

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: P596066

Luminaire Tested: **MSA-SA2A-AMB-U-SLR-HSS**

Issue Date: 4/29/2022

Test Information

Test Method: LM-79-08
Report Number: P596066
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2109-400-26)
Test Lab: INNOVATIONS CENTER
Issue Date: 4/29/2022
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: INVUE
Catalog Number: MSA-SA2A-AMB-U-SLR-HSS
Description: POST TOP DECORATIVE LUMINAIRE. (2) LIGHTSQUARES WITH 16 LEDS EACH
AND SPILL LIGHT ELIMINATOR RIGHT OPTICS WITH HOUSE SIDE SHIELD
Light Source: (32) 1549K CCT, -21.5 CRI LEDS
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 1024 lumens
Efficiency: N/A
Efficacy: 24.9 lumens/watt
Luminous Opening: Rectangular (W 0.5' x L: 1' x H: 0')
IES Classification: Type II - Short
BUG Rating: B0 - U0 - G0

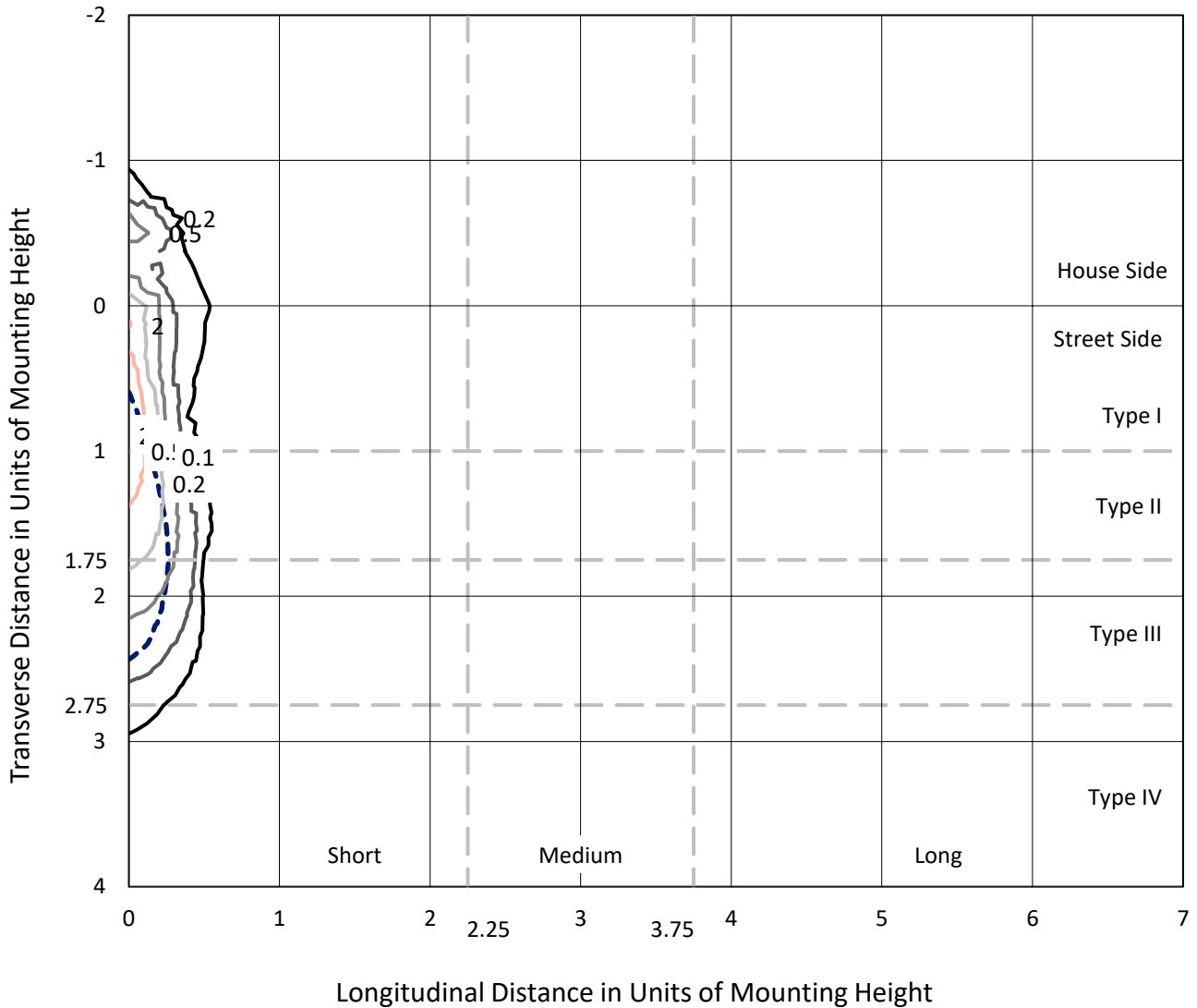
Input Watts (W): 41.2
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 28.75 FT



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Iso-Footcandle Lines of Horizontal Illumination

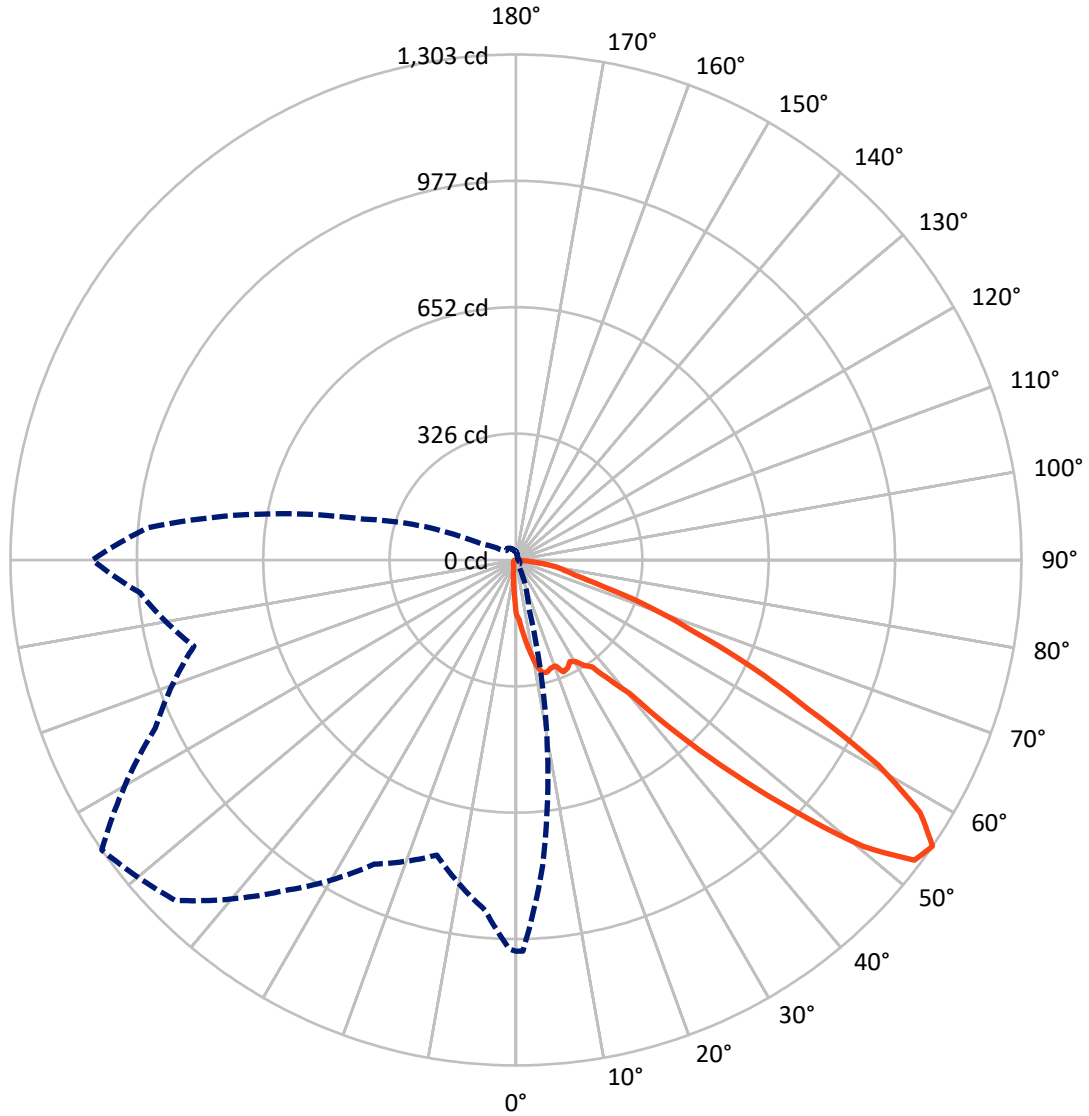
× Max cd
 - - - 1/2 Max cd



Based on 10 foot mounting height. Maximum calculated value = 3.4 fc
 Type II - Short - N/A

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Luminous Intensity Polar Plot



— Vertical Plane Through 305-Deg Lateral - - - Horizontal Cone Through 55-Deg Vertical

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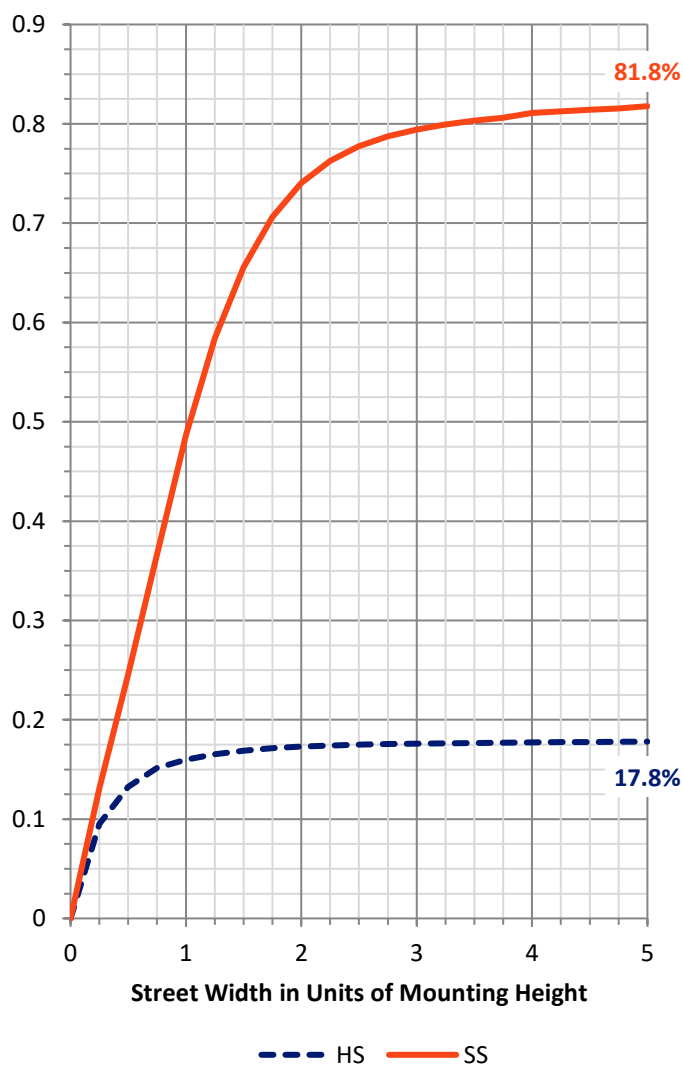
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	183.7	0.0	183.7
	% Fixture	17.9	0.0	17.9
Street Side	Lumens	840.3	0.0	840.3
	% Fixture	82.1	0.0	82.1
Total	Lumens	1024.0	0.0	1024.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	12.7	1.2
10°-20°	33.0	3.2
20°-30°	72.9	7.1
30°-40°	110.0	10.7
40°-50°	198.7	19.4
50°-60°	286.4	28.0
60°-70°	222.1	21.7
70°-80°	78.0	7.6
80°-90°	10.2	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°	1024.0	100.0
0°-180°	1024.0	100.0

Coefficient of Utilization



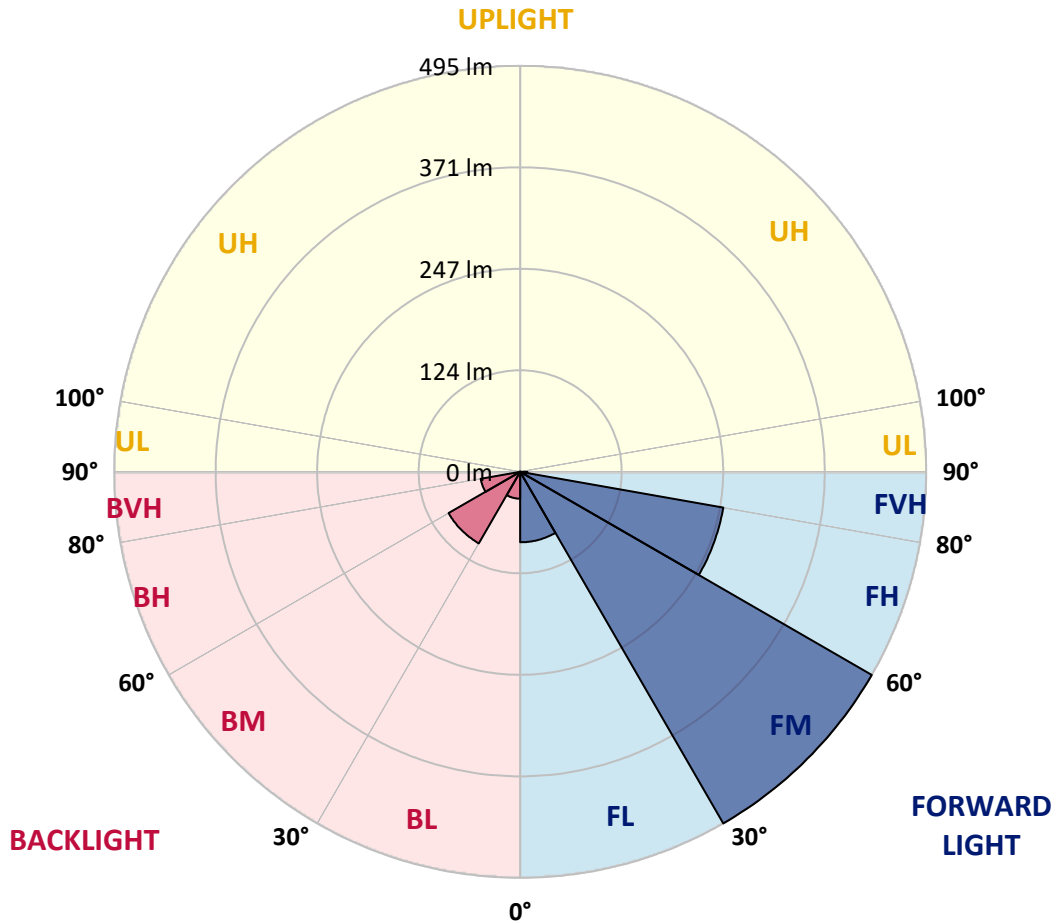
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	85.8	8.4			
FM (30°-60°)	494.5	48.3			
FH (60°-80°)	251.2	24.5			G0/660
FVH (80°-90°)	8.7	0.9			G0/10
BL (0°-30°)	32.8	3.2	B0/110		
BM (30°-60°)	100.6	9.8	B0/220		
BH (60°-80°)	48.8	4.8	B0/110		G0/110
BVH (80°-90°)	1.5	0.1			G0/10
UL (90°-100°)	0.0	0.0		U0/0	
UH (100°-180°)	0.0	0.0		U0/0	

BUG Rating: B0-U0-G0

Type II Short





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CANDELA DISTRIBUTION (FULL):

	0°	1°	5°	15°	25°	35°	45°	55°	65°	75°	85°
0°	140.4	140.4	140.4	140.4	140.4	140.4	140.4	140.4	140.4	140.4	140.4
2.5°	181.1	186.4	165.7	182.9	156.9	152.2	162.8	152.8	132.7	138.6	117.4
5°	221.8	224.1	201.1	186.4	164.0	141.0	122.7	116.8	113.8	115.0	107.9
7.5°	214.7	217.7	193.5	169.9	133.9	109.7	95.6	90.8	90.2	90.8	91.4
10°	181.1	183.4	162.8	141.0	115.6	104.4	93.2	80.2	70.8	63.1	57.2
12.5°	172.8	173.4	158.1	136.8	114.4	99.7	81.4	63.7	48.4	37.8	33.0
15°	177.5	175.8	162.2	136.3	110.3	83.2	59.0	40.7	31.3	24.8	22.4
17.5°	202.9	202.9	187.0	138.0	97.3	63.7	40.1	30.1	21.8	19.5	19.5
20°	269.0	269.6	228.3	133.9	80.8	46.0	30.1	22.4	18.9	17.7	17.7
22.5°	355.7	360.4	292.0	134.5	63.7	34.8	23.6	19.5	17.1	16.5	16.5
25°	420.6	418.8	326.2	133.3	51.9	27.1	20.6	17.7	16.5	15.9	15.9
27.5°	409.9	418.8	331.5	126.8	44.2	23.6	18.9	16.5	15.3	14.2	14.7
30°	486.6	483.7	407.6	129.2	38.3	20.6	17.1	15.9	14.7	13.6	13.6
32.5°	544.4	550.9	437.1	127.4	31.3	18.9	16.5	14.7	13.6	13.0	13.0
35°	598.1	601.1	490.2	119.7	28.9	18.3	15.3	14.2	13.0	11.8	11.8
37.5°	680.7	684.2	515.5	114.4	27.1	17.7	15.3	13.6	12.4	11.2	11.2
40°	735.0	742.6	562.1	105.6	24.2	18.3	15.3	13.6	11.8	10.6	10.0
42.5°	819.9	827.0	608.1	102.6	21.2	16.5	14.7	13.0	11.2	10.0	9.4
45°	880.1	878.9	650.6	101.5	19.5	15.9	15.9	12.4	11.2	9.4	8.3
47.5°	911.3	923.7	688.4	105.0	18.3	15.3	15.9	12.4	10.0	8.8	7.7
50°	932.0	937.9	731.4	112.1	17.1	14.7	15.3	13.0	10.0	8.8	7.7
52.5°	965.0	964.4	769.8	124.5	17.1	14.7	14.2	13.6	10.6	8.8	7.7
55°	1008.6	1008.6	789.8	126.2	17.7	14.7	13.6	12.4	10.6	8.8	7.1
57.5°	1002.2	1012.2	793.4	118.6	17.7	14.7	13.6	12.4	10.6	8.3	6.5
60°	935.5	941.4	740.3	100.9	17.1	14.2	12.4	11.8	10.0	7.7	5.9
62.5°	828.7	822.8	641.2	76.7	15.9	13.0	11.8	10.6	8.8	7.1	5.3
65°	668.9	694.3	524.4	53.1	14.2	11.8	10.6	9.4	8.3	6.5	4.7
67.5°	513.8	539.1	385.8	35.4	12.4	11.2	10.0	8.8	7.7	5.9	4.1
70°	355.7	358.6	250.7	22.4	11.8	11.2	10.0	8.3	7.1	5.9	4.1
72.5°	243.6	243.6	147.5	16.5	10.6	9.4	8.3	7.1	6.5	5.3	4.1
75°	160.4	169.3	97.3	12.4	9.4	8.3	6.5	7.1	7.1	5.9	4.7
77.5°	116.2	122.7	73.1	10.0	8.8	7.7	5.9	7.1	6.5	5.3	3.5
80°	81.4	86.1	41.3	7.1	6.5	5.9	5.3	5.3	4.7	4.1	2.4
82.5°	47.2	52.5	18.3	4.1	4.7	4.1	2.4	4.1	4.1	3.5	1.8
85°	10.0	13.0	4.1	2.9	3.5	2.9	1.8	2.9	3.5	2.9	1.8
87.5°	1.2	1.8	1.8	2.4	2.9	2.4	2.4	3.5	3.5	2.9	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):

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	140.4	140.4	140.4	140.4	140.4	140.4	140.4	140.4	140.4	140.4	140.4
2.5°	137.4	142.2	118.6	99.7	95.0	91.4	85.5	83.2	100.3	100.9	125.6
5°	119.2	114.4	105.6	90.2	69.0	57.8	61.9	74.9	89.1	93.2	109.1
7.5°	90.8	79.6	74.3	66.7	51.9	37.2	37.8	52.5	65.5	70.8	79.6
10°	54.9	52.5	48.4	44.2	39.5	35.4	31.3	32.4	41.9	50.1	57.2
12.5°	31.3	30.7	30.1	30.7	29.5	28.9	27.1	27.7	33.6	37.8	42.5
15°	21.8	21.2	21.8	21.8	23.0	23.6	24.8	24.2	27.1	28.9	30.7
17.5°	18.3	17.7	18.3	18.3	19.5	21.2	21.8	22.4	23.6	26.5	27.7
20°	17.1	17.1	16.5	15.9	17.7	18.9	20.1	21.8	29.5	31.9	31.9
22.5°	16.5	15.9	15.3	14.7	15.9	17.1	18.3	28.3	44.8	49.5	43.6
25°	15.9	15.3	14.7	14.2	14.7	15.9	17.7	40.1	58.4	73.7	66.7
27.5°	14.7	14.2	13.6	13.6	13.6	14.7	17.7	43.6	70.8	104.4	114.4
30°	13.6	13.6	12.4	12.4	13.0	13.0	15.9	36.6	72.0	119.7	144.5
32.5°	13.0	12.4	11.2	11.2	11.8	12.4	14.2	20.1	37.8	60.2	70.2
35°	11.8	11.2	10.6	10.6	10.6	11.2	13.0	14.7	20.1	27.7	27.1
37.5°	11.2	10.6	10.0	9.4	10.0	10.6	11.8	14.2	17.1	23.0	26.0
40°	10.0	9.4	9.4	8.8	9.4	10.6	11.2	13.6	15.9	22.4	26.0
42.5°	8.8	8.8	8.3	8.3	8.8	9.4	10.0	12.4	15.3	21.8	26.0
45°	8.3	8.3	7.7	7.7	7.7	8.8	8.8	11.2	14.7	21.8	25.4
47.5°	7.7	7.7	7.1	7.1	7.7	8.3	8.8	10.6	14.2	21.2	25.4
50°	7.1	7.1	6.5	6.5	7.1	7.7	8.3	10.0	13.6	20.6	24.8
52.5°	7.1	6.5	5.9	5.9	6.5	7.1	8.3	9.4	13.0	19.5	23.0
55°	6.5	6.5	5.9	5.3	5.9	7.1	7.7	9.4	13.0	18.3	21.8
57.5°	5.9	5.9	5.3	5.3	5.9	6.5	7.1	8.3	11.8	17.7	20.6
60°	5.3	5.3	4.7	4.7	5.3	5.9	6.5	7.7	11.2	16.5	19.5
62.5°	4.1	4.7	4.7	4.1	4.7	5.3	5.9	7.1	10.6	15.3	17.7
65°	3.5	4.1	4.1	4.1	4.1	4.7	5.3	6.5	9.4	14.2	15.9
67.5°	3.5	4.1	3.5	3.5	3.5	4.1	4.7	5.9	8.8	13.0	14.2
70°	2.9	3.5	3.5	3.5	3.5	3.5	4.1	5.3	8.3	12.4	13.0
72.5°	2.9	3.5	3.5	3.5	2.9	2.9	3.5	4.7	7.1	11.2	11.8
75°	3.5	4.1	4.1	4.1	2.4	2.4	2.9	4.7	6.5	9.4	9.4
77.5°	1.8	2.9	2.9	2.9	2.4	1.2	2.4	4.1	6.5	8.3	7.7
80°	0.6	1.8	2.4	2.4	1.8	0.6	1.8	2.9	4.7	5.9	5.9
82.5°	0.6	1.8	2.4	1.8	1.2	0.0	0.6	1.8	2.4	4.1	3.5
85°	0.6	1.8	1.8	1.8	0.6	0.0	0.6	1.2	1.2	2.4	1.8
87.5°	0.6	1.8	1.8	1.8	1.2	0.0	0.6	0.6	1.2	0.6	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):

	185°	195°	205°	215°	225°	235°	245°	255°	265°	270°	275°
0°	140.4	140.4	140.4	140.4	140.4	140.4	140.4	140.4	140.4	140.4	140.4
2.5°	125.6	125.0	122.7	129.2	137.4	133.9	138.0	150.4	153.4	194.7	191.1
5°	109.1	118.0	114.4	108.5	109.1	116.8	145.7	175.8	179.9	221.2	218.2
7.5°	79.0	84.9	89.1	92.6	92.0	99.1	135.7	174.6	194.1	223.6	220.0
10°	58.4	68.4	73.7	83.2	95.0	99.7	115.0	154.0	181.1	203.5	210.0
12.5°	42.5	50.7	63.1	74.3	90.2	103.2	116.8	149.2	168.7	180.5	201.1
15°	32.4	37.2	44.2	57.8	76.1	92.6	114.4	148.6	186.4	206.4	224.1
17.5°	28.9	31.9	34.2	41.3	59.6	86.1	118.0	156.9	227.7	252.5	272.5
20°	30.7	31.3	33.0	38.9	50.1	75.5	104.4	184.6	274.3	306.1	338.0
22.5°	36.6	33.6	36.0	41.9	51.3	75.5	116.2	228.3	389.3	454.2	472.5
25°	59.0	42.5	49.0	64.9	80.2	100.3	139.2	268.4	478.4	561.0	596.3
27.5°	105.6	115.6	121.5	128.6	119.2	121.5	132.1	231.8	437.1	511.4	524.4
30°	159.3	157.5	136.8	106.2	86.7	77.3	91.4	210.6	457.1	508.5	527.9
32.5°	78.5	57.2	41.3	38.9	40.7	54.9	76.7	223.0	520.3	558.0	566.8
35°	28.3	28.3	29.5	32.4	37.8	51.9	80.2	228.3	573.9	616.4	605.8
37.5°	27.1	27.7	28.9	32.4	37.8	53.1	84.9	237.7	661.2	730.2	673.0
40°	27.1	28.9	29.5	32.4	37.2	51.9	93.2	247.7	723.8	814.6	750.9
42.5°	27.1	29.5	30.7	33.0	37.2	49.5	96.7	261.9	796.3	884.2	818.7
45°	27.1	30.7	32.4	34.8	37.2	46.6	99.7	281.4	828.2	969.7	851.7
47.5°	27.7	31.9	34.2	36.6	37.8	43.6	99.7	316.8	877.7	1005.1	887.7
50°	27.1	31.9	34.2	37.8	36.6	42.5	93.8	345.1	915.5	1037.6	911.9
52.5°	24.8	29.5	32.4	37.2	36.0	41.9	93.8	372.2	938.5	1060.0	933.7
55°	23.0	27.1	33.0	37.2	34.2	41.3	96.7	406.4	952.6	1091.8	972.7
57.5°	22.4	26.5	32.4	36.0	33.0	41.3	103.2	420.0	936.1	1103.6	1004.5
60°	21.2	26.0	33.0	32.4	31.9	44.2	105.6	414.1	867.1	1068.2	1005.1
62.5°	19.5	23.6	31.9	29.5	30.7	44.2	106.2	386.4	758.6	972.7	955.0
65°	17.1	20.6	26.5	27.1	27.7	42.5	102.0	329.1	648.2	841.1	855.3
67.5°	15.3	18.3	22.4	24.2	24.2	40.1	95.6	261.3	497.8	717.3	742.6
70°	13.6	15.9	19.5	20.6	21.2	35.4	86.7	191.7	349.8	520.3	594.0
72.5°	11.8	13.6	16.5	17.1	16.5	29.5	67.8	133.9	198.8	342.1	407.6
75°	10.0	11.8	13.0	13.0	11.8	19.5	45.4	79.0	133.3	195.2	239.5
77.5°	8.8	10.0	10.6	10.0	9.4	13.0	24.2	38.3	95.0	119.7	141.0
80°	7.1	8.3	8.3	7.1	6.5	8.8	11.2	16.5	47.2	61.3	67.8
82.5°	4.1	4.7	5.3	4.7	3.5	5.9	7.1	7.7	18.3	23.6	25.4
85°	2.9	3.5	2.9	2.4	0.6	2.9	3.5	2.4	0.0	0.0	0.6
87.5°	1.2	1.8	1.2	1.2	0.0	0.0	0.6	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°	140.4	140.4	140.4	140.4	140.4	140.4	140.4	140.4	140.4	140.4
2.5°	175.2	159.9	152.8	160.4	158.7	148.1	154.5	158.7	187.6	181.1
5°	223.6	202.3	187.6	171.1	171.1	188.2	225.9	194.7	225.3	221.8
7.5°	248.9	243.6	226.5	230.6	230.6	241.3	241.8	215.9	225.3	214.7
10°	228.9	244.2	269.0	271.9	254.2	246.0	241.8	202.3	189.3	181.1
12.5°	251.3	276.6	297.3	306.1	289.6	260.7	229.5	197.6	182.3	172.8
15°	254.8	283.7	300.2	298.5	287.3	271.3	240.7	200.6	187.6	177.5
17.5°	287.3	298.5	292.6	290.2	289.0	277.8	276.1	249.5	220.6	202.9
20°	322.1	293.2	291.4	282.5	284.9	294.9	342.1	339.2	297.3	269.0
22.5°	388.7	343.3	313.2	309.1	310.9	370.4	464.8	431.2	386.9	355.7
25°	489.0	362.2	309.1	302.6	324.4	415.8	525.6	510.2	457.1	420.6
27.5°	453.0	380.5	296.1	266.6	296.1	411.1	445.9	479.0	456.5	409.9
30°	423.5	365.1	303.8	267.2	305.5	374.0	431.2	509.0	493.7	486.6
32.5°	451.8	372.8	324.4	286.7	297.3	386.9	468.3	560.4	574.5	544.4
35°	496.1	410.5	338.6	309.7	343.9	415.3	518.5	594.0	620.5	598.1
37.5°	553.9	446.5	390.5	353.9	385.2	463.0	555.1	687.2	720.2	680.7
40°	615.8	519.1	453.6	444.7	450.6	510.8	577.5	760.3	782.1	735.0
42.5°	671.3	607.0	615.2	571.0	544.4	573.9	616.4	812.2	865.9	819.9
45°	716.7	710.8	783.9	808.1	687.2	659.5	663.6	838.2	929.0	880.1
47.5°	750.9	829.9	969.7	970.3	841.7	736.7	691.9	864.1	944.4	911.3
50°	777.4	907.8	1161.4	1126.6	913.7	778.6	719.6	848.8	941.4	932.0
52.5°	812.2	994.5	1285.9	1233.4	996.9	820.5	735.5	870.0	965.6	965.0
55°	859.4	1025.8	1303.0	1241.1	1040.5	865.3	787.5	906.6	1002.8	1008.6
57.5°	884.8	986.8	1228.7	1135.5	1008.6	844.7	795.1	918.4	1008.6	1002.2
60°	883.6	888.9	1072.4	977.4	881.8	798.1	792.8	880.1	958.5	935.5
62.5°	848.8	746.8	842.9	802.2	727.3	688.9	760.3	810.5	846.4	828.7
65°	806.3	646.5	671.8	653.6	589.9	563.9	680.1	694.8	714.3	668.9
67.5°	730.8	545.0	497.8	490.8	454.8	441.2	546.8	557.4	555.1	513.8
70°	624.1	432.4	372.8	328.5	309.1	304.4	434.1	418.2	413.5	355.7
72.5°	496.1	320.3	237.7	184.0	188.2	214.7	349.2	308.5	286.7	243.6
75°	370.4	205.9	159.9	129.8	132.1	165.2	260.7	212.9	205.9	160.4
77.5°	229.5	145.7	127.4	108.5	117.4	123.3	166.9	140.4	134.5	116.2
80°	118.0	98.5	104.4	82.6	89.1	78.5	96.7	91.4	96.1	81.4
82.5°	48.4	54.9	55.4	33.0	46.0	48.4	64.3	59.6	59.0	47.2
85°	24.2	18.3	14.2	9.4	16.5	18.3	24.2	15.3	17.7	10.0
87.5°	0.0	0.6	0.6	0.6	1.8	1.8	3.5	2.4	1.8	1.2
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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