

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: P227630

Luminaire Tested: **ISC-AF-450-LED-E1-T2-8030**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P227630
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P29758)
Test Lab: INNOVATION CENTER-P2
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: MCGRAW-EDISON
Catalog Number: ISC-AF-450-LED-E1-T2-8030
Description: IMPACT ELITE LED CYLINDER LUMINAIRE
LIGHT SQUARE WITH ACCULED OPTICS-TYPE II
Light Source: (16) 3000K CCT, 80 CRI LEDs
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 2394 lumens
Efficiency: N/A
Efficacy: 94.6 lumens/watt
Luminous Opening: Rectangular (W 0.5' x L: 0.5' x H: 0')
IES Classification: Type II - Medium - Non-Cutoff
BUG Rating: B1 - U0 - G1

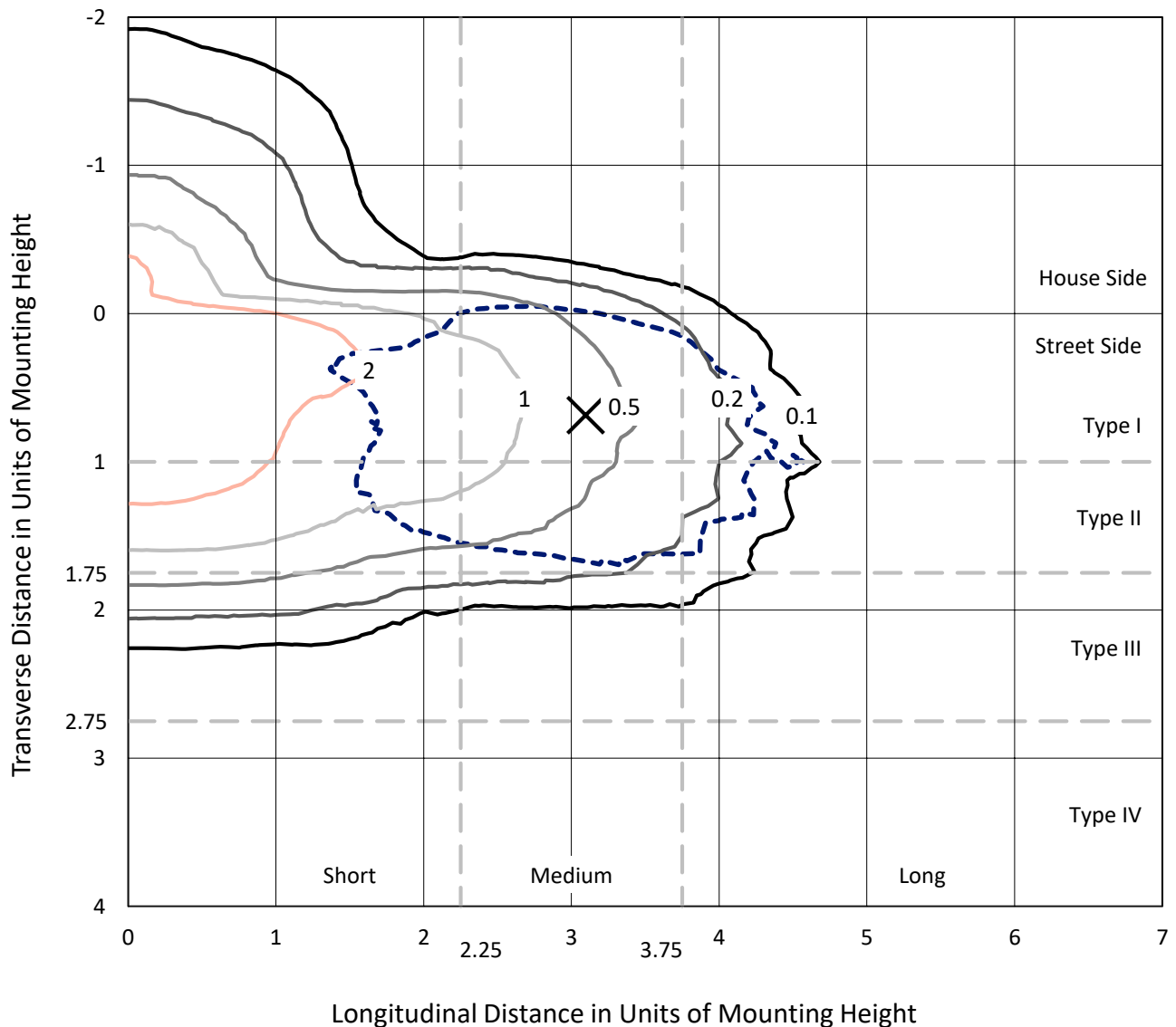
Input Watts (W): 25.31
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Iso-Footcandle Lines of Horizontal Illumination

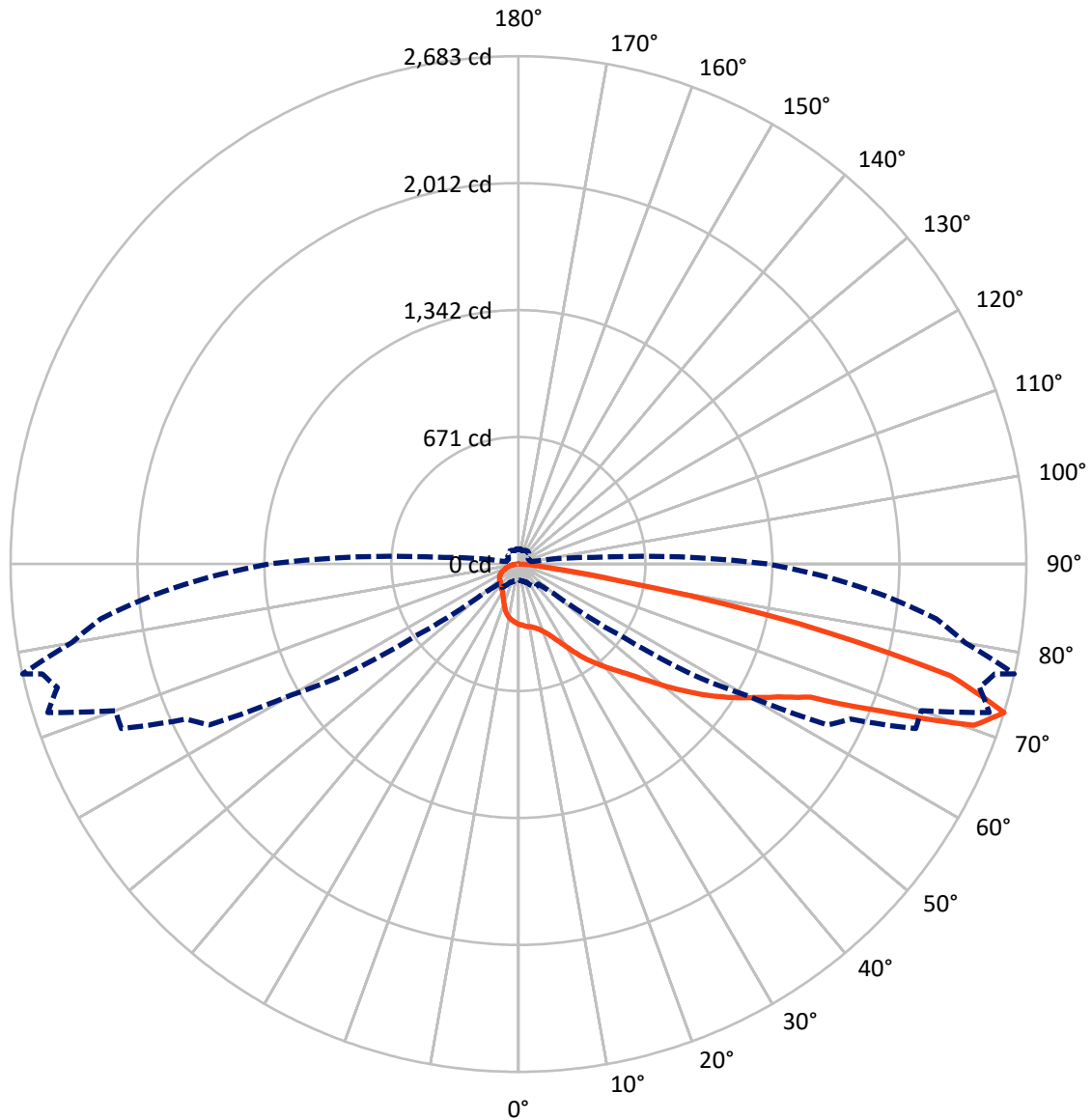
× Max cd
 - - - 1/2 Max cd



Based on 10 foot mounting height. Maximum calculated value = 3.9 fc
 Type II - Medium - Non-Cutoff

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Luminous Intensity Polar Plot



— Vertical Plane Through 77.5-Deg Lateral - - - Horizontal Cone Through 72.5-Deg Vertical

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FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	396.7	0.0	396.7
	% Fixture	16.6	0.0	16.6
Street Side	Lumens	1997.3	0.0	1997.3
	% Fixture	83.4	0.0	83.4
Total	Lumens	2394.0	0.0	2394.0
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	29.7	1.2
10°-20°	91.0	3.8
20°-30°	161.6	6.8
30°-40°	256.1	10.7
40°-50°	384.1	16.0
50°-60°	497.8	20.8
60°-70°	565.6	23.6
70°-80°	375.3	15.7
80°-90°	32.8	1.4
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°	2394.0	100.0
0°-180°	2394.0	100.0



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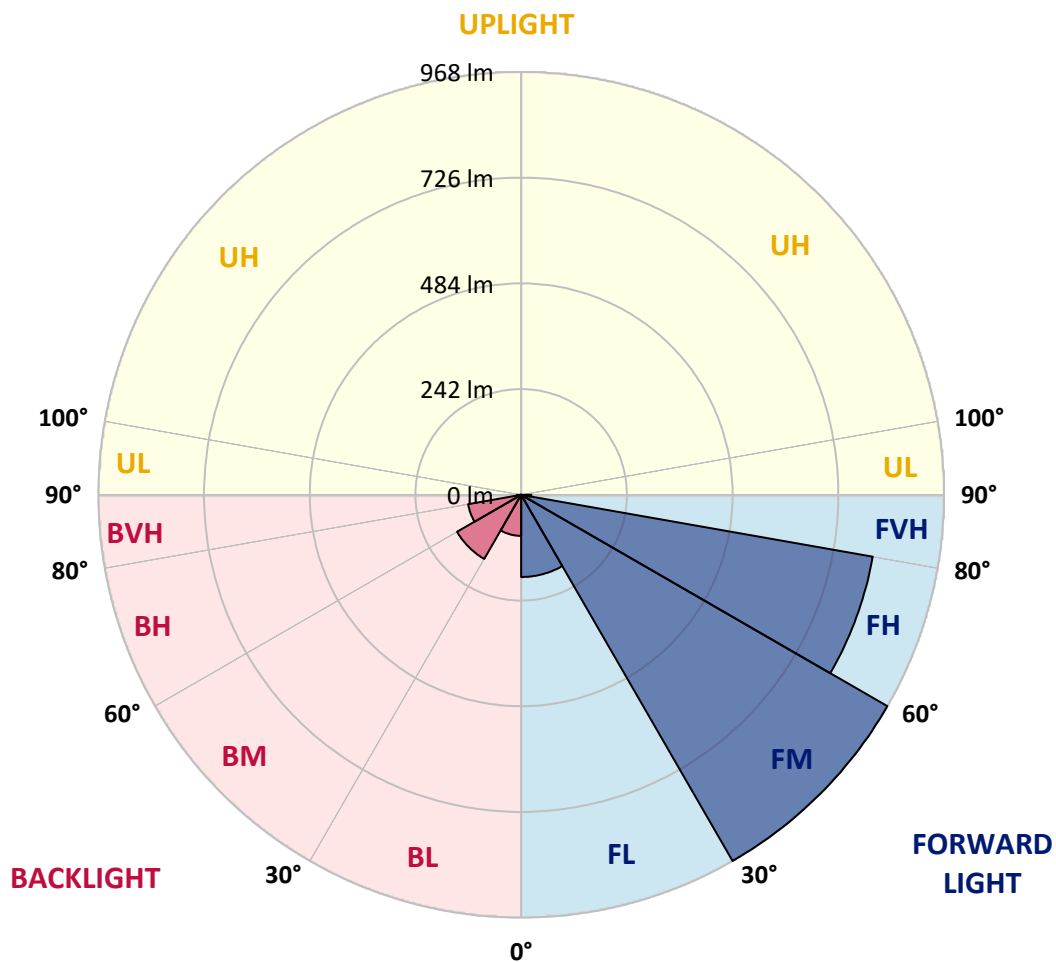
CATALOG NUMBER: ISC-AF-450-LED-E1-T2-8030

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	188.3	7.9			
FM (30°-60°)	968.5	40.5			
FH (60°-80°)	817.5	34.1			G1/1800
FVH (80°-90°)	22.9	1.0			G1/100
BL (0°-30°)	94.0	3.9	B0/110		
BM (30°-60°)	169.5	7.1	B0/220		
BH (60°-80°)	123.4	5.2	B1/500		G1/500
BVH (80°-90°)	9.9	0.4			G0/10
UL (90°-100°)	0.0	0.0		U0/0	
UH (100°-180°)	0.0	0.0		U0/0	

BUG Rating: B1-U0-G1

Type II Medium





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	37.5°	40°	42.5°	45°	47.5°	50°
0°	319.6	319.6	319.6	319.6	319.6	319.6	319.6	319.6	319.6	319.6	319.6
2.5°	346.3	344.7	343.9	342.2	340.6	339.8	337.4	335.8	338.2	337.4	337.4
5°	372.1	370.5	368.1	365.7	362.4	360.0	357.6	355.2	356.8	355.2	353.5
7.5°	393.1	391.5	388.3	385.8	382.6	379.4	376.1	375.3	373.7	371.3	370.5
10°	405.2	403.6	402.0	400.4	395.5	393.1	389.1	386.6	387.4	384.2	384.2
12.5°	416.5	414.9	414.1	414.1	410.0	407.6	406.0	403.6	405.2	400.4	398.7
15°	427.0	425.4	423.0	425.4	424.6	423.8	423.0	422.2	424.6	419.7	420.5
17.5°	443.9	443.1	438.3	435.1	435.9	438.3	439.9	439.1	439.1	436.7	437.5
20°	470.6	470.6	464.1	458.5	449.6	449.6	450.4	449.6	451.2	452.8	455.2
22.5°	490.8	489.1	486.7	481.9	472.2	464.1	464.1	460.9	463.3	464.1	469.0
25°	516.6	515.0	509.3	509.3	499.6	489.1	487.5	482.7	488.3	477.8	485.9
27.5°	548.1	546.5	539.2	536.0	531.1	518.2	515.0	515.8	521.4	506.1	514.2
30°	587.6	586.0	577.1	568.3	560.2	546.5	544.8	544.0	557.0	539.2	549.7
32.5°	637.7	637.7	628.0	615.9	599.7	581.2	574.7	575.5	593.3	573.9	591.7
35°	713.5	703.9	686.1	667.5	650.6	628.8	619.9	618.3	634.4	615.1	635.2
37.5°	762.0	755.5	739.4	725.6	707.1	686.1	679.6	682.1	695.8	667.5	696.6
40°	805.6	804.8	794.3	785.4	766.8	745.8	753.9	786.2	822.5	767.6	768.4
42.5°	834.6	836.2	835.4	836.2	825.7	803.9	817.7	862.9	925.0	892.7	862.9
45°	839.5	845.1	847.5	863.7	874.2	861.3	868.5	916.1	1040.4	1090.5	955.7
47.5°	851.6	857.2	852.4	871.7	920.2	919.4	948.4	966.2	983.1	991.2	1092.9
50°	867.7	878.2	873.4	889.5	929.1	951.7	976.7	999.3	985.6	934.7	962.2
52.5°	868.5	880.6	907.3	923.4	962.2	957.3	974.3	962.2	983.1	930.7	957.3
55°	797.5	799.9	877.4	958.9	1026.7	1013.0	1002.5	975.1	1001.7	936.3	970.2
57.5°	685.3	693.4	774.1	911.3	1056.6	1068.7	1065.5	1063.0	1084.0	996.9	1034.0
60°	561.8	571.5	648.2	809.6	994.4	1025.9	1069.5	1096.1	1150.2	1115.5	1176.9
62.5°	350.3	357.6	442.3	644.1	877.4	939.6	1003.3	1034.8	1113.1	1129.2	1233.4
65°	167.1	169.5	202.6	350.3	637.7	754.7	849.1	916.1	1012.2	1084.8	1225.3
67.5°	130.0	130.8	142.9	186.5	326.9	405.2	512.6	601.3	703.9	902.4	1076.8
70°	104.1	104.1	113.8	137.2	202.6	213.1	240.5	270.4	314.0	473.8	615.1
72.5°	87.2	87.2	93.6	108.2	150.1	152.6	150.9	148.5	148.5	187.3	238.9
75°	73.5	72.6	76.7	86.4	111.4	114.6	113.0	107.4	100.9	100.9	113.8
77.5°	59.7	59.7	63.0	67.8	80.7	82.3	82.3	77.5	71.8	72.6	78.3
80°	46.8	46.8	49.2	52.5	56.5	55.7	55.7	50.9	46.8	46.0	49.2
82.5°	33.9	34.7	40.4	37.9	36.3	33.9	33.9	33.1	29.9	27.4	29.1
85°	10.5	11.3	19.4	22.6	18.6	15.3	14.5	12.1	12.9	10.5	12.1
87.5°	0.0	0.0	0.0	0.0	0.8	0.0	0.0	0.0	0.8	0.0	0.8
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):

	52.5°	55°	57.5°	60°	62.5°	65°	67.5°	70°	72.5°	75°	77°
0°	319.6	319.6	319.6	319.6	319.6	319.6	319.6	319.6	319.6	319.6	319.6
2.5°	333.4	335.0	331.7	331.7	327.7	330.1	326.1	326.9	322.9	324.5	324.5
5°	349.5	350.3	346.3	344.7	340.6	340.6	336.6	336.6	330.9	332.6	330.9
7.5°	364.8	364.8	360.8	357.6	353.5	351.9	347.1	344.7	339.8	339.0	336.6
10°	377.8	377.8	372.1	368.9	364.0	361.6	355.2	352.7	347.1	343.0	340.6
12.5°	393.9	392.3	385.8	382.6	374.5	373.7	364.0	362.4	354.3	351.9	347.9
15°	413.3	414.9	404.4	403.6	392.3	391.5	378.6	377.8	365.7	364.8	359.2
17.5°	434.3	437.5	428.6	427.8	414.1	414.1	398.7	397.9	381.8	381.0	373.7
20°	452.8	456.9	451.2	452.8	440.7	441.5	424.6	424.6	402.0	400.4	393.9
22.5°	469.8	477.8	473.0	481.9	469.8	475.4	452.8	456.9	430.2	427.0	417.3
25°	486.7	497.2	495.6	510.1	501.3	510.9	487.5	495.6	460.9	463.3	450.4
27.5°	503.7	517.4	515.8	536.8	533.5	552.9	532.7	541.6	503.7	506.1	491.6
30°	531.9	547.3	541.6	563.4	563.4	594.9	579.6	593.3	551.3	556.1	539.2
32.5°	569.9	587.6	570.7	598.9	597.3	638.5	626.4	649.8	608.6	615.1	594.1
35°	611.0	639.3	611.8	643.3	638.5	681.3	673.2	711.1	667.5	674.8	653.8
37.5°	665.1	699.0	662.7	690.1	668.3	717.6	712.7	764.4	720.0	738.6	713.5
40°	728.9	755.5	710.3	733.7	697.4	748.3	740.2	811.2	770.0	799.9	777.3
42.5°	787.8	806.4	746.6	775.7	732.1	783.8	769.2	854.8	819.3	865.3	840.3
45°	841.1	862.1	783.0	815.2	766.8	823.3	798.3	896.8	872.6	942.0	917.0
47.5°	917.0	886.3	816.1	858.0	803.9	866.1	833.0	946.0	937.1	1035.6	1006.5
50°	891.9	912.1	843.5	887.1	837.8	913.7	877.4	1004.9	1007.4	1137.3	1120.4
52.5°	894.3	928.3	864.5	925.0	877.4	979.9	942.0	1076.0	1087.3	1235.8	1212.4
55°	908.9	958.9	896.0	977.5	933.1	1053.4	1026.7	1152.6	1172.0	1328.6	1314.9
57.5°	945.2	1014.6	950.0	1056.6	1010.6	1137.3	1113.1	1231.7	1258.4	1421.4	1417.4
60°	1084.8	1167.2	1054.2	1172.0	1110.7	1232.6	1200.3	1314.9	1341.5	1510.2	1520.7
62.5°	1240.6	1383.5	1316.5	1439.2	1277.0	1400.4	1305.2	1417.4	1419.0	1605.5	1638.6
65°	1281.0	1500.5	1557.8	1786.3	1701.5	1828.3	1574.0	1649.1	1552.2	1779.0	1826.6
67.5°	1265.6	1534.4	1693.5	1950.9	2047.0	2268.2	2225.4	2199.6	1975.2	2138.2	2195.5
70°	929.1	1214.0	1603.0	1864.6	2141.4	2286.7	2516.8	2540.2	2530.5	2507.9	2545.8
72.5°	423.0	663.5	1084.8	1383.5	1840.4	1938.0	2271.4	2264.9	2607.2	2522.4	2582.2
75°	166.3	255.9	516.6	772.5	1272.9	1393.2	1770.9	1677.3	2104.3	1980.0	2107.5
77.5°	91.2	114.6	193.7	331.7	695.0	758.7	1084.0	927.4	1305.2	1089.7	1132.5
80°	54.9	68.6	88.8	125.9	295.4	312.4	462.5	372.9	533.5	405.2	393.1
82.5°	29.9	37.1	44.4	62.2	109.8	121.9	159.8	143.7	171.1	146.1	142.9
85°	12.1	16.1	17.0	25.0	36.3	42.0	50.9	54.9	67.0	61.3	59.7
87.5°	0.0	0.8	0.0	1.6	0.0	1.6	0.0	2.4	2.4	4.0	4.8
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):

	77.5°	80°	82.5°	85°	87.5°	90°	95°	100°	102.5°	105°	107.5°
0°	319.6	319.6	319.6	319.6	319.6	319.6	319.6	319.6	319.6	319.6	319.6
2.5°	322.1	324.5	321.3	321.3	317.2	319.6	317.2	314.8	310.8	311.6	305.9
5°	327.7	329.3	325.3	323.7	321.3	320.4	315.6	310.8	305.1	305.1	298.7
7.5°	333.4	333.4	327.7	327.7	322.1	320.4	313.2	305.1	297.0	296.2	286.5
10°	336.6	335.8	328.5	328.5	320.4	319.6	310.8	298.7	287.4	284.1	270.4
12.5°	343.0	342.2	333.4	331.7	321.3	321.3	308.3	292.2	276.1	270.4	251.0
15°	351.1	351.9	341.4	339.0	326.9	326.1	308.3	284.1	262.3	253.5	230.0
17.5°	364.0	364.8	350.3	347.9	333.4	330.9	309.1	274.4	243.8	234.1	213.1
20°	381.0	378.6	359.2	358.4	339.0	336.6	308.3	259.9	225.2	215.5	197.0
22.5°	402.0	399.6	374.5	372.1	349.5	345.5	307.5	244.6	208.3	197.8	185.7
25°	431.0	427.8	397.1	393.9	365.7	359.2	306.7	228.4	193.7	185.7	178.4
27.5°	467.4	460.9	423.8	420.5	382.6	374.5	303.5	209.9	179.2	173.5	170.3
30°	510.9	505.3	457.7	452.8	405.2	394.7	300.3	192.9	168.7	166.3	163.9
32.5°	562.6	557.0	498.8	493.2	434.3	418.9	294.6	179.2	162.2	162.2	159.0
35°	616.7	611.8	543.2	539.2	466.5	446.4	287.4	167.1	156.6	156.6	153.4
37.5°	665.1	669.1	591.7	588.4	498.8	473.8	279.3	159.0	151.7	150.1	146.9
40°	717.6	727.3	636.9	639.3	532.7	502.9	269.6	152.6	146.1	144.5	143.7
42.5°	770.9	789.4	684.5	693.4	566.6	532.7	262.3	148.5	143.7	140.4	139.6
45°	837.0	863.7	743.4	760.4	606.2	569.1	259.9	143.7	136.4	132.4	130.0
47.5°	919.4	954.9	816.1	835.4	658.7	612.6	264.8	142.1	131.6	126.7	121.9
50°	1017.0	1050.9	902.4	910.5	717.6	660.3	275.2	144.5	130.0	122.7	115.4
52.5°	1120.4	1146.2	993.6	984.8	778.9	707.1	287.4	145.3	125.9	118.7	109.8
55°	1226.9	1241.4	1078.4	1055.0	834.6	753.9	303.5	144.5	122.7	114.6	103.3
57.5°	1331.0	1335.9	1153.5	1130.9	889.5	809.6	323.7	142.1	117.8	109.8	97.7
60°	1432.7	1440.8	1236.6	1215.6	949.2	881.4	352.7	138.0	111.4	105.7	92.8
62.5°	1544.1	1570.8	1335.9	1339.1	1031.6	993.6	407.6	133.2	104.9	98.5	85.6
65°	1695.9	1797.6	1499.7	1575.6	1189.8	1205.1	512.6	119.5	96.1	88.0	79.1
67.5°	2076.1	2187.4	1897.7	1928.3	1560.3	1469.1	578.7	101.7	84.8	79.1	73.5
70°	2552.3	2472.4	2266.5	2080.9	1776.6	1510.2	509.3	85.6	75.1	71.8	68.6
72.5°	2683.0	2396.5	2227.0	1948.5	1642.6	1317.3	389.9	73.5	67.0	65.4	63.0
75°	2357.8	1942.9	1952.6	1548.2	1361.7	1004.1	266.4	63.0	58.1	57.3	56.5
77.5°	1507.8	998.5	1215.6	765.2	786.2	464.9	130.0	52.5	50.0	50.0	48.4
80°	536.0	332.6	376.1	241.3	219.6	147.7	70.2	42.0	40.4	41.2	40.4
82.5°	160.6	127.5	125.1	97.7	75.9	62.2	38.7	32.3	30.7	31.5	29.9
85°	64.6	50.0	42.0	32.3	26.6	24.2	21.0	21.8	19.4	21.0	18.6
87.5°	4.0	3.2	2.4	3.2	0.0	1.6	4.0	3.2	0.8	3.2	2.4
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):

	110°	112.5°	115°	117.5°	120°	122.5°	125°	127.5°	130°	135°	145°
0°	319.6	319.6	319.6	319.6	319.6	319.6	319.6	319.6	319.6	319.6	319.6
2.5°	310.0	304.3	306.7	304.3	305.9	301.1	302.7	298.7	298.7	297.8	293.8
5°	299.5	293.8	293.0	287.4	288.2	281.7	280.9	273.6	273.6	267.2	255.1
7.5°	284.9	276.1	275.2	263.9	263.1	254.3	251.0	243.0	242.2	234.9	227.6
10°	266.4	252.6	250.2	235.7	236.5	226.8	226.0	220.4	220.4	217.1	217.1
12.5°	245.4	230.0	228.4	217.1	217.9	211.5	212.3	209.1	210.7	212.3	217.9
15°	226.0	213.9	212.3	205.0	205.8	204.2	206.6	206.6	209.1	213.1	222.8
17.5°	209.9	199.4	200.2	197.0	200.2	199.4	204.2	203.4	208.3	213.1	225.2
20°	195.3	189.7	192.1	191.3	195.3	195.3	199.4	200.2	204.2	210.7	224.4
22.5°	185.7	184.0	186.5	186.5	189.7	190.5	194.5	197.0	199.4	205.8	217.9
25°	180.0	179.2	181.6	182.4	184.8	185.7	189.7	189.7	193.7	197.8	204.2
27.5°	171.9	170.3	173.5	173.5	176.8	176.0	180.8	179.2	183.2	184.8	186.5
30°	166.3	163.9	166.3	165.5	167.9	165.5	167.9	165.5	167.9	167.9	165.5
32.5°	160.6	158.2	159.0	155.8	158.2	155.0	155.8	152.6	154.2	152.6	153.4
35°	155.0	151.7	151.7	147.7	147.7	143.7	145.3	142.1	145.3	147.7	146.9
37.5°	146.9	144.5	144.5	141.3	142.9	141.3	144.5	142.9	143.7	140.4	134.8
40°	142.1	143.7	142.9	145.3	143.7	141.3	138.8	134.0	133.2	131.6	128.3
42.5°	134.8	136.4	132.4	135.6	133.2	134.0	132.4	130.0	128.3	126.7	123.5
45°	124.3	124.3	121.1	125.9	123.5	128.3	126.7	126.7	125.1	122.7	120.3
47.5°	115.4	116.2	113.0	117.0	115.4	121.9	121.1	123.5	123.5	121.9	115.4
50°	109.8	108.2	105.7	109.8	109.0	114.6	115.4	120.3	119.5	120.3	114.6
52.5°	104.9	101.7	99.3	101.7	101.7	106.5	108.2	113.8	114.6	116.2	113.0
55°	99.3	95.2	93.6	95.2	95.2	100.1	102.5	106.5	109.0	113.8	112.2
57.5°	94.4	88.8	87.2	88.8	89.6	94.4	96.9	100.9	104.1	110.6	109.8
60°	88.8	83.9	82.3	84.8	85.6	90.4	92.8	96.9	99.3	106.5	106.5
62.5°	82.3	78.3	78.3	79.1	80.7	85.6	87.2	92.8	93.6	102.5	103.3
65°	76.7	74.3	74.3	75.1	76.7	80.7	81.5	87.2	88.0	96.9	99.3
67.5°	71.8	70.2	70.2	71.0	71.8	75.1	75.9	81.5	83.1	91.2	95.2
70°	67.0	65.4	64.6	64.6	67.0	69.4	71.0	76.7	77.5	84.8	89.6
72.5°	61.3	59.7	59.7	58.9	61.3	63.0	66.2	69.4	71.0	78.3	81.5
75°	55.7	54.1	54.1	53.3	54.9	58.1	58.9	62.2	63.0	69.4	72.6
77.5°	48.4	46.8	46.8	46.8	48.4	49.2	50.0	53.3	54.9	60.5	63.8
80°	40.4	38.7	39.6	38.7	41.2	37.9	40.4	43.6	45.2	48.4	46.8
82.5°	30.7	28.3	29.1	29.1	29.9	27.4	29.1	30.7	32.3	34.7	33.9
85°	19.4	17.0	18.6	17.0	18.6	16.1	17.8	17.8	19.4	17.8	17.0
87.5°	4.0	1.6	4.0	1.6	4.8	0.0	2.4	0.0	1.6	0.8	0.0
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):

	155°	165°	175°	180°
0°	319.6	319.6	319.6	319.6
2.5°	289.8	286.5	284.9	284.1
5°	248.6	243.0	241.3	239.7
7.5°	223.6	222.0	222.0	221.2
10°	218.7	221.2	222.0	222.0
12.5°	224.4	228.4	231.7	231.7
15°	231.7	238.9	243.0	243.0
17.5°	237.3	247.0	251.0	251.8
20°	238.1	247.8	253.5	254.3
22.5°	230.9	237.3	241.3	241.3
25°	212.3	215.5	217.9	217.9
27.5°	188.9	188.1	187.3	190.5
30°	164.7	163.0	159.8	163.0
32.5°	155.8	150.1	142.1	144.5
35°	142.1	140.4	136.4	137.2
37.5°	137.2	150.9	150.1	150.9
40°	131.6	148.5	147.7	149.3
42.5°	126.7	136.4	126.7	127.5
45°	117.8	121.9	113.8	113.8
47.5°	113.8	112.2	109.0	108.2
50°	110.6	110.6	109.0	107.4
52.5°	108.2	106.5	112.2	111.4
55°	104.9	103.3	107.4	107.4
57.5°	102.5	98.5	104.9	104.9
60°	100.1	96.1	102.5	102.5
62.5°	98.5	93.6	101.7	100.9
65°	96.1	91.2	101.7	100.1
67.5°	92.8	86.4	100.1	97.7
70°	86.4	80.7	94.4	88.0
72.5°	79.9	73.5	80.7	75.1
75°	70.2	64.6	65.4	64.6
77.5°	58.9	52.5	50.9	51.7
80°	44.4	40.4	38.7	38.7
82.5°	32.3	27.4	28.3	23.4
85°	14.5	10.5	8.1	8.1
87.5°	0.0	0.0	0.0	0.0
90°	0.0	0.0	0.0	0.0

(END OF REPORT)