

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: P400780

Luminaire Tested: **ENV-SA1-740-U-SLL-XXB**

Issue Date: 5/20/2020

Test Information

Test Method: LM-79-08
Report Number: P400780
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G1-2004-754-7)
Test Lab: INNOVATION CENTER
Issue Date: 5/20/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: INVUE
Catalog Number: ENV-SA1-740-U-SLL-XXB
Description: ENTRI LED LUMINAIRE
(1) 70 CRI, 4000K LIGHTSQUARE IN BATTERY OPERATION WITH 16 LEDS AND SPILL LIGHT ELIMINATOR LEFT OPTICS
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 682 lumens
Efficiency: N/A
Efficacy: 52.5 lumens/watt
Luminous Opening: Rectangular (W 0.5' x L: 0.5' x H: 0')
IES Classification: Type III - Medium - Non-Cutoff
BUG Rating: B0 - U0 - G1

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

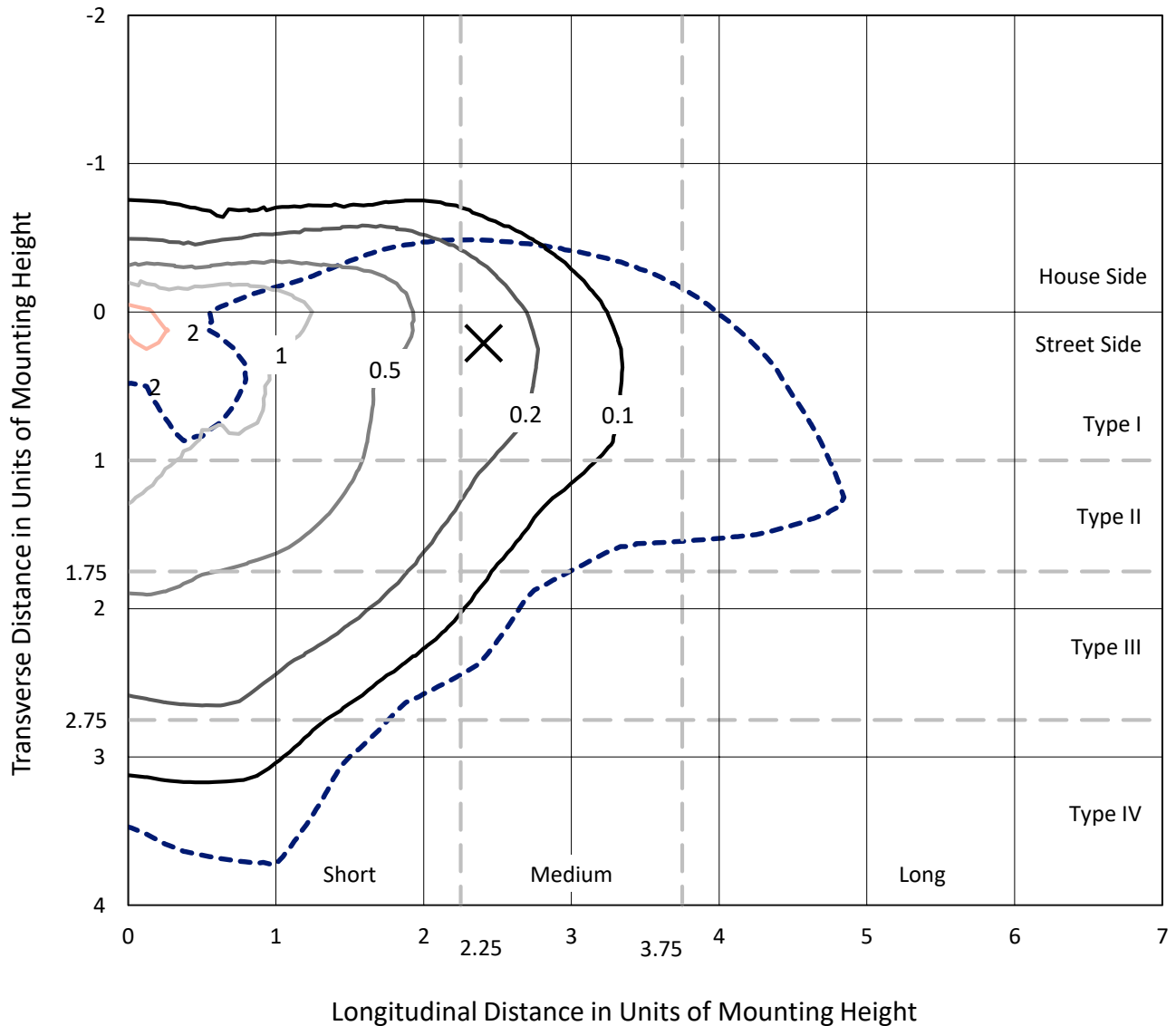


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Iso-Footcandle Lines of Horizontal Illumination

× Max cd
 - - - 1/2 Max cd

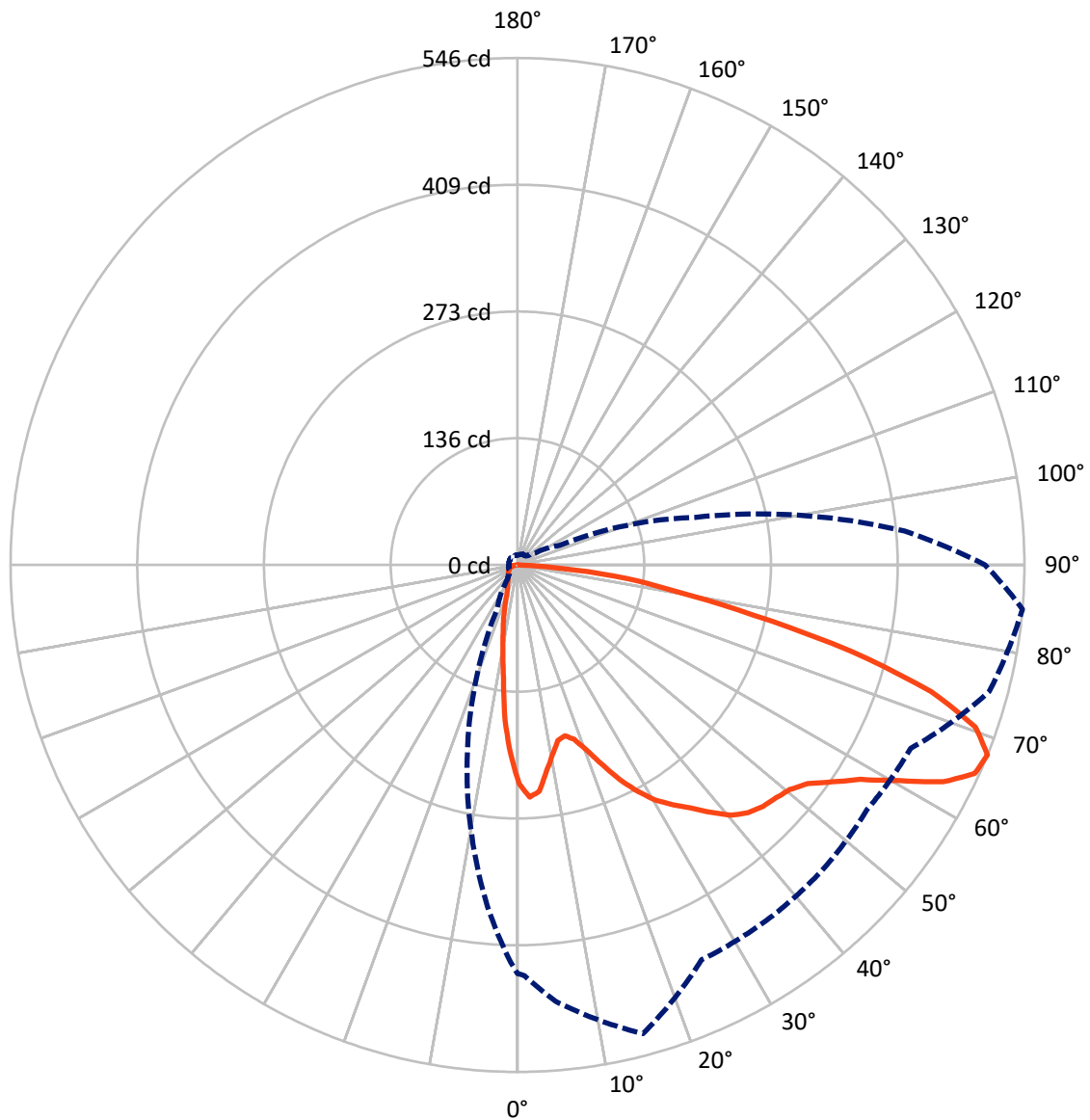


Based on 10 foot mounting height. Maximum calculated value = 2.5 fc
 Type III - Medium - Non-Cutoff

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Luminous Intensity Polar Plot



— Vertical Plane Through 85-Deg Lateral - - - Horizontal Cone Through 67.5-Deg Vertical

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FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	137.4	0.0	137.4
	% Fixture	20.1	0.0	20.1
Street Side	Lumens	544.6	0.0	544.6
	% Fixture	79.9	0.0	79.9
Total	Lumens	682.0	0.0	682.0
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	17.9	2.6
10°-20°	35.3	5.2
20°-30°	49.4	7.2
30°-40°	69.6	10.2
40°-50°	96.4	14.1
50°-60°	135.5	19.9
60°-70°	165.6	24.3
70°-80°	97.3	14.3
80°-90°	14.9	2.2
90°-100°	0.0	0.0
100°-110°	0.0	0.0
110°-120°	0.0	0.0
120°-130°	0.0	0.0
130°-140°	0.0	0.0
140°-150°	0.0	0.0
150°-160°	0.0	0.0
160°-170°	0.0	0.0
170°-180°	0.0	0.0
0°-90°	682.0	100.0
0°-180°	682.0	100.0



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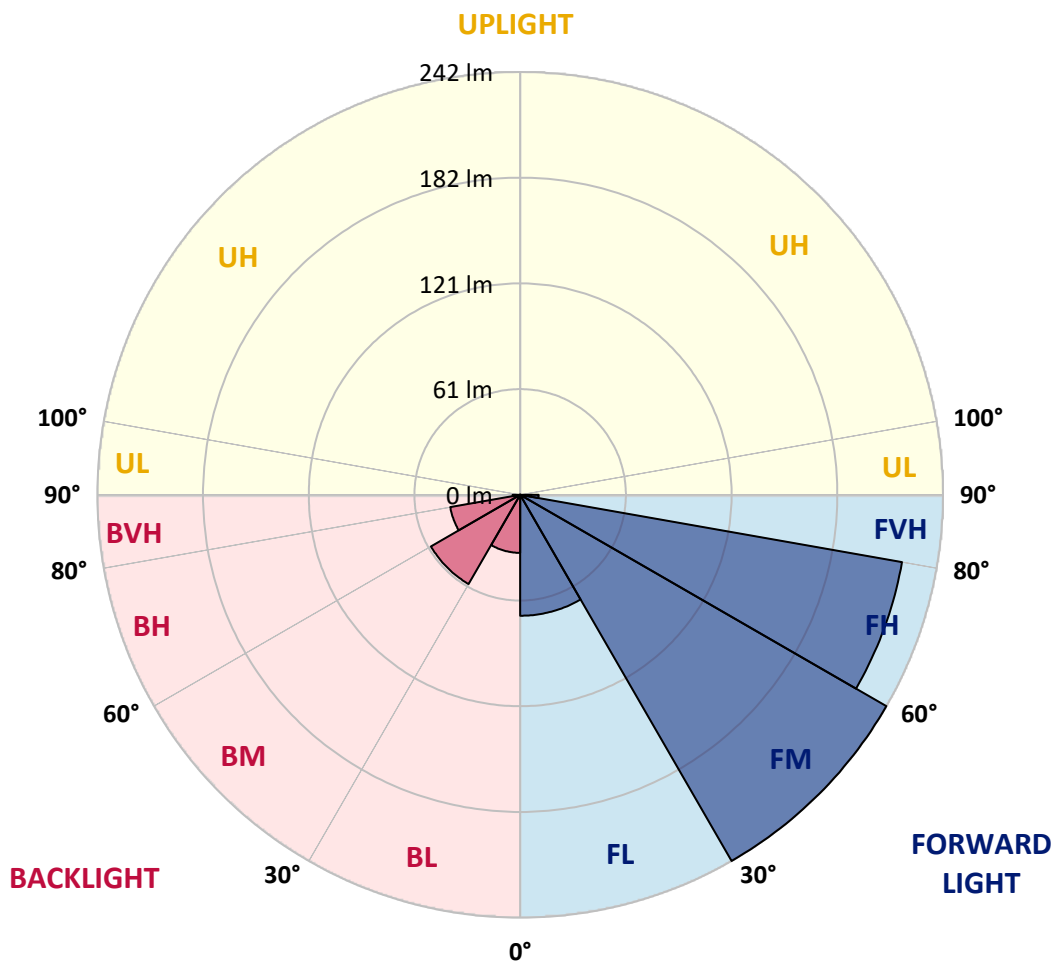
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	69.3	10.2			
FM	(30°-60°)	242.4	35.5			
FH	(60°-80°)	222.3	32.6			G0/660
FVH	(80°-90°)	10.6	1.5			G1/100
BL	(0°-30°)	33.3	4.9	B0/110		
BM	(30°-60°)	59.1	8.7	B0/220		
BH	(60°-80°)	40.7	6.0	B0/110		G0/110
BVH	(80°-90°)	4.4	0.6			G0/10
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

BUG Rating: B0-U0-G1

Type III Medium





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CANDELA DISTRIBUTION (FULL):

	0°	1°	5°	15°	25°	35°	45°	55°	65°	75°	85°
0°	235.6	235.6	235.6	235.6	235.6	235.6	235.6	235.6	235.6	235.6	235.6
2.5°	242.1	241.0	244.7	250.2	253.9	256.6	257.4	257.3	256.6	254.5	250.1
5°	231.3	230.4	237.9	250.1	260.7	268.4	270.6	267.5	263.7	255.6	244.8
7.5°	210.9	212.5	222.1	239.2	256.3	268.5	271.5	266.6	258.8	242.2	224.1
10°	195.5	196.3	207.1	227.7	245.9	258.4	263.6	259.3	249.0	228.1	207.1
12.5°	186.0	186.7	197.2	216.3	235.7	245.5	247.0	246.9	238.4	218.1	193.8
15°	187.3	188.3	198.8	214.6	225.5	229.8	229.9	231.1	228.6	213.1	190.7
17.5°	200.0	200.0	210.1	219.6	217.1	214.0	216.3	218.5	222.9	216.1	197.1
20°	220.0	220.9	230.2	228.6	213.3	205.6	202.8	206.7	220.3	225.0	212.4
22.5°	241.8	244.1	253.8	241.8	212.6	197.7	194.6	198.8	220.6	239.0	233.3
25°	265.8	268.6	275.2	257.1	214.6	193.3	191.2	195.2	221.5	252.0	255.9
27.5°	287.7	287.9	294.4	270.0	219.7	193.7	190.2	195.4	223.9	262.2	275.9
30°	303.3	303.3	306.1	276.6	226.1	196.5	191.1	198.7	227.3	267.7	293.9
32.5°	317.5	318.3	316.9	283.5	232.1	200.4	193.2	205.2	232.7	272.3	307.9
35°	335.6	335.5	329.1	289.0	237.7	204.7	198.3	213.6	240.4	279.1	321.1
37.5°	358.0	356.9	343.4	293.9	244.5	212.0	208.1	225.0	250.9	287.1	337.9
40°	378.3	376.5	356.4	298.6	249.9	226.3	224.0	239.1	264.0	297.1	354.2
42.5°	394.0	391.4	367.5	301.8	258.0	248.7	250.6	264.6	277.3	306.0	364.4
45°	407.3	404.6	375.8	303.5	277.6	280.6	284.4	296.0	291.4	308.4	370.7
47.5°	416.9	412.4	379.5	308.3	304.1	317.8	329.7	330.5	311.4	308.3	374.5
50°	422.4	417.5	382.9	320.3	335.0	360.2	372.8	366.9	332.1	310.3	380.0
52.5°	433.7	428.6	397.0	339.7	366.5	403.0	409.8	400.3	353.6	320.5	391.0
55°	462.1	459.8	424.4	365.8	397.6	437.7	440.8	431.2	376.1	338.1	411.9
57.5°	494.3	489.2	461.5	398.5	427.3	464.8	469.7	456.5	399.6	362.9	435.3
60°	503.3	502.3	492.8	436.8	458.0	493.7	494.0	477.3	427.2	392.4	470.9
62.5°	490.1	493.3	505.9	472.2	483.7	513.1	510.4	492.9	456.0	439.3	514.2
65°	467.2	471.7	497.0	505.7	489.7	509.3	503.5	492.4	474.2	489.9	541.1
67.5°	439.7	442.1	471.6	522.3	468.9	467.1	464.3	459.3	467.0	525.8	545.7
70°	411.0	413.1	440.3	499.4	406.8	385.4	383.1	378.7	408.6	525.4	523.1
72.5°	346.5	345.1	370.3	416.9	310.6	281.6	301.1	291.5	330.6	472.0	466.0
75°	215.2	222.5	253.9	292.3	212.8	192.9	219.8	217.4	268.4	406.4	371.0
77.5°	131.1	132.6	150.3	182.2	128.2	133.7	141.3	156.2	199.0	329.5	258.6
80°	68.6	63.8	76.9	100.0	76.1	89.7	103.6	120.1	126.3	214.8	172.9
82.5°	19.8	19.7	26.0	41.9	36.1	44.1	52.3	75.4	82.8	127.7	118.4
85°	0.1	0.1	0.1	0.2	0.3	0.5	2.3	19.4	25.7	59.2	48.7
87.5°	0.0	0.0	0.1	0.2	0.2	0.4	0.7	0.9	1.1	1.3	4.8
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0



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CANDELA DISTRIBUTION (continued):

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	235.6	235.6	235.6	235.6	235.6	235.6	235.6	235.6	235.6	235.6	235.6
2.5°	248.7	247.0	243.5	238.8	235.5	229.8	228.6	225.0	221.4	218.4	218.5
5°	239.7	234.1	225.5	215.7	206.2	197.8	196.1	191.2	189.8	188.4	184.4
7.5°	216.1	209.5	197.6	183.0	171.1	163.1	154.6	149.4	144.8	139.6	140.9
10°	198.0	188.6	172.1	155.0	140.2	129.5	120.1	115.2	108.5	103.7	103.1
12.5°	184.1	173.9	154.2	134.1	120.2	113.9	107.9	100.3	92.9	86.5	83.2
15°	179.5	168.0	145.1	125.1	114.1	106.6	98.1	89.5	80.4	73.6	70.9
17.5°	184.9	171.3	144.9	121.3	107.6	96.5	86.0	76.2	65.5	58.7	56.6
20°	199.7	182.7	148.0	117.6	99.6	84.5	69.7	59.2	48.2	43.4	41.2
22.5°	220.3	198.1	152.7	113.3	90.7	70.0	53.3	40.0	34.6	32.2	31.7
25°	241.4	217.7	159.4	109.5	80.9	55.7	38.3	32.0	29.5	28.4	28.4
27.5°	264.7	237.4	166.7	105.0	70.8	41.4	31.1	28.2	26.9	26.2	26.1
30°	283.5	253.4	174.9	99.8	61.7	34.0	27.6	25.7	24.4	24.1	24.1
32.5°	297.1	265.3	183.5	94.5	53.4	30.7	25.7	23.9	22.6	22.4	22.4
35°	313.0	276.7	187.5	91.6	48.4	28.6	24.2	22.5	21.3	20.7	20.7
37.5°	332.1	290.3	189.7	88.7	46.2	26.6	23.2	21.3	20.1	19.4	19.4
40°	356.3	305.8	192.0	85.8	44.8	25.0	22.1	20.2	19.2	18.4	18.4
42.5°	373.7	320.0	193.7	83.4	42.5	24.2	21.3	19.4	18.2	17.5	17.4
45°	382.8	333.3	194.5	82.0	39.9	24.9	20.6	18.7	17.3	16.7	16.6
47.5°	388.9	344.3	195.5	80.9	37.8	23.7	20.5	18.1	16.7	15.8	15.8
50°	398.7	358.7	198.0	78.8	36.6	22.1	22.1	17.8	15.9	15.1	15.0
52.5°	416.1	379.5	204.8	76.5	35.3	20.6	22.8	17.9	15.3	14.5	14.3
55°	442.4	412.5	216.1	73.2	33.4	18.7	21.3	18.0	14.8	14.0	13.7
57.5°	476.6	452.4	229.3	70.6	30.3	17.2	19.4	17.4	14.1	13.5	13.3
60°	499.6	479.0	237.6	67.2	25.8	16.2	16.7	16.9	13.5	12.7	12.6
62.5°	512.0	479.5	237.7	62.5	21.6	15.3	14.9	17.2	12.9	12.0	11.8
65°	512.9	456.1	225.8	56.5	20.2	14.4	13.7	15.2	12.4	11.4	11.3
67.5°	503.4	418.1	198.4	49.6	20.7	13.6	12.7	12.8	11.7	10.9	10.7
70°	469.2	368.8	159.2	44.1	20.8	12.6	12.0	11.6	11.1	10.3	10.1
72.5°	404.8	308.2	120.6	42.3	21.2	11.8	11.1	10.7	10.3	9.6	9.4
75°	305.5	240.4	90.6	39.5	21.4	11.0	10.1	9.9	9.4	8.8	8.7
77.5°	211.1	178.3	62.9	33.3	19.1	10.0	9.1	8.9	8.6	7.9	7.8
80°	142.5	122.2	38.6	25.0	14.5	8.8	7.9	7.9	7.6	6.9	6.9
82.5°	99.2	91.3	22.3	16.3	10.5	7.2	6.9	6.9	6.6	5.9	5.8
85°	41.4	55.3	10.0	8.9	7.3	5.7	5.7	5.8	5.5	4.9	4.8
87.5°	1.4	5.9	3.9	4.2	4.4	3.9	4.4	4.4	4.3	3.8	3.7
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0



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CANDELA DISTRIBUTION (continued):

	185°	195°	205°	215°	225°	235°	245°	255°	265°	270°	275°
0°	235.6	235.6	235.6	235.6	235.6	235.6	235.6	235.6	235.6	235.6	235.6
2.5°	215.3	213.9	209.5	209.0	205.7	205.5	206.9	204.5	204.7	207.7	207.2
5°	185.3	182.0	181.9	178.3	174.2	173.2	169.7	168.4	167.9	166.7	171.0
7.5°	144.9	143.4	144.7	144.3	140.6	138.5	131.0	125.3	122.5	123.7	124.0
10°	103.1	105.4	108.9	112.3	109.6	102.7	99.6	94.9	94.4	94.1	96.3
12.5°	81.7	79.1	80.7	81.9	79.4	76.4	75.1	73.1	74.2	76.7	78.2
15°	67.9	63.3	61.2	59.8	60.4	58.7	59.3	58.7	59.4	60.2	62.8
17.5°	53.6	52.0	48.0	46.2	46.3	45.5	45.7	45.6	45.2	46.9	49.0
20°	40.3	39.9	39.0	37.7	37.9	37.4	37.1	35.2	34.4	35.0	36.7
22.5°	31.5	32.0	32.6	32.5	33.0	31.6	30.3	28.6	28.4	28.5	28.9
25°	28.2	28.4	28.8	29.4	29.7	28.4	26.5	25.5	25.4	25.7	25.7
27.5°	26.2	26.0	26.5	27.2	27.6	26.0	24.4	23.6	23.4	23.1	23.0
30°	24.1	24.1	24.6	25.2	25.5	24.1	22.8	21.9	21.4	21.1	20.9
32.5°	22.6	22.7	22.9	23.4	23.9	22.5	21.4	20.6	19.6	19.3	19.1
35°	20.8	21.3	21.6	21.7	22.1	21.2	20.1	18.9	18.0	17.7	17.7
37.5°	19.4	19.7	20.3	20.2	20.5	19.8	18.6	17.3	16.9	16.8	16.7
40°	18.3	18.3	18.7	19.2	19.6	18.4	17.0	16.3	16.0	15.8	15.9
42.5°	17.3	17.2	17.2	18.0	18.7	17.0	15.8	15.3	15.2	15.0	15.1
45°	16.4	16.3	16.0	16.3	17.4	15.6	14.8	14.5	14.4	14.4	14.4
47.5°	15.7	15.5	15.0	15.1	15.9	14.5	13.8	13.7	13.6	13.6	13.7
50°	14.8	14.6	14.3	14.1	14.4	13.7	13.2	12.9	12.9	12.9	13.2
52.5°	14.0	13.9	13.5	13.4	13.5	13.0	12.5	12.4	12.4	12.4	12.7
55°	13.5	13.3	13.0	12.8	13.0	12.5	12.1	11.8	11.8	12.1	12.3
57.5°	12.9	12.7	12.6	12.4	12.6	12.1	11.6	11.4	11.5	11.6	11.6
60°	12.4	12.2	12.1	11.8	12.2	11.6	11.2	11.1	11.1	11.0	11.0
62.5°	11.8	11.7	11.5	11.3	11.7	11.1	10.7	10.5	10.4	10.4	10.4
65°	11.2	11.1	11.0	10.9	11.1	10.5	10.2	10.1	9.9	9.8	9.9
67.5°	10.6	10.6	10.4	10.2	10.5	9.9	9.6	9.5	9.2	9.1	9.2
70°	10.0	10.0	9.8	9.6	10.1	9.2	9.0	8.9	8.7	8.6	8.6
72.5°	9.3	9.3	9.1	9.0	9.5	8.6	8.3	8.2	7.9	7.8	7.8
75°	8.7	8.6	8.4	8.3	9.0	7.9	7.6	7.3	7.0	6.9	6.8
77.5°	7.9	7.8	7.6	7.7	8.1	7.0	6.6	6.5	6.1	6.0	5.9
80°	6.9	6.8	6.7	6.9	6.9	6.1	5.6	5.4	5.0	4.8	4.7
82.5°	5.9	5.8	5.8	6.0	5.7	5.4	4.7	4.3	3.7	3.4	3.3
85°	4.8	5.0	4.8	5.0	4.3	4.3	3.3	2.5	1.8	1.4	1.3
87.5°	3.7	3.8	3.7	3.8	3.0	2.9	1.5	0.9	0.1	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



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CANDELA DISTRIBUTION (continued):

	285°	295°	305°	315°	325°	335°	345°	355°	359°	360°
0°	235.6	235.6	235.6	235.6	235.6	235.6	235.6	235.6	235.6	235.6
2.5°	210.5	210.7	215.4	220.2	223.0	230.1	233.6	237.6	239.7	242.1
5°	169.0	173.1	177.0	186.4	191.2	202.5	210.7	223.9	228.1	231.3
7.5°	127.6	133.9	138.6	150.3	159.4	173.5	187.8	203.5	208.0	210.9
10°	101.4	107.1	116.0	125.2	135.4	152.4	168.0	184.2	192.1	195.5
12.5°	85.2	94.3	104.7	113.3	121.4	133.9	153.6	174.1	182.3	186.0
15°	70.3	80.5	91.1	101.6	111.7	125.9	146.6	173.2	183.6	187.3
17.5°	55.8	64.1	74.9	87.6	102.3	120.3	147.9	182.6	195.3	200.0
20°	39.7	47.8	58.8	74.4	91.9	114.5	151.0	196.6	214.7	220.0
22.5°	29.9	34.4	44.5	60.0	82.6	109.9	155.8	215.8	236.9	241.8
25°	26.3	27.8	33.0	47.9	73.2	105.7	162.2	234.9	260.5	265.8
27.5°	23.4	24.2	26.9	38.5	66.3	101.4	169.7	255.5	280.8	287.7
30°	21.1	22.1	24.3	32.2	59.6	95.3	176.6	274.0	298.0	303.3
32.5°	19.3	20.5	22.5	29.2	53.9	90.7	180.6	287.8	312.7	317.5
35°	18.1	19.2	21.2	26.4	48.9	87.5	181.8	301.5	330.7	335.6
37.5°	17.0	18.1	19.8	23.7	45.4	83.3	183.6	317.8	351.5	358.0
40°	16.2	17.1	18.7	21.8	40.6	78.8	185.8	336.9	371.8	378.3
42.5°	15.5	16.4	17.9	21.9	35.7	75.0	187.3	351.6	387.9	394.0
45°	14.8	15.9	17.5	21.5	32.1	71.5	186.6	363.9	402.6	407.3
47.5°	14.1	15.5	18.4	20.6	31.0	68.3	187.2	375.7	413.1	416.9
50°	13.7	15.3	19.7	19.3	31.2	66.9	192.4	389.9	421.0	422.4
52.5°	13.4	15.7	18.6	17.4	31.2	66.2	202.5	412.7	434.7	433.7
55°	12.8	15.6	17.4	15.8	29.9	66.6	212.0	442.8	467.6	462.1
57.5°	12.4	14.9	15.7	14.6	26.9	66.7	226.2	468.3	493.5	494.3
60°	11.8	16.0	13.6	13.6	23.0	66.1	238.7	467.8	498.2	503.3
62.5°	11.3	15.7	12.2	12.6	20.4	64.0	246.3	440.5	480.8	490.1
65°	10.6	12.4	11.2	11.7	19.3	58.9	235.5	406.7	457.2	467.2
67.5°	9.9	10.2	10.2	10.9	18.9	51.1	208.4	369.3	427.6	439.7
70°	9.0	9.1	9.3	10.3	17.5	44.0	169.7	329.5	395.8	411.0
72.5°	8.1	8.2	8.2	9.3	16.4	37.9	120.2	261.1	330.5	346.5
75°	7.1	7.2	7.1	8.1	14.4	28.4	71.4	165.1	197.1	215.2
77.5°	6.0	6.0	5.8	6.4	9.9	18.0	39.0	100.3	119.9	131.1
80°	4.9	4.5	3.7	3.8	5.4	10.3	17.4	57.6	65.8	68.6
82.5°	3.3	2.5	1.5	1.4	1.8	2.9	4.1	22.8	20.9	19.8
85°	0.7	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1
87.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	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

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