

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: P596088

Luminaire Tested: **MSA-SA3A-AMB-U-SLL**

Issue Date: 4/29/2022

Test Information

Test Method: LM-79-08
Report Number: P596088
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2109-400-23)
Test Lab: INNOVATIONS CENTER
Issue Date: 4/29/2022
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: INVUE
Catalog Number: MSA-SA3A-AMB-U-SLL
Description: POST TOP DECORATIVE LUMINAIRE. (3) LIGHTSQUARES WITH 16 LEDS EACH
AND SPILL LIGHT ELIMINATOR LEFT OPTICS.
Light Source: (48) 1549K CCT, -21.5 CRI LEDS
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 1805 lumens
Efficiency: N/A
Efficacy: 30.1 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')
IES Classification: Type III - Short
BUG Rating: B1 - U0 - G1

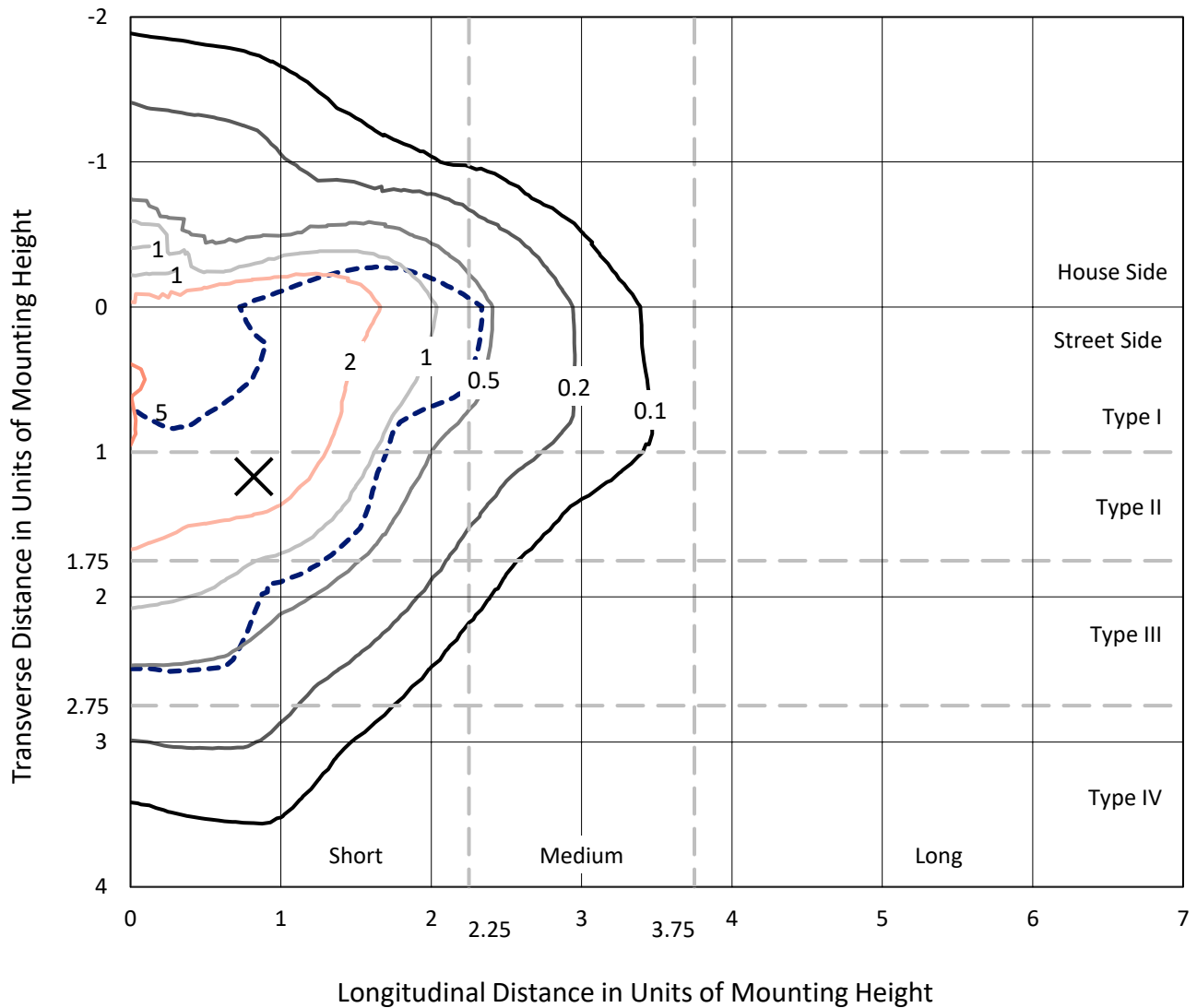
Input Watts (W): 59.9
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 28.75 FT



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Iso-Footcandle Lines of Horizontal Illumination

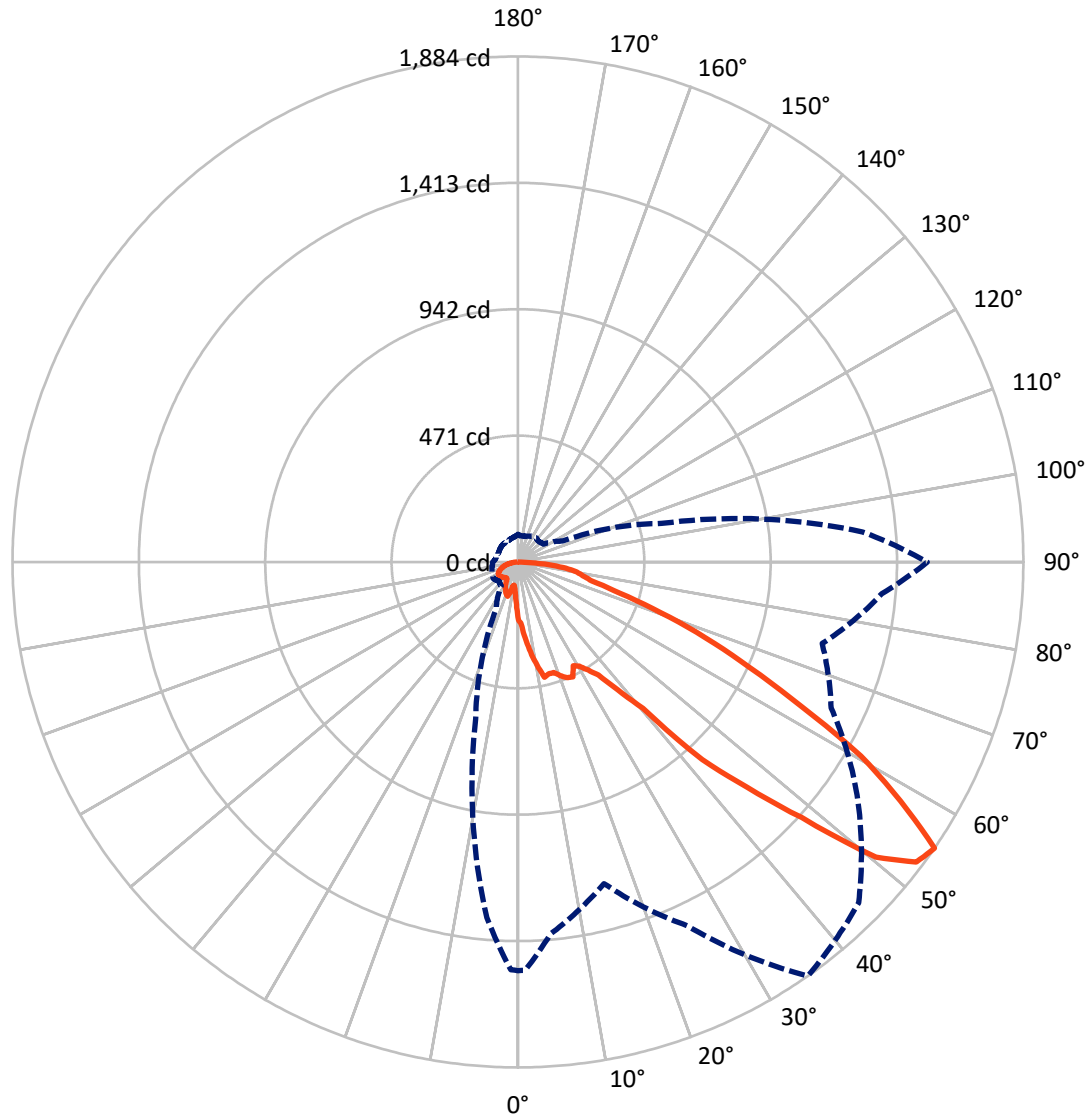
✕ Max cd
 - - - 1/2 Max cd



Based on 10 foot mounting height. Maximum calculated value = 5.7 fc
 Type III - Short - N/A

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Luminous Intensity Polar Plot



— Vertical Plane Through 35-Deg Lateral - - - Horizontal Cone Through 55-Deg Vertical

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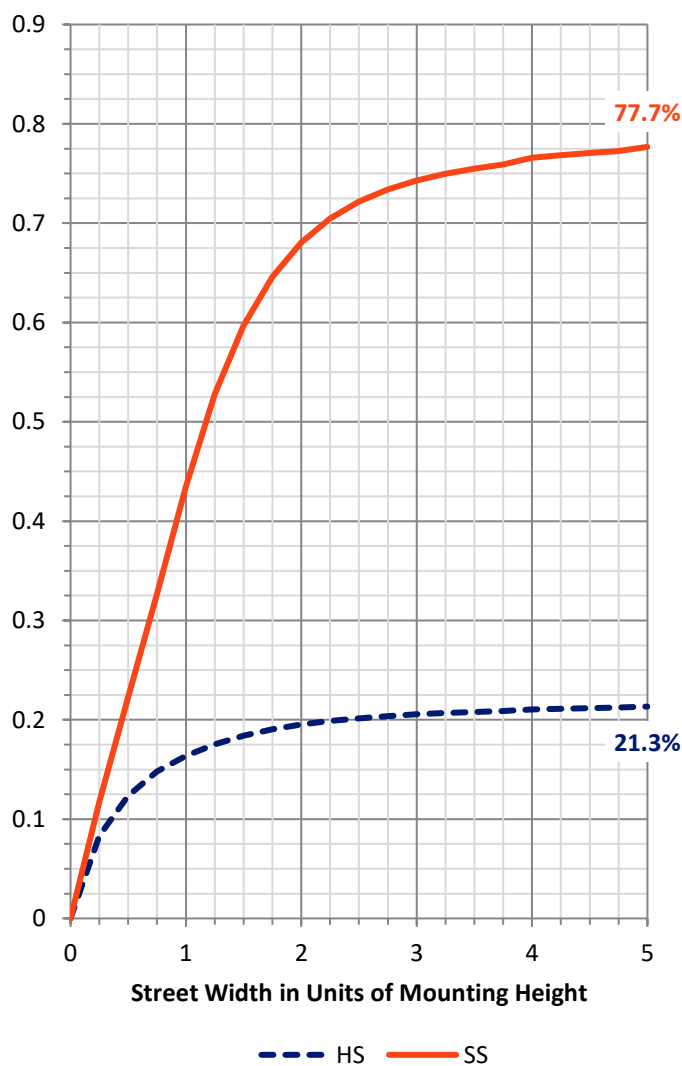
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	389.5	0.0	389.5
	% Fixture	21.6	0.0	21.6
Street Side	Lumens	1415.5	0.0	1415.5
	% Fixture	78.4	0.0	78.4
Total	Lumens	1805.0	0.0	1805.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	20.1	1.1
10°-20°	60.2	3.3
20°-30°	138.7	7.7
30°-40°	188.5	10.4
40°-50°	335.5	18.6
50°-60°	471.0	26.1
60°-70°	373.1	20.7
70°-80°	172.7	9.6
80°-90°	45.3	2.5
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°	1805.0	100.0
0°-180°	1805.0	100.0

Coefficient of Utilization



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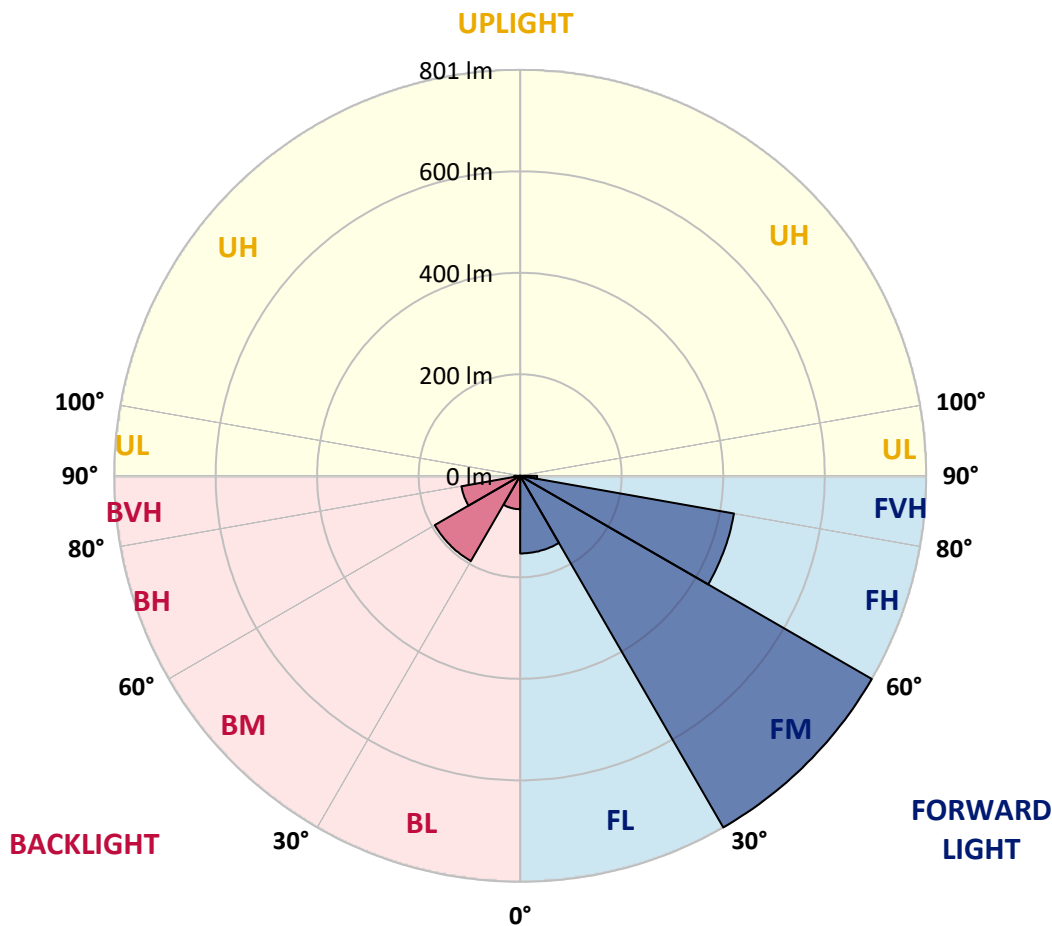
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	153.1	8.5			
FM (30°-60°)	800.7	44.4			
FH (60°-80°)	428.2	23.7			G0/660
FVH (80°-90°)	33.6	1.9			G1/100
BL (0°-30°)	65.9	3.6	B0/110		
BM (30°-60°)	194.3	10.8	B0/220		
BH (60°-80°)	117.6	6.5	B1/500		G1/500
BVH (80°-90°)	11.7	0.7			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 Short





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CANDELA DISTRIBUTION (FULL):

	0°	1°	5°	15°	25°	35°	45°	55°	65°	75°	85°
0°	216.3	216.3	216.3	216.3	216.3	216.3	216.3	216.3	216.3	216.3	216.3
2.5°	300.9	300.9	291.3	265.8	243.4	230.7	238.6	233.9	209.9	224.3	235.5
5°	357.6	347.2	344.8	341.6	309.7	284.9	252.2	245.8	264.2	323.2	290.5
7.5°	355.2	351.2	346.4	383.1	370.3	339.2	313.7	318.5	346.4	342.4	310.5
10°	331.2	325.6	332.0	359.2	373.5	391.1	404.7	367.9	349.6	341.6	287.3
12.5°	301.7	297.7	317.7	385.5	416.6	440.6	445.4	419.8	371.9	328.0	286.5
15°	344.8	338.4	361.6	397.5	426.2	432.6	440.6	424.6	394.3	360.0	304.1
17.5°	415.8	410.2	429.4	445.4	445.4	433.4	429.4	432.6	416.6	423.0	390.3
20°	542.7	513.2	549.1	501.2	452.5	452.5	446.2	452.5	469.3	551.5	516.4
22.5°	780.6	779.8	783.0	628.1	527.6	468.5	463.7	489.3	582.6	713.5	705.6
25°	875.6	862.8	905.1	763.0	570.7	474.9	457.3	494.9	700.8	815.7	779.8
27.5°	755.0	751.1	766.2	661.7	546.7	438.2	396.7	443.0	613.8	666.5	716.7
30°	751.9	745.5	767.0	620.2	534.0	450.2	395.9	453.3	547.5	621.8	752.7
32.5°	843.6	832.5	814.9	675.2	548.3	480.5	427.8	443.8	561.1	680.8	808.5
35°	906.7	900.3	877.2	725.5	604.2	518.0	467.7	502.0	602.6	727.1	866.0
37.5°	1042.4	1045.6	980.1	801.3	666.5	604.2	575.5	605.0	685.6	783.8	972.9
40°	1153.3	1162.9	1066.3	897.9	792.6	717.5	733.5	731.1	770.2	846.0	1089.5
42.5°	1277.0	1273.8	1194.0	1008.9	940.2	1006.5	933.0	862.8	896.3	913.1	1176.5
45°	1386.4	1396.0	1244.3	1073.5	1089.5	1198.8	1170.9	1040.8	991.3	981.7	1216.4
47.5°	1436.7	1435.1	1296.2	1121.4	1241.9	1423.9	1445.4	1236.3	1105.4	1040.8	1262.7
50°	1465.4	1464.6	1328.1	1160.5	1361.6	1729.6	1668.1	1344.9	1153.3	1091.9	1293.8
52.5°	1498.1	1492.5	1355.3	1207.6	1463.8	1858.9	1811.0	1490.1	1224.4	1125.4	1326.5
55°	1523.7	1522.9	1392.0	1241.1	1496.5	1884.4	1796.6	1546.8	1288.2	1174.1	1361.6
57.5°	1514.1	1505.3	1394.4	1257.9	1386.4	1682.5	1641.8	1470.2	1262.7	1168.5	1352.1
60°	1454.2	1444.6	1379.2	1252.3	1222.0	1469.4	1374.4	1227.6	1119.0	1135.8	1297.0
62.5°	1336.9	1325.7	1289.0	1180.5	1021.6	1186.0	1132.6	1000.1	941.8	1089.5	1197.2
65°	1176.5	1148.5	1142.9	1095.1	920.3	949.8	944.2	811.7	775.8	1008.1	1053.6
67.5°	986.5	976.9	992.1	998.5	792.6	752.7	717.5	652.9	648.1	870.8	882.8
70°	770.2	754.2	814.9	854.0	621.8	564.3	504.4	461.3	518.8	763.8	719.1
72.5°	529.2	530.8	597.0	704.8	476.5	395.9	342.4	324.8	396.7	613.0	514.0
75°	361.6	352.8	425.4	546.7	336.0	284.1	257.8	250.6	308.9	491.7	373.5
77.5°	284.1	277.0	304.9	365.6	253.8	247.4	233.9	219.5	241.0	371.9	292.9
80°	229.1	230.7	232.3	244.2	196.3	219.5	206.7	193.2	194.7	246.6	194.7
82.5°	165.2	162.0	179.6	188.4	142.9	170.0	167.6	162.0	152.4	174.8	130.1
85°	77.4	75.8	111.7	170.0	99.8	100.6	95.0	86.2	96.6	126.9	58.3
87.5°	3.2	2.4	4.0	27.1	14.4	12.0	8.0	16.0	15.2	16.8	8.0
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):

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	216.3	216.3	216.3	216.3	216.3	216.3	216.3	216.3	216.3	216.3	216.3
2.5°	271.4	238.6	266.6	233.9	216.3	223.5	223.5	203.5	201.9	181.2	215.5
5°	324.0	290.5	269.0	235.5	205.1	179.6	174.0	172.4	181.2	170.8	188.4
7.5°	317.7	276.2	249.8	201.9	171.6	153.2	142.9	146.9	156.4	153.2	157.2
10°	271.4	248.2	211.5	180.4	172.4	155.6	139.7	128.5	127.7	119.7	118.9
12.5°	265.0	240.2	212.3	186.0	166.0	150.1	130.9	116.5	107.7	99.8	98.2
15°	280.1	253.0	214.7	182.0	154.0	133.3	116.5	101.4	89.4	84.6	84.6
17.5°	332.8	296.9	223.5	169.2	137.3	120.5	100.6	86.2	79.0	81.4	79.8
20°	490.9	375.9	237.0	155.6	126.1	106.2	88.6	81.4	80.6	87.8	93.4
22.5°	632.1	485.3	250.6	158.8	122.9	106.2	92.6	91.8	93.4	109.3	114.9
25°	689.6	542.7	284.1	185.2	155.6	144.5	147.7	138.1	138.9	165.2	174.0
27.5°	693.6	538.0	266.6	180.4	155.6	156.4	183.6	213.1	226.7	267.4	253.8
30°	705.6	604.2	237.0	126.9	99.8	97.4	103.0	115.7	133.3	201.9	209.9
32.5°	812.5	640.1	251.4	117.3	90.2	83.8	79.0	79.0	85.4	106.2	110.1
35°	866.0	708.0	258.6	126.9	92.6	83.0	80.6	79.0	82.2	91.8	94.2
37.5°	993.7	755.8	271.4	139.7	96.6	86.2	82.2	81.4	86.2	94.2	97.4
40°	1105.4	806.9	291.3	152.4	99.8	89.4	86.2	86.2	89.4	97.4	99.0
42.5°	1224.4	917.1	322.5	162.8	103.0	92.6	91.0	91.0	93.4	98.2	101.4
45°	1325.7	998.5	359.2	168.4	103.8	100.6	95.8	95.8	95.8	98.2	102.2
47.5°	1409.5	1094.3	411.8	171.6	107.0	103.8	101.4	99.0	98.2	99.0	102.2
50°	1446.2	1190.8	468.5	172.4	110.1	106.2	107.0	102.2	99.0	99.8	103.8
52.5°	1494.1	1257.1	513.2	179.6	113.3	109.3	110.9	103.8	98.2	98.2	103.0
55°	1526.1	1289.0	554.7	184.4	116.5	108.5	113.3	106.2	99.0	98.2	103.0
57.5°	1511.7	1279.4	577.9	189.2	122.1	109.3	114.9	107.0	99.8	98.2	103.0
60°	1407.1	1185.2	568.3	190.8	125.3	107.7	109.3	107.7	98.2	96.6	100.6
62.5°	1263.5	1032.8	515.6	178.8	122.9	104.6	104.6	103.0	94.2	93.4	96.6
65°	1070.3	865.2	428.6	166.8	114.1	99.0	99.8	95.0	89.4	87.0	91.0
67.5°	877.2	694.4	344.8	155.6	105.4	91.0	93.4	90.2	83.8	81.4	84.6
70°	695.2	541.9	266.6	136.5	94.2	83.0	85.4	82.2	76.6	74.2	77.4
72.5°	494.9	374.3	215.5	120.5	82.2	71.8	75.8	73.4	69.4	65.4	67.8
75°	368.7	278.6	155.6	99.0	71.0	62.3	66.2	65.4	61.5	58.3	60.7
77.5°	288.1	226.7	108.5	79.0	60.7	53.5	55.9	55.1	51.1	46.3	47.9
80°	211.5	179.6	76.6	59.1	48.7	43.9	45.5	43.9	39.9	34.3	35.1
82.5°	142.9	132.5	51.9	40.7	35.1	32.7	33.5	33.5	29.5	23.9	23.1
85°	44.7	51.1	31.9	25.5	21.5	17.6	19.2	20.8	18.4	14.4	13.6
87.5°	7.2	8.8	8.8	8.8	7.2	6.4	8.0	8.0	7.2	5.6	4.0
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):

	185°	195°	205°	215°	225°	235°	245°	255°	265°	270°	275°
0°	216.3	216.3	216.3	216.3	216.3	216.3	216.3	216.3	216.3	216.3	216.3
2.5°	198.7	183.6	159.6	158.8	141.3	137.3	135.7	160.4	159.6	201.1	195.5
5°	181.2	168.4	150.1	117.3	100.6	108.5	128.5	156.4	166.8	190.0	190.0
7.5°	148.5	133.3	118.1	96.6	83.0	84.6	110.1	129.3	141.3	154.8	155.6
10°	110.9	103.8	93.4	87.8	88.6	85.4	95.8	109.3	119.7	124.5	127.7
12.5°	95.8	91.0	90.2	93.4	105.4	107.7	109.3	106.2	105.4	108.5	108.5
15°	86.2	89.4	101.4	118.1	128.5	131.7	121.3	111.7	99.8	94.2	95.8
17.5°	83.8	105.4	124.5	133.3	139.7	137.3	126.1	119.7	107.0	95.8	94.2
20°	94.2	113.3	123.7	128.5	120.5	114.9	124.5	123.7	117.3	108.5	99.0
22.5°	119.7	139.7	136.5	121.3	96.6	95.8	126.1	141.3	142.1	126.1	111.7
25°	176.4	166.0	150.1	110.9	80.6	83.0	126.9	157.2	182.0	163.6	151.6
27.5°	245.0	203.5	163.6	105.4	76.6	79.8	123.7	172.4	231.5	253.0	248.2
30°	215.5	176.4	136.5	91.0	74.2	75.0	108.5	164.4	237.0	272.2	273.8
32.5°	110.1	107.7	93.4	76.6	72.6	72.6	83.0	107.7	147.7	142.9	145.3
35°	93.4	85.4	79.0	74.2	71.8	72.6	75.8	83.8	95.0	96.6	98.2
37.5°	93.4	85.4	78.2	74.2	73.4	73.4	76.6	81.4	91.8	96.6	97.4
40°	95.0	85.4	79.0	75.8	75.8	75.0	77.4	81.4	91.8	98.2	99.0
42.5°	95.0	87.0	80.6	77.4	78.2	78.2	78.2	82.2	91.8	99.0	99.8
45°	95.0	87.8	83.0	79.8	83.0	81.4	80.6	82.2	91.0	99.0	100.6
47.5°	95.8	89.4	84.6	82.2	84.6	83.0	83.0	82.2	90.2	99.8	101.4
50°	97.4	91.0	85.4	84.6	86.2	84.6	82.2	83.0	90.2	99.0	100.6
52.5°	97.4	91.8	87.0	85.4	85.4	83.8	81.4	82.2	87.8	96.6	98.2
55°	96.6	91.0	87.0	86.2	85.4	82.2	79.8	81.4	86.2	94.2	95.0
57.5°	97.4	90.2	86.2	86.2	85.4	80.6	78.2	79.0	85.4	92.6	93.4
60°	95.0	87.8	83.8	84.6	82.2	78.2	74.2	75.8	82.2	91.0	92.6
62.5°	91.0	84.6	80.6	81.4	79.8	75.0	70.2	72.6	79.0	87.0	89.4
65°	86.2	80.6	75.8	75.8	74.2	69.4	66.2	69.4	75.0	82.2	84.6
67.5°	80.6	75.0	71.0	71.0	67.8	64.6	62.3	64.6	69.4	75.8	79.0
70°	73.4	68.6	64.6	63.9	60.7	58.3	57.5	59.1	64.6	69.4	71.0
72.5°	66.2	63.1	58.3	57.5	54.3	51.9	51.1	52.7	58.3	62.3	63.9
75°	59.1	55.9	52.7	51.1	47.9	46.3	45.5	47.9	52.7	55.1	55.9
77.5°	47.9	46.3	43.9	43.1	40.7	39.9	39.9	41.5	44.7	45.5	47.1
80°	37.5	36.7	35.9	35.1	31.9	32.7	32.7	33.5	35.1	34.3	35.9
82.5°	27.1	27.1	25.5	25.5	22.3	23.9	24.7	24.7	23.9	22.3	23.9
85°	15.2	16.8	16.0	16.0	12.8	16.0	15.2	15.2	14.4	12.0	15.2
87.5°	5.6	5.6	5.6	4.8	1.6	4.8	6.4	6.4	6.4	4.0	7.2
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):

	285°	295°	305°	315°	325°	335°	345°	355°	359°	360°
0°	216.3	216.3	216.3	216.3	216.3	216.3	216.3	216.3	216.3	216.3
2.5°	205.1	201.9	207.5	222.7	212.3	210.7	238.6	235.5	283.3	300.9
5°	202.7	191.6	185.2	186.8	197.1	234.7	282.5	281.7	336.0	357.6
7.5°	158.0	162.0	160.4	161.2	173.2	227.5	280.9	311.3	342.4	355.2
10°	138.1	143.7	154.0	167.6	177.2	199.5	253.8	292.1	317.7	331.2
12.5°	118.9	134.1	147.7	168.4	189.2	205.1	250.6	278.6	296.1	301.7
15°	100.6	108.5	126.1	152.4	175.6	204.3	254.6	311.3	332.8	344.8
17.5°	96.6	98.2	107.0	131.7	166.8	209.9	269.8	375.1	395.9	415.8
20°	95.8	95.8	104.6	118.9	154.0	203.5	336.8	482.9	495.6	542.7
22.5°	101.4	101.4	110.1	134.1	167.6	228.3	420.6	675.2	767.0	780.6
25°	126.9	141.3	162.8	192.4	214.7	264.2	444.6	739.1	835.7	875.6
27.5°	248.2	258.6	258.6	228.3	219.5	233.9	370.3	648.1	731.9	755.0
30°	257.0	230.7	193.2	161.2	159.6	169.2	341.6	681.6	731.9	751.9
32.5°	119.7	105.4	103.8	107.0	122.9	152.4	359.2	763.0	804.5	843.6
35°	92.6	91.0	93.4	100.6	117.3	157.2	368.7	845.2	888.3	906.7
37.5°	92.6	90.2	92.6	97.4	117.3	163.6	378.3	964.2	1050.4	1042.4
40°	95.8	92.6	92.6	95.8	114.9	176.4	395.1	1052.8	1158.1	1153.3
42.5°	98.2	95.8	95.0	95.0	112.5	180.4	419.8	1148.5	1274.6	1277.0
45°	102.2	99.8	97.4	96.6	109.3	185.2	445.4	1194.0	1382.4	1386.4
47.5°	105.4	104.6	101.4	99.0	106.2	186.0	498.0	1253.1	1429.5	1436.7
50°	106.2	106.2	107.0	99.8	107.0	179.6	539.5	1298.6	1465.4	1465.4
52.5°	103.0	106.2	108.5	100.6	107.0	184.4	573.1	1319.3	1498.9	1498.1
55°	100.6	106.2	110.1	100.6	109.3	191.6	607.4	1330.5	1520.5	1523.7
57.5°	100.6	107.7	108.5	101.4	114.9	201.9	621.0	1267.5	1490.1	1514.1
60°	99.8	107.7	104.6	100.6	120.5	205.9	605.8	1168.5	1397.6	1454.2
62.5°	96.6	104.6	99.8	98.2	121.3	205.9	556.3	1023.2	1259.5	1336.9
65°	91.0	97.4	94.2	93.4	118.1	196.3	466.9	849.2	1105.4	1176.5
67.5°	85.4	89.4	88.6	87.0	110.9	187.6	367.1	660.9	899.5	986.5
70°	79.0	83.0	82.2	79.8	102.2	171.6	286.5	498.0	676.8	770.2
72.5°	69.4	75.0	73.4	71.0	89.4	142.9	221.1	334.4	466.1	529.2
75°	62.3	65.4	63.1	60.7	72.6	109.3	156.4	255.4	324.8	361.6
77.5°	54.3	57.5	53.5	51.1	58.3	84.6	112.5	225.1	265.8	284.1
80°	43.1	47.9	43.1	39.9	43.9	55.9	75.8	176.4	220.3	229.1
82.5°	30.3	33.5	30.3	27.9	31.9	38.3	48.7	126.1	157.2	165.2
85°	18.4	19.2	16.8	15.2	19.2	22.3	28.7	63.9	75.0	77.4
87.5°	6.4	7.2	6.4	2.4	4.8	5.6	6.4	4.0	4.0	3.2
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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