

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: P596064

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

Issue Date: 4/29/2022

Test Information

Test Method: LM-79-08
Report Number: P596064
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2109-400-24)
Test Lab: INNOVATIONS CENTER
Issue Date: 4/29/2022
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: INVUE
Catalog Number: MSA-SA2A-AMB-U-SLL-HSS
Description: POST TOP DECORATIVE LUMINAIRE. (2) LIGHTSQUARES WITH 16 LEDS EACH
AND SPILL LIGHT ELIMINATOR LEFT OPTICS WITH HOUSE SIDE SHIELD
Light Source: (32) 1549K CCT, -21.5 CRI LEDS
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 1029 lumens
Efficiency: N/A
Efficacy: 25.0 lumens/watt
Luminous Opening: Rectangular (W 0.5' x L: 1' x H: 0')
IES Classification: Type III - Short
BUG Rating: B0 - U0 - G0

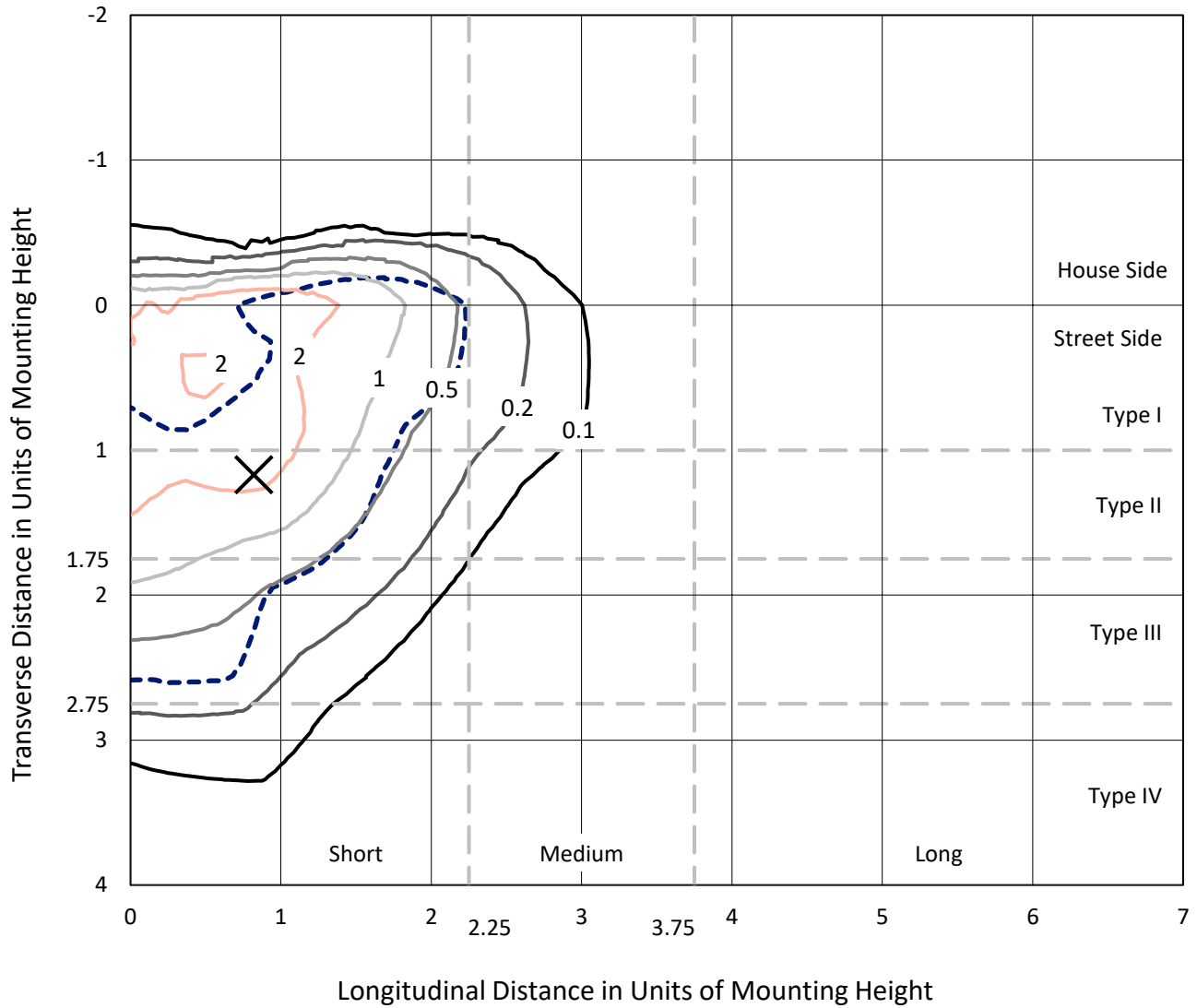
Input Watts (W): 41.2
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 28.75 FT



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Iso-Footcandle Lines of Horizontal Illumination

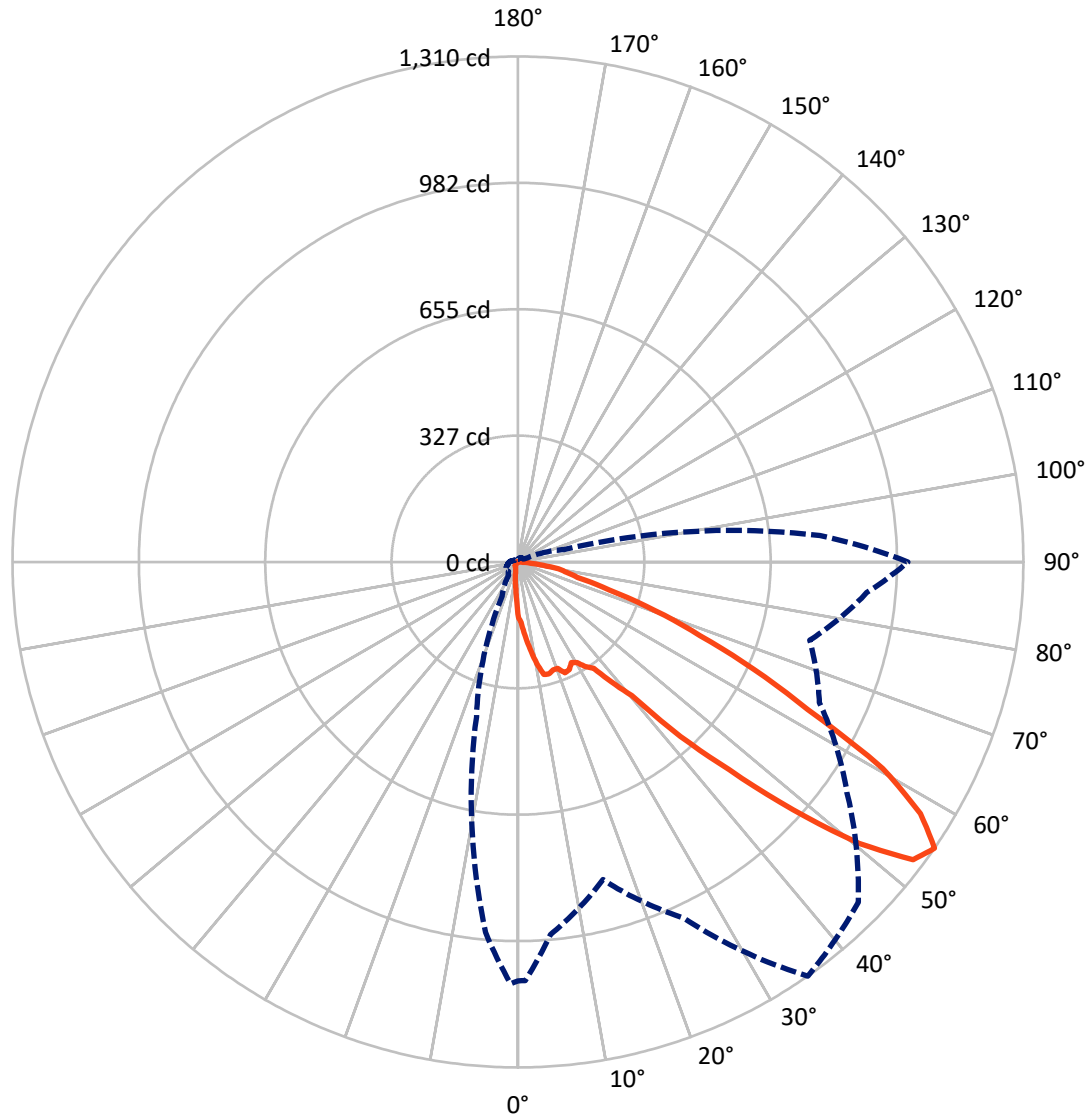
× Max cd
 - - - 1/2 Max cd



Based on 10 foot mounting height. Maximum calculated value = 3.8 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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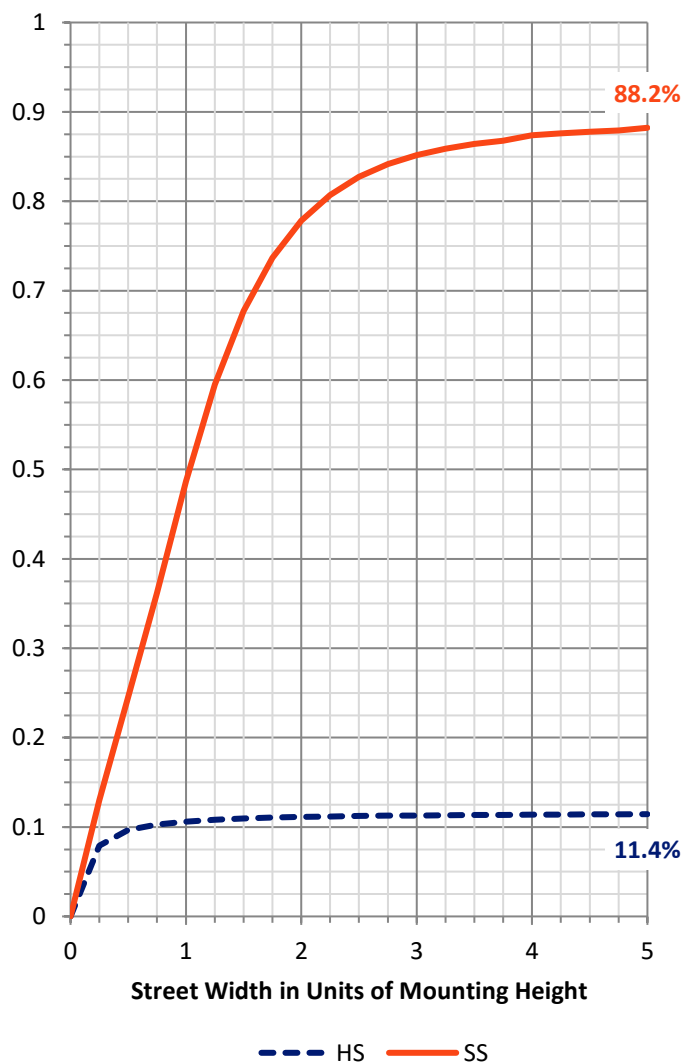
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	119.3	0.0	119.3
	% Fixture	11.6	0.0	11.6
Street Side	Lumens	909.7	0.0	909.7
	% Fixture	88.4	0.0	88.4
Total	Lumens	1029.0	0.0	1029.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	12.8	1.2
10°-20°	33.3	3.2
20°-30°	73.2	7.1
30°-40°	110.1	10.7
40°-50°	198.6	19.3
50°-60°	287.2	27.9
60°-70°	223.2	21.7
70°-80°	79.2	7.7
80°-90°	11.4	1.1
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°	1029.0	100.0
0°-180°	1029.0	100.0

Coefficient of Utilization



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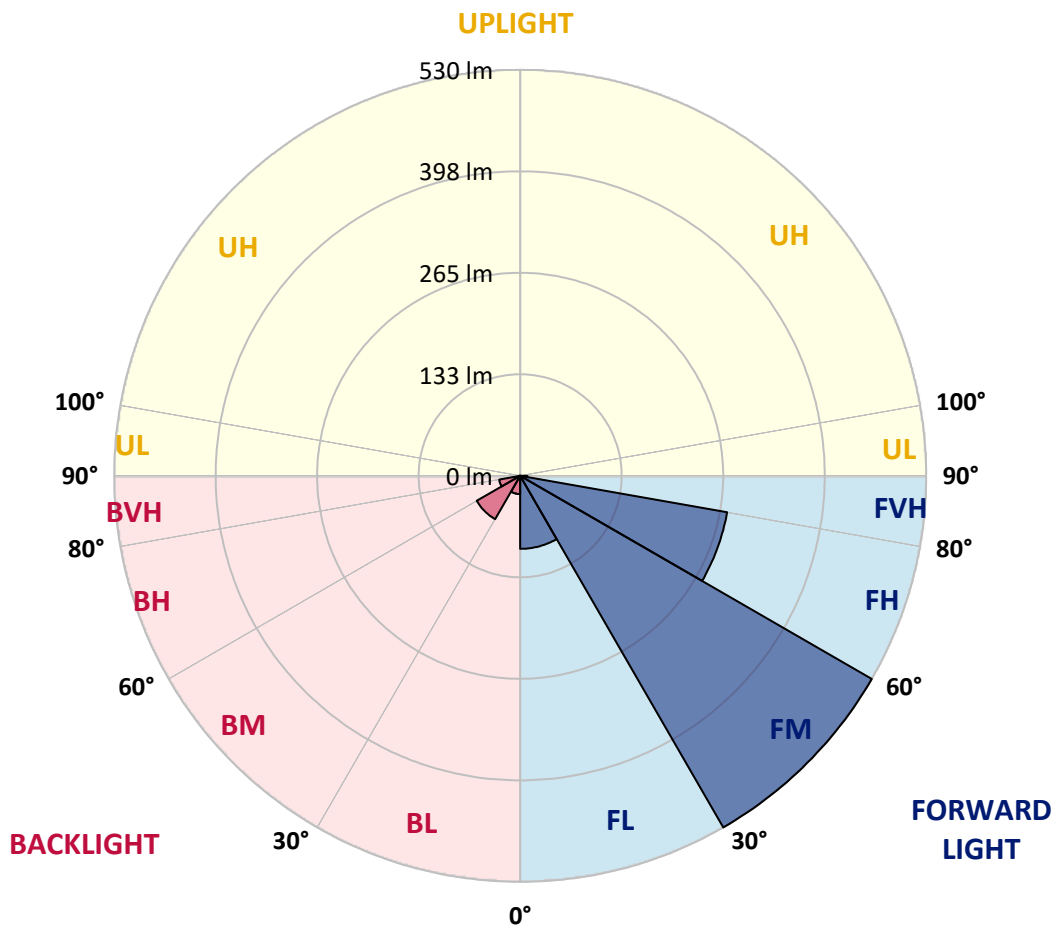
CATALOG NUMBER: MSA-SA2A-AMB-U-SLL-HSS

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	95.4	9.3			
FM (30°-60°)	530.5	51.6			
FH (60°-80°)	274.5	26.7			G0/660
FVH (80°-90°)	9.3	0.9			G0/10
BL (0°-30°)	23.9	2.3	B0/110		
BM (30°-60°)	65.4	6.4	B0/220		
BH (60°-80°)	27.9	2.7	B0/110		G0/110
BVH (80°-90°)	2.1	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-G0

Type III Short





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CANDELA DISTRIBUTION (FULL):

	0°	1°	5°	15°	25°	35°	45°	55°	65°	75°	85°
0°	144.0	144.0	144.0	144.0	144.0	144.0	144.0	144.0	144.0	144.0	144.0
2.5°	199.4	197.7	191.8	184.7	161.1	156.4	158.7	155.8	148.7	156.4	154.6
5°	234.2	228.3	220.7	219.5	203.6	190.6	171.1	170.5	188.2	231.9	216.0
7.5°	222.4	228.3	220.1	248.4	244.9	227.2	231.9	234.2	245.5	243.7	221.3
10°	206.5	205.9	207.7	230.7	240.1	267.9	279.7	255.5	247.8	241.9	200.6
12.5°	187.0	184.7	196.5	250.8	277.3	299.2	309.8	289.7	262.0	230.7	198.3
15°	212.4	211.2	224.8	254.9	286.8	300.9	301.5	288.5	272.6	241.9	204.2
17.5°	259.6	257.8	279.1	285.0	299.2	294.4	290.3	289.7	279.1	284.4	251.4
20°	321.6	316.3	339.9	323.9	291.5	294.4	285.0	286.8	296.2	348.7	335.1
22.5°	461.4	462.0	472.0	392.4	336.3	312.1	313.3	312.7	370.5	471.4	434.3
25°	571.8	569.4	594.2	488.0	369.4	309.2	303.3	326.3	419.5	527.5	512.7
27.5°	515.7	512.2	525.1	456.1	382.9	295.0	267.9	299.7	417.8	444.3	479.7
30°	516.9	511.0	525.1	423.1	365.8	302.7	269.7	307.4	376.4	434.3	512.7
32.5°	572.9	574.1	556.4	457.9	372.3	323.9	283.8	301.5	387.7	468.5	558.2
35°	622.5	620.1	591.8	495.6	408.9	338.7	308.6	342.8	418.3	519.2	598.9
37.5°	715.1	719.9	665.0	547.0	439.0	393.6	354.0	385.3	453.2	558.8	688.0
40°	801.3	812.5	728.7	598.9	519.8	454.9	448.4	453.7	506.3	579.4	761.7
42.5°	885.7	889.2	816.0	678.6	610.7	617.8	581.2	552.3	568.8	616.0	812.5
45°	944.7	947.0	851.4	703.9	715.1	768.8	788.3	692.7	656.1	663.2	847.3
47.5°	1000.1	1004.3	873.3	745.8	831.4	959.4	965.3	832.0	728.7	687.4	866.8
50°	1022.0	1032.6	904.5	780.6	909.8	1145.9	1133.5	914.6	778.9	715.7	855.0
52.5°	1048.5	1052.6	931.1	816.6	997.2	1282.2	1234.4	996.0	822.5	738.1	871.5
55°	1085.7	1085.1	968.9	852.0	1018.4	1309.9	1247.4	1040.8	862.1	783.0	907.5
57.5°	1105.7	1110.5	1000.1	885.1	988.9	1230.2	1133.5	1016.6	846.1	796.0	918.7
60°	1079.2	1075.7	1004.8	880.3	906.3	1086.3	971.8	888.6	800.7	795.4	880.9
62.5°	1001.9	989.5	955.3	854.4	750.5	843.2	807.2	721.0	693.9	757.0	821.3
65°	876.2	878.6	855.6	804.8	654.9	671.5	650.8	580.6	561.7	677.4	689.2
67.5°	742.9	738.1	742.3	735.2	544.0	509.2	489.1	448.4	427.2	558.8	562.3
70°	564.1	548.7	587.7	621.9	426.0	377.6	334.0	299.2	315.7	439.6	421.3
72.5°	353.4	370.0	415.4	505.1	313.9	246.6	186.5	188.2	221.9	345.2	302.7
75°	206.5	210.6	253.7	366.4	211.2	159.3	133.4	133.4	165.8	256.7	212.4
77.5°	127.4	129.8	141.6	235.4	141.0	128.6	109.7	117.4	120.4	167.0	142.2
80°	65.5	64.9	69.6	113.3	99.1	106.8	80.8	92.6	83.2	95.0	95.6
82.5°	24.8	23.0	26.0	51.9	56.6	56.1	33.6	49.6	49.6	67.9	57.8
85°	1.2	1.2	1.8	25.4	21.2	18.9	10.0	15.9	20.7	26.0	18.3
87.5°	0.6	0.6	1.2	1.2	2.4	2.4	1.8	3.5	3.5	5.3	3.0
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°	144.0	144.0	144.0	144.0	144.0	144.0	144.0	144.0	144.0	144.0	144.0
2.5°	186.5	164.0	187.0	157.0	152.2	159.3	152.8	135.7	141.0	118.0	136.3
5°	224.2	200.0	185.3	165.8	141.6	123.3	118.0	113.3	119.8	107.4	120.4
7.5°	223.0	190.0	168.2	135.1	111.5	97.9	95.0	93.2	93.8	89.1	92.0
10°	190.6	162.9	140.4	116.2	106.8	93.2	81.4	70.8	66.1	57.8	54.9
12.5°	177.6	157.5	136.3	115.1	100.3	82.0	63.7	47.8	40.1	36.0	31.9
15°	182.9	162.9	136.3	109.7	82.6	59.6	40.7	31.3	26.0	23.6	22.4
17.5°	215.4	185.9	137.5	97.4	66.1	41.3	30.1	23.0	20.1	20.1	18.9
20°	293.3	227.8	132.8	79.7	47.2	31.3	23.0	20.1	18.9	18.3	17.7
22.5°	374.1	287.9	133.9	64.3	35.4	24.2	20.1	17.7	17.7	17.7	17.7
25°	438.4	322.2	133.4	51.3	28.3	21.2	18.3	17.1	16.5	16.5	16.5
27.5°	441.9	324.5	125.7	44.3	24.2	19.5	17.7	16.5	15.3	15.3	15.3
30°	486.8	399.5	126.9	37.8	21.8	17.7	16.5	15.3	14.2	14.8	14.2
32.5°	568.2	430.1	126.9	31.3	20.1	17.1	15.3	14.2	13.6	13.6	13.6
35°	623.7	480.3	118.0	28.9	18.9	16.5	14.8	13.6	13.0	12.4	12.4
37.5°	709.2	513.9	112.7	27.1	18.3	15.9	14.8	13.0	12.4	11.8	11.8
40°	769.4	551.1	105.0	24.2	18.9	15.9	14.2	12.4	11.2	10.6	10.6
42.5°	845.5	599.5	100.9	21.8	17.7	15.3	13.6	12.4	10.6	10.0	10.0
45°	916.9	637.2	99.1	20.1	16.5	16.5	13.6	11.8	10.0	9.4	8.9
47.5°	935.8	669.7	102.7	18.3	15.9	16.5	13.0	11.2	9.4	8.9	8.3
50°	948.2	719.3	109.7	17.7	15.3	15.9	13.6	10.6	9.4	8.3	7.7
52.5°	968.9	761.2	121.0	17.7	15.3	15.3	14.2	11.2	9.4	8.3	7.7
55°	1010.7	785.3	123.9	18.3	15.3	14.2	13.6	11.2	9.4	7.7	7.1
57.5°	1020.8	777.1	116.2	18.3	15.3	14.2	13.0	11.2	9.4	7.7	6.5
60°	951.2	722.2	99.7	17.7	14.8	13.6	12.4	10.6	8.9	7.1	5.9
62.5°	842.6	638.4	74.3	16.5	14.2	13.0	11.2	9.4	7.7	5.9	5.3
65°	703.3	507.4	51.3	14.8	13.0	11.8	10.0	8.9	7.1	5.3	4.7
67.5°	534.6	391.2	34.8	13.6	12.4	11.2	10.0	8.9	7.1	5.3	4.1
70°	391.2	260.2	23.0	12.4	11.8	11.2	9.4	7.7	6.5	4.7	4.1
72.5°	274.4	149.9	16.5	11.2	10.0	8.9	8.3	7.7	6.5	4.7	3.5
75°	188.8	95.6	13.6	10.0	8.9	7.7	7.7	7.7	7.1	5.9	4.1
77.5°	131.0	70.8	11.2	9.4	8.3	7.1	7.7	7.7	5.9	4.1	3.0
80°	92.0	40.1	8.3	7.7	7.1	6.5	5.9	5.9	4.7	3.0	1.8
82.5°	56.6	18.3	5.9	5.9	5.3	3.5	5.3	5.3	4.7	3.0	1.8
85°	14.8	4.7	4.1	4.7	4.1	3.0	4.1	4.7	4.1	3.5	1.8
87.5°	3.0	3.0	3.5	4.1	3.5	3.5	4.7	4.7	4.1	3.5	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):

	185°	195°	205°	215°	225°	235°	245°	255°	265°	270°	275°
0°	144.0	144.0	144.0	144.0	144.0	144.0	144.0	144.0	144.0	144.0	144.0
2.5°	131.6	117.4	99.1	96.2	89.7	88.5	83.8	103.3	103.3	125.1	123.9
5°	112.7	104.4	91.5	69.0	59.6	63.7	74.9	90.9	96.8	110.9	107.4
7.5°	82.6	76.7	67.9	53.1	38.9	38.4	51.9	64.9	72.6	79.7	82.0
10°	51.3	50.2	43.7	40.1	37.8	33.0	33.6	44.3	52.5	58.4	60.2
12.5°	32.5	31.9	31.3	30.1	30.1	28.3	28.9	34.2	39.5	43.7	44.3
15°	22.4	22.4	23.0	24.2	25.4	25.4	25.4	27.7	30.1	31.3	33.0
17.5°	18.9	19.5	18.9	20.1	22.4	22.4	23.6	24.8	28.3	28.3	30.1
20°	17.7	17.1	17.1	18.3	19.5	20.7	22.4	28.9	33.0	32.5	31.3
22.5°	17.1	15.9	15.9	16.5	17.7	19.5	28.9	44.3	49.6	44.3	37.2
25°	15.9	15.3	14.8	15.3	16.5	18.9	40.7	58.4	75.5	67.9	56.6
27.5°	15.3	14.2	14.2	14.2	15.3	18.9	44.8	70.8	102.1	115.1	108.0
30°	14.2	13.0	13.0	13.6	13.6	16.5	38.4	72.6	122.1	144.6	158.7
32.5°	13.0	12.4	11.8	12.4	13.6	14.8	20.7	39.5	60.8	73.2	69.0
35°	12.4	11.2	11.2	11.2	12.4	13.6	15.9	20.7	27.7	28.9	29.5
37.5°	11.2	10.6	10.6	11.2	11.8	13.0	14.8	17.7	24.2	26.6	27.7
40°	10.6	10.0	10.0	10.0	11.2	11.8	14.2	17.1	23.0	27.1	27.7
42.5°	9.4	8.9	8.9	9.4	10.0	10.6	13.0	16.5	22.4	26.6	27.7
45°	8.9	8.3	8.3	8.9	9.4	10.0	12.4	15.3	22.4	26.0	27.7
47.5°	8.3	7.7	7.7	8.3	8.9	9.4	11.8	15.3	21.8	26.6	28.3
50°	7.7	7.1	7.1	7.7	8.3	8.9	10.6	14.8	21.8	26.0	27.7
52.5°	7.1	7.1	6.5	7.1	8.3	8.9	10.6	14.2	20.7	24.2	25.4
55°	7.1	6.5	6.5	7.1	7.7	8.9	10.0	13.6	19.5	22.4	24.2
57.5°	6.5	6.5	5.9	6.5	7.1	8.3	9.4	13.0	18.9	21.8	23.0
60°	5.9	5.9	5.9	5.9	7.1	7.7	8.9	12.4	17.7	20.7	22.4
62.5°	5.3	5.3	5.3	5.3	6.5	7.1	8.3	11.2	15.9	18.9	20.1
65°	4.7	4.7	4.7	4.7	5.9	5.9	7.1	10.6	14.8	16.5	17.7
67.5°	4.7	4.7	4.7	4.7	5.3	5.3	6.5	9.4	14.2	15.3	15.9
70°	4.7	4.7	4.1	4.1	4.7	5.3	6.5	8.9	13.0	14.2	14.8
72.5°	4.7	4.7	4.7	3.5	3.5	4.7	5.9	8.3	11.8	12.4	13.0
75°	5.3	5.3	4.7	3.5	3.0	4.1	5.3	7.7	10.6	10.6	11.2
77.5°	3.5	4.1	4.1	3.5	2.4	3.5	5.3	7.1	9.4	8.9	10.0
80°	3.0	3.5	3.5	3.0	1.8	3.0	4.1	5.9	7.1	7.1	7.7
82.5°	3.0	3.5	3.0	2.4	0.6	1.8	3.0	3.5	4.7	4.7	5.3
85°	3.0	3.0	3.0	1.8	0.0	1.8	2.4	3.0	3.5	3.0	4.1
87.5°	3.5	3.5	3.0	2.4	0.6	1.8	1.8	2.4	2.4	1.2	3.0
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°	144.0	144.0	144.0	144.0	144.0	144.0	144.0	144.0	144.0	144.0
2.5°	130.4	125.1	133.4	138.7	134.5	130.4	152.2	154.6	193.5	199.4
5°	119.8	115.6	111.5	108.6	119.8	145.7	173.5	179.4	220.1	234.2
7.5°	86.1	90.9	93.2	92.6	100.9	136.9	177.0	196.5	223.0	222.4
10°	67.9	76.7	85.0	93.2	99.7	115.1	155.2	182.9	200.0	206.5
12.5°	51.9	64.9	75.5	92.6	105.0	117.4	152.2	167.6	180.6	187.0
15°	37.8	44.8	57.8	78.5	94.4	116.2	151.1	187.6	202.4	212.4
17.5°	33.0	36.0	41.9	60.8	86.7	118.0	159.3	231.9	249.0	259.6
20°	31.9	34.2	39.5	51.9	77.9	106.8	185.9	278.5	296.2	321.6
22.5°	34.8	36.6	42.5	52.5	73.8	116.8	233.7	384.1	439.0	461.4
25°	41.3	46.0	65.5	83.8	103.3	145.2	269.1	482.7	539.9	571.8
27.5°	106.8	114.5	125.7	119.8	125.1	138.1	231.3	438.4	495.0	515.7
30°	154.0	129.8	102.1	82.6	82.6	90.9	214.8	450.8	501.5	516.9
32.5°	59.0	44.8	40.1	41.3	56.6	77.9	223.0	519.8	553.5	572.9
35°	28.9	30.7	33.6	38.9	53.1	81.4	235.4	567.6	611.9	622.5
37.5°	28.3	29.5	33.6	38.4	54.3	86.7	238.4	663.2	708.6	715.1
40°	29.5	30.1	33.0	38.4	53.1	94.4	254.9	734.6	804.8	801.3
42.5°	30.1	31.9	34.2	37.8	50.7	98.5	271.4	792.4	877.4	885.7
45°	31.3	33.0	35.4	38.4	47.8	100.9	289.1	839.6	954.1	944.7
47.5°	32.5	34.8	37.2	38.4	44.8	100.9	320.4	886.8	1001.9	1000.1
50°	32.5	34.8	38.4	37.2	43.7	95.6	358.2	923.4	1034.9	1022.0
52.5°	30.1	33.6	38.4	36.6	43.1	95.0	384.7	948.8	1058.5	1048.5
55°	27.7	33.6	37.8	34.8	42.5	97.4	415.4	963.5	1093.4	1085.7
57.5°	27.7	33.0	36.6	34.2	42.5	105.6	429.6	951.7	1103.4	1105.7
60°	26.6	33.6	33.0	33.0	45.4	107.4	424.8	870.3	1053.8	1079.2
62.5°	24.2	33.0	30.1	31.3	45.4	108.0	399.5	771.2	948.2	1001.9
65°	21.8	26.6	28.3	28.3	43.7	103.3	338.1	649.6	833.1	876.2
67.5°	18.9	23.0	25.4	24.8	41.3	96.8	263.7	498.6	692.7	742.9
70°	17.1	20.1	21.8	21.8	36.6	88.5	195.3	352.3	513.3	564.1
72.5°	14.8	17.7	17.7	17.1	30.7	69.6	141.6	204.2	302.7	353.4
75°	12.4	14.2	14.2	13.0	20.7	46.0	76.1	132.2	184.7	206.5
77.5°	11.2	11.8	10.6	10.0	14.2	24.2	39.5	95.6	123.3	127.4
80°	9.4	8.9	8.3	7.7	10.0	12.4	17.7	48.4	62.0	65.5
82.5°	5.9	5.9	5.3	4.7	7.1	8.3	8.9	21.2	21.8	24.8
85°	4.1	3.5	3.5	1.8	4.1	4.7	3.5	1.2	1.2	1.2
87.5°	3.0	2.4	2.4	0.6	1.8	1.8	1.2	1.2	0.6	0.6
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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