

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: P400795

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

Issue Date: 5/20/2020

Test Information

Test Method: LM-79-08
Report Number: P400795
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-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
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 739 lumens
Efficiency: N/A
Efficacy: 56.8 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

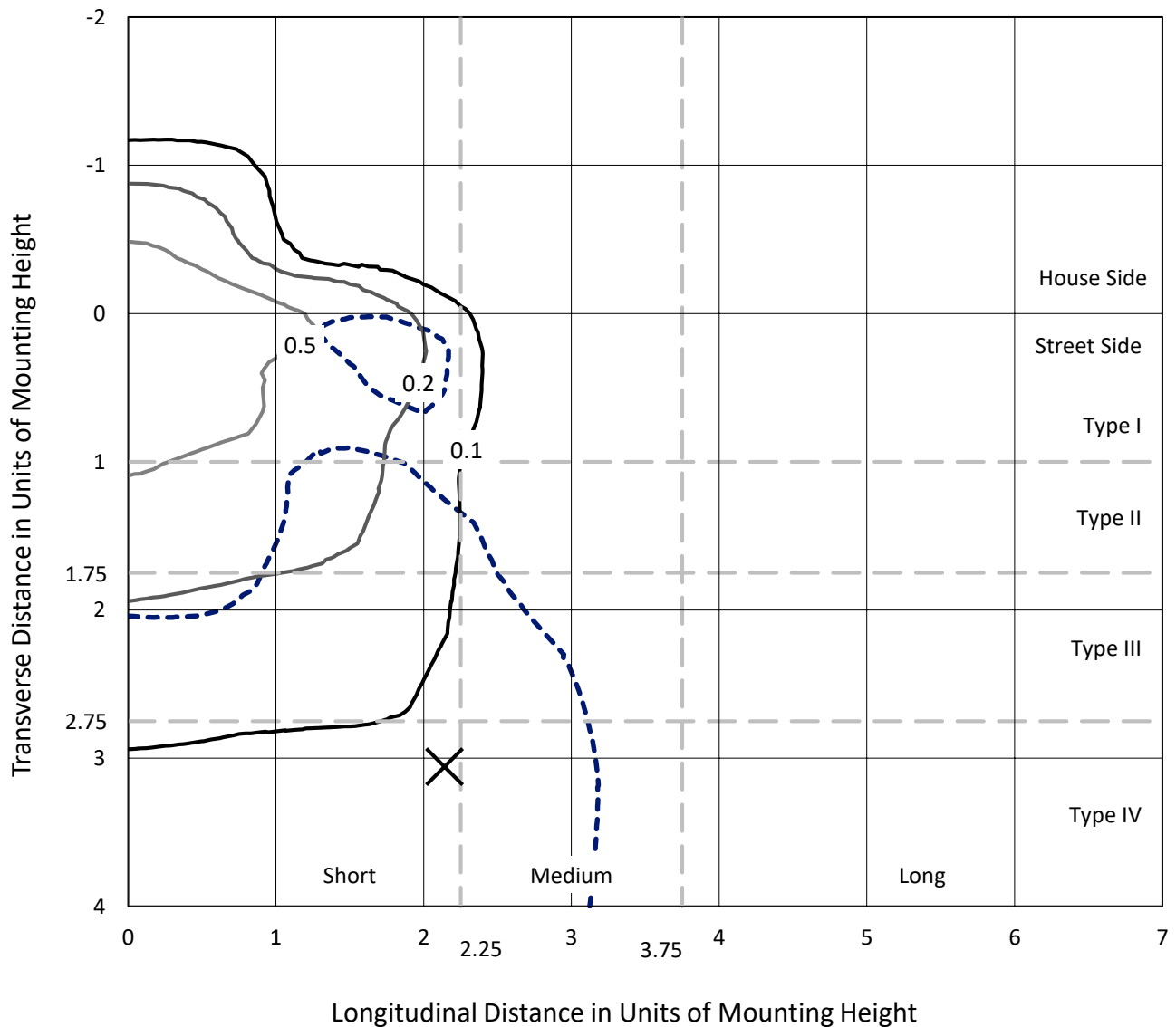
Input Watts (W): 13
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Iso-Footcandle Lines of Horizontal Illumination

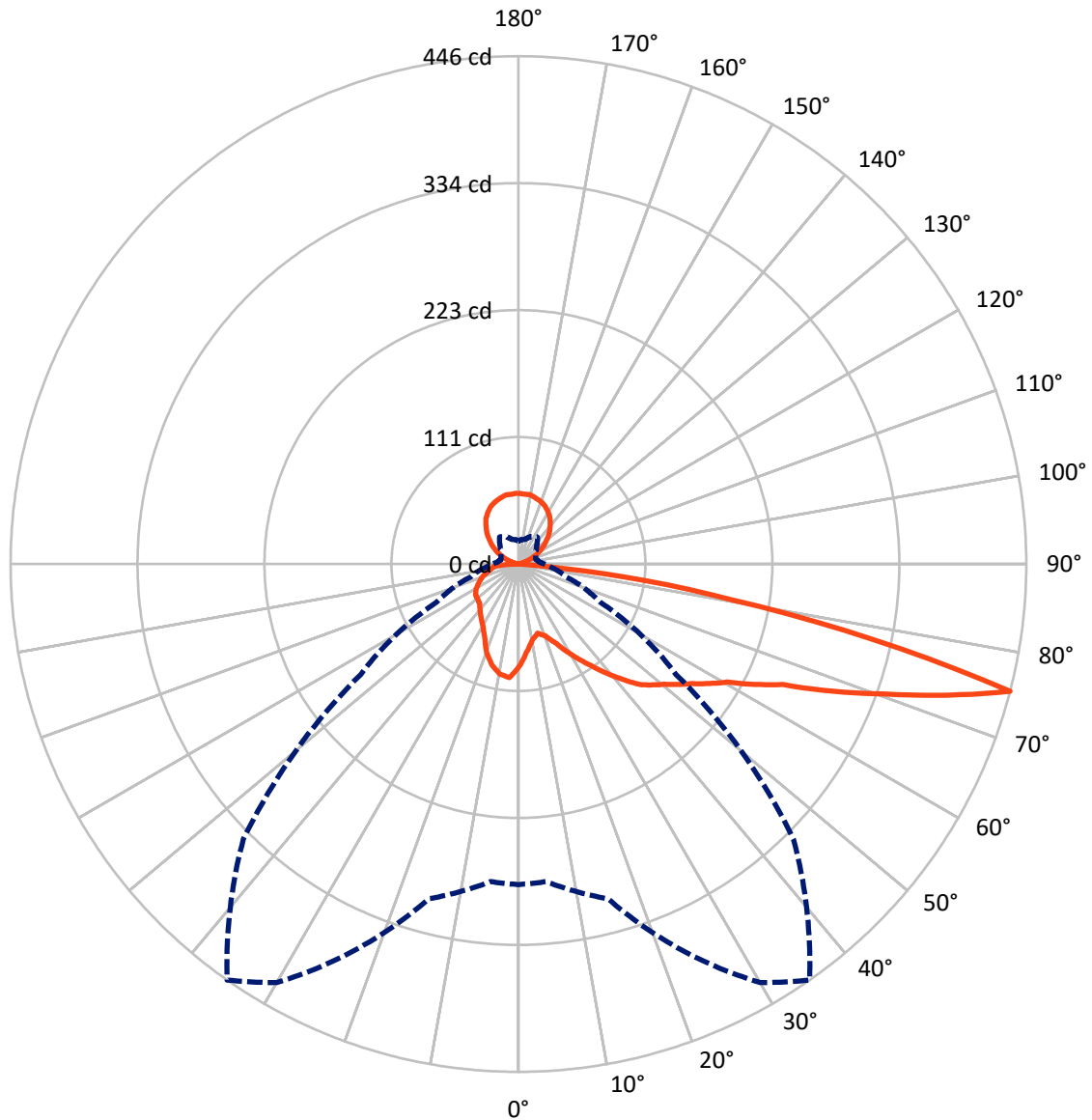
× Max cd
 - - - 1/2 Max cd



Based on 10 foot mounting height. Maximum calculated value = 1 fc
 Type IV - Short - Non-Cutoff

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Luminous Intensity Polar Plot



— Vertical Plane Through 35-Deg Lateral - - - Horizontal Cone Through 75-Deg Vertical

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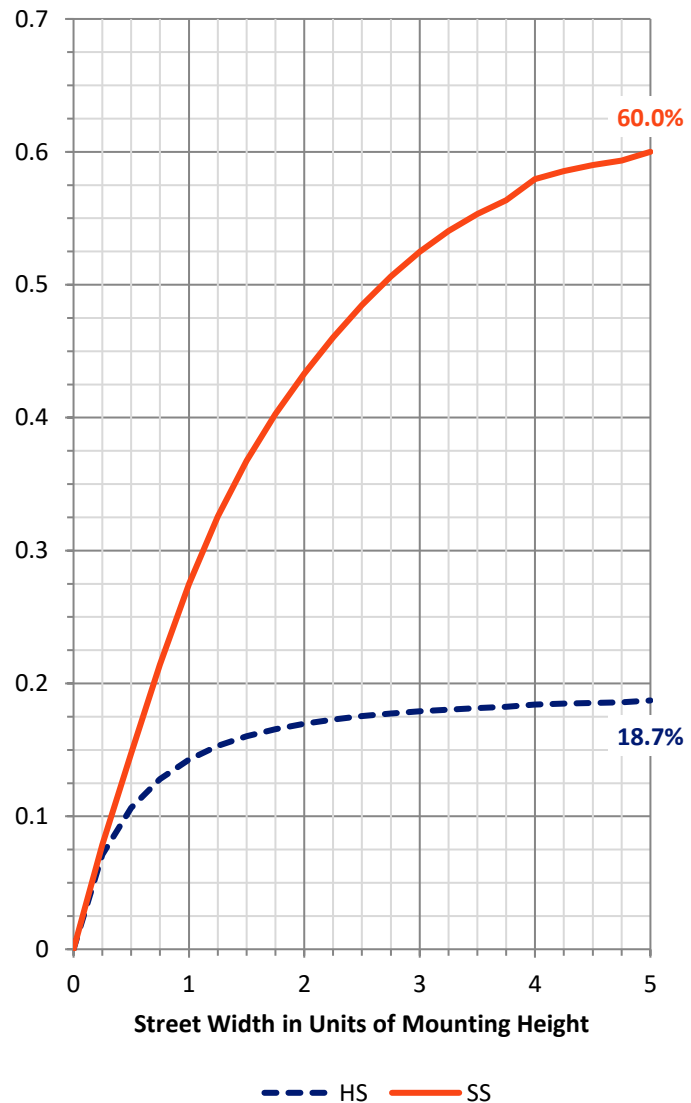
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	142.1	77.2	219.3
	% Fixture	19.2	10.5	29.7
Street Side	Lumens	442.5	77.2	519.7
	% Fixture	59.9	10.5	70.3
Total	Lumens	584.5	154.5	739.0
	% Fixture	79.1	20.9	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	8.4	1.1
10°-20°	23.6	3.2
20°-30°	39.3	5.3
30°-40°	58.5	7.9
40°-50°	81.8	11.1
50°-60°	109.0	14.8
60°-70°	135.1	18.3
70°-80°	114.5	15.5
80°-90°	14.4	1.9
90°-100°	0.7	0.1
100°-110°	5.2	0.7
110°-120°	14.8	2.0
120°-130°	24.3	3.3
130°-140°	30.0	4.1
140°-150°	30.6	4.1
150°-160°	25.8	3.5
160°-170°	17.0	2.3
170°-180°	5.9	0.8
0°-90°	584.5	79.1
0°-180°	739.0	100.0



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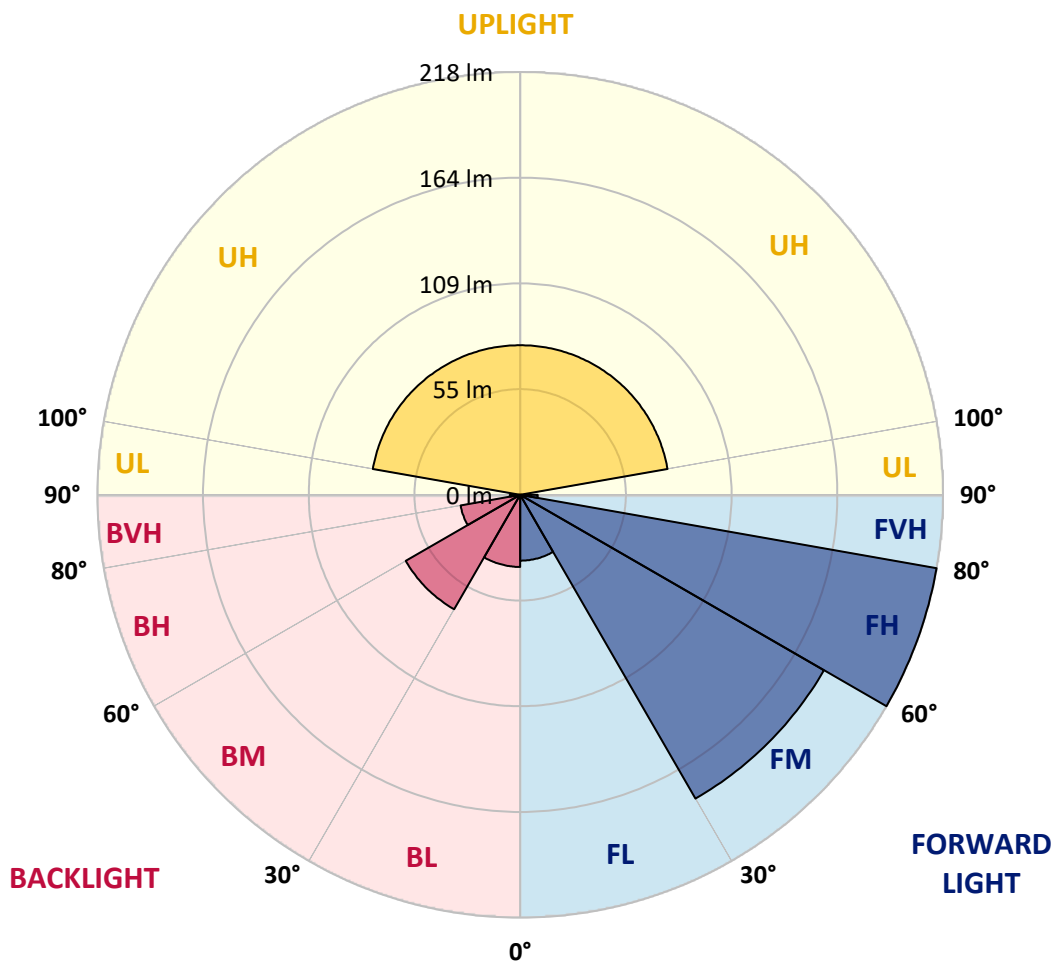
CATALOG NUMBER: ENV-SA1-740-U-T4FT-ULG-XXB

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	34.0	4.6			
FM	(30°-60°)	181.1	24.5			
FH	(60°-80°)	218.3	29.5			G0/660
FVH	(80°-90°)	9.0	1.2			G0/10
BL	(0°-30°)	37.2	5.0	B0/110		
BM	(30°-60°)	68.2	9.2	B0/220		
BH	(60°-80°)	31.3	4.2	B0/110		G0/110
BVH	(80°-90°)	5.3	0.7			G0/10
UL	(90°-100°)	0.7	0.1		U1/10	
UH	(100°-180°)	77.2	10.5		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°	89.8	89.8	89.8	89.8	89.8	89.8	89.8	89.8	89.8	89.8	89.8
5°	74.6	74.9	75.1	75.3	75.7	76.1	76.7	77.2	78.2	79.1	80.1
10°	62.8	63.1	63.4	63.6	64.3	65.1	66.2	67.5	69.3	71.1	72.8
15°	63.4	63.3	62.8	62.4	62.1	61.8	62.4	63.1	64.7	66.4	68.5
20°	73.8	73.2	71.5	69.8	68.4	67.1	67.1	67.2	68.0	68.8	70.1
25°	91.8	90.8	87.7	84.6	81.9	79.2	78.3	77.2	77.2	77.1	77.1
30°	111.4	109.8	107.2	104.5	100.8	97.0	95.0	92.6	91.4	90.1	89.0
35°	123.4	122.6	121.5	120.3	117.5	114.6	112.0	109.1	107.5	105.9	104.2
40°	136.2	135.7	135.5	135.3	134.6	133.9	131.9	129.8	129.2	128.5	126.4
45°	157.9	154.7	150.6	146.5	146.4	146.3	148.2	151.2	153.4	155.6	153.6
50°	167.2	165.1	161.4	157.7	158.5	159.3	161.9	166.0	174.5	182.9	181.4
55°	169.9	168.1	168.6	169.1	171.4	173.8	178.6	185.4	196.1	206.8	206.8
60°	181.5	178.0	181.1	184.2	188.3	192.5	200.2	210.5	224.1	237.8	233.2
65°	230.0	228.7	225.0	221.3	224.1	227.0	240.9	255.0	264.8	274.6	260.7
70°	304.5	300.1	297.8	295.5	302.3	309.0	327.4	341.6	333.2	324.8	286.0
75°	281.4	279.9	292.0	304.2	344.4	384.7	424.3	445.9	393.6	341.4	255.2
80°	39.8	40.4	50.7	61.1	86.8	112.5	153.5	189.7	141.9	94.1	60.8
85°	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.6	1.0	1.0
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
95°	0.4	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	0.8	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	3.7	4.3	4.9	5.6	6.0
110°	5.9	6.1	6.3	6.6	7.2	7.7	8.4	9.1	9.6	10.1	10.4
115°	12.5	12.4	12.7	13.1	13.6	14.1	14.6	15.0	15.2	15.5	15.7
120°	20.0	19.8	20.0	20.1	20.4	20.7	20.9	21.1	21.4	21.6	21.8
125°	26.5	26.2	26.2	26.3	26.5	26.6	26.9	27.1	27.4	27.6	27.7
130°	32.3	32.1	32.2	32.2	32.4	32.6	32.7	32.9	33.0	33.1	33.3
135°	38.2	37.9	37.9	37.9	38.2	38.4	38.6	38.7	38.8	38.9	39.1
140°	43.4	43.1	43.2	43.3	43.4	43.5	43.6	43.7	44.0	44.2	44.4
145°	48.9	48.6	48.5	48.4	48.5	48.7	48.8	48.9	49.0	49.0	49.2
150°	52.9	52.7	52.7	52.8	52.8	52.8	52.8	52.8	52.8	52.8	52.9
155°	56.0	55.6	55.6	55.6	55.7	55.8	55.9	56.1	56.0	55.9	55.8
160°	59.0	58.7	58.7	58.6	58.5	58.4	58.3	58.3	58.3	58.3	58.4
165°	60.6	60.3	60.2	60.1	60.1	60.1	60.0	59.9	59.9	59.9	59.8
170°	62.1	61.8	61.7	61.6	61.6	61.6	61.6	61.7	61.6	61.5	61.3
175°	62.3	62.1	62.1	62.0	61.9	61.8	61.7	61.5	61.4	61.4	61.4
180°	62.3	62.3	62.3	62.3	62.3	62.3	62.3	62.3	62.3	62.3	62.3



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CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°	95°	100°	105°
0°	89.8	89.8	89.8	89.8	89.8	89.8	89.8	89.8	89.8	89.8	89.8
5°	81.1	82.4	83.7	85.0	86.4	87.7	89.0	90.4	92.1	93.4	94.7
10°	74.4	76.8	79.2	81.8	84.3	87.1	89.9	92.8	95.4	97.5	99.7
15°	70.6	73.7	76.7	80.3	83.8	88.0	92.2	96.3	100.0	101.5	103.0
20°	71.3	74.1	76.9	81.3	85.8	91.2	96.7	102.1	105.8	105.6	105.3
25°	77.1	78.6	80.0	84.6	89.2	96.6	103.9	110.2	112.6	109.1	105.7
30°	87.9	87.2	86.5	90.6	94.6	104.8	115.1	122.4	121.2	112.9	104.5
35°	102.5	100.6	98.6	101.4	104.2	119.3	134.4	138.8	131.6	115.9	100.2
40°	124.3	120.7	117.1	119.1	121.2	139.8	158.4	156.5	140.3	113.8	87.3
45°	151.7	145.8	139.8	141.7	143.5	162.0	180.5	169.7	143.0	103.7	64.4
50°	179.9	172.1	164.3	167.1	169.9	188.9	207.8	187.6	148.0	96.4	44.8
55°	206.8	196.2	185.5	193.2	200.9	220.9	241.0	211.9	154.7	93.3	31.9
60°	228.6	215.3	201.9	213.9	225.9	240.0	254.1	214.6	136.5	81.1	25.7
65°	246.9	226.2	205.5	216.3	227.1	227.0	226.9	185.9	105.1	63.7	22.2
70°	247.1	210.8	174.5	167.5	160.6	141.5	122.3	100.4	56.3	37.7	19.1
75°	169.0	124.0	79.0	61.1	43.3	35.6	27.8	22.8	18.6	17.1	15.7
80°	27.6	23.3	19.0	18.5	18.1	16.2	14.3	12.3	10.8	11.0	11.3
85°	1.0	1.8	2.5	2.9	3.2	2.9	2.5	2.2	2.6	3.5	4.4
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	0.7	0.7	0.6	0.6	0.6	0.6	0.6	0.6	0.6
100°	2.6	2.4	2.3	2.2	2.0	1.9	1.7	1.7	1.7	1.9	2.0
105°	6.4	6.3	6.2	6.0	5.8	5.6	5.4	5.4	5.4	5.6	5.8
110°	10.7	10.7	10.8	10.7	10.6	10.5	10.3	10.4	10.3	10.5	10.6
115°	15.9	16.1	16.2	16.1	15.9	15.8	15.8	15.8	15.8	15.8	15.9
120°	21.9	22.1	22.2	22.0	21.8	21.7	21.6	21.6	21.6	21.7	21.8
125°	27.8	27.9	28.0	27.8	27.6	27.6	27.6	27.6	27.6	27.6	27.6
130°	33.5	33.7	33.9	33.9	33.9	33.8	33.7	33.8	33.7	33.8	33.9
135°	39.4	39.6	39.9	39.8	39.8	39.9	40.0	40.1	40.0	39.9	39.8
140°	44.5	44.6	44.7	44.7	44.8	45.1	45.3	45.5	45.3	45.1	44.8
145°	49.5	49.7	50.0	50.0	49.9	49.8	49.6	49.8	49.6	49.8	49.9
150°	53.1	53.2	53.4	53.5	53.6	53.8	53.9	54.3	53.9	53.8	53.6
155°	55.7	55.9	56.1	56.4	56.6	56.7	56.8	57.0	56.8	56.7	56.6
160°	58.5	58.8	59.1	58.9	58.8	58.8	58.7	59.3	58.7	58.8	58.8
165°	59.8	60.0	60.2	60.4	60.5	60.4	60.3	60.7	60.3	60.4	60.5
170°	61.0	61.2	61.3	61.5	61.7	61.8	61.9	62.4	61.9	61.8	61.7
175°	61.4	61.6	61.8	61.9	61.9	61.8	61.7	62.2	61.7	61.8	61.9
180°	62.3	62.3	62.3	62.3	62.3	62.3	62.3	62.3	62.3	62.3	62.3



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CANDELA DISTRIBUTION (continued):

	110°	115°	120°	125°	130°	135°	140°	145°	150°	155°	160°
0°	89.8	89.8	89.8	89.8	89.8	89.8	89.8	89.8	89.8	89.8	89.8
5°	95.8	97.0	97.8	98.5	98.8	99.0	99.5	100.0	100.0	99.9	100.0
10°	100.6	101.5	101.3	101.1	100.4	99.7	98.8	98.0	97.1	96.3	95.6
15°	102.5	101.9	100.4	98.8	97.2	95.6	93.7	91.8	90.4	89.1	88.1
20°	102.7	100.1	97.2	94.3	91.5	88.7	85.8	83.0	80.9	78.9	77.5
25°	100.4	95.1	90.3	85.4	81.0	76.6	73.9	71.1	70.2	69.2	69.1
30°	95.4	86.2	78.3	70.4	66.6	62.8	62.9	63.0	63.8	64.7	65.2
35°	85.8	71.4	64.3	57.1	56.7	56.4	57.0	57.6	58.3	59.0	59.3
40°	70.1	52.9	51.3	49.7	51.1	52.4	52.6	52.8	52.3	51.8	51.3
45°	52.6	40.8	41.9	43.0	45.4	47.9	48.3	48.6	47.3	46.0	44.5
50°	39.5	34.2	36.0	37.9	41.7	45.6	46.4	47.1	45.0	42.9	40.8
55°	31.0	30.0	32.3	34.5	38.7	42.9	44.5	46.2	43.6	41.0	38.1
60°	26.0	26.4	28.5	30.6	34.7	38.7	40.9	43.1	40.3	37.5	34.7
65°	22.7	23.2	24.7	26.2	29.5	32.9	35.6	38.4	36.2	34.1	31.7
70°	19.7	20.3	21.5	22.7	25.5	28.3	31.4	34.4	32.7	31.0	28.6
75°	16.2	16.7	17.5	18.3	20.5	22.7	25.8	29.0	27.8	26.7	24.5
80°	11.8	12.3	13.0	13.6	15.9	18.2	21.2	24.2	23.6	23.0	21.0
85°	5.4	6.4	7.3	8.1	10.8	13.5	17.5	21.5	20.0	18.4	16.4
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	0.8
105°	6.0	6.2	6.3	6.4	6.0	5.6	4.9	4.3	3.7	3.2	2.8
110°	10.7	10.8	10.7	10.7	10.4	10.1	9.6	9.1	8.4	7.7	7.2
115°	16.1	16.2	16.1	15.9	15.7	15.5	15.2	15.0	14.6	14.1	13.6
120°	22.0	22.2	22.1	21.9	21.8	21.6	21.4	21.1	20.9	20.7	20.4
125°	27.8	28.0	27.9	27.8	27.7	27.6	27.4	27.1	26.9	26.6	26.5
130°	33.9	33.9	33.7	33.5	33.3	33.1	33.0	32.9	32.7	32.6	32.4
135°	39.8	39.9	39.6	39.4	39.1	38.9	38.8	38.7	38.6	38.4	38.2
140°	44.8	44.7	44.6	44.5	44.4	44.2	44.0	43.7	43.6	43.5	43.4
145°	50.0	50.0	49.7	49.5	49.2	49.0	49.0	48.9	48.8	48.7	48.5
150°	53.5	53.4	53.3	53.1	52.9	52.8	52.8	52.8	52.8	52.8	52.8
155°	56.4	56.1	55.9	55.7	55.8	55.9	56.0	56.1	55.9	55.8	55.7
160°	58.9	59.1	58.8	58.5	58.4	58.3	58.3	58.3	58.3	58.4	58.5
165°	60.4	60.2	60.0	59.8	59.8	59.9	59.9	59.9	60.0	60.1	60.1
170°	61.5	61.3	61.2	61.0	61.3	61.5	61.6	61.7	61.6	61.6	61.6
175°	61.9	61.8	61.6	61.4	61.4	61.4	61.4	61.5	61.7	61.8	61.9
180°	62.3	62.3	62.3	62.3	62.3	62.3	62.3	62.3	62.3	62.3	62.3



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CANDELA DISTRIBUTION (continued):

	165°	170°	175°	180°
0°	89.8	89.8	89.8	89.8
5°	100.0	100.0	100.0	99.9
10°	94.9	94.5	94.2	94.0
15°	87.1	86.4	85.8	85.7
20°	76.1	75.4	74.7	74.4
25°	69.0	68.8	68.5	68.7
30°	65.7	65.5	65.4	65.5
35°	59.6	59.4	59.2	59.5
40°	50.7	50.2	49.7	49.1
45°	43.1	42.2	41.3	41.1
50°	38.7	37.3	35.8	35.5
55°	35.2	33.3	31.3	30.7
60°	31.8	30.6	29.3	28.8
65°	29.2	28.1	27.0	26.4
70°	26.2	25.7	25.2	24.5
75°	22.4	21.8	21.3	20.1
80°	19.0	18.2	17.5	17.0
85°	14.4	13.2	12.0	11.6
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	6.3	6.1	5.9
115°	13.1	12.7	12.4	12.5
120°	20.1	20.0	19.8	20.0
125°	26.3	26.2	26.2	26.5
130°	32.2	32.2	32.1	32.3
135°	37.9	37.9	37.9	38.2
140°	43.3	43.2	43.1	43.4
145°	48.4	48.5	48.6	48.9
150°	52.8	52.7	52.7	52.9
155°	55.6	55.6	55.6	56.0
160°	58.6	58.7	58.7	59.0
165°	60.1	60.2	60.3	60.6
170°	61.6	61.7	61.8	62.1
175°	62.0	62.1	62.1	62.3
180°	62.3	62.3	62.3	62.3

(END OF REPORT)