

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: P676196

Luminaire Tested: **CCW-SA-1A-840-U-T1**

Issue Date: 04/25/2023



**Test Information**

Test Method: LM-79-08  
Report Number: P676196  
Test Lab: INNOVATION CENTER(G1)  
Issue Date: 04/25/2023  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: INVUE  
Catalog Number: CCW-SA-1A-840-U-T1  
Description: INVUE CLEAR CURVE Wall Pack MOUNT LIGHT SQUARE LUMINAIRE @350mA w/  
T1 distribution lens  
Light Source: (16) 4000K CCT, 80 CRI LEDs  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

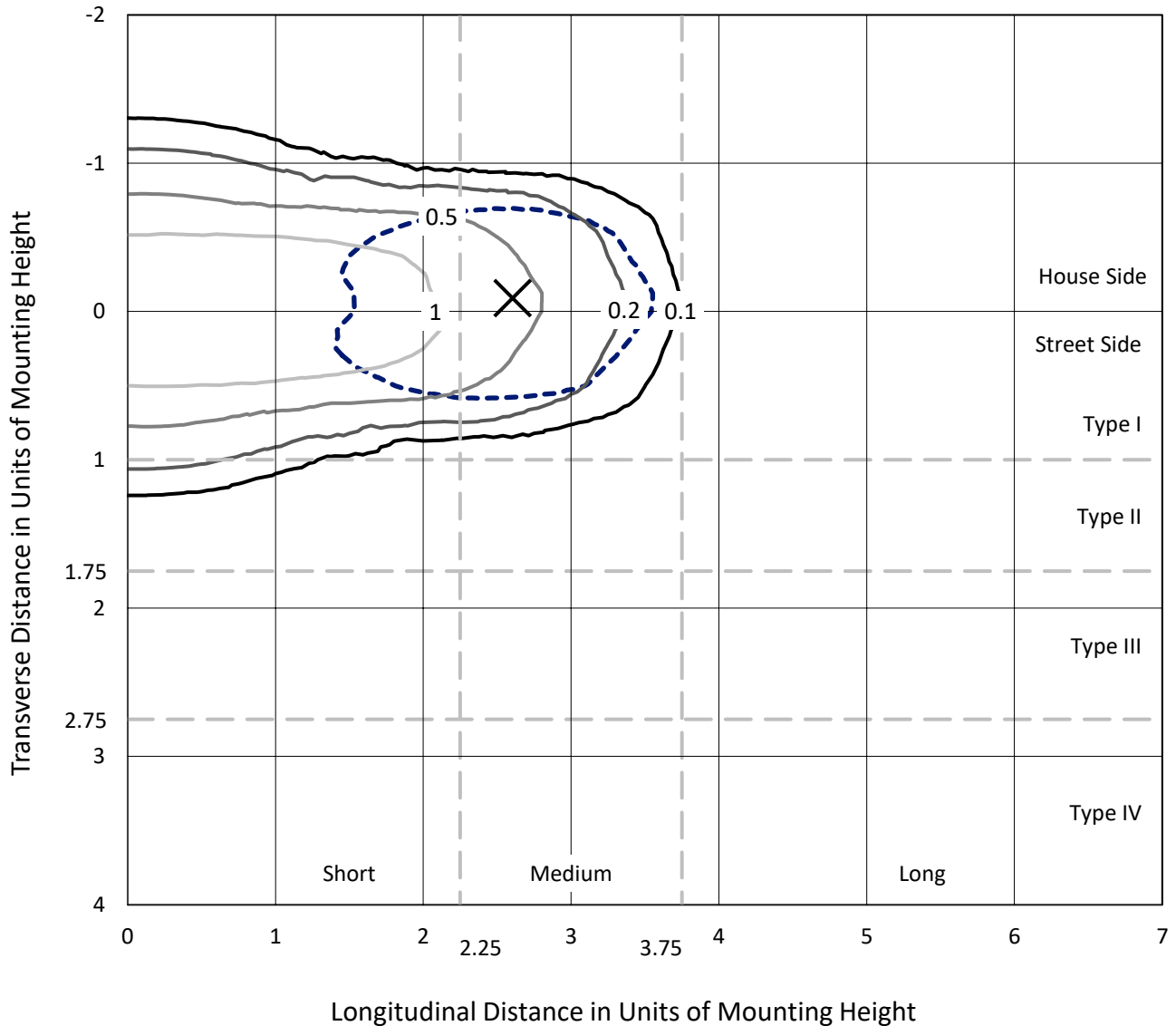
Lumens per Lamp: N/A  
Luminaire Lumens: 2271.4 lumens  
Efficiency: N/A  
Efficacy: 126.2 lumens/watt  
Luminous Opening: Rectangular (W 1' x L: 0.5' x H: 0')  
IES Classification: Type I - Short  
BUG Rating: B1 - U0 - G1

Input Watts (W): 18  
Input Voltage (V): 120  
Input Current (A<sub>in</sub>): 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

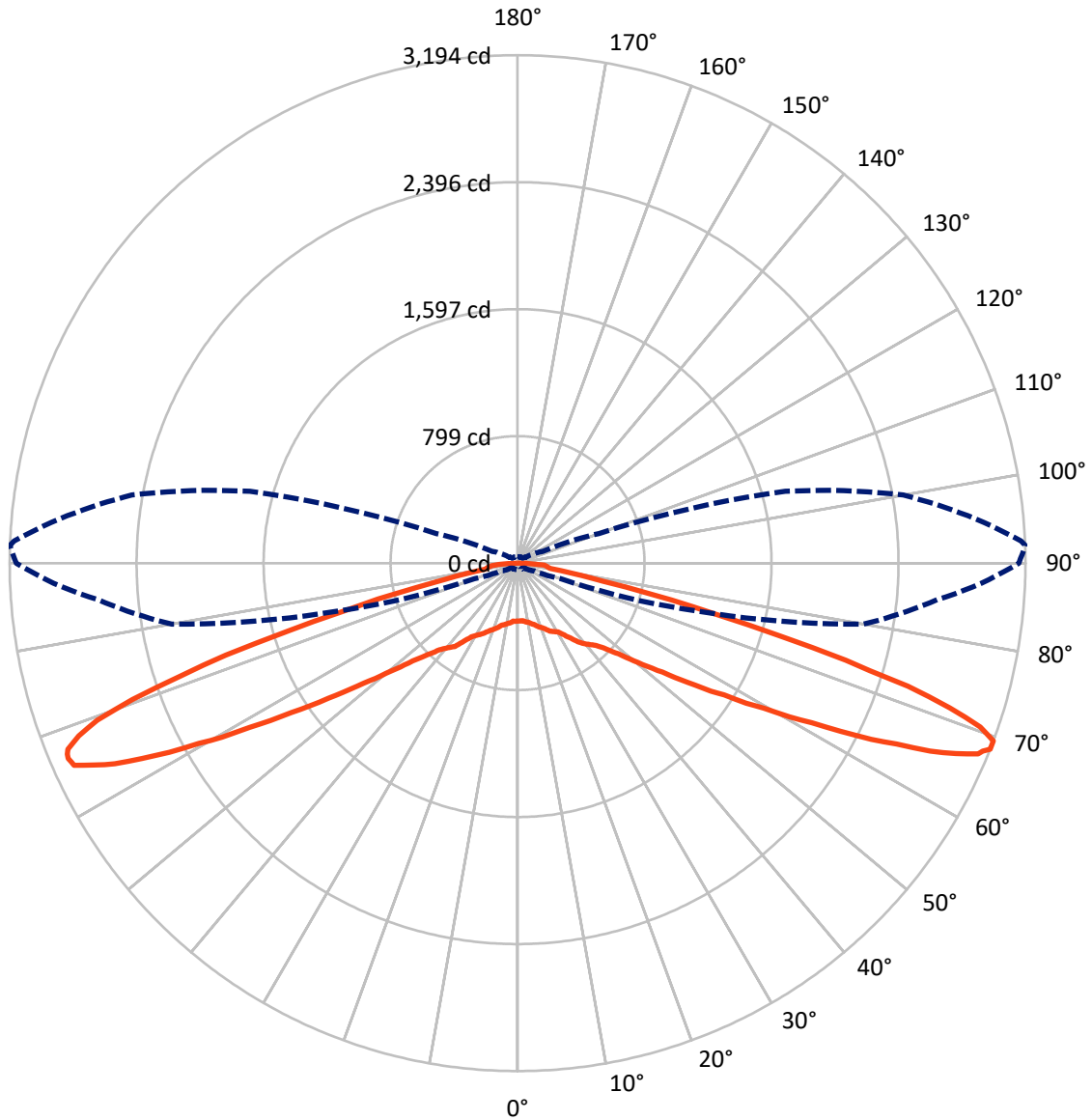
× Max cd  
 - - - 1/2 Max cd



Based on 15 foot mounting height. Maximum calculated value = 1.8 fc  
 Type I - Short - N/A

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### Luminous Intensity Polar Plot



— Vertical Plane Through 92-Deg Lateral      - - - Horizontal Cone Through 69-Deg Vertical

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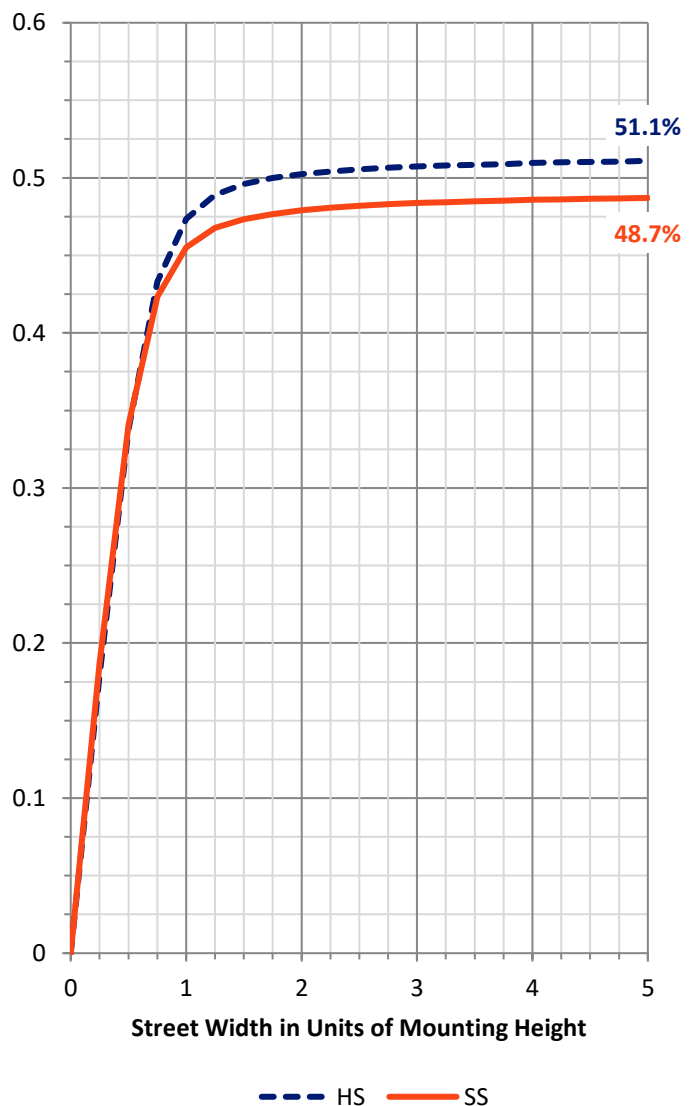
**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	1169.7	0.0	1169.7
	% Fixture	51.5	0.0	51.5
<b>Street Side</b>	Lumens	1101.7	0.0	1101.7
	% Fixture	48.5	0.0	48.5
<b>Total</b>	Lumens	2271.4	0.0	2271.4
	% Fixture	100.0	0.0	100.0

**Coefficient of Utilization**

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	36.4	1.6
10°-20°	117.8	5.2
20°-30°	201.1	8.9
30°-40°	280.8	12.4
40°-50°	357.2	15.7
50°-60°	451.6	19.9
60°-70°	556.9	24.5
70°-80°	243.3	10.7
80°-90°	26.4	1.2
90°-100°	0.0	0.0
100°-110°	0.0	0.0
110°-120°	0.0	0.0
120°-130°	0.0	0.0
130°-140°	0.0	0.0
140°-150°	0.0	0.0
150°-160°	0.0	0.0
160°-170°	0.0	0.0
170°-180°	0.0	0.0
0°-90°	2271.4	100.0
0°-180°	2271.4	100.0



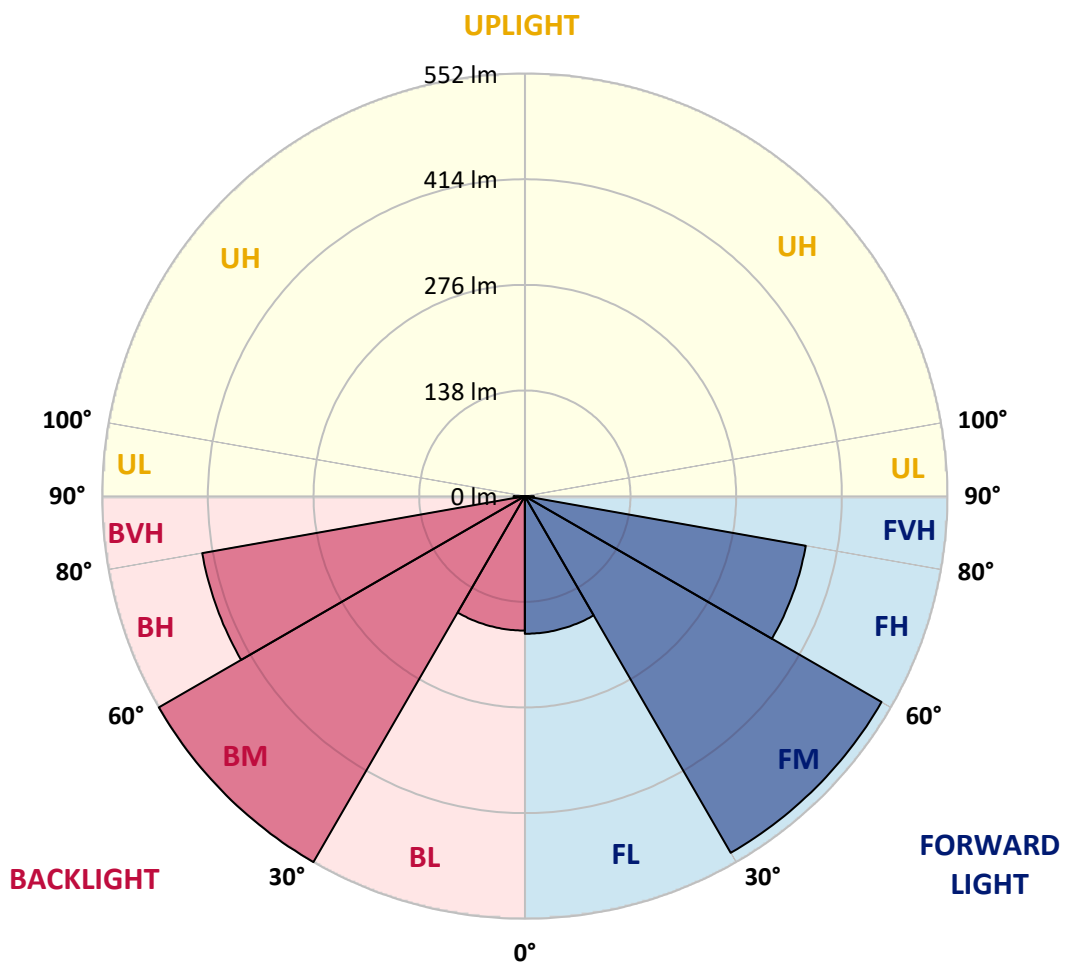
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	179.8	7.9			
FM (30°-60°)	537.7	23.7			
FH (60°-80°)	372.5	16.4			G0/660
FVH (80°-90°)	11.7	0.5			G1/100
BL (0°-30°)	175.5	7.7	B1/500		
BM (30°-60°)	551.8	24.3	B1/1000		
BH (60°-80°)	427.7	18.8	B1/500		G1/500
BVH (80°-90°)	14.7	0.6			G1/100
UL (90°-100°)	0.0	0.0		U0/0	
UH (100°-180°)	0.0	0.0		U0/0	

**BUG Rating: B1-U0-G1**

Type I Short





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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	15°	25°	35°	45°	55°	65°	70°	75°	80°
0°	363.2	363.2	363.2	363.2	363.2	363.2	363.2	363.2	363.2	363.2	363.2
2.5°	370.9	370.5	371.7	372.6	368.8	370.0	369.2	368.3	365.3	364.1	361.5
5°	381.1	382.4	386.7	382.8	384.5	382.4	375.6	377.7	373.9	373.0	370.5
7.5°	399.0	396.5	402.4	398.2	399.5	395.2	392.2	388.4	387.5	381.5	382.0
10°	402.9	408.0	410.5	409.7	410.5	412.7	407.1	401.2	393.1	391.4	385.4
12.5°	400.3	405.0	411.8	417.4	421.2	422.0	419.9	418.6	415.2	405.4	405.0
15°	397.7	394.3	398.6	417.8	430.6	439.1	442.1	434.8	435.7	422.9	417.8
17.5°	380.7	375.6	392.2	411.0	426.7	445.5	460.0	457.9	457.9	447.6	440.4
20°	358.1	366.6	375.2	399.0	428.0	456.1	483.9	482.6	477.5	474.5	458.7
22.5°	338.9	342.8	358.5	383.7	419.9	459.1	492.0	515.4	503.5	491.5	482.2
25°	325.7	322.3	342.3	368.3	412.2	454.0	507.3	531.6	538.0	529.0	511.1
27.5°	306.9	306.9	322.7	347.4	387.5	451.5	522.2	559.3	568.7	555.5	529.5
30°	285.6	288.2	301.8	330.0	369.2	432.7	528.2	591.3	599.0	587.5	560.6
32.5°	269.0	269.0	284.3	314.2	356.4	424.2	524.4	622.8	637.3	628.8	601.1
35°	251.1	249.8	260.9	293.7	335.9	407.6	523.1	648.0	680.4	680.8	651.8
37.5°	225.5	230.6	244.7	270.7	319.7	391.4	519.2	678.3	736.2	746.0	726.0
40°	208.5	210.6	223.4	251.9	294.6	372.2	513.7	703.0	773.3	807.0	779.3
42.5°	183.7	186.7	196.5	231.9	270.3	344.9	489.4	720.5	826.2	864.6	841.1
45°	157.7	159.4	173.9	202.9	244.3	312.5	463.4	748.6	877.3	955.8	942.1
47.5°	126.6	127.5	139.8	170.1	213.2	280.1	423.3	747.3	918.7	1047.0	1085.4
50°	98.9	101.0	110.4	135.1	175.6	240.4	376.9	737.1	970.7	1151.0	1226.5
52.5°	78.9	79.3	85.3	104.9	135.6	200.8	327.0	704.7	1019.7	1252.9	1399.6
55°	65.2	65.2	68.6	80.6	104.0	152.6	268.6	651.0	1025.7	1365.5	1588.4
56°	62.7	61.8	64.8	75.0	93.8	137.7	241.3	614.7	1034.2	1417.5	1683.1
57°	59.3	59.7	61.4	68.6	84.4	121.9	211.0	579.4	1028.3	1460.1	1753.0
58°	57.6	56.7	60.1	64.8	74.6	108.3	190.1	537.6	1018.9	1495.1	1854.9
59°	55.0	54.6	56.7	61.0	69.5	96.3	164.6	492.4	1000.5	1540.3	1930.7
60°	54.1	53.7	54.6	58.0	63.9	84.4	144.9	439.5	951.5	1586.7	2025.0
61°	51.6	52.0	53.7	55.8	60.5	75.9	130.5	385.4	919.5	1625.9	2129.0
62°	52.0	51.2	52.0	53.7	57.1	69.9	114.3	332.1	862.4	1670.3	2207.0
63°	49.5	49.0	50.3	52.4	54.1	63.1	99.8	286.9	797.6	1680.5	2273.1
64°	48.6	48.2	48.6	51.6	52.0	59.3	88.2	245.1	703.8	1698.0	2357.9
65°	46.5	46.5	47.3	48.6	50.3	55.8	78.9	212.7	610.5	1651.9	2383.9
66°	44.8	45.2	45.2	47.3	48.6	52.0	72.5	180.8	520.9	1578.6	2409.1
67°	43.5	43.5	43.9	45.6	46.9	49.0	65.2	156.5	439.5	1491.2	2370.3
67.5°	42.6	43.1	43.1	44.8	46.0	49.0	62.2	148.4	393.1	1395.3	2341.3
68°	41.4	41.8	41.8	43.5	44.8	47.3	60.1	135.6	362.4	1333.1	2287.6
69°	40.5	40.1	40.1	41.8	43.5	45.2	55.8	118.5	288.2	1159.1	2209.1
70°	37.9	37.9	38.8	40.1	41.4	43.1	51.6	104.4	243.8	959.6	2007.1
71°	36.7	36.2	36.7	37.9	39.2	41.4	47.3	92.5	199.5	796.8	1808.4
72°	34.1	35.0	35.0	36.2	37.5	38.8	44.3	80.6	167.5	636.9	1589.7
72.5°	33.7	33.7	34.1	35.4	36.2	38.4	42.6	77.2	153.0	561.4	1498.0
73°	32.4	32.4	32.8	34.1	35.0	37.1	41.4	69.5	139.4	499.6	1326.7
74°	31.1	30.7	30.7	32.4	32.8	35.0	38.8	61.4	116.8	376.4	1064.9
75°	29.0	29.0	29.4	30.3	30.7	32.4	35.8	54.6	98.5	292.0	833.0



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**CANDELA DISTRIBUTION (continued):**

	0°	5°	15°	25°	35°	45°	55°	65°	70°	75°	80°
77.5°	23.9	24.3	24.7	25.6	25.6	26.9	29.4	37.9	60.1	147.9	382.4
80°	17.5	18.3	19.6	20.9	20.5	20.5	23.0	27.3	35.8	66.5	146.6
82.5°	14.1	14.9	13.6	15.3	15.3	14.5	16.6	20.0	24.3	32.8	52.4
85°	9.4	9.8	8.1	9.4	9.0	9.0	11.1	11.9	14.9	18.3	26.0
87.5°	4.3	4.3	3.4	3.8	3.8	3.8	5.5	4.3	6.4	9.0	15.3
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0





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**CANDELA DISTRIBUTION (continued):**

	85°	87.5°	90°	92°	92.5°	95°	100°	105°	110°	115°	125°
0°	363.2	363.2	363.2	363.2	363.2	363.2	363.2	363.2	363.2	363.2	363.2
2.5°	364.1	365.8	365.8	364.1	362.8	364.1	363.2	361.1	363.2	364.1	364.5
5°	369.2	365.8	367.5	363.6	366.2	365.8	364.9	367.1	367.5	367.5	370.5
7.5°	374.7	379.0	373.4	373.9	375.2	370.0	371.7	372.6	370.9	374.3	376.9
10°	384.5	386.2	384.5	378.1	382.4	379.0	377.7	381.5	380.7	381.5	385.4
12.5°	393.5	396.5	391.8	391.4	389.2	386.2	387.9	387.5	393.5	394.3	399.0
15°	411.8	404.1	402.4	402.0	401.2	399.9	400.7	401.2	408.8	410.1	421.2
17.5°	427.6	426.3	416.9	420.3	420.3	415.2	413.1	420.3	426.3	432.7	440.4
20°	443.8	442.5	432.3	432.7	428.9	433.6	431.0	437.8	448.0	450.2	457.0
22.5°	463.0	457.4	450.2	451.0	452.3	448.9	447.2	456.6	466.8	472.8	473.2
25°	493.2	479.2	473.2	474.1	472.3	469.8	471.1	483.0	488.1	500.9	498.4
27.5°	509.4	501.3	497.1	487.3	487.7	483.9	489.0	506.9	517.1	526.9	507.3
30°	529.0	523.9	505.2	501.8	501.3	499.6	509.0	532.0	547.4	552.9	524.8
32.5°	567.4	547.0	542.3	539.3	532.5	534.6	539.3	569.5	593.8	592.6	541.0
35°	611.3	597.3	584.0	581.5	580.6	574.7	582.8	618.1	636.9	631.4	547.0
37.5°	681.7	660.4	642.4	632.6	630.9	626.7	645.9	674.0	698.3	676.6	551.6
40°	716.2	692.3	675.7	669.7	671.0	677.0	695.7	738.8	749.4	709.4	555.5
42.5°	765.6	739.6	706.8	703.8	700.0	703.0	739.2	797.2	806.1	753.7	541.0
45°	853.5	814.2	776.3	759.3	760.1	768.2	824.5	888.0	871.4	784.4	518.0
47.5°	964.3	906.8	876.1	853.0	864.1	855.2	944.7	995.4	938.7	823.2	489.8
50°	1131.0	1050.4	1008.6	980.9	985.6	993.3	1084.1	1127.2	1013.3	842.0	446.8
52.5°	1341.2	1237.6	1176.2	1139.1	1142.5	1159.1	1276.4	1263.2	1098.6	857.7	389.2
55°	1592.7	1486.1	1367.2	1351.8	1348.0	1387.6	1516.8	1405.5	1175.3	832.6	329.5
56°	1725.7	1612.3	1488.7	1457.1	1447.7	1475.5	1627.2	1476.7	1201.8	804.4	301.0
57°	1838.7	1730.4	1594.8	1541.1	1553.0	1605.0	1736.8	1543.7	1226.1	775.5	274.1
58°	1993.8	1870.2	1727.0	1686.0	1675.4	1716.7	1854.9	1611.0	1234.2	745.6	249.4
59°	2148.6	2000.2	1871.1	1796.5	1799.4	1874.9	1971.2	1691.2	1246.5	707.7	217.8
60°	2266.3	2191.6	2019.0	1963.1	1955.5	2064.6	2087.2	1744.9	1259.7	656.5	195.7
61°	2432.9	2335.7	2175.0	2103.0	2123.9	2211.3	2212.5	1812.2	1240.1	591.7	168.4
62°	2552.7	2527.2	2358.3	2289.7	2283.3	2399.3	2343.0	1871.5	1223.1	530.3	148.8
63°	2693.0	2693.0	2539.1	2485.4	2488.4	2580.0	2399.7	1930.7	1203.5	462.5	130.9
64°	2765.9	2857.5	2715.6	2640.1	2659.7	2739.0	2500.7	1969.5	1142.9	393.9	115.1
65°	2829.0	2966.7	2887.8	2852.9	2823.0	2869.9	2588.1	2005.8	1050.4	335.1	102.3
66°	2882.3	3069.4	3043.4	3005.9	3002.9	2992.3	2605.2	2004.5	954.9	283.1	89.5
67°	2855.4	3071.5	3118.9	3134.6	3130.0	3017.4	2575.3	1958.9	832.6	239.2	79.7
67.5°	2831.1	3054.1	3164.1	3155.1	3174.7	3038.7	2580.4	1903.0	745.6	216.6	75.0
68°	2809.8	3030.6	3182.4	3193.9	3184.1	3041.3	2552.3	1858.7	686.4	203.3	70.8
69°	2648.2	2919.4	3153.0	3194.3	3169.2	2943.7	2462.8	1743.2	545.2	173.5	65.2
70°	2486.2	2775.3	3010.2	3086.0	3054.9	2754.8	2349.8	1559.4	449.8	148.4	58.8
71°	2262.0	2507.5	2820.0	2865.6	2828.1	2539.9	2116.2	1365.5	350.0	125.8	52.4
72°	1957.6	2166.1	2464.5	2574.9	2519.5	2230.9	1880.0	1128.4	283.5	105.7	47.7
72.5°	1806.7	2020.3	2308.0	2317.0	2327.6	2096.6	1779.8	991.2	247.3	98.1	46.5
73°	1663.5	1872.8	2121.7	2153.3	2108.1	1870.2	1630.2	886.3	225.9	89.5	44.8
74°	1348.0	1467.4	1673.7	1704.4	1664.7	1524.9	1332.2	679.5	179.9	77.2	40.9
75°	1060.7	1126.3	1313.0	1294.3	1235.0	1186.0	1032.9	519.2	145.8	67.8	37.9



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**CANDELA DISTRIBUTION (continued):**

	85°	87.5°	90°	92°	92.5°	95°	100°	105°	110°	115°	125°
77.5°	476.6	516.3	547.4	547.4	550.8	525.6	476.2	238.3	90.0	49.0	31.1
80°	181.6	203.3	210.2	210.6	213.6	221.3	205.9	117.2	53.3	35.0	25.2
82.5°	131.7	184.2	198.2	188.0	188.9	170.5	78.9	52.0	33.7	24.3	18.3
85°	119.4	160.3	169.7	168.4	168.8	157.7	46.5	25.6	19.6	15.3	12.8
87.5°	58.0	56.7	60.1	67.8	66.1	85.7	39.2	12.8	8.5	6.4	6.4
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0



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**CANDELA DISTRIBUTION (continued):**

	135°	145°	155°	165°	175°	180°
0°	363.2	363.2	363.2	363.2	363.2	363.2
2.5°	361.1	360.7	366.6	360.7	364.1	361.5
5°	365.3	367.1	368.3	370.9	364.9	370.9
7.5°	378.1	379.8	380.3	382.4	379.8	379.4
10°	387.9	392.2	394.8	386.2	391.4	390.9
12.5°	407.1	402.9	402.4	400.7	396.0	394.3
15°	420.8	414.4	410.5	403.7	398.2	396.0
17.5°	439.9	427.6	411.8	397.7	387.9	380.3
20°	451.9	429.7	398.2	381.5	366.6	370.0
22.5°	459.6	427.6	385.8	364.5	349.6	353.8
25°	462.1	416.9	377.3	350.9	336.4	333.4
27.5°	454.9	404.6	360.7	330.8	318.0	320.6
30°	451.5	386.7	345.3	315.9	298.8	301.4
32.5°	442.5	368.3	324.8	295.0	282.6	278.4
35°	429.7	353.0	305.2	277.1	262.2	258.8
37.5°	413.9	333.8	288.2	254.1	240.9	238.3
40°	390.5	310.8	263.5	234.0	218.7	218.3
42.5°	370.0	288.6	240.4	210.2	194.8	195.7
45°	344.0	258.8	214.0	188.0	172.7	173.5
47.5°	310.8	231.1	188.9	159.9	147.1	146.2
50°	271.6	199.5	158.2	133.4	122.8	120.6
52.5°	234.0	167.5	129.6	107.4	98.5	97.6
55°	186.7	130.5	101.0	84.4	77.6	78.0
56°	169.7	120.2	92.1	77.2	72.0	72.0
57°	153.5	106.6	83.6	71.2	66.5	66.5
58°	135.6	93.8	75.9	64.4	62.2	60.5
59°	123.2	85.3	68.6	61.0	57.6	57.1
60°	108.7	76.7	63.9	57.1	54.6	54.1
61°	96.3	69.1	58.8	53.3	52.4	52.4
62°	86.1	63.9	54.6	51.6	51.2	49.9
63°	77.2	58.8	52.4	49.0	47.7	49.0
64°	69.1	54.1	50.7	48.2	46.5	47.3
65°	62.7	52.0	48.6	46.9	45.2	45.6
66°	58.4	48.6	46.9	44.8	43.9	44.3
67°	52.9	46.9	45.2	43.1	42.6	43.1
67.5°	51.2	45.6	44.3	42.2	41.8	42.2
68°	49.9	44.8	43.9	41.8	41.4	40.9
69°	46.5	43.1	41.8	40.9	40.1	39.6
70°	43.5	41.4	40.5	39.2	38.4	37.9
71°	41.8	39.2	38.8	37.5	36.7	36.2
72°	39.6	37.9	37.1	35.4	35.0	35.4
72.5°	39.2	37.1	36.7	35.0	34.5	34.5
73°	37.9	35.4	35.8	34.1	33.3	34.1
74°	35.4	34.5	33.7	32.4	32.0	32.0
75°	33.3	32.4	31.5	30.7	30.7	30.7



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**CANDELA DISTRIBUTION (continued):**

	135°	145°	155°	165°	175°	180°
77.5°	28.1	27.7	28.1	26.4	26.0	25.6
80°	22.6	22.6	23.0	21.7	20.9	20.5
82.5°	17.1	17.5	18.3	17.1	16.2	15.3
85°	11.1	11.5	11.5	10.2	11.9	11.1
87.5°	5.5	6.0	5.5	5.1	6.0	6.0
90°	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)