

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: P299503

Luminaire Tested: **GLNA-AF-09-LED-E1-SLR-7027-600**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P299503
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-7027-600
Description: GALLEONNAIRE AREA AND ROADWAY LUMINAIRE
(9) 70 CRI, 2700K CCT 600mA LIGHTSQUARE WITH 16 LEDS EACH AND 90° Spill
Light Eliminator Right OPTICS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 26678.9 lumens
Efficiency: N/A
Efficacy: 92.0 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 - G4

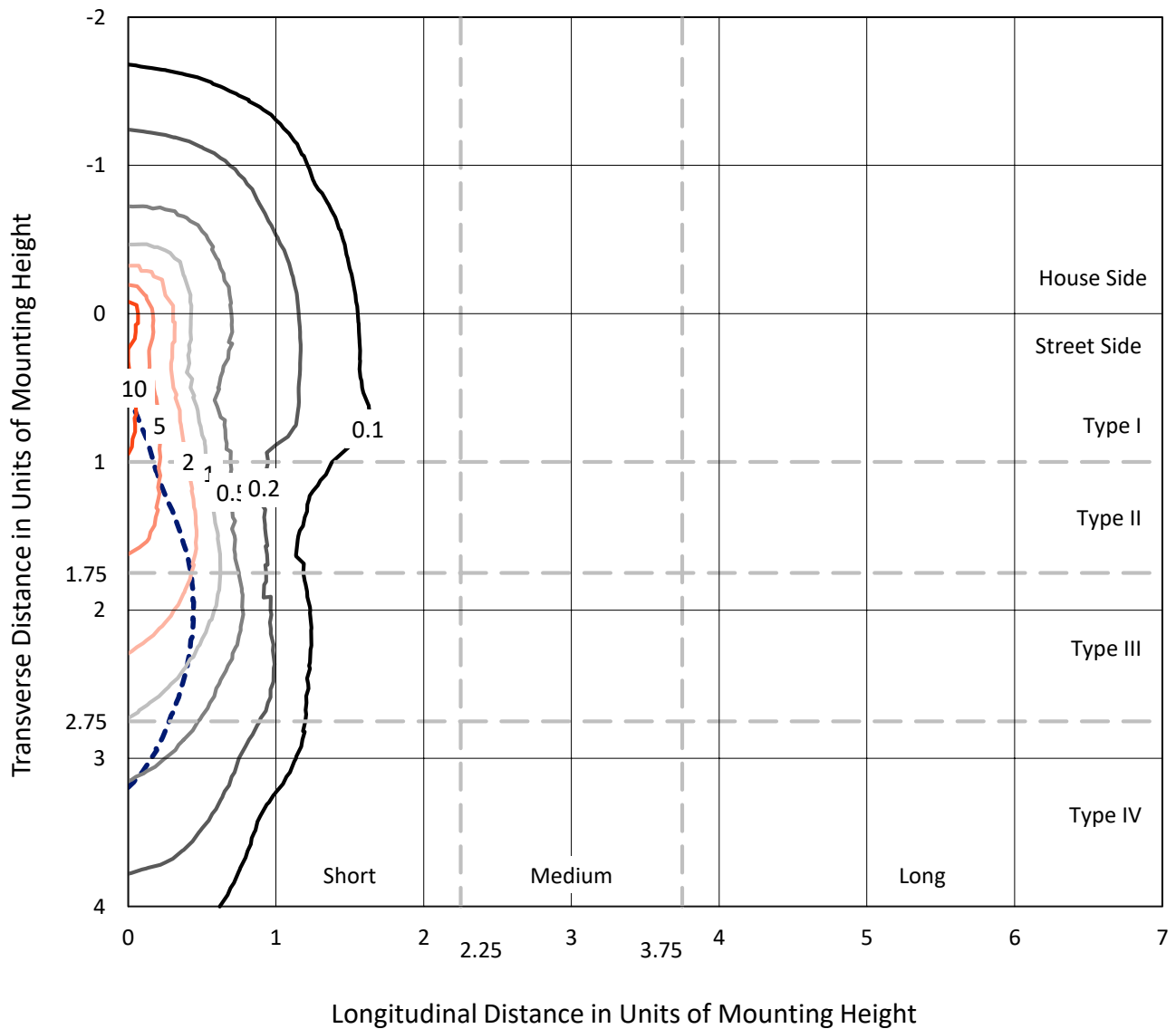
Input Watts (W): 290
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Iso-Footcandle Lines of Horizontal Illumination

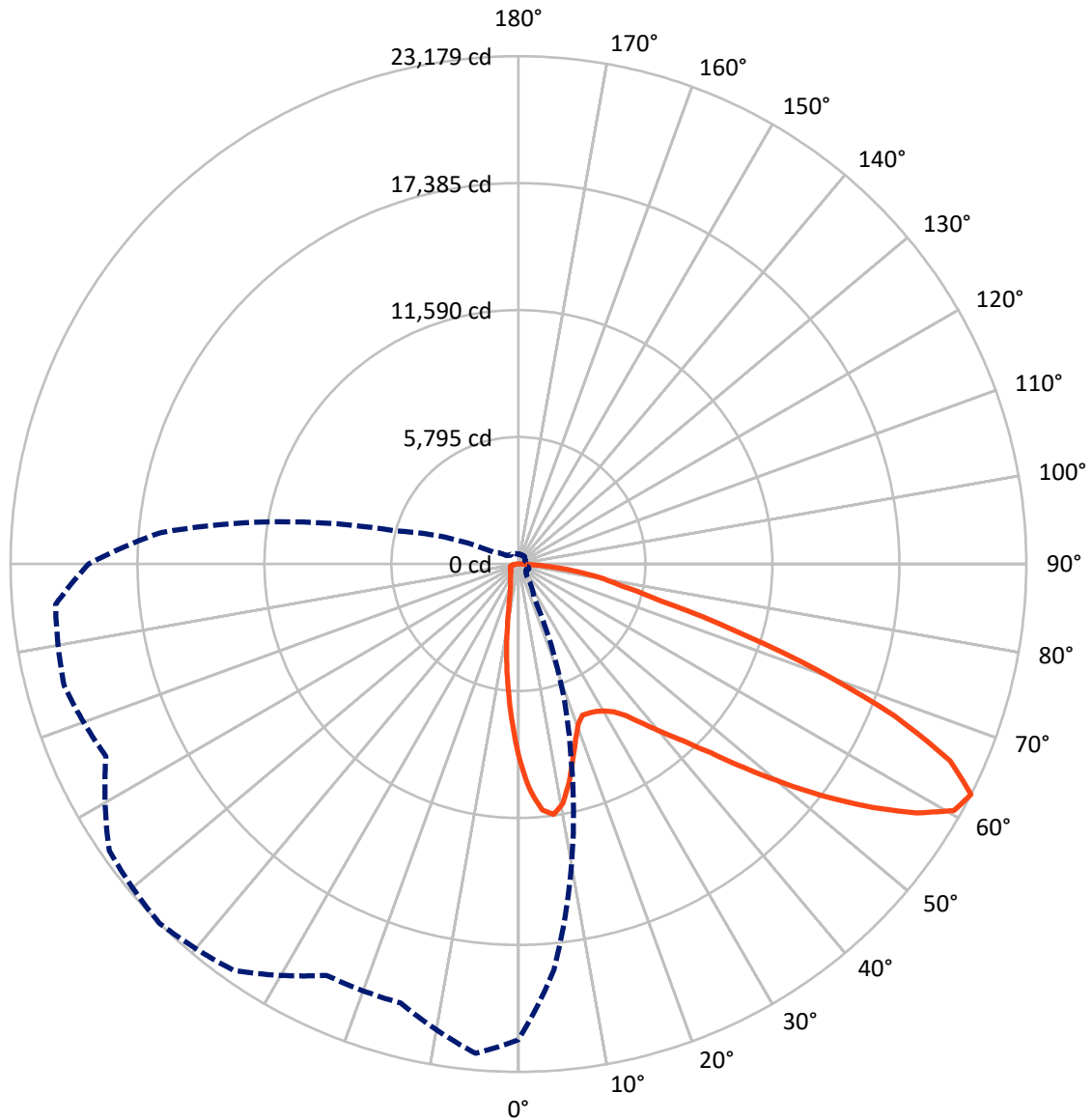
× Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 14.4 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	4415.0	0.0	4415.0
	% Fixture	16.5	0.0	16.5
Street Side	Lumens	22263.9	0.0	22263.9
	% Fixture	83.5	0.0	83.5
Total	Lumens	26678.9	0.0	26678.9
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	656.1	2.5
10°-20°	1203.2	4.5
20°-30°	1754.3	6.6
30°-40°	2701.8	10.1
40°-50°	3976.4	14.9
50°-60°	5832.5	21.9
60°-70°	6519.8	24.4
70°-80°	3192.1	12.0
80°-90°	842.8	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°	26678.9	100.0
0°-180°	26678.9	100.0



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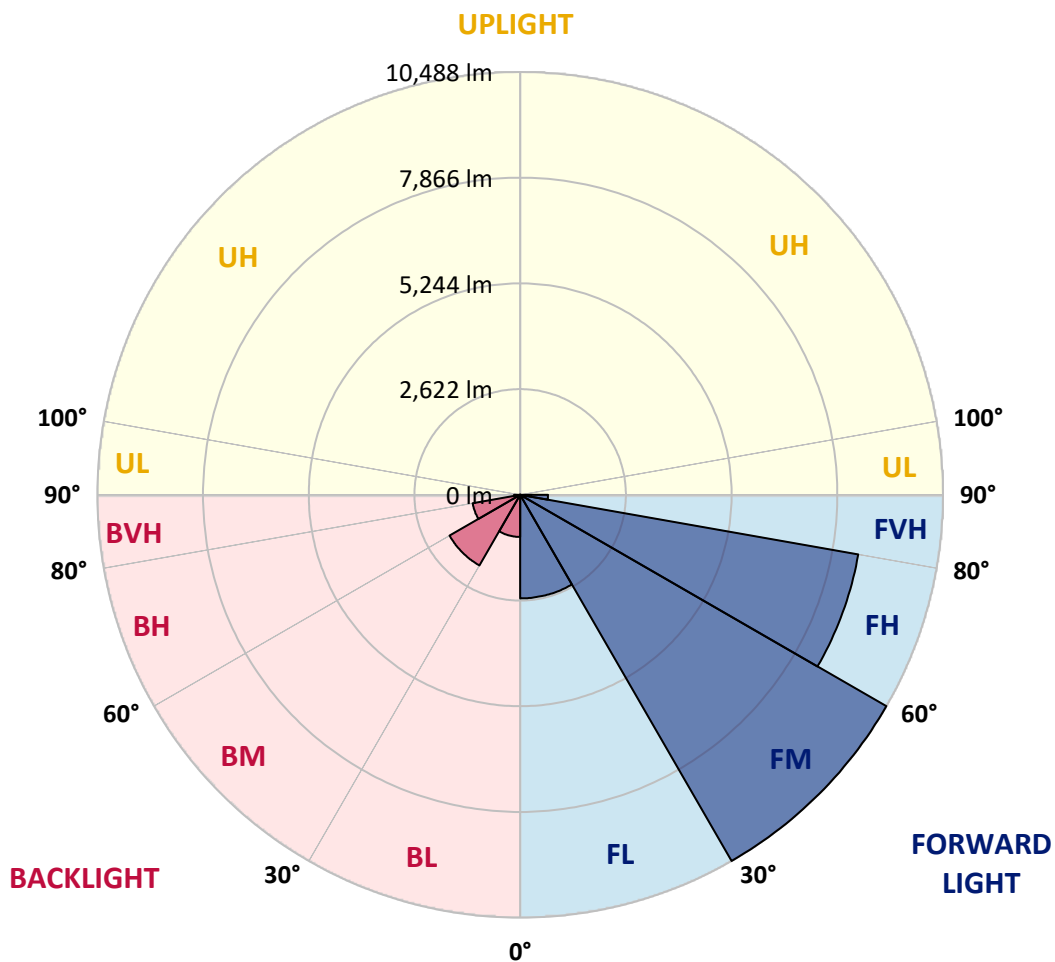
CATALOG NUMBER: GLNA-AF-09-LED-E1-SLR-7027-600

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	2569.1	9.6			
FM	(30°-60°)	10487.7	39.3			
FH	(60°-80°)	8515.0	31.9			G4/12000
FVH	(80°-90°)	692.1	2.6			G4/750
BL	(0°-30°)	1044.5	3.9	B3/2500		
BM	(30°-60°)	2022.9	7.6	B2/2500		
BH	(60°-80°)	1196.9	4.5	B3/2500		G3/2500
BVH	(80°-90°)	150.7	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°	9013.7	9013.7	9013.7	9013.7	9013.7	9013.7	9013.7	9013.7	9013.7	9013.7	9013.7
2.5°	9365.4	9174.9	8857.9	8528.0	8327.3	8092.5	7909.1	7747.9	7425.2	7362.1	7419.4
5°	8806.8	8424.1	7827.0	7225.8	6825.3	6395.6	6061.2	5793.1	5383.7	5311.8	5398.4
7.5°	7910.9	7453.1	6664.2	5897.0	5330.9	4794.1	4433.6	4145.9	3826.2	3688.6	3697.0
10°	7137.9	6621.5	5688.7	4854.5	4391.0	4028.7	3725.0	3430.2	3106.1	2893.4	2834.8
12.5°	6705.0	6111.4	5036.1	4291.1	3861.3	3480.4	3153.2	2837.9	2491.6	2274.5	2213.3
15°	6630.4	5984.9	4791.5	3930.6	3392.0	2909.9	2524.0	2172.0	1815.4	1639.6	1602.8
17.5°	6954.5	6210.9	4712.0	3609.1	2950.7	2355.3	1881.6	1488.7	1198.3	1110.4	1102.9
20°	7576.1	6645.1	4701.8	3307.2	2515.2	1817.2	1311.1	1025.2	897.7	872.4	874.2
22.5°	8449.0	7318.2	4827.9	3079.9	2114.7	1355.0	985.6	857.8	808.0	784.5	784.5
25°	9578.0	8245.2	5118.2	2914.3	1767.0	1082.4	869.8	793.4	746.3	730.4	733.5
27.5°	10672.4	9146.9	5455.7	2783.8	1539.7	982.5	824.0	755.2	714.4	697.9	705.5
30°	11525.8	9947.9	5737.1	2606.2	1423.9	954.6	840.5	769.9	711.3	686.4	687.7
32.5°	12232.6	10648.9	5973.3	2478.3	1321.3	818.3	724.6	693.5	686.4	657.1	642.4
35°	13136.1	11413.0	6131.8	2481.4	1272.9	730.4	645.1	590.9	551.4	517.7	517.7
37.5°	14195.0	12289.9	6300.5	2515.2	1255.6	678.8	617.6	563.0	526.6	494.2	488.4
40°	15241.9	13149.4	6454.6	2547.6	1244.9	648.2	595.4	545.7	511.9	479.5	470.6
42.5°	16132.5	13856.2	6592.2	2563.6	1209.9	645.1	579.4	533.7	501.7	466.2	457.7
45°	16791.0	14448.5	6740.5	2588.4	1174.8	657.1	579.4	532.3	492.8	459.1	450.2
47.5°	17378.8	15143.8	6988.3	2588.4	1132.2	634.9	598.5	533.7	491.5	456.0	448.9
50°	18166.4	16097.0	7457.6	2528.5	1072.2	611.4	630.5	527.9	478.2	450.2	441.3
52.5°	19251.5	17318.8	8202.6	2424.1	979.9	566.1	626.0	525.2	464.8	435.5	425.3
55°	20535.1	18626.8	9015.1	2302.5	841.8	533.7	604.3	517.7	450.2	417.8	407.6
57.5°	21536.7	19527.2	9586.9	2114.7	721.5	516.4	535.4	510.6	432.4	398.7	390.3
60°	21935.4	19492.1	9744.1	1863.8	662.9	501.7	468.0	571.8	417.8	384.0	373.8
62.5°	21720.0	18591.7	9304.1	1688.0	649.5	482.6	438.7	529.2	406.2	373.8	359.2
65°	20724.2	16996.1	8138.2	1641.0	687.7	463.5	419.6	415.1	390.3	359.2	344.5
67.5°	18554.9	14611.4	6515.9	1645.4	736.1	444.4	400.5	380.0	368.1	343.2	329.9
70°	15113.1	11552.4	4857.2	1657.4	761.0	422.2	380.0	357.8	344.5	319.7	310.8
72.5°	11112.4	8903.6	3528.8	1581.0	765.4	397.4	352.1	333.0	319.7	293.5	285.9
75°	7602.7	6810.7	2447.7	1309.7	667.3	362.3	321.0	303.7	294.8	262.4	258.0
77.5°	5553.8	5112.5	1566.4	972.3	514.6	318.3	283.3	269.9	264.2	228.7	222.9
80°	4457.1	4044.7	979.9	666.0	376.9	266.8	237.5	230.4	224.2	189.1	184.7
82.5°	3091.4	2708.7	629.1	432.4	283.3	206.9	187.8	184.7	175.8	143.9	139.4
85°	1630.7	1470.9	398.7	294.8	205.1	142.1	130.5	130.5	126.1	95.5	92.3
87.5°	208.2	338.8	202.5	154.1	112.8	63.0	63.0	61.7	66.2	54.2	47.1
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°	9013.7	9013.7	9013.7	9013.7	9013.7	9013.7	9013.7	9013.7	9013.7	9013.7	9013.7
2.5°	7284.4	7355.0	7287.5	7292.0	7366.5	7589.4	7690.7	7774.1	7863.8	7922.4	7948.6
5°	5279.8	5444.1	5499.6	5616.8	5790.0	6074.6	6187.3	6269.5	6324.1	6356.0	6369.4
7.5°	3610.9	3710.4	3821.8	4010.9	4387.9	4555.3	4629.8	4610.8	4549.5	4527.3	4505.5
10°	2722.1	2682.5	2661.7	2766.0	3071.0	3239.7	3292.6	3241.1	3207.3	3214.9	3251.3
12.5°	2108.9	2040.1	1956.6	1944.6	2145.8	2296.7	2330.5	2333.1	2394.8	2449.0	2529.8
15°	1537.1	1529.5	1488.7	1463.8	1577.9	1701.3	1716.0	1742.2	1798.1	1837.6	1907.8
17.5°	1083.8	1123.3	1155.7	1171.7	1258.2	1346.2	1330.2	1316.9	1306.6	1306.6	1340.4
20°	874.2	900.4	941.7	988.3	1076.7	1137.9	1098.4	1045.6	1007.4	995.9	1000.3
22.5°	787.6	808.0	831.6	872.4	951.9	994.5	951.9	913.7	875.5	862.2	857.8
25°	743.7	769.9	792.1	822.7	881.3	910.6	869.8	841.8	818.3	802.3	790.3
27.5°	718.8	741.9	748.1	762.8	812.5	838.7	818.3	806.7	792.1	777.4	762.8
30°	692.2	687.7	677.5	678.8	718.8	745.0	743.7	746.3	745.0	740.6	737.9
32.5°	632.2	623.4	614.5	623.4	659.8	683.3	685.1	690.8	690.8	689.5	701.0
35°	526.6	542.5	552.8	579.4	623.4	643.8	634.9	620.2	594.0	577.6	576.3
37.5°	487.0	489.7	507.5	543.9	592.7	611.4	598.5	564.7	547.0	543.9	548.3
40°	468.0	470.6	480.8	514.6	563.0	582.1	570.5	545.7	529.2	527.9	535.4
42.5°	454.6	457.7	463.5	487.0	526.6	550.1	551.4	533.7	514.6	516.4	523.5
45°	447.1	448.9	447.1	459.1	495.5	523.5	535.4	523.5	507.5	510.6	519.0
47.5°	445.8	441.3	435.5	438.7	476.8	504.4	519.0	514.6	507.5	510.6	517.7
50°	440.0	429.8	422.2	420.9	459.1	488.4	501.7	501.7	504.4	510.6	517.7
52.5°	422.2	410.7	410.7	406.2	447.1	475.1	483.9	485.3	489.7	499.9	510.6
55°	400.5	396.0	400.5	392.9	438.7	464.8	469.3	472.4	475.1	483.9	498.6
57.5°	381.4	375.6	385.8	382.7	431.1	454.6	454.6	460.4	460.4	472.4	483.9
60°	371.2	359.2	363.6	366.7	420.9	445.8	443.1	448.9	451.5	462.2	470.6
62.5°	357.8	347.6	347.6	354.7	409.4	432.4	431.1	435.5	447.1	450.2	459.1
65°	341.9	337.4	333.0	341.9	397.4	417.8	419.6	425.3	435.5	438.7	445.8
67.5°	325.4	327.2	318.3	327.2	387.2	403.1	403.1	415.1	419.6	425.3	432.4
70°	308.1	309.5	301.9	312.6	380.0	387.2	385.8	401.8	404.9	409.4	416.5
72.5°	285.9	285.9	283.3	297.9	368.1	371.2	368.1	381.4	382.7	387.2	390.3
75°	262.4	262.4	259.7	280.2	361.0	353.4	344.5	354.7	357.8	361.0	361.0
77.5°	231.8	234.9	234.9	259.7	335.7	346.3	316.6	322.8	327.2	328.5	324.1
80°	193.6	201.1	203.8	236.2	281.5	319.7	283.3	287.3	289.0	289.0	283.3
82.5°	148.3	161.2	168.7	203.8	215.8	268.2	246.4	250.8	246.4	237.5	234.9
85°	102.6	120.3	129.2	155.4	162.9	206.9	205.1	205.1	196.7	184.7	183.4
87.5°	55.9	66.2	71.9	92.3	111.4	139.4	151.0	146.5	139.4	131.9	133.6
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°	9013.7	9013.7	9013.7	9013.7	9013.7	9013.7	9013.7	9013.7	9013.7	9013.7	9013.7
2.5°	8086.7	8286.0	8604.4	8847.7	9092.8	9328.9	9584.2	9779.1	9944.8	10009.6	10205.8
5°	6503.0	6752.1	7052.7	7595.2	7979.7	8403.2	8893.4	9541.6	9790.7	10135.7	10700.0
7.5°	4597.9	4823.4	5307.4	5746.0	6290.3	6890.2	7551.2	8445.9	8773.1	9325.8	10245.3
10°	3433.3	3695.7	4084.2	4454.0	4933.5	5546.7	6306.3	7306.6	7704.0	8303.8	9362.7
12.5°	2766.0	3075.5	3487.5	3835.1	4206.3	4638.7	5376.6	6473.3	7006.0	7530.8	8601.3
15°	2124.9	2449.0	2832.2	3273.5	3682.4	4149.0	4922.0	6121.6	6734.3	7281.7	8195.0
17.5°	1470.9	1748.0	2230.6	2691.0	3214.9	3811.6	4795.9	6196.2	6927.9	7558.8	8265.6
20°	1042.9	1201.0	1597.0	2131.1	2783.8	3532.8	4772.4	6589.1	7541.0	8261.2	8717.1
22.5°	876.9	935.5	1165.9	1655.6	2409.5	3324.5	4854.5	7140.6	8368.2	9287.7	9437.3
25°	799.2	834.7	954.6	1299.5	2076.5	3173.6	5131.5	7961.9	9392.0	10314.6	10288.0
27.5°	756.5	793.4	872.4	1097.1	1826.1	3079.9	5408.6	8936.0	10562.3	11429.0	11100.4
30°	743.7	793.4	876.9	1034.0	1647.2	2931.6	5635.9	9790.7	11462.7	12181.5	11470.3
32.5°	733.5	740.6	778.7	891.5	1476.7	2758.5	5790.0	10557.9	12344.0	12897.2	12002.6
35°	592.7	629.1	690.8	799.2	1377.2	2654.6	5790.0	11219.4	13212.5	13620.0	12510.1
37.5°	570.5	602.9	657.1	749.4	1321.3	2603.1	5674.1	11857.4	14099.5	14440.1	12927.9
40°	559.0	585.2	636.7	711.3	1297.8	2544.5	5505.4	12420.4	14966.2	15261.0	13318.1
42.5°	550.1	573.6	622.0	687.7	1267.1	2480.1	5369.1	12871.9	15718.7	15962.0	13690.6
45°	545.7	570.5	623.4	699.7	1205.4	2394.8	5323.8	13360.3	16337.6	16547.2	14093.8
47.5°	545.7	575.0	630.5	724.6	1132.2	2306.9	5465.9	14004.5	16922.8	17025.4	14568.8
50°	541.2	573.6	651.3	699.7	1025.2	2195.5	5800.2	14815.2	17556.4	17567.9	15170.4
52.5°	532.3	570.5	701.0	685.1	901.7	2049.0	6252.2	15856.8	18493.6	18563.8	16111.7
55°	522.1	566.1	687.7	651.3	800.9	1874.5	6621.5	17122.2	19810.5	20005.4	17496.4
57.5°	508.8	560.3	666.0	604.3	734.8	1649.8	6755.2	18049.2	20730.0	21219.7	19056.6
60°	497.3	555.9	601.2	576.3	693.5	1460.7	6496.8	17865.8	20666.9	21722.7	20439.6
62.5°	485.3	560.3	548.3	559.0	674.4	1339.0	5822.4	16397.6	19621.3	21203.7	21464.8
65°	472.4	520.8	517.7	543.9	670.4	1290.7	4826.5	14196.3	17600.3	19562.7	21706.7
67.5°	454.6	480.8	495.5	525.2	685.1	1248.0	3895.1	11710.5	14791.7	17103.1	20445.4
70°	435.5	457.7	473.7	501.7	676.2	1228.9	3239.7	9234.8	11737.1	14017.4	17956.9
72.5°	410.7	429.8	444.4	470.6	667.3	1218.7	2736.7	7437.1	8762.9	10412.7	14599.9
75°	381.4	398.7	409.4	435.5	639.3	1116.2	2151.5	6293.0	6557.2	7243.6	11628.3
77.5°	347.6	361.0	369.4	398.7	566.1	928.4	1556.2	4854.5	5092.0	5259.0	8915.2
80°	308.1	321.0	325.4	353.4	469.3	725.9	1014.9	3585.6	3808.5	3846.7	5822.4
82.5°	262.4	275.7	275.7	301.9	384.0	522.1	666.0	2456.6	2500.5	2629.7	4115.3
85°	211.3	221.5	221.5	234.9	297.9	390.3	457.7	1233.4	1220.1	1393.2	3565.2
87.5°	151.0	158.5	165.6	168.7	212.7	258.0	275.7	375.6	247.7	284.6	2289.2
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):

	295°	305°	315°	325°	335°	345°	355°	360°
0°	9013.7	9013.7	9013.7	9013.7	9013.7	9013.7	9013.7	9013.7
2.5°	10354.1	10437.6	10352.3	10291.1	10025.6	9807.1	9515.0	9365.4
5°	11129.7	11342.4	11270.5	11012.5	10458.0	9834.6	9126.5	8806.8
7.5°	11036.1	11530.2	11541.8	11059.6	10242.7	9324.5	8365.5	7910.9
10°	10305.7	10937.5	11118.2	10650.2	9783.6	8757.1	7656.9	7137.9
12.5°	9490.1	10109.0	10247.1	10085.5	9361.4	8330.0	7214.3	6705.0
15°	8822.8	9100.3	9264.1	9405.3	8999.1	8159.9	7189.0	6630.4
17.5°	8416.6	8385.9	8433.0	8677.6	8746.4	8354.9	7570.3	6954.5
20°	8270.1	7799.4	7787.4	8124.9	8627.9	8820.1	8315.3	7576.1
22.5°	8350.9	7588.1	7491.3	7891.8	8690.9	9490.1	9292.1	8449.0
25°	8629.2	7605.9	7527.7	7915.3	8919.6	10204.5	10346.6	9578.0
27.5°	9067.9	7717.3	7614.3	8012.1	9223.3	10804.3	11385.0	10672.4
30°	9484.3	7910.9	7783.0	8202.6	9500.3	11041.8	12021.7	11525.8
32.5°	9990.5	8273.2	8048.5	8552.9	9843.5	11420.1	12589.1	12232.6
35°	10486.0	8789.1	8510.7	9094.1	10226.2	11891.2	13237.3	13136.1
37.5°	11030.3	9463.9	9233.5	9793.8	10750.1	12335.2	14064.5	14195.0
40°	11611.0	10358.5	10085.5	10814.5	11562.6	12892.8	14928.5	15241.9
42.5°	12196.2	11351.3	11025.8	11764.6	12455.5	13442.4	15667.2	16132.5
45°	12866.2	12429.3	12275.2	13074.4	13313.7	13966.3	16212.9	16791.0
47.5°	13646.7	13652.4	13900.2	14219.9	14179.0	14558.6	16761.7	17378.8
50°	14557.3	15178.9	15726.3	15938.5	15070.5	15195.3	17522.6	18166.4
52.5°	15651.3	17005.0	17682.5	17543.1	16031.3	15972.3	18728.0	19251.5
55°	17019.6	18938.1	19611.1	19511.2	17135.5	17031.1	20230.0	20535.1
57.5°	18603.3	20810.8	21429.7	20980.8	18461.2	18193.1	21472.3	21536.7
60°	19995.2	22295.0	22837.5	22340.3	19798.9	19429.1	22247.9	21935.4
62.5°	20769.5	22798.0	23179.4	22644.0	20715.3	20745.9	22418.0	21720.0
65°	20423.6	21526.5	21649.5	21605.5	20479.1	21510.0	21806.6	20724.2
67.5°	18528.7	18311.6	18518.5	18804.4	18455.4	20504.0	20112.4	18554.9
70°	15190.8	13998.3	14410.8	14602.6	14761.1	17644.3	17456.5	15113.1
72.5°	11448.1	9807.1	10132.6	10093.0	10826.1	14152.4	13576.1	11112.4
75°	8111.6	6649.5	6690.4	6674.4	7554.4	11072.5	9830.6	7602.7
77.5°	5675.4	4817.6	4839.8	4930.4	5078.7	8350.9	7023.4	5553.8
80°	3902.6	3656.2	3777.8	3785.4	3519.9	5609.7	5188.8	4457.1
82.5°	2906.8	2541.4	2512.1	2554.7	2758.5	4545.0	3987.4	3091.4
85°	2380.2	1504.7	1209.9	1516.6	2444.6	4501.1	2648.8	1630.7
87.5°	1340.4	714.4	322.8	598.5	975.4	2980.0	765.4	208.2
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)