

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: P298889

Luminaire Tested: **GLNA-AF-06-LED-E1-SLL-7050**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P298889
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-06-LED-E1-SLL-7050
Description: GALLEONNAIRE AREA AND ROADWAY LUMINAIRE
(6) 70 CRI, 5000K CCT 1050mA LIGHTSQUARE WITH 16 LEDS EACH AND 90° Spill
Light Eliminator Left OPTICS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 31184.5 lumens
Efficiency: N/A
Efficacy: 93.6 lumens/watt
Luminous Opening: Rectangular (W 1.5' x L: 1' x H: 0')
IES Classification: Type IV - Short - Non-Cutoff
BUG Rating: B3 - U0 - G5

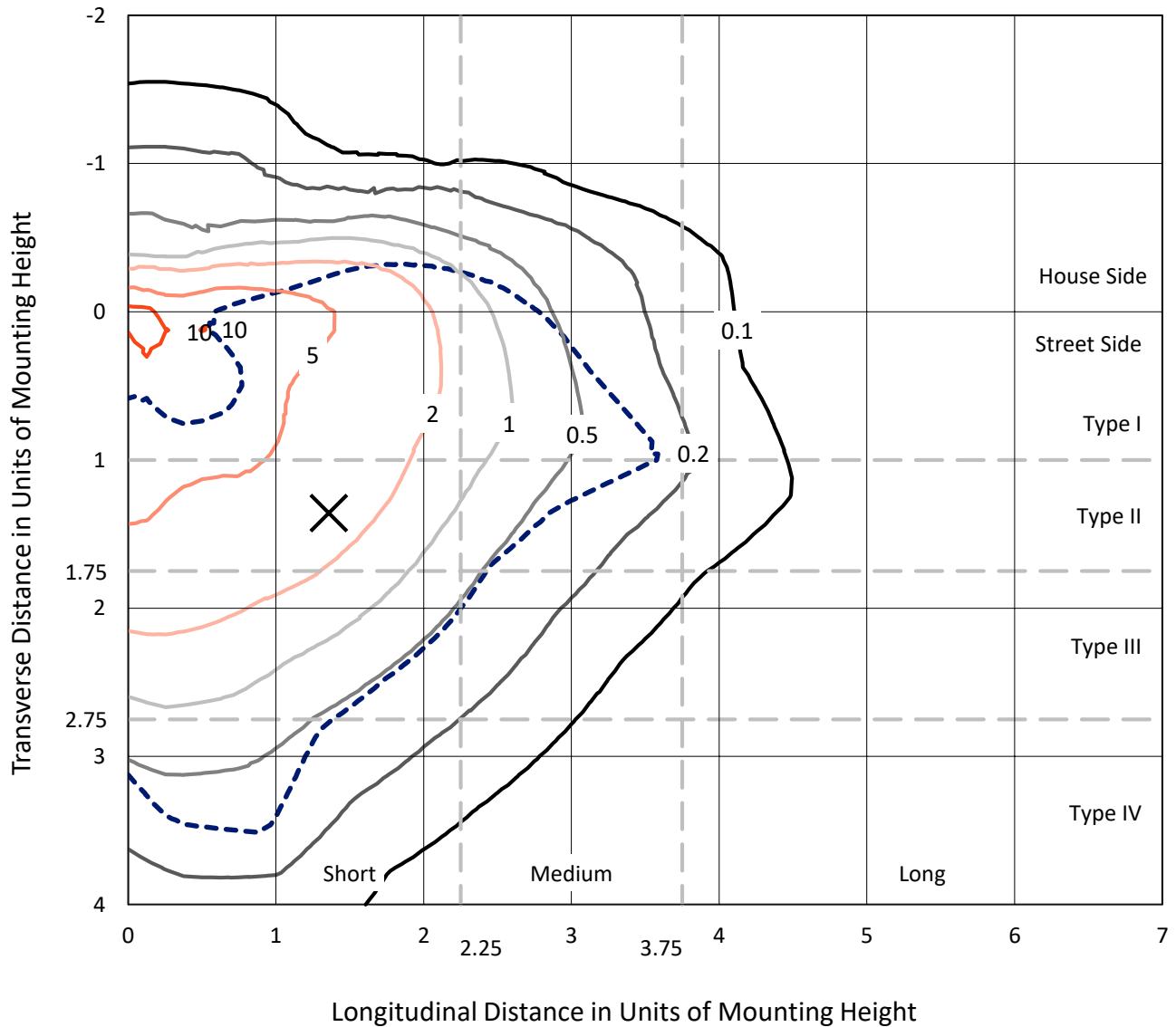
Input Watts (W): 333
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Iso-Footcandle Lines of Horizontal Illumination

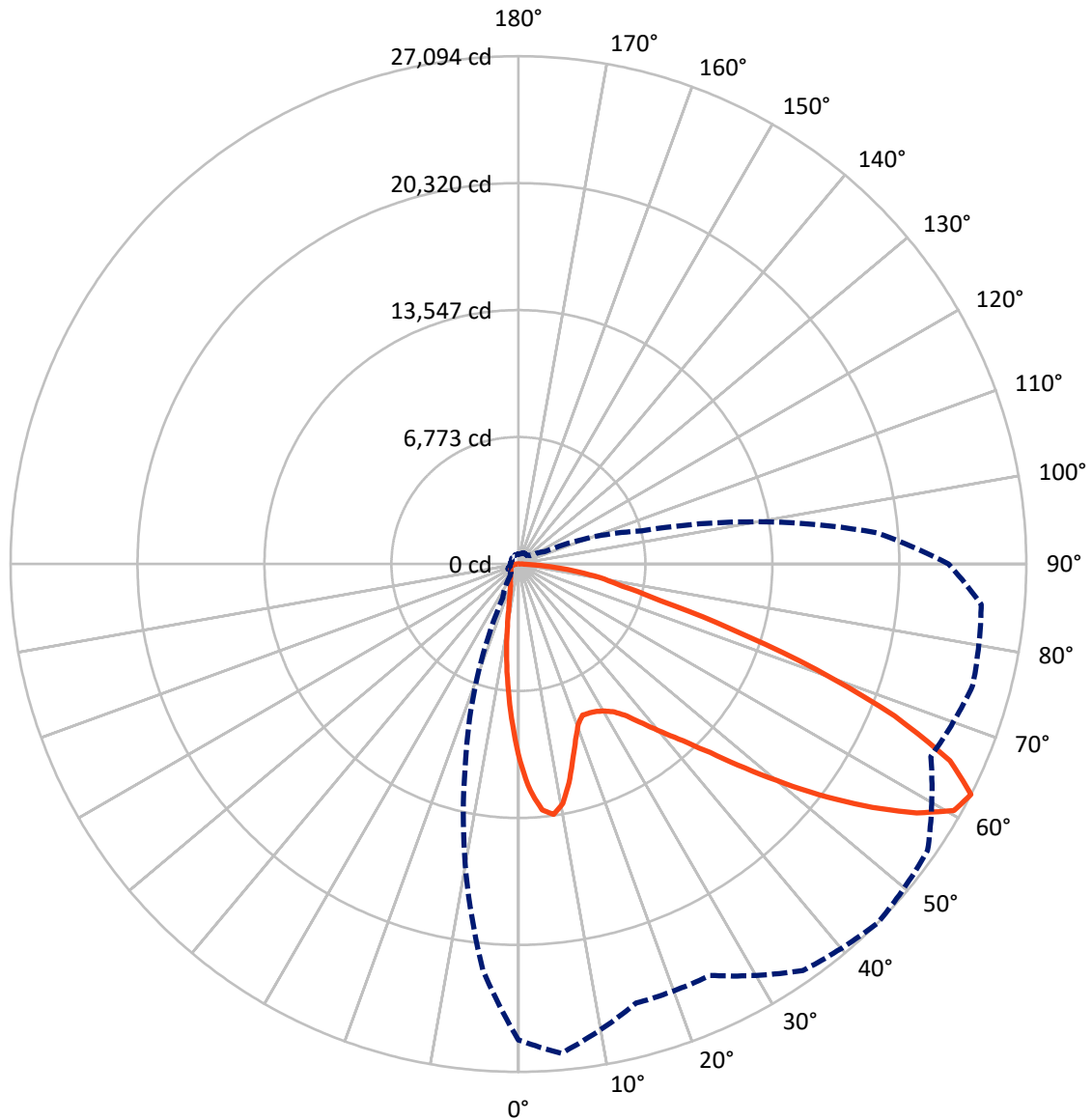
✕ Max cd
 - - - 1/2 Max cd



Based on 30 foot mounting height. Maximum calculated value = 13.8 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	5160.6	0.0	5160.6
	% Fixture	16.5	0.0	16.5
Street Side	Lumens	26023.9	0.0	26023.9
	% Fixture	83.5	0.0	83.5
Total	Lumens	31184.5	0.0	31184.5
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	767.0	2.5
10°-20°	1406.4	4.5
20°-30°	2050.5	6.6
30°-40°	3158.1	10.1
40°-50°	4647.9	14.9
50°-60°	6817.5	21.9
60°-70°	7620.9	24.4
70°-80°	3731.1	12.0
80°-90°	985.1	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°	31184.5	100.0
0°-180°	31184.5	100.0



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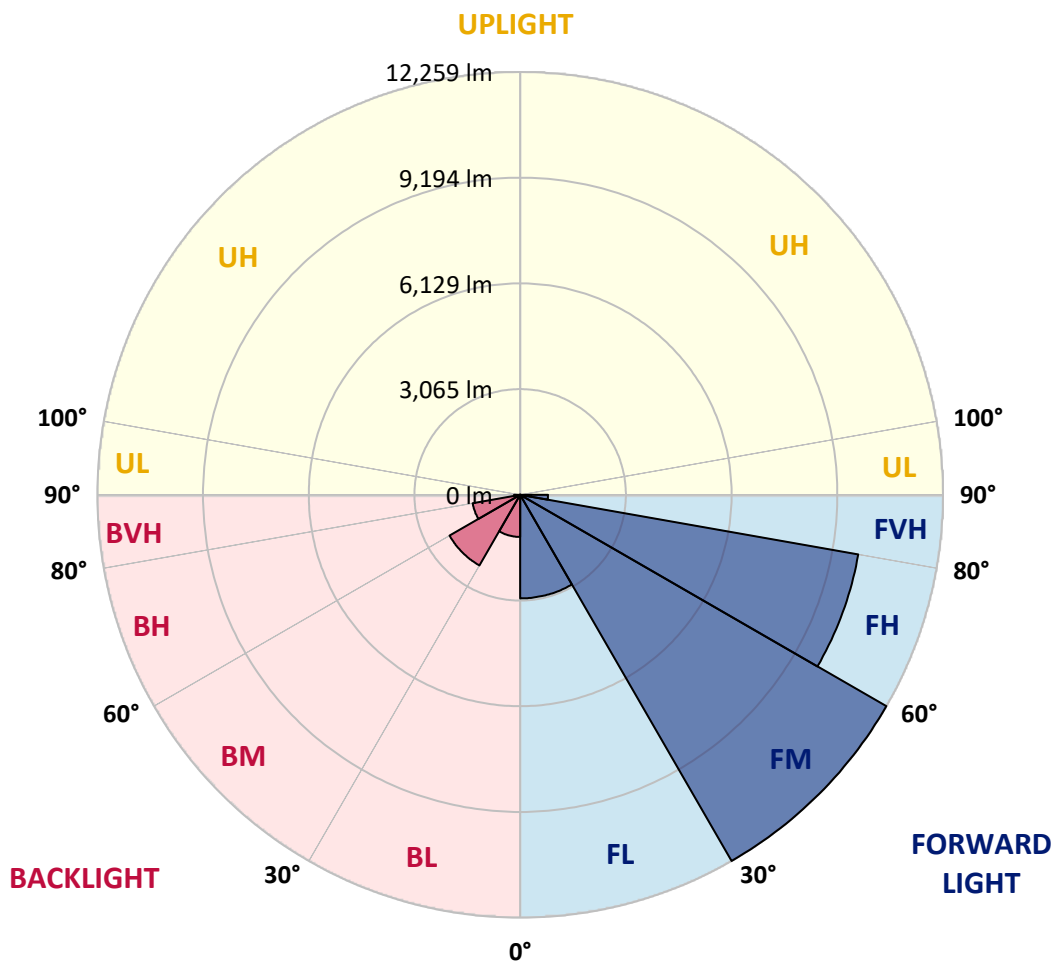
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	3003.0	9.6			
FM	(30°-60°)	12258.9	39.3			
FH	(60°-80°)	9953.0	31.9			G4/12000
FVH	(80°-90°)	809.0	2.6			G5
BL	(0°-30°)	1220.9	3.9	B3/2500		
BM	(30°-60°)	2364.6	7.6	B2/2500		
BH	(60°-80°)	1399.0	4.5	B3/2500		G3/2500
BVH	(80°-90°)	176.1	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°	10536.2	10536.2	10536.2	10536.2	10536.2	10536.2	10536.2	10536.2	10536.2	10536.2	10536.2
2.5°	10946.9	11122.1	11463.3	11718.2	12029.2	12101.0	12200.6	12102.7	11929.6	11699.8	11624.7
5°	10294.1	10668.0	11495.6	12224.6	12872.3	13174.0	13258.5	13009.2	12507.3	11847.3	11444.4
7.5°	9246.8	9778.2	10899.0	11972.5	12926.9	13491.2	13477.2	12899.6	11975.8	10900.7	10254.6
10°	8343.0	8950.1	10236.2	11436.0	12448.8	12995.9	12784.4	12046.5	10943.5	9705.9	9005.2
12.5°	7837.7	8432.6	9737.0	10941.8	11788.8	11977.5	11816.1	11092.7	10053.7	8802.7	8188.9
15°	7749.8	8403.7	9538.4	10518.9	10993.6	10829.4	10636.9	10313.0	9579.0	8511.1	7871.7
17.5°	8129.3	8848.9	9766.5	10224.0	10143.3	9856.7	9802.1	9838.3	9661.9	8834.9	8098.1
20°	8856.1	9719.8	10309.7	10085.4	9497.2	9102.6	9116.5	9666.9	10189.5	9656.3	8814.4
22.5°	9875.6	10861.7	11092.7	10158.9	9224.5	8756.5	8870.0	9761.5	11031.4	10856.7	9781.5
25°	11195.6	12094.4	11928.0	10426.0	9251.8	8799.3	8890.0	10087.1	12025.3	12056.5	10978.6
27.5°	12474.4	13308.1	12628.6	10781.0	9365.3	8900.6	9020.8	10599.0	12975.3	13359.3	12346.4
30°	13472.2	14052.1	12906.3	11104.9	9587.9	9097.6	9246.8	11086.0	13407.7	14238.5	13398.8
32.5°	14298.6	14714.9	13348.7	11506.1	9997.5	9407.6	9670.2	11677.5	14029.8	15075.5	14428.9
35°	15354.3	15472.8	13899.1	11953.6	10630.2	9947.9	10273.5	12256.8	14623.1	15920.3	15443.9
37.5°	16592.5	16440.0	14418.3	12565.7	11448.3	10792.7	11062.0	12892.9	15111.1	16878.6	16480.7
40°	17816.3	17449.0	15070.5	13515.1	12641.4	11788.8	12107.7	13571.8	15567.4	17838.5	17494.0
42.5°	18856.9	18313.2	15712.7	14559.1	13751.6	12887.9	13268.6	14255.8	16002.6	18657.7	18373.3
45°	19626.5	18951.0	16324.8	15561.9	15282.5	14348.2	14528.5	15038.8	16474.0	19342.2	19096.8
47.5°	20313.8	19592.0	17017.1	16573.6	16621.5	16247.5	15957.6	15950.9	17029.9	19900.9	19780.7
50°	21234.3	20481.9	17761.2	17615.4	18630.4	18381.7	17742.2	17015.5	17732.2	20535.3	20521.4
52.5°	22503.1	21891.5	18669.9	18738.4	20506.4	20668.9	19876.4	18294.8	18832.4	21698.9	21617.1
55°	24003.4	23646.1	19908.1	20029.4	22806.4	22923.2	22135.8	19893.7	20451.3	23384.6	23156.4
57.5°	25173.7	25098.6	21265.4	21579.3	24524.3	25049.0	24325.6	21745.7	22274.9	24803.6	24231.0
60°	25640.0	26005.1	22710.6	23142.5	26113.6	26694.1	26060.2	23371.8	23891.5	25391.8	24157.5
62.5°	25388.5	26203.8	24249.9	24213.7	26468.1	27093.6	26647.9	24277.2	25090.2	24784.7	22935.5
65°	24224.3	25489.2	25143.1	23937.7	25254.4	25305.6	25161.5	23872.6	25372.9	22866.5	20572.6
67.5°	21688.4	23509.2	23966.7	21572.6	21980.0	21646.1	21404.0	21657.8	23898.2	19991.6	17289.8
70°	17665.4	20405.1	20623.8	17254.2	17068.9	16844.1	16362.7	17756.2	20989.4	16384.9	13719.3
72.5°	12989.2	15869.1	16542.4	12654.7	11797.7	11843.4	11463.3	13381.0	17065.5	12171.1	10242.9
75°	8886.7	11490.6	12943.0	8829.9	7802.1	7820.5	7772.0	9481.6	13592.4	8466.5	7664.6
77.5°	6492.1	8209.4	9761.5	5936.2	5763.1	5656.8	5631.2	6634.0	10421.0	6147.6	5951.7
80°	5209.4	6065.3	6556.6	4114.2	4424.2	4415.8	4273.3	4561.6	6805.4	4496.5	4451.4
82.5°	3613.9	4661.2	5312.3	3224.3	2986.2	2936.1	2971.1	3397.4	4810.4	3073.5	2922.7
85°	1906.6	3095.8	5261.1	2857.6	1772.4	1414.1	1759.1	2781.9	4167.6	1628.9	1425.7
87.5°	243.7	894.8	3483.1	1140.3	699.5	376.7	835.3	1566.5	2676.2	332.2	289.9
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°	10536.2	10536.2	10536.2	10536.2	10536.2	10536.2	10536.2	10536.2	10536.2	10536.2	10536.2
2.5°	11431.0	11202.8	10904.6	10628.0	10341.9	10057.0	9685.3	9452.1	9291.3	9260.1	9192.2
5°	11153.3	10395.4	9822.7	9327.4	8878.4	8243.4	7892.2	7600.6	7444.8	7429.8	7392.0
7.5°	9872.3	8826.6	8053.6	7352.4	6716.4	6203.8	5637.9	5374.6	5266.1	5291.7	5317.3
10°	8540.0	7371.4	6483.2	5766.4	5206.0	4774.2	4320.1	4013.5	3800.3	3757.5	3749.1
12.5°	7566.7	6284.5	5422.5	4916.1	4483.1	4076.3	3595.0	3232.7	2957.2	2862.6	2799.7
15°	7154.9	5753.1	4849.9	4304.5	3825.9	3310.0	2862.6	2483.6	2230.4	2148.1	2101.9
17.5°	7242.8	5605.6	4455.3	3757.5	3145.9	2607.2	2043.5	1719.0	1566.5	1527.6	1527.6
20°	7702.5	5578.3	4129.2	3253.8	2490.3	1866.5	1404.0	1218.7	1169.2	1164.2	1177.5
22.5°	8346.9	5674.6	3886.6	2817.0	1935.5	1362.9	1093.5	1025.1	1002.8	1008.4	1023.4
25°	9306.9	5998.5	3710.2	2427.4	1518.7	1115.8	975.0	934.4	923.8	937.7	956.6
27.5°	10444.9	6322.4	3600.0	2134.2	1282.2	1020.1	927.1	884.8	891.5	908.8	925.5
30°	11444.4	6588.4	3426.9	1925.5	1208.7	1025.1	927.1	869.2	862.6	865.9	870.9
32.5°	12341.4	6768.1	3224.3	1726.3	1042.3	910.4	865.9	857.6	819.2	805.3	807.5
35°	13114.4	6768.1	3103.0	1609.9	934.4	807.5	735.7	692.8	673.4	675.0	694.5
37.5°	13860.1	6632.3	3042.9	1544.3	875.9	768.0	704.5	666.7	641.1	636.1	639.4
40°	14517.9	6435.3	2974.5	1517.0	831.4	744.0	684.5	652.8	625.5	617.2	618.8
42.5°	15046.0	6275.6	2898.8	1481.4	803.6	726.8	670.0	642.8	612.1	603.2	601.6
45°	15617.0	6222.7	2799.7	1409.1	817.5	728.5	666.7	637.7	606.6	596.6	593.2
47.5°	16369.4	6389.1	2696.8	1323.3	847.0	737.4	671.7	637.7	604.9	596.6	593.2
50°	17317.1	6779.8	2566.0	1198.1	817.5	761.3	670.0	632.2	604.9	596.6	589.9
52.5°	18534.7	7307.9	2395.2	1054.6	800.2	819.2	666.7	622.2	596.6	584.9	572.6
55°	20013.9	7739.8	2190.4	936.0	761.3	803.6	661.7	610.5	583.2	566.0	555.4
57.5°	21097.4	7895.6	1928.8	859.2	706.2	778.0	654.4	594.9	566.0	552.0	538.7
60°	20883.1	7594.0	1707.3	810.8	673.4	702.9	649.4	581.0	550.4	540.4	527.6
62.5°	19167.4	6805.4	1564.9	788.6	652.8	641.1	654.4	567.6	537.0	525.9	522.6
65°	16594.2	5641.2	1508.7	783.5	636.1	604.9	608.8	552.0	520.9	512.5	509.2
67.5°	13688.2	4553.3	1459.1	800.2	613.8	579.3	562.6	531.5	505.3	497.0	490.3
70°	10794.4	3787.0	1436.3	790.2	586.5	553.7	535.4	509.2	486.9	478.0	473.0
72.5°	8692.5	3198.7	1424.1	779.7	550.4	519.2	502.0	479.7	455.8	452.4	447.4
75°	7356.3	2514.8	1305.0	747.4	509.2	478.0	466.3	445.8	421.8	421.8	418.5
77.5°	5674.6	1818.6	1085.2	661.7	466.3	431.8	421.8	406.2	379.0	384.0	382.3
80°	4191.5	1186.5	848.7	548.7	413.5	380.6	375.1	360.1	330.6	337.8	337.8
82.5°	2871.5	778.0	610.5	449.1	352.8	322.2	322.2	306.6	274.4	277.7	288.3
85°	1441.9	535.4	455.8	347.8	274.4	258.8	258.8	247.1	214.3	215.9	229.8
87.5°	439.1	322.2	301.6	248.8	197.0	193.7	184.8	176.4	155.8	154.1	163.1
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°	10536.2	10536.2	10536.2	10536.2	10536.2	10536.2	10536.2	10536.2	10536.2	10536.2	10536.2
2.5°	9087.0	8989.1	8871.7	8610.7	8523.3	8517.7	8597.3	8514.4	8672.4	8605.7	8679.1
5°	7328.0	7232.8	7100.3	6768.1	6565.6	6428.1	6363.5	6171.6	6310.1	6208.8	6293.4
7.5°	5389.7	5411.9	5324.6	5129.2	4688.5	4467.6	4337.3	4220.5	4321.8	4311.2	4472.6
10°	3788.6	3848.2	3787.0	3590.0	3232.7	3111.4	3135.3	3181.5	3313.9	3381.8	3630.6
12.5°	2727.4	2724.1	2684.5	2508.1	2273.3	2286.6	2384.6	2464.7	2586.6	2658.9	2912.1
15°	2036.2	2005.6	1988.4	1844.2	1710.7	1740.2	1788.0	1796.4	1873.7	1916.6	2122.5
17.5°	1539.3	1554.9	1573.2	1470.8	1369.5	1350.6	1313.3	1266.6	1289.4	1297.8	1400.1
20°	1222.1	1283.8	1330.6	1258.2	1155.8	1100.2	1052.3	1021.7	1021.7	1020.1	1049.0
22.5°	1067.9	1112.4	1162.5	1112.4	1020.1	971.6	944.4	920.4	917.1	917.1	944.4
25°	984.4	1016.7	1064.6	1030.6	961.6	925.5	899.9	869.2	857.6	853.7	872.6
27.5°	942.7	956.6	980.5	949.4	891.5	874.3	867.6	840.3	824.2	815.8	835.3
30°	872.6	869.2	870.9	840.3	793.6	791.9	803.6	809.1	803.6	801.9	831.4
32.5°	807.5	800.2	798.6	771.3	728.5	718.4	728.5	739.0	750.7	768.0	801.9
35°	725.1	742.4	752.4	728.5	676.7	646.1	634.4	615.5	604.9	604.9	644.4
37.5°	660.0	699.5	715.1	692.8	636.1	593.2	572.6	569.3	571.0	577.6	615.5
40°	637.7	666.7	680.0	658.3	601.6	562.6	550.4	547.0	550.4	560.9	598.2
42.5°	623.8	644.4	642.8	615.5	569.3	542.0	535.4	531.5	535.4	545.4	586.5
45°	612.1	625.5	612.1	579.3	537.0	522.6	524.2	522.6	525.9	537.0	576.0
47.5°	601.6	606.6	589.9	557.1	512.5	509.2	515.9	520.9	524.2	533.7	574.3
50°	586.5	586.5	571.0	537.0	491.9	493.6	502.0	514.2	515.9	525.9	559.3
52.5°	567.6	566.0	555.4	522.6	474.7	479.7	479.7	493.6	497.0	509.2	543.7
55°	552.0	548.7	543.7	512.5	459.7	468.0	463.0	468.0	476.4	488.6	525.9
57.5°	538.7	531.5	531.5	503.6	447.4	450.8	439.1	445.8	455.8	466.3	505.3
60°	524.2	517.5	520.9	491.9	428.5	425.2	420.2	433.5	437.4	449.1	488.6
62.5°	509.2	503.6	505.3	478.0	415.1	406.2	406.2	418.5	420.2	437.4	474.7
65°	497.0	490.3	488.6	464.7	399.6	389.5	394.6	399.6	402.9	420.2	455.8
67.5°	485.3	471.4	471.4	452.4	382.3	371.7	382.3	380.6	386.2	401.2	430.2
70°	469.7	450.8	452.4	444.1	365.1	352.8	361.7	360.1	363.4	373.4	402.9
72.5°	445.8	430.2	433.5	430.2	347.8	330.6	333.9	333.9	333.9	342.8	373.4
75°	415.1	402.9	413.5	421.8	327.2	303.3	306.6	306.6	301.6	306.6	344.5
77.5°	376.7	370.1	404.6	392.9	303.3	274.4	274.4	271.0	261.0	267.7	308.3
80°	336.1	330.6	373.4	328.9	276.0	238.7	234.8	225.9	215.9	220.9	262.7
82.5°	293.3	288.3	313.9	252.1	238.7	197.0	188.7	173.1	163.1	168.1	205.3
85°	240.4	240.4	242.1	190.3	181.4	150.8	140.8	120.2	108.0	111.3	147.5
87.5°	171.4	176.4	163.1	130.2	108.0	84.0	77.4	65.1	54.5	63.4	77.4
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°	10536.2	10536.2	10536.2	10536.2	10536.2	10536.2	10536.2	10536.2
2.5°	9056.4	9245.1	9459.3	9733.1	9968.5	10353.6	10724.3	10946.9
5°	6771.5	7085.3	7475.4	7978.5	8446.5	9148.8	9846.7	10294.1
7.5°	4846.0	5182.1	5603.9	6231.1	6893.3	7789.3	8712.0	9246.8
10°	4010.1	4354.6	4709.1	5132.6	5674.6	6649.6	7739.8	8343.0
12.5°	3317.3	3685.7	4068.0	4513.7	5015.7	5886.6	7143.2	7837.7
15°	2538.7	2950.0	3400.8	3965.0	4593.9	5600.6	6995.7	7749.8
17.5°	1740.2	2199.8	2753.0	3449.2	4218.8	5507.7	7260.1	8129.3
20°	1198.1	1532.6	2124.1	2940.0	3866.0	5496.0	7767.0	8856.1
22.5°	1002.8	1151.9	1583.8	2472.0	3600.0	5643.4	8554.5	9875.6
25°	927.1	1016.7	1264.9	2065.7	3406.3	5982.9	9638.0	11195.6
27.5°	883.2	963.3	1148.6	1800.3	3253.8	6376.9	10692.0	12474.4
30°	899.9	982.2	1115.8	1664.5	3046.3	6705.8	11628.0	13472.2
32.5°	810.8	847.0	956.6	1544.3	2897.1	6981.8	12447.2	14298.6
35°	691.2	754.1	853.7	1488.1	2900.5	7167.1	13340.3	15354.3
37.5°	658.3	721.8	793.6	1467.5	2940.0	7364.7	14365.4	16592.5
40°	637.7	696.2	757.9	1455.8	2977.8	7544.4	15370.4	17816.3
42.5°	623.8	676.7	754.1	1414.1	2996.7	7705.8	16196.3	18856.9
45°	622.2	676.7	768.0	1372.9	3025.7	7878.9	16889.1	19626.5
47.5°	623.8	699.5	742.4	1323.3	3025.7	8168.3	17701.6	20313.8
50°	617.2	737.4	715.1	1253.2	2955.6	8717.0	18815.7	21234.3
52.5°	613.8	732.4	661.7	1145.3	2833.7	9587.9	20243.7	22503.1
55°	604.9	706.2	623.8	984.4	2691.8	10537.8	21772.9	24003.4
57.5°	596.6	625.5	603.2	843.6	2472.0	11206.2	22825.3	25173.7
60°	668.4	547.0	586.5	774.6	2178.7	11389.3	22784.7	25640.0
62.5°	618.8	512.5	564.3	759.6	1973.3	10875.1	21731.8	25388.5
65°	485.3	490.3	542.0	803.6	1918.2	9512.8	19866.4	24224.3
67.5°	444.1	468.0	519.2	860.9	1923.8	7616.2	17079.5	21688.4
70°	418.5	444.1	493.6	889.8	1937.2	5677.9	13502.8	17665.4
72.5°	389.5	411.8	464.7	894.8	1847.6	4124.2	10407.6	12989.2
75°	354.5	375.1	423.5	779.7	1530.9	2861.0	7961.2	8886.7
77.5°	315.5	330.6	371.7	601.6	1136.9	1830.9	5975.7	6492.1
80°	269.3	277.7	312.2	440.7	778.0	1145.3	4728.0	5209.4
82.5°	215.9	219.3	242.1	330.6	505.3	735.7	3166.5	3613.9
85°	152.5	152.5	166.4	240.4	344.5	466.3	1719.0	1906.6
87.5°	71.8	73.5	73.5	131.9	179.7	237.1	396.2	243.7
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)