

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: P400718

Luminaire Tested: **ENT-SA1-727-U-SLL-XXB**

Issue Date: 5/20/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P400718  
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: ENT-SA1-727-U-SLL-XXB  
Description: ENTRI LED LUMINAIRE  
(1) 70 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: 571 lumens  
Efficiency: N/A  
Efficacy: 43.9 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

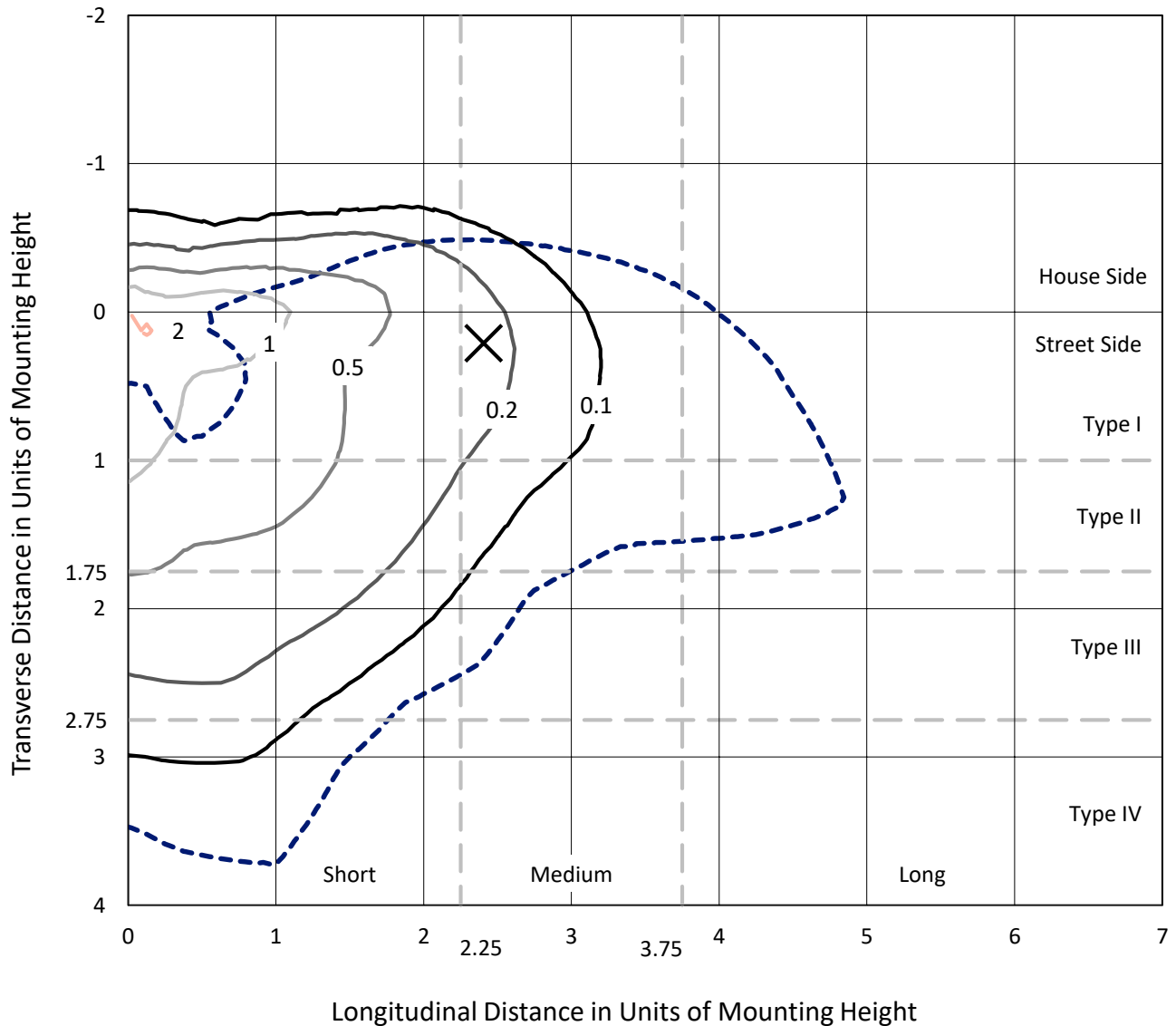


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### Iso-Footcandle Lines of Horizontal Illumination

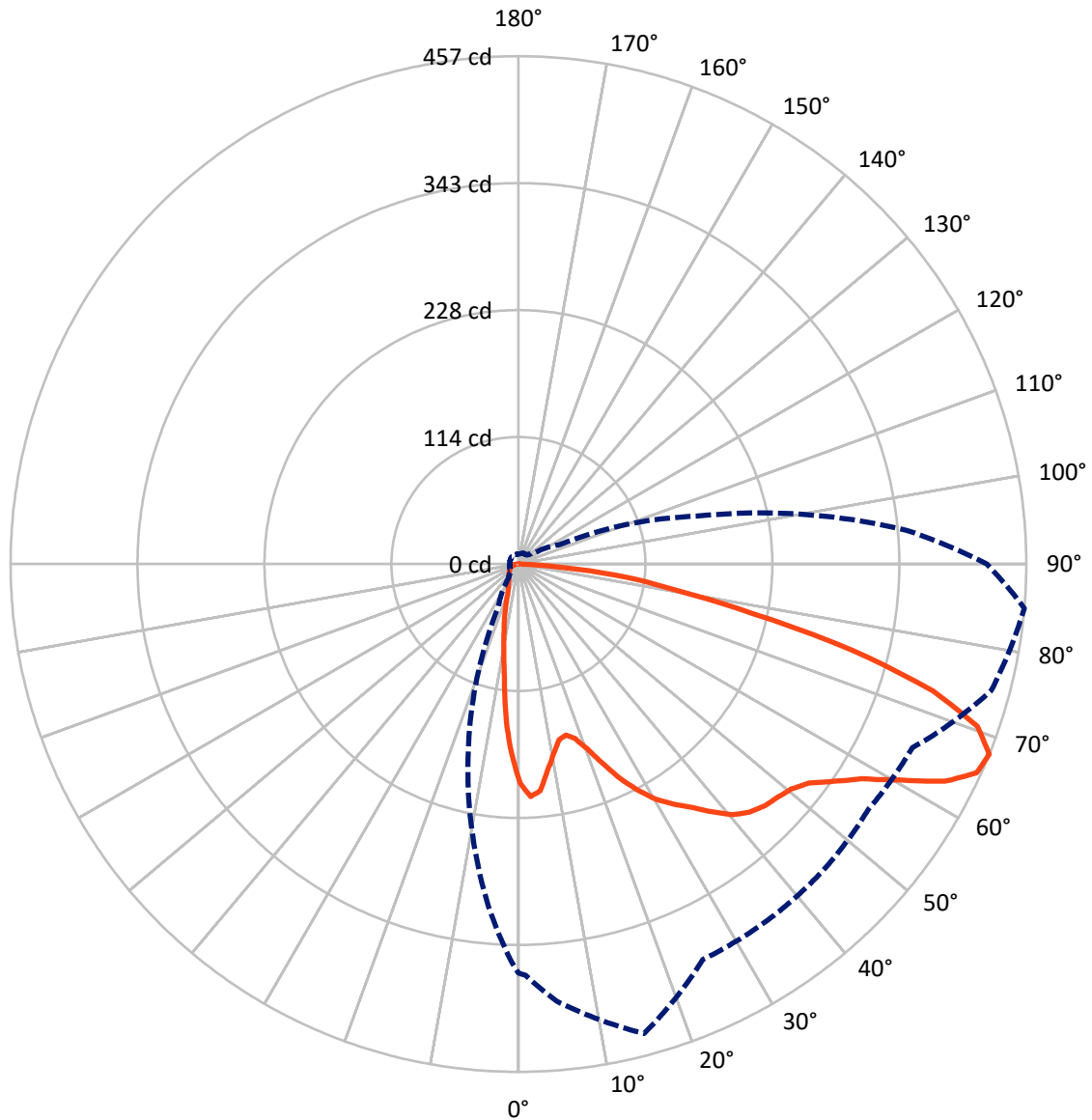
× Max cd  
 - - - 1/2 Max cd



Based on 10 foot mounting height. Maximum calculated value = 2.1 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	115.0	0.0	115.0
	% Fixture	20.1	0.0	20.1
<b>Street Side</b>	Lumens	456.0	0.0	456.0
	% Fixture	79.9	0.0	79.9
<b>Total</b>	Lumens	571.0	0.0	571.0
	% Fixture	100.0	0.0	100.0

**Coefficient of Utilization**

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	15.0	2.6
10°-20°	29.6	5.2
20°-30°	41.3	7.2
30°-40°	58.3	10.2
40°-50°	80.7	14.1
50°-60°	113.4	19.9
60°-70°	138.7	24.3
70°-80°	81.5	14.3
80°-90°	12.5	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°	571.0	100.0
0°-180°	571.0	100.0



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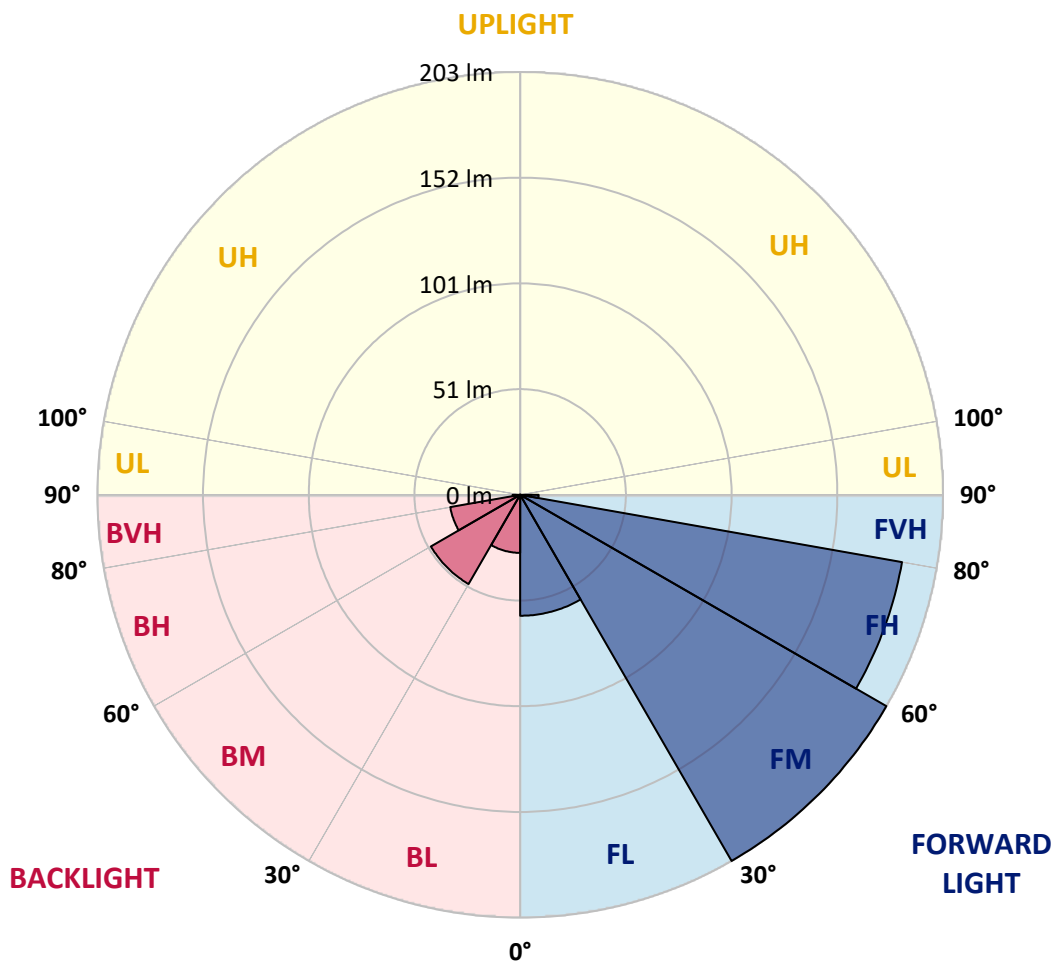
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	58.0	10.2			
FM	(30°-60°)	203.0	35.5			
FH	(60°-80°)	186.1	32.6			G0/660
FVH	(80°-90°)	8.8	1.5			G0/10
BL	(0°-30°)	27.9	4.9	B0/110		
BM	(30°-60°)	49.5	8.7	B0/220		
BH	(60°-80°)	34.1	6.0	B0/110		G0/110
BVH	(80°-90°)	3.6	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°	197.3	197.3	197.3	197.3	197.3	197.3	197.3	197.3	197.3	197.3	197.3
2.5°	202.7	201.8	204.9	209.5	212.6	214.8	215.5	215.4	214.8	213.1	209.4
5°	193.7	192.9	199.2	209.4	218.3	224.7	226.6	224.0	220.8	214.0	205.0
7.5°	176.6	177.9	186.0	200.3	214.6	224.8	227.3	223.2	216.6	202.8	187.6
10°	163.7	164.3	173.4	190.7	205.9	216.4	220.7	217.1	208.5	190.9	173.4
12.5°	155.7	156.3	165.1	181.1	197.4	205.5	206.8	206.7	199.6	182.6	162.3
15°	156.8	157.6	166.4	179.6	188.8	192.4	192.5	193.5	191.4	178.5	159.6
17.5°	167.4	167.4	175.9	183.9	181.8	179.2	181.1	182.9	186.6	180.9	165.0
20°	184.2	185.0	192.8	191.4	178.5	172.1	169.8	173.0	184.4	188.4	177.8
22.5°	202.4	204.3	212.5	202.4	178.0	165.5	162.9	166.4	184.7	200.1	195.3
25°	222.5	224.9	230.4	215.3	179.6	161.8	160.1	163.4	185.4	210.9	214.3
27.5°	240.9	241.1	246.5	226.1	184.0	162.2	159.3	163.6	187.4	219.5	231.0
30°	253.9	253.9	256.3	231.6	189.3	164.5	160.0	166.3	190.3	224.2	246.1
32.5°	265.8	266.5	265.3	237.4	194.3	167.8	161.7	171.8	194.8	228.0	257.8
35°	281.0	280.9	275.6	242.0	199.0	171.4	166.1	178.8	201.3	233.7	268.9
37.5°	299.7	298.8	287.5	246.1	204.7	177.5	174.2	188.4	210.0	240.4	282.9
40°	316.7	315.2	298.4	250.0	209.2	189.5	187.5	200.2	221.0	248.8	296.6
42.5°	329.9	327.7	307.7	252.7	216.0	208.2	209.8	221.5	232.2	256.2	305.1
45°	341.0	338.7	314.7	254.1	232.4	234.9	238.1	247.8	244.0	258.2	310.4
47.5°	349.0	345.2	317.7	258.1	254.6	266.1	276.0	276.7	260.7	258.1	313.6
50°	353.7	349.6	320.6	268.1	280.4	301.6	312.1	307.1	278.1	259.8	318.2
52.5°	363.1	358.8	332.4	284.4	306.9	337.4	343.1	335.1	296.0	268.3	327.3
55°	386.9	385.0	355.3	306.2	332.9	366.4	369.0	361.0	314.9	283.1	344.9
57.5°	413.8	409.6	386.4	333.7	357.7	389.1	393.3	382.2	334.6	303.8	364.4
60°	421.3	420.5	412.6	365.7	383.4	413.4	413.6	399.6	357.6	328.5	394.3
62.5°	410.3	413.0	423.5	395.4	405.0	429.6	427.3	412.7	381.8	367.8	430.5
65°	391.1	394.9	416.1	423.4	410.0	426.4	421.5	412.3	397.0	410.1	453.0
67.5°	368.1	370.1	394.8	437.3	392.6	391.1	388.8	384.5	391.0	440.3	456.9
70°	344.1	345.9	368.7	418.1	340.6	322.7	320.7	317.1	342.1	439.9	438.0
72.5°	290.1	289.0	310.0	349.0	260.1	235.7	252.1	244.1	276.8	395.2	390.1
75°	180.2	186.3	212.6	244.7	178.2	161.5	184.1	182.0	224.7	340.3	310.6
77.5°	109.8	111.0	125.9	152.6	107.3	111.9	118.3	130.8	166.6	275.8	216.5
80°	57.5	53.4	64.3	83.7	63.7	75.1	86.7	100.5	105.7	179.8	144.8
82.5°	16.6	16.5	21.8	35.1	30.2	36.9	43.8	63.2	69.3	106.9	99.1
85°	0.1	0.1	0.1	0.2	0.3	0.5	1.9	16.2	21.5	49.6	40.8
87.5°	0.0	0.0	0.1	0.2	0.2	0.4	0.6	0.7	0.9	1.1	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):**

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	197.3	197.3	197.3	197.3	197.3	197.3	197.3	197.3	197.3	197.3	197.3
2.5°	208.2	206.8	203.9	199.9	197.2	192.4	191.4	188.4	185.3	182.9	182.9
5°	200.7	196.0	188.8	180.6	172.7	165.6	164.2	160.1	158.9	157.7	154.4
7.5°	180.9	175.4	165.4	153.2	143.3	136.6	129.4	125.1	121.3	116.9	118.0
10°	165.8	157.9	144.1	129.8	117.4	108.4	100.5	96.5	90.9	86.8	86.3
12.5°	154.1	145.6	129.1	112.3	100.6	95.4	90.3	84.0	77.8	72.4	69.7
15°	150.3	140.6	121.4	104.7	95.6	89.2	82.2	74.9	67.3	61.6	59.4
17.5°	154.8	143.4	121.4	101.5	90.1	80.8	72.0	63.8	54.8	49.1	47.4
20°	167.2	152.9	123.9	98.5	83.4	70.8	58.4	49.6	40.4	36.4	34.5
22.5°	184.4	165.9	127.9	94.8	75.9	58.6	44.6	33.5	29.0	27.0	26.5
25°	202.1	182.3	133.5	91.7	67.7	46.6	32.0	26.8	24.7	23.8	23.8
27.5°	221.6	198.7	139.5	87.9	59.3	34.7	26.1	23.6	22.5	21.9	21.8
30°	237.4	212.1	146.4	83.5	51.7	28.5	23.1	21.5	20.5	20.2	20.2
32.5°	248.8	222.1	153.7	79.1	44.7	25.7	21.5	20.0	18.9	18.7	18.7
35°	262.1	231.7	157.0	76.6	40.5	24.0	20.3	18.8	17.8	17.3	17.3
37.5°	278.1	243.1	158.8	74.3	38.6	22.3	19.5	17.8	16.8	16.2	16.2
40°	298.3	256.0	160.7	71.9	37.5	20.9	18.5	16.9	16.1	15.4	15.4
42.5°	312.8	268.0	162.2	69.9	35.6	20.3	17.8	16.2	15.2	14.7	14.6
45°	320.5	279.1	162.8	68.7	33.4	20.8	17.3	15.7	14.5	14.0	13.9
47.5°	325.6	288.2	163.7	67.7	31.7	19.8	17.2	15.1	14.0	13.2	13.2
50°	333.8	300.4	165.8	66.0	30.7	18.5	18.5	14.9	13.3	12.7	12.6
52.5°	348.4	317.7	171.5	64.1	29.6	17.3	19.1	15.0	12.9	12.1	11.9
55°	370.4	345.3	180.9	61.3	28.0	15.7	17.8	15.1	12.4	11.7	11.5
57.5°	399.0	378.8	191.9	59.1	25.3	14.4	16.2	14.6	11.8	11.3	11.1
60°	418.3	401.1	198.9	56.3	21.6	13.6	14.0	14.1	11.3	10.6	10.6
62.5°	428.7	401.4	199.0	52.3	18.1	12.9	12.5	14.4	10.8	10.0	9.9
65°	429.4	381.9	189.0	47.3	16.9	12.0	11.5	12.8	10.4	9.5	9.5
67.5°	421.4	350.0	166.2	41.5	17.3	11.4	10.6	10.7	9.8	9.1	9.0
70°	392.8	308.8	133.3	36.9	17.4	10.6	10.0	9.7	9.3	8.6	8.4
72.5°	338.9	258.0	101.0	35.4	17.7	9.9	9.3	9.0	8.6	8.1	7.9
75°	255.7	201.3	75.8	33.0	17.9	9.2	8.4	8.3	7.9	7.3	7.3
77.5°	176.7	149.3	52.7	27.9	16.0	8.4	7.6	7.4	7.2	6.6	6.5
80°	119.3	102.4	32.3	20.9	12.1	7.3	6.6	6.6	6.3	5.8	5.8
82.5°	83.1	76.5	18.6	13.7	8.8	6.1	5.8	5.8	5.5	5.0	4.9
85°	34.7	46.3	8.4	7.4	6.2	4.8	4.8	4.9	4.6	4.1	4.0
87.5°	1.2	5.0	3.3	3.5	3.7	3.3	3.7	3.7	3.6	3.2	3.1
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°	197.3	197.3	197.3	197.3	197.3	197.3	197.3	197.3	197.3	197.3	197.3
2.5°	180.3	179.1	175.4	175.0	172.2	172.0	173.2	171.2	171.4	173.9	173.5
5°	155.1	152.4	152.3	149.3	145.9	145.0	142.1	141.0	140.5	139.5	143.2
7.5°	121.4	120.1	121.2	120.8	117.7	115.9	109.7	104.9	102.5	103.5	103.8
10°	86.3	88.2	91.2	94.0	91.8	86.0	83.4	79.5	79.0	78.8	80.6
12.5°	68.4	66.2	67.6	68.6	66.5	64.0	62.9	61.2	62.1	64.3	65.5
15°	56.8	53.0	51.2	50.0	50.6	49.1	49.7	49.1	49.8	50.4	52.6
17.5°	44.9	43.5	40.2	38.6	38.7	38.1	38.3	38.2	37.8	39.3	41.0
20°	33.8	33.4	32.7	31.6	31.8	31.3	31.0	29.5	28.8	29.3	30.8
22.5°	26.3	26.8	27.3	27.2	27.6	26.4	25.3	24.0	23.8	23.9	24.2
25°	23.6	23.8	24.1	24.6	24.9	23.8	22.2	21.4	21.3	21.5	21.5
27.5°	21.9	21.8	22.2	22.8	23.1	21.8	20.5	19.7	19.6	19.4	19.3
30°	20.2	20.2	20.6	21.1	21.4	20.2	19.1	18.4	17.9	17.6	17.5
32.5°	18.9	19.0	19.2	19.6	20.0	18.8	17.9	17.3	16.4	16.2	16.0
35°	17.4	17.8	18.1	18.2	18.5	17.7	16.8	15.8	15.1	14.8	14.8
37.5°	16.2	16.5	17.0	16.9	17.2	16.6	15.6	14.5	14.1	14.0	14.0
40°	15.3	15.3	15.7	16.1	16.4	15.4	14.2	13.7	13.4	13.2	13.3
42.5°	14.5	14.4	14.4	15.1	15.7	14.2	13.2	12.9	12.8	12.6	12.7
45°	13.8	13.7	13.4	13.7	14.6	13.0	12.4	12.1	12.0	12.0	12.0
47.5°	13.1	12.9	12.6	12.7	13.3	12.1	11.6	11.5	11.4	11.4	11.5
50°	12.4	12.2	11.9	11.8	12.0	11.5	11.0	10.8	10.8	10.8	11.0
52.5°	11.7	11.7	11.3	11.2	11.3	10.9	10.5	10.4	10.4	10.4	10.6
55°	11.3	11.1	10.9	10.7	10.9	10.5	10.1	9.9	9.9	10.1	10.3
57.5°	10.8	10.6	10.6	10.4	10.6	10.1	9.7	9.5	9.6	9.7	9.7
60°	10.4	10.2	10.1	9.9	10.2	9.7	9.4	9.3	9.3	9.2	9.2
62.5°	9.9	9.8	9.6	9.5	9.8	9.3	9.0	8.8	8.7	8.7	8.7
65°	9.4	9.3	9.2	9.1	9.3	8.8	8.5	8.4	8.3	8.2	8.3
67.5°	8.9	8.9	8.7	8.5	8.8	8.3	8.1	8.0	7.7	7.6	7.7
70°	8.4	8.4	8.2	8.1	8.4	7.7	7.5	7.4	7.3	7.2	7.2
72.5°	7.8	7.8	7.6	7.5	8.0	7.2	7.0	6.9	6.6	6.5	6.5
75°	7.3	7.2	7.1	7.0	7.5	6.6	6.3	6.2	5.9	5.8	5.7
77.5°	6.6	6.5	6.3	6.4	6.8	5.9	5.5	5.4	5.1	5.0	5.0
80°	5.8	5.7	5.6	5.8	5.8	5.1	4.7	4.5	4.2	4.0	3.9
82.5°	5.0	4.9	4.9	5.0	4.8	4.5	3.9	3.6	3.1	2.8	2.8
85°	4.0	4.2	4.0	4.2	3.6	3.6	2.8	2.1	1.5	1.2	1.1
87.5°	3.1	3.2	3.1	3.2	2.5	2.4	1.3	0.7	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°	197.3	197.3	197.3	197.3	197.3	197.3	197.3	197.3	197.3	197.3
2.5°	176.2	176.4	180.4	184.3	186.7	192.7	195.6	198.9	200.7	202.7
5°	141.5	144.9	148.2	156.1	160.1	169.5	176.4	187.4	190.9	193.7
7.5°	106.9	112.1	116.0	125.9	133.5	145.2	157.2	170.4	174.1	176.6
10°	84.9	89.7	97.1	104.8	113.4	127.6	140.6	154.2	160.8	163.7
12.5°	71.3	78.9	87.7	94.8	101.6	112.1	128.6	145.8	152.7	155.7
15°	58.8	67.4	76.3	85.1	93.5	105.4	122.7	145.0	153.8	156.8
17.5°	46.7	53.7	62.7	73.3	85.6	100.7	123.8	152.8	163.5	167.4
20°	33.2	40.0	49.2	62.3	76.9	95.8	126.4	164.6	179.7	184.2
22.5°	25.1	28.8	37.3	50.2	69.1	92.0	130.4	180.7	198.4	202.4
25°	22.0	23.3	27.6	40.1	61.3	88.5	135.8	196.6	218.1	222.5
27.5°	19.6	20.3	22.5	32.2	55.5	84.9	142.1	213.9	235.1	240.9
30°	17.6	18.5	20.4	27.0	49.9	79.8	147.9	229.4	249.5	253.9
32.5°	16.2	17.2	18.8	24.4	45.2	75.9	151.2	241.0	261.8	265.8
35°	15.1	16.1	17.7	22.1	40.9	73.3	152.2	252.4	276.9	281.0
37.5°	14.2	15.1	16.6	19.8	38.0	69.8	153.8	266.1	294.3	299.7
40°	13.6	14.3	15.7	18.3	34.0	66.0	155.6	282.1	311.3	316.7
42.5°	12.9	13.8	15.0	18.4	29.9	62.8	156.8	294.4	324.8	329.9
45°	12.4	13.3	14.7	18.0	26.9	59.9	156.2	304.7	337.1	341.0
47.5°	11.8	12.9	15.4	17.3	26.0	57.2	156.7	314.6	345.9	349.0
50°	11.5	12.9	16.5	16.2	26.2	56.0	161.1	326.4	352.5	353.7
52.5°	11.2	13.1	15.6	14.6	26.2	55.4	169.5	345.5	364.0	363.1
55°	10.7	13.0	14.6	13.2	25.1	55.7	177.5	370.8	391.5	386.9
57.5°	10.4	12.5	13.1	12.2	22.5	55.8	189.4	392.1	413.2	413.8
60°	9.9	13.4	11.4	11.4	19.3	55.4	199.8	391.7	417.1	421.3
62.5°	9.5	13.1	10.2	10.6	17.1	53.6	206.2	368.8	402.5	410.3
65°	8.9	10.4	9.4	9.8	16.2	49.3	197.2	340.5	382.8	391.1
67.5°	8.3	8.5	8.5	9.1	15.8	42.8	174.5	309.2	358.0	368.1
70°	7.5	7.6	7.8	8.6	14.7	36.8	142.1	275.8	331.4	344.1
72.5°	6.8	6.9	6.9	7.8	13.8	31.8	100.6	218.6	276.7	290.1
75°	6.0	6.1	6.0	6.8	12.0	23.8	59.8	138.2	165.0	180.2
77.5°	5.0	5.0	4.9	5.3	8.3	15.1	32.7	84.0	100.4	109.8
80°	4.1	3.8	3.1	3.2	4.5	8.6	14.6	48.2	55.1	57.5
82.5°	2.8	2.1	1.3	1.2	1.5	2.4	3.4	19.1	17.5	16.6
85°	0.6	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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