

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: P298994

Luminaire Tested: **GLNA-AF-04-LED-E1-SLL-7030-600**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P298994
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-04-LED-E1-SLL-7030-600
Description: GALLEONAIRE AREA AND ROADWAY LUMINAIRE
(4) 70 CRI, 3000K CCT 600mA LIGHTSQUARE WITH 16 LEDS EACH AND 90° Spill
Light Eliminator Left OPTICS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 13401.9 lumens
Efficiency: N/A
Efficacy: 103.9 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')
IES Classification: Type IV - Short - Non-Cutoff
BUG Rating: B2 - U0 - G3

Input Watts (W): 129
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

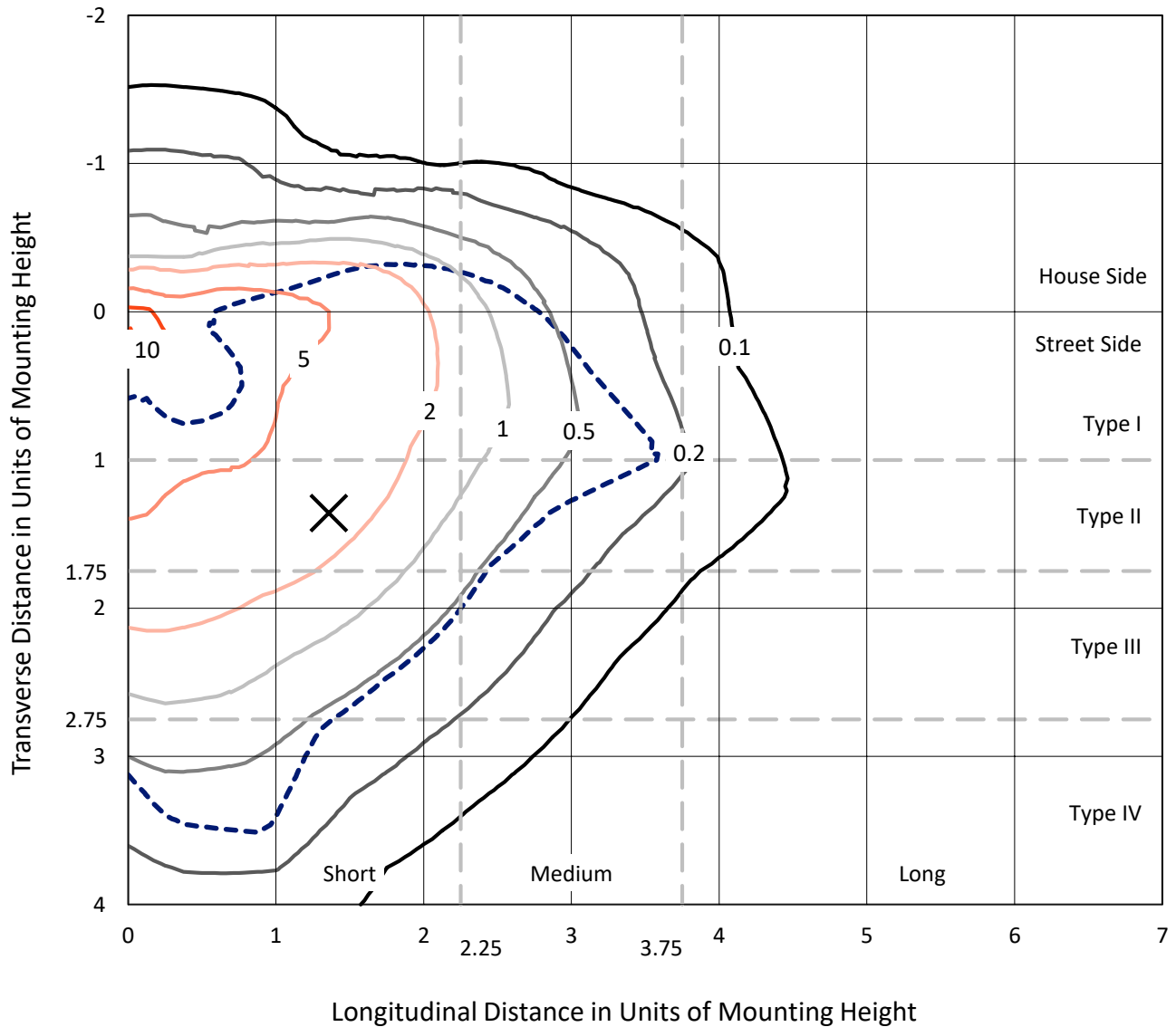


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Iso-Footcandle Lines of Horizontal Illumination

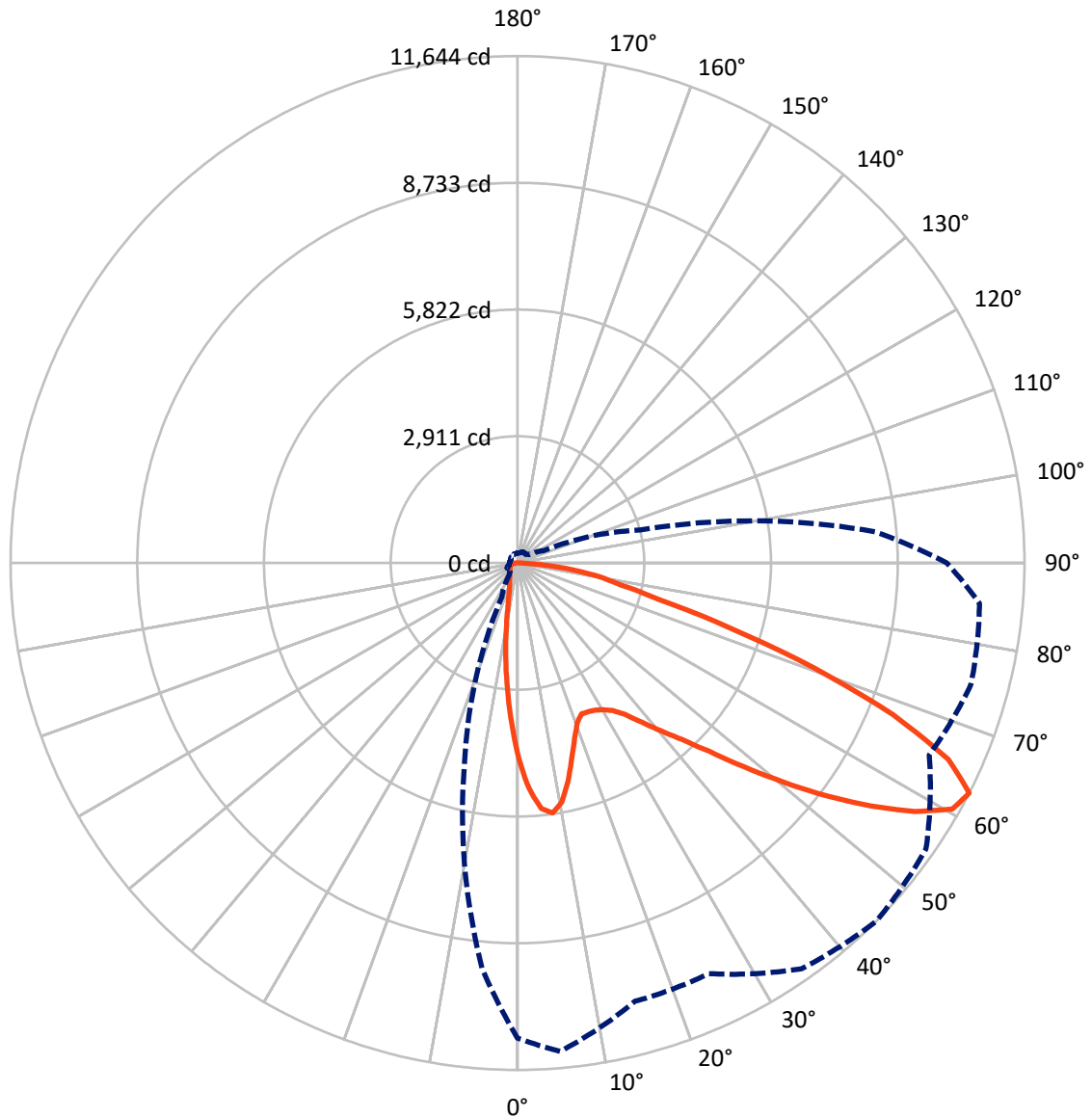
× Max cd
 - - - 1/2 Max cd



Based on 20 foot mounting height. Maximum calculated value = 13.3 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	2217.8	0.0	2217.8
	% Fixture	16.5	0.0	16.5
Street Side	Lumens	11184.1	0.0	11184.1
	% Fixture	83.5	0.0	83.5
Total	Lumens	13401.9	0.0	13401.9
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	329.6	2.5
10°-20°	604.4	4.5
20°-30°	881.2	6.6
30°-40°	1357.2	10.1
40°-50°	1997.5	14.9
50°-60°	2929.9	21.9
60°-70°	3275.2	24.4
70°-80°	1603.5	12.0
80°-90°	423.4	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°	13401.9	100.0
0°-180°	13401.9	100.0

Coefficient of Utilization



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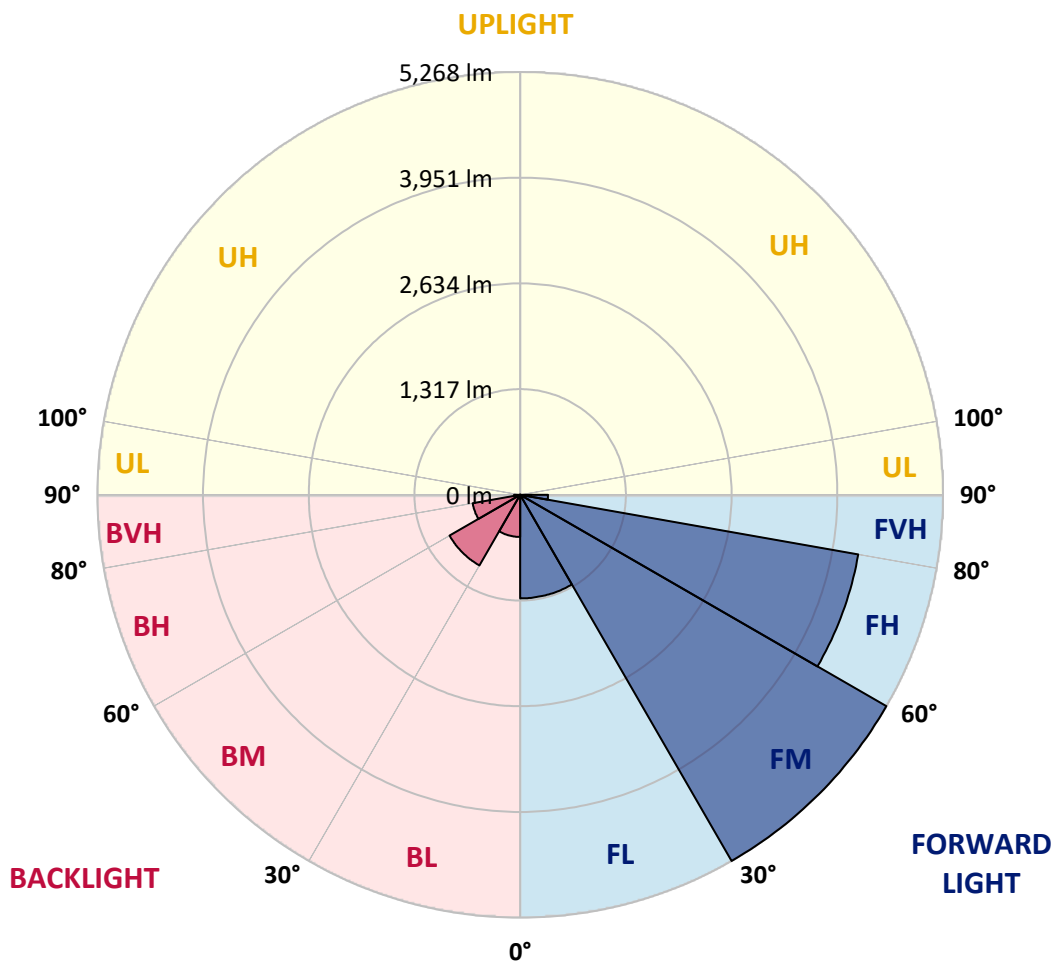
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	1290.6	9.6			
FM	(30°-60°)	5268.4	39.3			
FH	(60°-80°)	4277.4	31.9			G2/5000
FVH	(80°-90°)	347.7	2.6			G3/500
BL	(0°-30°)	524.7	3.9	B2/1000		
BM	(30°-60°)	1016.2	7.6	B2/2500		
BH	(60°-80°)	601.2	4.5	B2/1000		G2/1000
BVH	(80°-90°)	75.7	0.6			G1/100
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

BUG Rating: B2-U0-G3

Type IV Short





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	75°	85°	90°
0°	4528.0	4528.0	4528.0	4528.0	4528.0	4528.0	4528.0	4528.0	4528.0	4528.0	4528.0
2.5°	4704.5	4779.9	4926.5	5036.0	5169.7	5200.5	5243.4	5201.3	5126.9	5028.1	4995.8
5°	4424.0	4584.7	4940.3	5253.6	5532.0	5661.6	5698.0	5590.9	5375.1	5091.5	4918.3
7.5°	3973.9	4202.3	4684.0	5145.3	5555.5	5798.0	5792.0	5543.7	5146.7	4684.7	4407.0
10°	3585.5	3846.4	4399.1	4914.7	5350.0	5585.1	5494.2	5177.1	4703.1	4171.2	3870.1
12.5°	3368.3	3624.0	4184.6	4702.4	5066.4	5147.5	5078.1	4767.2	4320.7	3783.0	3519.2
15°	3330.5	3611.6	4099.2	4520.6	4724.6	4654.1	4571.3	4432.1	4116.7	3657.7	3382.9
17.5°	3493.7	3802.9	4197.3	4393.9	4359.2	4236.0	4212.6	4228.1	4152.3	3796.9	3480.3
20°	3806.0	4177.2	4430.7	4334.3	4081.5	3911.9	3917.9	4154.5	4379.0	4149.9	3788.1
22.5°	4244.1	4667.9	4767.2	4365.9	3964.3	3763.2	3812.0	4195.1	4740.9	4665.8	4203.7
25°	4811.4	5197.7	5126.2	4480.7	3976.0	3781.6	3820.6	4335.0	5168.0	5181.4	4718.2
27.5°	5361.0	5719.3	5427.3	4633.3	4024.8	3825.1	3876.8	4555.1	5576.3	5741.3	5306.0
30°	5789.8	6039.0	5546.6	4772.4	4120.5	3909.8	3973.9	4764.3	5762.1	6119.2	5758.3
32.5°	6145.0	6323.9	5736.7	4944.9	4296.5	4043.0	4155.9	5018.5	6029.5	6478.9	6201.0
35°	6598.7	6649.6	5973.3	5137.2	4568.4	4275.2	4415.1	5267.5	6284.4	6841.9	6637.2
37.5°	7130.8	7065.3	6196.4	5400.2	4920.0	4638.3	4754.0	5540.9	6494.2	7253.7	7082.7
40°	7656.7	7498.9	6476.7	5808.3	5432.8	5066.4	5203.4	5832.6	6690.3	7666.3	7518.3
42.5°	8104.0	7870.3	6752.7	6256.9	5909.9	5538.7	5702.3	6126.6	6877.3	8018.3	7896.1
45°	8434.7	8144.4	7015.8	6687.9	6567.8	6166.3	6243.8	6463.1	7079.9	8312.5	8207.0
47.5°	8730.1	8419.9	7313.3	7122.7	7143.2	6982.5	6857.9	6855.1	7318.8	8552.6	8501.0
50°	9125.6	8802.3	7633.0	7570.4	8006.6	7899.7	7624.9	7312.6	7620.6	8825.3	8819.3
52.5°	9670.9	9408.1	8023.6	8053.0	8812.8	8882.7	8542.1	7862.4	8093.4	9325.3	9290.2
55°	10315.7	10162.2	8555.7	8607.9	9801.3	9851.5	9513.1	8549.5	8789.1	10049.8	9951.7
57.5°	10818.7	10786.4	9139.0	9273.9	10539.6	10765.1	10454.2	9345.4	9572.9	10659.6	10413.5
60°	11019.1	11176.0	9760.1	9945.7	11222.6	11472.1	11199.6	10044.3	10267.6	10912.4	10382.0
62.5°	10911.0	11261.4	10421.7	10406.1	11375.0	11643.8	11452.2	10433.4	10782.8	10651.5	9856.8
65°	10410.7	10954.3	10805.5	10287.5	10853.3	10875.3	10813.4	10259.5	10904.3	9827.1	8841.3
67.5°	9320.8	10103.3	10299.9	9271.1	9446.1	9302.6	9198.6	9307.6	10270.5	8591.6	7430.5
70°	7591.9	8769.3	8863.3	7415.2	7335.5	7238.9	7032.0	7630.9	9020.4	7041.6	5896.0
72.5°	5582.2	6819.9	7109.3	5438.5	5070.2	5089.8	4926.5	5750.6	7334.1	5230.7	4402.0
75°	3819.2	4938.2	5562.4	3794.8	3353.0	3360.9	3340.1	4074.8	5841.5	3638.6	3294.0
77.5°	2790.0	3528.1	4195.1	2551.1	2476.7	2431.1	2420.1	2851.0	4478.5	2642.0	2557.8
80°	2238.8	2606.6	2817.8	1768.1	1901.3	1897.7	1836.5	1960.4	2924.7	1932.4	1913.0
82.5°	1553.1	2003.2	2283.0	1385.7	1283.3	1261.8	1276.9	1460.1	2067.3	1320.9	1256.1
85°	819.4	1330.5	2261.0	1228.1	761.7	607.7	756.0	1195.6	1791.1	700.0	612.7
87.5°	104.8	384.6	1496.9	490.0	300.6	161.9	359.0	673.2	1150.1	142.8	124.6
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°	4528.0	4528.0	4528.0	4528.0	4528.0	4528.0	4528.0	4528.0	4528.0	4528.0	4528.0
2.5°	4912.6	4814.5	4686.4	4567.5	4444.6	4322.1	4162.4	4062.1	3993.0	3979.6	3950.5
5°	4793.3	4467.5	4221.4	4008.6	3815.6	3542.7	3391.8	3266.5	3199.5	3193.0	3176.8
7.5°	4242.7	3793.3	3461.1	3159.8	2886.4	2666.2	2422.9	2309.8	2263.2	2274.2	2285.2
10°	3670.2	3167.9	2786.2	2478.2	2237.3	2051.8	1856.6	1724.8	1633.2	1614.8	1611.2
12.5°	3251.9	2700.8	2330.4	2112.7	1926.7	1751.9	1545.0	1389.3	1270.9	1230.2	1203.2
15°	3074.9	2472.4	2084.3	1849.9	1644.2	1422.5	1230.2	1067.4	958.6	923.2	903.3
17.5°	3112.7	2409.1	1914.7	1614.8	1352.0	1120.5	878.2	738.8	673.2	656.5	656.5
20°	3310.2	2397.3	1774.6	1398.4	1070.2	802.1	603.4	523.8	502.5	500.3	506.1
22.5°	3587.2	2438.7	1670.3	1210.6	831.8	585.7	470.0	440.5	431.0	433.4	439.8
25°	3999.7	2577.9	1594.5	1043.2	652.7	479.5	419.0	401.6	397.0	403.0	411.1
27.5°	4488.8	2717.1	1547.1	917.2	551.0	438.4	398.4	380.3	383.1	390.5	397.7
30°	4918.3	2831.4	1472.8	827.5	519.5	440.5	398.4	373.6	370.7	372.1	374.3
32.5°	5303.9	2908.7	1385.7	741.9	447.9	391.3	372.1	368.5	352.0	346.1	347.0
35°	5636.1	2908.7	1333.6	691.9	401.6	347.0	316.2	297.8	289.4	290.1	298.5
37.5°	5956.5	2850.3	1307.7	663.7	376.4	330.0	302.8	286.5	275.5	273.4	274.8
40°	6239.2	2765.7	1278.3	652.0	357.3	319.8	294.2	280.5	268.8	265.2	265.9
42.5°	6466.2	2697.0	1245.8	636.6	345.3	312.3	287.9	276.2	263.1	259.3	258.5
45°	6711.6	2674.3	1203.2	605.6	351.3	313.1	286.5	274.1	260.7	256.4	254.9
47.5°	7034.9	2745.8	1159.0	568.7	364.0	316.9	288.7	274.1	260.0	256.4	254.9
50°	7442.2	2913.7	1102.8	514.9	351.3	327.2	287.9	271.7	260.0	256.4	253.5
52.5°	7965.5	3140.7	1029.3	453.2	343.9	352.0	286.5	267.4	256.4	251.4	246.1
55°	8601.2	3326.2	941.3	402.3	327.2	345.3	284.4	262.4	250.6	243.2	238.7
57.5°	9066.8	3393.2	828.9	369.3	303.5	334.3	281.3	255.7	243.2	237.2	231.5
60°	8974.7	3263.6	733.7	348.5	289.4	302.1	279.1	249.7	236.5	232.2	226.7
62.5°	8237.4	2924.7	672.5	338.9	280.5	275.5	281.3	243.9	230.8	226.0	224.6
65°	7131.5	2424.4	648.4	336.7	273.4	260.0	261.6	237.2	223.9	220.3	218.8
67.5°	5882.6	1956.8	627.1	343.9	263.8	249.0	241.8	228.4	217.2	213.6	210.7
70°	4639.0	1627.5	617.3	339.6	252.1	238.0	230.1	218.8	209.3	205.4	203.3
72.5°	3735.7	1374.7	612.0	335.1	236.5	223.1	215.7	206.2	195.9	194.4	192.3
75°	3161.5	1080.8	560.8	321.2	218.8	205.4	200.4	191.6	181.3	181.3	179.8
77.5°	2438.7	781.6	466.4	284.4	200.4	185.6	181.3	174.6	162.9	165.0	164.3
80°	1801.4	509.9	364.7	235.8	177.7	163.6	161.2	154.7	142.1	145.2	145.2
82.5°	1234.1	334.3	262.4	193.0	151.6	138.5	138.5	131.8	117.9	119.3	123.9
85°	619.7	230.1	195.9	149.5	117.9	111.2	111.2	106.2	92.1	92.8	98.8
87.5°	188.7	138.5	129.6	106.9	84.7	83.2	79.4	75.8	67.0	66.2	70.1
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°	4528.0	4528.0	4528.0	4528.0	4528.0	4528.0	4528.0	4528.0	4528.0	4528.0	4528.0
2.5°	3905.3	3863.2	3812.7	3700.5	3663.0	3660.6	3694.8	3659.2	3727.1	3698.4	3729.9
5°	3149.3	3108.4	3051.4	2908.7	2821.6	2762.5	2734.8	2652.3	2711.8	2668.3	2704.7
7.5°	2316.3	2325.8	2288.3	2204.3	2014.9	1920.0	1864.0	1813.8	1857.3	1852.8	1922.1
10°	1628.2	1653.8	1627.5	1542.8	1389.3	1337.1	1347.4	1367.3	1424.2	1453.4	1560.3
12.5°	1172.1	1170.7	1153.7	1077.9	977.0	982.7	1024.8	1059.2	1111.6	1142.7	1251.5
15°	875.1	861.9	854.5	792.6	735.2	747.9	768.4	772.0	805.3	823.7	912.2
17.5°	661.5	668.2	676.1	632.1	588.6	580.4	564.4	544.3	554.1	557.7	601.7
20°	525.2	551.7	571.8	540.7	496.7	472.8	452.3	439.1	439.1	438.4	450.8
22.5°	458.9	478.1	499.6	478.1	438.4	417.6	405.9	395.6	394.1	394.1	405.9
25°	423.1	436.9	457.5	442.9	413.3	397.7	386.7	373.6	368.5	366.9	375.0
27.5°	405.1	411.1	421.4	408.0	383.1	375.7	372.9	361.1	354.2	350.6	359.0
30°	375.0	373.6	374.3	361.1	341.0	340.3	345.3	347.7	345.3	344.6	357.3
32.5°	347.0	343.9	343.2	331.5	313.1	308.8	313.1	317.6	322.6	330.0	344.6
35°	311.6	319.0	323.3	313.1	290.8	277.7	272.6	264.5	260.0	260.0	276.9
37.5°	283.6	300.6	307.3	297.8	273.4	254.9	246.1	244.7	245.4	248.2	264.5
40°	274.1	286.5	292.3	282.9	258.5	241.8	236.5	235.1	236.5	241.1	257.1
42.5°	268.1	276.9	276.2	264.5	244.7	232.9	230.1	228.4	230.1	234.4	252.1
45°	263.1	268.8	263.1	249.0	230.8	224.6	225.3	224.6	226.0	230.8	247.5
47.5°	258.5	260.7	253.5	239.4	220.3	218.8	221.7	223.9	225.3	229.4	246.8
50°	252.1	252.1	245.4	230.8	211.4	212.1	215.7	221.0	221.7	226.0	240.4
52.5°	243.9	243.2	238.7	224.6	204.0	206.2	206.2	212.1	213.6	218.8	233.7
55°	237.2	235.8	233.7	220.3	197.5	201.1	199.0	201.1	204.7	210.0	226.0
57.5°	231.5	228.4	228.4	216.4	192.3	193.7	188.7	191.6	195.9	200.4	217.2
60°	225.3	222.4	223.9	211.4	184.2	182.7	180.6	186.3	188.0	193.0	210.0
62.5°	218.8	216.4	217.2	205.4	178.4	174.6	174.6	179.8	180.6	188.0	204.0
65°	213.6	210.7	210.0	199.7	171.7	167.4	169.6	171.7	173.2	180.6	195.9
67.5°	208.5	202.6	202.6	194.4	164.3	159.8	164.3	163.6	166.0	172.4	184.9
70°	201.9	193.7	194.4	190.9	156.9	151.6	155.5	154.7	156.2	160.5	173.2
72.5°	191.6	184.9	186.3	184.9	149.5	142.1	143.5	143.5	143.5	147.3	160.5
75°	178.4	173.2	177.7	181.3	140.6	130.3	131.8	131.8	129.6	131.8	148.0
77.5°	161.9	159.0	173.9	168.8	130.3	117.9	117.9	116.5	112.2	115.0	132.5
80°	144.5	142.1	160.5	141.3	118.6	102.6	100.9	97.1	92.8	94.9	112.9
82.5°	126.0	123.9	134.9	108.3	102.6	84.7	81.1	74.4	70.1	72.2	88.3
85°	103.3	103.3	104.0	81.8	78.0	64.8	60.5	51.7	46.4	47.8	63.4
87.5°	73.7	75.8	70.1	56.0	46.4	36.1	33.2	28.0	23.4	27.3	33.2
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°	4528.0	4528.0	4528.0	4528.0	4528.0	4528.0	4528.0	4528.0
2.5°	3892.1	3973.2	4065.3	4182.9	4284.1	4449.6	4608.9	4704.5
5°	2910.1	3045.0	3212.6	3428.8	3630.0	3931.8	4231.7	4424.0
7.5°	2082.6	2227.1	2408.3	2677.9	2962.5	3347.5	3744.1	3973.9
10°	1723.4	1871.4	2023.8	2205.8	2438.7	2857.7	3326.2	3585.5
12.5°	1425.6	1584.0	1748.3	1939.8	2155.6	2529.8	3069.9	3368.3
15°	1091.1	1267.8	1461.5	1704.0	1974.3	2406.9	3006.5	3330.5
17.5°	747.9	945.4	1183.1	1482.3	1813.1	2367.0	3120.1	3493.7
20°	514.9	658.6	912.9	1263.5	1661.4	2361.9	3338.0	3806.0
22.5°	431.0	495.1	680.7	1062.4	1547.1	2425.3	3676.4	4244.1
25°	398.4	436.9	543.6	887.8	1463.9	2571.2	4142.0	4811.4
27.5°	379.5	414.0	493.6	773.7	1398.4	2740.5	4595.0	5361.0
30°	386.7	422.1	479.5	715.3	1309.2	2881.9	4997.3	5789.8
32.5°	348.5	364.0	411.1	663.7	1245.1	3000.5	5349.3	6145.0
35°	297.0	324.1	366.9	639.5	1246.5	3080.1	5733.2	6598.7
37.5°	282.9	310.2	341.0	630.7	1263.5	3165.1	6173.7	7130.8
40°	274.1	299.2	325.7	625.6	1279.7	3242.3	6605.6	7656.7
42.5°	268.1	290.8	324.1	607.7	1287.9	3311.7	6960.5	8104.0
45°	267.4	290.8	330.0	590.0	1300.3	3386.0	7258.3	8434.7
47.5°	268.1	300.6	319.0	568.7	1300.3	3510.4	7607.5	8730.1
50°	265.2	316.9	307.3	538.6	1270.2	3746.2	8086.3	9125.6
52.5°	263.8	314.7	284.4	492.2	1217.8	4120.5	8699.9	9670.9
55°	260.0	303.5	268.1	423.1	1156.8	4528.7	9357.2	10315.7
57.5°	256.4	268.8	259.3	362.6	1062.4	4816.0	9809.4	10818.7
60°	287.2	235.1	252.1	332.9	936.3	4894.7	9791.9	11019.1
62.5°	265.9	220.3	242.5	326.5	848.1	4673.7	9339.5	10911.0
65°	208.5	210.7	232.9	345.3	824.4	4088.2	8537.8	10410.7
67.5°	190.9	201.1	223.1	370.0	826.8	3273.2	7340.1	9320.8
70°	179.8	190.9	212.1	382.4	832.5	2440.2	5803.0	7591.9
72.5°	167.4	177.0	199.7	384.6	794.0	1772.4	4472.8	5582.2
75°	152.3	161.2	182.0	335.1	657.9	1229.5	3421.4	3819.2
77.5°	135.6	142.1	159.8	258.5	488.6	786.8	2568.1	2790.0
80°	115.8	119.3	134.2	189.4	334.3	492.2	2031.9	2238.8
82.5°	92.8	94.2	104.0	142.1	217.2	316.2	1360.8	1553.1
85°	65.5	65.5	71.5	103.3	148.0	200.4	738.8	819.4
87.5°	30.9	31.6	31.6	56.7	77.2	101.9	170.3	104.8
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)