

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: P676183

Luminaire Tested: **CCW-SA-2D-830-U-T1**

Issue Date: 04/25/2023



**Test Information**

Test Method: LM-79-08  
Report Number: P676183  
Test Lab: INNOVATION CENTER(G1)  
Issue Date: 04/25/2023  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: INVUE  
Catalog Number: CCW-SA-2D-830-U-T1  
Description: INVUE CLEAR CURVE Wall Pack MOUNT LIGHT SQUARE LUMINAIRE @800mA w/  
T1 distribution lens  
Light Source: (32) 3000K CCT, 80 CRI LEDS  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

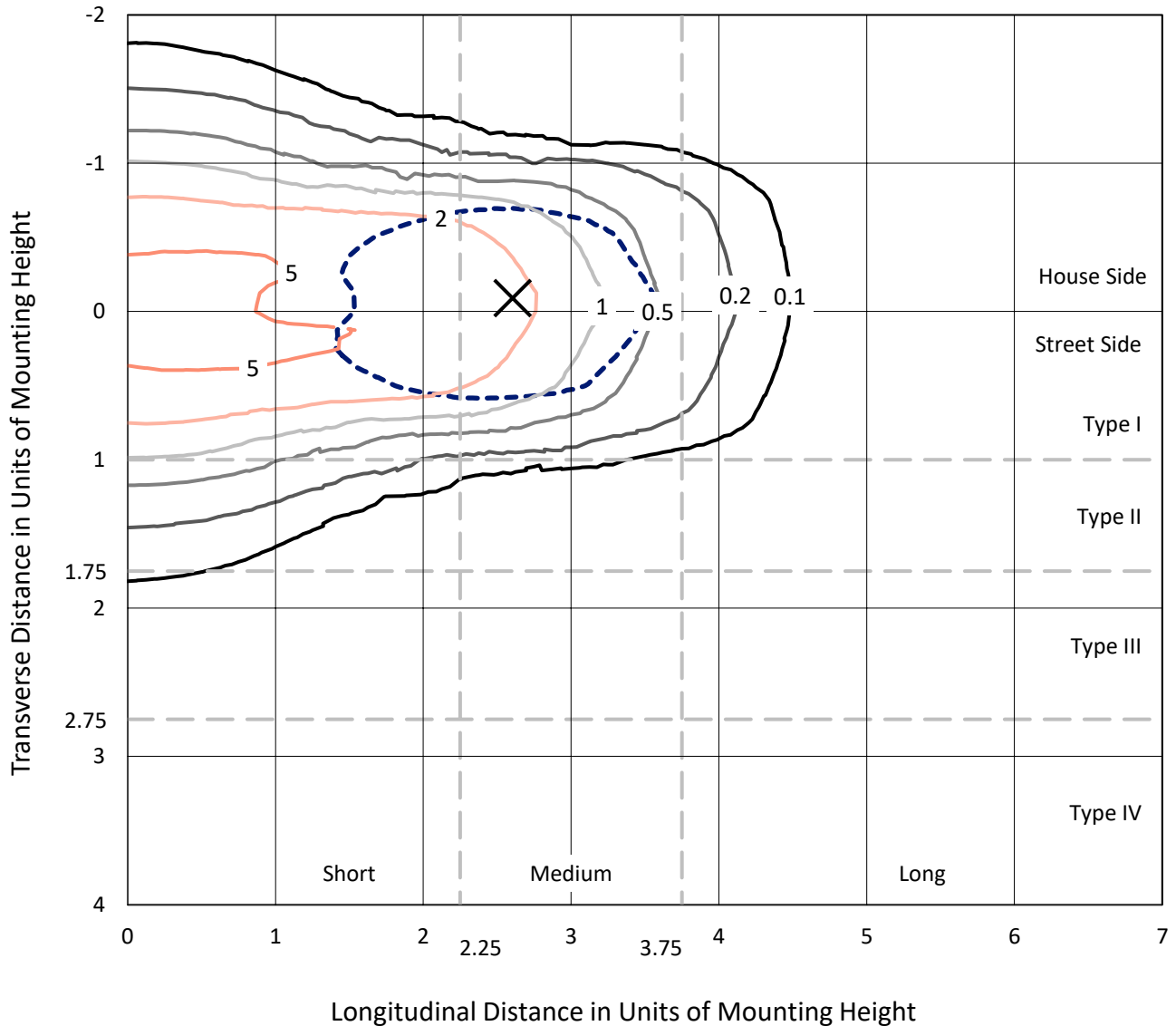
Lumens per Lamp: N/A  
Luminaire Lumens: 8629.6 lumens  
Efficiency: N/A  
Efficacy: 106.8 lumens/watt  
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')  
IES Classification: Type I - Short  
BUG Rating: B3 - U0 - G3

Input Watts (W): 80.8  
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

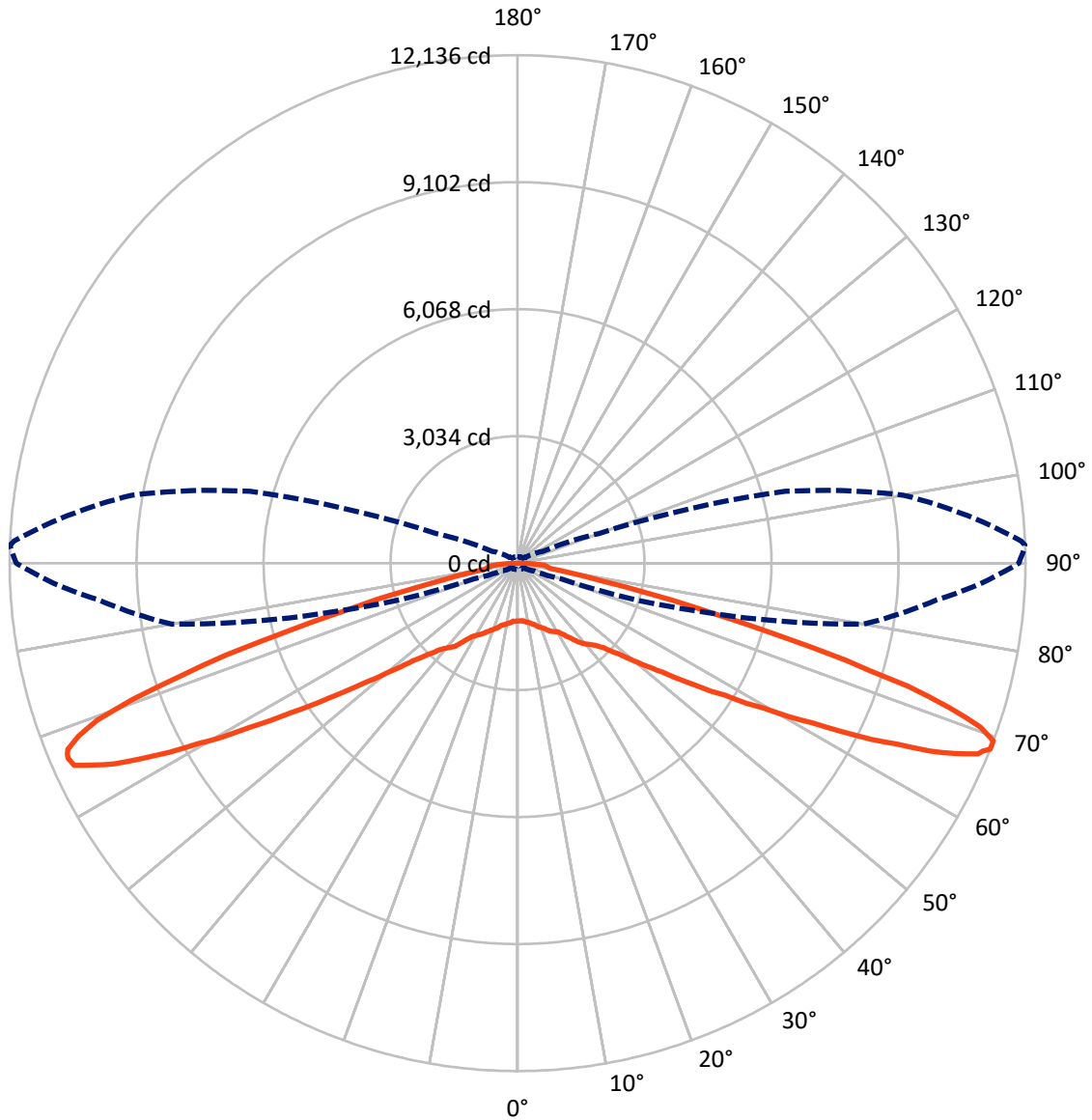
× Max cd  
 - - - 1/2 Max cd



Based on 15 foot mounting height. Maximum calculated value = 6.7 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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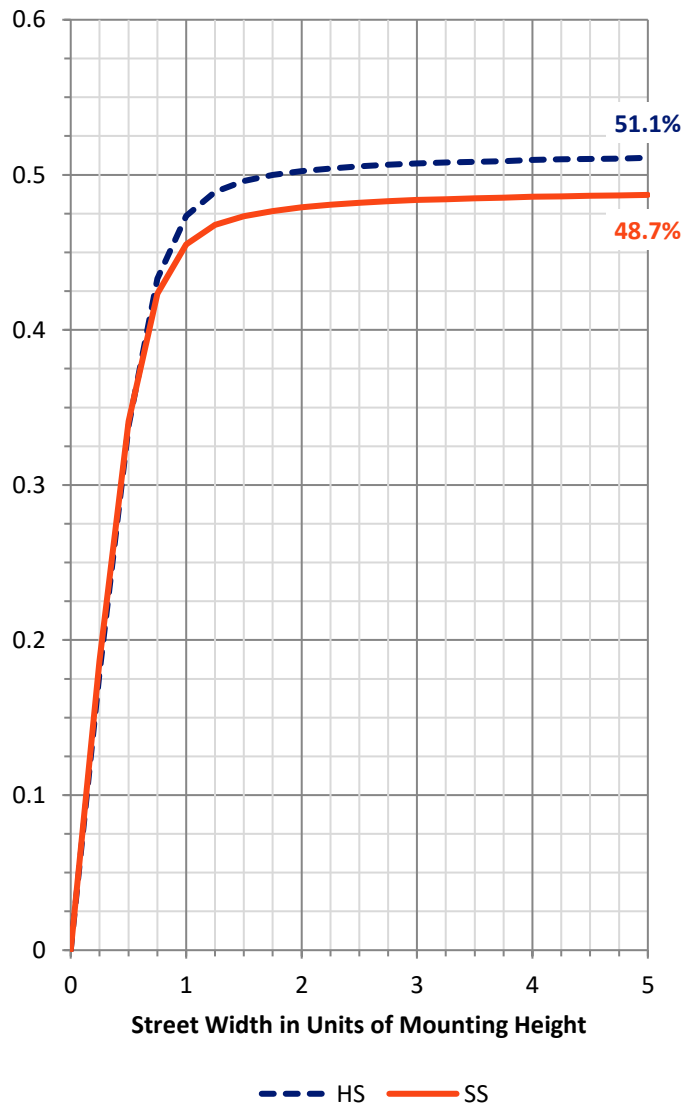
**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	4444.1	0.0	4444.1
	% Fixture	51.5	0.0	51.5
<b>Street Side</b>	Lumens	4185.5	0.0	4185.5
	% Fixture	48.5	0.0	48.5
<b>Total</b>	Lumens	8629.6	0.0	8629.6
	% Fixture	100.0	0.0	100.0

**Coefficient of Utilization**

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	138.2	1.6
10°-20°	447.7	5.2
20°-30°	764.0	8.9
30°-40°	1066.7	12.4
40°-50°	1356.9	15.7
50°-60°	1715.7	19.9
60°-70°	2115.9	24.5
70°-80°	924.3	10.7
80°-90°	100.3	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°	8629.6	100.0
0°-180°	8629.6	100.0



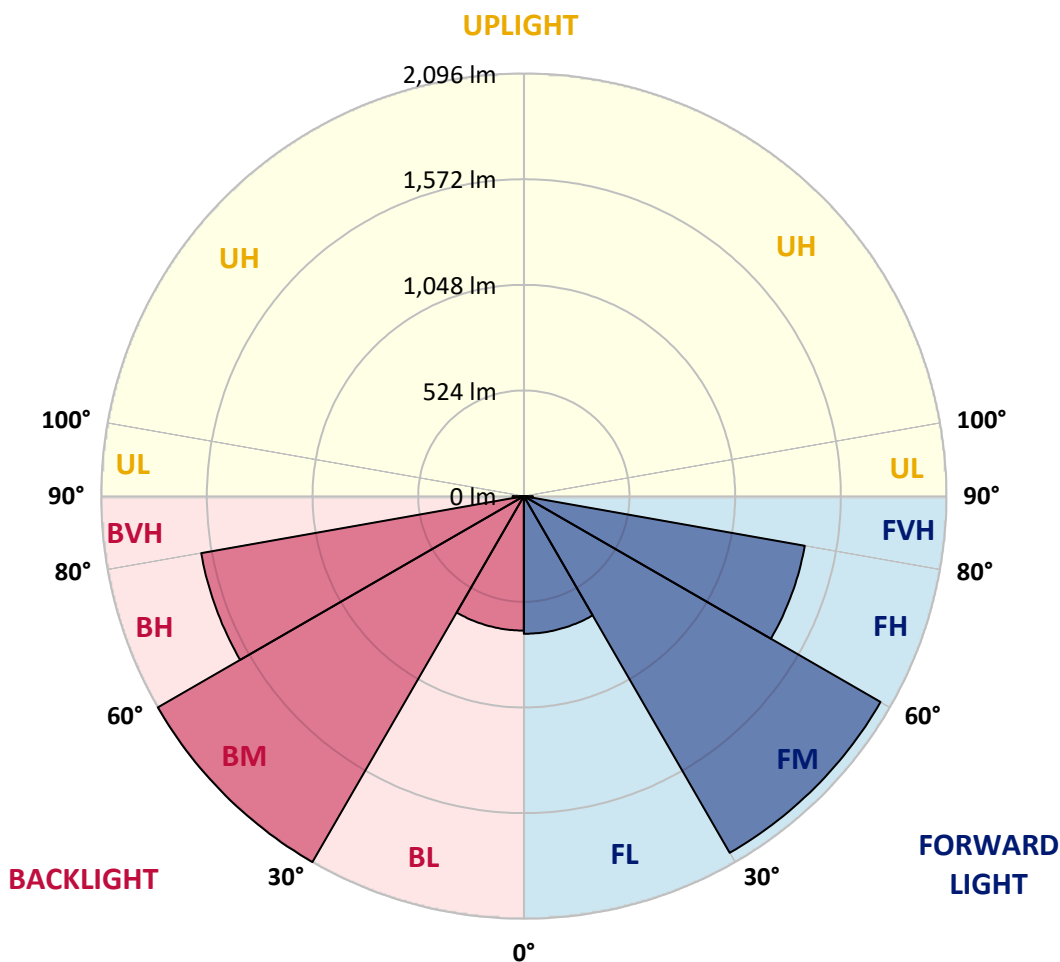
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	683.0	7.9			
FM (30°-60°)	2043.0	23.7			
FH (60°-80°)	1415.1	16.4			G1/1800
FVH (80°-90°)	44.5	0.5			G1/100
BL (0°-30°)	666.9	7.7	B2/1000		
BM (30°-60°)	2096.3	24.3	B2/2500		
BH (60°-80°)	1625.1	18.8	B3/2500		G3/2500
BVH (80°-90°)	55.8	0.6			G1/100
UL (90°-100°)	0.0	0.0		U0/0	
UH (100°-180°)	0.0	0.0		U0/0	

**BUG Rating: B3-U0-G3**

Type I Short





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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	15°	25°	35°	45°	55°	65°	70°	75°	80°
0°	1379.9	1379.9	1379.9	1379.9	1379.9	1379.9	1379.9	1379.9	1379.9	1379.9	1379.9
2.5°	1409.1	1407.5	1412.3	1415.6	1401.0	1405.9	1402.6	1399.4	1388.0	1383.2	1373.5
5°	1448.0	1452.8	1469.0	1454.5	1460.9	1452.8	1426.9	1435.0	1420.4	1417.2	1407.5
7.5°	1516.0	1506.3	1529.0	1512.8	1517.6	1501.4	1490.1	1475.5	1472.3	1449.6	1451.2
10°	1530.6	1550.0	1559.7	1556.5	1559.7	1567.8	1546.8	1524.1	1493.3	1486.8	1464.2
12.5°	1520.9	1538.7	1564.6	1585.6	1600.2	1603.5	1595.4	1590.5	1577.5	1540.3	1538.7
15°	1511.1	1498.2	1514.4	1587.3	1635.9	1668.2	1679.6	1652.1	1655.3	1606.7	1587.3
17.5°	1446.4	1426.9	1490.1	1561.3	1621.3	1692.5	1747.6	1739.5	1739.5	1700.6	1673.1
20°	1360.5	1392.9	1425.3	1516.0	1626.1	1733.0	1838.3	1833.5	1814.0	1802.7	1742.8
22.5°	1287.6	1302.2	1362.1	1457.7	1595.4	1744.4	1869.1	1958.2	1912.8	1867.5	1831.8
25°	1237.4	1224.5	1300.6	1399.4	1566.2	1724.9	1927.4	2019.7	2044.0	2010.0	1942.0
27.5°	1166.2	1166.2	1226.1	1320.0	1472.3	1715.2	1984.1	2125.0	2160.6	2110.4	2011.6
30°	1085.2	1094.9	1146.7	1253.6	1402.6	1644.0	2006.8	2246.5	2275.6	2231.9	2129.8
32.5°	1022.0	1022.0	1080.3	1193.7	1354.0	1611.6	1992.2	2366.3	2421.4	2389.0	2283.7
35°	954.0	949.1	991.2	1115.9	1276.3	1548.4	1987.3	2461.9	2585.0	2586.6	2476.5
37.5°	856.8	876.2	929.7	1028.5	1214.7	1486.8	1972.7	2576.9	2797.1	2834.4	2758.3
40°	792.0	800.1	848.7	957.2	1119.2	1414.0	1951.7	2670.8	2938.1	3066.0	2960.7
42.5°	698.1	709.4	746.7	881.1	1026.9	1310.3	1859.4	2737.2	3138.9	3284.7	3195.6
45°	599.3	605.8	660.8	771.0	928.1	1187.2	1760.6	2844.1	3333.3	3631.3	3579.4
47.5°	481.0	484.3	531.2	646.2	809.8	1064.1	1608.3	2839.3	3490.4	3977.9	4123.6
50°	375.8	383.9	419.5	513.4	667.3	913.5	1431.8	2800.4	3688.0	4373.1	4659.8
52.5°	299.6	301.3	323.9	398.4	515.1	762.9	1242.3	2677.3	3874.2	4760.2	5317.3
55°	247.8	247.8	260.8	306.1	395.2	579.8	1020.4	2473.2	3896.9	5187.8	6034.8
56°	238.1	234.9	246.2	285.1	356.3	523.1	916.7	2335.5	3929.3	5385.4	6394.4
57°	225.1	226.8	233.2	260.8	320.7	463.2	801.7	2201.1	3906.6	5547.3	6660.0
58°	218.7	215.4	228.4	246.2	283.4	411.4	722.4	2042.4	3871.0	5680.1	7047.1
59°	208.9	207.3	215.4	231.6	264.0	366.0	625.2	1870.7	3801.3	5851.8	7335.4
60°	205.7	204.1	207.3	220.3	242.9	320.7	550.7	1669.9	3615.1	6028.4	7693.4
61°	196.0	197.6	204.1	212.2	230.0	288.3	495.6	1464.2	3493.6	6177.4	8088.6
62°	197.6	194.4	197.6	204.1	217.0	265.6	434.1	1261.7	3276.6	6345.8	8385.0
63°	187.9	186.3	191.1	199.2	205.7	239.7	379.0	1090.0	3030.4	6384.7	8636.0
64°	184.6	183.0	184.6	196.0	197.6	225.1	335.3	931.3	2674.1	6451.1	8958.3
65°	176.5	176.5	179.8	184.6	191.1	212.2	299.6	808.2	2319.3	6276.2	9057.1
66°	170.1	171.7	171.7	179.8	184.6	197.6	275.3	686.7	1979.2	5997.6	9152.7
67°	165.2	165.2	166.8	173.3	178.2	186.3	247.8	594.4	1669.9	5665.6	9005.3
67.5°	162.0	163.6	163.6	170.1	174.9	186.3	236.5	563.6	1493.3	5301.1	8895.2
68°	157.1	158.7	158.7	165.2	170.1	179.8	228.4	515.1	1376.7	5064.7	8691.1
69°	153.9	152.2	152.2	158.7	165.2	171.7	212.2	450.3	1094.9	4403.8	8393.1
70°	144.1	144.1	147.4	152.2	157.1	163.6	196.0	396.8	926.4	3645.8	7625.3
71°	139.3	137.7	139.3	144.1	149.0	157.1	179.8	351.5	758.0	3027.1	6870.6
72°	129.6	132.8	132.8	137.7	142.5	147.4	168.4	306.1	636.5	2419.8	6039.7
72.5°	128.0	128.0	129.6	134.4	137.7	145.8	162.0	293.2	581.5	2133.1	5691.5
73°	123.1	123.1	124.7	129.6	132.8	140.9	157.1	264.0	529.6	1898.2	5040.4
74°	118.2	116.6	116.6	123.1	124.7	132.8	147.4	233.2	443.8	1430.2	4045.9
75°	110.1	110.1	111.8	115.0	116.6	123.1	136.1	207.3	374.1	1109.5	3164.8



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**CANDELA DISTRIBUTION (continued):**

	0°	5°	15°	25°	35°	45°	55°	65°	70°	75°	80°
77.5°	90.7	92.3	93.9	97.2	97.2	102.0	111.8	144.1	228.4	562.0	1452.8
80°	66.4	69.6	74.5	79.4	77.7	77.7	87.5	103.7	136.1	252.7	557.2
82.5°	53.4	56.7	51.8	58.3	58.3	55.1	63.2	76.1	92.3	124.7	199.2
85°	35.6	37.3	30.8	35.6	34.0	34.0	42.1	45.4	56.7	69.6	98.8
87.5°	16.2	16.2	13.0	14.6	14.6	14.6	21.1	16.2	24.3	34.0	58.3
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°	1379.9	1379.9	1379.9	1379.9	1379.9	1379.9	1379.9	1379.9	1379.9	1379.9	1379.9
2.5°	1383.2	1389.7	1389.7	1383.2	1378.3	1383.2	1379.9	1371.8	1379.9	1383.2	1384.8
5°	1402.6	1389.7	1396.1	1381.6	1391.3	1389.7	1386.4	1394.5	1396.1	1396.1	1407.5
7.5°	1423.7	1439.9	1418.8	1420.4	1425.3	1405.9	1412.3	1415.6	1409.1	1422.1	1431.8
10°	1460.9	1467.4	1460.9	1436.6	1452.8	1439.9	1435.0	1449.6	1446.4	1449.6	1464.2
12.5°	1494.9	1506.3	1488.5	1486.8	1478.7	1467.4	1473.9	1472.3	1494.9	1498.2	1516.0
15°	1564.6	1535.4	1529.0	1527.3	1524.1	1519.2	1522.5	1524.1	1553.3	1558.1	1600.2
17.5°	1624.5	1619.7	1584.0	1597.0	1597.0	1577.5	1569.4	1597.0	1619.7	1644.0	1673.1
20°	1686.1	1681.2	1642.3	1644.0	1629.4	1647.2	1637.5	1663.4	1702.3	1710.4	1736.3
22.5°	1758.9	1737.9	1710.4	1713.6	1718.5	1705.5	1699.0	1734.7	1773.5	1796.2	1797.8
25°	1873.9	1820.5	1797.8	1801.1	1794.6	1784.9	1789.7	1835.1	1854.5	1903.1	1893.4
27.5°	1935.5	1904.7	1888.5	1851.3	1852.9	1838.3	1857.7	1925.8	1964.6	2001.9	1927.4
30°	2010.0	1990.6	1919.3	1906.3	1904.7	1898.2	1933.9	2021.3	2079.6	2100.7	1993.8
32.5°	2155.8	2078.0	2060.2	2048.9	2023.0	2031.1	2048.9	2163.9	2256.2	2251.3	2055.3
35°	2322.6	2269.1	2218.9	2209.2	2206.0	2183.3	2214.1	2348.5	2419.8	2398.7	2078.0
37.5°	2589.8	2508.8	2440.8	2403.6	2397.1	2380.9	2453.8	2560.7	2653.0	2570.4	2095.8
40°	2721.0	2630.3	2567.2	2544.5	2549.3	2572.0	2643.3	2806.9	2847.4	2695.1	2110.4
42.5°	2908.9	2810.1	2685.4	2674.1	2659.5	2670.8	2808.5	3028.8	3062.8	2863.6	2055.3
45°	3242.6	3093.5	2949.4	2884.6	2887.8	2918.6	3132.4	3373.7	3310.6	2980.2	1967.9
47.5°	3663.7	3445.0	3328.4	3240.9	3283.0	3249.0	3589.2	3781.9	3566.5	3127.6	1861.0
50°	4297.0	3990.8	3832.1	3726.8	3744.6	3773.8	4118.8	4282.4	3849.9	3198.8	1697.4
52.5°	5095.4	4701.9	4468.6	4327.7	4340.7	4403.8	4849.3	4799.0	4173.9	3258.8	1478.7
55°	6051.0	5646.1	5194.2	5135.9	5121.4	5272.0	5762.7	5340.0	4465.4	3163.2	1252.0
56°	6556.4	6125.5	5655.8	5536.0	5500.4	5605.6	6182.2	5610.5	4565.8	3056.3	1143.5
57°	6985.6	6574.2	6059.1	5855.1	5900.4	6098.0	6598.5	5864.8	4658.1	2946.2	1041.4
58°	7575.1	7105.4	6561.2	6405.7	6365.3	6522.4	7047.1	6120.7	4688.9	2832.8	947.5
59°	8163.1	7599.4	7108.7	6825.2	6836.6	7123.3	7489.3	6425.2	4735.9	2688.6	827.6
60°	8610.1	8326.7	7670.7	7458.5	7429.4	7844.0	7929.8	6629.3	4786.1	2494.3	743.4
61°	9243.4	8874.1	8263.5	7989.8	8069.1	8401.2	8406.0	6885.2	4711.6	2248.1	639.8
62°	9698.5	9601.3	8959.9	8699.2	8674.9	9115.4	8901.6	7110.3	4646.8	2014.9	565.3
63°	10231.4	10231.4	9646.7	9442.6	9453.9	9802.2	9117.1	7335.4	4572.3	1757.3	497.2
64°	10508.3	10856.6	10317.2	10030.5	10105.0	10406.3	9500.9	7482.8	4342.3	1496.6	437.3
65°	10748.0	11271.2	10971.6	10838.7	10725.4	10903.5	9832.9	7620.5	3990.8	1273.1	388.7
66°	10950.5	11661.5	11562.7	11420.2	11408.9	11368.4	9897.7	7615.6	3628.0	1075.5	340.1
67°	10848.5	11669.6	11849.4	11909.3	11891.5	11463.9	9784.4	7442.3	3163.2	908.6	302.9
67.5°	10756.1	11603.2	12021.1	11987.1	12061.6	11544.9	9803.8	7230.2	2832.8	822.8	285.1
68°	10675.2	11514.1	12090.7	12134.5	12097.2	11554.6	9696.9	7061.7	2607.6	772.6	268.9
69°	10061.3	11091.4	11979.0	12136.1	12040.5	11183.7	9356.8	6622.8	2071.5	659.2	247.8
70°	9445.8	10544.0	11436.4	11724.7	11606.5	10466.2	8927.6	5924.7	1708.7	563.6	223.5
71°	8593.9	9526.8	10714.0	10887.3	10744.8	9649.9	8040.0	5187.8	1329.7	477.8	199.2
72°	7437.5	8229.5	9363.2	9782.7	9572.2	8475.7	7142.7	4287.2	1077.1	401.7	181.4
72.5°	6864.1	7675.6	8768.8	8802.8	8843.3	7965.5	6762.1	3765.7	939.4	372.5	176.5
73°	6319.9	7115.2	8061.0	8180.9	8009.2	7105.4	6193.6	3367.3	858.4	340.1	170.1
74°	5121.4	5574.9	6358.8	6475.4	6324.8	5793.5	5061.4	2581.7	683.5	293.2	155.5
75°	4029.7	4279.1	4988.5	4917.3	4692.1	4505.9	3924.4	1972.7	553.9	257.5	144.1



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**CANDELA DISTRIBUTION (continued):**

	85°	87.5°	90°	92°	92.5°	95°	100°	105°	110°	115°	125°
77.5°	1810.8	1961.4	2079.6	2079.6	2092.6	1997.0	1809.2	905.4	341.7	186.3	118.2
80°	690.0	772.6	798.5	800.1	811.4	840.6	782.3	445.4	202.5	132.8	95.6
82.5°	500.5	699.7	753.1	714.3	717.5	647.9	299.6	197.6	128.0	92.3	69.6
85°	453.5	609.0	644.6	639.8	641.4	599.3	176.5	97.2	74.5	58.3	48.6
87.5°	220.3	215.4	228.4	257.5	251.0	325.6	149.0	48.6	32.4	24.3	24.3
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):**

	135°	145°	155°	165°	175°	180°
0°	1379.9	1379.9	1379.9	1379.9	1379.9	1379.9
2.5°	1371.8	1370.2	1392.9	1370.2	1383.2	1373.5
5°	1388.0	1394.5	1399.4	1409.1	1386.4	1409.1
7.5°	1436.6	1443.1	1444.7	1452.8	1443.1	1441.5
10°	1473.9	1490.1	1499.8	1467.4	1486.8	1485.2
12.5°	1546.8	1530.6	1529.0	1522.5	1504.7	1498.2
15°	1598.6	1574.3	1559.7	1533.8	1512.8	1504.7
17.5°	1671.5	1624.5	1564.6	1511.1	1473.9	1444.7
20°	1716.8	1632.6	1512.8	1449.6	1392.9	1405.9
22.5°	1746.0	1624.5	1465.8	1384.8	1328.1	1344.3
25°	1755.7	1584.0	1433.4	1333.0	1277.9	1266.6
27.5°	1728.2	1537.1	1370.2	1256.9	1208.3	1218.0
30°	1715.2	1469.0	1311.9	1200.2	1135.4	1145.1
32.5°	1681.2	1399.4	1234.2	1120.8	1073.8	1057.6
35°	1632.6	1341.1	1159.7	1052.8	996.1	983.1
37.5°	1572.7	1268.2	1094.9	965.3	915.1	905.4
40°	1483.6	1180.7	1000.9	889.2	830.9	829.3
42.5°	1405.9	1096.5	913.5	798.5	740.2	743.4
45°	1307.1	983.1	813.1	714.3	656.0	659.2
47.5°	1180.7	877.9	717.5	607.4	558.8	555.5
50°	1031.7	758.0	600.9	507.0	466.5	458.4
52.5°	889.2	636.5	492.4	408.2	374.1	370.9
55°	709.4	495.6	383.9	320.7	294.8	296.4
56°	644.6	456.7	349.8	293.2	273.7	273.7
57°	583.1	404.9	317.5	270.5	252.7	252.7
58°	515.1	356.3	288.3	244.6	236.5	230.0
59°	468.1	323.9	260.8	231.6	218.7	217.0
60°	413.0	291.5	242.9	217.0	207.3	205.7
61°	366.0	262.4	223.5	202.5	199.2	199.2
62°	327.2	242.9	207.3	196.0	194.4	189.5
63°	293.2	223.5	199.2	186.3	181.4	186.3
64°	262.4	205.7	192.7	183.0	176.5	179.8
65°	238.1	197.6	184.6	178.2	171.7	173.3
66°	221.9	184.6	178.2	170.1	166.8	168.4
67°	200.8	178.2	171.7	163.6	162.0	163.6
67.5°	194.4	173.3	168.4	160.3	158.7	160.3
68°	189.5	170.1	166.8	158.7	157.1	155.5
69°	176.5	163.6	158.7	155.5	152.2	150.6
70°	165.2	157.1	153.9	149.0	145.8	144.1
71°	158.7	149.0	147.4	142.5	139.3	137.7
72°	150.6	144.1	140.9	134.4	132.8	134.4
72.5°	149.0	140.9	139.3	132.8	131.2	131.2
73°	144.1	134.4	136.1	129.6	126.3	129.6
74°	134.4	131.2	128.0	123.1	121.5	121.5
75°	126.3	123.1	119.9	116.6	116.6	116.6



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**CANDELA DISTRIBUTION (continued):**

	135°	145°	155°	165°	175°	180°
77.5°	106.9	105.3	106.9	100.4	98.8	97.2
80°	85.8	85.8	87.5	82.6	79.4	77.7
82.5°	64.8	66.4	69.6	64.8	61.5	58.3
85°	42.1	43.7	43.7	38.9	45.4	42.1
87.5°	21.1	22.7	21.1	19.4	22.7	22.7
90°	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)