

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: P676207

Luminaire Tested: **CCW-SA-1A-850-U-T1**

Issue Date: 04/25/2023



**Test Information**

Test Method: LM-79-08  
Report Number: P676207  
Test Lab: INNOVATION CENTER(G1)  
Issue Date: 04/25/2023  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: INVUE  
Catalog Number: CCW-SA-1A-850-U-T1  
Description: INVUE CLEAR CURVE Wall Pack MOUNT LIGHT SQUARE LUMINAIRE @350mA w/  
T1 distribution lens  
Light Source: (16) 5000K CCT, 80 CRI LEDs  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

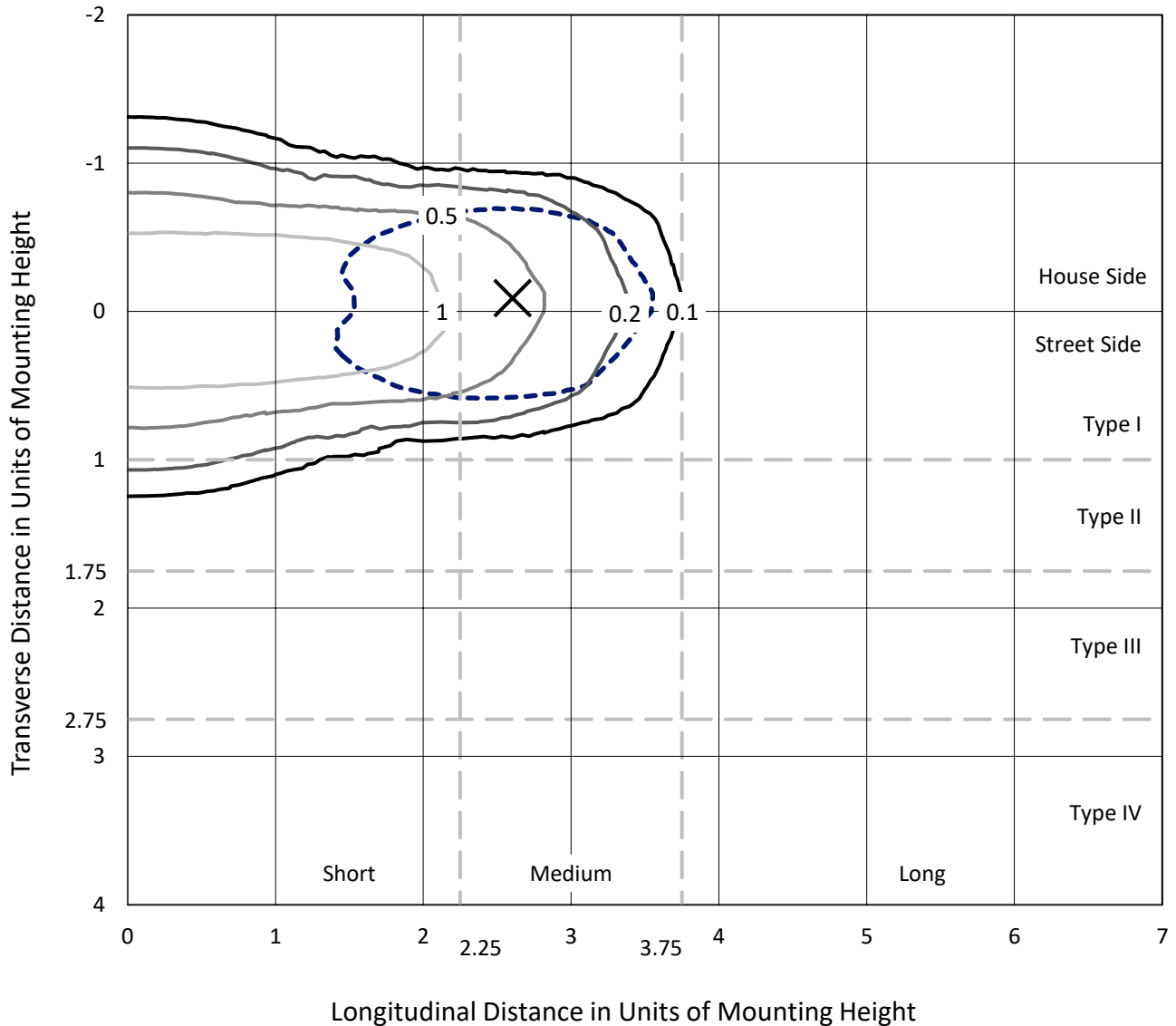
Lumens per Lamp: N/A  
Luminaire Lumens: 2324.7 lumens  
Efficiency: N/A  
Efficacy: 129.1 lumens/watt  
Luminous Opening: Rectangular (W 1' x L: 0.5' x H: 0')  
IES Classification: Type I - Short  
BUG Rating: B1 - U0 - G1

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

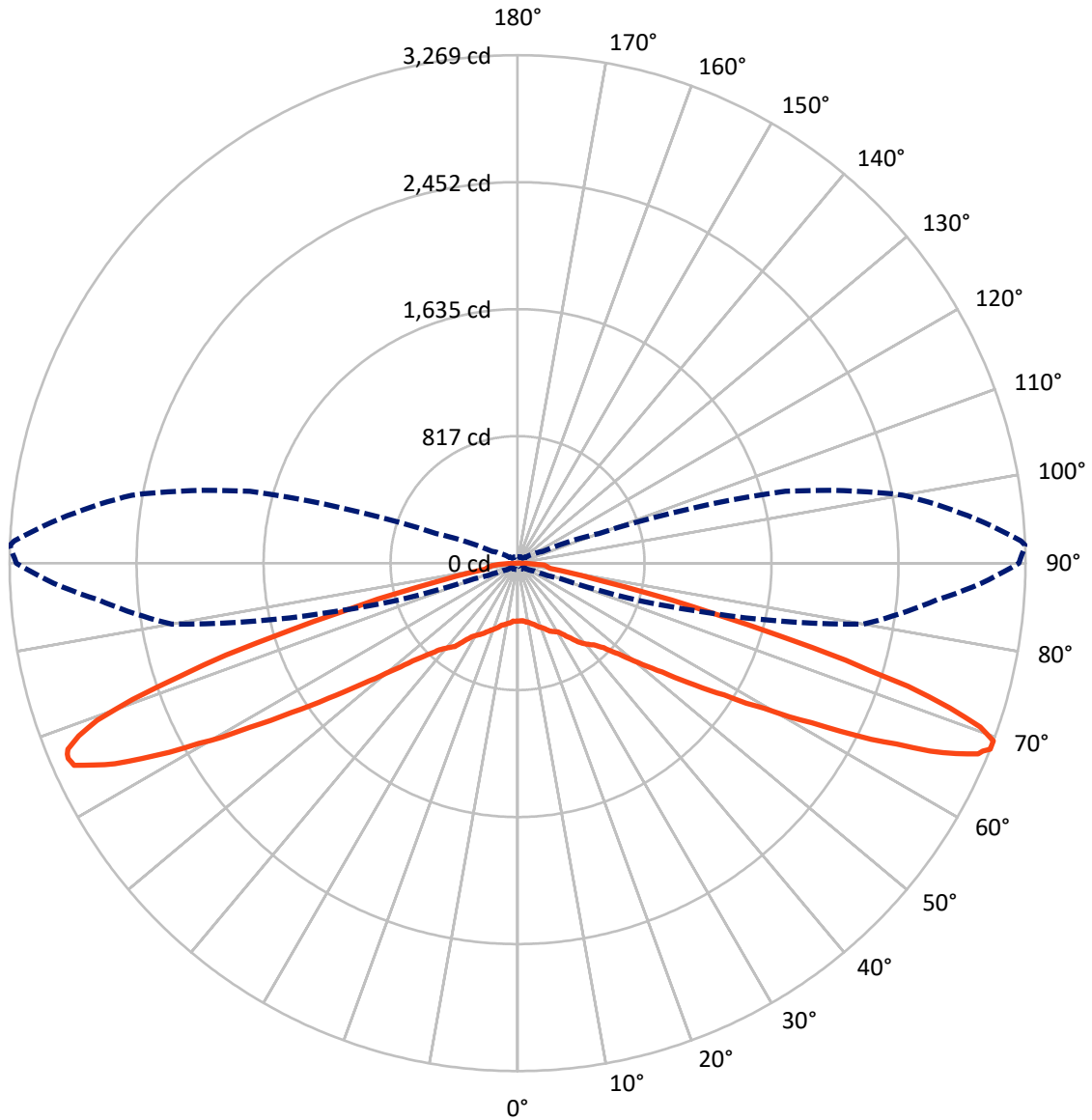
× Max cd  
 - - - 1/2 Max cd



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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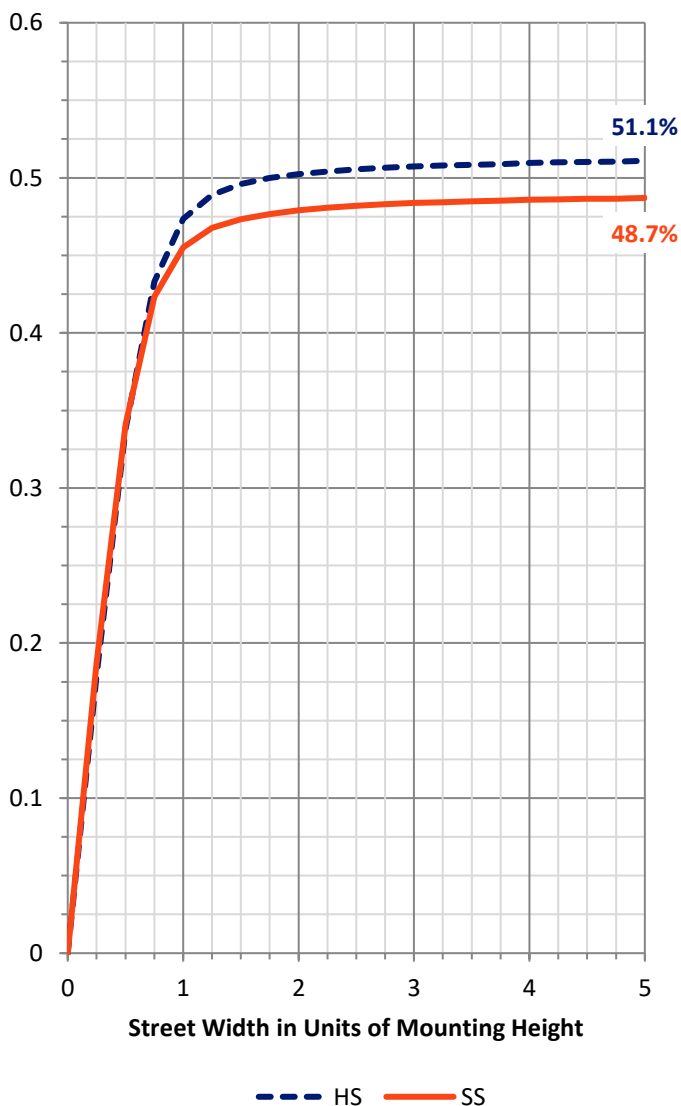
**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	1197.2	0.0	1197.2
	% Fixture	51.5	0.0	51.5
<b>Street Side</b>	Lumens	1127.5	0.0	1127.5
	% Fixture	48.5	0.0	48.5
<b>Total</b>	Lumens	2324.7	0.0	2324.7
	% Fixture	100.0	0.0	100.0

**Coefficient of Utilization**

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	37.2	1.6
10°-20°	120.6	5.2
20°-30°	205.8	8.9
30°-40°	287.4	12.4
40°-50°	365.5	15.7
50°-60°	462.2	19.9
60°-70°	570.0	24.5
70°-80°	249.0	10.7
80°-90°	27.0	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°	2324.7	100.0
0°-180°	2324.7	100.0



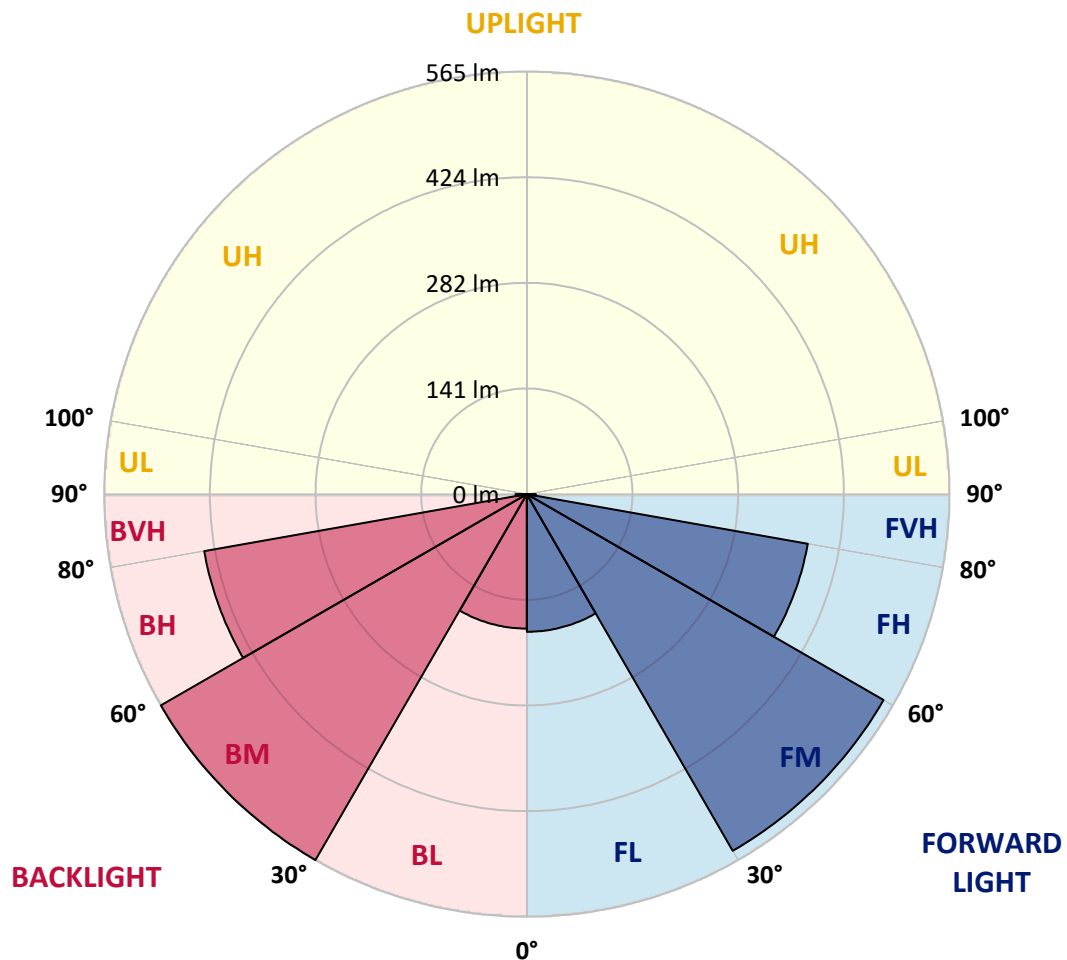
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	184.0	7.9			
FM (30°-60°)	550.4	23.7			
FH (60°-80°)	381.2	16.4			G0/660
FVH (80°-90°)	12.0	0.5			G1/100
BL (0°-30°)	179.7	7.7	B1/500		
BM (30°-60°)	564.7	24.3	B1/1000		
BH (60°-80°)	437.8	18.8	B1/500		G1/500
BVH (80°-90°)	15.0	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°	371.7	371.7	371.7	371.7	371.7	371.7	371.7	371.7	371.7	371.7	371.7
2.5°	379.6	379.2	380.5	381.3	377.4	378.7	377.8	377.0	373.9	372.6	370.0
5°	390.1	391.4	395.7	391.8	393.5	391.4	384.4	386.6	382.6	381.8	379.2
7.5°	408.4	405.8	411.9	407.5	408.8	404.5	401.4	397.5	396.6	390.5	390.9
10°	412.3	417.5	420.2	419.3	420.2	422.3	416.7	410.6	402.3	400.5	394.4
12.5°	409.7	414.5	421.5	427.1	431.1	431.9	429.8	428.5	425.0	414.9	414.5
15°	407.1	403.6	407.9	427.6	440.7	449.4	452.5	445.0	445.9	432.8	427.6
17.5°	389.6	384.4	401.4	420.6	436.7	455.9	470.8	468.6	468.6	458.1	450.7
20°	366.5	375.2	384.0	408.4	438.1	466.8	495.2	493.9	488.7	485.6	469.5
22.5°	346.9	350.8	366.9	392.7	429.8	469.9	503.5	527.5	515.3	503.1	493.5
25°	333.3	329.8	350.4	377.0	421.9	464.7	519.2	544.1	550.6	541.5	523.1
27.5°	314.1	314.1	330.3	355.6	396.6	462.1	534.5	572.4	582.0	568.5	541.9
30°	292.3	294.9	308.9	337.7	377.8	442.9	540.6	605.2	613.0	601.2	573.7
32.5°	275.3	275.3	291.0	321.6	364.8	434.1	536.7	637.4	652.3	643.6	615.2
35°	257.0	255.7	267.0	300.6	343.8	417.1	535.4	663.2	696.3	696.8	667.1
37.5°	230.8	236.0	250.4	277.1	327.2	400.5	531.4	694.2	753.5	763.5	743.0
40°	213.4	215.5	228.6	257.9	301.5	380.9	525.8	719.5	791.5	825.9	797.6
42.5°	188.0	191.1	201.1	237.4	276.6	353.0	500.9	737.4	845.6	884.8	860.8
45°	161.4	163.2	178.0	207.7	250.0	319.8	474.3	766.2	897.9	978.2	964.2
47.5°	129.6	130.5	143.1	174.1	218.2	286.7	433.3	764.8	940.2	1071.6	1110.8
50°	101.2	103.4	113.0	138.3	179.8	246.1	385.7	754.4	993.5	1178.0	1255.3
52.5°	80.7	81.2	87.3	107.3	138.7	205.5	334.6	721.2	1043.6	1282.3	1432.4
55°	66.8	66.8	70.2	82.5	106.5	156.2	274.9	666.2	1049.8	1397.5	1625.7
56°	64.1	63.3	66.3	76.8	96.0	140.9	247.0	629.2	1058.5	1450.7	1722.5
57°	60.6	61.1	62.8	70.2	86.4	124.8	216.0	592.9	1052.4	1494.4	1794.1
58°	58.9	58.0	61.5	66.3	76.4	110.8	194.6	550.2	1042.8	1530.1	1898.4
59°	56.3	55.8	58.0	62.4	71.1	98.6	168.4	503.9	1024.0	1576.4	1976.0
60°	55.4	55.0	55.8	59.3	65.4	86.4	148.3	449.8	973.8	1623.9	2072.5
61°	52.8	53.2	55.0	57.2	62.0	77.7	133.5	394.4	941.1	1664.1	2178.9
62°	53.2	52.4	53.2	55.0	58.5	71.6	116.9	339.9	882.7	1709.5	2258.8
63°	50.6	50.2	51.5	53.7	55.4	64.6	102.1	293.6	816.3	1719.9	2326.4
64°	49.7	49.3	49.7	52.8	53.2	60.6	90.3	250.9	720.3	1737.8	2413.2
65°	47.6	47.6	48.4	49.7	51.5	57.2	80.7	217.7	624.8	1690.7	2439.8
66°	45.8	46.2	46.2	48.4	49.7	53.2	74.2	185.0	533.2	1615.6	2465.6
67°	44.5	44.5	44.9	46.7	48.0	50.2	66.8	160.1	449.8	1526.2	2425.9
67.5°	43.6	44.1	44.1	45.8	47.1	50.2	63.7	151.8	402.3	1428.0	2396.2
68°	42.3	42.8	42.8	44.5	45.8	48.4	61.5	138.7	370.9	1364.3	2341.2
69°	41.4	41.0	41.0	42.8	44.5	46.2	57.2	121.3	294.9	1186.3	2260.9
70°	38.8	38.8	39.7	41.0	42.3	44.1	52.8	106.9	249.6	982.1	2054.1
71°	37.5	37.1	37.5	38.8	40.1	42.3	48.4	94.7	204.2	815.5	1850.8
72°	34.9	35.8	35.8	37.1	38.4	39.7	45.4	82.5	171.5	651.8	1627.0
72.5°	34.5	34.5	34.9	36.2	37.1	39.3	43.6	79.0	156.6	574.6	1533.2
73°	33.2	33.2	33.6	34.9	35.8	38.0	42.3	71.1	142.7	511.4	1357.8
74°	31.9	31.4	31.4	33.2	33.6	35.8	39.7	62.8	119.5	385.3	1089.9
75°	29.7	29.7	30.1	31.0	31.4	33.2	36.6	55.8	100.8	298.9	852.5



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**CANDELA DISTRIBUTION (continued):**

	0°	5°	15°	25°	35°	45°	55°	65°	70°	75°	80°
77.5°	24.4	24.9	25.3	26.2	26.2	27.5	30.1	38.8	61.5	151.4	391.4
80°	17.9	18.8	20.1	21.4	20.9	20.9	23.6	27.9	36.6	68.1	150.1
82.5°	14.4	15.3	14.0	15.7	15.7	14.8	17.0	20.5	24.9	33.6	53.7
85°	9.6	10.0	8.3	9.6	9.2	9.2	11.3	12.2	15.3	18.8	26.6
87.5°	4.4	4.4	3.5	3.9	3.9	3.9	5.7	4.4	6.5	9.2	15.7
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°	371.7	371.7	371.7	371.7	371.7	371.7	371.7	371.7	371.7	371.7	371.7
2.5°	372.6	374.4	374.4	372.6	371.3	372.6	371.7	369.6	371.7	372.6	373.0
5°	377.8	374.4	376.1	372.2	374.8	374.4	373.5	375.7	376.1	376.1	379.2
7.5°	383.5	387.9	382.2	382.6	384.0	378.7	380.5	381.3	379.6	383.1	385.7
10°	393.5	395.3	393.5	387.0	391.4	387.9	386.6	390.5	389.6	390.5	394.4
12.5°	402.7	405.8	401.0	400.5	398.3	395.3	397.0	396.6	402.7	403.6	408.4
15°	421.5	413.6	411.9	411.4	410.6	409.3	410.1	410.6	418.4	419.7	431.1
17.5°	437.6	436.3	426.7	430.2	430.2	425.0	422.8	430.2	436.3	442.9	450.7
20°	454.2	452.9	442.4	442.9	438.9	443.7	441.1	448.1	458.6	460.7	467.7
22.5°	473.8	468.2	460.7	461.6	462.9	459.4	457.7	467.3	477.8	483.9	484.3
25°	504.8	490.4	484.3	485.2	483.4	480.8	482.1	494.3	499.6	512.7	510.0
27.5°	521.4	513.1	508.7	498.7	499.1	495.2	500.4	518.8	529.2	539.3	519.2
30°	541.5	536.2	517.0	513.5	513.1	511.4	521.0	544.5	560.2	565.9	537.1
32.5°	580.7	559.8	555.0	551.9	544.9	547.1	551.9	582.9	607.8	606.5	553.7
35°	625.7	611.3	597.7	595.1	594.3	588.1	596.4	632.6	651.8	646.2	559.8
37.5°	697.7	675.8	657.5	647.5	645.7	641.4	661.0	689.8	714.7	692.4	564.6
40°	733.0	708.6	691.5	685.4	686.7	692.9	712.1	756.1	767.0	726.0	568.5
42.5°	783.6	757.0	723.4	720.3	716.4	719.5	756.6	815.9	825.1	771.4	553.7
45°	873.5	833.3	794.5	777.1	777.9	786.2	843.8	908.8	891.8	802.8	530.1
47.5°	986.9	928.0	896.6	873.1	884.4	875.2	966.9	1018.8	960.8	842.5	501.3
50°	1157.5	1075.1	1032.3	1003.9	1008.7	1016.6	1109.5	1153.6	1037.1	861.7	457.3
52.5°	1372.6	1266.6	1203.8	1165.8	1169.3	1186.3	1306.3	1292.8	1124.4	877.9	398.3
55°	1630.0	1521.0	1399.2	1383.5	1379.6	1420.2	1552.4	1438.5	1202.9	852.1	337.3
56°	1766.2	1650.1	1523.6	1491.3	1481.7	1510.1	1665.4	1511.4	1230.0	823.3	308.0
57°	1881.8	1771.0	1632.2	1577.3	1589.5	1642.7	1777.5	1579.9	1254.8	793.6	280.5
58°	2040.6	1914.1	1767.5	1725.6	1714.7	1757.0	1898.4	1648.8	1263.1	763.1	255.2
59°	2199.0	2047.2	1915.0	1838.6	1841.7	1918.9	2017.5	1730.8	1275.8	724.3	223.0
60°	2319.4	2243.1	2066.4	2009.2	2001.3	2113.0	2136.2	1785.8	1289.3	671.9	200.3
61°	2490.0	2390.5	2226.0	2152.3	2173.7	2263.1	2264.4	1854.7	1269.2	605.6	172.3
62°	2612.6	2586.4	2413.7	2343.4	2336.9	2455.5	2397.9	1915.4	1251.8	542.8	152.3
63°	2756.2	2756.2	2598.7	2543.7	2546.7	2640.5	2456.0	1976.0	1231.7	473.4	133.9
64°	2830.8	2924.6	2779.3	2702.1	2722.1	2803.3	2559.4	2015.7	1169.7	403.1	117.8
65°	2895.3	3036.3	2955.6	2919.8	2889.2	2937.2	2648.8	2052.8	1075.1	342.9	104.7
66°	2949.9	3141.4	3114.8	3076.4	3073.4	3062.4	2666.3	2051.5	977.3	289.7	91.6
67°	2922.4	3143.6	3192.0	3208.2	3203.4	3088.2	2635.7	2004.8	852.1	244.8	81.6
67.5°	2897.5	3125.7	3238.3	3229.1	3249.2	3110.0	2641.0	1947.7	763.1	221.6	76.8
68°	2875.7	3101.7	3257.0	3268.8	3258.8	3112.6	2612.2	1902.3	702.5	208.1	72.4
69°	2710.3	2987.8	3226.9	3269.3	3243.5	3012.7	2520.6	1784.1	558.0	177.6	66.8
70°	2544.5	2840.4	3080.8	3158.4	3126.6	2819.4	2404.9	1596.0	460.3	151.8	60.2
71°	2315.1	2566.4	2886.2	2932.9	2894.5	2599.5	2165.8	1397.5	358.2	128.7	53.7
72°	2003.5	2216.9	2522.3	2635.3	2578.6	2283.2	1924.1	1154.9	290.1	108.2	48.9
72.5°	1849.1	2067.7	2362.2	2371.3	2382.2	2145.8	1821.6	1014.4	253.1	100.4	47.6
73°	1702.5	1916.7	2171.5	2203.8	2157.5	1914.1	1668.4	907.1	231.2	91.6	45.8
74°	1379.6	1501.8	1712.9	1744.4	1703.8	1560.7	1363.5	695.5	184.1	79.0	41.9
75°	1085.5	1152.7	1343.8	1324.6	1264.0	1213.8	1057.2	531.4	149.2	69.4	38.8



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**CANDELA DISTRIBUTION (continued):**

	85°	87.5°	90°	92°	92.5°	95°	100°	105°	110°	115°	125°
77.5°	487.8	528.4	560.2	560.2	563.7	538.0	487.4	243.9	92.1	50.2	31.9
80°	185.9	208.1	215.1	215.5	218.6	226.4	210.7	120.0	54.5	35.8	25.7
82.5°	134.8	188.5	202.9	192.4	193.3	174.5	80.7	53.2	34.5	24.9	18.8
85°	122.2	164.1	173.7	172.3	172.8	161.4	47.6	26.2	20.1	15.7	13.1
87.5°	59.3	58.0	61.5	69.4	67.6	87.7	40.1	13.1	8.7	6.5	6.5
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°	371.7	371.7	371.7	371.7	371.7	371.7
2.5°	369.6	369.1	375.2	369.1	372.6	370.0
5°	373.9	375.7	377.0	379.6	373.5	379.6
7.5°	387.0	388.8	389.2	391.4	388.8	388.3
10°	397.0	401.4	404.0	395.3	400.5	400.1
12.5°	416.7	412.3	411.9	410.1	405.3	403.6
15°	430.6	424.1	420.2	413.2	407.5	405.3
17.5°	450.3	437.6	421.5	407.1	397.0	389.2
20°	462.5	439.8	407.5	390.5	375.2	378.7
22.5°	470.3	437.6	394.9	373.0	357.8	362.1
25°	473.0	426.7	386.1	359.1	344.2	341.2
27.5°	465.5	414.1	369.1	338.6	325.5	328.1
30°	462.1	395.7	353.4	323.3	305.9	308.5
32.5°	452.9	377.0	332.5	301.9	289.3	284.9
35°	439.8	361.3	312.4	283.6	268.3	264.8
37.5°	423.7	341.6	294.9	260.0	246.5	243.9
40°	399.7	318.1	269.6	239.5	223.8	223.4
42.5°	378.7	295.4	246.1	215.1	199.4	200.3
45°	352.1	264.8	219.0	192.4	176.7	177.6
47.5°	318.1	236.5	193.3	163.6	150.5	149.7
50°	277.9	204.2	161.9	136.6	125.7	123.5
52.5°	239.5	171.5	132.6	109.9	100.8	99.9
55°	191.1	133.5	103.4	86.4	79.4	79.8
56°	173.7	123.0	94.2	79.0	73.7	73.7
57°	157.1	109.1	85.5	72.9	68.1	68.1
58°	138.7	96.0	77.7	65.9	63.7	62.0
59°	126.1	87.3	70.2	62.4	58.9	58.5
60°	111.3	78.5	65.4	58.5	55.8	55.4
61°	98.6	70.7	60.2	54.5	53.7	53.7
62°	88.1	65.4	55.8	52.8	52.4	51.0
63°	79.0	60.2	53.7	50.2	48.9	50.2
64°	70.7	55.4	51.9	49.3	47.6	48.4
65°	64.1	53.2	49.7	48.0	46.2	46.7
66°	59.8	49.7	48.0	45.8	44.9	45.4
67°	54.1	48.0	46.2	44.1	43.6	44.1
67.5°	52.4	46.7	45.4	43.2	42.8	43.2
68°	51.0	45.8	44.9	42.8	42.3	41.9
69°	47.6	44.1	42.8	41.9	41.0	40.6
70°	44.5	42.3	41.4	40.1	39.3	38.8
71°	42.8	40.1	39.7	38.4	37.5	37.1
72°	40.6	38.8	38.0	36.2	35.8	36.2
72.5°	40.1	38.0	37.5	35.8	35.3	35.3
73°	38.8	36.2	36.6	34.9	34.0	34.9
74°	36.2	35.3	34.5	33.2	32.7	32.7
75°	34.0	33.2	32.3	31.4	31.4	31.4



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**CANDELA DISTRIBUTION (continued):**

	135°	145°	155°	165°	175°	180°
77.5°	28.8	28.4	28.8	27.1	26.6	26.2
80°	23.1	23.1	23.6	22.3	21.4	20.9
82.5°	17.5	17.9	18.8	17.5	16.6	15.7
85°	11.3	11.8	11.8	10.5	12.2	11.3
87.5°	5.7	6.1	5.7	5.2	6.1	6.1
90°	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)