

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: P400720

Luminaire Tested: **ENV-SA1-727-U-SLR-XXB**

Issue Date: 5/20/2020

Test Information

Test Method: LM-79-08
Report Number: P400720
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G1-2004-754-9)
Test Lab: INNOVATION CENTER
Issue Date: 5/20/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: INVUE
Catalog Number: ENV-SA1-727-U-SLR-XXB
Description: ENTRI LED LUMINAIRE
(1) 70 CRI, 2700K LIGHTSQUARE IN BATTERY OPERATION WITH 16 LEDS AND SPILL
LIGHT ELIMINATOR RIGHT OPTICS
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 571 lumens
Efficiency: N/A
Efficacy: 43.9 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 - U0 - 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

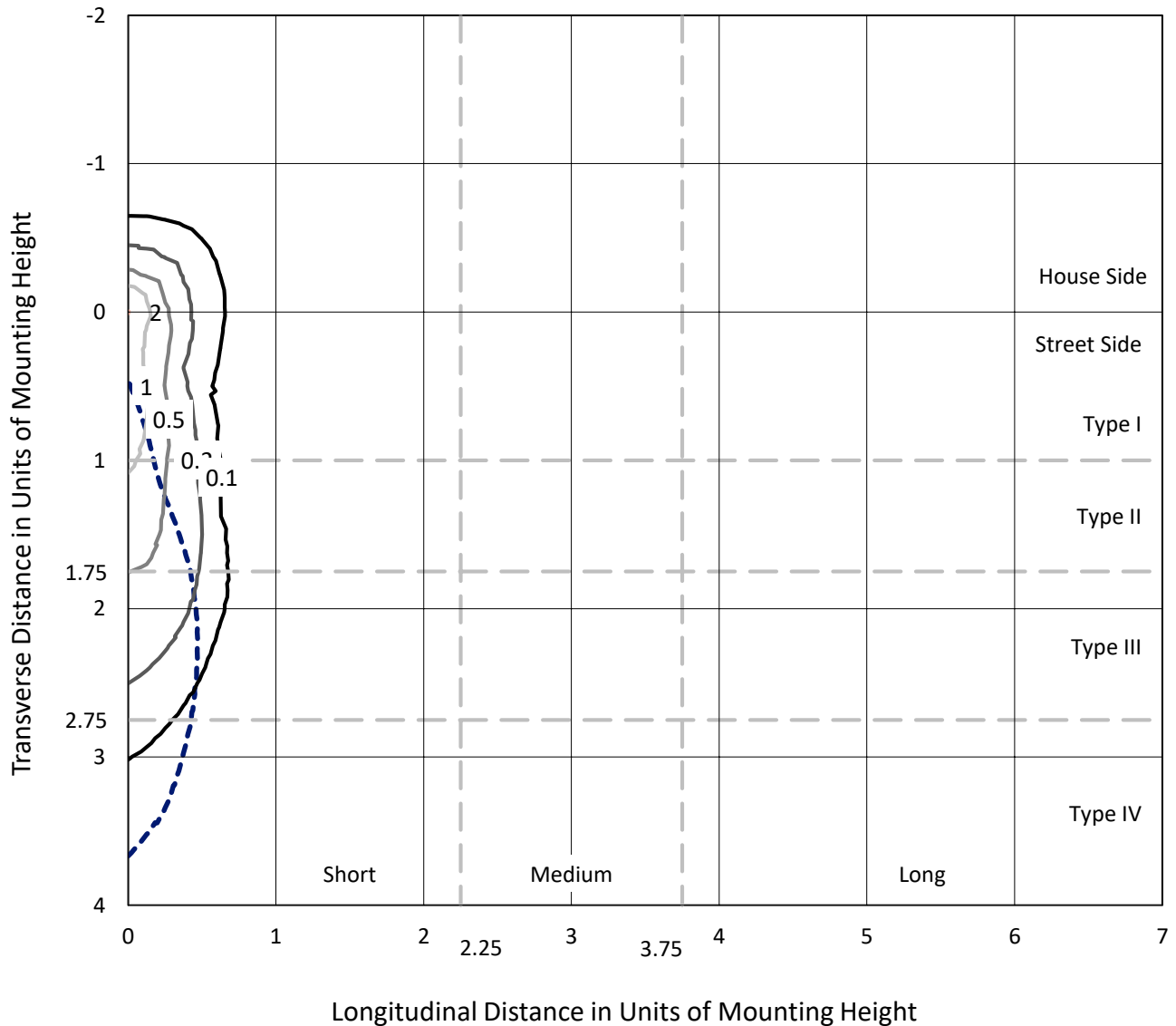


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Iso-Footcandle Lines of Horizontal Illumination

× Max cd
 - - - 1/2 Max cd

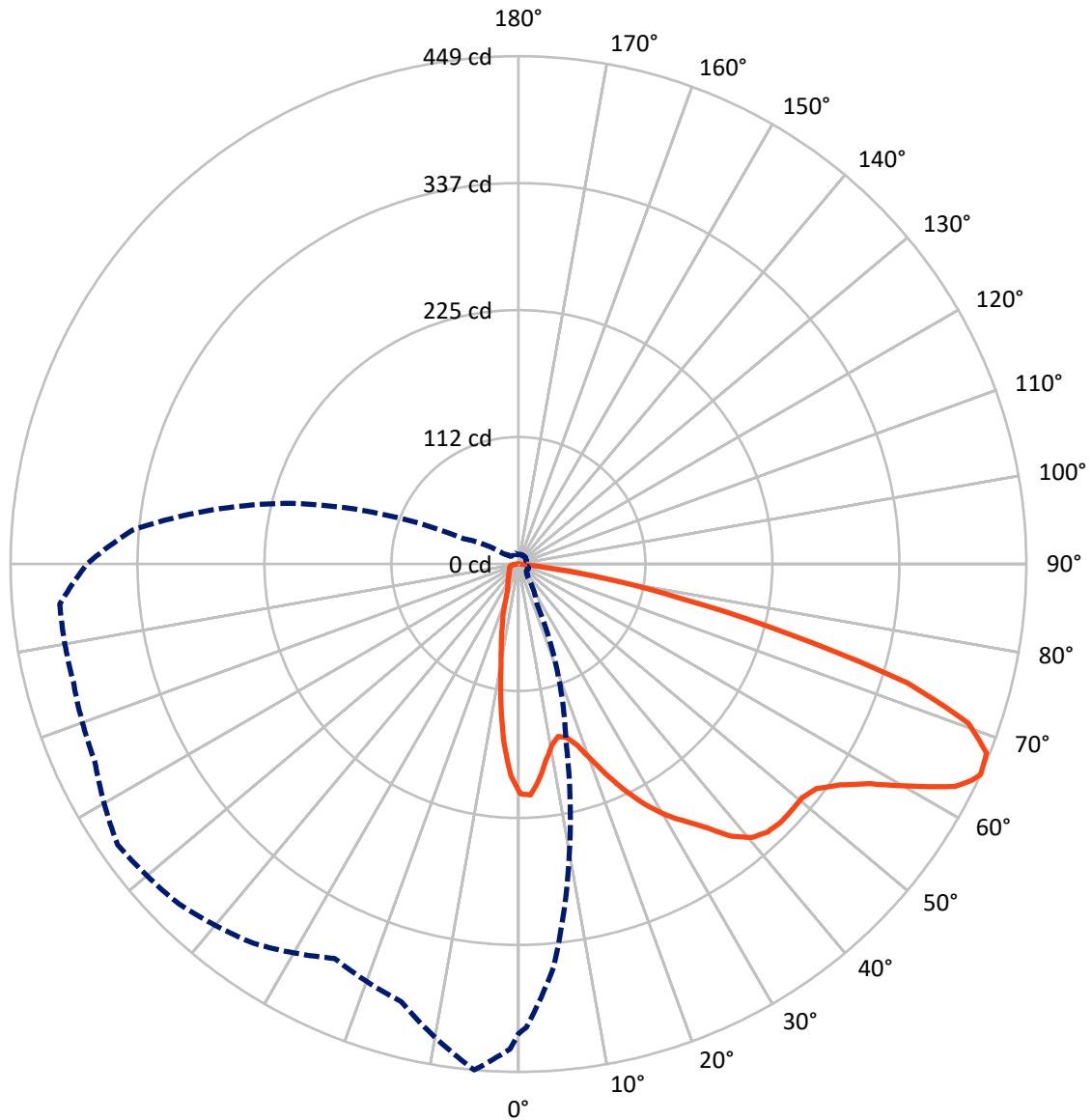


Based on 10 foot mounting height. Maximum calculated value = 2 fc
 Type IV - Short - Non-Cutoff

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Luminous Intensity Polar Plot



— Vertical Plane Through 355-Deg Lateral - - - Horizontal Cone Through 65-Deg Vertical

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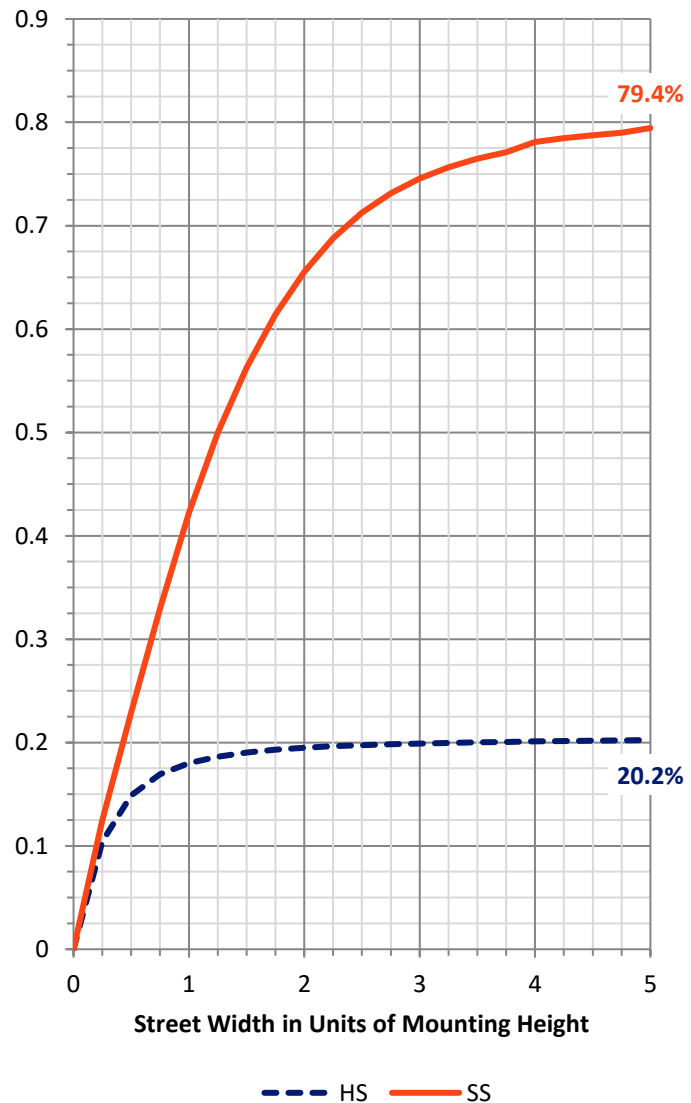
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	117.2	0.0	117.2
	% Fixture	20.5	0.0	20.5
Street Side	Lumens	453.8	0.0	453.8
	% Fixture	79.5	0.0	79.5
Total	Lumens	571.0	0.0	571.0
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	15.5	2.7
10°-20°	30.9	5.4
20°-30°	42.8	7.5
30°-40°	59.8	10.5
40°-50°	81.4	14.3
50°-60°	111.4	19.5
60°-70°	136.2	23.8
70°-80°	82.2	14.4
80°-90°	10.8	1.9
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°	571.0	100.0
0°-180°	571.0	100.0



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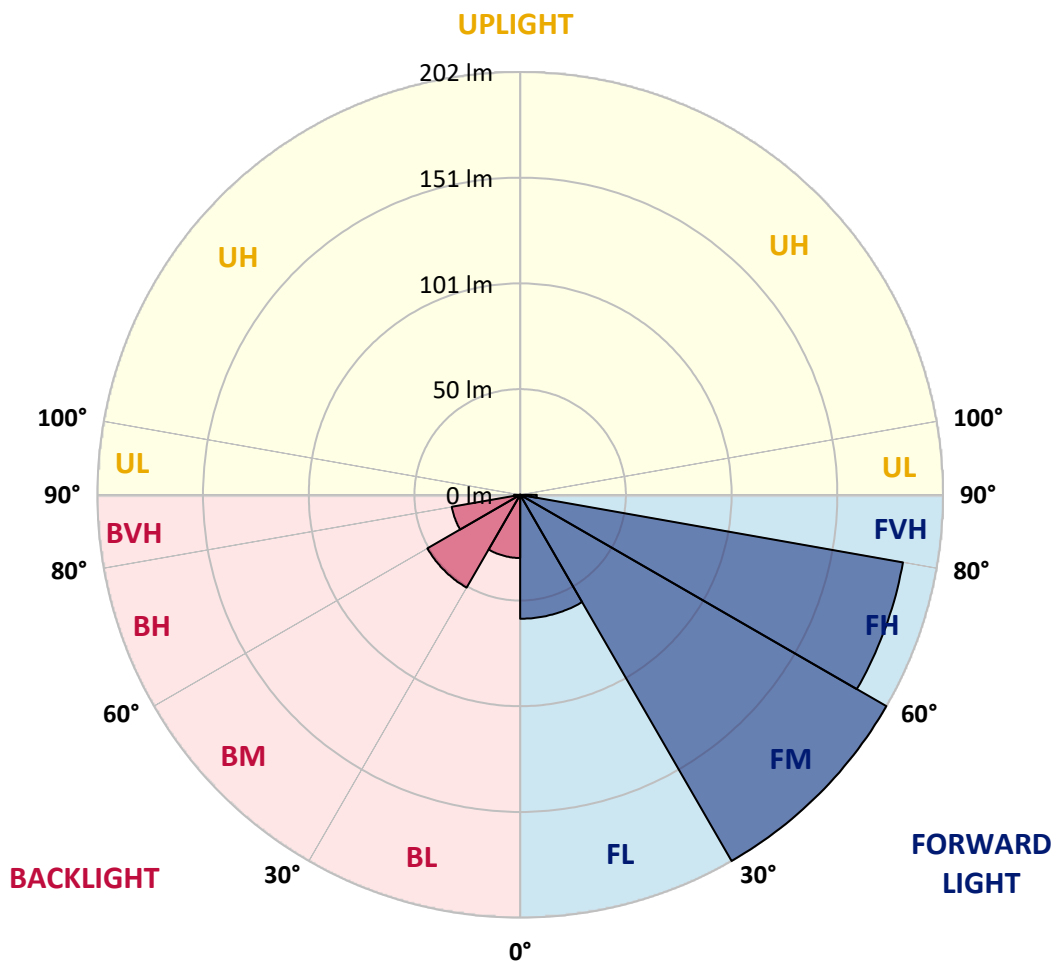
CATALOG NUMBER: ENV-SA1-727-U-SLR-XXB

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	59.1	10.3			
FM	(30°-60°)	201.6	35.3			
FH	(60°-80°)	185.3	32.4			G0/660
FVH	(80°-90°)	7.9	1.4			G0/10
BL	(0°-30°)	30.1	5.3	B0/110		
BM	(30°-60°)	51.1	8.9	B0/220		
BH	(60°-80°)	33.1	5.8	B0/110		G0/110
BVH	(80°-90°)	2.9	0.5			G0/10
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

BUG Rating: B0-U0-G0

Type IV Short





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CANDELA DISTRIBUTION (FULL):

	0°	1°	5°	15°	25°	35°	45°	55°	65°	75°	85°
0°	203.2	203.2	203.2	203.2	203.2	203.2	203.2	203.2	203.2	203.2	203.2
2.5°	202.7	202.1	200.7	196.9	192.8	187.9	187.1	181.8	182.4	180.8	181.2
5°	185.1	184.4	180.5	172.8	162.4	156.4	151.7	149.0	146.7	145.5	147.0
7.5°	168.1	167.0	162.3	148.9	137.3	127.8	120.1	115.4	110.9	107.2	105.5
10°	154.2	153.8	147.6	132.4	117.9	106.3	101.3	96.3	92.4	87.3	83.1
12.5°	147.2	146.1	138.7	121.1	106.9	99.8	95.1	88.8	83.5	77.2	71.7
15°	147.5	146.2	137.0	118.5	103.1	94.4	87.3	79.7	71.9	65.5	60.0
17.5°	155.7	154.8	143.6	120.9	99.9	87.8	76.7	66.9	58.3	50.3	45.4
20°	169.6	168.1	152.7	123.7	95.8	80.3	65.1	51.8	42.5	35.4	31.5
22.5°	187.6	185.0	165.6	127.3	91.7	71.7	52.6	37.7	29.5	26.0	24.9
25°	206.9	204.8	181.1	131.8	87.3	62.4	39.0	27.4	24.5	23.1	22.3
27.5°	224.7	221.2	197.8	136.7	81.4	53.0	29.6	23.6	21.7	21.0	20.5
30°	237.4	234.4	209.4	142.5	76.4	43.3	25.3	21.4	19.9	18.8	18.6
32.5°	249.5	245.3	217.8	145.1	72.2	38.0	23.4	19.9	18.4	17.4	17.0
35°	263.8	259.6	227.4	145.5	69.0	35.8	21.6	18.7	17.2	16.2	15.8
37.5°	280.7	275.0	238.3	145.8	65.9	34.9	20.1	17.8	16.2	15.2	14.8
40°	296.8	292.4	249.5	145.3	63.8	33.7	19.1	16.7	15.3	14.3	13.8
42.5°	308.9	304.2	259.0	143.9	62.5	31.6	19.5	15.9	14.6	13.6	13.0
45°	315.1	310.9	267.7	142.6	61.9	29.8	19.1	15.7	14.1	12.9	12.3
47.5°	319.8	315.7	276.6	142.0	60.7	28.5	17.6	16.7	13.7	12.2	11.6
50°	327.3	323.8	288.7	145.2	58.9	27.6	16.1	17.9	13.5	11.6	11.0
52.5°	340.9	338.6	308.5	152.8	57.0	26.2	14.7	17.1	13.7	11.3	10.5
55°	366.2	364.8	335.8	162.7	55.2	24.3	13.2	15.5	13.6	10.6	10.0
57.5°	393.5	393.1	369.0	171.4	52.5	21.3	12.2	13.1	12.9	10.0	9.4
60°	411.8	410.6	384.2	176.3	49.1	17.6	11.5	11.1	13.2	9.5	8.7
62.5°	418.1	414.0	379.6	174.5	43.9	15.2	10.6	10.1	12.2	8.9	8.0
64°	417.7	411.7	367.7	167.6	40.6	14.7	10.1	9.5	10.8	8.5	7.7
65°	415.5	409.8	357.8	162.2	38.8	14.7	9.8	9.2	9.8	8.3	7.5
67.5°	401.5	394.0	323.9	137.4	34.1	14.9	9.2	8.4	8.2	7.6	7.1
70°	369.5	359.7	277.4	108.1	31.6	15.0	8.4	7.6	7.4	7.0	6.5
72.5°	296.8	283.6	220.8	77.2	29.0	14.7	7.6	7.0	6.7	6.3	5.8
75°	199.0	184.6	162.7	50.9	23.8	13.2	6.6	6.0	5.9	5.5	5.2
77.5°	112.2	106.2	96.1	28.0	16.4	9.1	5.3	4.9	5.0	4.8	4.4
80°	58.6	55.9	51.4	13.6	7.9	4.4	3.3	3.3	3.8	3.8	3.6
82.5°	20.7	20.8	20.1	3.1	1.6	1.3	1.1	1.6	2.2	2.7	2.7
85°	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.2	0.4	0.7
87.5°	0.0	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	0.0



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CANDELA DISTRIBUTION (continued):

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	203.2	203.2	203.2	203.2	203.2	203.2	203.2	203.2	203.2	203.2	203.2
2.5°	178.0	178.6	180.1	179.8	181.3	180.7	182.7	183.7	184.3	187.2	188.7
5°	145.8	146.0	151.4	152.6	155.4	153.9	157.5	156.1	159.0	159.4	164.1
7.5°	107.1	107.5	110.2	116.5	122.7	125.3	126.3	127.9	126.6	126.1	126.8
10°	81.4	81.7	82.0	86.5	92.0	97.4	97.4	97.5	95.1	92.7	92.2
12.5°	69.6	67.8	64.9	65.0	68.8	71.4	73.4	71.3	70.9	72.1	73.3
15°	57.3	55.5	53.6	51.3	51.4	53.2	54.2	54.1	56.0	56.9	59.5
17.5°	44.5	41.9	42.0	40.7	38.9	40.0	40.3	42.0	44.5	45.6	46.1
20°	29.9	29.9	30.7	32.3	31.4	32.2	32.3	33.6	34.8	34.1	34.8
22.5°	24.7	24.6	24.9	26.0	26.8	27.5	27.7	27.6	26.4	26.0	26.9
25°	22.4	22.3	22.4	23.0	24.0	24.8	24.4	23.9	22.5	22.4	22.6
27.5°	20.5	20.6	20.8	21.2	21.8	22.8	22.4	21.3	20.6	20.4	20.4
30°	18.9	18.9	19.3	19.7	20.3	21.3	20.6	19.7	19.0	18.8	18.7
32.5°	17.3	17.6	17.9	18.2	18.8	19.8	19.2	18.3	17.7	17.3	17.0
35°	15.7	15.9	16.4	17.0	17.5	18.2	17.9	17.1	16.4	15.6	15.2
37.5°	14.7	14.7	15.0	15.9	16.2	16.8	16.6	15.9	14.9	14.2	14.1
40°	13.8	13.8	13.9	14.4	15.1	15.8	15.4	14.3	13.7	13.4	13.3
42.5°	13.0	13.0	13.1	13.1	13.9	15.1	14.1	13.1	12.8	12.6	12.5
45°	12.2	12.2	12.2	12.1	12.6	14.0	13.0	12.1	11.9	11.9	11.8
47.5°	11.6	11.6	11.5	11.3	11.6	12.7	11.8	11.4	11.3	11.4	11.3
50°	10.9	10.8	10.7	10.6	10.8	11.3	11.1	10.6	10.7	10.7	10.8
52.5°	10.2	10.1	10.0	9.9	10.1	10.5	10.5	10.1	10.1	10.2	10.3
55°	9.8	9.6	9.5	9.5	9.6	10.1	10.0	9.7	9.7	9.9	10.0
57.5°	9.3	9.1	9.1	9.0	9.2	9.7	9.6	9.4	9.4	9.5	9.6
60°	8.7	8.6	8.5	8.7	8.8	9.4	9.3	9.1	9.0	9.3	9.3
62.5°	8.0	8.0	8.0	8.2	8.3	9.0	8.9	8.8	8.8	8.9	8.8
64°	7.6	7.6	7.7	7.8	8.0	8.6	8.6	8.6	8.6	8.6	8.5
65°	7.4	7.4	7.6	7.7	7.8	8.5	8.4	8.5	8.6	8.5	8.3
67.5°	7.0	7.0	7.3	7.3	7.4	8.1	8.0	8.2	8.4	8.2	8.0
70°	6.4	6.5	6.8	6.7	6.9	7.7	7.4	7.8	8.2	7.9	7.7
72.5°	5.8	5.9	6.3	6.1	6.2	7.3	6.9	7.3	7.8	7.6	7.4
75°	5.3	5.3	5.6	5.5	5.7	6.7	6.3	6.7	7.3	7.3	7.2
77.5°	4.5	4.7	4.9	4.8	5.2	6.0	5.6	5.9	6.4	6.8	6.6
80°	3.6	3.9	4.0	4.1	4.5	5.2	4.9	5.0	5.4	5.7	5.8
82.5°	2.5	3.0	3.2	3.2	3.8	4.0	4.1	4.0	4.3	4.7	4.4
85°	0.8	1.0	1.8	2.3	2.9	2.9	3.3	3.2	3.3	3.0	2.5
87.5°	0.0	0.0	0.0	0.7	1.7	1.7	2.4	2.2	2.3	1.7	1.5
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°	203.2	203.2	203.2	203.2	203.2	203.2	203.2	203.2	203.2	203.2	203.2
2.5°	189.0	190.6	194.2	198.4	200.7	205.7	208.7	212.0	215.2	215.9	216.9
5°	165.1	167.0	171.1	176.7	182.4	189.0	196.6	204.7	213.7	217.5	221.2
7.5°	128.6	129.0	134.8	145.0	150.0	159.4	170.2	182.8	196.6	203.8	211.4
10°	95.0	98.9	103.3	111.8	124.3	135.1	148.6	163.2	177.6	188.0	195.9
12.5°	74.7	79.6	86.9	96.2	105.7	115.9	131.5	147.1	164.9	174.3	184.0
15°	61.5	67.8	77.2	87.1	95.9	104.9	118.8	138.0	160.7	170.2	178.9
17.5°	48.7	55.7	65.8	76.1	86.6	97.7	113.7	137.5	165.2	176.3	185.2
20°	37.3	42.8	51.3	61.7	74.0	89.2	109.7	141.1	178.5	192.3	198.2
22.5°	27.7	30.8	37.5	48.4	62.9	81.6	105.7	146.3	194.9	211.1	215.6
25°	22.9	23.8	26.8	36.3	51.3	73.1	102.6	153.0	211.3	229.5	232.8
27.5°	20.6	21.1	22.5	26.1	40.1	66.2	98.6	160.7	228.6	247.8	247.5
30°	18.6	18.7	19.6	22.1	32.6	60.0	94.0	169.3	244.0	260.9	260.0
32.5°	16.8	16.8	18.0	19.9	27.8	54.3	88.3	175.5	257.3	271.6	268.8
35°	15.2	15.5	16.5	18.4	24.6	48.0	83.1	177.8	268.8	284.4	276.6
37.5°	14.0	14.4	15.5	17.3	22.0	43.4	78.8	180.5	282.9	300.0	285.4
40°	13.3	13.6	14.5	16.0	19.9	39.4	74.1	182.3	297.0	316.6	294.7
42.5°	12.5	12.8	13.7	15.2	18.9	34.9	69.6	183.3	311.6	331.0	302.4
45°	11.8	12.2	13.2	14.5	19.0	30.7	65.9	182.9	320.4	341.5	308.4
47.5°	11.4	11.7	12.8	14.5	18.4	28.4	62.7	181.6	326.8	348.2	311.2
50°	10.9	11.3	12.5	16.0	17.5	27.7	60.3	181.4	333.6	349.6	311.2
52.5°	10.4	11.1	12.6	16.1	16.0	27.4	58.4	186.5	343.0	351.9	314.0
55°	10.1	10.7	13.0	14.9	14.0	26.4	57.3	193.5	358.7	364.5	327.9
57.5°	9.7	10.2	12.8	13.9	12.5	24.3	56.3	200.1	379.5	387.9	355.7
60°	9.3	9.8	12.4	11.9	11.4	20.6	55.8	205.7	387.2	402.9	385.6
62.5°	8.8	9.5	13.6	10.4	10.5	17.2	54.7	211.0	370.9	399.3	404.8
64°	8.5	9.2	12.6	9.7	10.0	15.7	53.7	211.3	356.4	390.7	408.4
65°	8.3	8.9	11.7	9.4	9.6	15.3	52.7	207.3	342.9	381.6	407.3
67.5°	8.0	8.4	9.1	8.7	9.0	14.6	46.2	189.6	314.0	358.0	391.0
70°	7.6	7.9	8.0	7.9	8.4	14.1	39.1	164.5	282.5	333.2	365.6
72.5°	7.3	7.3	7.3	7.2	7.7	13.5	35.1	132.9	244.2	300.8	334.0
75°	7.0	6.7	6.6	6.4	7.1	13.1	31.7	99.8	188.7	250.6	279.9
77.5°	6.4	6.1	5.8	5.6	6.3	11.6	26.4	70.5	139.1	182.3	216.0
80°	5.5	5.3	5.0	4.7	5.3	9.2	20.1	43.5	101.8	123.1	141.7
82.5°	4.5	4.4	4.0	3.6	3.8	6.6	13.7	22.2	67.9	66.8	79.2
85°	2.8	3.4	3.0	2.4	2.6	3.8	5.5	7.1	20.8	12.5	19.4
87.5°	1.6	2.2	1.8	1.2	1.0	1.7	1.5	1.4	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	0.0



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CANDELA DISTRIBUTION (continued):

	285°	295°	305°	315°	325°	335°	345°	355°	359°	360°
0°	203.2	203.2	203.2	203.2	203.2	203.2	203.2	203.2	203.2	203.2
2.5°	219.4	220.7	221.3	218.9	216.2	213.8	209.2	204.6	202.2	202.7
5°	228.4	230.5	231.1	227.4	219.9	212.2	201.0	191.4	185.5	185.1
7.5°	225.0	231.8	233.0	229.1	218.3	203.9	188.7	175.2	169.4	168.1
10°	212.7	223.2	226.7	225.3	214.8	198.3	179.9	162.8	157.0	154.2
12.5°	200.2	211.2	213.3	214.6	208.3	194.3	174.1	156.5	149.5	147.2
15°	192.0	199.6	200.1	201.4	200.0	192.4	176.7	159.1	150.7	147.5
17.5°	190.9	188.2	186.4	189.0	190.6	192.5	183.7	168.7	159.7	155.7
20°	191.1	182.8	177.6	177.4	184.4	195.0	197.8	185.0	173.3	169.6
22.5°	198.0	179.9	171.3	170.2	178.7	199.2	212.3	204.2	192.6	187.6
25°	208.4	178.2	166.8	167.1	175.6	202.0	224.6	223.5	213.3	206.9
27.5°	218.5	181.0	166.2	167.0	176.6	203.8	234.8	241.7	230.2	224.7
30°	226.5	187.4	168.0	168.6	179.9	206.2	239.9	257.8	244.0	237.4
32.5°	233.5	193.5	170.5	171.0	185.0	209.8	244.6	271.4	257.3	249.5
35°	239.8	198.6	174.5	176.1	191.6	214.8	249.5	286.1	273.7	263.8
37.5°	245.3	204.9	182.2	184.9	201.3	222.2	255.8	305.5	291.9	280.7
40°	248.5	210.5	193.6	197.7	213.8	231.7	263.8	318.1	309.4	296.8
42.5°	250.8	218.3	212.1	219.3	233.2	240.7	267.6	323.7	319.7	308.9
45°	252.1	233.6	239.8	246.5	255.0	250.6	265.5	325.6	324.4	315.1
47.5°	257.7	256.6	271.8	281.2	280.7	265.4	261.5	325.4	327.4	319.8
50°	269.2	283.4	304.8	314.0	310.4	279.2	260.8	325.1	333.5	327.3
52.5°	282.8	310.2	340.4	344.2	336.8	293.2	266.5	330.1	345.0	340.9
55°	300.8	335.4	368.4	369.6	359.1	306.9	278.7	344.7	366.4	366.2
57.5°	325.8	358.1	391.9	390.3	375.5	325.8	298.4	366.6	390.2	393.5
60°	353.0	381.9	410.9	410.0	394.3	347.6	325.4	398.9	411.0	411.8
62.5°	379.1	404.1	429.2	425.1	407.3	370.1	362.8	433.3	424.5	418.1
64°	396.1	411.5	433.9	427.4	410.5	380.9	384.4	444.5	428.3	417.7
65°	407.3	413.4	432.8	425.0	409.4	384.9	400.7	449.2	429.0	415.5
67.5°	427.6	402.9	404.4	398.2	384.2	381.2	427.5	446.6	421.7	401.5
70°	421.9	361.0	341.4	337.4	320.7	337.9	424.1	422.3	394.1	369.5
72.5°	373.8	289.9	261.6	258.1	234.9	256.1	366.0	359.7	317.1	296.8
75°	308.0	219.7	186.9	189.8	172.2	191.7	291.1	246.4	211.1	199.0
77.5°	239.1	155.3	129.1	125.6	122.0	124.1	200.1	148.0	123.4	112.2
80°	152.4	97.6	96.8	88.5	85.6	72.2	102.8	78.8	62.0	58.6
82.5°	81.0	56.2	63.9	51.2	41.2	29.6	34.9	23.4	19.8	20.7
85°	22.2	11.6	3.2	0.0	0.0	0.0	0.0	0.1	0.1	0.1
87.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	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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