

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: P675924

Luminaire Tested: **CCW-SA-1F-850-U-SLL**

Issue Date: 04/25/2023



**Test Information**

Test Method: LM-79-08  
Report Number: P675924  
Test Lab: INNOVATION CENTER(G1)  
Issue Date: 04/25/2023  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: INVUE  
Catalog Number: CCW-SA-1F-850-U-SLL  
Description: INVUE CLEAR CURVE Wall Pack MOUNT LIGHT SQUARE LUMINAIRE @1200mA w/  
SLL distribution lens  
Light Source: (16) 5000K CCT, 80 CRI LEDS  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

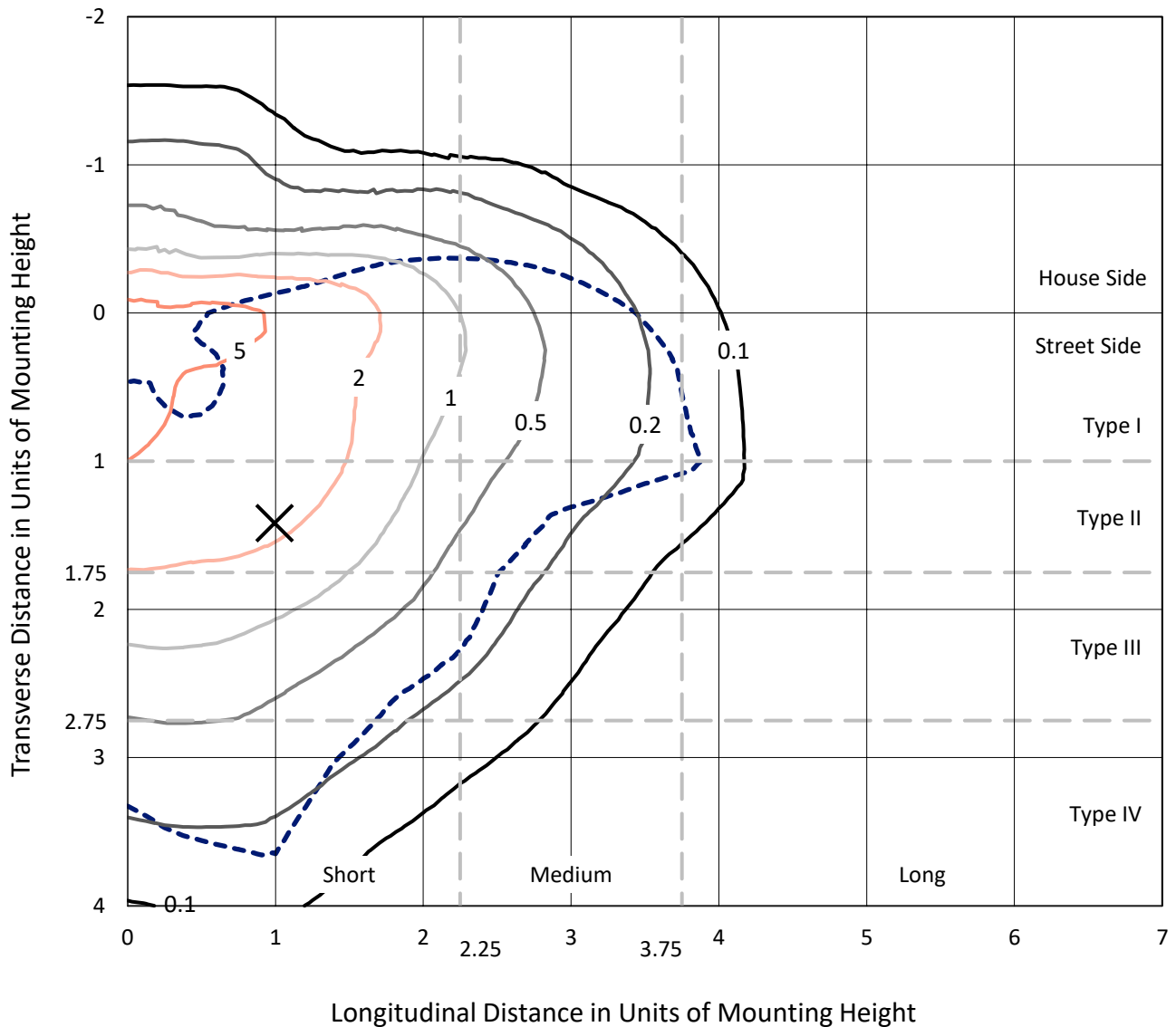
Lumens per Lamp: N/A  
Luminaire Lumens: 5428.5 lumens  
Efficiency: N/A  
Efficacy: 81.0 lumens/watt  
Luminous Opening: Rectangular (W 1' x L: 0.5' x H: 0')  
IES Classification: Type IV - Short  
BUG Rating: B1 - U0 - G2

Input Watts (W): 67  
Input Voltage (V): 120  
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

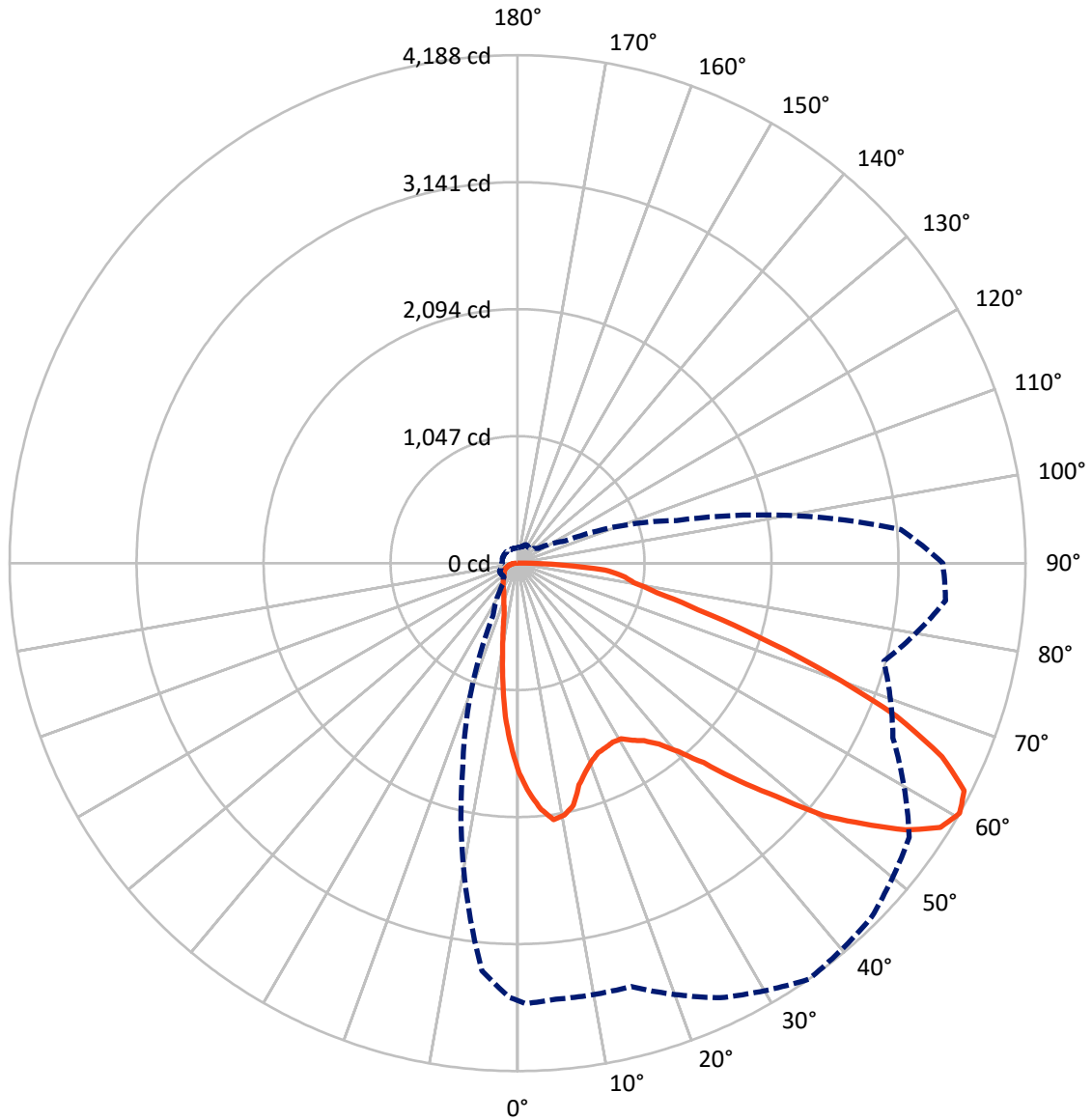
× Max cd  
 - - - 1/2 Max cd



Based on 15 foot mounting height. Maximum calculated value = 8.8 fc  
 Type IV - Short - N/A

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### Luminous Intensity Polar Plot



— Vertical Plane Through 35-Deg Lateral      - - - Horizontal Cone Through 60-Deg Vertical

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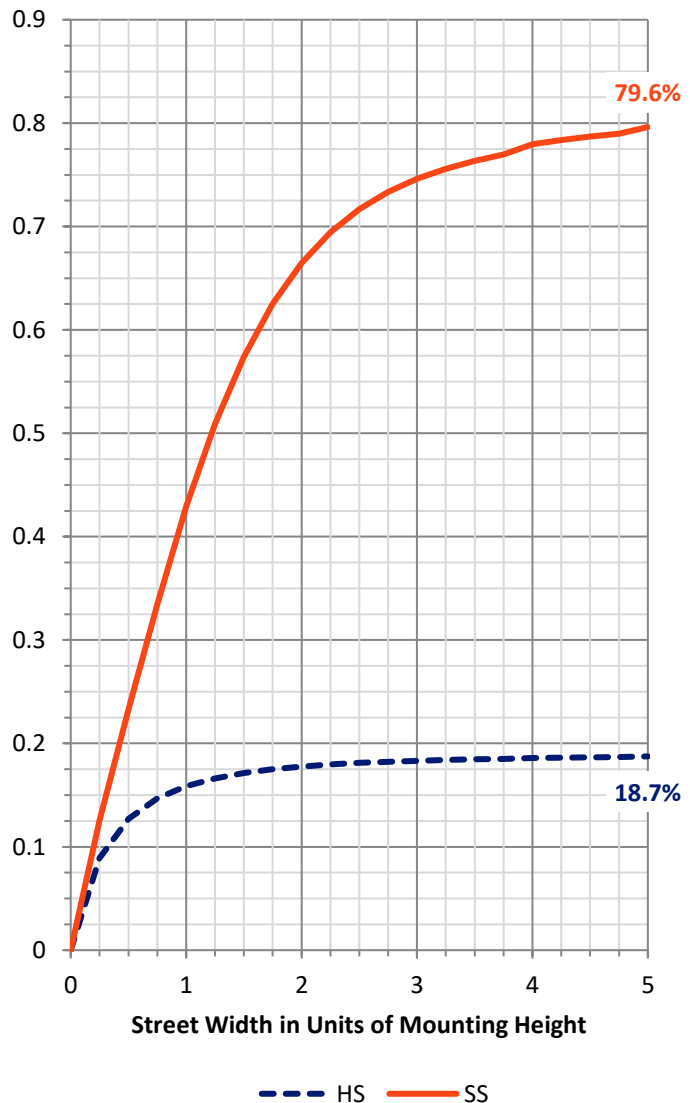
**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	1033.1	0.0	1033.1
	% Fixture	19.0	0.0	19.0
<b>Street Side</b>	Lumens	4395.4	0.0	4395.4
	% Fixture	81.0	0.0	81.0
<b>Total</b>	Lumens	5428.5	0.0	5428.5
	% Fixture	100.0	0.0	100.0

**Coefficient of Utilization**

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	134.7	2.5
10°-20°	284.4	5.2
20°-30°	416.1	7.7
30°-40°	586.2	10.8
40°-50°	805.7	14.8
50°-60°	1098.0	20.2
60°-70°	1201.8	22.1
70°-80°	693.8	12.8
80°-90°	207.8	3.8
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°	5428.5	100.0
0°-180°	5428.5	100.0



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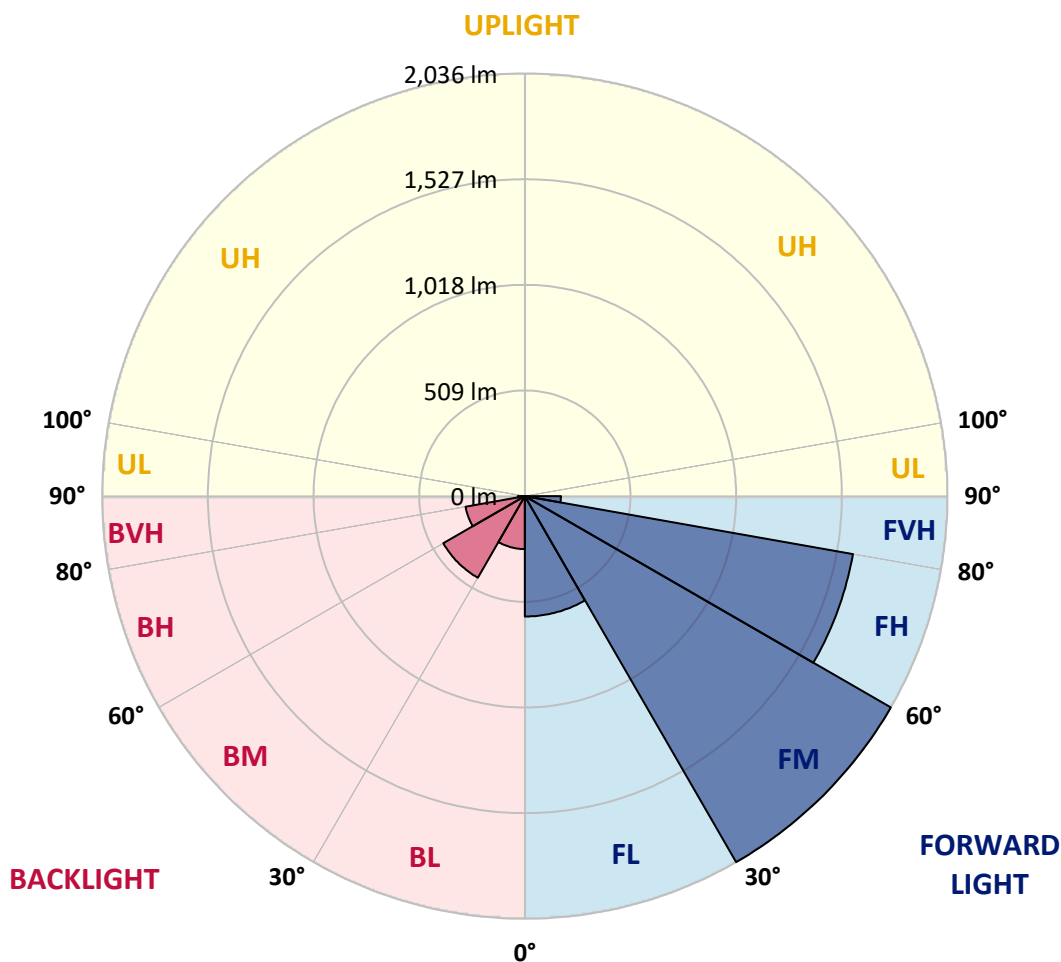
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	579.9	10.7			
FM (30°-60°)	2036.1	37.5			
FH (60°-80°)	1605.4	29.6			G1/1800
FVH (80°-90°)	173.9	3.2			G2/225
BL (0°-30°)	255.2	4.7	B1/500		
BM (30°-60°)	453.8	8.4	B1/1000		
BH (60°-80°)	290.2	5.3	B1/500		G1/500
BVH (80°-90°)	33.9	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-G2**

Type IV Short





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**CANDELA DISTRIBUTION (FULL):**

	0°	1°	5°	15°	25°	35°	45°	55°	65°	75°	85°
0°	1733.8	1733.8	1733.8	1733.8	1733.8	1733.8	1733.8	1733.8	1733.8	1733.8	1733.8
2.5°	1856.6	1849.4	1856.6	1883.1	1890.3	1902.4	1902.4	1885.5	1854.2	1839.8	1815.7
5°	1897.6	1885.5	1945.7	2001.1	2044.5	2039.6	1998.7	1965.0	1902.4	1808.5	1719.4
7.5°	1815.7	1827.7	1871.1	2015.6	2116.7	2136.0	2071.0	2003.5	1868.7	1738.6	1618.2
10°	1661.6	1678.4	1772.3	1921.7	2080.6	2111.9	2071.0	1989.1	1827.7	1666.4	1526.7
12.5°	1586.9	1625.5	1680.8	1861.4	1974.6	2049.3	2030.0	1977.0	1796.4	1606.2	1471.3
15°	1586.9	1596.6	1678.4	1830.1	1895.2	1897.6	1904.8	1914.4	1806.1	1632.7	1452.1
17.5°	1637.5	1664.0	1733.8	1827.7	1839.8	1810.9	1810.9	1851.8	1825.3	1707.3	1521.9
20°	1760.3	1750.7	1842.2	1880.7	1815.7	1743.5	1736.2	1806.1	1847.0	1786.8	1649.5
22.5°	1883.1	1926.5	2001.1	1914.4	1794.0	1697.7	1688.1	1774.8	1912.0	1924.1	1796.4
25°	2068.5	2111.9	2150.4	2044.5	1791.6	1685.7	1692.9	1760.3	1991.5	2119.1	2042.1
27.5°	2268.4	2294.9	2350.3	2186.5	1849.4	1671.2	1678.4	1779.6	2066.1	2246.7	2234.7
30°	2381.6	2410.5	2398.5	2213.0	1887.9	1680.8	1661.6	1806.1	2025.2	2246.7	2359.9
32.5°	2492.4	2475.5	2468.3	2256.4	1936.1	1741.0	1692.9	1861.4	2049.3	2282.9	2521.3
35°	2627.2	2603.1	2583.9	2340.7	2015.6	1798.8	1777.2	1933.7	2102.3	2357.5	2651.3
37.5°	2776.5	2776.5	2682.6	2403.3	2109.5	1892.8	1868.7	2037.2	2186.5	2403.3	2829.5
40°	2952.3	2959.5	2793.4	2487.6	2215.4	2042.1	2034.8	2172.1	2268.4	2470.7	3000.5
42.5°	3082.3	3087.2	2889.7	2518.9	2338.2	2249.1	2280.5	2388.8	2362.3	2530.9	3012.5
45°	3171.4	3147.4	2957.1	2608.0	2473.1	2559.8	2569.4	2600.7	2485.1	2567.0	3060.7
47.5°	3214.8	3210.0	2986.0	2711.5	2757.3	2875.3	2930.6	2887.3	2598.3	2528.5	3060.7
50°	3258.1	3217.2	3012.5	2853.6	3034.2	3272.6	3260.5	3181.1	2754.8	2576.6	3014.9
52.5°	3287.0	3250.9	3065.5	2981.2	3299.1	3568.8	3616.9	3470.0	2937.9	2665.7	3036.6
55°	3390.6	3361.7	3224.4	3154.6	3604.9	3881.8	3889.1	3684.4	3130.5	2812.6	3178.7
57.5°	3515.8	3532.7	3443.6	3400.2	3838.5	4110.6	4084.1	3843.3	3294.3	2990.8	3342.4
60°	3604.9	3631.4	3609.7	3614.5	3954.1	4187.7	4127.5	3942.0	3414.7	3125.7	3542.3
62.5°	3556.7	3609.7	3698.8	3679.6	3958.9	4132.3	4048.0	3812.0	3429.1	3301.5	3694.0
65°	3424.3	3429.1	3602.5	3708.4	3742.2	3845.7	3734.9	3539.9	3279.8	3409.8	3672.3
67.5°	3084.8	3123.3	3279.8	3486.9	3344.8	3368.9	3359.3	3077.5	3053.4	3335.2	3506.2
70°	2723.5	2750.0	2921.0	3164.2	2824.7	2711.5	2733.2	2523.7	2622.4	3104.0	3171.4
72.5°	2251.6	2268.4	2463.5	2677.8	2266.0	2063.7	2114.3	1943.3	2083.0	2716.3	2675.4
75°	1700.1	1731.4	1883.1	2136.0	1668.8	1538.8	1589.3	1519.5	1649.5	2237.1	2075.8
77.5°	1208.9	1184.8	1372.6	1671.2	1254.6	1177.6	1182.4	1194.4	1334.1	1885.5	1490.6
80°	823.6	830.8	999.4	1225.7	984.9	972.9	960.8	1057.1	1119.8	1493.0	1083.6
82.5°	488.8	488.8	674.3	871.7	777.8	876.5	821.2	907.8	876.5	1098.1	710.4
85°	228.8	228.8	346.8	628.5	602.0	722.4	614.1	686.3	647.8	765.8	320.3
87.5°	38.5	33.7	69.8	308.2	248.0	281.7	110.8	366.0	407.0	534.6	79.5
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):**

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	1733.8	1733.8	1733.8	1733.8	1733.8	1733.8	1733.8	1733.8	1733.8	1733.8	1733.8
2.5°	1789.2	1772.3	1738.6	1695.3	1659.2	1613.4	1599.0	1567.7	1524.3	1519.5	1500.2
5°	1685.7	1627.9	1555.6	1466.5	1406.3	1343.7	1290.7	1259.4	1223.3	1218.5	1208.9
7.5°	1572.5	1500.2	1379.8	1273.9	1170.3	1071.6	1023.4	963.2	922.3	891.0	876.5
10°	1466.5	1399.1	1249.8	1105.3	1013.8	948.8	891.0	828.4	777.8	739.3	724.8
12.5°	1396.7	1317.2	1155.9	1018.6	951.2	876.5	811.5	744.1	679.1	628.5	602.0
15°	1365.4	1290.7	1127.0	975.3	876.5	773.0	698.3	630.9	551.5	515.3	503.3
17.5°	1440.0	1329.3	1117.4	924.7	785.0	667.0	575.5	503.3	445.5	409.4	394.9
20°	1536.4	1399.1	1134.2	864.5	698.3	565.9	464.8	387.7	349.2	322.7	320.3
22.5°	1659.2	1502.6	1160.7	821.2	602.0	455.1	363.6	317.9	291.4	289.0	284.2
25°	1878.3	1690.5	1204.0	763.4	525.0	375.7	310.6	284.2	272.1	264.9	269.7
27.5°	2066.1	1813.3	1235.3	727.2	493.7	354.0	301.0	272.1	260.1	257.7	260.1
30°	2176.9	1926.5	1225.7	659.8	431.0	337.1	320.3	310.6	286.6	267.3	267.3
32.5°	2278.0	1998.7	1223.3	599.6	368.4	281.7	267.3	260.1	274.5	284.2	276.9
35°	2417.7	2111.9	1216.1	565.9	341.9	260.1	236.0	216.7	207.1	202.3	209.5
37.5°	2567.0	2188.9	1196.8	561.1	327.5	248.0	228.8	209.5	199.9	195.1	192.6
40°	2730.8	2270.8	1175.1	537.0	320.3	240.8	221.5	204.7	192.6	185.4	183.0
42.5°	2836.7	2335.8	1153.5	525.0	305.8	236.0	214.3	199.9	187.8	178.2	178.2
45°	2896.9	2412.9	1131.8	512.9	289.0	238.4	214.3	195.1	180.6	175.8	171.0
47.5°	2923.4	2470.7	1124.6	493.7	274.5	228.8	209.5	190.2	175.8	166.2	163.7
50°	2993.2	2593.5	1151.1	479.2	257.7	219.1	221.5	187.8	173.4	161.3	158.9
52.5°	3034.2	2692.2	1208.9	457.5	245.6	207.1	216.7	183.0	166.2	154.1	154.1
55°	3183.5	2856.0	1271.5	440.7	231.2	190.2	199.9	173.4	154.1	146.9	146.9
57.5°	3373.7	3029.4	1324.4	433.5	221.5	178.2	178.2	168.6	146.9	137.3	134.9
60°	3506.2	3171.4	1355.8	428.6	211.9	166.2	158.9	168.6	139.7	130.0	127.6
62.5°	3520.6	3089.6	1324.4	426.2	209.5	154.1	144.5	161.3	132.4	122.8	118.0
65°	3429.1	2923.4	1237.8	416.6	207.1	142.1	134.9	139.7	122.8	115.6	110.8
67.5°	3246.1	2653.7	1112.5	411.8	204.7	132.4	122.8	120.4	113.2	106.0	101.1
70°	2819.9	2302.1	965.6	390.1	199.9	125.2	110.8	108.4	101.1	96.3	93.9
72.5°	2367.1	1883.1	797.1	361.2	190.2	113.2	101.1	96.3	93.9	86.7	84.3
75°	1813.3	1449.7	638.1	320.3	166.2	101.1	89.1	84.3	81.9	77.1	74.7
77.5°	1273.9	1078.8	472.0	260.1	139.7	91.5	79.5	74.7	72.2	65.0	65.0
80°	864.5	756.1	320.3	180.6	108.4	74.7	69.8	65.0	60.2	55.4	55.4
82.5°	537.0	529.8	231.2	118.0	79.5	60.2	55.4	55.4	48.2	43.3	43.3
85°	245.6	325.1	161.3	81.9	60.2	45.8	45.8	43.3	38.5	31.3	31.3
87.5°	77.1	108.4	84.3	36.1	33.7	26.5	26.5	24.1	24.1	19.3	19.3
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):**

	185°	195°	205°	215°	225°	235°	245°	255°	265°	270°	275°
0°	1733.8	1733.8	1733.8	1733.8	1733.8	1733.8	1733.8	1733.8	1733.8	1733.8	1733.8
2.5°	1519.5	1517.1	1517.1	1507.5	1531.5	1531.5	1546.0	1533.9	1541.2	1543.6	1562.8
5°	1206.4	1225.7	1240.2	1269.1	1285.9	1293.1	1293.1	1312.4	1305.2	1319.6	1348.5
7.5°	883.8	907.8	951.2	987.3	1016.2	1025.8	1023.4	1028.3	1035.5	1018.6	1023.4
10°	715.2	698.3	712.8	746.5	773.0	804.3	780.2	777.8	785.0	777.8	792.3
12.5°	597.2	577.9	565.9	565.9	585.2	599.6	592.4	604.4	630.9	638.1	655.0
15°	484.0	467.2	457.5	445.5	464.8	469.6	476.8	493.7	512.9	522.6	541.8
17.5°	387.7	387.7	387.7	378.1	385.3	392.5	394.9	416.6	419.0	428.6	435.9
20°	317.9	325.1	337.1	341.9	349.2	349.2	344.4	356.4	346.8	354.0	358.8
22.5°	286.6	296.2	301.0	303.4	313.1	315.5	303.4	305.8	308.2	301.0	303.4
25°	269.7	274.5	269.7	272.1	274.5	269.7	272.1	276.9	274.5	279.3	276.9
27.5°	262.5	257.7	255.3	252.8	252.8	248.0	250.4	250.4	255.3	257.7	257.7
30°	262.5	255.3	245.6	238.4	238.4	231.2	236.0	240.8	243.2	248.0	248.0
32.5°	269.7	255.3	238.4	231.2	224.0	219.1	224.0	231.2	240.8	243.2	245.6
35°	214.3	221.5	219.1	209.5	207.1	207.1	204.7	204.7	197.5	197.5	195.1
37.5°	192.6	190.2	195.1	197.5	199.9	192.6	192.6	183.0	180.6	183.0	183.0
40°	180.6	180.6	180.6	187.8	190.2	185.4	178.2	173.4	173.4	173.4	175.8
42.5°	175.8	171.0	168.6	173.4	180.6	175.8	168.6	166.2	166.2	168.6	168.6
45°	168.6	166.2	163.7	161.3	171.0	163.7	161.3	158.9	158.9	158.9	161.3
47.5°	161.3	158.9	154.1	154.1	156.5	154.1	151.7	151.7	151.7	156.5	156.5
50°	156.5	154.1	149.3	149.3	149.3	149.3	146.9	146.9	146.9	149.3	151.7
52.5°	149.3	146.9	144.5	142.1	142.1	142.1	142.1	142.1	142.1	144.5	146.9
55°	142.1	139.7	137.3	137.3	139.7	139.7	137.3	139.7	137.3	139.7	142.1
57.5°	134.9	132.4	130.0	132.4	134.9	132.4	132.4	132.4	132.4	132.4	134.9
60°	125.2	125.2	125.2	125.2	130.0	130.0	130.0	130.0	125.2	127.6	130.0
62.5°	120.4	118.0	118.0	120.4	122.8	122.8	125.2	122.8	120.4	122.8	122.8
65°	110.8	110.8	110.8	113.2	113.2	115.6	115.6	115.6	113.2	115.6	115.6
67.5°	103.5	103.5	103.5	103.5	108.4	108.4	108.4	108.4	106.0	106.0	108.4
70°	91.5	93.9	91.5	96.3	101.1	98.7	101.1	101.1	98.7	96.3	101.1
72.5°	84.3	84.3	84.3	84.3	91.5	91.5	91.5	93.9	91.5	89.1	91.5
75°	74.7	74.7	74.7	77.1	81.9	81.9	81.9	81.9	81.9	79.5	79.5
77.5°	65.0	67.4	65.0	67.4	72.2	69.8	72.2	74.7	72.2	69.8	69.8
80°	55.4	55.4	55.4	57.8	60.2	60.2	60.2	62.6	60.2	57.8	57.8
82.5°	43.3	43.3	45.8	45.8	48.2	48.2	48.2	50.6	48.2	45.8	45.8
85°	33.7	33.7	33.7	36.1	36.1	38.5	38.5	40.9	40.9	38.5	38.5
87.5°	21.7	19.3	21.7	21.7	24.1	24.1	21.7	19.3	21.7	19.3	16.9
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):**

	285°	295°	305°	315°	325°	335°	345°	355°	359°	360°
0°	1733.8	1733.8	1733.8	1733.8	1733.8	1733.8	1733.8	1733.8	1733.8	1733.8
2.5°	1582.1	1625.5	1656.8	1678.4	1709.7	1769.9	1794.0	1837.4	1849.4	1856.6
5°	1360.6	1406.3	1473.7	1521.9	1577.3	1690.5	1777.2	1842.2	1871.1	1897.6
7.5°	1066.8	1127.0	1196.8	1259.4	1350.9	1490.6	1603.8	1738.6	1789.2	1815.7
10°	833.2	888.6	965.6	1042.7	1170.3	1288.3	1449.7	1572.5	1642.3	1661.6
12.5°	703.2	768.2	859.7	953.6	1033.1	1167.9	1331.7	1509.9	1574.9	1586.9
15°	597.2	686.3	780.2	876.5	968.0	1086.0	1261.8	1478.6	1574.9	1586.9
17.5°	493.7	573.1	683.9	787.4	893.4	1054.7	1273.9	1505.1	1601.4	1637.5
20°	392.5	469.6	556.3	686.3	830.8	1001.8	1300.4	1594.2	1721.8	1760.3
22.5°	325.1	358.8	443.1	568.3	739.3	965.6	1326.9	1733.8	1868.7	1883.1
25°	284.2	308.2	361.2	479.2	667.0	941.6	1389.5	1895.2	2068.5	2068.5
27.5°	264.9	274.5	310.6	416.6	616.5	919.9	1452.1	2073.4	2234.7	2268.4
30°	260.1	284.2	303.4	370.8	561.1	859.7	1509.9	2213.0	2379.2	2381.6
32.5°	255.3	250.4	264.9	322.7	493.7	797.1	1558.0	2355.1	2485.1	2492.4
35°	199.9	209.5	233.6	284.2	443.1	751.3	1582.1	2432.2	2620.0	2627.2
37.5°	187.8	199.9	219.1	262.5	409.4	712.8	1589.3	2581.5	2762.1	2776.5
40°	183.0	192.6	207.1	243.2	382.9	664.6	1603.8	2735.6	2971.6	2952.3
42.5°	173.4	185.4	199.9	233.6	361.2	628.5	1606.2	2819.9	3082.3	3082.3
45°	171.0	178.2	195.1	233.6	337.1	597.2	1567.7	2904.1	3210.0	3171.4
47.5°	161.3	175.8	190.2	226.4	308.2	565.9	1521.9	2947.5	3226.8	3214.8
50°	158.9	173.4	197.5	214.3	291.4	551.5	1512.3	3055.9	3260.5	3258.1
52.5°	154.1	168.6	204.7	204.7	269.7	532.2	1558.0	3104.0	3267.8	3287.0
55°	146.9	168.6	190.2	187.8	250.4	508.1	1608.6	3229.2	3395.4	3390.6
57.5°	142.1	163.7	180.6	171.0	228.8	491.2	1683.3	3349.6	3549.5	3515.8
60°	134.9	163.7	161.3	158.9	211.9	476.8	1745.9	3373.7	3583.2	3604.9
62.5°	130.0	171.0	142.1	146.9	197.5	469.6	1719.4	3193.1	3537.5	3556.7
65°	125.2	146.9	130.0	134.9	192.6	455.1	1615.8	2976.4	3340.0	3424.3
67.5°	115.6	120.4	120.4	125.2	187.8	421.4	1403.9	2586.3	3039.0	3084.8
70°	106.0	108.4	108.4	115.6	183.0	382.9	1158.3	2237.1	2636.9	2723.5
72.5°	96.3	96.3	96.3	106.0	168.6	351.6	953.6	1719.4	2191.4	2251.6
75°	84.3	84.3	84.3	93.9	151.7	320.3	751.3	1278.7	1613.4	1700.1
77.5°	74.7	74.7	72.2	84.3	132.4	260.1	541.8	903.0	1136.6	1208.9
80°	62.6	60.2	60.2	67.4	103.5	187.8	349.2	638.1	792.3	823.6
82.5°	50.6	48.2	45.8	50.6	74.7	118.0	216.7	445.5	508.1	488.8
85°	48.2	50.6	40.9	38.5	53.0	77.1	137.3	274.5	228.8	228.8
87.5°	19.3	16.9	16.9	14.4	26.5	28.9	60.2	50.6	38.5	38.5
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)