

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: P400900

Luminaire Tested: **ENV-SA1A-727-U-SLR**

Issue Date: 5/20/2020

Test Information

Test Method: LM-79-08
Report Number: P400900
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-SA1A-727-U-SLR
Description: ENTRI LED LUMINAIRE
(1) 70 CRI, 2700K, 350mA LIGHTSQUARE WITH 16 LEDS AND SPILL LIGHT ELIMINATOR RIGHT OPTICS
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 2021 lumens
Efficiency: N/A
Efficacy: 100.5 lumens/watt
Luminous Opening: Rectangular (W 0.5' x L: 0.5' x H: 0')
IES Classification: Type IV - Short - Non-Cutoff
BUG Rating: B1 - U0 - G1

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

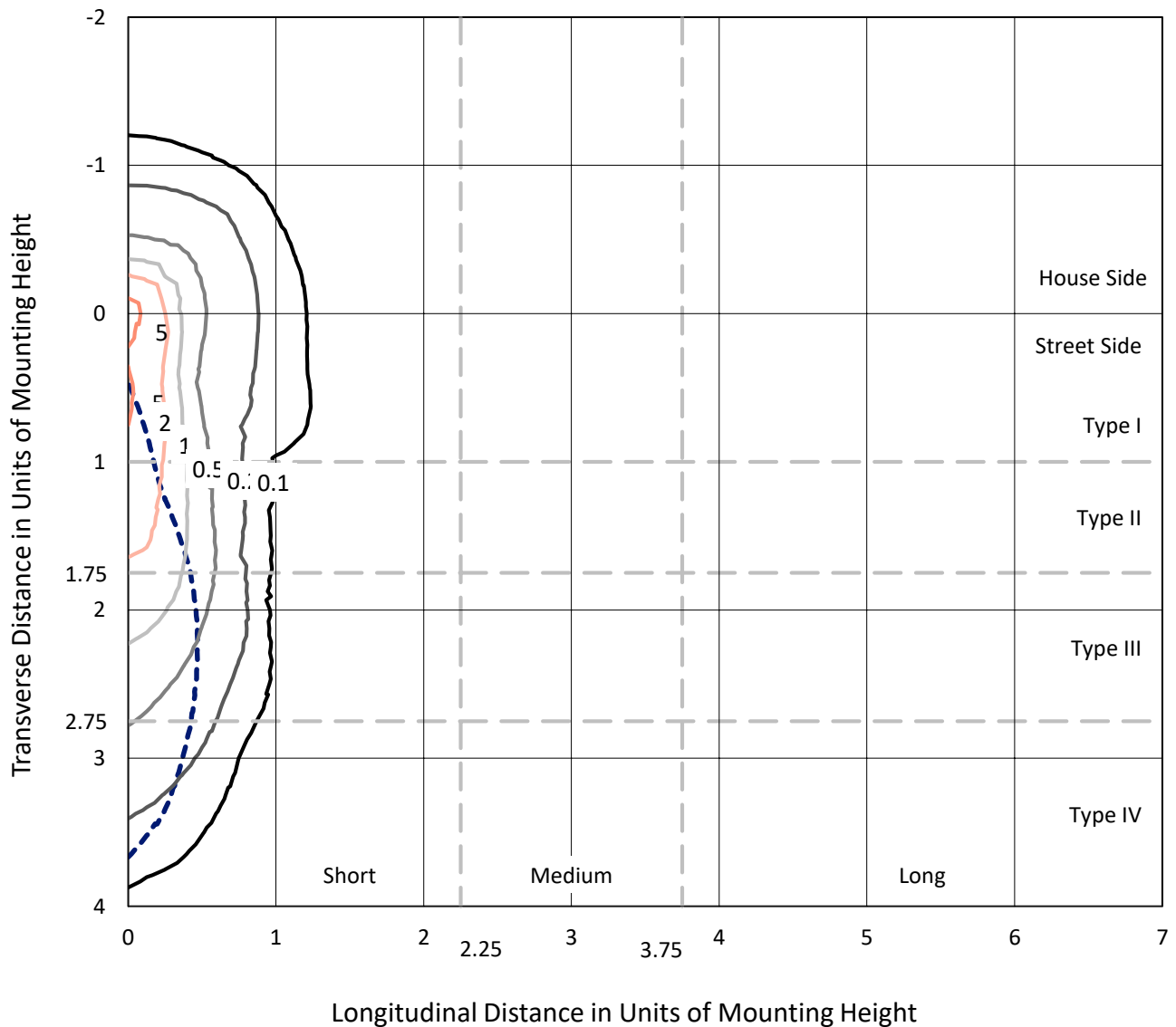


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Iso-Footcandle Lines of Horizontal Illumination

× Max cd
 - - - 1/2 Max cd

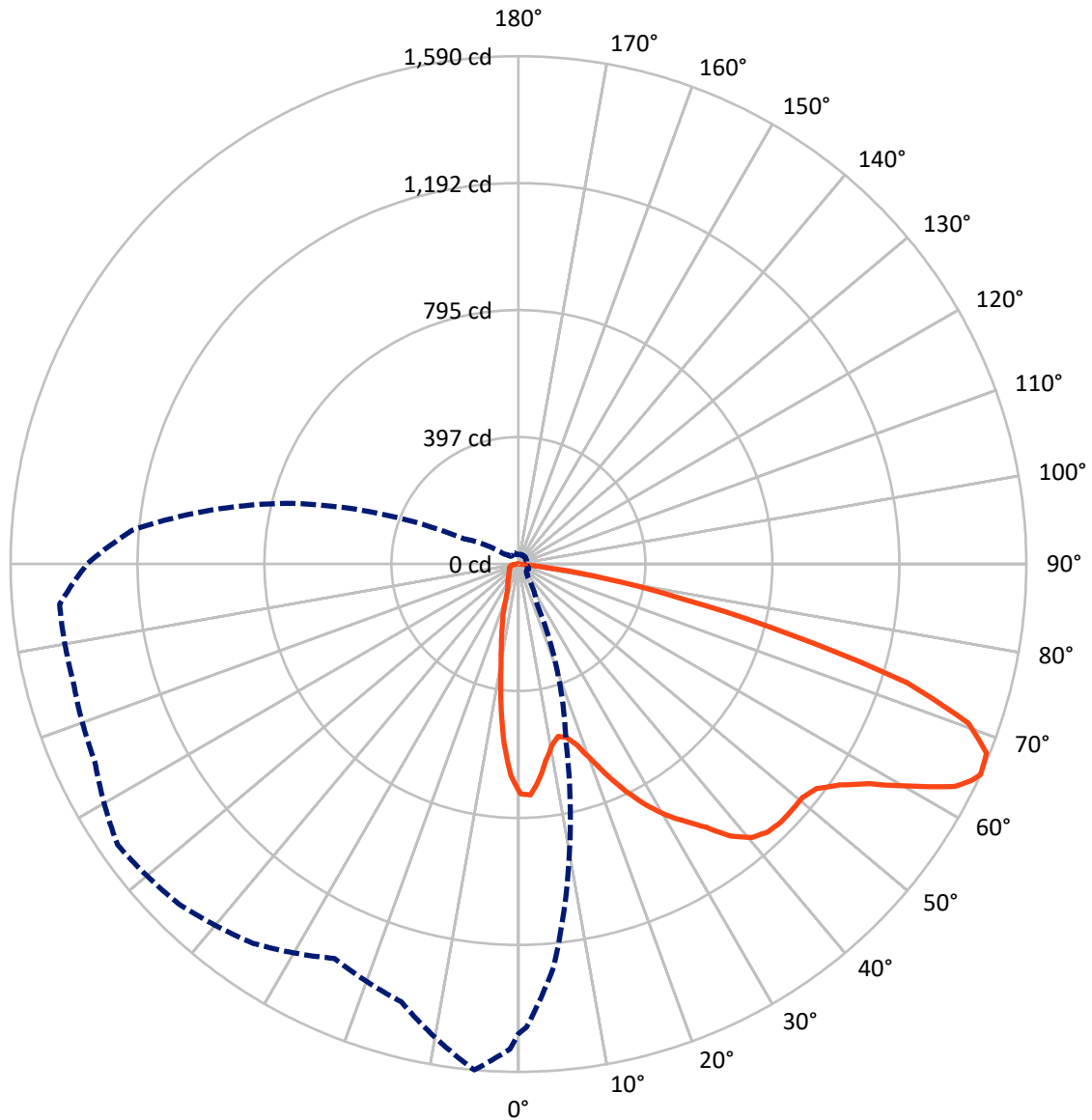


Based on 10 foot mounting height. Maximum calculated value = 7.2 fc
 Type IV - Short - Non-Cutoff

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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	414.7	0.0	414.7
	% Fixture	20.5	0.0	20.5
Street Side	Lumens	1606.3	0.0	1606.3
	% Fixture	79.5	0.0	79.5
Total	Lumens	2021.0	0.0	2021.0
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	54.9	2.7
10°-20°	109.3	5.4
20°-30°	151.5	7.5
30°-40°	211.8	10.5
40°-50°	288.2	14.3
50°-60°	394.1	19.5
60°-70°	481.9	23.8
70°-80°	290.9	14.4
80°-90°	38.4	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°	2021.0	100.0
0°-180°	2021.0	100.0



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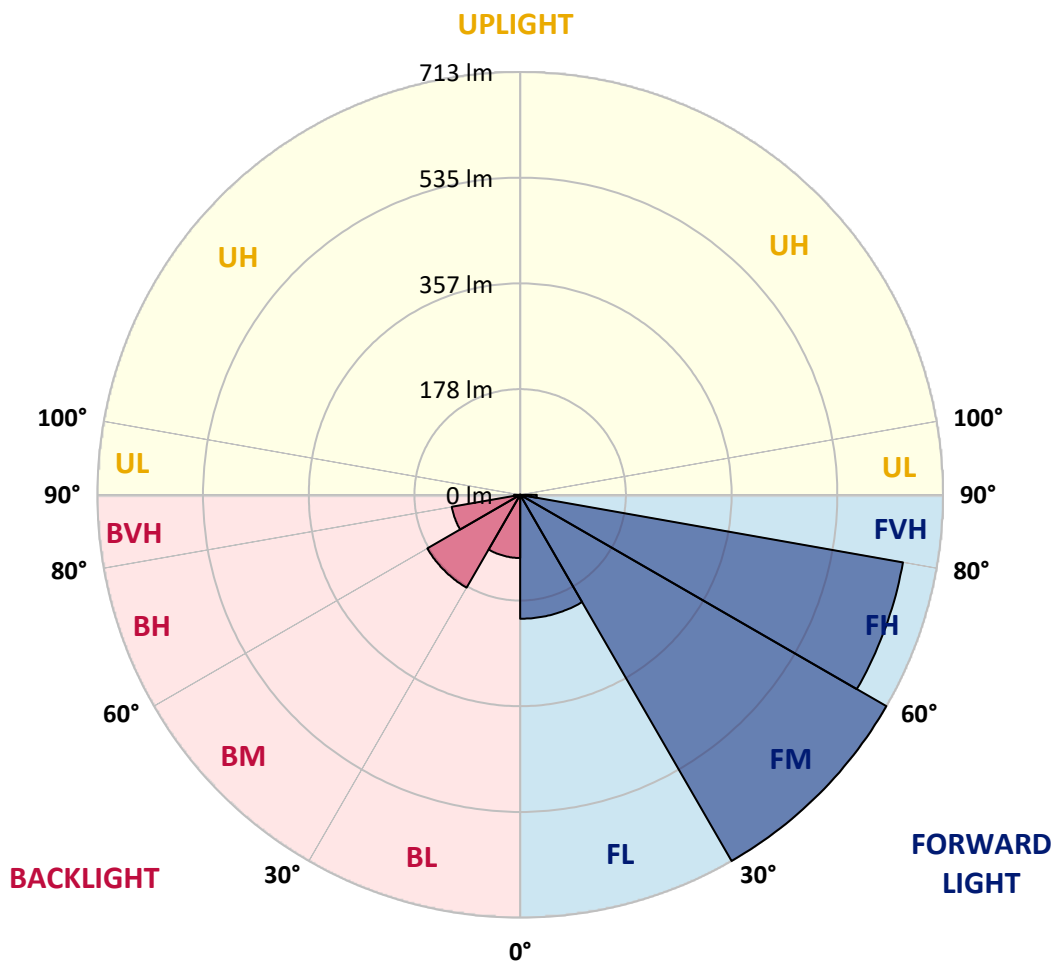
CATALOG NUMBER: ENV-SA1A-727-U-SLR

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	209.1	10.3			
FM	(30°-60°)	713.4	35.3			
FH	(60°-80°)	655.8	32.4			G0/660
FVH	(80°-90°)	28.0	1.4			G1/100
BL	(0°-30°)	106.6	5.3	B0/110		
BM	(30°-60°)	180.8	8.9	B0/220		
BH	(60°-80°)	117.0	5.8	B1/500		G1/500
BVH	(80°-90°)	10.3	0.5			G1/100
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

BUG Rating: B1-U0-G1

Type IV Short





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CANDELA DISTRIBUTION (FULL):

	0°	1°	5°	15°	25°	35°	45°	55°	65°	75°	85°
0°	719.2	719.2	719.2	719.2	719.2	719.2	719.2	719.2	719.2	719.2	719.2
2.5°	717.5	715.5	710.4	696.9	682.3	665.1	662.1	643.5	645.5	640.1	641.4
5°	655.3	652.6	638.7	611.7	574.9	553.6	537.0	527.2	519.1	515.0	520.1
7.5°	594.8	591.1	574.5	526.9	486.0	452.2	425.2	408.6	392.4	379.5	373.4
10°	545.8	544.5	522.5	468.7	417.4	376.1	358.6	341.0	327.1	308.9	294.0
12.5°	521.1	517.1	491.1	428.5	378.5	353.2	336.6	314.3	295.4	273.1	253.8
15°	522.1	517.4	485.0	419.4	365.0	334.2	308.9	282.2	254.5	231.8	212.2
17.5°	551.2	547.8	508.3	427.9	353.5	310.9	271.4	236.9	206.5	178.1	160.5
20°	600.2	595.1	540.4	438.0	339.0	284.2	230.5	183.2	150.4	125.4	111.5
22.5°	664.1	654.6	586.0	450.5	324.4	253.8	186.2	133.5	104.4	91.9	88.2
25°	732.4	724.9	641.1	466.4	308.9	220.7	137.9	97.0	86.9	81.8	79.1
27.5°	795.2	783.1	700.3	484.0	288.3	187.6	104.8	83.5	76.7	74.4	72.7
30°	840.2	829.7	741.1	504.2	270.4	153.1	89.6	75.7	70.3	66.6	65.9
32.5°	883.1	868.2	770.9	513.7	255.5	134.5	82.8	70.3	65.2	61.5	60.2
35°	933.8	918.9	805.0	515.0	244.3	126.7	76.4	66.2	60.8	57.5	55.8
37.5°	993.6	973.3	843.5	516.1	233.2	123.7	71.0	62.9	57.5	53.7	52.4
40°	1050.4	1034.8	883.1	514.4	225.8	119.3	67.6	59.1	54.1	50.7	49.0
42.5°	1093.3	1076.7	916.9	509.3	221.4	111.9	68.9	56.4	51.7	48.0	46.0
45°	1115.3	1100.4	947.6	504.6	219.0	105.4	67.6	55.4	50.0	45.6	43.6
47.5°	1131.8	1117.3	979.1	502.5	214.9	100.7	62.2	59.1	48.3	43.3	41.2
50°	1158.5	1146.0	1021.6	514.0	208.5	97.7	57.1	63.2	47.7	41.2	38.9
52.5°	1206.5	1198.4	1091.9	540.7	201.8	92.6	52.0	60.5	48.3	39.9	37.2
55°	1296.1	1291.0	1188.6	575.9	195.3	86.2	46.6	54.7	48.0	37.5	35.5
57.5°	1392.7	1391.4	1305.9	606.6	185.9	75.4	43.3	46.3	45.6	35.5	33.1
60°	1457.6	1453.2	1359.9	623.9	173.7	62.2	40.6	39.2	46.6	33.5	30.8
62.5°	1479.9	1465.4	1343.7	617.5	155.5	53.7	37.5	35.8	43.3	31.4	28.4
64°	1478.6	1457.3	1301.5	593.1	143.6	52.0	35.8	33.5	38.2	30.1	27.4
65°	1470.8	1450.5	1266.3	574.2	137.2	52.0	34.8	32.4	34.8	29.4	26.7
67.5°	1421.1	1394.4	1146.4	486.3	120.7	52.7	32.4	29.7	29.1	27.0	25.0
70°	1307.9	1273.1	981.8	382.6	111.9	53.1	29.7	27.0	26.0	24.7	23.0
72.5°	1050.4	1003.7	781.4	273.4	102.7	52.0	27.0	24.7	23.7	22.3	20.6
75°	704.3	653.3	575.9	180.1	84.2	46.6	23.3	21.3	21.0	19.6	18.2
77.5°	397.1	375.8	340.0	99.0	58.1	32.1	18.6	17.2	17.6	16.9	15.5
80°	207.5	197.7	181.8	48.0	28.1	15.5	11.8	11.8	13.5	13.5	12.8
82.5°	73.3	73.7	71.3	10.8	5.7	4.7	4.1	5.7	7.8	9.5	9.5
85°	0.3	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.7	1.4	2.4
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):

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	719.2	719.2	719.2	719.2	719.2	719.2	719.2	719.2	719.2	719.2	719.2
2.5°	630.0	632.0	637.4	636.4	641.8	639.4	646.5	650.2	652.3	662.7	667.8
5°	516.1	516.7	536.0	540.1	550.2	544.8	557.3	552.6	562.7	564.1	581.0
7.5°	379.2	380.5	390.0	412.3	434.3	443.4	447.1	452.9	448.1	446.4	448.8
10°	288.3	289.3	290.3	306.2	325.5	344.7	344.7	345.1	336.6	328.2	326.5
12.5°	246.4	240.0	229.8	230.1	243.7	252.8	259.9	252.5	251.1	255.2	259.6
15°	202.8	196.4	189.6	181.5	181.8	188.2	192.0	191.6	198.4	201.4	210.5
17.5°	157.5	148.4	148.7	144.0	137.5	141.6	142.6	148.7	157.5	161.5	163.2
20°	105.8	105.8	108.5	114.2	111.2	113.9	114.2	119.0	123.0	120.7	123.0
22.5°	87.5	87.2	88.2	91.9	95.0	97.3	98.0	97.7	93.6	91.9	95.3
25°	79.4	79.1	79.4	81.4	84.8	87.9	86.5	84.5	79.8	79.4	80.1
27.5°	72.7	73.0	73.7	75.0	77.1	80.8	79.4	75.4	73.0	72.3	72.3
30°	66.9	66.9	68.3	69.6	72.0	75.4	73.0	69.6	67.3	66.6	66.2
32.5°	61.2	62.2	63.2	64.6	66.6	70.0	67.9	64.9	62.5	61.2	60.2
35°	55.4	56.1	58.1	60.2	61.8	64.6	63.2	60.5	58.1	55.1	53.7
37.5°	52.0	52.0	53.1	56.1	57.5	59.5	58.8	56.4	52.7	50.4	50.0
40°	49.0	49.0	49.3	51.0	53.4	55.8	54.4	50.7	48.3	47.3	47.0
42.5°	46.0	46.0	46.3	46.3	49.3	53.4	50.0	46.3	45.3	44.6	44.3
45°	43.3	43.3	43.3	42.9	44.6	49.7	46.0	42.9	42.2	42.2	41.9
47.5°	41.2	40.9	40.6	39.9	40.9	44.9	41.9	40.2	39.9	40.2	39.9
50°	38.5	38.2	37.9	37.5	38.2	39.9	39.2	37.5	37.9	37.9	38.2
52.5°	36.2	35.8	35.5	35.1	35.8	37.2	37.2	35.8	35.8	36.2	36.5
55°	34.8	34.1	33.8	33.8	34.1	35.8	35.5	34.5	34.5	35.1	35.5
57.5°	32.8	32.1	32.1	31.8	32.4	34.5	34.1	33.1	33.1	33.5	34.1
60°	30.8	30.4	30.1	30.8	31.1	33.1	32.8	32.1	31.8	32.8	32.8
62.5°	28.4	28.4	28.4	29.1	29.4	31.8	31.4	31.1	31.1	31.4	31.1
64°	27.0	27.0	27.4	27.7	28.4	30.4	30.4	30.4	30.4	30.4	30.1
65°	26.4	26.4	27.0	27.4	27.7	30.1	29.7	30.1	30.4	30.1	29.4
67.5°	24.7	24.7	25.7	25.7	26.0	28.7	28.4	29.1	29.7	29.1	28.4
70°	22.6	23.0	24.0	23.7	24.3	27.4	26.4	27.7	29.1	28.1	27.4
72.5°	20.6	21.0	22.3	21.6	22.0	25.7	24.3	25.7	27.7	27.0	26.4
75°	18.6	18.9	19.9	19.6	20.3	23.7	22.3	23.7	25.7	25.7	25.3
77.5°	15.9	16.6	17.2	16.9	18.2	21.3	19.9	21.0	22.6	24.0	23.3
80°	12.8	13.9	14.2	14.5	15.9	18.2	17.2	17.6	19.3	20.3	20.6
82.5°	8.8	10.5	11.2	11.5	13.5	14.2	14.5	14.2	15.2	16.6	15.5
85°	2.7	3.4	6.4	8.1	10.1	10.1	11.8	11.2	11.8	10.5	8.8
87.5°	0.0	0.0	0.0	2.4	6.1	6.1	8.4	7.8	8.1	6.1	5.4
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°	719.2	719.2	719.2	719.2	719.2	719.2	719.2	719.2	719.2	719.2	719.2
2.5°	668.8	674.6	687.4	702.3	710.4	728.0	738.8	750.3	761.8	764.1	767.8
5°	584.3	591.1	605.6	625.6	645.5	668.8	695.9	724.6	756.4	769.9	783.1
7.5°	455.2	456.6	477.2	513.4	530.9	564.1	602.6	646.9	695.9	721.2	748.2
10°	336.3	350.1	365.7	395.7	440.0	478.2	525.9	577.6	628.6	665.4	693.5
12.5°	264.3	281.9	307.5	340.7	374.1	410.3	465.4	520.8	583.7	616.8	651.2
15°	217.6	240.0	273.4	308.2	339.3	371.4	420.4	488.4	568.8	602.6	633.3
17.5°	172.4	197.0	232.9	269.4	306.5	345.7	402.5	486.7	584.7	623.9	655.6
20°	132.1	151.4	181.5	218.3	261.9	315.7	388.3	499.5	631.6	680.6	701.6
22.5°	98.0	109.2	132.8	171.3	222.7	289.0	374.1	517.8	689.8	747.2	763.1
25°	81.1	84.2	95.0	128.4	181.5	258.9	363.3	541.4	747.9	812.5	823.9
27.5°	73.0	74.7	79.8	92.3	141.9	234.2	349.1	568.8	809.1	877.0	876.0
30°	65.9	66.2	69.3	78.1	115.2	212.2	332.6	599.2	863.5	923.3	920.3
32.5°	59.5	59.5	63.5	70.3	98.3	192.3	312.6	621.2	910.8	961.2	951.4
35°	53.7	54.7	58.5	65.2	87.2	170.0	294.0	629.3	951.4	1006.8	979.1
37.5°	49.7	51.0	54.7	61.2	77.7	153.4	278.8	638.7	1001.4	1061.9	1010.2
40°	47.0	48.0	51.4	56.8	70.3	139.6	262.3	645.2	1051.1	1120.7	1042.9
42.5°	44.3	45.3	48.7	53.7	66.9	123.4	246.4	648.9	1102.8	1171.7	1070.3
45°	41.9	43.3	46.6	51.4	67.3	108.8	233.2	647.5	1133.9	1208.5	1091.6
47.5°	40.2	41.6	45.3	51.4	65.2	100.4	222.0	642.8	1156.8	1232.5	1101.4
50°	38.5	39.9	44.3	56.8	61.8	98.0	213.6	642.1	1180.8	1237.3	1101.4
52.5°	36.8	39.2	44.6	57.1	56.8	97.0	206.8	660.0	1213.9	1245.4	1111.2
55°	35.8	37.9	46.0	52.7	49.7	93.6	202.8	684.7	1269.7	1290.0	1160.6
57.5°	34.5	36.2	45.3	49.3	44.3	85.8	199.4	708.4	1343.0	1372.8	1258.9
60°	32.8	34.8	43.9	42.2	40.2	73.0	197.4	728.0	1370.4	1426.2	1364.7
62.5°	31.1	33.5	48.0	36.8	37.2	60.8	193.7	746.9	1312.6	1413.3	1432.6
64°	30.1	32.4	44.6	34.5	35.5	55.4	189.9	747.9	1261.6	1382.9	1445.4
65°	29.4	31.4	41.6	33.1	34.1	54.1	186.6	733.7	1213.6	1350.5	1441.7
67.5°	28.4	29.7	32.1	30.8	31.8	51.7	163.6	671.2	1111.5	1267.0	1383.9
70°	27.0	28.1	28.4	28.1	29.7	50.0	138.2	582.3	1000.0	1179.5	1294.0
72.5°	25.7	25.7	25.7	25.3	27.4	47.7	124.4	470.4	864.2	1064.6	1182.2
75°	24.7	23.7	23.3	22.6	25.0	46.3	112.2	353.2	667.8	886.8	990.6
77.5°	22.6	21.6	20.6	19.9	22.3	41.2	93.6	249.4	492.4	645.2	764.5
80°	19.6	18.9	17.6	16.6	18.6	32.4	71.0	154.1	360.3	435.6	501.5
82.5°	15.9	15.5	14.2	12.8	13.5	23.3	48.3	78.4	240.3	236.6	280.2
85°	9.8	12.2	10.5	8.4	9.1	13.5	19.6	25.0	73.7	44.3	68.6
87.5°	5.7	7.8	6.4	4.4	3.4	6.1	5.4	5.1	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°	719.2	719.2	719.2	719.2	719.2	719.2	719.2	719.2	719.2	719.2
2.5°	776.6	781.0	783.4	774.6	765.1	756.7	740.5	724.2	715.8	717.5
5°	808.4	815.8	817.9	805.0	778.3	750.9	711.4	677.3	656.7	655.3
7.5°	796.2	820.6	824.6	810.8	772.6	721.5	667.8	620.2	599.5	594.8
10°	753.0	790.1	802.3	797.6	760.4	701.9	636.7	576.2	555.6	545.8
12.5°	708.7	747.6	755.0	759.7	737.1	687.7	616.1	553.9	529.2	521.1
15°	679.6	706.3	708.4	712.8	708.0	681.0	625.6	563.0	533.3	522.1
17.5°	675.6	666.1	659.7	668.8	674.6	681.3	650.2	597.2	565.4	551.2
20°	676.3	646.9	628.6	627.9	652.6	690.1	700.3	654.6	613.4	600.2
22.5°	700.9	636.7	606.3	602.6	632.7	705.0	751.3	722.9	681.7	664.1
25°	737.8	630.6	590.4	591.4	621.5	714.8	794.9	791.2	755.0	732.4
27.5°	773.2	640.8	588.4	591.1	625.2	721.2	831.0	855.4	814.8	795.2
30°	801.6	663.4	594.5	596.8	636.7	730.0	849.0	912.5	863.5	840.2
32.5°	826.3	684.7	603.6	605.3	655.0	742.5	865.9	960.5	910.8	883.1
35°	848.6	703.0	617.5	623.2	678.3	760.4	883.1	1012.5	968.6	933.8
37.5°	868.2	725.3	644.8	654.3	712.4	786.4	905.4	1081.1	1033.1	993.6
40°	879.4	745.2	685.4	699.6	756.7	820.2	933.8	1125.7	1095.0	1050.4
42.5°	887.8	772.6	750.6	776.3	825.3	852.0	947.3	1145.7	1131.5	1093.3
45°	892.2	826.6	848.6	872.6	902.7	886.8	939.9	1152.4	1148.0	1115.3
47.5°	912.2	908.1	962.2	995.3	993.6	939.2	925.7	1151.8	1158.9	1131.8
50°	952.7	1003.1	1078.8	1111.2	1098.7	988.2	923.0	1150.7	1180.5	1158.5
52.5°	1001.0	1098.0	1204.8	1218.3	1192.0	1037.9	943.2	1168.3	1221.0	1206.5
55°	1064.6	1187.2	1303.8	1308.2	1271.1	1086.2	986.5	1220.0	1296.7	1296.1
57.5°	1153.1	1267.3	1387.0	1381.6	1329.2	1153.1	1056.1	1297.4	1380.9	1392.7
60°	1249.4	1351.8	1454.2	1451.2	1395.4	1230.2	1151.8	1412.0	1454.6	1457.6
62.5°	1341.7	1430.2	1519.1	1504.6	1441.7	1309.9	1284.2	1533.7	1502.6	1479.9
64°	1401.9	1456.6	1535.7	1512.7	1452.9	1348.1	1360.6	1573.2	1516.1	1478.6
65°	1441.7	1463.0	1532.0	1504.3	1449.2	1362.3	1418.4	1589.8	1518.4	1470.8
67.5°	1513.4	1426.2	1431.3	1409.3	1359.9	1349.1	1513.0	1580.6	1492.4	1421.1
70°	1493.4	1277.8	1208.2	1194.3	1135.2	1196.0	1501.2	1494.8	1394.8	1307.9
72.5°	1323.1	1026.0	926.0	913.5	831.4	906.4	1295.4	1273.1	1122.4	1050.4
75°	1090.3	777.6	661.4	671.9	609.3	678.6	1030.4	872.3	747.2	704.3
77.5°	846.2	549.5	456.9	444.4	431.9	439.3	708.4	523.8	436.6	397.1
80°	539.4	345.4	342.7	313.3	303.1	255.5	364.0	278.8	219.3	207.5
82.5°	286.6	199.1	226.1	181.1	145.7	104.8	123.4	82.8	70.0	73.3
85°	78.4	41.2	11.5	0.0	0.0	0.0	0.0	0.3	0.3	0.3
87.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.3	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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