

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: P400797

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

Issue Date: 5/20/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P400797  
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-HSS-ULG-XXB  
Description: ENTRI LED LUMINAIRE WITH UPLIGHT  
(1) 70 CRI, 4000K LIGHTSQUARE IN BATTERY OPERATION WITH 16 LEDS AND TYPE  
IV WIDE OPTICS WITH HOUSE SIDE SHIELD  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 576 lumens  
Efficiency: N/A  
Efficacy: 44.3 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

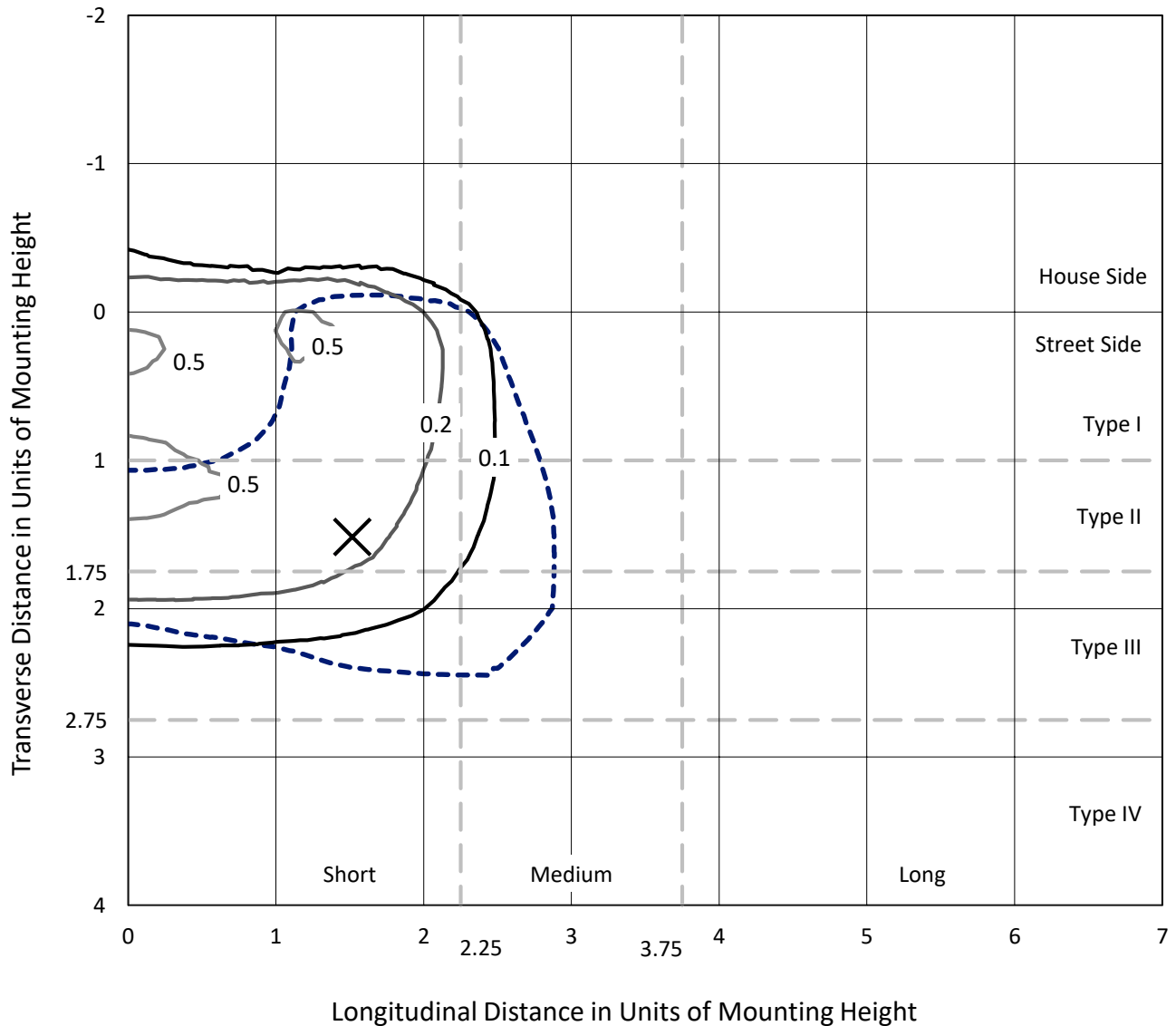
Input Watts (W): 13  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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### Iso-Footcandle Lines of Horizontal Illumination

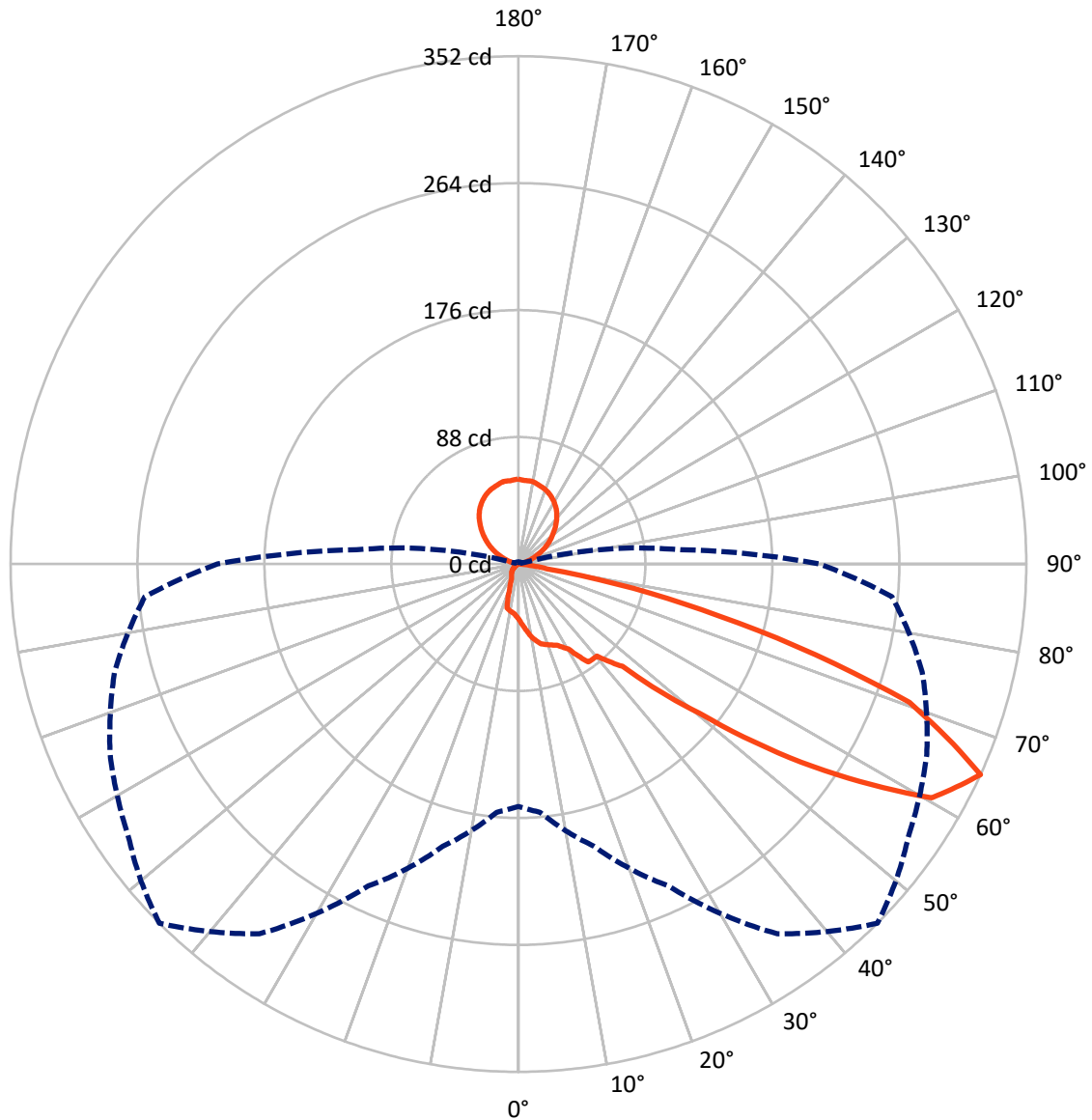
× Max cd  
 - - - 1/2 Max cd



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

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### Luminous Intensity Polar Plot



— Vertical Plane Through 45-Deg Lateral    - - - Horizontal Cone Through 65-Deg Vertical

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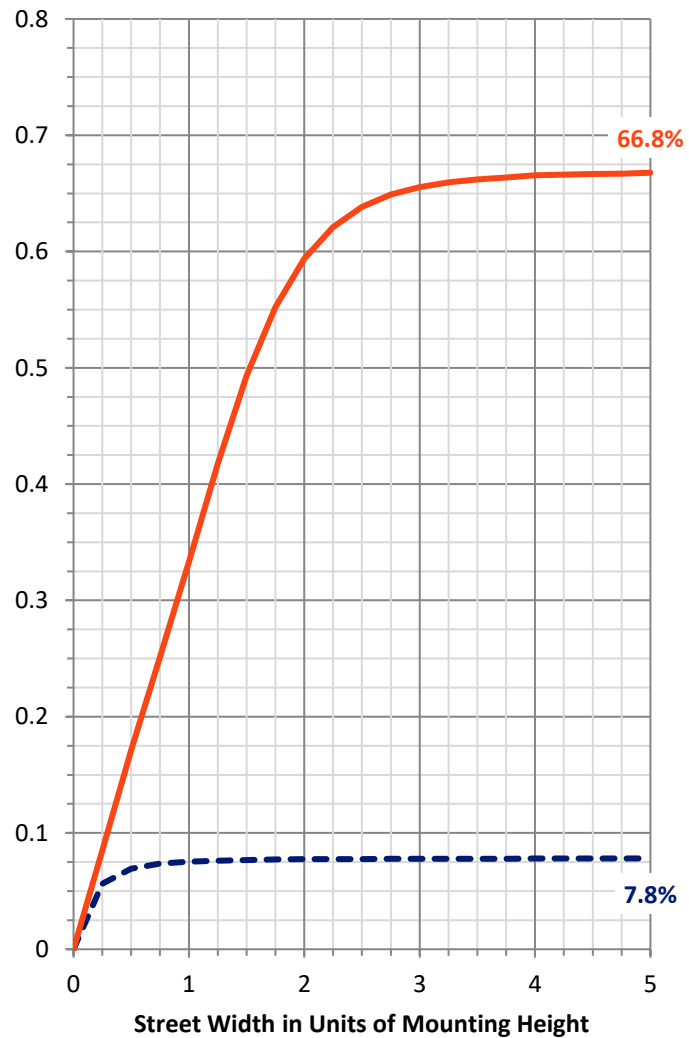
**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	45.5	72.9	118.5
	% Fixture	7.9	12.7	20.6
<b>Street Side</b>	Lumens	384.6	72.9	457.5
	% Fixture	66.8	12.7	79.4
<b>Total</b>	Lumens	430.1	145.9	576.0
	% Fixture	74.7	25.3	100.0

**Coefficient of Utilization**

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	3.9	0.7
10°-20°	12.1	2.1
20°-30°	19.7	3.4
30°-40°	31.2	5.4
40°-50°	60.0	10.4
50°-60°	121.6	21.1
60°-70°	134.5	23.4
70°-80°	45.0	7.8
80°-90°	2.1	0.4
90°-100°	0.7	0.1
100°-110°	4.9	0.9
110°-120°	14.0	2.4
120°-130°	23.0	4.0
130°-140°	28.3	4.9
140°-150°	28.9	5.0
150°-160°	24.4	4.2
160°-170°	16.1	2.8
170°-180°	5.6	1.0
0°-90°	430.1	74.7
0°-180°	576.0	100.0



--- HS    — SS

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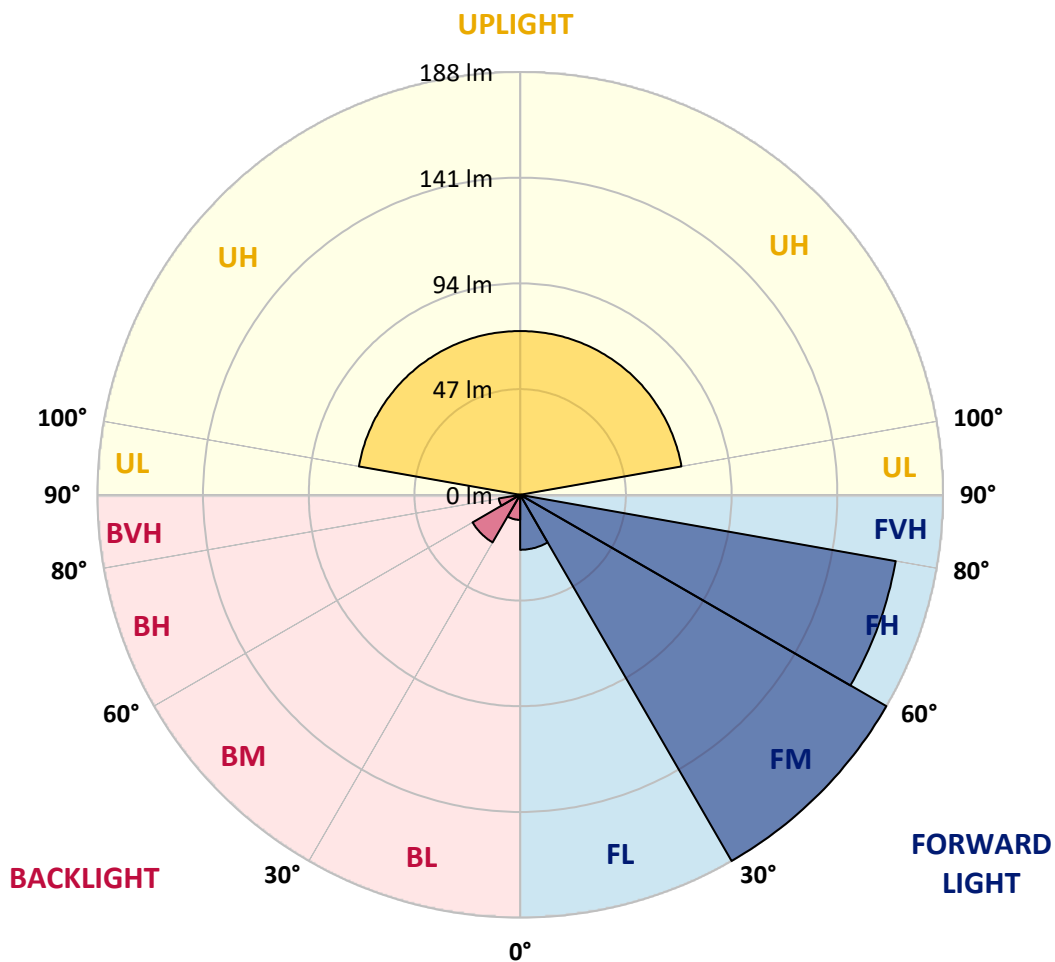
CATALOG NUMBER: ENV-SA1-740-U-T4W-HSS-ULG-XXB

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

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	24.5	4.3			
FM	(30°-60°)	188.4	32.7			
FH	(60°-80°)	169.9	29.5			G0/660
FVH	(80°-90°)	1.9	0.3			G0/10
BL	(0°-30°)	11.2	1.9	B0/110		
BM	(30°-60°)	24.5	4.3	B0/220		
BH	(60°-80°)	9.7	1.7	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°)	72.9	12.7		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°	38.2	38.2	38.2	38.2	38.2	38.2	38.2	38.2	38.2	38.2	38.2
5°	47.5	47.4	47.1	46.9	46.5	46.2	45.8	45.4	44.9	44.3	43.7
10°	57.3	57.2	56.9	56.6	56.1	55.5	54.7	53.9	52.8	51.7	50.7
15°	63.2	63.0	62.6	62.3	61.5	60.8	59.9	59.1	58.2	57.3	56.2
20°	63.5	63.2	63.0	62.8	62.3	61.8	61.2	60.7	60.2	59.7	59.0
25°	62.6	62.3	62.2	62.1	61.8	61.6	61.6	61.5	61.9	62.3	62.2
30°	68.9	68.5	67.8	67.2	66.3	65.4	65.9	66.4	67.3	68.2	69.2
35°	80.2	79.3	77.7	76.0	75.4	74.7	76.4	78.0	80.7	83.4	86.0
40°	110.3	109.2	106.4	103.6	97.4	91.1	86.6	82.0	82.9	83.8	85.2
45°	155.6	154.8	151.9	149.1	140.8	132.5	121.8	111.0	106.1	101.1	104.0
50°	209.7	209.5	205.1	200.7	196.4	192.0	183.8	175.7	169.1	162.6	163.6
55°	262.7	261.3	258.5	255.7	258.3	260.8	264.9	269.1	258.5	247.9	241.8
60°	251.2	251.6	257.8	264.0	278.3	292.6	312.3	332.0	330.4	328.9	316.1
65°	168.0	172.6	187.5	202.4	224.3	246.1	279.4	312.7	332.3	351.8	341.4
70°	67.6	69.4	79.3	89.2	112.2	135.2	173.0	210.7	249.1	287.4	289.0
75°	7.9	8.2	10.6	13.0	22.8	32.6	50.7	68.7	105.9	143.2	147.2
80°	2.1	2.2	2.7	3.1	4.3	5.4	8.6	11.7	15.8	19.9	26.9
85°	0.0	0.0	0.0	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.6
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	0.8	0.9	1.0	1.4	1.8	2.1
105°	1.8	1.8	2.1	2.3	2.6	3.0	3.5	4.0	4.7	5.3	5.7
110°	5.5	5.7	6.0	6.2	6.8	7.3	7.9	8.6	9.1	9.6	9.8
115°	11.8	11.7	12.0	12.4	12.9	13.4	13.7	14.1	14.4	14.6	14.8
120°	18.9	18.7	18.9	19.0	19.3	19.6	19.7	19.9	20.2	20.4	20.5
125°	25.0	24.7	24.8	24.9	25.0	25.1	25.4	25.6	25.8	26.0	26.2
130°	30.5	30.3	30.4	30.4	30.6	30.7	30.9	31.1	31.2	31.3	31.5
135°	36.0	35.8	35.8	35.8	36.0	36.3	36.4	36.5	36.6	36.7	37.0
140°	41.0	40.7	40.8	40.9	41.0	41.1	41.2	41.3	41.5	41.8	41.9
145°	46.2	45.9	45.8	45.7	45.8	46.0	46.1	46.2	46.2	46.3	46.5
150°	50.0	49.7	49.8	49.8	49.8	49.8	49.8	49.8	49.8	49.8	50.0
155°	52.8	52.5	52.5	52.5	52.6	52.7	52.8	52.9	52.9	52.8	52.7
160°	55.7	55.4	55.4	55.4	55.2	55.1	55.1	55.0	55.0	55.0	55.2
165°	57.2	57.0	56.9	56.8	56.8	56.8	56.7	56.5	56.5	56.5	56.5
170°	58.6	58.4	58.3	58.1	58.1	58.1	58.2	58.2	58.1	58.1	57.8
175°	58.8	58.6	58.6	58.6	58.5	58.4	58.2	58.1	58.0	58.0	58.0
180°	58.8	58.8	58.8	58.8	58.8	58.8	58.8	58.8	58.8	58.8	58.8



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**CANDELA DISTRIBUTION (continued):**

	55°	60°	65°	70°	75°	80°	85°	90°	95°	100°	105°
0°	38.2	38.2	38.2	38.2	38.2	38.2	38.2	38.2	38.2	38.2	38.2
5°	43.0	42.4	41.8	41.1	40.5	39.9	39.3	38.6	38.1	37.6	37.0
10°	49.4	48.3	47.1	45.9	44.7	43.4	42.1	40.8	39.7	38.6	37.5
15°	55.1	53.9	52.7	51.1	49.5	47.7	45.9	44.0	42.3	40.8	39.3
20°	58.3	57.4	56.5	55.1	53.7	51.7	49.8	47.9	45.7	43.8	41.8
25°	62.2	61.9	61.7	60.7	59.6	57.7	55.8	53.5	51.2	48.4	45.6
30°	69.9	69.9	70.0	70.1	70.1	68.1	66.1	63.4	59.9	55.0	50.1
35°	88.3	88.5	88.6	83.7	78.8	73.9	69.1	66.9	65.5	57.0	48.5
40°	86.4	87.1	87.7	85.7	83.7	83.8	83.9	84.6	82.6	61.0	39.4
45°	107.0	114.7	122.5	128.4	134.4	138.5	142.6	138.0	122.4	73.2	24.1
50°	165.8	175.2	184.6	186.2	187.7	194.2	200.7	192.5	152.8	82.3	11.7
55°	234.5	239.8	245.1	247.5	249.8	258.4	267.0	240.2	167.2	86.9	6.6
60°	302.2	300.1	298.1	297.5	296.9	299.9	302.9	253.6	152.7	78.5	4.3
65°	329.7	320.9	312.1	300.8	289.6	274.6	259.7	208.4	112.6	57.6	2.6
70°	285.6	264.2	242.8	211.2	179.7	154.7	129.8	102.9	54.0	27.9	1.8
75°	150.1	128.9	107.7	83.5	59.3	45.4	31.5	22.3	10.9	6.1	1.2
80°	31.1	25.7	20.2	17.0	13.8	8.5	3.2	2.6	1.6	1.1	0.7
85°	1.1	1.6	2.1	2.3	2.5	1.4	0.3	0.2	0.2	0.2	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°	0.6	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	2.1	1.9	1.8	1.6	1.6	1.6	1.8	1.9
105°	6.1	6.0	5.9	5.7	5.5	5.3	5.1	5.1	5.1	5.3	5.5
110°	10.1	10.1	10.2	10.1	10.0	9.9	9.7	9.8	9.7	9.9	10.0
115°	15.0	15.2	15.3	15.2	15.0	15.0	14.9	15.0	14.9	15.0	15.0
120°	20.7	20.8	21.0	20.8	20.6	20.5	20.4	20.4	20.4	20.5	20.6
125°	26.3	26.4	26.5	26.3	26.0	26.0	26.0	26.0	26.0	26.0	26.0
130°	31.7	31.8	32.0	32.0	32.0	31.9	31.8	31.9	31.8	31.9	32.0
135°	37.2	37.4	37.6	37.6	37.6	37.7	37.8	37.9	37.8	37.7	37.6
140°	42.0	42.1	42.2	42.3	42.3	42.6	42.8	42.9	42.8	42.6	42.3
145°	46.7	47.0	47.2	47.2	47.1	47.0	46.9	47.1	46.9	47.0	47.1
150°	50.2	50.3	50.4	50.5	50.7	50.8	50.9	51.2	50.9	50.8	50.7
155°	52.6	52.8	53.0	53.2	53.4	53.5	53.6	53.9	53.6	53.5	53.4
160°	55.3	55.5	55.8	55.7	55.5	55.5	55.4	56.0	55.4	55.5	55.5
165°	56.5	56.7	56.9	57.0	57.1	57.0	57.0	57.3	57.0	57.0	57.1
170°	57.6	57.8	57.9	58.1	58.3	58.4	58.5	58.9	58.5	58.4	58.3
175°	58.0	58.2	58.4	58.4	58.5	58.4	58.3	58.7	58.3	58.4	58.5
180°	58.8	58.8	58.8	58.8	58.8	58.8	58.8	58.8	58.8	58.8	58.8





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**CANDELA DISTRIBUTION (continued):**

	110°	115°	120°	125°	130°	135°	140°	145°	150°	155°	160°
0°	38.2	38.2	38.2	38.2	38.2	38.2	38.2	38.2	38.2	38.2	38.2
5°	36.6	36.1	35.7	35.3	34.9	34.6	34.4	34.2	34.1	33.9	33.8
10°	36.6	35.7	35.0	34.2	33.7	33.1	32.7	32.4	32.1	31.9	31.7
15°	38.0	36.7	35.7	34.7	33.0	31.4	28.5	25.7	23.5	21.3	19.8
20°	40.1	38.4	33.7	29.1	23.5	18.0	15.7	13.4	13.1	12.9	13.0
25°	39.9	34.2	24.8	15.4	13.5	11.5	11.5	11.6	11.6	11.7	11.8
30°	36.1	22.1	16.1	10.2	10.0	9.8	9.8	9.9	10.0	10.1	10.3
35°	29.7	10.9	9.9	8.9	8.6	8.4	8.2	8.0	8.0	8.0	8.0
40°	24.0	8.6	8.2	7.8	7.5	7.2	6.9	6.6	6.2	5.9	5.6
45°	15.9	7.7	7.3	6.8	6.4	6.0	5.4	4.8	4.3	3.8	3.5
50°	9.2	6.7	6.2	5.7	5.1	4.5	3.9	3.2	2.8	2.5	2.3
55°	6.0	5.3	4.8	4.2	3.7	3.2	2.8	2.5	2.3	2.1	2.1
60°	3.9	3.6	3.2	2.9	2.6	2.4	2.2	2.1	1.9	1.8	1.7
65°	2.4	2.2	2.1	1.9	1.8	1.7	1.6	1.6	1.5	1.4	1.3
70°	1.6	1.4	1.3	1.2	1.2	1.2	1.2	1.1	1.0	0.9	0.8
75°	1.1	1.0	0.9	0.9	0.9	0.8	0.8	0.7	0.7	0.7	0.6
80°	0.7	0.7	0.8	0.8	0.9	0.9	0.9	0.9	0.9	0.8	0.9
85°	0.2	0.2	0.2	0.2	0.3	0.3	0.3	0.3	0.4	0.4	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	2.3	2.4	2.1	1.8	1.4	1.0	0.9	0.8	0.8
105°	5.7	5.9	6.0	6.1	5.7	5.3	4.7	4.0	3.5	3.0	2.6
110°	10.1	10.2	10.1	10.1	9.8	9.6	9.1	8.6	7.9	7.3	6.8
115°	15.2	15.3	15.2	15.0	14.8	14.6	14.4	14.1	13.7	13.4	12.9
120°	20.8	21.0	20.8	20.7	20.5	20.4	20.2	19.9	19.7	19.6	19.3
125°	26.3	26.5	26.4	26.3	26.2	26.0	25.8	25.6	25.4	25.1	25.0
130°	32.0	32.0	31.8	31.7	31.5	31.3	31.2	31.1	30.9	30.7	30.6
135°	37.6	37.6	37.4	37.2	37.0	36.7	36.6	36.5	36.4	36.3	36.0
140°	42.3	42.2	42.1	42.0	41.9	41.8	41.5	41.3	41.2	41.1	41.0
145°	47.2	47.2	47.0	46.7	46.5	46.3	46.2	46.2	46.1	46.0	45.8
150°	50.5	50.4	50.3	50.2	50.0	49.8	49.8	49.8	49.8	49.8	49.8
155°	53.2	53.0	52.8	52.6	52.7	52.8	52.9	52.9	52.8	52.7	52.6
160°	55.7	55.8	55.5	55.3	55.2	55.0	55.0	55.0	55.1	55.1	55.2
165°	57.0	56.9	56.7	56.5	56.5	56.5	56.5	56.5	56.7	56.8	56.8
170°	58.1	57.9	57.8	57.6	57.8	58.1	58.1	58.2	58.2	58.1	58.1
175°	58.4	58.4	58.2	58.0	58.0	58.0	58.0	58.1	58.2	58.4	58.5
180°	58.8	58.8	58.8	58.8	58.8	58.8	58.8	58.8	58.8	58.8	58.8



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CATALOG NUMBER: ENV-SA1-740-U-T4W-HSS-ULG-XXB

**CANDELA DISTRIBUTION (continued):**

	165°	170°	175°	180°
0°	38.2	38.2	38.2	38.2
5°	33.7	33.6	33.6	33.6
10°	31.5	31.5	31.5	31.5
15°	18.3	17.9	17.4	17.2
20°	13.1	13.2	13.4	13.4
25°	11.9	12.1	12.2	12.3
30°	10.5	10.7	10.8	11.0
35°	8.0	8.2	8.3	8.3
40°	5.3	5.2	5.1	5.1
45°	3.2	3.1	3.0	3.0
50°	2.2	2.2	2.2	2.2
55°	2.0	1.9	1.9	1.9
60°	1.6	1.6	1.6	1.6
65°	1.1	1.1	1.0	1.0
70°	0.7	0.6	0.6	0.5
75°	0.5	0.5	0.4	0.4
80°	0.9	0.8	0.7	0.6
85°	0.4	0.4	0.3	0.3
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	1.8	1.8
110°	6.2	6.0	5.7	5.5
115°	12.4	12.0	11.7	11.8
120°	19.0	18.9	18.7	18.9
125°	24.9	24.8	24.7	25.0
130°	30.4	30.4	30.3	30.5
135°	35.8	35.8	35.8	36.0
140°	40.9	40.8	40.7	41.0
145°	45.7	45.8	45.9	46.2
150°	49.8	49.8	49.7	50.0
155°	52.5	52.5	52.5	52.8
160°	55.4	55.4	55.4	55.7
165°	56.8	56.9	57.0	57.2
170°	58.1	58.3	58.4	58.6
175°	58.6	58.6	58.6	58.8
180°	58.8	58.8	58.8	58.8

(END OF REPORT)