

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: P298963

Luminaire Tested: **GLNA-AF-09-LED-E1-SLL-7027-800**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P298963  
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-09-LED-E1-SLL-7027-800  
Description: GALLEONAIRE AREA AND ROADWAY LUMINAIRE  
(9) 70 CRI, 2700K 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: 32717.9 lumens  
Efficiency: N/A  
Efficacy: 87.5 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): 374  
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

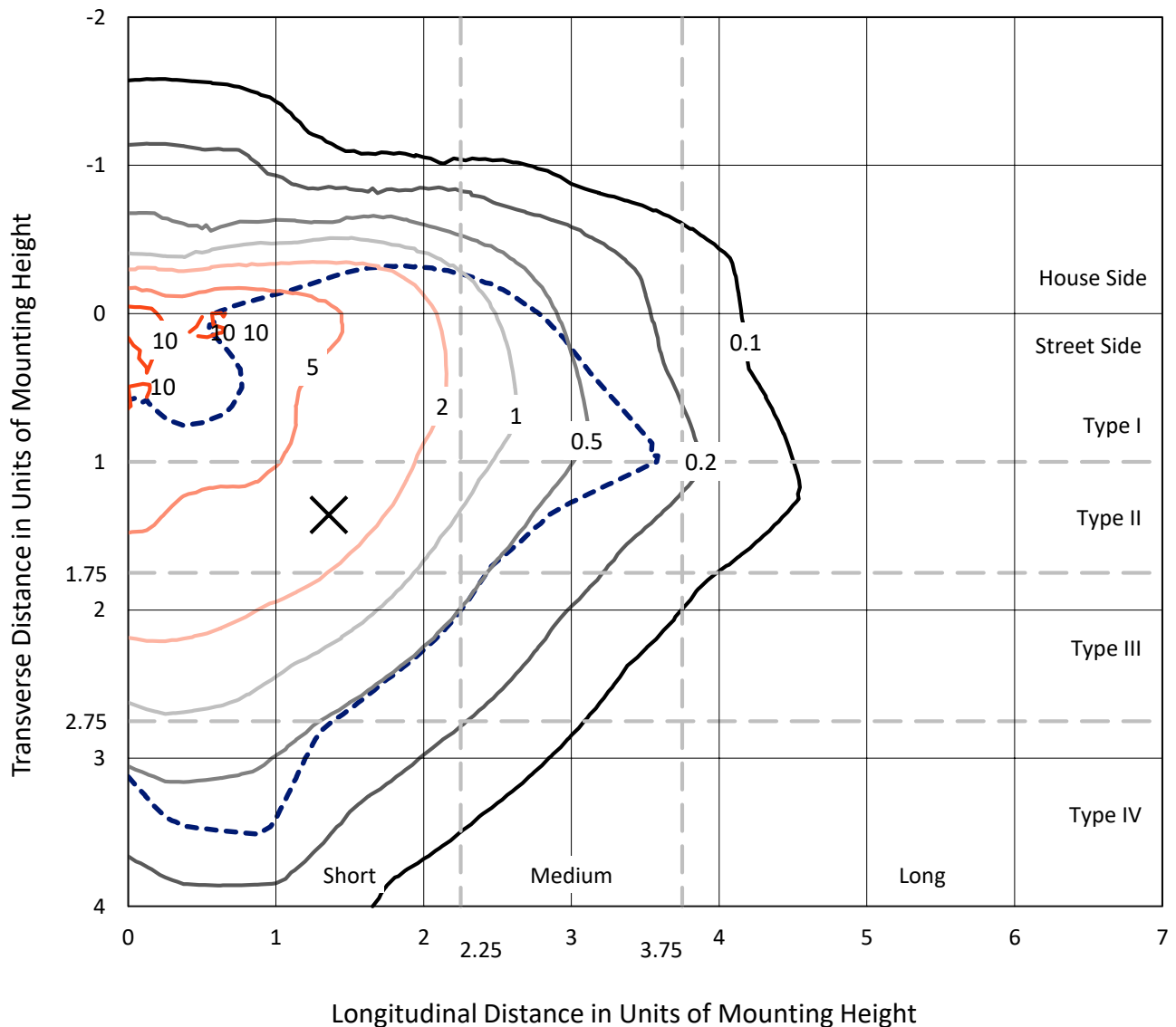


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### Iso-Footcandle Lines of Horizontal Illumination

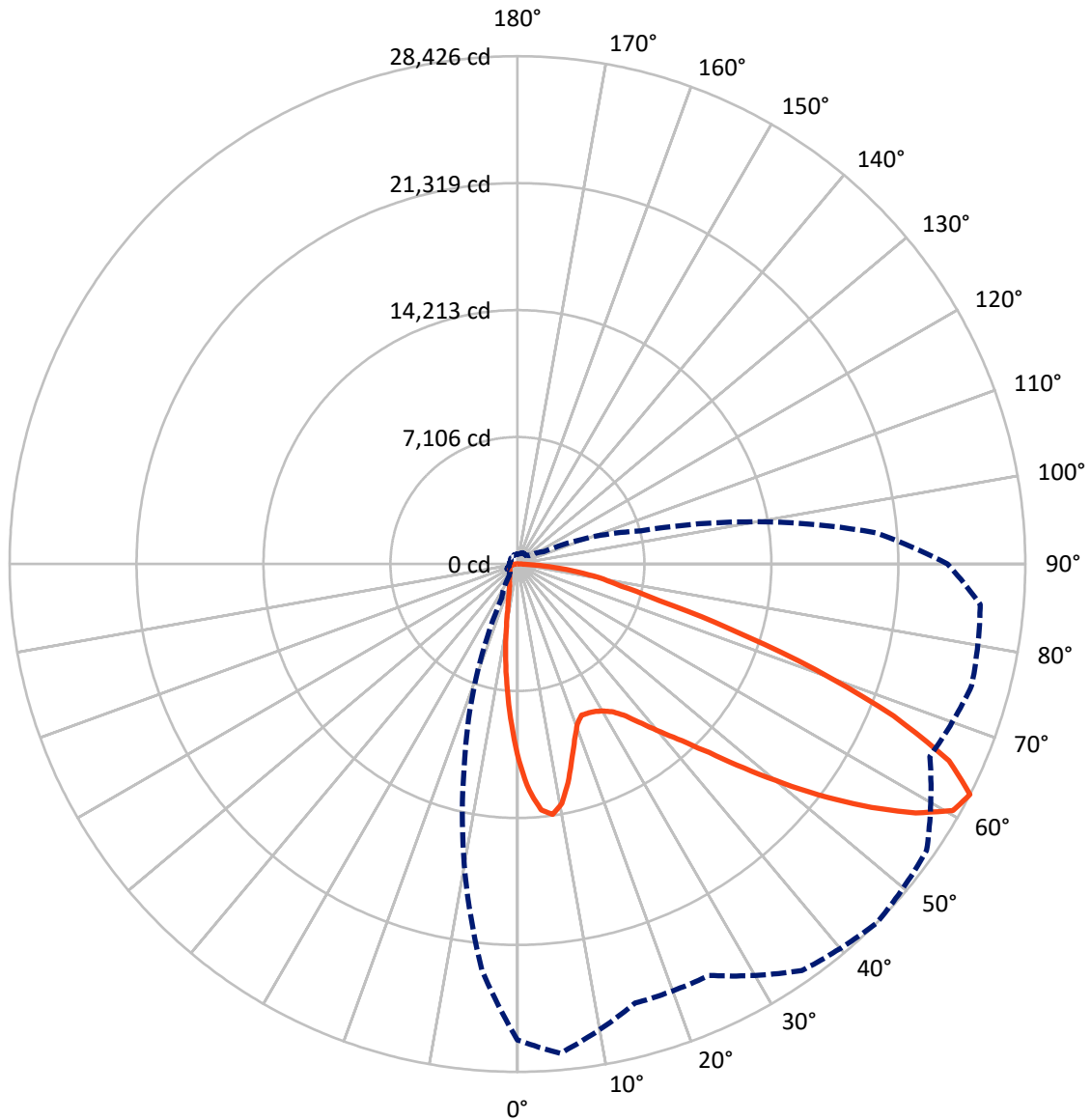
× Max cd  
 - - - 1/2 Max cd



Based on 30 foot mounting height. Maximum calculated value = 14.5 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
<b>House Side</b>	Lumens	5414.3	0.0	5414.3
	% Fixture	16.5	0.0	16.5
<b>Street Side</b>	Lumens	27303.5	0.0	27303.5
	% Fixture	83.5	0.0	83.5
<b>Total</b>	Lumens	32717.9	0.0	32717.9
	% Fixture	100.0	0.0	100.0

**Coefficient of Utilization**

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	804.7	2.5
10°-20°	1475.5	4.5
20°-30°	2151.4	6.6
30°-40°	3313.4	10.1
40°-50°	4876.4	14.9
50°-60°	7152.7	21.9
60°-70°	7995.7	24.4
70°-80°	3914.5	12.0
80°-90°	1033.5	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°	32717.9	100.0
0°-180°	32717.9	100.0



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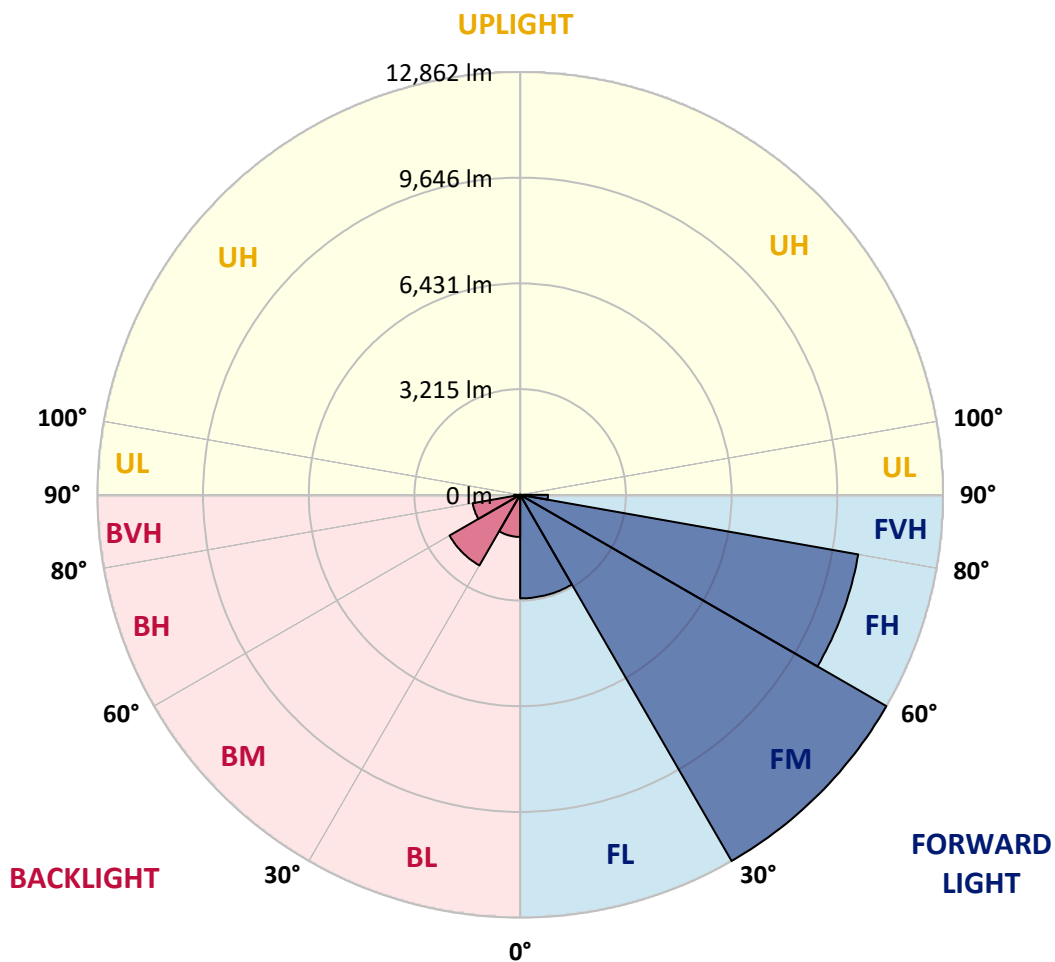
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	3150.6	9.6			
FM (30°-60°)	12861.7	39.3			
FH (60°-80°)	10442.4	31.9			G4/12000
FVH (80°-90°)	848.8	2.6			G5
BL (0°-30°)	1280.9	3.9	B3/2500		
BM (30°-60°)	2480.8	7.6	B2/2500		
BH (60°-80°)	1467.8	4.5	B3/2500		G3/2500
BVH (80°-90°)	184.8	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-G5**

Type IV Short





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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	15°	25°	35°	45°	55°	65°	75°	85°	90°
0°	11054.2	11054.2	11054.2	11054.2	11054.2	11054.2	11054.2	11054.2	11054.2	11054.2	11054.2
2.5°	11485.1	11669.0	12026.9	12294.3	12620.7	12696.0	12800.6	12697.8	12516.2	12275.1	12196.3
5°	10800.2	11192.6	12060.8	12825.7	13505.3	13821.7	13910.5	13648.9	13122.3	12429.8	12007.1
7.5°	9701.4	10259.0	11434.9	12561.2	13562.5	14154.5	14139.9	13533.9	12564.7	11436.7	10758.8
10°	8753.2	9390.2	10739.5	11998.3	13061.0	13634.9	13413.0	12638.8	11481.6	10183.1	9448.0
12.5°	8223.1	8847.2	10215.8	11479.9	12368.5	12566.4	12397.1	11638.1	10548.0	9235.5	8591.5
15°	8130.8	8816.9	10007.4	11036.1	11534.2	11361.9	11159.9	10820.1	10050.0	8929.6	8258.7
17.5°	8529.0	9284.0	10246.7	10726.7	10642.0	10341.3	10284.1	10322.1	10137.0	9269.4	8496.3
20°	9291.6	10197.7	10816.6	10581.3	9964.2	9550.2	9564.8	10142.2	10690.5	10131.1	9247.8
22.5°	10361.2	11395.8	11638.1	10658.4	9678.1	9187.0	9306.2	10241.5	11573.9	11390.5	10262.5
25°	11746.1	12689.0	12514.5	10938.6	9706.7	9232.0	9327.2	10583.1	12616.6	12649.3	11518.4
27.5°	13087.8	13962.4	13249.5	11311.1	9825.8	9338.3	9464.4	11120.2	13613.3	14016.2	12953.5
30°	14134.7	14743.1	13540.9	11650.9	10059.3	9544.9	9701.4	11631.1	14066.9	14938.7	14057.6
32.5°	15001.7	15438.4	14005.1	12071.9	10489.1	9870.2	10145.7	12251.7	14719.7	15816.8	15138.3
35°	16109.3	16233.7	14582.5	12541.3	11152.9	10437.1	10778.6	12859.5	15342.1	16703.1	16203.3
37.5°	17408.4	17248.4	15127.2	13183.6	12011.2	11323.4	11606.0	13526.9	15854.1	17708.5	17291.0
40°	18692.3	18306.9	15811.5	14179.6	13263.0	12368.5	12703.1	14239.2	16332.9	18715.6	18354.2
42.5°	19784.1	19213.7	16485.3	15275.0	14427.8	13521.6	13921.0	14956.8	16789.5	19575.1	19276.7
45°	20591.6	19882.8	17127.5	16327.1	16034.0	15053.7	15242.8	15778.2	17284.0	20293.2	20035.8
47.5°	21312.7	20555.4	17853.9	17388.5	17438.7	17046.4	16742.2	16735.2	17867.3	20879.4	20753.3
50°	22278.4	21489.0	18634.5	18481.5	19546.5	19285.5	18614.6	17852.1	18604.1	21545.0	21530.4
52.5°	23609.6	22967.9	19587.9	19659.7	21514.7	21685.2	20853.7	19194.4	19758.4	22765.9	22680.1
55°	25183.6	24808.8	20887.0	21014.3	23927.8	24050.4	23224.2	20871.8	21456.9	24534.4	24295.0
57.5°	26411.5	26332.7	22311.1	22640.4	25730.1	26280.7	25521.7	22814.9	23370.2	26023.2	25422.4
60°	26900.8	27283.8	23827.3	24280.4	27397.6	28006.6	27341.6	24521.0	25066.3	26640.4	25345.4
62.5°	26636.9	27492.2	25442.3	25404.3	27769.6	28425.8	27958.2	25470.9	26323.9	26003.4	24063.2
65°	25415.4	26742.6	26379.4	25114.8	26496.2	26549.9	26398.7	25046.4	26620.5	23990.8	21584.2
67.5°	22754.8	24665.2	25145.1	22633.3	23060.7	22710.4	22456.4	22722.7	25073.3	20974.6	18140.0
70°	18534.1	21408.4	21637.9	18102.6	17908.2	17672.3	17167.2	18629.2	22021.5	17190.6	14393.9
72.5°	13627.9	16649.4	17355.8	13277.0	12377.8	12425.7	12026.9	14038.9	17904.7	12769.6	10746.5
75°	9323.7	12055.5	13579.4	9264.1	8185.7	8205.0	8154.2	9947.8	14260.8	8882.9	8041.5
77.5°	6811.3	8613.1	10241.5	6228.0	6046.5	5934.9	5908.1	6960.2	10933.4	6449.9	6244.4
80°	5465.5	6363.5	6879.0	4316.5	4641.7	4632.9	4483.5	4785.9	7140.0	4717.6	4670.3
82.5°	3791.6	4890.4	5573.5	3382.9	3133.0	3080.4	3117.2	3564.5	5046.9	3224.7	3066.4
85°	2000.3	3248.0	5519.8	2998.1	1859.6	1483.6	1845.6	2918.7	4372.5	1709.0	1495.9
87.5°	255.7	938.8	3654.4	1196.3	733.9	395.3	876.4	1643.6	2807.8	348.6	304.2
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):**

	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°	185°
0°	11054.2	11054.2	11054.2	11054.2	11054.2	11054.2	11054.2	11054.2	11054.2	11054.2	11054.2
2.5°	11993.1	11753.7	11440.7	11150.6	10850.5	10551.5	10161.5	9916.9	9748.1	9715.4	9644.2
5°	11701.7	10906.5	10305.7	9786.1	9314.9	8648.7	8280.3	7974.4	7810.9	7795.1	7755.4
7.5°	10357.7	9260.6	8449.6	7714.0	7046.6	6508.9	5915.1	5638.9	5525.1	5551.9	5578.8
10°	8959.9	7733.8	6802.0	6050.0	5462.0	5008.9	4532.5	4210.8	3987.2	3942.2	3933.5
12.5°	7938.7	6593.5	5689.1	5157.8	4703.6	4276.8	3771.7	3391.6	3102.6	3003.4	2937.4
15°	7506.7	6035.9	5088.3	4516.2	4014.0	3472.8	3003.4	2605.8	2340.1	2253.7	2205.2
17.5°	7598.9	5881.2	4674.4	3942.2	3300.6	2735.4	2143.9	1803.5	1643.6	1602.7	1602.7
20°	8081.2	5852.6	4332.2	3413.8	2612.8	1958.3	1473.1	1278.7	1226.7	1221.4	1235.4
22.5°	8757.3	5953.6	4077.7	2955.5	2030.7	1429.9	1147.3	1075.5	1052.1	1058.0	1073.7
25°	9764.5	6293.4	3892.6	2546.8	1593.4	1170.6	1022.9	980.3	969.2	983.8	1003.7
27.5°	10958.5	6633.2	3777.0	2239.1	1345.2	1070.2	972.7	928.3	935.3	953.4	971.0
30°	12007.1	6912.3	3595.4	2020.2	1268.1	1075.5	972.7	912.0	905.0	908.5	913.7
32.5°	12948.3	7100.9	3382.9	1811.1	1093.6	955.2	908.5	899.7	859.4	844.8	847.2
35°	13759.3	7100.9	3255.6	1689.1	980.3	847.2	771.9	726.9	706.5	708.2	728.7
37.5°	14541.6	6958.4	3192.5	1620.2	919.0	805.7	739.2	699.5	672.6	667.4	670.9
40°	15231.7	6751.8	3120.7	1591.6	872.3	780.6	718.1	684.9	656.3	647.5	649.3
42.5°	15785.8	6584.2	3041.3	1554.2	843.1	762.5	703.0	674.4	642.2	632.9	631.2
45°	16384.9	6528.7	2937.4	1478.3	857.7	764.3	699.5	669.1	636.4	625.9	622.4
47.5°	17174.3	6703.3	2829.4	1388.4	888.6	773.6	704.7	669.1	634.7	625.9	622.4
50°	18168.6	7113.2	2692.2	1257.1	857.7	798.7	703.0	663.3	634.7	625.9	618.9
52.5°	19446.1	7667.3	2512.9	1106.4	839.6	859.4	699.5	652.8	625.9	613.6	600.8
55°	20998.0	8120.3	2298.1	982.1	798.7	843.1	694.2	640.5	611.9	593.8	582.7
57.5°	22134.7	8283.8	2023.7	901.5	740.9	816.2	686.6	624.1	593.8	579.2	565.2
60°	21909.9	7967.4	1791.3	850.7	706.5	737.4	681.4	609.6	577.4	566.9	553.5
62.5°	20109.9	7140.0	1641.8	827.3	684.9	672.6	686.6	595.5	563.4	551.7	548.2
65°	17410.1	5918.6	1582.8	822.1	667.4	634.7	638.7	579.2	546.5	537.7	534.2
67.5°	14361.2	4777.1	1530.9	839.6	644.0	607.8	590.3	557.6	530.1	521.4	514.4
70°	11325.1	3973.2	1506.9	829.1	615.4	580.9	561.7	534.2	510.9	501.5	496.3
72.5°	9119.9	3356.0	1494.1	818.0	577.4	544.7	526.6	503.3	478.2	474.7	469.4
75°	7718.1	2638.5	1369.2	784.1	534.2	501.5	489.3	467.7	442.6	442.6	439.1
77.5°	5953.6	1908.1	1138.5	694.2	489.3	453.1	442.6	426.2	397.6	402.9	401.1
80°	4397.6	1244.8	890.4	575.7	433.8	399.4	393.5	377.8	346.8	354.4	354.4
82.5°	3012.7	816.2	640.5	471.2	370.2	338.1	338.1	321.7	287.8	291.3	302.4
85°	1512.8	561.7	478.2	364.9	287.8	271.5	271.5	259.2	224.8	226.5	241.1
87.5°	460.7	338.1	316.5	261.0	206.7	203.2	193.8	185.1	163.5	161.7	171.1
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):**

	195°	205°	215°	225°	235°	245°	255°	265°	270°	275°	285°
0°	11054.2	11054.2	11054.2	11054.2	11054.2	11054.2	11054.2	11054.2	11054.2	11054.2	11054.2
2.5°	9533.9	9431.1	9307.9	9034.1	8942.4	8936.6	9020.1	8933.1	9098.9	9028.8	9105.9
5°	7688.3	7588.4	7449.5	7100.9	6888.4	6744.2	6676.4	6475.0	6620.4	6514.1	6602.9
7.5°	5654.7	5678.0	5586.4	5381.4	4919.0	4687.2	4550.6	4428.0	4534.3	4523.2	4692.5
10°	3974.9	4037.4	3973.2	3766.5	3391.6	3264.4	3289.5	3337.9	3476.9	3548.1	3809.1
12.5°	2861.5	2858.0	2816.5	2631.5	2385.1	2399.1	2501.8	2585.9	2713.8	2789.7	3055.3
15°	2136.3	2104.2	2086.1	1934.9	1794.8	1825.7	1875.9	1884.7	1965.9	2010.8	2226.8
17.5°	1615.0	1631.3	1650.6	1543.1	1436.9	1417.0	1377.9	1328.9	1352.8	1361.6	1469.0
20°	1282.2	1347.0	1396.0	1320.1	1212.7	1154.3	1104.1	1072.0	1072.0	1070.2	1100.6
22.5°	1120.4	1167.1	1219.7	1167.1	1070.2	1019.4	990.8	965.7	962.2	962.2	990.8
25°	1032.8	1066.7	1116.9	1081.3	1008.9	971.0	944.1	912.0	899.7	895.6	915.5
27.5°	989.1	1003.7	1028.8	996.1	935.3	917.2	910.2	881.6	864.7	855.9	876.4
30°	915.5	912.0	913.7	881.6	832.6	830.8	843.1	848.9	843.1	841.3	872.3
32.5°	847.2	839.6	837.8	809.2	764.3	753.8	764.3	775.4	787.6	805.7	841.3
35°	760.8	778.9	789.4	764.3	710.0	677.9	665.6	645.7	634.7	634.7	676.1
37.5°	692.5	733.9	750.3	726.9	667.4	622.4	600.8	597.3	599.0	606.0	645.7
40°	669.1	699.5	713.5	690.7	631.2	590.3	577.4	573.9	577.4	588.5	627.6
42.5°	654.5	676.1	674.4	645.7	597.3	568.7	561.7	557.6	561.7	572.2	615.4
45°	642.2	656.3	642.2	607.8	563.4	548.2	550.0	548.2	551.7	563.4	604.3
47.5°	631.2	636.4	618.9	584.4	537.7	534.2	541.2	546.5	550.0	559.9	602.5
50°	615.4	615.4	599.0	563.4	516.1	517.9	526.6	539.5	541.2	551.7	586.8
52.5°	595.5	593.8	582.7	548.2	498.0	503.3	503.3	517.9	521.4	534.2	570.4
55°	579.2	575.7	570.4	537.7	482.3	491.0	485.8	491.0	499.8	512.6	551.7
57.5°	565.2	557.6	557.6	528.4	469.4	472.9	460.7	467.7	478.2	489.3	530.1
60°	550.0	543.0	546.5	516.1	449.6	446.1	440.8	454.8	458.9	471.2	512.6
62.5°	534.2	528.4	530.1	501.5	435.6	426.2	426.2	439.1	440.8	458.9	498.0
65°	521.4	514.4	512.6	487.5	419.2	408.7	414.0	419.2	422.7	440.8	478.2
67.5°	509.1	494.5	494.5	474.7	401.1	390.0	401.1	399.4	405.2	421.0	451.3
70°	492.8	472.9	474.7	465.9	383.0	370.2	379.5	377.8	381.3	391.8	422.7
72.5°	467.7	451.3	454.8	451.3	364.9	346.8	350.3	350.3	350.3	359.7	391.8
75°	435.6	422.7	433.8	442.6	343.3	318.2	321.7	321.7	316.5	321.7	361.4
77.5°	395.3	388.3	424.5	412.2	318.2	287.8	287.8	284.3	273.8	280.8	323.5
80°	352.7	346.8	391.8	345.1	289.6	250.5	246.4	237.0	226.5	231.8	275.6
82.5°	307.7	302.4	329.3	264.5	250.5	206.7	197.9	181.6	171.1	176.3	215.4
85°	252.2	252.2	254.0	199.7	190.3	158.2	147.7	126.1	113.3	116.8	154.7
87.5°	179.8	185.1	171.1	136.6	113.3	88.2	81.2	68.3	57.2	66.6	81.2
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°	11054.2	11054.2	11054.2	11054.2	11054.2	11054.2	11054.2	11054.2
2.5°	9501.7	9699.7	9924.5	10211.7	10458.7	10862.7	11251.6	11485.1
5°	7104.4	7433.7	7843.0	8370.8	8861.8	9598.7	10330.8	10800.2
7.5°	5084.3	5436.9	5879.5	6537.5	7232.3	8172.3	9140.3	9701.4
10°	4207.3	4568.7	4940.6	5384.9	5953.6	6976.5	8120.3	8753.2
12.5°	3480.4	3866.9	4268.0	4735.7	5262.3	6176.1	7494.4	8223.1
15°	2663.6	3095.0	3568.0	4160.0	4819.8	5876.0	7339.7	8130.8
17.5°	1825.7	2308.0	2888.4	3618.8	4426.2	5778.5	7617.0	8529.0
20°	1257.1	1608.0	2228.6	3084.5	4056.1	5766.2	8148.9	9291.6
22.5°	1052.1	1208.6	1661.7	2593.5	3777.0	5920.9	8975.1	10361.2
25°	972.7	1066.7	1327.1	2167.3	3573.8	6277.1	10111.9	11746.1
27.5°	926.6	1010.7	1205.1	1888.8	3413.8	6690.5	11217.7	13087.8
30°	944.1	1030.5	1170.6	1746.3	3196.1	7035.5	12199.8	14134.7
32.5°	850.7	888.6	1003.7	1620.2	3039.6	7325.1	13059.2	15001.7
35°	725.2	791.1	895.6	1561.2	3043.1	7519.5	13996.3	16109.3
37.5°	690.7	757.3	832.6	1539.6	3084.5	7726.8	15071.8	17408.4
40°	669.1	730.4	795.2	1527.4	3124.2	7915.4	16126.2	18692.3
42.5°	654.5	710.0	791.1	1483.6	3144.1	8084.7	16992.7	19784.1
45°	652.8	710.0	805.7	1440.4	3174.4	8266.3	17719.6	20591.6
47.5°	654.5	733.9	778.9	1388.4	3174.4	8569.9	18572.0	21312.7
50°	647.5	773.6	750.3	1314.9	3100.9	9145.6	19740.9	22278.4
52.5°	644.0	768.4	694.2	1201.6	2973.0	10059.3	21239.1	23609.6
55°	634.7	740.9	654.5	1032.8	2824.1	11056.0	22843.5	25183.6
57.5°	625.9	656.3	632.9	885.1	2593.5	11757.2	23947.6	26411.5
60°	701.2	573.9	615.4	812.7	2285.8	11949.3	23905.0	26900.8
62.5°	649.3	537.7	592.0	797.0	2070.4	11409.8	22800.3	26636.9
65°	509.1	514.4	568.7	843.1	2012.6	9980.5	20843.2	25415.4
67.5°	465.9	491.0	544.7	903.2	2018.4	7990.7	17919.3	22754.8
70°	439.1	465.9	517.9	933.6	2032.4	5957.1	14166.8	18534.1
72.5°	408.7	432.1	487.5	938.8	1938.4	4327.0	10919.4	13627.9
75°	371.9	393.5	444.3	818.0	1606.2	3001.6	8352.7	9323.7
77.5°	331.0	346.8	390.0	631.2	1192.8	1920.9	6269.5	6811.3
80°	282.6	291.3	327.5	462.4	816.2	1201.6	4960.5	5465.5
82.5°	226.5	230.0	254.0	346.8	530.1	771.9	3322.2	3791.6
85°	160.0	160.0	174.6	252.2	361.4	489.3	1803.5	2000.3
87.5°	75.3	77.1	77.1	138.4	188.6	248.7	415.7	255.7
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)