

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: P677326

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

Issue Date: 04/25/2023



Test Information

Test Method: LM-79-08
Report Number: P677326
Test Lab: INNOVATION CENTER(G1)
Issue Date: 04/25/2023
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: INVUE
Catalog Number: CCW-SA-1A-830-U-SLL-HSS
Description: INVUE CLEAR CURVE Wall Pack MOUNT Light Square Luminaire @350mA w/
SLL distribution lens and House Side Shield
Light Source: (16) 3000K CCT, 80 CRI LEDs
Ballast/Driver: ELECTRONIC DRIVER

Summary

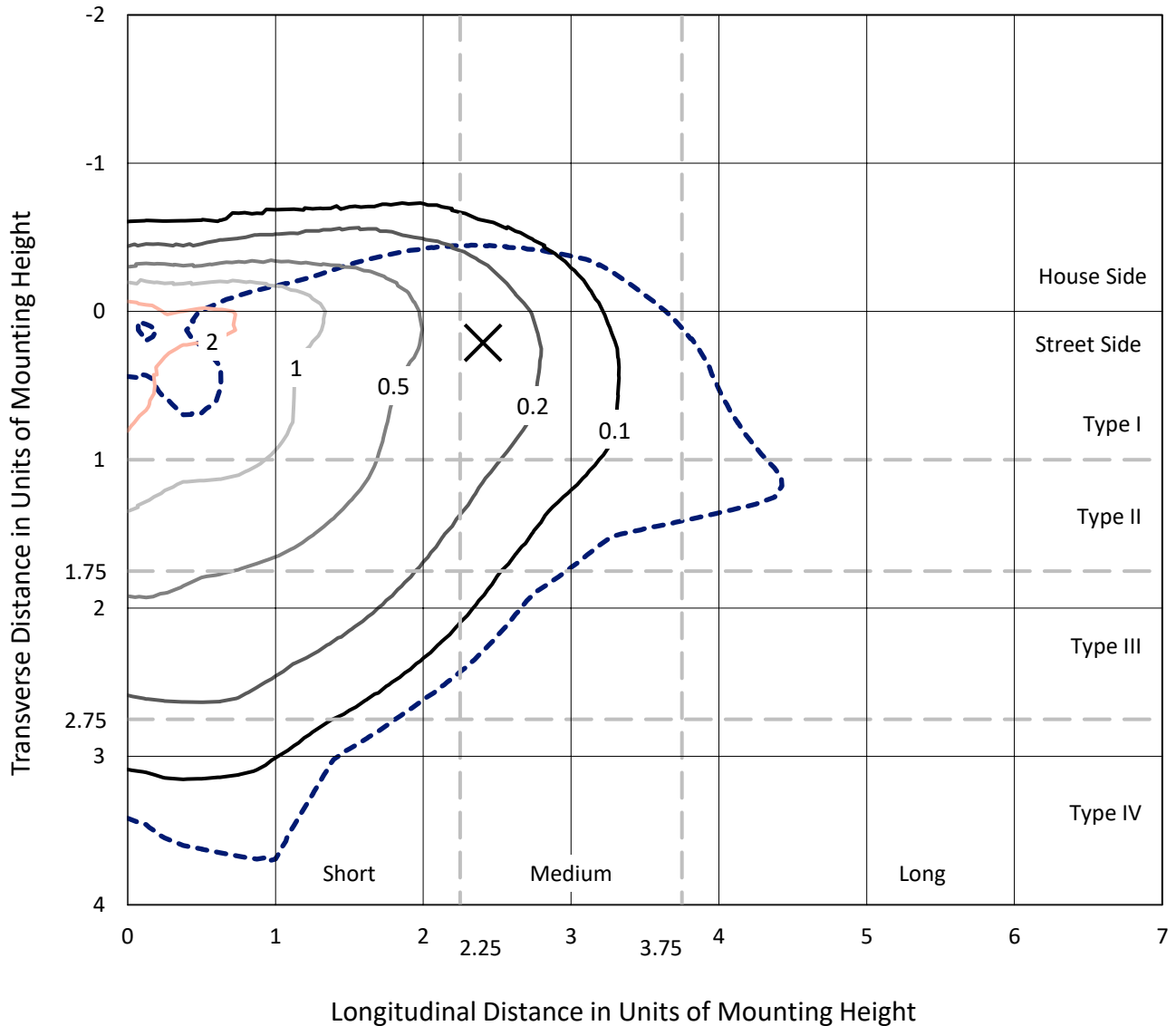
Lumens per Lamp: N/A
Luminaire Lumens: 1577.2 lumens
Efficiency: N/A
Efficacy: 87.6 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 0.5' x H: 0')
IES Classification: Type III - Medium
BUG Rating: B0 - U0 - G1

Input Watts (W): 18
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

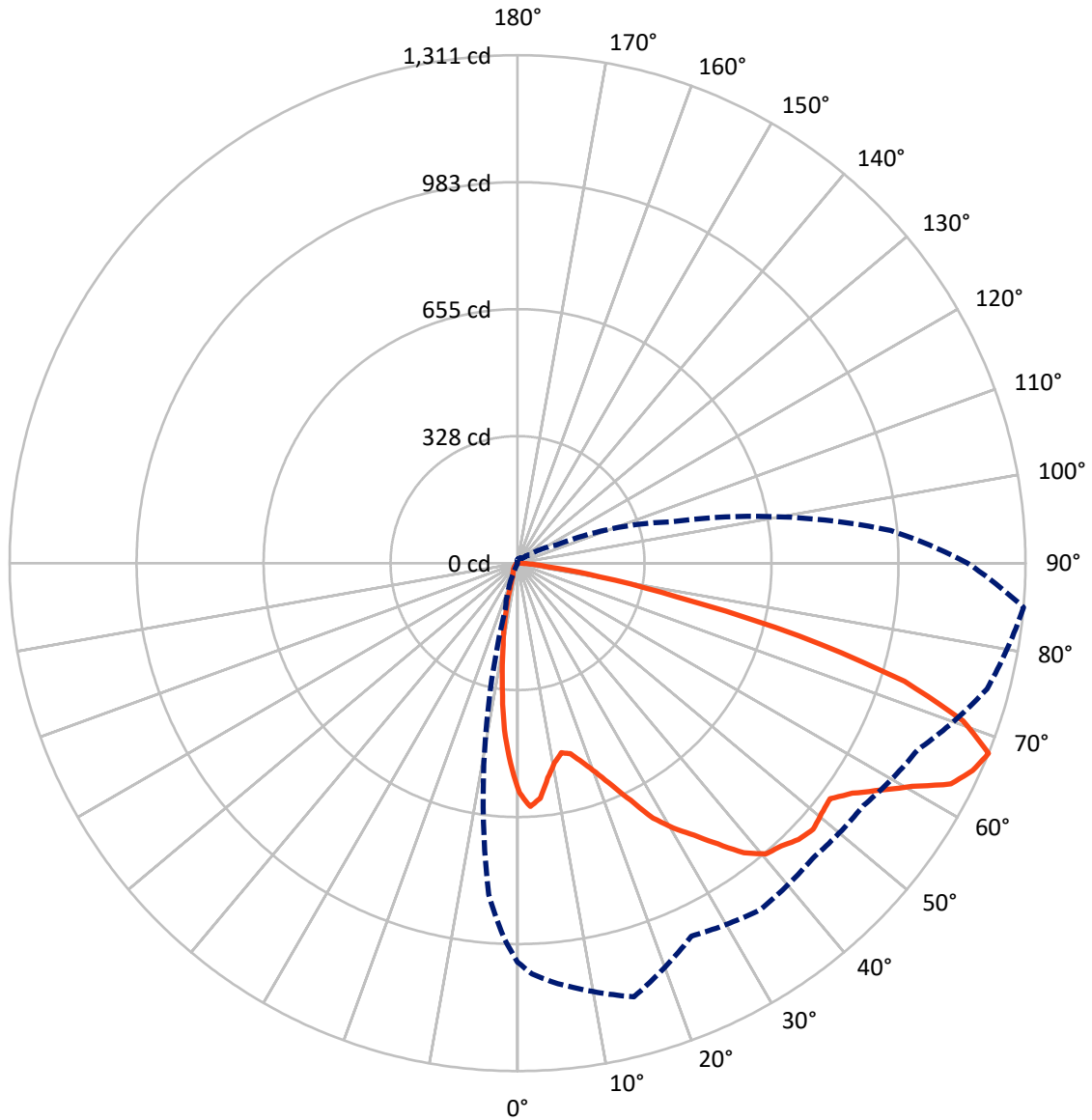
× Max cd
 - - - 1/2 Max cd



Based on 15 foot mounting height. Maximum calculated value = 3 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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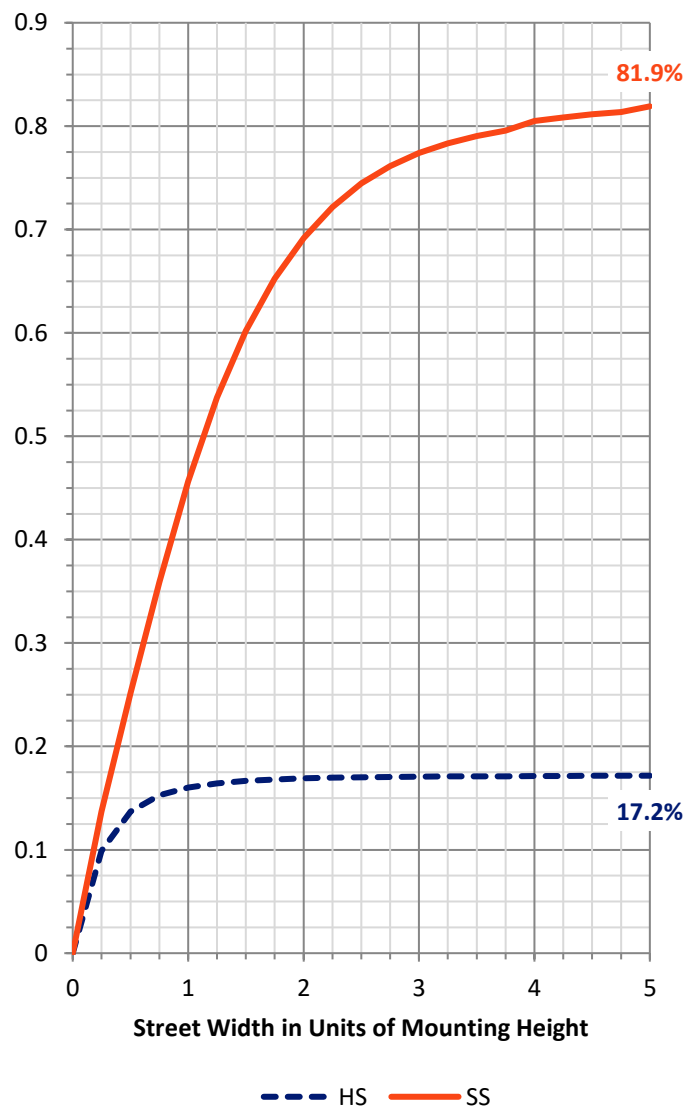
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	273.9	0.0	273.9
	% Fixture	17.4	0.0	17.4
Street Side	Lumens	1303.4	0.0	1303.4
	% Fixture	82.6	0.0	82.6
Total	Lumens	1577.2	0.0	1577.2
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	45.1	2.9
10°-20°	88.3	5.6
20°-30°	122.3	7.8
30°-40°	172.8	11.0
40°-50°	235.2	14.9
50°-60°	311.6	19.8
60°-70°	361.7	22.9
70°-80°	204.9	13.0
80°-90°	35.4	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°	1577.2	100.0
0°-180°	1577.2	100.0



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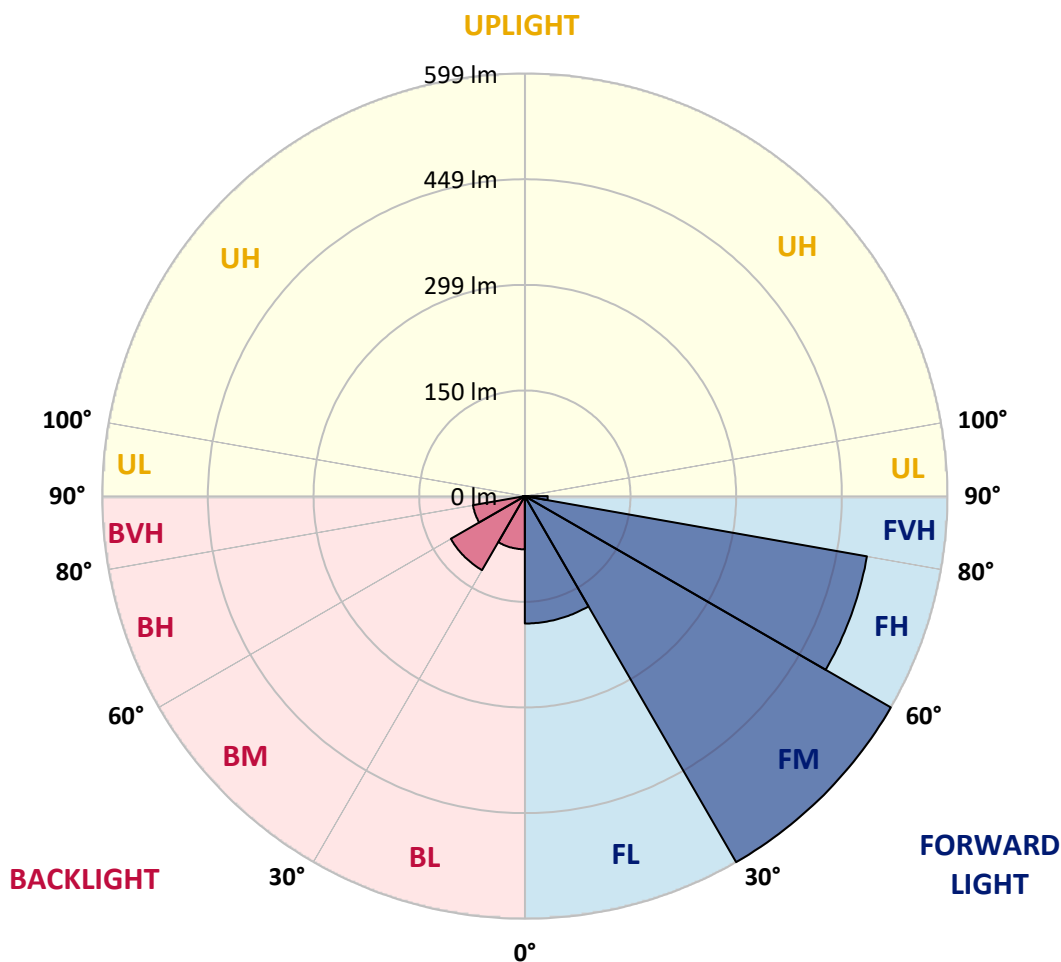
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	180.4	11.4			
FM (30°-60°)	598.6	38.0			
FH (60°-80°)	492.0	31.2			G0/660
FVH (80°-90°)	32.4	2.1			G1/100
BL (0°-30°)	75.3	4.8	B0/110		
BM (30°-60°)	121.0	7.7	B0/220		
BH (60°-80°)	74.6	4.7	B0/110		G0/110
BVH (80°-90°)	3.0	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°	593.0	593.0	593.0	593.0	593.0	593.0	593.0	593.0	593.0	593.0	593.0
2.5°	616.2	629.3	629.7	635.6	641.5	641.5	655.4	652.0	639.8	637.7	628.8
5°	620.8	625.5	628.8	658.7	684.0	681.5	689.1	684.0	660.4	630.1	609.5
7.5°	580.8	585.9	599.3	650.3	684.4	695.8	710.1	678.5	653.7	598.9	559.3
10°	527.7	537.4	562.3	620.4	662.5	698.7	698.7	673.5	625.5	572.0	523.5
12.5°	498.3	517.6	531.1	590.1	644.8	669.7	668.8	655.4	624.2	556.8	502.1
15°	503.3	508.8	537.4	583.3	619.6	618.3	633.5	629.3	607.3	570.3	510.1
17.5°	526.5	534.9	559.8	583.3	600.6	595.6	595.1	615.4	616.6	593.0	540.0
20°	564.4	589.2	601.0	608.2	587.1	565.7	563.1	591.3	613.2	622.1	575.8
22.5°	625.0	641.5	665.5	628.8	574.1	547.1	542.1	573.2	617.5	656.6	622.1
25°	684.4	697.1	720.2	673.1	588.8	543.3	534.5	561.4	633.5	704.6	678.1
27.5°	747.2	758.1	760.7	705.5	596.8	535.7	525.2	561.4	646.9	729.9	745.1
30°	785.5	798.6	801.1	734.1	609.9	542.1	537.0	564.0	656.2	751.4	793.1
32.5°	828.5	831.8	829.7	739.2	624.2	560.6	539.5	580.8	666.7	777.1	836.9
35°	879.9	885.8	864.3	762.3	656.2	572.4	564.8	601.5	684.8	788.9	890.0
37.5°	919.0	937.6	889.1	771.2	662.5	597.2	598.5	644.4	697.5	803.2	948.5
40°	992.7	961.6	931.2	801.5	686.5	639.4	632.6	688.6	740.0	812.5	986.8
42.5°	1033.2	1016.7	947.7	804.5	723.6	697.5	699.2	738.8	762.3	838.6	997.4
45°	1043.3	1026.0	970.0	806.6	760.2	766.1	795.2	802.8	795.2	855.8	1017.2
47.5°	1069.0	1031.5	967.5	834.8	819.6	842.4	879.4	895.9	839.8	849.5	1026.4
50°	1063.9	1042.4	962.0	846.6	892.1	952.3	977.2	970.4	889.5	836.5	1016.3
52.5°	1042.9	1019.7	978.8	878.6	959.9	1032.7	1067.3	1050.4	933.8	866.0	1009.6
55°	1073.6	1055.9	1000.7	922.0	1010.8	1103.5	1127.9	1115.3	988.1	893.3	1047.9
57.5°	1106.9	1103.1	1060.1	972.9	1071.1	1176.4	1176.4	1160.8	1035.3	932.9	1104.8
60°	1154.9	1163.3	1103.9	1006.6	1091.7	1172.2	1233.2	1215.1	1082.9	1002.4	1169.2
62.5°	1139.3	1166.3	1160.4	1079.1	1115.3	1192.8	1226.1	1239.5	1141.8	1087.1	1255.1
65°	1089.2	1117.8	1159.9	1126.7	1097.6	1142.7	1159.5	1200.4	1171.3	1166.7	1290.5
67.5°	1029.4	1060.5	1086.7	1158.7	1061.8	1091.7	1077.0	1090.0	1139.3	1253.9	1310.7
70°	898.8	928.7	970.0	1087.5	967.0	940.1	936.3	930.0	1006.6	1222.7	1218.9
72.5°	739.2	753.1	821.3	884.1	715.6	710.5	716.4	709.3	798.1	1106.9	1044.1
75°	553.4	567.3	606.1	679.0	487.3	458.2	491.9	525.2	609.5	859.2	750.1
77.5°	416.1	433.8	458.2	507.9	357.6	312.1	316.7	348.3	440.6	688.2	420.3
80°	270.0	267.9	315.0	349.6	269.1	277.6	265.8	288.9	319.3	368.1	214.8
82.5°	155.8	157.9	177.7	200.5	187.4	214.4	154.6	258.2	227.9	149.9	80.0
85°	87.6	91.4	109.5	139.0	117.5	78.8	64.4	128.0	143.2	61.5	38.7
87.5°	8.8	7.6	14.7	52.6	32.0	13.1	19.4	30.7	34.5	23.2	11.4
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°	593.0	593.0	593.0	593.0	593.0	593.0	593.0	593.0	593.0	593.0	593.0
2.5°	616.2	616.2	605.7	588.0	580.8	568.2	550.9	556.4	550.5	529.0	523.5
5°	590.9	570.7	548.8	521.8	506.3	474.3	464.1	446.0	449.0	430.9	431.7
7.5°	538.3	522.3	485.2	449.8	419.1	391.3	352.1	337.4	323.0	315.9	324.3
10°	507.5	477.6	427.1	380.8	339.9	315.0	288.9	268.7	250.2	236.3	233.3
12.5°	485.2	458.7	397.6	341.2	309.2	288.9	264.9	237.1	219.0	195.0	187.8
15°	478.5	446.0	381.6	325.6	294.4	261.1	233.8	206.4	182.8	157.5	148.7
17.5°	501.6	464.1	381.2	312.9	269.1	233.3	195.4	164.7	140.7	117.5	112.0
20°	540.8	483.5	393.4	305.4	245.1	197.1	154.2	123.4	96.5	81.3	77.5
22.5°	585.4	516.4	394.7	285.1	221.1	160.9	112.5	81.3	66.1	59.0	56.9
25°	640.2	569.0	409.8	268.7	192.9	122.1	80.0	62.3	53.5	49.3	48.4
27.5°	685.3	605.7	426.2	251.4	165.1	90.6	62.8	51.0	46.3	42.1	41.7
30°	732.0	647.8	430.9	240.9	141.1	74.5	53.9	45.1	40.0	37.9	37.5
32.5°	772.9	693.7	445.6	223.6	118.4	65.7	48.9	40.4	37.1	33.7	33.3
35°	825.5	720.2	452.8	214.4	109.9	59.4	44.6	37.1	32.0	29.9	29.1
37.5°	882.0	745.9	457.4	207.2	102.8	55.6	42.1	35.0	30.3	27.4	26.5
40°	934.6	782.1	450.7	198.4	97.3	51.0	40.4	32.4	28.2	25.3	24.0
42.5°	975.0	817.5	448.6	190.0	91.4	49.3	38.3	31.2	26.5	23.2	22.7
45°	997.8	841.5	433.8	183.2	86.8	50.1	37.5	29.5	25.3	22.3	20.6
47.5°	992.3	860.1	437.6	181.1	80.4	46.8	37.1	28.2	23.2	20.6	19.4
50°	1022.6	897.5	431.3	174.4	75.8	42.1	40.4	28.2	22.7	19.8	18.5
52.5°	1027.7	931.7	444.8	162.2	68.7	38.7	40.0	27.8	21.9	19.0	17.3
55°	1069.8	971.3	470.9	155.4	62.8	33.7	36.6	27.0	19.8	17.3	16.4
57.5°	1127.1	1053.4	487.7	149.1	54.8	29.5	30.7	26.5	18.1	16.0	14.7
60°	1182.3	1086.2	489.0	137.7	47.2	26.5	24.0	26.5	16.8	14.3	13.1
62.5°	1223.5	1086.2	480.6	128.0	41.3	23.6	21.1	25.3	15.2	12.6	11.8
65°	1201.2	1057.2	458.7	120.0	37.5	20.6	18.1	19.4	13.5	11.0	10.1
67.5°	1161.2	966.6	410.2	110.4	37.1	18.1	15.6	14.3	11.8	9.7	8.8
70°	1097.2	844.5	341.6	99.4	36.2	16.4	13.9	12.2	10.5	8.4	7.6
72.5°	884.1	697.5	280.5	93.1	35.4	14.3	11.8	10.5	8.8	7.2	6.3
75°	612.4	445.6	216.1	79.6	34.5	13.1	11.0	9.3	7.6	5.9	5.5
77.5°	367.3	297.8	139.4	59.8	22.7	10.5	9.3	7.2	6.3	5.1	4.6
80°	171.8	140.7	56.4	23.2	11.0	7.6	6.3	5.5	5.1	4.2	3.8
82.5°	67.4	59.4	27.4	13.5	8.8	5.9	5.1	4.6	4.2	3.4	2.9
85°	36.2	32.0	13.1	9.3	6.3	4.2	4.2	3.8	3.4	2.9	2.5
87.5°	8.0	5.9	5.5	5.5	4.6	3.4	3.4	2.9	2.5	2.1	1.7
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):

	185°	195°	205°	215°	225°	235°	245°	255°	265°	270°	275°
0°	593.0	593.0	593.0	593.0	593.0	593.0	593.0	593.0	593.0	593.0	593.0
2.5°	520.6	526.9	516.8	523.1	514.3	521.0	521.8	515.5	517.2	525.6	529.4
5°	443.5	439.3	430.0	427.1	427.5	422.0	424.1	427.1	431.7	434.2	441.8
7.5°	319.7	329.4	328.9	336.1	336.5	335.7	329.8	317.2	321.4	318.0	322.2
10°	228.7	232.9	240.9	245.6	254.0	249.3	235.9	230.8	228.3	227.9	232.1
12.5°	182.8	172.7	171.8	173.5	177.7	172.3	165.5	159.6	162.6	168.5	173.1
15°	141.5	133.1	122.1	120.5	121.3	118.8	111.6	104.0	106.1	112.0	115.4
17.5°	108.7	99.0	91.4	86.3	84.7	75.8	65.3	59.0	57.3	56.9	59.8
20°	73.3	71.6	70.3	64.0	64.0	51.4	42.5	37.9	37.9	38.7	39.2
22.5°	54.8	52.6	53.1	51.8	48.4	38.3	33.7	32.4	32.4	33.3	33.3
25°	47.6	44.6	43.8	43.4	40.0	32.9	29.5	28.2	28.2	29.1	29.1
27.5°	40.4	39.6	38.3	36.6	33.7	28.2	26.1	24.8	25.3	25.7	25.3
30°	37.1	35.0	33.3	33.3	29.9	25.3	23.6	22.7	21.9	22.7	23.2
32.5°	32.9	31.6	30.7	29.5	25.7	22.3	20.6	19.8	19.4	19.4	19.8
35°	28.2	28.2	27.4	25.7	22.3	20.2	18.1	17.3	16.8	17.3	17.3
37.5°	25.3	24.0	24.4	22.7	19.8	17.7	15.6	14.7	14.7	14.3	14.7
40°	23.6	21.5	20.2	19.4	17.7	15.2	13.5	12.6	12.2	12.2	12.2
42.5°	21.1	19.4	16.8	16.4	16.0	13.1	11.0	10.5	10.1	9.7	9.7
45°	19.8	17.3	15.2	13.1	13.1	11.0	9.3	8.4	8.0	7.6	8.0
47.5°	18.1	15.6	13.1	11.0	10.5	8.8	7.2	6.3	5.9	5.9	5.9
50°	17.3	13.9	11.4	9.3	8.0	7.2	5.5	4.6	4.2	4.2	4.2
52.5°	16.0	13.1	10.1	8.0	6.3	5.5	4.2	3.4	2.9	2.9	2.9
55°	14.3	11.8	8.8	6.7	5.5	4.2	2.9	2.1	1.7	1.7	1.7
57.5°	13.5	10.5	7.6	5.9	4.2	2.9	1.7	1.3	1.3	0.8	1.3
60°	12.2	9.3	6.3	4.6	3.4	2.1	1.3	0.4	0.4	0.4	0.4
62.5°	10.5	8.0	5.5	3.8	2.5	1.3	0.4	0.0	0.0	0.0	0.0
65°	8.8	6.3	4.2	2.9	1.7	0.4	0.0	0.0	0.0	0.0	0.0
67.5°	7.6	5.5	3.4	2.1	1.3	0.0	0.0	0.0	0.0	0.0	0.0
70°	6.7	4.6	2.5	1.7	0.4	0.0	0.0	0.0	0.0	0.0	0.0
72.5°	5.5	3.8	2.1	0.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0
75°	4.6	2.9	1.3	0.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0
77.5°	3.8	2.1	0.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
80°	2.9	1.7	0.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
82.5°	2.5	1.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
85°	1.7	0.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
87.5°	1.3	0.4	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°	593.0	593.0	593.0	593.0	593.0	593.0	593.0	593.0	593.0	593.0
2.5°	534.9	532.4	545.0	565.7	576.2	596.8	601.9	614.9	611.6	616.2
5°	442.7	447.7	466.3	496.6	507.5	537.4	565.7	593.9	612.0	620.8
7.5°	328.5	345.4	368.1	395.9	424.1	463.3	511.3	544.2	561.9	580.8
10°	244.7	262.8	288.9	316.3	362.2	406.0	454.0	494.9	510.1	527.7
12.5°	192.5	220.7	251.0	280.5	307.9	349.6	409.0	468.4	484.8	498.3
15°	133.9	168.5	211.9	250.2	288.5	324.7	386.2	458.2	480.6	503.3
17.5°	74.1	101.5	151.2	205.1	261.6	317.2	393.8	476.8	510.5	526.5
20°	43.0	53.9	89.3	153.3	227.9	300.7	397.6	511.7	556.4	564.4
22.5°	35.4	39.2	50.5	96.0	186.6	290.2	417.0	560.6	606.1	625.0
25°	30.3	33.3	39.2	57.7	141.1	267.9	429.2	621.7	663.8	684.4
27.5°	27.0	29.9	34.5	42.5	96.0	237.1	449.4	676.8	719.0	747.2
30°	23.6	26.1	30.7	36.2	66.5	202.6	466.7	717.3	776.7	785.5
32.5°	21.1	23.2	26.5	31.2	49.3	153.7	480.6	759.0	809.1	828.5
35°	18.1	20.6	22.7	26.5	37.5	115.8	472.1	791.4	856.7	879.9
37.5°	16.0	17.7	19.8	22.3	31.6	90.6	454.9	830.2	897.5	919.0
40°	13.5	14.7	17.3	19.8	28.6	69.9	435.1	876.9	954.8	992.7
42.5°	11.4	12.6	14.3	18.5	23.6	51.8	395.1	913.1	1001.2	1033.2
45°	8.8	10.5	13.1	18.5	19.0	38.3	353.8	940.1	1027.3	1043.3
47.5°	6.7	8.4	12.6	16.0	15.2	26.5	304.9	970.8	1054.2	1069.0
50°	5.1	6.7	14.3	13.9	12.6	20.2	274.2	992.3	1055.9	1063.9
52.5°	3.4	5.1	11.8	10.5	10.5	17.7	265.8	991.5	1060.1	1042.9
55°	2.5	3.8	6.7	7.6	9.3	15.6	258.2	1023.1	1061.4	1073.6
57.5°	1.7	2.9	4.6	5.9	8.0	13.5	242.6	1061.0	1100.6	1106.9
60°	0.8	2.1	3.4	4.6	6.7	11.8	220.7	1088.8	1148.2	1154.9
62.5°	0.4	1.3	2.5	3.8	5.5	9.3	198.0	1044.5	1127.5	1139.3
65°	0.0	0.8	1.7	2.5	3.4	6.7	160.9	943.0	1045.8	1089.2
67.5°	0.0	0.0	0.8	1.7	2.1	5.1	121.3	858.0	970.4	1029.4
70°	0.0	0.0	0.4	0.4	1.3	3.8	77.5	710.5	866.4	898.8
72.5°	0.0	0.0	0.0	0.0	0.4	2.5	45.1	527.7	679.0	739.2
75°	0.0	0.0	0.0	0.0	0.0	2.1	22.7	339.5	472.6	553.4
77.5°	0.0	0.0	0.0	0.0	0.0	1.7	12.2	219.0	348.3	416.1
80°	0.0	0.0	0.0	0.0	0.0	0.4	7.2	127.2	222.8	270.0
82.5°	0.0	0.0	0.0	0.0	0.0	0.0	2.9	62.3	133.1	155.8
85°	0.0	0.0	0.0	0.0	0.0	0.0	0.8	33.3	66.5	87.6
87.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.3	4.6	8.8
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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