

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: P400955

Luminaire Tested: **ENV-SA1A-740-U-SL4-ULG**

Issue Date: 5/20/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P400955  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P#####)  
Test Lab: INNOVATION CENTER  
Issue Date: 5/20/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: INVUE  
Catalog Number: ENV-SA1A-740-U-SL4-ULG  
Description: ENTRI LED LUMINAIRE WITH UPLIGHT  
(1) 70 CRI, 4000K, 350mA LIGHTSQUARE WITH 16 LEDS AND TYPE IV SPILL LIGHT  
ELIMINATOR OPTICS  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 4370 lumens  
Efficiency: N/A  
Efficacy: 118.8 lumens/watt  
Luminous Opening: Rectangular (W 0.5' x L: 0.5' x H: 0')  
IES Classification: Type IV - Medium - Non-Cutoff  
BUG Rating: B1 - U4 - G1

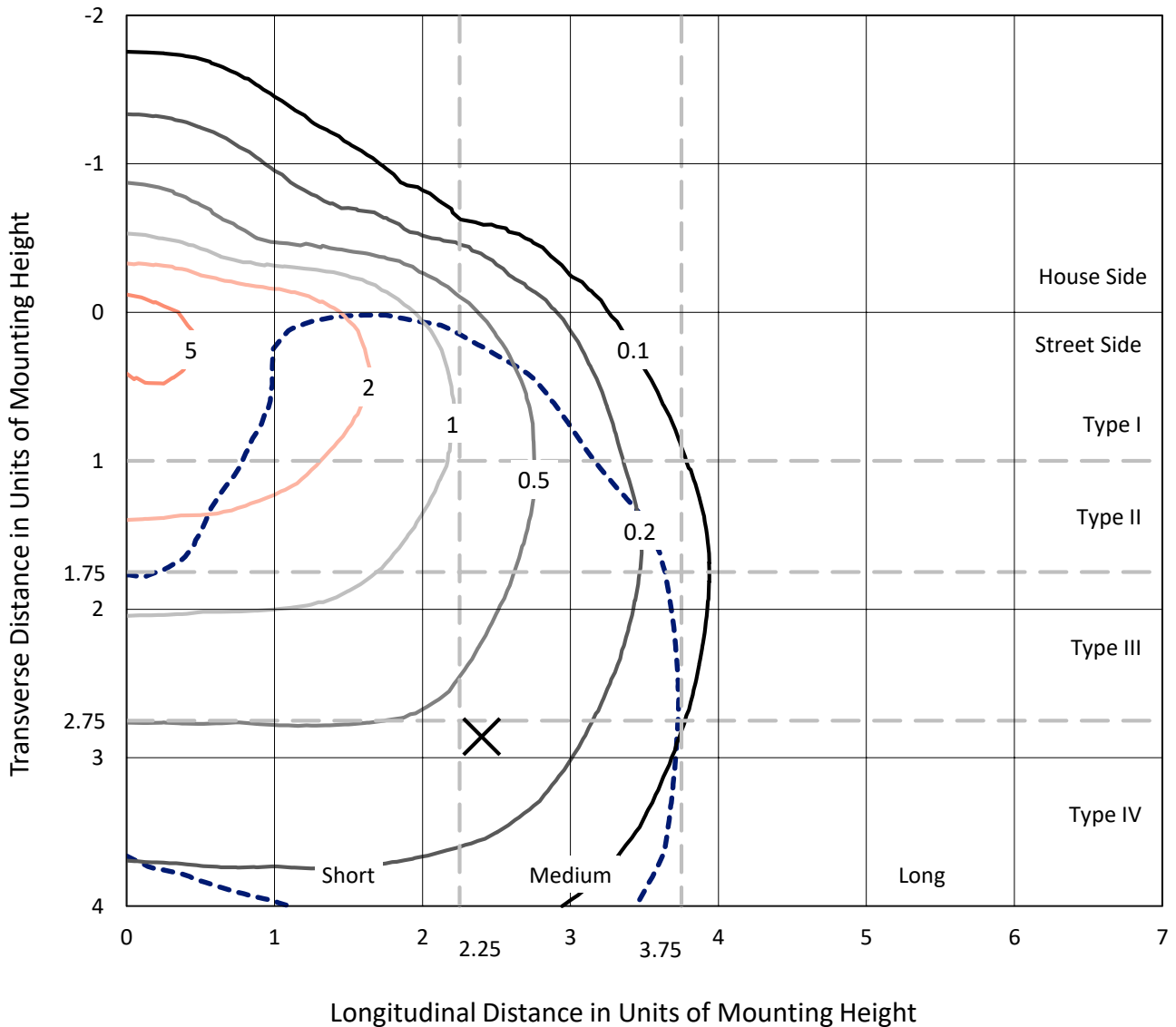
Input Watts (W): 36.8  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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### Iso-Footcandle Lines of Horizontal Illumination

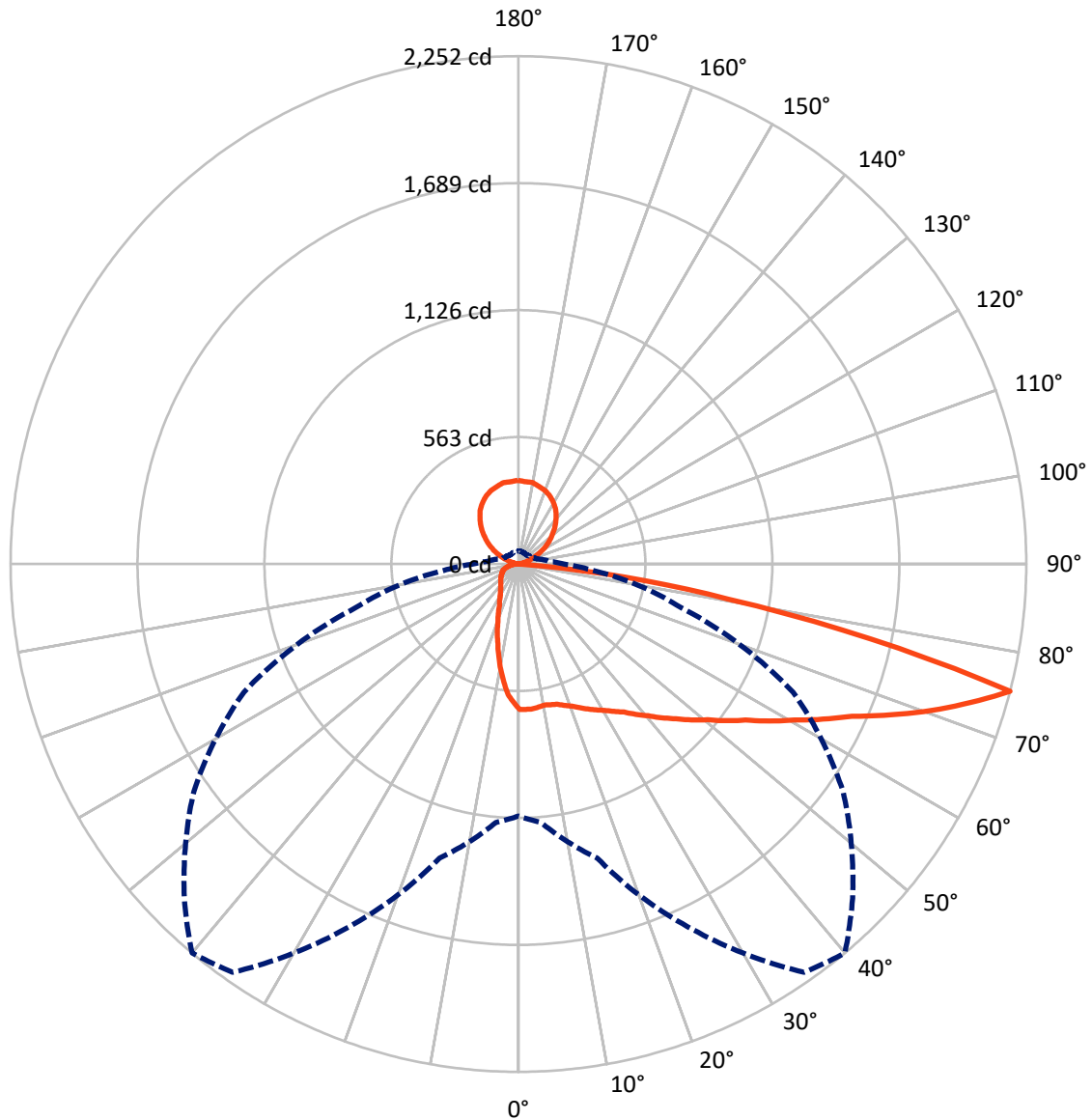
× Max cd  
 - - - 1/2 Max cd



Based on 10 foot mounting height. Maximum calculated value = 6.5 fc  
 Type IV - Medium - Non-Cutoff

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### Luminous Intensity Polar Plot



— Vertical Plane Through 40-Deg Lateral    - - - Horizontal Cone Through 75-Deg Vertical

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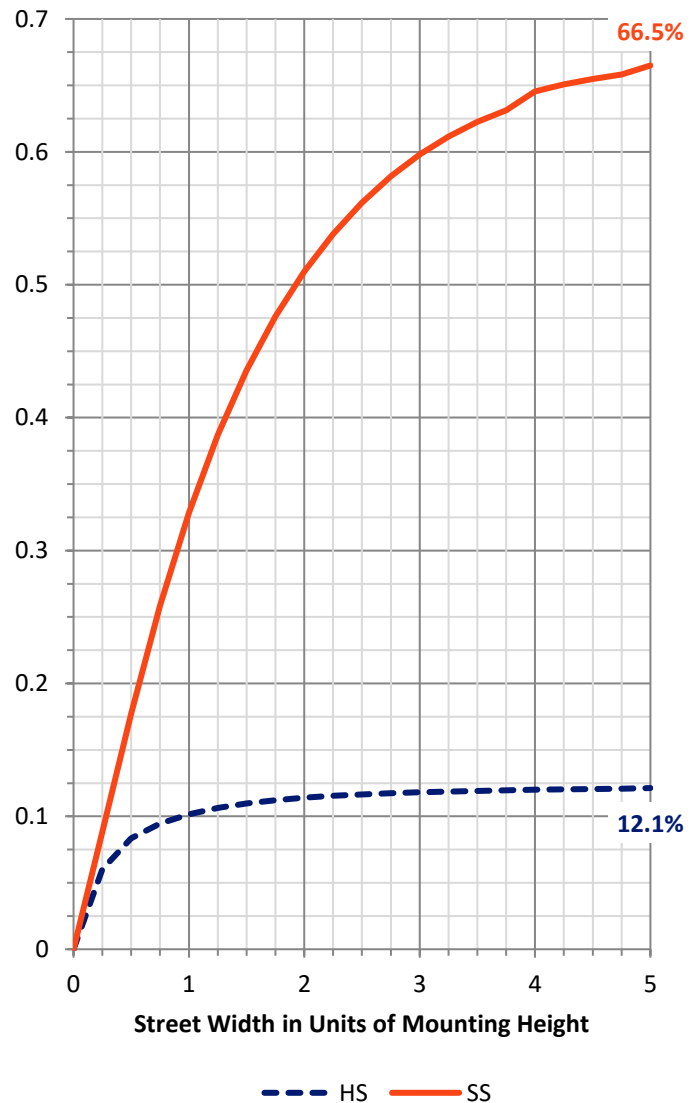
**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	539.5	460.1	999.7
	% Fixture	12.3	10.5	22.9
<b>Street Side</b>	Lumens	2910.2	460.1	3370.3
	% Fixture	66.6	10.5	77.1
<b>Total</b>	Lumens	3449.7	920.3	4370.0
	% Fixture	78.9	21.1	100.0

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	57.1	1.3
10°-20°	147.1	3.4
20°-30°	225.4	5.2
30°-40°	325.3	7.4
40°-50°	467.6	10.7
50°-60°	644.9	14.8
60°-70°	812.3	18.6
70°-80°	687.9	15.7
80°-90°	82.0	1.9
90°-100°	4.5	0.1
100°-110°	31.1	0.7
110°-120°	88.4	2.0
120°-130°	144.8	3.3
130°-140°	178.5	4.1
140°-150°	182.5	4.2
150°-160°	153.9	3.5
160°-170°	101.3	2.3
170°-180°	35.1	0.8
0°-90°	3449.7	78.9
0°-180°	4370.0	100.0

**Coefficient of Utilization**



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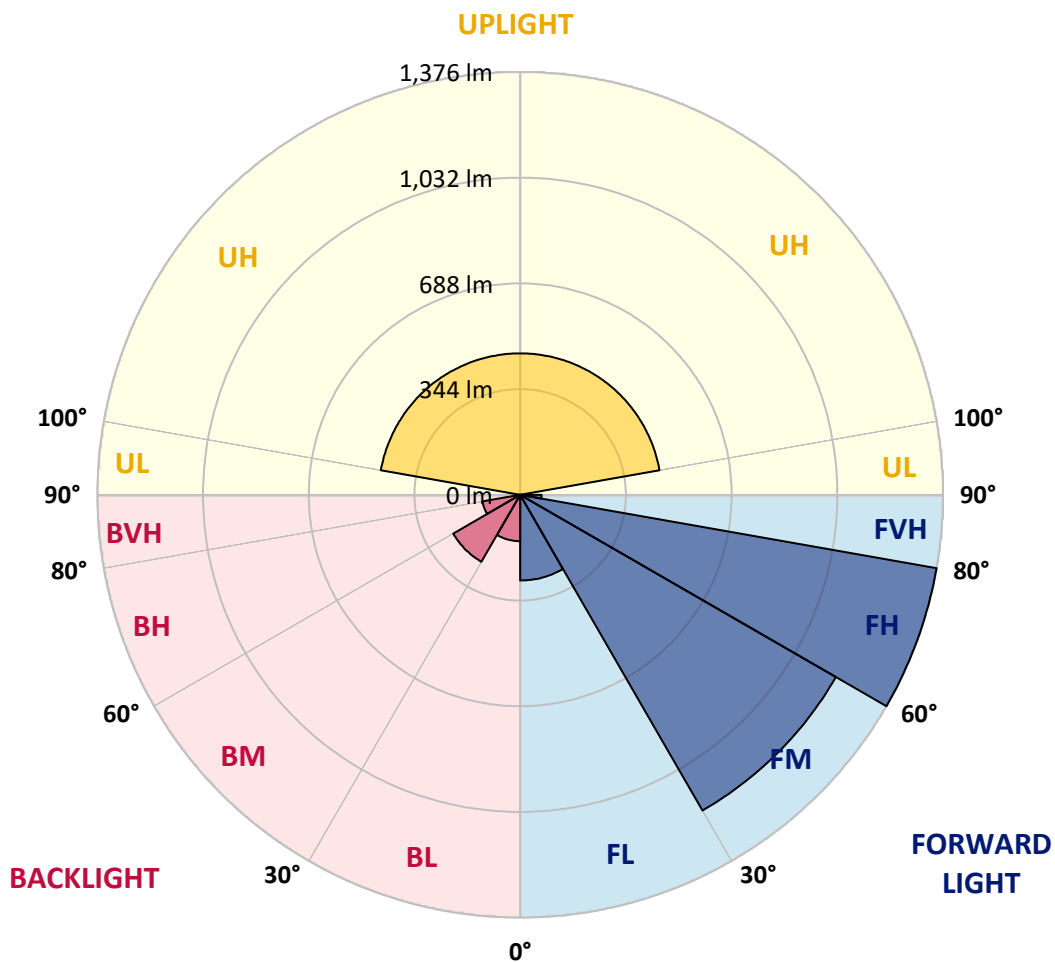
CATALOG NUMBER: ENV-SA1A-740-U-SL4-ULG

**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	278.8	6.4			
FM (30°-60°)	1186.2	27.1			
FH (60°-80°)	1375.9	31.5			G1/1800
FVH (80°-90°)	69.3	1.6			G1/100
BL (0°-30°)	150.9	3.5	B1/500		
BM (30°-60°)	251.7	5.8	B1/1000		
BH (60°-80°)	124.4	2.8	B1/500		G1/500
BVH (80°-90°)	12.6	0.3			G1/100
UL (90°-100°)	4.5	0.1		U1/10	
UH (100°-180°)	460.1	10.5		U3/500	

**BUG Rating: B1-U4-G1**

Type IV Medium



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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	645.1	645.1	645.1	645.1	645.1	645.1	645.1	645.1	645.1	645.1	645.1
5°	650.8	650.8	650.8	650.8	650.3	649.8	648.2	646.6	645.6	644.6	642.2
10°	633.7	633.7	633.9	634.2	635.2	636.3	635.8	635.2	635.8	635.2	632.1
15°	614.5	617.1	621.0	624.9	630.1	635.2	638.4	641.5	645.1	646.1	643.3
20°	614.5	618.1	627.7	637.3	647.2	657.0	663.5	670.0	672.5	673.6	669.2
25°	652.3	655.5	665.0	674.6	686.0	697.4	702.6	707.8	711.9	709.3	702.3
30°	718.7	722.3	730.6	738.9	745.3	751.8	752.1	752.3	752.9	751.3	743.0
35°	792.2	792.8	801.6	810.4	811.4	812.4	809.1	805.7	806.2	809.3	798.7
40°	851.3	854.9	865.3	875.7	875.1	874.6	877.5	880.3	885.0	888.6	884.0
45°	885.0	892.2	911.9	931.6	940.4	949.2	957.5	965.8	978.8	990.7	993.8
50°	937.3	941.5	961.2	980.8	1007.8	1034.7	1048.2	1061.7	1086.0	1112.5	1126.2
55°	1024.9	1022.8	1034.0	1045.1	1088.9	1132.7	1157.8	1182.9	1221.8	1270.5	1288.9
60°	1116.1	1110.4	1122.8	1135.2	1189.7	1244.1	1298.2	1352.4	1404.7	1449.8	1467.6
65°	1191.7	1196.4	1222.3	1248.2	1324.6	1401.1	1489.7	1578.3	1626.4	1657.5	1662.2
70°	1272.6	1284.5	1338.9	1393.3	1508.1	1622.8	1748.7	1874.6	1944.1	1973.6	1943.0
75°	1117.6	1150.3	1249.8	1349.2	1561.4	1773.6	1991.7	2209.9	2251.8	2095.4	1926.2
80°	365.3	384.5	447.9	511.4	607.5	703.6	825.1	946.6	943.0	878.3	712.7
85°	0.5	0.5	0.5	0.5	0.5	0.5	1.0	1.6	13.5	11.4	23.8
90°	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
95°	2.6	2.6	2.9	3.2	3.5	3.7	3.7	3.7	3.7	3.7	3.7
100°	4.2	4.2	4.5	4.8	5.0	5.3	5.9	6.4	8.8	11.1	13.3
105°	11.1	11.7	13.0	14.3	16.7	19.1	22.3	25.4	29.4	33.4	35.8
110°	35.0	36.1	37.7	39.2	42.7	46.1	50.1	54.0	57.3	60.4	62.0
115°	74.2	73.7	75.8	77.9	81.1	84.2	86.7	89.1	90.7	92.2	93.6
120°	119.3	118.2	119.0	119.8	121.7	123.5	124.6	125.6	127.2	128.8	129.6
125°	157.9	155.8	156.4	156.9	157.7	158.5	160.1	161.7	163.0	164.3	165.1
130°	192.4	191.3	191.6	191.9	193.0	194.0	195.1	196.1	196.6	197.2	198.5
135°	227.4	225.8	225.8	225.8	227.4	229.0	229.8	230.6	231.1	231.6	233.2
140°	258.7	257.1	257.6	258.1	258.7	259.2	259.7	260.3	261.9	263.4	264.3
145°	291.5	289.4	288.9	288.3	289.2	290.0	290.7	291.5	291.8	292.0	293.4
150°	315.4	313.8	314.0	314.3	314.3	314.3	314.3	314.3	314.3	314.3	315.4
155°	333.4	331.2	331.2	331.2	331.8	332.3	333.2	333.9	333.4	332.9	332.3
160°	351.4	349.8	349.5	349.3	348.5	347.7	347.5	347.2	347.2	347.2	348.0
165°	360.9	359.4	358.9	358.3	358.3	358.3	357.5	356.7	356.7	356.7	356.4
170°	370.0	368.4	367.6	366.8	366.8	366.8	367.1	367.3	366.8	366.3	364.9
175°	371.0	370.0	369.7	369.4	368.9	368.4	367.4	366.3	366.0	365.7	365.7
180°	371.0	371.0	371.0	371.0	371.0	371.0	371.0	371.0	371.0	371.0	371.0



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**CANDELA DISTRIBUTION (continued):**

	55°	60°	65°	70°	75°	80°	85°	90°	95°	100°	105°
0°	645.1	645.1	645.1	645.1	645.1	645.1	645.1	645.1	645.1	645.1	645.1
5°	639.9	638.4	636.8	634.2	631.6	627.7	623.8	620.2	618.1	615.0	611.9
10°	629.0	626.2	623.3	618.4	613.5	607.3	601.0	593.3	585.5	575.4	565.3
15°	640.4	636.5	632.7	626.7	620.7	612.7	604.7	591.7	577.2	557.0	536.8
20°	664.8	659.6	654.4	647.4	640.4	628.2	616.1	596.4	572.5	539.4	506.2
25°	695.3	688.6	681.9	674.4	666.8	650.3	633.7	605.2	565.8	518.1	470.5
30°	734.7	728.5	722.3	717.4	712.4	692.8	673.1	630.1	571.5	502.9	434.2
35°	788.1	788.1	788.1	791.7	795.3	772.3	749.2	682.9	596.9	498.5	400.0
40°	879.3	887.6	895.9	916.1	936.3	904.7	873.1	777.7	651.3	508.0	364.8
45°	996.9	1020.0	1043.0	1076.4	1109.9	1070.0	1030.1	901.0	728.0	532.1	336.3
50°	1139.9	1174.4	1208.8	1251.1	1293.3	1235.0	1176.7	1011.9	793.8	556.7	319.7
55°	1307.3	1347.9	1388.6	1419.5	1450.3	1363.8	1277.2	1083.4	826.4	570.0	313.5
60°	1485.5	1519.2	1552.9	1560.4	1567.9	1447.2	1326.4	1101.6	807.3	544.3	281.4
65°	1666.9	1685.8	1704.7	1655.2	1605.7	1434.2	1262.7	993.8	647.2	418.9	190.7
70°	1912.5	1849.5	1786.6	1618.2	1449.8	1198.5	947.2	672.5	389.1	259.3	129.5
75°	1757.0	1550.0	1343.0	1044.3	745.6	538.6	331.6	200.0	136.3	111.1	86.0
80°	547.2	380.3	213.5	165.5	117.6	101.6	85.5	79.8	74.1	64.5	54.9
85°	36.3	27.5	18.7	13.7	8.8	11.9	15.0	19.2	25.4	22.3	19.2
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
95°	3.7	4.0	4.2	4.0	3.7	3.7	3.7	3.7	3.7	3.7	3.7
100°	15.4	14.6	13.8	13.0	12.2	11.1	10.1	10.1	10.1	11.1	12.2
105°	38.2	37.6	37.1	35.8	34.5	33.4	32.3	32.3	32.3	33.4	34.5
110°	63.6	63.9	64.1	63.6	63.1	62.3	61.5	62.0	61.5	62.3	63.1
115°	94.9	95.6	96.5	95.6	94.9	94.4	93.8	94.4	93.8	94.4	94.9
120°	130.4	131.5	132.5	131.2	129.8	129.3	128.8	128.8	128.8	129.3	129.8
125°	165.9	166.4	166.9	165.7	164.3	164.3	164.3	164.3	164.3	164.3	164.3
130°	199.8	200.9	201.9	201.9	201.9	201.4	200.9	201.4	200.9	201.4	201.9
135°	234.8	236.1	237.5	237.2	236.9	237.7	238.5	239.1	238.5	237.7	236.9
140°	265.0	265.5	266.1	266.6	267.2	268.4	269.8	270.8	269.8	268.5	267.2
145°	294.7	296.3	297.9	297.6	297.4	296.5	295.8	296.8	295.8	296.6	297.4
150°	316.4	317.2	318.0	318.8	319.6	320.4	321.2	323.3	321.2	320.4	319.6
155°	331.8	333.1	334.5	335.8	337.1	337.6	338.1	339.7	338.1	337.6	337.1
160°	348.8	350.4	351.9	351.1	350.4	350.1	349.8	353.0	349.8	350.1	350.4
165°	356.2	357.5	358.8	359.6	360.4	359.9	359.4	361.5	359.4	359.9	360.4
170°	363.6	364.4	365.2	366.5	367.8	368.4	368.9	371.6	368.9	368.4	367.8
175°	365.7	367.1	368.4	368.7	368.9	368.4	367.8	370.5	367.8	368.4	368.9
180°	371.0	371.0	371.0	371.0	371.0	371.0	371.0	371.0	371.0	371.0	371.0





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**CANDELA DISTRIBUTION (continued):**

	110°	115°	120°	125°	130°	135°	140°	145°	150°	155°	160°
0°	645.1	645.1	645.1	645.1	645.1	645.1	645.1	645.1	645.1	645.1	645.1
5°	608.3	604.7	600.5	596.4	589.9	583.4	581.4	579.3	575.4	571.5	569.2
10°	552.3	539.4	525.9	512.4	499.0	485.5	473.8	462.2	454.2	446.1	440.2
15°	511.9	487.1	461.1	435.2	410.4	385.5	364.8	344.0	328.8	313.5	303.9
20°	469.2	432.1	396.4	360.6	329.3	297.9	272.5	247.2	229.5	211.9	203.1
25°	419.7	368.9	326.9	285.0	253.9	222.8	203.1	183.4	173.1	162.7	159.1
30°	368.4	302.6	259.6	216.6	195.1	173.6	163.2	152.9	148.2	143.5	141.7
35°	322.0	244.0	207.3	170.5	157.5	144.6	139.4	134.2	131.9	129.5	128.8
40°	279.8	194.8	168.9	143.0	134.5	125.9	122.8	119.7	118.7	117.6	117.4
45°	248.7	161.1	143.5	125.9	119.7	113.5	111.1	108.8	108.3	107.8	107.5
50°	232.1	144.6	129.5	114.5	109.6	104.7	102.6	100.5	99.7	99.0	98.7
55°	225.1	136.8	121.8	106.7	101.3	95.9	94.0	92.2	91.7	91.2	90.7
60°	206.7	132.1	117.6	103.1	95.3	87.6	85.5	83.4	83.9	84.5	84.5
65°	153.1	115.5	105.7	95.9	88.3	80.8	78.2	75.6	78.2	80.8	82.4
70°	111.1	92.7	87.0	81.3	75.9	70.5	68.7	66.8	69.7	72.5	74.4
75°	76.7	67.4	64.5	61.7	58.3	54.9	54.4	53.9	54.7	55.4	56.0
80°	49.2	43.5	42.0	40.4	39.4	38.3	38.6	38.9	39.1	39.4	40.7
85°	18.7	18.1	19.2	20.2	21.2	22.3	23.6	24.9	25.6	26.4	26.9
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
95°	4.0	4.2	4.0	3.7	3.7	3.7	3.7	3.7	3.7	3.7	3.5
100°	13.0	13.8	14.6	15.4	13.3	11.1	8.8	6.4	5.9	5.3	5.0
105°	35.8	37.1	37.7	38.2	35.8	33.4	29.4	25.4	22.3	19.1	16.7
110°	63.6	64.1	63.9	63.6	62.0	60.4	57.3	54.0	50.1	46.1	42.7
115°	95.7	96.5	95.7	94.9	93.6	92.2	90.7	89.1	86.7	84.2	81.1
120°	131.2	132.5	131.5	130.4	129.6	128.8	127.2	125.6	124.6	123.5	121.7
125°	165.7	166.9	166.4	165.9	165.1	164.3	163.0	161.7	160.1	158.5	157.7
130°	201.9	201.9	200.9	199.8	198.5	197.2	196.6	196.1	195.1	194.0	193.0
135°	237.2	237.5	236.2	234.8	233.2	231.6	231.1	230.6	229.8	229.0	227.4
140°	266.6	266.1	265.5	265.0	264.3	263.4	261.9	260.3	259.7	259.2	258.7
145°	297.6	297.9	296.3	294.7	293.4	292.0	291.8	291.5	290.7	290.0	289.2
150°	318.8	318.0	317.3	316.4	315.4	314.3	314.3	314.3	314.3	314.3	314.3
155°	335.8	334.5	333.2	331.8	332.3	332.9	333.4	333.9	333.2	332.3	331.8
160°	351.1	351.9	350.4	348.8	348.0	347.2	347.2	347.2	347.5	347.7	348.5
165°	359.6	358.8	357.5	356.2	356.4	356.7	356.7	356.7	357.5	358.3	358.3
170°	366.5	365.2	364.4	363.6	364.9	366.3	366.8	367.3	367.1	366.8	366.8
175°	368.7	368.4	367.1	365.7	365.7	365.7	366.0	366.3	367.4	368.4	368.9
180°	371.0	371.0	371.0	371.0	371.0	371.0	371.0	371.0	371.0	371.0	371.0



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**CANDELA DISTRIBUTION (continued):**

	165°	170°	175°	180°
0°	645.1	645.1	645.1	645.1
5°	566.8	566.1	565.3	566.3
10°	434.2	429.5	424.9	424.9
15°	294.3	288.3	282.4	286.5
20°	194.3	190.4	186.5	186.5
25°	155.4	153.9	152.3	151.8
30°	139.9	139.4	138.9	138.9
35°	128.0	128.0	128.0	128.5
40°	117.1	117.6	118.1	119.2
45°	107.3	107.8	108.3	109.3
50°	98.4	98.2	97.9	98.4
55°	90.2	89.4	88.6	88.6
60°	84.5	83.4	82.4	82.4
65°	83.9	83.2	82.4	81.9
70°	76.2	76.7	77.2	77.2
75°	56.5	57.3	58.0	58.0
80°	42.0	42.2	42.5	42.0
85°	27.5	27.5	27.5	27.5
90°	0.0	0.0	0.0	0.0
95°	3.2	2.9	2.6	2.6
100°	4.8	4.5	4.2	4.2
105°	14.3	13.0	11.7	11.1
110°	39.2	37.7	36.1	35.0
115°	77.9	75.8	73.7	74.2
120°	119.8	119.0	118.2	119.3
125°	156.9	156.4	155.8	157.9
130°	191.9	191.6	191.3	192.4
135°	225.8	225.8	225.8	227.4
140°	258.1	257.6	257.1	258.7
145°	288.3	288.9	289.4	291.5
150°	314.3	314.0	313.8	315.4
155°	331.2	331.2	331.2	333.4
160°	349.3	349.5	349.8	351.4
165°	358.3	358.9	359.4	360.9
170°	366.8	367.6	368.4	370.0
175°	369.4	369.7	370.0	371.0
180°	371.0	371.0	371.0	371.0

(END OF REPORT)