

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: P299419

Luminaire Tested: **GLNA-AF-05-LED-E1-SLR-7027-800**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P299419
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-05-LED-E1-SLR-7027-800
Description: GALLEONAIRE AREA AND ROADWAY LUMINAIRE
(5) 70 CRI, 2700K CCT 800mA LIGHTSQUARE WITH 16 LEDS EACH AND 90° Spill
Light Eliminator Right OPTICS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 18291.5 lumens
Efficiency: N/A
Efficacy: 87.1 lumens/watt
Luminous Opening: Rectangular (W 1.5' x L: 1' x H: 0')
IES Classification: Type IV - Short - Non-Cutoff
BUG Rating: B2 - U0 - G3

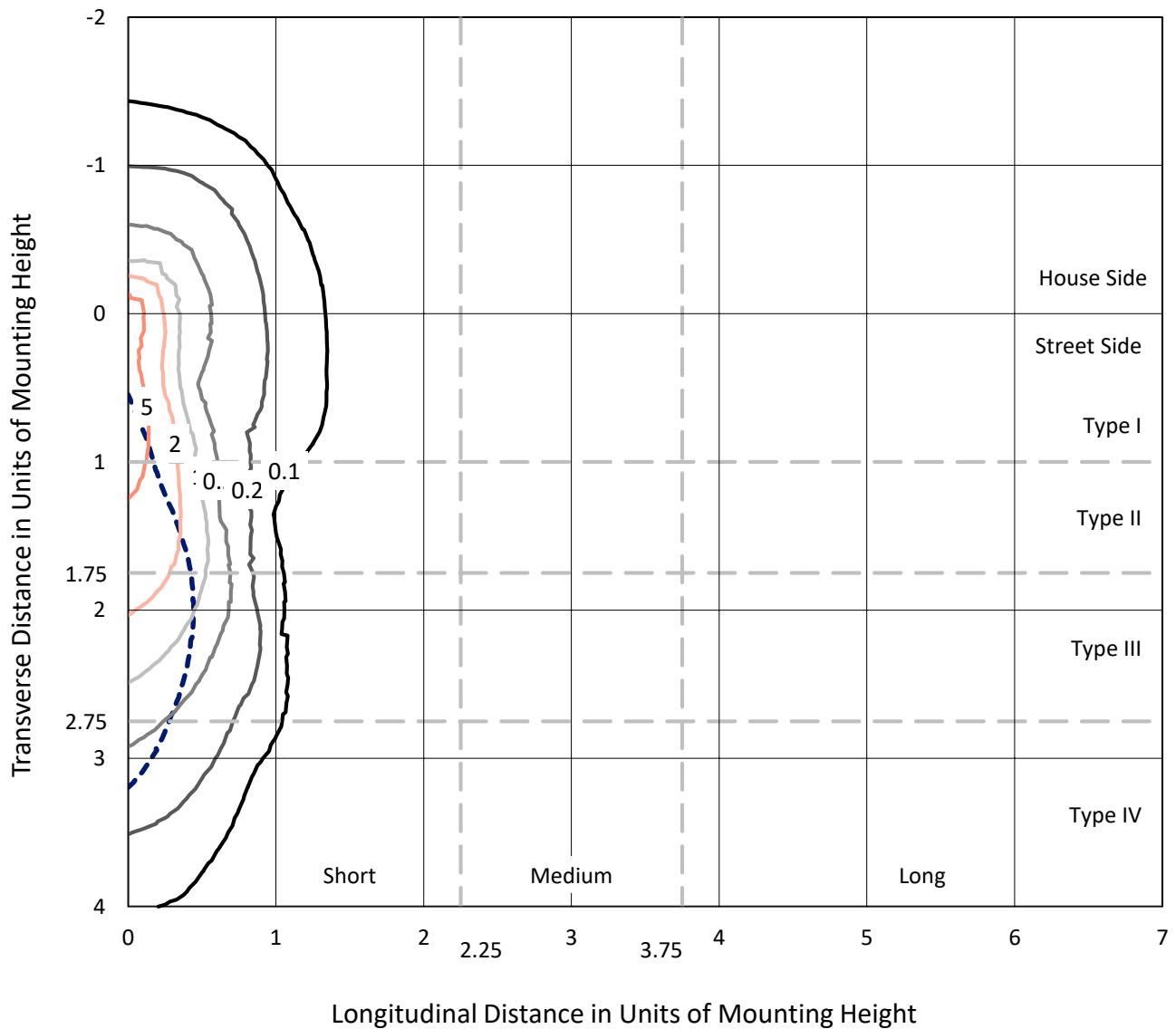
Input Watts (W): 210
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Iso-Footcandle Lines of Horizontal Illumination

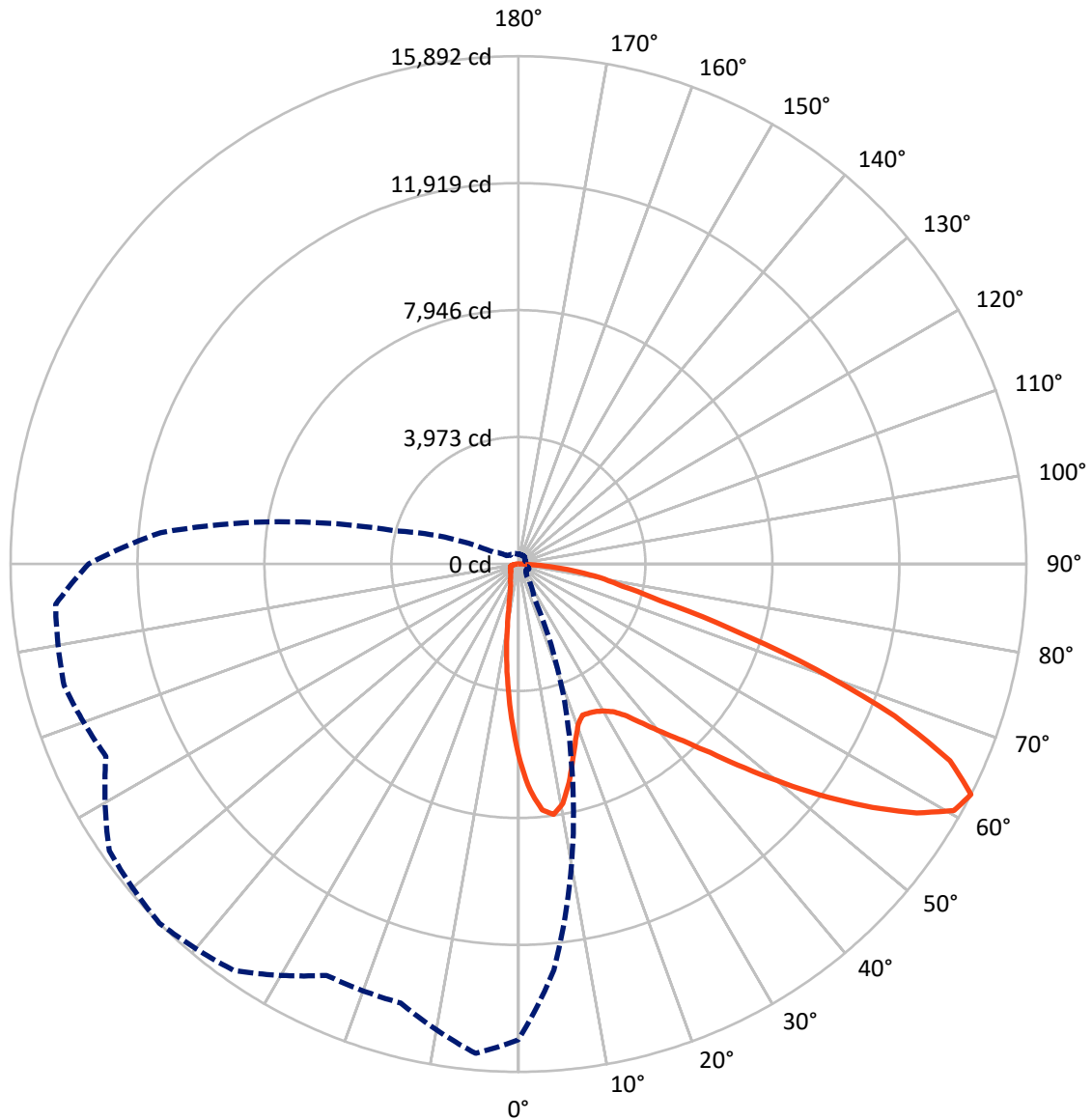
× Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 9.9 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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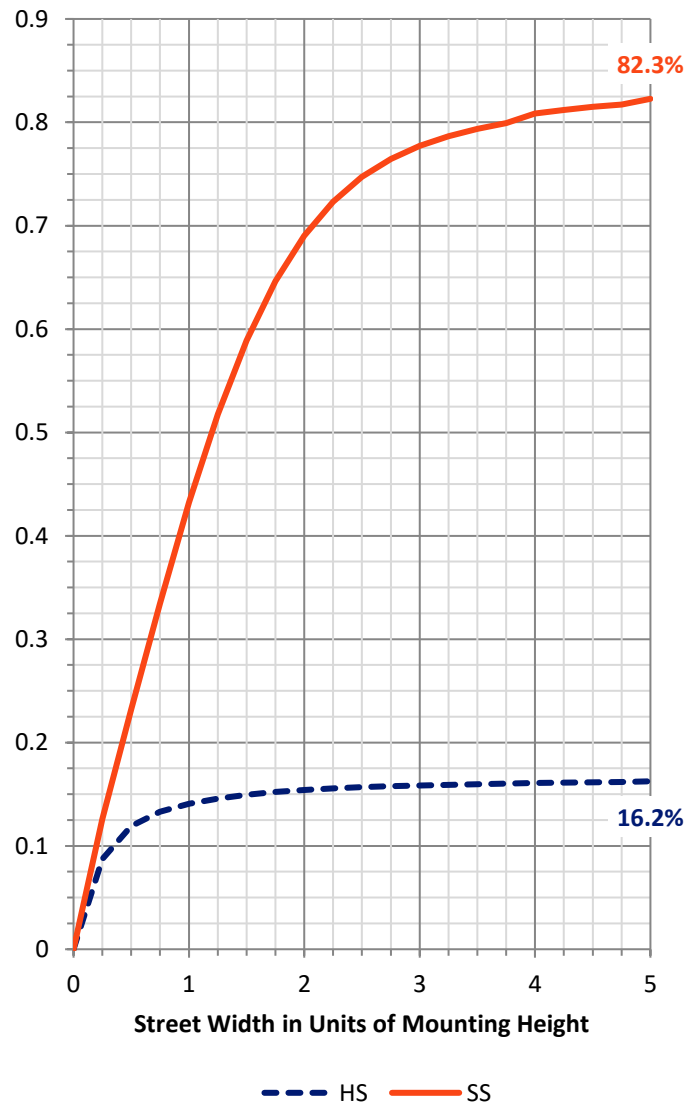
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	3027.0	0.0	3027.0
	% Fixture	16.5	0.0	16.5
Street Side	Lumens	15264.5	0.0	15264.5
	% Fixture	83.5	0.0	83.5
Total	Lumens	18291.5	0.0	18291.5
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	449.9	2.5
10°-20°	824.9	4.5
20°-30°	1202.7	6.6
30°-40°	1852.4	10.1
40°-50°	2726.3	14.9
50°-60°	3998.8	21.9
60°-70°	4470.1	24.4
70°-80°	2188.5	12.0
80°-90°	577.8	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°	18291.5	100.0
0°-180°	18291.5	100.0



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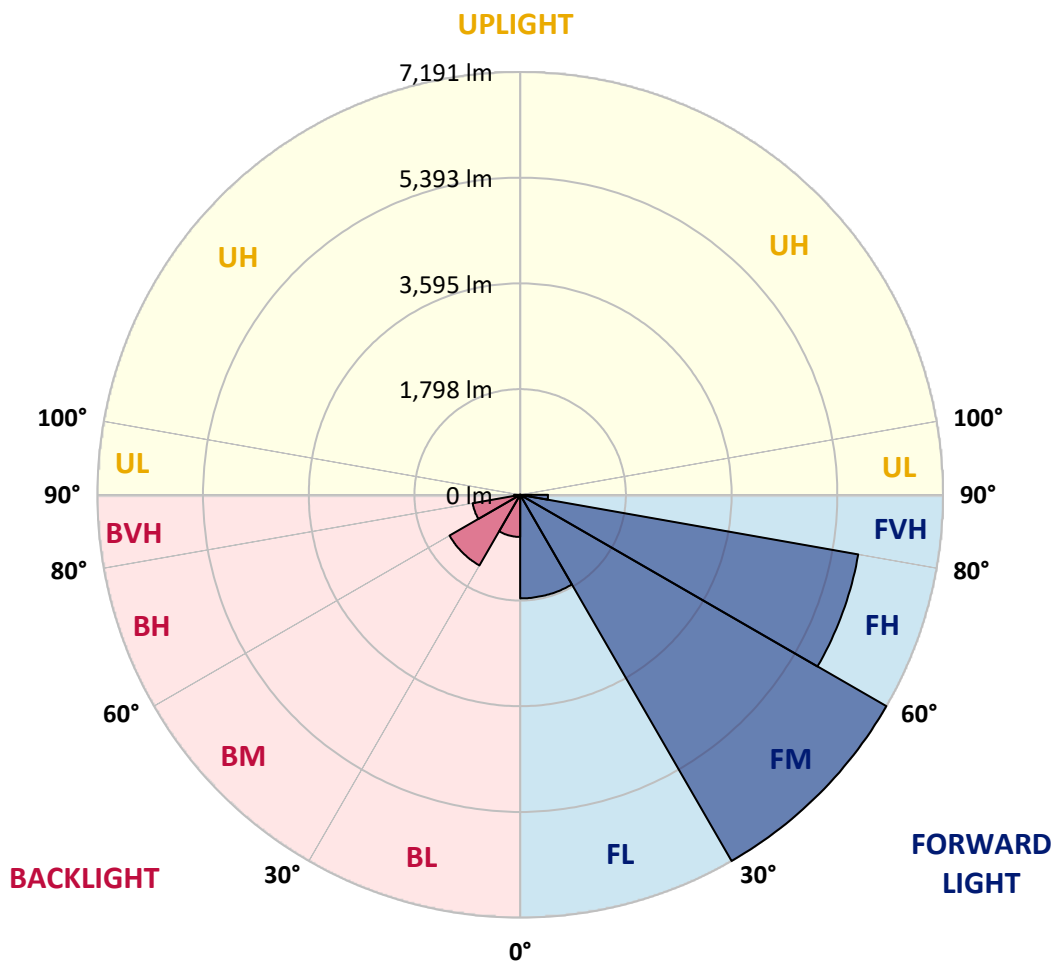
CATALOG NUMBER: GLNA-AF-05-LED-E1-SLR-7027-800

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	1761.4	9.6			
FM (30°-60°)	7190.5	39.3			
FH (60°-80°)	5838.0	31.9			G3/7500
FVH (80°-90°)	474.5	2.6			G3/500
BL (0°-30°)	716.1	3.9	B2/1000		
BM (30°-60°)	1386.9	7.6	B2/2500		
BH (60°-80°)	820.6	4.5	B2/1000		G2/1000
BVH (80°-90°)	103.3	0.6			G2/225
UL (90°-100°)	0.0	0.0		U0/0	
UH (100°-180°)	0.0	0.0		U0/0	

BUG Rating: B2-U0-G3

Type IV Short





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	75°	85°	90°
0°	6180.0	6180.0	6180.0	6180.0	6180.0	6180.0	6180.0	6180.0	6180.0	6180.0	6180.0
2.5°	6421.0	6290.4	6073.1	5846.9	5709.3	5548.3	5422.6	5312.1	5090.8	5047.6	5086.8
5°	6038.1	5775.7	5366.3	4954.1	4679.6	4384.9	4155.7	3971.8	3691.2	3641.9	3701.2
7.5°	5423.8	5110.0	4569.1	4043.1	3654.9	3286.9	3039.7	2842.5	2623.3	2529.0	2534.7
10°	4893.9	4539.8	3900.3	3328.3	3010.5	2762.1	2553.9	2351.8	2129.6	1983.8	1943.6
12.5°	4597.1	4190.1	3452.8	2942.0	2647.4	2386.2	2161.9	1945.7	1708.3	1559.4	1517.4
15°	4545.9	4103.3	3285.1	2694.9	2325.6	1995.0	1730.5	1489.1	1244.7	1124.2	1098.9
17.5°	4768.1	4258.3	3230.6	2474.5	2023.0	1614.8	1290.1	1020.7	821.6	761.3	756.1
20°	5194.3	4556.0	3223.6	2267.5	1724.4	1245.9	898.9	702.9	615.5	598.1	599.4
22.5°	5792.8	5017.4	3310.1	2111.6	1449.9	929.0	675.8	588.1	554.0	537.9	537.9
25°	6566.8	5653.0	3509.1	1998.1	1211.5	742.1	596.3	544.0	511.7	500.7	502.9
27.5°	7317.2	6271.3	3740.5	1908.6	1055.7	673.6	565.0	517.8	489.8	478.5	483.7
30°	7902.3	6820.4	3933.5	1786.8	976.2	654.5	576.2	527.8	487.7	470.6	471.5
32.5°	8386.9	7301.1	4095.4	1699.2	905.9	561.0	496.8	475.5	470.6	450.5	440.5
35°	9006.3	7824.9	4204.1	1701.3	872.7	500.7	442.3	405.2	378.1	354.9	354.9
37.5°	9732.3	8426.1	4319.8	1724.4	860.8	465.4	423.4	386.0	361.0	338.8	334.8
40°	10450.1	9015.4	4425.4	1746.7	853.5	444.4	408.2	374.1	351.0	328.8	322.7
42.5°	11060.7	9500.1	4519.7	1757.6	829.5	442.3	397.2	365.9	344.0	319.6	313.8
45°	11512.1	9906.1	4621.4	1774.7	805.4	450.5	397.2	365.0	337.9	314.8	308.7
47.5°	11915.2	10382.8	4791.3	1774.7	776.2	435.3	410.3	365.9	337.0	312.6	307.7
50°	12455.2	11036.4	5113.0	1733.6	735.1	419.2	432.2	361.9	327.8	308.7	302.6
52.5°	13199.1	11874.1	5623.8	1662.0	671.8	388.1	429.2	360.1	318.7	298.6	291.6
55°	14079.2	12770.8	6180.9	1578.6	577.1	365.9	414.3	354.9	308.7	286.4	279.4
57.5°	14765.9	13388.2	6572.9	1449.9	494.7	354.0	367.1	350.1	296.5	273.4	267.6
60°	15039.2	13364.1	6680.7	1277.9	454.5	344.0	320.8	392.1	286.4	263.3	256.3
62.5°	14891.6	12746.8	6379.0	1157.3	445.3	330.9	300.7	362.8	278.5	256.3	246.3
65°	14208.8	11652.8	5579.7	1125.1	471.5	317.8	287.7	284.6	267.6	246.3	236.2
67.5°	12721.5	10017.8	4467.4	1128.1	504.7	304.7	274.6	260.6	252.3	235.3	226.2
70°	10361.8	7920.5	3330.1	1136.3	521.7	289.5	260.6	245.3	236.2	219.2	213.1
72.5°	7618.9	6104.5	2419.4	1084.0	524.8	272.4	241.4	228.3	219.2	201.2	196.0
75°	5212.6	4669.5	1678.2	898.0	457.5	248.4	220.1	208.2	202.1	179.9	176.9
77.5°	3807.8	3505.2	1073.9	666.6	352.8	218.3	194.2	185.1	181.1	156.8	152.8
80°	3055.9	2773.1	671.8	456.6	258.4	182.9	162.9	158.0	153.7	129.7	126.6
82.5°	2119.5	1857.2	431.3	296.5	194.2	141.9	128.8	126.6	120.5	98.6	95.6
85°	1118.1	1008.5	273.4	202.1	140.6	97.4	89.5	89.5	86.4	65.4	63.3
87.5°	142.8	232.3	138.8	105.6	77.3	43.2	43.2	42.3	45.4	37.1	32.3
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):

	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°	185°
0°	6180.0	6180.0	6180.0	6180.0	6180.0	6180.0	6180.0	6180.0	6180.0	6180.0	6180.0
2.5°	4994.3	5042.7	4996.4	4999.5	5050.6	5203.4	5272.8	5330.1	5391.6	5431.7	5449.7
5°	3619.9	3732.6	3770.6	3851.0	3969.7	4164.8	4242.1	4298.4	4335.9	4357.8	4366.9
7.5°	2475.7	2543.9	2620.3	2750.0	3008.4	3123.2	3174.3	3161.2	3119.2	3104.0	3089.1
10°	1866.3	1839.2	1824.9	1896.4	2105.5	2221.2	2257.4	2222.1	2199.0	2204.2	2229.1
12.5°	1445.9	1398.7	1341.5	1333.3	1471.2	1574.7	1597.8	1599.6	1641.9	1679.1	1734.5
15°	1053.8	1048.7	1020.7	1003.6	1081.8	1166.5	1176.5	1194.5	1232.8	1259.9	1308.0
17.5°	743.0	770.1	792.4	803.3	862.7	922.9	912.0	902.9	895.9	895.9	919.0
20°	599.4	617.3	645.6	677.6	738.2	780.2	753.1	716.9	690.7	682.8	685.8
22.5°	540.0	554.0	570.1	598.1	652.6	681.9	652.6	626.5	600.3	591.1	588.1
25°	509.9	527.8	543.1	564.1	604.2	624.3	596.3	577.1	561.0	550.1	541.8
27.5°	492.8	508.7	512.9	523.0	557.1	575.0	561.0	553.1	543.1	533.0	523.0
30°	474.6	471.5	464.5	465.4	492.8	510.8	509.9	511.7	510.8	507.7	505.9
32.5°	433.5	427.4	421.3	427.4	452.3	468.5	469.7	473.6	473.6	472.7	480.6
35°	361.0	372.0	379.0	397.2	427.4	441.4	435.3	425.2	407.3	396.0	395.1
37.5°	333.9	335.8	347.9	372.9	406.4	419.2	410.3	387.2	375.0	372.9	375.9
40°	320.8	322.7	329.7	352.8	386.0	399.1	391.2	374.1	362.8	361.9	367.1
42.5°	311.7	313.8	317.8	333.9	361.0	377.2	378.1	365.9	352.8	354.0	358.9
45°	306.5	307.7	306.5	314.8	339.7	358.9	367.1	358.9	347.9	350.1	355.8
47.5°	305.6	302.6	298.6	300.7	326.9	345.8	355.8	352.8	347.9	350.1	354.9
50°	301.7	294.7	289.5	288.6	314.8	334.8	344.0	344.0	345.8	350.1	354.9
52.5°	289.5	281.6	281.6	278.5	306.5	325.7	331.8	332.7	335.8	342.8	350.1
55°	274.6	271.5	274.6	269.4	300.7	318.7	321.8	323.9	325.7	331.8	341.8
57.5°	261.5	257.5	264.5	262.4	295.6	311.7	311.7	315.7	315.7	323.9	331.8
60°	254.5	246.3	249.3	251.4	288.6	305.6	303.8	307.7	309.6	316.9	322.7
62.5°	245.3	238.3	238.3	243.2	280.7	296.5	295.6	298.6	306.5	308.7	314.8
65°	234.4	231.3	228.3	234.4	272.4	286.4	287.7	291.6	298.6	300.7	305.6
67.5°	223.1	224.3	218.3	224.3	265.4	276.4	276.4	284.6	287.7	291.6	296.5
70°	211.3	212.2	207.0	214.3	260.6	265.4	264.5	275.5	277.6	280.7	285.5
72.5°	196.0	196.0	194.2	204.3	252.3	254.5	252.3	261.5	262.4	265.4	267.6
75°	179.9	179.9	178.1	192.1	247.5	242.3	236.2	243.2	245.3	247.5	247.5
77.5°	158.9	161.0	161.0	178.1	230.1	237.4	217.0	221.3	224.3	225.3	222.2
80°	132.7	137.9	139.7	161.9	193.0	219.2	194.2	196.9	198.2	198.2	194.2
82.5°	101.7	110.5	115.7	139.7	147.9	183.9	168.9	172.0	168.9	162.9	161.0
85°	70.3	82.5	88.6	106.5	111.7	141.9	140.6	140.6	134.8	126.6	125.7
87.5°	38.4	45.4	49.3	63.3	76.4	95.6	103.5	100.5	95.6	90.4	91.6
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):

	195°	205°	215°	225°	235°	245°	255°	265°	270°	275°	285°
0°	6180.0	6180.0	6180.0	6180.0	6180.0	6180.0	6180.0	6180.0	6180.0	6180.0	6180.0
2.5°	5544.4	5681.0	5899.3	6066.1	6234.1	6396.1	6571.1	6704.7	6818.3	6862.7	6997.3
5°	4458.6	4629.3	4835.4	5207.4	5471.0	5761.4	6097.5	6541.9	6712.7	6949.2	7336.1
7.5°	3152.4	3307.0	3638.8	3939.6	4312.8	4724.0	5177.3	5790.6	6015.0	6393.9	7024.4
10°	2353.9	2533.8	2800.2	3053.8	3382.5	3802.9	4323.7	5009.5	5282.0	5693.2	6419.2
12.5°	1896.4	2108.6	2391.1	2629.4	2883.9	3180.4	3686.3	4438.2	4803.4	5163.3	5897.2
15°	1456.9	1679.1	1941.8	2244.3	2524.7	2844.6	3374.6	4197.1	4617.2	4992.5	5618.6
17.5°	1008.5	1198.4	1529.3	1845.0	2204.2	2613.3	3288.1	4248.2	4749.9	5182.4	5667.0
20°	715.0	823.4	1094.9	1461.1	1908.6	2422.1	3272.0	4517.6	5170.3	5664.0	5976.6
22.5°	601.2	641.4	799.4	1135.1	1652.0	2279.4	3328.3	4895.7	5737.4	6367.8	6470.4
25°	547.9	572.3	654.5	891.0	1423.7	2175.9	3518.3	5458.8	6439.3	7071.8	7053.6
27.5°	518.7	544.0	598.1	752.2	1252.0	2111.6	3708.2	6126.7	7241.7	7835.9	7610.6
30°	509.9	544.0	601.2	709.0	1129.3	2010.0	3864.1	6712.7	7859.0	8351.9	7864.2
32.5°	502.9	507.7	533.9	611.2	1012.4	1891.2	3969.7	7238.7	8463.3	8842.5	8229.2
35°	406.4	431.3	473.6	547.9	944.3	1820.0	3969.7	7692.2	9058.7	9338.1	8577.1
37.5°	391.2	413.4	450.5	513.8	905.9	1784.7	3890.2	8129.6	9666.9	9900.3	8863.6
40°	383.2	401.2	436.5	487.7	889.8	1744.5	3774.6	8515.6	10261.1	10463.2	9131.1
42.5°	377.2	393.3	426.5	471.5	868.8	1700.4	3681.1	8825.2	10777.0	10943.8	9386.5
45°	374.1	391.2	427.4	479.7	826.4	1641.9	3650.1	9160.0	11201.4	11345.0	9662.9
47.5°	374.1	394.2	432.2	496.8	776.2	1581.7	3747.5	9601.7	11602.6	11672.9	9988.6
50°	371.1	393.3	446.6	479.7	702.9	1505.3	3976.7	10157.6	12036.9	12044.8	10401.1
52.5°	365.0	391.2	480.6	469.7	618.2	1404.8	4286.6	10871.7	12679.5	12727.6	11046.4
55°	358.0	388.1	471.5	446.6	549.1	1285.2	4539.8	11739.2	13582.4	13716.0	11995.8
57.5°	348.8	384.2	456.6	414.3	503.8	1131.2	4631.5	12374.8	14212.8	14548.5	13065.5
60°	340.9	381.1	412.2	395.1	475.5	1001.5	4454.3	12249.1	14169.6	14893.4	14013.7
62.5°	332.7	384.2	375.9	383.2	462.4	918.1	3991.9	11242.4	13452.7	14537.6	14716.6
65°	323.9	357.1	354.9	372.9	459.6	884.9	3309.1	9733.2	12067.1	13412.5	14882.5
67.5°	311.7	329.7	339.7	360.1	469.7	855.7	2670.5	8028.9	10141.4	11726.1	14017.7
70°	298.6	313.8	324.8	344.0	463.6	842.6	2221.2	6331.5	8047.1	9610.6	12311.5
72.5°	281.6	294.7	304.7	322.7	457.5	835.6	1876.3	5099.0	6008.0	7139.1	10009.9
75°	261.5	273.4	280.7	298.6	438.3	765.3	1475.1	4314.6	4495.7	4966.3	7972.6
77.5°	238.3	247.5	253.3	273.4	388.1	636.5	1066.9	3328.3	3491.2	3605.6	6112.4
80°	211.3	220.1	223.1	242.3	321.8	497.7	695.9	2458.3	2611.2	2637.3	3991.9
82.5°	179.9	189.0	189.0	207.0	263.3	358.0	456.6	1684.3	1714.4	1803.0	2821.5
85°	144.9	151.9	151.9	161.0	204.3	267.6	313.8	845.6	836.5	955.2	2444.3
87.5°	103.5	108.7	113.5	115.7	145.8	176.9	189.0	257.5	169.9	195.1	1569.5
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):

	295°	305°	315°	325°	335°	345°	355°	360°
0°	6180.0	6180.0	6180.0	6180.0	6180.0	6180.0	6180.0	6180.0
2.5°	7098.9	7156.2	7097.7	7055.7	6873.7	6723.9	6523.6	6421.0
5°	7630.7	7776.5	7727.2	7550.4	7170.2	6742.8	6257.3	6038.1
7.5°	7566.5	7905.3	7913.2	7582.6	7022.5	6393.0	5735.5	5423.8
10°	7065.8	7498.9	7622.8	7302.0	6707.8	6004.0	5249.7	4893.9
12.5°	6506.6	6930.9	7025.6	6914.8	6418.3	5711.2	4946.2	4597.1
15°	6049.1	6239.3	6351.6	6448.4	6169.9	5594.6	4928.9	4545.9
17.5°	5770.5	5749.5	5781.8	5949.5	5996.7	5728.2	5190.3	4768.1
20°	5670.1	5347.4	5339.2	5570.5	5915.4	6047.2	5701.1	5194.3
22.5°	5725.5	5202.5	5136.2	5410.7	5958.7	6506.6	6370.8	5792.8
25°	5916.3	5214.7	5161.1	5426.9	6115.4	6996.4	7093.8	6566.8
27.5°	6217.1	5291.1	5220.5	5493.2	6323.6	7407.6	7805.8	7317.2
30°	6502.6	5423.8	5336.2	5623.8	6513.6	7570.5	8242.3	7902.3
32.5°	6849.6	5672.2	5518.2	5864.0	6748.9	7829.8	8631.3	8386.9
35°	7189.3	6025.9	5835.1	6235.0	7011.3	8152.8	9075.7	9006.3
37.5°	7562.5	6488.6	6330.6	6714.8	7370.5	8457.2	9642.8	9732.3
40°	7960.7	7102.0	6914.8	7414.6	7927.5	8839.5	10235.2	10450.1
42.5°	8361.9	7782.6	7559.5	8066.0	8539.7	9216.4	10741.7	11060.7
45°	8821.2	8521.7	8416.1	8964.0	9128.1	9575.5	11115.8	11512.1
47.5°	9356.4	9360.3	9530.2	9749.4	9721.4	9981.6	11492.1	11915.2
50°	9980.7	10406.9	10782.2	10927.7	10332.6	10418.1	12013.8	12455.2
52.5°	10730.7	11658.9	12123.4	12027.8	10991.3	10950.8	12840.2	13199.1
55°	11668.9	12984.2	13445.7	13377.2	11748.4	11676.8	13870.0	14079.2
57.5°	12754.7	14268.2	14692.5	14384.8	12657.3	12473.4	14721.8	14765.9
60°	13709.0	15285.8	15657.8	15316.9	13574.5	13320.9	15253.5	15039.2
62.5°	14239.9	15630.7	15892.2	15525.1	14202.7	14223.8	15370.1	14891.6
65°	14002.8	14758.9	14843.2	14813.1	14040.8	14747.6	14951.0	14208.8
67.5°	12703.6	12554.7	12696.6	12892.6	12653.3	14057.9	13789.4	12721.5
70°	10415.1	9597.5	9880.3	10011.8	10120.4	12097.2	11968.4	10361.8
72.5°	7849.0	6723.9	6947.0	6920.0	7422.5	9703.1	9308.0	7618.9
75°	5561.4	4559.0	4587.0	4576.1	5179.4	7591.5	6740.0	5212.6
77.5°	3891.2	3303.1	3318.3	3380.4	3482.0	5725.5	4815.3	3807.8
80°	2675.7	2506.7	2590.1	2595.3	2413.3	3846.1	3557.5	3055.9
82.5°	1992.9	1742.4	1722.3	1751.5	1891.2	3116.2	2733.8	2119.5
85°	1631.9	1031.6	829.5	1039.8	1676.0	3086.0	1816.1	1118.1
87.5°	919.0	489.8	221.3	410.3	668.8	2043.1	524.8	142.8
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)