

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: P596089

Luminaire Tested: **MSA-SA3A-AMB-U-SLR-HSS**

Issue Date: 4/29/2022

**Test Information**

Test Method: LM-79-08  
Report Number: P596089  
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-SA3A-AMB-U-SLR-HSS  
Description: POST TOP DECORATIVE LUMINAIRE. (3) LIGHTSQUARES WITH 16 LEDS EACH  
AND SPILL LIGHT ELIMINATOR RIGHT OPTICS WITH HOUSE SIDE SHIELD  
Light Source: (48) 1549K CCT, -21.5 CRI LEDS  
Ballast/Driver: -

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 1386 lumens  
Efficiency: N/A  
Efficacy: 23.1 lumens/watt  
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')  
IES Classification: Type II - Short  
BUG Rating: B0 - U0 - G1

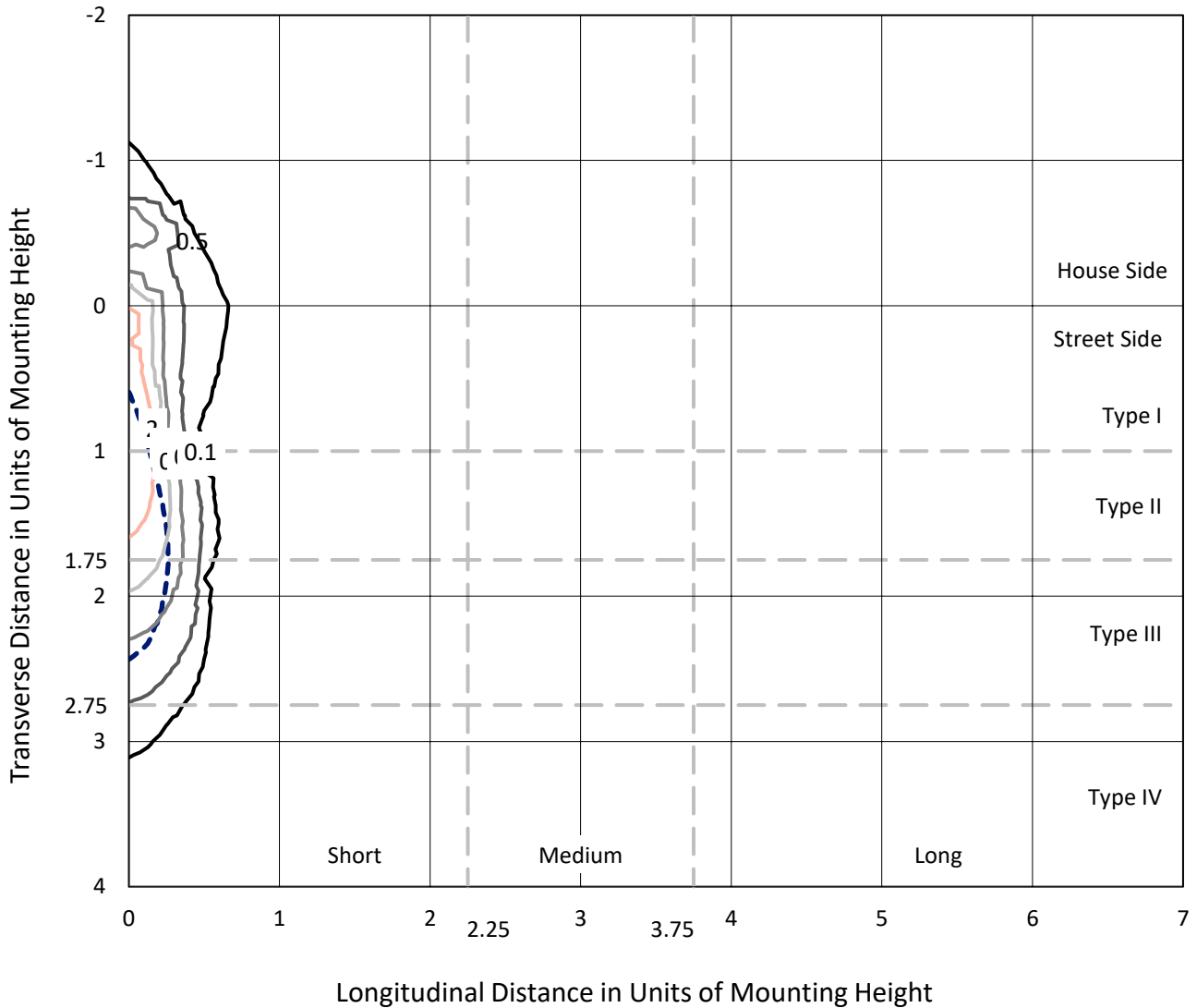
Input Watts (W): 59.9  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 28.75 FT



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### Iso-Footcandle Lines of Horizontal Illumination

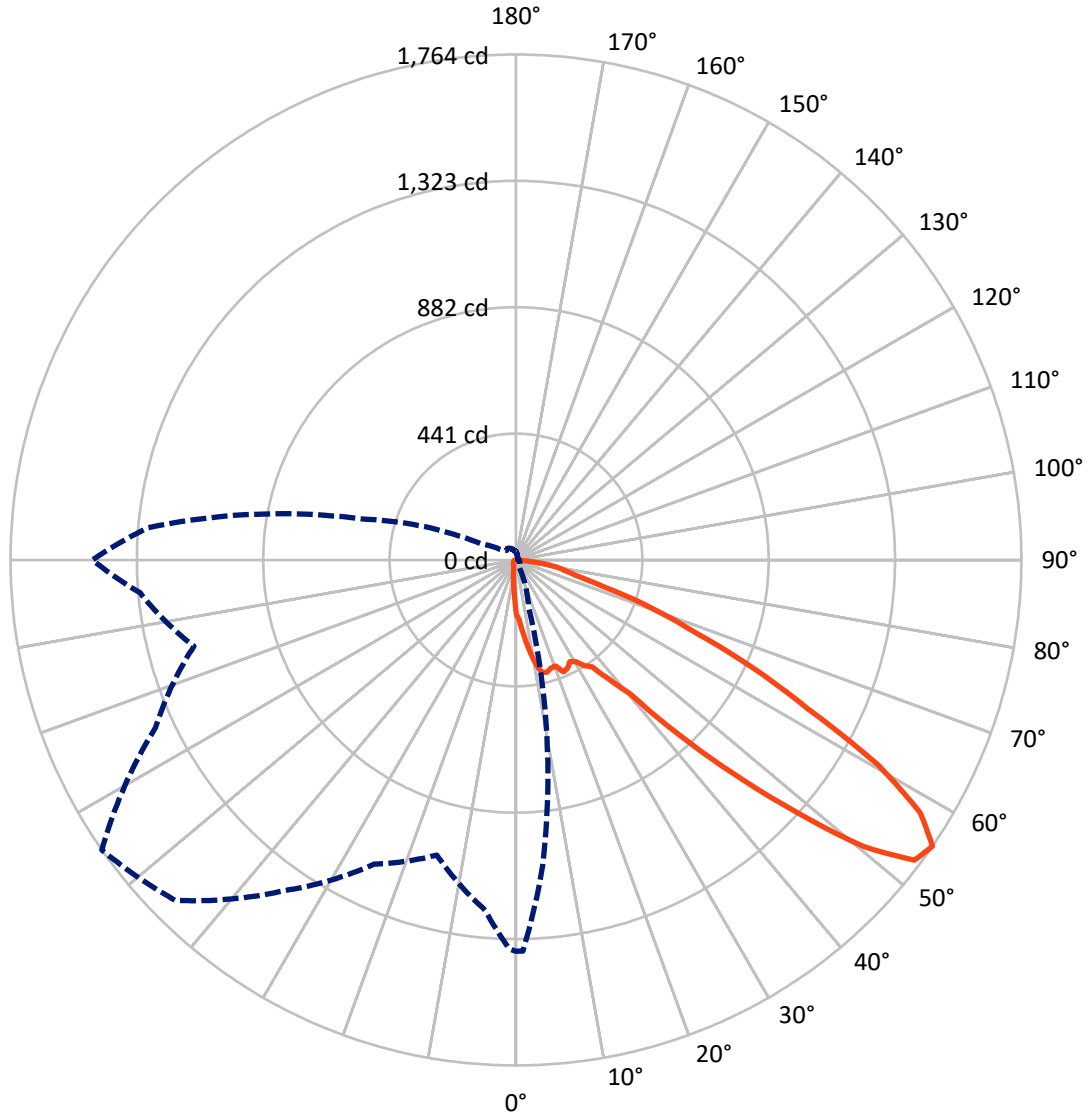
× Max cd  
 - - - 1/2 Max cd



Based on 10 foot mounting height. Maximum calculated value = 4.6 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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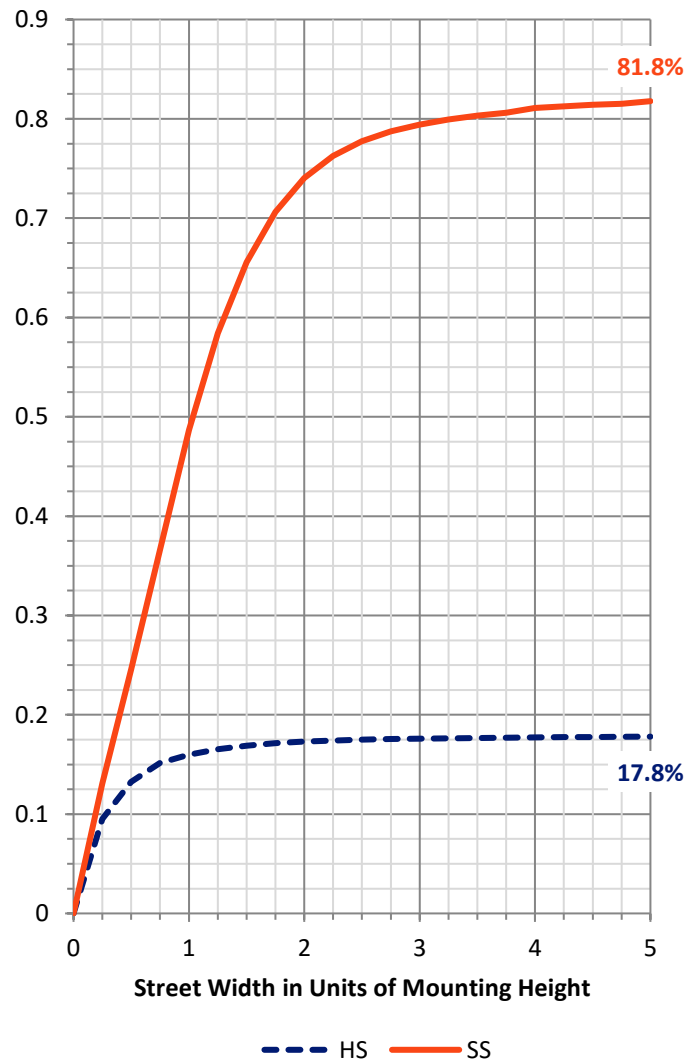
**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	248.7	0.0	248.7
	% Fixture	17.9	0.0	17.9
<b>Street Side</b>	Lumens	1137.4	0.0	1137.4
	% Fixture	82.1	0.0	82.1
<b>Total</b>	Lumens	1386.0	0.0	1386.0
	% Fixture	100.0	0.0	100.0

**Coefficient of Utilization**

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	17.2	1.2
10°-20°	44.6	3.2
20°-30°	98.7	7.1
30°-40°	148.9	10.7
40°-50°	268.9	19.4
50°-60°	387.7	28.0
60°-70°	300.6	21.7
70°-80°	105.6	7.6
80°-90°	13.8	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°	1386.0	100.0
0°-180°	1386.0	100.0



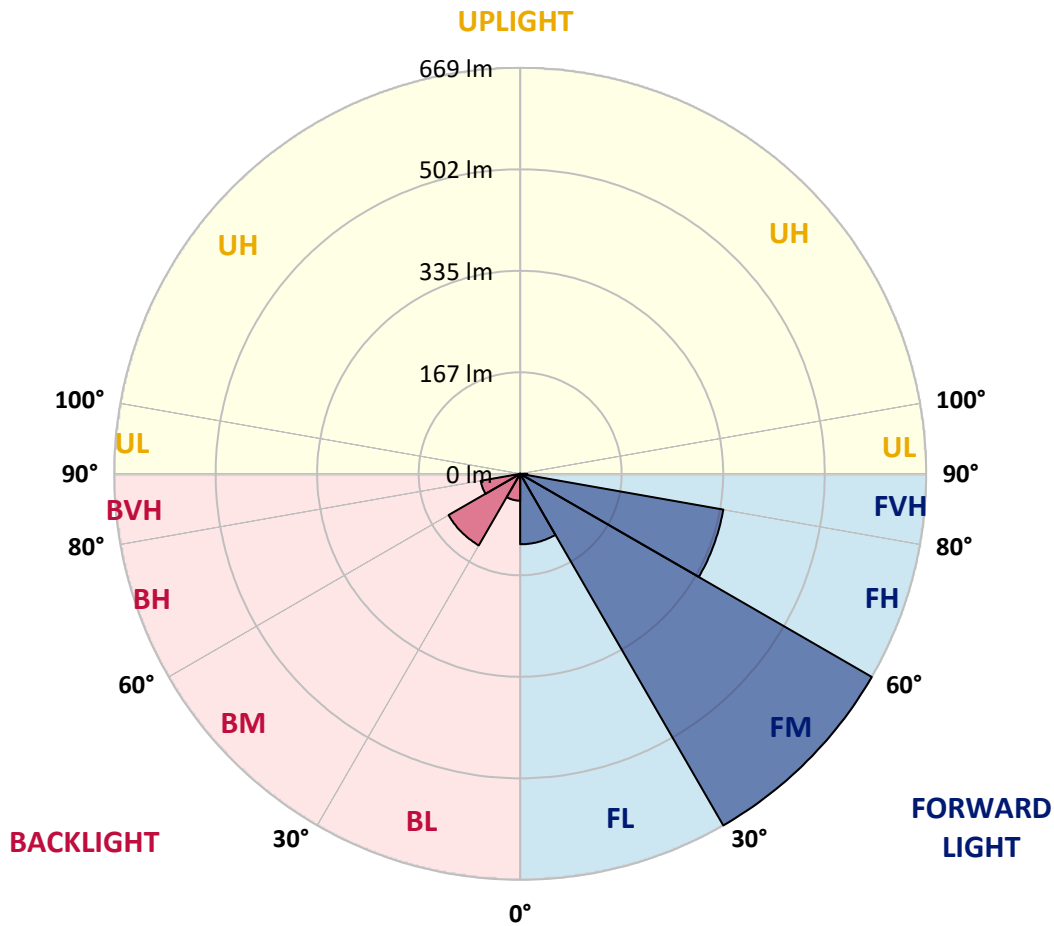
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	116.1	8.4			
FM (30°-60°)	669.3	48.3			
FH (60°-80°)	340.1	24.5			G0/660
FVH (80°-90°)	11.8	0.9			G1/100
BL (0°-30°)	44.3	3.2	B0/110		
BM (30°-60°)	136.2	9.8	B0/220		
BH (60°-80°)	66.1	4.8	B0/110		G0/110
BVH (80°-90°)	2.0	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-G1**

Type II Short





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**CANDELA DISTRIBUTION (FULL):**

	0°	1°	5°	15°	25°	35°	45°	55°	65°	75°	85°
0°	190.0	190.0	190.0	190.0	190.0	190.0	190.0	190.0	190.0	190.0	190.0
2.5°	245.1	252.3	224.3	247.5	212.4	206.0	220.4	206.8	179.6	187.6	158.9
5°	300.2	303.4	272.2	252.3	221.9	190.8	166.1	158.1	154.1	155.7	146.1
7.5°	290.6	294.6	261.9	229.9	181.2	148.5	129.3	122.9	122.2	122.9	123.7
10°	245.1	248.3	220.4	190.8	156.5	141.3	126.1	108.6	95.8	85.4	77.4
12.5°	233.9	234.7	214.0	185.2	154.9	134.9	110.2	86.2	65.5	51.1	44.7
15°	240.3	237.9	219.6	184.4	149.3	112.6	79.8	55.1	42.3	33.5	30.3
17.5°	274.6	274.6	253.1	186.8	131.7	86.2	54.3	40.7	29.5	26.3	26.3
20°	364.1	364.9	309.0	181.2	109.4	62.3	40.7	30.3	25.5	24.0	24.0
22.5°	481.4	487.8	395.2	182.0	86.2	47.1	31.9	26.3	23.2	22.4	22.4
25°	569.2	566.8	441.5	180.4	70.3	36.7	27.9	24.0	22.4	21.6	21.6
27.5°	554.9	566.8	448.7	171.7	59.9	31.9	25.5	22.4	20.8	19.2	20.0
30°	658.7	654.7	551.7	174.8	51.9	27.9	23.2	21.6	20.0	18.4	18.4
32.5°	736.9	745.7	591.6	172.4	42.3	25.5	22.4	20.0	18.4	17.6	17.6
35°	809.6	813.5	663.5	162.1	39.1	24.7	20.8	19.2	17.6	16.0	16.0
37.5°	921.3	926.1	697.8	154.9	36.7	24.0	20.8	18.4	16.8	15.2	15.2
40°	994.8	1005.2	760.9	142.9	32.7	24.7	20.8	18.4	16.0	14.4	13.6
42.5°	1109.7	1119.3	823.1	138.9	28.7	22.4	20.0	17.6	15.2	13.6	12.8
45°	1191.2	1189.6	880.6	137.3	26.3	21.6	21.6	16.8	15.2	12.8	11.2
47.5°	1233.5	1250.3	931.7	142.1	24.7	20.8	21.6	16.8	13.6	12.0	10.4
50°	1261.4	1269.4	990.0	151.7	23.2	20.0	20.8	17.6	13.6	12.0	10.4
52.5°	1306.1	1305.3	1041.9	168.5	23.2	20.0	19.2	18.4	14.4	12.0	10.4
55°	1365.2	1365.2	1069.0	170.9	24.0	20.0	18.4	16.8	14.4	12.0	9.6
57.5°	1356.4	1370.0	1073.8	160.5	24.0	20.0	18.4	16.8	14.4	11.2	8.8
60°	1266.2	1274.2	1002.0	136.5	23.2	19.2	16.8	16.0	13.6	10.4	8.0
62.5°	1121.7	1113.7	867.8	103.8	21.6	17.6	16.0	14.4	12.0	9.6	7.2
65°	905.4	939.7	709.8	71.9	19.2	16.0	14.4	12.8	11.2	8.8	6.4
67.5°	695.4	729.7	522.1	47.9	16.8	15.2	13.6	12.0	10.4	8.0	5.6
70°	481.4	485.4	339.3	30.3	16.0	15.2	13.6	11.2	9.6	8.0	5.6
72.5°	329.7	329.7	199.6	22.4	14.4	12.8	11.2	9.6	8.8	7.2	5.6
75°	217.2	229.1	131.7	16.8	12.8	11.2	8.8	9.6	9.6	8.0	6.4
77.5°	157.3	166.1	99.0	13.6	12.0	10.4	8.0	9.6	8.8	7.2	4.8
80°	110.2	116.6	55.9	9.6	8.8	8.0	7.2	7.2	6.4	5.6	3.2
82.5°	63.9	71.1	24.7	5.6	6.4	5.6	3.2	5.6	5.6	4.8	2.4
85°	13.6	17.6	5.6	4.0	4.8	4.0	2.4	4.0	4.8	4.0	2.4
87.5°	1.6	2.4	2.4	3.2	4.0	3.2	3.2	4.8	4.8	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	0.0



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**CANDELA DISTRIBUTION (continued):**

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	190.0	190.0	190.0	190.0	190.0	190.0	190.0	190.0	190.0	190.0	190.0
2.5°	186.0	192.4	160.5	134.9	128.5	123.7	115.8	112.6	135.7	136.5	170.1
5°	161.3	154.9	142.9	122.2	93.4	78.2	83.8	101.4	120.6	126.1	147.7
7.5°	122.9	107.8	100.6	90.2	70.3	50.3	51.1	71.1	88.6	95.8	107.8
10°	74.2	71.1	65.5	59.9	53.5	47.9	42.3	43.9	56.7	67.9	77.4
12.5°	42.3	41.5	40.7	41.5	39.9	39.1	36.7	37.5	45.5	51.1	57.5
15°	29.5	28.7	29.5	29.5	31.1	31.9	33.5	32.7	36.7	39.1	41.5
17.5°	24.7	24.0	24.7	24.7	26.3	28.7	29.5	30.3	31.9	35.9	37.5
20°	23.2	23.2	22.4	21.6	24.0	25.5	27.1	29.5	39.9	43.1	43.1
22.5°	22.4	21.6	20.8	20.0	21.6	23.2	24.7	38.3	60.7	67.1	59.1
25°	21.6	20.8	20.0	19.2	20.0	21.6	24.0	54.3	79.0	99.8	90.2
27.5°	20.0	19.2	18.4	18.4	18.4	20.0	24.0	59.1	95.8	141.3	154.9
30°	18.4	18.4	16.8	16.8	17.6	17.6	21.6	49.5	97.4	162.1	195.6
32.5°	17.6	16.8	15.2	15.2	16.0	16.8	19.2	27.1	51.1	81.4	95.0
35°	16.0	15.2	14.4	14.4	14.4	15.2	17.6	20.0	27.1	37.5	36.7
37.5°	15.2	14.4	13.6	12.8	13.6	14.4	16.0	19.2	23.2	31.1	35.1
40°	13.6	12.8	12.8	12.0	12.8	14.4	15.2	18.4	21.6	30.3	35.1
42.5°	12.0	12.0	11.2	11.2	12.0	12.8	13.6	16.8	20.8	29.5	35.1
45°	11.2	11.2	10.4	10.4	10.4	12.0	12.0	15.2	20.0	29.5	34.3
47.5°	10.4	10.4	9.6	9.6	10.4	11.2	12.0	14.4	19.2	28.7	34.3
50°	9.6	9.6	8.8	8.8	9.6	10.4	11.2	13.6	18.4	27.9	33.5
52.5°	9.6	8.8	8.0	8.0	8.8	9.6	11.2	12.8	17.6	26.3	31.1
55°	8.8	8.8	8.0	7.2	8.0	9.6	10.4	12.8	17.6	24.7	29.5
57.5°	8.0	8.0	7.2	7.2	8.0	8.8	9.6	11.2	16.0	24.0	27.9
60°	7.2	7.2	6.4	6.4	7.2	8.0	8.8	10.4	15.2	22.4	26.3
62.5°	5.6	6.4	6.4	5.6	6.4	7.2	8.0	9.6	14.4	20.8	24.0
65°	4.8	5.6	5.6	5.6	5.6	6.4	7.2	8.8	12.8	19.2	21.6
67.5°	4.8	5.6	4.8	4.8	4.8	5.6	6.4	8.0	12.0	17.6	19.2
70°	4.0	4.8	4.8	4.8	4.8	4.8	5.6	7.2	11.2	16.8	17.6
72.5°	4.0	4.8	4.8	4.8	4.0	4.0	4.8	6.4	9.6	15.2	16.0
75°	4.8	5.6	5.6	5.6	3.2	3.2	4.0	6.4	8.8	12.8	12.8
77.5°	2.4	4.0	4.0	4.0	3.2	1.6	3.2	5.6	8.8	11.2	10.4
80°	0.8	2.4	3.2	3.2	2.4	0.8	2.4	4.0	6.4	8.0	8.0
82.5°	0.8	2.4	3.2	2.4	1.6	0.0	0.8	2.4	3.2	5.6	4.8
85°	0.8	2.4	2.4	2.4	0.8	0.0	0.8	1.6	1.6	3.2	2.4
87.5°	0.8	2.4	2.4	2.4	1.6	0.0	0.8	0.8	1.6	0.8	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°	190.0	190.0	190.0	190.0	190.0	190.0	190.0	190.0	190.0	190.0	190.0
2.5°	170.1	169.3	166.1	174.8	186.0	181.2	186.8	203.6	207.6	263.5	258.7
5°	147.7	159.7	154.9	146.9	147.7	158.1	197.2	237.9	243.5	299.4	295.4
7.5°	107.0	115.0	120.6	125.3	124.5	134.1	183.6	236.3	262.7	302.6	297.8
10°	79.0	92.6	99.8	112.6	128.5	134.9	155.7	208.4	245.1	275.4	284.2
12.5°	57.5	68.7	85.4	100.6	122.2	139.7	158.1	202.0	228.3	244.3	272.2
15°	43.9	50.3	59.9	78.2	103.0	125.3	154.9	201.2	252.3	279.4	303.4
17.5°	39.1	43.1	46.3	55.9	80.6	116.6	159.7	212.4	308.2	341.7	368.8
20°	41.5	42.3	44.7	52.7	67.9	102.2	141.3	249.9	371.2	414.4	457.5
22.5°	49.5	45.5	48.7	56.7	69.5	102.2	157.3	309.0	526.9	614.7	639.5
25°	79.8	57.5	66.3	87.8	108.6	135.7	188.4	363.3	647.5	759.3	807.2
27.5°	142.9	156.5	164.5	174.0	161.3	164.5	178.8	313.8	591.6	692.2	709.8
30°	215.6	213.2	185.2	143.7	117.4	104.6	123.7	285.0	618.7	688.2	714.5
32.5°	106.2	77.4	55.9	52.7	55.1	74.2	103.8	301.8	704.2	755.3	767.2
35°	38.3	38.3	39.9	43.9	51.1	70.3	108.6	309.0	776.8	834.3	819.9
37.5°	36.7	37.5	39.1	43.9	51.1	71.9	115.0	321.7	895.0	988.4	910.9
40°	36.7	39.1	39.9	43.9	50.3	70.3	126.1	335.3	979.6	1102.6	1016.3
42.5°	36.7	39.9	41.5	44.7	50.3	67.1	130.9	354.5	1077.8	1196.8	1108.1
45°	36.7	41.5	43.9	47.1	50.3	63.1	134.9	380.8	1120.9	1312.5	1152.9
47.5°	37.5	43.1	46.3	49.5	51.1	59.1	134.9	428.7	1188.0	1360.4	1201.6
50°	36.7	43.1	46.3	51.1	49.5	57.5	126.9	467.0	1239.1	1404.3	1234.3
52.5°	33.5	39.9	43.9	50.3	48.7	56.7	126.9	503.8	1270.2	1434.7	1263.8
55°	31.1	36.7	44.7	50.3	46.3	55.9	130.9	550.1	1289.4	1477.8	1316.5
57.5°	30.3	35.9	43.9	48.7	44.7	55.9	139.7	568.4	1267.0	1493.8	1359.6
60°	28.7	35.1	44.7	43.9	43.1	59.9	142.9	560.5	1173.6	1445.9	1360.4
62.5°	26.3	31.9	43.1	39.9	41.5	59.9	143.7	522.9	1026.7	1316.5	1292.6
65°	23.2	27.9	35.9	36.7	37.5	57.5	138.1	445.5	877.4	1138.5	1157.6
67.5°	20.8	24.7	30.3	32.7	32.7	54.3	129.3	353.7	673.8	970.8	1005.2
70°	18.4	21.6	26.3	27.9	28.7	47.9	117.4	259.5	473.4	704.2	804.0
72.5°	16.0	18.4	22.4	23.2	22.4	39.9	91.8	181.2	269.1	463.1	551.7
75°	13.6	16.0	17.6	17.6	16.0	26.3	61.5	107.0	180.4	264.3	324.1
77.5°	12.0	13.6	14.4	13.6	12.8	17.6	32.7	51.9	128.5	162.1	190.8
80°	9.6	11.2	11.2	9.6	8.8	12.0	15.2	22.4	63.9	83.0	91.8
82.5°	5.6	6.4	7.2	6.4	4.8	8.0	9.6	10.4	24.7	31.9	34.3
85°	4.0	4.8	4.0	3.2	0.8	4.0	4.8	3.2	0.0	0.0	0.8
87.5°	1.6	2.4	1.6	1.6	0.0	0.0	0.8	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°	190.0	190.0	190.0	190.0	190.0	190.0	190.0	190.0	190.0	190.0
2.5°	237.1	216.4	206.8	217.2	214.8	200.4	209.2	214.8	253.9	245.1
5°	302.6	273.8	253.9	231.5	231.5	254.7	305.8	263.5	305.0	300.2
7.5°	336.9	329.7	306.6	312.2	312.2	326.5	327.3	292.2	305.0	290.6
10°	309.8	330.5	364.1	368.1	344.1	332.9	327.3	273.8	256.3	245.1
12.5°	340.1	374.4	402.4	414.4	392.0	352.9	310.6	267.5	246.7	233.9
15°	344.9	384.0	406.4	404.0	388.8	367.3	325.7	271.4	253.9	240.3
17.5°	388.8	404.0	396.0	392.8	391.2	376.0	373.6	337.7	298.6	274.6
20°	435.9	396.8	394.4	382.4	385.6	399.2	463.1	459.1	402.4	364.1
22.5°	526.1	464.7	423.9	418.3	420.7	501.4	629.1	583.6	523.7	481.4
25°	661.9	490.2	418.3	409.6	439.1	562.9	711.4	690.6	618.7	569.2
27.5°	613.2	515.0	400.8	360.9	400.8	556.5	603.6	648.3	617.9	554.9
30°	573.2	494.2	411.2	361.7	413.6	506.2	583.6	689.0	668.2	658.7
32.5°	611.6	504.6	439.1	388.0	402.4	523.7	633.9	758.5	777.6	736.9
35°	671.4	555.7	458.3	419.1	465.5	562.1	701.8	804.0	839.9	809.6
37.5°	749.7	604.4	528.5	479.0	521.3	626.7	751.3	930.1	974.8	921.3
40°	833.5	702.6	614.0	602.0	610.0	691.4	781.6	1029.1	1058.6	994.8
42.5°	908.6	821.5	832.7	772.8	736.9	776.8	834.3	1099.4	1172.0	1109.7
45°	970.0	962.0	1061.0	1093.8	930.1	892.6	898.2	1134.5	1257.4	1191.2
47.5°	1016.3	1123.3	1312.5	1313.3	1139.3	997.2	936.5	1169.6	1278.2	1233.5
50°	1052.3	1228.7	1572.0	1524.9	1236.7	1053.9	974.0	1148.9	1274.2	1261.4
52.5°	1099.4	1346.1	1740.5	1669.4	1349.3	1110.5	995.6	1177.6	1306.9	1306.1
55°	1163.2	1388.4	1763.6	1679.8	1408.3	1171.2	1065.8	1227.1	1357.2	1365.2
57.5°	1197.6	1335.7	1663.0	1536.9	1365.2	1143.3	1076.2	1243.1	1365.2	1356.4
60°	1196.0	1203.2	1451.4	1322.9	1193.6	1080.2	1073.0	1191.2	1297.4	1266.2
62.5°	1148.9	1010.7	1140.9	1085.8	984.4	932.5	1029.1	1097.0	1145.7	1121.7
65°	1091.4	875.0	909.4	884.6	798.4	763.2	920.5	940.5	966.8	905.4
67.5°	989.2	737.7	673.8	664.2	615.5	597.2	740.1	754.5	751.3	695.4
70°	844.7	585.2	504.6	444.7	418.3	412.0	587.6	566.0	559.7	481.4
72.5°	671.4	433.5	321.7	249.1	254.7	290.6	472.6	417.6	388.0	329.7
75°	501.4	278.6	216.4	175.6	178.8	223.5	352.9	288.2	278.6	217.2
77.5°	310.6	197.2	172.4	146.9	158.9	166.9	225.9	190.0	182.0	157.3
80°	159.7	133.3	141.3	111.8	120.6	106.2	130.9	123.7	130.1	110.2
82.5°	65.5	74.2	75.0	44.7	62.3	65.5	87.0	80.6	79.8	63.9
85°	32.7	24.7	19.2	12.8	22.4	24.7	32.7	20.8	24.0	13.6
87.5°	0.0	0.8	0.8	0.8	2.4	2.4	4.8	3.2	2.4	1.6
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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