

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: P400917

Luminaire Tested: **ENV-SA1A-730-U-SLR-HSS**

Issue Date: 5/20/2020

Test Information

Test Method: LM-79-08
Report Number: P400917
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: ENV-SA1A-730-U-SLR-HSS
Description: ENTRI LED LUMINAIRE
(1) 70 CRI, 3000K, 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: 1872 lumens
Efficiency: N/A
Efficacy: 93.1 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 - 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

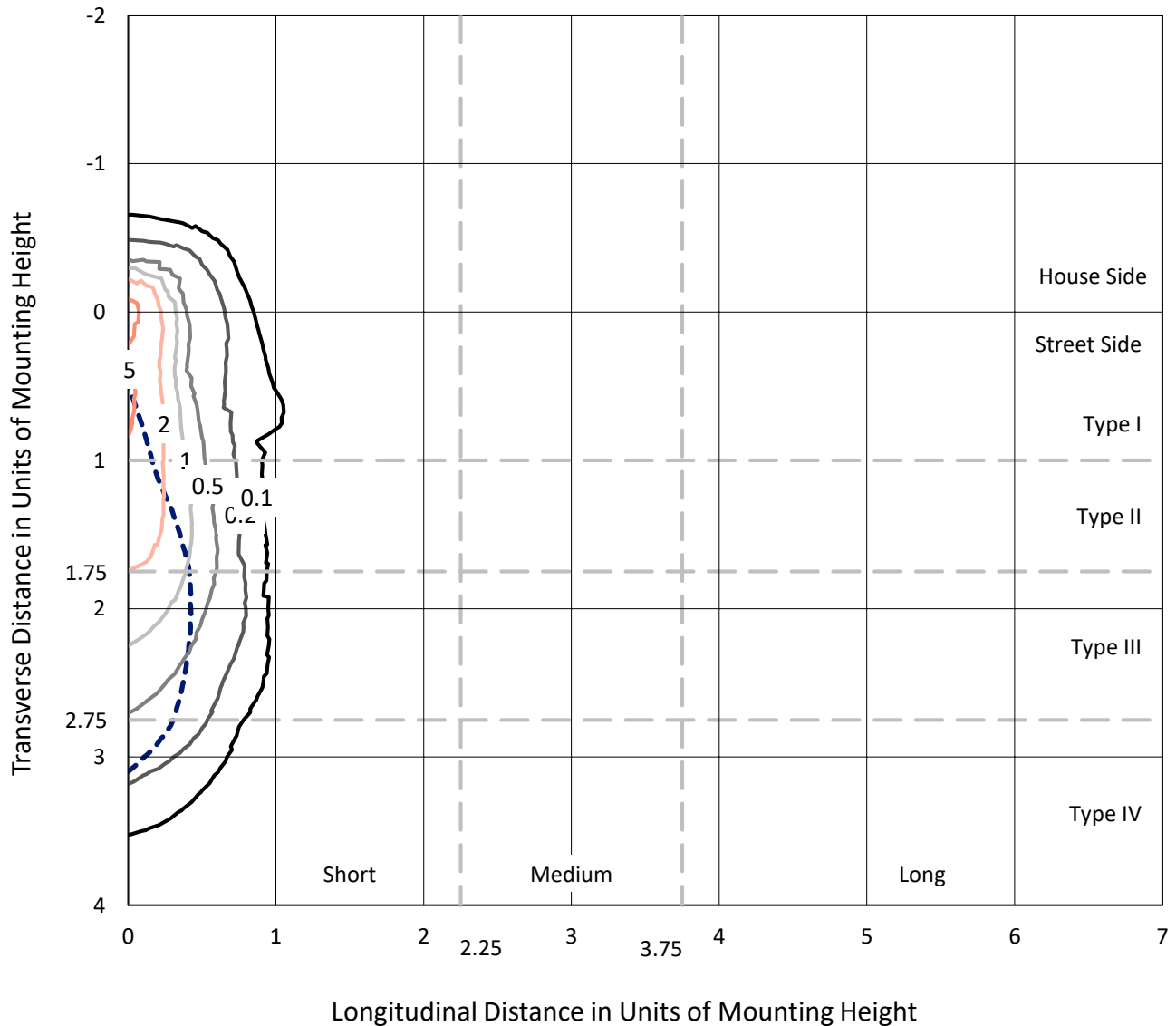


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Iso-Footcandle Lines of Horizontal Illumination

× Max cd
 - - - 1/2 Max cd

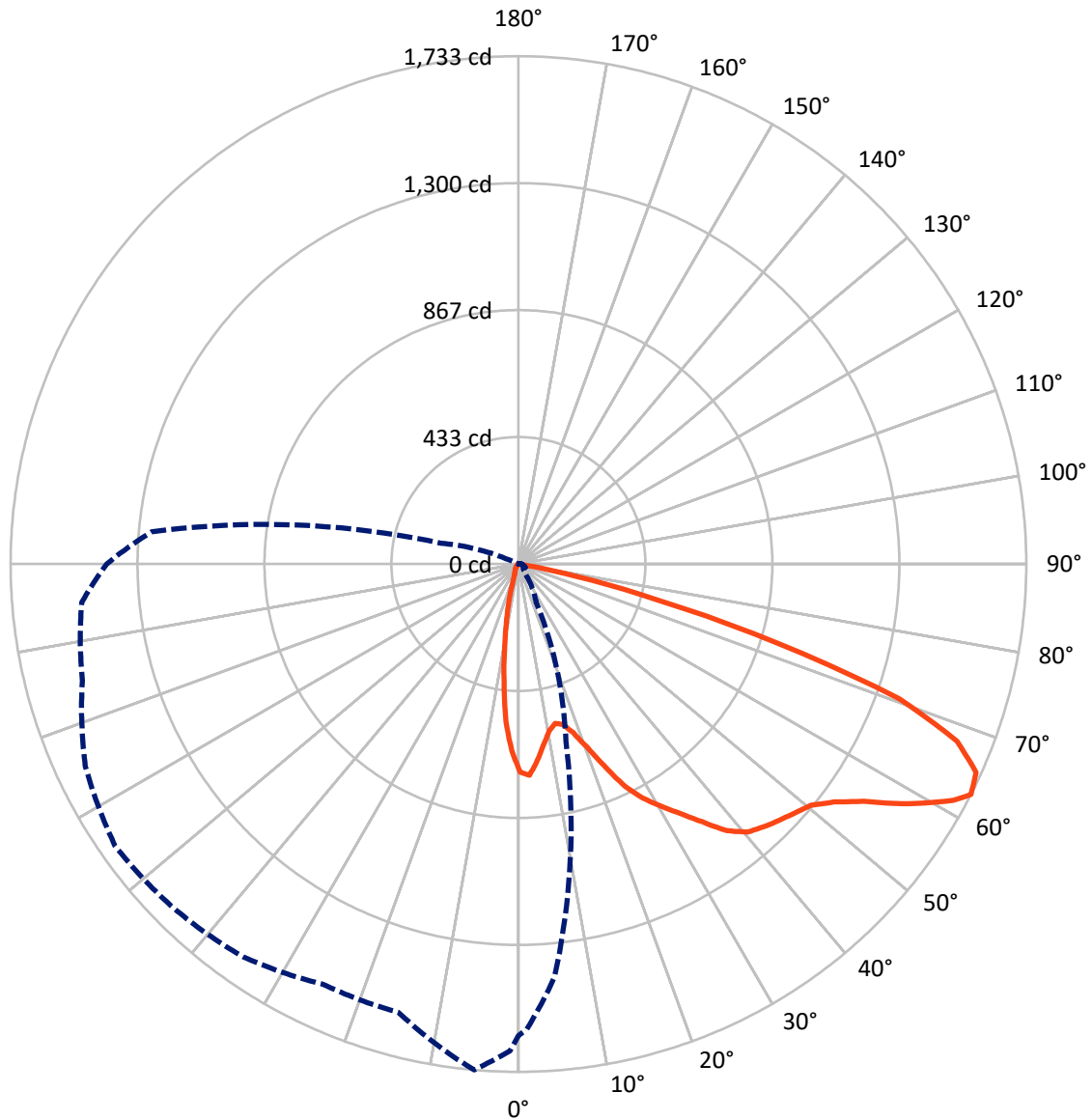


Based on 10 foot mounting height. Maximum calculated value = 7.1 fc
 Type IV - Short - Semi-Cutoff

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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	263.3	0.0	263.3
	% Fixture	14.1	0.0	14.1
Street Side	Lumens	1608.7	0.0	1608.7
	% Fixture	85.9	0.0	85.9
Total	Lumens	1872.0	0.0	1872.0
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	53.3	2.8
10°-20°	101.2	5.4
20°-30°	140.8	7.5
30°-40°	203.7	10.9
40°-50°	292.1	15.6
50°-60°	423.7	22.6
60°-70°	458.4	24.5
70°-80°	185.1	9.9
80°-90°	13.7	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°	1872.0	100.0
0°-180°	1872.0	100.0



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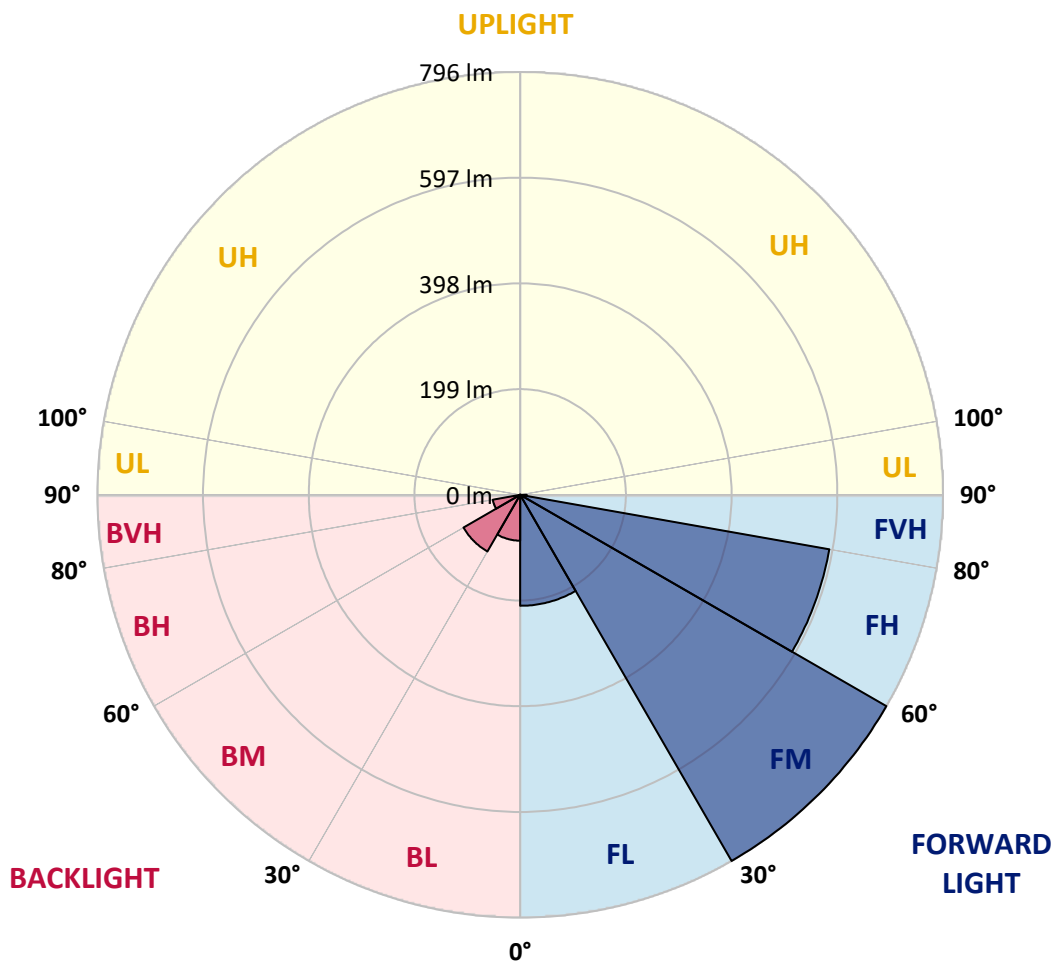
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	209.0	11.2			
FM (30°-60°)	796.2	42.5			
FH (60°-80°)	591.2	31.6			G0/660
FVH (80°-90°)	12.3	0.7			G1/100
BL (0°-30°)	86.3	4.6	B0/110		
BM (30°-60°)	123.2	6.6	B0/220		
BH (60°-80°)	52.4	2.8	B0/110		G0/110
BVH (80°-90°)	1.4	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-G1

Type IV Short





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CANDELA DISTRIBUTION (FULL):

	0°	1°	5°	15°	25°	35°	45°	55°	65°	75°	85°
0°	710.1	710.1	710.1	710.1	710.1	710.1	710.1	710.1	710.1	710.1	710.1
2.5°	713.1	710.1	703.4	689.0	668.2	654.9	646.4	635.3	623.8	620.1	612.7
5°	650.8	646.0	636.7	600.4	567.8	535.3	511.9	489.7	482.3	467.5	476.4
7.5°	590.8	588.6	567.1	520.1	468.2	426.3	399.7	367.1	357.5	342.3	330.0
10°	543.8	541.9	516.0	454.5	398.6	363.7	342.6	321.5	300.4	278.9	261.9
12.5°	520.1	516.0	486.0	419.7	367.8	338.9	316.7	288.6	266.0	237.1	216.3
15°	523.8	520.1	485.6	414.1	353.0	313.0	280.0	246.7	214.8	186.3	165.9
17.5°	553.4	551.9	510.1	418.9	335.2	282.3	238.2	193.4	155.6	124.8	107.4
20°	611.2	606.7	546.0	429.3	316.7	246.7	186.3	131.1	99.6	78.5	71.1
22.5°	682.7	672.7	602.7	444.5	298.9	208.5	134.8	88.2	71.1	63.0	57.8
25°	766.8	767.1	673.0	464.9	281.1	173.0	94.5	70.0	60.0	54.1	49.6
27.5°	834.9	829.7	736.4	485.2	261.9	141.9	79.3	61.1	52.6	46.3	43.7
30°	885.3	877.5	778.2	499.3	237.1	120.0	71.1	58.2	49.6	42.6	39.3
32.5°	937.2	927.5	816.0	507.1	222.2	109.6	63.0	50.7	44.4	41.5	37.0
35°	997.9	989.4	857.9	506.4	214.5	103.7	57.0	45.9	37.8	33.0	30.0
37.5°	1065.7	1048.3	901.2	503.0	208.9	100.8	51.9	42.6	35.2	30.0	26.3
40°	1123.8	1106.4	941.2	498.6	205.2	97.8	48.9	40.4	33.3	27.8	24.1
42.5°	1169.4	1152.7	978.6	493.0	203.4	91.5	50.4	38.9	31.9	26.3	22.2
45°	1208.7	1191.6	1023.1	492.3	202.6	87.0	49.6	38.5	31.1	24.4	20.7
47.5°	1254.2	1245.3	1081.6	504.5	199.7	83.7	45.6	41.5	30.7	23.7	19.6
50°	1321.6	1313.9	1158.3	540.8	195.2	80.4	41.5	45.6	30.7	23.0	18.5
52.5°	1416.1	1407.2	1279.0	588.2	191.1	76.7	37.4	44.1	31.1	21.9	17.8
55°	1513.9	1512.4	1393.1	638.6	187.4	68.5	33.0	39.6	30.4	20.4	16.7
57.5°	1590.6	1589.5	1478.7	672.7	180.4	55.2	30.0	33.0	28.2	18.5	15.2
60°	1622.1	1612.8	1488.0	672.7	164.1	45.6	27.4	25.9	28.5	16.7	13.3
61°	1622.1	1610.2	1471.3	662.7	155.9	43.3	25.9	24.1	29.3	15.9	12.6
62.5°	1609.5	1589.8	1414.3	626.7	143.0	43.3	23.7	21.5	26.7	15.2	11.5
65°	1553.5	1521.3	1280.5	544.9	129.6	44.4	20.4	18.2	19.3	13.0	10.0
67.5°	1415.4	1379.1	1107.2	431.2	118.9	47.0	17.0	15.9	14.8	11.5	8.9
70°	1166.1	1135.3	903.4	323.0	110.4	47.8	14.8	13.3	12.6	10.0	7.8
72.5°	745.3	694.5	564.1	218.9	88.5	41.5	12.2	12.6	11.5	8.1	6.3
75°	360.0	374.1	328.2	110.4	59.6	27.0	9.6	10.4	9.3	7.4	5.6
77.5°	161.1	158.2	156.7	28.2	15.2	9.3	5.9	7.0	7.4	6.7	4.8
80°	16.7	22.6	13.3	8.5	5.6	4.1	3.3	3.7	4.4	4.8	2.6
82.5°	0.7	0.4	0.4	1.1	1.1	0.7	0.0	0.0	0.7	0.7	0.4
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°	710.1	710.1	710.1	710.1	710.1	710.1	710.1	710.1	710.1	710.1	710.1
2.5°	606.0	616.0	611.6	610.4	616.4	613.4	622.3	622.7	629.3	638.2	643.8
5°	476.4	468.6	484.1	494.5	507.5	503.4	519.0	517.1	525.6	539.7	534.1
7.5°	330.8	331.9	340.0	349.3	384.1	391.2	396.3	400.4	400.0	403.4	409.3
10°	253.0	246.7	241.1	254.1	267.8	283.0	285.2	290.8	275.6	281.9	284.9
12.5°	207.1	199.7	187.4	180.8	184.1	193.0	196.7	200.0	191.1	191.5	198.2
15°	157.1	147.1	142.2	133.3	130.0	129.3	131.1	126.3	125.2	121.1	123.7
17.5°	102.2	99.3	96.7	94.8	92.2	91.5	84.8	73.3	66.7	65.2	65.2
20°	68.2	65.9	65.9	69.6	68.5	65.6	56.7	47.0	42.2	40.7	41.5
22.5°	55.9	54.5	52.2	52.2	53.7	51.5	43.3	36.3	33.0	33.0	33.0
25°	48.5	47.8	45.6	43.3	44.1	42.2	35.2	30.7	28.5	28.2	28.5
27.5°	42.6	42.2	39.6	37.4	37.4	35.9	30.4	26.3	24.8	24.1	24.4
30°	38.5	37.8	34.8	33.0	32.6	31.1	25.9	23.0	21.5	21.1	21.1
32.5°	35.6	34.1	31.5	29.6	28.5	26.3	22.6	19.6	18.2	17.8	17.8
35°	28.5	28.5	27.4	26.3	24.8	21.5	18.9	16.3	14.8	14.4	14.4
37.5°	24.8	23.3	21.5	21.9	21.1	18.2	15.6	13.0	11.9	11.5	11.5
40°	22.6	20.7	18.2	17.0	17.4	15.9	13.0	10.0	8.5	8.9	8.5
42.5°	20.4	18.9	15.9	13.3	13.0	13.3	10.0	7.0	5.9	5.9	5.9
45°	18.9	17.4	14.1	11.1	9.3	10.4	7.8	4.8	3.7	3.7	3.7
47.5°	17.8	16.3	12.6	9.3	6.7	7.0	5.6	3.0	2.2	1.5	1.9
50°	17.0	15.2	11.5	7.4	4.8	4.1	3.7	1.5	0.4	0.4	0.0
52.5°	15.9	14.4	10.4	6.3	3.7	2.6	1.9	0.4	0.0	0.0	0.0
55°	15.2	13.3	9.3	5.6	3.0	1.5	0.4	0.0	0.0	0.0	0.0
57.5°	13.7	12.2	8.1	4.4	2.2	0.7	0.0	0.0	0.0	0.0	0.0
60°	12.2	11.1	7.0	3.3	1.5	0.0	0.0	0.0	0.0	0.0	0.0
61°	11.5	10.4	6.7	3.0	1.1	0.0	0.0	0.0	0.0	0.0	0.0
62.5°	10.7	9.6	5.9	2.2	0.7	0.0	0.0	0.0	0.0	0.0	0.0
65°	9.3	8.1	5.2	1.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0
67.5°	8.1	7.4	4.4	0.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0
70°	7.0	6.3	3.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
72.5°	5.9	5.6	2.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
75°	5.2	4.4	2.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
77.5°	4.1	3.7	1.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
80°	2.2	1.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
82.5°	0.4	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°	710.1	710.1	710.1	710.1	710.1	710.1	710.1	710.1	710.1	710.1	710.1
2.5°	649.0	661.9	674.2	689.7	698.2	721.6	738.2	752.3	763.4	765.7	774.5
5°	549.0	567.1	579.0	611.6	629.7	668.6	698.6	734.2	766.0	783.4	799.4
7.5°	413.4	422.3	442.6	475.2	518.2	551.9	602.7	647.5	704.9	736.4	766.0
10°	291.9	300.0	330.0	364.1	403.4	460.1	521.5	580.4	638.6	679.0	713.8
12.5°	205.2	231.9	261.5	304.9	343.4	384.9	450.4	519.3	591.9	630.4	668.2
15°	134.8	158.5	199.7	254.1	302.3	342.6	403.8	484.5	576.7	619.7	655.6
17.5°	66.7	84.1	120.4	178.9	243.0	306.7	380.4	478.2	596.4	644.9	678.6
20°	41.9	47.0	60.4	101.1	174.8	268.9	363.0	490.8	649.7	703.4	725.3
22.5°	33.7	35.2	40.4	53.7	106.7	222.2	347.8	507.8	708.2	773.8	796.4
25°	28.9	30.0	33.0	39.6	61.9	166.7	329.3	537.8	776.4	855.7	861.2
27.5°	24.8	25.9	28.5	33.7	44.1	112.2	302.6	573.0	857.9	927.5	923.8
30°	21.1	22.6	25.2	28.9	34.8	75.9	253.0	608.6	917.9	973.8	967.9
32.5°	18.2	19.3	21.5	24.8	28.9	52.2	190.0	631.9	967.9	1017.5	1004.6
35°	14.8	15.9	17.8	20.7	23.3	37.0	143.7	632.7	1019.4	1071.6	1039.0
37.5°	11.9	12.6	14.4	17.0	19.3	28.9	105.6	620.4	1083.1	1142.0	1078.3
40°	8.9	10.0	11.9	14.1	16.3	24.4	78.9	590.8	1145.3	1212.4	1125.7
42.5°	5.9	7.4	9.3	11.5	15.6	19.6	55.6	541.5	1195.7	1275.0	1172.0
45°	3.7	4.8	7.0	9.6	15.9	15.6	37.0	482.7	1231.6	1322.8	1203.5
47.5°	1.9	3.0	5.2	9.3	14.1	11.5	23.0	426.3	1264.2	1350.5	1217.9
50°	0.4	1.1	3.7	11.5	11.9	8.5	15.2	391.2	1281.3	1343.5	1216.4
52.5°	0.0	0.0	2.6	11.1	8.5	6.7	11.9	386.0	1307.9	1352.8	1242.0
55°	0.0	0.0	1.1	4.8	4.8	5.6	10.4	378.9	1355.4	1408.0	1319.1
57.5°	0.0	0.0	0.0	2.2	3.0	4.4	9.6	360.4	1405.4	1466.5	1412.8
60°	0.0	0.0	0.0	1.1	1.9	3.7	8.5	318.2	1359.4	1466.8	1490.6
61°	0.0	0.0	0.0	1.1	1.5	3.3	7.8	303.4	1318.3	1443.1	1500.2
62.5°	0.0	0.0	0.0	0.4	1.1	2.6	6.7	274.1	1256.8	1405.0	1495.7
65°	0.0	0.0	0.0	0.0	0.4	1.5	5.2	221.5	1154.2	1309.1	1444.6
67.5°	0.0	0.0	0.0	0.0	0.0	0.4	3.3	155.9	1006.8	1200.5	1335.4
70°	0.0	0.0	0.0	0.0	0.0	0.0	1.5	90.4	811.2	1016.4	1143.8
72.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.7	41.1	526.4	784.9	902.3
75°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	17.4	324.1	567.1	674.2
77.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	7.8	219.7	377.5	453.8
80°	0.0	0.7	0.4	0.0	0.0	0.0	0.0	3.0	135.2	235.6	256.0
82.5°	0.0	0.4	0.4	0.0	0.0	0.0	0.0	0.0	70.0	166.3	169.7
85°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	29.3	35.2
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°	710.1	710.1	710.1	710.1	710.1	710.1	710.1	710.1	710.1	710.1
2.5°	782.7	784.9	786.4	783.8	767.9	759.0	741.2	721.6	714.9	713.1
5°	828.3	840.8	838.6	821.6	793.8	759.7	717.5	673.8	657.1	650.8
7.5°	819.4	852.3	858.6	840.8	793.8	734.2	673.0	621.2	597.1	590.8
10°	774.2	815.7	835.7	830.1	786.0	717.1	641.9	578.2	551.9	543.8
12.5°	730.5	770.5	783.1	787.5	763.4	703.8	626.4	557.8	530.4	520.1
15°	701.2	726.0	725.3	733.4	731.6	698.6	636.4	568.2	537.5	523.8
17.5°	691.6	684.2	674.5	681.2	694.2	700.1	669.0	605.3	569.3	553.4
20°	697.5	661.2	640.1	639.7	667.1	712.3	716.8	666.4	632.7	611.2
22.5°	727.9	649.7	617.1	617.9	651.6	730.5	771.9	746.4	709.3	682.7
25°	772.7	651.9	608.2	612.7	650.1	746.4	831.6	837.5	790.1	766.8
27.5°	818.3	671.2	608.6	613.4	656.4	754.9	865.7	904.6	863.8	834.9
30°	850.1	694.9	615.3	620.4	666.4	761.6	878.6	959.7	917.5	885.3
32.5°	880.1	719.3	626.0	631.2	686.4	775.3	903.1	1015.3	969.0	937.2
35°	909.4	743.4	646.0	655.3	718.6	800.1	927.9	1080.5	1042.0	997.9
37.5°	934.6	770.1	680.5	700.1	762.3	838.3	961.6	1154.6	1115.0	1065.7
40°	955.7	801.6	751.6	773.4	829.0	878.6	999.0	1203.1	1176.8	1123.8
42.5°	972.7	857.1	853.4	884.2	923.1	924.9	1009.8	1226.4	1216.4	1169.4
45°	1001.2	956.8	987.2	1037.5	1034.9	980.5	1006.8	1247.9	1248.7	1208.7
47.5°	1047.9	1081.6	1169.4	1203.5	1186.1	1056.4	1009.8	1269.0	1285.7	1254.2
50°	1114.6	1223.1	1337.9	1383.1	1332.4	1132.7	1036.1	1294.2	1344.6	1321.6
52.5°	1171.6	1330.2	1493.5	1533.9	1464.6	1214.2	1097.5	1348.7	1423.5	1416.1
55°	1253.1	1422.4	1604.3	1635.4	1579.8	1306.5	1180.1	1428.7	1510.2	1513.9
57.5°	1336.5	1505.7	1676.5	1708.0	1665.8	1421.3	1297.6	1543.5	1591.7	1590.6
60°	1429.1	1583.5	1709.1	1726.5	1702.4	1536.1	1423.9	1648.7	1647.6	1622.1
61°	1482.0	1608.3	1706.9	1712.1	1688.7	1569.8	1489.1	1689.1	1655.8	1622.1
62.5°	1540.6	1630.9	1679.5	1662.1	1636.9	1581.7	1583.5	1733.2	1661.3	1609.5
65°	1599.8	1574.3	1553.2	1469.8	1446.1	1472.8	1663.2	1716.5	1627.6	1553.5
67.5°	1498.3	1349.1	1303.5	1219.8	1126.1	1235.0	1587.6	1614.6	1513.9	1415.4
70°	1224.6	991.2	937.2	934.2	866.8	986.4	1400.2	1380.5	1256.5	1166.1
72.5°	959.7	676.4	602.7	619.7	606.4	735.3	1145.3	926.4	805.7	745.3
75°	752.3	480.8	414.9	411.9	397.5	500.8	838.6	488.2	403.0	360.0
77.5°	496.4	346.3	345.2	318.9	307.8	271.5	376.3	195.6	159.6	161.1
80°	286.0	212.2	248.9	197.4	197.8	159.3	152.2	28.5	23.0	16.7
82.5°	164.1	101.9	77.0	30.4	63.7	63.7	12.2	0.4	0.4	0.7
85°	15.9	4.8	0.0	0.0	0.0	0.0	0.0	0.0	0.4	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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