

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: P299022

Luminaire Tested: **GLNA-AF-08-LED-E1-SLL-7060-600**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P299022
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-7060-600
Description: GALLEONAIRE AREA AND ROADWAY LUMINAIRE
(8) 70 CRI, 5700K CCT 600mA LIGHTSQUARE WITH 16 LEDS EACH AND 90° Spill
Light Eliminator Left OPTICS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 27527 lumens
Efficiency: N/A
Efficacy: 107.1 lumens/watt
Luminous Opening: Rectangular (W 2' x L: 1' x H: 0')
IES Classification: Type IV - Short - Non-Cutoff
BUG Rating: B3 - U0 - G4

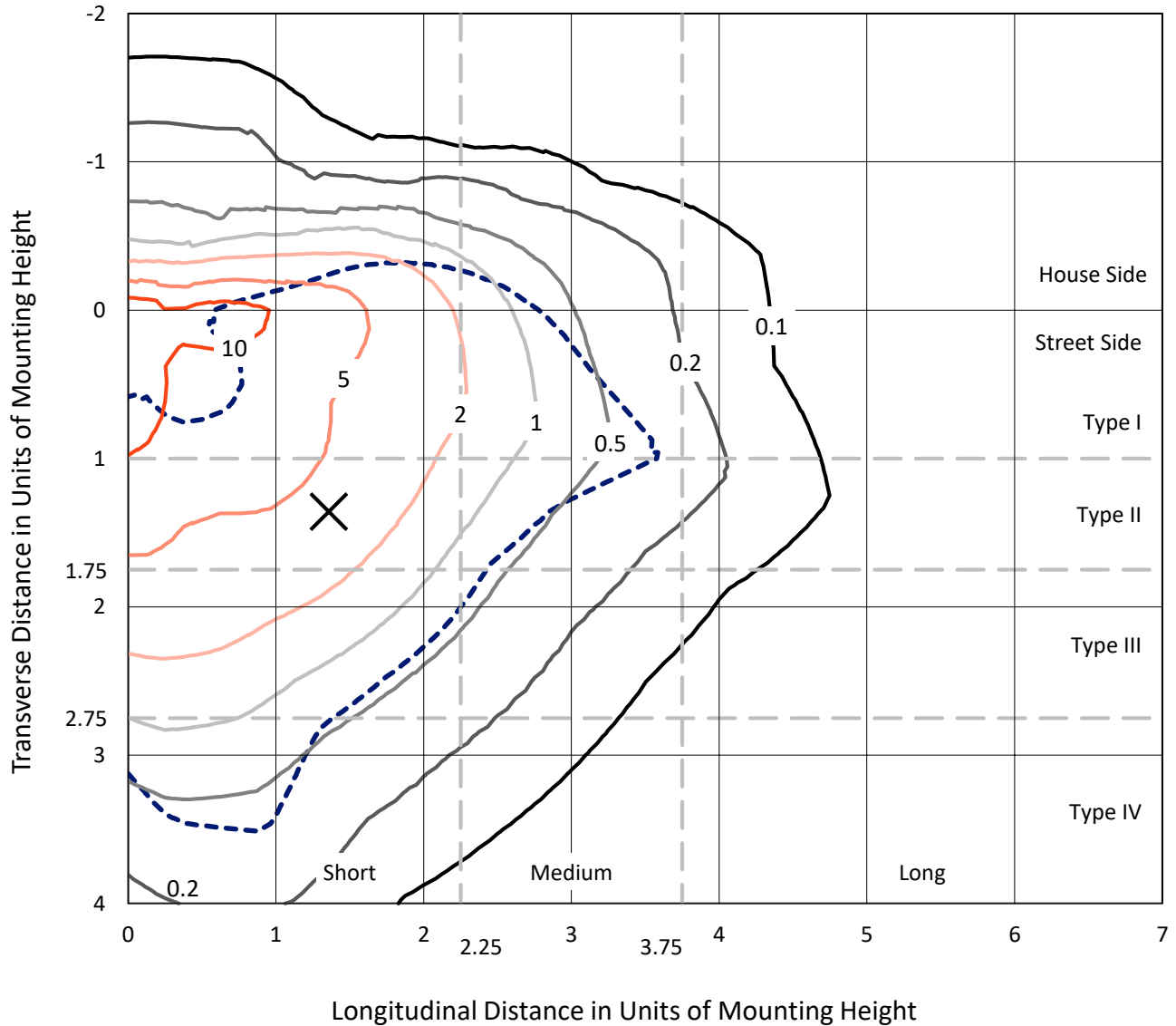
Input Watts (W): 257
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Iso-Footcandle Lines of Horizontal Illumination

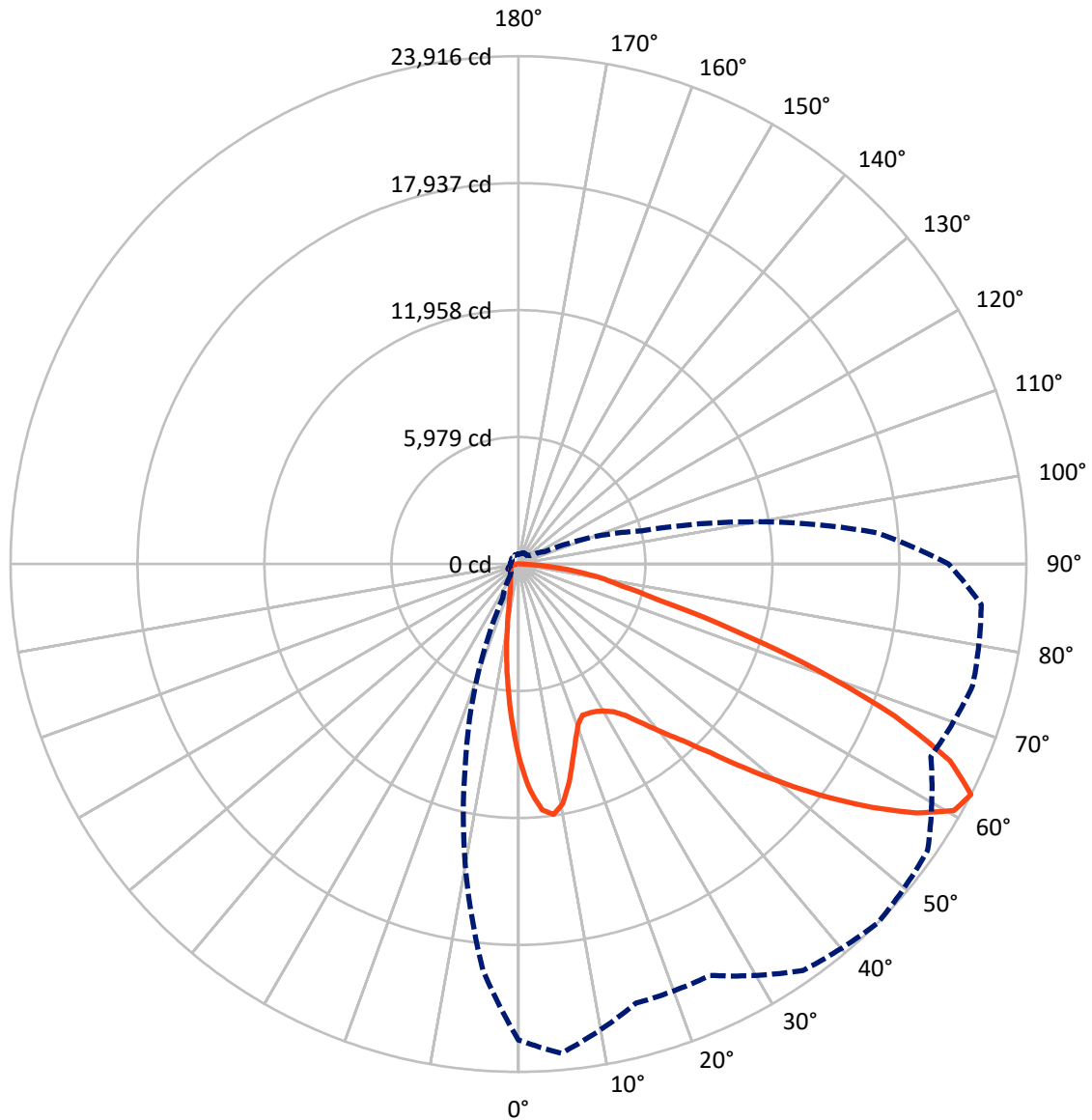
× Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 17.5 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	4555.3	0.0	4555.3
	% Fixture	16.5	0.0	16.5
Street Side	Lumens	22971.7	0.0	22971.7
	% Fixture	83.5	0.0	83.5
Total	Lumens	27527.0	0.0	27527.0
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	677.0	2.5
10°-20°	1241.4	4.5
20°-30°	1810.0	6.6
30°-40°	2787.7	10.1
40°-50°	4102.8	14.9
50°-60°	6017.9	21.9
60°-70°	6727.1	24.4
70°-80°	3293.5	12.0
80°-90°	869.6	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°	27527.0	100.0
0°-180°	27527.0	100.0



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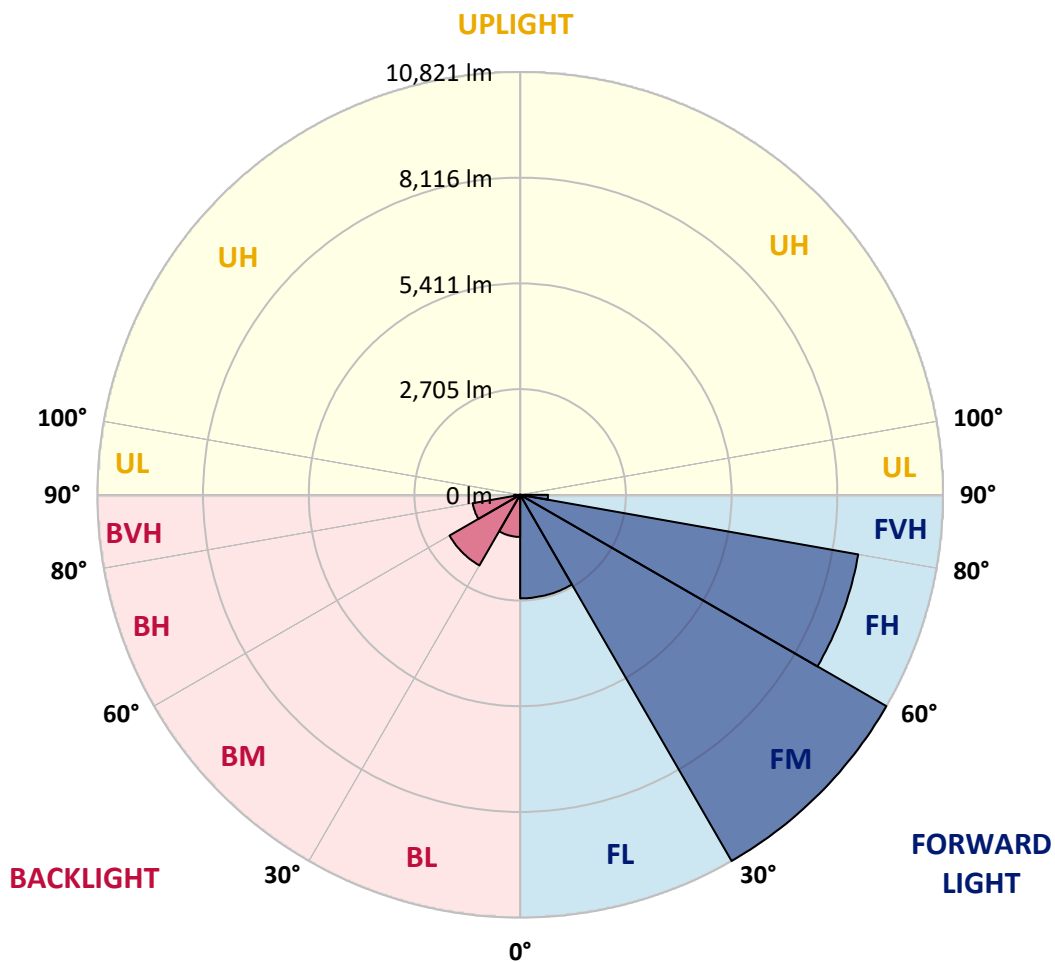
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	2650.8	9.6			
FM	(30°-60°)	10821.1	39.3			
FH	(60°-80°)	8785.7	31.9			G4/12000
FVH	(80°-90°)	714.1	2.6			G4/750
BL	(0°-30°)	1077.7	3.9	B3/2500		
BM	(30°-60°)	2087.2	7.6	B2/2500		
BH	(60°-80°)	1234.9	4.5	B3/2500		G3/2500
BVH	(80°-90°)	155.5	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-G4

Type IV Short





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	75°	85°	90°
0°	9300.4	9300.4	9300.4	9300.4	9300.4	9300.4	9300.4	9300.4	9300.4	9300.4	9300.4
2.5°	9662.9	9817.7	10118.8	10343.8	10618.4	10681.7	10769.7	10683.2	10530.4	10327.6	10261.3
5°	9086.7	9416.8	10147.3	10790.8	11362.6	11628.8	11703.5	11483.4	11040.3	10457.7	10102.1
7.5°	8162.2	8631.4	9620.7	10568.3	11410.7	11908.8	11896.6	11386.7	10571.2	9622.2	9051.9
10°	7364.5	7900.4	9035.6	10094.7	10988.8	11471.6	11285.0	10633.6	9660.0	8567.5	7949.0
12.5°	6918.5	7443.6	8595.0	9658.5	10406.2	10572.7	10430.2	9791.6	8874.5	7770.2	7228.4
15°	6840.8	7418.0	8419.6	9285.2	9704.2	9559.3	9389.3	9103.4	8455.5	7512.8	6948.4
17.5°	7175.9	7811.0	8621.0	9024.8	8953.6	8700.6	8652.5	8684.4	8528.7	7798.7	7148.3
20°	7817.4	8579.8	9100.5	8902.5	8383.3	8035.0	8047.3	8533.1	8994.4	8523.8	7780.6
22.5°	8717.3	9587.8	9791.6	8967.4	8142.6	7729.5	7829.7	8616.6	9737.6	9583.4	8634.3
25°	9882.5	10675.9	10529.0	9203.1	8166.7	7767.3	7847.4	8904.0	10614.9	10642.4	9690.9
27.5°	11011.4	11747.2	11147.4	9516.6	8266.9	7856.7	7962.8	9355.9	11453.5	11792.4	10898.4
30°	11892.1	12404.0	11392.6	9802.4	8463.4	8030.6	8162.2	9785.7	11835.1	12568.6	11827.3
32.5°	12621.6	12989.0	11783.1	10156.6	8824.9	8304.2	8536.1	10307.9	12384.3	13307.4	12736.6
35°	13553.5	13658.1	12268.9	10551.6	9383.4	8781.2	9068.6	10819.3	12908.0	14053.0	13632.5
37.5°	14646.4	14511.8	12727.2	11091.9	10105.5	9526.9	9764.6	11380.8	13338.8	14898.9	14547.7
40°	15726.7	15402.4	13302.9	11930.0	11158.7	10406.2	10687.6	11980.1	13741.6	15746.3	15442.2
42.5°	16645.2	16165.3	13869.8	12851.5	12138.7	11376.3	11712.3	12583.8	14125.7	16469.4	16218.4
45°	17324.6	16728.3	14410.2	13736.7	13490.1	12665.3	12824.5	13274.9	14541.8	17073.6	16857.0
47.5°	17931.3	17294.2	15021.2	14629.7	14672.0	14341.9	14086.0	14080.1	15032.5	17566.8	17460.7
50°	18743.8	18079.6	15678.0	15549.3	16445.3	16225.7	15661.3	15019.8	15652.5	18126.8	18114.5
52.5°	19863.8	19323.9	16480.2	16540.6	18101.2	18244.7	17545.2	16149.1	16623.6	19153.9	19081.7
55°	21188.1	20872.8	17573.2	17680.3	20131.5	20234.6	19539.6	17560.4	18052.6	20641.9	20440.5
57.5°	22221.2	22154.9	18771.3	19048.3	21647.9	22111.1	21472.5	19195.2	19662.4	21894.5	21389.0
60°	22632.8	22955.1	20047.0	20428.2	23050.9	23563.2	23003.7	20630.6	21089.4	22413.7	21324.2
62.5°	22410.8	23130.4	21405.7	21373.8	23363.8	23915.9	23522.4	21429.8	22147.5	21877.8	20245.5
65°	21383.1	22499.7	22194.2	21130.2	22292.4	22337.6	22210.4	21072.7	22397.0	20184.5	18159.7
67.5°	19144.6	20751.9	21155.7	19042.4	19402.0	19107.3	18893.6	19117.6	21095.3	17646.9	15262.0
70°	15593.5	18011.8	18204.9	15230.5	15066.9	14868.5	14443.6	15673.6	18527.6	14463.2	12110.2
72.5°	11465.7	14007.8	14602.2	11170.5	10414.0	10454.3	10118.8	11811.6	15064.0	10743.6	9041.5
75°	7844.4	10142.9	11425.0	7794.3	6887.0	6903.2	6860.5	8369.5	11998.2	7473.5	6765.7
77.5°	5730.7	7246.6	8616.6	5239.9	5087.2	4993.3	4970.7	5855.9	9198.7	5426.6	5253.7
80°	4598.4	5353.9	5787.6	3631.6	3905.3	3897.9	3772.1	4026.6	6007.2	3969.1	3929.3
82.5°	3190.0	4114.5	4689.3	2846.2	2635.9	2591.7	2622.7	2998.9	4246.2	2713.1	2579.9
85°	1682.9	2732.7	4644.1	2522.5	1564.6	1248.2	1552.8	2455.6	3678.8	1437.8	1258.5
87.5°	215.2	789.9	3074.6	1006.5	617.5	332.6	737.3	1382.8	2362.3	293.3	255.9
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°	9300.4	9300.4	9300.4	9300.4	9300.4	9300.4	9300.4	9300.4	9300.4	9300.4	9300.4
2.5°	10090.3	9888.9	9625.6	9381.5	9129.0	8877.5	8549.3	8343.5	8201.5	8174.0	8114.1
5°	9845.2	9176.1	8670.7	8233.5	7837.0	7276.6	6966.6	6709.2	6571.6	6558.4	6525.0
7.5°	8714.4	7791.4	7109.0	6490.1	5928.6	5476.2	4976.6	4744.3	4648.5	4671.1	4693.7
10°	7538.4	6506.8	5722.8	5090.1	4595.4	4214.2	3813.4	3542.7	3354.6	3316.8	3309.4
12.5°	6679.2	5547.4	4786.5	4339.5	3957.3	3598.2	3173.3	2853.5	2610.4	2526.9	2471.4
15°	6315.7	5078.3	4281.0	3799.6	3377.2	2921.8	2526.9	2192.3	1968.8	1896.1	1855.4
17.5°	6393.3	4948.1	3932.8	3316.8	2776.9	2301.4	1803.8	1517.4	1382.8	1348.4	1348.4
20°	6799.1	4924.1	3644.9	2872.2	2198.2	1647.6	1239.4	1075.8	1032.1	1027.6	1039.4
22.5°	7367.9	5009.0	3430.7	2486.6	1708.5	1203.0	965.3	904.8	885.2	890.1	903.4
25°	8215.3	5294.9	3275.0	2142.7	1340.6	984.9	860.6	824.8	815.4	827.7	844.4
27.5°	9219.9	5580.8	3177.8	1883.9	1131.8	900.4	818.4	781.1	786.9	802.2	816.9
30°	10102.1	5815.6	3025.0	1699.6	1066.9	904.8	818.4	767.3	761.4	764.4	768.8
32.5°	10894.0	5974.3	2846.2	1523.8	920.1	803.6	764.4	757.0	723.1	710.8	712.8
35°	11576.3	5974.3	2739.1	1421.1	824.8	712.8	649.4	611.6	594.4	595.9	613.1
37.5°	12234.5	5854.5	2686.0	1363.2	773.2	677.9	621.9	588.5	565.9	561.5	564.4
40°	12815.1	5680.6	2625.6	1339.1	733.9	656.8	604.2	576.2	552.1	544.8	546.2
42.5°	13281.3	5539.6	2558.8	1307.6	709.3	641.5	591.4	567.4	540.4	532.5	531.0
45°	13785.3	5492.9	2471.4	1243.8	721.6	643.0	588.5	562.9	535.4	526.6	523.6
47.5°	14449.5	5639.8	2380.5	1168.1	747.6	650.9	592.9	562.9	534.0	526.6	523.6
50°	15286.0	5984.6	2265.1	1057.6	721.6	672.0	591.4	558.0	534.0	526.6	520.7
52.5°	16360.8	6450.8	2114.2	930.9	706.4	723.1	588.5	549.2	526.6	516.3	505.5
55°	17666.5	6832.0	1933.5	826.2	672.0	709.3	584.1	538.9	514.8	499.6	490.2
57.5°	18622.9	6969.5	1702.6	758.5	623.4	686.7	577.7	525.1	499.6	487.3	475.5
60°	18433.8	6703.3	1507.1	715.7	594.4	620.4	573.3	512.8	485.8	477.0	465.7
62.5°	16919.4	6007.2	1381.3	696.1	576.2	565.9	577.7	501.1	474.0	464.2	461.3
65°	14647.9	4979.6	1331.7	691.6	561.5	534.0	537.4	487.3	459.8	452.4	449.5
67.5°	12082.7	4019.2	1288.0	706.4	541.8	511.4	496.6	469.1	446.0	438.7	432.8
70°	9528.3	3342.8	1267.9	697.5	517.8	488.8	472.6	449.5	429.8	422.0	417.5
72.5°	7673.0	2823.6	1257.1	688.2	485.8	458.3	443.1	423.4	402.3	399.4	394.9
75°	6493.5	2219.9	1151.9	659.7	449.5	422.0	411.6	393.5	372.4	372.4	369.4
77.5°	5009.0	1605.3	957.9	584.1	411.6	381.2	372.4	358.6	334.5	338.9	337.5
80°	3699.9	1047.3	749.1	484.4	365.0	336.0	331.1	317.8	291.8	298.2	298.2
82.5°	2534.7	686.7	538.9	396.4	311.4	284.4	284.4	270.7	242.2	245.1	254.5
85°	1272.8	472.6	402.3	307.0	242.2	228.4	228.4	218.1	189.1	190.6	202.9
87.5°	387.6	284.4	266.2	219.6	173.9	170.9	163.1	155.7	137.5	136.1	143.9
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°	9300.4	9300.4	9300.4	9300.4	9300.4	9300.4	9300.4	9300.4	9300.4	9300.4	9300.4
2.5°	8021.3	7934.8	7831.2	7600.8	7523.6	7518.7	7589.0	7515.8	7655.3	7596.3	7661.2
5°	6468.5	6384.5	6267.6	5974.3	5795.5	5674.2	5617.2	5447.7	5570.0	5480.6	5555.3
7.5°	4757.5	4777.2	4700.1	4527.6	4138.6	3943.6	3828.6	3725.5	3814.9	3805.5	3948.0
10°	3344.3	3396.8	3342.8	3168.9	2853.5	2746.5	2767.6	2808.3	2925.3	2985.2	3204.8
12.5°	2407.5	2404.6	2369.7	2214.0	2006.7	2018.5	2104.9	2175.6	2283.2	2347.1	2570.6
15°	1797.4	1770.4	1755.2	1627.9	1510.0	1536.1	1578.3	1585.7	1654.0	1691.8	1873.5
17.5°	1358.7	1372.5	1388.7	1298.3	1208.9	1192.2	1159.3	1118.0	1138.2	1145.5	1235.9
20°	1078.7	1133.3	1174.5	1110.7	1020.3	971.2	928.9	901.9	901.9	900.4	926.0
22.5°	942.7	982.0	1026.2	982.0	900.4	857.7	833.6	812.5	809.5	809.5	833.6
25°	869.0	897.5	939.7	909.8	848.8	816.9	794.3	767.3	757.0	753.5	770.2
27.5°	832.1	844.4	865.5	838.0	786.9	771.7	765.8	741.8	727.5	720.1	737.3
30°	770.2	767.3	768.8	741.8	700.5	699.0	709.3	714.2	709.3	707.9	733.9
32.5°	712.8	706.4	704.9	680.8	643.0	634.2	643.0	652.4	662.7	677.9	707.9
35°	640.1	655.3	664.1	643.0	597.3	570.3	560.0	543.3	534.0	534.0	568.8
37.5°	582.6	617.5	631.2	611.6	561.5	523.6	505.5	502.5	504.0	509.9	543.3
40°	562.9	588.5	600.3	581.1	531.0	496.6	485.8	482.9	485.8	495.2	528.1
42.5°	550.7	568.8	567.4	543.3	502.5	478.5	472.6	469.1	472.6	481.4	517.8
45°	540.4	552.1	540.4	511.4	474.0	461.3	462.7	461.3	464.2	474.0	508.4
47.5°	531.0	535.4	520.7	491.7	452.4	449.5	455.4	459.8	462.7	471.1	506.9
50°	517.8	517.8	504.0	474.0	434.2	435.7	443.1	453.9	455.4	464.2	493.7
52.5°	501.1	499.6	490.2	461.3	419.0	423.4	423.4	435.7	438.7	449.5	479.9
55°	487.3	484.4	479.9	452.4	405.8	413.1	408.7	413.1	420.5	431.3	464.2
57.5°	475.5	469.1	469.1	444.6	394.9	397.9	387.6	393.5	402.3	411.6	446.0
60°	462.7	456.8	459.8	434.2	378.2	375.3	370.9	382.7	386.1	396.4	431.3
62.5°	449.5	444.6	446.0	422.0	366.5	358.6	358.6	369.4	370.9	386.1	419.0
65°	438.7	432.8	431.3	410.2	352.7	343.9	348.3	352.7	355.6	370.9	402.3
67.5°	428.4	416.1	416.1	399.4	337.5	328.1	337.5	336.0	340.9	354.2	379.7
70°	414.6	397.9	399.4	392.0	322.2	311.4	319.3	317.8	320.8	329.6	355.6
72.5°	393.5	379.7	382.7	379.7	307.0	291.8	294.7	294.7	294.7	302.6	329.6
75°	366.5	355.6	365.0	372.4	288.8	267.7	270.7	270.7	266.2	270.7	304.1
77.5°	332.6	326.7	357.1	346.8	267.7	242.2	242.2	239.2	230.4	236.3	272.1
80°	296.7	291.8	329.6	290.3	243.6	210.7	207.3	199.4	190.6	195.0	231.9
82.5°	258.9	254.5	277.1	222.5	210.7	173.9	166.5	152.8	143.9	148.4	181.3
85°	212.2	212.2	213.7	168.0	160.1	133.1	124.3	106.1	95.3	98.2	130.2
87.5°	151.3	155.7	143.9	114.9	95.3	74.2	68.3	57.5	48.1	56.0	68.3
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°	9300.4	9300.4	9300.4	9300.4	9300.4	9300.4	9300.4	9300.4
2.5°	7994.2	8160.8	8349.9	8591.6	8799.4	9139.3	9466.4	9662.9
5°	5977.3	6254.3	6598.7	7042.7	7455.9	8075.8	8691.8	9086.7
7.5°	4277.6	4574.3	4946.7	5500.3	6084.8	6875.7	7690.2	8162.2
10°	3539.8	3843.9	4156.8	4530.6	5009.0	5869.7	6832.0	7364.5
12.5°	2928.2	3253.4	3590.9	3984.3	4427.4	5196.2	6305.4	6918.5
15°	2241.0	2604.0	3001.9	3500.0	4055.1	4943.7	6175.2	6840.8
17.5°	1536.1	1941.8	2430.1	3044.6	3724.0	4861.7	6408.6	7175.9
20°	1057.6	1352.8	1875.0	2595.2	3412.6	4851.4	6856.1	7817.4
22.5°	885.2	1016.8	1398.0	2182.0	3177.8	4981.5	7551.2	8717.3
25°	818.4	897.5	1116.6	1823.4	3006.8	5281.2	8507.6	9882.5
27.5°	779.6	850.3	1013.9	1589.1	2872.2	5629.0	9438.0	11011.4
30°	794.3	867.0	984.9	1469.3	2689.0	5919.3	10264.2	11892.1
32.5°	715.7	747.6	844.4	1363.2	2557.3	6162.9	10987.3	12621.6
35°	610.1	665.6	753.5	1313.5	2560.3	6326.5	11775.7	13553.5
37.5°	581.1	637.1	700.5	1295.4	2595.2	6500.9	12680.6	14646.4
40°	562.9	614.5	669.1	1285.1	2628.6	6659.6	13567.7	15726.7
42.5°	550.7	597.3	665.6	1248.2	2645.3	6802.0	14296.7	16645.2
45°	549.2	597.3	677.9	1211.9	2670.8	6954.8	14908.3	17324.6
47.5°	550.7	617.5	655.3	1168.1	2670.8	7210.2	15625.5	17931.3
50°	544.8	650.9	631.2	1106.2	2608.9	7694.6	16608.9	18743.8
52.5°	541.8	646.5	584.1	1010.9	2501.3	8463.4	17869.4	19863.8
55°	534.0	623.4	550.7	869.0	2376.1	9301.9	19219.3	21188.1
57.5°	526.6	552.1	532.5	744.7	2182.0	9891.9	20148.2	22221.2
60°	590.0	482.9	517.8	683.8	1923.2	10053.5	20112.3	22632.8
62.5°	546.2	452.4	498.1	670.5	1741.9	9599.6	19182.9	22410.8
65°	428.4	432.8	478.5	709.3	1693.3	8397.0	17536.3	21383.1
67.5°	392.0	413.1	458.3	759.9	1698.2	6722.9	15076.3	19144.6
70°	369.4	392.0	435.7	785.5	1710.0	5012.0	11919.1	15593.5
72.5°	343.9	363.5	410.2	789.9	1630.9	3640.5	9186.9	11465.7
75°	312.9	331.1	373.8	688.2	1351.4	2525.4	7027.5	7844.4
77.5°	278.5	291.8	328.1	531.0	1003.6	1616.1	5274.8	5730.7
80°	237.8	245.1	275.6	389.1	686.7	1010.9	4173.5	4598.4
82.5°	190.6	193.5	213.7	291.8	446.0	649.4	2795.1	3190.0
85°	134.6	134.6	146.9	212.2	304.1	411.6	1517.4	1682.9
87.5°	63.4	64.8	64.8	116.4	158.7	209.3	349.8	215.2
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)