

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: P676178

Luminaire Tested: **CCW-SA-1E-830-U-T1**

Issue Date: 04/25/2023



Test Information

Test Method: LM-79-08
Report Number: P676178
Test Lab: INNOVATION CENTER(G1)
Issue Date: 04/25/2023
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: INVUE
Catalog Number: CCW-SA-1E-830-U-T1
Description: INVUE CLEAR CURVE Wall Pack MOUNT LIGHT SQUARE LUMINAIRE @1050mA w/
T1 distribution lens
Light Source: (16) 3000K CCT, 80 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

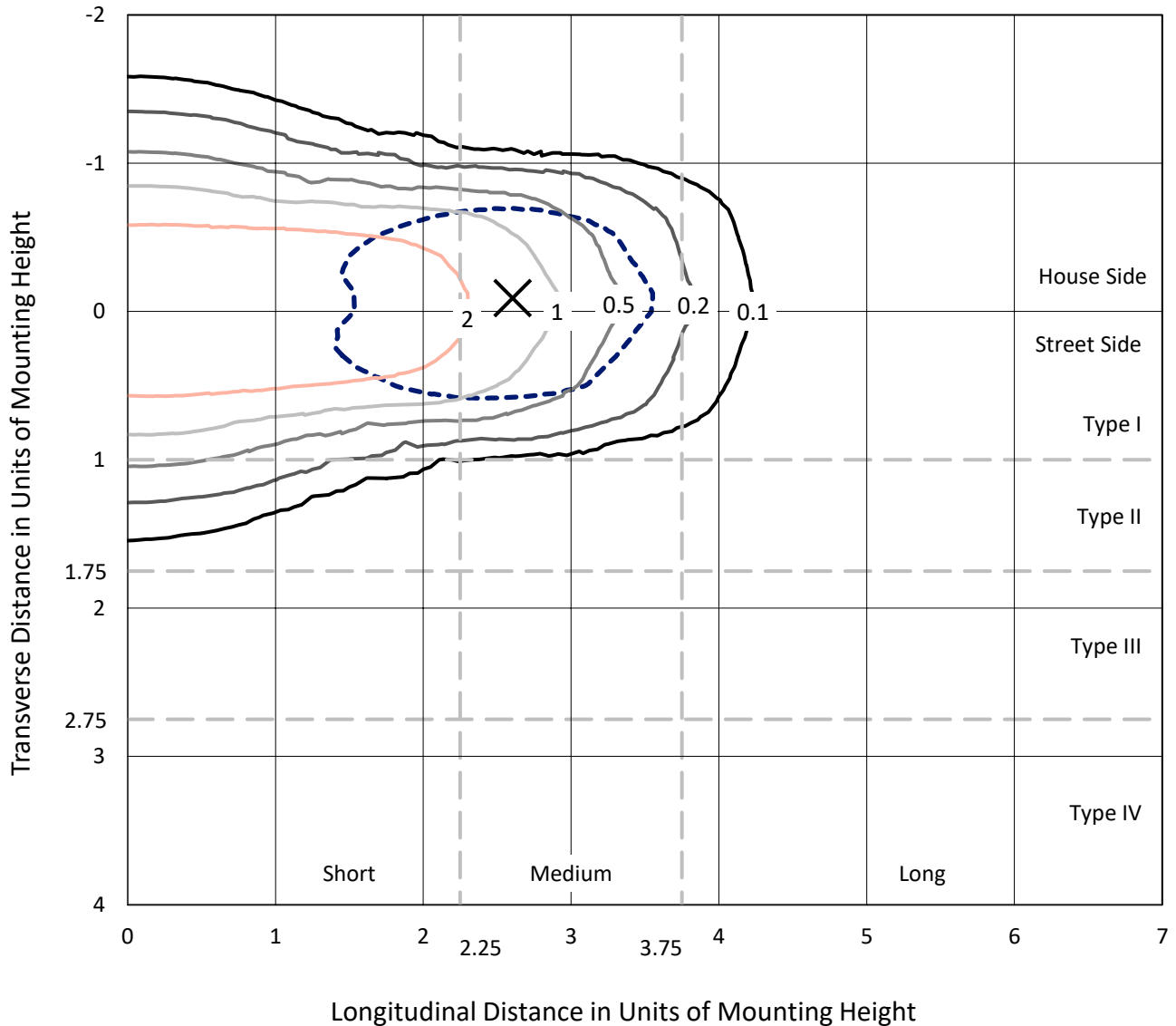
Lumens per Lamp: N/A
Luminaire Lumens: 5290.3 lumens
Efficiency: N/A
Efficacy: 94.3 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 0.5' x H: 0')
IES Classification: Type I - Short
BUG Rating: B2 - U0 - G2

Input Watts (W): 56.1
Input Voltage (V): 120
Input Current (A_{in}): 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

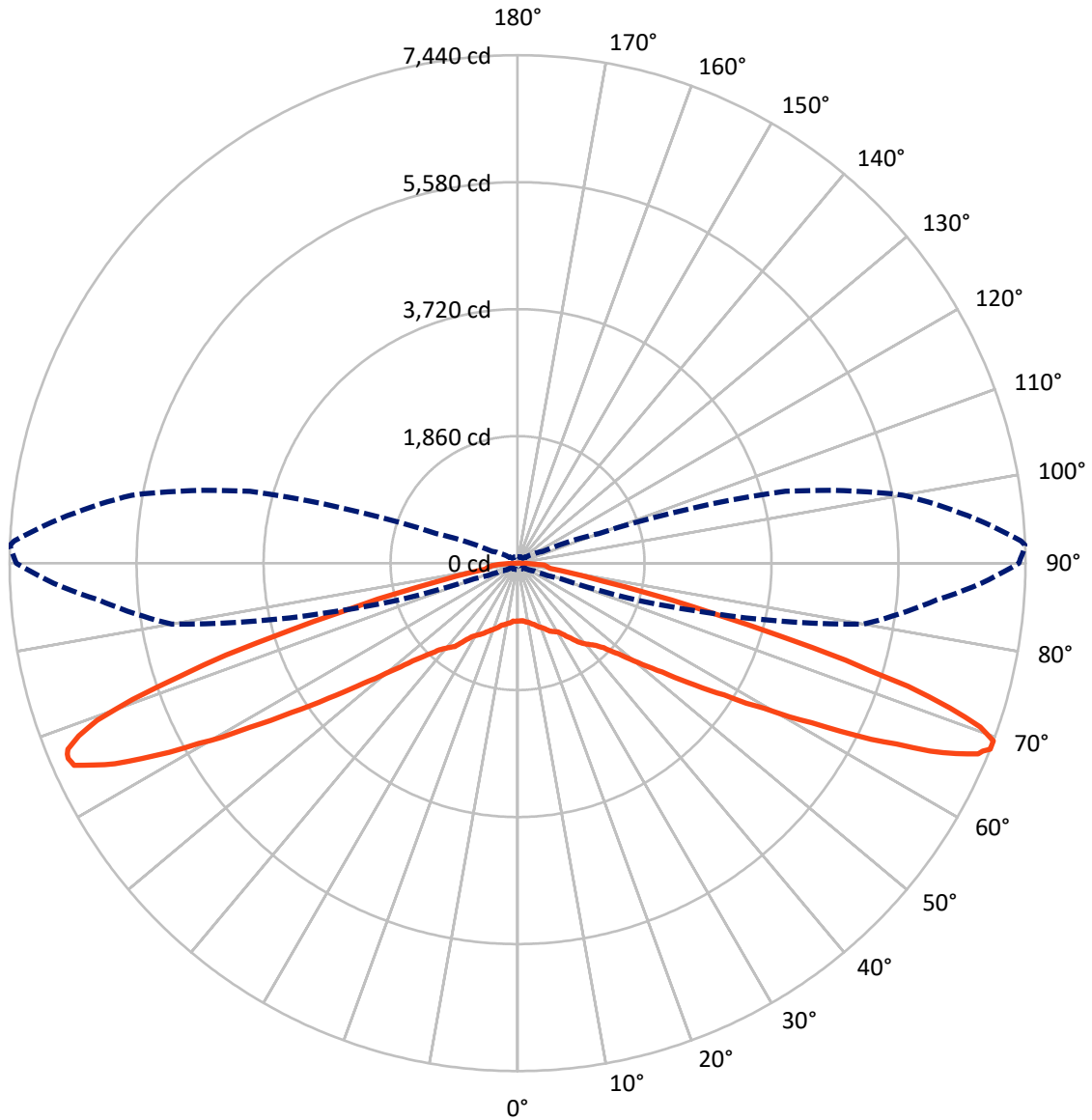
× Max cd
 - - - 1/2 Max cd



Based on 15 foot mounting height. Maximum calculated value = 4.1 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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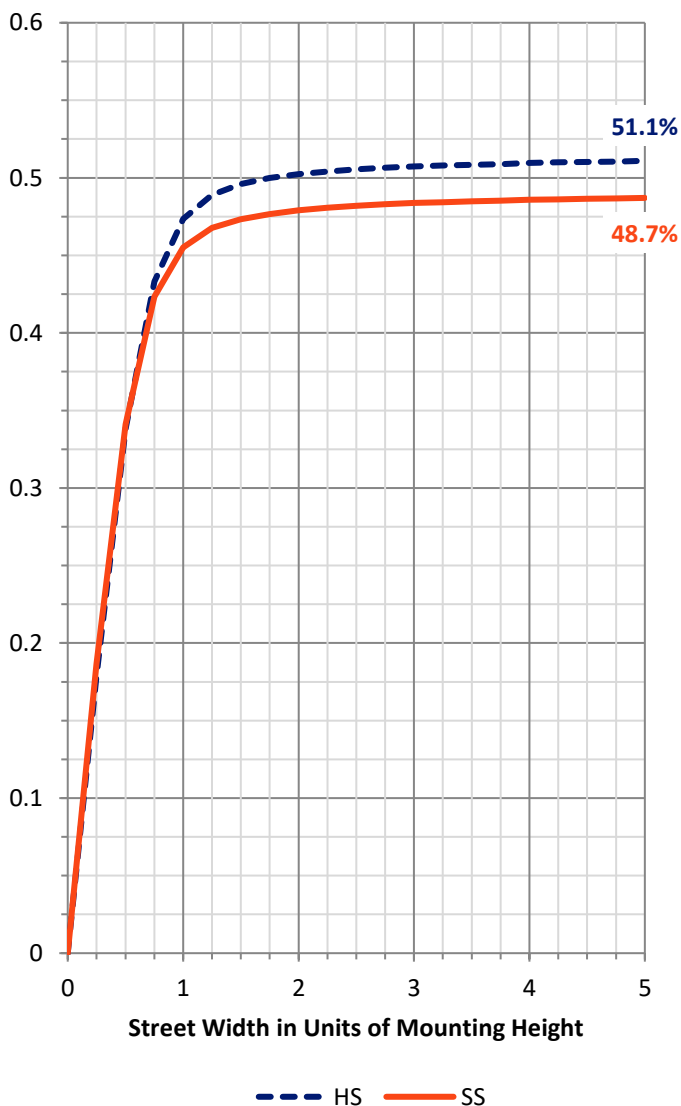
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	2724.4	0.0	2724.4
	% Fixture	51.5	0.0	51.5
Street Side	Lumens	2565.9	0.0	2565.9
	% Fixture	48.5	0.0	48.5
Total	Lumens	5290.3	0.0	5290.3
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	84.7	1.6
10°-20°	274.4	5.2
20°-30°	468.3	8.9
30°-40°	653.9	12.4
40°-50°	831.8	15.7
50°-60°	1051.8	19.9
60°-70°	1297.1	24.5
70°-80°	566.6	10.7
80°-90°	61.5	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°	5290.3	100.0
0°-180°	5290.3	100.0



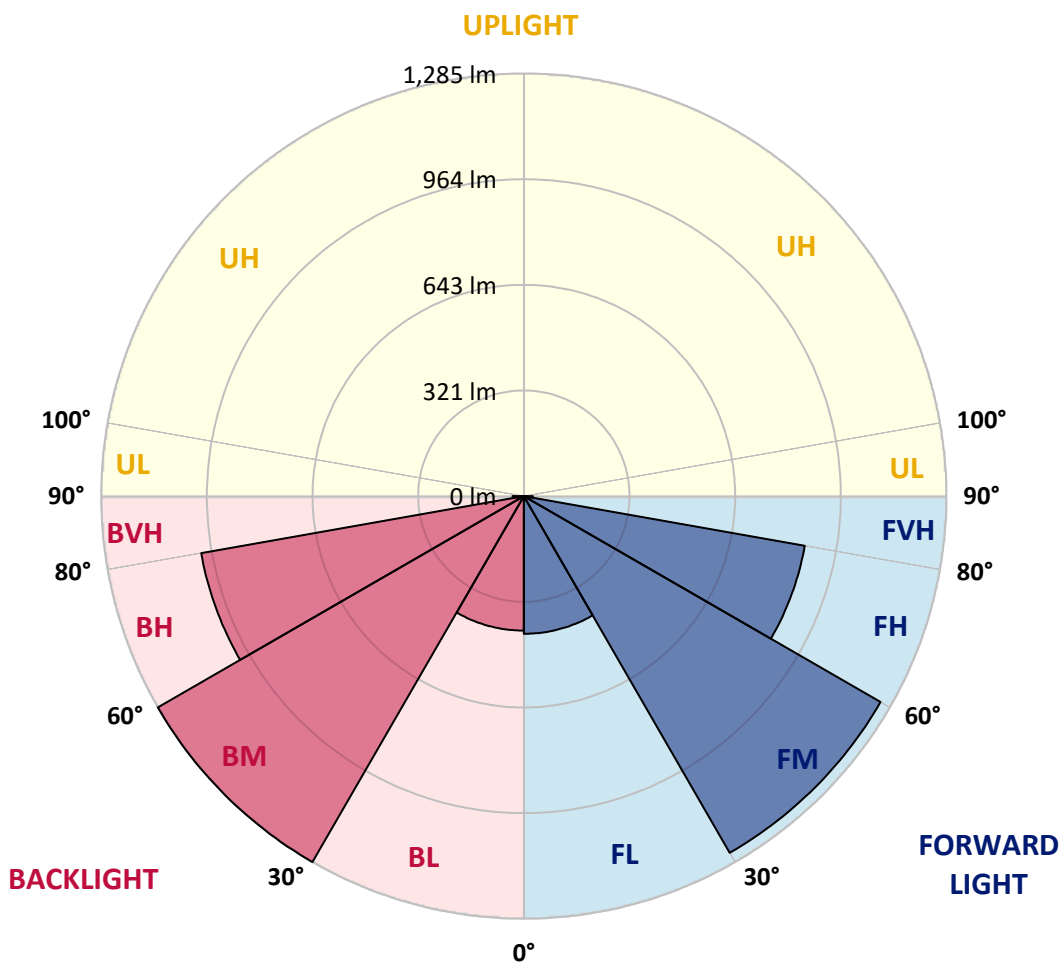
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	418.7	7.9			
FM (30°-60°)	1252.4	23.7			
FH (60°-80°)	867.5	16.4			G1/1800
FVH (80°-90°)	27.3	0.5			G1/100
BL (0°-30°)	408.8	7.7	B1/500		
BM (30°-60°)	1285.1	24.3	B2/2500		
BH (60°-80°)	996.2	18.8	B2/1000		G2/1000
BVH (80°-90°)	34.2	0.6			G1/100
UL (90°-100°)	0.0	0.0		U0/0	
UH (100°-180°)	0.0	0.0		U0/0	

BUG Rating: B2-U0-G2

Type I Short





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	70°	75°	80°
0°	846.0	846.0	846.0	846.0	846.0	846.0	846.0	846.0	846.0	846.0	846.0
2.5°	863.8	862.8	865.8	867.8	858.9	861.8	859.9	857.9	850.9	847.9	842.0
5°	887.7	890.6	900.6	891.6	895.6	890.6	874.7	879.7	870.8	868.8	862.8
7.5°	929.4	923.4	937.3	927.4	930.4	920.4	913.5	904.5	902.6	888.6	889.6
10°	938.3	950.2	956.2	954.2	956.2	961.1	948.2	934.3	915.5	911.5	897.6
12.5°	932.3	943.3	959.1	972.1	981.0	983.0	978.0	975.0	967.1	944.3	943.3
15°	926.4	918.4	928.4	973.0	1002.8	1022.7	1029.6	1012.8	1014.7	985.0	973.0
17.5°	886.7	874.7	913.5	957.2	993.9	1037.6	1071.3	1066.4	1066.4	1042.5	1025.7
20°	834.0	853.9	873.8	929.4	996.9	1062.4	1126.9	1124.0	1112.1	1105.1	1068.4
22.5°	789.4	798.3	835.0	893.6	978.0	1069.4	1145.8	1200.4	1172.6	1144.8	1123.0
25°	758.6	750.6	797.3	857.9	960.1	1057.4	1181.6	1238.2	1253.0	1232.2	1190.5
27.5°	714.9	714.9	751.6	809.2	902.6	1051.5	1216.3	1302.7	1324.5	1293.8	1233.2
30°	665.2	671.2	703.0	768.5	859.9	1007.8	1230.2	1377.2	1395.0	1368.2	1305.7
32.5°	626.5	626.5	662.3	731.8	830.1	987.9	1221.3	1450.6	1484.4	1464.5	1400.0
35°	584.8	581.8	607.7	684.1	782.4	949.2	1218.3	1509.2	1584.7	1585.7	1518.2
37.5°	525.2	537.2	569.9	630.5	744.7	911.5	1209.4	1579.7	1714.7	1737.6	1690.9
40°	485.5	490.5	520.3	586.8	686.1	866.8	1196.5	1637.3	1801.1	1879.6	1815.0
42.5°	427.9	434.9	457.7	540.1	629.5	803.3	1139.9	1678.0	1924.2	2013.6	1959.0
45°	367.4	371.3	405.1	472.6	568.9	727.8	1079.3	1743.5	2043.4	2226.1	2194.3
47.5°	294.9	296.9	325.7	396.2	496.5	652.3	986.0	1740.6	2139.7	2438.6	2527.9
50°	230.4	235.3	257.2	314.8	409.1	560.0	877.7	1716.7	2260.8	2680.8	2856.6
52.5°	183.7	184.7	198.6	244.3	315.7	467.7	761.6	1641.3	2375.0	2918.1	3259.7
55°	151.9	151.9	159.9	187.7	242.3	355.5	625.5	1516.2	2388.9	3180.3	3699.6
56°	146.0	144.0	150.9	174.8	218.4	320.7	562.0	1431.8	2408.8	3301.4	3920.0
57°	138.0	139.0	143.0	159.9	196.6	284.0	491.5	1349.4	2394.9	3400.7	4082.8
58°	134.0	132.1	140.0	150.9	173.8	252.2	442.8	1252.1	2373.0	3482.1	4320.1
59°	128.1	127.1	132.1	142.0	161.8	224.4	383.3	1146.8	2330.3	3587.4	4496.9
60°	126.1	125.1	127.1	135.0	148.9	196.6	337.6	1023.7	2216.2	3695.6	4716.3
61°	120.1	121.1	125.1	130.1	141.0	176.7	303.8	897.6	2141.7	3786.9	4958.6
62°	121.1	119.1	121.1	125.1	133.0	162.8	266.1	773.5	2008.6	3890.2	5140.3
63°	115.2	114.2	117.2	122.1	126.1	146.9	232.3	668.2	1857.7	3914.0	5294.2
64°	113.2	112.2	113.2	120.1	121.1	138.0	205.5	570.9	1639.3	3954.7	5491.8
65°	108.2	108.2	110.2	113.2	117.2	130.1	183.7	495.5	1421.8	3847.5	5552.3
66°	104.3	105.2	105.2	110.2	113.2	121.1	168.8	421.0	1213.3	3676.7	5610.9
67°	101.3	101.3	102.3	106.2	109.2	114.2	151.9	364.4	1023.7	3473.2	5520.5
67.5°	99.3	100.3	100.3	104.3	107.2	114.2	145.0	345.5	915.5	3249.8	5453.0
68°	96.3	97.3	97.3	101.3	104.3	110.2	140.0	315.7	844.0	3104.8	5327.9
69°	94.3	93.3	93.3	97.3	101.3	105.2	130.1	276.0	671.2	2699.7	5145.2
70°	88.4	88.4	90.4	93.3	96.3	100.3	120.1	243.3	567.9	2235.0	4674.6
71°	85.4	84.4	85.4	88.4	91.3	96.3	110.2	215.5	464.7	1855.7	4211.9
72°	79.4	81.4	81.4	84.4	87.4	90.4	103.3	187.7	390.2	1483.4	3702.5
72.5°	78.4	78.4	79.4	82.4	84.4	89.4	99.3	179.7	356.5	1307.7	3489.1
73°	75.5	75.5	76.5	79.4	81.4	86.4	96.3	161.8	324.7	1163.7	3089.9
74°	72.5	71.5	71.5	75.5	76.5	81.4	90.4	143.0	272.1	876.7	2480.3
75°	67.5	67.5	68.5	70.5	71.5	75.5	83.4	127.1	229.4	680.1	1940.1



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CANDELA DISTRIBUTION (continued):

	0°	5°	15°	25°	35°	45°	55°	65°	70°	75°	80°
77.5°	55.6	56.6	57.6	59.6	59.6	62.6	68.5	88.4	140.0	344.5	890.6
80°	40.7	42.7	45.7	48.7	47.7	47.7	53.6	63.5	83.4	154.9	341.6
82.5°	32.8	34.8	31.8	35.7	35.7	33.8	38.7	46.7	56.6	76.5	122.1
85°	21.8	22.8	18.9	21.8	20.9	20.9	25.8	27.8	34.8	42.7	60.6
87.5°	9.9	9.9	7.9	8.9	8.9	8.9	12.9	9.9	14.9	20.9	35.7
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°	846.0	846.0	846.0	846.0	846.0	846.0	846.0	846.0	846.0	846.0	846.0
2.5°	847.9	851.9	851.9	847.9	845.0	847.9	846.0	841.0	846.0	847.9	848.9
5°	859.9	851.9	855.9	846.9	852.9	851.9	849.9	854.9	855.9	855.9	862.8
7.5°	872.8	882.7	869.8	870.8	873.8	861.8	865.8	867.8	863.8	871.8	877.7
10°	895.6	899.6	895.6	880.7	890.6	882.7	879.7	888.6	886.7	888.6	897.6
12.5°	916.5	923.4	912.5	911.5	906.5	899.6	903.5	902.6	916.5	918.4	929.4
15°	959.1	941.3	937.3	936.3	934.3	931.3	933.3	934.3	952.2	955.2	981.0
17.5°	995.9	992.9	971.1	979.0	979.0	967.1	962.1	979.0	992.9	1007.8	1025.7
20°	1033.6	1030.6	1006.8	1007.8	998.9	1009.8	1003.8	1019.7	1043.5	1048.5	1064.4
22.5°	1078.3	1065.4	1048.5	1050.5	1053.5	1045.5	1041.6	1063.4	1087.2	1101.1	1102.1
25°	1148.8	1116.0	1102.1	1104.1	1100.1	1094.2	1097.2	1125.0	1136.9	1166.7	1160.7
27.5°	1186.5	1167.7	1157.7	1134.9	1135.9	1126.9	1138.9	1180.6	1204.4	1227.2	1181.6
30°	1232.2	1220.3	1176.6	1168.6	1167.7	1163.7	1185.5	1239.1	1274.9	1287.8	1222.3
32.5°	1321.6	1273.9	1263.0	1256.0	1240.1	1245.1	1256.0	1326.5	1383.1	1380.1	1260.0
35°	1423.8	1391.1	1360.3	1354.3	1352.3	1338.4	1357.3	1439.7	1483.4	1470.5	1273.9
37.5°	1587.7	1538.0	1496.3	1473.5	1469.5	1459.6	1504.3	1569.8	1626.4	1575.7	1284.8
40°	1668.1	1612.5	1573.8	1559.9	1562.8	1576.7	1620.4	1720.7	1745.5	1652.2	1293.8
42.5°	1783.3	1722.7	1646.2	1639.3	1630.3	1637.3	1721.7	1856.7	1877.6	1755.5	1260.0
45°	1987.8	1896.4	1808.1	1768.4	1770.3	1789.2	1920.3	2068.2	2029.5	1826.9	1206.4
47.5°	2246.0	2111.9	2040.4	1986.8	2012.6	1991.8	2200.3	2318.4	2186.4	1917.3	1140.8
50°	2634.2	2446.5	2349.2	2284.7	2295.6	2313.5	2525.0	2625.2	2360.1	1961.0	1040.6
52.5°	3123.7	2882.4	2739.4	2653.0	2661.0	2699.7	2972.8	2942.0	2558.7	1997.7	906.5
55°	3709.5	3461.3	3184.2	3148.5	3139.6	3231.9	3532.8	3273.6	2737.4	1939.1	767.5
56°	4019.3	3755.2	3467.2	3393.7	3371.9	3436.4	3789.9	3439.4	2799.0	1873.6	701.0
57°	4282.4	4030.2	3714.5	3589.4	3617.2	3738.3	4045.1	3595.3	2855.6	1806.1	638.4
58°	4643.8	4355.9	4022.3	3926.9	3902.1	3998.4	4320.1	3752.2	2874.5	1736.6	580.8
59°	5004.2	4658.7	4357.9	4184.1	4191.1	4366.8	4591.2	3938.9	2903.3	1648.2	507.4
60°	5278.3	5104.5	4702.4	4572.3	4554.5	4808.6	4861.3	4064.0	2934.0	1529.1	455.7
61°	5666.5	5440.1	5065.8	4898.0	4946.7	5150.2	5153.2	4220.8	2888.4	1378.2	392.2
62°	5945.5	5885.9	5492.7	5332.9	5318.0	5588.1	5457.0	4358.9	2848.6	1235.2	346.5
63°	6272.2	6272.2	5913.7	5788.6	5795.6	6009.1	5589.1	4496.9	2803.0	1077.3	304.8
64°	6442.0	6655.4	6324.8	6149.1	6194.7	6379.4	5824.4	4587.2	2662.0	917.4	268.1
65°	6588.9	6909.6	6725.9	6644.5	6575.0	6684.2	6027.9	4671.6	2446.5	780.4	238.3
66°	6713.0	7148.9	7088.3	7001.0	6994.0	6969.2	6067.6	4668.6	2224.1	659.3	208.5
67°	6650.5	7153.9	7264.1	7300.8	7289.9	7027.8	5998.1	4562.4	1939.1	557.0	185.7
67.5°	6593.9	7113.2	7369.3	7348.5	7394.2	7077.4	6010.1	4432.3	1736.6	504.4	174.8
68°	6544.2	7058.6	7412.0	7438.8	7416.0	7083.4	5944.5	4329.1	1598.6	473.6	164.8
69°	6167.9	6799.4	7343.5	7439.8	7381.3	6856.0	5736.0	4060.0	1269.9	404.1	151.9
70°	5790.6	6463.8	7010.9	7187.6	7115.2	6416.1	5472.9	3632.0	1047.5	345.5	137.0
71°	5268.4	5840.3	6568.1	6674.3	6586.9	5915.7	4928.8	3180.3	815.2	292.9	122.1
72°	4559.4	5044.9	5740.0	5997.1	5868.1	5195.9	4378.7	2628.2	660.3	246.2	111.2
72.5°	4207.9	4705.4	5375.6	5396.4	5421.3	4883.1	4145.4	2308.5	575.9	228.4	108.2
73°	3874.3	4361.8	4941.7	5015.2	4909.9	4355.9	3796.9	2064.2	526.2	208.5	104.3
74°	3139.6	3417.6	3898.1	3969.6	3877.3	3551.6	3102.8	1582.7	419.0	179.7	95.3
75°	2470.3	2623.3	3058.1	3014.5	2876.4	2762.3	2405.8	1209.4	339.6	157.9	88.4



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CANDELA DISTRIBUTION (continued):

	85°	87.5°	90°	92°	92.5°	95°	100°	105°	110°	115°	125°
77.5°	1110.1	1202.4	1274.9	1274.9	1282.8	1224.3	1109.1	555.0	209.5	114.2	72.5
80°	423.0	473.6	489.5	490.5	497.4	515.3	479.6	273.0	124.1	81.4	58.6
82.5°	306.8	428.9	461.7	437.9	439.9	397.2	183.7	121.1	78.4	56.6	42.7
85°	278.0	373.3	395.2	392.2	393.2	367.4	108.2	59.6	45.7	35.7	29.8
87.5°	135.0	132.1	140.0	157.9	153.9	199.6	91.3	29.8	19.9	14.9	14.9
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):

	135°	145°	155°	165°	175°	180°
0°	846.0	846.0	846.0	846.0	846.0	846.0
2.5°	841.0	840.0	853.9	840.0	847.9	842.0
5°	850.9	854.9	857.9	863.8	849.9	863.8
7.5°	880.7	884.7	885.7	890.6	884.7	883.7
10°	903.5	913.5	919.4	899.6	911.5	910.5
12.5°	948.2	938.3	937.3	933.3	922.4	918.4
15°	980.0	965.1	956.2	940.3	927.4	922.4
17.5°	1024.7	995.9	959.1	926.4	903.5	885.7
20°	1052.5	1000.8	927.4	888.6	853.9	861.8
22.5°	1070.4	995.9	898.6	848.9	814.2	824.1
25°	1076.3	971.1	878.7	817.2	783.4	776.5
27.5°	1059.4	942.3	840.0	770.5	740.7	746.7
30°	1051.5	900.6	804.3	735.7	696.0	702.0
32.5°	1030.6	857.9	756.6	687.1	658.3	648.4
35°	1000.8	822.1	710.9	645.4	610.6	602.7
37.5°	964.1	777.4	671.2	591.8	561.0	555.0
40°	909.5	723.8	613.6	545.1	509.4	508.4
42.5°	861.8	672.2	560.0	489.5	453.8	455.7
45°	801.3	602.7	498.4	437.9	402.1	404.1
47.5°	723.8	538.2	439.9	372.3	342.6	340.6
50°	632.5	464.7	368.4	310.8	286.0	281.0
52.5°	545.1	390.2	301.8	250.2	229.4	227.4
55°	434.9	303.8	235.3	196.6	180.7	181.7
56°	395.2	280.0	214.5	179.7	167.8	167.8
57°	357.4	248.2	194.6	165.8	154.9	154.9
58°	315.7	218.4	176.7	149.9	145.0	141.0
59°	286.9	198.6	159.9	142.0	134.0	133.0
60°	253.2	178.7	148.9	133.0	127.1	126.1
61°	224.4	160.9	137.0	124.1	122.1	122.1
62°	200.6	148.9	127.1	120.1	119.1	116.2
63°	179.7	137.0	122.1	114.2	111.2	114.2
64°	160.9	126.1	118.2	112.2	108.2	110.2
65°	146.0	121.1	113.2	109.2	105.2	106.2
66°	136.0	113.2	109.2	104.3	102.3	103.3
67°	123.1	109.2	105.2	100.3	99.3	100.3
67.5°	119.1	106.2	103.3	98.3	97.3	98.3
68°	116.2	104.3	102.3	97.3	96.3	95.3
69°	108.2	100.3	97.3	95.3	93.3	92.3
70°	101.3	96.3	94.3	91.3	89.4	88.4
71°	97.3	91.3	90.4	87.4	85.4	84.4
72°	92.3	88.4	86.4	82.4	81.4	82.4
72.5°	91.3	86.4	85.4	81.4	80.4	80.4
73°	88.4	82.4	83.4	79.4	77.4	79.4
74°	82.4	80.4	78.4	75.5	74.5	74.5
75°	77.4	75.5	73.5	71.5	71.5	71.5



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CANDELA DISTRIBUTION (continued):

	135°	145°	155°	165°	175°	180°
77.5°	65.5	64.5	65.5	61.6	60.6	59.6
80°	52.6	52.6	53.6	50.6	48.7	47.7
82.5°	39.7	40.7	42.7	39.7	37.7	35.7
85°	25.8	26.8	26.8	23.8	27.8	25.8
87.5°	12.9	13.9	12.9	11.9	13.9	13.9
90°	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)