

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: P400793

Luminaire Tested: **ENV-SA1-740-U-T4FT-HSS-ULG-XXB**

Issue Date: 5/20/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P400793  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P#####)  
Test Lab: INNOVATION CENTER  
Issue Date: 5/20/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: INVUE  
Catalog Number: ENV-SA1-740-U-T4FT-HSS-ULG-XXB  
Description: ENTRI LED LUMINAIRE WITH UPLIGHT  
(1) 70 CRI, 4000K LIGHTSQUARE IN BATTERY OPERATION WITH 16 LEDS AND TYPE IV FORWARD THROW OPTICS WITH HOUSE SIDE SHIELD  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 547 lumens  
Efficiency: N/A  
Efficacy: 42.1 lumens/watt  
Luminous Opening: Rectangular (W 0.5' x L: 0.5' x H: 0')  
IES Classification: Type IV - Short - Non-Cutoff  
BUG Rating: B0 - U3 - G0

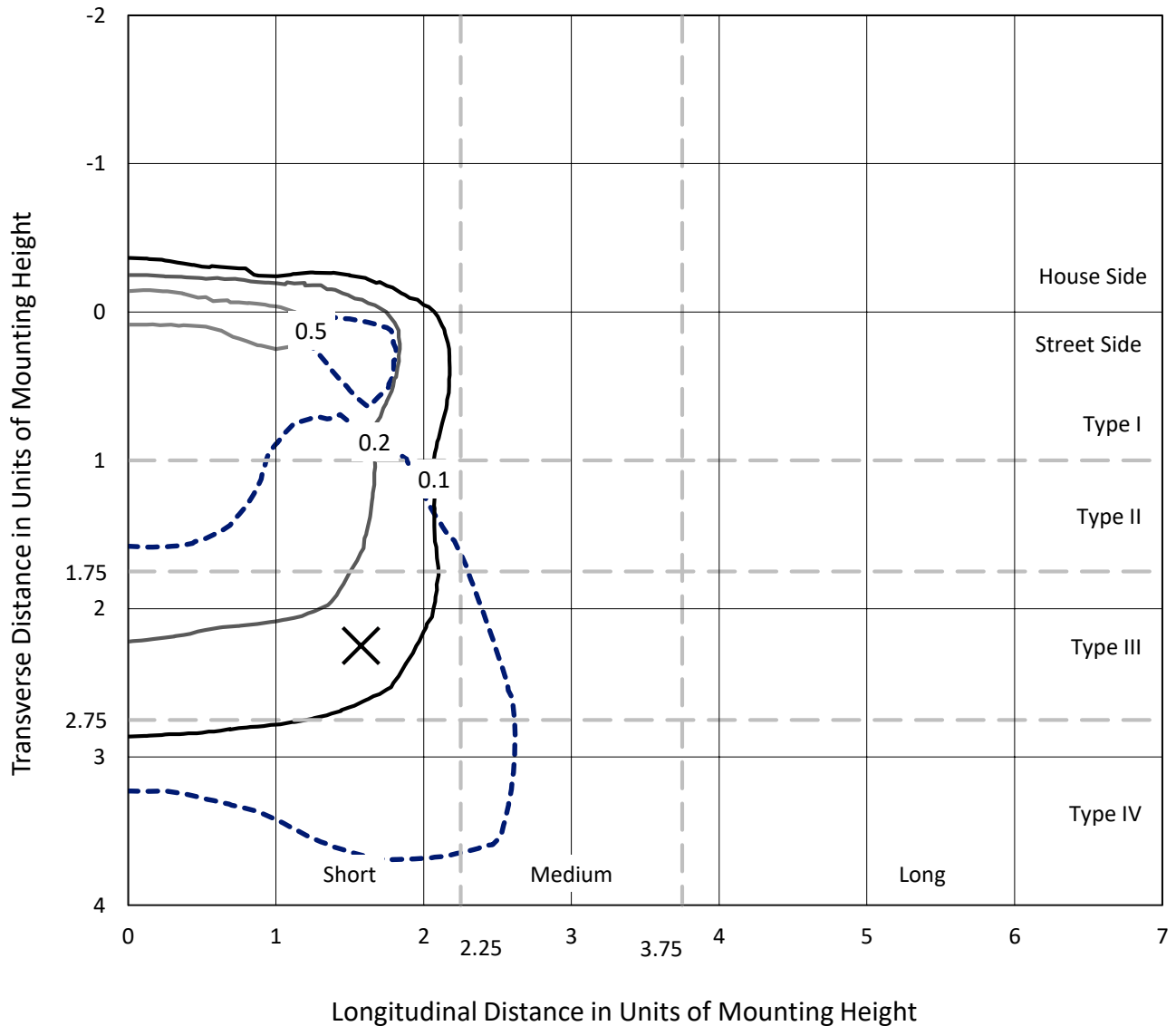
Input Watts (W): 13  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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### Iso-Footcandle Lines of Horizontal Illumination

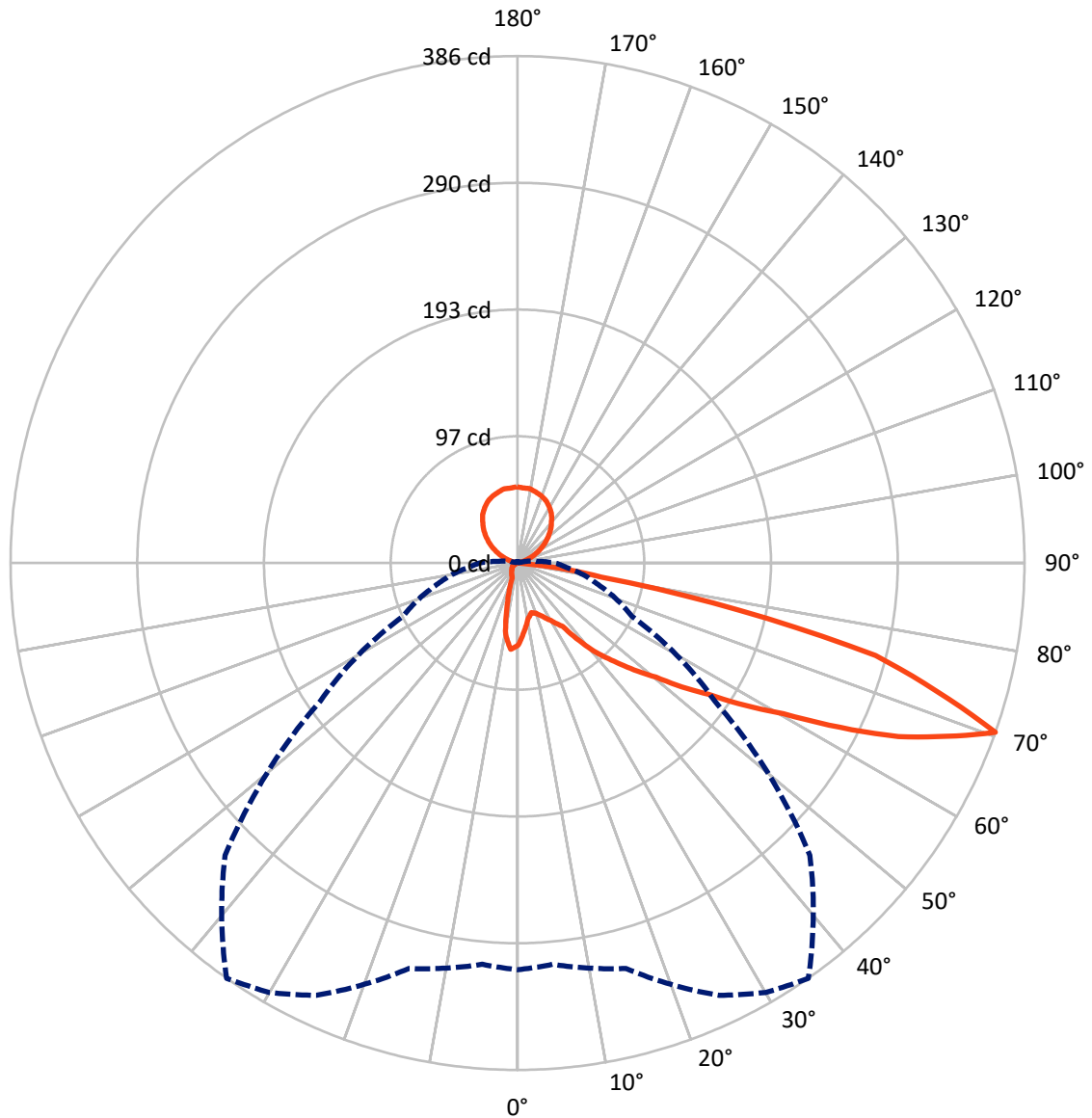
× Max cd  
 - - - 1/2 Max cd



Based on 10 foot mounting height. Maximum calculated value = 0.6 fc  
 Type IV - Short - Non-Cutoff

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### Luminous Intensity Polar Plot



— Vertical Plane Through 35-Deg Lateral    - - - Horizontal Cone Through 70-Deg Vertical

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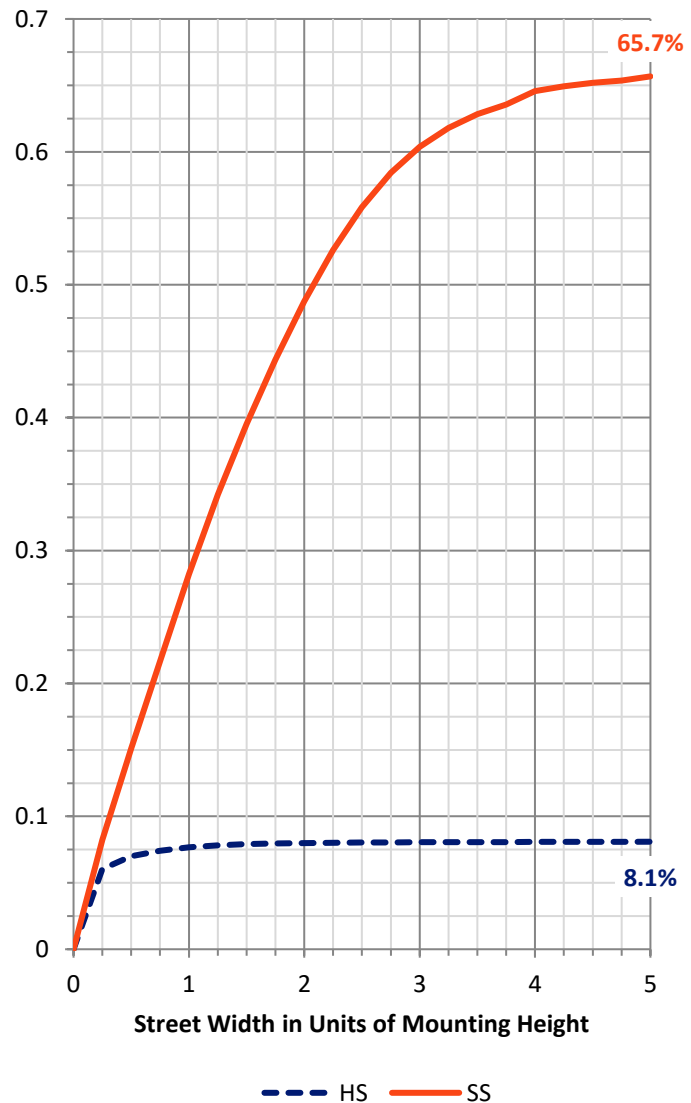
**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	44.8	72.0	116.7
	% Fixture	8.2	13.2	21.3
<b>Street Side</b>	Lumens	358.3	72.0	430.3
	% Fixture	65.5	13.2	78.7
<b>Total</b>	Lumens	403.1	143.9	547.0
	% Fixture	73.7	26.3	100.0

**Coefficient of Utilization**

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	5.5	1.0
10°-20°	12.8	2.3
20°-30°	18.9	3.5
30°-40°	31.7	5.8
40°-50°	56.8	10.4
50°-60°	90.3	16.5
60°-70°	119.7	21.9
70°-80°	64.5	11.8
80°-90°	2.9	0.5
90°-100°	0.7	0.1
100°-110°	4.9	0.9
110°-120°	13.8	2.5
120°-130°	22.6	4.1
130°-140°	27.9	5.1
140°-150°	28.5	5.2
150°-160°	24.1	4.4
160°-170°	15.8	2.9
170°-180°	5.5	1.0
0°-90°	403.1	73.7
0°-180°	547.0	100.0



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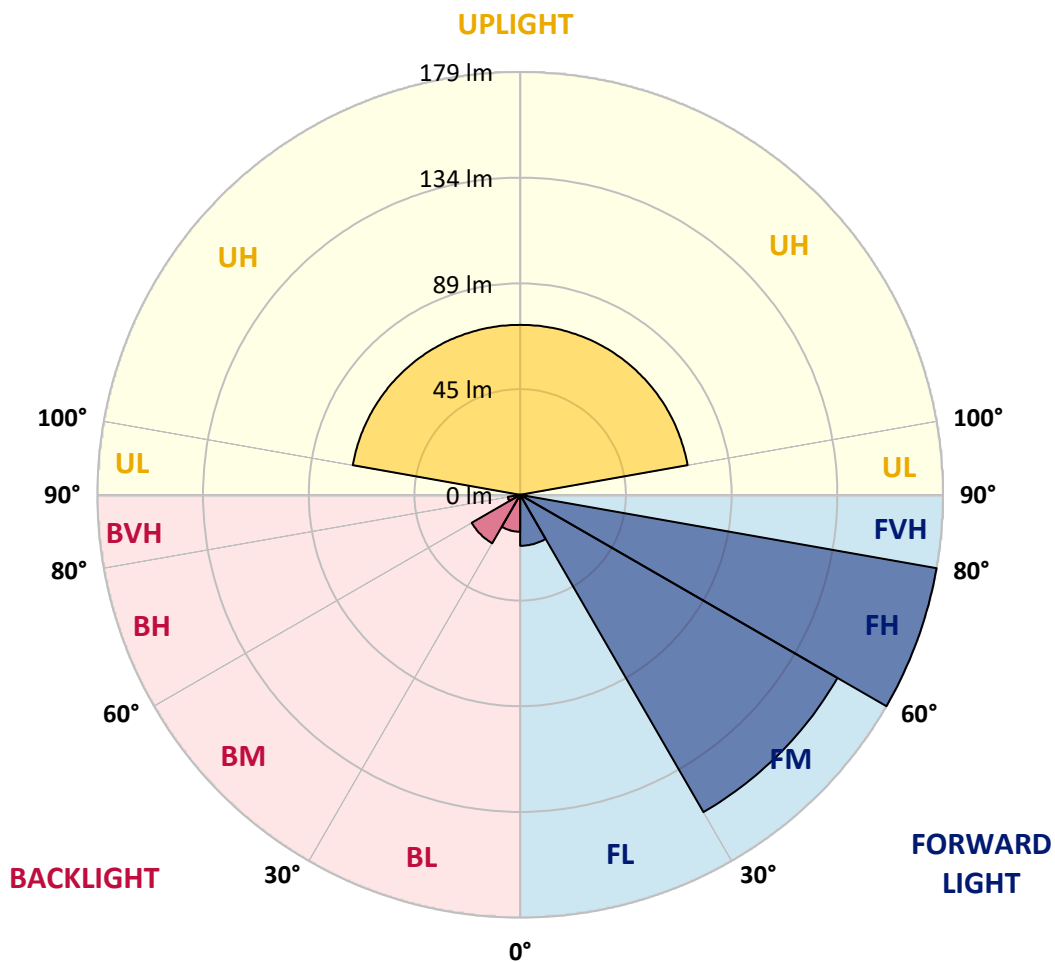
CATALOG NUMBER: ENV-SA1-740-U-T4FT-HSS-ULG-XXB

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

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	21.6	3.9			
FM	(30°-60°)	155.1	28.4			
FH	(60°-80°)	179.0	32.7			G0/660
FVH	(80°-90°)	2.7	0.5			G0/10
BL	(0°-30°)	15.6	2.9	B0/110		
BM	(30°-60°)	23.7	4.3	B0/220		
BH	(60°-80°)	5.3	1.0	B0/110		G0/110
BVH	(80°-90°)	0.2	0.0			G0/10
UL	(90°-100°)	0.7	0.1		U1/10	
UH	(100°-180°)	72.0	13.2		U3/500	

**BUG Rating: B0-U3-G0**

Type IV Short





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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	62.6	62.6	62.6	62.6	62.6	62.6	62.6	62.6	62.6	62.6	62.6
5°	49.7	50.1	50.2	50.3	50.8	51.2	51.7	52.3	53.0	53.8	54.7
10°	39.1	39.2	39.5	39.8	40.5	41.2	42.2	43.4	44.9	46.4	48.0
15°	38.5	38.2	38.0	37.7	37.8	37.8	38.4	39.2	40.7	42.1	44.1
20°	41.9	41.6	40.8	39.9	39.7	39.5	40.1	40.9	42.2	43.4	44.9
25°	47.8	47.3	45.8	44.3	44.0	43.7	44.4	45.3	46.6	48.0	49.2
30°	54.6	54.0	52.4	50.9	50.2	49.4	50.2	51.1	52.6	54.1	55.7
35°	77.1	75.8	72.8	69.9	66.3	62.6	60.7	59.4	61.7	64.1	67.2
40°	104.2	102.4	100.4	98.4	95.2	92.0	89.5	86.5	84.5	82.5	84.5
45°	121.6	118.3	114.0	109.6	110.0	110.3	109.9	109.8	110.8	111.7	115.9
50°	140.8	138.1	133.9	129.7	129.8	129.8	132.7	136.6	147.1	157.5	162.1
55°	164.2	162.1	159.4	156.6	158.6	160.6	167.5	176.8	191.9	207.0	205.3
60°	213.5	211.5	209.3	207.1	208.0	209.0	221.0	233.0	242.6	252.1	239.3
65°	285.8	282.3	280.5	278.6	287.4	296.1	310.8	318.9	306.8	294.6	263.9
70°	309.8	306.9	313.4	319.8	341.6	363.4	377.8	386.2	350.6	314.9	249.2
75°	95.8	101.1	129.9	158.7	198.9	239.1	263.8	281.7	232.8	183.8	119.7
80°	4.8	5.2	9.5	13.9	24.8	35.7	50.9	64.7	46.2	27.6	18.0
85°	0.0	0.0	0.0	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
95°	0.4	0.4	0.5	0.5	0.5	0.6	0.6	0.6	0.6	0.6	0.6
100°	0.7	0.7	0.7	0.7	0.8	0.8	0.9	1.0	1.4	1.7	2.1
105°	1.7	1.8	2.0	2.2	2.6	3.0	3.5	4.0	4.6	5.2	5.6
110°	5.5	5.6	5.9	6.1	6.7	7.2	7.8	8.5	9.0	9.4	9.7
115°	11.6	11.5	11.9	12.2	12.7	13.2	13.6	13.9	14.2	14.4	14.6
120°	18.7	18.5	18.6	18.7	19.0	19.3	19.5	19.6	19.9	20.1	20.3
125°	24.7	24.4	24.5	24.5	24.7	24.8	25.0	25.3	25.5	25.7	25.8
130°	30.1	29.9	30.0	30.0	30.2	30.3	30.5	30.7	30.7	30.8	31.0
135°	35.6	35.3	35.3	35.3	35.6	35.8	35.9	36.1	36.1	36.2	36.5
140°	40.4	40.2	40.3	40.4	40.4	40.5	40.6	40.7	40.9	41.2	41.3
145°	45.6	45.3	45.2	45.1	45.2	45.3	45.5	45.6	45.6	45.7	45.9
150°	49.3	49.1	49.1	49.1	49.1	49.1	49.1	49.1	49.1	49.1	49.3
155°	52.1	51.8	51.8	51.8	51.9	52.0	52.1	52.2	52.1	52.1	52.0
160°	55.0	54.7	54.7	54.6	54.5	54.4	54.3	54.3	54.3	54.3	54.4
165°	56.4	56.2	56.1	56.0	56.0	56.0	55.9	55.8	55.8	55.8	55.7
170°	57.9	57.6	57.5	57.4	57.4	57.4	57.4	57.4	57.4	57.3	57.1
175°	58.0	57.9	57.8	57.8	57.7	57.6	57.4	57.3	57.2	57.2	57.2
180°	58.0	58.0	58.0	58.0	58.0	58.0	58.0	58.0	58.0	58.0	58.0



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**CANDELA DISTRIBUTION (continued):**

	55°	60°	65°	70°	75°	80°	85°	90°	95°	100°	105°
0°	62.6	62.6	62.6	62.6	62.6	62.6	62.6	62.6	62.6	62.6	62.6
5°	55.6	56.7	57.9	59.0	60.1	61.1	62.1	63.1	64.1	64.9	65.6
10°	49.7	51.7	53.7	56.0	58.3	60.5	62.7	64.8	66.4	67.1	67.8
15°	46.0	48.7	51.4	54.5	57.7	61.3	64.9	67.7	69.5	69.2	68.8
20°	46.3	48.8	51.2	55.1	58.9	63.8	68.7	72.4	74.1	71.3	68.5
25°	50.5	52.1	53.8	58.1	62.3	68.9	75.5	80.1	79.9	73.5	67.1
30°	57.2	58.6	60.0	64.4	68.9	78.4	87.9	93.4	89.3	76.2	63.0
35°	70.2	71.2	72.1	75.8	79.6	94.4	109.1	112.3	100.7	76.5	52.3
40°	86.6	89.0	91.4	96.7	102.1	120.6	139.1	135.2	112.6	72.5	32.3
45°	120.1	122.4	124.7	132.2	139.6	157.8	175.9	160.3	122.5	68.8	15.1
50°	166.7	162.7	158.6	163.9	169.3	186.2	203.2	176.1	123.4	65.4	7.5
55°	203.6	190.4	177.2	184.2	191.3	204.2	217.1	181.3	111.8	58.2	4.5
60°	226.5	206.0	185.5	192.8	200.1	203.5	206.8	165.1	87.2	45.2	3.2
65°	233.3	203.2	173.1	169.8	166.6	154.8	143.1	112.5	57.0	29.5	1.9
70°	183.4	139.8	96.1	79.9	63.7	50.4	37.0	28.6	14.7	7.9	1.2
75°	55.5	38.8	22.1	16.9	11.7	8.2	4.7	3.6	2.3	1.5	0.7
80°	8.3	8.0	7.7	7.1	6.6	4.0	1.4	1.1	0.7	0.6	0.4
85°	0.3	0.7	1.1	1.2	1.2	0.7	0.2	0.1	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
95°	0.6	0.6	0.7	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6
100°	2.4	2.3	2.2	2.0	1.9	1.7	1.6	1.6	1.6	1.7	1.9
105°	6.0	5.9	5.8	5.6	5.4	5.2	5.1	5.1	5.1	5.2	5.4
110°	9.9	10.0	10.0	9.9	9.9	9.7	9.6	9.7	9.6	9.7	9.9
115°	14.8	15.0	15.1	15.0	14.8	14.8	14.7	14.8	14.7	14.8	14.8
120°	20.4	20.6	20.7	20.5	20.3	20.2	20.1	20.1	20.1	20.2	20.3
125°	25.9	26.0	26.1	25.9	25.7	25.7	25.7	25.7	25.7	25.7	25.7
130°	31.3	31.4	31.6	31.6	31.6	31.5	31.4	31.5	31.4	31.5	31.6
135°	36.7	36.9	37.1	37.1	37.1	37.2	37.3	37.4	37.3	37.2	37.1
140°	41.4	41.5	41.6	41.7	41.8	42.0	42.2	42.4	42.2	42.0	41.8
145°	46.1	46.3	46.6	46.5	46.5	46.4	46.2	46.4	46.2	46.4	46.5
150°	49.5	49.6	49.7	49.9	50.0	50.1	50.2	50.6	50.2	50.1	50.0
155°	51.9	52.1	52.3	52.5	52.7	52.8	52.9	53.1	52.9	52.8	52.7
160°	54.5	54.8	55.0	54.9	54.8	54.7	54.7	55.2	54.7	54.7	54.8
165°	55.7	55.9	56.1	56.2	56.4	56.3	56.2	56.5	56.2	56.3	56.4
170°	56.9	57.0	57.1	57.3	57.5	57.6	57.7	58.1	57.7	57.6	57.5
175°	57.2	57.4	57.6	57.6	57.7	57.6	57.5	57.9	57.5	57.6	57.7
180°	58.0	58.0	58.0	58.0	58.0	58.0	58.0	58.0	58.0	58.0	58.0





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**CANDELA DISTRIBUTION (continued):**

	110°	115°	120°	125°	130°	135°	140°	145°	150°	155°	160°
0°	62.6	62.6	62.6	62.6	62.6	62.6	62.6	62.6	62.6	62.6	62.6
5°	66.0	66.4	66.6	66.8	66.5	66.2	66.1	66.0	65.6	65.1	65.0
10°	67.3	66.8	65.3	63.8	61.8	59.7	57.3	54.9	52.5	50.1	47.9
15°	66.2	63.6	58.6	53.6	47.0	40.5	35.1	29.7	26.0	22.3	20.1
20°	61.7	54.9	44.6	34.4	26.1	17.8	14.9	12.1	11.6	11.2	11.2
25°	53.3	39.5	27.2	14.9	12.6	10.3	10.2	10.2	10.2	10.2	10.2
30°	41.5	20.0	14.5	8.9	8.9	8.8	9.0	9.2	9.4	9.6	9.8
35°	30.8	9.2	8.5	7.7	7.6	7.5	7.7	7.9	8.2	8.5	9.0
40°	19.8	7.2	7.0	6.7	6.7	6.6	6.7	6.7	7.0	7.2	7.7
45°	10.6	6.2	6.1	6.0	5.9	5.8	5.9	6.0	6.1	6.2	6.5
50°	6.2	5.0	5.1	5.1	5.2	5.3	5.3	5.3	5.4	5.4	5.4
55°	4.1	3.7	4.0	4.3	4.5	4.7	4.7	4.6	4.5	4.3	4.1
60°	2.9	2.7	2.9	3.1	3.3	3.5	3.4	3.2	3.1	3.0	2.8
65°	1.8	1.7	1.8	1.9	2.1	2.3	2.2	2.1	2.0	1.9	1.7
70°	1.1	1.0	1.1	1.1	1.3	1.4	1.3	1.3	1.2	1.1	1.0
75°	0.7	0.6	0.7	0.8	0.8	0.8	0.9	0.9	0.9	0.9	0.9
80°	0.4	0.5	0.6	0.6	0.7	0.7	0.8	0.9	0.9	1.0	1.1
85°	0.0	0.1	0.2	0.2	0.3	0.3	0.4	0.5	0.6	0.6	0.7
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
95°	0.6	0.7	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.5
100°	2.0	2.2	2.3	2.4	2.1	1.7	1.4	1.0	0.9	0.8	0.8
105°	5.6	5.8	5.9	6.0	5.6	5.2	4.6	4.0	3.5	3.0	2.6
110°	9.9	10.0	10.0	9.9	9.7	9.4	9.0	8.5	7.8	7.2	6.7
115°	15.0	15.1	15.0	14.8	14.6	14.4	14.2	13.9	13.6	13.2	12.7
120°	20.5	20.7	20.6	20.4	20.3	20.1	19.9	19.6	19.5	19.3	19.0
125°	25.9	26.1	26.0	25.9	25.8	25.7	25.5	25.3	25.0	24.8	24.7
130°	31.6	31.6	31.4	31.3	31.0	30.8	30.7	30.7	30.5	30.3	30.2
135°	37.1	37.1	36.9	36.7	36.5	36.2	36.1	36.1	35.9	35.8	35.6
140°	41.7	41.6	41.5	41.4	41.3	41.2	40.9	40.7	40.6	40.5	40.4
145°	46.5	46.6	46.3	46.1	45.9	45.7	45.6	45.6	45.5	45.3	45.2
150°	49.9	49.7	49.6	49.5	49.3	49.1	49.1	49.1	49.1	49.1	49.1
155°	52.5	52.3	52.1	51.9	52.0	52.1	52.1	52.2	52.1	52.0	51.9
160°	54.9	55.0	54.8	54.5	54.4	54.3	54.3	54.3	54.3	54.4	54.5
165°	56.2	56.1	55.9	55.7	55.7	55.8	55.8	55.8	55.9	56.0	56.0
170°	57.3	57.1	57.0	56.9	57.1	57.3	57.4	57.4	57.4	57.4	57.4
175°	57.6	57.6	57.4	57.2	57.2	57.2	57.2	57.3	57.4	57.6	57.7
180°	58.0	58.0	58.0	58.0	58.0	58.0	58.0	58.0	58.0	58.0	58.0



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**CANDELA DISTRIBUTION (continued):**

	165°	170°	175°	180°
0°	62.6	62.6	62.6	62.6
5°	64.8	64.6	64.4	64.0
10°	45.8	45.0	44.2	44.7
15°	18.0	17.3	16.6	15.9
20°	11.2	11.2	11.2	11.1
25°	10.3	10.3	10.4	10.4
30°	9.9	10.0	10.0	10.0
35°	9.5	9.7	10.0	10.0
40°	8.1	8.7	9.3	9.6
45°	6.8	7.1	7.4	7.5
50°	5.4	5.3	5.2	5.1
55°	4.0	3.8	3.6	3.6
60°	2.6	2.5	2.3	2.3
65°	1.6	1.5	1.4	1.3
70°	0.9	0.9	0.8	0.8
75°	0.9	0.9	0.9	0.8
80°	1.1	1.1	1.1	1.1
85°	0.8	0.8	0.8	0.7
90°	0.0	0.0	0.0	0.0
95°	0.5	0.5	0.4	0.4
100°	0.7	0.7	0.7	0.7
105°	2.2	2.0	1.8	1.7
110°	6.1	5.9	5.6	5.5
115°	12.2	11.9	11.5	11.6
120°	18.7	18.6	18.5	18.7
125°	24.5	24.5	24.4	24.7
130°	30.0	30.0	29.9	30.1
135°	35.3	35.3	35.3	35.6
140°	40.4	40.3	40.2	40.4
145°	45.1	45.2	45.3	45.6
150°	49.1	49.1	49.1	49.3
155°	51.8	51.8	51.8	52.1
160°	54.6	54.7	54.7	55.0
165°	56.0	56.1	56.2	56.4
170°	57.4	57.5	57.6	57.9
175°	57.8	57.8	57.9	58.0
180°	58.0	58.0	58.0	58.0

(END OF REPORT)