

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: P298951

Luminaire Tested: **GLNA-AF-07-LED-E1-SLL-7027-800**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P298951
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-07-LED-E1-SLL-7027-800
Description: GALLEONNAIRE AREA AND ROADWAY LUMINAIRE
(7) 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: 25886.2 lumens
Efficiency: N/A
Efficacy: 87.7 lumens/watt
Luminous Opening: Rectangular (W 2' x L: 1' x H: 0')
IES Classification: Type IV - Short - Non-Cutoff
BUG Rating: B3 - U0 - G4

Input Watts (W): 295
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

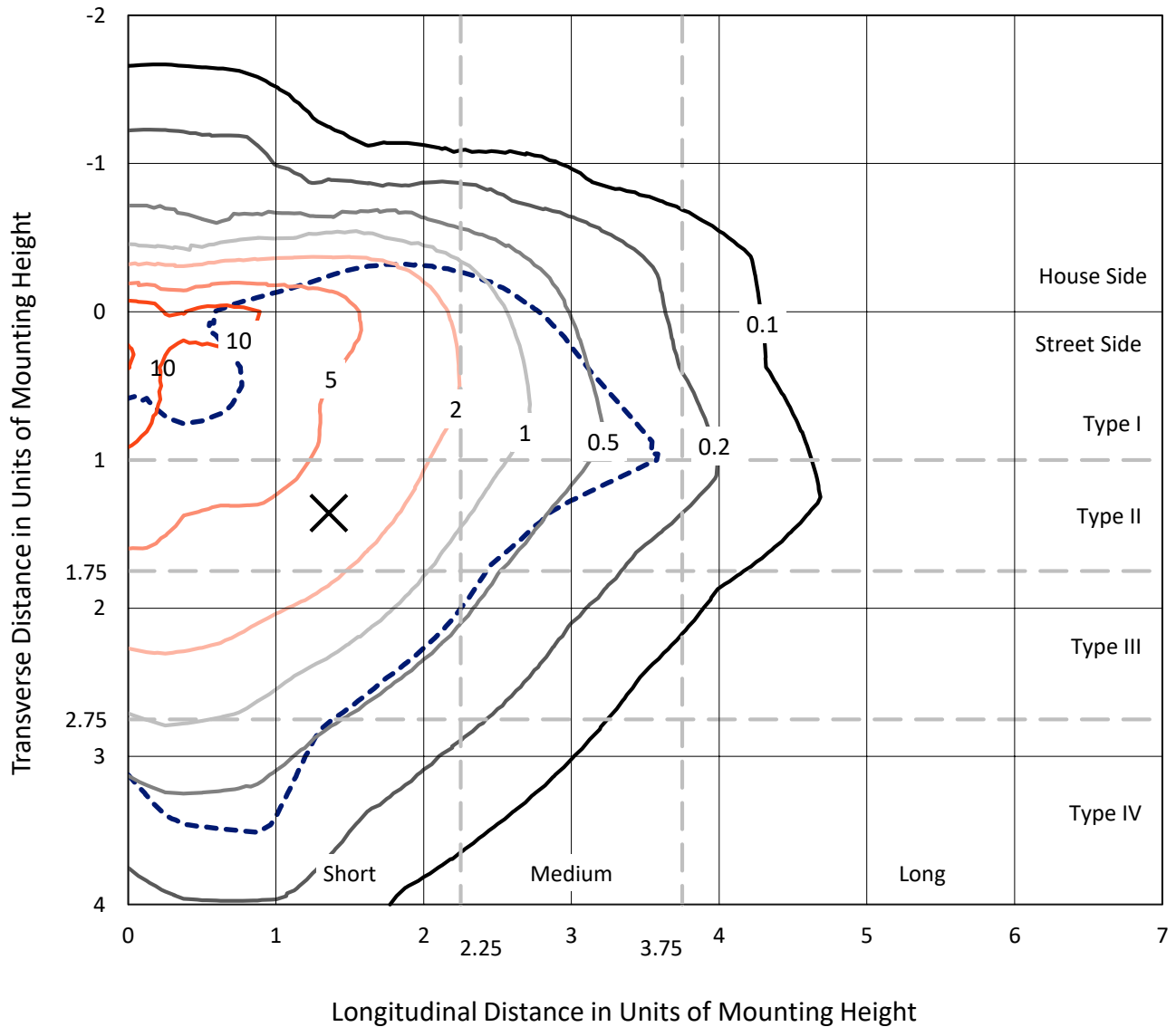


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Iso-Footcandle Lines of Horizontal Illumination

✕ Max cd
 - - - 1/2 Max cd

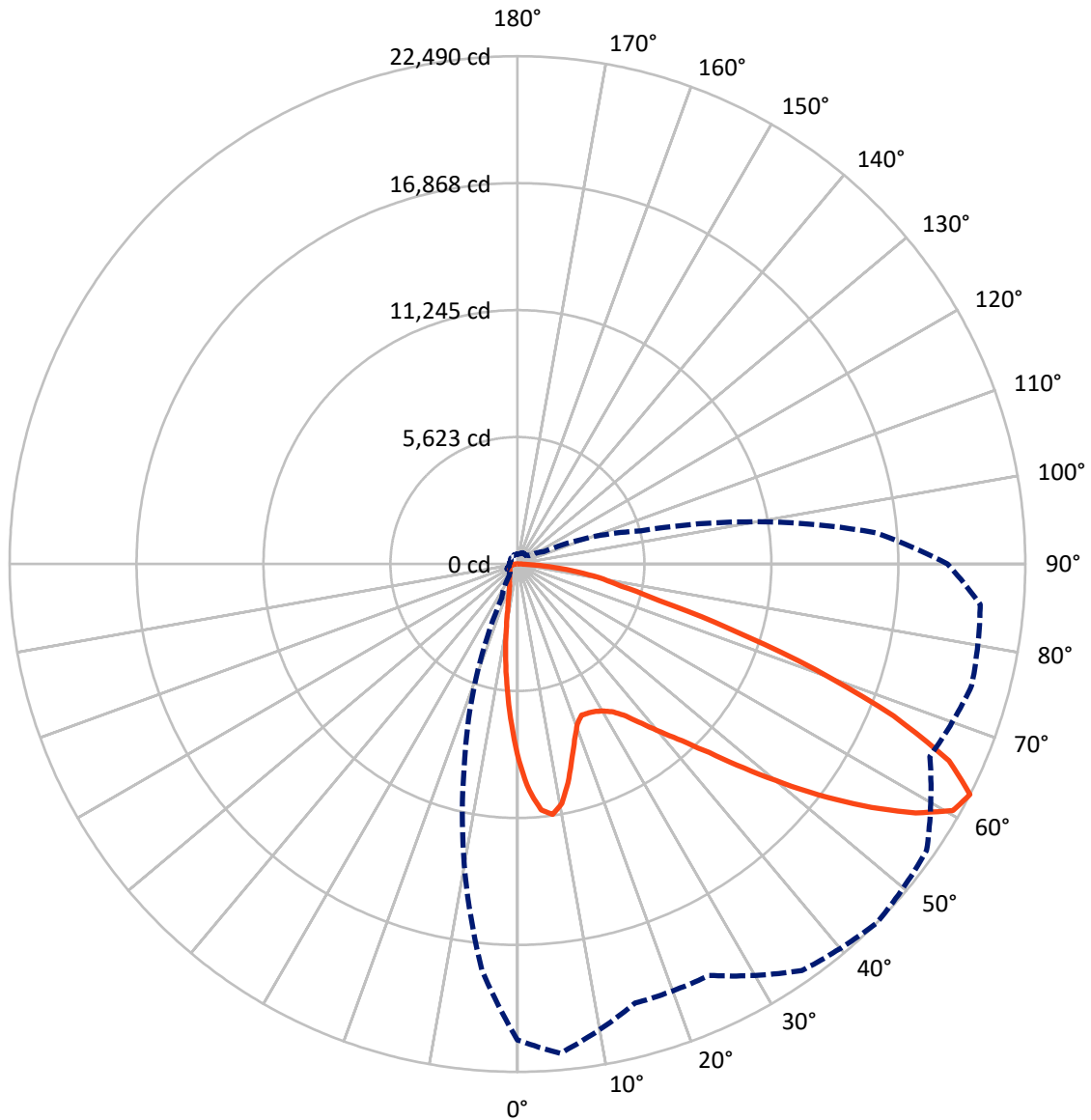


Based on 25 foot mounting height. Maximum calculated value = 16.5 fc
 Type IV - Short - Non-Cutoff

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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
House Side	Lumens	4283.8	0.0	4283.8
	% Fixture	16.5	0.0	16.5
Street Side	Lumens	21602.4	0.0	21602.4
	% Fixture	83.5	0.0	83.5
Total	Lumens	25886.2	0.0	25886.2
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	636.7	2.5
10°-20°	1167.4	4.5
20°-30°	1702.2	6.6
30°-40°	2621.6	10.1
40°-50°	3858.2	14.9
50°-60°	5659.2	21.9
60°-70°	6326.1	24.4
70°-80°	3097.2	12.0
80°-90°	817.7	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°	25886.2	100.0
0°-180°	25886.2	100.0

Coefficient of Utilization



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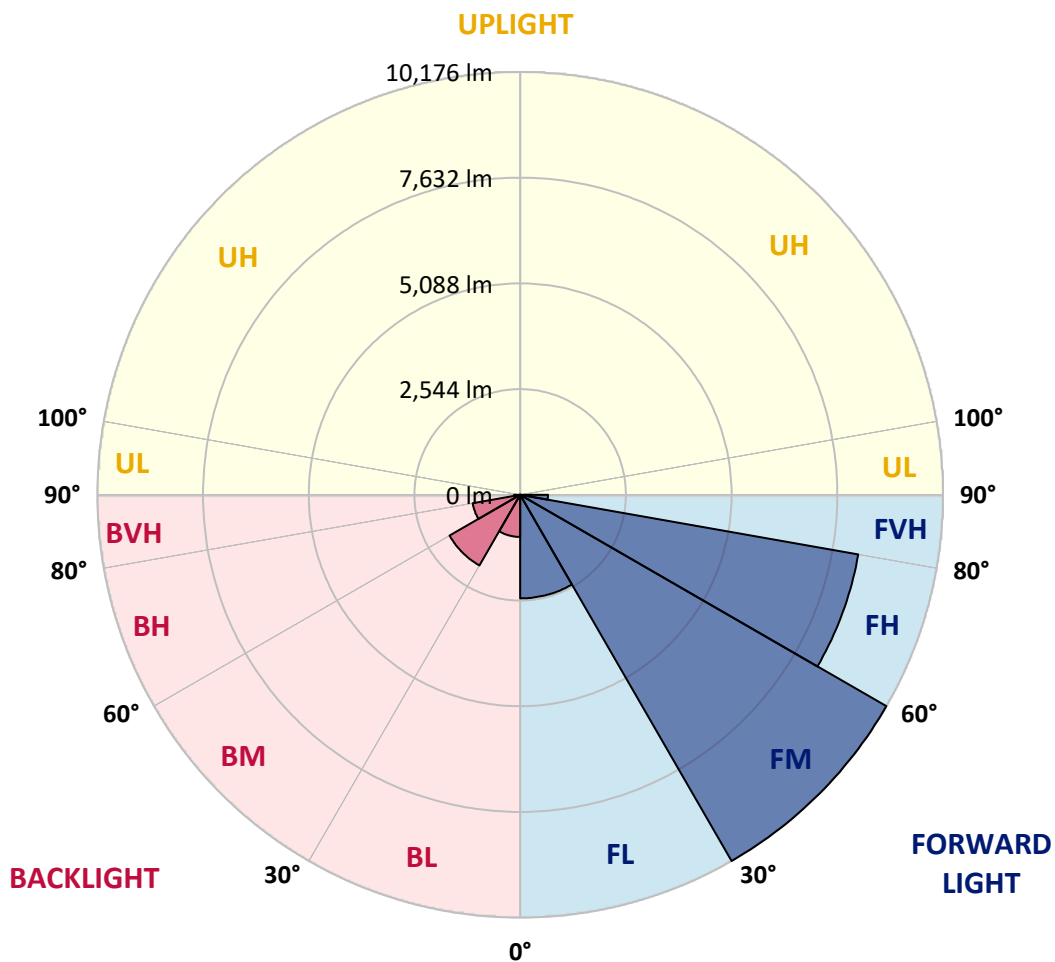
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	2492.8	9.6			
FM	(30°-60°)	10176.1	39.3			
FH	(60°-80°)	8262.0	31.9			G4/12000
FVH	(80°-90°)	671.5	2.6			G4/750
BL	(0°-30°)	1013.5	3.9	B3/2500		
BM	(30°-60°)	1962.8	7.6	B2/2500		
BH	(60°-80°)	1161.3	4.5	B3/2500		G3/2500
BVH	(80°-90°)	146.2	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-G4

Type IV Short





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	75°	85°	90°
0°	8746.1	8746.1	8746.1	8746.1	8746.1	8746.1	8746.1	8746.1	8746.1	8746.1	8746.1
2.5°	9087.0	9232.5	9515.7	9727.2	9985.5	10045.0	10127.7	10046.4	9902.8	9712.0	9649.6
5°	8545.1	8855.5	9542.4	10147.6	10685.3	10935.7	11005.9	10798.9	10382.3	9834.4	9499.9
7.5°	7675.7	8116.9	9047.2	9938.3	10730.6	11199.0	11187.4	10707.9	9941.1	9048.6	8512.3
10°	6925.5	7429.5	8497.1	9493.0	10333.8	10787.9	10612.3	9999.8	9084.2	8056.8	7475.2
12.5°	6506.1	6999.9	8082.7	9082.8	9785.9	9942.5	9808.5	9208.0	8345.5	7307.1	6797.6
15°	6433.1	6975.9	7917.8	8731.7	9125.8	8989.5	8829.7	8560.8	7951.5	7065.0	6534.2
17.5°	6748.1	7345.4	8107.2	8486.9	8419.9	8182.0	8136.7	8166.8	8020.3	7333.9	6722.3
20°	7351.4	8068.4	8558.0	8371.9	7883.6	7556.1	7567.6	8024.5	8458.3	8015.7	7316.8
22.5°	8197.7	9016.3	9208.0	8432.9	7657.2	7268.7	7363.0	8103.0	9157.2	9012.1	8119.7
25°	9293.5	10039.5	9901.4	8654.6	7679.9	7304.3	7379.6	8373.3	9982.2	10008.1	9113.3
27.5°	10355.0	11047.0	10483.0	8949.3	7774.1	7388.4	7488.2	8798.3	10770.8	11089.5	10248.8
30°	11183.3	11664.6	10713.5	9218.2	7958.9	7551.9	7675.7	9202.5	11129.7	11819.4	11122.3
32.5°	11869.3	12214.8	11080.7	9551.2	8298.9	7809.2	8027.3	9693.5	11646.2	12514.2	11977.4
35°	12745.6	12844.0	11537.6	9922.6	8824.1	8257.8	8528.0	10174.4	12138.6	13215.4	12820.0
37.5°	13773.4	13646.9	11968.6	10430.8	9503.2	8959.0	9182.6	10702.4	12543.7	14010.9	13680.6
40°	14789.2	14484.4	12510.0	11218.9	10493.6	9785.9	10050.6	11266.0	12922.5	14807.7	14521.8
42.5°	15653.1	15201.8	13043.1	12085.5	11415.2	10698.2	11014.2	11833.7	13283.8	15487.7	15251.7
45°	16292.0	15731.2	13551.2	12917.9	12686.0	11910.4	12060.1	12483.7	13675.0	16055.9	15852.2
47.5°	16862.5	16263.3	14125.9	13757.7	13797.4	13487.0	13246.3	13240.8	14136.5	16519.7	16419.9
50°	17626.5	17002.0	14743.5	14622.5	15465.1	15258.6	14727.8	14124.5	14719.5	17046.3	17034.8
52.5°	18679.8	18172.1	15497.9	15554.7	17022.3	17157.2	16499.4	15186.5	15632.8	18012.3	17944.3
55°	19925.2	19628.6	16525.7	16626.4	18931.5	19028.5	18374.9	16513.7	16976.6	19411.5	19222.1
57.5°	20896.7	20834.3	17652.4	17912.9	20357.6	20793.2	20192.6	18051.1	18490.4	20589.5	20114.1
60°	21283.8	21586.8	18852.1	19210.5	21676.9	22158.7	21632.5	19400.9	19832.3	21077.7	20053.1
62.5°	21075.0	21751.7	20129.8	20099.8	21971.1	22490.4	22120.4	20152.5	20827.4	20573.8	19038.7
65°	20108.6	21158.6	20871.2	19870.7	20963.6	21006.1	20886.5	19816.6	21062.0	18981.4	17077.3
67.5°	18003.5	19515.0	19894.7	17907.4	18245.5	17968.4	17767.4	17978.1	19837.9	16595.0	14352.2
70°	14664.1	16938.2	17119.8	14322.7	14168.9	13982.2	13582.6	14739.4	17423.3	13601.1	11388.4
72.5°	10782.3	13172.9	13731.9	10504.7	9793.3	9831.2	9515.7	11107.5	14166.1	10103.3	8502.6
75°	7376.8	9538.3	10744.0	7329.7	6476.5	6491.7	6451.6	7870.7	11283.1	7028.1	6362.4
77.5°	5389.1	6814.6	8103.0	4927.6	4783.9	4695.7	4674.4	5506.9	8650.4	5103.1	4940.5
80°	4324.3	5034.8	5442.7	3415.2	3672.5	3665.6	3547.3	3786.6	5649.2	3732.5	3695.1
82.5°	2999.9	3869.3	4409.8	2676.5	2478.8	2437.2	2466.3	2820.2	3993.1	2551.3	2426.1
85°	1582.6	2569.8	4367.3	2372.1	1471.3	1173.8	1460.2	2309.3	3459.5	1352.1	1183.5
87.5°	202.3	742.8	2891.3	946.5	580.7	312.7	693.4	1300.4	2221.5	275.8	240.7
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°	8746.1	8746.1	8746.1	8746.1	8746.1	8746.1	8746.1	8746.1	8746.1	8746.1	8746.1
2.5°	9488.9	9299.5	9051.9	8822.3	8584.8	8348.3	8039.7	7846.2	7712.7	7686.8	7630.4
5°	9258.4	8629.2	8153.8	7742.7	7369.9	6842.8	6551.3	6309.3	6179.9	6167.5	6136.0
7.5°	8194.9	7326.9	6685.3	6103.3	5575.2	5149.8	4680.0	4461.5	4371.4	4392.7	4413.9
10°	7089.0	6119.0	5381.7	4786.7	4321.5	3963.0	3586.1	3331.6	3154.6	3119.1	3112.1
12.5°	6281.1	5216.8	4501.2	4080.8	3721.4	3383.8	2984.2	2683.5	2454.8	2376.3	2324.1
15°	5939.3	4775.6	4025.9	3573.2	3175.9	2747.7	2376.3	2061.7	1851.5	1783.1	1744.8
17.5°	6012.2	4653.2	3698.4	3119.1	2611.4	2164.2	1696.3	1427.0	1300.4	1268.0	1268.0
20°	6393.8	4630.6	3427.7	2701.0	2067.2	1549.4	1165.5	1011.7	970.6	966.4	977.5
22.5°	6928.8	4710.5	3226.2	2338.4	1606.7	1131.3	907.7	850.9	832.4	837.0	849.5
25°	7725.6	4979.3	3079.8	2015.0	1260.7	926.2	809.3	775.6	766.8	778.4	794.1
27.5°	8670.3	5248.2	2988.3	1771.6	1064.3	846.7	769.6	734.5	740.0	754.4	768.2
30°	9499.9	5469.0	2844.7	1598.3	1003.3	850.9	769.6	721.6	716.0	718.8	722.9
32.5°	10244.6	5618.2	2676.5	1433.0	865.2	755.7	718.8	711.9	680.0	668.4	670.3
35°	10886.3	5618.2	2575.8	1336.4	775.6	670.3	610.7	575.1	559.0	560.3	576.5
37.5°	11505.3	5505.5	2525.9	1281.9	727.1	637.5	584.8	553.4	532.2	528.0	530.8
40°	12051.3	5342.0	2469.1	1259.3	690.1	617.6	568.2	541.9	519.2	512.3	513.7
42.5°	12489.7	5209.4	2406.3	1229.7	667.1	603.3	556.2	533.5	508.1	500.8	499.4
45°	12963.6	5165.5	2324.1	1169.7	678.6	604.7	553.4	529.4	503.5	495.2	492.4
47.5°	13588.2	5303.6	2238.6	1098.5	703.1	612.1	557.6	529.4	502.1	495.2	492.4
50°	14374.9	5627.9	2130.0	994.6	678.6	631.9	556.2	524.8	502.1	495.2	489.7
52.5°	15385.6	6066.3	1988.2	875.4	664.3	680.0	553.4	516.5	495.2	485.5	475.3
55°	16613.5	6424.8	1818.2	777.0	631.9	667.1	549.3	506.8	484.1	469.8	461.0
57.5°	17512.9	6554.1	1601.1	713.2	586.2	645.8	543.3	493.8	469.8	458.3	447.2
60°	17335.0	6303.7	1417.3	673.1	559.0	583.4	539.1	482.3	456.9	448.6	437.9
62.5°	15910.9	5649.2	1299.0	654.6	541.9	532.2	543.3	471.2	445.8	436.5	433.8
65°	13774.8	4682.8	1252.3	650.4	528.0	502.1	505.4	458.3	432.4	425.5	422.7
67.5°	11362.5	3779.7	1211.2	664.3	509.5	480.9	467.0	441.2	419.4	412.5	407.0
70°	8960.4	3143.6	1192.3	656.0	486.9	459.6	444.4	422.7	404.2	396.8	392.7
72.5°	7215.6	2655.3	1182.1	647.2	456.9	431.0	416.7	398.2	378.3	375.6	371.4
75°	6106.5	2087.5	1083.3	620.4	422.7	396.8	387.1	370.0	350.2	350.2	347.4
77.5°	4710.5	1509.6	900.8	549.3	387.1	358.5	350.2	337.2	314.6	318.7	317.4
80°	3479.4	984.9	704.5	455.5	343.2	316.0	311.4	298.9	274.4	280.4	280.4
82.5°	2383.6	645.8	506.8	372.8	292.9	267.5	267.5	254.5	227.7	230.5	239.3
85°	1196.9	444.4	378.3	288.7	227.7	214.8	214.8	205.1	177.8	179.2	190.8
87.5°	364.5	267.5	250.4	206.5	163.5	160.8	153.4	146.4	129.3	128.0	135.4
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):

	195°	205°	215°	225°	235°	245°	255°	265°	270°	275°	285°
0°	8746.1	8746.1	8746.1	8746.1	8746.1	8746.1	8746.1	8746.1	8746.1	8746.1	8746.1
2.5°	7543.1	7461.8	7364.4	7147.7	7075.2	7070.6	7136.6	7067.8	7199.0	7143.6	7204.5
5°	6082.9	6003.9	5894.0	5618.2	5450.1	5336.0	5282.4	5123.0	5238.0	5153.9	5224.2
7.5°	4474.0	4492.4	4419.9	4257.8	3891.9	3708.5	3600.4	3503.4	3587.5	3578.7	3712.7
10°	3144.9	3194.4	3143.6	2980.0	2683.5	2582.7	2602.6	2641.0	2750.9	2807.3	3013.7
12.5°	2264.0	2261.2	2228.4	2082.0	1887.1	1898.1	1979.4	2046.0	2147.1	2207.2	2417.4
15°	1690.3	1664.9	1650.5	1530.9	1420.0	1444.5	1484.2	1491.2	1555.4	1590.9	1761.9
17.5°	1277.7	1290.7	1305.9	1220.9	1136.9	1121.1	1090.2	1051.4	1070.3	1077.3	1162.3
20°	1014.4	1065.7	1104.5	1044.5	959.5	913.3	873.5	848.1	848.1	846.7	870.8
22.5°	886.5	923.4	965.0	923.4	846.7	806.6	783.9	764.1	761.3	761.3	783.9
25°	817.2	844.0	883.7	855.5	798.2	768.2	747.0	721.6	711.9	708.6	724.3
27.5°	782.5	794.1	814.0	788.1	740.0	725.7	720.2	697.5	684.1	677.2	693.4
30°	724.3	721.6	722.9	697.5	658.7	657.4	667.1	671.7	667.1	665.7	690.1
32.5°	670.3	664.3	662.9	640.3	604.7	596.4	604.7	613.5	623.2	637.5	665.7
35°	601.9	616.2	624.6	604.7	561.7	536.3	526.6	510.9	502.1	502.1	534.9
37.5°	547.9	580.7	593.6	575.1	528.0	492.4	475.3	472.6	474.0	479.5	510.9
40°	529.4	553.4	564.5	546.5	499.4	467.0	456.9	454.1	456.9	465.6	496.6
42.5°	517.8	534.9	533.5	510.9	472.6	449.9	444.4	441.2	444.4	452.7	486.9
45°	508.1	519.2	508.1	480.9	445.8	433.8	435.2	433.8	436.5	445.8	478.1
47.5°	499.4	503.5	489.7	462.4	425.5	422.7	428.2	432.4	435.2	443.0	476.7
50°	486.9	486.9	474.0	445.8	408.4	409.7	416.7	426.8	428.2	436.5	464.3
52.5°	471.2	469.8	461.0	433.8	394.0	398.2	398.2	409.7	412.5	422.7	451.3
55°	458.3	455.5	451.3	425.5	381.6	388.5	384.3	388.5	395.4	405.6	436.5
57.5°	447.2	441.2	441.2	418.1	371.4	374.2	364.5	370.0	378.3	387.1	419.4
60°	435.2	429.6	432.4	408.4	355.7	352.9	348.8	359.9	363.1	372.8	405.6
62.5°	422.7	418.1	419.4	396.8	344.6	337.2	337.2	347.4	348.8	363.1	394.0
65°	412.5	407.0	405.6	385.7	331.7	323.4	327.5	331.7	334.4	348.8	378.3
67.5°	402.8	391.3	391.3	375.6	317.4	308.6	317.4	316.0	320.6	333.1	357.1
70°	389.9	374.2	375.6	368.6	303.0	292.9	300.3	298.9	301.7	310.0	334.4
72.5°	370.0	357.1	359.9	357.1	288.7	274.4	277.2	277.2	277.2	284.6	310.0
75°	344.6	334.4	343.2	350.2	271.6	251.8	254.5	254.5	250.4	254.5	285.9
77.5°	312.7	307.2	335.8	326.1	251.8	227.7	227.7	225.0	216.7	222.2	255.9
80°	279.0	274.4	310.0	273.0	229.1	198.2	194.9	187.6	179.2	183.4	218.0
82.5°	243.4	239.3	260.5	209.3	198.2	163.5	156.6	143.7	135.4	139.5	170.5
85°	199.6	199.6	200.9	158.0	150.6	125.2	116.9	99.8	89.6	92.4	122.4
87.5°	142.3	146.4	135.4	108.1	89.6	69.8	64.2	54.0	45.3	52.7	64.2
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°	8746.1	8746.1	8746.1	8746.1	8746.1	8746.1	8746.1	8746.1
2.5°	7517.7	7674.3	7852.2	8079.5	8274.9	8594.5	8902.2	9087.0
5°	5621.0	5881.5	6205.3	6622.9	7011.4	7594.4	8173.7	8545.1
7.5°	4022.6	4301.7	4651.8	5172.4	5722.1	6465.9	7231.8	7675.7
10°	3328.8	3614.7	3909.0	4260.5	4710.5	5519.8	6424.8	6925.5
12.5°	2753.7	3059.5	3376.8	3746.9	4163.5	4886.5	5929.6	6506.1
15°	2107.4	2448.8	2823.0	3291.4	3813.4	4649.0	5807.1	6433.1
17.5°	1444.5	1826.1	2285.3	2863.2	3502.0	4571.9	6026.6	6748.1
20°	994.6	1272.2	1763.3	2440.5	3209.1	4562.2	6447.4	7351.4
22.5°	832.4	956.2	1314.7	2052.0	2988.3	4684.6	7101.1	8197.7
25°	769.6	844.0	1050.0	1714.7	2827.6	4966.4	8000.5	9293.5
27.5°	733.1	799.6	953.5	1494.4	2701.0	5293.5	8875.4	10355.0
30°	747.0	815.3	926.2	1381.7	2528.7	5566.5	9652.4	11183.3
32.5°	673.1	703.1	794.1	1281.9	2404.9	5795.6	10332.4	11869.3
35°	573.7	625.9	708.6	1235.2	2407.7	5949.4	11073.8	12745.6
37.5°	546.5	599.1	658.7	1218.2	2440.5	6113.4	11924.7	13773.4
40°	529.4	577.9	629.2	1208.5	2471.9	6262.6	12759.0	14789.2
42.5°	517.8	561.7	625.9	1173.8	2487.6	6396.6	13444.5	15653.1
45°	516.5	561.7	637.5	1139.6	2511.6	6540.3	14019.6	16292.0
47.5°	517.8	580.7	616.2	1098.5	2511.6	6780.5	14694.1	16862.5
50°	512.3	612.1	593.6	1040.3	2453.4	7235.9	15618.9	17626.5
52.5°	509.5	607.9	549.3	950.7	2352.2	7958.9	16804.3	18679.8
55°	502.1	586.2	517.8	817.2	2234.4	8747.4	18073.7	19925.2
57.5°	495.2	519.2	500.8	700.3	2052.0	9302.2	18947.2	20896.7
60°	554.8	454.1	486.9	643.0	1808.5	9454.2	18913.5	21283.8
62.5°	513.7	425.5	468.4	630.6	1638.1	9027.4	18039.5	21075.0
65°	402.8	407.0	449.9	667.1	1592.3	7896.5	16491.1	20108.6
67.5°	368.6	388.5	431.0	714.6	1597.0	6322.2	14177.6	18003.5
70°	347.4	368.6	409.7	738.7	1608.0	4713.3	11208.7	14664.1
72.5°	323.4	341.8	385.7	742.8	1533.7	3423.5	8639.3	10782.3
75°	294.3	311.4	351.5	647.2	1270.8	2374.9	6608.6	7376.8
77.5°	261.9	274.4	308.6	499.4	943.8	1519.8	4960.4	5389.1
80°	223.6	230.5	259.2	365.9	645.8	950.7	3924.7	4324.3
82.5°	179.2	182.0	200.9	274.4	419.4	610.7	2628.5	2999.9
85°	126.6	126.6	138.1	199.6	285.9	387.1	1427.0	1582.6
87.5°	59.6	61.0	61.0	109.5	149.2	196.8	328.9	202.3
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)