

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: P676177

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

Issue Date: 04/25/2023



Test Information

Test Method: LM-79-08
Report Number: P676177
Test Lab: INNOVATION CENTER(G1)
Issue Date: 04/25/2023
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: INVUE
Catalog Number: CCW-SA-1D-830-U-T1
Description: INVUE CLEAR CURVE Wall Pack MOUNT LIGHT SQUARE LUMINAIRE @800mA w/
T1 distribution lens
Light Source: (16) 3000K CCT, 80 CRI LEDs
Ballast/Driver: ELECTRONIC DRIVER

Summary

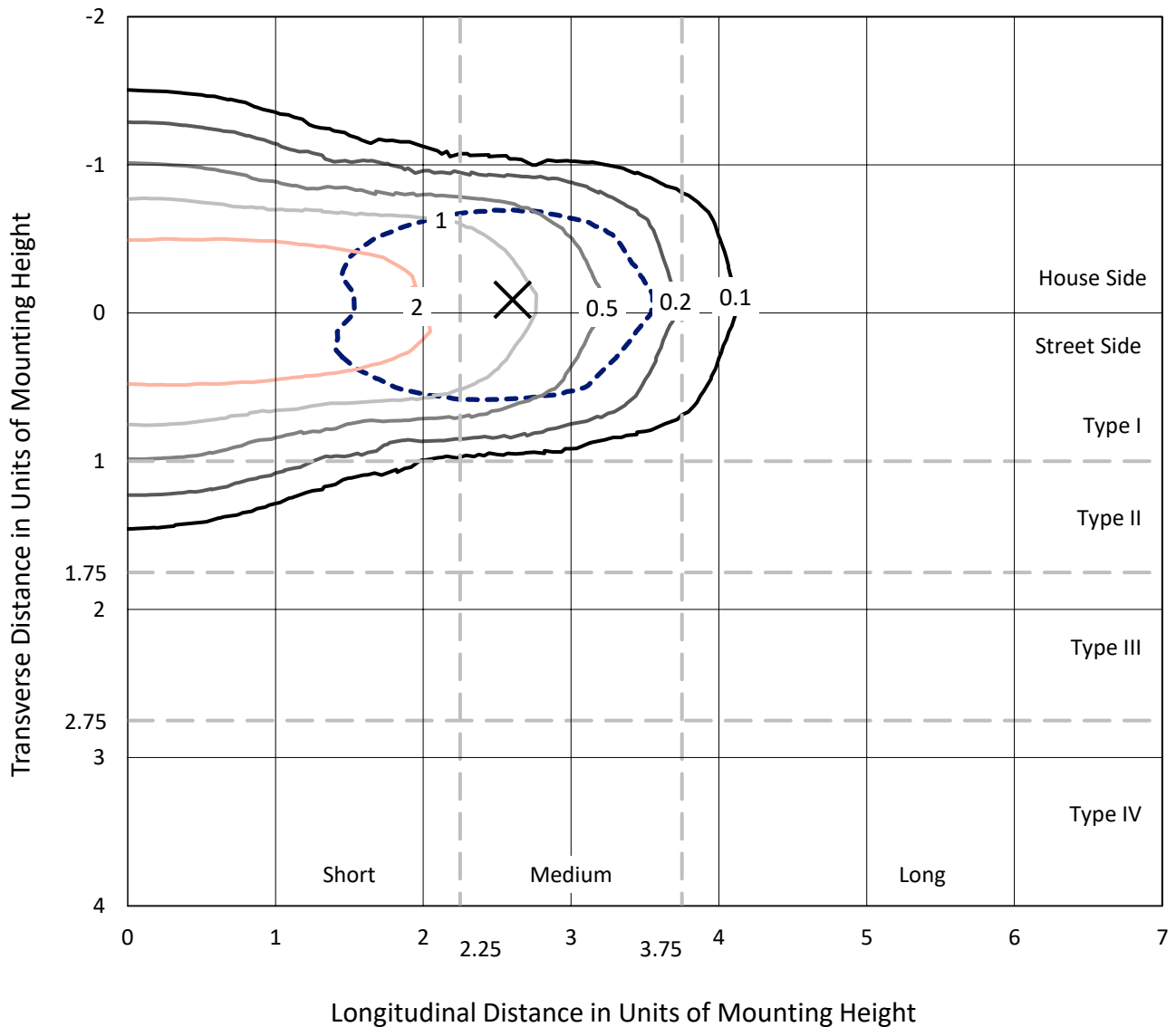
Lumens per Lamp: N/A
Luminaire Lumens: 4315.2 lumens
Efficiency: N/A
Efficacy: 98.1 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 0.5' x H: 0')
IES Classification: Type I - Short
BUG Rating: B2 - U0 - G2

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

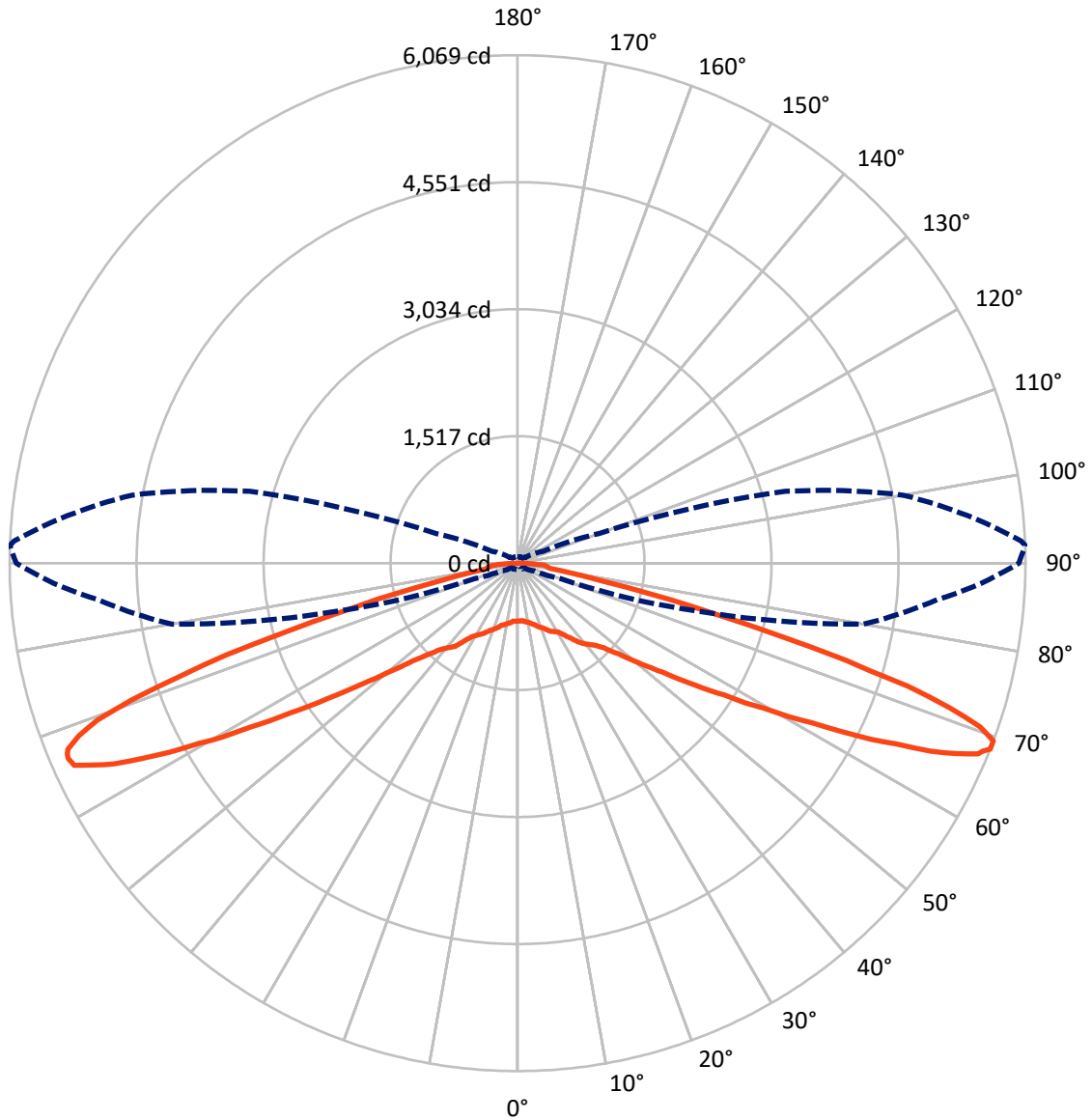
× Max cd
 - - - 1/2 Max cd



Based on 15 foot mounting height. Maximum calculated value = 3.3 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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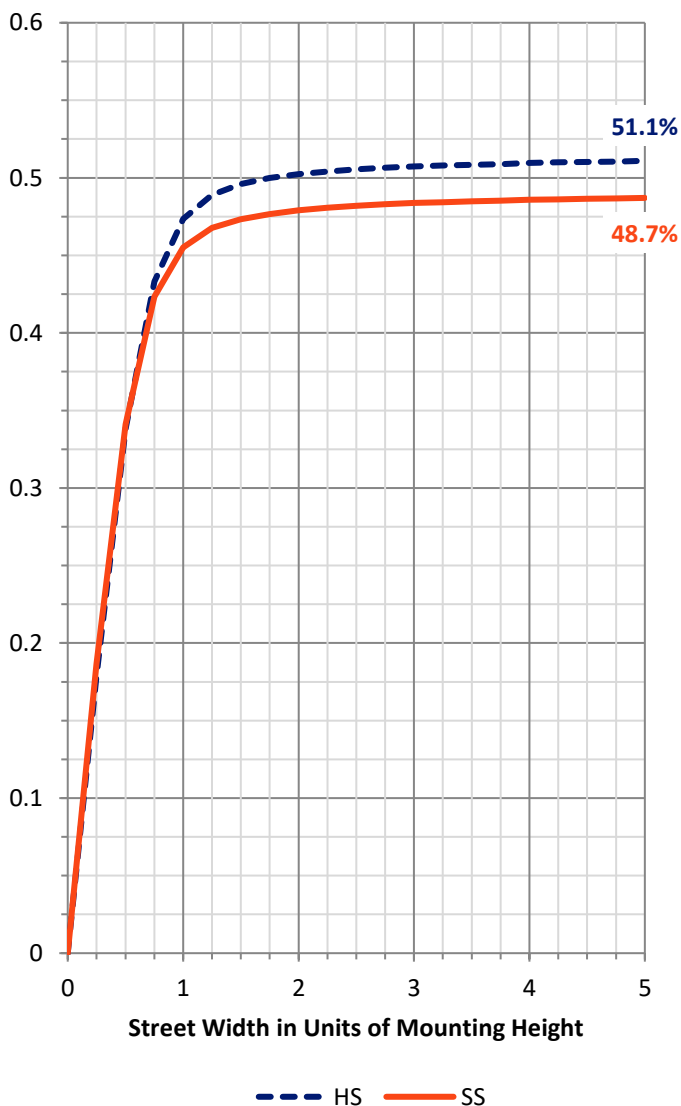
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	2222.3	0.0	2222.3
	% Fixture	51.5	0.0	51.5
Street Side	Lumens	2092.9	0.0	2092.9
	% Fixture	48.5	0.0	48.5
Total	Lumens	4315.2	0.0	4315.2
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	69.1	1.6
10°-20°	223.9	5.2
20°-30°	382.0	8.9
30°-40°	533.4	12.4
40°-50°	678.5	15.7
50°-60°	857.9	19.9
60°-70°	1058.0	24.5
70°-80°	462.2	10.7
80°-90°	50.1	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°	4315.2	100.0
0°-180°	4315.2	100.0

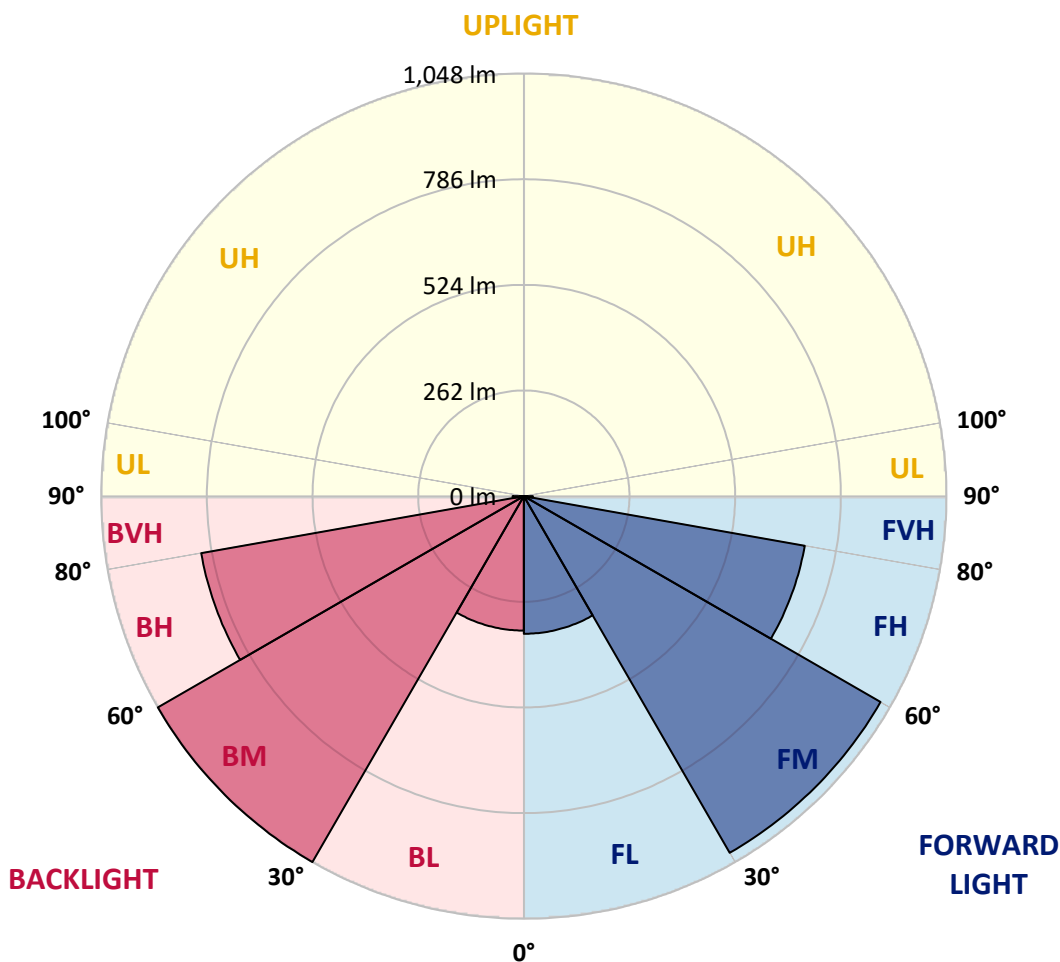


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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	341.5	7.9			
FM (30°-60°)	1021.6	23.7			
FH (60°-80°)	707.6	16.4			G1/1800
FVH (80°-90°)	22.2	0.5			G1/100
BL (0°-30°)	333.5	7.7	B1/500		
BM (30°-60°)	1048.3	24.3	B2/2500		
BH (60°-80°)	812.6	18.8	B2/1000		G2/1000
BVH (80°-90°)	27.9	0.6			G1/100
UL (90°-100°)	0.0	0.0		U0/0	
UH (100°-180°)	0.0	0.0		U0/0	

BUG Rating: 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°	690.0	690.0	690.0	690.0	690.0	690.0	690.0	690.0	690.0	690.0	690.0
2.5°	704.6	703.8	706.2	707.9	700.6	703.0	701.4	699.8	694.1	691.7	686.8
5°	724.1	726.5	734.6	727.3	730.5	726.5	713.5	717.6	710.3	708.7	703.8
7.5°	758.1	753.2	764.5	756.4	758.9	750.8	745.1	737.8	736.2	724.9	725.7
10°	765.4	775.1	779.9	778.3	779.9	784.0	773.5	762.1	746.7	743.5	732.2
12.5°	760.5	769.4	782.4	792.9	800.2	801.8	797.8	795.3	788.8	770.2	769.4
15°	755.6	749.2	757.3	793.7	818.0	834.2	839.9	826.1	827.7	803.4	793.7
17.5°	723.2	713.5	745.1	780.7	810.7	846.3	873.9	869.8	869.8	850.4	836.6
20°	680.3	696.5	712.7	758.1	813.1	866.6	919.2	916.8	907.1	901.4	871.5
22.5°	643.9	651.2	681.1	728.9	797.8	872.3	934.6	979.2	956.5	933.8	916.0
25°	618.8	612.3	650.4	699.8	783.2	862.5	963.8	1009.9	1022.1	1005.1	971.1
27.5°	583.1	583.1	613.1	660.1	736.2	857.7	992.1	1062.6	1080.4	1055.3	1005.9
30°	542.6	547.5	573.4	626.9	701.4	822.1	1003.5	1123.3	1137.9	1116.0	1065.0
32.5°	511.0	511.0	540.2	596.9	677.1	805.9	996.2	1183.3	1210.8	1194.6	1142.0
35°	477.0	474.6	495.7	558.0	638.2	774.3	993.7	1231.1	1292.6	1293.4	1238.3
37.5°	428.4	438.2	464.9	514.3	607.4	743.5	986.5	1288.6	1398.7	1417.3	1379.3
40°	396.0	400.1	424.4	478.7	559.6	707.0	975.9	1335.5	1469.2	1533.1	1480.5
42.5°	349.1	354.7	373.4	440.6	513.5	655.2	929.8	1368.7	1569.6	1642.5	1597.9
45°	299.7	302.9	330.4	385.5	464.1	593.7	880.4	1422.2	1666.8	1815.8	1789.9
47.5°	240.5	242.2	265.6	323.2	405.0	532.1	804.2	1419.8	1745.3	1989.1	2062.0
50°	187.9	191.9	209.8	256.7	333.7	456.8	716.0	1400.3	1844.1	2186.7	2330.1
52.5°	149.8	150.6	162.0	199.2	257.5	381.5	621.2	1338.8	1937.3	2380.3	2658.9
55°	123.9	123.9	130.4	153.1	197.6	289.9	510.2	1236.7	1948.6	2594.1	3017.7
56°	119.1	117.4	123.1	142.5	178.2	261.6	458.4	1167.9	1964.8	2692.9	3197.5
57°	112.6	113.4	116.6	130.4	160.4	231.6	400.9	1100.7	1953.5	2773.9	3330.3
58°	109.3	107.7	114.2	123.1	141.7	205.7	361.2	1021.3	1935.7	2840.3	3523.9
59°	104.5	103.7	107.7	115.8	132.0	183.0	312.6	935.4	1900.8	2926.2	3668.0
60°	102.9	102.0	103.7	110.1	121.5	160.4	275.4	835.0	1807.7	3014.5	3847.0
61°	98.0	98.8	102.0	106.1	115.0	144.2	247.8	732.2	1747.0	3089.0	4044.6
62°	98.8	97.2	98.8	102.0	108.5	132.8	217.1	630.9	1638.4	3173.2	4192.9
63°	93.9	93.1	95.6	99.6	102.9	119.9	189.5	545.1	1515.3	3192.6	4318.4
64°	92.3	91.5	92.3	98.0	98.8	112.6	167.6	465.7	1337.1	3225.8	4479.6
65°	88.3	88.3	89.9	92.3	95.6	106.1	149.8	404.1	1159.8	3138.4	4529.0
66°	85.0	85.8	85.8	89.9	92.3	98.8	137.7	343.4	989.7	2999.1	4576.8
67°	82.6	82.6	83.4	86.7	89.1	93.1	123.9	297.2	835.0	2833.0	4503.1
67.5°	81.0	81.8	81.8	85.0	87.5	93.1	118.2	281.8	746.7	2650.8	4448.0
68°	78.6	79.4	79.4	82.6	85.0	89.9	114.2	257.5	688.4	2532.6	4345.9
69°	76.9	76.1	76.1	79.4	82.6	85.8	106.1	225.2	547.5	2202.1	4196.9
70°	72.1	72.1	73.7	76.1	78.6	81.8	98.0	198.4	463.3	1823.1	3813.0
71°	69.7	68.8	69.7	72.1	74.5	78.6	89.9	175.7	379.0	1513.7	3435.6
72°	64.8	66.4	66.4	68.8	71.3	73.7	84.2	153.1	318.3	1210.0	3020.1
72.5°	64.0	64.0	64.8	67.2	68.8	72.9	81.0	146.6	290.8	1066.6	2846.0
73°	61.6	61.6	62.4	64.8	66.4	70.5	78.6	132.0	264.8	949.2	2520.4
74°	59.1	58.3	58.3	61.6	62.4	66.4	73.7	116.6	221.9	715.1	2023.1
75°	55.1	55.1	55.9	57.5	58.3	61.6	68.0	103.7	187.1	554.8	1582.5



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CANDELA DISTRIBUTION (continued):

	0°	5°	15°	25°	35°	45°	55°	65°	70°	75°	80°
77.5°	45.4	46.2	47.0	48.6	48.6	51.0	55.9	72.1	114.2	281.0	726.5
80°	33.2	34.8	37.3	39.7	38.9	38.9	43.7	51.8	68.0	126.3	278.6
82.5°	26.7	28.3	25.9	29.2	29.2	27.5	31.6	38.1	46.2	62.4	99.6
85°	17.8	18.6	15.4	17.8	17.0	17.0	21.1	22.7	28.3	34.8	49.4
87.5°	8.1	8.1	6.5	7.3	7.3	7.3	10.5	8.1	12.1	17.0	29.2
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°	690.0	690.0	690.0	690.0	690.0	690.0	690.0	690.0	690.0	690.0	690.0
2.5°	691.7	694.9	694.9	691.7	689.2	691.7	690.0	686.0	690.0	691.7	692.5
5°	701.4	694.9	698.1	690.8	695.7	694.9	693.3	697.3	698.1	698.1	703.8
7.5°	711.9	720.0	709.5	710.3	712.7	703.0	706.2	707.9	704.6	711.1	716.0
10°	730.5	733.8	730.5	718.4	726.5	720.0	717.6	724.9	723.2	724.9	732.2
12.5°	747.5	753.2	744.3	743.5	739.4	733.8	737.0	736.2	747.5	749.2	758.1
15°	782.4	767.8	764.5	763.7	762.1	759.7	761.3	762.1	776.7	779.1	800.2
17.5°	812.3	809.9	792.1	798.6	798.6	788.8	784.8	798.6	809.9	822.1	836.6
20°	843.1	840.7	821.2	822.1	814.8	823.7	818.8	831.8	851.2	855.3	868.2
22.5°	879.6	869.0	855.3	856.9	859.3	852.8	849.6	867.4	886.8	898.2	899.0
25°	937.1	910.3	899.0	900.6	897.4	892.5	894.9	917.6	927.3	951.6	946.8
27.5°	967.8	952.4	944.3	925.7	926.5	919.2	929.0	963.0	982.4	1001.0	963.8
30°	1005.1	995.4	959.7	953.3	952.4	949.2	967.0	1010.8	1039.9	1050.4	997.0
32.5°	1078.0	1039.1	1030.2	1024.5	1011.6	1015.6	1024.5	1082.0	1128.2	1125.8	1027.8
35°	1161.4	1134.7	1109.6	1104.7	1103.1	1091.7	1107.1	1174.4	1210.0	1199.5	1039.1
37.5°	1295.0	1254.5	1220.5	1201.9	1198.7	1190.6	1227.0	1280.5	1326.6	1285.3	1048.0
40°	1360.6	1315.3	1283.7	1272.4	1274.8	1286.1	1321.8	1403.6	1423.8	1347.7	1055.3
42.5°	1454.6	1405.2	1342.8	1337.1	1329.9	1335.5	1404.4	1514.5	1531.5	1431.9	1027.8
45°	1621.4	1546.9	1474.8	1442.4	1444.1	1459.4	1566.3	1687.0	1655.4	1490.2	984.0
47.5°	1832.0	1722.7	1664.3	1620.6	1641.7	1624.7	1794.7	1891.1	1783.4	1563.9	930.6
50°	2148.7	1995.6	1916.2	1863.6	1872.5	1887.1	2059.6	2141.4	1925.1	1599.6	848.8
52.5°	2548.0	2351.1	2234.5	2164.1	2170.5	2202.1	2424.8	2399.7	2087.1	1629.5	739.4
55°	3025.8	2823.3	2597.4	2568.2	2560.9	2636.2	2881.6	2670.2	2232.9	1581.7	626.1
56°	3278.5	3063.0	2828.2	2768.2	2750.4	2803.1	3091.4	2805.5	2283.1	1528.3	571.8
57°	3493.1	3287.4	3029.8	2927.8	2950.5	3049.3	3299.5	2932.7	2329.3	1473.2	520.8
58°	3787.9	3553.0	3280.9	3203.2	3182.9	3261.5	3523.9	3060.6	2344.7	1416.5	473.8
59°	4081.9	3800.1	3554.7	3412.9	3418.6	3561.9	3745.0	3212.9	2368.2	1344.4	413.9
60°	4305.4	4163.7	3835.7	3729.6	3715.0	3922.4	3965.3	3314.9	2393.3	1247.2	371.7
61°	4622.1	4437.5	4132.1	3995.2	4034.9	4201.0	4203.4	3442.9	2356.0	1124.1	319.9
62°	4849.7	4801.1	4480.4	4350.0	4337.8	4558.1	4451.2	3555.5	2323.6	1007.5	282.7
63°	5116.1	5116.1	4823.8	4721.7	4727.4	4901.5	4558.9	3668.0	2286.4	878.7	248.6
64°	5254.6	5428.8	5159.1	5015.7	5053.0	5203.6	4750.9	3741.7	2171.3	748.3	218.7
65°	5374.5	5636.1	5486.3	5419.9	5363.2	5452.3	4916.9	3810.6	1995.6	636.6	194.4
66°	5475.7	5831.3	5781.9	5710.6	5704.9	5684.7	4949.3	3808.2	1814.2	537.8	170.1
67°	5424.7	5835.3	5925.2	5955.2	5946.3	5732.5	4892.6	3721.5	1581.7	454.4	151.5
67.5°	5378.6	5802.1	6011.1	5994.1	6031.3	5773.0	4902.3	3615.4	1416.5	411.4	142.5
68°	5338.1	5757.6	6045.9	6067.8	6049.2	5777.8	4848.9	3531.2	1303.9	386.3	134.4
69°	5031.1	5546.2	5990.0	6068.6	6020.8	5592.4	4678.8	3311.7	1035.9	329.6	123.9
70°	4723.3	5272.5	5718.7	5862.9	5803.8	5233.6	4464.2	2962.6	854.4	281.8	111.8
71°	4297.3	4763.8	5357.5	5444.2	5372.9	4825.4	4020.4	2594.1	664.9	238.9	99.6
72°	3719.1	4115.1	4682.0	4891.8	4786.5	4238.2	3571.7	2143.8	538.6	200.9	90.7
72.5°	3432.4	3838.1	4384.8	4401.8	4422.1	3983.1	3381.3	1883.0	469.7	186.3	88.3
73°	3160.2	3557.9	4030.9	4090.8	4005.0	3553.0	3097.1	1683.8	429.2	170.1	85.0
74°	2560.9	2787.7	3179.7	3238.0	3162.7	2897.0	2530.9	1291.0	341.8	146.6	77.8
75°	2015.0	2139.8	2494.5	2458.9	2346.3	2253.1	1962.4	986.5	277.0	128.8	72.1



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CANDELA DISTRIBUTION (continued):

	85°	87.5°	90°	92°	92.5°	95°	100°	105°	110°	115°	125°
77.5°	905.5	980.8	1039.9	1039.9	1046.4	998.6	904.7	452.7	170.9	93.1	59.1
80°	345.0	386.3	399.3	400.1	405.8	420.3	391.2	222.7	101.2	66.4	47.8
82.5°	250.3	349.9	376.6	357.2	358.8	324.0	149.8	98.8	64.0	46.2	34.8
85°	226.8	304.5	322.3	319.9	320.7	299.7	88.3	48.6	37.3	29.2	24.3
87.5°	110.1	107.7	114.2	128.8	125.5	162.8	74.5	24.3	16.2	12.1	12.1
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°	690.0	690.0	690.0	690.0	690.0	690.0
2.5°	686.0	685.2	696.5	685.2	691.7	686.8
5°	694.1	697.3	699.8	704.6	693.3	704.6
7.5°	718.4	721.6	722.4	726.5	721.6	720.8
10°	737.0	745.1	750.0	733.8	743.5	742.7
12.5°	773.5	765.4	764.5	761.3	752.4	749.2
15°	799.4	787.2	779.9	767.0	756.4	752.4
17.5°	835.8	812.3	782.4	755.6	737.0	722.4
20°	858.5	816.4	756.4	724.9	696.5	703.0
22.5°	873.1	812.3	733.0	692.5	664.1	672.2
25°	877.9	792.1	716.8	666.5	639.0	633.3
27.5°	864.2	768.6	685.2	628.5	604.2	609.0
30°	857.7	734.6	656.0	600.1	567.7	572.6
32.5°	840.7	699.8	617.1	560.5	537.0	528.9
35°	816.4	670.6	579.9	526.4	498.1	491.6
37.5°	786.4	634.2	547.5	482.7	457.6	452.7
40°	741.9	590.4	500.5	444.6	415.5	414.7
42.5°	703.0	548.3	456.8	399.3	370.1	371.7
45°	653.6	491.6	406.6	357.2	328.0	329.6
47.5°	590.4	439.0	358.8	303.7	279.4	277.8
50°	515.9	379.0	300.5	253.5	233.3	229.2
52.5°	444.6	318.3	246.2	204.1	187.1	185.5
55°	354.7	247.8	191.9	160.4	147.4	148.2
56°	322.3	228.4	174.9	146.6	136.9	136.9
57°	291.6	202.5	158.7	135.3	126.3	126.3
58°	257.5	178.2	144.2	122.3	118.2	115.0
59°	234.1	162.0	130.4	115.8	109.3	108.5
60°	206.5	145.8	121.5	108.5	103.7	102.9
61°	183.0	131.2	111.8	101.2	99.6	99.6
62°	163.6	121.5	103.7	98.0	97.2	94.8
63°	146.6	111.8	99.6	93.1	90.7	93.1
64°	131.2	102.9	96.4	91.5	88.3	89.9
65°	119.1	98.8	92.3	89.1	85.8	86.7
66°	111.0	92.3	89.1	85.0	83.4	84.2
67°	100.4	89.1	85.8	81.8	81.0	81.8
67.5°	97.2	86.7	84.2	80.2	79.4	80.2
68°	94.8	85.0	83.4	79.4	78.6	77.8
69°	88.3	81.8	79.4	77.8	76.1	75.3
70°	82.6	78.6	76.9	74.5	72.9	72.1
71°	79.4	74.5	73.7	71.3	69.7	68.8
72°	75.3	72.1	70.5	67.2	66.4	67.2
72.5°	74.5	70.5	69.7	66.4	65.6	65.6
73°	72.1	67.2	68.0	64.8	63.2	64.8
74°	67.2	65.6	64.0	61.6	60.7	60.7
75°	63.2	61.6	59.9	58.3	58.3	58.3



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CANDELA DISTRIBUTION (continued):

	135°	145°	155°	165°	175°	180°
77.5°	53.5	52.6	53.5	50.2	49.4	48.6
80°	42.9	42.9	43.7	41.3	39.7	38.9
82.5°	32.4	33.2	34.8	32.4	30.8	29.2
85°	21.1	21.9	21.9	19.4	22.7	21.1
87.5°	10.5	11.3	10.5	9.7	11.3	11.3
90°	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)