

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: P400828

Luminaire Tested: **ENT-SA1-760-U-SLR-XXB**

Issue Date: 5/20/2020

Test Information

Test Method: LM-79-08
Report Number: P400828
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: ENT-SA1-760-U-SLR-XXB
Description: ENTRI LED LUMINAIRE
(1) 70 CRI, 5700K 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: 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 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

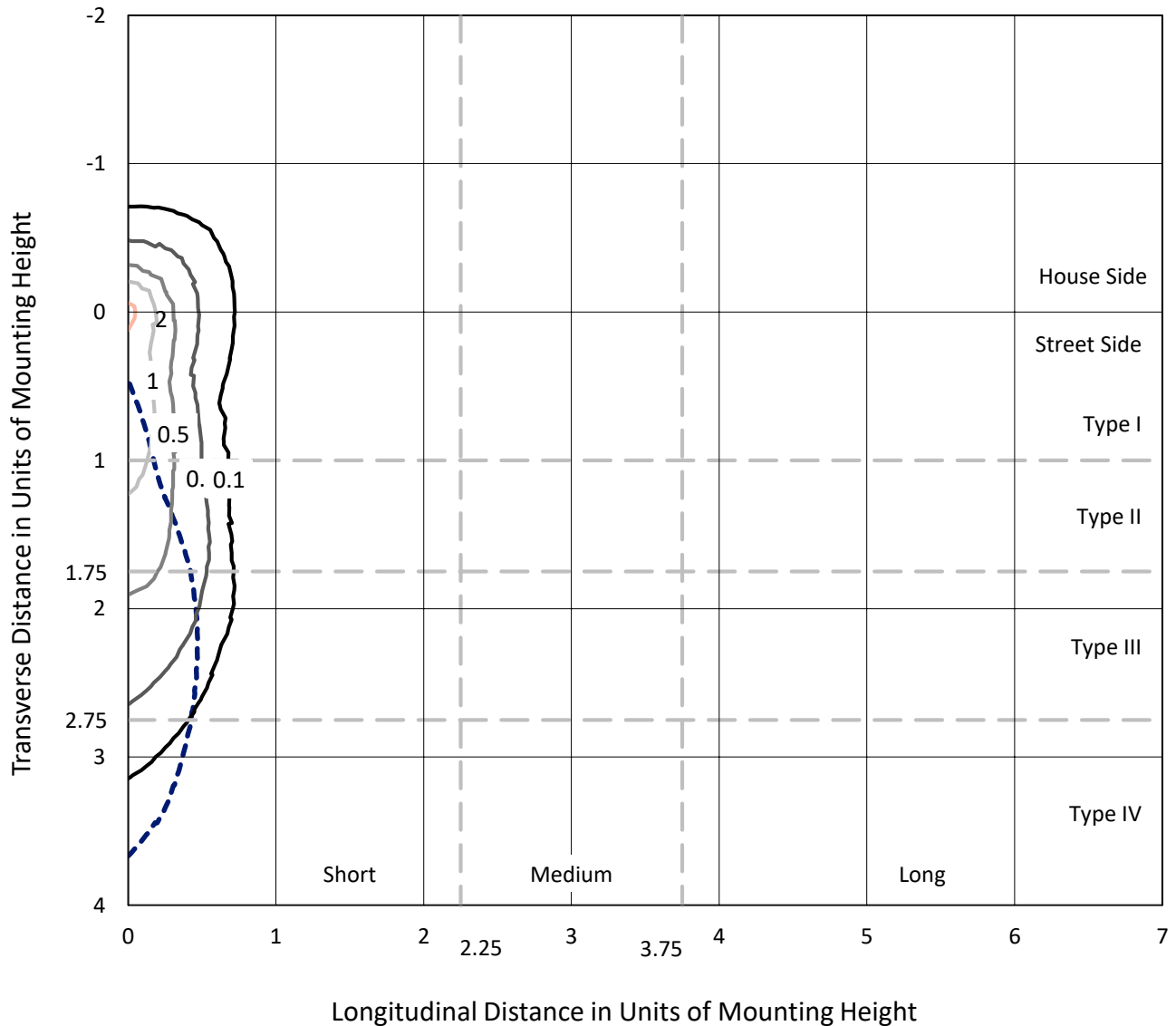


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Iso-Footcandle Lines of Horizontal Illumination

× Max cd
 - - - 1/2 Max cd

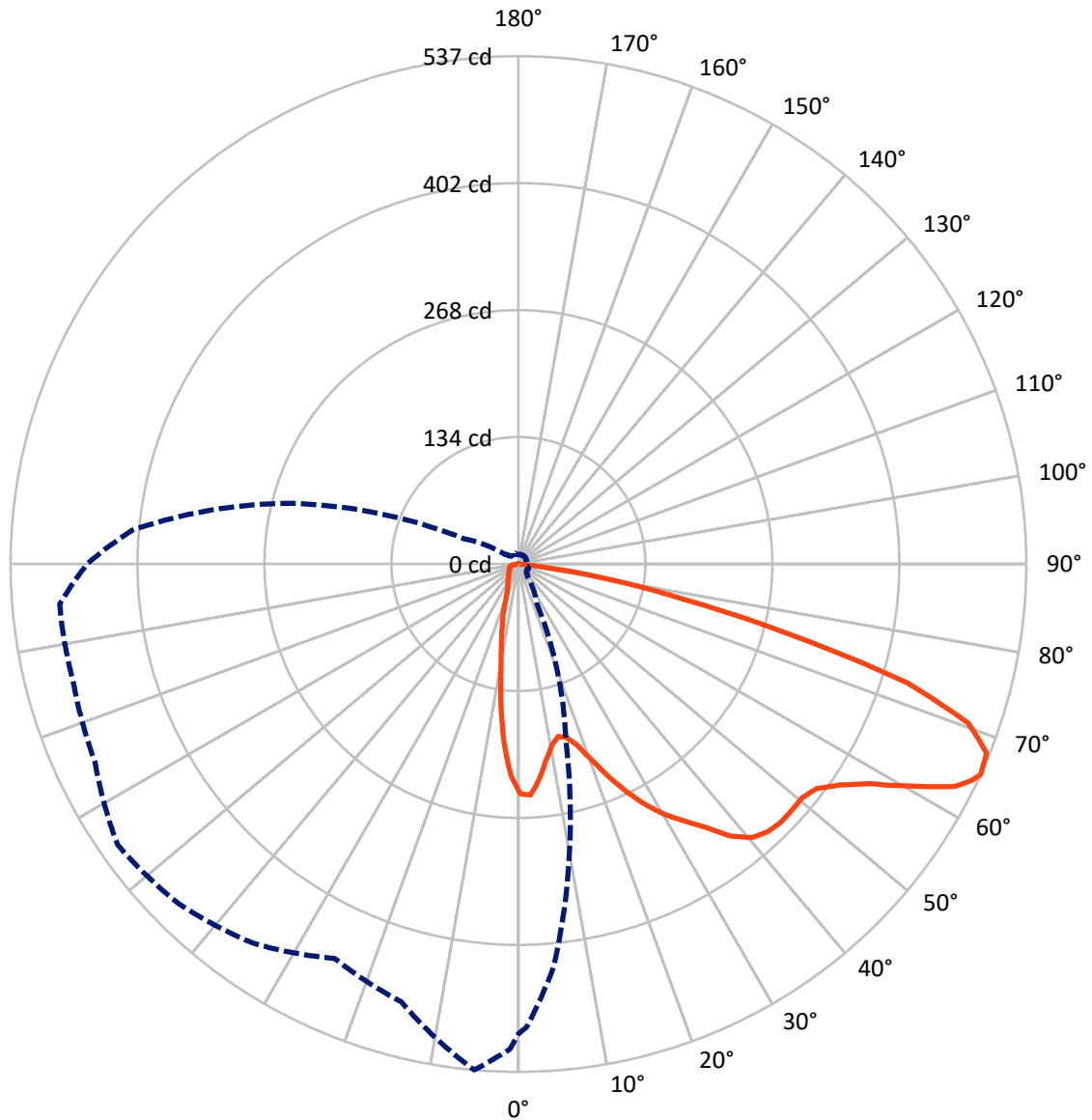


Based on 10 foot mounting height. Maximum calculated value = 2.4 fc
 Type IV - Short - Non-Cutoff

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Luminous Intensity Polar Plot



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

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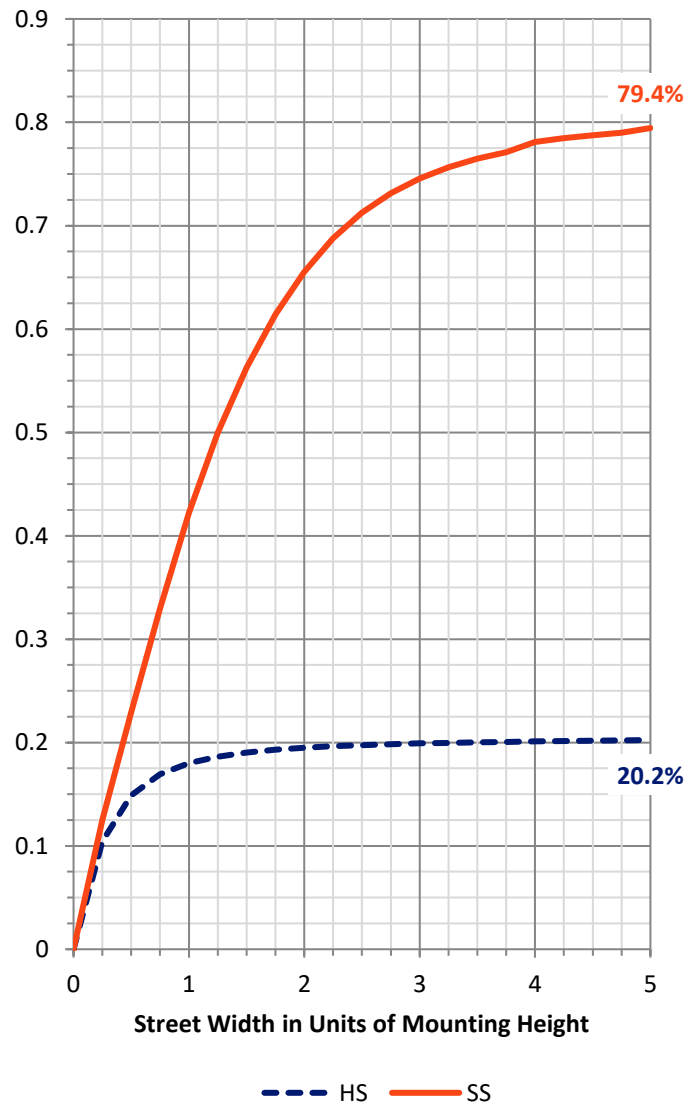
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	139.9	0.0	139.9
	% Fixture	20.5	0.0	20.5
Street Side	Lumens	542.1	0.0	542.1
	% Fixture	79.5	0.0	79.5
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°	18.5	2.7
10°-20°	36.9	5.4
20°-30°	51.1	7.5
30°-40°	71.5	10.5
40°-50°	97.3	14.3
50°-60°	133.0	19.5
60°-70°	162.6	23.8
70°-80°	98.2	14.4
80°-90°	12.9	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°	682.0	100.0
0°-180°	682.0	100.0



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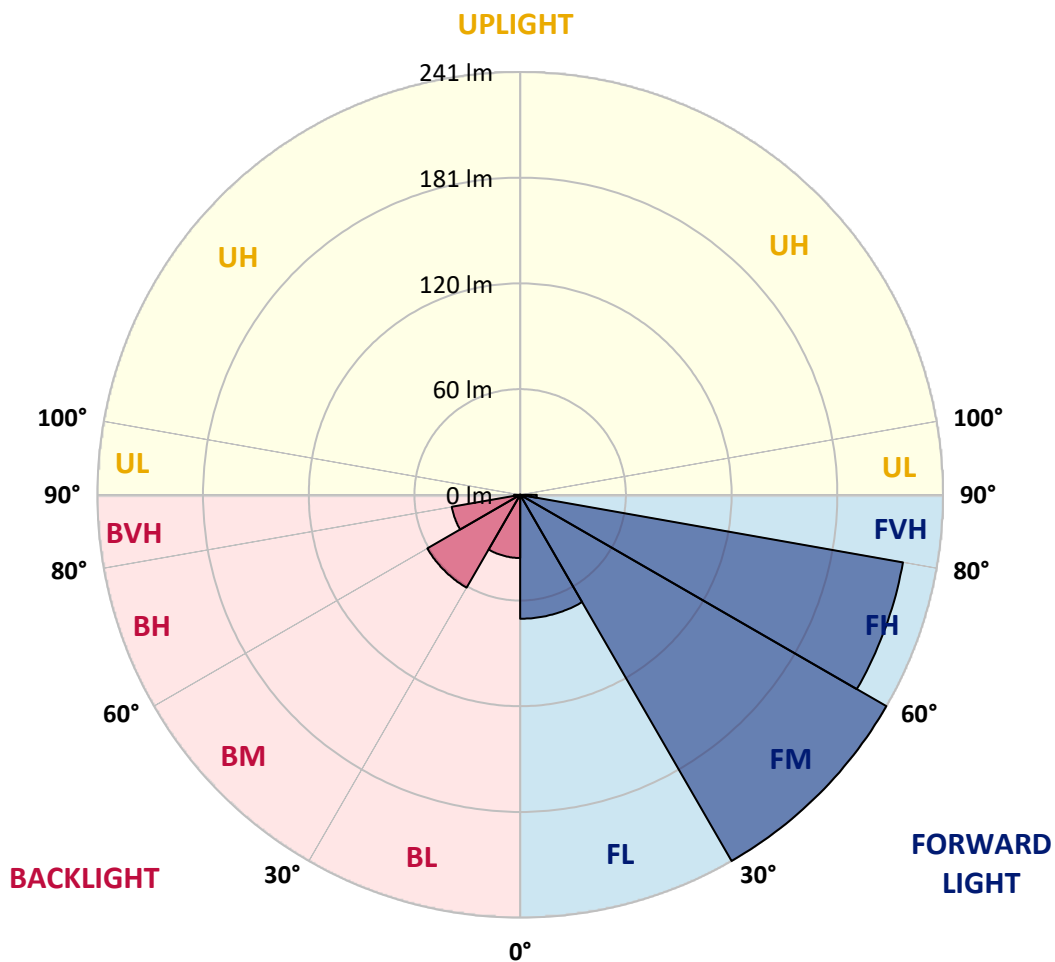
CATALOG NUMBER: ENT-SA1-760-U-SLR-XXB

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	70.6	10.3			
FM	(30°-60°)	240.7	35.3			
FH	(60°-80°)	221.3	32.4			G0/660
FVH	(80°-90°)	9.5	1.4			G0/10
BL	(0°-30°)	36.0	5.3	B0/110		
BM	(30°-60°)	61.0	8.9	B0/220		
BH	(60°-80°)	39.5	5.8	B0/110		G0/110
BVH	(80°-90°)	3.5	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°	242.7	242.7	242.7	242.7	242.7	242.7	242.7	242.7	242.7	242.7	242.7
2.5°	242.1	241.4	239.7	235.2	230.3	224.4	223.4	217.1	217.8	216.0	216.5
5°	221.1	220.2	215.5	206.4	194.0	186.8	181.2	177.9	175.2	173.8	175.5
7.5°	200.7	199.5	193.9	177.8	164.0	152.6	143.5	137.9	132.4	128.1	126.0
10°	184.2	183.7	176.3	158.2	140.8	126.9	121.0	115.1	110.4	104.2	99.2
12.5°	175.9	174.5	165.7	144.6	127.7	119.2	113.6	106.1	99.7	92.1	85.6
15°	176.2	174.6	163.7	141.5	123.2	112.8	104.2	95.2	85.9	78.2	71.6
17.5°	186.0	184.9	171.5	144.4	119.3	104.9	91.6	79.9	69.7	60.1	54.2
20°	202.5	200.8	182.4	147.8	114.4	95.9	77.8	61.8	50.8	42.3	37.6
22.5°	224.1	220.9	197.8	152.0	109.5	85.6	62.8	45.0	35.2	31.0	29.8
25°	247.1	244.6	216.3	157.4	104.2	74.5	46.5	32.7	29.3	27.6	26.7
27.5°	268.4	264.2	236.3	163.3	97.3	63.3	35.4	28.2	25.9	25.1	24.5
30°	283.5	280.0	250.1	170.2	91.2	51.7	30.2	25.5	23.7	22.5	22.2
32.5°	298.0	293.0	260.1	173.4	86.2	45.4	27.9	23.7	22.0	20.8	20.3
35°	315.1	310.1	271.7	173.8	82.5	42.8	25.8	22.4	20.5	19.4	18.8
37.5°	335.3	328.5	284.7	174.1	78.7	41.7	23.9	21.2	19.4	18.1	17.7
40°	354.5	349.2	298.0	173.6	76.2	40.3	22.8	20.0	18.2	17.1	16.5
42.5°	368.9	363.4	309.4	171.9	74.7	37.7	23.3	19.0	17.4	16.2	15.5
45°	376.4	371.3	319.8	170.3	73.9	35.6	22.8	18.7	16.9	15.4	14.7
47.5°	381.9	377.0	330.4	169.6	72.5	34.0	21.0	20.0	16.3	14.6	13.9
50°	391.0	386.7	344.8	173.5	70.4	33.0	19.3	21.3	16.1	13.9	13.1
52.5°	407.1	404.4	368.5	182.5	68.1	31.2	17.6	20.4	16.3	13.5	12.5
55°	437.4	435.7	401.1	194.3	65.9	29.1	15.7	18.5	16.2	12.7	12.0
57.5°	470.0	469.5	440.7	204.7	62.7	25.4	14.6	15.6	15.4	12.0	11.2
60°	491.9	490.4	458.9	210.5	58.6	21.0	13.7	13.2	15.7	11.3	10.4
62.5°	499.4	494.5	453.4	208.4	52.5	18.1	12.7	12.1	14.6	10.6	9.6
64°	499.0	491.8	439.2	200.2	48.5	17.6	12.1	11.3	12.9	10.2	9.2
65°	496.3	489.5	427.3	193.8	46.3	17.6	11.7	10.9	11.7	9.9	9.0
67.5°	479.6	470.6	386.8	164.1	40.7	17.8	10.9	10.0	9.8	9.1	8.4
70°	441.4	429.6	331.3	129.1	37.7	17.9	10.0	9.1	8.8	8.3	7.8
72.5°	354.5	338.7	263.7	92.3	34.7	17.6	9.1	8.3	8.0	7.5	7.0
75°	237.7	220.5	194.3	60.8	28.4	15.7	7.9	7.2	7.1	6.6	6.2
77.5°	134.0	126.8	114.7	33.4	19.6	10.8	6.3	5.8	5.9	5.7	5.2
80°	70.0	66.7	61.4	16.2	9.5	5.2	4.0	4.0	4.6	4.6	4.3
82.5°	24.7	24.9	24.1	3.6	1.9	1.6	1.4	1.9	2.6	3.2	3.2
85°	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.2	0.5	0.8
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°	242.7	242.7	242.7	242.7	242.7	242.7	242.7	242.7	242.7	242.7	242.7
2.5°	212.6	213.3	215.1	214.7	216.6	215.8	218.2	219.4	220.1	223.6	225.4
5°	174.1	174.4	180.9	182.2	185.7	183.8	188.1	186.5	189.9	190.3	196.0
7.5°	128.0	128.4	131.6	139.1	146.5	149.6	150.9	152.8	151.2	150.7	151.5
10°	97.3	97.6	98.0	103.3	109.8	116.3	116.3	116.4	113.6	110.7	110.2
12.5°	83.1	81.0	77.6	77.7	82.2	85.3	87.7	85.2	84.7	86.1	87.6
15°	68.4	66.3	64.0	61.2	61.4	63.5	64.8	64.7	66.9	68.0	71.1
17.5°	53.1	50.1	50.2	48.6	46.4	47.8	48.1	50.2	53.1	54.5	55.1
20°	35.7	35.7	36.6	38.5	37.5	38.4	38.5	40.1	41.5	40.7	41.5
22.5°	29.5	29.4	29.8	31.0	32.0	32.8	33.1	33.0	31.6	31.0	32.2
25°	26.8	26.7	26.8	27.5	28.6	29.7	29.2	28.5	26.9	26.8	27.0
27.5°	24.5	24.6	24.9	25.3	26.0	27.3	26.8	25.4	24.6	24.4	24.4
30°	22.6	22.6	23.0	23.5	24.3	25.4	24.6	23.5	22.7	22.5	22.4
32.5°	20.6	21.0	21.3	21.8	22.5	23.6	22.9	21.9	21.1	20.6	20.3
35°	18.7	18.9	19.6	20.3	20.9	21.8	21.3	20.4	19.6	18.6	18.1
37.5°	17.6	17.6	17.9	18.9	19.4	20.1	19.8	19.0	17.8	17.0	16.9
40°	16.5	16.5	16.7	17.2	18.0	18.8	18.4	17.1	16.3	16.0	15.9
42.5°	15.5	15.5	15.6	15.6	16.7	18.0	16.9	15.6	15.3	15.1	14.9
45°	14.6	14.6	14.6	14.5	15.1	16.8	15.5	14.5	14.3	14.3	14.1
47.5°	13.9	13.8	13.7	13.5	13.8	15.2	14.1	13.6	13.5	13.6	13.5
50°	13.0	12.9	12.8	12.7	12.9	13.5	13.2	12.7	12.8	12.8	12.9
52.5°	12.2	12.1	12.0	11.9	12.1	12.5	12.5	12.1	12.1	12.2	12.3
55°	11.7	11.5	11.4	11.4	11.5	12.1	12.0	11.6	11.6	11.9	12.0
57.5°	11.1	10.8	10.8	10.7	10.9	11.6	11.5	11.2	11.2	11.3	11.5
60°	10.4	10.3	10.2	10.4	10.5	11.2	11.1	10.8	10.7	11.1	11.1
62.5°	9.6	9.6	9.6	9.8	9.9	10.7	10.6	10.5	10.5	10.6	10.5
64°	9.1	9.1	9.2	9.4	9.6	10.3	10.3	10.3	10.3	10.3	10.2
65°	8.9	8.9	9.1	9.2	9.4	10.2	10.0	10.2	10.3	10.2	9.9
67.5°	8.3	8.3	8.7	8.7	8.8	9.7	9.6	9.8	10.0	9.8	9.6
70°	7.6	7.8	8.1	8.0	8.2	9.2	8.9	9.4	9.8	9.5	9.2
72.5°	7.0	7.1	7.5	7.3	7.4	8.7	8.2	8.7	9.4	9.1	8.9
75°	6.3	6.4	6.7	6.6	6.8	8.0	7.5	8.0	8.7	8.7	8.6
77.5°	5.4	5.6	5.8	5.7	6.2	7.2	6.7	7.1	7.6	8.1	7.9
80°	4.3	4.7	4.8	4.9	5.4	6.2	5.8	5.9	6.5	6.8	7.0
82.5°	3.0	3.5	3.8	3.9	4.6	4.8	4.9	4.8	5.1	5.6	5.2
85°	0.9	1.1	2.2	2.7	3.4	3.4	4.0	3.8	4.0	3.5	3.0
87.5°	0.0	0.0	0.0	0.8	2.1	2.1	2.9	2.6	2.7	2.1	1.8
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):

	185°	195°	205°	215°	225°	235°	245°	255°	265°	270°	275°
0°	242.7	242.7	242.7	242.7	242.7	242.7	242.7	242.7	242.7	242.7	242.7
2.5°	225.7	227.6	232.0	237.0	239.7	245.7	249.3	253.2	257.1	257.9	259.1
5°	197.2	199.5	204.4	211.1	217.8	225.7	234.8	244.5	255.2	259.8	264.2
7.5°	153.6	154.1	161.0	173.2	179.2	190.3	203.3	218.3	234.8	243.4	252.5
10°	113.5	118.2	123.4	133.5	148.5	161.4	177.5	194.9	212.1	224.6	234.0
12.5°	89.2	95.1	103.8	115.0	126.2	138.5	157.0	175.7	197.0	208.1	219.8
15°	73.4	81.0	92.3	104.0	114.5	125.3	141.9	164.8	191.9	203.3	213.7
17.5°	58.2	66.5	78.6	90.9	103.4	116.7	135.8	164.2	197.3	210.5	221.3
20°	44.6	51.1	61.2	73.7	88.4	106.5	131.0	168.6	213.2	229.7	236.8
22.5°	33.1	36.8	44.8	57.8	75.2	97.5	126.2	174.7	232.8	252.2	257.5
25°	27.4	28.4	32.0	43.3	61.2	87.4	122.6	182.7	252.4	274.2	278.0
27.5°	24.6	25.2	26.9	31.1	47.9	79.0	117.8	191.9	273.0	296.0	295.6
30°	22.2	22.4	23.4	26.3	38.9	71.6	112.2	202.2	291.4	311.6	310.5
32.5°	20.1	20.1	21.4	23.7	33.2	64.9	105.5	209.6	307.4	324.3	321.0
35°	18.1	18.5	19.7	22.0	29.4	57.4	99.2	212.4	321.0	339.7	330.4
37.5°	16.8	17.2	18.5	20.6	26.2	51.8	94.1	215.5	337.9	358.3	340.9
40°	15.9	16.2	17.3	19.2	23.7	47.1	88.5	217.7	354.7	378.2	351.9
42.5°	14.9	15.3	16.4	18.1	22.6	41.6	83.1	219.0	372.1	395.4	361.2
45°	14.1	14.6	15.7	17.3	22.7	36.7	78.7	218.5	382.6	407.8	368.4
47.5°	13.6	14.0	15.3	17.3	22.0	33.9	74.9	216.9	390.4	415.9	371.7
50°	13.0	13.5	14.9	19.2	20.9	33.1	72.1	216.7	398.5	417.5	371.7
52.5°	12.4	13.2	15.1	19.3	19.2	32.7	69.8	222.7	409.7	420.3	375.0
55°	12.1	12.8	15.5	17.8	16.8	31.6	68.4	231.1	428.5	435.3	391.6
57.5°	11.6	12.2	15.3	16.7	14.9	29.0	67.3	239.0	453.2	463.3	424.8
60°	11.1	11.7	14.8	14.3	13.6	24.6	66.6	245.7	462.5	481.3	460.5
62.5°	10.5	11.3	16.2	12.4	12.5	20.5	65.3	252.0	443.0	476.9	483.4
64°	10.2	10.9	15.1	11.6	12.0	18.7	64.1	252.4	425.7	466.7	487.8
65°	9.9	10.6	14.0	11.2	11.5	18.2	63.0	247.6	409.5	455.7	486.5
67.5°	9.6	10.0	10.8	10.4	10.7	17.4	55.2	226.5	375.1	427.6	467.0
70°	9.1	9.5	9.6	9.5	10.0	16.9	46.6	196.5	337.5	398.0	436.7
72.5°	8.7	8.7	8.7	8.6	9.2	16.1	42.0	158.8	291.6	359.2	398.9
75°	8.3	8.0	7.9	7.6	8.4	15.6	37.9	119.2	225.4	299.3	334.3
77.5°	7.6	7.3	7.0	6.7	7.5	13.9	31.6	84.2	166.2	217.7	258.0
80°	6.6	6.4	5.9	5.6	6.3	10.9	23.9	52.0	121.6	147.0	169.2
82.5°	5.4	5.2	4.8	4.3	4.6	7.9	16.3	26.5	81.1	79.8	94.5
85°	3.3	4.1	3.5	2.9	3.1	4.6	6.6	8.4	24.9	14.9	23.2
87.5°	1.9	2.6	2.2	1.5	1.1	2.1	1.8	1.7	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°	242.7	242.7	242.7	242.7	242.7	242.7	242.7	242.7	242.7	242.7
2.5°	262.1	263.6	264.4	261.4	258.2	255.4	249.9	244.4	241.6	242.1
5°	272.8	275.3	276.0	271.7	262.6	253.4	240.1	228.5	221.6	221.1
7.5°	268.7	276.9	278.3	273.6	260.7	243.5	225.4	209.3	202.3	200.7
10°	254.1	266.6	270.7	269.1	256.6	236.9	214.9	194.4	187.5	184.2
12.5°	239.2	252.3	254.8	256.4	248.7	232.1	207.9	186.9	178.6	175.9
15°	229.3	238.4	239.0	240.5	238.9	229.8	211.1	190.0	180.0	176.2
17.5°	228.0	224.8	222.6	225.7	227.6	229.9	219.4	201.5	190.8	186.0
20°	228.2	218.3	212.1	211.9	220.2	232.9	236.3	220.9	207.0	202.5
22.5°	236.5	214.9	204.6	203.3	213.5	237.9	253.5	243.9	230.0	224.1
25°	249.0	212.8	199.2	199.6	209.7	241.2	268.2	267.0	254.8	247.1
27.5°	260.9	216.2	198.6	199.5	211.0	243.4	280.4	288.7	275.0	268.4
30°	270.5	223.9	200.6	201.4	214.9	246.3	286.5	307.9	291.4	283.5
32.5°	278.8	231.1	203.7	204.3	221.0	250.6	292.2	324.1	307.4	298.0
35°	286.4	237.2	208.4	210.3	228.9	256.6	298.0	341.7	326.9	315.1
37.5°	293.0	244.7	217.6	220.8	240.4	265.4	305.5	364.8	348.6	335.3
40°	296.7	251.5	231.3	236.1	255.4	276.8	315.1	379.9	369.5	354.5
42.5°	299.6	260.7	253.3	262.0	278.5	287.5	319.7	386.6	381.8	368.9
45°	301.1	279.0	286.4	294.5	304.6	299.3	317.2	388.9	387.4	376.4
47.5°	307.8	306.4	324.7	335.9	335.3	316.9	312.4	388.7	391.1	381.9
50°	321.5	338.5	364.0	375.0	370.8	333.5	311.5	388.3	398.4	391.0
52.5°	337.8	370.5	406.6	411.1	402.2	350.2	318.3	394.3	412.0	407.1
55°	359.2	400.6	440.0	441.5	428.9	366.5	332.9	411.7	437.6	437.4
57.5°	389.1	427.7	468.0	466.2	448.5	389.1	356.4	437.8	466.0	470.0
60°	421.6	456.2	490.7	489.7	470.9	415.1	388.7	476.5	490.9	491.9
62.5°	452.8	482.6	512.6	507.7	486.5	442.0	433.4	517.5	507.1	499.4
64°	473.1	491.5	518.2	510.5	490.3	454.9	459.2	530.9	511.6	499.0
65°	486.5	493.7	517.0	507.6	489.0	459.7	478.7	536.5	512.4	496.3
67.5°	510.7	481.3	483.0	475.6	458.9	455.3	510.6	533.4	503.6	479.6
70°	504.0	431.2	407.7	403.0	383.1	403.6	506.6	504.4	470.7	441.4
72.5°	446.5	346.2	312.5	308.3	280.6	305.9	437.1	429.6	378.7	354.5
75°	367.9	262.4	223.2	226.7	205.6	229.0	347.7	294.4	252.2	237.7
77.5°	285.6	185.4	154.2	150.0	145.8	148.3	239.0	176.8	147.3	134.0
80°	182.0	116.6	115.6	105.7	102.3	86.2	122.8	94.1	74.0	70.0
82.5°	96.7	67.2	76.3	61.1	49.2	35.4	41.6	27.9	23.6	24.7
85°	26.5	13.9	3.9	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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