

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: P400773

Luminaire Tested: **ENV-SA1-740-U-SL4-HSS-ULG-XXB**

Issue Date: 5/20/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P400773  
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-SL4-HSS-ULG-XXB  
Description: ENTRI LED LUMINAIRE WITH UPLIGHT  
(1) 70 CRI, 4000K LIGHTSQUARE IN BATTERY OPERATION WITH 16 LEDS AND TYPE IV SPILL LIGHT ELIMINATOR OPTICS WITH HOUSE SIDE SHIELD  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 633 lumens  
Efficiency: N/A  
Efficacy: 48.7 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

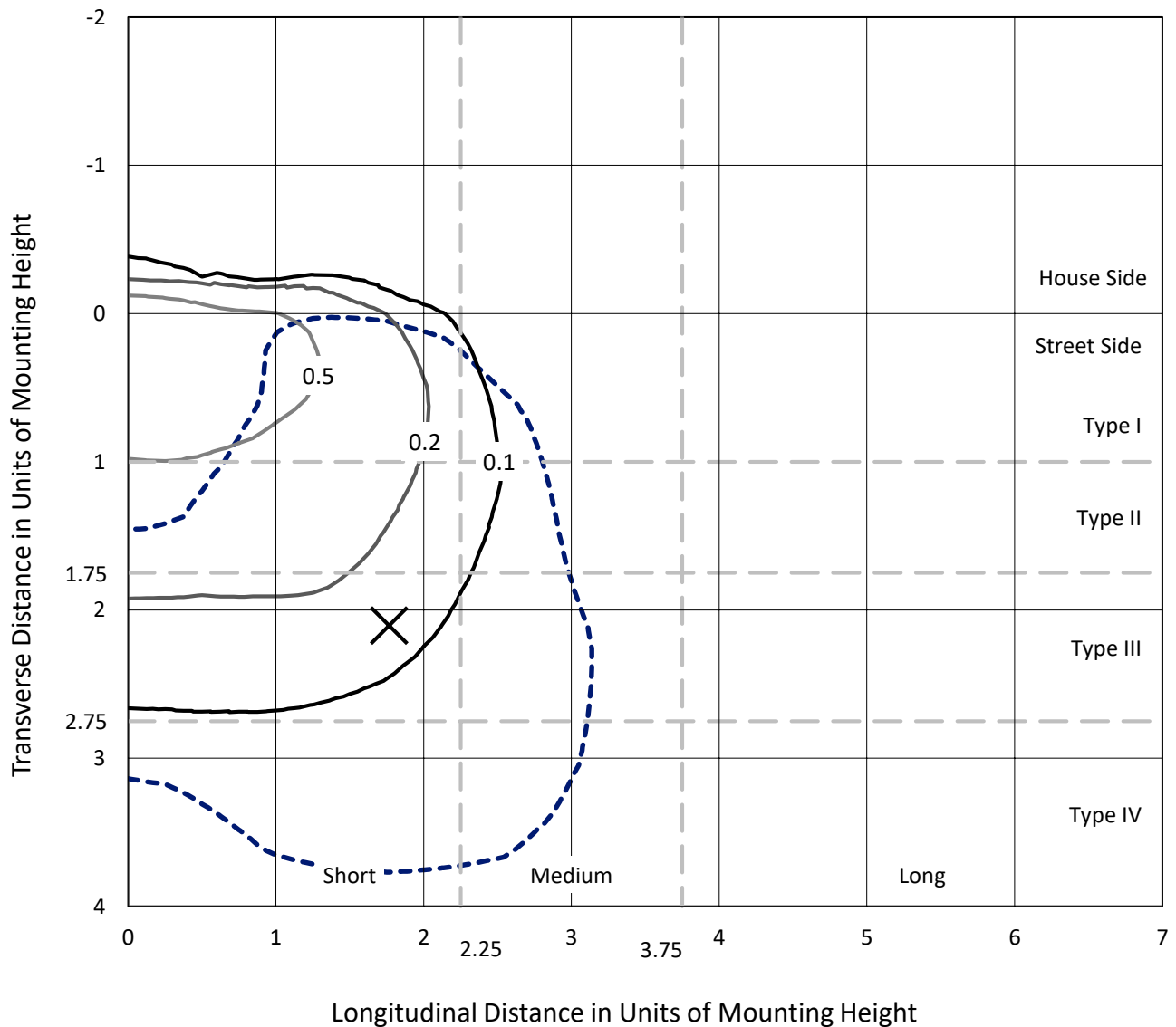


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### Iso-Footcandle Lines of Horizontal Illumination

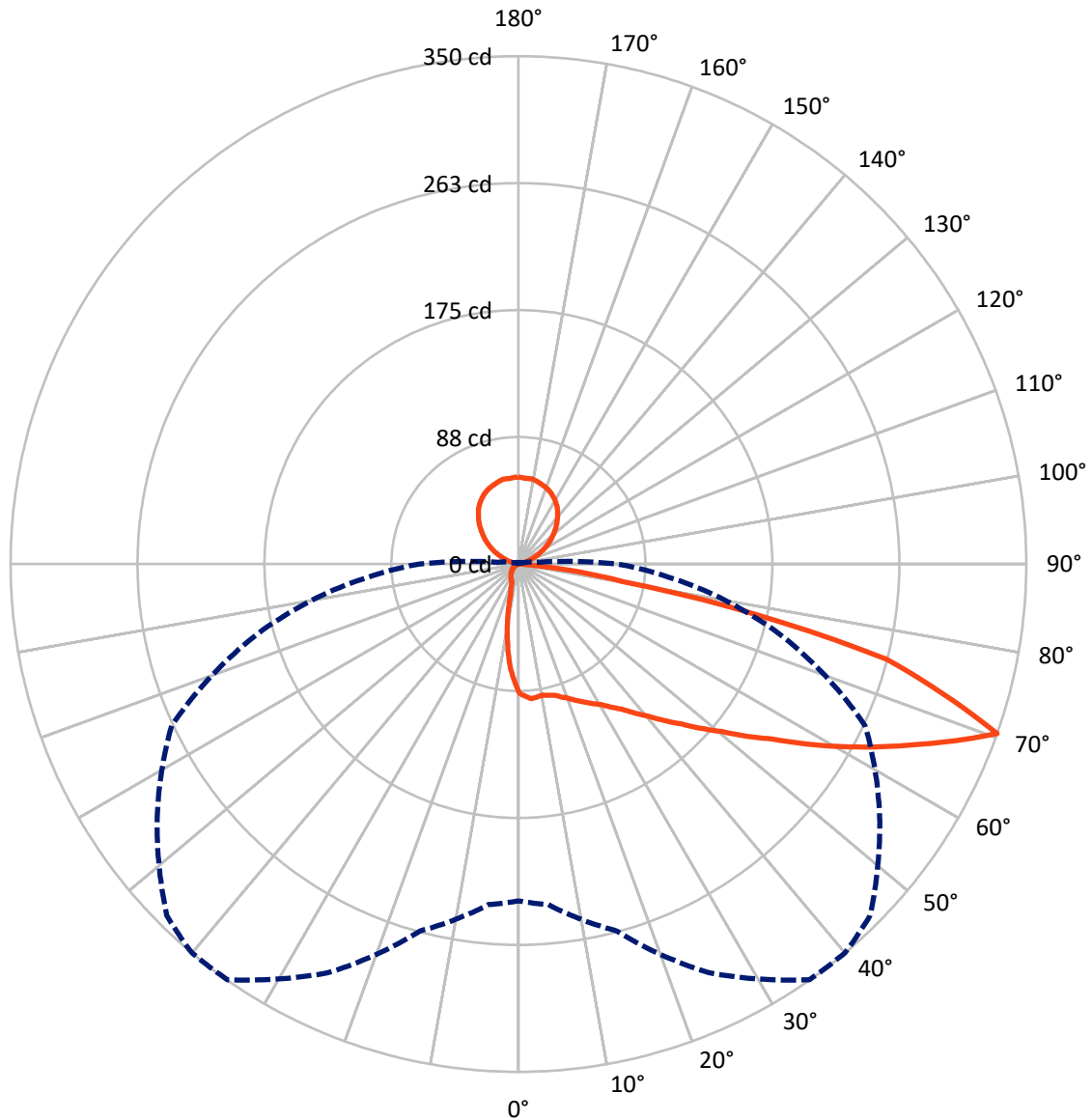
× Max cd  
 - - - 1/2 Max cd



Based on 10 foot mounting height. Maximum calculated value = 0.9 fc  
 Type IV - Short - Non-Cutoff

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### Luminous Intensity Polar Plot



— Vertical Plane Through 40-Deg Lateral    - - - Horizontal Cone Through 70-Deg Vertical

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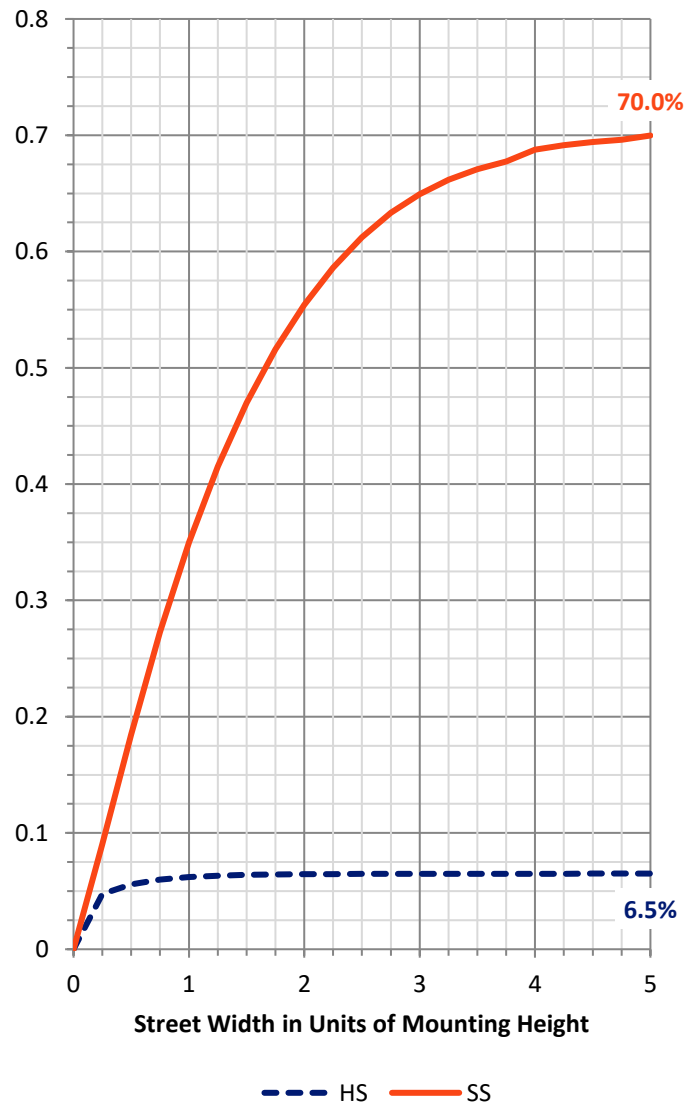
**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	41.6	74.5	116.1
	% Fixture	6.6	11.8	18.3
<b>Street Side</b>	Lumens	442.3	74.5	516.8
	% Fixture	69.9	11.8	81.7
<b>Total</b>	Lumens	484.0	149.0	633.0
	% Fixture	76.5	23.5	100.0

**Coefficient of Utilization**

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	7.6	1.2
10°-20°	18.4	2.9
20°-30°	29.3	4.6
30°-40°	44.6	7.1
40°-50°	69.4	11.0
50°-60°	101.4	16.0
60°-70°	129.3	20.4
70°-80°	79.1	12.5
80°-90°	4.8	0.8
90°-100°	0.7	0.1
100°-110°	5.0	0.8
110°-120°	14.3	2.3
120°-130°	23.5	3.7
130°-140°	28.9	4.6
140°-150°	29.6	4.7
150°-160°	24.9	3.9
160°-170°	16.4	2.6
170°-180°	5.7	0.9
0°-90°	484.0	76.5
0°-180°	633.0	100.0



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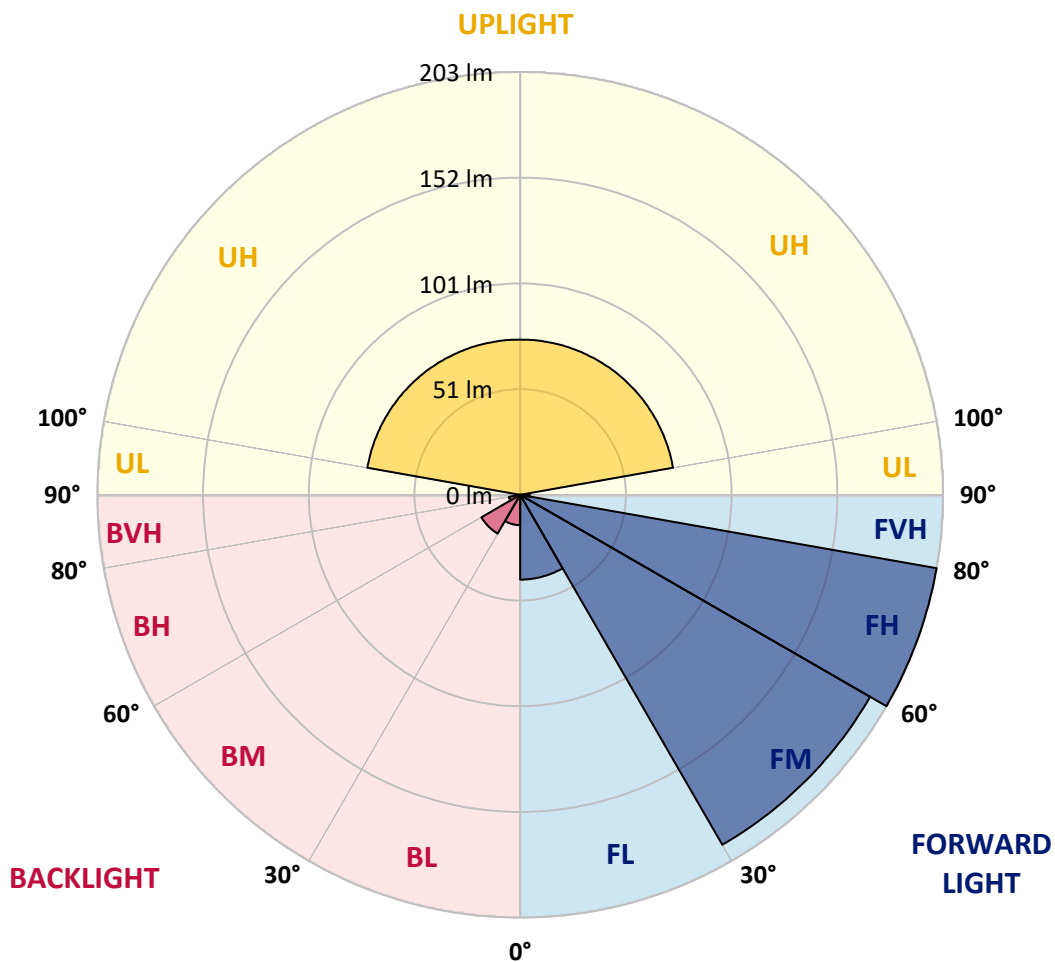
CATALOG NUMBER: ENV-SA1-740-U-SL4-HSS-ULG-XXB

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

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	40.7	6.4			
FM	(30°-60°)	194.0	30.6			
FH	(60°-80°)	203.0	32.1			G0/660
FVH	(80°-90°)	4.6	0.7			G0/10
BL	(0°-30°)	14.6	2.3	B0/110		
BM	(30°-60°)	21.5	3.4	B0/220		
BH	(60°-80°)	5.4	0.9	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°)	74.5	11.8		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°	89.3	89.3	89.3	89.3	89.3	89.3	89.3	89.3	89.3	89.3	89.3
5°	94.7	94.6	94.6	94.6	94.4	94.2	93.9	93.7	93.3	93.1	92.6
10°	92.3	92.5	92.4	92.4	92.4	92.4	92.3	92.1	91.9	91.8	91.2
15°	90.0	90.3	90.9	91.5	92.1	92.8	93.2	93.6	93.9	94.1	93.4
20°	90.6	91.2	92.7	94.2	95.6	97.1	98.0	98.9	98.9	98.7	97.6
25°	97.4	97.8	99.6	101.4	103.0	104.6	105.1	105.6	105.5	104.6	102.8
30°	109.3	109.5	110.9	112.2	113.0	113.8	113.5	113.1	112.5	111.6	109.6
35°	120.4	120.4	122.1	123.8	124.0	124.2	123.5	122.9	122.9	122.9	120.3
40°	129.6	130.7	133.0	135.4	135.6	135.8	136.3	136.9	138.0	138.6	137.5
45°	138.2	139.6	142.7	145.8	148.1	150.4	152.5	154.6	157.2	159.4	160.5
50°	153.5	153.6	155.7	157.9	162.6	167.3	171.6	175.8	181.5	187.6	191.3
55°	172.5	172.7	173.8	174.8	182.1	189.5	197.3	205.2	213.1	222.2	227.4
60°	193.2	192.9	195.0	197.0	207.0	216.9	230.8	244.7	255.4	264.0	263.8
65°	213.1	214.2	220.0	225.8	240.6	255.4	275.6	295.7	300.2	301.9	298.5
70°	232.3	235.7	248.8	261.9	286.5	311.0	330.4	349.9	350.2	342.9	323.5
75°	108.7	118.4	149.1	179.8	203.5	227.3	247.0	266.8	262.4	246.1	215.8
80°	22.5	23.0	25.1	27.3	38.4	49.6	62.0	74.4	72.8	61.9	47.7
85°	0.0	0.0	0.0	0.1	0.1	0.1	0.3	0.4	0.1	0.1	1.8
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	0.6	0.6	0.6	0.6	0.6	0.6	0.6
100°	0.7	0.7	0.7	0.8	0.8	0.9	0.9	1.0	1.4	1.8	2.1
105°	1.8	1.9	2.1	2.3	2.7	3.1	3.6	4.1	4.8	5.4	5.8
110°	5.7	5.8	6.1	6.4	6.9	7.5	8.1	8.8	9.3	9.8	10.0
115°	12.0	11.9	12.3	12.6	13.1	13.6	14.0	14.4	14.7	14.9	15.2
120°	19.3	19.1	19.3	19.4	19.7	20.0	20.2	20.3	20.6	20.9	21.0
125°	25.6	25.2	25.3	25.4	25.5	25.7	25.9	26.2	26.4	26.6	26.7
130°	31.2	31.0	31.0	31.1	31.3	31.4	31.6	31.8	31.8	31.9	32.1
135°	36.8	36.6	36.6	36.6	36.8	37.1	37.2	37.3	37.4	37.5	37.8
140°	41.9	41.6	41.7	41.8	41.9	42.0	42.1	42.2	42.4	42.7	42.8
145°	47.2	46.9	46.8	46.7	46.8	47.0	47.1	47.2	47.3	47.3	47.5
150°	51.1	50.8	50.9	50.9	50.9	50.9	50.9	50.9	50.9	50.9	51.1
155°	54.0	53.7	53.7	53.7	53.7	53.8	54.0	54.1	54.0	53.9	53.8
160°	56.9	56.7	56.6	56.6	56.4	56.3	56.3	56.2	56.2	56.2	56.4
165°	58.5	58.2	58.1	58.0	58.0	58.0	57.9	57.8	57.8	57.8	57.7
170°	59.9	59.7	59.5	59.4	59.4	59.4	59.4	59.5	59.4	59.3	59.1
175°	60.1	59.9	59.9	59.8	59.8	59.7	59.5	59.3	59.3	59.2	59.2
180°	60.1	60.1	60.1	60.1	60.1	60.1	60.1	60.1	60.1	60.1	60.1



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**CANDELA DISTRIBUTION (continued):**

	55°	60°	65°	70°	75°	80°	85°	90°	95°	100°	105°
0°	89.3	89.3	89.3	89.3	89.3	89.3	89.3	89.3	89.3	89.3	89.3
5°	92.1	91.6	91.1	90.3	89.5	88.4	87.3	85.9	84.7	83.2	81.8
10°	90.6	90.0	89.4	88.5	87.5	86.1	84.6	82.4	79.9	77.0	74.0
15°	92.7	91.9	91.1	90.0	88.9	87.3	85.7	82.8	79.0	74.0	69.1
20°	96.5	95.5	94.4	93.0	91.6	89.7	87.7	83.8	78.5	70.8	63.1
25°	101.0	99.7	98.4	97.3	96.3	93.5	90.7	85.4	77.8	66.8	55.8
30°	107.6	106.4	105.2	104.6	103.9	100.6	97.3	89.6	78.8	62.4	46.0
35°	117.7	117.6	117.4	118.5	119.7	115.1	110.5	98.4	82.4	57.6	32.7
40°	136.5	137.9	139.3	142.5	145.6	139.6	133.7	116.6	92.7	55.6	18.5
45°	161.6	166.7	171.8	178.3	184.9	176.6	168.3	143.3	108.2	59.3	10.5
50°	194.9	202.7	210.4	217.1	223.7	209.8	195.9	164.7	116.6	62.4	8.1
55°	232.5	239.3	246.1	245.5	245.0	224.4	203.9	168.3	105.8	56.1	6.4
60°	263.7	265.2	266.7	260.6	254.4	229.2	204.0	162.8	81.2	43.1	5.1
65°	295.1	290.9	286.7	271.0	255.3	219.2	183.0	132.8	43.5	23.6	3.8
70°	304.1	283.9	263.8	225.0	186.3	145.1	103.9	67.7	13.9	8.1	2.3
75°	185.5	138.8	92.1	58.5	24.8	17.3	9.8	6.8	3.3	2.3	1.3
80°	33.4	23.2	13.1	8.9	4.6	4.1	3.5	3.7	1.3	0.9	0.5
85°	3.4	1.9	0.3	0.3	0.3	1.0	1.6	1.5	0.2	0.1	0.1
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°	2.5	2.4	2.2	2.1	2.0	1.8	1.6	1.6	1.6	1.8	2.0
105°	6.2	6.1	6.0	5.8	5.6	5.4	5.2	5.2	5.2	5.4	5.6
110°	10.3	10.3	10.4	10.3	10.2	10.1	10.0	10.0	10.0	10.1	10.2
115°	15.4	15.5	15.6	15.5	15.4	15.3	15.2	15.3	15.2	15.3	15.4
120°	21.1	21.3	21.5	21.2	21.0	20.9	20.9	20.9	20.9	20.9	21.0
125°	26.9	27.0	27.0	26.8	26.6	26.6	26.6	26.6	26.6	26.6	26.6
130°	32.4	32.5	32.7	32.7	32.7	32.6	32.5	32.6	32.5	32.6	32.7
135°	38.0	38.2	38.5	38.4	38.4	38.5	38.6	38.7	38.6	38.5	38.4
140°	42.9	43.0	43.1	43.2	43.3	43.5	43.7	43.9	43.7	43.5	43.3
145°	47.7	48.0	48.2	48.2	48.2	48.0	47.9	48.1	47.9	48.0	48.2
150°	51.3	51.4	51.5	51.6	51.8	51.9	52.0	52.4	52.0	51.9	51.8
155°	53.7	54.0	54.2	54.4	54.6	54.7	54.8	55.0	54.8	54.7	54.6
160°	56.5	56.7	57.0	56.9	56.7	56.7	56.7	57.2	56.7	56.7	56.7
165°	57.7	57.9	58.1	58.2	58.4	58.3	58.2	58.6	58.2	58.3	58.4
170°	58.9	59.0	59.1	59.4	59.6	59.7	59.8	60.2	59.8	59.7	59.6
175°	59.2	59.4	59.7	59.7	59.8	59.7	59.6	60.0	59.6	59.7	59.8
180°	60.1	60.1	60.1	60.1	60.1	60.1	60.1	60.1	60.1	60.1	60.1





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**CANDELA DISTRIBUTION (continued):**

	110°	115°	120°	125°	130°	135°	140°	145°	150°	155°	160°
0°	89.3	89.3	89.3	89.3	89.3	89.3	89.3	89.3	89.3	89.3	89.3
5°	80.4	78.9	77.5	76.0	74.5	73.0	71.6	70.2	68.9	67.6	67.0
10°	70.5	67.0	62.7	58.4	54.2	49.9	46.4	42.8	39.5	36.2	34.2
15°	61.9	54.8	46.9	38.9	32.2	25.5	21.5	17.5	16.1	14.7	14.3
20°	52.0	40.9	30.6	20.3	17.0	13.7	13.3	12.9	12.8	12.7	12.6
25°	40.2	24.6	18.8	12.9	12.5	12.1	11.9	11.7	11.6	11.5	11.5
30°	29.9	13.8	12.6	11.4	11.1	10.7	10.6	10.5	10.4	10.4	10.4
35°	21.7	10.7	10.3	9.8	9.6	9.3	9.2	9.1	9.1	9.1	9.1
40°	13.8	9.1	8.7	8.2	8.0	7.8	7.7	7.6	7.6	7.6	7.5
45°	9.1	7.6	7.3	6.9	6.7	6.5	6.5	6.4	6.3	6.1	6.0
50°	7.1	6.2	6.0	5.7	5.6	5.5	5.3	5.2	5.0	4.8	4.5
55°	5.8	5.2	5.0	4.7	4.5	4.4	4.2	3.9	3.7	3.4	3.1
60°	4.7	4.2	3.9	3.7	3.5	3.3	3.0	2.8	2.4	2.1	1.8
65°	3.4	2.9	2.8	2.7	2.5	2.3	2.0	1.7	1.4	1.1	0.8
70°	2.1	1.8	1.8	1.8	1.6	1.4	1.2	0.9	0.7	0.4	0.3
75°	1.2	1.2	1.2	1.2	1.0	0.9	0.8	0.7	0.5	0.4	0.4
80°	0.5	0.5	0.6	0.7	0.8	0.8	0.8	0.7	0.6	0.5	0.5
85°	0.1	0.2	0.2	0.2	0.2	0.3	0.3	0.3	0.3	0.3	0.4
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	0.6
100°	2.1	2.2	2.4	2.5	2.1	1.8	1.4	1.0	0.9	0.9	0.8
105°	5.8	6.0	6.1	6.2	5.8	5.4	4.8	4.1	3.6	3.1	2.7
110°	10.3	10.4	10.3	10.3	10.0	9.8	9.3	8.8	8.1	7.5	6.9
115°	15.5	15.6	15.5	15.4	15.2	14.9	14.7	14.4	14.0	13.6	13.1
120°	21.2	21.5	21.3	21.1	21.0	20.9	20.6	20.3	20.2	20.0	19.7
125°	26.8	27.0	27.0	26.9	26.7	26.6	26.4	26.2	25.9	25.7	25.5
130°	32.7	32.7	32.5	32.4	32.1	31.9	31.8	31.8	31.6	31.4	31.3
135°	38.4	38.5	38.3	38.0	37.8	37.5	37.4	37.3	37.2	37.1	36.8
140°	43.2	43.1	43.0	42.9	42.8	42.7	42.4	42.2	42.1	42.0	41.9
145°	48.2	48.2	48.0	47.7	47.5	47.3	47.3	47.2	47.1	47.0	46.8
150°	51.6	51.5	51.4	51.3	51.1	50.9	50.9	50.9	50.9	50.9	50.9
155°	54.4	54.2	54.0	53.7	53.8	53.9	54.0	54.1	54.0	53.8	53.7
160°	56.9	57.0	56.7	56.5	56.4	56.2	56.2	56.2	56.3	56.3	56.4
165°	58.2	58.1	57.9	57.7	57.7	57.8	57.8	57.8	57.9	58.0	58.0
170°	59.4	59.1	59.0	58.9	59.1	59.3	59.4	59.5	59.4	59.4	59.4
175°	59.7	59.7	59.4	59.2	59.2	59.2	59.3	59.3	59.5	59.7	59.8
180°	60.1	60.1	60.1	60.1	60.1	60.1	60.1	60.1	60.1	60.1	60.1



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**CANDELA DISTRIBUTION (continued):**

	165°	170°	175°	180°
0°	89.3	89.3	89.3	89.3
5°	66.4	65.5	64.6	65.5
10°	32.3	31.1	30.0	30.0
15°	13.9	13.8	13.8	13.8
20°	12.6	12.5	12.5	12.5
25°	11.5	11.5	11.4	11.4
30°	10.3	10.3	10.3	10.3
35°	9.1	9.0	9.0	9.1
40°	7.5	7.5	7.5	7.5
45°	5.9	5.7	5.6	5.6
50°	4.2	4.1	3.9	3.9
55°	2.8	2.6	2.4	2.4
60°	1.6	1.4	1.3	1.3
65°	0.6	0.5	0.5	0.5
70°	0.3	0.3	0.3	0.3
75°	0.4	0.4	0.4	0.4
80°	0.6	0.5	0.5	0.5
85°	0.4	0.4	0.4	0.4
90°	0.0	0.0	0.0	0.0
95°	0.5	0.5	0.4	0.4
100°	0.8	0.7	0.7	0.7
105°	2.3	2.1	1.9	1.8
110°	6.4	6.1	5.8	5.7
115°	12.6	12.3	11.9	12.0
120°	19.4	19.3	19.1	19.3
125°	25.4	25.3	25.2	25.6
130°	31.1	31.0	31.0	31.2
135°	36.6	36.6	36.6	36.8
140°	41.8	41.7	41.6	41.9
145°	46.7	46.8	46.9	47.2
150°	50.9	50.9	50.8	51.1
155°	53.7	53.7	53.7	54.0
160°	56.6	56.6	56.7	56.9
165°	58.0	58.1	58.2	58.5
170°	59.4	59.5	59.7	59.9
175°	59.8	59.9	59.9	60.1
180°	60.1	60.1	60.1	60.1

(END OF REPORT)