

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: P400971

Luminaire Tested: **ENV-SA1A-740-U-T3-ULG**

Issue Date: 5/20/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P400971  
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-T3-ULG  
Description: ENTRI LED LUMINAIRE WITH UPLIGHT  
(1) 70 CRI, 4000K, 350mA LIGHTSQUARE WITH 16 LEDS AND TYPE III OPTICS  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 4561 lumens  
Efficiency: N/A  
Efficacy: 123.9 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 - 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

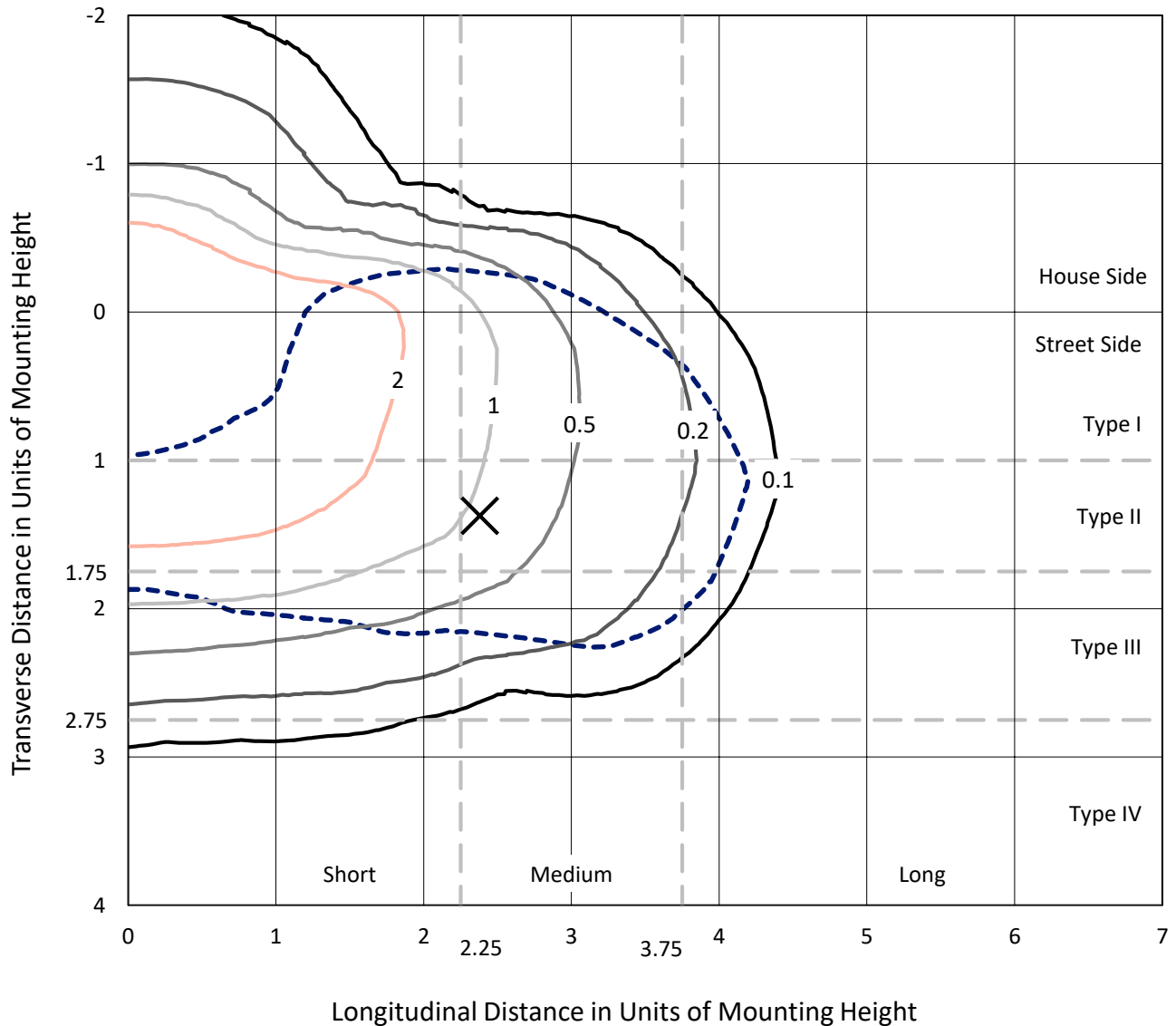


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### Iso-Footcandle Lines of Horizontal Illumination

× Max cd  
 - - - 1/2 Max cd

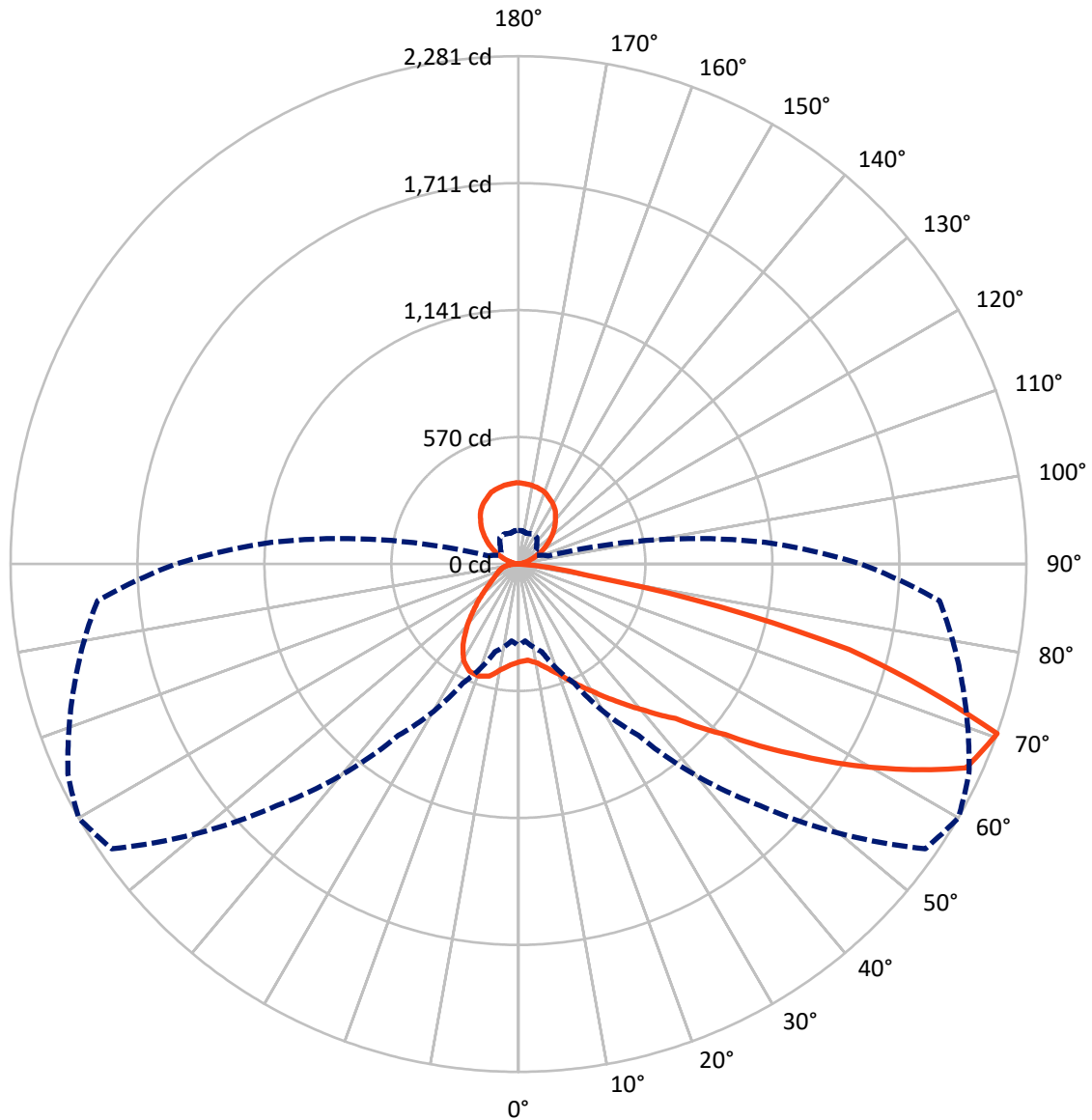


Based on 10 foot mounting height. Maximum calculated value = 4.8 fc  
 Type III - Medium - Non-Cutoff

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### Luminous Intensity Polar Plot



— Vertical Plane Through 60-Deg Lateral    - - - Horizontal Cone Through 70-Deg Vertical

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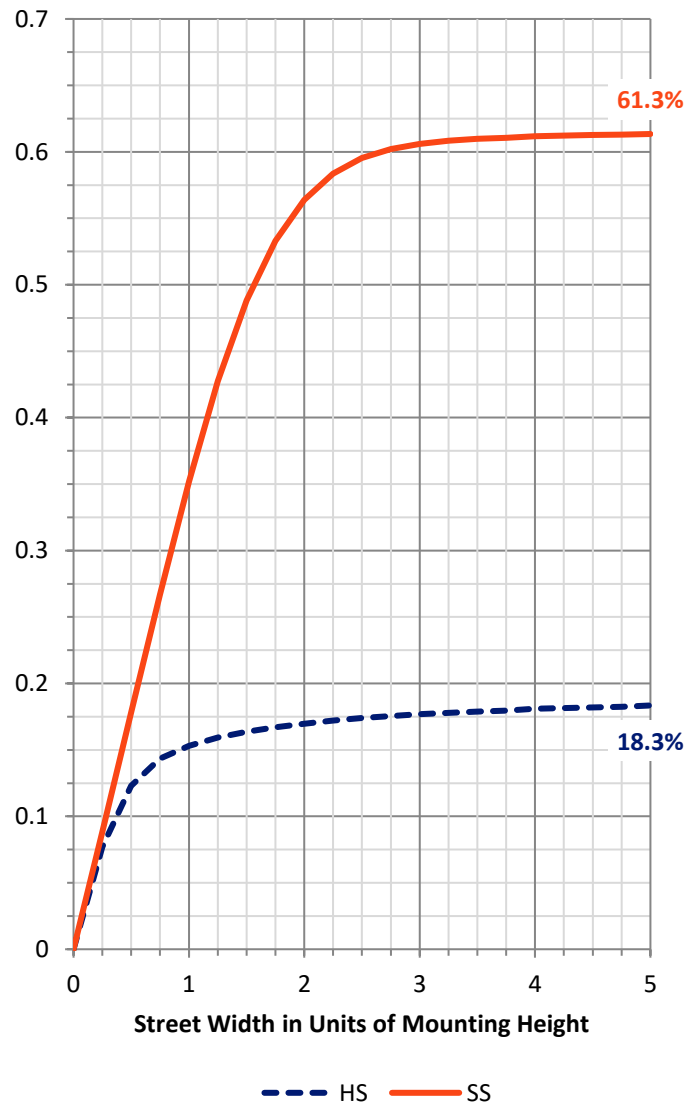
**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	855.0	453.5	1308.4
	% Fixture	18.7	9.9	28.7
<b>Street Side</b>	Lumens	2799.1	453.4	3252.6
	% Fixture	61.4	9.9	71.3
<b>Total</b>	Lumens	3654.1	906.9	4561.0
	% Fixture	80.1	19.9	100.0

**Coefficient of Utilization**

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	43.3	0.9
10°-20°	141.3	3.1
20°-30°	254.1	5.6
30°-40°	374.3	8.2
40°-50°	549.3	12.0
50°-60°	817.5	17.9
60°-70°	945.2	20.7
70°-80°	477.7	10.5
80°-90°	51.4	1.1
90°-100°	4.4	0.1
100°-110°	30.7	0.7
110°-120°	87.2	1.9
120°-130°	142.7	3.1
130°-140°	175.9	3.9
140°-150°	179.9	3.9
150°-160°	151.7	3.3
160°-170°	99.9	2.2
170°-180°	34.6	0.8
0°-90°	3654.1	80.1
0°-180°	4561.0	100.0



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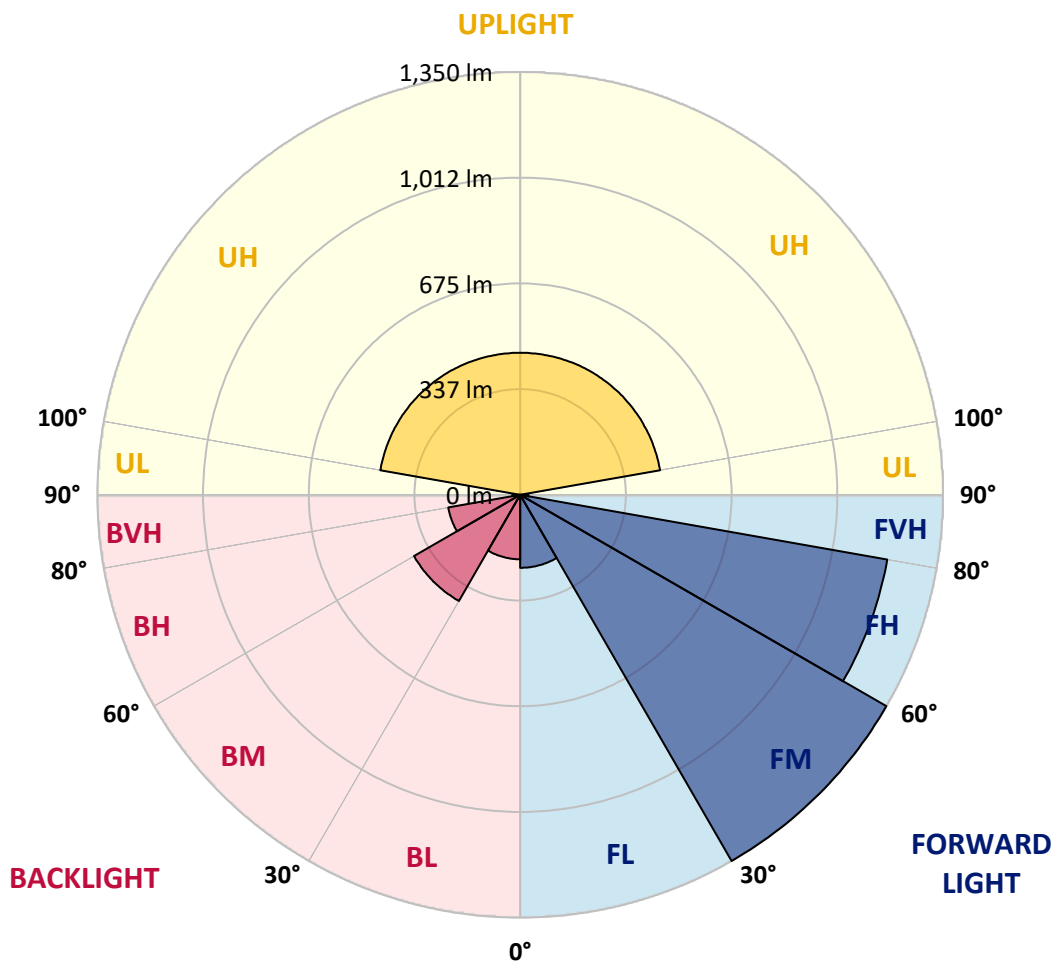
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	233.0	5.1			
FM (30°-60°)	1349.9	29.6			
FH (60°-80°)	1190.0	26.1			G1/1800
FVH (80°-90°)	26.3	0.6			G1/100
BL (0°-30°)	205.7	4.5	B1/500		
BM (30°-60°)	391.3	8.6	B1/1000		
BH (60°-80°)	232.9	5.1	B1/500		G1/500
BVH (80°-90°)	25.1	0.6			G1/100
UL (90°-100°)	4.4	0.1		U1/10	
UH (100°-180°)	453.5	9.9		U3/500	

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

Type III Medium





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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	439.1	439.1	439.1	439.1	439.1	439.1	439.1	439.1	439.1	439.1	439.1
5°	424.8	425.3	425.8	426.3	426.6	426.9	427.6	428.4	429.4	430.4	431.2
10°	446.3	447.3	448.0	448.8	449.6	450.3	451.1	451.9	452.4	452.9	451.4
15°	482.0	481.0	481.0	481.0	482.0	483.0	483.3	483.5	484.6	485.6	484.8
20°	534.6	537.1	536.6	536.1	534.1	532.0	528.7	525.4	523.9	522.3	524.1
25°	630.1	631.6	631.6	631.6	626.5	621.4	612.7	604.0	595.6	587.2	588.0
30°	743.4	747.5	745.5	743.4	733.7	724.0	714.1	704.1	693.6	683.2	674.5
35°	866.5	871.1	871.1	871.1	861.4	851.7	836.9	822.1	808.5	795.0	777.9
40°	991.6	994.1	998.2	1002.3	988.8	975.2	961.7	948.2	938.0	927.8	905.3
45°	1177.9	1184.1	1185.3	1186.6	1176.4	1166.2	1157.0	1147.8	1125.9	1103.9	1058.0
50°	1331.1	1335.7	1348.5	1361.3	1374.3	1387.3	1405.4	1423.5	1404.7	1385.8	1310.7
55°	1362.3	1365.8	1388.8	1411.8	1468.5	1525.2	1585.9	1646.7	1649.5	1652.3	1598.7
60°	1244.3	1255.0	1293.9	1332.7	1416.9	1501.2	1617.8	1734.5	1804.7	1874.9	1891.5
65°	967.1	958.9	1003.8	1048.8	1157.8	1266.8	1440.6	1614.5	1799.9	1985.2	2113.1
70°	364.6	347.2	377.6	408.0	498.9	589.7	765.1	940.5	1237.7	1534.9	1882.6
75°	71.5	71.5	76.8	82.2	97.5	112.8	148.3	183.8	297.9	412.1	864.2
80°	26.6	27.1	30.4	33.7	37.8	41.9	50.0	58.2	59.7	61.3	127.6
85°	0.0	0.5	0.5	0.5	0.5	0.5	0.8	1.0	1.8	2.6	4.9
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	3.1	3.4	3.7	3.7	3.7	3.7	3.7	3.7
100°	4.2	4.2	4.4	4.7	5.0	5.2	5.8	6.3	8.6	11.0	13.1
105°	11.0	11.5	12.8	14.1	16.4	18.8	22.0	25.1	29.0	32.9	35.3
110°	34.5	35.5	37.1	38.7	42.1	45.4	49.4	53.3	56.4	59.5	61.1
115°	73.1	72.6	74.7	76.8	79.9	83.0	85.4	87.8	89.4	90.9	92.2
120°	117.5	116.5	117.3	118.0	119.9	121.7	122.7	123.8	125.4	126.9	127.7
125°	155.6	153.5	154.1	154.6	155.4	156.2	157.8	159.3	160.6	161.9	162.7
130°	189.6	188.6	188.8	189.1	190.1	191.2	192.2	193.3	193.8	194.3	195.6
135°	224.0	222.5	222.5	222.5	224.1	225.6	226.4	227.2	227.7	228.2	229.8
140°	254.9	253.3	253.9	254.4	254.9	255.4	256.0	256.5	258.1	259.6	260.4
145°	287.3	285.2	284.7	284.1	285.0	285.7	286.5	287.3	287.5	287.8	289.1
150°	310.8	309.2	309.5	309.7	309.7	309.7	309.7	309.7	309.7	309.7	310.8
155°	328.5	326.4	326.4	326.4	327.0	327.5	328.3	329.1	328.6	328.0	327.5
160°	346.3	344.7	344.4	344.2	343.4	342.7	342.4	342.1	342.1	342.1	342.9
165°	355.7	354.1	353.6	353.1	353.1	353.1	352.3	351.5	351.5	351.5	351.2
170°	364.6	363.0	362.3	361.5	361.5	361.5	361.7	362.0	361.5	360.9	359.6
175°	365.6	364.6	364.3	364.1	363.5	363.0	362.0	360.9	360.7	360.4	360.4
180°	365.6	365.6	365.6	365.6	365.6	365.6	365.6	365.6	365.6	365.6	365.6



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**CANDELA DISTRIBUTION (continued):**

	55°	60°	65°	70°	75°	80°	85°	90°	95°	100°	105°
0°	439.1	439.1	439.1	439.1	439.1	439.1	439.1	439.1	439.1	439.1	439.1
5°	432.0	433.7	435.5	437.6	439.6	440.9	442.2	444.2	446.3	448.6	450.9
10°	449.8	450.7	451.4	453.4	455.5	458.0	460.6	463.1	466.7	469.7	472.8
15°	484.0	484.6	486.1	487.9	489.7	492.7	495.8	498.3	502.4	507.3	512.1
20°	525.9	530.3	536.1	539.4	542.8	543.0	543.3	545.3	548.4	549.4	550.4
25°	588.7	593.9	603.0	607.6	612.2	605.3	598.4	591.3	587.2	583.4	579.5
30°	665.8	666.1	669.4	669.1	668.9	651.5	634.2	619.4	605.6	594.8	584.1
35°	760.8	756.0	751.6	745.7	739.9	713.6	687.3	661.7	639.3	620.4	601.5
40°	882.8	861.0	846.1	838.1	830.2	802.7	775.1	734.7	713.8	666.1	618.3
45°	1012.0	990.0	980.9	987.5	994.1	966.0	938.0	898.1	842.0	725.0	608.1
50°	1235.6	1204.0	1193.8	1214.7	1235.6	1204.0	1172.3	1122.3	1013.0	787.1	561.1
55°	1545.1	1511.2	1499.1	1512.4	1525.7	1490.9	1456.2	1417.9	1244.8	902.7	560.6
60°	1908.1	1860.7	1821.3	1827.2	1833.0	1835.6	1838.1	1778.9	1471.0	986.0	500.9
65°	2241.0	2209.1	2146.0	2110.0	2074.0	2075.8	2077.6	1873.9	1466.4	880.0	293.6
70°	2230.3	2281.3	2232.8	2148.1	2063.3	1980.9	1898.4	1537.9	1113.6	626.5	139.4
75°	1316.3	1534.4	1622.7	1600.7	1578.8	1364.6	1150.4	812.4	524.9	305.3	85.8
80°	194.0	320.7	437.1	474.6	512.1	383.7	255.3	156.8	97.5	77.1	56.7
85°	7.1	12.6	17.4	20.7	24.0	20.4	16.8	15.8	17.9	23.7	29.6
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	3.9	4.2	3.9	3.7	3.7	3.7	3.7	3.7	3.7	3.7
100°	15.2	14.3	13.6	12.8	12.0	11.0	9.9	9.9	9.9	11.0	12.0
105°	37.6	37.1	36.6	35.2	34.0	32.9	31.9	31.9	31.9	32.9	34.0
110°	62.7	63.0	63.2	62.7	62.1	61.4	60.6	61.1	60.6	61.4	62.1
115°	93.5	94.3	95.1	94.3	93.5	93.0	92.5	93.0	92.5	93.0	93.5
120°	128.5	129.5	130.6	129.3	128.0	127.4	126.9	126.9	126.9	127.4	128.0
125°	163.5	164.0	164.5	163.2	161.9	161.9	161.9	161.9	161.9	161.9	161.9
130°	196.9	198.0	199.0	199.0	199.0	198.5	198.0	198.5	198.0	198.5	199.0
135°	231.4	232.7	234.0	233.8	233.5	234.3	235.0	235.6	235.0	234.3	233.5
140°	261.2	261.7	262.2	262.7	263.3	264.5	265.9	266.9	265.9	264.6	263.3
145°	290.4	292.0	293.5	293.3	293.0	292.2	291.4	292.5	291.4	292.3	293.0
150°	311.8	312.6	313.4	314.2	314.9	315.8	316.5	318.6	316.5	315.8	314.9
155°	327.0	328.3	329.6	330.9	332.2	332.7	333.2	334.8	333.2	332.7	332.2
160°	343.7	345.3	346.8	346.0	345.3	345.0	344.7	347.9	344.7	345.0	345.3
165°	351.0	352.3	353.6	354.4	355.2	354.7	354.1	356.2	354.1	354.7	355.2
170°	358.3	359.1	359.9	361.2	362.5	363.0	363.5	366.1	363.5	363.0	362.5
175°	360.4	361.7	363.0	363.3	363.5	363.0	362.5	365.1	362.5	363.0	363.5
180°	365.6	365.6	365.6	365.6	365.6	365.6	365.6	365.6	365.6	365.6	365.6





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**CANDELA DISTRIBUTION (continued):**

	110°	115°	120°	125°	130°	135°	140°	145°	150°	155°	160°
0°	439.1	439.1	439.1	439.1	439.1	439.1	439.1	439.1	439.1	439.1	439.1
5°	452.1	453.4	454.7	456.0	456.5	457.0	459.0	461.1	461.6	462.1	463.1
10°	475.6	478.4	481.0	483.5	485.3	487.1	489.9	492.7	494.8	496.8	498.3
15°	515.7	519.3	519.5	519.8	516.5	513.1	508.6	504.0	501.7	499.4	498.9
20°	547.9	545.3	534.6	523.9	514.4	505.0	498.9	492.7	489.4	486.1	483.5
25°	565.2	550.9	529.5	508.0	492.5	476.9	464.9	452.9	443.2	433.5	429.2
30°	558.6	533.1	498.9	464.6	438.9	413.1	391.1	369.2	356.4	343.6	340.1
35°	543.8	486.1	438.9	391.6	357.7	323.7	306.1	288.5	280.3	272.1	264.7
40°	518.3	418.2	361.5	304.8	282.6	260.4	245.6	230.8	219.8	208.8	200.2
45°	468.7	329.3	283.1	236.9	224.2	211.4	198.9	186.4	172.8	159.3	153.7
50°	405.4	249.7	216.7	183.8	175.9	168.0	160.3	152.7	148.3	144.0	140.9
55°	372.0	183.3	164.4	145.5	144.2	143.0	144.5	146.0	142.7	139.4	137.6
60°	319.6	138.4	130.5	122.5	125.4	128.2	133.5	138.9	136.8	134.8	132.5
65°	202.2	110.8	108.8	106.7	109.8	112.8	119.2	125.6	124.8	124.1	125.1
70°	115.9	92.4	93.9	95.5	105.2	114.9	129.9	145.0	146.8	148.6	145.5
75°	82.2	78.6	79.7	80.7	88.3	96.0	114.4	132.8	133.5	134.3	128.9
80°	59.2	61.8	62.3	62.8	67.9	73.0	87.3	101.6	104.4	107.2	102.6
85°	36.0	42.4	41.9	41.4	44.9	48.5	60.0	71.5	73.3	75.1	71.0
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
95°	3.9	4.2	3.9	3.7	3.7	3.7	3.7	3.7	3.7	3.7	3.4
100°	12.8	13.6	14.4	15.2	13.1	11.0	8.6	6.3	5.8	5.2	5.0
105°	35.3	36.6	37.1	37.6	35.3	32.9	29.0	25.1	22.0	18.8	16.4
110°	62.7	63.2	63.0	62.7	61.1	59.5	56.4	53.3	49.4	45.4	42.1
115°	94.3	95.1	94.3	93.5	92.2	90.9	89.4	87.8	85.4	83.0	79.9
120°	129.3	130.6	129.5	128.5	127.7	126.9	125.4	123.8	122.7	121.7	119.9
125°	163.2	164.5	164.0	163.5	162.7	161.9	160.6	159.3	157.8	156.2	155.4
130°	199.0	199.0	198.0	196.9	195.6	194.3	193.8	193.3	192.2	191.2	190.1
135°	233.8	234.0	232.7	231.4	229.8	228.2	227.7	227.2	226.4	225.6	224.1
140°	262.8	262.2	261.7	261.2	260.4	259.6	258.1	256.5	256.0	255.4	254.9
145°	293.3	293.5	292.0	290.4	289.1	287.8	287.5	287.3	286.5	285.7	285.0
150°	314.2	313.4	312.6	311.8	310.8	309.7	309.7	309.7	309.7	309.7	309.7
155°	330.9	329.6	328.3	327.0	327.5	328.0	328.6	329.1	328.3	327.5	327.0
160°	346.0	346.8	345.3	343.7	342.9	342.1	342.1	342.1	342.4	342.7	343.4
165°	354.4	353.6	352.3	351.0	351.2	351.5	351.5	351.5	352.3	353.1	353.1
170°	361.2	359.9	359.1	358.3	359.6	360.9	361.5	362.0	361.7	361.5	361.5
175°	363.3	363.0	361.7	360.4	360.4	360.4	360.7	360.9	362.0	363.0	363.5
180°	365.6	365.6	365.6	365.6	365.6	365.6	365.6	365.6	365.6	365.6	365.6

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**CANDELA DISTRIBUTION (continued):**

	165°	170°	175°	180°
0°	439.1	439.1	439.1	439.1
5°	464.1	464.6	465.2	464.6
10°	499.9	500.4	500.9	501.9
15°	498.3	498.3	498.3	498.9
20°	481.0	480.7	480.5	478.4
25°	424.8	422.8	420.7	421.8
30°	336.5	334.7	332.9	333.9
35°	257.3	253.8	250.2	250.7
40°	191.5	184.6	177.7	176.2
45°	148.1	144.2	140.4	139.4
50°	137.9	135.3	132.8	132.2
55°	135.8	133.0	130.2	128.7
60°	130.2	129.4	128.7	127.6
65°	126.1	130.2	134.3	135.8
70°	142.5	146.8	151.1	150.6
75°	123.6	122.5	121.5	118.5
80°	98.0	95.7	93.4	92.4
85°	66.9	61.0	55.1	53.6
90°	0.0	0.0	0.0	0.0
95°	3.1	2.9	2.6	2.6
100°	4.7	4.4	4.2	4.2
105°	14.1	12.8	11.5	11.0
110°	38.7	37.1	35.5	34.5
115°	76.8	74.7	72.6	73.1
120°	118.0	117.3	116.5	117.5
125°	154.6	154.1	153.5	155.6
130°	189.1	188.8	188.6	189.6
135°	222.5	222.5	222.5	224.0
140°	254.4	253.9	253.3	254.9
145°	284.1	284.7	285.2	287.3
150°	309.7	309.5	309.2	310.8
155°	326.4	326.4	326.4	328.5
160°	344.2	344.4	344.7	346.3
165°	353.1	353.6	354.1	355.7
170°	361.5	362.3	363.0	364.6
175°	364.1	364.3	364.6	365.6
180°	365.6	365.6	365.6	365.6

(END OF REPORT)