

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: P298966

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

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P298966
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-800
Description: GALLEONNAIRE AREA AND ROADWAY LUMINAIRE
(9) 70 CRI, 4000K 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: 37657 lumens
Efficiency: N/A
Efficacy: 100.7 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

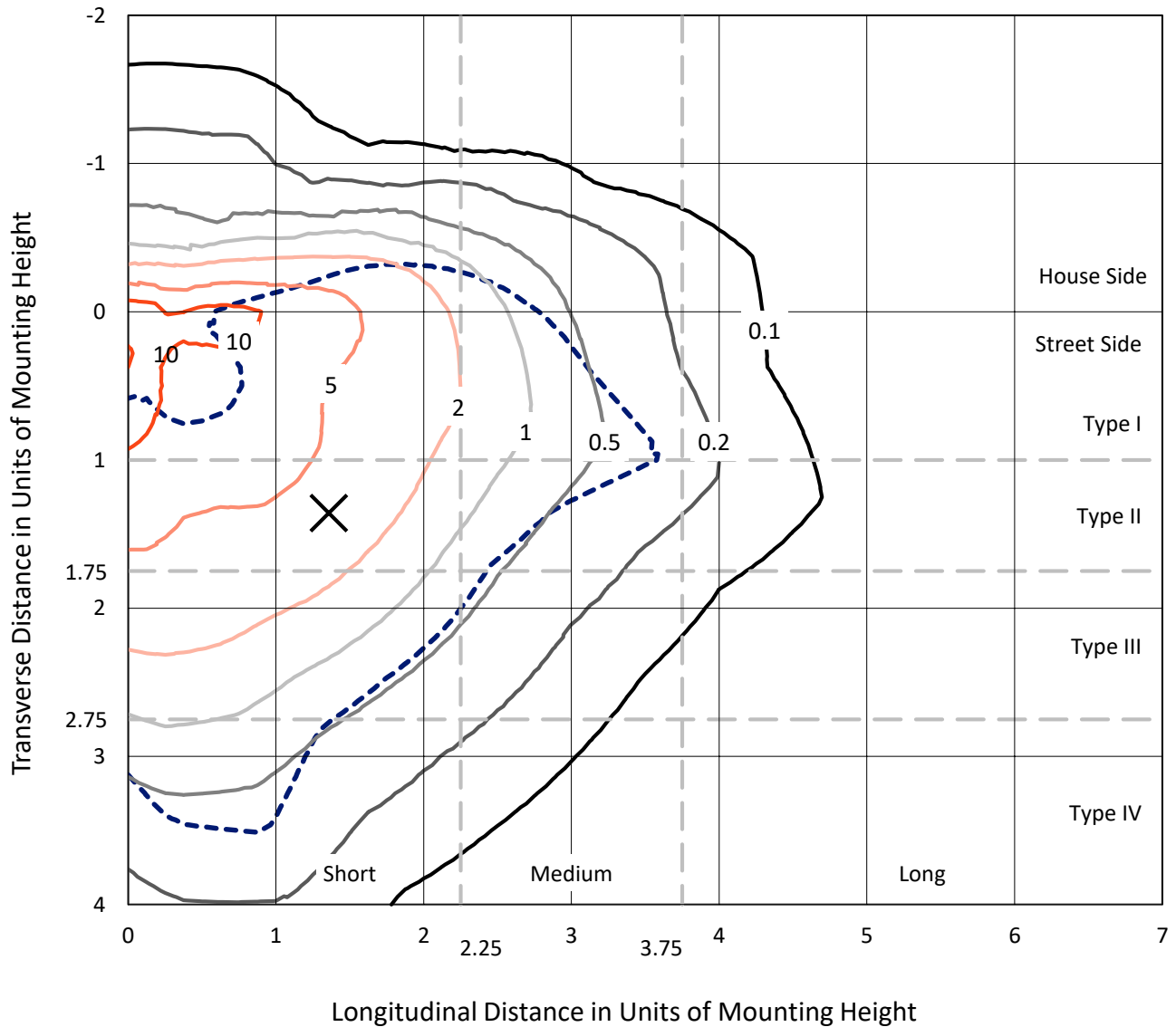
Input Watts (W): 374
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Iso-Footcandle Lines of Horizontal Illumination

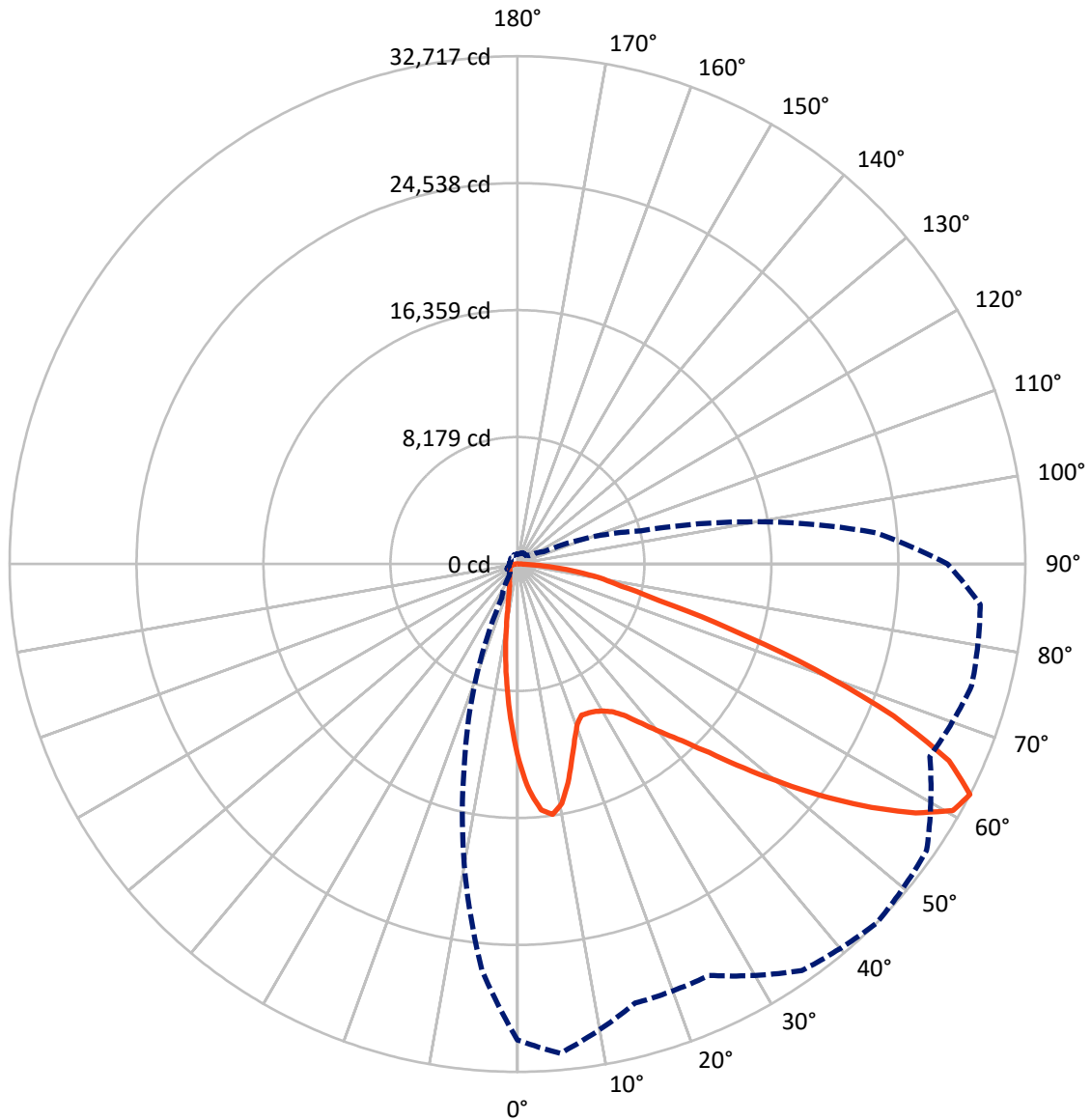
✕ Max cd
 - - - 1/2 Max cd



Based on 30 foot mounting height. Maximum calculated value = 16.6 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	6231.7	0.0	6231.7
	% Fixture	16.5	0.0	16.5
Street Side	Lumens	31425.3	0.0	31425.3
	% Fixture	83.5	0.0	83.5
Total	Lumens	37657.0	0.0	37657.0
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	926.1	2.5
10°-20°	1698.3	4.5
20°-30°	2476.1	6.6
30°-40°	3813.6	10.1
40°-50°	5612.6	14.9
50°-60°	8232.5	21.9
60°-70°	9202.7	24.4
70°-80°	4505.5	12.0
80°-90°	1189.6	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°	37657.0	100.0
0°-180°	37657.0	100.0



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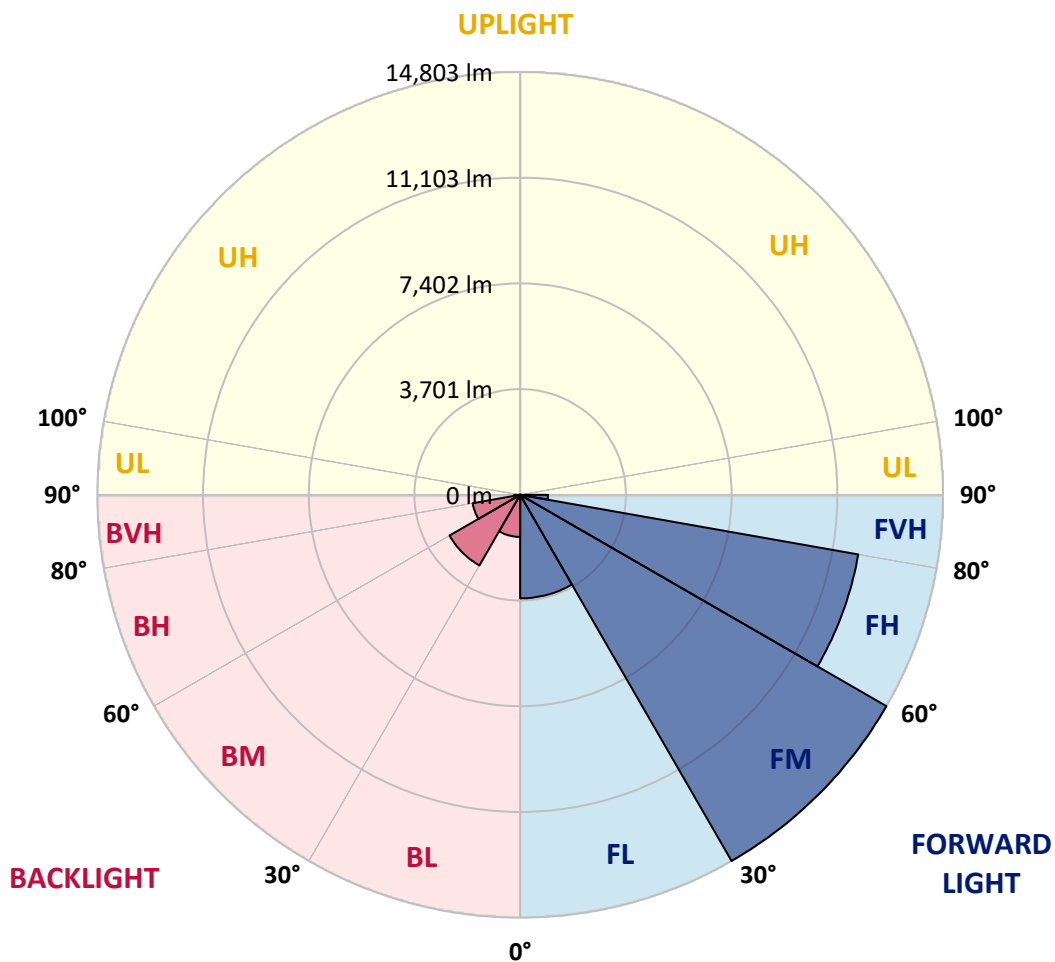
CATALOG NUMBER: GLNA-AF-09-LED-E1-SLL-800

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	3626.3	9.6			
FM (30°-60°)	14803.3	39.3			
FH (60°-80°)	12018.8	31.9			G5
FVH (80°-90°)	976.9	2.6			G5
BL (0°-30°)	1474.3	3.9	B3/2500		
BM (30°-60°)	2855.3	7.6	B3/5000		
BH (60°-80°)	1689.4	4.5	B3/2500		G3/2500
BVH (80°-90°)	212.7	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-G5

Type IV Short





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	75°	85°	90°
0°	12723.0	12723.0	12723.0	12723.0	12723.0	12723.0	12723.0	12723.0	12723.0	12723.0	12723.0
2.5°	13218.9	13430.6	13842.5	14150.3	14526.0	14612.7	14732.9	14614.7	14405.7	14128.1	14037.4
5°	12430.7	12882.3	13881.5	14761.8	15544.1	15908.3	16010.4	15709.4	15103.2	14306.2	13819.7
7.5°	11166.0	11807.7	13161.1	14457.4	15609.9	16291.3	16274.5	15577.0	14461.5	13163.2	12383.0
10°	10074.6	10807.8	12360.8	13809.6	15032.7	15693.2	15437.9	14546.8	13214.9	11720.4	10874.3
12.5°	9464.5	10182.8	11758.0	13212.9	14235.7	14463.5	14268.6	13395.0	12140.4	10629.7	9888.5
15°	9358.3	10147.9	11518.1	12702.2	13275.4	13077.1	12844.6	12453.5	11567.2	10277.6	9505.5
17.5°	9816.6	10685.5	11793.6	12346.0	12248.6	11902.5	11836.6	11880.3	11667.3	10668.7	9779.0
20°	10694.2	11737.2	12449.5	12178.7	11468.4	10991.9	11008.7	11673.3	12304.3	11660.6	10643.8
22.5°	11925.3	13116.1	13395.0	12267.4	11139.1	10573.9	10711.0	11787.6	13321.1	13110.1	11811.8
25°	13519.3	14604.6	14403.7	12589.9	11172.0	10625.7	10735.2	12180.7	14521.3	14558.9	13257.2
27.5°	15063.6	16070.2	15249.7	13018.7	11309.1	10748.0	10893.1	12798.9	15668.4	16132.1	14909.0
30°	16268.5	16968.7	15585.0	13409.8	11577.9	10985.9	11166.0	13386.9	16190.5	17193.8	16179.8
32.5°	17266.4	17769.0	16119.3	13894.3	12072.5	11360.2	11677.4	14101.3	16941.8	18204.5	17423.6
35°	18541.2	18684.3	16783.9	14434.6	12836.6	12012.7	12405.8	14800.8	17658.2	19224.6	18649.4
37.5°	20036.4	19852.2	17410.9	15173.8	13824.4	13032.8	13358.0	15568.9	18247.5	20381.8	19901.3
40°	21514.1	21070.6	18198.5	16320.2	15265.2	14235.7	14620.7	16388.8	18798.6	21541.0	21125.0
42.5°	22770.7	22114.2	18973.9	17580.9	16605.8	15562.9	16022.5	17214.6	19324.1	22530.2	22186.8
45°	23700.1	22884.3	19713.1	18791.8	18454.5	17326.2	17543.9	18160.2	19893.2	23356.7	23060.4
47.5°	24530.0	23658.5	20549.1	20013.5	20071.3	19619.7	19269.6	19261.6	20564.6	24031.4	23886.3
50°	25641.5	24733.0	21447.6	21271.5	22497.2	22196.9	21424.7	20547.1	21412.6	24797.5	24780.7
52.5°	27173.7	26435.2	22545.0	22627.6	24762.6	24958.8	24001.9	22092.0	22741.2	26202.7	26103.9
55°	28985.4	28554.0	24040.2	24186.7	27539.9	27681.1	26730.2	24022.7	24696.0	28238.1	27962.6
57.5°	30398.6	30307.9	25679.2	26058.2	29614.4	30248.1	29374.5	26259.1	26898.2	29951.7	29260.3
60°	30961.8	31402.6	27424.4	27945.8	31533.6	32234.5	31469.1	28222.7	28850.3	30662.1	29171.6
62.5°	30658.0	31642.5	29283.1	29239.4	31961.7	32717.0	32178.8	29316.0	30297.8	29928.9	27695.8
65°	29252.2	30779.7	30361.7	28906.1	30496.1	30557.9	30383.8	28827.5	30639.2	27612.5	24842.5
67.5°	26189.9	28388.7	28941.1	26050.1	26542.0	26138.8	25846.5	26152.9	28858.4	24141.0	20878.4
70°	21332.0	24640.3	24904.4	20835.4	20611.6	20340.1	19758.8	21441.5	25345.9	19785.7	16566.8
72.5°	15685.2	19162.8	19975.9	15281.3	14246.4	14301.5	13842.5	16158.3	20607.6	14697.3	12368.8
75°	10731.2	13875.5	15629.4	10662.6	9421.5	9443.6	9385.2	11449.6	16413.6	10223.8	9255.5
77.5°	7839.6	9913.4	11787.6	7168.2	6959.2	6830.9	6800.0	8010.9	12583.9	7423.6	7187.0
80°	6290.6	7324.1	7917.5	4968.1	5342.4	5332.3	5160.3	5508.4	8217.9	5429.8	5375.3
82.5°	4364.0	5628.7	6414.9	3893.6	3606.0	3545.5	3587.8	4102.6	5808.8	3711.5	3529.3
85°	2302.3	3738.3	6353.1	3450.7	2140.3	1707.6	2124.2	3359.3	5032.6	1966.9	1721.7
87.5°	294.3	1080.6	4206.1	1376.9	844.7	454.9	1008.7	1891.7	3231.7	401.2	350.1
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°	12723.0	12723.0	12723.0	12723.0	12723.0	12723.0	12723.0	12723.0	12723.0	12723.0	12723.0
2.5°	13803.6	13528.0	13167.9	12833.9	12488.5	12144.4	11695.5	11413.9	11219.7	11182.1	11100.1
5°	13468.2	12553.0	11861.5	11263.4	10721.1	9954.3	9530.3	9178.2	8990.0	8971.9	8926.2
7.5°	11921.3	10658.6	9725.2	8878.5	8110.4	7491.5	6808.0	6490.2	6359.1	6390.1	6421.0
10°	10312.5	8901.3	7828.8	6963.3	6286.6	5765.1	5216.7	4846.5	4589.1	4537.3	4527.3
12.5°	9137.2	7588.9	6548.0	5936.5	5413.6	4922.4	4341.1	3903.7	3571.0	3456.8	3380.8
15°	8639.9	6947.1	5856.5	5197.9	4620.0	3997.1	3456.8	2999.1	2693.4	2593.9	2538.1
17.5°	8746.1	6769.1	5380.0	4537.3	3798.8	3148.3	2467.6	2075.8	1891.7	1844.6	1844.6
20°	9301.2	6736.1	4986.2	3929.2	3007.2	2253.9	1695.5	1471.7	1411.9	1405.8	1422.0
22.5°	10079.3	6852.4	4693.3	3401.7	2337.2	1645.7	1320.5	1237.8	1210.9	1217.7	1235.8
25°	11238.5	7243.5	4480.2	2931.3	1833.9	1347.4	1177.3	1128.3	1115.5	1132.3	1155.2
27.5°	12612.8	7634.6	4347.2	2577.1	1548.3	1231.8	1119.6	1068.5	1076.5	1097.4	1117.5
30°	13819.7	7955.8	4138.2	2325.1	1459.6	1237.8	1119.6	1049.7	1041.6	1045.6	1051.7
32.5°	14903.0	8172.9	3893.6	2084.5	1258.7	1099.4	1045.6	1035.6	989.2	972.4	975.1
35°	15836.4	8172.9	3747.1	1944.1	1128.3	975.1	888.4	836.6	813.1	815.1	838.7
37.5°	16736.9	8008.9	3674.5	1864.8	1057.7	927.4	850.8	805.1	774.1	768.1	772.1
40°	17531.2	7771.0	3591.8	1831.9	1004.0	898.5	826.6	788.3	755.3	745.2	747.3
42.5°	18168.9	7578.2	3500.5	1788.9	970.4	877.6	809.1	776.2	739.2	728.4	726.4
45°	18858.4	7514.3	3380.8	1701.5	987.2	879.6	805.1	770.1	732.5	720.4	716.4
47.5°	19766.9	7715.2	3256.5	1598.0	1022.8	890.4	811.1	770.1	730.5	720.4	716.4
50°	20911.3	8187.0	3098.6	1446.8	987.2	919.3	809.1	763.4	730.5	720.4	712.3
52.5°	22381.7	8824.7	2892.3	1273.4	966.3	989.2	805.1	751.3	720.4	706.3	691.5
55°	24167.8	9346.2	2645.0	1130.3	919.3	970.4	799.0	737.2	704.3	683.4	670.7
57.5°	25476.2	9534.3	2329.2	1037.6	852.8	939.5	790.3	718.4	683.4	666.6	650.5
60°	25217.5	9170.1	2061.7	979.1	813.1	848.7	784.2	701.6	664.6	652.5	637.1
62.5°	23145.7	8217.9	1889.7	952.2	788.3	774.1	790.3	685.4	648.5	635.0	631.0
65°	20038.4	6812.1	1821.8	946.2	768.1	730.5	735.2	666.6	629.0	618.9	614.9
67.5°	16529.2	5498.3	1762.0	966.3	741.2	699.6	679.4	641.8	610.2	600.1	592.0
70°	13034.8	4573.0	1734.4	954.2	708.3	668.6	646.5	614.9	588.0	577.2	571.2
72.5°	10496.7	3862.7	1719.7	941.5	664.6	627.0	606.1	579.3	550.4	546.3	540.3
75°	8883.2	3036.8	1575.8	902.5	614.9	577.2	563.1	538.3	509.4	509.4	505.3
77.5°	6852.4	2196.1	1310.4	799.0	563.1	521.5	509.4	490.6	457.6	463.7	461.7
80°	5061.5	1432.7	1024.8	662.6	499.3	459.6	452.9	434.8	399.2	407.9	407.9
82.5°	3467.5	939.5	737.2	542.3	426.0	389.1	389.1	370.3	331.3	335.3	348.1
85°	1741.2	646.5	550.4	420.0	331.3	312.5	312.5	298.4	258.7	260.7	277.5
87.5°	530.2	389.1	364.2	300.4	237.9	233.9	223.1	213.0	188.2	186.1	196.9
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°	12723.0	12723.0	12723.0	12723.0	12723.0	12723.0	12723.0	12723.0	12723.0	12723.0	12723.0
2.5°	10973.1	10854.8	10713.0	10397.9	10292.4	10285.6	10381.7	10281.6	10472.5	10391.8	10480.5
5°	8848.9	8734.0	8574.1	8172.9	7928.3	7762.3	7684.3	7452.5	7619.8	7497.5	7599.7
7.5°	6508.3	6535.2	6429.7	6193.8	5661.6	5394.8	5237.6	5096.5	5218.8	5206.0	5400.9
10°	4575.0	4646.9	4573.0	4335.1	3903.7	3757.2	3786.1	3841.8	4001.8	4083.7	4384.1
12.5°	3293.5	3289.4	3241.7	3028.7	2745.1	2761.3	2879.5	2976.3	3123.5	3210.8	3516.6
15°	2458.9	2421.9	2401.1	2227.0	2065.7	2101.3	2159.1	2169.2	2262.6	2314.4	2563.0
17.5°	1858.8	1877.6	1899.7	1776.1	1653.8	1630.9	1585.9	1529.5	1557.0	1567.1	1690.8
20°	1475.7	1550.3	1606.8	1519.4	1395.7	1328.5	1270.8	1233.8	1233.8	1231.8	1266.7
22.5°	1289.6	1343.3	1403.8	1343.3	1231.8	1173.3	1140.4	1111.5	1107.5	1107.5	1140.4
25°	1188.8	1227.7	1285.5	1244.5	1161.2	1117.5	1086.6	1049.7	1035.6	1030.8	1053.7
27.5°	1138.4	1155.2	1184.1	1146.4	1076.5	1055.7	1047.6	1014.7	995.2	985.2	1008.7
30°	1053.7	1049.7	1051.7	1014.7	958.3	956.3	970.4	977.1	970.4	968.4	1004.0
32.5°	975.1	966.3	964.3	931.4	879.6	867.6	879.6	892.4	906.5	927.4	968.4
35°	875.6	896.4	908.5	879.6	817.2	780.2	766.1	743.2	730.5	730.5	778.2
37.5°	797.0	844.7	863.5	836.6	768.1	716.4	691.5	687.5	689.5	697.5	743.2
40°	770.1	805.1	821.2	795.0	726.4	679.4	664.6	660.6	664.6	677.4	722.4
42.5°	753.3	778.2	776.2	743.2	687.5	654.5	646.5	641.8	646.5	658.6	708.3
45°	739.2	755.3	739.2	699.6	648.5	631.0	633.0	631.0	635.0	648.5	695.5
47.5°	726.4	732.5	712.3	672.7	618.9	614.9	622.9	629.0	633.0	644.4	693.5
50°	708.3	708.3	689.5	648.5	594.0	596.1	606.1	620.9	622.9	635.0	675.4
52.5°	685.4	683.4	670.7	631.0	573.2	579.3	579.3	596.1	600.1	614.9	656.5
55°	666.6	662.6	656.5	618.9	555.1	565.2	559.1	565.2	575.2	590.0	635.0
57.5°	650.5	641.8	641.8	608.2	540.3	544.3	530.2	538.3	550.4	563.1	610.2
60°	633.0	625.0	629.0	594.0	517.4	513.4	507.4	523.5	528.2	542.3	590.0
62.5°	614.9	608.2	610.2	577.2	501.3	490.6	490.6	505.3	507.4	528.2	573.2
65°	600.1	592.0	590.0	561.1	482.5	470.4	476.4	482.5	486.5	507.4	550.4
67.5°	586.0	569.2	569.2	546.3	461.7	448.9	461.7	459.6	466.4	484.5	519.5
70°	567.2	544.3	546.3	536.3	440.8	426.0	436.8	434.8	438.8	450.9	486.5
72.5°	538.3	519.5	523.5	519.5	420.0	399.2	403.2	403.2	403.2	414.0	450.9
75°	501.3	486.5	499.3	509.4	395.1	366.2	370.3	370.3	364.2	370.3	416.0
77.5°	454.9	446.9	488.5	474.4	366.2	331.3	331.3	327.3	315.2	323.2	372.3
80°	405.9	399.2	450.9	397.2	333.3	288.3	283.6	272.8	260.7	266.8	317.2
82.5°	354.1	348.1	379.0	304.4	288.3	237.9	227.8	209.0	196.9	202.9	248.0
85°	290.3	290.3	292.3	229.8	219.1	182.1	170.0	145.2	130.4	134.4	178.1
87.5°	207.0	213.0	196.9	157.2	130.4	101.5	93.4	78.6	65.9	76.6	93.4
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°	12723.0	12723.0	12723.0	12723.0	12723.0	12723.0	12723.0	12723.0
2.5°	10936.1	11163.9	11422.7	11753.3	12037.6	12502.6	12950.1	13218.9
5°	8176.9	8555.9	9027.0	9634.5	10199.6	11047.7	11890.4	12430.7
7.5°	5851.8	6257.7	6767.0	7524.4	8324.1	9406.0	10520.2	11166.0
10°	4842.4	5258.4	5686.5	6197.9	6852.4	8029.7	9346.2	10074.6
12.5°	4005.8	4450.7	4912.3	5450.6	6056.7	7108.4	8625.8	9464.5
15°	3065.7	3562.3	4106.6	4788.0	5547.4	6763.0	8447.7	9358.3
17.5°	2101.3	2656.4	3324.4	4165.1	5094.4	6650.8	8766.9	9816.6
20°	1446.8	1850.7	2565.0	3550.2	4668.4	6636.7	9379.1	10694.2
22.5°	1210.9	1391.0	1912.5	2985.0	4347.2	6814.8	10330.0	11925.3
25°	1119.6	1227.7	1527.5	2494.5	4113.3	7224.7	11638.4	13519.3
27.5°	1066.5	1163.2	1387.0	2173.9	3929.2	7700.5	12911.2	15063.6
30°	1086.6	1186.1	1347.4	2010.0	3678.5	8097.6	14041.5	16268.5
32.5°	979.1	1022.8	1155.2	1864.8	3498.4	8430.9	15030.6	17266.4
35°	834.6	910.6	1030.8	1796.9	3502.5	8654.7	16109.2	18541.2
37.5°	795.0	871.6	958.3	1772.1	3550.2	8893.3	17347.0	20036.4
40°	770.1	840.7	915.3	1758.0	3595.9	9110.3	18560.7	21514.1
42.5°	753.3	817.2	910.6	1707.6	3618.7	9305.2	19557.9	22770.7
45°	751.3	817.2	927.4	1657.8	3653.7	9514.2	20394.6	23700.1
47.5°	753.3	844.7	896.4	1598.0	3653.7	9863.6	21375.7	24530.0
50°	745.2	890.4	863.5	1513.3	3569.0	10526.2	22721.0	25641.5
52.5°	741.2	884.4	799.0	1383.0	3421.8	11577.9	24445.4	27173.7
55°	730.5	852.8	753.3	1188.8	3250.5	12725.0	26292.0	28985.4
57.5°	720.4	755.3	728.4	1018.8	2985.0	13532.1	27562.8	30398.6
60°	807.1	660.6	708.3	935.4	2630.9	13753.2	27513.7	30961.8
62.5°	747.3	618.9	681.4	917.3	2382.9	13132.2	26242.3	30658.0
65°	586.0	592.0	654.5	970.4	2316.4	11487.2	23989.8	29252.2
67.5°	536.3	565.2	627.0	1039.6	2323.1	9197.0	20624.4	26189.9
70°	505.3	536.3	596.1	1074.5	2339.2	6856.4	16305.4	21332.0
72.5°	470.4	497.3	561.1	1080.6	2231.0	4980.2	12567.8	15685.2
75°	428.1	452.9	511.4	941.5	1848.7	3454.8	9613.6	10731.2
77.5°	381.0	399.2	448.9	726.4	1372.9	2210.9	7215.9	7839.6
80°	325.2	335.3	377.0	532.2	939.5	1383.0	5709.3	6290.6
82.5°	260.7	264.8	292.3	399.2	610.2	888.4	3823.7	4364.0
85°	184.1	184.1	200.9	290.3	416.0	563.1	2075.8	2302.3
87.5°	86.7	88.7	88.7	159.3	217.1	286.3	478.5	294.3
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)