

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: P400936

Luminaire Tested: **ENV-SA1A-735-U-SLR**

Issue Date: 5/20/2020

Test Information

Test Method: LM-79-08
Report Number: P400936
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-735-U-SLR
Description: ENTRI LED LUMINAIRE
(1) 70 CRI, 3500K, 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: 2271 lumens
Efficiency: N/A
Efficacy: 113.0 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

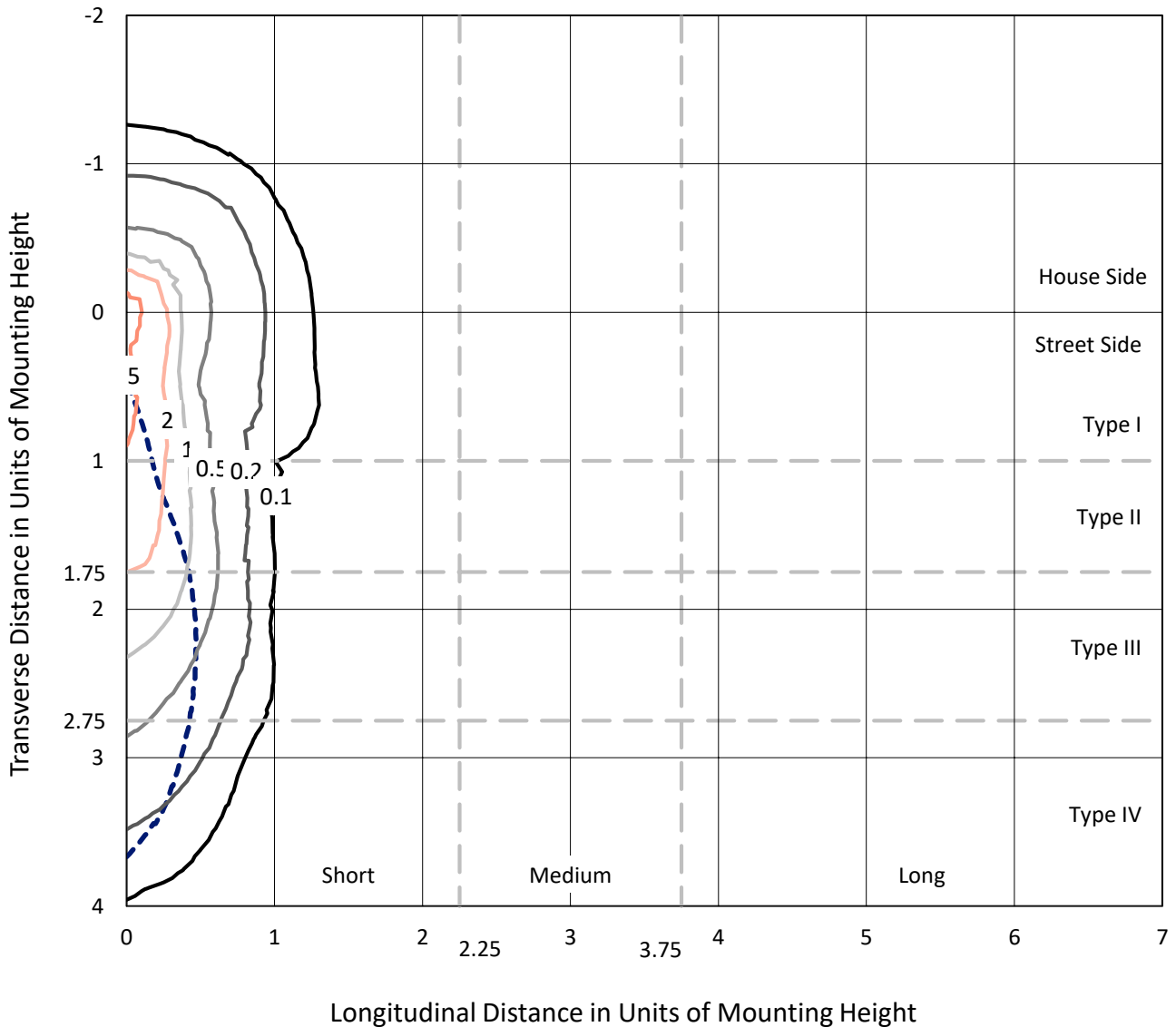


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Iso-Footcandle Lines of Horizontal Illumination

× Max cd
 - - - 1/2 Max cd

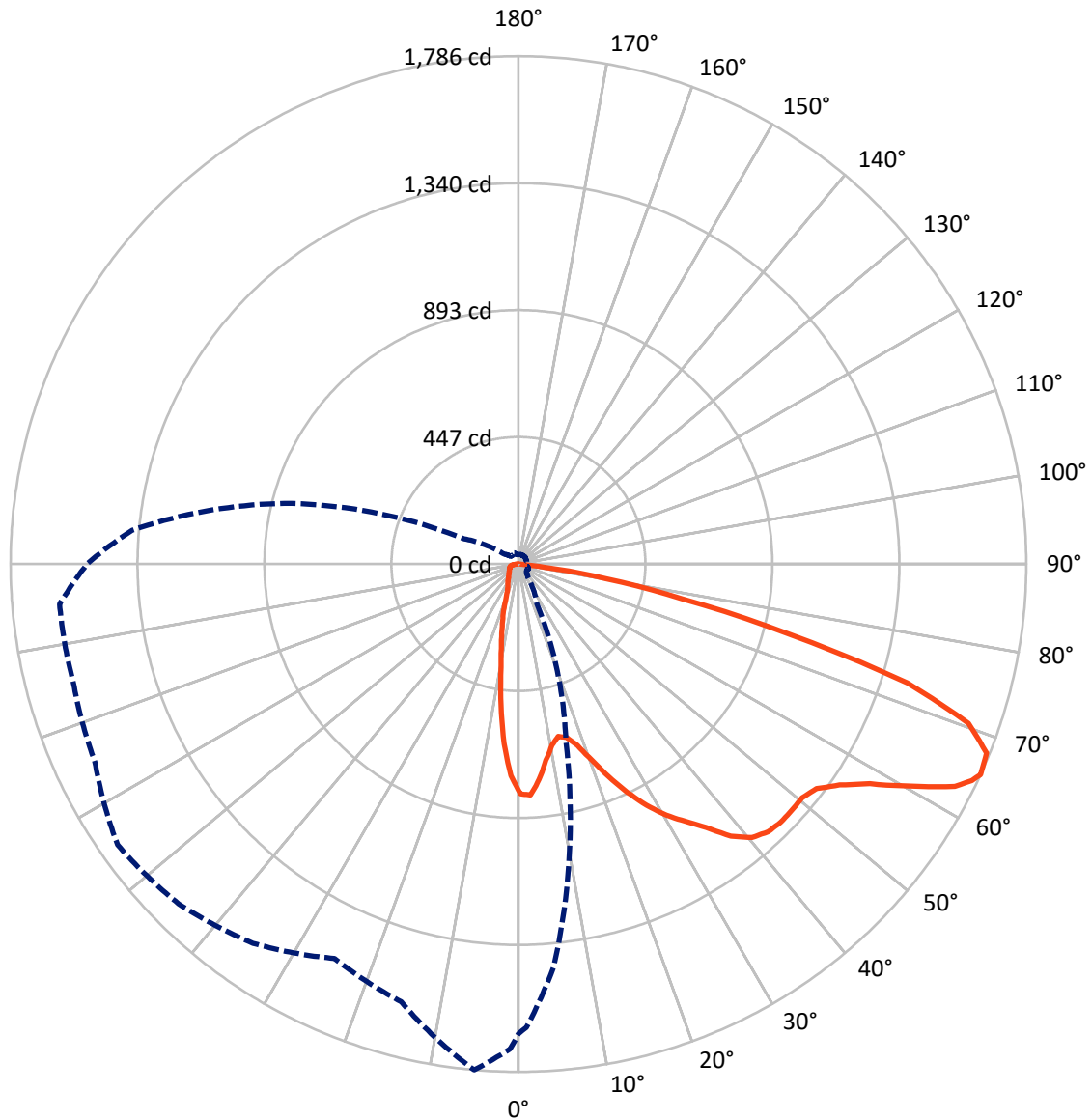


Based on 10 foot mounting height. Maximum calculated value = 8.1 fc
 Type IV - Short - Non-Cutoff

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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	466.0	0.0	466.0
	% Fixture	20.5	0.0	20.5
Street Side	Lumens	1805.0	0.0	1805.0
	% Fixture	79.5	0.0	79.5
Total	Lumens	2271.0	0.0	2271.0
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	61.7	2.7
10°-20°	122.8	5.4
20°-30°	170.3	7.5
30°-40°	238.0	10.5
40°-50°	323.9	14.3
50°-60°	442.9	19.5
60°-70°	541.5	23.8
70°-80°	326.9	14.4
80°-90°	43.1	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°	2271.0	100.0
0°-180°	2271.0	100.0



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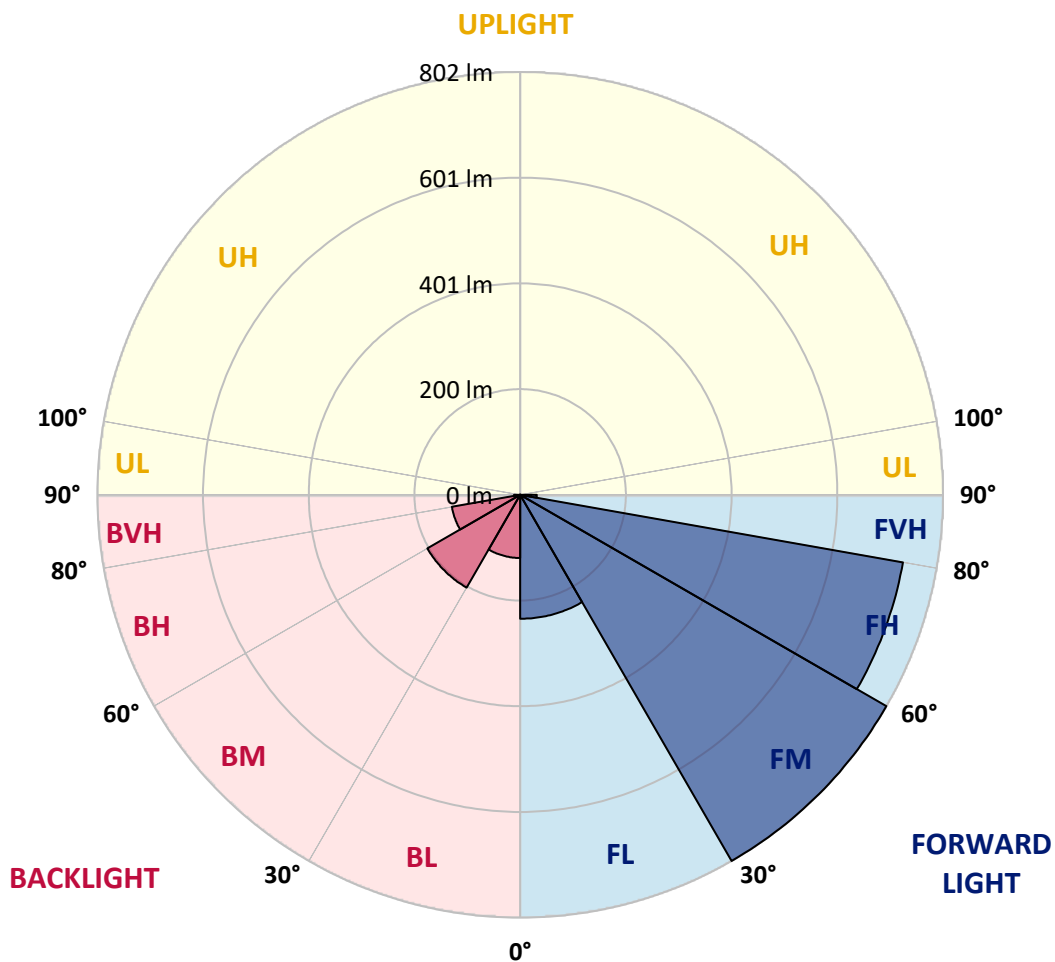
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	235.0	10.3			
FM	(30°-60°)	801.6	35.3			
FH	(60°-80°)	736.9	32.4			G1/1800
FVH	(80°-90°)	31.5	1.4			G1/100
BL	(0°-30°)	119.7	5.3	B1/500		
BM	(30°-60°)	203.1	8.9	B0/220		
BH	(60°-80°)	131.5	5.8	B1/500		G1/500
BVH	(80°-90°)	11.6	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°	808.1	808.1	808.1	808.1	808.1	808.1	808.1	808.1	808.1	808.1	808.1
2.5°	806.2	804.0	798.3	783.1	766.7	747.4	744.0	723.1	725.4	719.3	720.8
5°	736.4	733.3	717.8	687.4	646.0	622.1	603.4	592.4	583.3	578.8	584.5
7.5°	668.4	664.2	645.6	592.1	546.1	508.1	477.7	459.1	440.9	426.5	419.6
10°	613.3	611.8	587.1	526.7	469.0	422.7	402.9	383.2	367.6	347.1	330.4
12.5°	585.6	581.0	551.8	481.5	425.3	396.9	378.2	353.2	331.9	306.8	285.2
15°	586.7	581.4	545.0	471.3	410.1	375.6	347.1	317.1	286.0	260.5	238.5
17.5°	619.4	615.6	571.2	480.8	397.2	349.4	305.0	266.2	232.0	200.1	180.4
20°	674.5	668.8	607.2	492.2	380.9	319.4	259.0	205.8	169.0	140.9	125.3
22.5°	746.2	735.6	658.5	506.2	364.6	285.2	209.3	150.0	117.3	103.3	99.1
25°	823.0	814.6	720.4	524.1	347.1	248.0	154.9	109.0	97.6	91.9	88.9
27.5°	893.6	879.9	786.9	543.8	323.9	210.8	117.7	93.8	86.2	83.5	81.6
30°	944.1	932.3	832.8	566.6	303.8	172.0	100.6	85.1	79.0	74.8	74.1
32.5°	992.3	975.6	866.2	577.2	287.1	151.1	93.0	79.0	73.3	69.1	67.6
35°	1049.3	1032.6	904.6	578.8	274.6	142.4	85.8	74.4	68.4	64.6	62.7
37.5°	1116.5	1093.7	947.9	579.9	262.0	139.0	79.8	70.6	64.6	60.4	58.9
40°	1180.3	1162.8	992.3	578.0	253.7	134.1	76.0	66.5	60.8	57.0	55.1
42.5°	1228.5	1209.9	1030.3	572.3	248.7	125.7	77.5	63.4	58.1	53.9	51.6
45°	1253.2	1236.5	1064.9	567.0	246.1	118.5	76.0	62.3	56.2	51.3	49.0
47.5°	1271.8	1255.5	1100.2	564.7	241.5	113.2	69.9	66.5	54.3	48.6	46.3
50°	1301.8	1287.8	1148.0	577.6	234.3	109.8	64.2	71.0	53.5	46.3	43.7
52.5°	1355.8	1346.6	1227.0	607.6	226.7	104.1	58.5	68.0	54.3	44.8	41.8
55°	1456.4	1450.7	1335.6	647.1	219.5	96.8	52.4	61.5	53.9	42.2	39.9
57.5°	1565.0	1563.5	1467.4	681.7	208.9	84.7	48.6	52.0	51.3	39.9	37.2
60°	1637.9	1633.0	1528.2	701.0	195.2	69.9	45.6	44.1	52.4	37.6	34.6
62.5°	1663.0	1646.7	1509.9	693.8	174.7	60.4	42.2	40.3	48.6	35.3	31.9
64°	1661.5	1637.5	1462.5	666.5	161.4	58.5	40.3	37.6	42.9	33.8	30.8
65°	1652.7	1630.0	1423.0	645.2	154.2	58.5	39.1	36.5	39.1	33.0	30.0
67.5°	1596.9	1566.9	1288.2	546.5	135.6	59.2	36.5	33.4	32.7	30.4	28.1
70°	1469.7	1430.6	1103.2	429.9	125.7	59.6	33.4	30.4	29.2	27.7	25.8
72.5°	1180.3	1127.9	878.0	307.2	115.4	58.5	30.4	27.7	26.6	25.1	23.2
75°	791.4	734.1	647.1	202.4	94.6	52.4	26.2	23.9	23.5	22.0	20.5
77.5°	446.2	422.3	382.0	111.3	65.3	36.1	20.9	19.4	19.7	19.0	17.5
80°	233.2	222.2	204.3	53.9	31.5	17.5	13.3	13.3	15.2	15.2	14.4
82.5°	82.4	82.8	80.1	12.2	6.5	5.3	4.6	6.5	8.7	10.6	10.6
85°	0.4	0.4	0.0	0.0	0.0	0.0	0.0	0.0	0.8	1.5	2.7
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°	808.1	808.1	808.1	808.1	808.1	808.1	808.1	808.1	808.1	808.1	808.1
2.5°	707.9	710.2	716.2	715.1	721.2	718.5	726.5	730.7	732.9	744.7	750.4
5°	579.9	580.7	602.3	606.9	618.3	612.2	626.2	620.9	632.3	633.8	652.8
7.5°	426.1	427.6	438.2	463.3	488.0	498.3	502.4	508.9	503.6	501.7	504.3
10°	323.9	325.1	326.2	344.1	365.7	387.4	387.4	387.7	378.2	368.8	366.9
12.5°	276.8	269.6	258.2	258.6	273.8	284.1	292.0	283.7	282.2	286.7	291.7
15°	227.9	220.6	213.0	203.9	204.3	211.5	215.7	215.3	222.9	226.3	236.6
17.5°	177.0	166.7	167.1	161.8	154.6	159.1	160.3	167.1	177.0	181.5	183.4
20°	118.9	118.9	121.9	128.4	124.9	128.0	128.4	133.7	138.2	135.6	138.2
22.5°	98.4	98.0	99.1	103.3	106.7	109.4	110.1	109.8	105.2	103.3	107.1
25°	89.2	88.9	89.2	91.5	95.3	98.7	97.2	94.9	89.6	89.2	90.0
27.5°	81.6	82.0	82.8	84.3	86.6	90.8	89.2	84.7	82.0	81.3	81.3
30°	75.2	75.2	76.7	78.2	80.9	84.7	82.0	78.2	75.6	74.8	74.4
32.5°	68.7	69.9	71.0	72.5	74.8	78.6	76.3	72.9	70.3	68.7	67.6
35°	62.3	63.0	65.3	67.6	69.5	72.5	71.0	68.0	65.3	61.9	60.4
37.5°	58.5	58.5	59.6	63.0	64.6	66.8	66.1	63.4	59.2	56.6	56.2
40°	55.1	55.1	55.4	57.3	60.0	62.7	61.1	57.0	54.3	53.2	52.8
42.5°	51.6	51.6	52.0	52.0	55.4	60.0	56.2	52.0	50.9	50.1	49.7
45°	48.6	48.6	48.6	48.2	50.1	55.8	51.6	48.2	47.5	47.5	47.1
47.5°	46.3	46.0	45.6	44.8	46.0	50.5	47.1	45.2	44.8	45.2	44.8
50°	43.3	42.9	42.5	42.2	42.9	44.8	44.1	42.2	42.5	42.5	42.9
52.5°	40.6	40.3	39.9	39.5	40.3	41.8	41.8	40.3	40.3	40.6	41.0
55°	39.1	38.4	38.0	38.0	38.4	40.3	39.9	38.7	38.7	39.5	39.9
57.5°	36.8	36.1	36.1	35.7	36.5	38.7	38.4	37.2	37.2	37.6	38.4
60°	34.6	34.2	33.8	34.6	34.9	37.2	36.8	36.1	35.7	36.8	36.8
62.5°	31.9	31.9	31.9	32.7	33.0	35.7	35.3	34.9	34.9	35.3	34.9
64°	30.4	30.4	30.8	31.1	31.9	34.2	34.2	34.2	34.2	34.2	33.8
65°	29.6	29.6	30.4	30.8	31.1	33.8	33.4	33.8	34.2	33.8	33.0
67.5°	27.7	27.7	28.9	28.9	29.2	32.3	31.9	32.7	33.4	32.7	31.9
70°	25.4	25.8	27.0	26.6	27.3	30.8	29.6	31.1	32.7	31.5	30.8
72.5°	23.2	23.5	25.1	24.3	24.7	28.9	27.3	28.9	31.1	30.4	29.6
75°	20.9	21.3	22.4	22.0	22.8	26.6	25.1	26.6	28.9	28.9	28.5
77.5°	17.8	18.6	19.4	19.0	20.5	23.9	22.4	23.5	25.4	27.0	26.2
80°	14.4	15.6	16.0	16.3	17.8	20.5	19.4	19.7	21.6	22.8	23.2
82.5°	9.9	11.8	12.5	12.9	15.2	16.0	16.3	16.0	17.1	18.6	17.5
85°	3.0	3.8	7.2	9.1	11.4	11.4	13.3	12.5	13.3	11.8	9.9
87.5°	0.0	0.0	0.0	2.7	6.8	6.8	9.5	8.7	9.1	6.8	6.1
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°	808.1	808.1	808.1	808.1	808.1	808.1	808.1	808.1	808.1	808.1	808.1
2.5°	751.6	758.0	772.4	789.2	798.3	818.0	830.2	843.1	856.0	858.6	862.8
5°	656.6	664.2	680.5	702.9	725.4	751.6	781.9	814.2	849.9	865.1	879.9
7.5°	511.5	513.1	536.2	576.9	596.6	633.8	677.1	726.9	781.9	810.4	840.8
10°	377.9	393.4	410.9	444.7	494.5	537.4	590.9	649.0	706.4	747.8	779.3
12.5°	297.0	316.7	345.6	382.8	420.4	461.0	522.9	585.2	655.9	693.1	731.8
15°	244.6	269.6	307.2	346.3	381.3	417.4	472.4	548.8	639.1	677.1	711.7
17.5°	193.7	221.4	261.7	302.7	344.4	388.5	452.3	546.9	657.0	701.0	736.7
20°	148.5	170.1	203.9	245.3	294.3	354.7	436.3	561.3	709.8	764.8	788.4
22.5°	110.1	122.7	149.2	192.5	250.3	324.7	420.4	581.8	775.1	839.7	857.5
25°	91.1	94.6	106.7	144.3	203.9	290.9	408.2	608.4	840.4	913.0	925.9
27.5°	82.0	83.9	89.6	103.7	159.5	263.2	392.3	639.1	909.2	985.5	984.4
30°	74.1	74.4	77.9	87.7	129.5	238.5	373.7	673.3	970.3	1037.5	1034.1
32.5°	66.8	66.8	71.4	79.0	110.5	216.1	351.3	698.0	1023.5	1080.1	1069.0
35°	60.4	61.5	65.7	73.3	98.0	191.0	330.4	707.1	1069.0	1131.3	1100.2
37.5°	55.8	57.3	61.5	68.7	87.3	172.4	313.3	717.8	1125.2	1193.2	1135.1
40°	52.8	53.9	57.7	63.8	79.0	156.8	294.7	725.0	1181.1	1259.3	1172.0
42.5°	49.7	50.9	54.7	60.4	75.2	138.6	276.8	729.1	1239.2	1316.6	1202.7
45°	47.1	48.6	52.4	57.7	75.6	122.3	262.0	727.6	1274.1	1358.0	1226.6
47.5°	45.2	46.7	50.9	57.7	73.3	112.8	249.5	722.3	1299.9	1385.0	1237.7
50°	43.3	44.8	49.7	63.8	69.5	110.1	240.0	721.6	1326.9	1390.3	1237.7
52.5°	41.4	44.1	50.1	64.2	63.8	109.0	232.4	741.7	1364.1	1399.4	1248.7
55°	40.3	42.5	51.6	59.2	55.8	105.2	227.9	769.4	1426.8	1449.6	1304.1
57.5°	38.7	40.6	50.9	55.4	49.7	96.5	224.1	796.0	1509.2	1542.6	1414.6
60°	36.8	39.1	49.4	47.5	45.2	82.0	221.8	818.0	1539.9	1602.6	1533.5
62.5°	34.9	37.6	53.9	41.4	41.8	68.4	217.6	839.3	1475.0	1588.2	1609.8
64°	33.8	36.5	50.1	38.7	39.9	62.3	213.4	840.4	1417.7	1554.0	1624.3
65°	33.0	35.3	46.7	37.2	38.4	60.8	209.6	824.5	1363.7	1517.5	1620.1
67.5°	31.9	33.4	36.1	34.6	35.7	58.1	183.8	754.2	1249.0	1423.7	1555.1
70°	30.4	31.5	31.9	31.5	33.4	56.2	155.3	654.3	1123.7	1325.4	1454.1
72.5°	28.9	28.9	28.9	28.5	30.8	53.5	139.8	528.6	971.1	1196.3	1328.4
75°	27.7	26.6	26.2	25.4	28.1	52.0	126.1	396.9	750.4	996.5	1113.1
77.5°	25.4	24.3	23.2	22.4	25.1	46.3	105.2	280.3	553.3	725.0	859.0
80°	22.0	21.3	19.7	18.6	20.9	36.5	79.8	173.2	404.8	489.5	563.6
82.5°	17.8	17.5	16.0	14.4	15.2	26.2	54.3	88.1	270.0	265.8	314.8
85°	11.0	13.7	11.8	9.5	10.3	15.2	22.0	28.1	82.8	49.7	77.1
87.5°	6.5	8.7	7.2	4.9	3.8	6.8	6.1	5.7	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°	808.1	808.1	808.1	808.1	808.1	808.1	808.1	808.1	808.1	808.1
2.5°	872.7	877.6	880.3	870.4	859.8	850.3	832.1	813.8	804.3	806.2
5°	908.4	916.8	919.0	904.6	874.6	843.8	799.4	761.0	737.9	736.4
7.5°	894.7	922.1	926.6	911.1	868.1	810.8	750.4	696.9	673.7	668.4
10°	846.1	887.9	901.6	896.2	854.5	788.8	715.5	647.5	624.3	613.3
12.5°	796.4	840.0	848.4	853.7	828.3	772.8	692.3	622.4	594.7	585.6
15°	763.7	793.7	796.0	800.9	795.6	765.2	702.9	632.7	599.3	586.7
17.5°	759.1	748.5	741.3	751.6	758.0	765.6	730.7	671.0	635.3	619.4
20°	759.9	726.9	706.4	705.6	733.3	775.5	786.9	735.6	689.3	674.5
22.5°	787.6	715.5	681.3	677.1	710.9	792.2	844.2	812.3	766.0	746.2
25°	829.0	708.6	663.4	664.6	698.4	803.2	893.2	889.0	848.4	823.0
27.5°	868.9	720.0	661.2	664.2	702.6	810.4	933.8	961.2	915.6	893.6
30°	900.8	745.5	668.0	670.7	715.5	820.3	954.0	1025.4	970.3	944.1
32.5°	928.5	769.4	678.3	680.2	736.0	834.3	973.0	1079.3	1023.5	992.3
35°	953.6	789.9	693.8	700.3	762.2	854.5	992.3	1137.8	1088.4	1049.3
37.5°	975.6	815.0	724.6	735.2	800.5	883.7	1017.4	1214.9	1160.9	1116.5
40°	988.1	837.4	770.2	786.1	850.3	921.7	1049.3	1265.0	1230.4	1180.3
42.5°	997.6	868.1	843.5	872.3	927.4	957.4	1064.5	1287.4	1271.5	1228.5
45°	1002.6	928.9	953.6	980.6	1014.4	996.5	1056.1	1295.0	1290.1	1253.2
47.5°	1025.0	1020.4	1081.2	1118.4	1116.5	1055.4	1040.2	1294.2	1302.2	1271.8
50°	1070.6	1127.1	1212.2	1248.7	1234.6	1110.4	1037.1	1293.1	1326.5	1301.8
52.5°	1124.9	1233.9	1353.9	1369.1	1339.4	1166.3	1059.9	1312.8	1372.1	1355.8
55°	1196.3	1334.1	1465.1	1470.1	1428.3	1220.6	1108.5	1371.0	1457.2	1456.4
57.5°	1295.8	1424.1	1558.6	1552.5	1493.6	1295.8	1186.8	1457.9	1551.7	1565.0
60°	1404.0	1519.1	1634.1	1630.7	1568.0	1382.3	1294.2	1586.7	1634.5	1637.9
62.5°	1507.7	1607.2	1707.0	1690.7	1620.1	1472.0	1443.1	1723.4	1688.4	1663.0
64°	1575.3	1636.8	1725.7	1699.8	1632.6	1514.9	1528.9	1767.8	1703.6	1661.5
65°	1620.1	1644.0	1721.5	1690.3	1628.4	1530.8	1593.9	1786.4	1706.3	1652.7
67.5°	1700.6	1602.6	1608.3	1583.6	1528.2	1516.0	1700.2	1776.2	1677.0	1596.9
70°	1678.2	1435.9	1357.7	1342.1	1275.6	1344.0	1686.9	1679.7	1567.3	1469.7
72.5°	1486.8	1153.0	1040.6	1026.5	934.2	1018.5	1455.6	1430.6	1261.2	1180.3
75°	1225.1	873.8	743.2	755.0	684.7	762.6	1157.9	980.2	839.7	791.4
77.5°	950.9	617.5	513.4	499.4	485.3	493.7	796.0	588.6	490.7	446.2
80°	606.1	388.1	385.1	352.0	340.6	287.1	409.0	313.3	246.5	233.2
82.5°	322.0	223.7	254.1	203.6	163.7	117.7	138.6	93.0	78.6	82.4
85°	88.1	46.3	12.9	0.0	0.0	0.0	0.0	0.4	0.4	0.4
87.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.4	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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