

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: P401133

Luminaire Tested: **ENV-SA1B-740-U-SL4-HSS-ULG**

Issue Date: 5/20/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P401133  
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-SL4-HSS-ULG  
Description: ENTRI LED LUMINAIRE WITH UPLIGHT  
(1) 70 CRI, 4000K, 450mA LIGHTSQUARE WITH 16 LEDS AND TYPE IV SPILL LIGHT  
ELIMINATOR OPTICS WITH HOUSE SIDE SHIELD  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 4591 lumens  
Efficiency: N/A  
Efficacy: 109.1 lumens/watt  
Luminous Opening: Rectangular (W 0.5' x L: 0.5' x H: 0')  
IES Classification: Type IV - Short - Non-Cutoff  
BUG Rating: B0 - U5 - G1

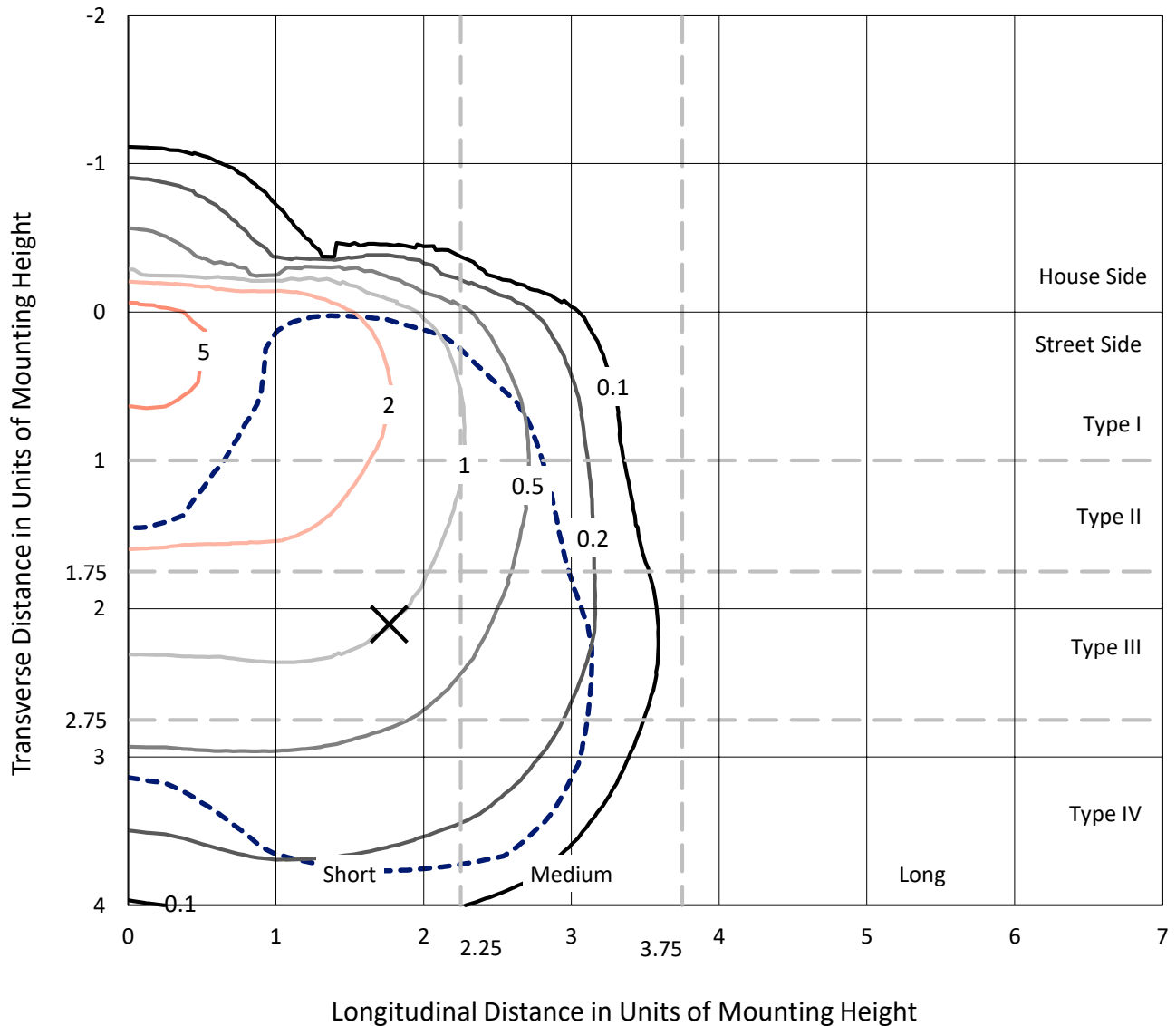
Input Watts (W): 42.1  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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### Iso-Footcandle Lines of Horizontal Illumination

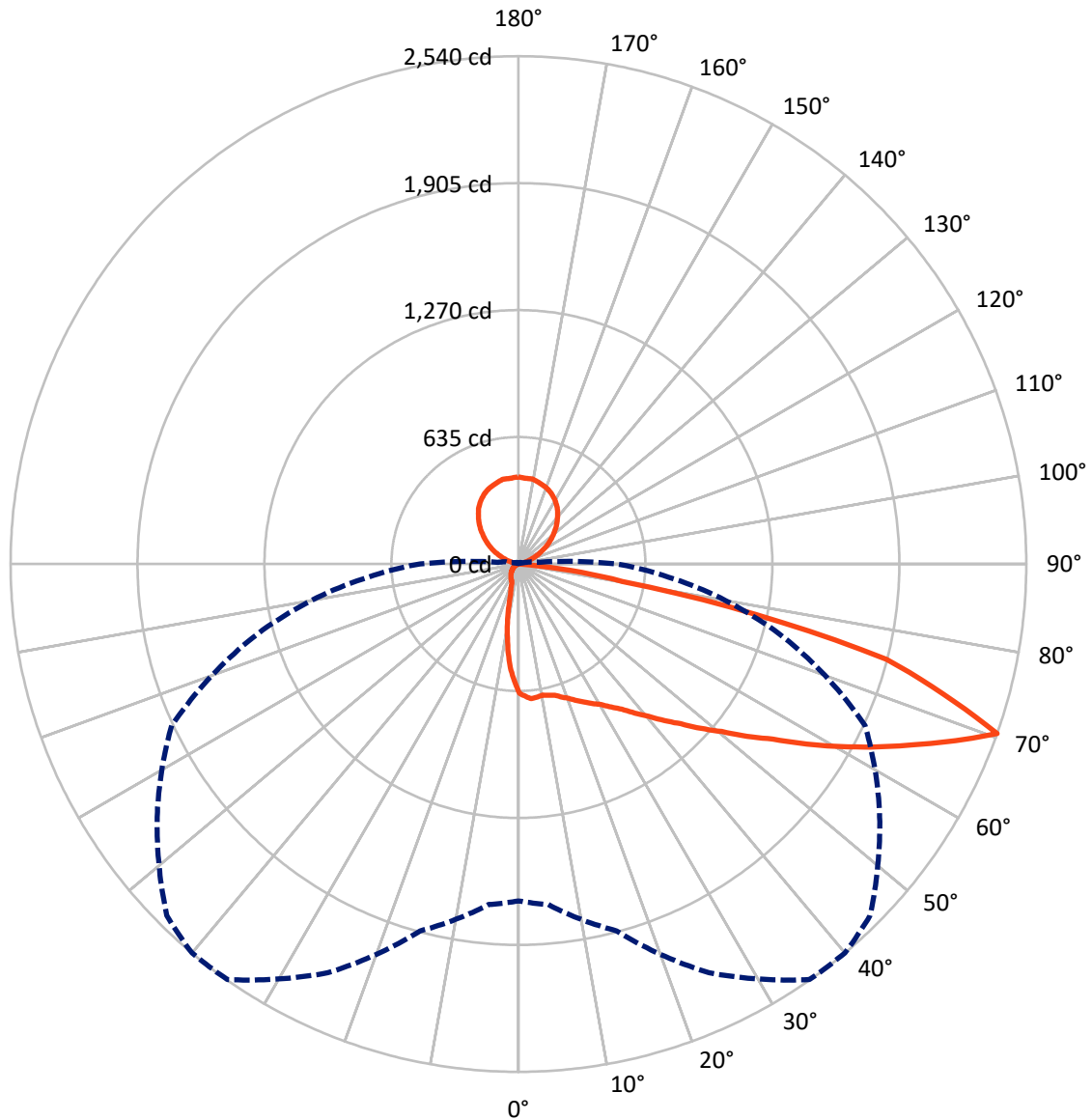
× Max cd  
 - - - 1/2 Max cd



Based on 10 foot mounting height. Maximum calculated value = 6.6 fc  
 Type IV - Short - Non-Cutoff

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### Luminous Intensity Polar Plot



— Vertical Plane Through 40-Deg Lateral    - - - Horizontal Cone Through 70-Deg Vertical

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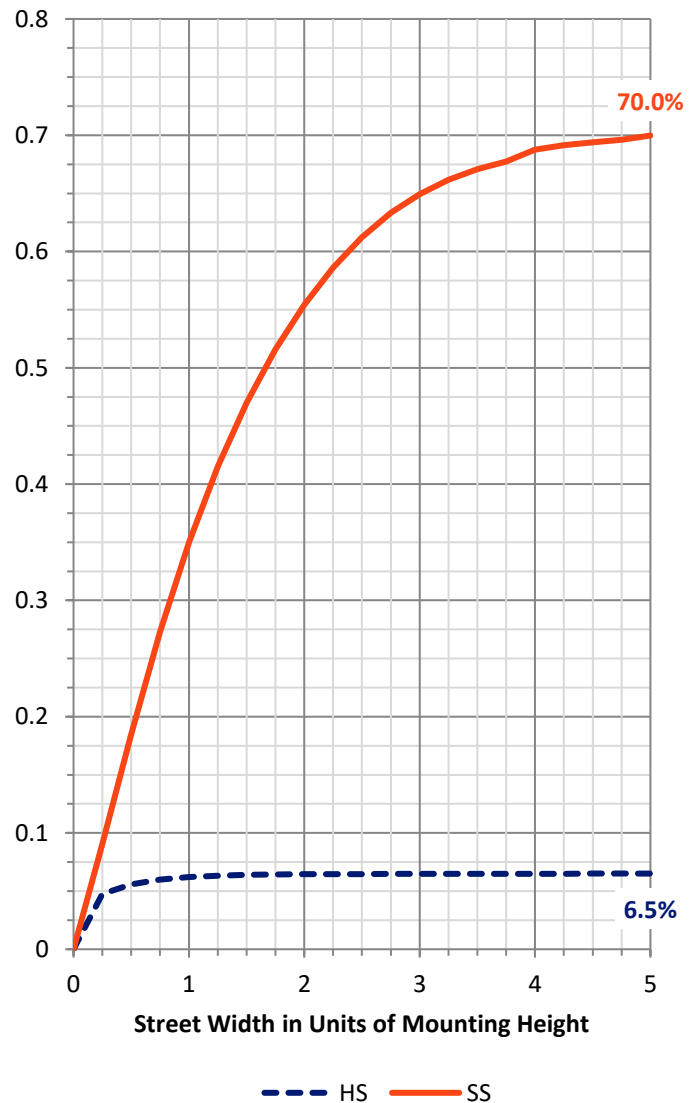
**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	301.9	540.5	842.4
	% Fixture	6.6	11.8	18.3
<b>Street Side</b>	Lumens	3208.1	540.5	3748.6
	% Fixture	69.9	11.8	81.7
<b>Total</b>	Lumens	3509.9	1081.1	4591.0
	% Fixture	76.5	23.5	100.0

**Coefficient of Utilization**

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	55.0	1.2
10°-20°	133.4	2.9
20°-30°	212.7	4.6
30°-40°	323.7	7.0
40°-50°	503.6	11.0
50°-60°	735.5	16.0
60°-70°	937.5	20.4
70°-80°	573.9	12.5
80°-90°	34.8	0.8
90°-100°	5.3	0.1
100°-110°	36.5	0.8
110°-120°	103.9	2.3
120°-130°	170.1	3.7
130°-140°	209.7	4.6
140°-150°	214.4	4.7
150°-160°	180.8	3.9
160°-170°	119.0	2.6
170°-180°	41.3	0.9
0°-90°	3509.9	76.5
0°-180°	4591.0	100.0



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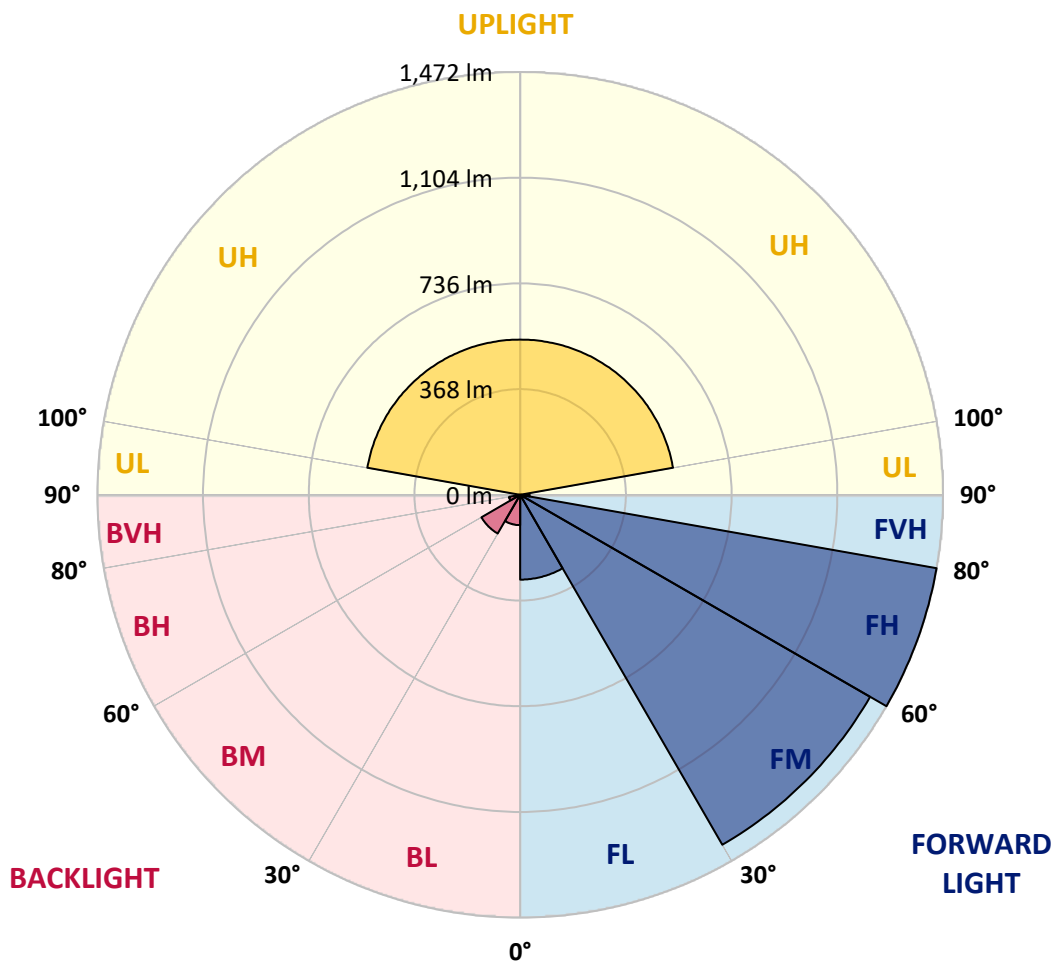
CATALOG NUMBER: ENV-SA1B-740-U-SL4-HSS-ULG

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

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	295.3	6.4			
FM	(30°-60°)	1407.0	30.6			
FH	(60°-80°)	1472.3	32.1			G1/1800
FVH	(80°-90°)	33.5	0.7			G1/100
BL	(0°-30°)	105.7	2.3	B0/110		
BM	(30°-60°)	155.7	3.4	B0/220		
BH	(60°-80°)	39.2	0.9	B0/110		G0/110
BVH	(80°-90°)	1.3	0.0			G0/10
UL	(90°-100°)	5.3	0.1		U1/10	
UH	(100°-180°)	540.5	11.8		U4/1000	

**BUG Rating: B0-U5-G1**

Type IV Short





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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	647.6	647.6	647.6	647.6	647.6	647.6	647.6	647.6	647.6	647.6	647.6
5°	687.2	686.0	686.0	686.0	684.7	683.5	681.4	679.3	676.8	675.0	671.7
10°	669.5	670.7	670.4	670.1	670.1	670.1	669.2	668.3	666.7	665.9	661.3
15°	652.5	654.9	659.2	663.4	668.3	673.2	675.9	678.6	681.0	682.3	677.4
20°	656.7	661.6	672.3	682.9	693.6	704.2	710.6	717.0	717.5	715.8	707.9
25°	706.6	709.1	722.2	735.3	747.1	759.0	762.3	765.7	764.9	758.4	745.3
30°	792.5	794.3	804.0	813.8	819.6	825.3	822.9	820.5	815.6	809.5	794.9
35°	873.4	873.4	885.6	897.8	899.3	900.8	895.9	891.1	891.1	891.1	872.5
40°	939.8	947.7	964.7	981.8	983.3	984.8	988.8	992.7	1001.0	1004.9	997.6
45°	1002.5	1012.2	1034.7	1057.2	1074.0	1090.7	1105.9	1121.1	1139.9	1156.4	1164.4
50°	1113.2	1113.8	1129.4	1144.9	1179.3	1213.7	1244.4	1275.1	1316.6	1361.0	1387.4
55°	1250.8	1252.6	1260.2	1267.8	1321.1	1374.3	1431.3	1488.2	1545.6	1611.7	1649.1
60°	1401.1	1399.3	1414.2	1429.1	1501.2	1573.4	1674.1	1774.8	1852.7	1914.8	1913.6
65°	1545.4	1553.3	1595.6	1637.9	1745.0	1852.1	1998.5	2144.9	2177.2	2189.3	2164.7
70°	1684.8	1709.7	1804.7	1899.6	2077.6	2255.7	2396.6	2537.5	2540.0	2487.0	2346.4
75°	788.2	858.8	1081.6	1304.3	1476.3	1648.2	1791.6	1934.9	1902.8	1784.6	1565.2
80°	163.1	166.8	182.3	197.8	278.8	359.7	449.8	539.9	528.3	449.2	345.7
85°	0.0	0.0	0.3	0.6	0.6	0.6	1.8	3.0	0.6	0.6	12.8
90°	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
95°	3.1	3.1	3.4	3.7	4.1	4.4	4.4	4.4	4.4	4.4	4.4
100°	5.0	5.0	5.3	5.6	5.9	6.2	6.9	7.5	10.3	13.1	15.6
105°	13.1	13.7	15.3	16.8	19.6	22.4	26.2	29.9	34.6	39.2	42.1
110°	41.1	42.4	44.2	46.1	50.2	54.2	58.9	63.5	67.3	71.0	72.9
115°	87.2	86.6	89.0	91.5	95.3	99.0	101.8	104.6	106.5	108.3	109.9
120°	140.1	138.8	139.8	140.7	142.9	145.0	146.3	147.5	149.4	151.3	152.2
125°	185.5	183.0	183.7	184.3	185.3	186.2	188.1	189.9	191.5	193.0	194.0
130°	226.0	224.8	225.1	225.4	226.7	227.9	229.2	230.4	231.0	231.6	233.2
135°	267.1	265.3	265.3	265.3	267.1	269.0	269.9	270.9	271.5	272.1	274.0
140°	303.8	302.0	302.6	303.2	303.8	304.4	305.1	305.7	307.6	309.4	310.4
145°	342.4	339.9	339.3	338.7	339.7	340.6	341.5	342.4	342.7	343.0	344.6
150°	370.5	368.6	368.9	369.2	369.2	369.2	369.2	369.2	369.2	369.2	370.5
155°	391.6	389.1	389.1	389.1	389.8	390.4	391.4	392.3	391.7	391.0	390.4
160°	412.8	410.9	410.6	410.3	409.4	408.5	408.2	407.8	407.8	407.8	408.8
165°	424.0	422.2	421.6	420.9	420.9	420.9	420.0	419.0	419.0	419.0	418.7
170°	434.6	432.8	431.8	430.9	430.9	430.9	431.2	431.5	430.9	430.3	428.7
175°	435.9	434.6	434.3	434.0	433.4	432.8	431.5	430.3	430.0	429.6	429.6
180°	435.8	435.8	435.8	435.8	435.8	435.8	435.8	435.8	435.8	435.8	435.8



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**CANDELA DISTRIBUTION (continued):**

	55°	60°	65°	70°	75°	80°	85°	90°	95°	100°	105°
0°	647.6	647.6	647.6	647.6	647.6	647.6	647.6	647.6	647.6	647.6	647.6
5°	668.3	664.3	660.4	654.9	649.4	641.2	633.0	622.7	614.1	603.8	593.4
10°	656.7	652.5	648.2	641.5	634.8	624.2	613.5	597.7	579.4	558.1	536.8
15°	672.6	666.5	660.4	652.5	644.6	633.0	621.4	600.7	572.7	536.8	500.9
20°	700.0	692.3	684.7	674.7	664.7	650.3	636.0	608.0	569.1	513.4	457.7
25°	732.2	722.8	713.3	705.7	698.1	678.0	658.0	619.6	564.2	484.5	404.8
30°	780.3	771.8	763.3	758.4	753.5	729.5	705.4	650.0	571.5	452.5	333.5
35°	853.9	852.7	851.5	859.7	867.9	834.8	801.6	713.3	597.7	417.5	237.4
40°	990.3	1000.3	1010.4	1033.2	1056.0	1012.8	969.6	845.4	672.6	403.2	133.9
45°	1172.3	1209.1	1245.9	1293.4	1340.9	1280.6	1220.4	1039.0	784.6	430.3	76.1
50°	1413.9	1469.9	1525.9	1574.3	1622.7	1521.6	1420.6	1194.8	846.0	452.2	58.4
55°	1686.6	1735.6	1784.6	1780.6	1776.7	1627.8	1479.0	1221.0	767.5	406.9	46.3
60°	1912.4	1923.3	1934.3	1889.9	1845.4	1662.5	1479.6	1180.8	588.6	312.8	37.1
65°	2140.0	2109.6	2079.2	1965.3	1851.5	1589.5	1327.5	962.9	315.3	171.3	27.4
70°	2205.8	2059.4	1913.0	1632.1	1351.2	1052.4	753.5	491.2	101.0	59.0	17.0
75°	1345.7	1006.7	667.7	423.9	180.2	125.7	71.2	49.3	23.7	16.4	9.1
80°	242.2	168.6	95.0	64.2	33.5	29.5	25.6	26.8	9.7	6.7	3.7
85°	25.0	13.7	2.4	2.4	2.4	7.0	11.6	11.0	1.2	0.9	0.6
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
95°	4.4	4.7	5.0	4.7	4.4	4.4	4.4	4.4	4.4	4.4	4.4
100°	18.1	17.1	16.2	15.3	14.3	13.1	11.8	11.8	11.8	13.1	14.3
105°	44.9	44.2	43.6	42.0	40.5	39.2	38.0	38.0	38.0	39.3	40.5
110°	74.7	75.0	75.4	74.7	74.1	73.2	72.2	72.9	72.2	73.2	74.1
115°	111.4	112.4	113.3	112.4	111.4	110.8	110.2	110.8	110.2	110.8	111.4
120°	153.1	154.4	155.6	154.1	152.5	151.9	151.3	151.3	151.3	151.9	152.5
125°	194.9	195.5	196.1	194.6	193.0	193.0	193.0	193.0	193.0	193.0	193.0
130°	234.8	236.0	237.2	237.2	237.2	236.6	236.0	236.6	236.0	236.6	237.2
135°	275.8	277.4	278.9	278.6	278.3	279.3	280.2	280.8	280.2	279.3	278.3
140°	311.3	311.9	312.5	313.2	313.8	315.3	316.9	318.1	316.9	315.4	313.8
145°	346.2	348.0	349.9	349.6	349.3	348.3	347.4	348.7	347.4	348.4	349.3
150°	371.7	372.6	373.6	374.5	375.4	376.4	377.3	379.8	377.3	376.4	375.4
155°	389.8	391.3	392.9	394.4	396.0	396.6	397.2	399.1	397.2	396.6	396.0
160°	409.7	411.6	413.4	412.5	411.6	411.3	410.9	414.7	410.9	411.3	411.6
165°	418.4	420.0	421.5	422.5	423.4	422.8	422.2	424.7	422.2	422.8	423.4
170°	427.1	428.1	429.0	430.6	432.1	432.8	433.4	436.5	433.4	432.8	432.1
175°	429.6	431.2	432.8	433.1	433.4	432.8	432.1	435.2	432.1	432.8	433.4
180°	435.8	435.8	435.8	435.8	435.8	435.8	435.8	435.8	435.8	435.8	435.8





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**CANDELA DISTRIBUTION (continued):**

	110°	115°	120°	125°	130°	135°	140°	145°	150°	155°	160°
0°	647.6	647.6	647.6	647.6	647.6	647.6	647.6	647.6	647.6	647.6	647.6
5°	582.8	572.1	561.8	551.4	540.5	529.5	519.5	509.4	500.0	490.6	486.0
10°	511.3	485.7	454.7	423.6	392.9	362.1	336.3	310.4	286.4	262.3	248.3
15°	449.2	397.5	339.9	282.4	233.7	185.0	155.8	126.6	116.6	106.5	103.8
20°	377.1	296.4	221.9	147.3	123.3	99.2	96.5	93.7	92.8	91.9	91.6
25°	291.5	178.3	136.0	93.7	90.7	87.6	86.1	84.6	84.0	83.4	83.4
30°	216.7	99.8	91.3	82.8	80.3	77.9	77.0	76.1	75.8	75.5	75.2
35°	157.6	77.9	74.6	71.2	69.4	67.6	66.6	65.7	65.7	65.7	65.7
40°	100.1	66.3	63.0	59.6	58.1	56.6	56.0	55.4	55.1	54.8	54.5
45°	65.7	55.4	52.6	49.9	48.7	47.5	46.9	46.3	45.3	44.4	43.5
50°	51.7	45.0	43.2	41.4	40.5	39.6	38.6	37.7	36.2	34.7	32.6
55°	42.0	37.7	35.9	34.1	32.9	31.7	30.1	28.6	26.5	24.3	22.2
60°	33.8	30.4	28.6	26.8	25.3	23.7	21.9	20.1	17.7	15.2	13.4
65°	24.3	21.3	20.4	19.5	18.0	16.4	14.3	12.2	10.0	7.9	6.1
70°	15.2	13.4	13.4	13.4	11.9	10.3	8.5	6.7	4.9	3.0	2.4
75°	8.8	8.5	8.5	8.5	7.6	6.7	5.8	4.9	4.0	3.0	3.0
80°	3.7	3.7	4.3	4.9	5.5	6.1	5.5	4.9	4.3	3.7	4.0
85°	0.9	1.2	1.2	1.2	1.5	1.8	1.8	1.8	2.1	2.4	2.7
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
95°	4.7	5.0	4.7	4.4	4.4	4.4	4.4	4.4	4.4	4.4	4.1
100°	15.3	16.2	17.2	18.1	15.6	13.1	10.3	7.5	6.9	6.2	5.9
105°	42.1	43.6	44.2	44.9	42.1	39.2	34.6	29.9	26.2	22.4	19.6
110°	74.7	75.4	75.0	74.7	72.9	71.0	67.3	63.5	58.9	54.2	50.2
115°	112.4	113.3	112.4	111.4	109.9	108.3	106.5	104.6	101.8	99.0	95.3
120°	154.1	155.6	154.4	153.1	152.2	151.3	149.4	147.5	146.3	145.0	142.9
125°	194.6	196.1	195.5	194.9	194.0	193.0	191.5	189.9	188.1	186.2	185.3
130°	237.2	237.2	236.0	234.8	233.2	231.6	231.0	230.4	229.2	227.9	226.7
135°	278.6	278.9	277.4	275.8	274.0	272.1	271.5	270.9	269.9	269.0	267.1
140°	313.2	312.5	311.9	311.3	310.4	309.4	307.6	305.7	305.1	304.4	303.8
145°	349.6	349.9	348.1	346.2	344.6	343.0	342.7	342.4	341.5	340.6	339.7
150°	374.5	373.6	372.7	371.7	370.5	369.2	369.2	369.2	369.2	369.2	369.2
155°	394.5	392.9	391.4	389.8	390.4	391.0	391.7	392.3	391.4	390.4	389.8
160°	412.5	413.4	411.6	409.7	408.8	407.8	407.8	407.8	408.2	408.5	409.4
165°	422.5	421.5	420.0	418.4	418.7	419.0	419.0	419.0	420.0	420.9	420.9
170°	430.6	429.0	428.1	427.1	428.7	430.3	430.9	431.5	431.2	430.9	430.9
175°	433.1	432.8	431.2	429.6	429.6	429.6	430.0	430.3	431.5	432.8	433.4
180°	435.8	435.8	435.8	435.8	435.8	435.8	435.8	435.8	435.8	435.8	435.8



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**CANDELA DISTRIBUTION (continued):**

	165°	170°	175°	180°
0°	647.6	647.6	647.6	647.6
5°	481.4	475.1	468.7	474.8
10°	234.3	225.8	217.3	217.3
15°	101.0	100.4	99.8	99.8
20°	91.3	91.0	90.7	90.7
25°	83.4	83.1	82.8	82.8
30°	74.9	74.9	74.9	74.9
35°	65.7	65.4	65.1	65.7
40°	54.2	54.2	54.2	54.2
45°	42.6	41.7	40.8	40.8
50°	30.4	29.5	28.6	28.6
55°	20.1	18.9	17.7	17.7
60°	11.6	10.3	9.1	9.7
65°	4.3	4.0	3.7	3.7
70°	1.8	1.8	1.8	1.8
75°	3.0	3.0	3.0	3.0
80°	4.3	4.0	3.7	3.7
85°	3.0	3.0	3.0	3.0
90°	0.0	0.0	0.0	0.0
95°	3.7	3.4	3.1	3.1
100°	5.6	5.3	5.0	5.0
105°	16.8	15.3	13.7	13.1
110°	46.1	44.2	42.4	41.1
115°	91.5	89.0	86.6	87.2
120°	140.7	139.8	138.8	140.1
125°	184.3	183.7	183.0	185.5
130°	225.4	225.1	224.8	226.0
135°	265.3	265.3	265.3	267.1
140°	303.2	302.6	302.0	303.8
145°	338.7	339.3	339.9	342.4
150°	369.2	368.9	368.6	370.5
155°	389.1	389.1	389.1	391.6
160°	410.3	410.6	410.9	412.8
165°	420.9	421.6	422.2	424.0
170°	430.9	431.8	432.8	434.6
175°	434.0	434.3	434.6	435.9
180°	435.8	435.8	435.8	435.8

(END OF REPORT)