

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: P400897

Luminaire Tested: **ENV-SA1A-727-U-SLL-HSS**

Issue Date: 5/20/2020

Test Information

Test Method: LM-79-08
Report Number: P400897
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G1-2004-754-8)
Test Lab: INNOVATION CENTER
Issue Date: 5/20/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: INVUE
Catalog Number: ENV-SA1A-727-U-SLL-HSS
Description: ENTRI LED LUMINAIRE
(1) 70 CRI, 2700K, 350mA LIGHTSQUARE WITH 16 LEDS AND SPILL LIGHT
ELIMINATOR LEFT OPTICS WITH HOUSE SIDE SHIELD
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 1719 lumens
Efficiency: N/A
Efficacy: 85.5 lumens/watt
Luminous Opening: Rectangular (W 0.5' x L: 0.5' x H: 0')
IES Classification: Type III - Short - Semi-Cutoff
BUG Rating: B0 - 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

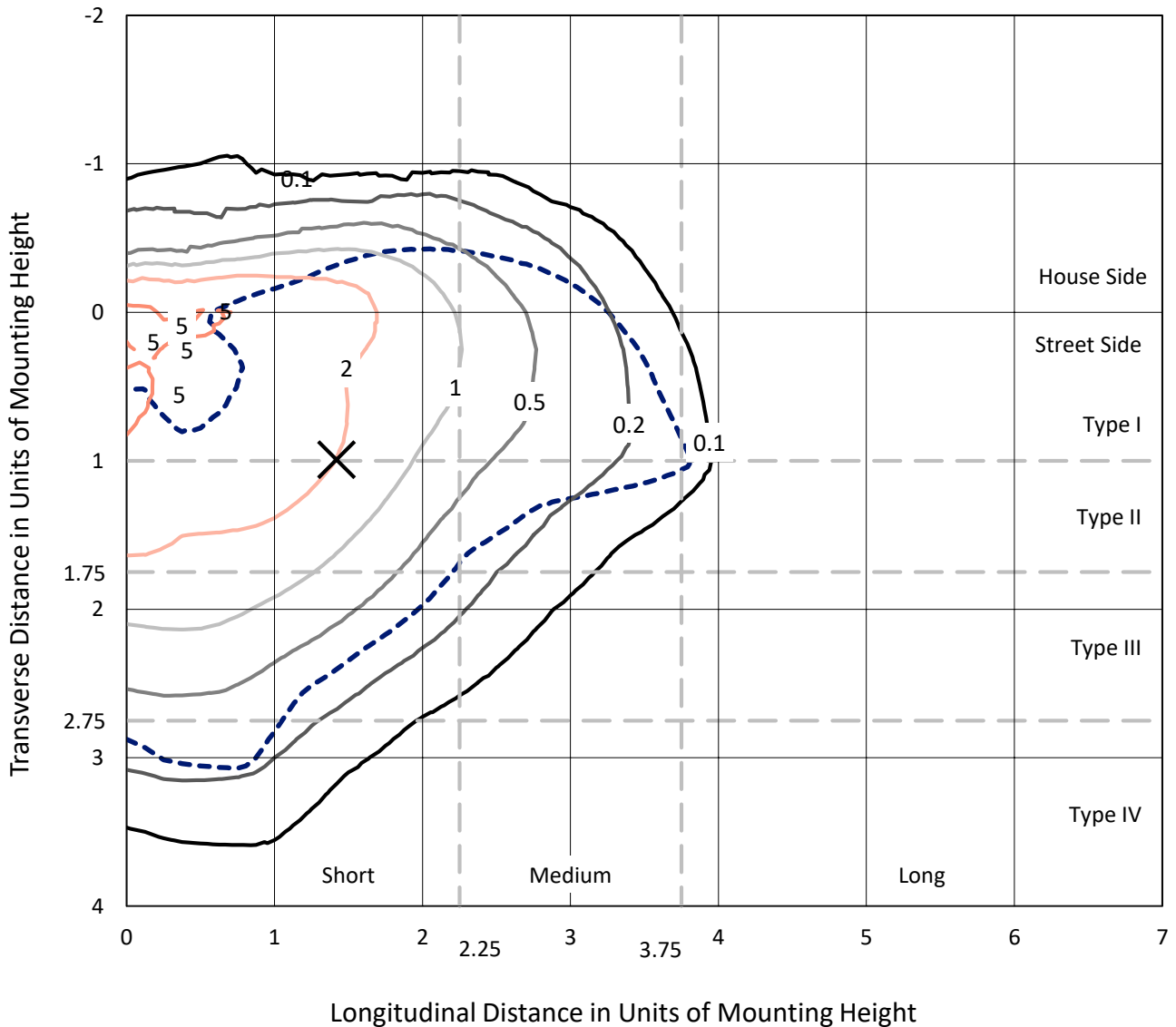


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Iso-Footcandle Lines of Horizontal Illumination

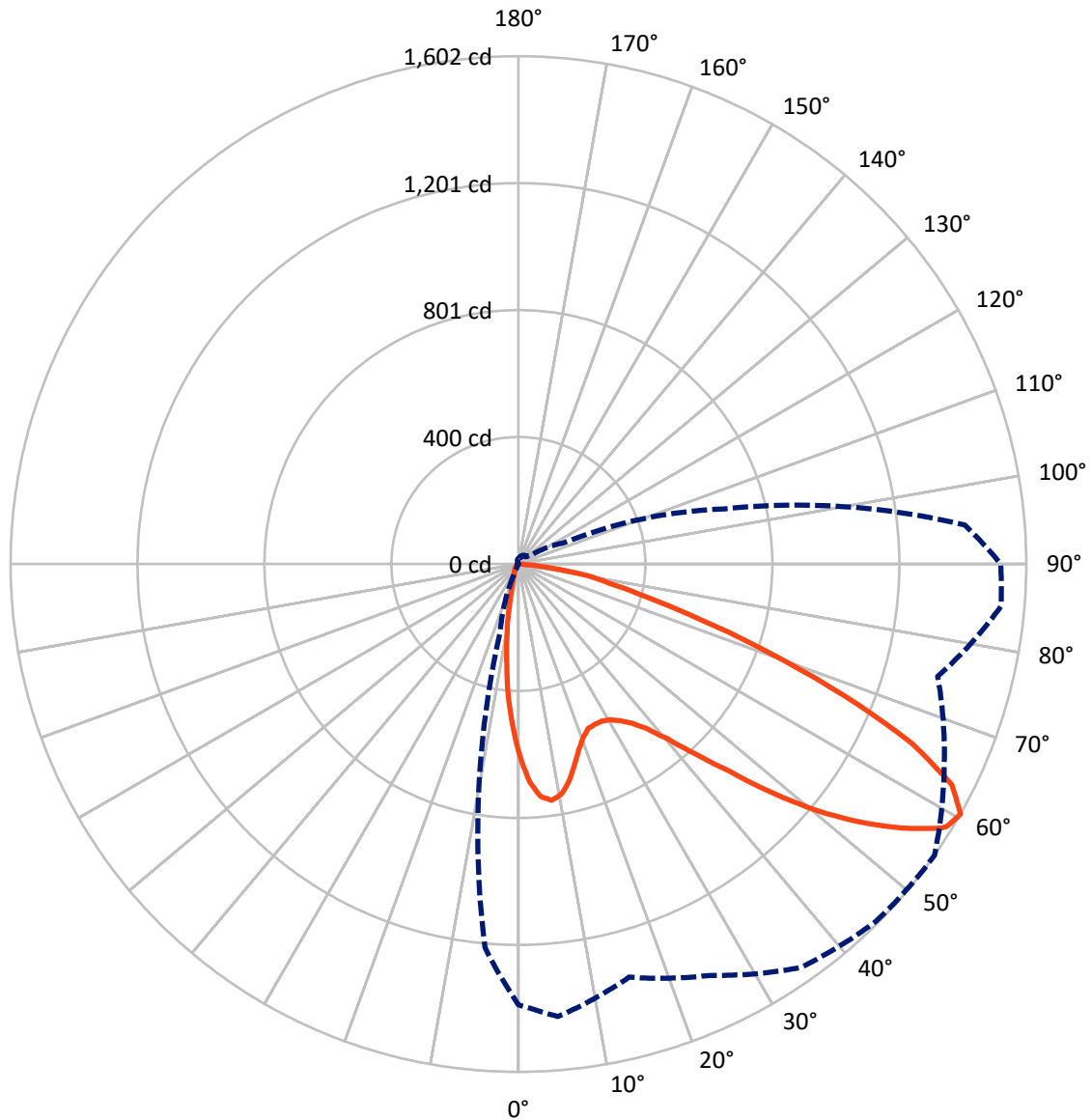
✕ Max cd
 - - - 1/2 Max cd



Based on 10 foot mounting height. Maximum calculated value = 7.2 fc
 Type III - Short - Semi-Cutoff

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Luminous Intensity Polar Plot



— Vertical Plane Through 55-Deg Lateral - - - Horizontal Cone Through 60-Deg Vertical

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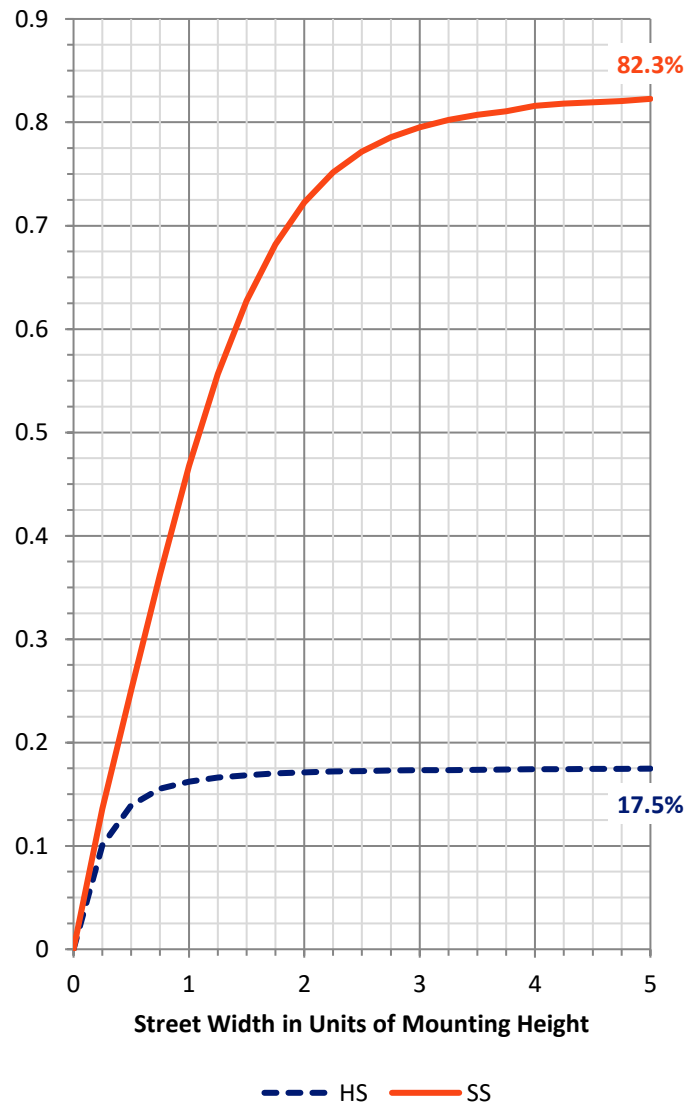
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	304.4	0.0	304.4
	% Fixture	17.7	0.0	17.7
Street Side	Lumens	1414.6	0.0	1414.6
	% Fixture	82.3	0.0	82.3
Total	Lumens	1719.0	0.0	1719.0
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	45.7	2.7
10°-20°	86.9	5.1
20°-30°	123.9	7.2
30°-40°	181.8	10.6
40°-50°	268.0	15.6
50°-60°	397.1	23.1
60°-70°	423.2	24.6
70°-80°	175.5	10.2
80°-90°	16.9	1.0
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°	1719.0	100.0
0°-180°	1719.0	100.0



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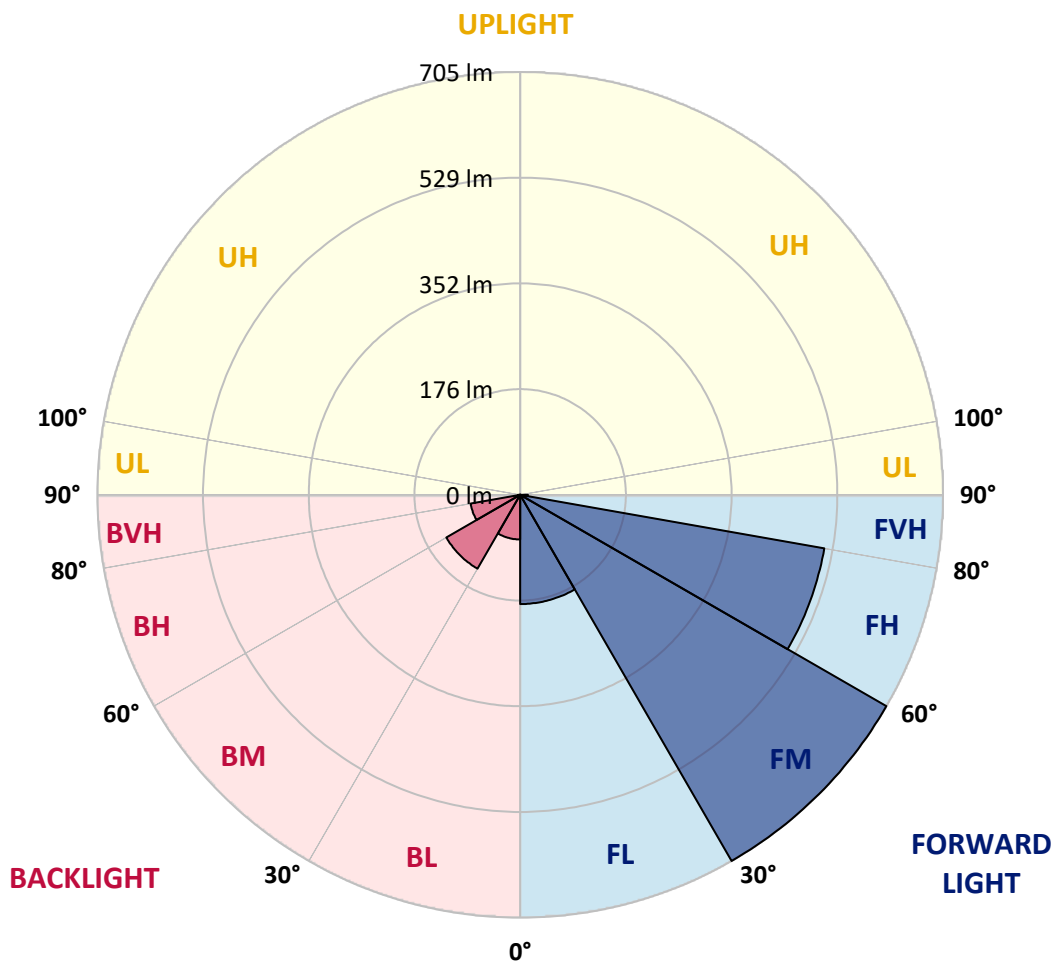
CATALOG NUMBER: ENV-SA1A-727-U-SLL-HSS

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	182.1	10.6			
FM	(30°-60°)	704.8	41.0			
FH	(60°-80°)	514.8	29.9			G0/660
FVH	(80°-90°)	12.9	0.8			G1/100
BL	(0°-30°)	74.4	4.3	B0/110		
BM	(30°-60°)	142.1	8.3	B0/220		
BH	(60°-80°)	83.9	4.9	B0/110		G0/110
BVH	(80°-90°)	3.9	0.2			G0/10
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

BUG Rating: B0-U0-G1

Type III Short





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CANDELA DISTRIBUTION (FULL):

	0°	1°	5°	15°	25°	35°	45°	55°	65°	75°	85°
0°	607.1	607.1	607.1	607.1	607.1	607.1	607.1	607.1	607.1	607.1	607.1
2.5°	634.0	633.1	642.2	661.0	672.7	679.9	681.2	688.6	681.2	677.3	663.3
5°	615.5	615.2	632.7	674.0	707.8	733.2	745.5	737.1	724.1	698.4	667.2
7.5°	564.2	564.2	597.3	652.6	709.1	753.0	767.9	752.3	721.5	669.8	613.9
10°	522.3	526.2	558.0	624.0	686.7	734.8	751.4	739.3	699.0	632.1	566.4
12.5°	497.2	499.5	534.9	601.2	659.7	698.7	708.8	705.2	676.0	603.2	533.6
15°	499.5	502.8	543.4	597.6	635.7	651.3	654.8	659.4	647.4	591.5	522.9
17.5°	535.3	537.5	578.5	613.6	611.9	607.1	608.4	615.8	630.1	601.2	544.7
20°	592.4	598.3	639.6	640.2	599.6	576.8	571.0	583.3	622.0	626.9	591.1
22.5°	665.9	668.2	710.1	685.1	600.9	556.1	549.2	563.2	624.6	668.5	655.5
25°	751.0	759.2	781.9	743.2	619.7	553.1	548.6	560.3	634.0	712.7	721.8
27.5°	808.6	815.1	836.8	782.9	636.6	554.8	546.3	560.6	645.4	754.3	792.6
30°	859.9	864.5	872.6	803.7	655.8	562.9	549.2	569.7	651.6	763.1	838.5
32.5°	908.3	913.9	909.0	828.7	676.9	578.1	554.8	588.9	664.9	780.6	878.4
35°	970.7	971.1	954.5	853.7	701.0	596.3	571.0	616.2	690.9	807.9	921.3
37.5°	1044.8	1045.5	1003.6	879.4	728.3	626.9	609.3	658.4	728.6	839.4	982.8
40°	1109.5	1112.1	1056.5	909.0	761.8	686.4	684.7	725.4	777.0	881.4	1048.7
42.5°	1165.7	1173.2	1105.3	933.7	809.2	777.7	781.6	818.6	835.9	916.5	1089.7
45°	1222.6	1222.3	1145.2	958.4	888.5	895.3	932.4	930.8	902.5	935.3	1121.8
47.5°	1258.0	1256.4	1169.6	998.7	995.4	1060.8	1100.1	1078.6	976.3	955.5	1162.1
50°	1271.7	1271.0	1188.8	1050.0	1104.3	1210.6	1266.8	1223.9	1066.6	989.3	1210.2
52.5°	1310.3	1307.1	1233.0	1108.5	1202.8	1354.9	1401.3	1353.6	1156.6	1050.0	1266.1
55°	1370.8	1371.8	1309.0	1177.1	1281.7	1456.6	1513.5	1470.9	1248.6	1133.5	1342.8
57.5°	1411.4	1414.3	1393.2	1253.5	1366.2	1527.8	1583.0	1571.0	1371.1	1233.3	1432.9
58°	1415.3	1417.6	1406.5	1268.1	1378.9	1535.9	1592.4	1584.0	1398.1	1265.2	1454.3
60°	1390.3	1397.1	1432.5	1348.7	1431.2	1553.1	1594.1	1601.5	1481.6	1368.5	1527.8
62.5°	1322.4	1324.6	1389.0	1439.0	1467.0	1510.5	1514.4	1533.9	1516.1	1489.7	1593.4
65°	1239.2	1239.2	1308.7	1443.3	1374.4	1367.2	1344.5	1364.0	1415.6	1565.8	1588.9
67.5°	1094.6	1095.5	1184.2	1285.6	1139.4	1114.7	1100.1	1107.2	1217.4	1502.4	1500.5
70°	884.6	884.0	975.3	1040.9	845.6	824.5	842.0	839.8	988.9	1335.0	1310.0
72.5°	625.6	631.1	725.0	804.0	574.2	495.0	572.3	602.2	743.9	1125.4	1013.6
75°	352.3	359.8	436.5	558.7	362.4	334.7	374.4	417.0	537.9	896.0	680.8
77.5°	176.8	179.7	223.6	268.8	219.7	255.1	252.8	293.5	368.9	604.5	389.3
80°	102.0	107.9	122.8	138.8	122.8	161.8	187.8	221.0	227.2	312.6	217.1
82.5°	40.9	45.8	57.5	65.3	51.0	48.1	32.8	103.3	136.8	151.1	83.2
85°	0.0	0.0	0.3	0.6	1.0	1.0	1.6	18.2	33.5	7.5	13.6
87.5°	0.0	0.0	0.3	0.3	0.6	1.0	1.3	2.3	2.9	3.6	12.3
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°	607.1	607.1	607.1	607.1	607.1	607.1	607.1	607.1	607.1	607.1	607.1
2.5°	658.1	654.5	642.5	624.3	612.9	595.4	588.2	571.6	563.2	549.2	549.2
5°	651.6	637.0	606.7	567.4	539.5	510.2	500.8	481.3	467.3	450.8	443.9
7.5°	592.4	572.0	524.9	479.0	434.5	404.9	375.7	355.9	337.0	323.4	325.3
10°	538.2	508.9	457.3	399.1	352.9	322.1	295.7	272.7	253.2	234.0	231.1
12.5°	502.8	469.3	407.5	345.1	310.7	287.9	263.6	238.2	214.2	193.0	184.6
15°	487.8	451.4	382.5	323.7	292.2	262.9	234.6	203.4	175.8	150.5	143.6
17.5°	504.1	460.5	380.2	309.4	265.5	228.8	189.5	155.3	122.8	104.6	99.1
20°	548.3	491.7	387.7	295.1	235.9	188.5	140.4	101.7	83.5	72.5	68.9
22.5°	612.3	543.4	400.4	281.1	206.0	140.4	96.8	73.4	62.7	56.9	55.2
25°	681.8	610.0	423.8	269.4	176.1	104.3	71.8	60.1	53.6	49.4	47.8
27.5°	760.1	676.0	452.4	260.6	148.5	83.5	61.7	53.0	47.8	44.8	43.5
30°	809.2	723.4	474.2	245.0	129.7	76.0	58.8	50.0	44.5	42.2	41.3
32.5°	854.4	760.8	495.0	227.2	115.4	67.3	57.2	52.6	46.1	41.6	39.6
35°	904.1	799.1	505.0	216.4	105.9	58.5	47.1	40.9	37.4	36.7	35.7
37.5°	978.2	844.6	511.5	210.6	100.1	53.3	43.9	37.0	32.8	28.9	27.3
40°	1048.4	891.8	514.8	205.1	97.2	50.0	41.9	35.1	30.5	27.0	25.3
42.5°	1103.3	934.7	516.7	201.2	92.0	48.1	40.3	33.8	28.9	25.3	23.7
45°	1148.2	984.4	515.1	199.9	87.7	49.4	39.6	32.8	27.6	24.0	22.4
47.5°	1192.0	1038.3	521.3	198.2	83.5	47.4	40.0	32.5	26.6	23.1	21.4
50°	1249.6	1103.7	543.7	193.7	80.6	44.5	43.2	32.8	26.3	22.4	21.1
52.5°	1324.0	1194.0	584.3	188.8	77.0	41.9	45.2	32.8	25.7	21.8	20.1
55°	1414.3	1295.4	629.2	181.7	70.8	38.7	43.2	32.8	25.0	21.4	19.5
57.5°	1488.1	1385.7	664.6	173.2	59.5	34.8	39.6	31.5	23.4	20.1	18.5
58°	1494.6	1396.1	669.5	170.9	58.2	34.1	38.7	31.2	22.7	19.8	18.2
60°	1520.9	1413.0	671.4	158.6	48.4	32.5	33.5	30.2	21.4	18.5	17.2
62.5°	1511.8	1357.1	630.1	136.8	43.2	29.6	27.9	30.9	19.8	16.9	15.6
65°	1466.7	1247.3	552.2	122.5	43.5	26.3	24.0	27.0	18.2	15.3	14.0
67.5°	1359.1	1080.6	448.5	114.7	45.5	23.4	20.8	20.1	16.2	13.6	12.7
70°	1159.2	885.6	339.9	107.9	48.1	20.8	19.2	17.9	14.9	12.7	11.4
72.5°	853.7	655.8	247.3	101.1	46.8	18.5	17.9	16.2	13.6	11.4	10.7
75°	532.7	380.9	169.3	82.5	41.9	16.2	16.6	15.3	12.3	10.7	9.7
77.5°	311.0	267.5	83.5	61.4	28.9	14.3	14.6	14.0	12.7	10.1	9.4
80°	186.2	166.4	35.7	26.3	15.9	12.7	12.3	13.0	12.0	9.4	8.8
82.5°	80.6	72.1	17.2	14.6	13.0	11.0	10.7	11.0	10.4	7.8	7.5
85°	4.5	12.0	8.1	10.7	9.7	8.1	8.1	8.4	7.5	6.2	6.2
87.5°	4.2	9.1	5.2	6.5	7.1	6.2	6.5	6.5	6.2	5.5	5.2
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):

	185°	195°	205°	215°	225°	235°	245°	255°	265°	270°	275°
0°	607.1	607.1	607.1	607.1	607.1	607.1	607.1	607.1	607.1	607.1	607.1
2.5°	541.8	538.2	527.5	523.6	506.7	510.9	512.2	510.6	511.2	512.5	517.4
5°	448.8	443.0	429.0	419.9	415.0	411.8	396.5	396.8	399.1	390.3	401.7
7.5°	318.8	325.3	326.6	318.2	313.0	301.9	287.9	280.1	266.8	274.3	275.9
10°	228.1	224.9	231.1	228.1	220.0	215.8	200.8	199.5	198.2	197.3	206.7
12.5°	173.9	164.1	157.0	158.6	152.4	142.0	139.4	139.7	141.0	141.0	143.6
15°	137.8	122.8	111.5	104.6	105.6	95.2	92.3	82.5	81.2	78.3	79.0
17.5°	96.5	90.3	83.5	75.7	72.5	63.0	51.7	46.5	42.6	43.2	45.2
20°	66.6	64.0	62.1	58.2	54.9	43.9	36.7	34.4	34.1	34.8	35.4
22.5°	53.6	51.0	49.1	47.8	43.5	35.4	31.5	29.9	29.9	29.9	30.2
25°	46.1	43.5	40.9	40.9	37.0	30.9	27.9	26.6	26.3	26.0	26.6
27.5°	42.9	39.3	36.7	35.1	32.2	27.3	24.7	23.4	23.1	23.1	23.4
30°	39.6	36.1	33.5	31.2	27.9	24.4	21.8	20.8	20.1	20.1	20.5
32.5°	37.7	34.1	30.9	27.9	24.4	21.4	19.2	17.9	17.2	17.5	17.9
35°	33.5	30.5	27.6	24.7	21.4	18.8	16.6	15.3	14.9	14.9	15.3
37.5°	26.3	24.0	23.4	21.8	18.8	16.2	14.0	12.7	12.3	12.3	12.7
40°	23.7	20.8	19.5	18.8	17.2	14.0	11.4	10.1	10.1	9.7	10.4
42.5°	21.8	18.8	16.6	15.9	14.9	12.0	9.1	8.1	7.8	7.8	8.1
45°	20.5	17.2	14.3	12.7	12.7	9.7	7.5	6.2	5.8	5.8	6.2
47.5°	19.8	16.2	12.7	10.4	10.1	8.1	5.8	4.5	4.2	4.2	4.2
50°	19.2	14.9	11.4	8.8	7.8	6.8	4.5	3.6	3.2	3.2	3.2
52.5°	18.2	14.3	10.4	7.8	6.2	5.2	3.6	2.6	2.3	1.9	2.3
55°	17.5	13.3	10.1	7.1	5.2	3.9	2.6	1.9	1.6	1.6	1.6
57.5°	16.6	12.3	9.1	6.8	4.9	2.9	1.9	1.3	1.0	1.0	1.3
58°	16.2	12.3	8.8	6.5	4.5	2.9	1.9	1.3	1.0	1.0	1.3
60°	15.3	11.4	8.4	5.8	4.2	2.6	1.6	1.0	0.6	0.6	1.0
62.5°	14.3	10.4	7.5	5.2	3.6	2.3	1.3	0.6	0.3	0.3	0.3
65°	12.7	9.4	6.5	4.9	2.9	1.6	1.0	0.3	0.0	0.0	0.0
67.5°	11.4	8.8	5.8	4.2	2.6	1.3	0.6	0.0	0.0	0.0	0.0
70°	10.4	8.1	5.2	3.6	2.3	1.0	0.3	0.0	0.0	0.0	0.0
72.5°	9.7	7.5	4.9	3.2	1.6	1.0	0.3	0.0	0.0	0.0	0.0
75°	9.4	7.1	4.9	2.9	1.6	1.0	0.6	0.3	0.0	0.0	0.3
77.5°	9.1	7.1	4.9	2.9	1.9	1.0	1.0	0.6	0.6	0.3	1.0
80°	8.4	6.5	4.2	2.6	1.6	1.3	1.0	0.6	0.0	0.0	0.0
82.5°	7.1	5.2	3.6	2.6	1.6	1.0	0.3	0.0	0.0	0.0	0.0
85°	5.8	4.2	2.9	1.6	1.0	0.3	0.0	0.0	0.0	0.0	0.0
87.5°	5.2	3.2	2.3	1.3	0.6	0.3	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	0.0



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CANDELA DISTRIBUTION (continued):

	285°	295°	305°	315°	325°	335°	345°	355°	359°	360°
0°	607.1	607.1	607.1	607.1	607.1	607.1	607.1	607.1	607.1	607.1
2.5°	521.6	536.6	542.7	563.5	572.6	591.5	607.7	621.7	628.5	634.0
5°	404.6	418.9	434.2	465.1	491.7	520.3	556.1	593.1	603.8	615.5
7.5°	282.4	303.5	329.2	356.8	394.9	438.1	489.4	535.3	558.3	564.2
10°	219.4	244.4	271.7	299.0	330.5	376.7	428.3	487.5	512.2	522.3
12.5°	164.8	198.2	230.7	262.9	290.2	330.2	386.4	456.9	484.2	497.2
15°	99.1	136.8	176.8	220.0	258.0	304.8	368.2	450.4	484.9	499.5
17.5°	49.4	67.6	104.3	169.3	225.5	283.7	367.9	473.8	516.4	535.3
20°	36.7	41.6	55.6	105.6	187.5	266.2	371.8	513.8	576.5	592.4
22.5°	31.5	35.1	40.0	61.7	140.4	249.9	385.4	566.8	644.8	665.9
25°	27.6	30.5	34.4	42.6	96.2	230.7	411.1	641.5	722.1	751.0
27.5°	24.4	27.0	30.2	35.7	64.3	194.7	425.7	704.2	784.5	808.6
30°	21.4	23.4	26.6	30.5	47.4	150.5	439.4	759.5	841.1	859.9
32.5°	18.8	20.5	23.1	26.0	36.1	114.1	440.0	806.9	890.5	908.3
35°	15.9	17.9	19.8	22.4	28.6	89.0	426.7	854.1	949.0	970.7
37.5°	13.3	14.9	17.2	19.5	26.0	68.9	399.1	909.3	1020.1	1044.8
40°	11.4	13.0	14.9	17.5	23.1	50.0	354.9	959.4	1086.8	1109.5
42.5°	9.1	10.7	13.0	17.2	19.2	36.1	310.4	1007.5	1144.6	1165.7
45°	7.1	9.1	12.0	16.6	15.9	25.3	272.0	1050.0	1194.3	1222.6
47.5°	5.2	7.5	12.0	14.9	13.0	18.2	252.5	1091.0	1238.8	1258.0
50°	3.9	6.2	13.0	12.7	11.0	15.6	255.4	1136.5	1259.3	1271.7
52.5°	2.9	5.2	10.1	9.1	9.4	13.6	266.8	1196.6	1301.6	1310.3
55°	2.6	3.9	6.2	6.8	8.4	13.0	263.9	1253.5	1355.5	1370.8
57.5°	2.3	3.2	4.9	5.5	7.5	12.3	247.3	1278.5	1390.3	1411.4
58°	1.9	3.2	4.5	5.5	7.5	12.0	243.1	1271.7	1388.7	1415.3
60°	1.6	2.9	4.2	4.9	6.5	10.7	222.6	1213.8	1352.9	1390.3
62.5°	1.3	1.9	3.2	3.6	5.2	8.8	183.3	1120.2	1276.2	1322.4
65°	0.6	1.3	1.9	2.6	3.6	6.5	130.3	1009.4	1194.0	1239.2
67.5°	0.0	0.6	1.3	1.6	2.3	4.9	75.1	856.7	1058.8	1094.6
70°	0.0	0.3	0.6	1.0	1.3	3.2	39.6	628.8	820.3	884.6
72.5°	0.3	0.3	0.3	0.0	0.6	2.6	17.5	373.1	559.3	625.6
75°	0.3	0.3	0.0	0.0	0.0	1.3	7.5	196.6	320.8	352.3
77.5°	1.3	0.6	0.0	0.0	0.0	0.3	3.6	105.9	166.4	176.8
80°	0.3	0.0	0.0	0.0	0.0	0.0	1.3	35.4	99.8	102.0
82.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.6	42.9	40.9
85°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
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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