

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: P298978

Luminaire Tested: **GLNA-AF-01-LED-E1-SLL-600**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P298978
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-01-LED-E1-SLL-600
Description: GALLEONNAIRE AREA AND ROADWAY LUMINAIRE
(1) 70 CRI, 4000K 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: 3596.3 lumens
Efficiency: N/A
Efficacy: 105.8 lumens/watt
Luminous Opening: Rectangular (W 0.5' x L: 0.5' x H: 0')
IES Classification: Type IV - Short - Non-Cutoff
BUG Rating: B1 - U0 - G1

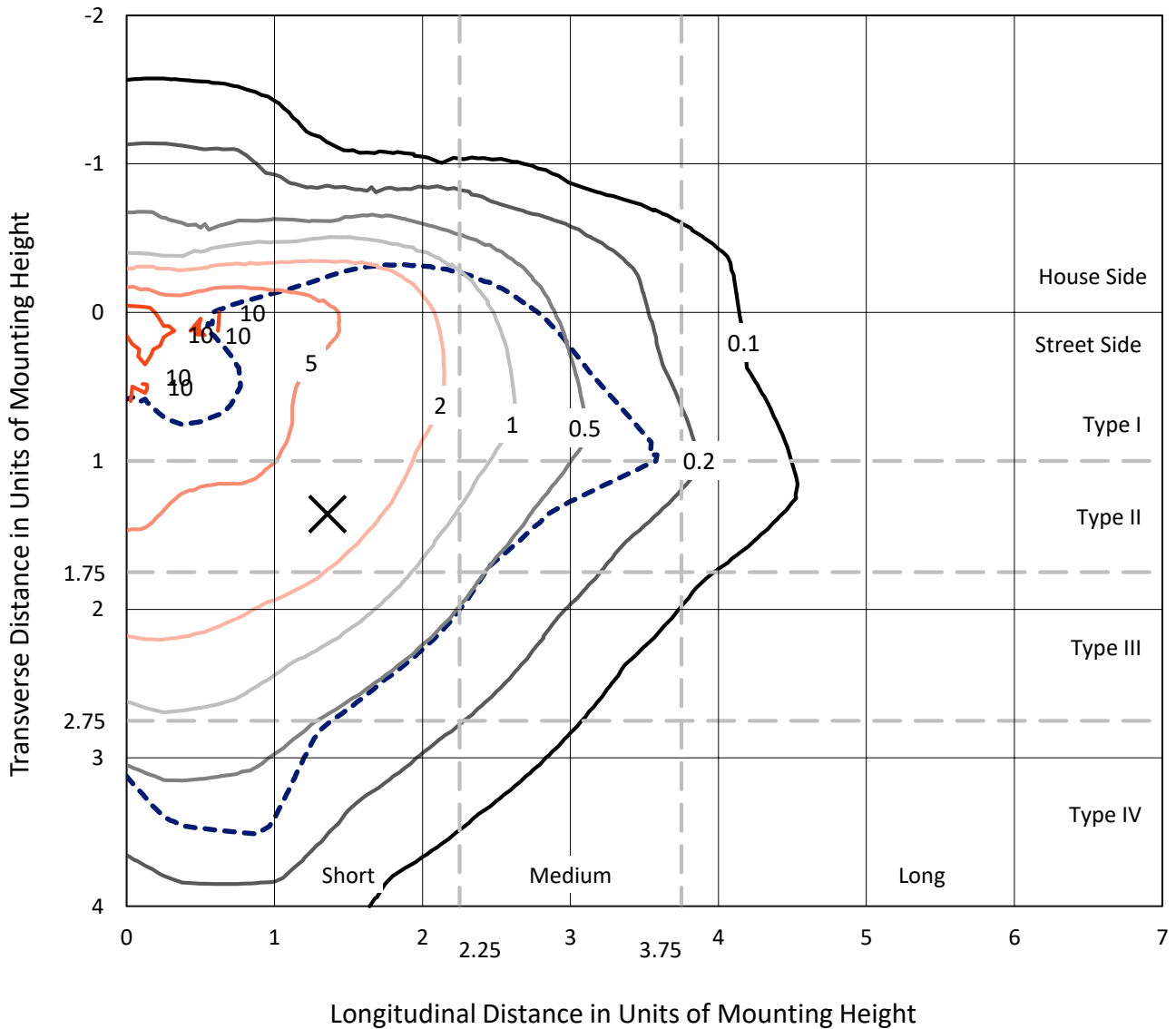
Input Watts (W): 34
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Iso-Footcandle Lines of Horizontal Illumination

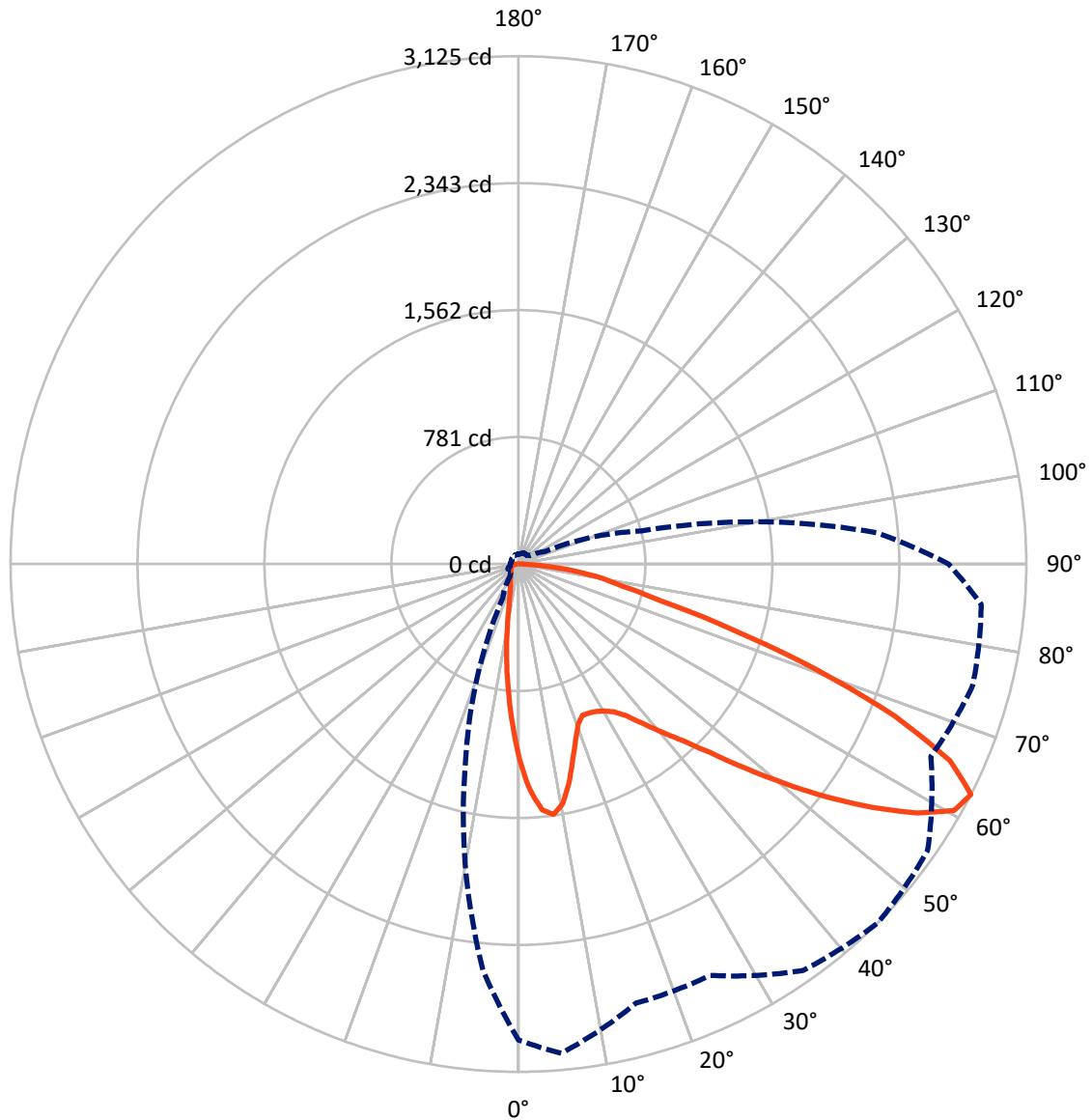
× Max cd
 - - - 1/2 Max cd



Based on 10 foot mounting height. Maximum calculated value = 14.3 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	595.1	0.0	595.1
	% Fixture	16.5	0.0	16.5
Street Side	Lumens	3001.1	0.0	3001.1
	% Fixture	83.5	0.0	83.5
Total	Lumens	3596.3	0.0	3596.3
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	88.4	2.5
10°-20°	162.2	4.5
20°-30°	236.5	6.6
30°-40°	364.2	10.1
40°-50°	536.0	14.9
50°-60°	786.2	21.9
60°-70°	878.9	24.4
70°-80°	430.3	12.0
80°-90°	113.6	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°	3596.3	100.0
0°-180°	3596.3	100.0



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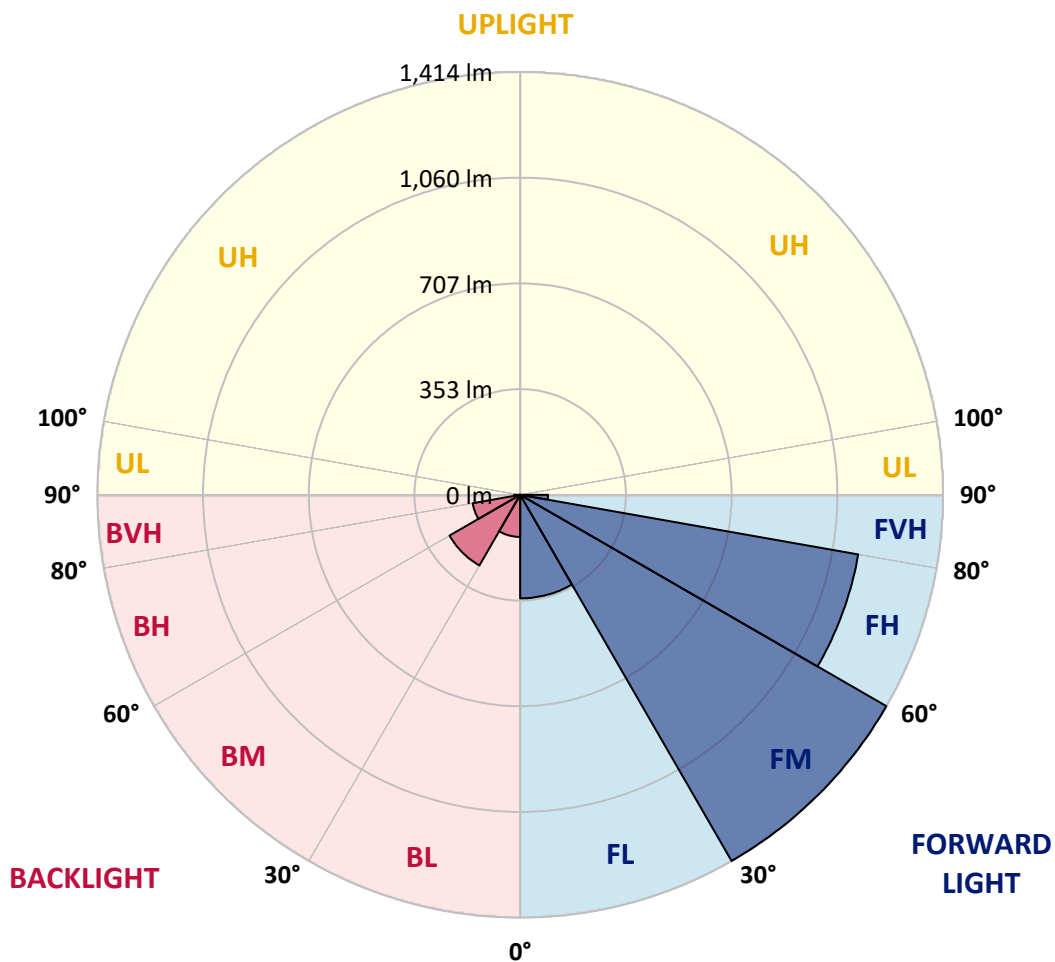
CATALOG NUMBER: GLNA-AF-01-LED-E1-SLL-600

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	346.3	9.6			
FM	(30°-60°)	1413.7	39.3			
FH	(60°-80°)	1147.8	31.9			G1/1800
FVH	(80°-90°)	93.3	2.6			G1/100
BL	(0°-30°)	140.8	3.9	B1/500		
BM	(30°-60°)	272.7	7.6	B1/1000		
BH	(60°-80°)	161.3	4.5	B1/500		G1/500
BVH	(80°-90°)	20.3	0.6			G1/100
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

BUG Rating: B1-U0-G1

Type IV Short





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	75°	85°	90°
0°	1215.0	1215.0	1215.0	1215.0	1215.0	1215.0	1215.0	1215.0	1215.0	1215.0	1215.0
2.5°	1262.4	1282.6	1322.0	1351.4	1387.2	1395.5	1407.0	1395.7	1375.7	1349.2	1340.6
5°	1187.1	1230.3	1325.7	1409.8	1484.5	1519.2	1529.0	1500.2	1442.4	1366.2	1319.8
7.5°	1066.4	1127.6	1256.9	1380.7	1490.8	1555.8	1554.2	1487.6	1381.1	1257.1	1182.6
10°	962.1	1032.1	1180.5	1318.8	1435.6	1498.7	1474.3	1389.2	1262.0	1119.3	1038.5
12.5°	903.9	972.5	1122.9	1261.8	1359.5	1381.3	1362.7	1279.2	1159.4	1015.1	944.4
15°	893.7	969.1	1100.0	1213.1	1267.8	1248.9	1226.7	1189.3	1104.7	981.5	907.8
17.5°	937.5	1020.5	1126.3	1179.0	1169.7	1136.7	1130.4	1134.6	1114.2	1018.9	933.9
20°	1021.3	1120.9	1188.9	1163.1	1095.2	1049.7	1051.3	1114.8	1175.1	1113.6	1016.5
22.5°	1138.9	1252.6	1279.2	1171.5	1063.8	1009.8	1022.9	1125.7	1272.2	1252.0	1128.0
25°	1291.1	1394.7	1375.6	1202.3	1066.9	1014.8	1025.2	1163.3	1386.8	1390.4	1266.1
27.5°	1438.6	1534.7	1456.4	1243.3	1080.0	1026.4	1040.3	1222.3	1496.3	1540.6	1423.8
30°	1553.6	1620.5	1488.4	1280.6	1105.7	1049.2	1066.4	1278.5	1546.2	1642.0	1545.2
32.5°	1648.9	1696.9	1539.4	1326.9	1152.9	1084.9	1115.2	1346.7	1617.9	1738.5	1664.0
35°	1770.7	1784.4	1602.9	1378.5	1225.9	1147.2	1184.8	1413.5	1686.4	1836.0	1781.0
37.5°	1913.5	1895.9	1662.7	1449.1	1320.2	1244.6	1275.7	1486.8	1742.6	1946.5	1900.6
40°	2054.6	2012.2	1738.0	1558.6	1457.8	1359.5	1396.3	1565.1	1795.3	2057.2	2017.4
42.5°	2174.6	2111.9	1812.0	1679.0	1585.9	1486.3	1530.2	1644.0	1845.5	2151.6	2118.8
45°	2263.4	2185.5	1882.6	1794.6	1762.4	1654.7	1675.5	1734.3	1899.8	2230.6	2202.3
47.5°	2342.6	2259.4	1962.4	1911.3	1916.8	1873.7	1840.3	1839.5	1963.9	2295.0	2281.1
50°	2448.8	2362.0	2048.3	2031.4	2148.5	2119.8	2046.1	1962.3	2044.9	2368.2	2366.6
52.5°	2595.1	2524.6	2153.0	2160.9	2364.8	2383.6	2292.2	2109.8	2171.8	2502.4	2492.9
55°	2768.1	2726.9	2295.8	2309.8	2630.1	2643.5	2552.7	2294.2	2358.5	2696.8	2670.4
57.5°	2903.1	2894.4	2452.4	2488.6	2828.2	2888.7	2805.3	2507.8	2568.8	2860.4	2794.4
60°	2956.9	2999.0	2619.0	2668.8	3011.5	3078.4	3005.3	2695.3	2755.2	2928.2	2785.9
62.5°	2927.9	3021.9	2796.5	2792.4	3052.4	3124.5	3073.1	2799.7	2893.5	2858.2	2645.0
65°	2793.6	2939.5	2899.5	2760.5	2912.4	2918.3	2901.7	2753.0	2926.1	2637.0	2372.5
67.5°	2501.1	2711.1	2763.9	2487.8	2534.8	2496.3	2468.3	2497.6	2756.0	2305.5	1993.9
70°	2037.2	2353.2	2378.4	1989.8	1968.4	1942.5	1887.0	2047.7	2420.5	1889.5	1582.1
72.5°	1497.9	1830.1	1907.7	1459.4	1360.5	1365.8	1322.0	1543.1	1968.0	1403.6	1181.2
75°	1024.8	1325.1	1492.6	1018.3	899.8	901.9	896.3	1093.4	1567.5	976.4	883.9
77.5°	748.7	946.7	1125.7	684.6	664.6	652.4	649.4	765.0	1201.8	709.0	686.4
80°	600.8	699.5	756.1	474.5	510.2	509.2	492.8	526.1	784.8	518.5	513.3
82.5°	416.8	537.5	612.6	371.8	344.4	338.6	342.6	391.8	554.7	354.4	337.1
85°	219.9	357.0	606.7	329.5	204.4	163.1	202.9	320.8	480.6	187.8	164.4
87.5°	28.1	103.2	401.7	131.5	80.7	43.4	96.3	180.7	308.6	38.3	33.4
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):

	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°	185°
0°	1215.0	1215.0	1215.0	1215.0	1215.0	1215.0	1215.0	1215.0	1215.0	1215.0	1215.0
2.5°	1318.2	1291.9	1257.5	1225.6	1192.7	1159.8	1116.9	1090.0	1071.5	1067.9	1060.1
5°	1286.2	1198.8	1132.8	1075.7	1023.9	950.6	910.1	876.5	858.6	856.8	852.5
7.5°	1138.5	1017.9	928.8	847.9	774.5	715.4	650.2	619.8	607.3	610.3	613.2
10°	984.8	850.1	747.7	665.0	600.4	550.6	498.2	462.8	438.3	433.3	432.4
12.5°	872.6	724.7	625.3	566.9	517.0	470.1	414.6	372.8	341.0	330.1	322.9
15°	825.1	663.5	559.3	496.4	441.2	381.7	330.1	286.4	257.2	247.7	242.4
17.5°	835.3	646.4	513.8	433.3	362.8	300.7	235.7	198.2	180.7	176.2	176.2
20°	888.3	643.3	476.2	375.2	287.2	215.2	161.9	140.5	134.8	134.3	135.8
22.5°	962.6	654.4	448.2	324.9	223.2	157.2	126.1	118.2	115.6	116.3	118.0
25°	1073.3	691.8	427.9	279.9	175.1	128.7	112.4	107.8	106.5	108.1	110.3
27.5°	1204.5	729.1	415.2	246.1	147.9	117.6	106.9	102.0	102.8	104.8	106.7
30°	1319.8	759.8	395.2	222.0	139.4	118.2	106.9	100.2	99.5	99.9	100.4
32.5°	1423.2	780.5	371.8	199.1	120.2	105.0	99.9	98.9	94.5	92.9	93.1
35°	1512.4	780.5	357.8	185.7	107.8	93.1	84.8	79.9	77.7	77.8	80.1
37.5°	1598.4	764.9	350.9	178.1	101.0	88.6	81.2	76.9	73.9	73.4	73.7
40°	1674.2	742.1	343.0	174.9	95.9	85.8	78.9	75.3	72.1	71.2	71.4
42.5°	1735.1	723.7	334.3	170.8	92.7	83.8	77.3	74.1	70.6	69.6	69.4
45°	1801.0	717.6	322.9	162.5	94.3	84.0	76.9	73.5	70.0	68.8	68.4
47.5°	1887.7	736.8	311.0	152.6	97.7	85.0	77.5	73.5	69.8	68.8	68.4
50°	1997.0	781.9	295.9	138.2	94.3	87.8	77.3	72.9	69.8	68.8	68.0
52.5°	2137.5	842.8	276.2	121.6	92.3	94.5	76.9	71.7	68.8	67.4	66.0
55°	2308.0	892.6	252.6	107.9	87.8	92.7	76.3	70.4	67.3	65.3	64.0
57.5°	2433.0	910.5	222.4	99.1	81.4	89.7	75.5	68.6	65.3	63.7	62.1
60°	2408.3	875.7	196.9	93.5	77.7	81.1	74.9	67.0	63.5	62.3	60.8
62.5°	2210.4	784.8	180.5	90.9	75.3	73.9	75.5	65.5	61.9	60.6	60.3
65°	1913.7	650.6	174.0	90.4	73.4	69.8	70.2	63.7	60.1	59.1	58.7
67.5°	1578.5	525.1	168.3	92.3	70.8	66.8	64.9	61.3	58.3	57.3	56.5
70°	1244.8	436.7	165.6	91.1	67.6	63.9	61.7	58.7	56.2	55.1	54.5
72.5°	1002.4	368.9	164.2	89.9	63.5	59.9	57.9	55.3	52.6	52.2	51.6
75°	848.3	290.0	150.5	86.2	58.7	55.1	53.8	51.4	48.6	48.6	48.3
77.5°	654.4	209.7	125.1	76.3	53.8	49.8	48.6	46.8	43.7	44.3	44.1
80°	483.4	136.8	97.9	63.3	47.7	43.9	43.3	41.5	38.1	39.0	39.0
82.5°	331.1	89.7	70.4	51.8	40.7	37.2	37.2	35.4	31.6	32.0	33.2
85°	166.3	61.7	52.6	40.1	31.6	29.8	29.8	28.5	24.7	24.9	26.5
87.5°	50.6	37.2	34.8	28.7	22.7	22.3	21.3	20.3	18.0	17.8	18.8
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°	1215.0	1215.0	1215.0	1215.0	1215.0	1215.0	1215.0	1215.0	1215.0	1215.0	1215.0
2.5°	1047.9	1036.6	1023.1	993.0	982.9	982.3	991.5	981.9	1000.1	992.4	1000.9
5°	845.1	834.1	818.8	780.5	757.2	741.3	733.9	711.7	727.7	716.0	725.8
7.5°	621.5	624.1	614.0	591.5	540.7	515.2	500.2	486.7	498.4	497.2	515.8
10°	436.9	443.8	436.7	414.0	372.8	358.8	361.6	366.9	382.2	390.0	418.7
12.5°	314.5	314.1	309.6	289.2	262.2	263.7	275.0	284.2	298.3	306.6	335.8
15°	234.8	231.3	229.3	212.7	197.3	200.7	206.2	207.2	216.1	221.0	244.8
17.5°	177.5	179.3	181.4	169.6	157.9	155.8	151.5	146.1	148.7	149.7	161.5
20°	140.9	148.1	153.4	145.1	133.3	126.9	121.4	117.8	117.8	117.6	121.0
22.5°	123.2	128.3	134.1	128.3	117.6	112.1	108.9	106.1	105.8	105.8	108.9
25°	113.5	117.3	122.8	118.9	110.9	106.7	103.8	100.2	98.9	98.4	100.6
27.5°	108.7	110.3	113.1	109.5	102.8	100.8	100.1	96.9	95.0	94.1	96.3
30°	100.6	100.2	100.4	96.9	91.5	91.3	92.7	93.3	92.7	92.5	95.9
32.5°	93.1	92.3	92.1	88.9	84.0	82.9	84.0	85.2	86.6	88.6	92.5
35°	83.6	85.6	86.8	84.0	78.0	74.5	73.2	71.0	69.8	69.8	74.3
37.5°	76.1	80.7	82.5	79.9	73.4	68.4	66.0	65.7	65.8	66.6	71.0
40°	73.5	76.9	78.4	75.9	69.4	64.9	63.5	63.1	63.5	64.7	69.0
42.5°	71.9	74.3	74.1	71.0	65.7	62.5	61.7	61.3	61.7	62.9	67.6
45°	70.6	72.1	70.6	66.8	61.9	60.3	60.5	60.3	60.6	61.9	66.4
47.5°	69.4	70.0	68.0	64.2	59.1	58.7	59.5	60.1	60.5	61.5	66.2
50°	67.6	67.6	65.8	61.9	56.7	56.9	57.9	59.3	59.5	60.6	64.5
52.5°	65.5	65.3	64.0	60.3	54.7	55.3	55.3	56.9	57.3	58.7	62.7
55°	63.7	63.3	62.7	59.1	53.0	54.0	53.4	54.0	54.9	56.3	60.6
57.5°	62.1	61.3	61.3	58.1	51.6	52.0	50.6	51.4	52.6	53.8	58.3
60°	60.5	59.7	60.1	56.7	49.4	49.0	48.5	50.0	50.4	51.8	56.3
62.5°	58.7	58.1	58.3	55.1	47.9	46.8	46.8	48.3	48.5	50.4	54.7
65°	57.3	56.5	56.3	53.6	46.1	44.9	45.5	46.1	46.5	48.5	52.6
67.5°	56.0	54.4	54.4	52.2	44.1	42.9	44.1	43.9	44.5	46.3	49.6
70°	54.2	52.0	52.2	51.2	42.1	40.7	41.7	41.5	41.9	43.1	46.5
72.5°	51.4	49.6	50.0	49.6	40.1	38.1	38.5	38.5	38.5	39.5	43.1
75°	47.9	46.5	47.7	48.6	37.7	35.0	35.4	35.4	34.8	35.4	39.7
77.5°	43.4	42.7	46.7	45.3	35.0	31.6	31.6	31.3	30.1	30.9	35.6
80°	38.8	38.1	43.1	37.9	31.8	27.5	27.1	26.1	24.9	25.5	30.3
82.5°	33.8	33.2	36.2	29.1	27.5	22.7	21.8	20.0	18.8	19.4	23.7
85°	27.7	27.7	27.9	21.9	20.9	17.4	16.2	13.9	12.5	12.8	17.0
87.5°	19.8	20.3	18.8	15.0	12.5	9.7	8.9	7.5	6.3	7.3	8.9
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):

	295°	305°	315°	325°	335°	345°	355°	360°
0°	1215.0	1215.0	1215.0	1215.0	1215.0	1215.0	1215.0	1215.0
2.5°	1044.4	1066.2	1090.9	1122.4	1149.6	1194.0	1236.7	1262.4
5°	780.9	817.1	862.1	920.1	974.1	1055.1	1135.5	1187.1
7.5°	558.8	597.6	646.3	718.6	795.0	898.3	1004.7	1066.4
10°	462.5	502.2	543.1	591.9	654.4	766.8	892.6	962.1
12.5°	382.6	425.0	469.1	520.5	578.4	678.9	823.8	903.9
15°	292.8	340.2	392.2	457.3	529.8	645.9	806.8	893.7
17.5°	200.7	253.7	317.5	397.8	486.5	635.2	837.2	937.5
20°	138.2	176.7	245.0	339.0	445.8	633.8	895.7	1021.3
22.5°	115.6	132.8	182.6	285.1	415.2	650.8	986.5	1138.9
25°	106.9	117.3	145.9	238.2	392.8	690.0	1111.5	1291.1
27.5°	101.8	111.1	132.5	207.6	375.2	735.4	1233.0	1438.6
30°	103.8	113.3	128.7	192.0	351.3	773.3	1341.0	1553.6
32.5°	93.5	97.7	110.3	178.1	334.1	805.2	1435.4	1648.9
35°	79.7	87.0	98.4	171.6	334.5	826.5	1538.4	1770.7
37.5°	75.9	83.2	91.5	169.2	339.0	849.3	1656.6	1913.5
40°	73.5	80.3	87.4	167.9	343.4	870.0	1772.5	2054.6
42.5°	71.9	78.0	87.0	163.1	345.6	888.6	1867.8	2174.6
45°	71.7	78.0	88.6	158.3	348.9	908.6	1947.7	2263.4
47.5°	71.9	80.7	85.6	152.6	348.9	942.0	2041.4	2342.6
50°	71.2	85.0	82.5	144.5	340.8	1005.3	2169.9	2448.8
52.5°	70.8	84.5	76.3	132.1	326.8	1105.7	2334.5	2595.1
55°	69.8	81.4	71.9	113.5	310.4	1215.2	2510.9	2768.1
57.5°	68.8	72.1	69.6	97.3	285.1	1292.3	2632.3	2903.1
60°	77.1	63.1	67.6	89.3	251.3	1313.4	2627.6	2956.9
62.5°	71.4	59.1	65.1	87.6	227.6	1254.1	2506.1	2927.9
65°	56.0	56.5	62.5	92.7	221.2	1097.0	2291.0	2793.6
67.5°	51.2	54.0	59.9	99.3	221.9	878.3	1969.6	2501.1
70°	48.3	51.2	56.9	102.6	223.4	654.8	1557.2	2037.2
72.5°	44.9	47.5	53.6	103.2	213.1	475.6	1200.2	1497.9
75°	40.9	43.3	48.8	89.9	176.5	329.9	918.1	1024.8
77.5°	36.4	38.1	42.9	69.4	131.1	211.1	689.1	748.7
80°	31.1	32.0	36.0	50.8	89.7	132.1	545.2	600.8
82.5°	24.9	25.3	27.9	38.1	58.3	84.8	365.2	416.8
85°	17.6	17.6	19.2	27.7	39.7	53.8	198.2	219.9
87.5°	8.3	8.5	8.5	15.2	20.7	27.3	45.7	28.1
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

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