

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: P298897

Luminaire Tested: **GLNA-AF-08-LED-E1-SLL-7027**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P298897
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-08-LED-E1-SLL-7027
Description: GALLEONNAIRE AREA AND ROADWAY LUMINAIRE
(8) 70 CRI, 2700K 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: 36305.2 lumens
Efficiency: N/A
Efficacy: 81.6 lumens/watt
Luminous Opening: Rectangular (W 2' x L: 1' x H: 0')
IES Classification: Type IV - Short - Non-Cutoff
BUG Rating: B3 - U0 - G5

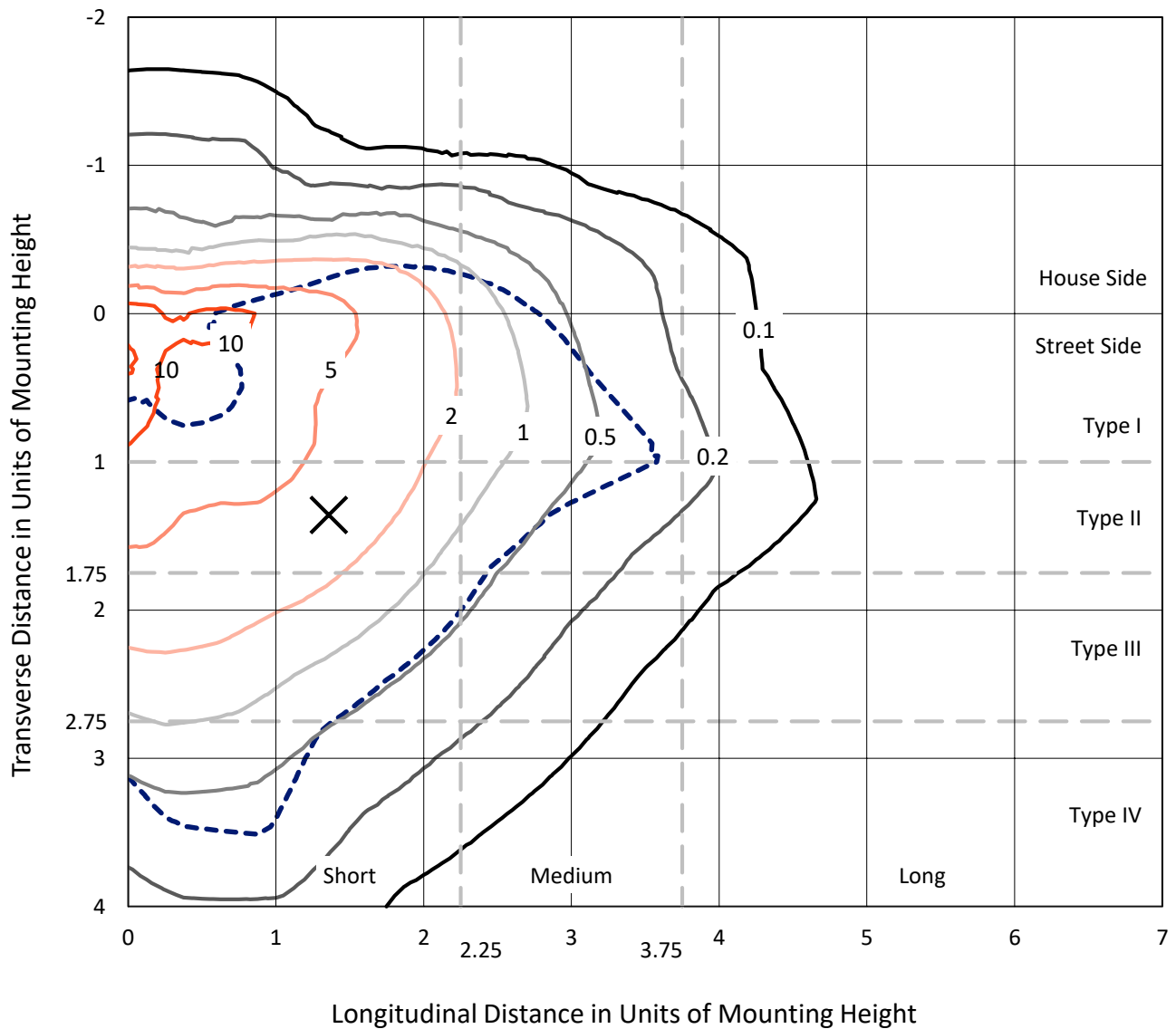
Input Watts (W): 445
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Iso-Footcandle Lines of Horizontal Illumination

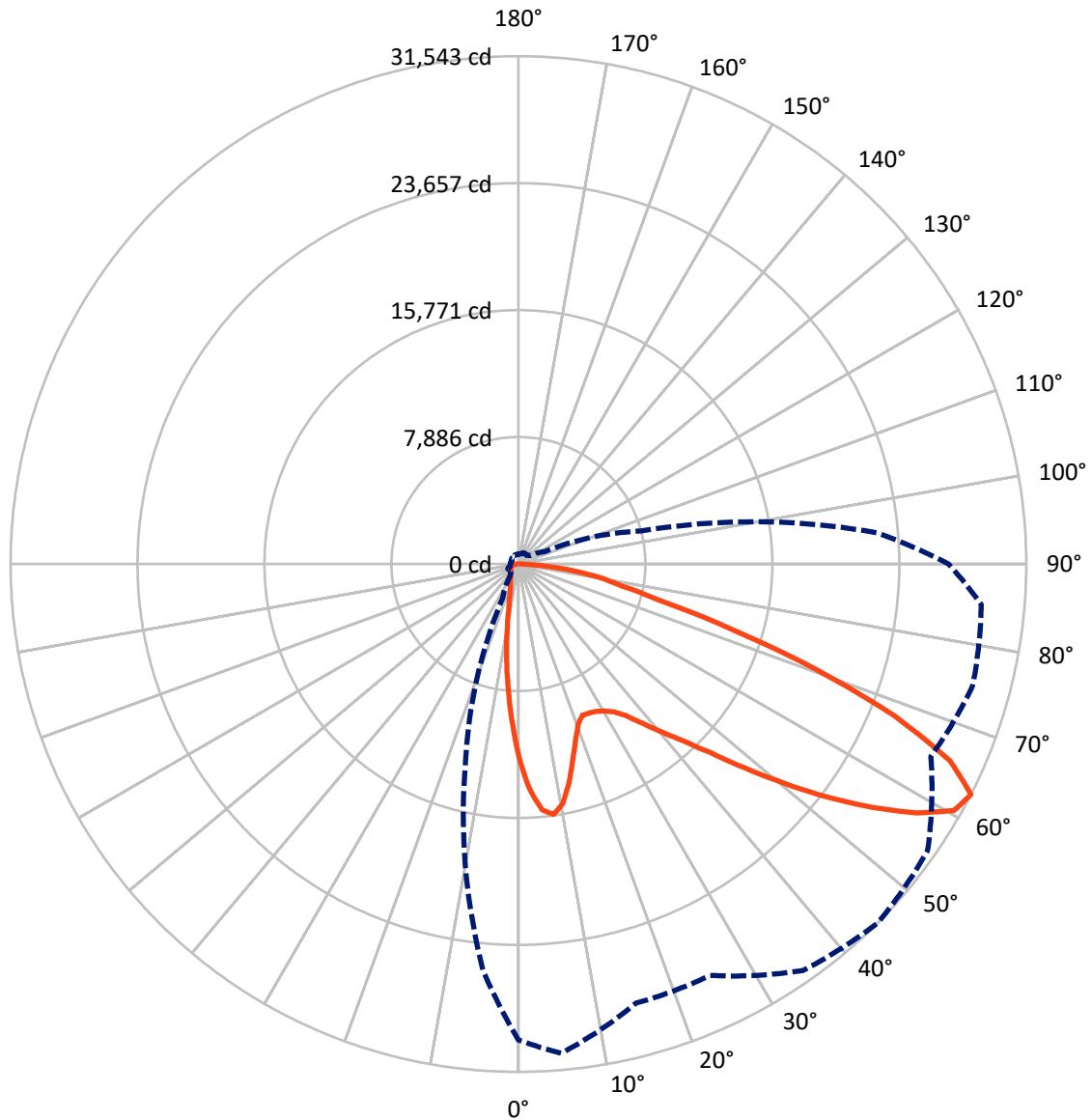
× Max cd
 - - - 1/2 Max cd



Based on 30 foot mounting height. Maximum calculated value = 16 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	6008.0	0.0	6008.0
	% Fixture	16.5	0.0	16.5
Street Side	Lumens	30297.2	0.0	30297.2
	% Fixture	83.5	0.0	83.5
Total	Lumens	36305.2	0.0	36305.2
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	892.9	2.5
10°-20°	1637.3	4.5
20°-30°	2387.3	6.6
30°-40°	3676.7	10.1
40°-50°	5411.1	14.9
50°-60°	7936.9	21.9
60°-70°	8872.3	24.4
70°-80°	4343.7	12.0
80°-90°	1146.9	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°	36305.2	100.0
0°-180°	36305.2	100.0



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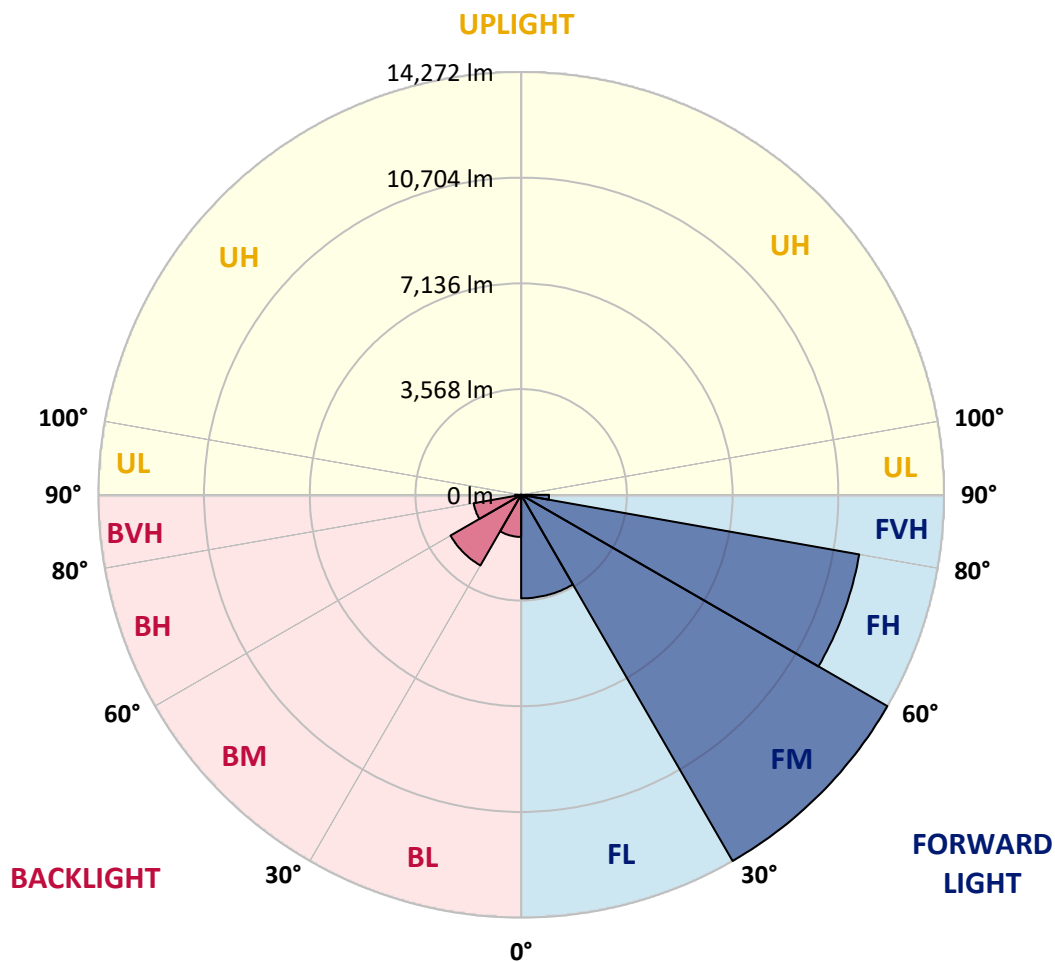
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	3496.1	9.6			
FM	(30°-60°)	14271.9	39.3			
FH	(60°-80°)	11587.3	31.9			G4/12000
FVH	(80°-90°)	941.8	2.6			G5
BL	(0°-30°)	1421.4	3.9	B3/2500		
BM	(30°-60°)	2752.8	7.6	B3/5000		
BH	(60°-80°)	1628.7	4.5	B3/2500		G3/2500
BVH	(80°-90°)	205.0	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°	12266.2	12266.2	12266.2	12266.2	12266.2	12266.2	12266.2	12266.2	12266.2	12266.2	12266.2
2.5°	12744.4	12948.5	13345.6	13642.3	14004.5	14088.1	14204.0	14090.0	13888.5	13621.0	13533.5
5°	11984.4	12419.8	13383.2	14231.9	14986.0	15337.2	15435.7	15145.4	14561.0	13792.6	13323.6
7.5°	10765.1	11383.8	12688.7	13938.4	15049.5	15706.5	15690.3	15017.8	13942.3	12690.6	11938.4
10°	9713.0	10419.8	11917.0	13313.9	14493.0	15129.9	14883.7	14024.6	12740.5	11299.6	10483.9
12.5°	9124.7	9817.3	11335.9	12738.5	13724.6	13944.2	13756.4	12914.1	11704.5	10248.1	9533.5
15°	9022.3	9783.6	11104.6	12246.2	12798.8	12607.7	12383.5	12006.4	11151.9	9908.6	9164.2
17.5°	9464.2	10301.9	11370.2	11902.8	11808.8	11475.2	11411.7	11453.8	11248.4	10285.7	9427.9
20°	10310.3	11315.8	12002.6	11741.5	11056.7	10597.3	10613.5	11254.3	11862.6	11242.0	10261.7
22.5°	11497.2	12645.3	12914.1	11827.0	10739.2	10194.3	10326.5	11364.4	12842.9	12639.4	11387.7
25°	13034.0	14080.3	13886.6	12138.0	10770.9	10244.2	10349.8	11743.4	14000.0	14036.2	12781.3
27.5°	14522.8	15493.3	14702.3	12551.3	10903.1	10362.1	10502.1	12339.5	15105.9	15552.9	14373.8
30°	15684.4	16359.5	15025.6	12928.4	11162.3	10591.5	10765.1	12906.3	15609.3	16576.6	15598.9
32.5°	16646.5	17131.1	15540.6	13395.5	11639.1	10952.4	11258.1	13595.0	16333.6	17551.0	16798.1
35°	17875.6	18013.6	16181.4	13916.4	12375.7	11581.4	11960.4	14269.5	17024.2	18534.4	17979.9
37.5°	19317.1	19139.6	16785.8	14629.1	13328.1	12564.9	12878.5	15010.0	17592.4	19650.1	19186.9
40°	20741.8	20314.2	17545.1	15734.3	14717.2	13724.6	14095.8	15800.4	18123.7	20767.7	20366.6
42.5°	21953.3	21320.3	18292.8	16949.7	16009.7	15004.2	15447.3	16596.7	18630.3	21721.4	21390.3
45°	22849.3	22062.8	19005.5	18117.2	17792.0	16704.2	16914.1	17508.2	19179.1	22518.2	22232.5
47.5°	23649.4	22809.1	19811.4	19295.1	19350.8	18915.4	18577.9	18570.1	19826.3	23168.7	23028.8
50°	24721.0	23845.1	20677.6	20507.9	21689.6	21400.0	20655.6	19809.5	20643.9	23907.3	23891.1
52.5°	26198.2	25486.2	21735.6	21815.3	23873.6	24062.8	23140.2	21298.9	21924.8	25262.0	25166.8
55°	27944.9	27528.9	23177.1	23318.4	26551.3	26687.3	25770.6	23160.3	23809.5	27224.4	26958.8
57.5°	29307.3	29219.9	24757.3	25122.7	28551.3	29162.2	28320.0	25316.4	25932.6	28876.5	28209.8
60°	29850.3	30275.3	26439.8	26942.6	30401.6	31077.3	30339.4	27209.5	27814.6	29561.3	28124.3
62.5°	29557.4	30506.6	28231.9	28189.8	30814.3	31542.5	31023.6	28263.6	29210.2	28854.5	26701.6
65°	28202.1	29674.7	29271.7	27868.4	29401.3	29460.9	29293.1	27792.6	29539.3	26621.2	23950.7
67.5°	25249.7	27369.5	27902.1	25114.9	25589.2	25200.5	24918.6	25214.1	27822.4	23274.3	20128.9
70°	20566.2	23755.7	24010.3	20087.4	19871.7	19609.9	19049.5	20671.8	24436.0	19075.4	15972.1
72.5°	15122.1	18474.8	19258.8	14732.7	13735.0	13788.1	13345.6	15578.2	19867.8	14169.7	11924.8
75°	10345.9	13377.4	15068.3	10279.9	9083.2	9104.6	9048.2	11038.5	15824.4	9856.8	8923.2
77.5°	7558.1	9557.5	11364.4	6910.9	6709.4	6585.7	6555.9	7723.3	12132.1	7157.1	6929.0
80°	6064.8	7061.2	7633.3	4789.8	5150.6	5140.9	4975.0	5310.6	7922.9	5234.8	5182.4
82.5°	4207.3	5426.6	6184.6	3753.8	3476.5	3418.2	3459.0	3955.3	5600.2	3578.2	3402.6
85°	2219.6	3604.1	6125.0	3326.8	2063.5	1646.3	2047.9	3238.7	4851.9	1896.3	1659.9
87.5°	283.8	1041.8	4055.1	1327.5	814.4	438.6	972.5	1823.8	3115.6	386.8	337.5
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):

	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°	185°
0°	12266.2	12266.2	12266.2	12266.2	12266.2	12266.2	12266.2	12266.2	12266.2	12266.2	12266.2
2.5°	13308.0	13042.4	12695.1	12373.1	12040.1	11708.4	11275.6	11004.2	10816.9	10780.7	10701.6
5°	12984.7	12102.3	11435.7	10859.1	10336.2	9597.0	9188.2	8848.7	8667.3	8649.8	8605.7
7.5°	11493.3	10276.0	9376.1	8559.7	7819.2	7222.5	6563.6	6257.2	6130.9	6160.7	6190.5
10°	9942.3	8581.8	7547.8	6713.3	6060.9	5558.1	5029.5	4672.5	4424.3	4374.5	4364.7
12.5°	8809.2	7316.5	6312.9	5723.3	5219.3	4745.7	4185.3	3763.5	3442.8	3332.7	3259.5
15°	8329.7	6697.7	5646.2	5011.3	4454.2	3853.6	3332.7	2891.5	2596.7	2500.8	2447.0
17.5°	8432.1	6526.1	5186.9	4374.5	3662.4	3035.3	2379.0	2001.3	1823.8	1778.4	1778.4
20°	8967.3	6494.3	4807.2	3788.1	2899.2	2173.0	1634.6	1418.8	1361.2	1355.4	1370.9
22.5°	9717.5	6606.4	4524.8	3279.6	2253.3	1586.6	1273.1	1193.4	1167.5	1174.0	1191.4
25°	10835.1	6983.5	4319.4	2826.0	1768.1	1299.0	1135.1	1087.8	1075.5	1091.7	1113.7
27.5°	12160.0	7360.5	4191.1	2484.6	1492.7	1187.6	1079.4	1030.1	1037.9	1058.0	1077.4
30°	13323.6	7670.2	3989.6	2241.7	1407.2	1193.4	1079.4	1012.0	1004.2	1008.1	1013.9
32.5°	14368.0	7879.5	3753.8	2009.7	1213.5	1059.9	1008.1	998.4	953.7	937.5	940.1
35°	15267.9	7879.5	3612.6	1874.3	1087.8	940.1	856.5	806.6	783.9	785.9	808.5
37.5°	16136.0	7721.4	3542.6	1797.9	1019.8	894.1	820.2	776.2	746.4	740.5	744.4
40°	16901.8	7492.0	3462.9	1766.1	967.9	866.2	796.9	760.0	728.2	718.5	720.4
42.5°	17516.6	7306.1	3374.8	1724.6	935.5	846.1	780.0	748.3	712.7	702.3	700.4
45°	18181.4	7244.6	3259.5	1640.4	951.7	848.1	776.2	742.5	706.2	694.5	690.6
47.5°	19057.3	7438.3	3139.6	1540.7	986.1	858.4	782.0	742.5	704.2	694.5	690.6
50°	20160.6	7893.1	2987.4	1394.9	951.7	886.3	780.0	736.0	704.2	694.5	686.7
52.5°	21578.2	8507.9	2788.5	1227.7	931.6	953.7	776.2	724.3	694.5	680.9	666.7
55°	23300.2	9010.7	2550.0	1089.7	886.3	935.5	770.3	710.7	679.0	658.9	646.6
57.5°	24561.6	9192.1	2245.5	1000.3	822.2	905.7	761.9	692.6	658.9	642.7	627.1
60°	24312.2	8840.9	1987.7	944.0	783.9	818.3	756.1	676.4	640.7	629.1	614.2
62.5°	22314.8	7922.9	1821.8	918.0	760.0	746.4	761.9	660.8	625.2	612.2	608.4
65°	19319.0	6567.5	1756.4	912.2	740.5	704.2	708.8	642.7	606.4	596.7	592.8
67.5°	15935.8	5300.9	1698.7	931.6	714.6	674.4	655.0	618.7	588.3	578.6	570.8
70°	12566.9	4408.8	1672.2	920.0	682.9	644.6	623.3	592.8	566.9	556.5	550.7
72.5°	10119.8	3724.0	1657.9	907.7	640.7	604.5	584.4	558.5	530.6	526.7	520.9
75°	8564.3	2927.8	1519.3	870.1	592.8	556.5	542.9	518.9	491.1	491.1	487.2
77.5°	6606.4	2117.3	1263.4	770.3	542.9	502.8	491.1	472.9	441.2	447.0	445.1
80°	4879.8	1381.3	988.0	638.8	481.4	443.1	436.7	419.2	384.8	393.3	393.3
82.5°	3343.0	905.7	710.7	522.8	410.8	375.1	375.1	357.0	319.4	323.3	335.6
85°	1678.6	623.3	530.6	404.9	319.4	301.3	301.3	287.7	249.4	251.4	267.6
87.5°	511.2	375.1	351.1	289.6	229.3	225.5	215.1	205.4	181.4	179.5	189.8
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°	12266.2	12266.2	12266.2	12266.2	12266.2	12266.2	12266.2	12266.2	12266.2	12266.2	12266.2
2.5°	10579.2	10465.1	10328.4	10024.6	9922.9	9916.4	10009.0	9912.5	10096.5	10018.8	10104.3
5°	8531.2	8420.5	8266.3	7879.5	7643.6	7483.6	7408.5	7184.9	7346.3	7228.4	7326.8
7.5°	6274.7	6300.6	6198.9	5971.5	5458.4	5201.2	5049.5	4913.5	5031.4	5019.1	5207.0
10°	4410.7	4480.1	4408.8	4179.5	3763.5	3622.3	3650.1	3703.9	3858.1	3937.1	4226.7
12.5°	3175.2	3171.4	3125.4	2920.0	2646.6	2662.1	2776.2	2869.4	3011.3	3095.6	3390.3
15°	2370.6	2334.9	2314.9	2147.1	1991.6	2025.9	2081.6	2091.3	2181.4	2231.3	2471.0
17.5°	1792.0	1810.2	1831.5	1712.3	1594.4	1572.4	1529.0	1474.6	1501.1	1510.8	1630.1
20°	1422.7	1494.7	1549.1	1464.8	1345.6	1280.9	1225.1	1189.5	1189.5	1187.6	1221.2
22.5°	1243.3	1295.1	1353.4	1295.1	1187.6	1131.2	1099.4	1071.6	1067.7	1067.7	1099.4
25°	1146.1	1183.7	1239.4	1199.9	1119.5	1077.4	1047.6	1012.0	998.4	993.8	1015.9
27.5°	1097.5	1113.7	1141.6	1105.3	1037.9	1017.8	1010.0	978.3	959.5	949.8	972.5
30°	1015.9	1012.0	1013.9	978.3	923.9	921.9	935.5	942.0	935.5	933.6	967.9
32.5°	940.1	931.6	929.7	898.0	848.1	836.4	848.1	860.4	874.0	894.1	933.6
35°	844.2	864.3	875.9	848.1	787.8	752.2	738.6	716.6	704.2	704.2	750.2
37.5°	768.4	814.4	832.5	806.6	740.5	690.6	666.7	662.8	664.7	672.5	716.6
40°	742.5	776.2	791.7	766.4	700.4	655.0	640.7	636.9	640.7	653.1	696.5
42.5°	726.3	750.2	748.3	716.6	662.8	631.0	623.3	618.7	623.3	634.9	682.9
45°	712.7	728.2	712.7	674.4	625.2	608.4	610.3	608.4	612.2	625.2	670.6
47.5°	700.4	706.2	686.7	648.5	596.7	592.8	600.6	606.4	610.3	621.3	668.6
50°	682.9	682.9	664.7	625.2	572.7	574.7	584.4	598.6	600.6	612.2	651.1
52.5°	660.8	658.9	646.6	608.4	552.6	558.5	558.5	574.7	578.6	592.8	633.0
55°	642.7	638.8	633.0	596.7	535.1	544.9	539.0	544.9	554.6	568.8	612.2
57.5°	627.1	618.7	618.7	586.3	520.9	524.8	511.2	518.9	530.6	542.9	588.3
60°	610.3	602.5	606.4	572.7	498.9	495.0	489.1	504.7	509.2	522.8	568.8
62.5°	592.8	586.3	588.3	556.5	483.3	472.9	472.9	487.2	489.1	509.2	552.6
65°	578.6	570.8	568.8	541.0	465.2	453.5	459.3	465.2	469.1	489.1	530.6
67.5°	564.9	548.8	548.8	526.7	445.1	432.8	445.1	443.1	449.6	467.1	500.8
70°	546.8	524.8	526.7	517.0	425.0	410.8	421.1	419.2	423.1	434.7	469.1
72.5°	518.9	500.8	504.7	500.8	404.9	384.8	388.7	388.7	388.7	399.1	434.7
75°	483.3	469.1	481.4	491.1	381.0	353.1	357.0	357.0	351.1	357.0	401.0
77.5°	438.6	430.8	471.0	457.4	353.1	319.4	319.4	315.5	303.9	311.6	358.9
80°	391.3	384.8	434.7	382.9	321.3	277.9	273.4	263.0	251.4	257.2	305.8
82.5°	341.4	335.6	365.4	293.5	277.9	229.3	219.6	201.5	189.8	195.7	239.1
85°	279.9	279.9	281.8	221.6	211.2	175.6	163.9	139.9	125.7	129.6	171.7
87.5°	199.5	205.4	189.8	151.6	125.7	97.8	90.1	75.8	63.5	73.9	90.1
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):

	295°	305°	315°	325°	335°	345°	355°	360°
0°	12266.2	12266.2	12266.2	12266.2	12266.2	12266.2	12266.2	12266.2
2.5°	10543.5	10763.2	11012.6	11331.4	11605.4	12053.7	12485.2	12744.4
5°	7883.4	8248.8	8702.9	9288.6	9833.5	10651.1	11463.5	11984.4
7.5°	5641.7	6033.0	6524.1	7254.3	8025.2	9068.3	10142.5	10765.1
10°	4668.6	5069.6	5482.3	5975.4	6606.4	7741.5	9010.7	9713.0
12.5°	3862.0	4290.9	4736.0	5254.9	5839.3	6853.2	8316.1	9124.7
15°	2955.6	3434.4	3959.2	4616.1	5348.2	6520.2	8144.5	9022.3
17.5°	2025.9	2561.1	3205.0	4015.5	4911.6	6412.0	8452.2	9464.2
20°	1394.9	1784.3	2472.9	3422.7	4500.8	6398.4	9042.4	10310.3
22.5°	1167.5	1341.1	1843.9	2877.9	4191.1	6570.1	9959.2	11497.2
25°	1079.4	1183.7	1472.6	2404.9	3965.7	6965.3	11220.6	13034.0
27.5°	1028.2	1121.5	1337.2	2095.9	3788.1	7424.0	12447.7	14522.8
30°	1047.6	1143.5	1299.0	1937.8	3546.5	7806.9	13537.4	15684.4
32.5°	944.0	986.1	1113.7	1797.9	3372.8	8128.3	14491.1	16646.5
35°	804.7	877.9	993.8	1732.4	3376.7	8344.0	15530.9	17875.6
37.5°	766.4	840.3	923.9	1708.5	3422.7	8574.0	16724.3	19317.1
40°	742.5	810.5	882.4	1694.8	3466.8	8783.3	17894.3	20741.8
42.5°	726.3	787.8	877.9	1646.3	3488.8	8971.1	18855.8	21953.3
45°	724.3	787.8	894.1	1598.3	3522.5	9172.6	19662.4	22849.3
47.5°	726.3	814.4	864.3	1540.7	3522.5	9509.5	20608.3	23649.4
50°	718.5	858.4	832.5	1459.0	3440.9	10148.3	21905.4	24721.0
52.5°	714.6	852.6	770.3	1333.3	3299.0	11162.3	23567.8	26198.2
55°	704.2	822.2	726.3	1146.1	3133.8	12268.2	25348.2	27944.9
57.5°	694.5	728.2	702.3	982.2	2877.9	13046.3	26573.3	29307.3
60°	778.1	636.9	682.9	901.8	2536.4	13259.4	26526.0	29850.3
62.5°	720.4	596.7	656.9	884.4	2297.4	12660.8	25300.2	29557.4
65°	564.9	570.8	631.0	935.5	2233.2	11074.8	23128.5	28202.1
67.5°	517.0	544.9	604.5	1002.3	2239.7	8866.8	19884.0	25249.7
70°	487.2	517.0	574.7	1036.0	2255.3	6610.3	15720.1	20566.2
72.5°	453.5	479.4	541.0	1041.8	2150.9	4801.4	12116.6	15122.1
75°	412.7	436.7	493.0	907.7	1782.3	3330.7	9268.5	10345.9
77.5°	367.3	384.8	432.8	700.4	1323.6	2131.5	6956.9	7558.1
80°	313.6	323.3	363.5	513.1	905.7	1333.3	5504.4	6064.8
82.5°	251.4	255.3	281.8	384.8	588.3	856.5	3686.4	4207.3
85°	177.5	177.5	193.7	279.9	401.0	542.9	2001.3	2219.6
87.5°	83.6	85.5	85.5	153.5	209.3	276.0	461.3	283.8
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)