

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: P401149

Luminaire Tested: **ENV-SA1B-740-U-T3-HSS-ULG**

Issue Date: 5/20/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P401149  
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-T3-HSS-ULG  
Description: ENTRI LED LUMINAIRE WITH UPLIGHT  
(1) 70 CRI, 4000K, 450mA LIGHTSQUARE WITH 16 LEDS AND TYPE III OPTICS WITH HOUSE SIDE SHIELD  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 4411.9 lumens  
Efficiency: N/A  
Efficacy: 104.8 lumens/watt  
Luminous Opening: Rectangular (W 0.5' x L: 0.5' x H: 0')  
IES Classification: Type III - Short - Non-Cutoff  
BUG Rating: B1 - U5 - G1

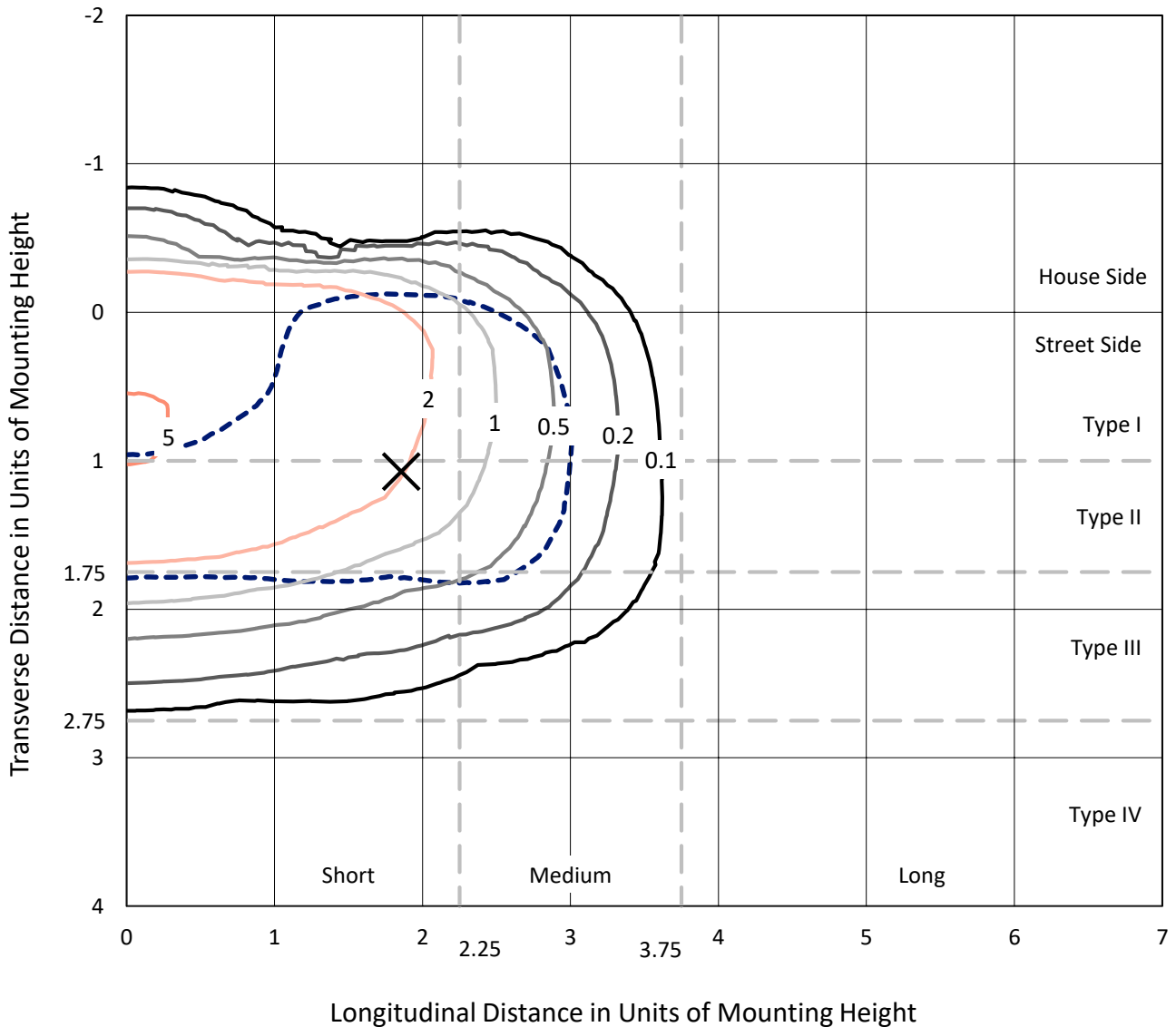
Input Watts (W): 42.1  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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### Iso-Footcandle Lines of Horizontal Illumination

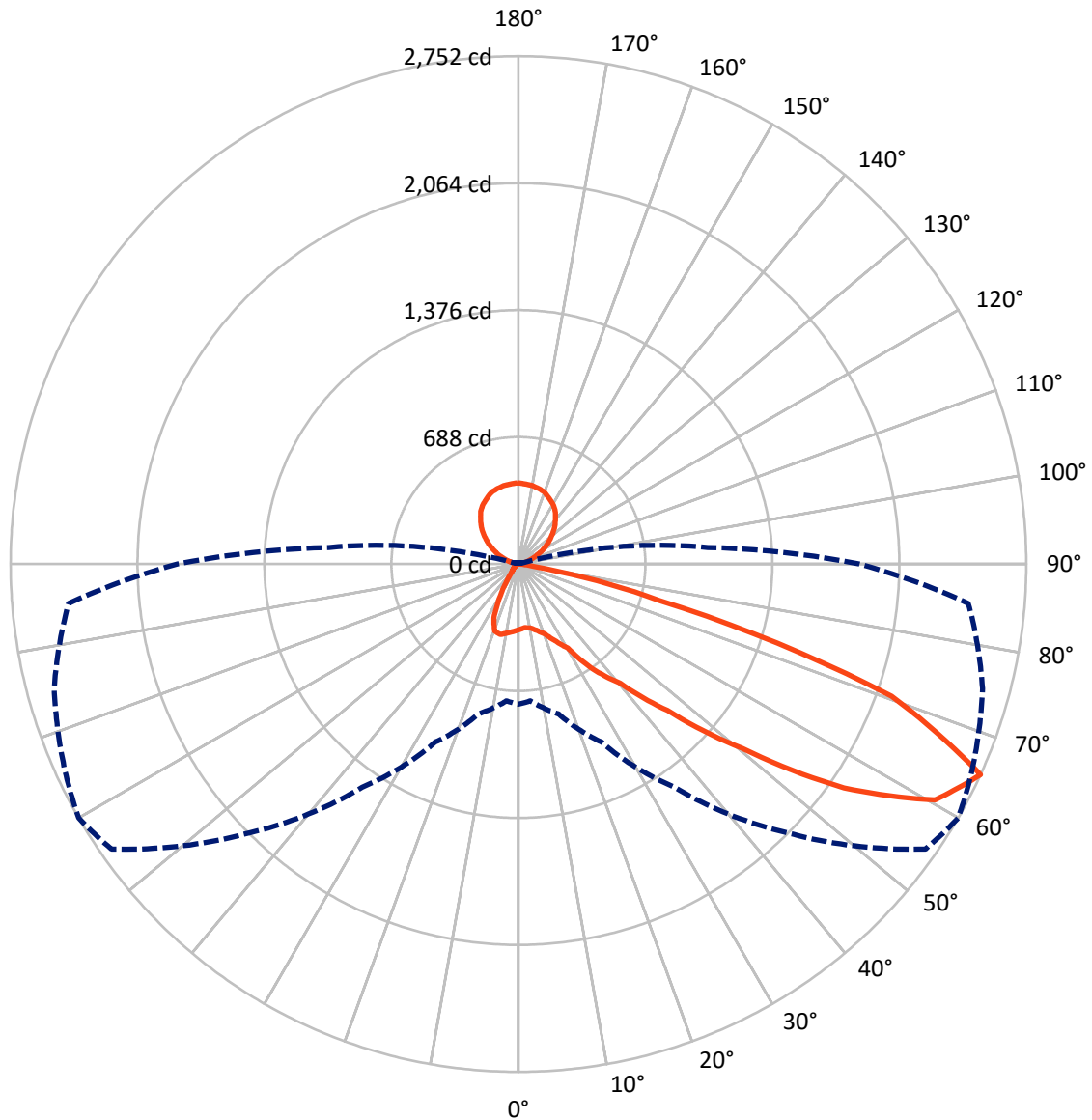
× Max cd  
 - - - 1/2 Max cd



Based on 10 foot mounting height. Maximum calculated value = 5.3 fc  
 Type III - Short - Non-Cutoff

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### Luminous Intensity Polar Plot



— Vertical Plane Through 60-Deg Lateral    - - - Horizontal Cone Through 65-Deg Vertical

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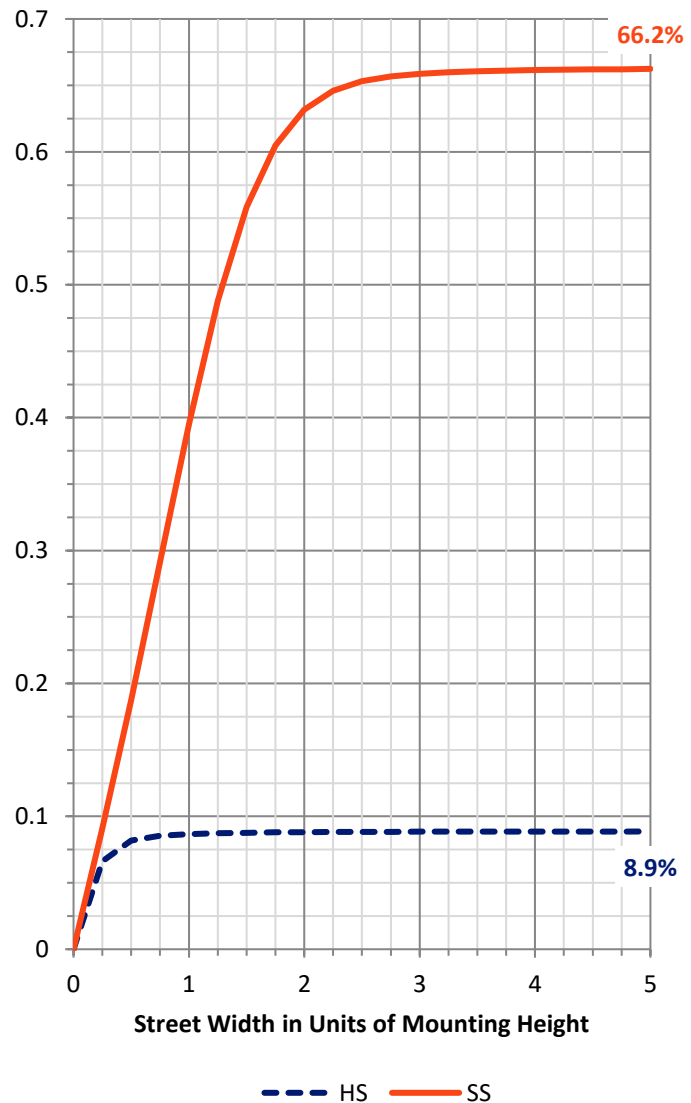
**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	396.3	545.8	942.2
	% Fixture	9.0	12.4	21.4
<b>Street Side</b>	Lumens	2923.9	545.8	3469.8
	% Fixture	66.3	12.4	78.6
<b>Total</b>	Lumens	3320.3	1091.7	4411.9
	% Fixture	75.3	24.7	100.0

**Coefficient of Utilization**

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	33.7	0.8
10°-20°	98.3	2.2
20°-30°	176.2	4.0
30°-40°	309.7	7.0
40°-50°	565.9	12.8
50°-60°	958.3	21.7
60°-70°	924.0	20.9
70°-80°	246.5	5.6
80°-90°	7.5	0.2
90°-100°	5.3	0.1
100°-110°	36.9	0.8
110°-120°	104.9	2.4
120°-130°	171.8	3.9
130°-140°	211.8	4.8
140°-150°	216.5	4.9
150°-160°	182.6	4.1
160°-170°	120.2	2.7
170°-180°	41.7	0.9
0°-90°	3320.3	75.3
0°-180°	4411.9	100.0



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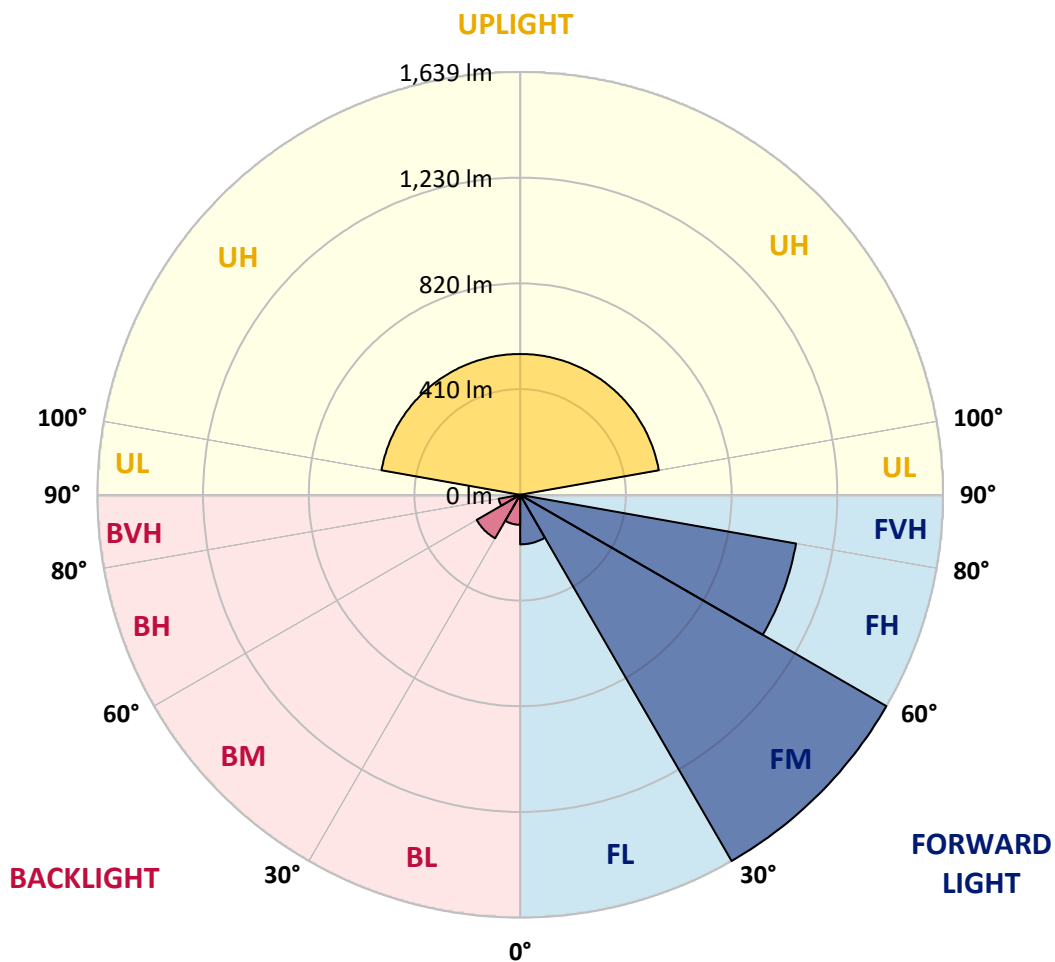
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	192.1	4.4			
FM (30°-60°)	1639.3	37.2			
FH (60°-80°)	1086.0	24.6			G1/1800
FVH (80°-90°)	6.5	0.1			G0/10
BL (0°-30°)	116.1	2.6	B1/500		
BM (30°-60°)	194.6	4.4	B0/220		
BH (60°-80°)	84.6	1.9	B0/110		G0/110
BVH (80°-90°)	1.1	0.0			G0/10
UL (90°-100°)	5.3	0.1		U1/10	
UH (100°-180°)	545.8	12.4		U4/1000	

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

Type III Short





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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	355.9	355.9	355.9	355.9	355.9	355.9	355.9	355.9	355.9	355.9	355.9
5°	322.7	323.3	323.9	324.5	326.1	327.6	329.8	331.9	334.4	336.8	339.9
10°	314.1	314.1	315.3	316.5	319.3	322.1	325.5	328.8	333.5	338.1	342.1
15°	319.6	320.9	321.8	322.7	324.8	327.0	331.6	336.2	342.7	349.1	356.8
20°	435.2	434.6	429.0	423.5	410.0	396.5	384.5	372.5	369.4	366.3	377.1
25°	619.0	622.6	614.7	606.7	583.9	561.2	531.1	500.9	473.6	446.2	441.9
30°	806.4	802.1	794.4	786.8	769.2	751.7	718.8	686.0	644.2	602.4	567.0
35°	950.9	950.3	948.1	946.0	925.4	904.8	874.3	843.9	812.0	780.0	746.8
40°	1129.1	1134.7	1128.2	1121.7	1099.9	1078.1	1051.7	1025.2	1002.5	979.8	930.3
45°	1438.3	1430.3	1422.6	1414.9	1404.5	1394.0	1365.8	1337.5	1305.2	1273.0	1220.7
50°	1657.1	1662.0	1672.5	1682.9	1709.7	1736.4	1756.1	1775.7	1759.5	1743.2	1670.3
55°	1753.6	1759.1	1785.9	1812.6	1890.7	1968.7	2067.4	2166.1	2205.7	2245.3	2220.1
60°	1477.6	1473.9	1525.9	1577.8	1697.1	1816.3	1996.7	2177.1	2328.0	2478.9	2564.3
65°	760.3	744.3	792.6	840.9	952.7	1064.6	1271.1	1477.6	1768.4	2059.1	2376.0
70°	179.5	180.7	193.9	207.1	268.6	330.1	441.0	552.0	780.9	1009.9	1480.1
75°	36.9	38.1	43.3	48.6	59.9	71.3	89.4	107.6	135.5	163.5	415.5
80°	14.8	14.8	16.9	19.1	22.4	25.8	28.3	30.7	28.6	26.4	43.0
85°	0.0	0.0	0.3	0.6	0.9	1.2	0.9	0.6	0.9	1.2	2.2
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	5.7	6.0	6.3	6.9	7.6	10.4	13.2	15.7
105°	13.2	13.8	15.4	17.0	19.8	22.6	26.4	30.2	34.9	39.6	42.5
110°	41.5	42.8	44.7	46.5	50.6	54.7	59.4	64.1	67.9	71.7	73.6
115°	88.0	87.4	89.9	92.4	96.2	99.9	102.8	105.7	107.6	109.4	111.0
120°	141.5	140.2	141.2	142.1	144.3	146.5	147.8	149.0	150.9	152.8	153.7
125°	187.3	184.8	185.5	186.1	187.1	188.0	189.9	191.8	193.4	194.9	195.9
130°	228.2	227.0	227.3	227.6	228.9	230.1	231.4	232.6	233.3	233.9	235.5
135°	269.7	267.9	267.9	267.9	269.8	271.6	272.6	273.5	274.1	274.8	276.7
140°	306.8	304.9	305.6	306.2	306.8	307.5	308.1	308.7	310.6	312.5	313.5
145°	345.8	343.3	342.7	342.1	343.0	344.0	344.9	345.8	346.1	346.4	348.0
150°	374.1	372.2	372.5	372.9	372.9	372.9	372.9	372.9	372.9	372.9	374.1
155°	395.5	393.0	393.0	393.0	393.6	394.2	395.2	396.1	395.5	394.9	394.2
160°	416.9	415.0	414.6	414.3	413.4	412.5	412.2	411.8	411.8	411.8	412.8
165°	428.2	426.3	425.7	425.0	425.0	425.0	424.1	423.1	423.1	423.1	422.8
170°	438.9	437.0	436.1	435.1	435.1	435.1	435.4	435.7	435.1	434.5	432.9
175°	440.2	438.9	438.6	438.3	437.6	437.0	435.8	434.5	434.2	433.8	433.8
180°	440.1	440.1	440.1	440.1	440.1	440.1	440.1	440.1	440.1	440.1	440.1



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**CANDELA DISTRIBUTION (continued):**

	55°	60°	65°	70°	75°	80°	85°	90°	95°	100°	105°
0°	355.9	355.9	355.9	355.9	355.9	355.9	355.9	355.9	355.9	355.9	355.9
5°	343.0	346.2	349.7	352.8	355.9	358.0	360.2	362.6	364.5	365.4	366.3
10°	346.1	351.8	358.3	364.2	370.0	374.9	379.9	383.5	385.4	386.0	386.6
15°	364.5	373.1	382.3	391.2	400.1	407.8	415.5	419.2	421.7	421.0	420.4
20°	387.8	403.8	423.5	438.6	453.6	459.8	465.9	467.1	465.9	458.5	451.2
25°	437.6	459.1	488.0	506.2	524.3	522.8	521.2	514.5	504.6	487.1	469.6
30°	531.7	528.8	535.4	557.8	580.2	575.0	569.8	552.6	530.4	502.5	474.5
35°	713.6	702.8	701.9	720.4	738.8	715.5	692.1	644.2	597.4	545.2	493.0
40°	880.8	849.6	834.7	845.5	856.2	838.7	821.2	776.9	725.9	595.9	465.9
45°	1168.5	1132.9	1125.4	1153.4	1181.4	1149.1	1116.8	1046.8	914.6	620.8	327.0
50°	1597.5	1568.2	1562.5	1604.3	1646.1	1597.8	1549.5	1397.1	1131.6	647.8	164.1
55°	2194.9	2141.7	2088.6	2066.5	2044.3	1985.3	1926.3	1721.0	1250.8	662.0	73.1
60°	2649.8	2595.8	2517.6	2476.8	2435.9	2392.2	2348.6	1956.5	1245.3	641.7	38.1
65°	2692.8	2752.2	2705.7	2655.0	2604.3	2525.9	2447.6	1847.0	1030.8	526.8	22.7
70°	1950.3	2145.7	2156.2	2075.4	1994.6	1769.9	1545.2	1092.9	574.7	294.4	14.1
75°	667.5	787.4	792.3	682.9	573.5	439.2	304.9	202.2	98.3	54.1	9.8
80°	59.6	83.2	94.7	82.1	69.5	50.7	32.0	19.7	11.7	8.3	4.9
85°	3.1	5.0	6.8	8.3	9.8	7.4	4.9	2.5	1.8	1.5	1.2
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
95°	4.4	4.7	5.0	4.7	4.4	4.4	4.4	4.4	4.4	4.4	4.4
100°	18.3	17.3	16.3	15.4	14.4	13.2	11.9	11.9	11.9	13.2	14.4
105°	45.3	44.6	44.0	42.4	40.9	39.6	38.4	38.4	38.4	39.6	40.9
110°	75.5	75.8	76.1	75.5	74.8	73.9	73.0	73.6	73.0	73.9	74.8
115°	112.5	113.5	114.4	113.5	112.5	111.9	111.3	111.9	111.3	111.9	112.5
120°	154.6	155.9	157.2	155.6	154.0	153.4	152.8	152.8	152.8	153.4	154.0
125°	196.8	197.4	198.0	196.5	194.9	194.9	194.9	194.9	194.9	194.9	194.9
130°	237.1	238.3	239.5	239.5	239.5	238.9	238.3	238.9	238.3	238.9	239.5
135°	278.6	280.1	281.7	281.4	281.1	282.0	282.9	283.6	282.9	282.0	281.1
140°	314.4	315.0	315.6	316.2	316.9	318.5	320.1	321.3	320.1	318.5	316.9
145°	349.6	351.5	353.4	353.1	352.8	351.8	350.8	352.1	350.8	351.8	352.8
150°	375.4	376.3	377.3	378.2	379.1	380.1	381.0	383.5	381.0	380.1	379.1
155°	393.6	395.2	396.8	398.3	399.9	400.5	401.1	403.0	401.1	400.5	399.9
160°	413.7	415.6	417.5	416.6	415.6	415.3	415.0	418.8	415.0	415.3	415.6
165°	422.5	424.1	425.6	426.6	427.6	426.9	426.3	428.8	426.3	426.9	427.6
170°	431.3	432.3	433.2	434.8	436.3	437.0	437.6	440.8	437.6	437.0	436.3
175°	433.8	435.4	437.0	437.3	437.6	437.0	436.3	439.5	436.3	437.0	437.6
180°	440.1	440.1	440.1	440.1	440.1	440.1	440.1	440.1	440.1	440.1	440.1





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**CANDELA DISTRIBUTION (continued):**

	110°	115°	120°	125°	130°	135°	140°	145°	150°	155°	160°
0°	355.9	355.9	355.9	355.9	355.9	355.9	355.9	355.9	355.9	355.9	355.9
5°	366.6	367.0	366.6	366.3	364.2	362.0	362.6	363.3	361.7	360.2	359.9
10°	384.8	382.9	379.2	375.6	370.9	366.3	363.0	359.6	355.0	350.4	348.2
15°	414.0	407.5	394.6	381.7	364.8	347.9	329.5	311.0	290.1	269.2	256.3
20°	432.7	414.3	385.1	355.9	305.5	255.1	209.6	164.1	141.1	118.0	110.0
25°	434.9	400.1	319.6	239.1	174.9	110.6	100.2	89.7	88.5	87.3	86.1
30°	390.0	305.5	201.6	97.7	85.1	72.5	71.6	70.7	68.5	66.4	63.6
35°	321.8	150.6	106.3	62.1	59.0	55.9	52.2	48.6	45.2	41.8	39.0
40°	264.6	63.3	55.9	48.6	44.6	40.6	36.6	32.6	29.2	25.8	24.3
45°	187.8	48.6	42.7	36.9	32.6	28.3	24.9	21.5	19.7	17.8	16.6
50°	101.1	38.1	33.2	28.3	24.3	20.3	17.8	15.4	14.4	13.5	12.9
55°	51.0	28.9	25.5	22.1	18.7	15.4	14.4	13.5	12.9	12.3	11.7
60°	29.8	21.5	19.4	17.2	15.1	12.9	12.3	11.7	11.1	10.4	10.1
65°	18.7	14.8	13.2	11.7	10.8	9.8	9.5	9.2	8.6	8.0	7.1
70°	12.0	9.8	8.9	8.0	8.0	8.0	7.4	6.8	5.8	4.9	3.7
75°	8.3	6.8	6.1	5.5	4.9	4.3	4.0	3.7	3.1	2.5	2.2
80°	4.6	4.3	4.6	4.9	4.9	4.9	4.6	4.3	4.0	3.7	4.0
85°	1.5	1.8	1.8	1.8	1.8	1.8	1.5	1.2	1.2	1.2	0.9
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
95°	4.7	5.0	4.7	4.4	4.4	4.4	4.4	4.4	4.4	4.4	4.1
100°	15.4	16.3	17.3	18.3	15.7	13.2	10.4	7.6	6.9	6.3	6.0
105°	42.5	44.0	44.7	45.3	42.5	39.6	34.9	30.2	26.4	22.6	19.8
110°	75.5	76.1	75.8	75.5	73.6	71.7	67.9	64.1	59.4	54.7	50.6
115°	113.5	114.4	113.5	112.5	111.0	109.4	107.6	105.7	102.8	99.9	96.2
120°	155.6	157.2	155.9	154.6	153.7	152.8	150.9	149.0	147.8	146.5	144.3
125°	196.5	198.0	197.4	196.8	195.9	194.9	193.4	191.8	189.9	188.0	187.1
130°	239.5	239.5	238.3	237.1	235.5	233.9	233.3	232.6	231.4	230.1	228.9
135°	281.4	281.7	280.2	278.6	276.7	274.8	274.1	273.5	272.6	271.6	269.8
140°	316.3	315.6	315.0	314.4	313.5	312.5	310.6	308.7	308.1	307.5	306.8
145°	353.1	353.4	351.5	349.6	348.0	346.4	346.1	345.8	344.9	344.0	343.0
150°	378.2	377.3	376.4	375.4	374.1	372.9	372.9	372.9	372.9	372.9	372.9
155°	398.4	396.8	395.2	393.6	394.2	394.9	395.5	396.1	395.2	394.2	393.6
160°	416.6	417.5	415.6	413.7	412.8	411.8	411.8	411.8	412.2	412.5	413.4
165°	426.6	425.6	424.1	422.5	422.8	423.1	423.1	423.1	424.1	425.0	425.0
170°	434.8	433.2	432.3	431.3	432.9	434.5	435.1	435.7	435.4	435.1	435.1
175°	437.3	437.0	435.4	433.8	433.8	433.8	434.2	434.5	435.8	437.0	437.6
180°	440.1	440.1	440.1	440.1	440.1	440.1	440.1	440.1	440.1	440.1	440.1



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**CANDELA DISTRIBUTION (continued):**

	165°	170°	175°	180°
0°	355.9	355.9	355.9	355.9
5°	359.6	359.6	359.6	359.6
10°	346.1	345.1	344.2	344.2
15°	243.4	235.1	226.8	223.7
20°	102.0	100.2	98.3	97.7
25°	84.8	83.6	82.4	81.7
30°	60.9	59.0	57.2	55.9
35°	36.3	34.7	33.2	32.6
40°	22.7	21.8	20.9	20.9
45°	15.4	15.1	14.8	14.8
50°	12.3	12.0	11.7	11.7
55°	11.1	11.1	11.1	10.4
60°	9.8	9.5	9.2	9.2
65°	6.1	5.5	4.9	4.9
70°	2.5	1.8	1.2	1.2
75°	1.8	1.5	1.2	0.6
80°	4.3	3.7	3.1	2.5
85°	0.6	0.3	0.0	0.0
90°	0.0	0.0	0.0	0.0
95°	3.7	3.4	3.1	3.1
100°	5.7	5.3	5.0	5.0
105°	17.0	15.4	13.8	13.2
110°	46.5	44.7	42.8	41.5
115°	92.4	89.9	87.4	88.0
120°	142.1	141.2	140.2	141.5
125°	186.1	185.5	184.8	187.3
130°	227.6	227.3	227.0	228.2
135°	267.9	267.9	267.9	269.7
140°	306.2	305.6	304.9	306.8
145°	342.1	342.7	343.3	345.8
150°	372.9	372.5	372.2	374.1
155°	393.0	393.0	393.0	395.5
160°	414.3	414.6	415.0	416.9
165°	425.0	425.7	426.3	428.2
170°	435.1	436.1	437.0	438.9
175°	438.3	438.6	438.9	440.2
180°	440.1	440.1	440.1	440.1

(END OF REPORT)