

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: P400844

Luminaire Tested: **ENV-SA1-827-U-SLL-XXB**

Issue Date: 5/20/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P400844  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G1-2004-754-7)  
Test Lab: INNOVATION CENTER  
Issue Date: 5/20/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: INVUE  
Catalog Number: ENV-SA1-827-U-SLL-XXB  
Description: ENTRI LED LUMINAIRE  
(1) 80 CRI, 2700K LIGHTSQUARE IN BATTERY OPERATION WITH 16 LEDS AND SPILL  
LIGHT ELIMINATOR LEFT OPTICS  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 502 lumens  
Efficiency: N/A  
Efficacy: 38.6 lumens/watt  
Luminous Opening: Rectangular (W 0.5' x L: 0.5' x H: 0')  
IES Classification: Type III - Medium - Non-Cutoff  
BUG Rating: B0 - U0 - G0

Input Watts (W): 13  
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

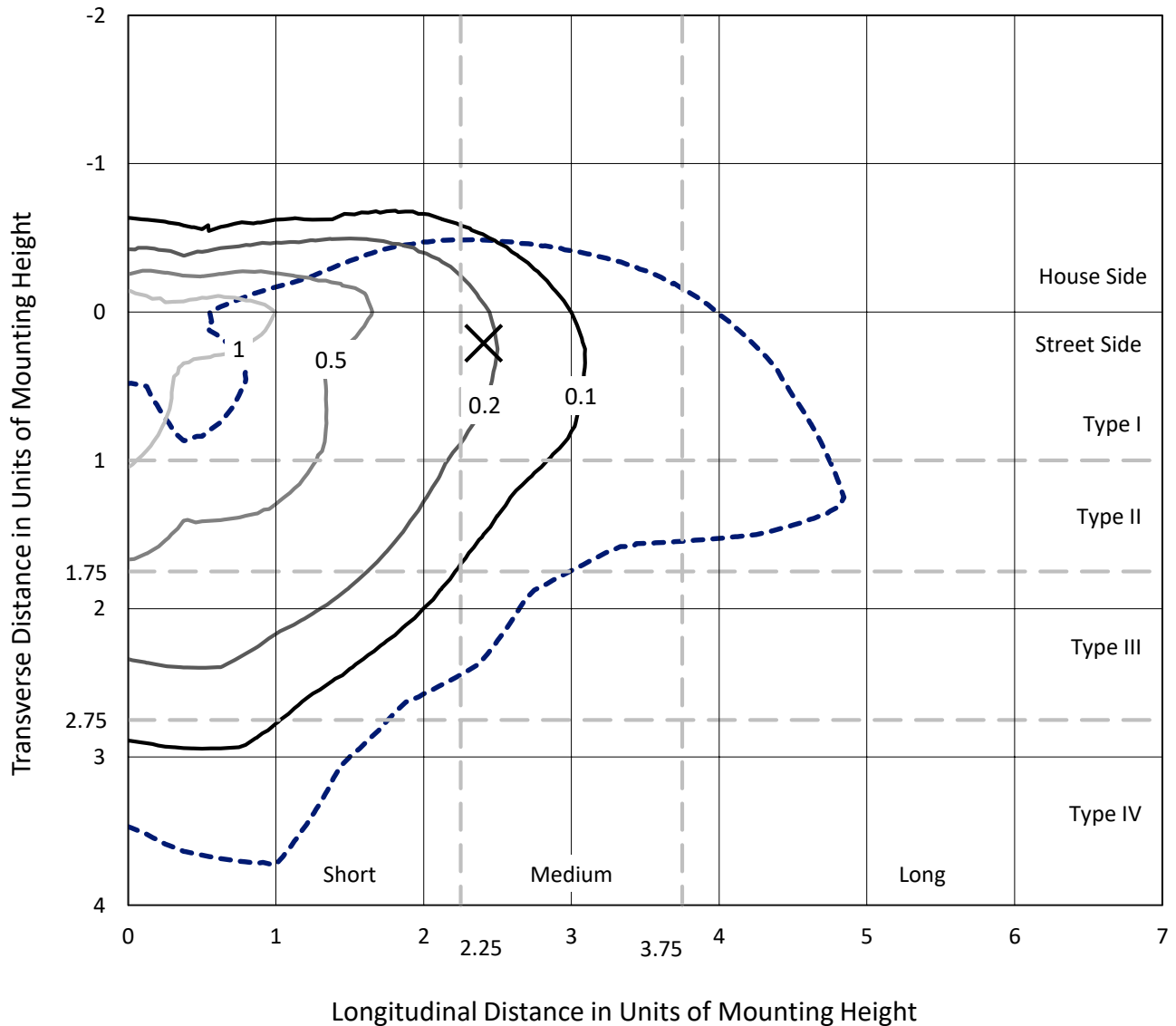


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### Iso-Footcandle Lines of Horizontal Illumination

× Max cd  
 - - - 1/2 Max cd

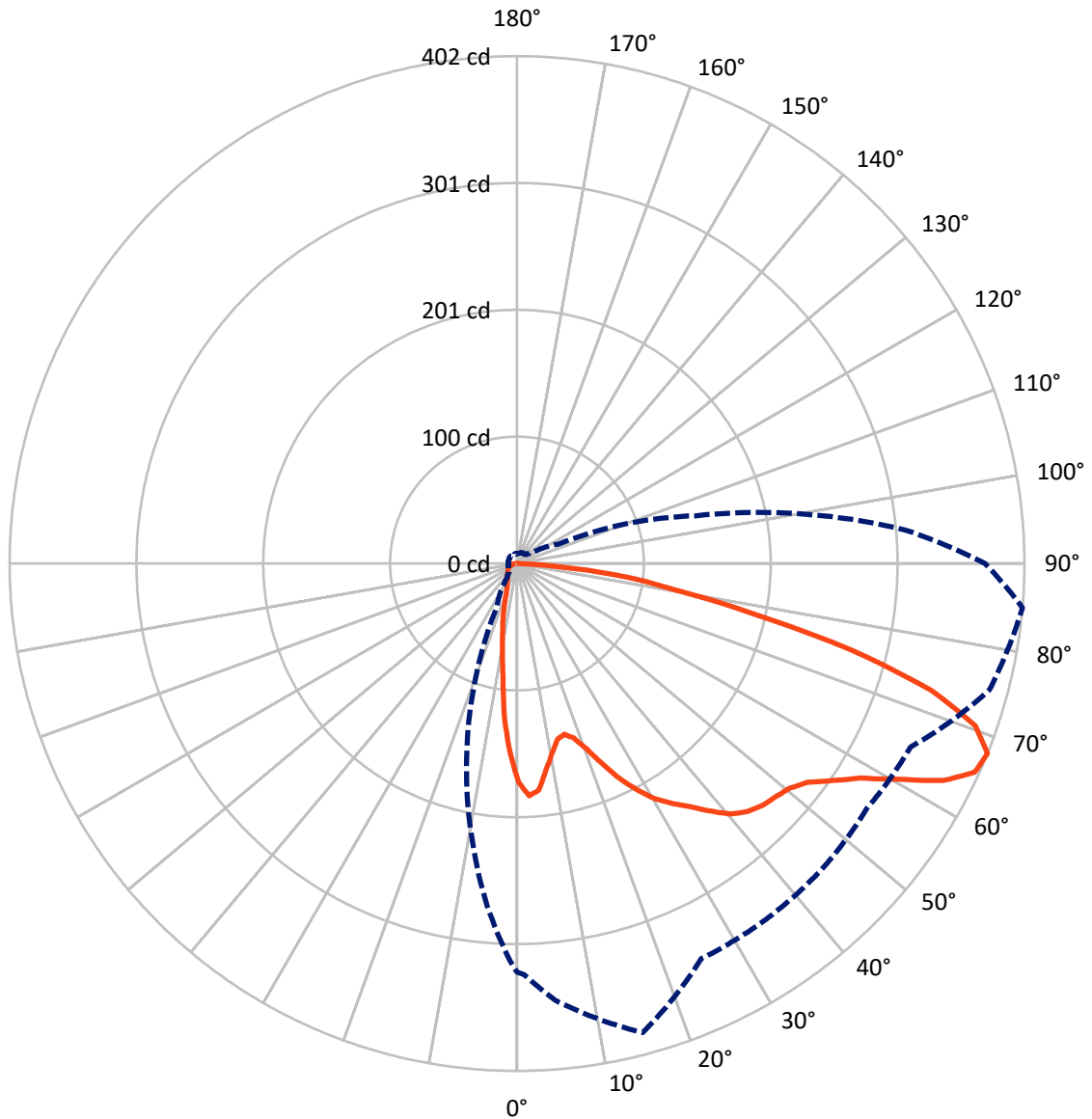


Based on 10 foot mounting height. Maximum calculated value = 1.9 fc  
 Type III - Medium - Non-Cutoff

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### Luminous Intensity Polar Plot



— Vertical Plane Through 85-Deg Lateral    - - - Horizontal Cone Through 67.5-Deg Vertical

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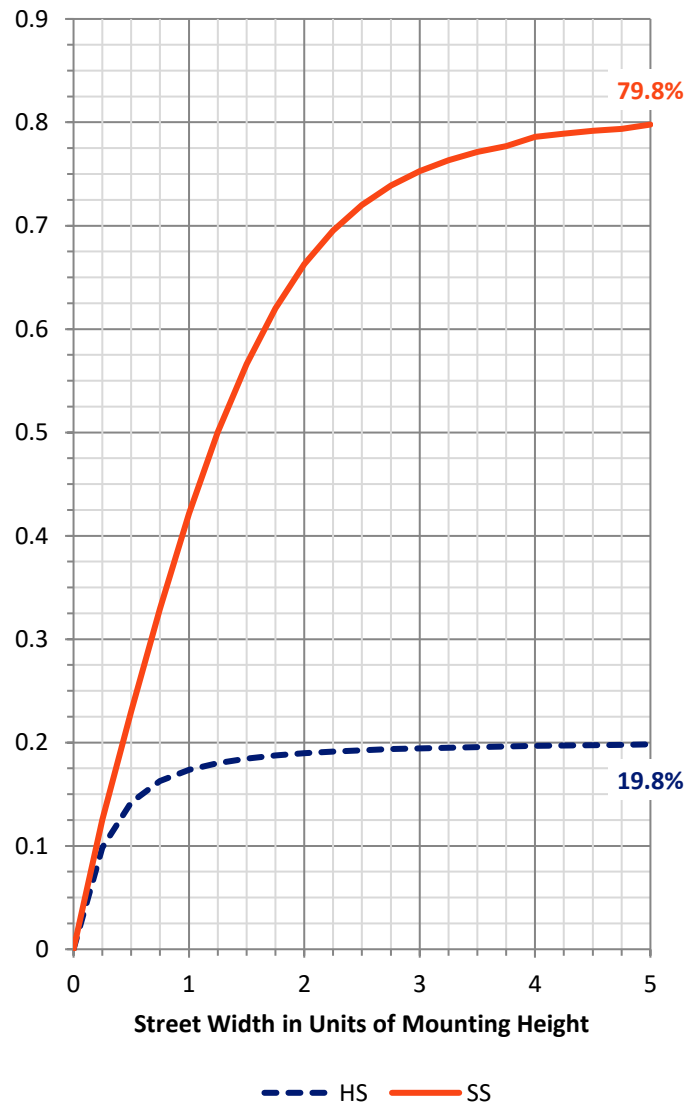
**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	101.1	0.0	101.1
	% Fixture	20.1	0.0	20.1
<b>Street Side</b>	Lumens	400.9	0.0	400.9
	% Fixture	79.9	0.0	79.9
<b>Total</b>	Lumens	502.0	0.0	502.0
	% Fixture	100.0	0.0	100.0

**Coefficient of Utilization**

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	13.2	2.6
10°-20°	26.0	5.2
20°-30°	36.3	7.2
30°-40°	51.2	10.2
40°-50°	71.0	14.1
50°-60°	99.7	19.9
60°-70°	121.9	24.3
70°-80°	71.7	14.3
80°-90°	11.0	2.2
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°	502.0	100.0
0°-180°	502.0	100.0



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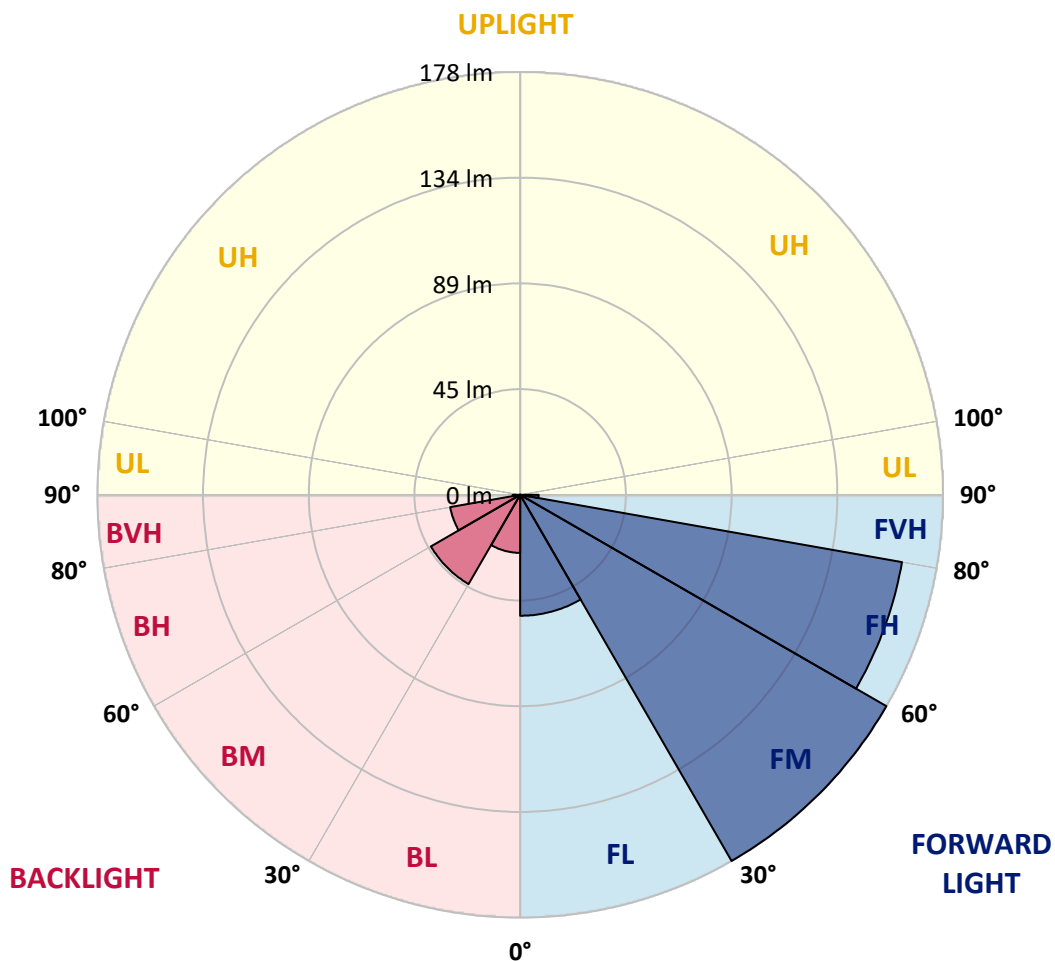
CATALOG NUMBER: ENV-SA1-827-U-SLL-XXB

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

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	51.0	10.2			
FM	(30°-60°)	178.4	35.5			
FH	(60°-80°)	163.6	32.6			G0/660
FVH	(80°-90°)	7.8	1.5			G0/10
BL	(0°-30°)	24.5	4.9	B0/110		
BM	(30°-60°)	43.5	8.7	B0/220		
BH	(60°-80°)	30.0	6.0	B0/110		G0/110
BVH	(80°-90°)	3.2	0.6			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 Medium





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**CANDELA DISTRIBUTION (FULL):**

	0°	1°	5°	15°	25°	35°	45°	55°	65°	75°	85°
0°	173.4	173.4	173.4	173.4	173.4	173.4	173.4	173.4	173.4	173.4	173.4
2.5°	178.2	177.4	180.1	184.2	186.9	188.8	189.5	189.4	188.8	187.3	184.1
5°	170.3	169.6	175.1	184.1	191.9	197.6	199.2	196.9	194.1	188.1	180.2
7.5°	155.3	156.4	163.5	176.1	188.7	197.6	199.8	196.3	190.5	178.3	165.0
10°	143.9	144.5	152.4	167.6	181.0	190.2	194.0	190.9	183.3	167.9	152.4
12.5°	136.9	137.4	145.2	159.2	173.5	180.7	181.8	181.7	175.4	160.5	142.7
15°	137.8	138.6	146.3	157.9	166.0	169.2	169.2	170.1	168.3	156.9	140.3
17.5°	147.2	147.2	154.6	161.6	159.8	157.5	159.2	160.8	164.1	159.1	145.1
20°	162.0	162.6	169.5	168.3	157.0	151.3	149.3	152.1	162.1	165.6	156.3
22.5°	178.0	179.6	186.8	178.0	156.5	145.5	143.2	146.3	162.4	175.9	171.7
25°	195.6	197.7	202.6	189.2	157.9	142.3	140.7	143.7	163.0	185.5	188.4
27.5°	211.8	211.9	216.7	198.8	161.7	142.6	140.0	143.8	164.8	193.0	203.0
30°	223.2	223.2	225.3	203.6	166.4	144.6	140.7	146.2	167.3	197.1	216.4
32.5°	233.7	234.3	233.2	208.7	170.8	147.5	142.2	151.1	171.3	200.5	226.6
35°	247.0	247.0	242.3	212.7	175.0	150.7	146.0	157.2	177.0	205.5	236.4
37.5°	263.5	262.7	252.8	216.4	180.0	156.1	153.2	165.6	184.6	211.4	248.7
40°	278.4	277.1	262.4	219.8	183.9	166.6	164.9	176.0	194.3	218.7	260.8
42.5°	290.0	288.1	270.5	222.2	189.9	183.0	184.5	194.7	204.1	225.2	268.3
45°	299.8	297.8	276.7	223.4	204.3	206.5	209.3	217.9	214.5	227.0	272.9
47.5°	306.8	303.5	279.3	226.9	223.9	234.0	242.7	243.2	229.2	226.9	275.7
50°	311.0	307.3	281.8	235.7	246.5	265.1	274.4	270.0	244.5	228.4	279.7
52.5°	319.3	315.5	292.2	250.0	269.8	296.7	301.7	294.6	260.3	235.9	287.8
55°	340.2	338.5	312.4	269.2	292.6	322.2	324.4	317.4	276.8	248.9	303.2
57.5°	363.8	360.1	339.7	293.4	314.5	342.1	345.7	336.0	294.2	267.1	320.4
60°	370.4	369.7	362.8	321.5	337.1	363.4	363.6	351.3	314.4	288.8	346.6
62.5°	360.7	363.1	372.4	347.6	356.1	377.7	375.7	362.8	335.6	323.4	378.5
65°	343.9	347.2	365.8	372.2	360.4	374.9	370.6	362.4	349.0	360.6	398.3
67.5°	323.6	325.4	347.1	384.5	345.2	343.8	341.8	338.1	343.7	387.1	401.7
70°	302.6	304.1	324.1	367.6	299.4	283.7	282.0	278.7	300.8	386.7	385.0
72.5°	255.0	254.1	272.5	306.8	228.6	207.2	221.6	214.6	243.3	347.4	343.0
75°	158.4	163.7	186.9	215.2	156.6	142.0	161.8	160.0	197.6	299.2	273.1
77.5°	96.5	97.6	110.6	134.1	94.3	98.4	104.0	115.0	146.5	242.5	190.4
80°	50.5	47.0	56.6	73.6	56.0	66.0	76.3	88.4	93.0	158.1	127.3
82.5°	14.6	14.5	19.1	30.8	26.6	32.4	38.5	55.5	60.9	94.0	87.2
85°	0.1	0.1	0.1	0.2	0.2	0.4	1.7	14.3	18.9	43.6	35.8
87.5°	0.0	0.0	0.1	0.2	0.2	0.3	0.5	0.6	0.8	1.0	3.6
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°	173.4	173.4	173.4	173.4	173.4	173.4	173.4	173.4	173.4	173.4	173.4
2.5°	183.0	181.8	179.2	175.8	173.4	169.2	168.3	165.6	162.9	160.8	160.8
5°	176.4	172.3	166.0	158.7	151.8	145.6	144.4	140.7	139.7	138.6	135.7
7.5°	159.1	154.2	145.4	134.7	126.0	120.1	113.8	110.0	106.6	102.7	103.7
10°	145.8	138.8	126.7	114.1	103.2	95.3	88.4	84.8	79.9	76.3	75.9
12.5°	135.5	128.0	113.5	98.7	88.5	83.9	79.4	73.8	68.4	63.7	61.3
15°	132.1	123.6	106.8	92.1	84.0	78.4	72.2	65.9	59.2	54.2	52.2
17.5°	136.1	126.1	106.7	89.3	79.2	71.0	63.3	56.1	48.2	43.2	41.6
20°	147.0	134.5	108.9	86.6	73.3	62.2	51.3	43.6	35.5	32.0	30.3
22.5°	162.1	145.8	112.4	83.4	66.7	51.5	39.2	29.5	25.5	23.7	23.3
25°	177.7	160.3	117.3	80.6	59.6	41.0	28.2	23.6	21.7	20.9	20.9
27.5°	194.8	174.7	122.7	77.3	52.1	30.5	22.9	20.7	19.8	19.3	19.2
30°	208.7	186.5	128.7	73.4	45.4	25.0	20.3	18.9	18.0	17.8	17.8
32.5°	218.7	195.3	135.1	69.6	39.3	22.6	18.9	17.6	16.6	16.5	16.5
35°	230.4	203.7	138.0	67.4	35.6	21.1	17.8	16.5	15.7	15.3	15.3
37.5°	244.5	213.7	139.6	65.3	34.0	19.6	17.1	15.7	14.8	14.3	14.3
40°	262.3	225.1	141.3	63.2	33.0	18.4	16.3	14.8	14.1	13.6	13.6
42.5°	275.0	235.6	142.6	61.4	31.3	17.8	15.7	14.3	13.4	12.9	12.8
45°	281.7	245.3	143.2	60.4	29.4	18.3	15.2	13.8	12.8	12.3	12.2
47.5°	286.3	253.4	143.9	59.6	27.8	17.4	15.1	13.3	12.3	11.6	11.6
50°	293.4	264.1	145.8	58.0	27.0	16.3	16.3	13.1	11.7	11.1	11.1
52.5°	306.3	279.3	150.8	56.3	26.0	15.2	16.8	13.2	11.3	10.7	10.5
55°	325.6	303.6	159.1	53.9	24.6	13.8	15.7	13.2	10.9	10.3	10.1
57.5°	350.8	333.0	168.8	52.0	22.3	12.7	14.3	12.8	10.4	9.9	9.8
60°	367.8	352.6	174.9	49.5	19.0	11.9	12.3	12.4	9.9	9.4	9.3
62.5°	376.9	352.9	175.0	46.0	15.9	11.3	11.0	12.7	9.5	8.8	8.7
65°	377.5	335.7	166.2	41.6	14.8	10.6	10.1	11.2	9.1	8.4	8.3
67.5°	370.5	307.7	146.1	36.5	15.3	10.0	9.4	9.4	8.6	8.0	7.9
70°	345.3	271.5	117.2	32.4	15.3	9.3	8.8	8.6	8.2	7.6	7.4
72.5°	298.0	226.9	88.8	31.2	15.6	8.7	8.2	7.9	7.6	7.1	6.9
75°	224.8	177.0	66.7	29.1	15.7	8.1	7.4	7.3	6.9	6.5	6.4
77.5°	155.4	131.2	46.3	24.5	14.0	7.3	6.7	6.5	6.3	5.8	5.7
80°	104.9	90.0	28.4	18.4	10.7	6.5	5.8	5.8	5.6	5.1	5.1
82.5°	73.0	67.2	16.4	12.0	7.7	5.3	5.1	5.1	4.8	4.4	4.3
85°	30.5	40.7	7.3	6.5	5.4	4.2	4.2	4.3	4.0	3.6	3.6
87.5°	1.0	4.4	2.9	3.1	3.2	2.9	3.2	3.2	3.1	2.8	2.7
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°	173.4	173.4	173.4	173.4	173.4	173.4	173.4	173.4	173.4	173.4	173.4
2.5°	158.5	157.5	154.2	153.8	151.4	151.2	152.3	150.5	150.7	152.9	152.5
5°	136.4	134.0	133.9	131.2	128.2	127.5	124.9	124.0	123.6	122.7	125.9
7.5°	106.7	105.6	106.5	106.2	103.5	101.9	96.4	92.2	90.1	91.0	91.3
10°	75.9	77.6	80.1	82.6	80.7	75.6	73.3	69.9	69.5	69.2	70.9
12.5°	60.1	58.2	59.4	60.3	58.4	56.3	55.3	53.8	54.6	56.5	57.5
15°	50.0	46.6	45.0	44.0	44.5	43.2	43.7	43.2	43.7	44.3	46.2
17.5°	39.5	38.3	35.3	34.0	34.1	33.5	33.7	33.6	33.2	34.5	36.1
20°	29.7	29.4	28.7	27.8	27.9	27.5	27.3	25.9	25.3	25.7	27.0
22.5°	23.2	23.6	24.0	23.9	24.3	23.2	22.3	21.1	20.9	21.0	21.3
25°	20.7	20.9	21.2	21.6	21.9	20.9	19.5	18.8	18.7	18.9	18.9
27.5°	19.3	19.1	19.5	20.0	20.3	19.1	18.0	17.4	17.2	17.0	16.9
30°	17.8	17.8	18.1	18.6	18.8	17.8	16.8	16.1	15.7	15.5	15.4
32.5°	16.6	16.7	16.9	17.2	17.6	16.5	15.7	15.2	14.4	14.2	14.0
35°	15.3	15.7	15.9	16.0	16.3	15.6	14.8	13.9	13.2	13.0	13.0
37.5°	14.3	14.5	14.9	14.8	15.1	14.6	13.7	12.8	12.4	12.3	12.3
40°	13.5	13.5	13.8	14.1	14.4	13.6	12.5	12.0	11.8	11.6	11.7
42.5°	12.8	12.7	12.7	13.2	13.8	12.5	11.6	11.3	11.2	11.1	11.1
45°	12.1	12.0	11.8	12.0	12.8	11.5	10.9	10.7	10.6	10.6	10.6
47.5°	11.5	11.4	11.1	11.1	11.7	10.7	10.2	10.1	10.0	10.0	10.1
50°	10.9	10.7	10.5	10.4	10.6	10.1	9.7	9.5	9.5	9.5	9.7
52.5°	10.3	10.2	9.9	9.8	9.9	9.6	9.2	9.1	9.1	9.1	9.4
55°	9.9	9.8	9.6	9.4	9.6	9.2	8.9	8.7	8.7	8.9	9.0
57.5°	9.5	9.4	9.3	9.1	9.3	8.9	8.6	8.4	8.5	8.6	8.6
60°	9.1	9.0	8.9	8.7	9.0	8.6	8.2	8.2	8.2	8.1	8.1
62.5°	8.7	8.6	8.5	8.3	8.6	8.2	7.9	7.7	7.7	7.7	7.7
65°	8.2	8.2	8.1	8.0	8.2	7.7	7.5	7.4	7.3	7.2	7.3
67.5°	7.8	7.8	7.7	7.5	7.7	7.3	7.1	7.0	6.8	6.7	6.8
70°	7.3	7.3	7.2	7.1	7.4	6.8	6.6	6.5	6.4	6.3	6.3
72.5°	6.9	6.9	6.7	6.6	7.0	6.3	6.1	6.1	5.8	5.7	5.7
75°	6.4	6.3	6.2	6.1	6.6	5.8	5.6	5.4	5.2	5.1	5.0
77.5°	5.8	5.7	5.6	5.6	6.0	5.2	4.8	4.8	4.5	4.4	4.4
80°	5.1	5.0	4.9	5.1	5.1	4.5	4.1	4.0	3.7	3.6	3.5
82.5°	4.4	4.3	4.3	4.4	4.2	4.0	3.5	3.1	2.7	2.5	2.4
85°	3.6	3.7	3.6	3.7	3.1	3.1	2.4	1.9	1.3	1.0	1.0
87.5°	2.7	2.8	2.7	2.8	2.2	2.1	1.1	0.6	0.1	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°	173.4	173.4	173.4	173.4	173.4	173.4	173.4	173.4	173.4	173.4
2.5°	155.0	155.1	158.6	162.1	164.2	169.4	172.0	174.9	176.4	178.2
5°	124.4	127.4	130.3	137.2	140.7	149.1	155.1	164.8	167.9	170.3
7.5°	93.9	98.5	102.0	110.6	117.3	127.7	138.2	149.8	153.1	155.3
10°	74.7	78.8	85.4	92.2	99.7	112.2	123.6	135.6	141.4	143.9
12.5°	62.7	69.4	77.1	83.4	89.3	98.5	113.1	128.2	134.2	136.9
15°	51.7	59.2	67.1	74.8	82.2	92.6	107.9	127.5	135.2	137.8
17.5°	41.1	47.2	55.1	64.5	75.3	88.5	108.9	134.4	143.7	147.2
20°	29.2	35.2	43.3	54.8	67.6	84.3	111.1	144.7	158.0	162.0
22.5°	22.0	25.3	32.8	44.1	60.8	80.9	114.7	158.8	174.4	178.0
25°	19.4	20.5	24.3	35.3	53.9	77.8	119.4	172.9	191.8	195.6
27.5°	17.2	17.8	19.8	28.3	48.8	74.7	124.9	188.0	206.7	211.8
30°	15.5	16.3	17.9	23.7	43.9	70.1	130.0	201.7	219.4	223.2
32.5°	14.2	15.1	16.5	21.5	39.7	66.7	132.9	211.8	230.2	233.7
35°	13.3	14.1	15.6	19.4	36.0	64.4	133.8	221.9	243.4	247.0
37.5°	12.5	13.3	14.6	17.4	33.4	61.3	135.2	234.0	258.7	263.5
40°	11.9	12.6	13.8	16.1	29.9	58.0	136.8	248.0	273.7	278.4
42.5°	11.4	12.1	13.2	16.1	26.3	55.2	137.8	258.8	285.5	290.0
45°	10.9	11.7	12.9	15.8	23.6	52.6	137.4	267.9	296.3	299.8
47.5°	10.4	11.4	13.6	15.2	22.8	50.3	137.8	276.6	304.1	306.8
50°	10.1	11.3	14.5	14.2	23.0	49.2	141.6	287.0	309.9	311.0
52.5°	9.8	11.5	13.7	12.8	23.0	48.7	149.1	303.8	320.0	319.3
55°	9.4	11.5	12.8	11.6	22.0	49.0	156.1	326.0	344.2	340.2
57.5°	9.1	11.0	11.5	10.7	19.8	49.1	166.5	344.7	363.2	363.8
60°	8.7	11.8	10.0	10.0	16.9	48.7	175.7	344.4	366.7	370.4
62.5°	8.3	11.5	9.0	9.3	15.0	47.1	181.3	324.3	353.9	360.7
65°	7.8	9.1	8.2	8.6	14.2	43.3	173.4	299.3	336.5	343.9
67.5°	7.3	7.5	7.5	8.0	13.9	37.6	153.4	271.8	314.7	323.6
70°	6.6	6.7	6.9	7.6	12.9	32.4	124.9	242.5	291.3	302.6
72.5°	6.0	6.1	6.1	6.9	12.1	27.9	88.5	192.2	243.2	255.0
75°	5.2	5.3	5.2	6.0	10.6	20.9	52.5	121.5	145.1	158.4
77.5°	4.4	4.4	4.3	4.7	7.3	13.2	28.7	73.8	88.3	96.5
80°	3.6	3.3	2.7	2.8	4.0	7.6	12.8	42.4	48.4	50.5
82.5°	2.4	1.9	1.1	1.0	1.3	2.1	3.0	16.8	15.4	14.6
85°	0.5	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1
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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