

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: P401025

Luminaire Tested: **ENT-SA1A-827-U-SLR-HSS**

Issue Date: 5/20/2020

Test Information

Test Method: LM-79-08
Report Number: P401025
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G1-2004-754-10)
Test Lab: INNOVATION CENTER
Issue Date: 5/20/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: INVUE
Catalog Number: ENT-SA1A-827-U-SLR-HSS
Description: ENTRI LED LUMINAIRE
(1) 80 CRI, 2700K, 350mA LIGHTSQUARE WITH 16 LEDS AND SPILL LIGHT
ELIMINATOR RIGHT OPTICS WITH HOUSE SIDE SHIELD
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 1511 lumens
Efficiency: N/A
Efficacy: 75.2 lumens/watt
Luminous Opening: Rectangular (W 0.5' x L: 0.5' x H: 0')
IES Classification: Type IV - Short - Semi-Cutoff
BUG Rating: B0 - U0 - G0

Input Watts (W): 20.1
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

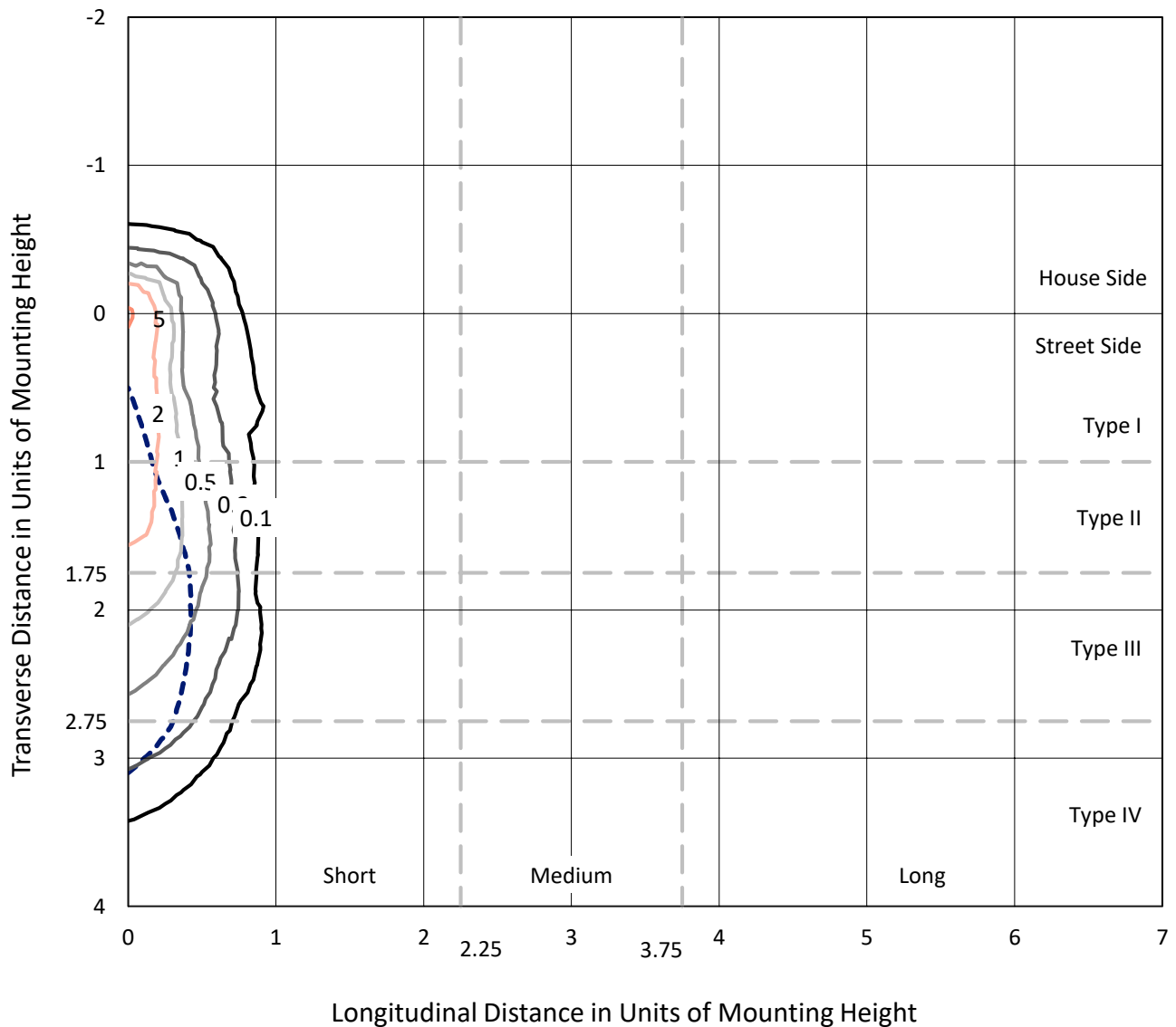


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Iso-Footcandle Lines of Horizontal Illumination

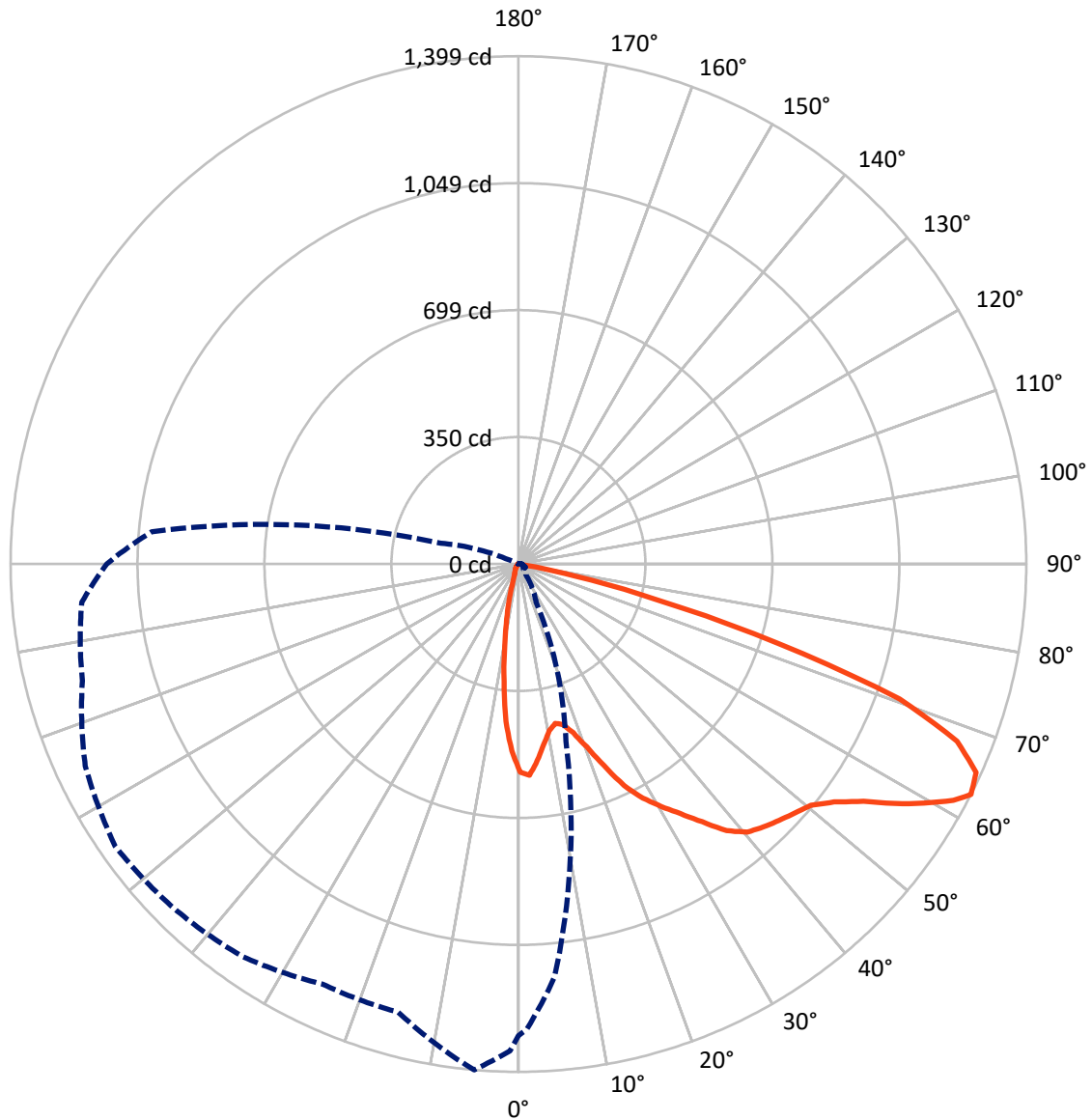
× Max cd
 - - - 1/2 Max cd



Based on 10 foot mounting height. Maximum calculated value = 5.7 fc
 Type IV - Short - Semi-Cutoff

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Luminous Intensity Polar Plot



— Vertical Plane Through 355-Deg Lateral - - - Horizontal Cone Through 62.5-Deg Vertical

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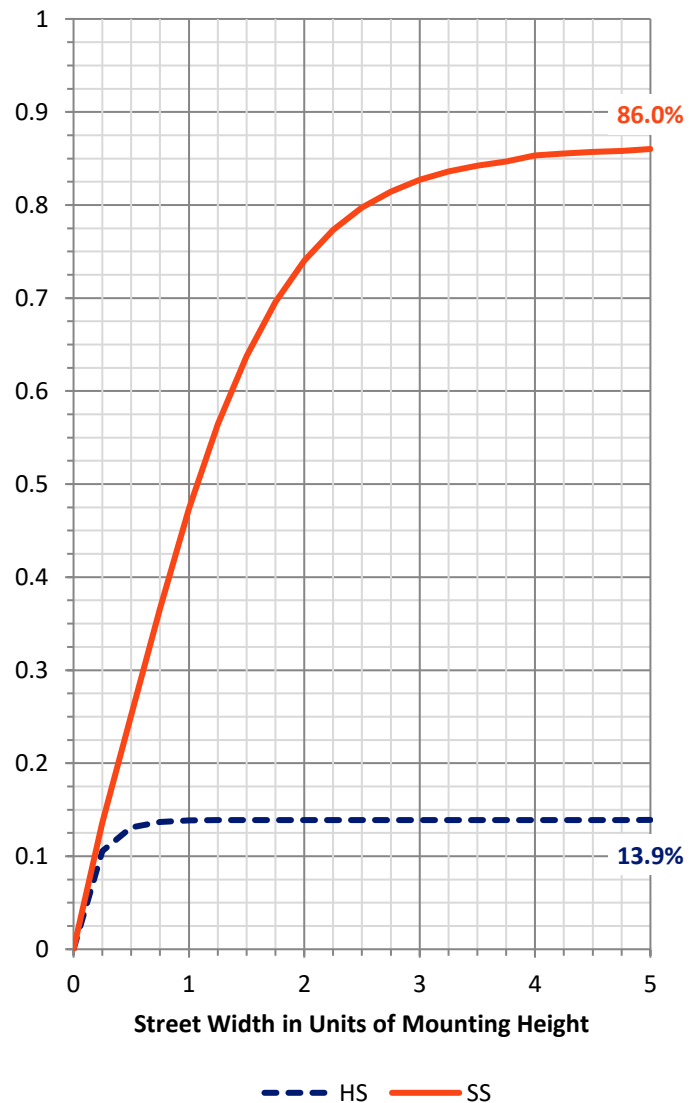
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	212.6	0.0	212.6
	% Fixture	14.1	0.0	14.1
Street Side	Lumens	1298.5	0.0	1298.5
	% Fixture	85.9	0.0	85.9
Total	Lumens	1511.0	0.0	1511.0
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	43.0	2.8
10°-20°	81.7	5.4
20°-30°	113.7	7.5
30°-40°	164.4	10.9
40°-50°	235.7	15.6
50°-60°	342.0	22.6
60°-70°	370.0	24.5
70°-80°	149.4	9.9
80°-90°	11.1	0.7
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°	1511.0	100.0
0°-180°	1511.0	100.0



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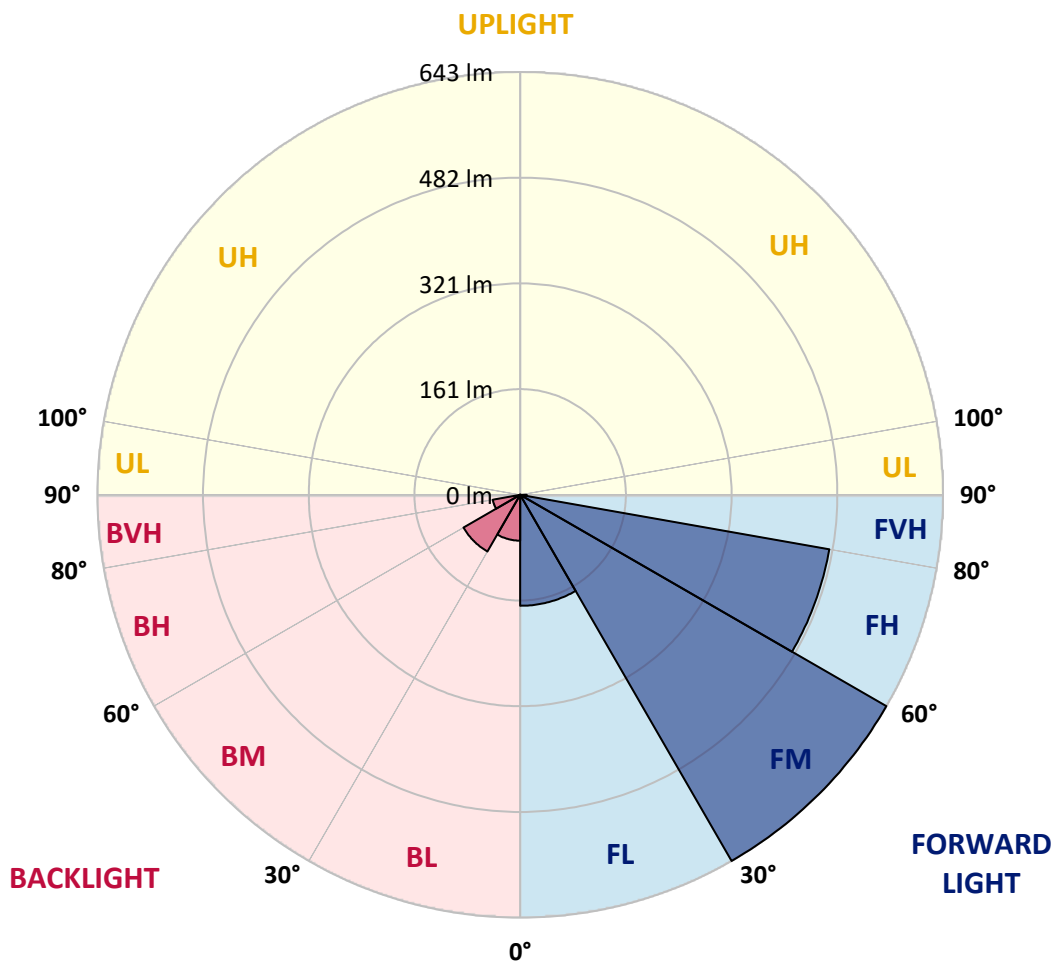
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	168.7	11.2			
FM (30°-60°)	642.7	42.5			
FH (60°-80°)	477.2	31.6			G0/660
FVH (80°-90°)	9.9	0.7			G0/10
BL (0°-30°)	69.7	4.6	B0/110		
BM (30°-60°)	99.5	6.6	B0/220		
BH (60°-80°)	42.3	2.8	B0/110		G0/110
BVH (80°-90°)	1.1	0.1			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°	573.2	573.2	573.2	573.2	573.2	573.2	573.2	573.2	573.2	573.2	573.2
2.5°	575.5	573.2	567.8	556.1	539.4	528.6	521.7	512.8	503.5	500.5	494.5
5°	525.3	521.4	514.0	484.7	458.3	432.0	413.2	395.3	389.3	377.3	384.5
7.5°	476.9	475.1	457.7	419.8	377.9	344.1	322.6	296.3	288.5	276.3	266.4
10°	438.9	437.4	416.5	366.9	321.7	293.6	276.6	259.5	242.5	225.1	211.4
12.5°	419.8	416.5	392.3	338.7	296.9	273.6	255.6	232.9	214.7	191.4	174.6
15°	422.8	419.8	392.0	334.3	284.9	252.6	226.0	199.1	173.4	150.4	133.9
17.5°	446.7	445.5	411.7	338.2	270.6	227.8	192.2	156.1	125.6	100.8	86.7
20°	493.3	489.7	440.7	346.5	255.6	199.1	150.4	105.8	80.4	63.4	57.4
22.5°	551.0	543.0	486.4	358.8	241.3	168.3	108.8	71.2	57.4	50.8	46.6
25°	618.9	619.2	543.3	375.2	226.9	139.6	76.2	56.5	48.4	43.7	40.1
27.5°	673.9	669.7	594.4	391.7	211.4	114.5	64.0	49.3	42.5	37.4	35.3
30°	714.6	708.3	628.2	403.0	191.4	96.9	57.4	46.9	40.1	34.4	31.7
32.5°	756.4	748.7	658.7	409.3	179.4	88.5	50.8	41.0	35.9	33.5	29.9
35°	805.5	798.6	692.4	408.7	173.1	83.7	46.0	37.1	30.5	26.6	24.2
37.5°	860.2	846.1	727.4	406.0	168.6	81.3	41.9	34.4	28.4	24.2	21.2
40°	907.1	893.1	759.7	402.4	165.6	78.9	39.5	32.6	26.9	22.4	19.4
42.5°	943.9	930.4	789.9	397.9	164.1	73.8	40.7	31.4	25.7	21.2	17.9
45°	975.6	961.8	825.8	397.4	163.5	70.3	40.1	31.1	25.1	19.7	16.7
47.5°	1012.4	1005.2	873.0	407.2	161.2	67.6	36.8	33.5	24.8	19.1	15.8
50°	1066.8	1060.5	934.9	436.5	157.6	64.9	33.5	36.8	24.8	18.5	14.9
52.5°	1143.0	1135.8	1032.4	474.8	154.3	61.9	30.2	35.6	25.1	17.6	14.4
55°	1222.0	1220.8	1124.5	515.4	151.3	55.3	26.6	32.0	24.5	16.4	13.5
57.5°	1283.8	1282.9	1193.5	543.0	145.6	44.5	24.2	26.6	22.7	14.9	12.3
60°	1309.3	1301.8	1201.0	543.0	132.5	36.8	22.1	20.9	23.0	13.5	10.8
61°	1309.3	1299.7	1187.6	534.9	125.9	35.0	20.9	19.4	23.6	12.9	10.2
62.5°	1299.1	1283.2	1141.5	505.9	115.4	35.0	19.1	17.3	21.5	12.3	9.3
65°	1253.9	1227.9	1033.6	439.8	104.6	35.9	16.4	14.7	15.5	10.5	8.1
67.5°	1142.4	1113.1	893.7	348.0	96.0	38.0	13.8	12.9	12.0	9.3	7.2
70°	941.2	916.4	729.2	260.7	89.1	38.6	12.0	10.8	10.2	8.1	6.3
72.5°	601.6	560.6	455.4	176.7	71.5	33.5	9.9	10.2	9.3	6.6	5.1
75°	290.6	302.0	264.9	89.1	48.1	21.8	7.8	8.4	7.5	6.0	4.5
77.5°	130.1	127.7	126.5	22.7	12.3	7.5	4.8	5.7	6.0	5.4	3.9
80°	13.5	18.2	10.8	6.9	4.5	3.3	2.7	3.0	3.6	3.9	2.1
82.5°	0.6	0.3	0.3	0.9	0.9	0.6	0.0	0.0	0.6	0.6	0.3
85°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
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°	573.2	573.2	573.2	573.2	573.2	573.2	573.2	573.2	573.2	573.2	573.2
2.5°	489.1	497.2	493.6	492.7	497.5	495.1	502.3	502.6	508.0	515.2	519.6
5°	384.5	378.2	390.8	399.1	409.6	406.3	418.9	417.4	424.3	435.6	431.1
7.5°	267.0	267.9	274.5	281.9	310.0	315.7	319.9	323.2	322.9	325.6	330.4
10°	204.2	199.1	194.6	205.1	216.2	228.4	230.2	234.7	222.4	227.5	229.9
12.5°	167.1	161.2	151.3	145.9	148.6	155.8	158.8	161.5	154.3	154.6	160.0
15°	126.8	118.7	114.8	107.6	104.9	104.3	105.8	102.0	101.1	97.8	99.9
17.5°	82.5	80.1	78.0	76.5	74.4	73.8	68.5	59.2	53.8	52.6	52.6
20°	55.0	53.2	53.2	56.2	55.3	52.9	45.7	38.0	34.1	32.9	33.5
22.5°	45.1	44.0	42.2	42.2	43.4	41.6	35.0	29.3	26.6	26.6	26.6
25°	39.2	38.6	36.8	35.0	35.6	34.1	28.4	24.8	23.0	22.7	23.0
27.5°	34.4	34.1	32.0	30.2	30.2	29.0	24.5	21.2	20.0	19.4	19.7
30°	31.1	30.5	28.1	26.6	26.3	25.1	20.9	18.5	17.3	17.0	17.0
32.5°	28.7	27.5	25.4	23.9	23.0	21.2	18.2	15.8	14.7	14.4	14.4
35°	23.0	23.0	22.1	21.2	20.0	17.3	15.2	13.2	12.0	11.7	11.7
37.5°	20.0	18.8	17.3	17.6	17.0	14.7	12.6	10.5	9.6	9.3	9.3
40°	18.2	16.7	14.7	13.8	14.1	12.9	10.5	8.1	6.9	7.2	6.9
42.5°	16.4	15.2	12.9	10.8	10.5	10.8	8.1	5.7	4.8	4.8	4.8
45°	15.2	14.1	11.4	9.0	7.5	8.4	6.3	3.9	3.0	3.0	3.0
47.5°	14.4	13.2	10.2	7.5	5.4	5.7	4.5	2.4	1.8	1.2	1.5
50°	13.8	12.3	9.3	6.0	3.9	3.3	3.0	1.2	0.3	0.3	0.0
52.5°	12.9	11.7	8.4	5.1	3.0	2.1	1.5	0.3	0.0	0.0	0.0
55°	12.3	10.8	7.5	4.5	2.4	1.2	0.3	0.0	0.0	0.0	0.0
57.5°	11.1	9.9	6.6	3.6	1.8	0.6	0.0	0.0	0.0	0.0	0.0
60°	9.9	9.0	5.7	2.7	1.2	0.0	0.0	0.0	0.0	0.0	0.0
61°	9.3	8.4	5.4	2.4	0.9	0.0	0.0	0.0	0.0	0.0	0.0
62.5°	8.7	7.8	4.8	1.8	0.6	0.0	0.0	0.0	0.0	0.0	0.0
65°	7.5	6.6	4.2	1.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0
67.5°	6.6	6.0	3.6	0.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0
70°	5.7	5.1	2.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
72.5°	4.8	4.5	2.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
75°	4.2	3.6	1.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
77.5°	3.3	3.0	1.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
80°	1.8	1.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
82.5°	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
85°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
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):

	185°	195°	205°	215°	225°	235°	245°	255°	265°	270°	275°
0°	573.2	573.2	573.2	573.2	573.2	573.2	573.2	573.2	573.2	573.2	573.2
2.5°	523.8	534.3	544.2	556.7	563.6	582.4	595.9	607.2	616.2	618.0	625.2
5°	443.1	457.7	467.3	493.6	508.3	539.7	563.9	592.6	618.3	632.4	645.2
7.5°	333.7	340.8	357.3	383.6	418.3	445.5	486.4	522.6	569.0	594.4	618.3
10°	235.6	242.2	266.4	293.9	325.6	371.3	421.0	468.5	515.4	548.0	576.1
12.5°	165.6	187.2	211.1	246.1	277.2	310.6	363.6	419.2	477.8	508.9	539.4
15°	108.8	128.0	161.2	205.1	244.0	276.6	325.9	391.1	465.5	500.2	529.2
17.5°	53.8	67.9	97.2	144.4	196.1	247.6	307.1	386.0	481.4	520.5	547.7
20°	33.8	38.0	48.7	81.6	141.1	217.1	293.0	396.2	524.4	567.8	585.4
22.5°	27.2	28.4	32.6	43.4	86.1	179.4	280.7	409.9	571.7	624.6	642.8
25°	23.3	24.2	26.6	32.0	49.9	134.5	265.8	434.1	626.7	690.7	695.1
27.5°	20.0	20.9	23.0	27.2	35.6	90.6	244.3	462.5	692.4	748.7	745.7
30°	17.0	18.2	20.3	23.3	28.1	61.3	204.2	491.2	740.9	786.0	781.2
32.5°	14.7	15.5	17.3	20.0	23.3	42.2	153.4	510.1	781.2	821.3	810.8
35°	12.0	12.9	14.4	16.7	18.8	29.9	116.0	510.7	822.8	865.0	838.7
37.5°	9.6	10.2	11.7	13.8	15.5	23.3	85.2	500.8	874.2	921.8	870.3
40°	7.2	8.1	9.6	11.4	13.2	19.7	63.7	476.9	924.5	978.6	908.6
42.5°	4.8	6.0	7.5	9.3	12.6	15.8	44.8	437.1	965.1	1029.1	946.0
45°	3.0	3.9	5.7	7.8	12.9	12.6	29.9	389.6	994.1	1067.7	971.4
47.5°	1.5	2.4	4.2	7.5	11.4	9.3	18.5	344.1	1020.4	1090.1	983.1
50°	0.3	0.9	3.0	9.3	9.6	6.9	12.3	315.7	1034.2	1084.4	981.9
52.5°	0.0	0.0	2.1	9.0	6.9	5.4	9.6	311.5	1055.7	1091.9	1002.5
55°	0.0	0.0	0.9	3.9	3.9	4.5	8.4	305.9	1094.0	1136.4	1064.7
57.5°	0.0	0.0	0.0	1.8	2.4	3.6	7.8	290.9	1134.3	1183.7	1140.3
60°	0.0	0.0	0.0	0.9	1.5	3.0	6.9	256.8	1097.3	1184.0	1203.1
61°	0.0	0.0	0.0	0.9	1.2	2.7	6.3	244.9	1064.1	1164.8	1210.9
62.5°	0.0	0.0	0.0	0.3	0.9	2.1	5.4	221.2	1014.5	1134.0	1207.3
65°	0.0	0.0	0.0	0.0	0.3	1.2	4.2	178.8	931.6	1056.6	1166.0
67.5°	0.0	0.0	0.0	0.0	0.0	0.3	2.7	125.9	812.6	969.0	1077.8
70°	0.0	0.0	0.0	0.0	0.0	0.0	1.2	73.0	654.8	820.4	923.3
72.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.6	33.2	424.9	633.5	728.3
75°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	14.1	261.6	457.7	544.2
77.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	6.3	177.3	304.7	366.3
80°	0.0	0.6	0.3	0.0	0.0	0.0	0.0	2.4	109.1	190.2	206.6
82.5°	0.0	0.3	0.3	0.0	0.0	0.0	0.0	0.0	56.5	134.2	136.9
85°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	23.6	28.4
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):

	285°	295°	305°	315°	325°	335°	345°	355°	359°	360°
0°	573.2	573.2	573.2	573.2	573.2	573.2	573.2	573.2	573.2	573.2
2.5°	631.8	633.5	634.7	632.7	619.8	612.6	598.3	582.4	577.0	575.5
5°	668.5	678.7	676.9	663.1	640.7	613.2	579.1	543.9	530.4	525.3
7.5°	661.4	688.0	693.0	678.7	640.7	592.6	543.3	501.4	482.0	476.9
10°	624.9	658.4	674.5	670.0	634.4	578.8	518.1	466.7	445.5	438.9
12.5°	589.6	621.9	632.1	635.6	616.2	568.1	505.6	450.3	428.1	419.8
15°	566.0	586.0	585.4	592.0	590.5	563.9	513.7	458.6	433.8	422.8
17.5°	558.2	552.2	544.5	549.8	560.3	565.1	540.0	488.5	459.5	446.7
20°	563.0	533.7	516.6	516.3	538.5	574.9	578.5	537.9	510.7	493.3
22.5°	587.5	524.4	498.1	498.7	525.9	589.6	623.1	602.5	572.6	551.0
25°	623.7	526.2	490.9	494.5	524.7	602.5	671.2	676.0	637.7	618.9
27.5°	660.5	541.8	491.2	495.1	529.8	609.3	698.7	730.1	697.2	673.9
30°	686.2	560.9	496.6	500.8	537.9	614.7	709.2	774.7	740.6	714.6
32.5°	710.4	580.6	505.3	509.5	554.0	625.8	728.9	819.5	782.1	756.4
35°	734.0	600.1	521.4	528.9	580.0	645.8	749.0	872.1	841.0	805.5
37.5°	754.3	621.6	549.2	565.1	615.3	676.6	776.2	931.9	899.9	860.2
40°	771.4	647.0	606.6	624.3	669.1	709.2	806.4	971.1	949.9	907.1
42.5°	785.1	691.9	688.9	713.7	745.1	746.6	815.0	989.9	981.9	943.9
45°	808.2	772.3	796.8	837.5	835.4	791.4	812.6	1007.3	1007.9	975.6
47.5°	845.8	873.0	943.9	971.4	957.3	852.7	815.0	1024.3	1037.8	1012.4
50°	899.6	987.2	1079.9	1116.4	1075.4	914.3	836.3	1044.7	1085.3	1066.8
52.5°	945.7	1073.7	1205.5	1238.1	1182.2	980.1	885.9	1088.6	1149.0	1143.0
55°	1011.5	1148.1	1294.9	1320.0	1275.2	1054.5	952.6	1153.2	1219.0	1222.0
57.5°	1078.7	1215.4	1353.2	1378.6	1344.5	1147.2	1047.3	1245.9	1284.7	1283.8
60°	1153.5	1278.2	1379.5	1393.6	1374.1	1239.9	1149.3	1330.8	1329.9	1309.3
61°	1196.2	1298.2	1377.7	1381.9	1363.1	1267.1	1201.9	1363.4	1336.5	1309.3
62.5°	1243.5	1316.4	1355.6	1341.5	1321.2	1276.7	1278.2	1398.9	1340.9	1299.1
65°	1291.3	1270.7	1253.6	1186.4	1167.2	1188.8	1342.4	1385.5	1313.7	1253.9
67.5°	1209.4	1088.9	1052.1	984.6	908.9	996.8	1281.4	1303.3	1222.0	1142.4
70°	988.4	800.1	756.4	754.0	699.6	796.2	1130.2	1114.3	1014.2	941.2
72.5°	774.7	545.9	486.4	500.2	489.4	593.5	924.5	747.8	650.3	601.6
75°	607.2	388.1	334.9	332.5	320.8	404.2	676.9	394.1	325.3	290.6
77.5°	400.6	279.6	278.7	257.4	248.5	219.2	303.8	157.9	128.9	130.1
80°	230.8	171.3	200.9	159.4	159.7	128.6	122.9	23.0	18.5	13.5
82.5°	132.5	82.2	62.2	24.5	51.4	51.4	9.9	0.3	0.3	0.6
85°	12.9	3.9	0.0	0.0	0.0	0.0	0.0	0.0	0.3	0.0
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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