.3	1913.3	4374.6	11809.8	25593.2	29369.9
50°	892.3	1066.1	1033.9	1811.9	4273.2	12603.1	27204.0	30700.7
52.5°	887.5	1058.8	956.7	1655.8	4097.0	13862.3	29268.6	32535.2
55°	874.6	1021.0	901.9	1423.3	3891.8	15235.7	31479.6	34704.4
57.5°	862.5	904.4	872.2	1219.8	3574.0	16202.0	33001.0	36396.4
60°	966.3	790.9	848.0	1120.0	3150.0	16466.7	32942.3	37070.7
62.5°	894.7	741.0	815.9	1098.3	2853.1	15723.3	31420.0	36707.0
65°	701.6	708.8	783.7	1161.8	2773.4	13753.7	28723.0	35023.8
67.5°	642.1	676.7	750.7	1244.7	2781.5	11011.6	24693.7	31357.3
70°	605.1	642.1	713.7	1286.5	2800.8	8209.2	19522.6	25540.9
72.5°	563.2	595.4	671.8	1293.8	2671.2	5962.8	15047.4	18779.9
75°	512.5	542.3	612.3	1127.2	2213.4	4136.4	11510.5	12848.5
77.5°	456.2	477.9	537.5	869.8	1643.8	2647.1	8639.7	9386.3
80°	389.4	401.5	451.4	637.2	1124.8	1655.8	6835.8	7531.8
82.5°	312.2	317.0	350.0	477.9	730.6	1063.7	4578.1	5225.0
85°	220.5	220.5	240.6	347.6	498.0	674.2	2485.4	2756.5
87.5°	103.8	106.2	106.2	190.7	259.9	342.8	572.9	352.4
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)