

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:

Luminaire Tested: **ENC-SA1-740-U-SL2-ULG-XXB**

Issue Date: 3/30/2022

Test Information

Test Method: LM-79-08
Report Number: REPORT IS A COMBINATION OF REPORTS P400768 AND P226775
Test Lab: INNOVATION CENTER
Issue Date: 3/30/2022
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: INVUE
Catalog Number: ENC-SA1-740-U-SL2-ULG-XXB
Description: ENTRI LED LUMINAIRE WITH UPLIGHT
(1) 70 CRI, 4000K LIGHTSQUARE IN BATTERY OPERATION WITH 16 LEDS AND TYPE II SPILL LIGHT ELIMINATOR OPTICS
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 2535.9 lumens
Efficiency: N/A
Efficacy: 85.4 lumens/watt
Luminous Opening: Rectangular w/ Sides (W: 0.5' x L: 0.5' x H: 0.1')
IES Classification: Type III - Medium
BUG Rating: B0 - U5 - G1

Input Watts (W): 29.7
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: 24 FT

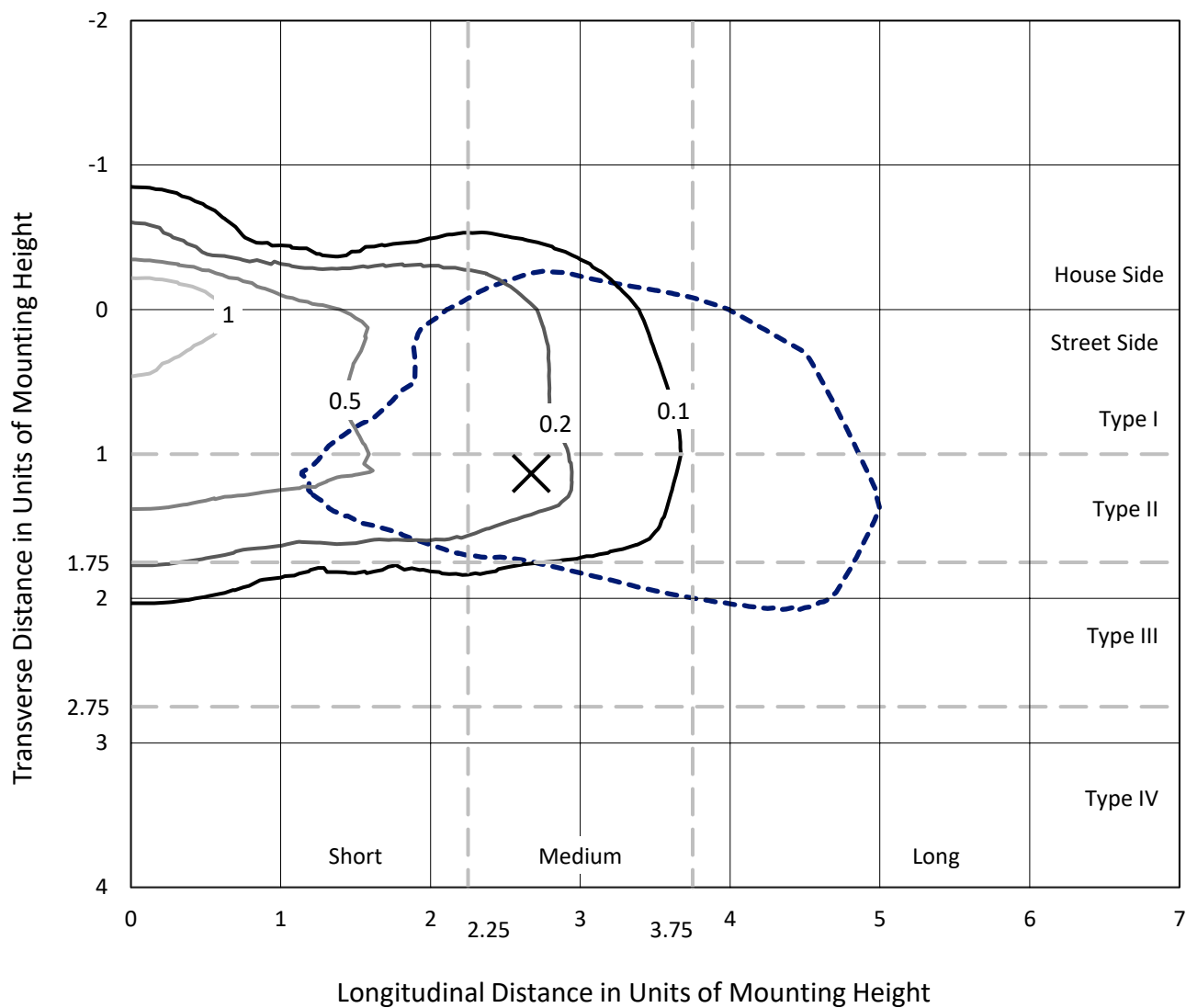


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Iso-Footcandle Lines of Horizontal Illumination

✕ Max cd

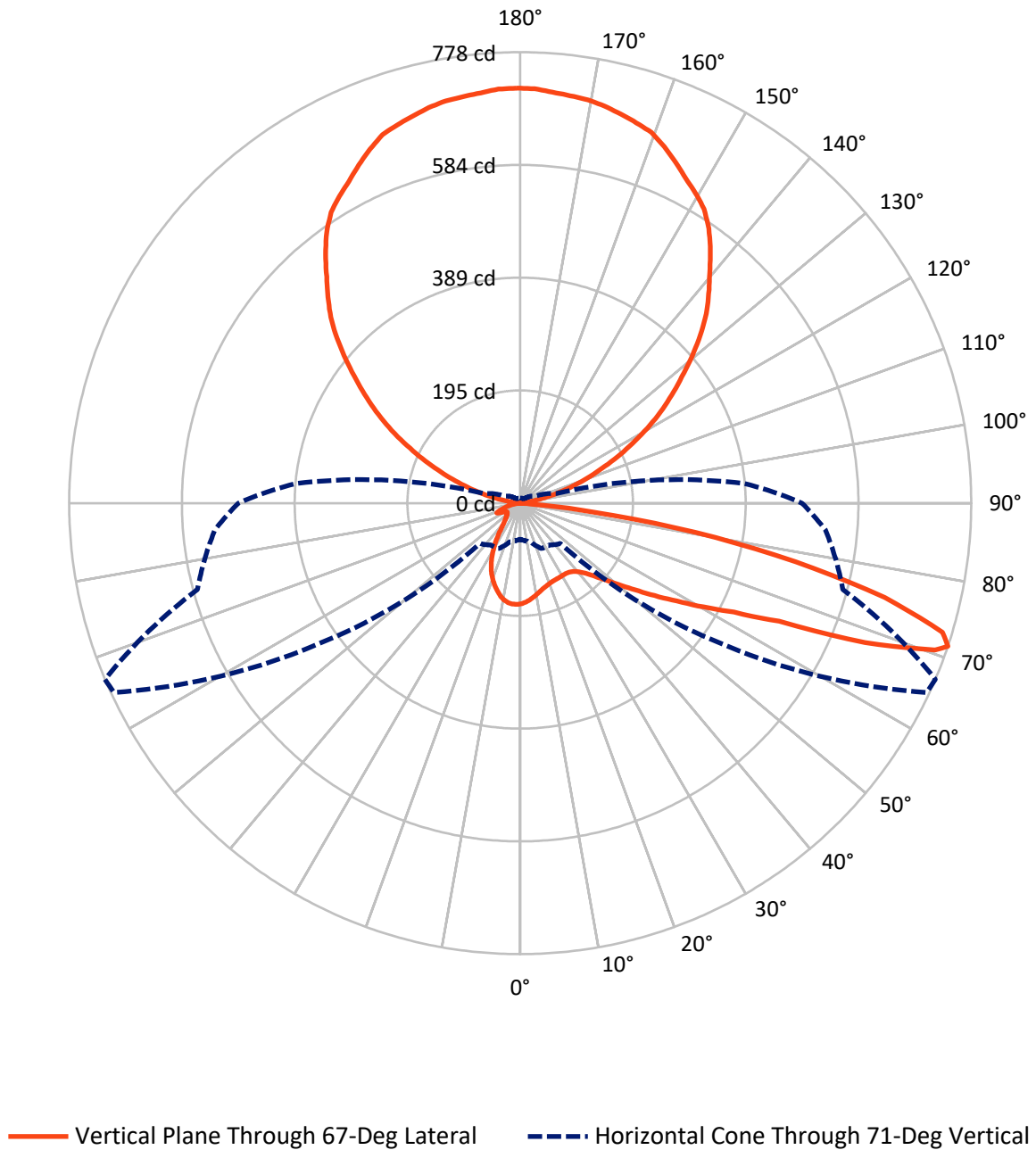
--- 1/2 Max cd



Based on 10 foot mounting height. Maximum calculated value = 1.7 fc
 Type III - Medium - N/A

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Luminous Intensity Polar Plot



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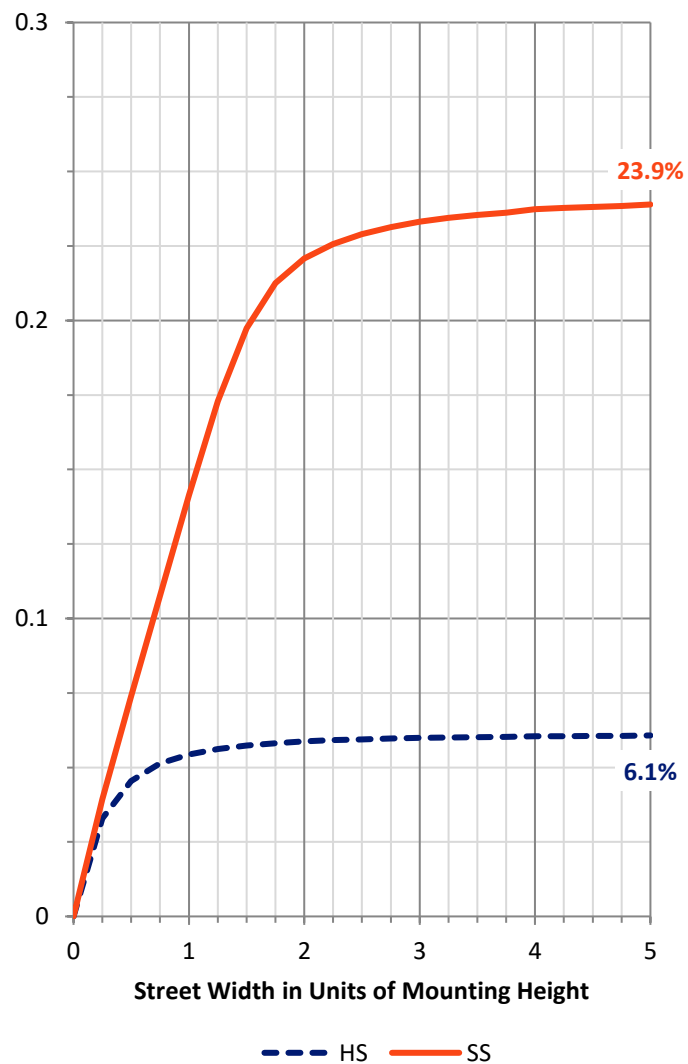
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	156.1	887.0	1043.1
	% Fixture	6.2	35.0	41.1
Street Side	Lumens	605.9	887.0	1492.8
	% Fixture	23.9	35.0	58.9
Total	Lumens	762.0	1773.9	2535.9
	% Fixture	30.0	70.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	15.4	0.6
10°-20°	37.8	1.5
20°-30°	51.1	2.0
30°-40°	67.3	2.7
40°-50°	95.8	3.8
50°-60°	146.4	5.8
60°-70°	182.8	7.2
70°-80°	147.6	5.8
80°-90°	17.8	0.7
90°-100°	8.4	0.3
100°-110°	58.7	2.3
110°-120°	169.9	6.7
120°-130°	279.4	11.0
130°-140°	344.6	13.6
140°-150°	352.5	13.9
150°-160°	297.0	11.7
160°-170°	195.5	7.7
170°-180°	67.8	2.7
0°-90°	762.0	30.0
0°-180°	2535.9	100.0

Coefficient of Utilization



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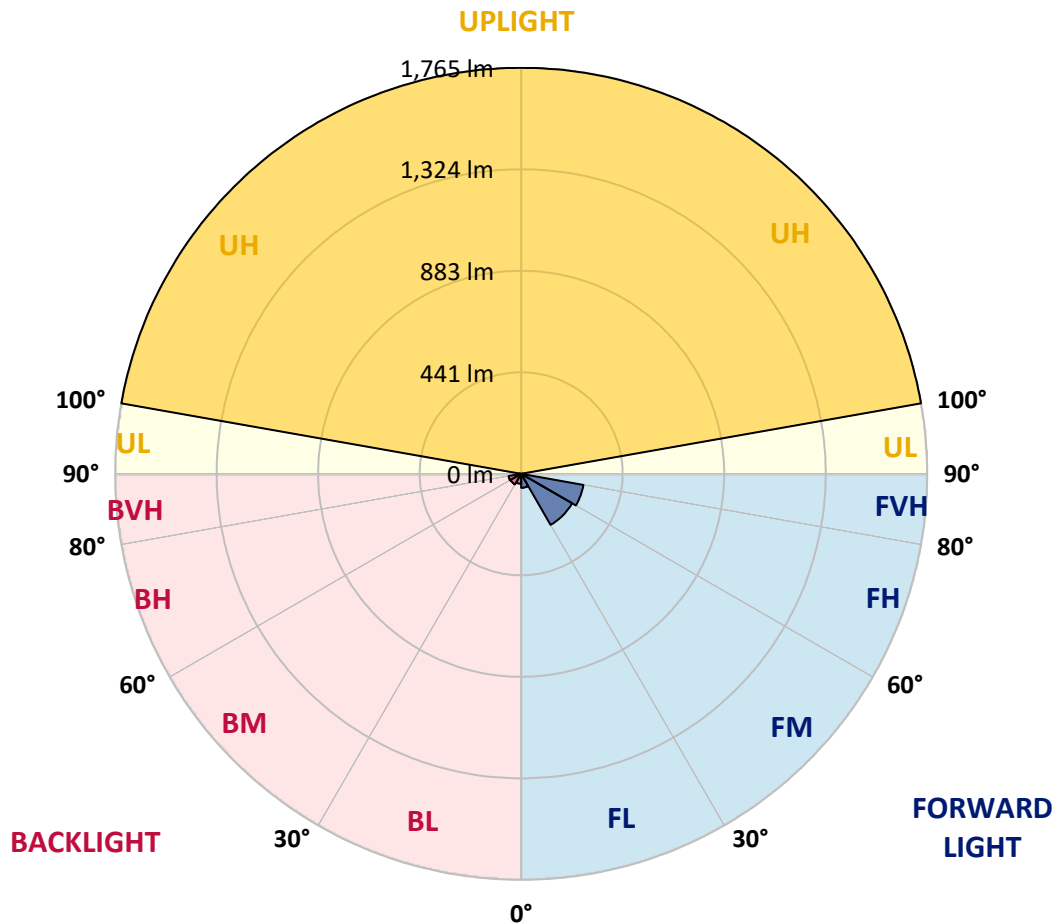
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	60.8	2.4			
FM	(30°-60°)	256.0	10.1			
FH	(60°-80°)	274.9	10.8			G0/660
FVH	(80°-90°)	14.2	0.6			G1/100
BL	(0°-30°)	43.6	1.7	B0/110		
BM	(30°-60°)	53.5	2.1	B0/220		
BH	(60°-80°)	55.5	2.2	B0/110		G0/110
BVH	(80°-90°)	3.6	0.1			G0/10
UL	(90°-100°)	8.4	0.3		U1/10	
UH	(100°-180°)	1765.5	69.6		U5	

BUG Rating: B0-U5-G1

Type III Medium



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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	67°	75°	85°
0°	173.8	173.8	173.8	173.8	173.8	173.8	173.8	173.8	173.8	173.8	173.8
2.5°	163.9	164.7	164.8	166.3	166.8	168.6	169.6	171.2	171.5	172.4	173.1
5°	153.2	153.4	154.0	155.3	157.4	160.6	163.0	167.1	167.8	170.7	173.2
7.5°	143.7	144.2	145.3	147.3	149.7	153.5	157.2	162.8	163.9	168.5	173.3
10°	137.2	137.8	138.7	140.8	143.3	147.4	151.9	158.4	159.6	166.0	173.0
12.5°	132.1	132.6	133.3	135.7	138.3	142.5	147.1	154.3	155.5	162.9	172.2
15°	128.7	128.8	129.7	131.6	134.6	138.7	143.3	150.7	152.1	160.5	172.0
17.5°	126.6	126.8	127.6	129.1	131.7	135.7	140.2	147.8	149.4	158.5	172.1
20°	126.7	126.9	127.4	127.9	129.8	133.2	137.9	145.6	147.2	157.3	172.9
22.5°	129.0	129.1	129.2	128.5	129.1	131.5	136.1	144.0	145.8	156.8	173.8
25°	133.4	133.4	133.2	131.4	130.0	131.0	135.1	143.5	145.2	156.3	174.6
27.5°	139.4	139.9	138.8	136.7	133.4	131.7	134.9	143.0	144.8	156.3	175.1
30°	147.6	147.9	147.4	144.7	139.3	134.8	135.6	142.7	144.5	156.1	175.2
32.5°	156.0	156.6	157.2	154.8	148.3	140.3	138.2	143.2	144.7	156.0	174.9
35°	164.4	164.9	167.5	167.1	160.0	148.5	142.5	144.9	146.2	156.5	175.1
37.5°	171.7	172.7	176.5	179.5	174.0	159.7	149.8	148.7	149.5	159.3	176.3
40°	179.5	180.9	186.6	192.2	189.8	173.8	160.3	155.7	155.4	164.3	179.2
42.5°	188.2	189.9	197.2	205.3	206.1	191.6	174.2	165.4	165.2	173.0	185.7
45°	198.5	200.1	210.1	219.7	224.4	211.6	191.3	179.2	179.4	185.1	196.0
47.5°	211.3	213.7	223.3	235.6	244.1	234.1	212.0	198.5	197.7	203.3	212.9
50°	229.2	231.1	239.1	251.1	265.9	261.3	238.1	221.8	221.1	223.8	235.5
52.5°	247.9	248.6	252.4	264.8	289.7	294.3	270.3	250.7	248.1	249.6	263.6
55°	249.0	250.4	253.0	268.6	311.1	333.9	305.7	284.7	281.4	280.4	295.5
57.5°	226.2	228.5	231.8	252.1	312.0	379.7	356.1	324.4	318.4	313.5	329.6
60°	177.8	180.8	186.8	211.7	289.7	405.8	440.1	368.9	363.6	346.9	363.0
62.5°	128.6	129.8	135.6	146.8	229.9	407.3	527.6	427.0	414.0	379.3	391.7
65°	103.6	105.5	107.3	107.2	136.1	361.2	585.8	530.5	491.1	415.6	423.3
67.5°	85.3	86.0	90.3	97.7	92.6	223.1	591.6	681.6	641.7	464.6	460.8
70°	71.3	71.5	75.8	89.2	88.6	115.2	496.0	768.6	759.0	544.9	519.5
71°	62.4	64.3	69.0	86.3	88.2	98.4	421.4	773.2	778.1	576.3	528.6
72.5°	49.1	49.1	55.8	79.2	89.0	90.8	310.5	748.1	762.0	612.1	512.8
75°	28.8	28.6	32.3	55.2	90.9	90.5	169.6	621.7	649.9	618.6	474.6
77.5°	16.2	16.6	18.5	30.7	72.2	86.9	97.4	452.7	485.9	517.4	401.4
80°	7.5	7.9	9.3	14.9	42.6	75.0	69.5	294.0	306.6	311.0	189.7
82.5°	2.0	2.2	2.9	5.7	16.5	51.1	51.4	123.1	127.1	73.5	40.7
85°	0.0	0.0	0.0	0.0	0.2	6.3	14.6	22.2	18.4	9.8	8.3
87.5°	0.0	0.0	0.0	0.0	0.0	0.2	0.3	0.4	0.4	0.4	0.5
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
92.5°	4.1	4.1	5.1	6.1	6.1	6.1	7.2	7.2	7.0	6.1	6.1
95°	5.1	5.1	6.1	7.2	7.2	7.2	7.2	8.2	8.0	7.2	7.2
97.5°	7.2	7.2	8.2	8.2	9.2	9.2	12.3	10.2	10.0	9.2	8.2
100°	8.2	8.2	9.2	10.2	12.3	21.5	29.7	26.6	26.0	23.5	19.4
102.5°	11.3	11.3	13.3	18.4	27.6	40.9	51.1	48.1	47.1	43.0	39.9
105°	21.5	22.5	27.6	36.8	49.1	64.4	73.7	71.6	70.6	66.5	62.4
107.5°	41.9	43.0	50.1	59.3	74.7	90.0	97.2	96.2	95.3	92.1	89.0

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CANDELA DISTRIBUTION (continued):

	0°	5°	15°	25°	35°	45°	55°	65°	67°	75°	85°
110°	67.5	69.6	75.7	89.0	104.3	116.6	122.8	123.8	123.4	121.7	118.7
112.5°	101.3	101.3	108.4	123.8	137.1	146.3	151.4	153.4	153.2	152.4	150.4
115°	143.2	142.2	150.4	162.6	171.9	178.0	183.1	186.2	185.6	183.1	181.1
117.5°	188.2	188.2	193.3	201.5	206.6	209.7	215.8	219.9	218.9	214.8	212.8
120°	230.2	228.1	231.2	238.3	242.4	248.6	251.6	255.7	254.7	250.6	248.6
122.5°	269.0	266.0	267.0	273.1	277.2	283.4	285.4	289.5	288.5	284.4	282.3
125°	304.8	300.7	302.8	305.9	312.0	317.1	320.2	322.2	321.2	317.1	317.1
127.5°	337.6	336.6	336.6	340.6	346.8	347.8	352.9	353.9	353.9	353.9	352.9
130°	371.3	369.3	370.3	374.4	378.5	380.5	385.7	389.7	389.7	389.7	387.7
132.5°	405.1	403.0	402.0	410.2	413.3	414.3	420.4	425.5	425.1	423.5	423.5
135°	438.8	435.8	435.8	441.9	445.0	447.0	453.2	458.3	458.1	457.3	460.3
137.5°	470.6	467.5	469.5	470.6	474.6	478.7	483.9	485.9	486.1	486.9	492.0
140°	499.2	496.1	498.2	500.2	502.3	508.4	511.5	513.5	513.9	515.6	520.7
142.5°	529.9	526.8	528.9	529.9	533.0	537.0	539.1	545.2	545.2	545.2	546.3
145°	562.6	558.5	556.5	559.6	562.6	563.6	568.8	574.9	574.7	573.9	570.8
147.5°	588.2	585.1	584.1	587.2	587.2	588.2	593.3	598.4	598.6	599.4	596.4
150°	608.7	605.6	606.6	606.6	606.6	606.6	610.7	613.8	614.4	616.8	619.9
152.5°	625.0	622.0	622.0	623.0	624.0	624.0	625.0	628.1	628.9	632.2	637.3
155°	643.4	639.3	639.3	641.4	644.5	642.4	640.4	645.5	646.5	650.6	652.6
157.5°	660.8	657.8	657.8	658.8	660.8	659.8	658.8	662.9	663.3	664.9	664.9
160°	678.2	675.1	674.1	671.1	670.0	670.0	673.1	679.2	678.6	676.2	675.1
162.5°	688.4	684.4	684.4	680.3	676.2	678.2	682.3	686.4	686.2	685.4	683.3
165°	696.6	693.6	691.5	691.5	688.4	688.4	687.4	692.5	693.2	695.6	693.6
167.5°	705.8	702.8	699.7	701.7	703.8	700.7	693.6	699.7	700.5	703.8	703.8
170°	714.0	711.0	707.9	707.9	708.9	706.9	701.7	704.8	705.8	709.9	712.0
172.5°	715.0	713.0	711.0	708.9	705.8	705.8	704.8	707.9	708.3	709.9	712.0
175°	716.1	714.0	713.0	711.0	706.9	705.8	705.8	711.0	711.2	712.0	709.9
177.5°	723.2	721.2	716.1	715.0	713.0	711.0	709.9	715.0	715.5	717.1	714.0
180°	716.1	716.1	716.1	716.1	716.1	716.1	716.1	716.1	716.1	716.1	716.1

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CANDELA DISTRIBUTION (continued):

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	173.8	173.8	173.8	173.8	173.8	173.8	173.8	173.8	173.8	173.8	173.8
2.5°	173.6	174.1	174.9	174.7	174.5	173.2	174.0	173.2	173.1	172.8	172.9
5°	174.1	174.7	175.2	174.2	172.5	169.7	168.7	166.2	164.5	163.7	163.2
7.5°	174.7	175.2	175.0	172.2	167.9	162.6	158.0	154.3	150.5	149.8	149.6
10°	174.7	175.2	173.4	168.2	160.8	152.4	145.3	139.4	133.5	131.3	131.6
12.5°	174.3	174.5	170.5	162.0	151.4	139.9	130.0	120.2	112.7	108.0	107.2
15°	174.0	173.6	166.5	154.3	140.2	125.9	111.0	97.8	88.9	82.8	82.1
17.5°	174.0	172.8	161.8	145.6	128.0	108.4	88.6	74.4	64.4	60.9	60.8
20°	174.2	171.6	156.8	136.5	112.9	87.5	66.1	54.0	50.2	49.7	49.8
22.5°	174.4	169.9	151.3	126.1	96.0	65.3	47.3	42.9	43.2	44.5	44.4
25°	174.2	167.7	144.8	114.6	77.6	47.1	38.2	37.1	39.1	40.6	41.0
27.5°	173.6	164.9	137.9	100.9	59.1	37.1	33.3	33.2	35.2	36.6	36.5
30°	172.0	161.5	129.9	86.4	42.7	31.6	30.1	30.4	31.7	33.0	33.0
32.5°	170.2	157.6	121.4	70.6	32.8	28.6	28.1	28.2	29.1	30.1	29.9
35°	168.4	153.9	112.8	54.2	28.7	26.9	26.7	26.5	26.9	27.1	27.1
37.5°	167.3	150.6	103.2	40.8	26.5	25.8	25.3	24.9	24.8	24.6	24.4
40°	167.7	148.4	94.0	31.6	25.2	24.6	23.9	23.3	22.8	22.6	22.5
42.5°	170.8	147.8	83.8	27.2	24.0	23.5	22.6	21.5	21.1	21.1	21.0
45°	177.9	149.7	74.3	25.0	22.9	22.3	20.8	20.1	19.7	19.9	19.9
47.5°	189.1	155.3	65.7	23.9	22.2	21.2	19.5	18.8	18.5	18.6	18.6
50°	205.9	165.9	56.9	22.9	21.3	20.0	18.5	17.7	17.3	17.3	17.3
52.5°	230.5	183.2	50.6	22.3	20.5	19.0	17.6	16.6	16.1	16.1	16.0
55°	260.4	205.8	48.2	21.8	19.5	18.1	16.6	15.6	14.9	14.7	14.8
57.5°	293.2	235.1	51.7	21.7	18.4	17.1	15.6	14.4	13.7	13.6	13.5
60°	327.0	264.1	61.8	21.2	17.6	15.9	14.5	13.4	12.7	12.5	12.4
62.5°	356.2	293.1	78.4	20.7	16.9	14.8	13.3	12.3	11.7	11.4	11.4
65°	391.4	326.3	103.9	21.3	16.6	13.7	12.2	11.3	10.9	10.5	10.5
67.5°	439.4	375.6	123.2	23.9	17.3	12.8	11.0	10.3	10.0	9.8	9.8
70°	486.7	403.2	85.7	28.1	19.3	12.1	9.9	9.4	9.2	9.0	9.0
71°	486.1	388.4	64.4	29.1	20.0	11.8	9.4	9.1	8.9	8.8	8.7
72.5°	461.7	353.1	46.2	28.2	19.6	11.2	8.9	8.6	8.3	8.3	8.2
75°	414.1	311.2	36.1	23.6	16.5	10.0	7.9	7.7	7.5	7.3	7.5
77.5°	339.3	249.0	28.4	18.6	12.5	8.2	7.0	6.7	6.6	6.5	6.6
80°	155.9	108.5	20.7	14.5	9.3	6.6	5.9	5.8	5.7	5.6	5.6
82.5°	37.5	30.4	11.1	9.7	6.4	5.0	4.7	4.7	4.7	4.6	4.6
85°	8.2	8.2	4.5	4.5	3.8	3.5	3.7	3.7	3.7	3.5	3.5
87.5°	0.4	1.3	1.4	2.1	2.2	2.1	2.5	2.6	2.5	2.4	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
92.5°	6.1	6.1	6.1	7.2	7.2	6.1	6.1	6.1	5.1	4.1	4.1
95°	7.2	7.2	7.2	8.2	7.2	7.2	7.2	7.2	6.1	5.1	5.1
97.5°	8.2	8.2	9.2	10.2	12.3	9.2	9.2	8.2	8.2	7.2	7.2
100°	19.4	19.4	23.5	26.6	29.7	21.5	12.3	10.2	9.2	8.2	8.2
102.5°	38.9	39.9	43.0	48.1	51.1	40.9	27.6	18.4	13.3	11.3	11.3
105°	62.4	62.4	66.5	71.6	73.7	64.4	49.1	36.8	27.6	22.5	21.5
107.5°	88.0	89.0	92.1	96.2	97.2	90.0	74.7	59.3	50.1	43.0	41.9

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CANDELA DISTRIBUTION (continued):

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
110°	119.7	118.7	121.7	123.8	122.8	116.6	104.3	89.0	75.7	69.6	67.5
112.5°	150.4	150.4	152.4	153.4	151.4	146.3	137.1	123.8	108.4	101.3	101.3
115°	182.1	181.1	183.1	186.2	183.1	178.0	171.9	162.6	150.4	142.2	143.2
117.5°	213.8	212.8	214.8	219.9	215.8	209.7	206.6	201.5	193.3	188.2	188.2
120°	248.6	248.6	250.6	255.7	251.6	248.6	242.4	238.3	231.2	228.1	230.2
122.5°	283.4	282.3	284.4	289.5	285.4	283.4	277.2	273.1	267.0	266.0	269.0
125°	317.1	317.1	317.1	322.2	320.2	317.1	312.0	305.9	302.8	300.7	304.8
127.5°	355.0	352.9	353.9	353.9	352.9	347.8	346.8	340.6	336.6	336.6	337.6
130°	388.7	387.7	389.7	389.7	385.7	380.5	378.5	374.4	370.3	369.3	371.3
132.5°	424.5	423.5	423.5	425.5	420.4	414.3	413.3	410.2	402.0	403.0	405.1
135°	461.4	460.3	457.3	458.3	453.2	447.0	445.0	441.9	435.8	435.8	438.8
137.5°	493.1	492.0	486.9	485.9	483.9	478.7	474.6	470.6	469.5	467.5	470.6
140°	522.7	520.7	515.6	513.5	511.5	508.4	502.3	500.2	498.2	496.1	499.2
142.5°	548.3	546.3	545.2	545.2	539.1	537.0	533.0	529.9	528.9	526.8	529.9
145°	572.9	570.8	573.9	574.9	568.8	563.6	562.6	559.6	556.5	558.5	562.6
147.5°	598.4	596.4	599.4	598.4	593.3	588.2	587.2	587.2	584.1	585.1	588.2
150°	624.0	619.9	616.8	613.8	610.7	606.6	606.6	606.6	606.6	605.6	608.7
152.5°	642.4	637.3	632.2	628.1	625.0	624.0	624.0	623.0	622.0	622.0	625.0
155°	655.7	652.6	650.6	645.5	640.4	642.4	644.5	641.4	639.3	639.3	643.4
157.5°	670.0	664.9	664.9	662.9	658.8	659.8	660.8	658.8	657.8	657.8	660.8
160°	681.3	675.1	676.2	679.2	673.1	670.0	670.0	671.1	674.1	675.1	678.2
162.5°	689.5	683.3	685.4	686.4	682.3	678.2	676.2	680.3	684.4	684.4	688.4
165°	697.7	693.6	695.6	692.5	687.4	688.4	688.4	691.5	691.5	693.6	696.6
167.5°	709.9	703.8	703.8	699.7	693.6	700.7	703.8	701.7	699.7	702.8	705.8
170°	717.1	712.0	709.9	704.8	701.7	706.9	708.9	707.9	707.9	711.0	714.0
172.5°	717.1	712.0	709.9	707.9	704.8	705.8	705.8	708.9	711.0	713.0	715.0
175°	715.0	709.9	712.0	711.0	705.8	705.8	706.9	711.0	713.0	714.0	716.1
177.5°	718.1	714.0	717.1	715.0	709.9	711.0	713.0	715.0	716.1	721.2	723.2
180°	716.1	716.1	716.1	716.1	716.1	716.1	716.1	716.1	716.1	716.1	716.1

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