

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: P400898

Luminaire Tested: **ENT-SA1A-727-U-SLL**

Issue Date: 5/20/2020

Test Information

Test Method: LM-79-08
Report Number: P400898
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G1-2004-754-7)
Test Lab: INNOVATION CENTER
Issue Date: 5/20/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: INVUE
Catalog Number: ENT-SA1A-727-U-SLL
Description: ENTRI LED LUMINAIRE
(1) 70 CRI, 2700K, 350mA LIGHTSQUARE WITH 16 LEDS AND SPILL LIGHT ELIMINATOR LEFT 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 III - Medium - Non-Cutoff
BUG Rating: B1 - U0 - G1

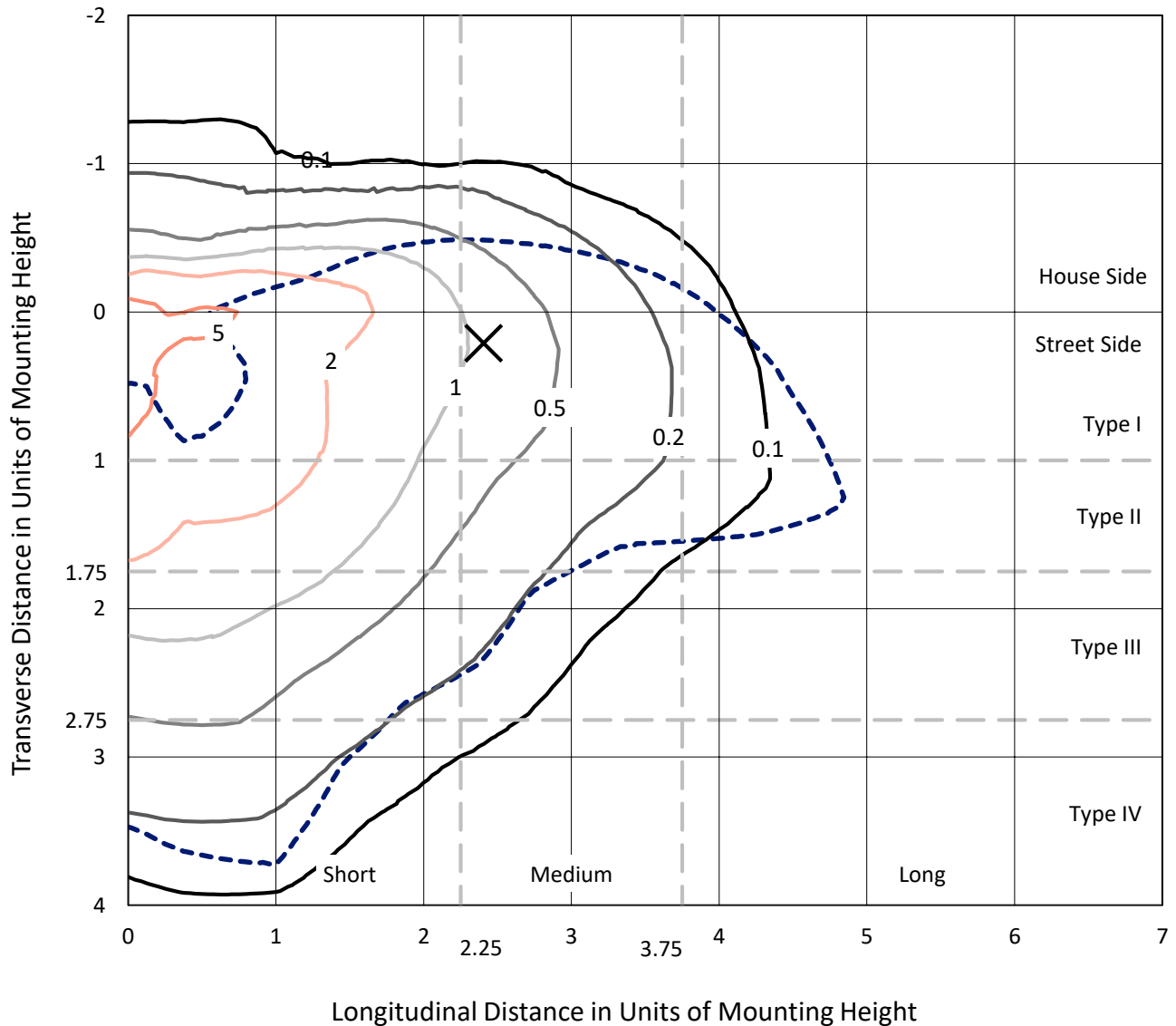
Input Watts (W): 20.1
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Iso-Footcandle Lines of Horizontal Illumination

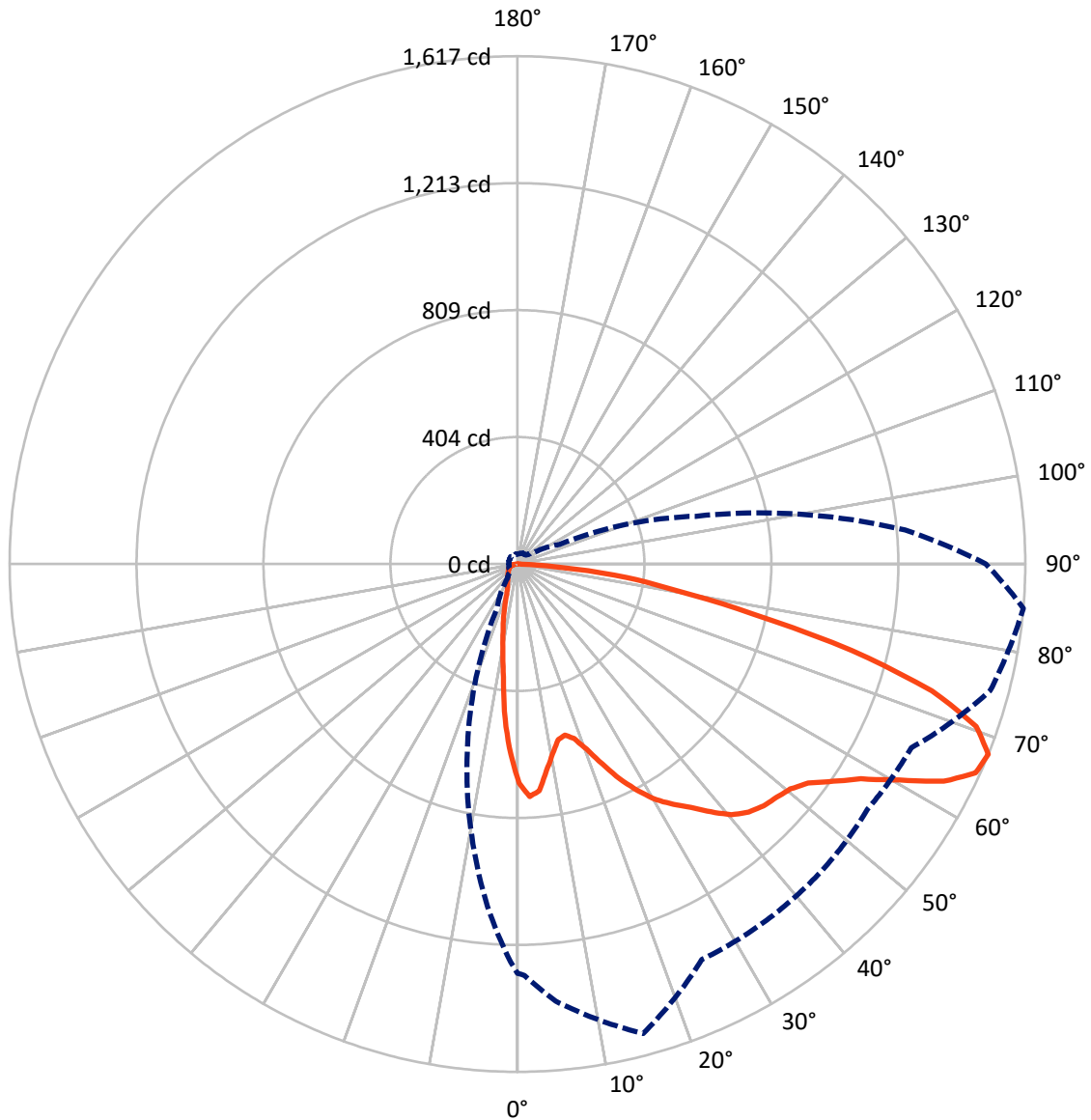
✕ Max cd
 - - - 1/2 Max cd



Based on 10 foot mounting height. Maximum calculated value = 7.5 fc
 Type III - Medium - Non-Cutoff

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Luminous Intensity Polar Plot



— Vertical Plane Through 85-Deg Lateral - - - Horizontal Cone Through 67.5-Deg Vertical

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FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	407.2	0.0	407.2
	% Fixture	20.1	0.0	20.1
Street Side	Lumens	1613.8	0.0	1613.8
	% Fixture	79.9	0.0	79.9
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°	53.1	2.6
10°-20°	104.7	5.2
20°-30°	146.3	7.2
30°-40°	206.2	10.2
40°-50°	285.7	14.1
50°-60°	401.5	19.9
60°-70°	490.8	24.3
70°-80°	288.5	14.3
80°-90°	44.2	2.2
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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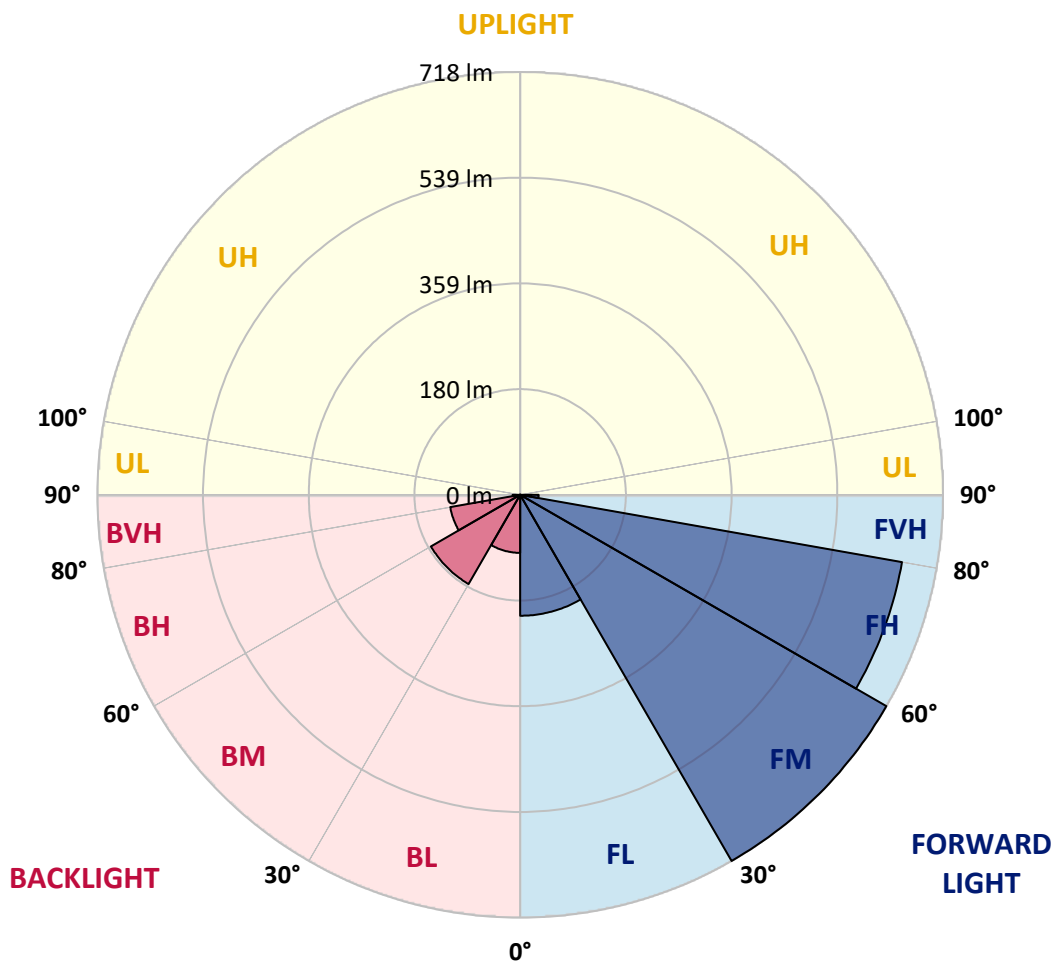
CATALOG NUMBER: ENT-SA1A-727-U-SLL

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	205.4	10.2			
FM	(30°-60°)	718.4	35.5			
FH	(60°-80°)	658.7	32.6			G0/660
FVH	(80°-90°)	31.3	1.5			G1/100
BL	(0°-30°)	98.6	4.9	B0/110		
BM	(30°-60°)	175.1	8.7	B0/220		
BH	(60°-80°)	120.6	6.0	B1/500		G1/500
BVH	(80°-90°)	12.9	0.6			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 III Medium





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CANDELA DISTRIBUTION (FULL):

	0°	1°	5°	15°	25°	35°	45°	55°	65°	75°	85°
0°	698.2	698.2	698.2	698.2	698.2	698.2	698.2	698.2	698.2	698.2	698.2
2.5°	717.4	714.1	725.2	741.4	752.5	760.3	762.9	762.5	760.3	754.1	741.1
5°	685.5	682.6	705.0	741.1	772.6	795.4	801.9	792.8	781.4	757.3	725.5
7.5°	625.1	629.7	658.3	708.9	759.6	795.7	804.5	790.2	766.8	717.7	664.1
10°	579.3	581.6	613.7	674.8	728.8	765.8	781.1	768.4	737.9	675.8	613.7
12.5°	551.0	553.3	584.5	641.0	698.5	727.5	732.0	731.7	706.3	646.2	574.4
15°	554.9	557.9	589.0	635.8	668.3	681.0	681.3	684.9	677.4	631.6	565.0
17.5°	592.6	592.6	622.5	650.8	643.3	634.2	641.0	647.5	660.5	640.4	584.2
20°	652.1	654.7	682.3	677.4	631.9	609.2	601.1	612.4	652.7	666.7	629.3
22.5°	716.4	723.2	752.2	716.4	630.0	585.8	576.7	589.0	653.7	708.3	691.4
25°	787.6	796.0	815.5	761.9	635.8	572.8	566.6	578.3	656.3	746.6	758.3
27.5°	852.5	853.2	872.4	800.2	651.1	574.1	563.7	579.0	663.5	776.8	817.5
30°	898.7	898.7	907.1	819.7	670.0	582.2	566.3	588.7	673.5	793.4	871.1
32.5°	940.9	943.2	939.0	840.2	687.8	593.9	572.5	608.2	689.4	807.1	912.3
35°	994.5	994.2	975.4	856.4	704.4	606.6	587.8	632.9	712.5	827.2	951.6
37.5°	1060.8	1057.6	1017.6	871.1	724.5	628.4	616.7	666.7	743.4	850.9	1001.4
40°	1120.9	1115.7	1056.3	884.7	740.5	670.6	663.8	708.6	782.4	880.5	1049.8
42.5°	1167.7	1159.9	1089.1	894.5	764.5	736.9	742.7	784.0	821.7	906.8	1080.0
45°	1207.0	1198.9	1113.8	899.3	822.7	831.4	842.8	877.2	863.6	914.0	1098.5
47.5°	1235.3	1222.0	1124.5	913.6	901.3	941.9	977.0	979.3	922.7	913.6	1109.9
50°	1251.9	1237.2	1134.6	949.0	992.6	1067.3	1104.7	1087.1	984.1	919.5	1126.1
52.5°	1285.3	1270.0	1176.5	1006.6	1086.2	1194.3	1214.5	1186.2	1047.8	949.7	1158.6
55°	1369.5	1362.6	1257.7	1083.9	1178.1	1297.0	1306.1	1277.8	1114.4	1002.0	1220.7
57.5°	1464.7	1449.7	1367.5	1181.0	1266.1	1377.3	1391.9	1352.9	1184.3	1075.4	1289.9
60°	1491.3	1488.4	1460.4	1294.4	1357.1	1463.0	1464.0	1414.3	1265.8	1162.8	1395.5
62.5°	1452.3	1461.7	1499.1	1399.4	1433.5	1520.5	1512.4	1460.8	1351.3	1301.9	1523.8
65°	1384.4	1397.7	1472.8	1498.5	1451.0	1509.2	1492.0	1459.1	1405.2	1451.7	1603.4
67.5°	1302.9	1310.0	1397.4	1547.8	1389.6	1384.1	1376.0	1361.0	1383.8	1558.2	1617.0
70°	1218.1	1224.2	1304.8	1479.9	1205.4	1142.0	1135.2	1122.2	1210.9	1556.9	1550.1
72.5°	1026.7	1022.8	1097.2	1235.3	920.5	834.4	892.2	863.9	979.6	1398.7	1380.8
75°	637.8	659.2	752.5	866.2	630.6	571.5	651.4	644.3	795.4	1204.4	1099.5
77.5°	388.6	392.8	445.4	540.0	379.8	396.1	418.8	463.0	589.7	976.3	766.4
80°	203.4	189.1	227.8	296.3	225.5	265.8	307.0	355.8	374.3	636.5	512.4
82.5°	58.8	58.5	77.0	124.1	106.9	130.6	155.0	223.5	245.3	378.5	350.9
85°	0.3	0.3	0.3	0.6	1.0	1.6	6.8	57.5	76.0	175.4	144.3
87.5°	0.0	0.0	0.3	0.6	0.6	1.3	1.9	2.6	3.2	3.9	14.3
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):

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	698.2	698.2	698.2	698.2	698.2	698.2	698.2	698.2	698.2	698.2	698.2
2.5°	736.9	732.0	721.6	707.6	697.9	681.0	677.4	666.7	656.0	647.2	647.5
5°	710.2	693.7	668.3	639.1	611.1	586.1	581.3	566.6	562.4	558.2	546.5
7.5°	640.4	620.9	585.5	542.3	507.2	483.5	458.1	442.8	429.2	413.6	417.5
10°	586.8	558.8	510.1	459.4	415.6	383.7	355.8	341.5	321.7	307.4	305.4
12.5°	545.5	515.3	456.8	397.4	356.1	337.6	319.7	297.3	275.2	256.3	246.6
15°	531.9	497.8	429.8	370.7	338.2	315.8	290.8	265.1	238.2	218.0	210.2
17.5°	547.8	507.5	429.5	359.3	318.7	285.9	254.7	225.8	194.0	173.8	167.7
20°	591.6	541.3	438.6	348.6	295.0	250.5	206.6	175.4	143.0	128.7	122.2
22.5°	652.7	587.1	452.6	335.6	268.7	207.3	157.9	118.6	102.7	95.5	93.9
25°	715.4	645.3	472.4	324.6	239.8	165.1	113.4	94.9	87.4	84.1	84.1
27.5°	784.3	703.4	493.9	311.3	209.9	122.8	92.3	83.5	79.6	77.7	77.3
30°	840.2	750.9	518.2	295.7	182.9	100.7	81.9	76.0	72.5	71.5	71.5
32.5°	880.5	786.3	543.9	280.1	158.2	91.0	76.0	70.8	66.9	66.3	66.3
35°	927.6	820.1	555.6	271.3	143.3	84.8	71.8	66.6	63.0	61.4	61.4
37.5°	984.1	860.3	562.1	262.8	136.8	79.0	68.9	63.0	59.5	57.5	57.5
40°	1055.9	906.2	568.9	254.4	132.9	74.1	65.6	59.8	56.9	54.6	54.6
42.5°	1107.3	948.4	574.1	247.3	126.1	71.8	63.0	57.5	53.9	52.0	51.7
45°	1134.2	987.7	576.4	243.0	118.3	73.8	61.1	55.6	51.3	49.4	49.1
47.5°	1152.4	1020.2	579.3	239.8	112.1	70.2	60.8	53.6	49.4	46.8	46.8
50°	1181.3	1063.1	586.8	233.6	108.5	65.6	65.6	52.6	47.1	44.8	44.5
52.5°	1233.0	1124.5	606.9	226.8	104.6	61.1	67.6	53.0	45.5	42.9	42.2
55°	1311.0	1222.3	640.4	217.0	99.1	55.6	63.0	53.3	43.9	41.6	40.6
57.5°	1412.4	1340.6	679.4	209.2	89.7	51.0	57.5	51.7	41.9	40.0	39.3
60°	1480.6	1419.5	704.1	199.2	76.4	48.1	49.4	50.0	40.0	37.7	37.4
62.5°	1517.3	1420.8	704.4	185.2	64.0	45.5	44.2	51.0	38.3	35.4	35.1
65°	1519.9	1351.6	669.0	167.3	59.8	42.6	40.6	45.2	36.7	33.8	33.5
67.5°	1491.6	1238.9	588.1	146.9	61.4	40.3	37.7	38.0	34.8	32.2	31.8
70°	1390.3	1093.0	471.8	130.6	61.7	37.4	35.4	34.4	32.8	30.5	29.9
72.5°	1199.5	913.3	357.4	125.4	62.7	35.1	32.8	31.8	30.5	28.6	27.9
75°	905.2	712.5	268.4	117.0	63.4	32.5	29.9	29.2	27.9	26.0	25.7
77.5°	625.4	528.3	186.5	98.8	56.5	29.6	27.0	26.3	25.3	23.4	23.1
80°	422.4	362.3	114.4	74.1	42.9	26.0	23.4	23.4	22.4	20.5	20.5
82.5°	294.0	270.6	66.0	48.4	31.2	21.4	20.5	20.5	19.5	17.5	17.2
85°	122.8	163.8	29.6	26.3	21.8	16.9	16.9	17.2	16.2	14.6	14.3
87.5°	4.2	17.5	11.7	12.3	13.0	11.7	13.0	13.0	12.7	11.4	11.0
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°	698.2	698.2	698.2	698.2	698.2	698.2	698.2	698.2	698.2	698.2	698.2
2.5°	638.1	633.9	620.9	619.3	609.5	608.9	613.1	605.9	606.6	615.4	614.1
5°	549.1	539.3	539.0	528.3	516.3	513.3	503.0	499.1	497.4	493.9	506.8
7.5°	429.5	425.0	428.9	427.6	416.5	410.4	388.3	371.4	362.9	366.5	367.5
10°	305.4	312.2	322.6	332.7	324.9	304.4	295.0	281.4	279.7	278.8	285.3
12.5°	242.1	234.3	239.1	242.7	235.2	226.5	222.6	216.7	220.0	227.4	231.7
15°	201.1	187.5	181.3	177.1	179.0	173.8	175.8	173.8	176.1	178.4	186.2
17.5°	158.9	154.0	142.3	136.8	137.1	134.8	135.5	135.2	133.9	139.1	145.2
20°	119.6	118.3	115.7	111.8	112.4	110.8	109.8	104.3	102.0	103.6	108.8
22.5°	93.2	94.9	96.5	96.2	97.8	93.6	89.7	84.8	84.1	84.5	85.8
25°	83.5	84.1	85.4	87.1	88.0	84.1	78.6	75.7	75.4	76.0	76.0
27.5°	77.7	77.0	78.6	80.6	81.9	77.0	72.5	69.9	69.2	68.6	68.2
30°	71.5	71.5	72.8	74.7	75.7	71.5	67.6	65.0	63.4	62.4	62.1
32.5°	66.9	67.3	67.9	69.2	70.8	66.6	63.4	61.1	58.2	57.2	56.5
35°	61.7	63.0	64.0	64.3	65.6	62.7	59.5	55.9	53.3	52.3	52.3
37.5°	57.5	58.5	60.1	59.8	60.8	58.8	55.2	51.3	50.0	49.7	49.4
40°	54.3	54.3	55.6	56.9	58.2	54.6	50.4	48.4	47.4	46.8	47.1
42.5°	51.3	51.0	51.0	53.3	55.6	50.4	46.8	45.5	45.2	44.5	44.8
45°	48.7	48.4	47.4	48.4	51.7	46.1	43.9	42.9	42.6	42.6	42.6
47.5°	46.5	45.8	44.5	44.8	47.1	42.9	40.9	40.6	40.3	40.3	40.6
50°	43.9	43.2	42.2	41.9	42.6	40.6	39.0	38.3	38.3	38.3	39.0
52.5°	41.6	41.3	40.0	39.6	40.0	38.7	37.0	36.7	36.7	36.7	37.7
55°	40.0	39.3	38.7	38.0	38.7	37.0	35.7	35.1	35.1	35.7	36.4
57.5°	38.3	37.7	37.4	36.7	37.4	35.7	34.4	33.8	34.1	34.4	34.4
60°	36.7	36.1	35.7	35.1	36.1	34.4	33.1	32.8	32.8	32.5	32.5
62.5°	35.1	34.8	34.1	33.5	34.8	32.8	31.8	31.2	30.9	30.9	30.9
65°	33.1	32.8	32.5	32.2	32.8	31.2	30.2	29.9	29.2	28.9	29.2
67.5°	31.5	31.5	30.9	30.2	31.2	29.2	28.6	28.3	27.3	27.0	27.3
70°	29.6	29.6	28.9	28.6	29.9	27.3	26.6	26.3	25.7	25.3	25.3
72.5°	27.6	27.6	27.0	26.6	28.3	25.3	24.7	24.4	23.4	23.1	23.1
75°	25.7	25.3	25.0	24.7	26.6	23.4	22.4	21.8	20.8	20.5	20.1
77.5°	23.4	23.1	22.4	22.7	24.0	20.8	19.5	19.2	18.2	17.9	17.5
80°	20.5	20.1	19.8	20.5	20.5	18.2	16.6	15.9	14.9	14.3	14.0
82.5°	17.5	17.2	17.2	17.9	16.9	15.9	14.0	12.7	11.0	10.1	9.7
85°	14.3	14.9	14.3	14.9	12.7	12.7	9.7	7.5	5.2	4.2	3.9
87.5°	11.0	11.4	11.0	11.4	8.8	8.4	4.5	2.6	0.3	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°	698.2	698.2	698.2	698.2	698.2	698.2	698.2	698.2	698.2	698.2
2.5°	623.8	624.5	638.4	652.4	660.9	682.0	692.4	704.1	710.2	717.4
5°	500.7	513.0	524.4	552.3	566.6	600.1	624.5	663.5	675.8	685.5
7.5°	378.2	396.7	410.7	445.4	472.4	514.0	556.6	603.0	616.3	625.1
10°	300.5	317.4	343.7	371.0	401.3	451.6	497.8	545.8	569.2	579.3
12.5°	252.4	279.4	310.3	335.6	359.7	396.7	455.2	515.9	540.3	551.0
15°	208.3	238.5	270.0	301.2	331.1	373.0	434.4	513.3	544.2	554.9
17.5°	165.4	190.1	221.9	259.6	303.1	356.4	438.3	541.0	578.7	592.6
20°	117.6	141.7	174.1	220.6	272.3	339.2	447.4	582.6	636.2	652.1
22.5°	88.7	102.0	131.9	177.7	244.7	325.6	461.7	639.4	702.1	716.4
25°	78.0	82.5	97.8	142.0	217.0	313.2	480.5	695.9	772.0	787.6
27.5°	69.2	71.8	79.6	114.0	196.6	300.5	503.0	757.0	832.1	852.5
30°	62.4	65.6	72.1	95.5	176.7	282.3	523.4	811.9	883.1	898.7
32.5°	57.2	60.8	66.6	86.4	159.9	268.7	535.1	852.9	926.6	940.9
35°	53.6	56.9	62.7	78.3	144.9	259.3	538.7	893.5	979.9	994.5
37.5°	50.4	53.6	58.8	70.2	134.5	246.9	544.2	941.9	1041.6	1060.8
40°	48.1	50.7	55.6	64.7	120.2	233.6	550.7	998.4	1101.7	1120.9
42.5°	45.8	48.7	53.0	65.0	105.9	222.2	554.9	1042.0	1149.5	1167.7
45°	43.9	47.1	52.0	63.7	95.2	211.8	553.0	1078.4	1193.0	1207.0
47.5°	41.9	45.8	54.6	61.1	91.9	202.4	554.6	1113.4	1224.2	1235.3
50°	40.6	45.5	58.5	57.2	92.6	198.2	570.2	1155.4	1247.6	1251.9
52.5°	39.6	46.5	55.2	51.7	92.6	196.2	600.1	1222.9	1288.2	1285.3
55°	38.0	46.1	51.7	46.8	88.7	197.2	628.4	1312.3	1385.7	1369.5
57.5°	36.7	44.2	46.5	43.2	79.6	197.5	670.3	1387.7	1462.4	1464.7
60°	35.1	47.4	40.3	40.3	68.2	195.9	707.3	1386.4	1476.4	1491.3
62.5°	33.5	46.5	36.1	37.4	60.4	189.7	729.7	1305.5	1424.7	1452.3
65°	31.5	36.7	33.1	34.8	57.2	174.5	697.9	1205.1	1354.8	1384.4
67.5°	29.2	30.2	30.2	32.2	55.9	151.4	617.6	1094.3	1267.1	1302.9
70°	26.6	27.0	27.6	30.5	52.0	130.3	503.0	976.3	1172.9	1218.1
72.5°	24.0	24.4	24.4	27.6	48.7	112.4	356.1	773.6	979.3	1026.7
75°	21.1	21.4	21.1	24.0	42.6	84.1	211.5	489.3	584.2	637.8
77.5°	17.9	17.9	17.2	18.8	29.2	53.3	115.7	297.3	355.4	388.6
80°	14.6	13.3	11.0	11.4	15.9	30.5	51.7	170.6	194.9	203.4
82.5°	9.7	7.5	4.5	4.2	5.2	8.4	12.0	67.6	62.1	58.8
85°	1.9	0.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.3
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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