

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: P676351

Luminaire Tested: **CCW-SA-1A-850-U-T2-HSS**

Issue Date: 04/25/2023



Test Information

Test Method: LM-79-08
Report Number: P676351
Test Lab: INNOVATION CENTER(G1)
Issue Date: 04/25/2023
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: INVUE
Catalog Number: CCW-SA-1A-850-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) 5000K CCT, 80 CRI LEDs
Ballast/Driver: ELECTRONIC DRIVER

Summary

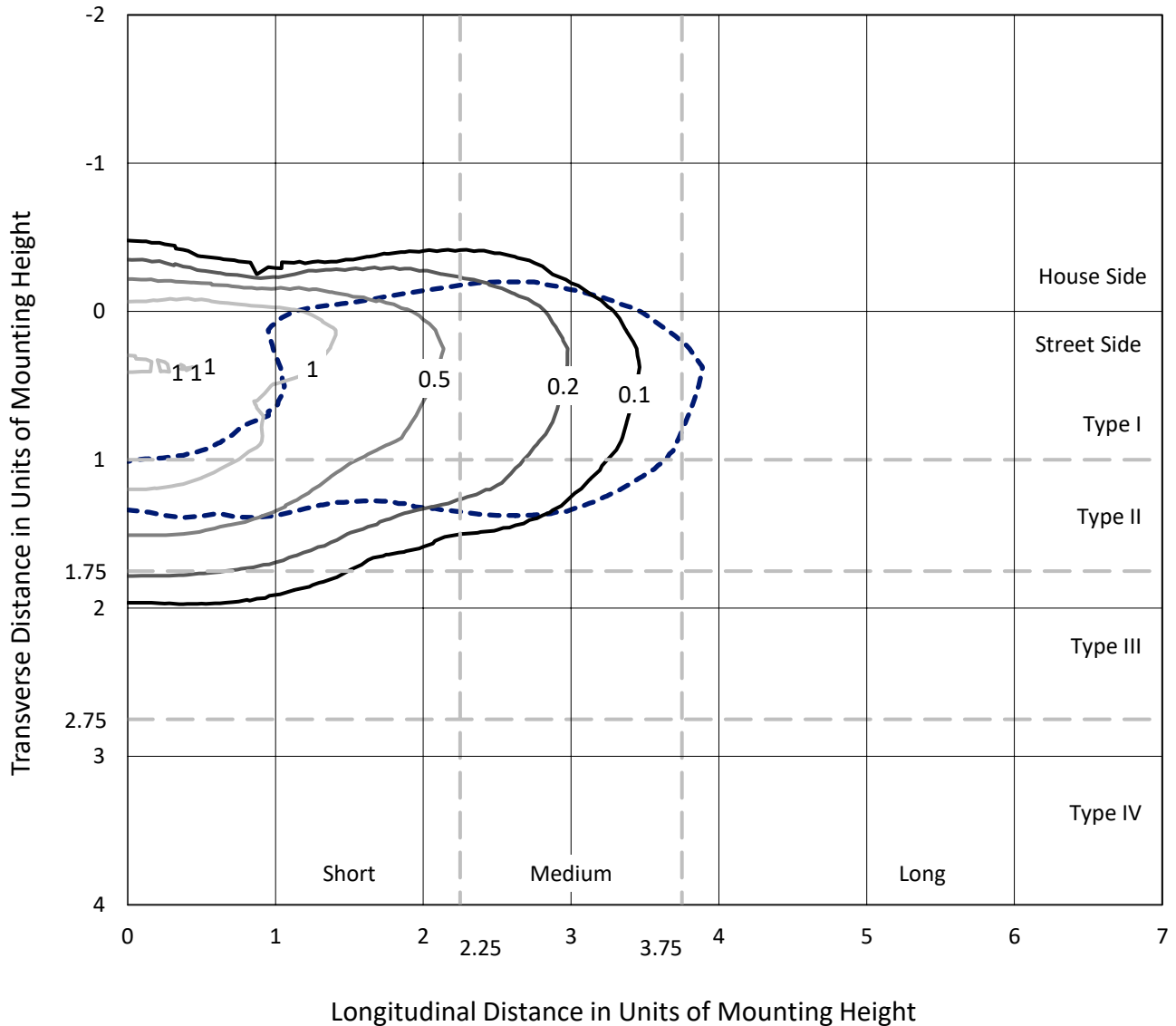
Lumens per Lamp: N/A
Luminaire Lumens: 1843.1 lumens
Efficiency: N/A
Efficacy: 102.4 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 0.5' x H: 0')
IES Classification: Type II - Short
BUG Rating: B0 - U0 - G1

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

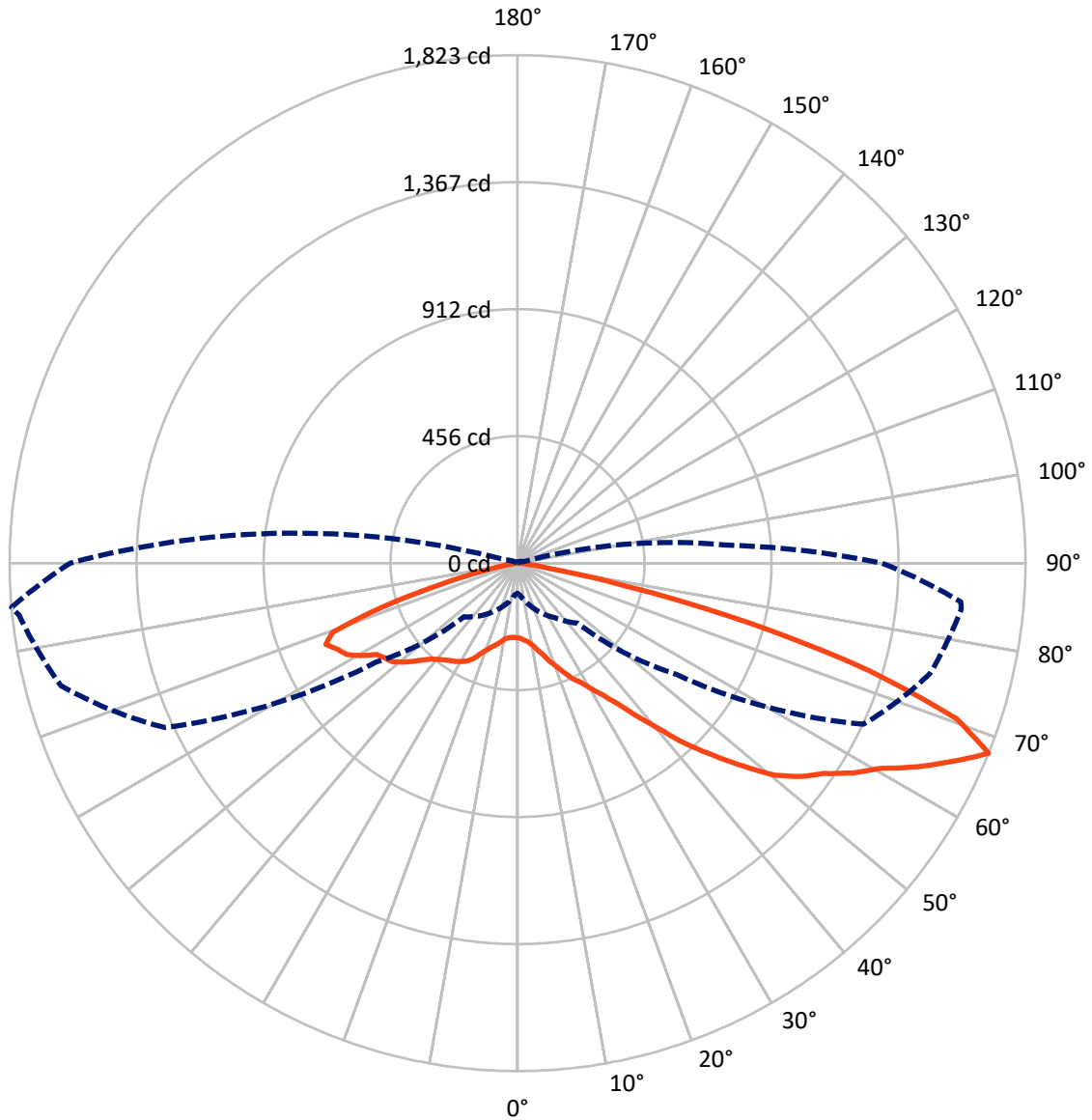
× Max cd
 - - - 1/2 Max cd



Based on 15 foot mounting height. Maximum calculated value = 1.4 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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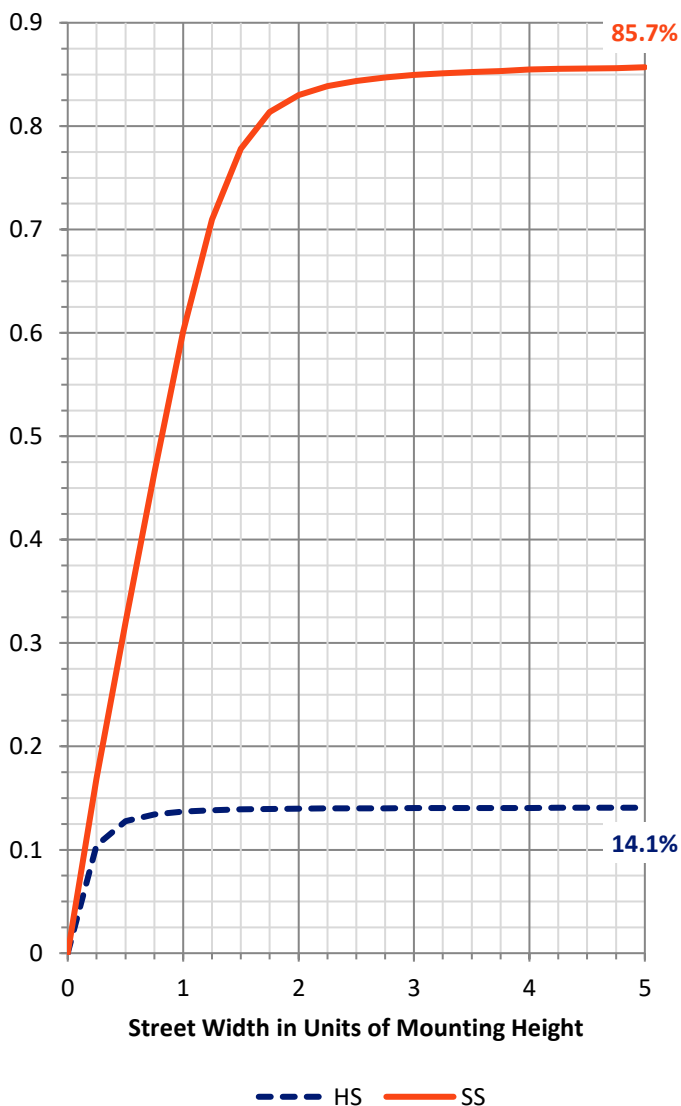
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	261.8	0.0	261.8
	% Fixture	14.2	0.0	14.2
Street Side	Lumens	1581.2	0.0	1581.2
	% Fixture	85.8	0.0	85.8
Total	Lumens	1843.1	0.0	1843.1
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	24.4	1.3
10°-20°	65.7	3.6
20°-30°	109.1	5.9
30°-40°	187.8	10.2
40°-50°	337.4	18.3
50°-60°	480.3	26.1
60°-70°	437.9	23.8
70°-80°	186.5	10.1
80°-90°	13.9	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°	1843.1	100.0
0°-180°	1843.1	100.0



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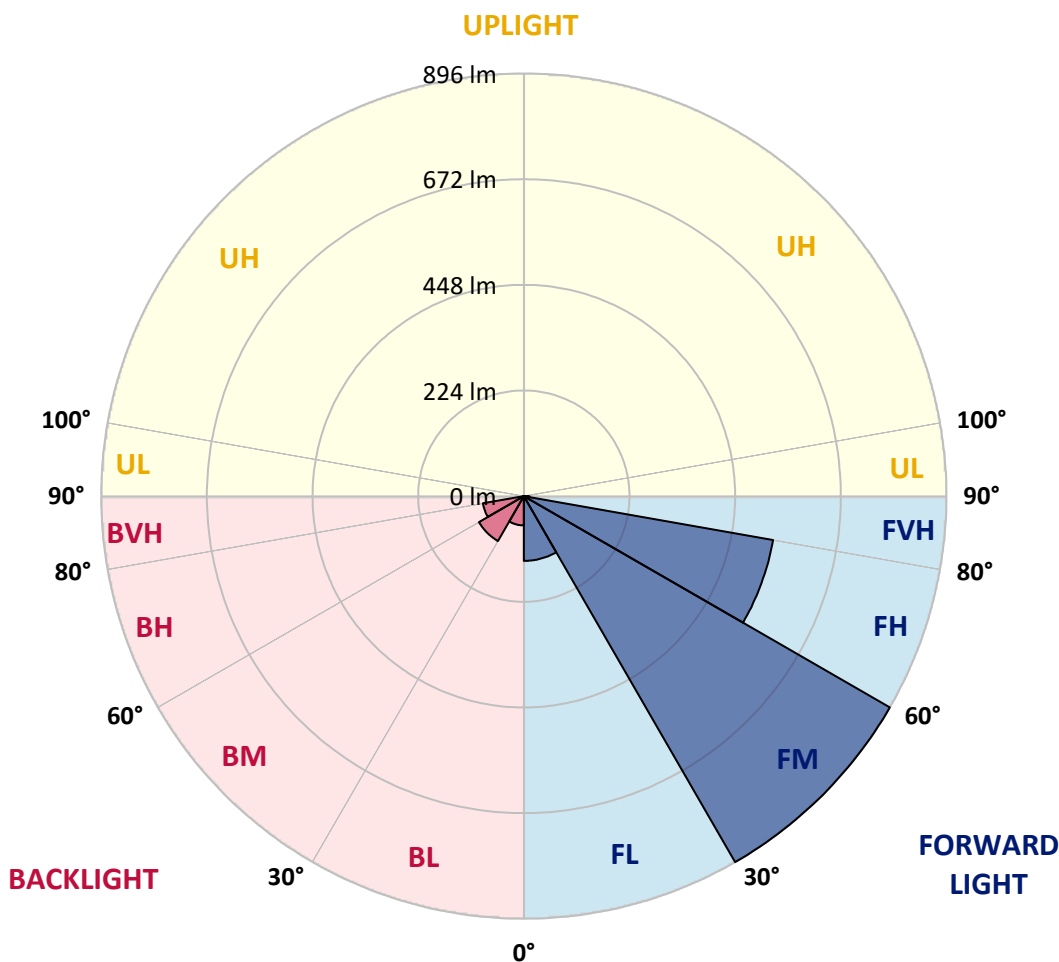
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	137.3	7.4			
FM (30°-60°)	895.7	48.6			
FH (60°-80°)	536.4	29.1			G0/660
FVH (80°-90°)	11.8	0.6			G1/100
BL (0°-30°)	62.0	3.4	B0/110		
BM (30°-60°)	109.8	6.0	B0/220		
BH (60°-80°)	88.0	4.8	B0/110		G0/110
BVH (80°-90°)	2.1	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°	268.0	268.0	268.0	268.0	268.0	268.0	268.0	268.0	268.0	268.0	268.0
2.5°	277.7	280.3	280.3	279.4	276.8	275.0	274.2	272.4	270.6	270.6	271.5
5°	280.3	277.7	281.2	276.8	276.8	276.8	280.3	278.6	277.7	273.3	273.3
7.5°	280.3	277.7	277.7	280.3	277.7	279.4	283.8	282.1	285.6	277.7	279.4
10°	272.4	271.5	273.3	276.8	277.7	281.2	285.6	294.4	295.2	290.0	289.1
12.5°	256.6	255.7	261.9	263.6	274.2	282.9	296.1	303.2	311.1	308.4	303.2
15°	245.2	246.9	251.3	258.3	268.0	283.8	298.8	314.6	328.6	325.1	323.4
17.5°	249.6	248.7	249.6	253.9	266.3	282.1	307.6	326.0	346.2	346.2	348.0
20°	262.7	265.4	264.5	261.9	268.0	281.2	307.6	340.1	373.5	370.8	370.8
22.5°	285.6	286.5	281.2	279.4	278.6	286.5	312.8	357.6	396.3	401.6	399.8
25°	309.3	310.2	308.4	303.2	296.1	297.9	322.5	371.7	427.9	436.7	435.0
27.5°	348.9	348.0	343.6	337.4	326.9	319.0	337.4	382.2	452.5	467.5	463.1
30°	388.4	385.8	379.6	371.7	362.0	347.1	355.9	402.5	483.3	497.4	487.7
32.5°	436.7	431.5	433.2	420.9	400.7	377.0	375.2	420.9	507.9	528.1	520.2
35°	498.2	492.1	483.3	471.9	452.5	420.9	411.2	450.8	549.2	564.1	564.1
37.5°	579.1	585.2	574.7	527.2	506.1	476.3	456.1	481.5	585.2	621.3	612.5
40°	661.7	666.9	647.6	612.5	566.8	529.9	517.6	531.6	639.7	682.8	666.1
42.5°	728.5	735.5	728.5	682.8	646.7	599.3	577.3	590.5	710.0	761.8	739.9
45°	798.8	805.8	797.9	768.0	732.8	705.6	650.3	666.9	783.8	861.1	836.5
47.5°	851.5	860.3	846.2	840.1	811.9	807.5	713.5	732.0	861.1	961.3	930.6
50°	863.8	873.4	885.7	892.8	883.1	893.7	798.8	814.6	942.0	1053.6	1023.7
52.5°	834.8	844.4	871.7	904.2	949.0	980.6	884.9	898.0	1026.3	1130.0	1114.2
55°	749.5	758.3	813.7	857.6	964.8	1016.7	967.5	1022.8	1087.0	1210.0	1171.3
57.5°	606.3	616.9	689.8	757.5	912.1	996.5	1016.7	1126.5	1187.1	1268.9	1224.1
60°	430.6	436.7	500.0	619.5	766.2	895.4	1007.0	1203.8	1266.2	1348.0	1324.2
62.5°	247.8	253.1	319.0	431.5	578.2	747.8	964.0	1276.8	1351.5	1434.9	1421.8
65°	164.3	166.1	210.9	272.4	376.1	551.0	855.0	1341.8	1435.8	1504.4	1489.4
67.5°	108.1	117.7	152.9	195.1	240.8	304.9	696.8	1369.0	1532.5	1601.0	1597.5
70°	77.3	80.8	109.8	150.3	181.0	171.3	407.7	1176.6	1528.1	1627.4	1598.4
72.5°	45.7	49.2	72.9	112.5	142.4	109.0	190.7	832.1	1266.2	1298.7	1290.8
75°	33.4	33.4	44.8	80.8	103.7	78.2	89.6	526.4	840.9	913.0	912.1
77.5°	23.7	24.6	30.8	48.3	80.0	57.1	49.2	292.6	459.6	502.6	478.9
80°	14.1	14.9	21.1	29.0	58.0	41.3	32.5	133.6	176.6	178.4	169.6
82.5°	10.5	10.5	14.1	20.2	40.4	28.1	20.2	51.0	57.1	51.8	43.9
85°	6.2	5.3	10.5	14.9	23.7	15.8	14.1	23.7	26.4	19.3	17.6
87.5°	1.8	1.8	4.4	5.3	10.5	8.8	6.2	8.8	12.3	7.0	5.3
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):

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	268.0	268.0	268.0	268.0	268.0	268.0	268.0	268.0	268.0	268.0	268.0
2.5°	269.8	267.1	262.7	261.0	254.8	252.2	250.4	246.0	246.9	244.3	244.3
5°	267.1	267.1	258.3	248.7	239.0	232.9	225.8	217.0	217.0	213.5	214.4
7.5°	276.8	269.8	258.3	240.8	225.0	210.9	204.7	196.0	190.7	188.0	188.0
10°	282.9	275.9	256.6	235.5	215.3	197.7	184.5	172.2	165.2	165.2	164.3
12.5°	299.6	289.1	263.6	234.6	204.7	178.4	158.2	144.1	134.4	127.4	129.2
15°	313.7	302.3	267.1	227.6	186.3	149.4	124.8	98.4	85.2	78.2	75.6
17.5°	335.7	314.6	275.0	215.3	158.2	116.9	80.8	58.9	53.6	52.7	52.7
20°	354.1	329.5	275.9	191.6	130.1	74.7	51.8	48.3	45.7	44.8	43.9
22.5°	379.6	348.9	272.4	164.3	93.1	50.1	43.9	40.4	38.7	36.0	36.0
25°	406.0	374.3	265.4	138.8	57.1	43.1	38.7	35.1	31.6	29.9	30.8
27.5°	434.1	393.7	245.2	108.1	43.9	37.8	31.6	29.0	27.2	26.4	26.4
30°	456.9	406.0	215.3	72.1	39.5	33.4	28.1	25.5	23.7	22.8	22.8
32.5°	473.6	416.5	181.9	48.3	36.0	29.9	25.5	22.8	21.1	20.2	20.2
35°	501.7	424.4	151.1	41.3	32.5	26.4	22.0	20.2	18.5	18.5	18.5
37.5°	544.8	435.0	120.4	37.8	29.9	23.7	21.1	18.5	17.6	16.7	16.7
40°	582.6	448.1	86.1	34.3	27.2	22.0	18.5	16.7	15.8	14.9	14.9
42.5°	637.1	463.1	56.2	30.8	24.6	20.2	16.7	14.9	14.1	13.2	13.2
45°	706.5	487.7	43.9	27.2	22.0	18.5	15.8	14.1	12.3	12.3	11.4
47.5°	780.3	517.6	39.5	25.5	20.2	16.7	14.1	12.3	11.4	10.5	10.5
50°	848.8	546.6	36.9	23.7	18.5	15.8	13.2	11.4	9.7	8.8	8.8
52.5°	910.4	573.8	35.1	22.0	17.6	14.1	11.4	9.7	8.8	7.9	7.9
55°	942.9	586.1	34.3	21.1	15.8	13.2	10.5	8.8	7.9	7.0	7.0
57.5°	993.8	601.9	33.4	20.2	14.9	11.4	9.7	7.9	7.0	6.2	6.2
60°	1076.4	653.8	32.5	19.3	14.1	11.4	8.8	7.0	5.3	4.4	4.4
62.5°	1145.0	696.8	29.0	16.7	12.3	9.7	7.0	5.3	3.5	2.6	2.6
65°	1223.2	717.0	25.5	14.9	10.5	7.9	5.3	3.5	2.6	0.9	0.9
67.5°	1308.4	747.8	21.1	13.2	9.7	6.2	4.4	2.6	0.9	0.0	0.0
70°	1263.6	709.1	17.6	11.4	8.8	5.3	3.5	1.8	0.0	0.0	0.0
72.5°	990.3	507.9	14.1	10.5	7.9	5.3	3.5	0.9	0.0	0.0	0.0
75°	661.7	287.3	12.3	8.8	6.2	4.4	2.6	0.9	0.0	0.0	0.0
77.5°	359.4	129.2	10.5	7.9	5.3	3.5	2.6	0.9	0.0	0.0	0.0
80°	116.9	51.0	8.8	7.0	5.3	3.5	2.6	0.9	0.0	0.0	0.0
82.5°	31.6	15.8	8.8	7.0	5.3	3.5	2.6	0.9	0.0	0.0	0.0
85°	13.2	10.5	8.8	7.0	5.3	3.5	2.6	0.9	0.0	0.0	0.0
87.5°	5.3	3.5	3.5	4.4	3.5	2.6	1.8	0.9	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°	268.0	268.0	268.0	268.0	268.0	268.0	268.0	268.0	268.0	268.0	268.0
2.5°	245.2	246.9	247.8	247.8	252.2	256.6	261.9	266.3	266.3	268.9	271.5
5°	215.3	217.0	219.7	227.6	236.4	246.0	255.7	262.7	272.4	276.8	279.4
7.5°	190.7	192.4	199.5	207.4	219.7	236.4	253.1	268.9	278.6	282.9	286.5
10°	165.2	167.8	175.7	189.8	205.6	225.8	245.2	272.4	288.2	297.0	300.5
12.5°	128.3	135.3	145.9	160.8	181.0	211.8	247.8	275.9	303.2	313.7	320.7
15°	80.8	87.0	103.7	127.4	154.7	190.7	240.8	281.2	319.0	329.5	340.9
17.5°	51.8	52.7	58.0	83.5	118.6	164.3	230.2	289.1	336.5	351.5	369.1
20°	43.9	45.7	46.6	50.1	79.1	135.3	208.3	298.8	357.6	377.8	394.5
22.5°	36.9	37.8	39.5	42.2	47.5	98.4	178.4	298.8	376.1	406.0	425.3
25°	29.9	31.6	33.4	36.0	41.3	61.5	147.6	293.5	398.1	435.0	459.6
27.5°	26.4	26.4	28.1	30.8	35.1	43.1	116.9	277.7	414.8	452.5	485.1
30°	22.8	23.7	24.6	27.2	31.6	37.8	80.8	252.2	432.3	486.8	523.7
32.5°	20.2	20.2	22.0	23.7	28.1	34.3	51.8	213.5	455.2	513.2	565.0
35°	18.5	18.5	19.3	21.1	25.5	30.8	40.4	181.0	482.4	563.3	620.4
37.5°	16.7	16.7	17.6	19.3	22.8	27.2	36.9	155.5	510.5	613.3	696.8
40°	14.9	14.9	15.8	17.6	20.2	24.6	33.4	125.7	545.7	687.2	780.3
42.5°	13.2	13.2	14.1	15.8	18.5	22.0	29.0	94.0	592.3	767.1	888.4
45°	11.4	11.4	12.3	14.1	15.8	20.2	26.4	72.1	643.2	855.9	983.3
47.5°	9.7	10.5	11.4	13.2	14.9	18.5	23.7	63.3	693.3	949.9	1088.7
50°	8.8	8.8	9.7	11.4	14.1	16.7	22.0	62.4	744.3	1021.9	1196.8
52.5°	7.9	7.9	8.8	10.5	13.2	15.8	21.1	64.1	786.5	1088.7	1272.4
55°	7.0	7.0	7.9	8.8	11.4	14.9	19.3	65.9	816.3	1156.4	1333.0
57.5°	6.2	6.2	7.0	8.8	10.5	13.2	17.6	67.7	864.7	1223.2	1420.9
60°	4.4	4.4	6.2	7.9	9.7	11.4	16.7	69.4	942.0	1315.4	1495.6
62.5°	2.6	2.6	3.5	6.2	7.9	10.5	14.9	65.9	1014.0	1434.1	1609.8
65°	0.9	1.8	2.6	3.5	6.2	8.8	12.3	59.8	1074.7	1552.7	1715.3
67.5°	0.0	0.0	0.9	2.6	5.3	7.0	10.5	43.9	1084.3	1606.3	1823.3
70°	0.0	0.0	0.9	2.6	4.4	7.0	9.7	24.6	923.5	1434.9	1671.3
72.5°	0.0	0.0	0.0	1.8	4.4	6.2	8.8	18.5	681.0	1081.7	1320.7
75°	0.0	0.0	0.0	0.9	3.5	5.3	7.9	14.1	413.9	721.4	862.0
77.5°	0.0	0.0	0.0	0.9	2.6	5.3	7.9	12.3	145.9	343.6	405.1
80°	0.0	0.0	0.0	1.8	3.5	5.3	7.0	10.5	35.1	86.1	116.0
82.5°	0.0	0.0	0.0	0.9	2.6	4.4	6.2	8.8	14.1	25.5	40.4
85°	0.0	0.0	0.0	0.9	1.8	4.4	6.2	7.9	9.7	12.3	17.6
87.5°	0.0	0.0	0.0	0.0	0.9	1.8	2.6	3.5	3.5	3.5	6.2
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):

	276°	285°	295°	305°	315°	325°	335°	345°	355°	360°
0°	268.0	268.0	268.0	268.0	268.0	268.0	268.0	268.0	268.0	268.0
2.5°	270.6	274.2	275.9	279.4	281.2	280.3	279.4	282.1	280.3	277.7
5°	280.3	280.3	282.9	283.8	283.8	281.2	282.9	282.1	280.3	280.3
7.5°	290.9	295.2	295.2	290.0	289.1	287.3	287.3	280.3	277.7	280.3
10°	301.4	304.9	305.8	299.6	291.7	288.2	283.8	275.0	270.6	272.4
12.5°	323.4	323.4	313.7	306.7	296.1	283.8	273.3	261.0	254.8	256.6
15°	339.2	342.7	329.5	313.7	295.2	272.4	261.0	251.3	247.8	245.2
17.5°	369.9	362.9	341.8	319.0	292.6	268.9	261.0	252.2	249.6	249.6
20°	396.3	392.8	361.2	319.9	291.7	275.9	270.6	266.3	265.4	262.7
22.5°	432.3	416.5	376.1	329.5	301.4	287.3	285.6	290.0	287.3	285.6
25°	459.6	446.4	387.5	343.6	316.3	311.9	314.6	319.0	311.9	309.3
27.5°	496.5	471.9	409.5	362.0	336.5	340.9	349.7	350.6	346.2	348.9
30°	530.7	504.4	426.2	383.1	370.8	375.2	388.4	398.1	391.9	388.4
32.5°	580.0	539.5	459.6	418.3	413.9	425.3	440.2	446.4	438.5	436.7
35°	631.8	580.0	493.8	457.8	465.7	481.5	494.7	505.3	493.0	498.2
37.5°	712.6	645.0	551.8	520.2	523.7	529.9	554.5	583.5	589.6	579.1
40°	797.0	715.3	605.4	580.8	588.7	605.4	634.4	661.7	675.7	661.7
42.5°	894.5	782.9	688.0	659.0	666.9	690.7	729.3	751.3	749.5	728.5
45°	1014.9	877.0	765.4	729.3	758.3	779.4	818.1	820.7	804.0	798.8
47.5°	1107.2	956.0	848.8	826.0	865.5	866.4	875.2	876.1	857.6	851.5
50°	1209.1	1047.4	942.0	908.6	975.4	944.6	920.9	905.1	877.0	863.8
52.5°	1309.3	1112.5	1028.1	993.8	1063.2	981.5	938.5	890.1	848.8	834.8
55°	1362.9	1219.7	1153.8	1073.8	1082.6	992.1	884.0	823.4	753.1	749.5
57.5°	1426.2	1291.7	1260.1	1128.3	1050.1	918.3	770.6	690.7	615.1	606.3
60°	1500.8	1405.9	1372.6	1119.5	935.0	771.5	610.7	507.9	436.7	430.6
62.5°	1584.3	1541.3	1442.0	1033.4	742.5	543.0	403.3	317.2	251.3	247.8
65°	1716.1	1654.6	1478.9	869.9	491.2	348.0	268.0	205.6	166.1	164.3
67.5°	1798.7	1697.7	1396.3	620.4	272.4	230.2	188.0	149.4	115.1	108.1
70°	1681.9	1558.0	1104.5	355.0	158.2	174.9	145.0	100.2	79.1	77.3
72.5°	1343.6	1156.4	743.4	167.0	98.4	137.1	105.4	67.7	47.5	45.7
75°	916.5	727.6	466.6	77.3	69.4	100.2	77.3	39.5	33.4	33.4
77.5°	409.5	370.8	239.0	47.5	51.8	76.4	44.8	27.2	24.6	23.7
80°	124.8	130.9	97.5	32.5	38.7	58.0	27.2	18.5	14.9	14.1
82.5°	42.2	49.2	43.9	19.3	26.4	41.3	18.5	12.3	10.5	10.5
85°	20.2	24.6	22.0	12.3	14.1	20.2	14.9	9.7	6.2	6.2
87.5°	7.9	11.4	7.9	5.3	7.9	10.5	6.2	4.4	1.8	1.8
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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