

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: P676318

Luminaire Tested: **CCW-SA-1A-830-U-T2-HSS**

Issue Date: 04/25/2023



Test Information

Test Method: LM-79-08
Report Number: P676318
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-T2-HSS
Description: INVUE CLEAR CURVE Wall Pack MOUNT Light Square Luminaire @350mA w/
T2 distribution lens and House Side Shield
Light Source: (16) 3000K CCT, 80 CRI LEDs
Ballast/Driver: ELECTRONIC DRIVER

Summary

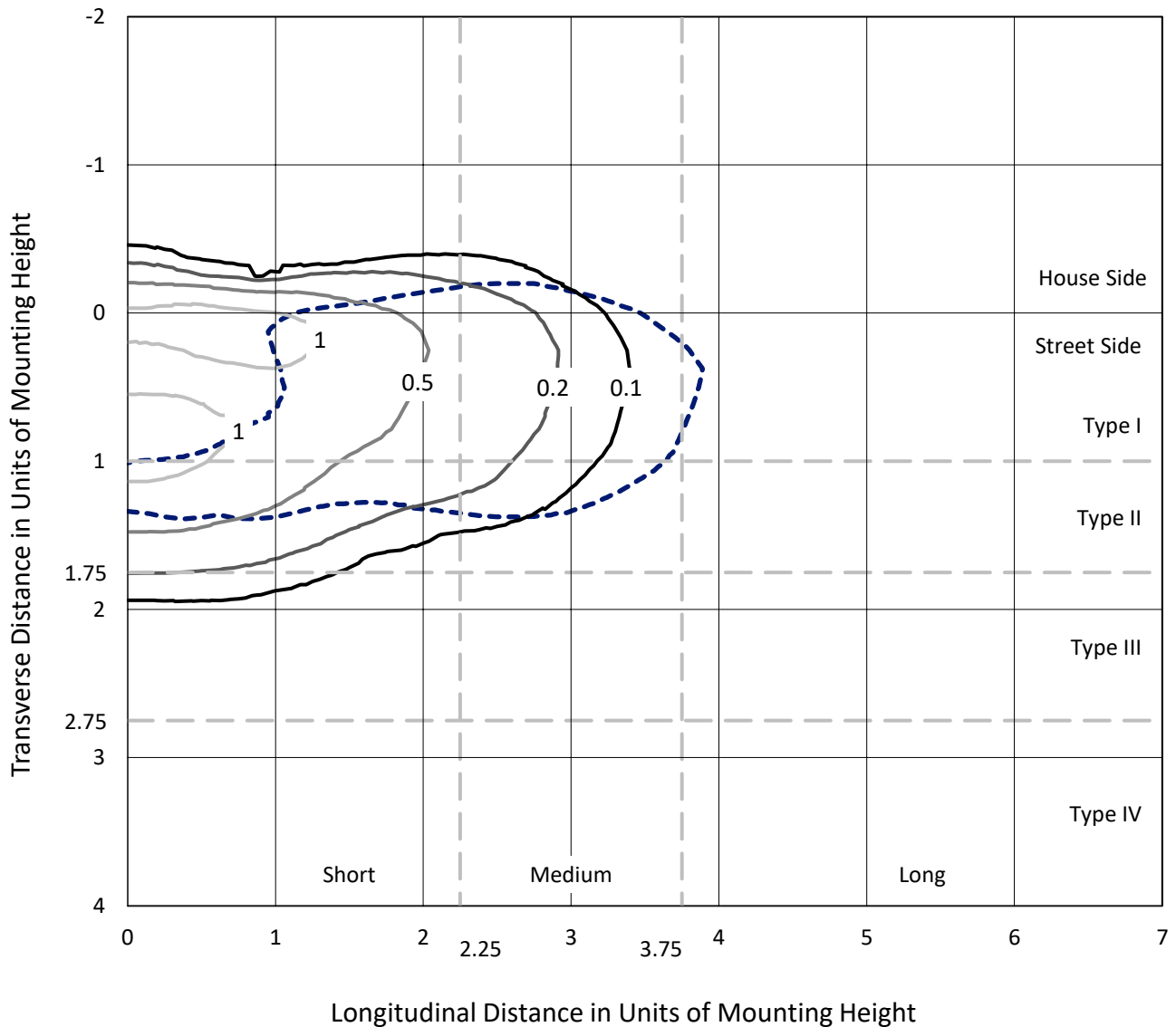
Lumens per Lamp: N/A
Luminaire Lumens: 1678.3 lumens
Efficiency: N/A
Efficacy: 93.2 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 0.5' x H: 0')
IES Classification: Type II - Short
BUG Rating: B0 - U0 - G1

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

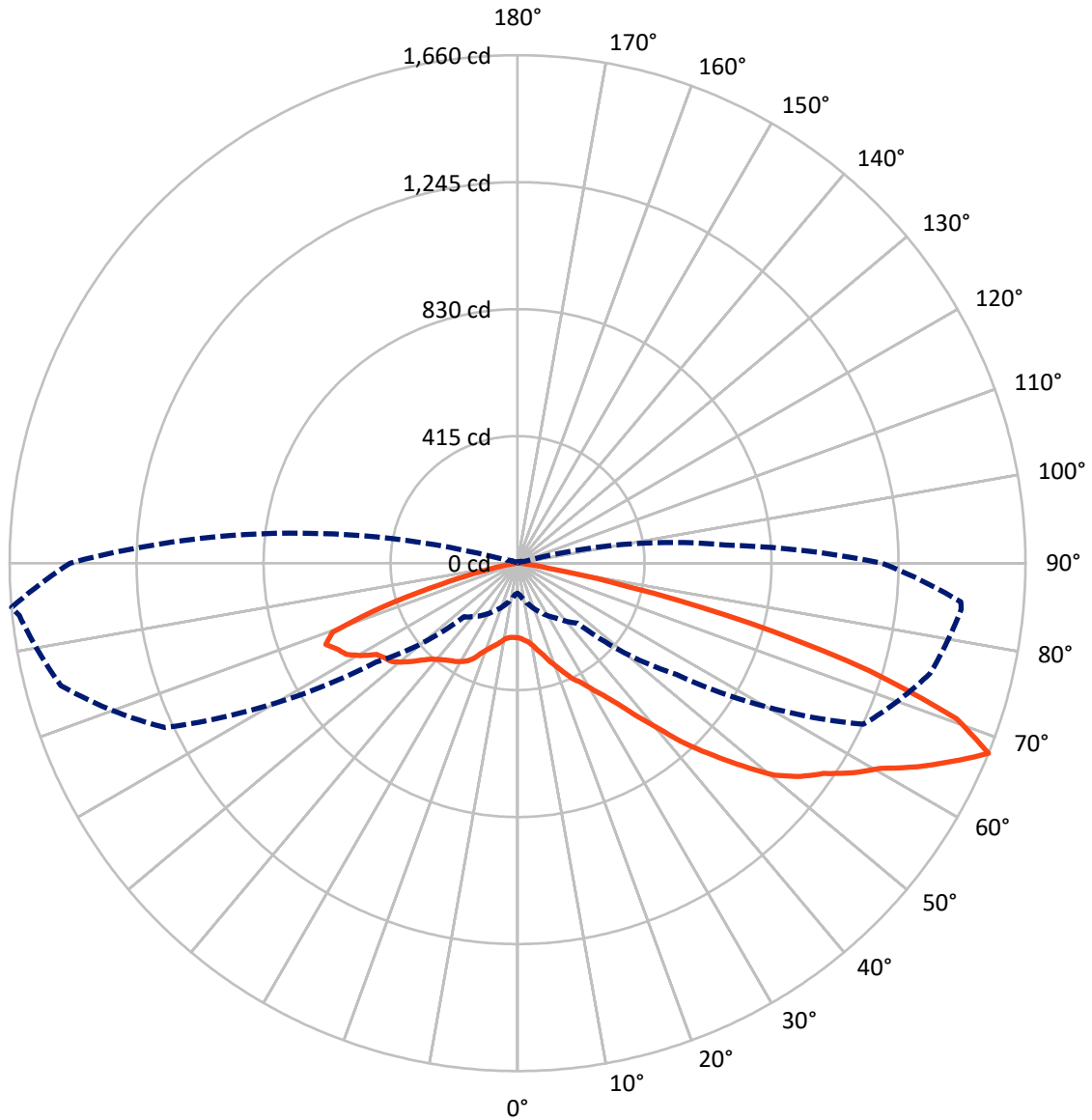
× Max cd
 - - - 1/2 Max cd



Based on 15 foot mounting height. Maximum calculated value = 1.3 fc
 Type II - Short - N/A

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Luminous Intensity Polar Plot



— Vertical Plane Through 275-Deg Lateral - - - Horizontal Cone Through 67.5-Deg Vertical

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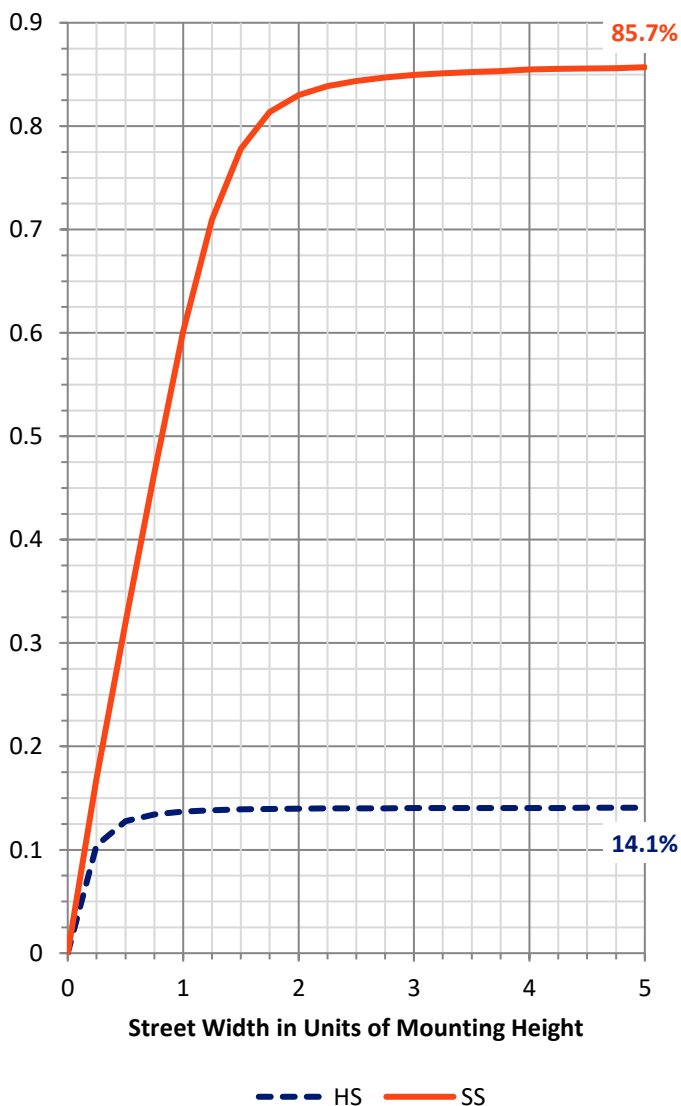
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	238.4	0.0	238.4
	% Fixture	14.2	0.0	14.2
Street Side	Lumens	1439.9	0.0	1439.9
	% Fixture	85.8	0.0	85.8
Total	Lumens	1678.3	0.0	1678.3
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	22.3	1.3
10°-20°	59.8	3.6
20°-30°	99.4	5.9
30°-40°	171.0	10.2
40°-50°	307.2	18.3
50°-60°	437.4	26.1
60°-70°	398.8	23.8
70°-80°	169.8	10.1
80°-90°	12.6	0.8
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°	1678.3	100.0
0°-180°	1678.3	100.0



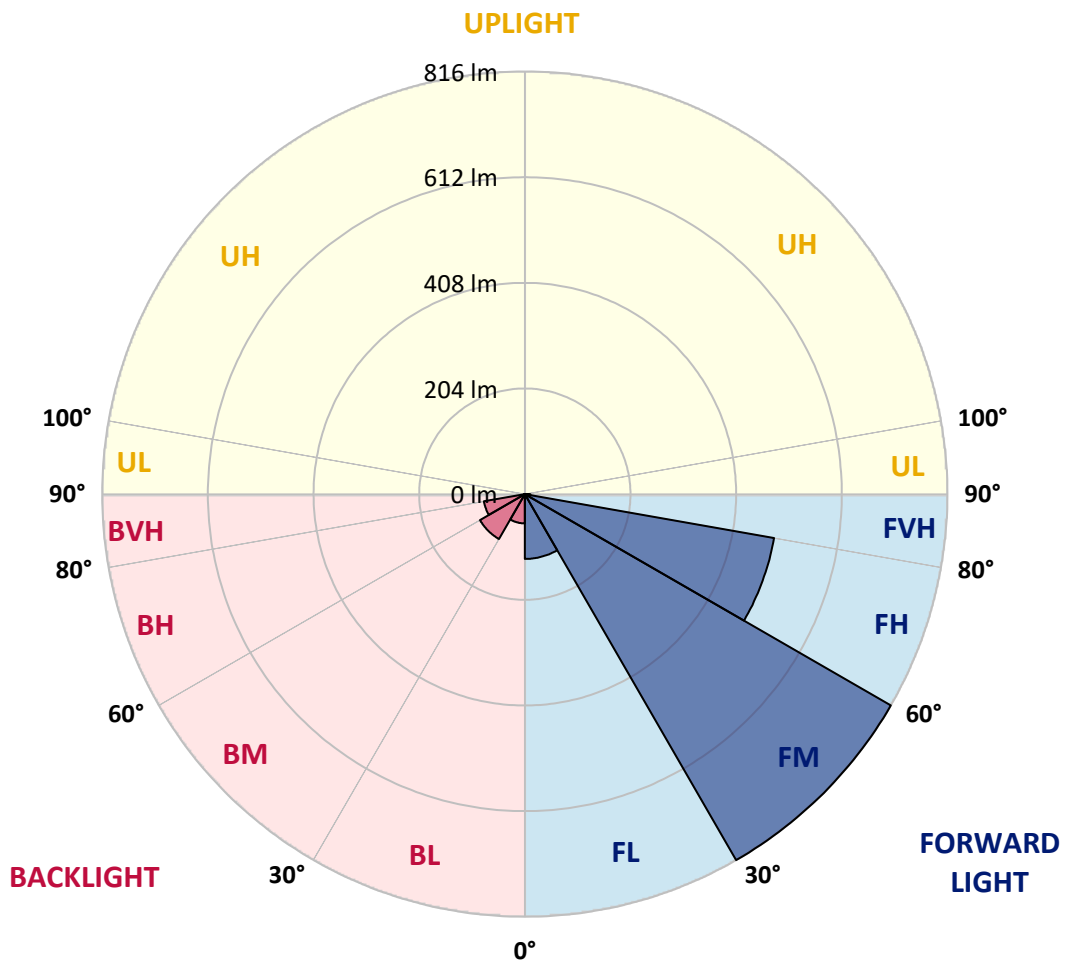
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	125.0	7.5			
FM (30°-60°)	815.7	48.6			
FH (60°-80°)	488.5	29.1			G0/660
FVH (80°-90°)	10.7	0.6			G1/100
BL (0°-30°)	56.4	3.4	B0/110		
BM (30°-60°)	100.0	6.0	B0/220		
BH (60°-80°)	80.1	4.8	B0/110		G0/110
BVH (80°-90°)	1.9	0.1			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 II Short





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	75°	84°	85°
0°	244.1	244.1	244.1	244.1	244.1	244.1	244.1	244.1	244.1	244.1	244.1
2.5°	252.9	255.3	255.3	254.5	252.1	250.5	249.7	248.1	246.5	246.5	247.3
5°	255.3	252.9	256.1	252.1	252.1	252.1	255.3	253.7	252.9	248.9	248.9
7.5°	255.3	252.9	252.9	255.3	252.9	254.5	258.5	256.9	260.1	252.9	254.5
10°	248.1	247.3	248.9	252.1	252.9	256.1	260.1	268.1	268.9	264.1	263.3
12.5°	233.6	232.8	238.5	240.1	249.7	257.7	269.7	276.1	283.3	280.9	276.1
15°	223.2	224.8	228.8	235.3	244.1	258.5	272.1	286.5	299.3	296.1	294.5
17.5°	227.2	226.4	227.2	231.2	242.5	256.9	280.1	296.9	315.3	315.3	316.9
20°	239.3	241.7	240.9	238.5	244.1	256.1	280.1	309.7	340.1	337.7	337.7
22.5°	260.1	260.9	256.1	254.5	253.7	260.9	284.9	325.7	360.9	365.7	364.1
25°	281.7	282.5	280.9	276.1	269.7	271.3	293.7	338.5	389.7	397.7	396.1
27.5°	317.7	316.9	312.9	307.3	297.7	290.5	307.3	348.1	412.1	425.7	421.7
30°	353.7	351.3	345.7	338.5	329.7	316.1	324.1	366.5	440.1	452.9	444.1
32.5°	397.7	392.9	394.5	383.3	364.9	343.3	341.7	383.3	462.5	480.9	473.7
35°	453.7	448.1	440.1	429.7	412.1	383.3	374.5	410.5	500.1	513.7	513.7
37.5°	527.3	532.9	523.3	480.1	460.9	433.7	415.3	438.5	532.9	565.7	557.7
40°	602.5	607.3	589.7	557.7	516.1	482.5	471.3	484.1	582.5	621.7	606.5
42.5°	663.3	669.7	663.3	621.7	588.9	545.7	525.7	537.7	646.5	693.7	673.7
45°	727.4	733.8	726.6	699.3	667.3	642.5	592.1	607.3	713.8	784.2	761.8
47.5°	775.4	783.4	770.6	765.0	739.4	735.4	649.7	666.5	784.2	875.4	847.4
50°	786.6	795.4	806.6	813.0	804.2	813.8	727.4	741.8	857.8	959.4	932.2
52.5°	760.2	769.0	793.8	823.4	864.2	893.0	805.8	817.8	934.6	1029.0	1014.6
55°	682.5	690.5	741.0	781.0	878.6	925.8	881.0	931.4	989.8	1101.8	1066.6
57.5°	552.1	561.7	628.1	689.7	830.6	907.4	925.8	1025.8	1081.0	1155.4	1114.6
60°	392.1	397.7	455.3	564.1	697.7	815.4	917.0	1096.2	1153.0	1227.5	1205.9
62.5°	225.6	230.4	290.5	392.9	526.5	680.9	877.8	1162.6	1230.7	1306.7	1294.7
65°	149.6	151.2	192.0	248.1	342.5	501.7	778.6	1221.9	1307.5	1369.9	1356.3
67.5°	98.4	107.2	139.2	177.6	219.2	277.7	634.5	1246.7	1395.5	1457.9	1454.7
70°	70.4	73.6	100.0	136.8	164.8	156.0	371.3	1071.4	1391.5	1481.9	1455.5
72.5°	41.6	44.8	66.4	102.4	129.6	99.2	173.6	757.8	1153.0	1182.7	1175.5
75°	30.4	30.4	40.8	73.6	94.4	71.2	81.6	479.3	765.8	831.4	830.6
77.5°	21.6	22.4	28.0	44.0	72.8	52.0	44.8	266.5	418.5	457.7	436.1
80°	12.8	13.6	19.2	26.4	52.8	37.6	29.6	121.6	160.8	162.4	154.4
82.5°	9.6	9.6	12.8	18.4	36.8	25.6	18.4	46.4	52.0	47.2	40.0
85°	5.6	4.8	9.6	13.6	21.6	14.4	12.8	21.6	24.0	17.6	16.0
87.5°	1.6	1.6	4.0	4.8	9.6	8.0	5.6	8.0	11.2	6.4	4.8
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°	244.1	244.1	244.1	244.1	244.1	244.1	244.1	244.1	244.1	244.1	244.1
2.5°	245.7	243.3	239.3	237.7	232.0	229.6	228.0	224.0	224.8	222.4	222.4
5°	243.3	243.3	235.3	226.4	217.6	212.0	205.6	197.6	197.6	194.4	195.2
7.5°	252.1	245.7	235.3	219.2	204.8	192.0	186.4	178.4	173.6	171.2	171.2
10°	257.7	251.3	233.6	214.4	196.0	180.0	168.0	156.8	150.4	150.4	149.6
12.5°	272.9	263.3	240.1	213.6	186.4	162.4	144.0	131.2	122.4	116.0	117.6
15°	285.7	275.3	243.3	207.2	169.6	136.0	113.6	89.6	77.6	71.2	68.8
17.5°	305.7	286.5	250.5	196.0	144.0	106.4	73.6	53.6	48.8	48.0	48.0
20°	322.5	300.1	251.3	174.4	118.4	68.0	47.2	44.0	41.6	40.8	40.0
22.5°	345.7	317.7	248.1	149.6	84.8	45.6	40.0	36.8	35.2	32.8	32.8
25°	369.7	340.9	241.7	126.4	52.0	39.2	35.2	32.0	28.8	27.2	28.0
27.5°	395.3	358.5	223.2	98.4	40.0	34.4	28.8	26.4	24.8	24.0	24.0
30°	416.1	369.7	196.0	65.6	36.0	30.4	25.6	23.2	21.6	20.8	20.8
32.5°	431.3	379.3	165.6	44.0	32.8	27.2	23.2	20.8	19.2	18.4	18.4
35°	456.9	386.5	137.6	37.6	29.6	24.0	20.0	18.4	16.8	16.8	16.8
37.5°	496.1	396.1	109.6	34.4	27.2	21.6	19.2	16.8	16.0	15.2	15.2
40°	530.5	408.1	78.4	31.2	24.8	20.0	16.8	15.2	14.4	13.6	13.6
42.5°	580.1	421.7	51.2	28.0	22.4	18.4	15.2	13.6	12.8	12.0	12.0
45°	643.3	444.1	40.0	24.8	20.0	16.8	14.4	12.8	11.2	11.2	10.4
47.5°	710.6	471.3	36.0	23.2	18.4	15.2	12.8	11.2	10.4	9.6	9.6
50°	773.0	497.7	33.6	21.6	16.8	14.4	12.0	10.4	8.8	8.0	8.0
52.5°	829.0	522.5	32.0	20.0	16.0	12.8	10.4	8.8	8.0	7.2	7.2
55°	858.6	533.7	31.2	19.2	14.4	12.0	9.6	8.0	7.2	6.4	6.4
57.5°	905.0	548.1	30.4	18.4	13.6	10.4	8.8	7.2	6.4	5.6	5.6
60°	980.2	595.3	29.6	17.6	12.8	10.4	8.0	6.4	4.8	4.0	4.0
62.5°	1042.6	634.5	26.4	15.2	11.2	8.8	6.4	4.8	3.2	2.4	2.4
65°	1113.8	652.9	23.2	13.6	9.6	7.2	4.8	3.2	2.4	0.8	0.8
67.5°	1191.5	680.9	19.2	12.0	8.8	5.6	4.0	2.4	0.8	0.0	0.0
70°	1150.6	645.7	16.0	10.4	8.0	4.8	3.2	1.6	0.0	0.0	0.0
72.5°	901.8	462.5	12.8	9.6	7.2	4.8	3.2	0.8	0.0	0.0	0.0
75°	602.5	261.7	11.2	8.0	5.6	4.0	2.4	0.8	0.0	0.0	0.0
77.5°	327.3	117.6	9.6	7.2	4.8	3.2	2.4	0.8	0.0	0.0	0.0
80°	106.4	46.4	8.0	6.4	4.8	3.2	2.4	0.8	0.0	0.0	0.0
82.5°	28.8	14.4	8.0	6.4	4.8	3.2	2.4	0.8	0.0	0.0	0.0
85°	12.0	9.6	8.0	6.4	4.8	3.2	2.4	0.8	0.0	0.0	0.0
87.5°	4.8	3.2	3.2	4.0	3.2	2.4	1.6	0.8	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):

	185°	195°	205°	215°	225°	235°	245°	255°	265°	270°	275°
0°	244.1	244.1	244.1	244.1	244.1	244.1	244.1	244.1	244.1	244.1	244.1
2.5°	223.2	224.8	225.6	225.6	229.6	233.6	238.5	242.5	242.5	244.9	247.3
5°	196.0	197.6	200.0	207.2	215.2	224.0	232.8	239.3	248.1	252.1	254.5
7.5°	173.6	175.2	181.6	188.8	200.0	215.2	230.4	244.9	253.7	257.7	260.9
10°	150.4	152.8	160.0	172.8	187.2	205.6	223.2	248.1	262.5	270.5	273.7
12.5°	116.8	123.2	132.8	146.4	164.8	192.8	225.6	251.3	276.1	285.7	292.1
15°	73.6	79.2	94.4	116.0	140.8	173.6	219.2	256.1	290.5	300.1	310.5
17.5°	47.2	48.0	52.8	76.0	108.0	149.6	209.6	263.3	306.5	320.1	336.1
20°	40.0	41.6	42.4	45.6	72.0	123.2	189.6	272.1	325.7	344.1	359.3
22.5°	33.6	34.4	36.0	38.4	43.2	89.6	162.4	272.1	342.5	369.7	387.3
25°	27.2	28.8	30.4	32.8	37.6	56.0	134.4	267.3	362.5	396.1	418.5
27.5°	24.0	24.0	25.6	28.0	32.0	39.2	106.4	252.9	377.7	412.1	441.7
30°	20.8	21.6	22.4	24.8	28.8	34.4	73.6	229.6	393.7	443.3	476.9
32.5°	18.4	18.4	20.0	21.6	25.6	31.2	47.2	194.4	414.5	467.3	514.5
35°	16.8	16.8	17.6	19.2	23.2	28.0	36.8	164.8	439.3	512.9	564.9
37.5°	15.2	15.2	16.0	17.6	20.8	24.8	33.6	141.6	464.9	558.5	634.5
40°	13.6	13.6	14.4	16.0	18.4	22.4	30.4	114.4	496.9	625.7	710.6
42.5°	12.0	12.0	12.8	14.4	16.8	20.0	26.4	85.6	539.3	698.5	809.0
45°	10.4	10.4	11.2	12.8	14.4	18.4	24.0	65.6	585.7	779.4	895.4
47.5°	8.8	9.6	10.4	12.0	13.6	16.8	21.6	57.6	631.3	865.0	991.4
50°	8.0	8.0	8.8	10.4	12.8	15.2	20.0	56.8	677.7	930.6	1089.8
52.5°	7.2	7.2	8.0	9.6	12.0	14.4	19.2	58.4	716.2	991.4	1158.6
55°	6.4	6.4	7.2	8.0	10.4	13.6	17.6	60.0	743.4	1053.0	1213.9
57.5°	5.6	5.6	6.4	8.0	9.6	12.0	16.0	61.6	787.4	1113.8	1293.9
60°	4.0	4.0	5.6	7.2	8.8	10.4	15.2	63.2	857.8	1197.9	1361.9
62.5°	2.4	2.4	3.2	5.6	7.2	9.6	13.6	60.0	923.4	1305.9	1465.9
65°	0.8	1.6	2.4	3.2	5.6	8.0	11.2	54.4	978.6	1413.9	1561.9
67.5°	0.0	0.0	0.8	2.4	4.8	6.4	9.6	40.0	987.4	1462.7	1660.4
70°	0.0	0.0	0.8	2.4	4.0	6.4	8.8	22.4	841.0	1306.7	1521.9
72.5°	0.0	0.0	0.0	1.6	4.0	5.6	8.0	16.8	620.1	985.0	1202.7
75°	0.0	0.0	0.0	0.8	3.2	4.8	7.2	12.8	376.9	656.9	785.0
77.5°	0.0	0.0	0.0	0.8	2.4	4.8	7.2	11.2	132.8	312.9	368.9
80°	0.0	0.0	0.0	1.6	3.2	4.8	6.4	9.6	32.0	78.4	105.6
82.5°	0.0	0.0	0.0	0.8	2.4	4.0	5.6	8.0	12.8	23.2	36.8
85°	0.0	0.0	0.0	0.8	1.6	4.0	5.6	7.2	8.8	11.2	16.0
87.5°	0.0	0.0	0.0	0.0	0.8	1.6	2.4	3.2	3.2	3.2	5.6
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):

	276°	285°	295°	305°	315°	325°	335°	345°	355°	360°
0°	244.1	244.1	244.1	244.1	244.1	244.1	244.1	244.1	244.1	244.1
2.5°	246.5	249.7	251.3	254.5	256.1	255.3	254.5	256.9	255.3	252.9
5°	255.3	255.3	257.7	258.5	258.5	256.1	257.7	256.9	255.3	255.3
7.5°	264.9	268.9	268.9	264.1	263.3	261.7	261.7	255.3	252.9	255.3
10°	274.5	277.7	278.5	272.9	265.7	262.5	258.5	250.5	246.5	248.1
12.5°	294.5	294.5	285.7	279.3	269.7	258.5	248.9	237.7	232.0	233.6
15°	308.9	312.1	300.1	285.7	268.9	248.1	237.7	228.8	225.6	223.2
17.5°	336.9	330.5	311.3	290.5	266.5	244.9	237.7	229.6	227.2	227.2
20°	360.9	357.7	328.9	291.3	265.7	251.3	246.5	242.5	241.7	239.3
22.5°	393.7	379.3	342.5	300.1	274.5	261.7	260.1	264.1	261.7	260.1
25°	418.5	406.5	352.9	312.9	288.1	284.1	286.5	290.5	284.1	281.7
27.5°	452.1	429.7	372.9	329.7	306.5	310.5	318.5	319.3	315.3	317.7
30°	483.3	459.3	388.1	348.9	337.7	341.7	353.7	362.5	356.9	353.7
32.5°	528.1	491.3	418.5	380.9	376.9	387.3	400.9	406.5	399.3	397.7
35°	575.3	528.1	449.7	416.9	424.1	438.5	450.5	460.1	448.9	453.7
37.5°	648.9	587.3	502.5	473.7	476.9	482.5	504.9	531.3	536.9	527.3
40°	725.8	651.3	551.3	528.9	536.1	551.3	577.7	602.5	615.3	602.5
42.5°	814.6	713.0	626.5	600.1	607.3	628.9	664.1	684.1	682.5	663.3
45°	924.2	798.6	696.9	664.1	690.5	709.8	745.0	747.4	732.2	727.4
47.5°	1008.2	870.6	773.0	752.2	788.2	789.0	797.0	797.8	781.0	775.4
50°	1101.0	953.8	857.8	827.4	888.2	860.2	838.6	824.2	798.6	786.6
52.5°	1192.3	1013.0	936.2	905.0	968.2	893.8	854.6	810.6	773.0	760.2
55°	1241.1	1110.6	1050.6	977.8	985.8	903.4	805.0	749.8	685.7	682.5
57.5°	1298.7	1176.3	1147.4	1027.4	956.2	836.2	701.7	628.9	560.1	552.1
60°	1366.7	1280.3	1249.9	1019.4	851.4	702.5	556.1	462.5	397.7	392.1
62.5°	1442.7	1403.5	1313.1	941.0	676.1	494.5	367.3	288.9	228.8	225.6
65°	1562.7	1506.7	1346.7	792.2	447.3	316.9	244.1	187.2	151.2	149.6
67.5°	1637.9	1545.9	1271.5	564.9	248.1	209.6	171.2	136.0	104.8	98.4
70°	1531.5	1418.7	1005.8	323.3	144.0	159.2	132.0	91.2	72.0	70.4
72.5°	1223.5	1053.0	676.9	152.0	89.6	124.8	96.0	61.6	43.2	41.6
75°	834.6	662.5	424.9	70.4	63.2	91.2	70.4	36.0	30.4	30.4
77.5°	372.9	337.7	217.6	43.2	47.2	69.6	40.8	24.8	22.4	21.6
80°	113.6	119.2	88.8	29.6	35.2	52.8	24.8	16.8	13.6	12.8
82.5°	38.4	44.8	40.0	17.6	24.0	37.6	16.8	11.2	9.6	9.6
85°	18.4	22.4	20.0	11.2	12.8	18.4	13.6	8.8	5.6	5.6
87.5°	7.2	10.4	7.2	4.8	7.2	9.6	5.6	4.0	1.6	1.6
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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