

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: P400846

Luminaire Tested: **ENC-SA1-827-U-SLR-XXB**

Issue Date: 5/20/2020

Test Information

Test Method: LM-79-08
Report Number: P400846
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: ENC-SA1-827-U-SLR-XXB
Description: ENTRI LED LUMINAIRE
(1) 80 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: 502 lumens
Efficiency: N/A
Efficacy: 38.6 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

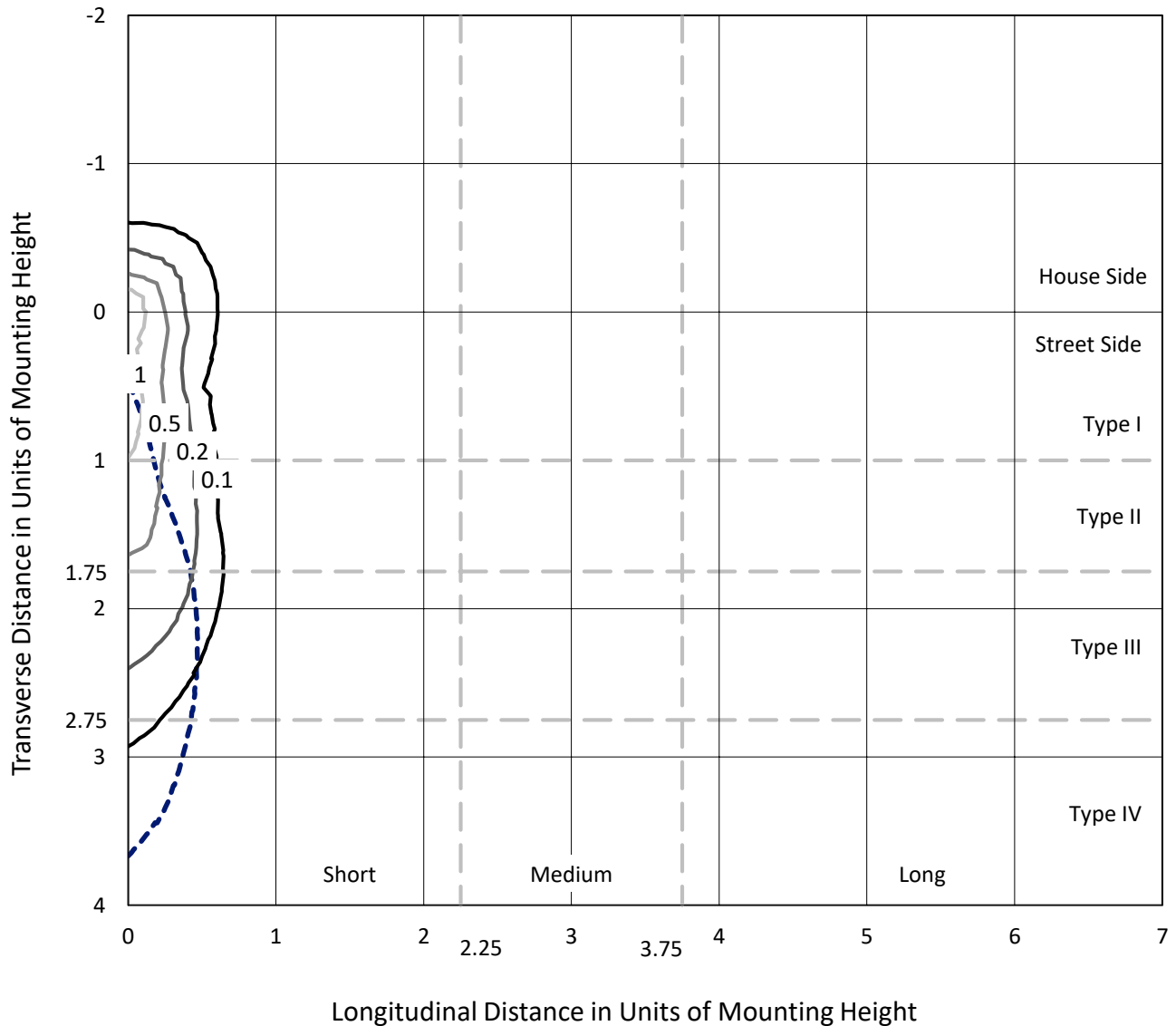


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Iso-Footcandle Lines of Horizontal Illumination

× Max cd
 - - - 1/2 Max cd

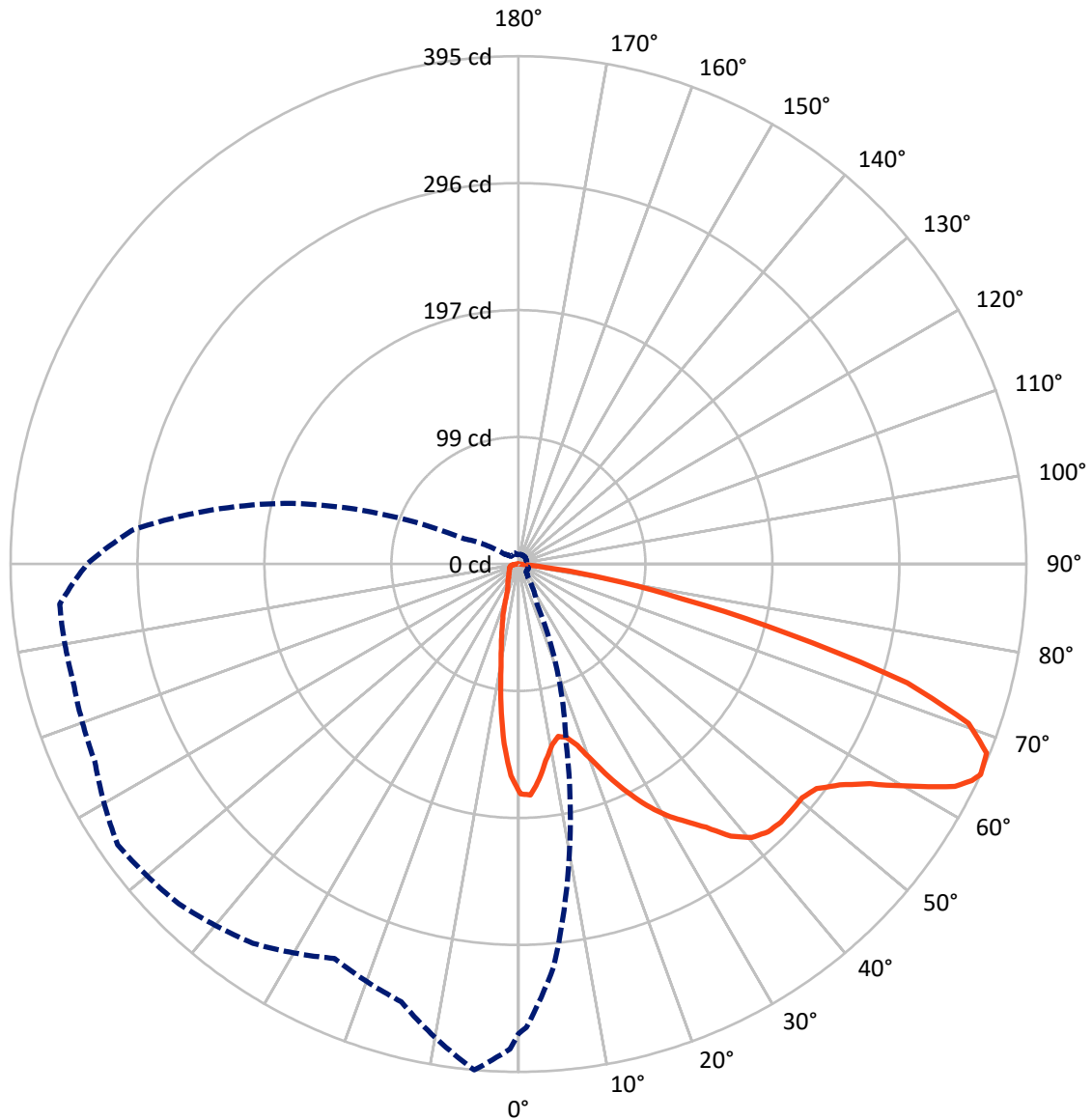


Based on 10 foot mounting height. Maximum calculated value = 1.8 fc
 Type IV - Short - Non-Cutoff

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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	103.0	0.0	103.0
	% Fixture	20.5	0.0	20.5
Street Side	Lumens	399.0	0.0	399.0
	% Fixture	79.5	0.0	79.5
Total	Lumens	502.0	0.0	502.0
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	13.6	2.7
10°-20°	27.1	5.4
20°-30°	37.6	7.5
30°-40°	52.6	10.5
40°-50°	71.6	14.3
50°-60°	97.9	19.5
60°-70°	119.7	23.8
70°-80°	72.3	14.4
80°-90°	9.5	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°	502.0	100.0
0°-180°	502.0	100.0



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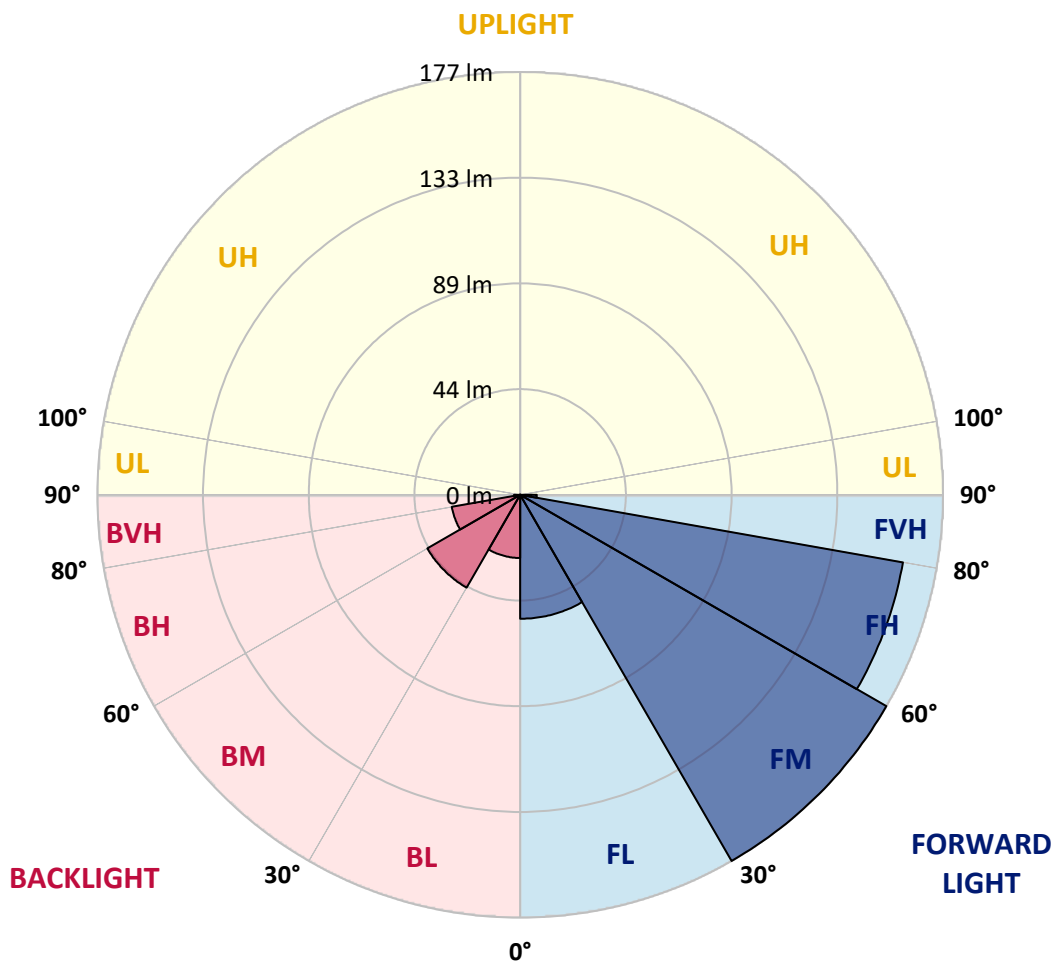
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	51.9	10.3			
FM	(30°-60°)	177.2	35.3			
FH	(60°-80°)	162.9	32.4			G0/660
FVH	(80°-90°)	7.0	1.4			G0/10
BL	(0°-30°)	26.5	5.3	B0/110		
BM	(30°-60°)	44.9	8.9	B0/220		
BH	(60°-80°)	29.1	5.8	B0/110		G0/110
BVH	(80°-90°)	2.6	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°	178.6	178.6	178.6	178.6	178.6	178.6	178.6	178.6	178.6	178.6	178.6
2.5°	178.2	177.7	176.5	173.1	169.5	165.2	164.5	159.8	160.3	159.0	159.3
5°	162.8	162.1	158.7	151.9	142.8	137.5	133.4	131.0	128.9	127.9	129.2
7.5°	147.7	146.8	142.7	130.9	120.7	112.3	105.6	101.5	97.5	94.3	92.8
10°	135.6	135.2	129.8	116.4	103.7	93.4	89.1	84.7	81.3	76.7	73.0
12.5°	129.4	128.4	122.0	106.4	94.0	87.7	83.6	78.1	73.4	67.8	63.0
15°	129.7	128.5	120.5	104.2	90.7	83.0	76.7	70.1	63.2	57.6	52.7
17.5°	136.9	136.1	126.3	106.3	87.8	77.2	67.4	58.8	51.3	44.2	39.9
20°	149.1	147.8	134.2	108.8	84.2	70.6	57.3	45.5	37.4	31.1	27.7
22.5°	165.0	162.6	145.6	111.9	80.6	63.0	46.3	33.2	25.9	22.8	21.9
25°	181.9	180.1	159.2	115.8	76.7	54.8	34.3	24.1	21.6	20.3	19.6
27.5°	197.5	194.5	173.9	120.2	71.6	46.6	26.0	20.7	19.1	18.5	18.0
30°	208.7	206.1	184.1	125.2	67.2	38.0	22.2	18.8	17.5	16.5	16.4
32.5°	219.4	215.7	191.5	127.6	63.5	33.4	20.6	17.5	16.2	15.3	14.9
35°	231.9	228.2	200.0	127.9	60.7	31.5	19.0	16.5	15.1	14.3	13.9
37.5°	246.8	241.8	209.5	128.2	57.9	30.7	17.6	15.6	14.3	13.3	13.0
40°	260.9	257.0	219.4	127.8	56.1	29.6	16.8	14.7	13.4	12.6	12.2
42.5°	271.6	267.5	227.7	126.5	55.0	27.8	17.1	14.0	12.8	11.9	11.4
45°	277.0	273.3	235.4	125.3	54.4	26.2	16.8	13.8	12.4	11.3	10.8
47.5°	281.1	277.5	243.2	124.8	53.4	25.0	15.4	14.7	12.0	10.7	10.2
50°	287.8	284.7	253.8	127.7	51.8	24.3	14.2	15.7	11.8	10.2	9.7
52.5°	299.7	297.7	271.2	134.3	50.1	23.0	12.9	15.0	12.0	9.9	9.2
55°	321.9	320.7	295.2	143.0	48.5	21.4	11.6	13.6	11.9	9.3	8.8
57.5°	345.9	345.6	324.4	150.7	46.2	18.7	10.7	11.5	11.3	8.8	8.2
60°	362.1	361.0	337.8	155.0	43.1	15.4	10.1	9.7	11.6	8.3	7.6
62.5°	367.6	364.0	333.8	153.4	38.6	13.3	9.3	8.9	10.7	7.8	7.1
64°	367.3	362.0	323.3	147.3	35.7	12.9	8.9	8.3	9.5	7.5	6.8
65°	365.3	360.3	314.5	142.6	34.1	12.9	8.6	8.1	8.6	7.3	6.6
67.5°	353.0	346.4	284.7	120.8	30.0	13.1	8.1	7.4	7.2	6.7	6.2
70°	324.9	316.2	243.9	95.0	27.8	13.2	7.4	6.7	6.5	6.1	5.7
72.5°	260.9	249.3	194.1	67.9	25.5	12.9	6.7	6.1	5.9	5.5	5.1
75°	174.9	162.3	143.0	44.7	20.9	11.6	5.8	5.3	5.2	4.9	4.5
77.5°	98.6	93.3	84.4	24.6	14.4	8.0	4.6	4.3	4.4	4.2	3.9
80°	51.5	49.1	45.2	11.9	7.0	3.9	2.9	2.9	3.4	3.4	3.2
82.5°	18.2	18.3	17.7	2.7	1.4	1.2	1.0	1.4	1.9	2.4	2.4
85°	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.2	0.3	0.6
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°	178.6	178.6	178.6	178.6	178.6	178.6	178.6	178.6	178.6	178.6	178.6
2.5°	156.5	157.0	158.3	158.1	159.4	158.8	160.6	161.5	162.0	164.6	165.9
5°	128.2	128.4	133.1	134.1	136.7	135.3	138.4	137.3	139.8	140.1	144.3
7.5°	94.2	94.5	96.9	102.4	107.9	110.1	111.1	112.5	111.3	110.9	111.5
10°	71.6	71.9	72.1	76.1	80.8	85.6	85.6	85.7	83.6	81.5	81.1
12.5°	61.2	59.6	57.1	57.2	60.5	62.8	64.6	62.7	62.4	63.4	64.5
15°	50.4	48.8	47.1	45.1	45.2	46.8	47.7	47.6	49.3	50.0	52.3
17.5°	39.1	36.9	36.9	35.8	34.2	35.2	35.4	36.9	39.1	40.1	40.5
20°	26.3	26.3	26.9	28.4	27.6	28.3	28.4	29.5	30.6	30.0	30.6
22.5°	21.7	21.7	21.9	22.8	23.6	24.2	24.3	24.3	23.3	22.8	23.7
25°	19.7	19.6	19.7	20.2	21.1	21.8	21.5	21.0	19.8	19.7	19.9
27.5°	18.0	18.1	18.3	18.6	19.1	20.1	19.7	18.7	18.1	18.0	18.0
30°	16.6	16.6	17.0	17.3	17.9	18.7	18.1	17.3	16.7	16.5	16.5
32.5°	15.2	15.4	15.7	16.0	16.5	17.4	16.9	16.1	15.5	15.2	14.9
35°	13.8	13.9	14.4	14.9	15.4	16.0	15.7	15.0	14.4	13.7	13.3
37.5°	12.9	12.9	13.2	13.9	14.3	14.8	14.6	14.0	13.1	12.5	12.4
40°	12.2	12.2	12.3	12.7	13.3	13.9	13.5	12.6	12.0	11.8	11.7
42.5°	11.4	11.4	11.5	11.5	12.3	13.3	12.4	11.5	11.2	11.1	11.0
45°	10.7	10.7	10.7	10.7	11.1	12.3	11.4	10.7	10.5	10.5	10.4
47.5°	10.2	10.2	10.1	9.9	10.2	11.2	10.4	10.0	9.9	10.0	9.9
50°	9.6	9.5	9.4	9.3	9.5	9.9	9.7	9.3	9.4	9.4	9.5
52.5°	9.0	8.9	8.8	8.7	8.9	9.2	9.2	8.9	8.9	9.0	9.1
55°	8.6	8.5	8.4	8.4	8.5	8.9	8.8	8.6	8.6	8.7	8.8
57.5°	8.1	8.0	8.0	7.9	8.1	8.6	8.5	8.2	8.2	8.3	8.5
60°	7.6	7.6	7.5	7.6	7.7	8.2	8.1	8.0	7.9	8.1	8.1
62.5°	7.1	7.1	7.1	7.2	7.3	7.9	7.8	7.7	7.7	7.8	7.7
64°	6.7	6.7	6.8	6.9	7.1	7.6	7.6	7.6	7.6	7.6	7.5
65°	6.5	6.5	6.7	6.8	6.9	7.5	7.4	7.5	7.6	7.5	7.3
67.5°	6.1	6.1	6.4	6.4	6.5	7.1	7.1	7.2	7.4	7.2	7.1
70°	5.6	5.7	6.0	5.9	6.0	6.8	6.5	6.9	7.2	7.0	6.8
72.5°	5.1	5.2	5.5	5.4	5.5	6.4	6.0	6.4	6.9	6.7	6.5
75°	4.6	4.7	5.0	4.9	5.0	5.9	5.5	5.9	6.4	6.4	6.3
77.5°	3.9	4.1	4.3	4.2	4.5	5.3	5.0	5.2	5.6	6.0	5.8
80°	3.2	3.4	3.5	3.6	3.9	4.5	4.3	4.4	4.8	5.0	5.1
82.5°	2.2	2.6	2.8	2.9	3.4	3.5	3.6	3.5	3.8	4.1	3.9
85°	0.7	0.8	1.6	2.0	2.5	2.5	2.9	2.8	2.9	2.6	2.2
87.5°	0.0	0.0	0.0	0.6	1.5	1.5	2.1	1.9	2.0	1.5	1.3
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°	178.6	178.6	178.6	178.6	178.6	178.6	178.6	178.6	178.6	178.6	178.6
2.5°	166.1	167.6	170.7	174.4	176.5	180.8	183.5	186.4	189.2	189.8	190.7
5°	145.1	146.8	150.4	155.4	160.3	166.1	172.8	180.0	187.9	191.2	194.5
7.5°	113.1	113.4	118.5	127.5	131.9	140.1	149.7	160.7	172.8	179.1	185.9
10°	83.5	87.0	90.8	98.3	109.3	118.8	130.6	143.5	156.1	165.3	172.3
12.5°	65.6	70.0	76.4	84.6	92.9	101.9	115.6	129.4	145.0	153.2	161.8
15°	54.1	59.6	67.9	76.6	84.3	92.3	104.4	121.3	141.3	149.7	157.3
17.5°	42.8	48.9	57.8	66.9	76.1	85.9	100.0	120.9	145.2	155.0	162.9
20°	32.8	37.6	45.1	54.2	65.1	78.4	96.5	124.1	156.9	169.1	174.3
22.5°	24.3	27.1	33.0	42.6	55.3	71.8	92.9	128.6	171.3	185.6	189.6
25°	20.1	20.9	23.6	31.9	45.1	64.3	90.2	134.5	185.8	201.8	204.7
27.5°	18.1	18.6	19.8	22.9	35.3	58.2	86.7	141.3	201.0	217.8	217.6
30°	16.4	16.5	17.2	19.4	28.6	52.7	82.6	148.8	214.5	229.3	228.6
32.5°	14.8	14.8	15.8	17.5	24.4	47.8	77.7	154.3	226.2	238.7	236.3
35°	13.3	13.6	14.5	16.2	21.7	42.2	73.0	156.3	236.3	250.1	243.2
37.5°	12.3	12.7	13.6	15.2	19.3	38.1	69.3	158.7	248.7	263.8	250.9
40°	11.7	11.9	12.8	14.1	17.5	34.7	65.1	160.3	261.1	278.4	259.1
42.5°	11.0	11.2	12.1	13.3	16.6	30.6	61.2	161.2	273.9	291.0	265.9
45°	10.4	10.7	11.6	12.8	16.7	27.0	57.9	160.8	281.6	300.2	271.1
47.5°	10.0	10.3	11.2	12.8	16.2	24.9	55.2	159.7	287.3	306.2	273.6
50°	9.6	9.9	11.0	14.1	15.4	24.3	53.1	159.5	293.3	307.3	273.6
52.5°	9.2	9.7	11.1	14.2	14.1	24.1	51.4	163.9	301.5	309.3	276.0
55°	8.9	9.4	11.4	13.1	12.3	23.3	50.4	170.1	315.4	320.4	288.3
57.5°	8.6	9.0	11.2	12.3	11.0	21.3	49.5	176.0	333.6	341.0	312.7
60°	8.1	8.6	10.9	10.5	10.0	18.1	49.0	180.8	340.4	354.3	339.0
62.5°	7.7	8.3	11.9	9.2	9.2	15.1	48.1	185.5	326.0	351.1	355.8
64°	7.5	8.1	11.1	8.6	8.8	13.8	47.2	185.8	313.4	343.5	359.0
65°	7.3	7.8	10.3	8.2	8.5	13.4	46.3	182.2	301.5	335.4	358.1
67.5°	7.1	7.4	8.0	7.6	7.9	12.8	40.6	166.7	276.1	314.7	343.8
70°	6.7	7.0	7.1	7.0	7.4	12.4	34.3	144.6	248.4	293.0	321.4
72.5°	6.4	6.4	6.4	6.3	6.8	11.8	30.9	116.9	214.7	264.4	293.6
75°	6.1	5.9	5.8	5.6	6.2	11.5	27.9	87.7	165.9	220.3	246.0
77.5°	5.6	5.4	5.1	5.0	5.5	10.2	23.3	62.0	122.3	160.3	189.9
80°	4.9	4.7	4.4	4.1	4.6	8.1	17.6	38.3	89.5	108.2	124.6
82.5°	3.9	3.9	3.5	3.2	3.4	5.8	12.0	19.5	59.7	58.8	69.6
85°	2.4	3.0	2.6	2.1	2.3	3.4	4.9	6.2	18.3	11.0	17.0
87.5°	1.4	1.9	1.6	1.1	0.8	1.5	1.3	1.3	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°	178.6	178.6	178.6	178.6	178.6	178.6	178.6	178.6	178.6	178.6
2.5°	192.9	194.0	194.6	192.4	190.1	188.0	183.9	179.9	177.8	178.2
5°	200.8	202.6	203.1	200.0	193.3	186.5	176.7	168.2	163.1	162.8
7.5°	197.8	203.8	204.8	201.4	191.9	179.2	165.9	154.0	148.9	147.7
10°	187.0	196.3	199.3	198.1	188.9	174.4	158.2	143.1	138.0	135.6
12.5°	176.0	185.7	187.5	188.7	183.1	170.8	153.0	137.6	131.5	129.4
15°	168.8	175.4	176.0	177.0	175.9	169.2	155.4	139.9	132.5	129.7
17.5°	167.8	165.5	163.9	166.1	167.6	169.2	161.5	148.3	140.4	136.9
20°	168.0	160.7	156.1	156.0	162.1	171.4	173.9	162.6	152.4	149.1
22.5°	174.1	158.2	150.6	149.7	157.1	175.1	186.6	179.6	169.3	165.0
25°	183.3	156.6	146.7	146.9	154.4	177.5	197.4	196.5	187.5	181.9
27.5°	192.1	159.2	146.2	146.8	155.3	179.1	206.4	212.5	202.4	197.5
30°	199.1	164.8	147.7	148.2	158.2	181.3	210.9	226.7	214.5	208.7
32.5°	205.2	170.1	149.9	150.3	162.7	184.4	215.1	238.6	226.2	219.4
35°	210.8	174.6	153.4	154.8	168.5	188.9	219.4	251.5	240.6	231.9
37.5°	215.7	180.1	160.2	162.5	177.0	195.3	224.9	268.5	256.6	246.8
40°	218.4	185.1	170.2	173.8	188.0	203.7	231.9	279.6	272.0	260.9
42.5°	220.5	191.9	186.4	192.8	205.0	211.6	235.3	284.6	281.1	271.6
45°	221.6	205.3	210.8	216.7	224.2	220.3	233.5	286.3	285.2	277.0
47.5°	226.6	225.6	239.0	247.2	246.8	233.3	229.9	286.1	287.9	281.1
50°	236.6	249.2	268.0	276.0	272.9	245.5	229.3	285.8	293.2	287.8
52.5°	248.6	272.7	299.3	302.6	296.1	257.8	234.3	290.2	303.3	299.7
55°	264.4	294.9	323.9	325.0	315.7	269.8	245.0	303.0	322.1	321.9
57.5°	286.4	314.8	344.5	343.2	330.2	286.4	262.3	322.3	343.0	345.9
60°	310.3	335.8	361.2	360.5	346.6	305.6	286.1	350.7	361.3	362.1
62.5°	333.3	355.3	377.3	373.7	358.1	325.4	319.0	380.9	373.2	367.6
64°	348.2	361.8	381.5	375.7	360.9	334.9	338.0	390.8	376.6	367.3
65°	358.1	363.4	380.5	373.6	360.0	338.4	352.3	394.9	377.2	365.3
67.5°	375.9	354.3	355.5	350.1	337.8	335.1	375.8	392.6	370.7	353.0
70°	371.0	317.4	300.1	296.7	282.0	297.1	372.9	371.3	346.4	324.9
72.5°	328.6	254.9	230.0	226.9	206.5	225.1	321.8	316.2	278.8	260.9
75°	270.8	193.2	164.3	166.9	151.4	168.6	256.0	216.7	185.6	174.9
77.5°	210.2	136.5	113.5	110.4	107.3	109.1	176.0	130.1	108.5	98.6
80°	134.0	85.8	85.1	77.8	75.3	63.5	90.4	69.3	54.5	51.5
82.5°	71.2	49.4	56.2	45.0	36.2	26.0	30.6	20.6	17.4	18.2
85°	19.5	10.2	2.9	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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