

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: P299384

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

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P299384
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P194679)
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-SLR-7030
Description: GALLEONNAIRE AREA AND ROADWAY LUMINAIRE
(9) 70 CRI, 3000K CCT 1050mA LIGHTSQUARE WITH 16 LEDS EACH AND 90° Spill
Light Eliminator Right 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

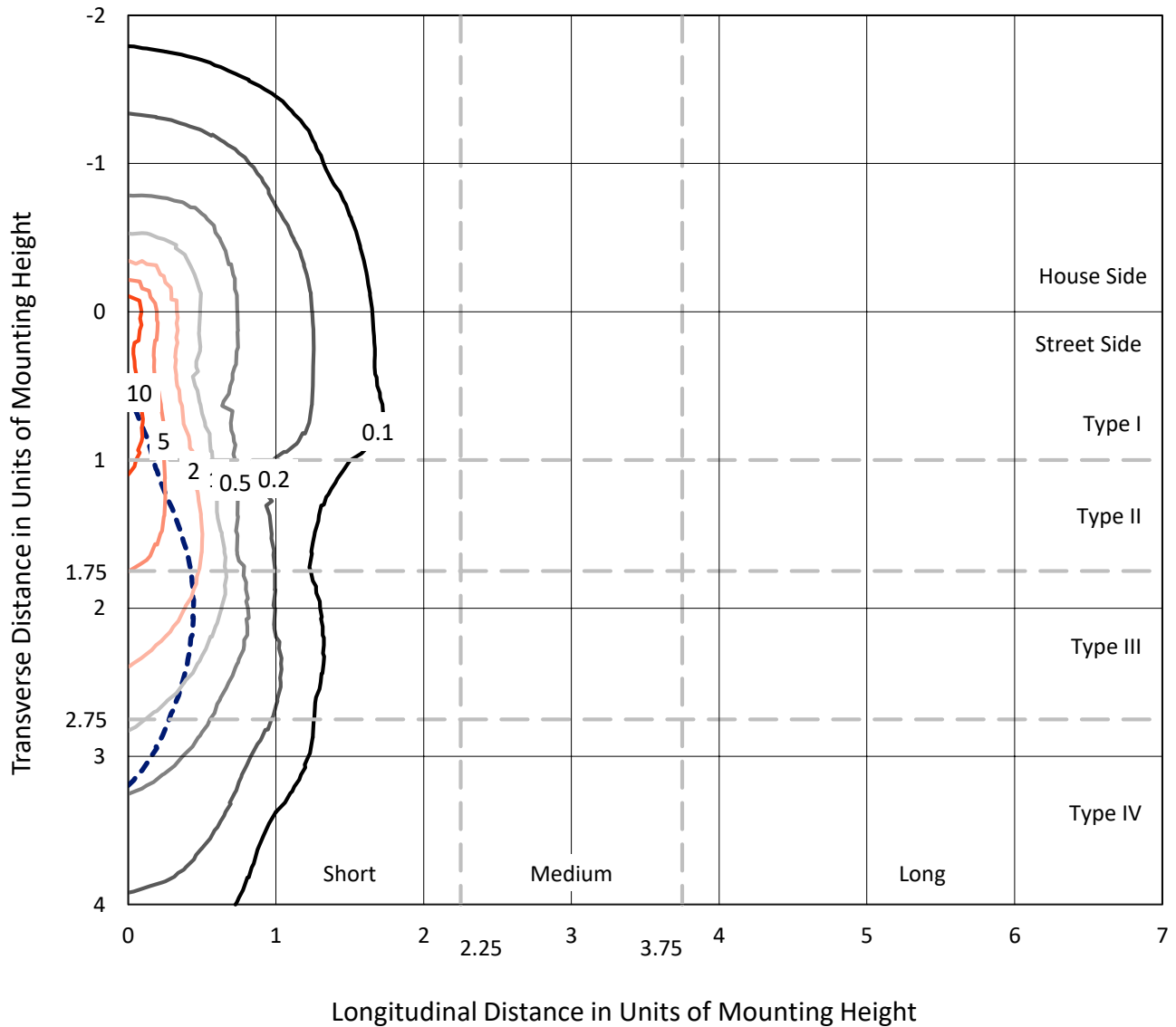
Input Watts (W): 501
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Iso-Footcandle Lines of Horizontal Illumination

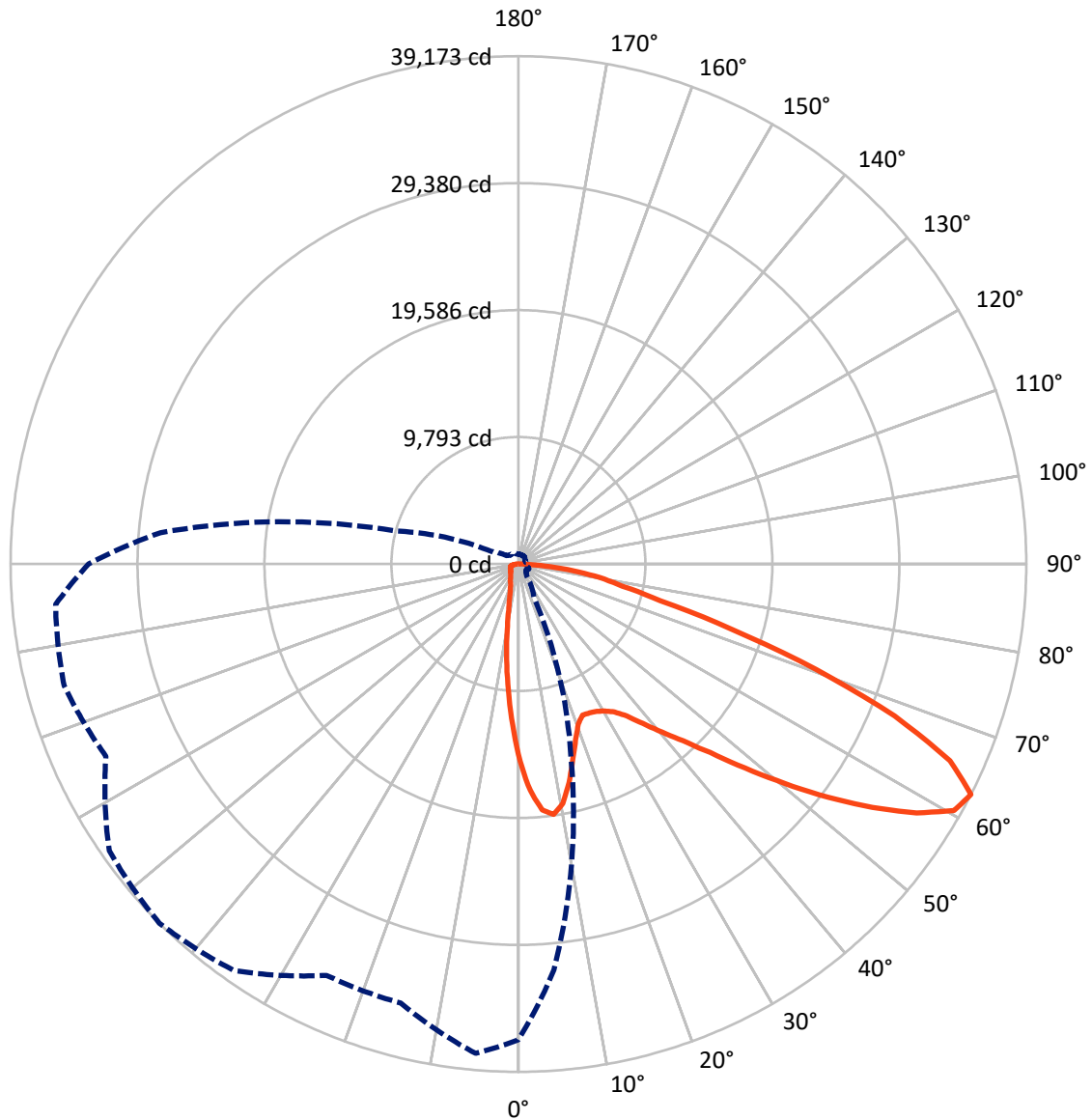
× Max cd
 - - - 1/2 Max cd



Based on 30 foot mounting height. Maximum calculated value = 16.9 fc
 Type IV - Short - Non-Cutoff

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Luminous Intensity Polar Plot



— Vertical Plane Through 315-Deg Lateral - - - Horizontal Cone Through 62.5-Deg Vertical

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FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	7461.3	0.0	7461.3
	% Fixture	16.5	0.0	16.5
Street Side	Lumens	37625.6	0.0	37625.6
	% 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°	5394.5	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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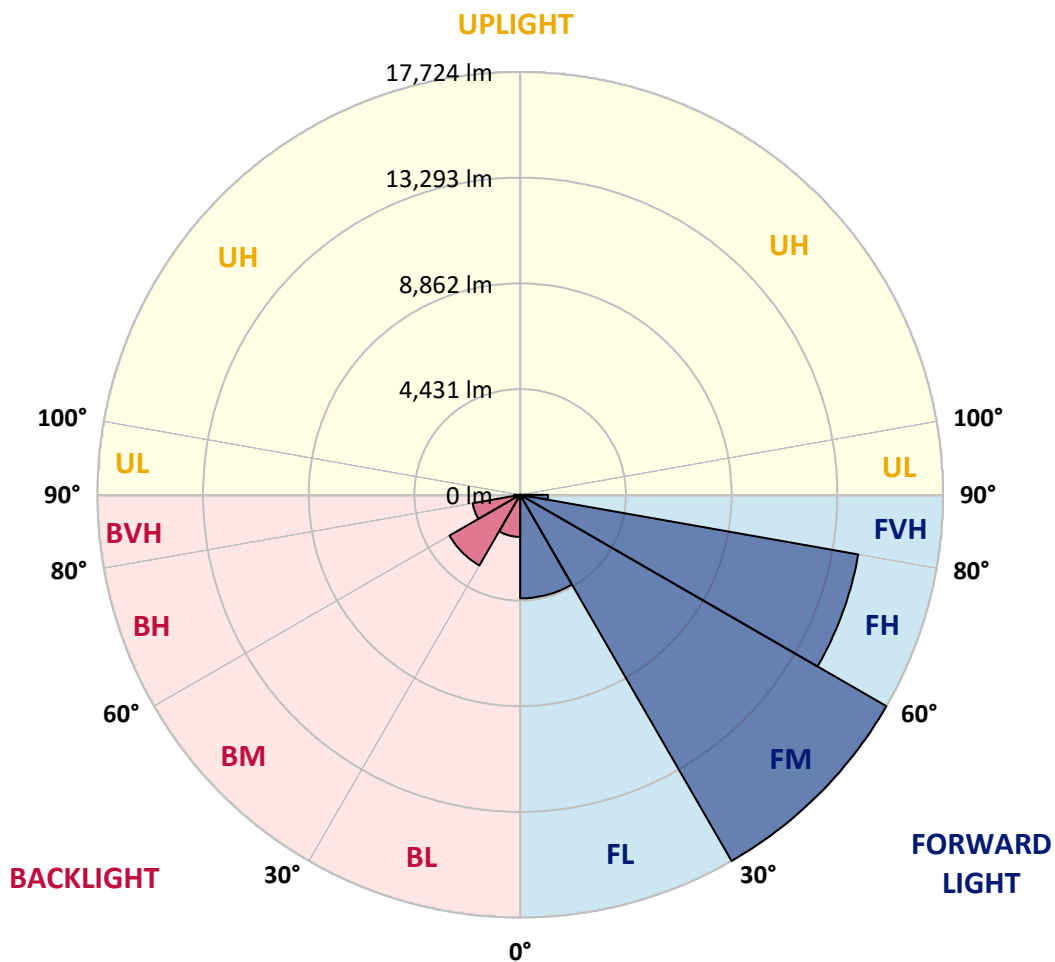
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

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°)	2022.8	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°	15233.1	15233.1	15233.1	15233.1	15233.1	15233.1	15233.1	15233.1	15233.1	15233.1	15233.1
2.5°	15827.3	15505.4	14969.7	14412.2	14073.1	13676.1	13366.3	13093.9	12548.4	12441.9	12538.6
5°	14883.4	14236.6	13227.4	12211.5	11534.7	10808.4	10243.4	9790.2	9098.4	8976.9	9123.2
7.5°	13369.3	12595.7	11262.3	9965.8	9009.1	8102.0	7492.7	7006.5	6466.3	6233.7	6247.9
10°	12062.9	11190.3	9613.9	8204.0	7420.7	6808.4	6295.2	5797.0	5249.3	4889.9	4790.8
12.5°	11331.4	10328.2	8510.9	7251.9	6525.6	5881.8	5328.8	4796.1	4210.8	3843.9	3740.4
15°	11205.3	10114.4	8097.5	6642.6	5732.5	4917.6	4265.6	3670.6	3068.1	2770.9	2708.7
17.5°	11753.1	10496.3	7963.2	6099.4	4986.6	3980.5	3179.9	2515.8	2025.1	1876.6	1863.8
20°	12803.5	11230.1	7945.9	5589.2	4250.6	3071.1	2215.7	1732.5	1517.2	1474.4	1477.4
22.5°	14278.6	12367.6	8159.0	5205.0	3573.8	2290.0	1665.7	1449.6	1365.6	1325.8	1325.8
25°	16186.7	13934.2	8649.7	4925.1	2986.3	1829.3	1469.9	1340.8	1261.3	1234.3	1239.5
27.5°	18036.3	15458.2	9220.0	4704.5	2602.1	1660.5	1392.6	1276.3	1207.3	1179.5	1192.3
30°	19478.4	16811.7	9695.7	4404.4	2406.3	1613.2	1420.4	1301.1	1202.0	1160.0	1162.3
32.5°	20672.9	17996.5	10094.8	4188.3	2233.0	1382.8	1224.5	1172.0	1160.0	1110.5	1085.7
35°	22199.8	19287.8	10362.7	4193.6	2151.2	1234.3	1090.2	998.7	931.9	874.9	874.9
37.5°	23989.3	20769.7	10647.8	4250.6	2121.9	1147.2	1043.7	951.4	889.9	835.1	825.4
40°	25758.6	22222.3	10908.2	4305.4	2103.9	1095.5	1006.2	922.1	865.1	810.3	795.3
42.5°	27263.7	23416.8	11140.8	4332.4	2044.6	1090.2	979.2	901.9	847.9	787.8	773.6
45°	28376.5	24417.8	11391.4	4374.4	1985.4	1110.5	979.2	899.6	832.9	775.8	760.8
47.5°	29369.9	25592.8	11810.1	4374.4	1913.3	1073.0	1011.4	901.9	830.6	770.6	758.6
50°	30701.0	27203.7	12603.2	4273.1	1812.0	1033.2	1065.5	892.1	808.1	760.8	745.8
52.5°	32534.8	29268.6	13862.2	4096.8	1656.0	956.7	1058.0	887.6	785.6	736.1	718.8
55°	34703.9	31479.1	15235.3	3891.2	1422.6	901.9	1021.2	874.9	760.8	706.1	688.8
57.5°	36396.7	33000.7	16201.7	3573.8	1219.3	872.6	904.9	862.9	730.8	673.8	659.5
60°	37070.5	32941.4	16467.3	3149.9	1120.2	847.9	790.8	966.4	706.1	649.0	631.8
62.5°	36706.6	31419.8	15723.8	2852.7	1097.7	815.6	741.3	894.4	686.5	631.8	607.0
65°	35023.6	28723.1	13753.4	2773.2	1162.3	783.3	709.1	701.6	659.5	607.0	582.3
67.5°	31357.5	24693.1	11011.7	2780.7	1244.0	751.1	676.8	642.3	622.0	580.0	557.5
70°	25541.0	19523.4	8208.5	2801.0	1286.1	713.6	642.3	604.8	582.3	540.2	525.2
72.5°	18779.8	15047.0	5963.6	2671.9	1293.6	671.5	595.0	562.7	540.2	496.0	483.2
75°	12848.5	11510.0	4136.5	2213.5	1127.7	612.3	542.5	513.2	498.2	443.4	435.9
77.5°	9385.8	8640.0	2647.1	1643.2	869.6	538.0	478.7	456.2	446.4	386.4	376.7
80°	7532.5	6835.4	1656.0	1125.5	637.0	450.9	401.4	389.4	378.9	319.6	312.1
82.5°	5224.5	4577.7	1063.2	730.8	478.7	349.7	317.4	312.1	297.1	243.1	235.6
85°	2755.9	2485.8	673.8	498.2	346.6	240.1	220.6	220.6	213.1	161.3	156.1
87.5°	351.9	572.5	342.1	260.4	190.6	106.5	106.5	104.3	111.8	91.5	79.5
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°	15233.1	15233.1	15233.1	15233.1	15233.1	15233.1	15233.1	15233.1	15233.1	15233.1	15233.1
2.5°	12310.6	12429.9	12315.8	12323.3	12449.4	12826.0	12997.1	13138.2	13289.7	13388.8	13433.0
5°	8922.8	9200.5	9294.3	9492.3	9785.0	10265.9	10456.5	10595.3	10687.6	10741.6	10764.1
7.5°	6102.4	6270.4	6458.8	6778.4	7415.4	7698.3	7824.4	7792.1	7688.6	7651.0	7614.3
10°	4600.2	4533.5	4498.2	4674.5	5190.0	5475.1	5564.4	5477.4	5420.3	5433.1	5494.6
12.5°	3564.0	3447.7	3306.7	3286.4	3626.3	3881.4	3938.4	3942.9	4047.2	4138.8	4275.3
15°	2597.6	2584.9	2515.8	2473.8	2666.6	2875.2	2900.0	2944.3	3038.8	3105.6	3224.1
17.5°	1831.5	1898.3	1953.1	1980.1	2126.4	2275.0	2248.0	2225.5	2208.2	2208.2	2265.2
20°	1477.4	1521.7	1591.4	1670.2	1819.5	1923.1	1856.3	1767.0	1702.5	1683.0	1690.5
22.5°	1331.1	1365.6	1405.4	1474.4	1608.7	1680.7	1608.7	1544.2	1479.6	1457.1	1449.6
25°	1256.8	1301.1	1338.6	1390.3	1489.4	1538.9	1469.9	1422.6	1382.8	1355.8	1335.6
27.5°	1214.8	1253.8	1264.3	1289.1	1373.1	1417.4	1382.8	1363.3	1338.6	1313.8	1289.1
30°	1169.8	1162.3	1145.0	1147.2	1214.8	1259.0	1256.8	1261.3	1259.0	1251.5	1247.0
32.5°	1068.5	1053.5	1038.4	1053.5	1115.0	1154.7	1157.7	1167.5	1167.5	1165.3	1184.8
35°	889.9	916.9	934.2	979.2	1053.5	1088.0	1073.0	1048.2	1003.9	976.2	973.9
37.5°	823.1	827.6	857.6	919.1	1001.7	1033.2	1011.4	954.4	924.4	919.1	926.6
40°	790.8	795.3	812.6	869.6	951.4	983.7	964.2	922.1	894.4	892.1	904.9
42.5°	768.3	773.6	783.3	823.1	889.9	929.7	931.9	901.9	869.6	872.6	884.6
45°	755.6	758.6	755.6	775.8	837.4	884.6	904.9	884.6	857.6	862.9	877.1
47.5°	753.3	745.8	736.1	741.3	805.8	852.4	877.1	869.6	857.6	862.9	874.9
50°	743.6	726.3	713.6	711.3	775.8	825.4	847.9	847.9	852.4	862.9	874.9
52.5°	713.6	694.0	694.0	686.5	755.6	802.8	817.9	820.1	827.6	844.9	862.9
55°	676.8	669.3	676.8	664.0	741.3	785.6	793.1	798.3	802.8	817.9	842.6
57.5°	644.5	634.8	652.0	646.8	728.6	768.3	768.3	778.1	778.1	798.3	817.9
60°	627.3	607.0	614.5	619.8	711.3	753.3	748.8	758.6	763.1	781.1	795.3
62.5°	604.8	587.5	587.5	599.5	691.8	730.8	728.6	736.1	755.6	760.8	775.8
65°	577.7	570.2	562.7	577.7	671.5	706.1	709.1	718.8	736.1	741.3	753.3
67.5°	550.0	553.0	538.0	553.0	654.3	681.3	681.3	701.6	709.1	718.8	730.8
70°	520.7	523.0	510.2	528.2	642.3	654.3	652.0	679.0	684.3	691.8	703.8
72.5°	483.2	483.2	478.7	503.5	622.0	627.3	622.0	644.5	646.8	654.3	659.5
75°	443.4	443.4	438.9	473.5	610.0	597.3	582.3	599.5	604.8	610.0	610.0
77.5°	391.7	396.9	396.9	438.9	567.2	585.3	535.0	545.5	553.0	555.2	547.7
80°	327.1	339.9	344.4	399.2	475.7	540.2	478.7	485.5	488.5	488.5	478.7
82.5°	250.6	272.4	285.1	344.4	364.7	453.2	416.4	423.9	416.4	401.4	396.9
85°	173.3	203.3	218.3	262.6	275.4	349.7	346.6	346.6	332.4	312.1	309.9
87.5°	94.5	111.8	121.6	156.1	188.3	235.6	255.1	247.6	235.6	222.8	225.8
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):

	195°	205°	215°	225°	235°	245°	255°	265°	270°	275°	285°
0°	15233.1	15233.1	15233.1	15233.1	15233.1	15233.1	15233.1	15233.1	15233.1	15233.1	15233.1
2.5°	13666.4	14003.3	14541.3	14952.4	15366.6	15765.8	16197.2	16526.6	16806.5	16916.0	17247.7
5°	10990.0	11410.9	11918.9	12835.8	13485.6	14201.4	15029.7	16125.2	16546.1	17129.1	18082.8
7.5°	7770.3	8151.5	8969.4	9710.7	10630.6	11644.3	12761.5	14273.4	14826.4	15760.5	17314.5
10°	5802.2	6245.7	6902.2	7527.2	8337.6	9373.8	10657.6	12348.1	13019.6	14033.3	15822.8
12.5°	4674.5	5197.5	5893.8	6481.3	7108.6	7839.4	9086.4	10939.7	11840.1	12727.0	14536.0
15°	3591.0	4138.8	4786.3	5532.1	6223.2	7011.8	8318.1	10345.5	11380.9	12306.0	13849.5
17.5°	2485.8	2954.0	3769.6	4547.7	5433.1	6441.5	8105.0	10471.5	11708.0	12774.2	13968.8
20°	1762.5	2029.6	2698.9	3601.6	4704.5	5970.3	8065.2	11135.5	12744.2	13961.3	14731.8
22.5°	1481.9	1580.9	1970.3	2798.0	4072.0	5618.4	8204.0	12067.4	14142.1	15696.0	15948.9
25°	1350.6	1410.6	1613.2	2196.2	3509.3	5363.3	8672.2	13455.5	15872.3	17431.5	17386.5
27.5°	1278.6	1340.8	1474.4	1854.0	3086.1	5205.0	9140.4	15101.8	17850.2	19314.8	18759.6
30°	1256.8	1340.8	1481.9	1747.5	2783.7	4954.4	9524.6	16546.1	19371.8	20586.6	19384.6
32.5°	1239.5	1251.5	1316.1	1506.6	2495.6	4661.8	9785.0	17842.7	20861.2	21796.1	20284.2
35°	1001.7	1063.2	1167.5	1350.6	2327.5	4486.2	9785.0	18960.7	22328.9	23017.7	21141.9
37.5°	964.2	1018.9	1110.5	1266.5	2233.0	4399.1	9589.1	20038.9	23828.0	24403.5	21847.9
40°	944.7	988.9	1076.0	1202.0	2193.2	4300.1	9304.0	20990.3	25292.6	25790.9	22507.4
42.5°	929.7	969.4	1051.2	1162.3	2141.4	4191.3	9073.7	21753.4	26564.4	26975.6	23137.0
45°	922.1	964.2	1053.5	1182.5	2037.1	4047.2	8997.1	22578.7	27610.4	27964.5	23818.3
47.5°	922.1	971.7	1065.5	1224.5	1913.3	3898.7	9237.2	23667.4	28599.3	28772.6	24621.1
50°	914.6	969.4	1100.7	1182.5	1732.5	3710.3	9802.2	25037.5	29670.0	29689.5	25637.8
52.5°	899.6	964.2	1184.8	1157.7	1523.9	3462.7	10566.0	26797.8	31254.0	31372.5	27228.5
55°	882.4	956.7	1162.3	1100.7	1353.6	3167.9	11190.3	28936.2	33479.4	33808.8	29568.7
57.5°	859.9	946.9	1125.5	1021.2	1241.8	2788.2	11416.2	30502.9	35033.3	35860.9	32205.4
60°	840.4	939.4	1015.9	973.9	1172.0	2468.6	10979.5	30193.0	34926.8	36711.1	34542.6
62.5°	820.1	946.9	926.6	944.7	1139.7	2263.0	9839.7	27711.7	33159.8	35833.9	36275.1
65°	798.3	880.1	874.9	919.1	1133.0	2181.2	8156.8	23991.6	29744.3	33060.7	36684.0
67.5°	768.3	812.6	837.4	887.6	1157.7	2109.2	6582.6	19790.5	24997.8	28903.9	34552.4
70°	736.1	773.6	800.6	847.9	1142.7	2076.9	5475.1	15606.7	19835.5	23689.2	30346.8
72.5°	694.0	726.3	751.1	795.3	1127.7	2059.6	4625.0	12568.7	14809.1	17597.3	24673.6
75°	644.5	673.8	691.8	736.1	1080.5	1886.3	3636.1	10635.1	11081.5	12241.5	19651.7
77.5°	587.5	610.0	624.3	673.8	956.7	1568.9	2629.9	8204.0	8605.5	8887.6	15066.5
80°	520.7	542.5	550.0	597.3	793.1	1226.8	1715.2	6059.6	6436.3	6500.8	9839.7
82.5°	443.4	466.0	466.0	510.2	649.0	882.4	1125.5	4151.5	4225.8	4444.2	6954.7
85°	357.2	374.4	374.4	396.9	503.5	659.5	773.6	2084.4	2061.9	2354.5	6025.1
87.5°	255.1	267.9	279.9	285.1	359.4	435.9	466.0	634.8	418.7	481.0	3868.7
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):

	295°	305°	315°	325°	335°	345°	355°	360°
0°	15233.1	15233.1	15233.1	15233.1	15233.1	15233.1	15233.1	15233.1
2.5°	17498.3	17639.3	17495.3	17391.7	16943.0	16573.9	16080.2	15827.3
5°	18809.1	19168.5	19047.0	18611.0	17673.9	16620.4	15423.6	14883.4
7.5°	18650.8	19485.9	19505.4	18690.5	17310.0	15758.3	14137.6	13369.3
10°	17416.5	18484.2	18789.6	17998.7	16534.1	14799.4	12940.1	12062.9
12.5°	16038.2	17084.1	17317.5	17044.3	15820.6	14077.6	12192.0	11331.4
15°	14910.4	15379.4	15656.2	15894.8	15208.3	13790.2	12149.2	11205.3
17.5°	14223.9	14172.1	14251.6	14665.1	14781.4	14119.6	12793.8	11753.1
20°	13976.3	13180.9	13160.7	13730.9	14581.0	14905.9	14052.8	12803.5
22.5°	14112.8	12823.8	12660.2	13337.0	14687.6	16038.2	15703.5	14278.6
25°	14583.3	12853.8	12721.7	13376.8	15074.0	17245.4	17485.5	16186.7
27.5°	15324.6	13042.1	12868.0	13540.3	15587.2	18259.1	19240.5	18036.3
30°	16028.4	13369.3	13153.2	13862.2	16055.4	18660.5	20316.5	19478.4
32.5°	16883.8	13981.5	13601.9	14454.2	16635.4	19299.8	21275.4	20672.9
35°	17721.1	14853.4	14382.9	15368.9	17282.2	20095.9	22370.9	22199.8
37.5°	18641.0	15993.9	15604.5	16551.4	18167.6	20846.2	23768.7	23989.3
40°	19622.4	17505.8	17044.3	18276.4	19540.7	21788.6	25228.9	25758.6
42.5°	20611.4	19183.5	18633.5	19882.1	21049.6	22717.5	26477.4	27263.7
45°	21743.6	21005.3	20744.9	22095.5	22499.9	23602.9	27399.5	28376.5
47.5°	23062.7	23072.4	23491.1	24031.3	23962.3	24603.8	28326.9	29369.9
50°	24601.6	25652.0	26577.2	26935.8	25469.0	25679.8	29613.0	30701.0
52.5°	26450.4	28738.1	29883.1	29647.5	27092.7	26992.9	31650.1	32534.8
55°	28762.9	32005.0	33142.5	32973.7	28958.7	28782.4	34188.5	34703.9
57.5°	31439.3	35169.9	36215.8	35457.3	31199.2	30746.0	36287.9	36396.7
60°	33791.5	37678.2	38595.1	37754.8	33459.9	32834.9	37598.7	37070.5
62.5°	35100.1	38528.3	39172.9	38268.0	35008.6	35060.3	37886.1	36706.6
65°	34515.6	36379.4	36587.3	36513.0	34609.4	36351.7	36852.9	35023.6
67.5°	31313.2	30946.3	31296.0	31779.2	31189.4	34651.4	33989.6	31357.5
70°	25672.3	23656.9	24354.0	24678.1	24946.0	29818.6	29501.2	25541.0
72.5°	19347.1	16573.9	17123.9	17057.1	18295.9	23917.3	22943.4	18779.8
75°	13708.4	11237.6	11306.6	11279.6	12766.7	18712.3	16613.7	12848.5
77.5°	9591.4	8141.8	8179.3	8332.3	8582.9	14112.8	11869.4	9385.8
80°	6595.3	6178.9	6384.5	6397.3	5948.6	9480.3	8769.0	7532.5
82.5°	4912.4	4294.8	4245.3	4317.4	4661.8	7681.1	6738.7	5224.5
85°	4022.5	2542.8	2044.6	2563.1	4131.3	7606.8	4476.4	2755.9
87.5°	2265.2	1207.3	545.5	1011.4	1648.5	5036.2	1293.6	351.9
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)