

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: P401127

Luminaire Tested: **ENV-SA1B-740-U-SL2-ULG**

Issue Date: 5/20/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P401127  
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-SA1B-740-U-SL2-ULG  
Description: ENTRI LED LUMINAIRE WITH UPLIGHT  
(1) 70 CRI, 4000K, 450mA LIGHTSQUARE WITH 16 LEDS AND TYPE II SPILL LIGHT  
ELIMINATOR OPTICS  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 5164 lumens  
Efficiency: N/A  
Efficacy: 122.7 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 - U5 - G1

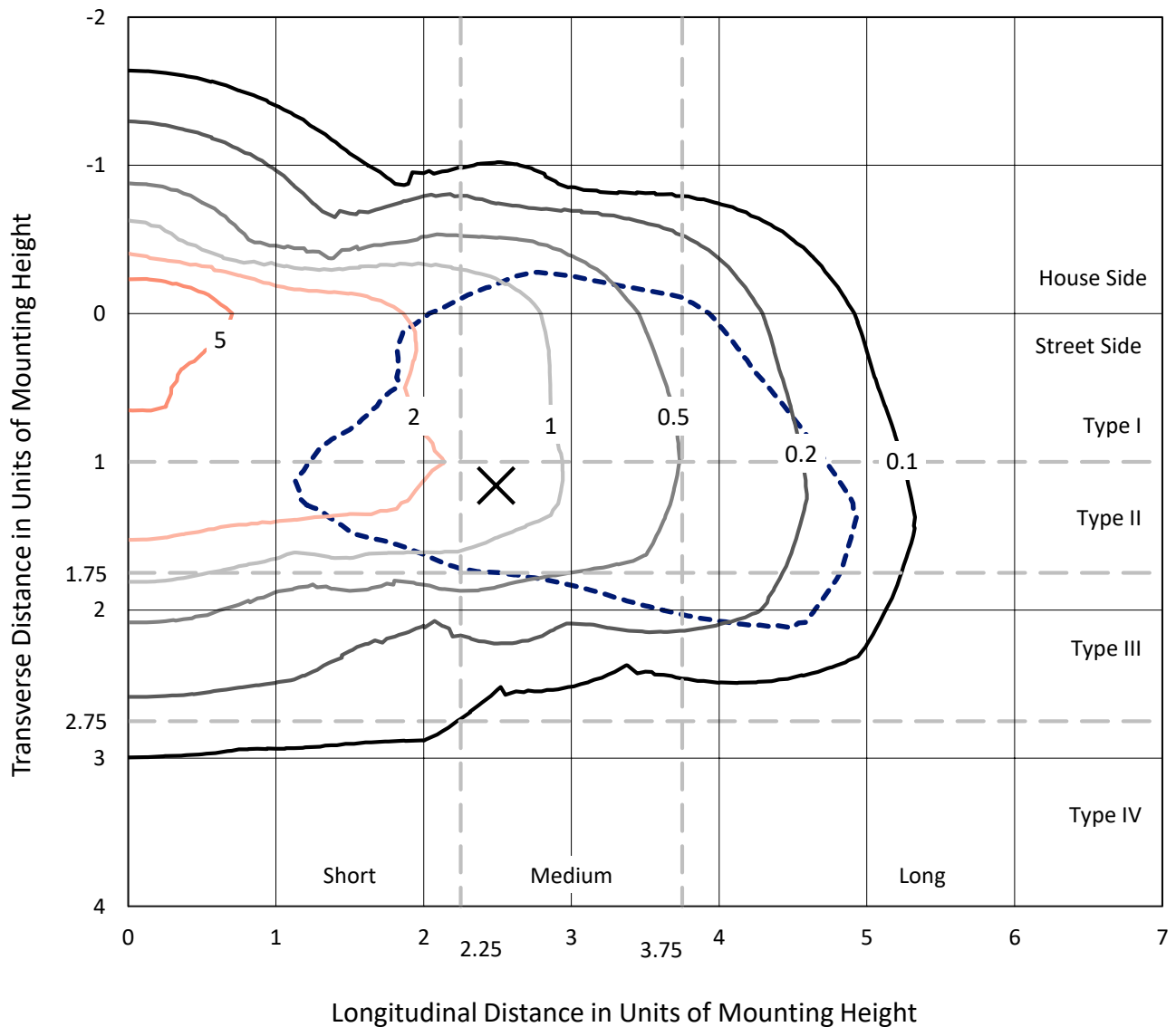
Input Watts (W): 42.1  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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### Iso-Footcandle Lines of Horizontal Illumination

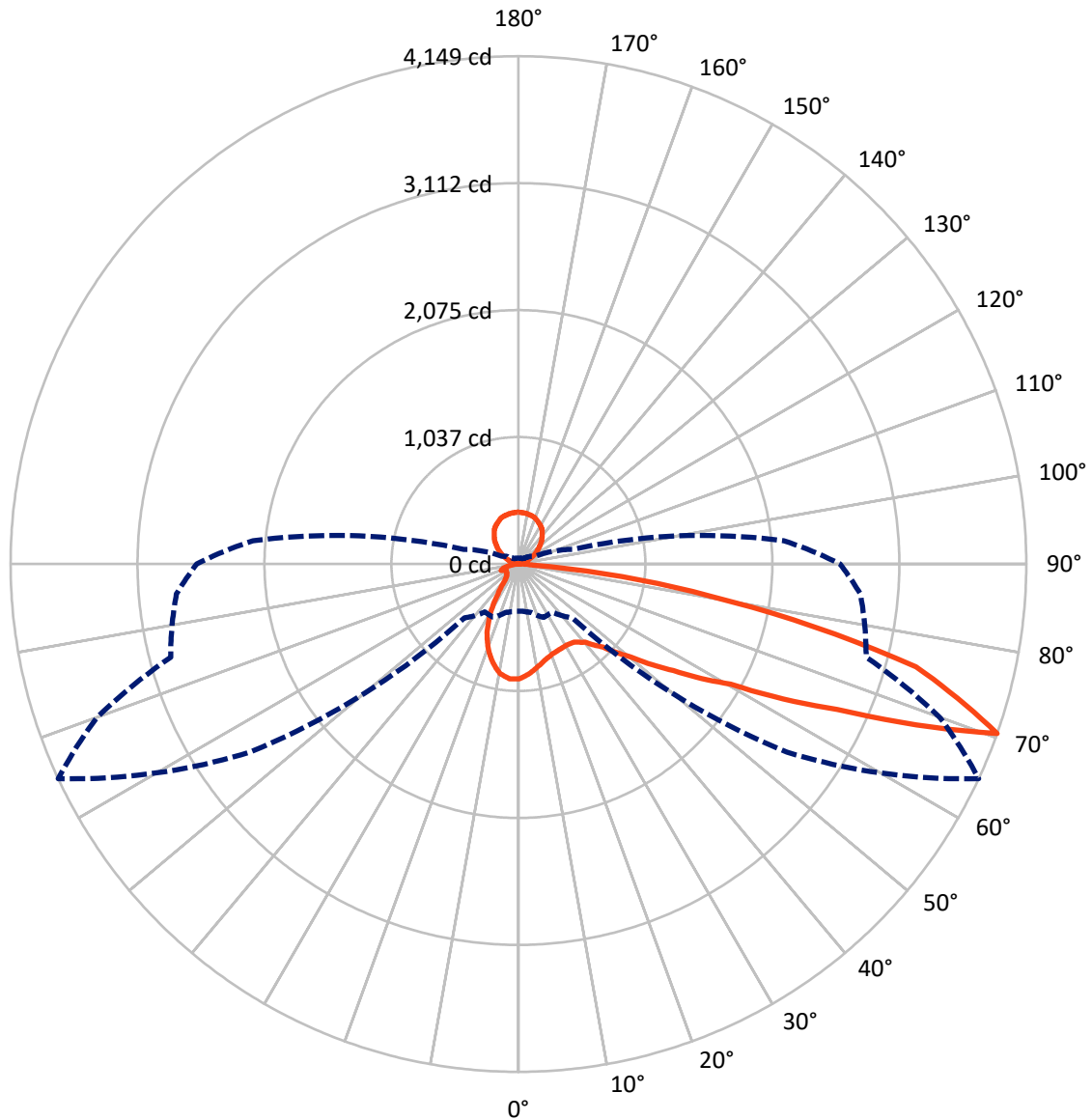
× Max cd  
 - - - 1/2 Max cd



Based on 10 foot mounting height. Maximum calculated value = 9.4 fc  
 Type III - Medium - Non-Cutoff

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### Luminous Intensity Polar Plot



— Vertical Plane Through 65-Deg Lateral    - - - Horizontal Cone Through 70-Deg Vertical

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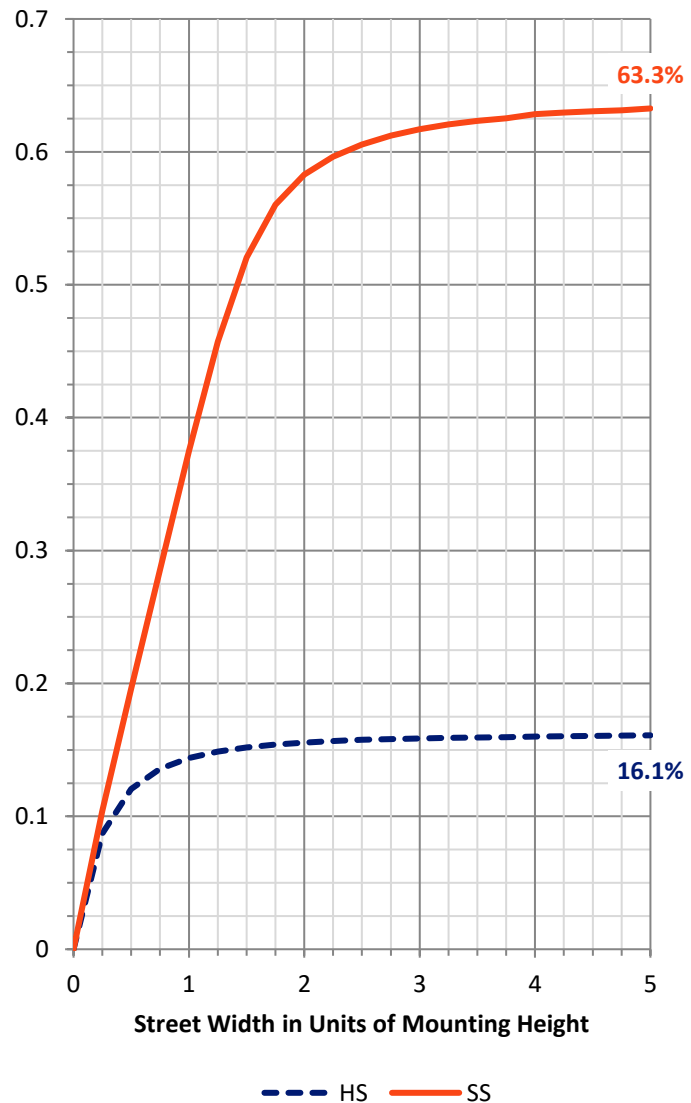
**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	843.3	525.9	1369.2
	% Fixture	16.3	10.2	26.5
<b>Street Side</b>	Lumens	3269.0	525.9	3794.9
	% Fixture	63.3	10.2	73.5
<b>Total</b>	Lumens	4112.3	1051.7	5164.0
	% Fixture	79.6	20.4	100.0

**Coefficient of Utilization**

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	83.3	1.6
10°-20°	205.0	4.0
20°-30°	276.8	5.4
30°-40°	364.2	7.1
40°-50°	519.0	10.1
50°-60°	787.4	15.2
60°-70°	983.7	19.0
70°-80°	778.5	15.1
80°-90°	114.4	2.2
90°-100°	5.1	0.1
100°-110°	35.5	0.7
110°-120°	101.1	2.0
120°-130°	165.5	3.2
130°-140°	204.0	4.0
140°-150°	208.6	4.0
150°-160°	175.9	3.4
160°-170°	115.8	2.2
170°-180°	40.1	0.8
0°-90°	4112.3	79.6
0°-180°	5164.0	100.0



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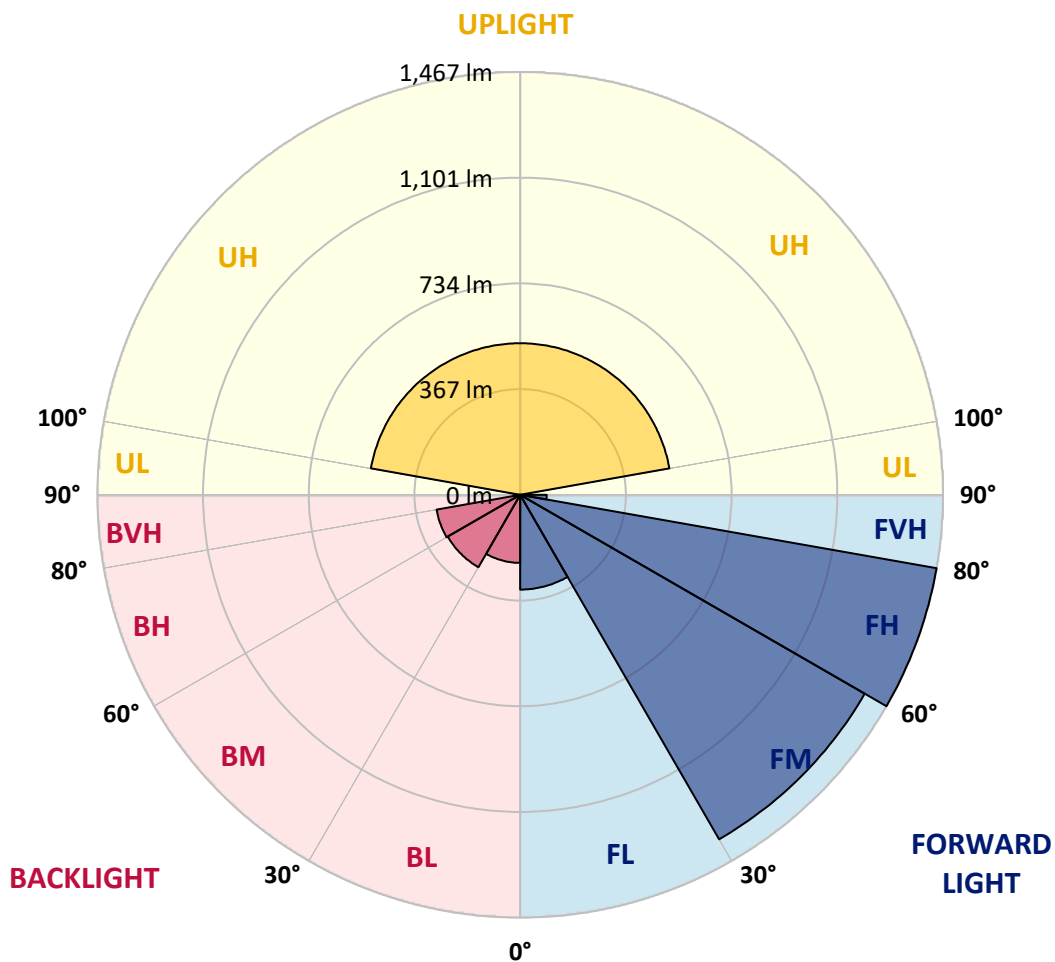
CATALOG NUMBER: ENV-SA1B-740-U-SL2-ULG

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

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	328.9	6.4			
FM (30°-60°)	1380.6	26.7			
FH (60°-80°)	1467.4	28.4			G1/1800
FVH (80°-90°)	92.1	1.8			G1/100
BL (0°-30°)	236.3	4.6	B1/500		
BM (30°-60°)	290.0	5.6	B1/1000		
BH (60°-80°)	294.7	5.7	B1/500		G1/500
BVH (80°-90°)	22.3	0.4			G1/100
UL (90°-100°)	5.1	0.1		U1/10	
UH (100°-180°)	525.9	10.2		U4/1000	

**BUG Rating: B1-U5-G1**

Type III Medium





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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	937.9	937.9	937.9	937.9	937.9	937.9	937.9	937.9	937.9	937.9	937.9
5°	827.2	827.8	829.6	831.4	834.9	838.5	844.1	849.7	858.3	866.9	873.4
10°	740.8	743.7	746.1	748.5	754.4	760.3	766.8	773.3	784.6	795.8	808.0
15°	694.6	695.2	697.5	699.9	705.2	710.6	718.6	726.5	737.5	748.5	760.9
20°	683.9	685.1	686.3	687.5	688.9	690.4	695.5	700.5	709.7	718.9	731.6
25°	720.0	720.0	719.4	718.9	714.1	709.4	705.5	701.7	704.3	707.0	718.3
30°	797.0	798.2	797.0	795.8	788.4	781.0	766.5	752.0	739.9	727.7	729.8
35°	887.6	890.0	897.1	904.2	903.0	901.8	882.9	863.9	832.8	801.7	785.5
40°	968.7	976.4	991.8	1007.2	1022.3	1037.4	1030.9	1024.4	981.2	937.9	901.5
45°	1071.8	1080.1	1107.0	1133.9	1160.0	1186.0	1198.8	1211.5	1176.9	1142.2	1087.5
50°	1237.0	1247.6	1269.2	1290.9	1323.1	1355.4	1395.4	1435.3	1422.9	1410.5	1348.0
55°	1344.1	1351.8	1358.7	1365.5	1407.8	1450.1	1564.7	1679.3	1740.9	1802.5	1726.4
60°	959.8	975.8	992.1	1008.4	1075.6	1142.8	1353.3	1563.8	1877.1	2190.3	2283.0
65°	559.0	569.6	574.4	579.1	578.8	578.5	656.7	734.8	1342.4	1949.9	2555.9
70°	384.9	386.1	397.6	409.2	445.3	481.4	479.9	478.4	550.1	621.7	1649.7
75°	155.7	154.5	164.3	174.1	236.0	297.8	394.4	490.9	489.7	488.5	702.0
80°	40.3	42.6	46.5	50.3	65.4	80.5	155.1	229.7	317.4	405.0	390.2
85°	0.0	0.0	0.0	0.0	0.0	0.0	0.6	1.2	17.5	33.8	56.3
90°	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
95°	3.0	3.0	3.3	3.6	4.0	4.3	4.3	4.3	4.3	4.3	4.3
100°	4.9	4.9	5.2	5.4	5.7	6.0	6.7	7.3	10.0	12.7	15.2
105°	12.7	13.3	14.9	16.3	19.1	21.8	25.5	29.1	33.6	38.1	40.9
110°	40.0	41.2	43.0	44.8	48.8	52.7	57.3	61.8	65.4	69.0	70.9
115°	84.8	84.2	86.6	89.1	92.7	96.3	99.1	101.8	103.6	105.4	106.9
120°	136.3	135.1	136.0	136.9	139.0	141.1	142.3	143.5	145.4	147.2	148.1
125°	180.5	178.1	178.7	179.3	180.2	181.1	183.0	184.7	186.3	187.8	188.7
130°	219.9	218.7	219.0	219.3	220.5	221.7	222.9	224.1	224.7	225.3	226.8
135°	259.8	258.1	258.1	258.1	259.9	261.7	262.6	263.5	264.1	264.7	266.5
140°	295.6	293.8	294.4	295.0	295.6	296.2	296.8	297.4	299.3	301.0	302.0
145°	333.1	330.7	330.1	329.5	330.5	331.4	332.2	333.1	333.4	333.7	335.3
150°	360.4	358.6	358.9	359.2	359.2	359.2	359.2	359.2	359.2	359.2	360.4
155°	381.0	378.6	378.6	378.6	379.2	379.8	380.7	381.6	381.0	380.4	379.8
160°	401.6	399.7	399.5	399.2	398.3	397.4	397.1	396.7	396.7	396.7	397.7
165°	412.5	410.7	410.1	409.5	409.5	409.5	408.6	407.6	407.6	407.6	407.3
170°	422.8	421.0	420.1	419.2	419.2	419.2	419.5	419.8	419.2	418.6	417.0
175°	424.0	422.8	422.5	422.2	421.6	421.0	419.8	418.6	418.3	417.9	417.9
180°	424.0	424.0	424.0	424.0	424.0	424.0	424.0	424.0	424.0	424.0	424.0



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**CANDELA DISTRIBUTION (continued):**

	55°	60°	65°	70°	75°	80°	85°	90°	95°	100°	105°
0°	937.9	937.9	937.9	937.9	937.9	937.9	937.9	937.9	937.9	937.9	937.9
5°	879.9	890.9	901.8	911.8	921.4	928.2	935.0	939.7	943.3	944.5	945.6
10°	820.1	837.6	855.0	874.5	895.9	914.8	933.8	943.3	945.6	940.9	936.2
15°	773.3	793.5	813.6	838.2	866.3	897.4	928.5	939.1	937.3	918.1	898.9
20°	744.3	765.0	785.8	815.1	849.1	891.2	933.2	940.3	926.1	886.1	846.2
25°	729.5	752.0	774.5	806.4	843.8	893.2	942.7	940.3	905.4	843.5	781.6
30°	731.9	751.1	770.4	803.4	842.6	894.1	945.6	928.5	871.6	786.4	701.1
35°	769.2	775.7	782.2	810.2	845.0	895.0	945.0	908.9	830.8	719.7	608.7
40°	865.1	852.7	840.2	857.1	887.0	927.3	967.5	905.4	801.2	654.3	507.5
45°	1032.7	1000.1	967.5	979.7	998.9	1028.5	1058.1	960.4	808.3	604.6	400.9
50°	1285.5	1241.4	1197.3	1199.1	1208.0	1239.6	1271.3	1111.4	895.3	601.3	307.3
55°	1650.3	1593.4	1536.6	1516.8	1513.5	1554.4	1595.2	1405.7	1110.8	685.4	259.9
60°	2375.6	2183.5	1991.3	1928.9	1872.3	1915.8	1959.4	1765.2	1425.9	879.6	333.4
65°	3162.0	3012.8	2863.6	2498.2	2243.6	2264.3	2285.0	2112.7	1761.6	1161.2	560.8
70°	2677.6	3413.4	4149.1	3663.5	2941.1	2872.7	2804.3	2627.3	2176.7	1319.6	462.5
75°	915.4	2135.8	3356.2	3444.9	3339.0	2950.6	2562.2	2235.3	1679.9	937.3	194.8
80°	375.4	981.2	1586.9	1663.9	1678.7	1351.2	1023.8	841.4	585.6	348.8	111.9
85°	78.8	99.2	119.6	82.0	52.7	48.9	45.0	44.4	44.4	34.3	24.3
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
95°	4.3	4.6	4.9	4.6	4.3	4.3	4.3	4.3	4.3	4.3	4.3
100°	17.6	16.6	15.8	14.9	13.9	12.7	11.5	11.5	11.5	12.7	13.9
105°	43.6	43.0	42.4	40.9	39.4	38.1	36.9	36.9	36.9	38.2	39.4
110°	72.7	73.0	73.3	72.7	72.1	71.2	70.3	70.9	70.3	71.2	72.1
115°	108.4	109.3	110.3	109.3	108.4	107.8	107.2	107.8	107.2	107.8	108.4
120°	149.0	150.2	151.4	149.9	148.4	147.8	147.2	147.2	147.2	147.8	148.4
125°	189.6	190.2	190.8	189.3	187.8	187.8	187.8	187.8	187.8	187.8	187.8
130°	228.4	229.6	230.8	230.8	230.8	230.2	229.6	230.2	229.6	230.2	230.8
135°	268.4	269.8	271.4	271.1	270.8	271.7	272.6	273.2	272.6	271.7	270.8
140°	302.9	303.5	304.1	304.7	305.3	306.8	308.3	309.5	308.3	306.8	305.3
145°	336.8	338.6	340.4	340.1	339.8	338.9	338.0	339.2	338.0	338.9	339.8
150°	361.6	362.5	363.5	364.3	365.2	366.2	367.1	369.5	367.1	366.2	365.2
155°	379.2	380.7	382.2	383.7	385.2	385.8	386.4	388.3	386.4	385.8	385.2
160°	398.6	400.4	402.2	401.3	400.4	400.1	399.7	403.4	399.7	400.1	400.4
165°	407.0	408.6	410.1	411.0	411.9	411.3	410.7	413.1	410.7	411.3	411.9
170°	415.5	416.4	417.3	418.9	420.4	421.0	421.6	424.6	421.6	421.0	420.4
175°	417.9	419.5	421.0	421.3	421.6	421.0	420.4	423.4	420.4	421.0	421.6
180°	424.0	424.0	424.0	424.0	424.0	424.0	424.0	424.0	424.0	424.0	424.0





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**CANDELA DISTRIBUTION (continued):**

	110°	115°	120°	125°	130°	135°	140°	145°	150°	155°	160°
0°	937.9	937.9	937.9	937.9	937.9	937.9	937.9	937.9	937.9	937.9	937.9
5°	943.0	940.3	935.9	931.4	923.7	916.0	913.4	910.7	903.9	897.1	892.6
10°	922.0	907.7	887.9	868.1	845.3	822.5	803.5	784.6	768.6	752.6	736.6
15°	866.0	833.1	794.9	756.7	718.3	679.8	639.5	599.2	563.7	528.2	503.9
20°	791.4	736.6	673.0	609.3	540.9	472.5	414.8	357.1	324.2	291.3	281.3
25°	700.2	618.8	518.7	418.6	336.3	254.0	230.0	206.1	203.1	200.1	205.5
30°	583.8	466.6	348.5	230.3	200.4	170.5	166.4	162.2	163.1	164.0	167.6
35°	450.6	292.5	223.8	155.1	150.1	145.1	144.5	143.9	143.6	143.3	144.2
40°	339.0	170.5	153.4	136.2	134.4	132.6	130.9	129.1	127.3	125.5	124.3
45°	267.9	135.0	129.4	123.8	122.0	120.2	116.4	112.5	110.4	108.4	107.5
50°	215.5	123.8	119.3	114.9	111.3	107.8	103.9	100.1	97.7	95.3	94.4
55°	188.9	117.8	111.6	105.4	101.6	97.7	93.6	89.4	86.7	84.1	82.3
60°	223.8	114.3	104.5	94.7	90.3	85.9	82.0	78.2	75.2	72.2	70.5
65°	337.8	114.9	102.1	89.4	81.7	74.0	69.9	65.7	63.4	61.0	59.8
70°	307.0	151.6	127.9	104.2	84.7	65.1	59.2	53.3	52.1	50.9	50.3
75°	161.1	127.3	108.1	88.8	71.4	53.9	48.3	42.6	42.0	41.4	40.9
80°	95.0	78.2	64.2	50.3	42.9	35.5	33.8	32.0	31.7	31.4	31.1
85°	24.3	24.3	22.5	20.7	19.8	18.9	19.5	20.1	20.1	20.1	20.1
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
95°	4.6	4.9	4.6	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.0
100°	14.9	15.8	16.7	17.6	15.2	12.7	10.0	7.3	6.7	6.0	5.7
105°	40.9	42.4	43.0	43.6	40.9	38.1	33.6	29.1	25.5	21.8	19.1
110°	72.7	73.3	73.0	72.7	70.9	69.0	65.4	61.8	57.3	52.7	48.8
115°	109.4	110.3	109.4	108.4	106.9	105.4	103.6	101.8	99.1	96.3	92.7
120°	149.9	151.4	150.2	149.0	148.1	147.2	145.4	143.5	142.3	141.1	139.0
125°	189.3	190.8	190.2	189.6	188.7	187.8	186.3	184.7	183.0	181.1	180.2
130°	230.8	230.8	229.6	228.4	226.8	225.3	224.7	224.1	222.9	221.7	220.5
135°	271.1	271.4	269.9	268.4	266.5	264.7	264.1	263.5	262.6	261.7	259.9
140°	304.7	304.1	303.5	302.9	302.0	301.0	299.3	297.4	296.8	296.2	295.6
145°	340.1	340.4	338.6	336.8	335.3	333.7	333.4	333.1	332.2	331.4	330.5
150°	364.3	363.5	362.6	361.6	360.4	359.2	359.2	359.2	359.2	359.2	359.2
155°	383.8	382.2	380.7	379.2	379.8	380.4	381.0	381.6	380.7	379.8	379.2
160°	401.3	402.2	400.4	398.6	397.7	396.7	396.7	396.7	397.1	397.4	398.3
165°	411.0	410.1	408.6	407.0	407.3	407.6	407.6	407.6	408.6	409.5	409.5
170°	418.9	417.3	416.4	415.5	417.0	418.6	419.2	419.8	419.5	419.2	419.2
175°	421.3	421.0	419.5	417.9	417.9	417.9	418.3	418.6	419.8	421.0	421.6
180°	424.0	424.0	424.0	424.0	424.0	424.0	424.0	424.0	424.0	424.0	424.0



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**CANDELA DISTRIBUTION (continued):**

	165°	170°	175°	180°
0°	937.9	937.9	937.9	937.9
5°	888.2	885.8	883.5	881.1
10°	720.6	714.7	708.8	710.6
15°	479.6	463.3	447.1	442.9
20°	271.2	269.7	268.2	268.8
25°	210.8	214.9	219.1	221.5
30°	171.1	174.7	178.2	178.2
35°	145.1	145.7	146.3	146.3
40°	123.2	122.6	122.0	121.4
45°	106.6	106.9	107.2	107.2
50°	93.6	93.6	93.6	93.6
55°	80.5	79.9	79.3	79.9
60°	68.7	68.1	67.5	66.9
65°	58.6	57.7	56.8	56.8
70°	49.7	49.1	48.6	48.6
75°	40.3	40.0	39.7	40.3
80°	30.8	30.5	30.2	30.2
85°	20.1	19.5	18.9	18.9
90°	0.0	0.0	0.0	0.0
95°	3.6	3.3	3.0	3.0
100°	5.4	5.2	4.9	4.9
105°	16.3	14.9	13.3	12.7
110°	44.8	43.0	41.2	40.0
115°	89.1	86.6	84.2	84.8
120°	136.9	136.0	135.1	136.3
125°	179.3	178.7	178.1	180.5
130°	219.3	219.0	218.7	219.9
135°	258.1	258.1	258.1	259.8
140°	295.0	294.4	293.8	295.6
145°	329.5	330.1	330.7	333.1
150°	359.2	358.9	358.6	360.4
155°	378.6	378.6	378.6	381.0
160°	399.2	399.5	399.7	401.6
165°	409.5	410.1	410.7	412.5
170°	419.2	420.1	421.0	422.8
175°	422.2	422.5	422.8	424.0
180°	424.0	424.0	424.0	424.0

(END OF REPORT)