

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: P298974

Luminaire Tested: **GLNA-AF-10-LED-E1-SLL-7060-800**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P298974
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-10-LED-E1-SLL-7060-800
Description: GALLEONNAIRE AREA AND ROADWAY LUMINAIRE
(10) 70 CRI, 5700K 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: 41692.4 lumens
Efficiency: N/A
Efficacy: 99.5 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): 419
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

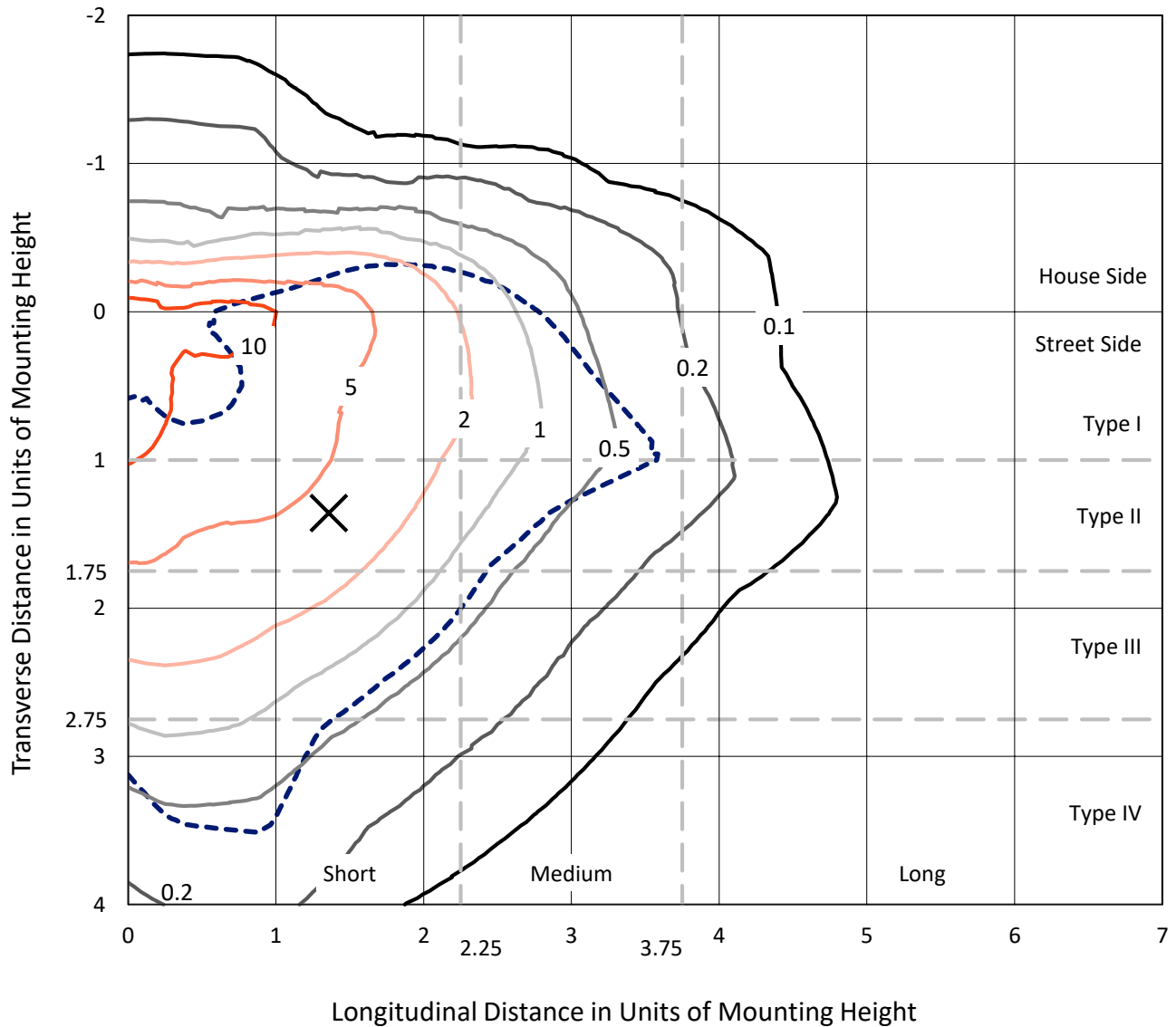


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Iso-Footcandle Lines of Horizontal Illumination

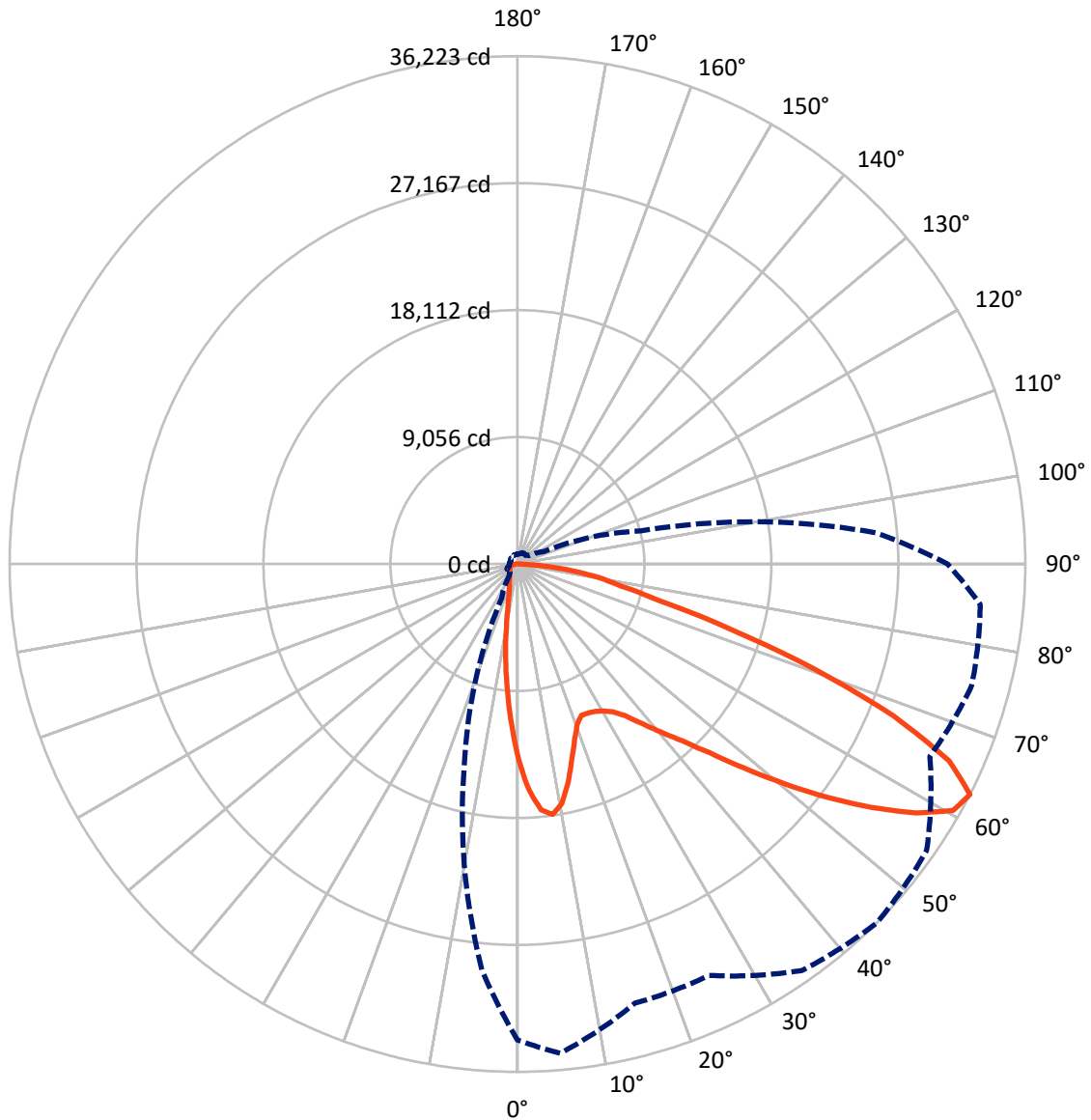
× Max cd
 - - - 1/2 Max cd



Based on 30 foot mounting height. Maximum calculated value = 18.4 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	6899.5	0.0	6899.5
	% Fixture	16.5	0.0	16.5
Street Side	Lumens	34792.9	0.0	34792.9
	% Fixture	83.5	0.0	83.5
Total	Lumens	41692.4	0.0	41692.4
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	1025.4	2.5
10°-20°	1880.3	4.5
20°-30°	2741.5	6.6
30°-40°	4222.3	10.1
40°-50°	6214.0	14.9
50°-60°	9114.7	21.9
60°-70°	10188.9	24.4
70°-80°	4988.3	12.0
80°-90°	1317.0	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°	41692.4	100.0
0°-180°	41692.4	100.0

Coefficient of Utilization



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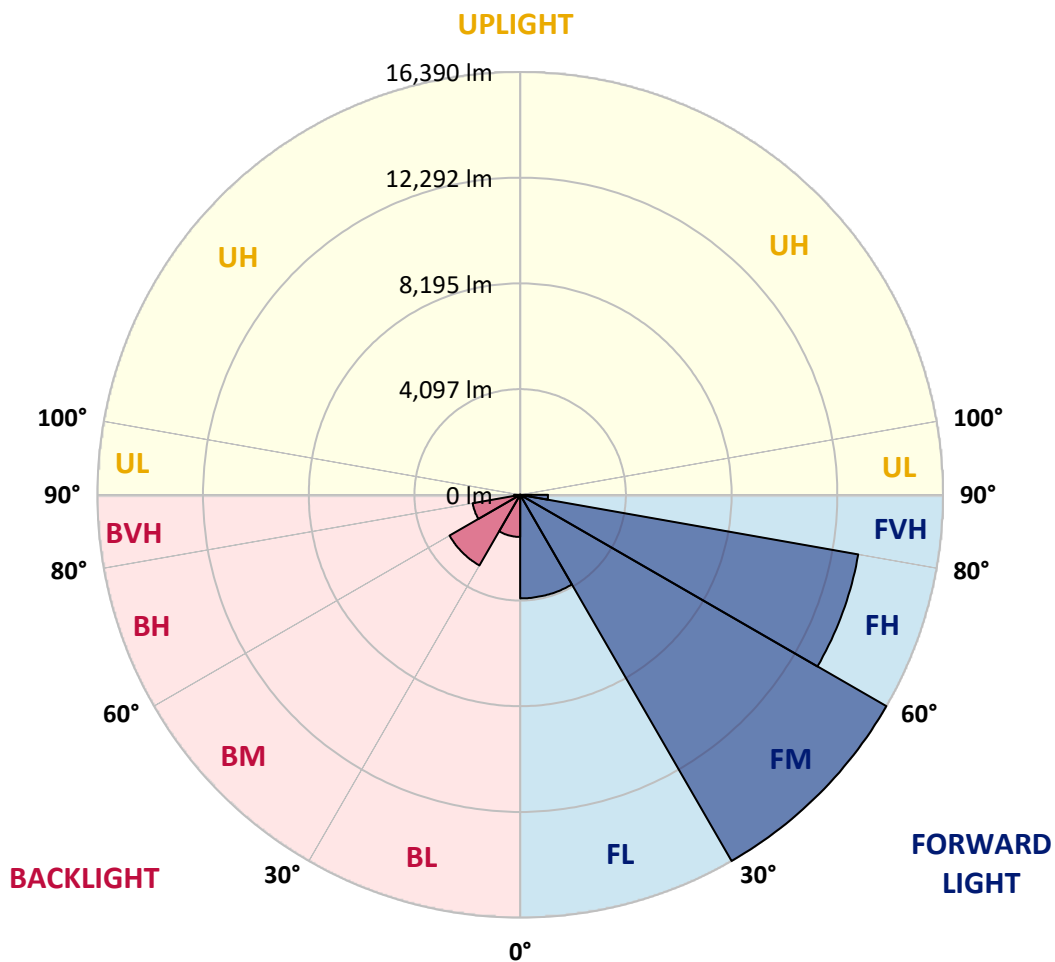
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	4014.9	9.6			
FM	(30°-60°)	16389.7	39.3			
FH	(60°-80°)	13306.8	31.9			G5
FVH	(80°-90°)	1081.6	2.6			G5
BL	(0°-30°)	1632.3	3.9	B3/2500		
BM	(30°-60°)	3161.3	7.6	B3/5000		
BH	(60°-80°)	1870.4	4.5	B3/2500		G3/2500
BVH	(80°-90°)	235.4	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°	14086.4	14086.4	14086.4	14086.4	14086.4	14086.4	14086.4	14086.4	14086.4	14086.4	14086.4
2.5°	14635.5	14869.8	15325.9	15666.7	16082.6	16178.5	16311.7	16180.8	15949.4	15642.1	15541.7
5°	13762.7	14262.7	15369.1	16343.7	17209.8	17613.0	17726.1	17392.8	16721.7	15839.3	15300.6
7.5°	12362.5	13073.0	14571.5	16006.7	17282.7	18037.1	18018.5	17246.2	16011.1	14573.7	13709.9
10°	11154.2	11966.0	13685.4	15289.5	16643.6	17374.9	17092.2	16105.6	14631.0	12976.3	12039.6
12.5°	10478.7	11274.0	13018.0	14628.8	15761.2	16013.4	15797.6	14830.4	13441.3	11768.8	10948.1
15°	10361.1	11235.3	12752.4	14063.3	14698.0	14478.5	14221.1	13788.0	12806.7	11378.9	10524.1
17.5°	10868.5	11830.5	13057.4	13669.0	13561.1	13177.9	13105.0	13153.4	12917.5	11811.9	10826.9
20°	11840.2	12994.9	13783.6	13483.7	12697.3	12169.8	12188.4	12924.2	13622.9	12910.1	11784.4
22.5°	13203.2	14521.6	14830.4	13581.9	12332.7	11707.0	11858.8	13050.7	14748.6	14514.9	13077.5
25°	14968.0	16169.6	15947.2	13939.1	12369.2	11764.3	11885.6	13486.0	16077.4	16119.0	14677.9
27.5°	16677.8	17792.3	16883.9	14413.8	12521.0	11899.7	12060.4	14170.5	17347.4	17860.8	16506.7
30°	18011.8	18787.1	17255.1	14846.8	12818.6	12163.1	12362.5	14821.5	17925.5	19036.3	17913.6
32.5°	19116.7	19673.2	17846.6	15383.2	13366.2	12577.5	12928.7	15612.4	18757.3	20155.3	19290.8
35°	20528.0	20686.5	18582.5	15981.4	14212.1	13300.0	13735.2	16386.9	19550.4	21284.7	20647.8
37.5°	22183.5	21979.6	19276.6	16799.8	15305.8	14429.4	14789.5	17237.3	20202.9	22565.9	22033.9
40°	23819.6	23328.5	20148.6	18069.1	16901.0	15761.2	16187.5	18145.0	20813.0	23849.3	23388.8
42.5°	25210.9	24484.0	21007.2	19464.9	18385.3	17230.6	17739.5	19059.4	21394.8	24944.5	24564.3
45°	26239.8	25336.6	21825.6	20805.6	20432.1	19182.9	19423.9	20106.2	22025.0	25859.6	25531.5
47.5°	27158.7	26193.7	22751.2	22158.2	22222.2	21722.2	21334.6	21325.6	22768.3	26606.6	26445.9
50°	28389.3	27383.4	23745.9	23551.0	24908.0	24575.5	23720.6	22748.9	23707.2	27454.8	27436.2
52.5°	30085.6	29268.0	24960.9	25052.4	27416.1	27633.4	26573.9	24459.4	25178.1	29010.5	28901.2
55°	32091.5	31613.8	26616.3	26778.5	30491.1	30647.4	29594.6	26597.0	27342.5	31264.1	30959.1
57.5°	33656.1	33555.7	28430.9	28850.6	32787.9	33489.5	32522.3	29073.0	29780.6	33161.4	32395.8
60°	34279.6	34767.7	30363.1	30940.5	34912.8	35688.8	34841.4	31247.0	31941.9	33947.8	32297.6
62.5°	33943.3	35033.3	32421.1	32372.7	35386.7	36223.0	35627.0	32457.5	33544.5	33136.1	30663.7
65°	32386.9	34078.0	33615.2	32003.7	33764.0	33832.5	33639.8	31916.6	33922.5	30571.5	27504.7
67.5°	28996.4	31430.8	32042.4	28841.6	29386.3	28939.9	28616.2	28955.5	31950.9	26727.9	23115.7
70°	23617.9	27280.7	27573.1	23068.1	22820.3	22519.8	21876.2	23739.2	28061.9	21906.0	18342.1
72.5°	17366.0	21216.3	22116.5	16918.8	15773.1	15834.1	15325.9	17889.8	22815.9	16272.3	13694.3
75°	11881.1	15362.4	17304.2	11805.2	10431.1	10455.6	10390.9	12676.5	18172.5	11319.4	10247.3
77.5°	8679.6	10975.7	13050.7	7936.4	7705.0	7562.9	7528.7	8869.4	13932.4	8219.1	7957.2
80°	6964.7	8109.0	8766.0	5500.5	5914.9	5903.7	5713.3	6098.7	9098.5	6011.6	5951.4
82.5°	4831.6	6231.8	7102.3	4310.8	3992.4	3925.4	3972.3	4542.2	6431.2	4109.2	3907.6
85°	2549.0	4138.9	7033.9	3820.5	2369.7	1890.5	2351.8	3719.3	5571.9	2177.7	1906.2
87.5°	325.9	1196.4	4656.8	1524.5	935.2	503.7	1116.8	2094.4	3578.0	444.2	387.6
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):

	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°	185°
0°	14086.4	14086.4	14086.4	14086.4	14086.4	14086.4	14086.4	14086.4	14086.4	14086.4	14086.4
2.5°	15282.8	14977.7	14578.9	14209.1	13826.7	13445.8	12948.8	12637.1	12422.0	12380.4	12289.6
5°	14911.5	13898.2	13132.6	12470.4	11870.0	11021.1	10551.6	10161.7	9953.4	9933.3	9882.7
7.5°	13198.8	11800.8	10767.3	9829.9	8979.5	8294.3	7537.6	7185.7	7040.6	7074.8	7109.0
10°	11417.6	9855.2	8667.7	7709.5	6960.2	6382.9	5775.8	5365.8	5080.9	5023.6	5012.4
12.5°	10116.3	8402.1	7249.7	6572.6	5993.8	5449.9	4806.3	4322.0	3953.7	3827.2	3743.1
15°	9565.8	7691.6	6484.1	5754.9	5115.1	4425.4	3827.2	3320.5	2982.0	2871.9	2810.1
17.5°	9683.3	7494.4	5956.6	5023.6	4205.9	3485.7	2732.0	2298.3	2094.4	2042.3	2042.3
20°	10297.9	7458.0	5520.6	4350.2	3329.5	2495.4	1877.1	1629.4	1563.2	1556.5	1574.3
22.5°	11159.4	7586.7	5196.2	3766.2	2587.7	1822.1	1462.0	1370.5	1340.7	1348.2	1368.2
25°	12442.9	8019.7	4960.3	3245.4	2030.4	1491.7	1303.5	1249.2	1235.1	1253.7	1279.0
27.5°	13964.4	8452.7	4813.0	2853.3	1714.2	1363.8	1239.5	1183.0	1191.9	1215.0	1237.3
30°	15300.6	8808.4	4581.6	2574.3	1616.0	1370.5	1239.5	1162.1	1153.2	1157.7	1164.4
32.5°	16500.0	9048.7	4310.8	2307.9	1393.5	1217.2	1157.7	1146.5	1095.2	1076.6	1079.6
35°	17533.4	9048.7	4148.6	2152.4	1249.2	1079.6	983.6	926.3	900.3	902.5	928.5
37.5°	18530.4	8867.1	4068.3	2064.6	1171.1	1026.7	941.9	891.3	857.1	850.4	854.9
40°	19409.8	8603.8	3976.7	2028.2	1111.6	994.7	915.1	872.7	836.3	825.1	827.3
42.5°	20115.9	8390.2	3875.6	1980.6	1074.4	971.7	895.8	859.3	818.4	806.5	804.3
45°	20879.2	8319.5	3743.1	1883.8	1093.0	973.9	891.3	852.6	811.0	797.6	793.1
47.5°	21885.1	8542.0	3605.5	1769.3	1132.4	985.8	898.0	852.6	808.7	797.6	793.1
50°	23152.2	9064.3	3430.6	1601.9	1093.0	1017.8	895.8	845.2	808.7	797.6	788.7
52.5°	24780.1	9770.4	3202.2	1409.9	1069.9	1095.2	891.3	831.8	797.6	782.0	765.6
55°	26757.7	10347.7	2928.4	1251.4	1017.8	1074.4	884.6	816.2	779.7	756.7	742.5
57.5°	28206.3	10556.0	2578.7	1148.8	944.2	1040.1	875.0	795.3	756.7	738.1	720.2
60°	27919.8	10152.8	2282.6	1084.0	900.3	939.7	868.3	776.7	735.8	722.4	705.3
62.5°	25626.0	9098.5	2092.2	1054.3	872.7	857.1	875.0	758.9	718.0	703.1	698.6
65°	22185.7	7542.1	2017.0	1047.6	850.4	808.7	813.9	738.1	696.4	685.2	680.8
67.5°	18300.5	6087.5	1950.8	1069.9	820.6	774.5	752.2	710.5	675.6	664.4	655.5
70°	14431.6	5063.0	1920.3	1056.5	784.2	740.3	715.7	680.8	651.0	639.1	632.4
72.5°	11621.5	4276.6	1903.9	1042.4	735.8	694.2	671.1	641.3	609.3	604.9	598.2
75°	9835.1	3362.2	1744.7	999.2	680.8	639.1	623.5	596.0	564.0	564.0	559.5
77.5°	7586.7	2431.4	1450.8	884.6	623.5	577.4	564.0	543.1	506.7	513.4	511.1
80°	5603.9	1586.2	1134.6	733.6	552.8	508.9	501.5	481.4	441.9	451.6	451.6
82.5°	3839.1	1040.1	816.2	600.4	471.7	430.8	430.8	410.0	366.8	371.3	385.4
85°	1927.7	715.7	609.3	465.0	366.8	346.0	346.0	330.3	286.4	288.7	307.3
87.5°	587.0	430.8	403.3	332.6	263.4	258.9	247.0	235.9	208.3	206.1	218.0
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):

	195°	205°	215°	225°	235°	245°	255°	265°	270°	275°	285°
0°	14086.4	14086.4	14086.4	14086.4	14086.4	14086.4	14086.4	14086.4	14086.4	14086.4	14086.4
2.5°	12149.0	12018.0	11861.0	11512.1	11395.3	11387.9	11494.2	11383.4	11594.7	11505.4	11603.6
5°	9797.2	9669.9	9492.9	9048.7	8777.9	8594.1	8507.8	8251.1	8436.4	8300.9	8414.0
7.5°	7205.8	7235.5	7118.7	6857.6	6268.3	5972.9	5798.8	5642.6	5778.0	5763.9	5979.6
10°	5065.2	5144.8	5063.0	4799.6	4322.0	4159.8	4191.8	4253.5	4430.6	4521.4	4853.9
12.5°	3646.4	3641.9	3589.1	3353.3	3039.3	3057.1	3188.1	3295.2	3458.2	3554.9	3893.4
15°	2722.3	2681.4	2658.4	2465.7	2287.1	2326.5	2390.5	2401.7	2505.1	2562.4	2837.7
17.5°	2057.9	2078.8	2103.3	1966.4	1831.0	1805.7	1755.9	1693.4	1723.9	1735.0	1871.9
20°	1633.9	1716.4	1778.9	1682.2	1545.3	1470.9	1406.9	1366.0	1366.0	1363.8	1402.5
22.5°	1427.8	1487.3	1554.2	1487.3	1363.8	1299.0	1262.6	1230.6	1226.1	1226.1	1262.6
25°	1316.2	1359.3	1423.3	1377.9	1285.7	1237.3	1203.1	1162.1	1146.5	1141.3	1166.6
27.5°	1260.4	1279.0	1310.9	1269.3	1191.9	1168.8	1159.9	1123.5	1101.9	1090.7	1116.8
30°	1166.6	1162.1	1164.4	1123.5	1061.0	1058.7	1074.4	1081.8	1074.4	1072.1	1111.6
32.5°	1079.6	1069.9	1067.7	1031.2	973.9	960.5	973.9	988.0	1003.7	1026.7	1072.1
35°	969.4	992.5	1005.9	973.9	904.7	863.8	848.2	822.9	808.7	808.7	861.6
37.5°	882.4	935.2	956.1	926.3	850.4	793.1	765.6	761.1	763.4	772.3	822.9
40°	852.6	891.3	909.2	880.2	804.3	752.2	735.8	731.4	735.8	750.0	799.8
42.5°	834.0	861.6	859.3	822.9	761.1	724.7	715.7	710.5	715.7	729.1	784.2
45°	818.4	836.3	818.4	774.5	718.0	698.6	700.9	698.6	703.1	718.0	770.1
47.5°	804.3	811.0	788.7	744.8	685.2	680.8	689.7	696.4	700.9	713.5	767.8
50°	784.2	784.2	763.4	718.0	657.7	659.9	671.1	687.5	689.7	703.1	747.7
52.5°	758.9	756.7	742.5	698.6	634.6	641.3	641.3	659.9	664.4	680.8	726.9
55°	738.1	733.6	726.9	685.2	614.6	625.7	619.0	625.7	636.9	653.2	703.1
57.5°	720.2	710.5	710.5	673.3	598.2	602.7	587.0	596.0	609.3	623.5	675.6
60°	700.9	691.9	696.4	657.7	572.9	568.4	561.7	579.6	584.8	600.4	653.2
62.5°	680.8	673.3	675.6	639.1	555.0	543.1	543.1	559.5	561.7	584.8	634.6
65°	664.4	655.5	653.2	621.3	534.2	520.8	527.5	534.2	538.7	561.7	609.3
67.5°	648.8	630.2	630.2	604.9	511.1	497.0	511.1	508.9	516.3	536.4	575.1
70°	627.9	602.7	604.9	593.7	488.1	471.7	483.6	481.4	485.8	499.2	538.7
72.5°	596.0	575.1	579.6	575.1	465.0	441.9	446.4	446.4	446.4	458.3	499.2
75°	555.0	538.7	552.8	564.0	437.5	405.5	410.0	410.0	403.3	410.0	460.5
77.5°	503.7	494.8	540.9	525.3	405.5	366.8	366.8	362.3	348.9	357.9	412.2
80°	449.4	441.9	499.2	439.7	369.0	319.2	314.0	302.1	288.7	295.4	351.2
82.5°	392.1	385.4	419.6	337.0	319.2	263.4	252.2	231.4	218.0	224.7	274.5
85°	321.4	321.4	323.6	254.5	242.5	201.6	188.2	160.7	144.3	148.8	197.2
87.5°	229.2	235.9	218.0	174.1	144.3	112.3	103.4	87.0	72.9	84.8	103.4
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: P298974

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CANDELA DISTRIBUTION (continued):

	295°	305°	315°	325°	335°	345°	355°	360°
0°	14086.4	14086.4	14086.4	14086.4	14086.4	14086.4	14086.4	14086.4
2.5°	12108.1	12360.3	12646.7	13012.8	13327.5	13842.4	14337.9	14635.5
5°	9053.1	9472.8	9994.3	10666.9	11292.6	12231.6	13164.6	13762.7
7.5°	6478.9	6928.2	7492.2	8330.7	9216.1	10413.9	11647.5	12362.5
10°	5361.4	5821.9	6295.8	6862.0	7586.7	8890.2	10347.7	11154.2
12.5°	4435.1	4927.6	5438.7	6034.7	6705.8	7870.2	9550.1	10478.7
15°	3394.2	3944.0	4546.7	5301.1	6141.8	7487.7	9353.0	10361.1
17.5°	2326.5	2941.1	3680.6	4611.4	5640.4	7363.5	9706.4	10868.5
20°	1601.9	2049.0	2839.9	3930.6	5168.7	7347.9	10384.2	11840.2
22.5°	1340.7	1540.1	2117.5	3304.9	4813.0	7545.0	11437.0	13203.2
25°	1239.5	1359.3	1691.1	2761.8	4554.1	7998.9	12885.6	14968.0
27.5°	1180.7	1287.9	1535.6	2406.9	4350.2	8525.6	14294.7	16677.8
30°	1203.1	1313.2	1491.7	2225.3	4072.7	8965.3	15546.1	18011.8
32.5°	1084.0	1132.4	1279.0	2064.6	3873.3	9334.4	16641.3	19116.7
35°	924.1	1008.1	1141.3	1989.5	3877.8	9582.1	17835.5	20528.0
37.5°	880.2	965.0	1061.0	1962.0	3930.6	9846.3	19205.9	22183.5
40°	852.6	930.8	1013.3	1946.3	3981.2	10086.6	20549.6	23819.6
42.5°	834.0	904.7	1008.1	1890.5	4006.5	10302.3	21653.7	25210.9
45°	831.8	904.7	1026.7	1835.5	4045.2	10533.7	22580.0	26239.8
47.5°	834.0	935.2	992.5	1769.3	4045.2	10920.6	23666.3	27158.7
50°	825.1	985.8	956.1	1675.5	3951.4	11654.2	25155.8	28389.3
52.5°	820.6	979.1	884.6	1531.2	3788.5	12818.6	27064.9	30085.6
55°	808.7	944.2	834.0	1316.2	3598.8	14088.6	29109.5	32091.5
57.5°	797.6	836.3	806.5	1127.9	3304.9	14982.2	30516.4	33656.1
60°	893.6	731.4	784.2	1035.7	2912.8	15227.0	30462.1	34279.6
62.5°	827.3	685.2	754.4	1015.6	2638.3	14539.5	29054.4	33943.3
65°	648.8	655.5	724.7	1074.4	2564.6	12718.1	26560.5	32386.9
67.5°	593.7	625.7	694.2	1151.0	2572.1	10182.6	22834.5	28996.4
70°	559.5	593.7	659.9	1189.7	2589.9	7591.2	18052.7	23617.9
72.5°	520.8	550.6	621.3	1196.4	2470.1	5513.9	13914.5	17366.0
75°	473.9	501.5	566.2	1042.4	2046.8	3825.0	10643.8	11881.1
77.5°	421.9	441.9	497.0	804.3	1520.0	2447.8	7989.2	8679.6
80°	360.1	371.3	417.4	589.3	1040.1	1531.2	6321.1	6964.7
82.5°	288.7	293.1	323.6	441.9	675.6	983.6	4233.4	4831.6
85°	203.9	203.9	222.5	321.4	460.5	623.5	2298.3	2549.0
87.5°	96.0	98.2	98.2	176.3	240.3	316.9	529.7	325.9
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)