

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: P677327

Luminaire Tested: **CCW-SA-1B-830-U-SLL-HSS**

Issue Date: 04/25/2023



Test Information

Test Method: LM-79-08
Report Number: P677327
Test Lab: INNOVATION CENTER(G1)
Issue Date: 04/25/2023
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: INVUE
Catalog Number: CCW-SA-1B-830-U-SLL-HSS
Description: INVUE CLEAR CURVE Wall Pack MOUNT Light Square Luminaire @450mA w/
SLL distribution lens and House Side Shield
Light Source: (16) 3000K CCT, 80 CRI LEDs
Ballast/Driver: ELECTRONIC DRIVER

Summary

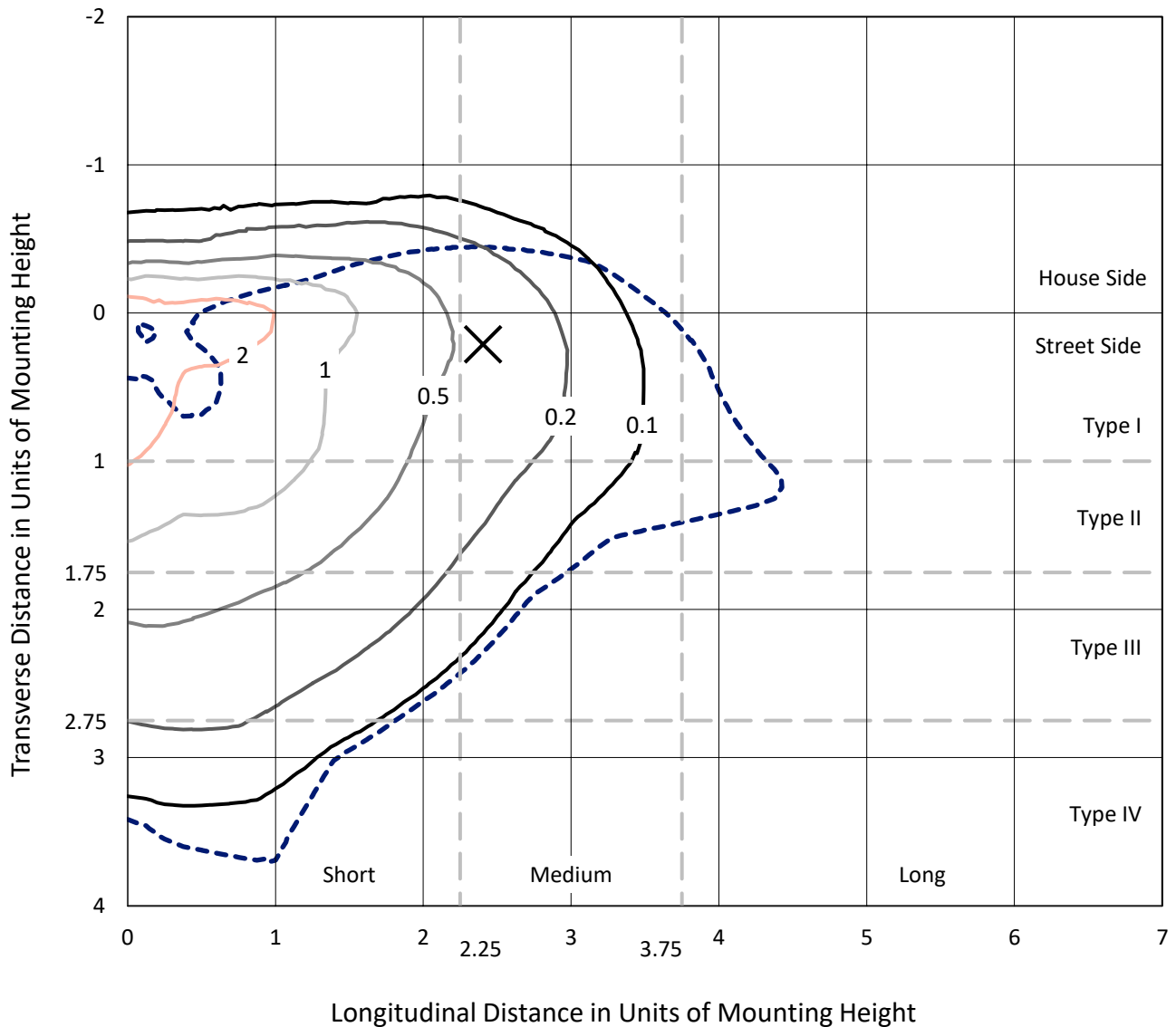
Lumens per Lamp: N/A
Luminaire Lumens: 1991 lumens
Efficiency: N/A
Efficacy: 83.0 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 0.5' x H: 0')
IES Classification: Type III - Medium
BUG Rating: B0 - U0 - G1

Input Watts (W): 24
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

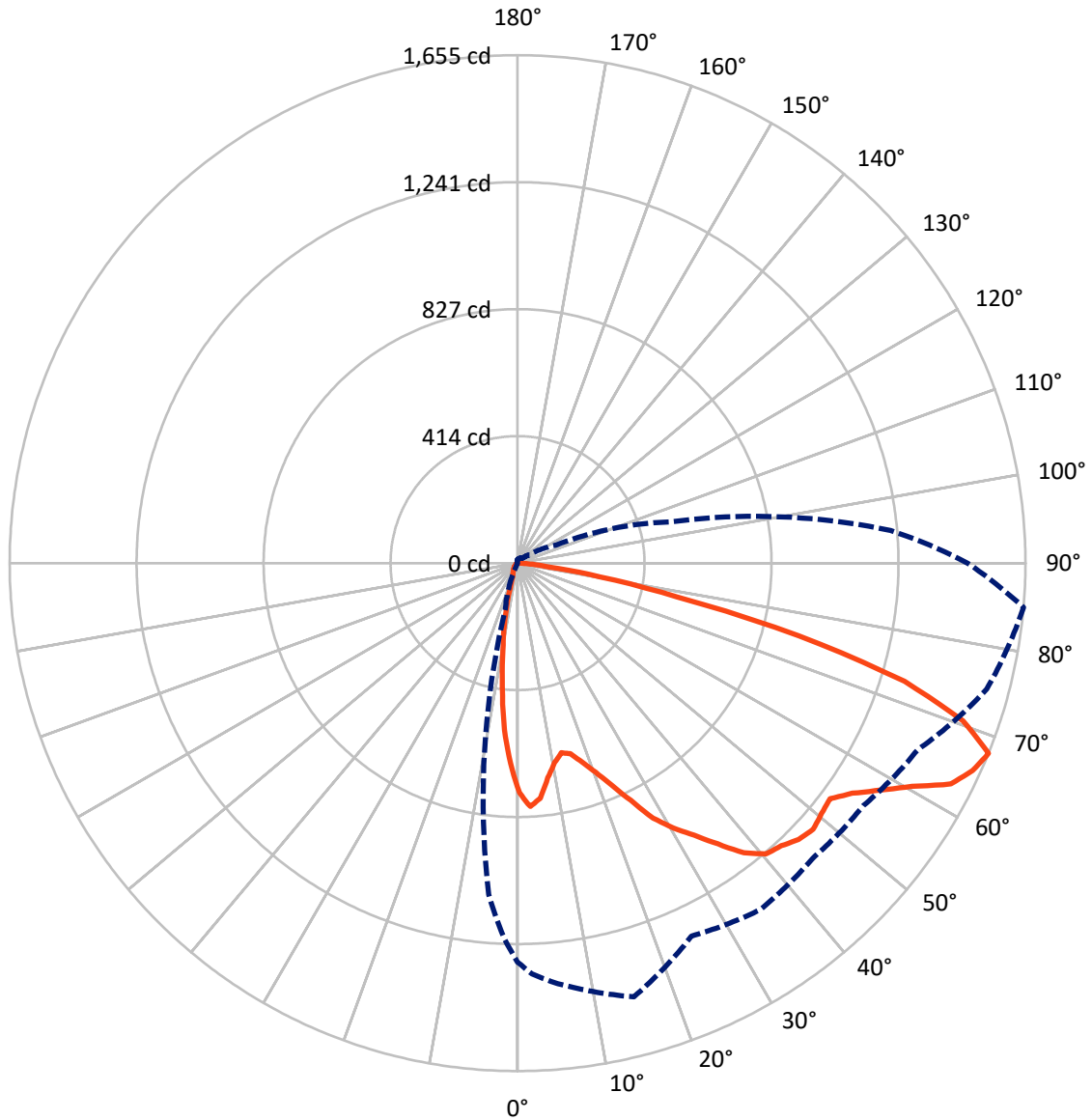
× Max cd
 - - - 1/2 Max cd



Based on 15 foot mounting height. Maximum calculated value = 3.7 fc
 Type III - Medium - N/A

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Luminous Intensity Polar Plot



— Vertical Plane Through 85-Deg Lateral - - - Horizontal Cone Through 67.5-Deg Vertical

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FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	345.7	0.0	345.7
	% Fixture	17.4	0.0	17.4
Street Side	Lumens	1645.3	0.0	1645.3
	% Fixture	82.6	0.0	82.6
Total	Lumens	1991.0	0.0	1991.0
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	56.9	2.9
10°-20°	111.5	5.6
20°-30°	154.3	7.8
30°-40°	218.1	11.0
40°-50°	297.0	14.9
50°-60°	393.3	19.8
60°-70°	456.7	22.9
70°-80°	258.6	13.0
80°-90°	44.7	2.2
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°	1991.0	100.0
0°-180°	1991.0	100.0



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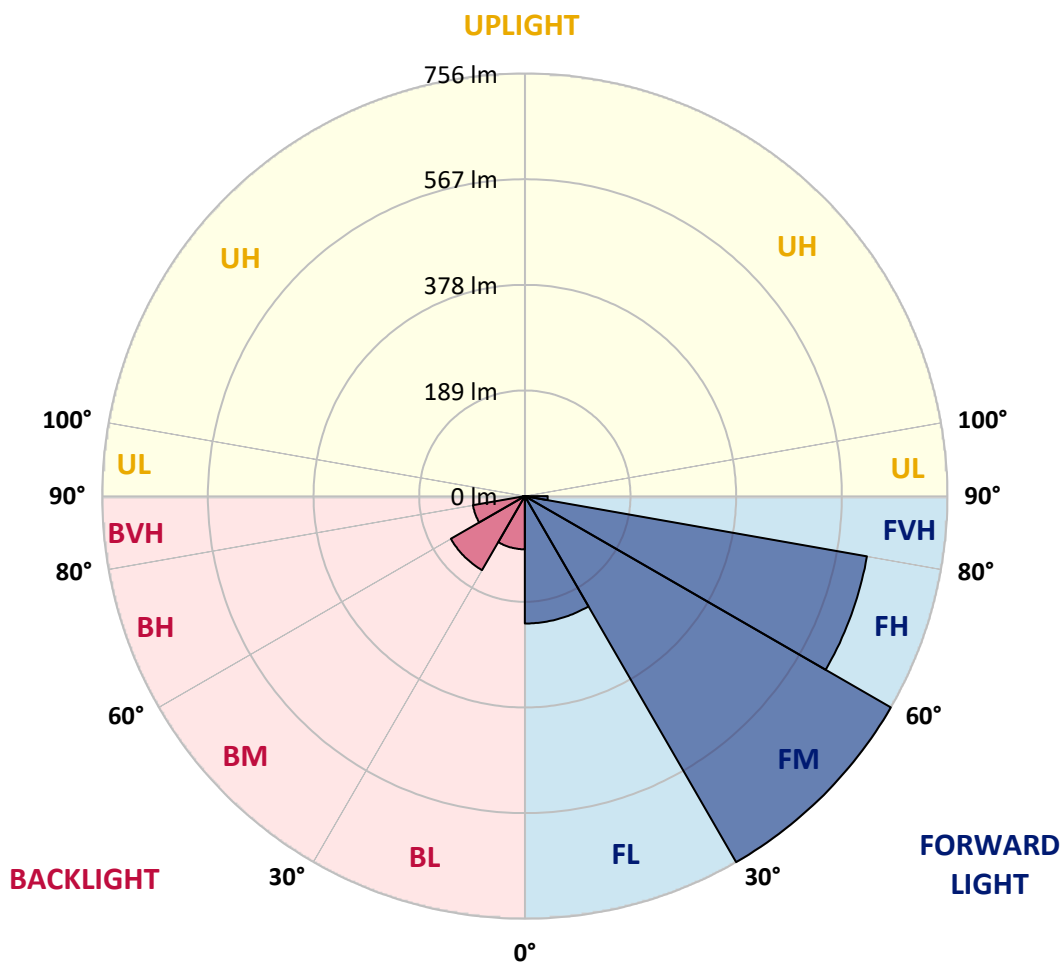
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	227.7	11.4			
FM (30°-60°)	755.6	38.0			
FH (60°-80°)	621.1	31.2			G0/660
FVH (80°-90°)	40.9	2.1			G1/100
BL (0°-30°)	95.0	4.8	B0/110		
BM (30°-60°)	152.8	7.7	B0/220		
BH (60°-80°)	94.2	4.7	B0/110		G0/110
BVH (80°-90°)	3.8	0.2			G0/10
UL (90°-100°)	0.0	0.0		U0/0	
UH (100°-180°)	0.0	0.0		U0/0	

BUG Rating: B0-U0-G1

Type III Medium





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CANDELA DISTRIBUTION (FULL):

	0°	2°	5°	15°	25°	35°	45°	55°	65°	75°	85°
0°	748.6	748.6	748.6	748.6	748.6	748.6	748.6	748.6	748.6	748.6	748.6
2.5°	777.9	794.3	794.9	802.3	809.8	809.8	827.3	823.1	807.6	805.0	793.8
5°	783.7	789.6	793.8	831.6	863.5	860.3	869.8	863.5	833.7	795.4	769.4
7.5°	733.2	739.6	756.6	820.9	864.0	878.4	896.4	856.6	825.2	756.1	706.1
10°	666.2	678.4	709.8	783.2	836.3	882.1	882.1	850.2	789.6	722.0	660.9
12.5°	629.0	653.4	670.5	744.9	814.0	845.4	844.3	827.3	788.0	702.9	633.8
15°	635.4	642.3	678.4	736.4	782.1	780.5	799.7	794.3	766.7	719.9	643.9
17.5°	664.6	675.2	706.6	736.4	758.2	751.8	751.3	776.8	778.4	748.6	681.6
20°	712.5	743.8	758.7	767.8	741.2	714.1	710.9	746.5	774.1	785.3	726.8
22.5°	789.0	809.8	840.1	793.8	724.7	690.7	684.3	723.6	779.5	828.9	785.3
25°	864.0	879.9	909.2	849.6	743.3	685.9	674.7	708.7	799.7	889.5	856.0
27.5°	943.2	957.0	960.2	890.6	753.4	676.3	663.0	708.7	816.7	921.4	940.6
30°	991.6	1008.1	1011.3	926.7	769.9	684.3	677.9	711.9	828.4	948.5	1001.2
32.5°	1045.8	1050.1	1047.4	933.1	788.0	707.7	681.1	733.2	841.7	981.0	1056.5
35°	1110.7	1118.1	1091.0	962.4	828.4	722.6	713.0	759.3	864.5	995.9	1123.5
37.5°	1160.1	1183.5	1122.4	973.5	836.3	753.9	755.5	813.5	880.5	1013.9	1197.4
40°	1253.2	1213.9	1175.6	1011.8	866.7	807.1	798.6	869.3	934.2	1025.6	1245.8
42.5°	1304.2	1283.5	1196.3	1015.5	913.4	880.5	882.6	932.6	962.4	1058.6	1259.0
45°	1317.0	1295.2	1224.5	1018.2	959.7	967.1	1003.8	1013.4	1003.8	1080.4	1284.0
47.5°	1349.4	1302.1	1221.3	1053.8	1034.7	1063.4	1110.2	1130.9	1060.2	1072.4	1295.7
50°	1343.1	1315.9	1214.4	1068.7	1126.1	1202.2	1233.5	1225.0	1122.9	1055.9	1283.0
52.5°	1316.5	1287.2	1235.6	1109.1	1211.7	1303.7	1347.3	1326.0	1178.8	1093.2	1274.5
55°	1355.3	1332.9	1263.3	1163.9	1276.1	1393.0	1423.9	1407.9	1247.3	1127.7	1322.8
57.5°	1397.3	1392.5	1338.3	1228.2	1352.1	1485.0	1485.0	1465.3	1306.9	1177.7	1394.6
60°	1457.9	1468.5	1393.6	1270.7	1378.1	1479.7	1556.8	1533.9	1367.0	1265.4	1476.0
62.5°	1438.2	1472.3	1464.8	1362.2	1407.9	1505.7	1547.8	1564.8	1441.4	1372.3	1584.4
65°	1375.0	1411.1	1464.3	1422.3	1385.6	1442.5	1463.7	1515.3	1478.6	1472.8	1629.1
67.5°	1299.5	1338.8	1371.8	1462.7	1340.4	1378.1	1359.5	1376.0	1438.2	1582.8	1654.6
70°	1134.6	1172.4	1224.5	1372.8	1220.8	1186.7	1181.9	1174.0	1270.7	1543.5	1538.7
72.5°	933.1	950.7	1036.8	1116.0	903.3	897.0	904.4	895.4	1007.6	1397.3	1318.1
75°	698.6	716.2	765.1	857.1	615.2	578.5	621.0	663.0	769.4	1084.6	946.9
77.5°	525.3	547.6	578.5	641.2	451.4	394.0	399.8	439.7	556.1	868.8	530.6
80°	340.8	338.2	397.7	441.3	339.8	350.4	335.5	364.7	403.0	464.7	271.2
82.5°	196.7	199.4	224.4	253.1	236.6	270.6	195.1	325.9	287.6	189.3	101.0
85°	110.6	115.4	138.2	175.5	148.3	99.4	81.3	161.6	180.8	77.6	48.9
87.5°	11.2	9.6	18.6	66.5	40.4	16.5	24.5	38.8	43.6	29.2	14.4
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°	748.6	748.6	748.6	748.6	748.6	748.6	748.6	748.6	748.6	748.6	748.6
2.5°	777.9	777.9	764.6	742.2	733.2	717.3	695.5	702.4	694.9	667.8	660.9
5°	746.0	720.4	692.8	658.8	639.1	598.7	585.9	563.1	566.8	543.9	545.0
7.5°	679.5	659.3	612.5	567.8	529.0	493.9	444.5	425.9	407.8	398.8	409.4
10°	640.7	602.9	539.1	480.6	429.1	397.7	364.7	339.2	315.8	298.3	294.6
12.5°	612.5	579.0	501.9	430.7	390.3	364.7	334.4	299.3	276.5	246.2	237.1
15°	604.0	563.1	481.7	411.0	371.7	329.6	295.1	260.5	230.8	198.9	187.7
17.5°	633.2	585.9	481.2	395.0	339.8	294.6	246.7	207.9	177.6	148.3	141.4
20°	682.7	610.4	496.6	385.5	309.4	248.8	194.6	155.8	121.8	102.6	97.8
22.5°	739.1	651.9	498.2	360.0	279.1	203.1	142.0	102.6	83.5	74.4	71.8
25°	808.2	718.3	517.3	339.2	243.5	154.2	101.0	78.7	67.5	62.2	61.1
27.5°	865.1	764.6	538.1	317.4	208.4	114.3	79.2	64.3	58.5	53.2	52.6
30°	924.1	817.7	543.9	304.1	178.1	94.1	68.1	56.9	50.5	47.9	47.3
32.5°	975.7	875.7	562.5	282.3	149.4	82.9	61.7	51.0	46.8	42.5	42.0
35°	1042.1	909.2	571.6	270.6	138.8	75.0	56.4	46.8	40.4	37.8	36.7
37.5°	1113.4	941.6	577.4	261.6	129.7	70.2	53.2	44.1	38.3	34.6	33.5
40°	1179.8	987.4	568.9	250.4	122.8	64.3	51.0	40.9	35.6	31.9	30.3
42.5°	1230.9	1032.0	566.3	239.8	115.4	62.2	48.4	39.3	33.5	29.2	28.7
45°	1259.6	1062.3	547.6	231.3	109.5	63.3	47.3	37.2	31.9	28.2	26.1
47.5°	1252.7	1085.7	552.4	228.6	101.6	59.0	46.8	35.6	29.2	26.1	24.5
50°	1290.9	1133.0	544.5	220.1	95.7	53.2	51.0	35.6	28.7	25.0	23.4
52.5°	1297.3	1176.1	561.5	204.7	86.7	48.9	50.5	35.1	27.6	23.9	21.8
55°	1350.5	1226.1	594.4	196.2	79.2	42.5	46.3	34.0	25.0	21.8	20.7
57.5°	1422.8	1329.8	615.7	188.2	69.1	37.2	38.8	33.5	22.9	20.2	18.6
60°	1492.5	1371.2	617.3	173.9	59.5	33.5	30.3	33.5	21.3	18.1	16.5
62.5°	1544.6	1371.2	606.7	161.6	52.1	29.8	26.6	31.9	19.1	16.0	14.9
65°	1516.4	1334.5	579.0	151.5	47.3	26.1	22.9	24.5	17.0	13.8	12.8
67.5°	1465.9	1220.2	517.9	139.3	46.8	22.9	19.7	18.1	14.9	12.2	11.2
70°	1385.1	1066.0	431.2	125.5	45.7	20.7	17.5	15.4	13.3	10.6	9.6
72.5°	1116.0	880.5	354.1	117.5	44.7	18.1	14.9	13.3	11.2	9.0	8.0
75°	773.1	562.5	272.8	100.5	43.6	16.5	13.8	11.7	9.6	7.4	6.9
77.5°	463.6	375.9	176.0	75.5	28.7	13.3	11.7	9.0	8.0	6.4	5.8
80°	216.9	177.6	71.2	29.2	13.8	9.6	8.0	6.9	6.4	5.3	4.8
82.5°	85.1	75.0	34.6	17.0	11.2	7.4	6.4	5.8	5.3	4.3	3.7
85°	45.7	40.4	16.5	11.7	8.0	5.3	5.3	4.8	4.3	3.7	3.2
87.5°	10.1	7.4	6.9	6.9	5.8	4.3	4.3	3.7	3.2	2.7	2.1
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):

	185°	195°	205°	215°	225°	235°	245°	255°	265°	270°	275°
0°	748.6	748.6	748.6	748.6	748.6	748.6	748.6	748.6	748.6	748.6	748.6
2.5°	657.2	665.1	652.4	660.4	649.2	657.7	658.8	650.8	652.9	663.6	668.3
5°	559.9	554.6	542.9	539.1	539.7	532.8	535.4	539.1	545.0	548.2	557.7
7.5°	403.6	415.8	415.3	424.3	424.8	423.8	416.3	400.4	405.7	401.4	406.7
10°	288.7	294.0	304.1	310.0	320.6	314.8	297.7	291.4	288.2	287.6	293.0
12.5°	230.8	218.0	216.9	219.1	224.4	217.5	209.0	201.5	205.2	212.7	218.5
15°	178.6	168.0	154.2	152.1	153.1	149.9	140.9	131.3	134.0	141.4	145.7
17.5°	137.2	124.9	115.4	109.0	106.9	95.7	82.4	74.4	72.3	71.8	75.5
20°	92.5	90.4	88.8	80.8	80.8	64.9	53.7	47.9	47.9	48.9	49.4
22.5°	69.1	66.5	67.0	65.4	61.1	48.4	42.5	40.9	40.9	42.0	42.0
25°	60.1	56.4	55.3	54.8	50.5	41.5	37.2	35.6	35.6	36.7	36.7
27.5°	51.0	50.0	48.4	46.3	42.5	35.6	33.0	31.4	31.9	32.4	31.9
30°	46.8	44.1	42.0	42.0	37.8	31.9	29.8	28.7	27.6	28.7	29.2
32.5°	41.5	39.9	38.8	37.2	32.4	28.2	26.1	25.0	24.5	24.5	25.0
35°	35.6	35.6	34.6	32.4	28.2	25.5	22.9	21.8	21.3	21.8	21.8
37.5°	31.9	30.3	30.8	28.7	25.0	22.3	19.7	18.6	18.6	18.1	18.6
40°	29.8	27.1	25.5	24.5	22.3	19.1	17.0	16.0	15.4	15.4	15.4
42.5°	26.6	24.5	21.3	20.7	20.2	16.5	13.8	13.3	12.8	12.2	12.2
45°	25.0	21.8	19.1	16.5	16.5	13.8	11.7	10.6	10.1	9.6	10.1
47.5°	22.9	19.7	16.5	13.8	13.3	11.2	9.0	8.0	7.4	7.4	7.4
50°	21.8	17.5	14.4	11.7	10.1	9.0	6.9	5.8	5.3	5.3	5.3
52.5°	20.2	16.5	12.8	10.1	8.0	6.9	5.3	4.3	3.7	3.7	3.7
55°	18.1	14.9	11.2	8.5	6.9	5.3	3.7	2.7	2.1	2.1	2.1
57.5°	17.0	13.3	9.6	7.4	5.3	3.7	2.1	1.6	1.6	1.1	1.6
60°	15.4	11.7	8.0	5.8	4.3	2.7	1.6	0.5	0.5	0.5	0.5
62.5°	13.3	10.1	6.9	4.8	3.2	1.6	0.5	0.0	0.0	0.0	0.0
65°	11.2	8.0	5.3	3.7	2.1	0.5	0.0	0.0	0.0	0.0	0.0
67.5°	9.6	6.9	4.3	2.7	1.6	0.0	0.0	0.0	0.0	0.0	0.0
70°	8.5	5.8	3.2	2.1	0.5	0.0	0.0	0.0	0.0	0.0	0.0
72.5°	6.9	4.8	2.7	1.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0
75°	5.8	3.7	1.6	0.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0
77.5°	4.8	2.7	1.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
80°	3.7	2.1	0.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
82.5°	3.2	1.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
85°	2.1	0.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
87.5°	1.6	0.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
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):

	285°	295°	305°	315°	325°	335°	345°	355°	358°	360°
0°	748.6	748.6	748.6	748.6	748.6	748.6	748.6	748.6	748.6	748.6
2.5°	675.2	672.1	688.0	714.1	727.4	753.4	759.8	776.3	772.0	777.9
5°	558.8	565.2	588.6	626.9	640.7	678.4	714.1	749.7	772.5	783.7
7.5°	414.7	436.0	464.7	499.8	535.4	584.9	645.5	686.9	709.3	733.2
10°	308.9	331.8	364.7	399.3	457.3	512.6	573.2	624.7	643.9	666.2
12.5°	243.0	278.6	316.9	354.1	388.7	441.3	516.3	591.2	612.0	629.0
15°	169.1	212.7	267.4	315.8	364.2	409.9	487.6	578.5	606.7	635.4
17.5°	93.6	128.1	190.9	258.9	330.2	400.4	497.1	601.9	644.4	664.6
20°	54.2	68.1	112.7	193.5	287.6	379.6	501.9	646.0	702.4	712.5
22.5°	44.7	49.4	63.8	121.2	235.5	366.3	526.4	707.7	765.1	789.0
25°	38.3	42.0	49.4	72.8	178.1	338.2	541.8	784.8	837.9	864.0
27.5°	34.0	37.8	43.6	53.7	121.2	299.3	567.3	854.4	907.6	943.2
30°	29.8	33.0	38.8	45.7	84.0	255.7	589.1	905.5	980.4	991.6
32.5°	26.6	29.2	33.5	39.3	62.2	194.1	606.7	958.1	1021.4	1045.8
35°	22.9	26.1	28.7	33.5	47.3	146.2	596.0	999.0	1081.5	1110.7
37.5°	20.2	22.3	25.0	28.2	39.9	114.3	574.2	1048.0	1133.0	1160.1
40°	17.0	18.6	21.8	25.0	36.2	88.3	549.2	1107.0	1205.3	1253.2
42.5°	14.4	16.0	18.1	23.4	29.8	65.4	498.7	1152.7	1263.8	1304.2
45°	11.2	13.3	16.5	23.4	23.9	48.4	446.6	1186.7	1296.8	1317.0
47.5°	8.5	10.6	16.0	20.2	19.1	33.5	384.9	1225.5	1330.8	1349.4
50°	6.4	8.5	18.1	17.5	16.0	25.5	346.1	1252.7	1332.9	1343.1
52.5°	4.3	6.4	14.9	13.3	13.3	22.3	335.5	1251.6	1338.3	1316.5
55°	3.2	4.8	8.5	9.6	11.7	19.7	325.9	1291.5	1339.9	1355.3
57.5°	2.1	3.7	5.8	7.4	10.1	17.0	306.3	1339.3	1389.3	1397.3
60°	1.1	2.7	4.3	5.8	8.5	14.9	278.6	1374.4	1449.4	1457.9
62.5°	0.5	1.6	3.2	4.8	6.9	11.7	249.9	1318.6	1423.3	1438.2
65°	0.0	1.1	2.1	3.2	4.3	8.5	203.1	1190.5	1320.2	1375.0
67.5°	0.0	0.0	1.1	2.1	2.7	6.4	153.1	1083.1	1225.0	1299.5
70°	0.0	0.0	0.5	0.5	1.6	4.8	97.8	897.0	1093.7	1134.6
72.5°	0.0	0.0	0.0	0.0	0.5	3.2	56.9	666.2	857.1	933.1
75°	0.0	0.0	0.0	0.0	0.0	2.7	28.7	428.5	596.6	698.6
77.5°	0.0	0.0	0.0	0.0	0.0	2.1	15.4	276.5	439.7	525.3
80°	0.0	0.0	0.0	0.0	0.0	0.5	9.0	160.6	281.3	340.8
82.5°	0.0	0.0	0.0	0.0	0.0	0.0	3.7	78.7	168.0	196.7
85°	0.0	0.0	0.0	0.0	0.0	0.0	1.1	42.0	84.0	110.6
87.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.6	5.8	11.2
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

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