

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: P400799

Luminaire Tested: **ENV-SA1-740-U-T4W-ULG-XXB**

Issue Date: 5/20/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P400799  
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-T4W-ULG-XXB  
Description: ENTRI LED LUMINAIRE WITH UPLIGHT  
(1) 70 CRI, 4000K LIGHTSQUARE IN BATTERY OPERATION WITH 16 LEDS AND TYPE IV WIDE OPTICS  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 772 lumens  
Efficiency: N/A  
Efficacy: 59.4 lumens/watt  
Luminous Opening: Rectangular (W 0.5' x L: 0.5' x H: 0')  
IES Classification: Type III - 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

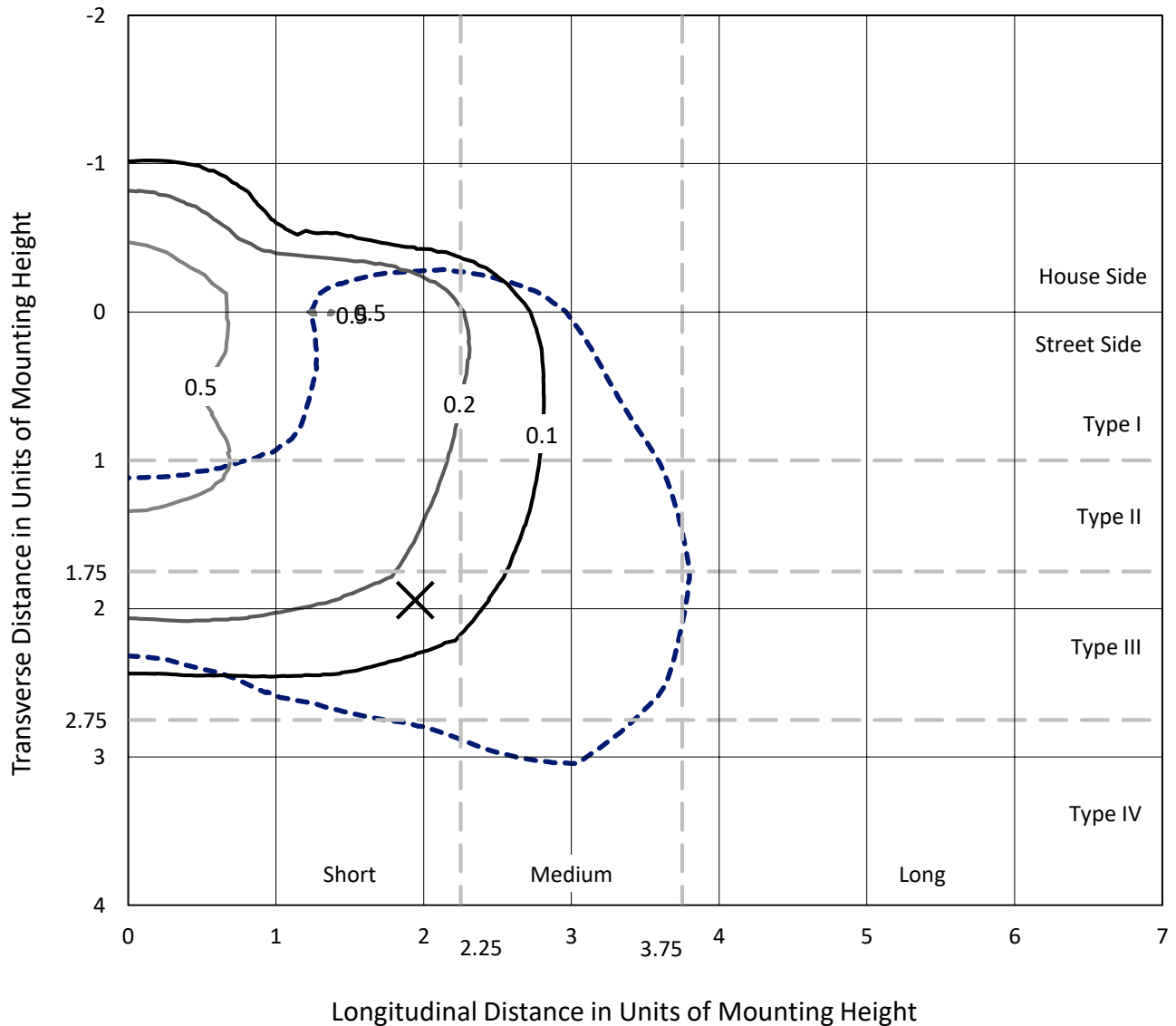


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### Iso-Footcandle Lines of Horizontal Illumination

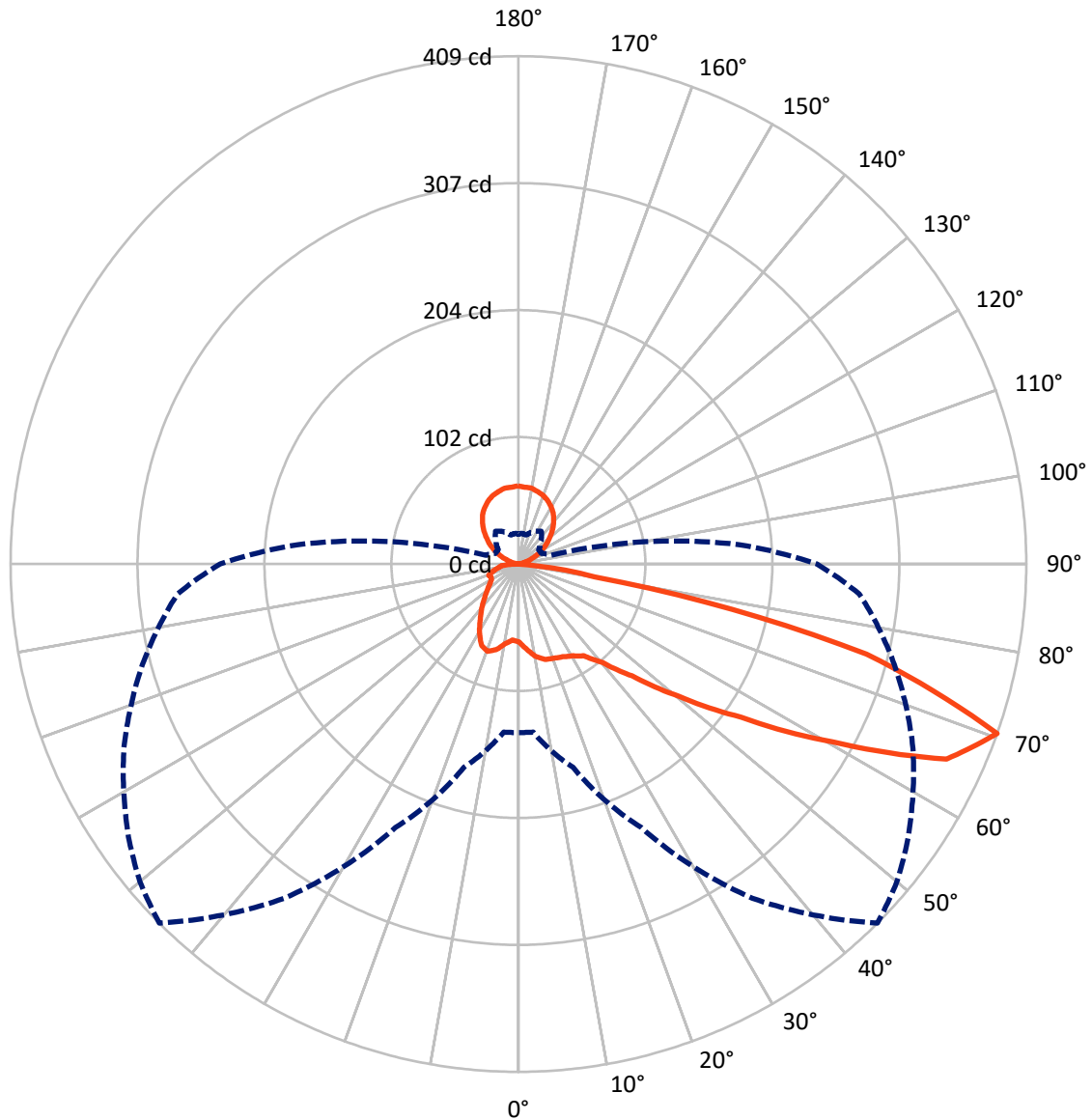
✕ Max cd  
 - - - 1/2 Max cd



Based on 10 foot mounting height. Maximum calculated value = 0.8 fc  
 Type III - Short - Non-Cutoff

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### Luminous Intensity Polar Plot



— Vertical Plane Through 45-Deg Lateral    - - - Horizontal Cone Through 70-Deg Vertical

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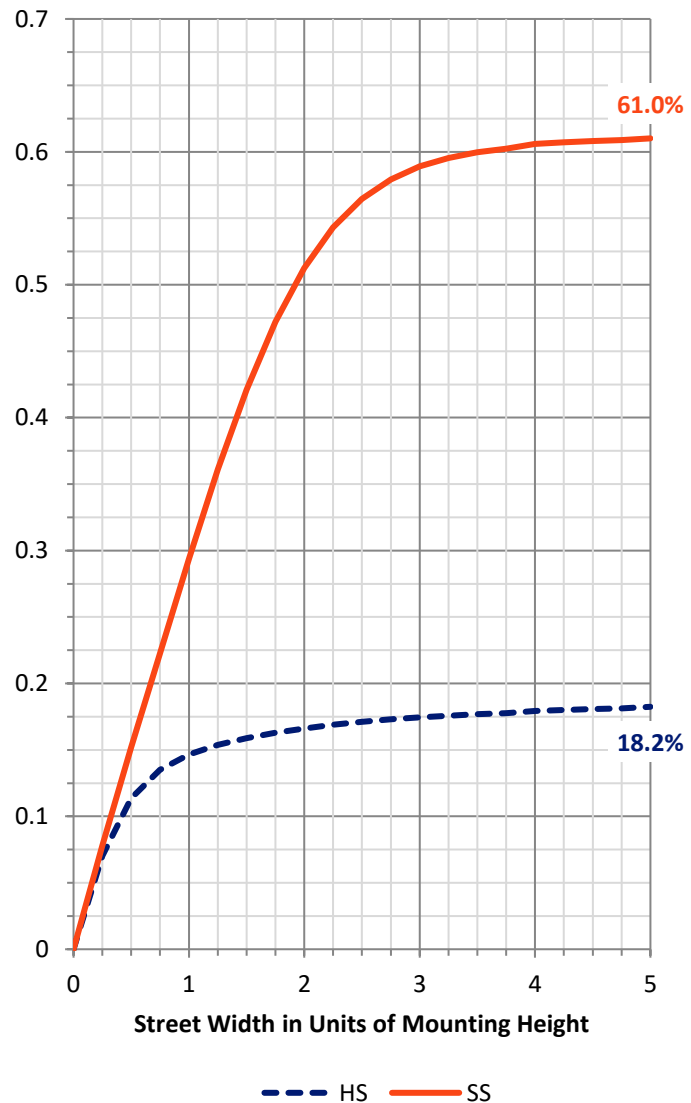
**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	145.0	77.9	222.9
	% Fixture	18.8	10.1	28.9
<b>Street Side</b>	Lumens	471.2	77.9	549.1
	% Fixture	61.0	10.1	71.1
<b>Total</b>	Lumens	616.1	155.9	772.0
	% Fixture	79.8	20.2	100.0

**Coefficient of Utilization**

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	6.4	0.8
10°-20°	21.1	2.7
20°-30°	35.8	4.6
30°-40°	51.8	6.7
40°-50°	78.5	10.2
50°-60°	131.7	17.1
60°-70°	178.7	23.1
70°-80°	100.6	13.0
80°-90°	11.6	1.5
90°-100°	0.7	0.1
100°-110°	5.3	0.7
110°-120°	15.0	1.9
120°-130°	24.5	3.2
130°-140°	30.2	3.9
140°-150°	30.9	4.0
150°-160°	26.1	3.4
160°-170°	17.2	2.2
170°-180°	5.9	0.8
0°-90°	616.1	79.8
0°-180°	772.0	100.0



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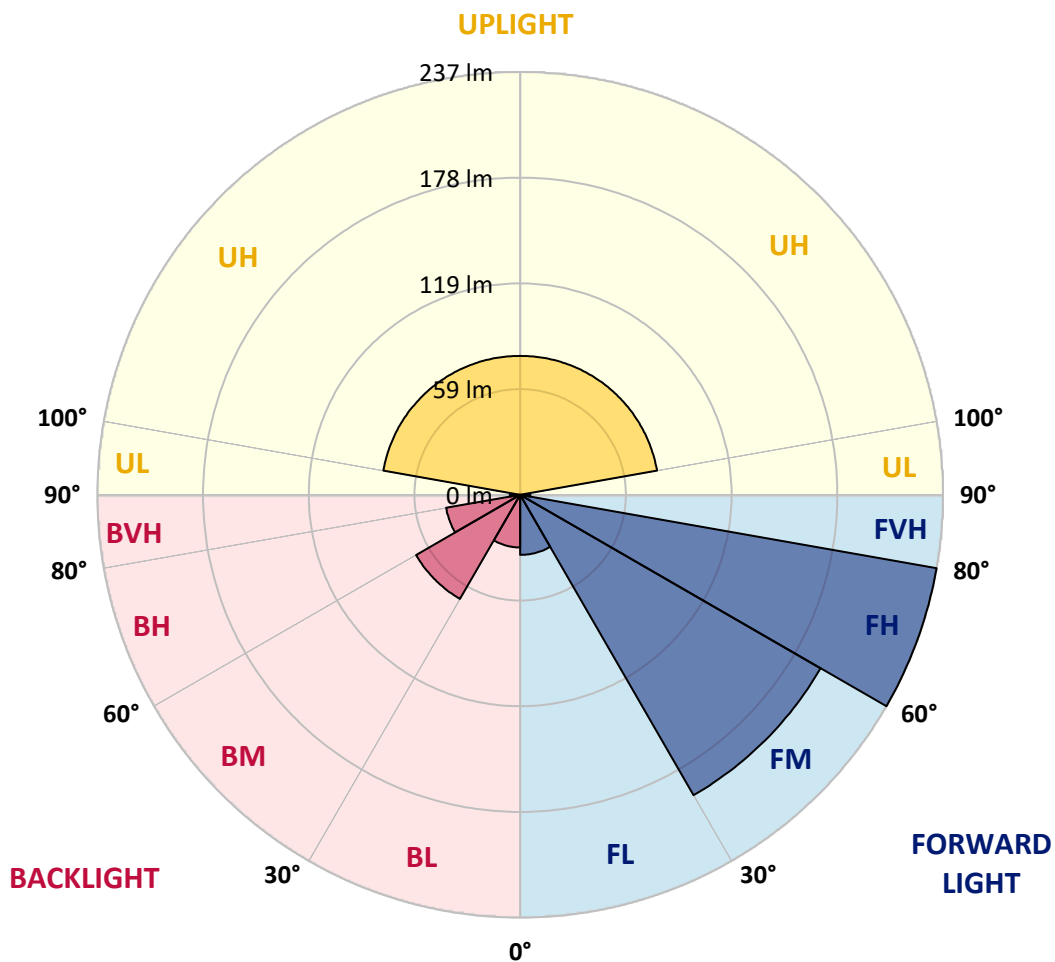
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	33.7	4.4			
FM (30°-60°)	194.5	25.2			
FH (60°-80°)	237.2	30.7			G0/660
FVH (80°-90°)	5.7	0.7			G0/10
BL (0°-30°)	29.5	3.8	B0/110		
BM (30°-60°)	67.4	8.7	B0/220		
BH (60°-80°)	42.1	5.5	B0/110		G0/110
BVH (80°-90°)	5.8	0.8			G0/10
UL (90°-100°)	0.7	0.1		U1/10	
UH (100°-180°)	77.9	10.1		U3/500	

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

Type III Short





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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	62.7	62.7	62.7	62.7	62.7	62.7	62.7	62.7	62.7	62.7	62.7
5°	71.5	71.8	71.8	71.7	71.5	71.3	70.6	69.9	69.3	68.8	68.2
10°	80.8	80.9	80.5	80.1	79.5	78.9	78.0	77.2	76.3	75.5	74.4
15°	84.9	84.7	84.4	84.1	83.5	82.9	81.9	81.0	80.4	79.7	78.7
20°	83.5	83.4	83.3	83.2	82.7	82.2	81.8	81.4	81.1	80.9	80.5
25°	83.0	82.9	82.7	82.4	82.0	81.5	81.5	81.5	82.1	82.7	82.9
30°	95.8	95.8	94.2	92.5	90.1	87.6	86.3	85.0	85.3	85.7	86.1
35°	124.6	124.2	120.9	117.6	111.9	106.1	100.9	95.7	93.2	90.7	90.3
40°	154.0	153.7	151.1	148.4	142.0	135.6	126.0	116.4	110.3	104.3	101.7
45°	184.1	184.0	182.7	181.3	174.6	167.8	157.0	146.2	137.3	128.4	122.7
50°	212.8	212.7	210.7	208.6	206.7	204.7	196.5	188.4	177.8	167.2	160.5
55°	246.0	245.9	243.8	241.6	242.9	244.1	244.2	244.3	230.9	217.5	211.1
60°	265.0	266.7	271.8	276.8	286.7	296.5	301.3	306.2	298.5	290.8	282.1
65°	235.3	240.2	255.9	271.5	291.8	312.1	335.2	358.3	368.4	378.6	364.9
70°	135.6	135.8	152.6	169.4	201.7	234.0	281.1	328.3	368.5	408.7	397.7
75°	19.0	19.7	24.7	29.6	51.0	72.4	112.2	151.9	220.7	289.4	295.4
80°	5.5	5.7	6.7	7.6	9.8	11.9	19.1	26.3	44.3	62.3	77.6
85°	0.0	0.0	0.0	0.1	0.1	0.2	0.4	0.6	1.1	1.5	2.3
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	0.8	0.8	0.9	0.9	1.0	1.1	1.5	1.9	2.2
105°	1.9	2.0	2.2	2.4	2.8	3.2	3.8	4.3	5.0	5.7	6.1
110°	5.9	6.1	6.4	6.6	7.2	7.8	8.5	9.2	9.7	10.2	10.5
115°	12.6	12.5	12.8	13.2	13.7	14.3	14.7	15.1	15.4	15.6	15.9
120°	20.2	20.0	20.2	20.3	20.6	20.9	21.1	21.3	21.5	21.8	22.0
125°	26.8	26.4	26.5	26.6	26.7	26.8	27.1	27.4	27.6	27.8	28.0
130°	32.6	32.4	32.5	32.5	32.7	32.9	33.0	33.2	33.3	33.4	33.6
135°	38.5	38.3	38.3	38.3	38.5	38.8	38.9	39.1	39.1	39.2	39.5
140°	43.8	43.5	43.6	43.7	43.8	43.9	44.0	44.1	44.4	44.6	44.8
145°	49.4	49.0	48.9	48.8	49.0	49.1	49.2	49.4	49.4	49.5	49.7
150°	53.4	53.2	53.2	53.2	53.2	53.2	53.2	53.2	53.2	53.2	53.4
155°	56.5	56.1	56.1	56.1	56.2	56.3	56.4	56.6	56.5	56.4	56.3
160°	59.5	59.3	59.2	59.2	59.0	58.9	58.9	58.8	58.8	58.8	58.9
165°	61.1	60.9	60.8	60.7	60.7	60.7	60.6	60.4	60.4	60.4	60.4
170°	62.7	62.4	62.3	62.1	62.1	62.1	62.2	62.2	62.1	62.0	61.8
175°	62.9	62.7	62.6	62.6	62.5	62.4	62.2	62.0	62.0	62.0	62.0
180°	62.8	62.8	62.8	62.8	62.8	62.8	62.8	62.8	62.8	62.8	62.8



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**CANDELA DISTRIBUTION (continued):**

	55°	60°	65°	70°	75°	80°	85°	90°	95°	100°	105°
0°	62.7	62.7	62.7	62.7	62.7	62.7	62.7	62.7	62.7	62.7	62.7
5°	67.5	66.8	66.1	65.4	64.8	64.2	63.5	62.9	62.7	62.4	62.1
10°	73.3	72.3	71.4	70.2	69.0	67.8	66.6	65.7	65.1	64.7	64.3
15°	77.9	77.0	76.2	75.0	73.7	72.3	70.8	69.6	68.8	68.5	68.1
20°	80.2	79.8	79.4	78.4	77.4	76.1	74.7	73.4	72.8	72.6	72.4
25°	83.0	83.1	83.2	82.6	81.9	80.5	79.2	78.0	77.2	77.2	77.2
30°	86.6	86.5	86.4	85.8	85.2	84.3	83.3	82.6	82.6	82.8	82.9
35°	90.1	91.1	92.0	91.3	90.6	89.2	87.8	87.8	89.6	88.7	87.9
40°	99.1	99.4	99.8	98.6	97.4	96.9	96.5	98.8	102.4	97.0	91.5
45°	117.8	119.9	121.9	121.7	121.4	122.6	123.8	128.4	128.9	110.9	92.8
50°	153.9	158.3	162.8	165.9	169.0	173.2	177.5	185.8	176.0	136.8	97.5
55°	205.0	212.2	219.4	222.5	225.6	238.7	251.7	263.3	238.8	169.3	99.8
60°	274.1	279.0	283.9	285.7	287.4	303.1	318.8	321.1	272.4	176.7	81.0
65°	349.2	344.2	339.3	334.9	330.6	338.8	347.0	326.0	258.1	153.3	48.5
70°	383.0	366.7	350.3	331.7	313.2	294.2	275.3	240.1	178.6	102.9	27.2
75°	297.6	279.6	261.7	230.1	198.6	162.9	127.2	99.4	68.6	43.8	19.0
80°	89.0	82.1	75.2	59.2	43.2	32.2	21.2	16.9	15.3	14.4	13.5
85°	3.3	4.2	5.0	5.3	5.5	4.3	3.0	2.6	3.5	4.7	5.9
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	0.7	0.7	0.6	0.6	0.6	0.6	0.6	0.6	0.6
100°	2.6	2.5	2.3	2.2	2.1	1.9	1.7	1.7	1.7	1.9	2.1
105°	6.5	6.4	6.3	6.1	5.8	5.7	5.5	5.5	5.5	5.7	5.8
110°	10.8	10.8	10.9	10.8	10.7	10.6	10.4	10.5	10.4	10.6	10.7
115°	16.1	16.2	16.3	16.2	16.1	16.0	15.9	16.0	15.9	16.0	16.1
120°	22.1	22.3	22.4	22.2	22.0	21.9	21.8	21.8	21.8	21.9	22.0
125°	28.1	28.2	28.3	28.1	27.8	27.8	27.8	27.8	27.8	27.8	27.8
130°	33.9	34.0	34.2	34.2	34.2	34.1	34.0	34.1	34.0	34.1	34.2
135°	39.8	40.0	40.2	40.2	40.1	40.3	40.4	40.5	40.4	40.3	40.1
140°	44.9	45.0	45.1	45.2	45.3	45.5	45.7	45.9	45.7	45.5	45.3
145°	49.9	50.2	50.5	50.4	50.4	50.2	50.1	50.3	50.1	50.2	50.4
150°	53.6	53.7	53.9	54.0	54.1	54.3	54.4	54.8	54.4	54.3	54.1
155°	56.2	56.4	56.7	56.9	57.1	57.2	57.3	57.6	57.3	57.2	57.1
160°	59.1	59.4	59.6	59.5	59.4	59.3	59.3	59.8	59.3	59.3	59.4
165°	60.3	60.6	60.8	60.9	61.1	61.0	60.9	61.2	60.9	61.0	61.1
170°	61.6	61.7	61.9	62.1	62.3	62.4	62.5	62.9	62.5	62.4	62.3
175°	62.0	62.2	62.4	62.5	62.5	62.4	62.3	62.8	62.3	62.4	62.5
180°	62.8	62.8	62.8	62.8	62.8	62.8	62.8	62.8	62.8	62.8	62.8





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**CANDELA DISTRIBUTION (continued):**

	110°	115°	120°	125°	130°	135°	140°	145°	150°	155°	160°
0°	62.7	62.7	62.7	62.7	62.7	62.7	62.7	62.7	62.7	62.7	62.7
5°	62.0	61.8	61.6	61.4	61.4	61.3	61.5	61.7	61.8	61.9	62.0
10°	64.2	64.2	64.3	64.3	64.7	65.0	65.5	66.0	66.4	66.8	67.1
15°	68.3	68.6	69.2	69.9	70.5	71.1	71.5	72.0	72.1	72.3	72.5
20°	73.0	73.6	74.0	74.4	74.5	74.5	74.2	73.8	73.4	73.0	72.6
25°	76.9	76.7	75.6	74.4	73.1	71.7	70.5	69.3	68.6	67.9	67.5
30°	80.2	77.5	73.6	69.6	66.5	63.5	62.0	60.5	60.4	60.4	60.7
35°	81.1	74.3	67.5	60.7	57.4	54.1	53.1	52.1	52.0	51.9	52.2
40°	78.4	65.2	57.7	50.1	48.3	46.4	45.4	44.4	43.8	43.1	42.4
45°	71.8	50.9	45.6	40.2	39.6	39.1	38.0	37.0	36.0	35.1	33.6
50°	67.8	38.1	35.4	32.7	32.9	33.0	32.3	31.7	30.5	29.2	27.7
55°	65.1	30.5	29.1	27.6	28.1	28.5	28.4	28.2	27.2	26.2	25.0
60°	53.2	25.5	24.6	23.7	24.4	25.2	25.7	26.2	25.6	25.0	24.1
65°	35.4	22.4	22.0	21.6	23.0	24.3	26.0	27.7	27.7	27.7	26.8
70°	23.8	20.5	20.2	19.9	22.8	25.6	28.9	32.1	30.5	28.8	26.5
75°	18.8	18.6	17.7	16.8	18.8	20.8	25.4	29.9	28.4	26.8	24.5
80°	14.1	14.7	13.8	12.9	14.6	16.3	21.1	25.8	24.9	24.0	21.7
85°	7.0	8.1	8.1	8.2	10.8	13.5	18.6	23.6	22.3	21.1	18.4
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
95°	0.7	0.7	0.7	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6
100°	2.2	2.3	2.5	2.6	2.2	1.9	1.5	1.1	1.0	0.9	0.9
105°	6.1	6.3	6.4	6.5	6.1	5.7	5.0	4.3	3.8	3.2	2.8
110°	10.8	10.9	10.8	10.8	10.5	10.2	9.7	9.2	8.5	7.8	7.2
115°	16.2	16.3	16.2	16.1	15.9	15.6	15.4	15.1	14.7	14.3	13.7
120°	22.2	22.4	22.3	22.1	22.0	21.8	21.5	21.3	21.1	20.9	20.6
125°	28.1	28.3	28.2	28.1	28.0	27.8	27.6	27.4	27.1	26.8	26.7
130°	34.2	34.2	34.0	33.9	33.6	33.4	33.3	33.2	33.0	32.9	32.7
135°	40.2	40.2	40.0	39.8	39.5	39.2	39.1	39.1	38.9	38.8	38.5
140°	45.2	45.1	45.0	44.9	44.8	44.6	44.4	44.1	44.0	43.9	43.8
145°	50.4	50.5	50.2	49.9	49.7	49.5	49.4	49.4	49.2	49.1	49.0
150°	54.0	53.9	53.7	53.6	53.4	53.2	53.2	53.2	53.2	53.2	53.2
155°	56.9	56.7	56.4	56.2	56.3	56.4	56.5	56.6	56.4	56.3	56.2
160°	59.5	59.6	59.4	59.1	58.9	58.8	58.8	58.8	58.9	58.9	59.0
165°	60.9	60.8	60.6	60.3	60.4	60.4	60.4	60.4	60.6	60.7	60.7
170°	62.1	61.9	61.7	61.6	61.8	62.0	62.1	62.2	62.2	62.1	62.1
175°	62.5	62.4	62.2	62.0	62.0	62.0	62.0	62.0	62.2	62.4	62.5
180°	62.8	62.8	62.8	62.8	62.8	62.8	62.8	62.8	62.8	62.8	62.8



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**CANDELA DISTRIBUTION (continued):**

	165°	170°	175°	180°
0°	62.7	62.7	62.7	62.7
5°	62.1	62.1	62.1	62.1
10°	67.5	67.7	67.9	67.9
15°	72.6	72.8	73.0	73.1
20°	72.1	72.1	72.1	72.2
25°	67.0	67.0	67.1	67.6
30°	61.1	61.4	61.6	62.2
35°	52.5	52.9	53.3	53.5
40°	41.6	40.9	40.3	40.3
45°	32.1	30.9	29.8	29.2
50°	26.2	25.4	24.6	24.2
55°	23.8	23.2	22.6	22.4
60°	23.2	22.9	22.6	22.3
65°	25.9	26.3	26.7	26.8
70°	24.2	24.5	24.8	24.0
75°	22.3	21.7	21.2	20.1
80°	19.5	18.7	17.9	17.1
85°	15.7	14.7	13.6	13.4
90°	0.0	0.0	0.0	0.0
95°	0.5	0.5	0.4	0.4
100°	0.8	0.8	0.7	0.7
105°	2.4	2.2	2.0	1.9
110°	6.6	6.4	6.1	5.9
115°	13.2	12.8	12.5	12.6
120°	20.3	20.2	20.0	20.2
125°	26.6	26.5	26.4	26.8
130°	32.5	32.5	32.4	32.6
135°	38.3	38.3	38.3	38.5
140°	43.7	43.6	43.5	43.8
145°	48.8	48.9	49.0	49.4
150°	53.2	53.2	53.2	53.4
155°	56.1	56.1	56.1	56.5
160°	59.2	59.2	59.3	59.5
165°	60.7	60.8	60.9	61.1
170°	62.1	62.3	62.4	62.7
175°	62.6	62.6	62.7	62.9
180°	62.8	62.8	62.8	62.8

(END OF REPORT)