

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: INVUE

Report Number: P400934

Luminaire Tested: **ENV-SA1A-735-U-SLL**

Issue Date: 5/20/2020

Test Information

Test Method: LM-79-08
Report Number: P400934
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G1-2004-754-7)
Test Lab: INNOVATION CENTER
Issue Date: 5/20/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: INVUE
Catalog Number: ENV-SA1A-735-U-SLL
Description: ENTRI LED LUMINAIRE
(1) 70 CRI, 3500K, 350mA LIGHTSQUARE WITH 16 LEDS AND SPILL LIGHT
ELIMINATOR LEFT OPTICS
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 2271 lumens
Efficiency: N/A
Efficacy: 113.0 lumens/watt
Luminous Opening: Rectangular (W 0.5' x L: 0.5' x H: 0')
IES Classification: Type III - Medium - Non-Cutoff
BUG Rating: B1 - U0 - G1

Input Watts (W): 20.1
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

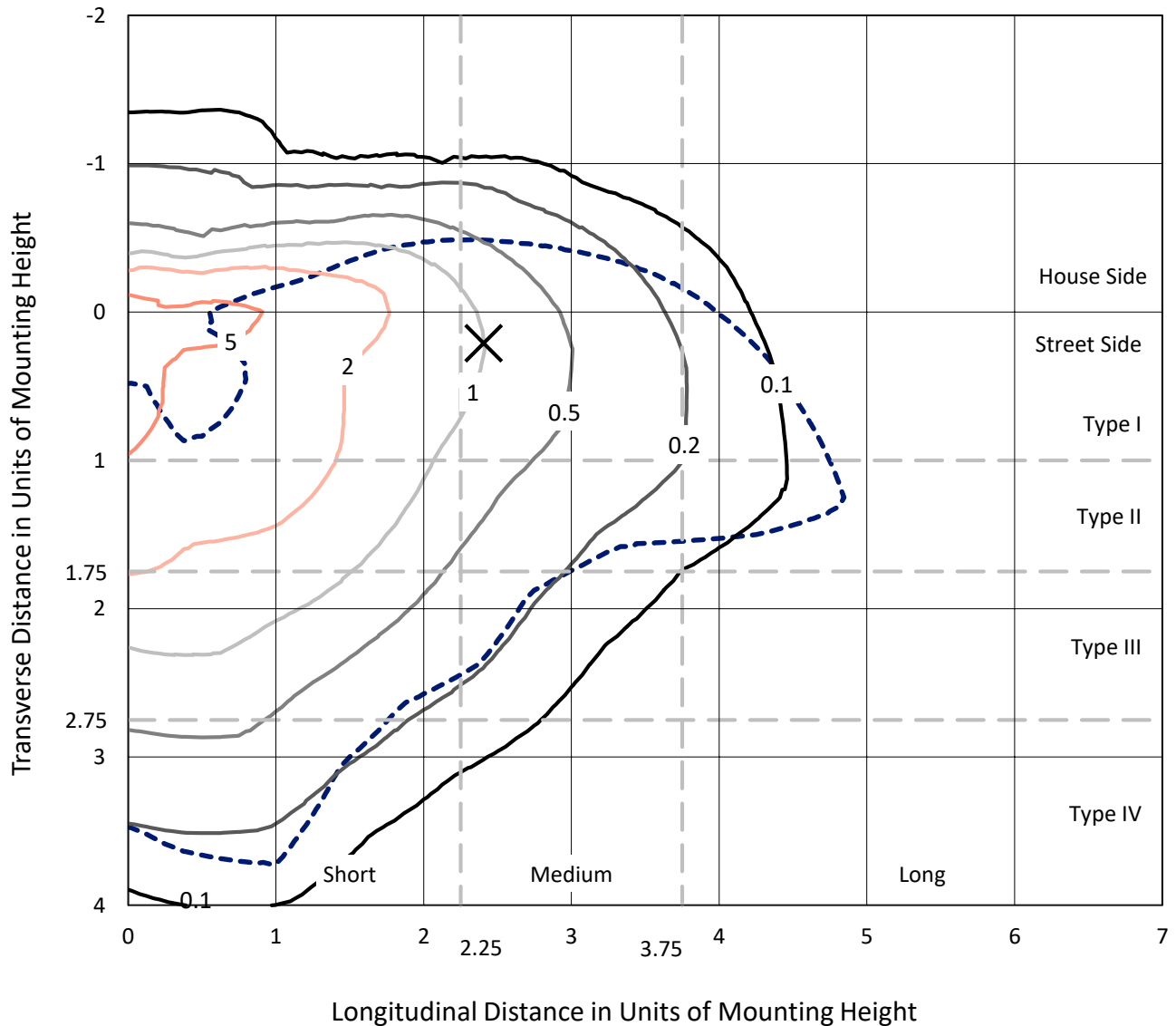


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Iso-Footcandle Lines of Horizontal Illumination

× Max cd
 - - - 1/2 Max cd

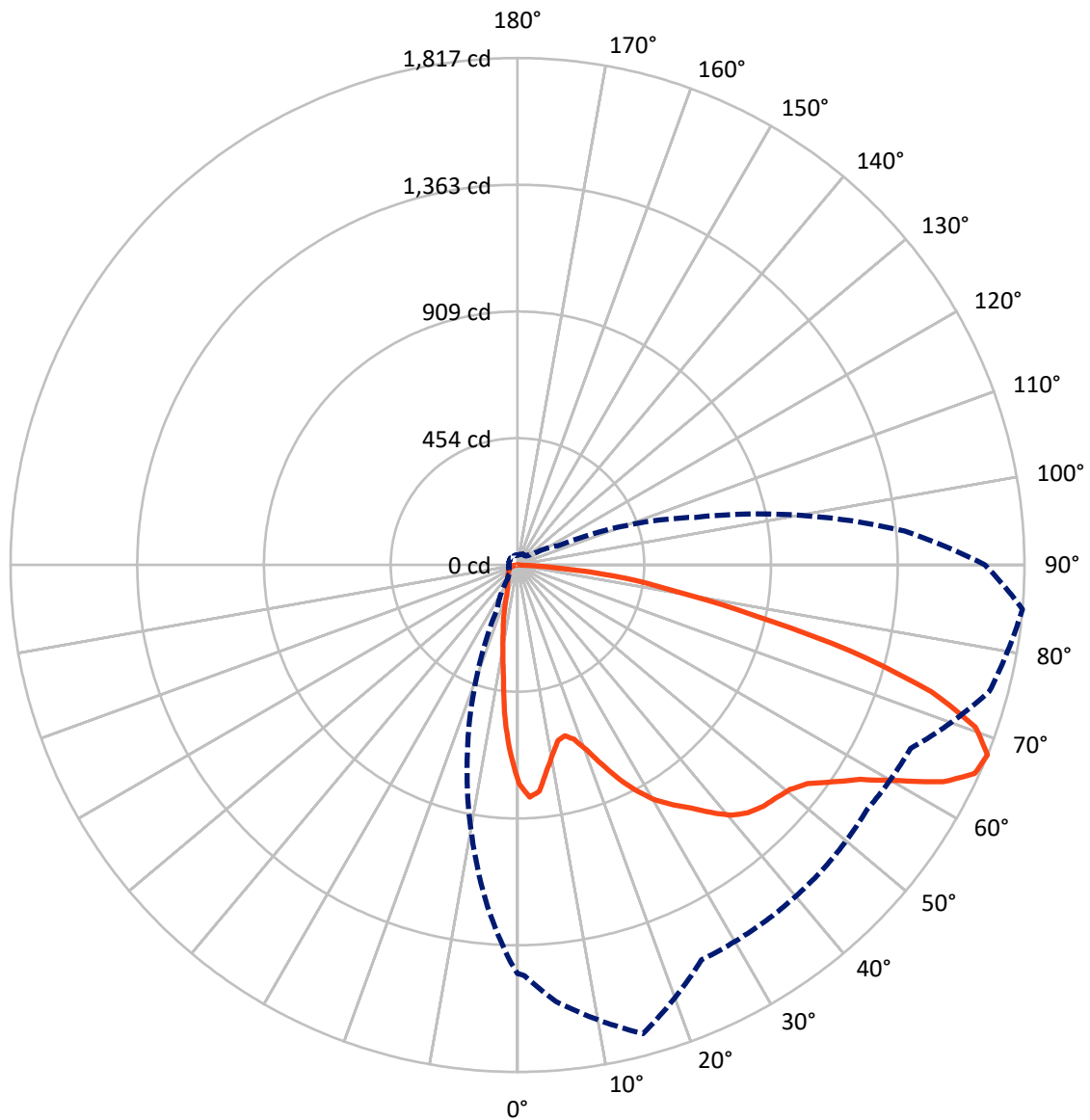


Based on 10 foot mounting height. Maximum calculated value = 8.4 fc
 Type III - Medium - Non-Cutoff

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Luminous Intensity Polar Plot



— Vertical Plane Through 85-Deg Lateral - - - Horizontal Cone Through 67.5-Deg Vertical

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FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	457.6	0.0	457.6
	% Fixture	20.1	0.0	20.1
Street Side	Lumens	1813.4	0.0	1813.4
	% Fixture	79.9	0.0	79.9
Total	Lumens	2271.0	0.0	2271.0
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	59.7	2.6
10°-20°	117.7	5.2
20°-30°	164.4	7.2
30°-40°	231.7	10.2
40°-50°	321.1	14.1
50°-60°	451.2	19.9
60°-70°	551.6	24.3
70°-80°	324.2	14.3
80°-90°	49.6	2.2
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°	2271.0	100.0
0°-180°	2271.0	100.0



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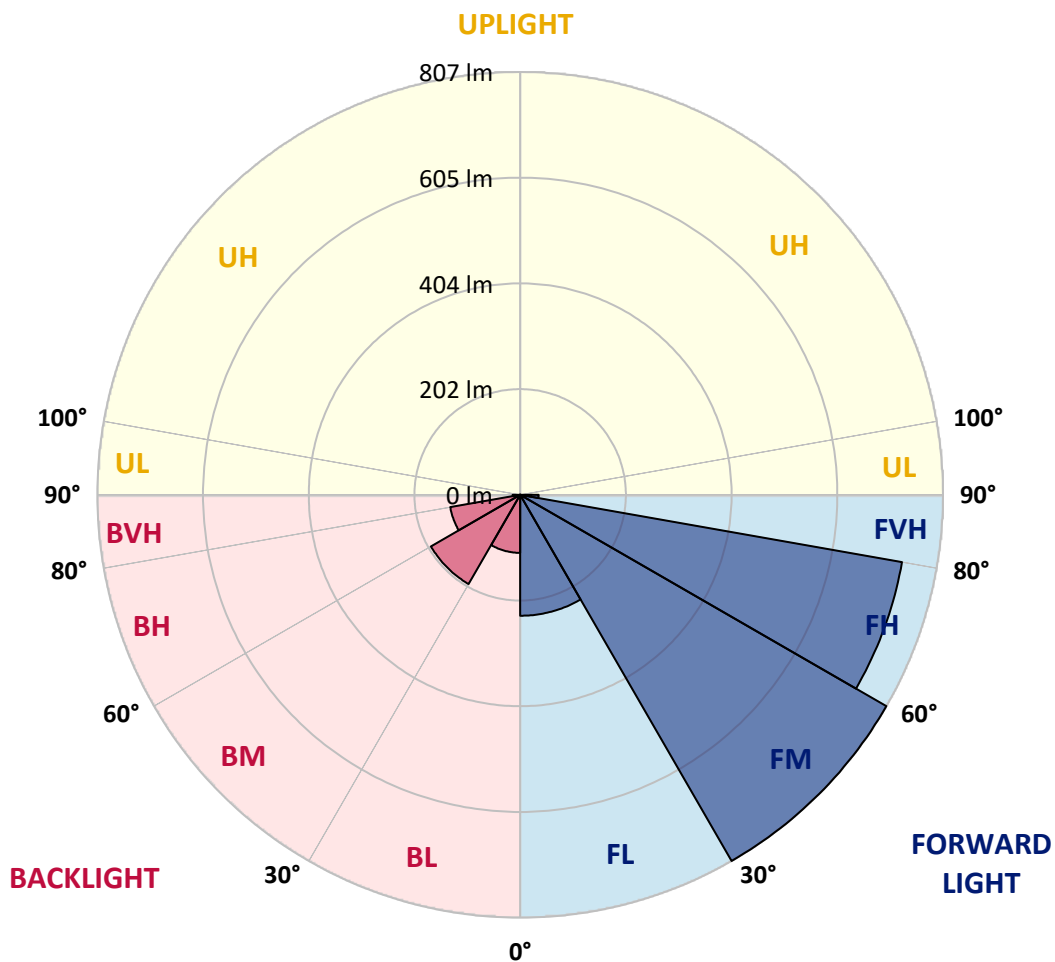
CATALOG NUMBER: ENV-SA1A-735-U-SLL

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	230.9	10.2			
FM	(30°-60°)	807.3	35.5			
FH	(60°-80°)	740.2	32.6			G1/1800
FVH	(80°-90°)	35.1	1.5			G1/100
BL	(0°-30°)	110.8	4.9	B1/500		
BM	(30°-60°)	196.7	8.7	B0/220		
BH	(60°-80°)	135.5	6.0	B1/500		G1/500
BVH	(80°-90°)	14.5	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 III Medium





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CANDELA DISTRIBUTION (FULL):

	0°	1°	5°	15°	25°	35°	45°	55°	65°	75°	85°
0°	784.6	784.6	784.6	784.6	784.6	784.6	784.6	784.6	784.6	784.6	784.6
2.5°	806.1	802.5	814.9	833.1	845.6	854.3	857.2	856.9	854.3	847.4	832.8
5°	770.3	767.1	792.3	832.8	868.2	893.8	901.1	890.8	878.1	851.0	815.3
7.5°	702.4	707.6	739.7	796.6	853.6	894.1	904.0	887.9	861.6	806.5	746.3
10°	651.0	653.5	689.7	758.3	818.9	860.5	877.7	863.4	829.1	759.4	689.7
12.5°	619.2	621.8	656.8	720.3	785.0	817.4	822.6	822.2	793.7	726.2	645.5
15°	623.6	626.9	661.9	714.5	751.0	765.2	765.6	769.6	761.2	709.7	634.9
17.5°	665.9	665.9	699.5	731.3	722.9	712.7	720.3	727.6	742.2	719.6	656.4
20°	732.7	735.7	766.7	761.2	710.1	684.6	675.4	688.2	733.5	749.2	707.2
22.5°	805.0	812.7	845.2	805.0	707.9	658.3	648.0	661.9	734.6	795.9	776.9
25°	885.0	894.5	916.4	856.1	714.5	643.7	636.7	649.9	737.5	839.0	852.1
27.5°	958.0	958.7	980.3	899.2	731.6	645.1	633.4	650.6	745.5	872.9	918.6
30°	1009.9	1009.9	1019.3	921.1	752.8	654.2	636.4	661.6	756.8	891.6	978.8
32.5°	1057.3	1059.9	1055.1	944.1	772.9	667.4	643.3	683.5	774.7	906.9	1025.2
35°	1117.6	1117.2	1096.0	962.4	791.5	681.6	660.5	711.2	800.7	929.5	1069.4
37.5°	1192.0	1188.4	1143.5	978.8	814.2	706.1	692.9	749.2	835.3	956.2	1125.2
40°	1259.6	1253.7	1186.9	994.2	832.0	753.6	745.9	796.3	879.1	989.4	1179.6
42.5°	1312.1	1303.4	1223.8	1005.1	859.1	828.0	834.6	881.0	923.3	1019.0	1213.6
45°	1356.3	1347.2	1251.5	1010.6	924.4	934.3	947.1	985.8	970.4	1027.0	1234.4
47.5°	1388.1	1373.1	1263.6	1026.6	1012.8	1058.4	1097.8	1100.4	1036.9	1026.6	1247.2
50°	1406.7	1390.3	1274.9	1066.4	1115.4	1199.3	1241.3	1221.6	1105.9	1033.2	1265.4
52.5°	1444.3	1427.2	1322.0	1131.1	1220.5	1342.1	1364.7	1333.0	1177.4	1067.2	1301.9
55°	1538.9	1531.2	1413.3	1218.0	1323.8	1457.5	1467.7	1435.9	1252.3	1126.0	1371.7
57.5°	1645.8	1629.1	1536.7	1327.1	1422.8	1547.6	1564.1	1520.3	1330.8	1208.5	1449.4
60°	1675.8	1672.5	1641.1	1454.5	1525.0	1644.0	1645.1	1589.3	1422.4	1306.7	1568.1
62.5°	1632.0	1642.6	1684.5	1572.5	1610.8	1708.6	1699.5	1641.5	1518.4	1462.9	1712.3
65°	1555.7	1570.6	1655.0	1683.8	1630.5	1695.9	1676.5	1639.6	1579.0	1631.2	1801.7
67.5°	1464.0	1472.1	1570.3	1739.3	1561.5	1555.3	1546.2	1529.4	1554.9	1751.0	1817.1
70°	1368.7	1375.7	1466.2	1663.0	1354.5	1283.3	1275.6	1261.0	1360.7	1749.5	1741.9
72.5°	1153.7	1149.3	1232.9	1388.1	1034.3	937.6	1002.5	970.8	1100.8	1571.7	1551.7
75°	716.7	740.8	845.6	973.3	708.6	642.2	732.0	724.0	893.8	1353.4	1235.5
77.5°	436.7	441.4	500.5	606.8	426.8	445.0	470.6	520.3	662.6	1097.1	861.3
80°	228.5	212.5	255.9	333.0	253.4	298.6	345.0	399.8	420.6	715.2	575.8
82.5°	66.1	65.7	86.5	139.5	120.1	146.8	174.1	251.2	275.6	425.3	394.3
85°	0.4	0.4	0.4	0.7	1.1	1.8	7.7	64.6	85.4	197.2	162.1
87.5°	0.0	0.0	0.4	0.7	0.7	1.5	2.2	2.9	3.7	4.4	16.1
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):

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	784.6	784.6	784.6	784.6	784.6	784.6	784.6	784.6	784.6	784.6	784.6
2.5°	828.0	822.6	810.9	795.2	784.2	765.2	761.2	749.2	737.1	727.3	727.6
5°	798.1	779.5	751.0	718.1	686.7	658.6	653.2	636.7	632.0	627.2	614.1
7.5°	719.6	697.7	657.9	609.3	569.9	543.3	514.8	497.6	482.3	464.8	469.1
10°	659.4	628.0	573.2	516.2	467.0	431.2	399.8	383.7	361.4	345.4	343.2
12.5°	613.0	579.0	513.3	446.5	400.1	379.3	359.3	334.1	309.2	288.1	277.1
15°	597.7	559.3	483.0	416.6	380.1	354.9	326.8	297.9	267.6	245.0	236.2
17.5°	615.5	570.3	482.7	403.8	358.2	321.3	286.2	253.7	218.0	195.3	188.4
20°	664.8	608.2	492.9	391.7	331.5	281.5	232.2	197.2	160.6	144.6	137.3
22.5°	733.5	659.7	508.6	377.1	301.9	232.9	177.4	133.3	115.4	107.3	105.5
25°	803.9	725.1	530.8	364.7	269.4	185.5	127.4	106.6	98.2	94.6	94.6
27.5°	881.3	790.4	554.9	349.8	235.9	138.0	103.7	93.8	89.4	87.3	86.9
30°	944.1	843.7	582.3	332.2	205.5	113.2	92.0	85.4	81.4	80.3	80.3
32.5°	989.4	883.5	611.2	314.7	177.8	102.2	85.4	79.6	75.2	74.5	74.5
35°	1042.3	921.5	624.3	304.9	161.0	95.3	80.7	74.8	70.8	69.0	69.0
37.5°	1105.9	966.8	631.6	295.4	153.7	88.7	77.4	70.8	66.8	64.6	64.6
40°	1186.6	1018.2	639.3	285.9	149.3	83.2	73.7	67.2	63.9	61.3	61.3
42.5°	1244.2	1065.7	645.1	277.8	141.7	80.7	70.8	64.6	60.6	58.4	58.0
45°	1274.5	1109.9	647.7	273.1	132.9	82.9	68.6	62.4	57.7	55.5	55.1
47.5°	1295.0	1146.4	651.0	269.4	126.0	78.9	68.3	60.2	55.5	52.6	52.6
50°	1327.5	1194.6	659.4	262.5	121.9	73.7	73.7	59.1	52.9	50.4	50.0
52.5°	1385.5	1263.6	682.0	254.8	117.6	68.6	75.9	59.5	51.1	48.2	47.5
55°	1473.2	1373.5	719.6	243.9	111.4	62.4	70.8	59.9	49.3	46.7	45.6
57.5°	1587.1	1506.4	763.4	235.1	100.8	57.3	64.6	58.0	47.1	44.9	44.2
60°	1663.7	1595.1	791.2	223.8	85.8	54.0	55.5	56.2	44.9	42.4	42.0
62.5°	1705.0	1596.6	791.5	208.1	71.9	51.1	49.7	57.3	43.1	39.8	39.4
65°	1707.9	1518.8	751.7	188.0	67.2	47.8	45.6	50.7	41.3	38.0	37.6
67.5°	1676.1	1392.1	660.8	165.0	69.0	45.3	42.4	42.7	39.1	36.1	35.8
70°	1562.2	1228.2	530.1	146.8	69.4	42.0	39.8	38.7	36.9	34.3	33.6
72.5°	1347.9	1026.3	401.6	140.9	70.5	39.4	36.9	35.8	34.3	32.1	31.4
75°	1017.2	800.7	301.6	131.4	71.2	36.5	33.6	32.9	31.4	29.2	28.8
77.5°	702.8	593.6	209.6	111.0	63.5	33.2	30.3	29.6	28.5	26.3	25.9
80°	474.6	407.1	128.5	83.2	48.2	29.2	26.3	26.3	25.2	23.0	23.0
82.5°	330.4	304.1	74.1	54.4	35.0	24.1	23.0	23.0	21.9	19.7	19.3
85°	138.0	184.0	33.2	29.6	24.5	19.0	19.0	19.3	18.3	16.4	16.1
87.5°	4.7	19.7	13.1	13.9	14.6	13.1	14.6	14.6	14.2	12.8	12.4
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):

	185°	195°	205°	215°	225°	235°	245°	255°	265°	270°	275°
0°	784.6	784.6	784.6	784.6	784.6	784.6	784.6	784.6	784.6	784.6	784.6
2.5°	717.0	712.3	697.7	695.9	684.9	684.2	688.9	680.9	681.6	691.5	690.0
5°	617.0	606.1	605.7	593.6	580.1	576.8	565.2	560.8	559.0	554.9	569.5
7.5°	482.7	477.5	481.9	480.5	468.1	461.1	436.3	417.3	407.8	411.8	412.9
10°	343.2	350.9	362.5	373.9	365.1	342.1	331.5	316.2	314.3	313.3	320.6
12.5°	272.0	263.2	268.7	272.7	264.3	254.5	250.1	243.5	247.2	255.6	260.3
15°	226.0	210.7	203.7	199.0	201.2	195.3	197.5	195.3	197.9	200.4	209.2
17.5°	178.5	173.1	159.9	153.7	154.1	151.5	152.2	151.9	150.4	156.3	163.2
20°	134.4	132.9	130.0	125.6	126.3	124.5	123.4	117.2	114.6	116.5	122.3
22.5°	104.8	106.6	108.4	108.1	109.9	105.1	100.8	95.3	94.6	94.9	96.4
25°	93.8	94.6	96.0	97.8	98.9	94.6	88.4	85.1	84.7	85.4	85.4
27.5°	87.3	86.5	88.4	90.5	92.0	86.5	81.4	78.5	77.8	77.0	76.7
30°	80.3	80.3	81.8	84.0	85.1	80.3	75.9	73.0	71.2	70.1	69.7
32.5°	75.2	75.6	76.3	77.8	79.6	74.8	71.2	68.6	65.4	64.3	63.5
35°	69.4	70.8	71.9	72.3	73.7	70.5	66.8	62.8	59.9	58.8	58.8
37.5°	64.6	65.7	67.5	67.2	68.3	66.1	62.1	57.7	56.2	55.9	55.5
40°	61.0	61.0	62.4	63.9	65.4	61.3	56.6	54.4	53.3	52.6	52.9
42.5°	57.7	57.3	57.3	59.9	62.4	56.6	52.6	51.1	50.7	50.0	50.4
45°	54.8	54.4	53.3	54.4	58.0	51.8	49.3	48.2	47.8	47.8	47.8
47.5°	52.2	51.5	50.0	50.4	52.9	48.2	46.0	45.6	45.3	45.3	45.6
50°	49.3	48.6	47.5	47.1	47.8	45.6	43.8	43.1	43.1	43.1	43.8
52.5°	46.7	46.4	44.9	44.5	44.9	43.4	41.6	41.3	41.3	41.3	42.4
55°	44.9	44.2	43.4	42.7	43.4	41.6	40.2	39.4	39.4	40.2	40.9
57.5°	43.1	42.4	42.0	41.3	42.0	40.2	38.7	38.0	38.3	38.7	38.7
60°	41.3	40.5	40.2	39.4	40.5	38.7	37.2	36.9	36.9	36.5	36.5
62.5°	39.4	39.1	38.3	37.6	39.1	36.9	35.8	35.0	34.7	34.7	34.7
65°	37.2	36.9	36.5	36.1	36.9	35.0	34.0	33.6	32.9	32.5	32.9
67.5°	35.4	35.4	34.7	34.0	35.0	32.9	32.1	31.8	30.7	30.3	30.7
70°	33.2	33.2	32.5	32.1	33.6	30.7	29.9	29.6	28.8	28.5	28.5
72.5°	31.0	31.0	30.3	29.9	31.8	28.5	27.7	27.4	26.3	25.9	25.9
75°	28.8	28.5	28.1	27.7	29.9	26.3	25.2	24.5	23.4	23.0	22.6
77.5°	26.3	25.9	25.2	25.6	27.0	23.4	21.9	21.5	20.4	20.1	19.7
80°	23.0	22.6	22.3	23.0	23.0	20.4	18.6	17.9	16.8	16.1	15.7
82.5°	19.7	19.3	19.3	20.1	19.0	17.9	15.7	14.2	12.4	11.3	11.0
85°	16.1	16.8	16.1	16.8	14.2	14.2	11.0	8.4	5.8	4.7	4.4
87.5°	12.4	12.8	12.4	12.8	9.9	9.5	5.1	2.9	0.4	0.0	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):

	285°	295°	305°	315°	325°	335°	345°	355°	359°	360°
0°	784.6	784.6	784.6	784.6	784.6	784.6	784.6	784.6	784.6	784.6
2.5°	701.0	701.7	717.4	733.1	742.6	766.3	778.0	791.2	798.1	806.1
5°	562.6	576.5	589.3	620.7	636.7	674.3	701.7	745.5	759.4	770.3
7.5°	425.0	445.8	461.5	500.5	530.8	577.6	625.4	677.6	692.6	702.4
10°	337.7	356.7	386.3	416.9	450.9	507.5	559.3	613.4	639.6	651.0
12.5°	283.7	314.0	348.7	377.1	404.2	445.8	511.5	579.8	607.2	619.2
15°	234.0	268.0	303.4	338.4	372.0	419.1	488.1	576.8	611.5	623.6
17.5°	185.8	213.6	249.4	291.7	340.6	400.5	492.5	607.9	650.2	665.9
20°	132.2	159.2	195.7	247.9	305.9	381.2	502.7	654.6	714.9	732.7
22.5°	99.7	114.6	148.2	199.7	274.9	365.8	518.8	718.5	789.0	805.0
25°	87.6	92.7	109.9	159.5	243.9	352.0	540.0	782.0	867.5	885.0
27.5°	77.8	80.7	89.4	128.1	220.9	337.7	565.2	850.7	935.0	958.0
30°	70.1	73.7	81.1	107.3	198.6	317.3	588.2	912.4	992.3	1009.9
32.5°	64.3	68.3	74.8	97.1	179.6	301.9	601.3	958.4	1041.2	1057.3
35°	60.2	63.9	70.5	88.0	162.8	291.3	605.3	1004.0	1101.1	1117.6
37.5°	56.6	60.2	66.1	78.9	151.1	277.5	611.5	1058.4	1170.5	1192.0
40°	54.0	57.0	62.4	72.7	135.1	262.5	618.8	1121.9	1238.0	1259.6
42.5°	51.5	54.8	59.5	73.0	119.0	249.7	623.6	1170.9	1291.7	1312.1
45°	49.3	52.9	58.4	71.6	107.0	238.0	621.4	1211.7	1340.6	1356.3
47.5°	47.1	51.5	61.3	68.6	103.3	227.5	623.2	1251.2	1375.7	1388.1
50°	45.6	51.1	65.7	64.3	104.1	222.7	640.7	1298.3	1402.0	1406.7
52.5°	44.5	52.2	62.1	58.0	104.1	220.5	674.3	1374.2	1447.6	1444.3
55°	42.7	51.8	58.0	52.6	99.7	221.6	706.1	1474.6	1557.1	1538.9
57.5°	41.3	49.7	52.2	48.6	89.4	222.0	753.2	1559.3	1643.3	1645.8
60°	39.4	53.3	45.3	45.3	76.7	220.2	794.8	1557.9	1659.0	1675.8
62.5°	37.6	52.2	40.5	42.0	67.9	213.2	820.0	1466.9	1600.9	1632.0
65°	35.4	41.3	37.2	39.1	64.3	196.1	784.2	1354.1	1522.4	1555.7
67.5°	32.9	34.0	34.0	36.1	62.8	170.1	694.0	1229.6	1423.9	1464.0
70°	29.9	30.3	31.0	34.3	58.4	146.4	565.2	1097.1	1318.0	1368.7
72.5°	27.0	27.4	27.4	31.0	54.8	126.3	400.1	869.3	1100.4	1153.7
75°	23.7	24.1	23.7	27.0	47.8	94.6	237.7	549.8	656.4	716.7
77.5°	20.1	20.1	19.3	21.2	32.9	59.9	130.0	334.1	399.4	436.7
80°	16.4	15.0	12.4	12.8	17.9	34.3	58.0	191.7	219.1	228.5
82.5°	11.0	8.4	5.1	4.7	5.8	9.5	13.5	75.9	69.7	66.1
85°	2.2	0.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.4
87.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

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