

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: P676210

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

Issue Date: 04/25/2023



Test Information

Test Method: LM-79-08
Report Number: P676210
Test Lab: INNOVATION CENTER(G1)
Issue Date: 04/25/2023
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: INVUE
Catalog Number: CCW-SA-1D-850-U-T1
Description: INVUE CLEAR CURVE Wall Pack MOUNT LIGHT SQUARE LUMINAIRE @800mA w/
T1 distribution lens
Light Source: (16) 5000K CCT, 80 CRI LEDs
Ballast/Driver: ELECTRONIC DRIVER

Summary

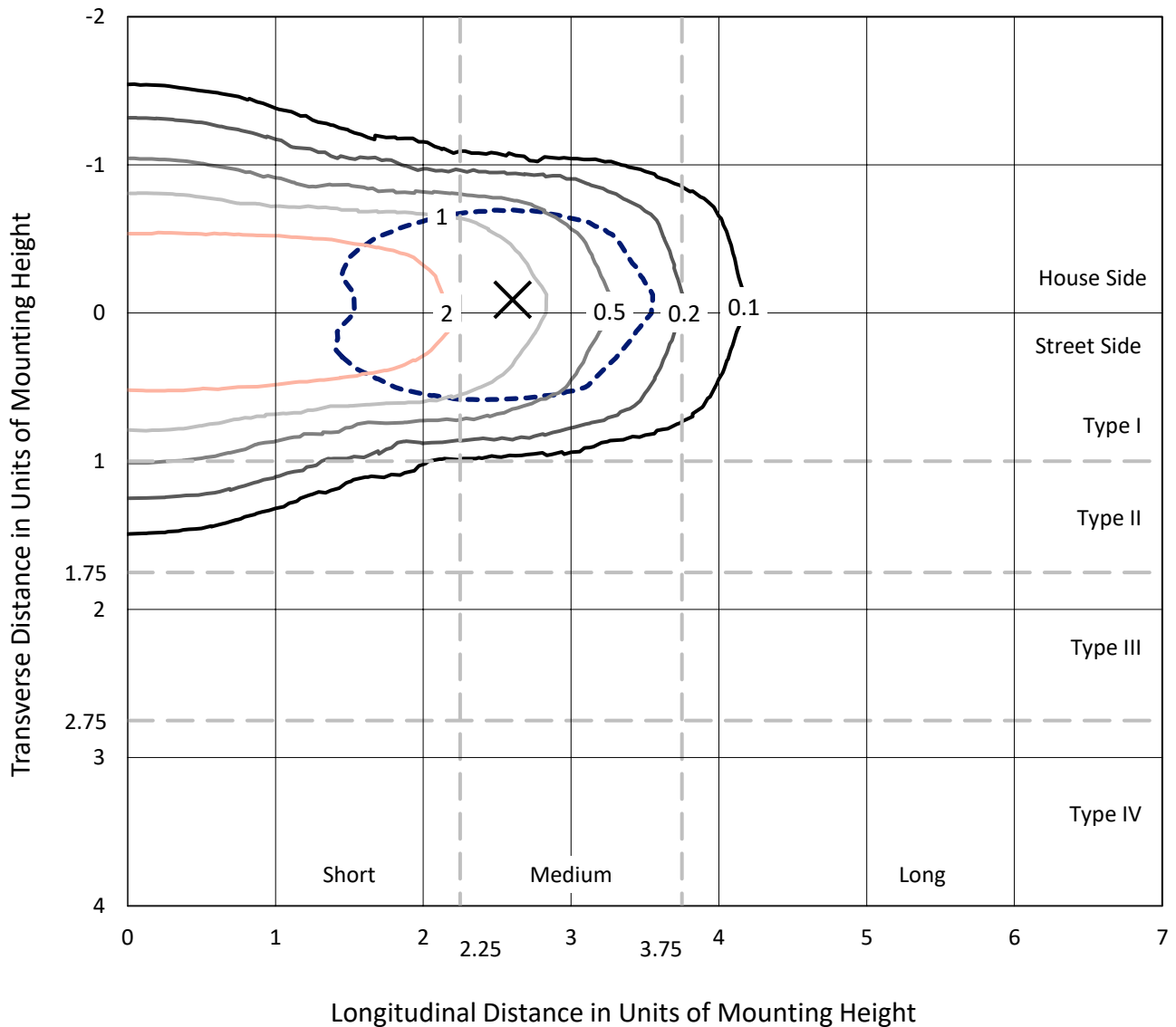
Lumens per Lamp: N/A
Luminaire Lumens: 4738.8 lumens
Efficiency: N/A
Efficacy: 107.7 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 0.5' x H: 0')
IES Classification: Type I - Short
BUG Rating: B2 - U0 - G2

Input Watts (W): 44
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

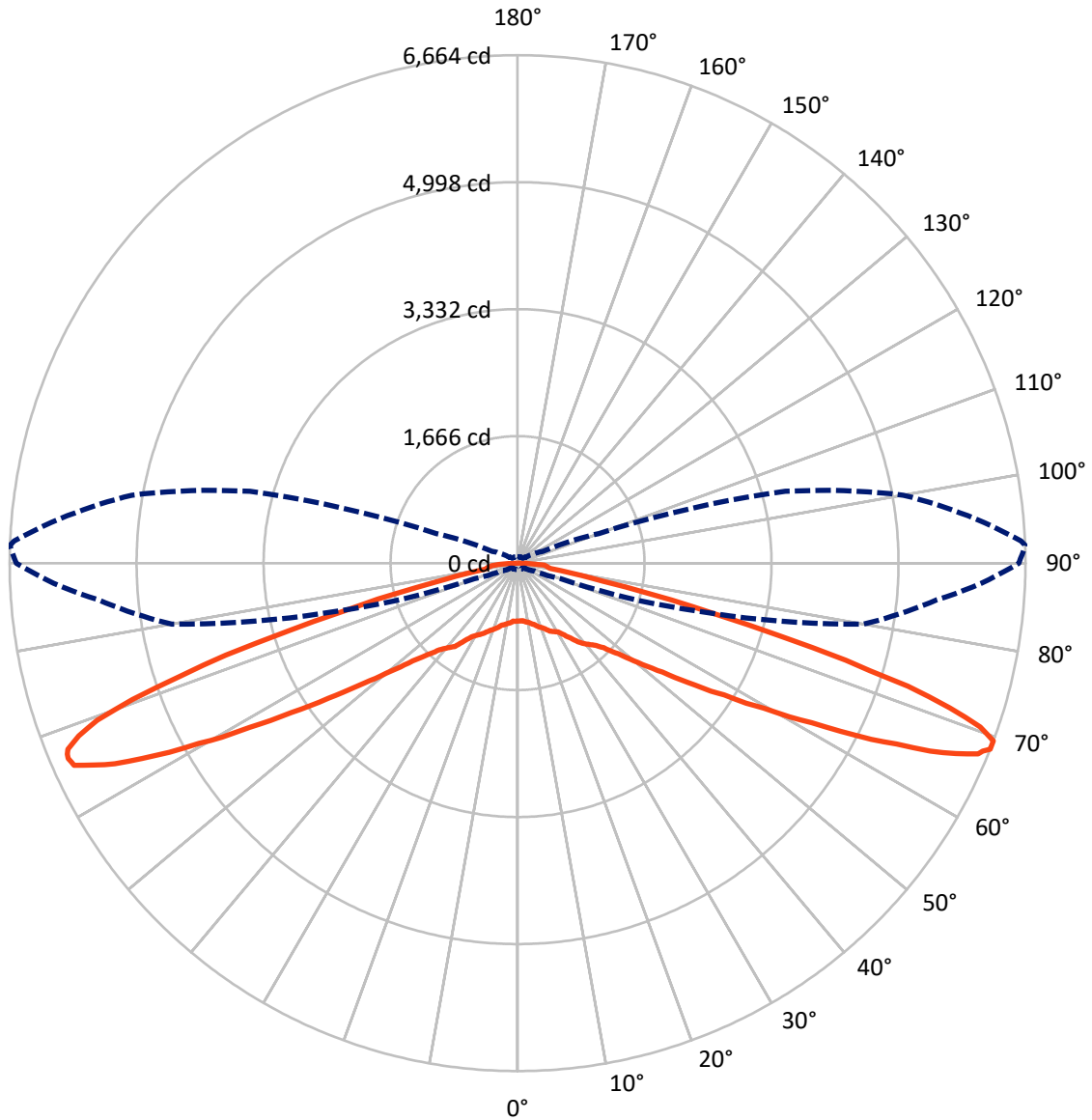
× Max cd
 - - - 1/2 Max cd



Based on 15 foot mounting height. Maximum calculated value = 3.7 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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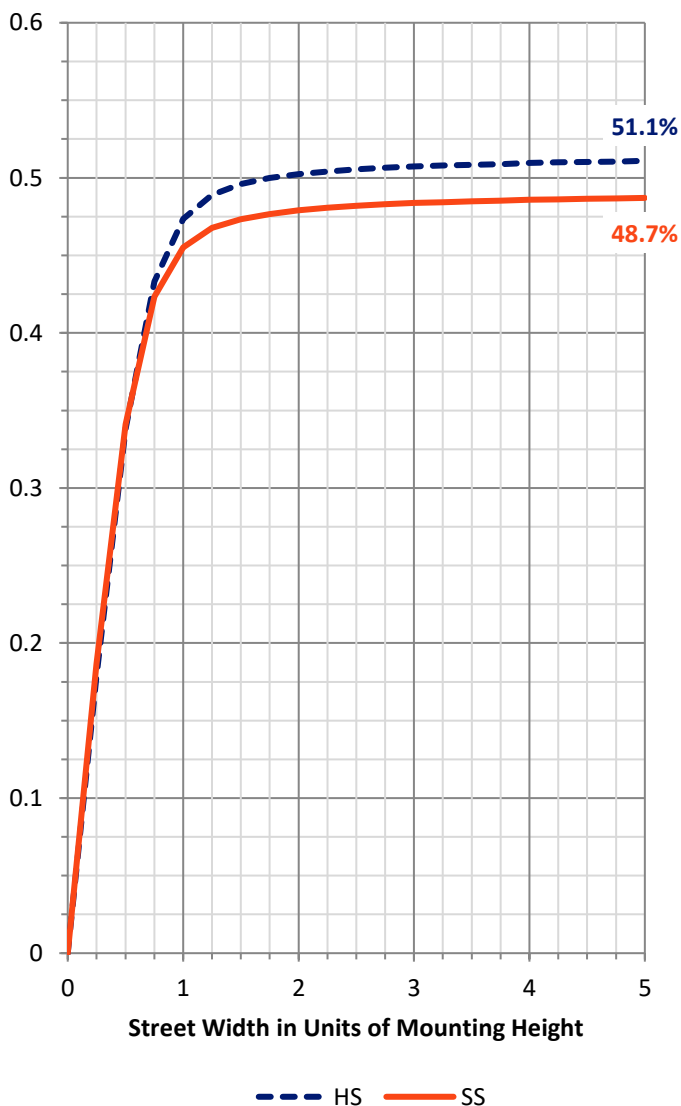
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	2440.4	0.0	2440.4
	% Fixture	51.5	0.0	51.5
Street Side	Lumens	2298.4	0.0	2298.4
	% Fixture	48.5	0.0	48.5
Total	Lumens	4738.8	0.0	4738.8
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	75.9	1.6
10°-20°	245.8	5.2
20°-30°	419.5	8.9
30°-40°	585.8	12.4
40°-50°	745.1	15.7
50°-60°	942.1	19.9
60°-70°	1161.9	24.5
70°-80°	507.6	10.7
80°-90°	55.1	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°	4738.8	100.0
0°-180°	4738.8	100.0



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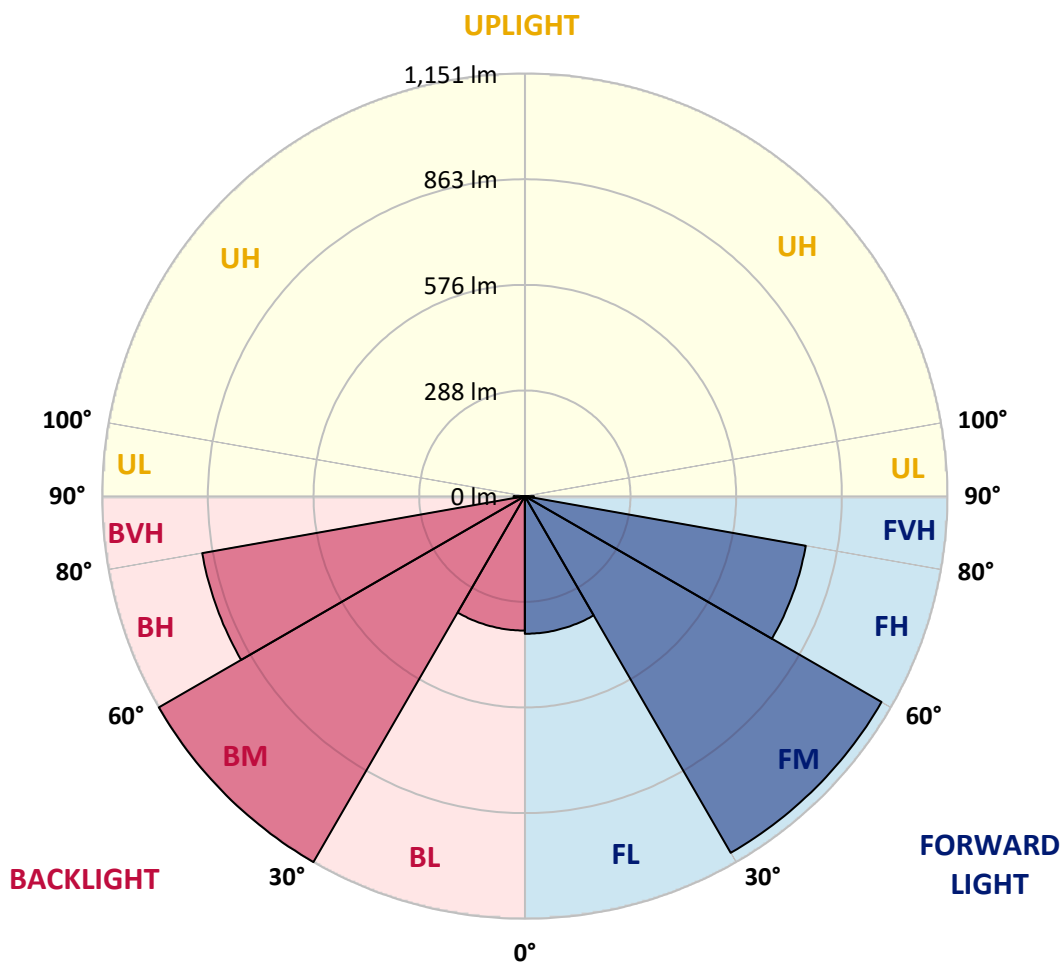
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	375.0	7.9			
FM (30°-60°)	1121.9	23.7			
FH (60°-80°)	777.1	16.4			G1/1800
FVH (80°-90°)	24.4	0.5			G1/100
BL (0°-30°)	366.2	7.7	B1/500		
BM (30°-60°)	1151.2	24.3	B2/2500		
BH (60°-80°)	892.4	18.8	B2/1000		G2/1000
BVH (80°-90°)	30.6	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°	757.8	757.8	757.8	757.8	757.8	757.8	757.8	757.8	757.8	757.8	757.8
2.5°	773.8	772.9	775.6	777.3	769.3	772.0	770.2	768.4	762.2	759.6	754.2
5°	795.1	797.8	806.7	798.7	802.2	797.8	783.6	788.0	780.0	778.2	772.9
7.5°	832.5	827.1	839.6	830.7	833.4	824.5	818.3	810.2	808.5	796.0	796.9
10°	840.5	851.2	856.5	854.7	856.5	860.9	849.4	836.9	820.0	816.5	804.0
12.5°	835.1	844.9	859.2	870.7	878.7	880.5	876.1	873.4	866.3	845.8	844.9
15°	829.8	822.7	831.6	871.6	898.3	916.1	922.3	907.2	909.0	882.3	871.6
17.5°	794.2	783.6	818.3	857.4	890.3	929.4	959.7	955.2	955.2	933.9	918.8
20°	747.1	764.9	782.7	832.5	893.0	951.7	1009.5	1006.8	996.1	989.9	957.0
22.5°	707.1	715.1	748.0	800.5	876.1	957.9	1026.4	1075.3	1050.4	1025.5	1005.9
25°	679.5	672.4	714.2	768.4	860.1	947.2	1058.4	1109.1	1122.4	1103.7	1066.4
27.5°	640.4	640.4	673.3	724.9	808.5	941.9	1089.5	1166.9	1186.5	1158.9	1104.6
30°	595.9	601.2	629.7	688.4	770.2	902.7	1102.0	1233.6	1249.6	1225.6	1169.6
32.5°	561.2	561.2	593.2	655.5	743.5	885.0	1094.0	1299.4	1329.7	1311.9	1254.1
35°	523.9	521.2	544.3	612.8	700.8	850.3	1091.3	1351.9	1419.5	1420.4	1359.9
37.5°	470.5	481.2	510.5	564.8	667.1	816.5	1083.3	1415.0	1536.0	1556.5	1514.7
40°	434.9	439.4	466.0	525.6	614.6	776.4	1071.7	1466.6	1613.4	1683.6	1625.8
42.5°	383.3	389.6	410.0	483.8	563.9	719.5	1021.0	1503.1	1723.7	1803.7	1754.8
45°	329.1	332.6	362.9	423.4	509.6	651.9	966.8	1561.8	1830.4	1994.0	1965.6
47.5°	264.2	265.9	291.7	354.9	444.7	584.3	883.2	1559.1	1916.7	2184.4	2264.4
50°	206.3	210.8	230.4	281.9	366.4	501.6	786.2	1537.8	2025.2	2401.4	2558.8
52.5°	164.5	165.4	177.9	218.8	282.8	418.9	682.2	1470.2	2127.5	2614.0	2919.9
55°	136.1	136.1	143.2	168.1	217.0	318.4	560.3	1358.1	2139.9	2848.8	3313.9
56°	130.7	129.0	135.2	156.5	195.7	287.3	503.4	1282.5	2157.7	2957.3	3511.4
57°	123.6	124.5	128.1	143.2	176.1	254.4	440.3	1208.7	2145.2	3046.2	3657.2
58°	120.1	118.3	125.4	135.2	155.6	225.9	396.7	1121.5	2125.7	3119.1	3869.8
59°	114.7	113.8	118.3	127.2	145.0	201.0	343.3	1027.3	2087.4	3213.4	4028.1
60°	113.0	112.1	113.8	121.0	133.4	176.1	302.4	917.0	1985.1	3310.4	4224.7
61°	107.6	108.5	112.1	116.5	126.3	158.3	272.2	804.0	1918.4	3392.2	4441.7
62°	108.5	106.7	108.5	112.1	119.2	145.9	238.4	692.8	1799.3	3484.7	4604.4
63°	103.2	102.3	104.9	109.4	113.0	131.6	208.1	598.6	1664.1	3506.0	4742.3
64°	101.4	100.5	101.4	107.6	108.5	123.6	184.1	511.4	1468.4	3542.5	4919.3
65°	96.9	96.9	98.7	101.4	104.9	116.5	164.5	443.8	1273.6	3446.4	4973.5
66°	93.4	94.3	94.3	98.7	101.4	108.5	151.2	377.1	1086.9	3293.5	5026.0
67°	90.7	90.7	91.6	95.2	97.8	102.3	136.1	326.4	917.0	3111.1	4945.1
67.5°	88.9	89.8	89.8	93.4	96.1	102.3	129.9	309.5	820.0	2911.0	4884.6
68°	86.3	87.2	87.2	90.7	93.4	98.7	125.4	282.8	756.0	2781.2	4772.5
69°	84.5	83.6	83.6	87.2	90.7	94.3	116.5	247.3	601.2	2418.3	4608.9
70°	79.2	79.2	80.9	83.6	86.3	89.8	107.6	217.9	508.7	2002.0	4187.3
71°	76.5	75.6	76.5	79.2	81.8	86.3	98.7	193.0	416.2	1662.3	3772.8
72°	71.2	72.9	72.9	75.6	78.3	80.9	92.5	168.1	349.5	1328.8	3316.6
72.5°	70.3	70.3	71.2	73.8	75.6	80.0	88.9	161.0	319.3	1171.3	3125.4
73°	67.6	67.6	68.5	71.2	72.9	77.4	86.3	145.0	290.8	1042.4	2767.8
74°	64.9	64.0	64.0	67.6	68.5	72.9	80.9	128.1	243.7	785.3	2221.7
75°	60.5	60.5	61.4	63.1	64.0	67.6	74.7	113.8	205.5	609.2	1737.9



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CANDELA DISTRIBUTION (continued):

	0°	5°	15°	25°	35°	45°	55°	65°	70°	75°	80°
77.5°	49.8	50.7	51.6	53.4	53.4	56.0	61.4	79.2	125.4	308.6	797.8
80°	36.5	38.2	40.9	43.6	42.7	42.7	48.0	56.9	74.7	138.7	306.0
82.5°	29.4	31.1	28.5	32.0	32.0	30.2	34.7	41.8	50.7	68.5	109.4
85°	19.6	20.5	16.9	19.6	18.7	18.7	23.1	24.9	31.1	38.2	54.3
87.5°	8.9	8.9	7.1	8.0	8.0	8.0	11.6	8.9	13.3	18.7	32.0
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°	757.8	757.8	757.8	757.8	757.8	757.8	757.8	757.8	757.8	757.8	757.8
2.5°	759.6	763.1	763.1	759.6	756.9	759.6	757.8	753.3	757.8	759.6	760.4
5°	770.2	763.1	766.7	758.7	764.0	763.1	761.3	765.8	766.7	766.7	772.9
7.5°	781.8	790.7	779.1	780.0	782.7	772.0	775.6	777.3	773.8	780.9	786.2
10°	802.2	805.8	802.2	788.9	797.8	790.7	788.0	796.0	794.2	796.0	804.0
12.5°	820.9	827.1	817.4	816.5	812.0	805.8	809.4	808.5	820.9	822.7	832.5
15°	859.2	843.2	839.6	838.7	836.9	834.3	836.0	836.9	852.9	855.6	878.7
17.5°	892.1	889.4	869.8	877.0	877.0	866.3	861.8	877.0	889.4	902.7	918.8
20°	925.9	923.2	901.9	902.7	894.7	904.5	899.2	913.4	934.8	939.2	953.4
22.5°	965.9	954.3	939.2	941.0	943.7	936.5	933.0	952.6	973.9	986.3	987.2
25°	1029.0	999.7	987.2	989.0	985.5	980.1	982.8	1007.7	1018.4	1045.0	1039.7
27.5°	1062.8	1045.9	1037.0	1016.6	1017.5	1009.5	1020.1	1057.5	1078.8	1099.3	1058.4
30°	1103.7	1093.1	1053.9	1046.8	1045.9	1042.4	1061.9	1110.0	1142.0	1153.6	1094.9
32.5°	1183.8	1141.1	1131.3	1125.1	1110.9	1115.3	1125.1	1188.2	1238.9	1236.3	1128.7
35°	1275.4	1246.1	1218.5	1213.1	1211.4	1198.9	1215.8	1289.6	1328.8	1317.2	1141.1
37.5°	1422.2	1377.7	1340.3	1319.9	1316.3	1307.4	1347.4	1406.1	1456.8	1411.5	1150.9
40°	1494.2	1444.4	1409.7	1397.3	1399.9	1412.4	1451.5	1541.3	1563.6	1480.0	1158.9
42.5°	1597.4	1543.1	1474.6	1468.4	1460.4	1466.6	1542.2	1663.2	1681.9	1572.5	1128.7
45°	1780.6	1698.8	1619.6	1584.0	1585.8	1602.7	1720.1	1852.6	1817.9	1636.5	1080.6
47.5°	2011.8	1891.8	1827.7	1779.7	1802.8	1784.1	1970.9	2076.8	1958.5	1717.4	1021.9
50°	2359.6	2191.5	2104.3	2046.5	2056.3	2072.3	2261.8	2351.6	2114.1	1756.6	932.1
52.5°	2798.1	2581.9	2453.9	2376.5	2383.6	2418.3	2662.9	2635.3	2292.0	1789.5	812.0
55°	3322.8	3100.5	2852.3	2820.3	2812.3	2895.0	3164.5	2932.4	2452.1	1737.0	687.5
56°	3600.3	3363.7	3105.8	3040.0	3020.4	3078.2	3394.9	3080.9	2507.2	1678.3	627.9
57°	3836.0	3610.1	3327.3	3215.2	3240.1	3348.6	3623.4	3220.5	2557.9	1617.8	571.9
58°	4159.7	3901.8	3603.0	3517.6	3495.4	3581.6	3869.8	3361.1	2574.8	1555.6	520.3
59°	4482.6	4173.1	3903.6	3747.9	3754.2	3911.6	4112.6	3528.3	2600.6	1476.4	454.5
60°	4728.1	4572.4	4212.2	4095.7	4079.7	4307.4	4354.5	3640.3	2628.2	1369.7	408.2
61°	5075.8	4873.0	4537.7	4387.4	4431.0	4613.3	4616.0	3780.9	2587.3	1234.5	351.3
62°	5325.7	5272.4	4920.2	4777.0	4763.6	5005.6	4888.2	3904.5	2551.7	1106.4	310.4
63°	5618.4	5618.4	5297.3	5185.2	5191.4	5382.7	5006.5	4028.1	2510.8	965.0	273.0
64°	5770.5	5961.7	5665.5	5508.1	5549.0	5714.4	5217.2	4109.0	2384.5	821.8	240.1
65°	5902.1	6189.4	6024.8	5951.9	5889.6	5987.5	5399.6	4184.6	2191.5	699.1	213.5
66°	6013.3	6403.7	6349.5	6271.2	6265.0	6242.7	5435.1	4182.0	1992.3	590.6	186.8
67°	5957.2	6408.2	6506.9	6539.8	6530.0	6295.2	5372.9	4086.8	1737.0	499.0	166.3
67.5°	5906.5	6371.7	6601.2	6582.5	6623.4	6339.7	5383.6	3970.3	1555.6	451.8	156.5
68°	5862.1	6322.8	6639.4	6663.4	6643.0	6345.0	5324.9	3877.8	1431.9	424.2	147.6
69°	5525.0	6090.6	6578.0	6664.3	6611.8	6141.3	5138.1	3636.8	1137.5	362.0	136.1
70°	5187.0	5790.0	6280.1	6438.4	6373.5	5747.3	4902.4	3253.4	938.3	309.5	122.7
71°	4719.2	5231.5	5883.4	5978.6	5900.3	5299.1	4415.0	2848.8	730.2	262.4	109.4
72°	4084.1	4519.1	5141.6	5372.0	5256.4	4654.2	3922.3	2354.3	591.5	220.6	99.6
72.5°	3769.3	4214.9	4815.2	4833.9	4856.1	4374.1	3713.3	2067.9	515.9	204.6	96.9
73°	3470.5	3907.1	4426.6	4492.4	4398.1	3901.8	3401.1	1849.1	471.4	186.8	93.4
74°	2812.3	3061.3	3491.8	3555.8	3473.1	3181.4	2779.4	1417.7	375.3	161.0	85.4
75°	2212.8	2349.8	2739.4	2700.2	2576.6	2474.3	2155.0	1083.3	304.2	141.4	79.2



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CANDELA DISTRIBUTION (continued):

	85°	87.5°	90°	92°	92.5°	95°	100°	105°	110°	115°	125°
77.5°	994.4	1077.1	1142.0	1142.0	1149.1	1096.6	993.5	497.2	187.7	102.3	64.9
80°	378.9	424.2	438.5	439.4	445.6	461.6	429.6	244.6	111.2	72.9	52.5
82.5°	274.8	384.2	413.6	392.2	394.0	355.8	164.5	108.5	70.3	50.7	38.2
85°	249.0	334.4	354.0	351.3	352.2	329.1	96.9	53.4	40.9	32.0	26.7
87.5°	121.0	118.3	125.4	141.4	137.9	178.8	81.8	26.7	17.8	13.3	13.3
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°	757.8	757.8	757.8	757.8	757.8	757.8
2.5°	753.3	752.4	764.9	752.4	759.6	754.2
5°	762.2	765.8	768.4	773.8	761.3	773.8
7.5°	788.9	792.5	793.3	797.8	792.5	791.6
10°	809.4	818.3	823.6	805.8	816.5	815.6
12.5°	849.4	840.5	839.6	836.0	826.3	822.7
15°	877.8	864.5	856.5	842.3	830.7	826.3
17.5°	917.9	892.1	859.2	829.8	809.4	793.3
20°	942.8	896.5	830.7	796.0	764.9	772.0
22.5°	958.8	892.1	804.9	760.4	729.3	738.2
25°	964.1	869.8	787.1	732.0	701.7	695.5
27.5°	949.0	844.0	752.4	690.2	663.5	668.8
30°	941.9	806.7	720.4	659.0	623.5	628.8
32.5°	923.2	768.4	677.7	615.5	589.7	580.8
35°	896.5	736.4	636.8	578.1	547.0	539.9
37.5°	863.6	696.4	601.2	530.1	502.5	497.2
40°	814.7	648.4	549.7	488.3	456.3	455.4
42.5°	772.0	602.1	501.6	438.5	406.5	408.2
45°	717.7	539.9	446.5	392.2	360.2	362.0
47.5°	648.4	482.1	394.0	333.5	306.8	305.1
50°	566.6	416.2	330.0	278.4	256.1	251.7
52.5°	488.3	349.5	270.4	224.1	205.5	203.7
55°	389.6	272.2	210.8	176.1	161.9	162.8
56°	354.0	250.8	192.1	161.0	150.3	150.3
57°	320.2	222.4	174.3	148.5	138.7	138.7
58°	282.8	195.7	158.3	134.3	129.9	126.3
59°	257.0	177.9	143.2	127.2	120.1	119.2
60°	226.8	160.1	133.4	119.2	113.8	113.0
61°	201.0	144.1	122.7	111.2	109.4	109.4
62°	179.7	133.4	113.8	107.6	106.7	104.1
63°	161.0	122.7	109.4	102.3	99.6	102.3
64°	144.1	113.0	105.8	100.5	96.9	98.7
65°	130.7	108.5	101.4	97.8	94.3	95.2
66°	121.8	101.4	97.8	93.4	91.6	92.5
67°	110.3	97.8	94.3	89.8	88.9	89.8
67.5°	106.7	95.2	92.5	88.1	87.2	88.1
68°	104.1	93.4	91.6	87.2	86.3	85.4
69°	96.9	89.8	87.2	85.4	83.6	82.7
70°	90.7	86.3	84.5	81.8	80.0	79.2
71°	87.2	81.8	80.9	78.3	76.5	75.6
72°	82.7	79.2	77.4	73.8	72.9	73.8
72.5°	81.8	77.4	76.5	72.9	72.0	72.0
73°	79.2	73.8	74.7	71.2	69.4	71.2
74°	73.8	72.0	70.3	67.6	66.7	66.7
75°	69.4	67.6	65.8	64.0	64.0	64.0



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CANDELA DISTRIBUTION (continued):

	135°	145°	155°	165°	175°	180°
77.5°	58.7	57.8	58.7	55.1	54.3	53.4
80°	47.1	47.1	48.0	45.4	43.6	42.7
82.5°	35.6	36.5	38.2	35.6	33.8	32.0
85°	23.1	24.0	24.0	21.3	24.9	23.1
87.5°	11.6	12.5	11.6	10.7	12.5	12.5
90°	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)