

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: P298964

Luminaire Tested: **GLNA-AF-09-LED-E1-SLL-7030-800**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P298964
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-7030-800
Description: GALLEONNAIRE AREA AND ROADWAY LUMINAIRE
(9) 70 CRI, 3000K 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: 36424.9 lumens
Efficiency: N/A
Efficacy: 97.4 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

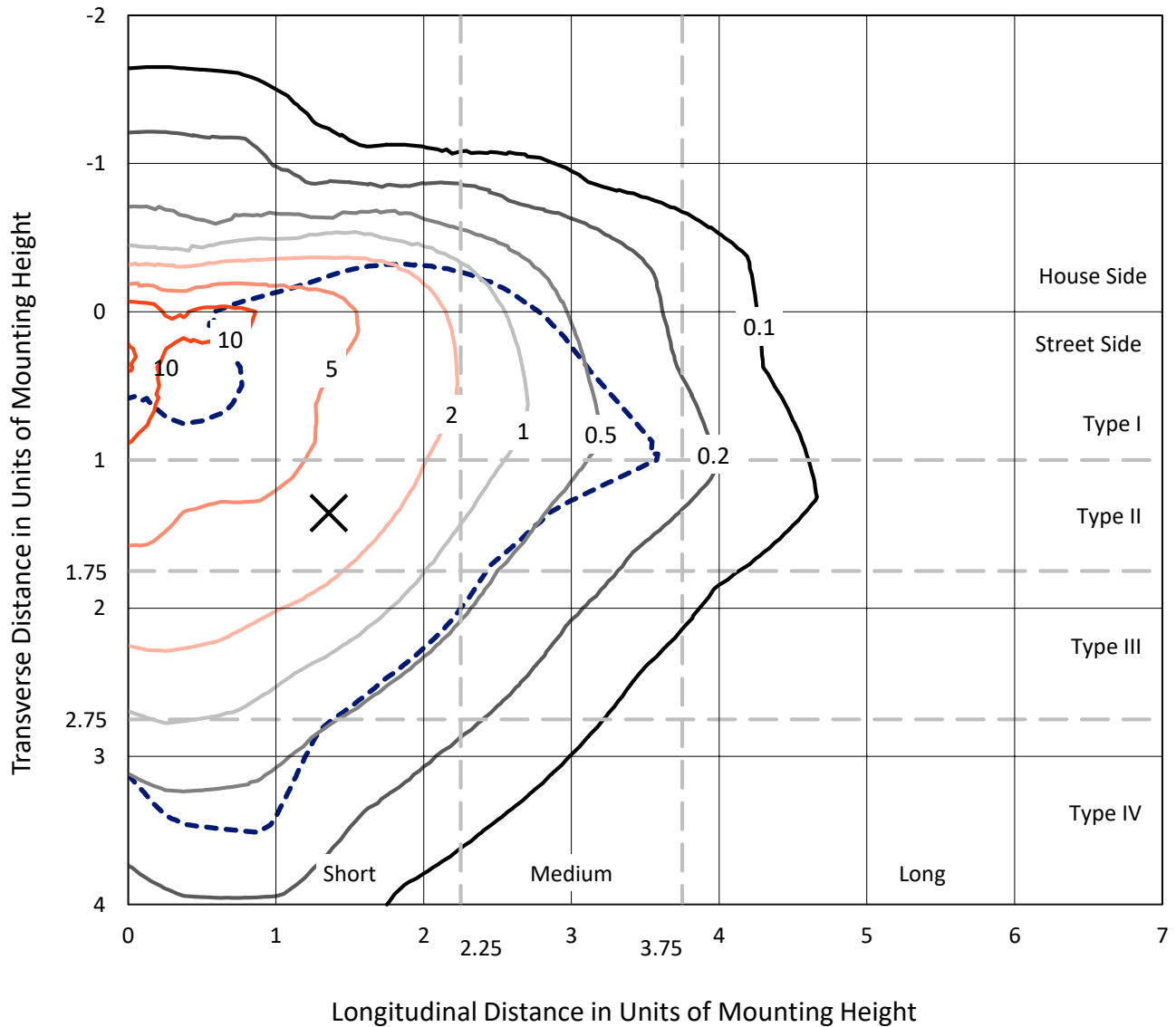


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Iso-Footcandle Lines of Horizontal Illumination

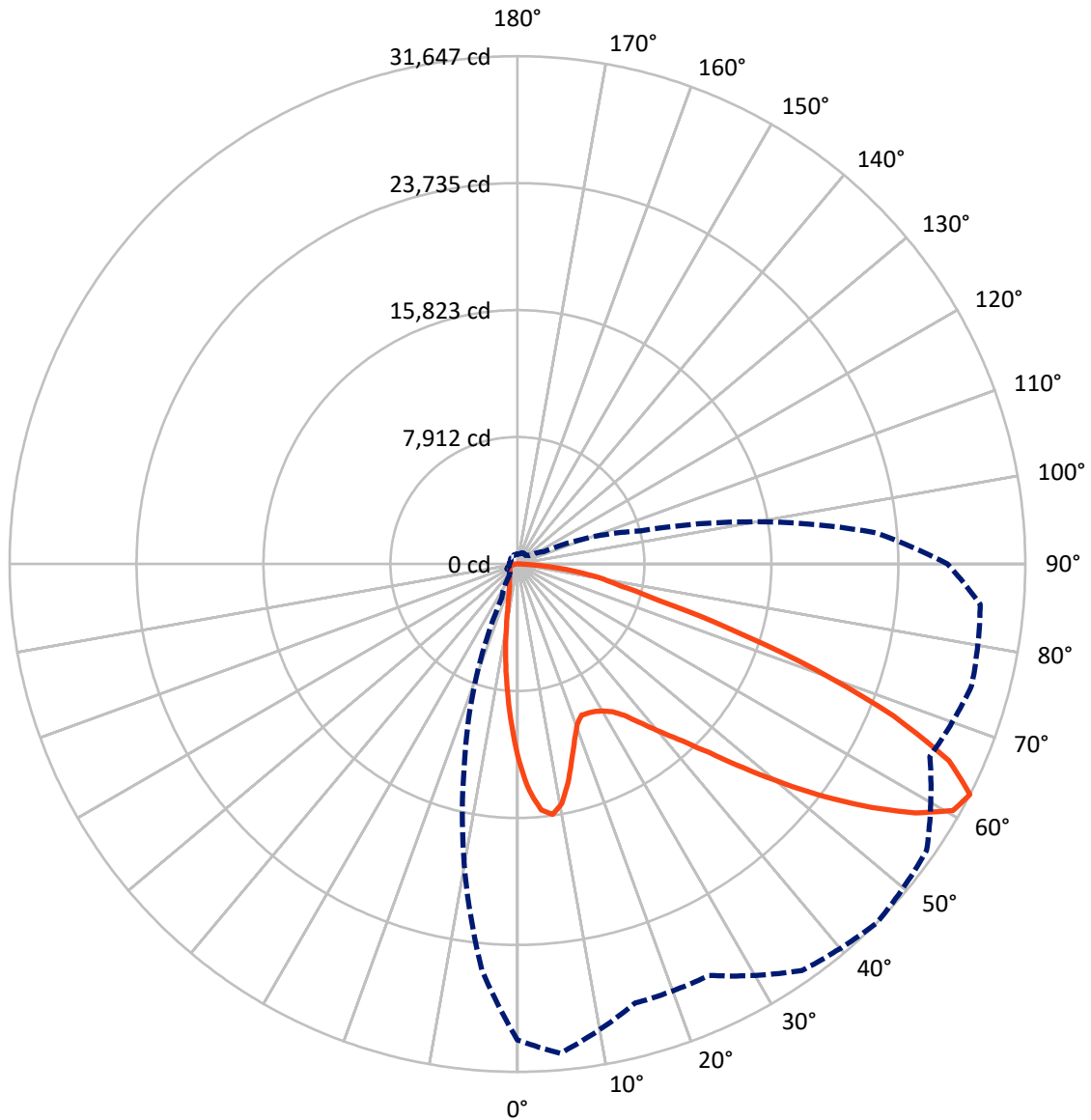
× Max cd
 - - - 1/2 Max cd



Based on 30 foot mounting height. Maximum calculated value = 16.1 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	6027.8	0.0	6027.8
	% Fixture	16.5	0.0	16.5
Street Side	Lumens	30397.1	0.0	30397.1
	% Fixture	83.5	0.0	83.5
Total	Lumens	36424.9	0.0	36424.9
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	895.8	2.5
10°-20°	1642.7	4.5
20°-30°	2395.1	6.6
30°-40°	3688.8	10.1
40°-50°	5428.9	14.9
50°-60°	7963.1	21.9
60°-70°	8901.6	24.4
70°-80°	4358.1	12.0
80°-90°	1150.7	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°	36424.9	100.0
0°-180°	36424.9	100.0

Coefficient of Utilization



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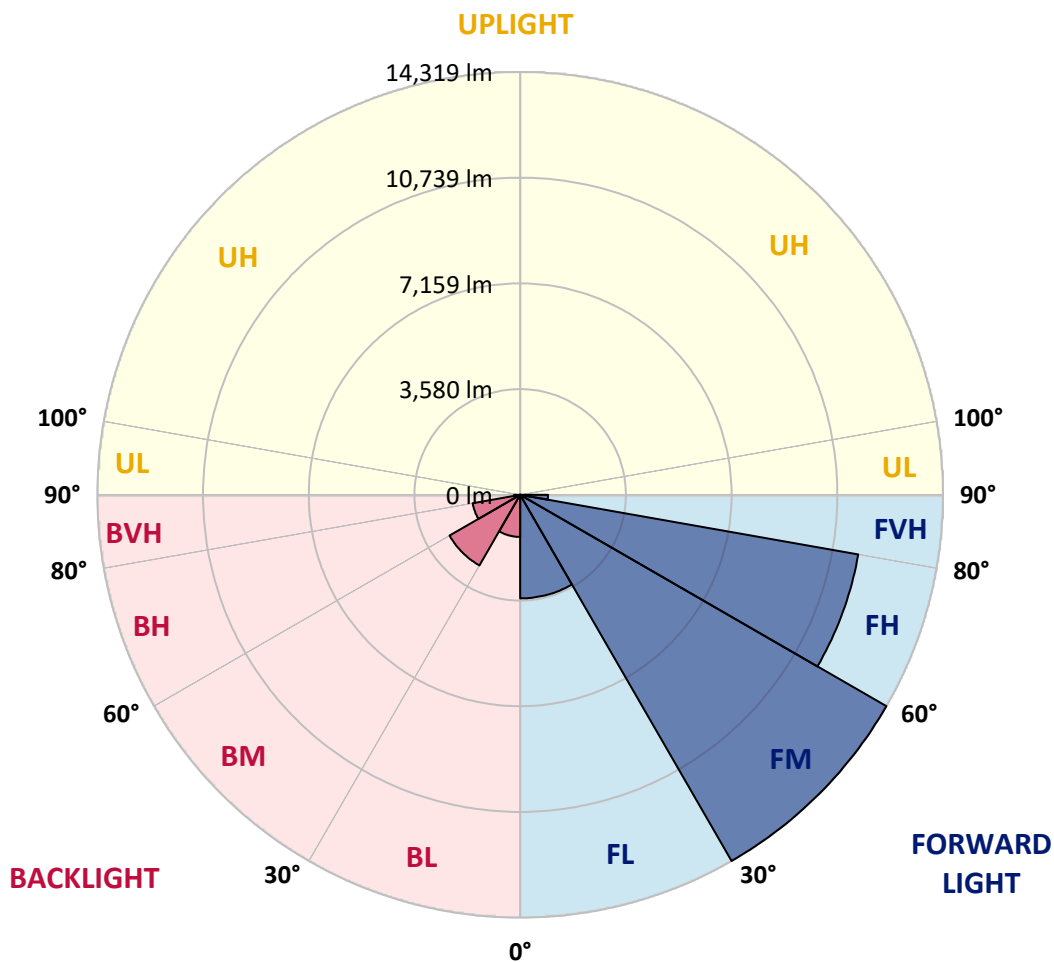
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	3507.6	9.6			
FM (30°-60°)	14319.0	39.3			
FH (60°-80°)	11625.6	31.9			G4/12000
FVH (80°-90°)	944.9	2.6			G5
BL (0°-30°)	1426.1	3.9	B3/2500		
BM (30°-60°)	2761.9	7.6	B3/5000		
BH (60°-80°)	1634.1	4.5	B3/2500		G3/2500
BVH (80°-90°)	205.7	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°	12306.7	12306.7	12306.7	12306.7	12306.7	12306.7	12306.7	12306.7	12306.7	12306.7	12306.7
2.5°	12786.4	12991.1	13389.6	13687.3	14050.7	14134.5	14250.9	14136.5	13934.3	13665.9	13578.1
5°	12023.9	12460.7	13427.3	14278.8	15035.4	15387.7	15486.5	15195.3	14609.0	13838.1	13367.5
7.5°	10800.6	11421.4	12730.5	13984.4	15099.1	15758.3	15742.0	15067.3	13988.3	12732.4	11977.8
10°	9745.0	10454.2	11956.3	13357.8	14540.8	15179.7	14932.7	14070.8	12782.5	11336.9	10518.5
12.5°	9154.8	9849.6	11373.3	12780.5	13769.9	13990.2	13801.7	12956.7	11743.1	10281.9	9564.9
15°	9052.1	9815.8	11141.2	12286.5	12841.0	12649.2	12424.3	12046.0	11188.7	9941.3	9194.4
17.5°	9495.4	10335.8	11407.7	11942.0	11847.8	11513.0	11449.3	11491.6	11285.5	10319.6	9459.0
20°	10344.3	11353.1	12042.1	11780.2	11093.1	10632.3	10648.5	11291.4	11901.7	11279.0	10295.5
22.5°	11535.1	12686.9	12956.7	11866.0	10774.6	10227.9	10360.5	11401.9	12885.2	12681.1	11425.3
25°	13077.0	14126.7	13932.4	12178.0	10806.5	10278.0	10383.9	11782.1	14046.1	14082.5	12823.4
27.5°	14570.7	15544.4	14750.7	12592.7	10939.1	10396.3	10536.7	12380.1	15155.7	15604.2	14421.2
30°	15736.2	16413.5	15075.1	12971.0	11199.1	10626.4	10800.6	12948.9	15660.8	16631.2	15650.4
32.5°	16701.4	17187.6	15591.8	13439.7	11677.5	10988.5	11295.3	13639.9	16387.5	17608.8	16853.5
35°	17934.5	18072.9	16234.7	13962.3	12416.5	11619.6	11999.9	14316.5	17080.4	18595.6	18039.1
37.5°	19380.8	19202.7	16841.2	14677.3	13372.1	12606.3	12920.9	15059.5	17650.4	19714.9	19250.1
40°	20810.2	20381.1	17603.0	15786.2	14765.7	13769.9	14142.3	15852.5	18183.4	20836.2	20433.8
42.5°	22025.7	21390.6	18353.1	17005.6	16062.5	15053.6	15498.2	16651.4	18691.8	21793.0	21460.8
45°	22924.6	22135.5	19068.1	18176.9	17850.6	16759.3	16969.9	17565.9	19242.3	22592.5	22305.8
47.5°	23727.4	22884.3	19876.7	19358.7	19414.6	18977.8	18639.1	18631.3	19891.7	23245.1	23104.7
50°	24802.5	23923.7	20745.8	20575.5	21761.1	21470.6	20723.7	19874.8	20712.0	23986.1	23969.9
52.5°	26284.6	25570.2	21807.3	21887.2	23952.3	24142.1	23216.5	21369.2	21997.1	25345.3	25249.7
55°	28037.0	27619.7	23253.5	23395.3	26638.8	26775.3	25855.5	23236.6	23888.0	27314.2	27047.7
57.5°	29404.0	29316.2	24838.9	25205.5	28645.4	29258.4	28413.3	25399.9	26018.1	28971.7	28302.8
60°	29948.7	30375.1	26527.0	27031.4	30501.8	31179.8	30439.4	27299.2	27906.3	29658.8	28217.0
62.5°	29654.9	30607.1	28324.9	28282.7	30915.9	31646.5	31125.8	28356.8	29306.5	28949.6	26789.6
65°	28295.0	29772.5	29368.2	27960.3	29498.2	29558.0	29389.7	27884.2	29636.7	26709.0	24029.7
67.5°	25332.9	27459.8	27994.1	25197.7	25673.5	25283.5	25000.8	25297.2	27914.1	23351.0	20195.2
70°	20634.0	23834.0	24089.5	20153.6	19937.2	19674.6	19112.3	20739.9	24516.5	19138.3	16024.8
72.5°	15171.9	18535.8	19322.3	14781.3	13780.3	13833.6	13389.6	15629.6	19933.3	14216.4	11964.1
75°	10380.0	13421.5	15118.0	10313.7	9113.2	9134.6	9078.1	11074.9	15876.6	9889.3	8952.6
77.5°	7583.0	9589.0	11401.9	6933.7	6731.5	6607.4	6577.5	7748.8	12172.1	7180.7	6951.9
80°	6084.8	7084.5	7658.4	4805.5	5167.6	5157.8	4991.4	5328.2	7949.0	5252.1	5199.5
82.5°	4221.2	5444.5	6205.0	3766.2	3488.0	3429.5	3470.4	3968.3	5618.7	3590.0	3413.9
85°	2226.9	3616.0	6145.2	3337.8	2070.3	1651.7	2054.7	3249.4	4867.9	1902.6	1665.3
87.5°	284.7	1045.2	4068.4	1331.9	817.1	440.1	975.7	1829.8	3125.9	388.1	338.7
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°	12306.7	12306.7	12306.7	12306.7	12306.7	12306.7	12306.7	12306.7	12306.7	12306.7	12306.7
2.5°	13351.9	13085.4	12737.0	12413.9	12079.8	11747.0	11312.8	11040.5	10852.6	10816.2	10736.9
5°	13027.6	12142.2	11473.4	10894.9	10370.3	9628.6	9218.5	8877.9	8695.9	8678.3	8634.1
7.5°	11531.2	10309.8	9407.0	8588.0	7845.0	7246.3	6585.3	6277.8	6151.1	6181.0	6210.9
10°	9975.1	8610.1	7572.6	6735.4	6080.9	5576.5	5046.0	4687.9	4438.9	4388.9	4379.1
12.5°	8838.2	7340.6	6333.7	5742.2	5236.5	4761.3	4199.1	3775.9	3454.2	3343.7	3270.2
15°	8357.2	6719.8	5664.9	5027.8	4468.8	3866.3	3343.7	2901.0	2605.3	2509.0	2455.1
17.5°	8459.9	6547.6	5204.0	4388.9	3674.5	3045.3	2386.8	2007.9	1829.8	1784.3	1784.3
20°	8996.8	6515.7	4823.1	3800.6	2908.8	2180.1	1640.0	1423.5	1365.7	1359.8	1375.4
22.5°	9749.5	6628.2	4539.7	3290.4	2260.7	1591.9	1277.3	1197.3	1171.3	1177.8	1195.4
25°	10870.8	7006.5	4333.6	2835.4	1773.9	1303.3	1138.8	1091.4	1079.0	1095.3	1117.4
27.5°	12200.1	7384.8	4204.9	2492.8	1497.6	1191.5	1082.9	1033.5	1041.3	1061.5	1081.0
30°	13367.5	7695.5	4002.8	2249.0	1411.8	1197.3	1082.9	1015.3	1007.5	1011.4	1017.3
32.5°	14415.3	7905.5	3766.2	2016.3	1217.5	1063.4	1011.4	1001.7	956.8	940.6	943.2
35°	15318.2	7905.5	3624.5	1880.5	1091.4	943.2	859.3	809.3	786.5	788.5	811.2
37.5°	16189.2	7746.8	3554.3	1803.8	1023.1	897.0	822.9	778.7	748.8	743.0	746.9
40°	16957.5	7516.7	3474.3	1771.9	971.1	869.1	799.5	762.5	730.6	720.9	722.8
42.5°	17574.4	7330.2	3385.9	1730.3	938.6	848.9	782.6	750.8	715.0	704.6	702.7
45°	18241.3	7268.4	3270.2	1645.8	954.9	850.9	778.7	744.9	708.5	696.8	692.9
47.5°	19120.1	7462.8	3150.0	1545.7	989.3	861.3	784.6	744.9	706.6	696.8	692.9
50°	20227.1	7919.1	2997.2	1399.5	954.9	889.2	782.6	738.4	706.6	696.8	689.0
52.5°	21649.3	8536.0	2797.7	1231.8	934.7	956.8	778.7	726.7	696.8	683.2	668.9
55°	23377.0	9040.4	2558.4	1093.3	889.2	938.6	772.9	713.1	681.2	661.1	648.7
57.5°	24642.6	9222.4	2252.9	1003.6	824.9	908.7	764.4	694.9	661.1	644.8	629.2
60°	24392.4	8870.1	1994.2	947.1	786.5	821.0	758.6	678.6	642.9	631.2	616.2
62.5°	22388.4	7949.0	1827.8	921.1	762.5	748.8	764.4	663.0	627.3	614.3	610.4
65°	19382.7	6589.2	1762.2	915.2	743.0	706.6	711.1	644.8	608.4	598.7	594.8
67.5°	15988.4	5318.4	1704.3	934.7	717.0	676.7	657.2	620.8	590.2	580.5	572.7
70°	12608.3	4423.3	1677.7	923.0	685.1	646.8	625.3	594.8	568.8	558.4	552.5
72.5°	10153.2	3736.3	1663.4	910.7	642.9	606.5	586.3	560.3	532.4	528.5	522.6
75°	8592.5	2937.4	1524.3	873.0	594.8	558.4	544.7	520.7	492.7	492.7	488.8
77.5°	6628.2	2124.2	1267.5	772.9	544.7	504.4	492.7	474.5	442.7	448.5	446.6
80°	4895.9	1385.8	991.3	640.9	483.0	444.6	438.1	420.6	386.1	394.6	394.6
82.5°	3354.1	908.7	713.1	524.6	412.1	376.4	376.4	358.2	320.5	324.4	336.7
85°	1684.2	625.3	532.4	406.3	320.5	302.3	302.3	288.6	250.3	252.2	268.5
87.5°	512.9	376.4	352.3	290.6	230.1	226.2	215.8	206.1	182.0	180.1	190.5
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):

	195°	205°	215°	225°	235°	245°	255°	265°	270°	275°	285°
0°	12306.7	12306.7	12306.7	12306.7	12306.7	12306.7	12306.7	12306.7	12306.7	12306.7	12306.7
2.5°	10614.1	10499.7	10362.5	10057.6	9955.6	9949.1	10042.0	9945.2	10129.8	10051.8	10137.6
5°	8559.4	8448.2	8293.5	7905.5	7668.8	7508.3	7432.9	7208.6	7370.5	7252.2	7351.0
7.5°	6295.4	6321.4	6219.3	5991.2	5476.4	5218.3	5066.2	4929.7	5048.0	5035.6	5224.2
10°	4425.3	4494.8	4423.3	4193.2	3775.9	3634.2	3662.2	3716.1	3870.8	3950.1	4240.7
12.5°	3185.7	3181.8	3135.7	2929.6	2655.3	2670.9	2785.3	2878.9	3021.3	3105.8	3401.5
15°	2378.4	2342.6	2322.5	2154.1	1998.1	2032.6	2088.5	2098.2	2188.6	2238.6	2479.1
17.5°	1797.9	1816.1	1837.6	1718.0	1599.7	1577.6	1534.0	1479.4	1506.1	1515.8	1635.4
20°	1427.4	1499.6	1554.2	1469.7	1350.1	1285.1	1229.2	1193.4	1193.4	1191.5	1225.3
22.5°	1247.4	1299.4	1357.9	1299.4	1191.5	1134.9	1103.1	1075.1	1071.2	1071.2	1103.1
25°	1149.9	1187.6	1243.5	1203.8	1123.2	1081.0	1051.1	1015.3	1001.7	997.1	1019.2
27.5°	1101.1	1117.4	1145.3	1108.9	1041.3	1021.2	1013.4	981.5	962.7	952.9	975.7
30°	1019.2	1015.3	1017.3	981.5	926.9	925.0	938.6	945.1	938.6	936.7	971.1
32.5°	943.2	934.7	932.8	900.9	850.9	839.2	850.9	863.2	876.9	897.0	936.7
35°	847.0	867.1	878.8	850.9	790.4	754.7	741.0	718.9	706.6	706.6	752.7
37.5°	770.9	817.1	835.3	809.3	743.0	692.9	668.9	665.0	666.9	674.7	718.9
40°	744.9	778.7	794.3	769.0	702.7	657.2	642.9	639.0	642.9	655.2	698.8
42.5°	728.7	752.7	750.8	718.9	665.0	633.1	625.3	620.8	625.3	637.0	685.1
45°	715.0	730.6	715.0	676.7	627.3	610.4	612.3	610.4	614.3	627.3	672.8
47.5°	702.7	708.5	689.0	650.7	598.7	594.8	602.6	608.4	612.3	623.4	670.8
50°	685.1	685.1	666.9	627.3	574.6	576.6	586.3	600.6	602.6	614.3	653.3
52.5°	663.0	661.1	648.7	610.4	554.5	560.3	560.3	576.6	580.5	594.8	635.1
55°	644.8	640.9	635.1	598.7	536.9	546.7	540.8	546.7	556.4	570.7	614.3
57.5°	629.2	620.8	620.8	588.3	522.6	526.5	512.9	520.7	532.4	544.7	590.2
60°	612.3	604.5	608.4	574.6	500.5	496.6	490.8	506.4	510.9	524.6	570.7
62.5°	594.8	588.3	590.2	558.4	484.9	474.5	474.5	488.8	490.8	510.9	554.5
65°	580.5	572.7	570.7	542.8	466.7	455.0	460.9	466.7	470.6	490.8	532.4
67.5°	566.8	550.6	550.6	528.5	446.6	434.2	446.6	444.6	451.1	468.7	502.5
70°	548.6	526.5	528.5	518.7	426.4	412.1	422.5	420.6	424.5	436.2	470.6
72.5°	520.7	502.5	506.4	502.5	406.3	386.1	390.0	390.0	390.0	400.4	436.2
75°	484.9	470.6	483.0	492.7	382.2	354.3	358.2	358.2	352.3	358.2	402.4
77.5°	440.1	432.3	472.6	458.9	354.3	320.5	320.5	316.6	304.9	312.7	360.1
80°	392.6	386.1	436.2	384.2	322.4	278.9	274.3	263.9	252.2	258.1	306.8
82.5°	342.6	336.7	366.6	294.5	278.9	230.1	220.4	202.2	190.5	196.3	239.9
85°	280.8	280.8	282.8	222.3	211.9	176.2	164.5	140.4	126.1	130.0	172.3
87.5°	200.2	206.1	190.5	152.1	126.1	98.2	90.4	76.1	63.7	74.1	90.4
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°	12306.7	12306.7	12306.7	12306.7	12306.7	12306.7	12306.7	12306.7
2.5°	10578.3	10798.7	11048.9	11368.7	11643.7	12093.5	12526.4	12786.4
5°	7909.4	8276.0	8731.6	9319.2	9865.9	10686.2	11501.3	12023.9
7.5°	5660.3	6052.9	6545.6	7278.2	8051.7	9098.2	10175.9	10800.6
10°	4684.0	5086.3	5500.4	5995.1	6628.2	7767.0	9040.4	9745.0
12.5°	3874.7	4305.0	4751.6	5272.3	5858.6	6875.8	8343.6	9154.8
15°	2965.4	3445.7	3972.2	4631.3	5365.9	6541.7	8171.3	9052.1
17.5°	2032.6	2569.5	3215.6	4028.8	4927.7	6433.2	8480.1	9495.4
20°	1399.5	1790.1	2481.1	3434.0	4515.6	6419.5	9072.2	10344.3
22.5°	1171.3	1345.5	1849.9	2887.4	4204.9	6591.8	9992.0	11535.1
25°	1082.9	1187.6	1477.5	2412.8	3978.7	6988.3	11257.6	13077.0
27.5°	1031.6	1125.2	1341.6	2102.8	3800.6	7448.5	12488.7	14570.7
30°	1051.1	1147.3	1303.3	1944.2	3558.2	7832.7	13582.0	15736.2
32.5°	947.1	989.3	1117.4	1803.8	3384.0	8155.1	14538.8	16701.4
35°	807.3	880.8	997.1	1738.1	3387.9	8371.5	15582.1	17934.5
37.5°	769.0	843.1	926.9	1714.1	3434.0	8602.3	16779.4	19380.8
40°	744.9	813.2	885.3	1700.4	3478.2	8812.2	17953.3	20810.2
42.5°	728.7	790.4	880.8	1651.7	3500.3	9000.7	18918.0	22025.7
45°	726.7	790.4	897.0	1603.6	3534.1	9202.9	19727.2	22924.6
47.5°	728.7	817.1	867.1	1545.7	3534.1	9540.9	20676.2	23727.4
50°	720.9	861.3	835.3	1463.8	3452.2	10181.8	21977.6	24802.5
52.5°	717.0	855.4	772.9	1337.7	3309.9	11199.1	23645.5	26284.6
55°	706.6	824.9	728.7	1149.9	3144.1	12308.6	25431.7	28037.0
57.5°	696.8	730.6	704.6	985.4	2887.4	13089.3	26660.9	29404.0
60°	780.7	639.0	685.1	904.8	2544.8	13303.2	26613.5	29948.7
62.5°	722.8	598.7	659.1	887.3	2304.9	12702.5	25383.6	29654.9
65°	566.8	572.7	633.1	938.6	2240.6	11111.3	23204.8	28295.0
67.5°	518.7	546.7	606.5	1005.6	2247.1	8896.1	19949.5	25332.9
70°	488.8	518.7	576.6	1039.4	2262.7	6632.1	15771.9	20634.0
72.5°	455.0	481.0	542.8	1045.2	2158.0	4817.2	12156.5	15171.9
75°	414.1	438.1	494.7	910.7	1788.2	3341.7	9299.1	10380.0
77.5°	368.6	386.1	434.2	702.7	1328.0	2138.5	6979.8	7583.0
80°	314.6	324.4	364.7	514.8	908.7	1337.7	5522.5	6084.8
82.5°	252.2	256.1	282.8	386.1	590.2	859.3	3698.6	4221.2
85°	178.1	178.1	194.4	280.8	402.4	544.7	2007.9	2226.9
87.5°	83.9	85.8	85.8	154.1	210.0	276.9	462.8	284.7
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)