

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: P676319

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

Issue Date: 04/25/2023



Test Information

Test Method: LM-79-08
Report Number: P676319
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-T2-HSS
Description: INVUE CLEAR CURVE Wall Pack MOUNT Light Square Luminaire @450mA w/
T2 distribution lens and House Side Shield
Light Source: (16) 3000K CCT, 80 CRI LEDs
Ballast/Driver: ELECTRONIC DRIVER

Summary

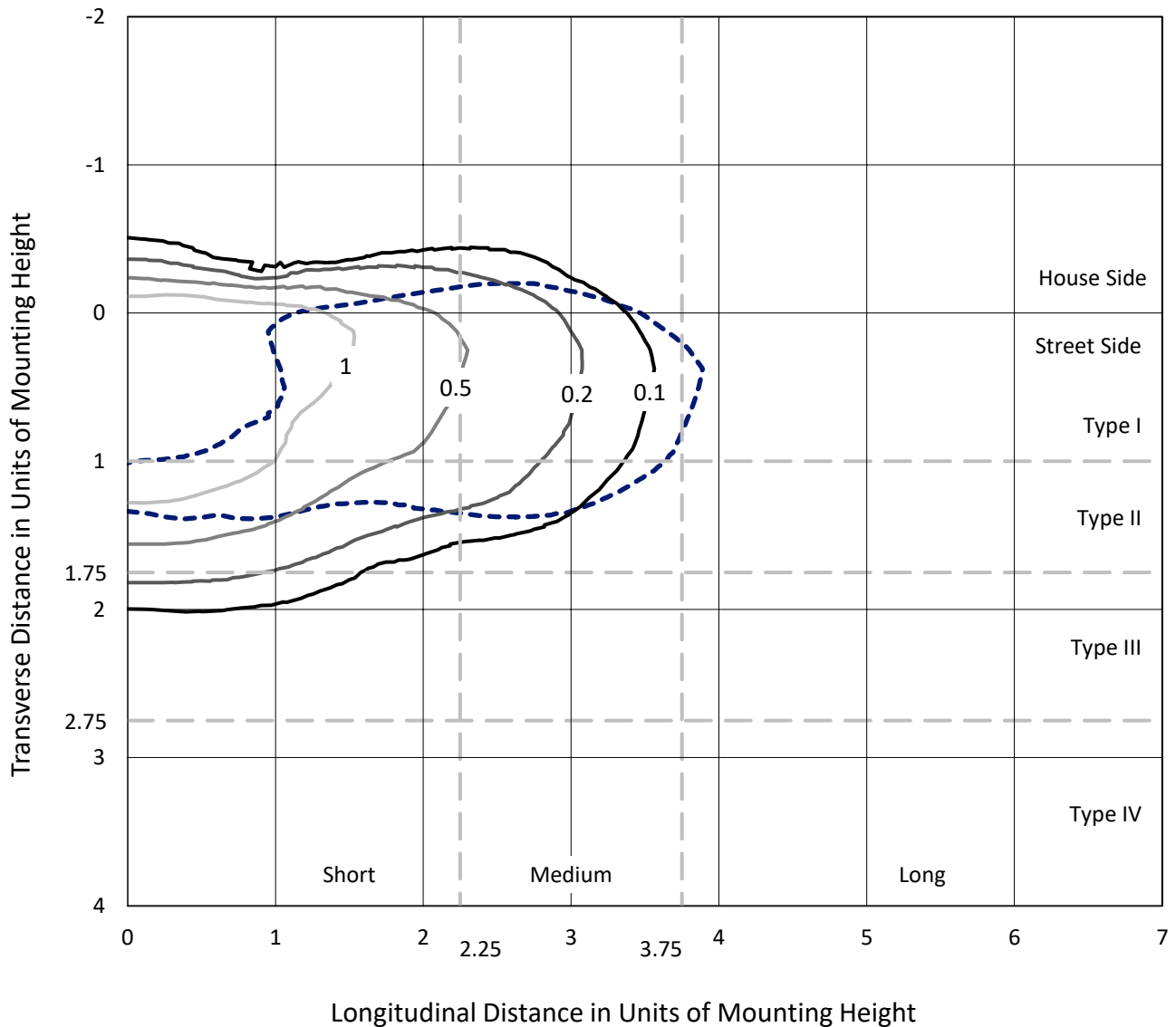
Lumens per Lamp: N/A
Luminaire Lumens: 2118.7 lumens
Efficiency: N/A
Efficacy: 88.3 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 0.5' x H: 0')
IES Classification: Type II - Short
BUG Rating: B0 - U0 - G1

Input Watts (W): 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

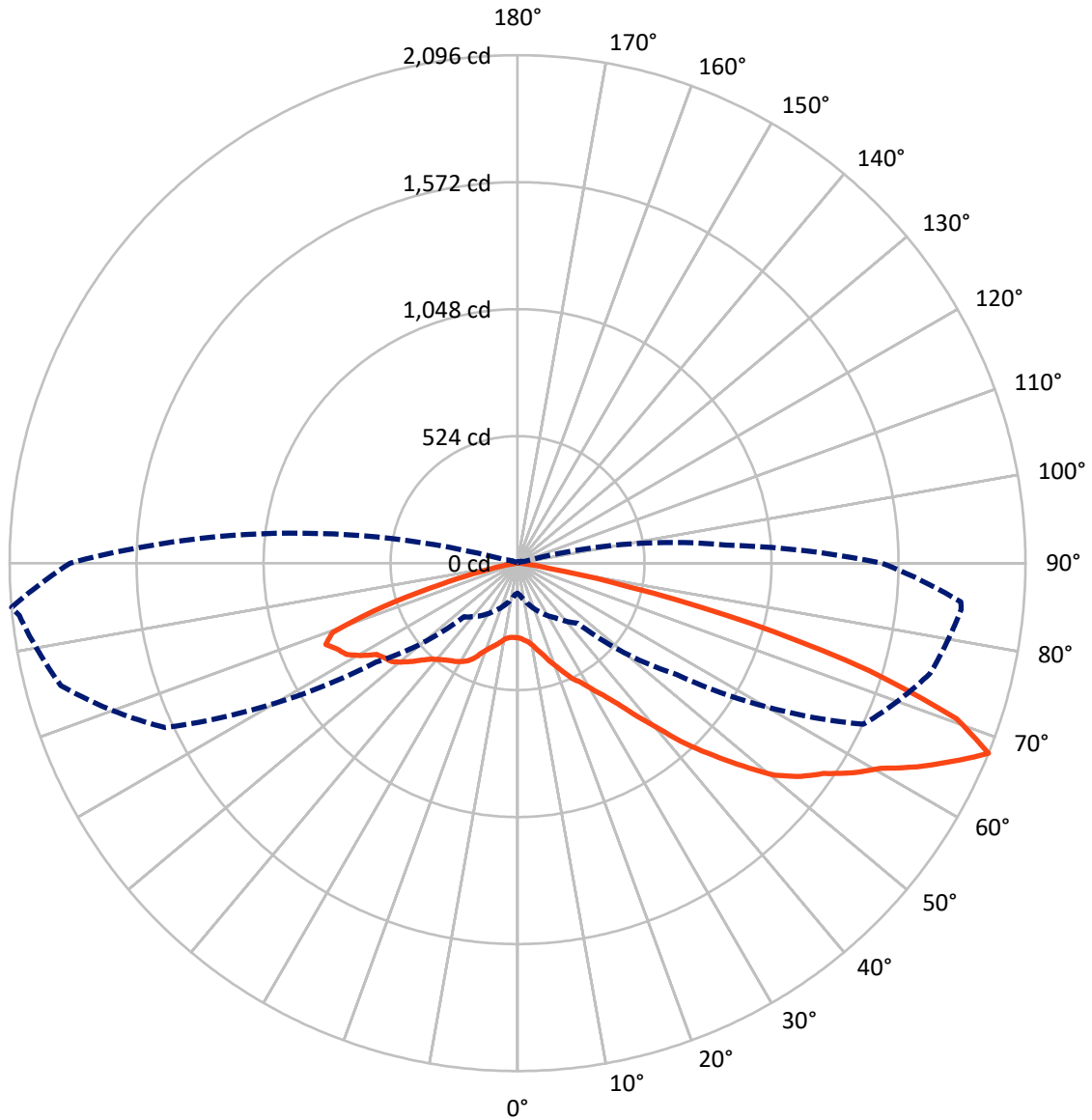
× Max cd
 - - - 1/2 Max cd



Based on 15 foot mounting height. Maximum calculated value = 1.6 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	301.0	0.0	301.0
	% Fixture	14.2	0.0	14.2
Street Side	Lumens	1817.7	0.0	1817.7
	% Fixture	85.8	0.0	85.8
Total	Lumens	2118.7	0.0	2118.7
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	28.1	1.3
10°-20°	75.5	3.6
20°-30°	125.5	5.9
30°-40°	215.8	10.2
40°-50°	387.9	18.3
50°-60°	552.2	26.1
60°-70°	503.4	23.8
70°-80°	214.4	10.1
80°-90°	16.0	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°	2118.7	100.0
0°-180°	2118.7	100.0



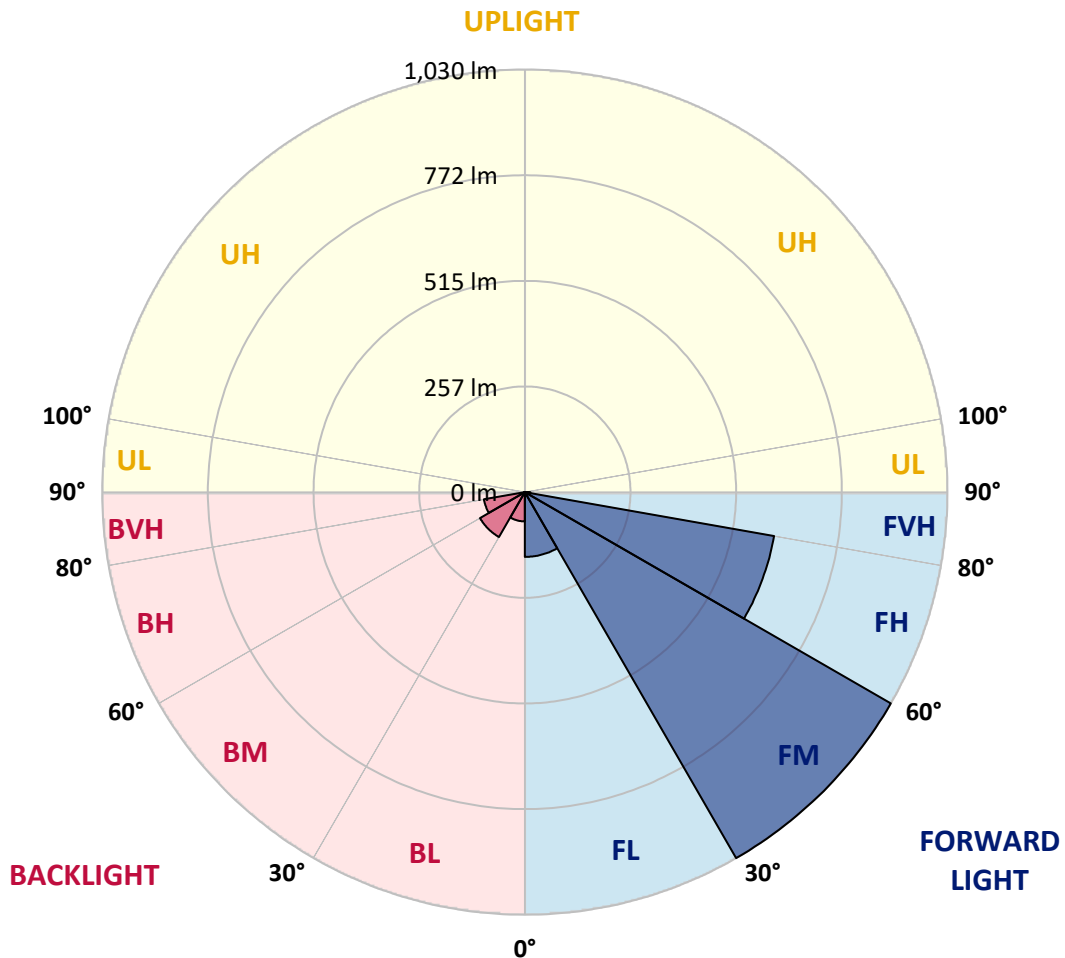
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	157.8	7.4			
FM (30°-60°)	1029.7	48.6			
FH (60°-80°)	616.6	29.1			G0/660
FVH (80°-90°)	13.6	0.6			G1/100
BL (0°-30°)	71.3	3.4	B0/110		
BM (30°-60°)	126.2	6.0	B0/220		
BH (60°-80°)	101.1	4.8	B0/110		G0/110
BVH (80°-90°)	2.4	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°	308.1	308.1	308.1	308.1	308.1	308.1	308.1	308.1	308.1	308.1	308.1
2.5°	319.2	322.2	322.2	321.2	318.2	316.2	315.2	313.1	311.1	311.1	312.1
5°	322.2	319.2	323.2	318.2	318.2	318.2	322.2	320.2	319.2	314.1	314.1
7.5°	322.2	319.2	319.2	322.2	319.2	321.2	326.3	324.2	328.3	319.2	321.2
10°	313.1	312.1	314.1	318.2	319.2	323.2	328.3	338.4	339.4	333.3	332.3
12.5°	295.0	293.9	301.0	303.0	315.2	325.3	340.4	348.5	357.6	354.5	348.5
15°	281.8	283.8	288.9	297.0	308.1	326.3	343.4	361.6	377.8	373.7	371.7
17.5°	286.9	285.9	286.9	291.9	306.1	324.2	353.5	374.8	398.0	398.0	400.0
20°	302.0	305.1	304.0	301.0	308.1	323.2	353.5	390.9	429.3	426.3	426.3
22.5°	328.3	329.3	323.2	321.2	320.2	329.3	359.6	411.1	455.6	461.6	459.6
25°	355.6	356.6	354.5	348.5	340.4	342.4	370.7	427.3	491.9	502.0	500.0
27.5°	401.0	400.0	395.0	387.9	375.8	366.7	387.9	439.4	520.2	537.4	532.3
30°	446.5	443.4	436.4	427.3	416.2	399.0	409.1	462.6	555.6	571.7	560.6
32.5°	502.0	496.0	498.0	483.8	460.6	433.3	431.3	483.8	583.8	607.1	598.0
35°	572.7	565.7	555.6	542.4	520.2	483.8	472.7	518.2	631.3	648.5	648.5
37.5°	665.7	672.7	660.6	606.1	581.8	547.5	524.2	553.5	672.7	714.1	704.0
40°	760.6	766.7	744.5	704.0	651.5	609.1	595.0	611.1	735.4	784.9	765.7
42.5°	837.4	845.5	837.4	784.9	743.4	688.9	663.6	678.8	816.2	875.8	850.5
45°	918.2	926.3	917.2	882.8	842.4	811.1	747.5	766.7	901.0	989.9	961.6
47.5°	978.8	988.9	972.7	965.7	933.3	928.3	820.2	841.4	989.9	1105.1	1069.7
50°	992.9	1004.0	1018.2	1026.3	1015.2	1027.3	918.2	936.4	1082.8	1211.1	1176.8
52.5°	959.6	970.7	1002.0	1039.4	1090.9	1127.3	1017.2	1032.3	1179.8	1299.0	1280.8
55°	861.6	871.7	935.4	985.9	1109.1	1168.7	1112.1	1175.8	1249.5	1390.9	1346.5
57.5°	697.0	709.1	792.9	870.7	1048.5	1145.5	1168.7	1295.0	1364.7	1458.6	1407.1
60°	495.0	502.0	574.8	712.1	880.8	1029.3	1157.6	1383.8	1455.6	1549.5	1522.2
62.5°	284.9	290.9	366.7	496.0	664.7	859.6	1108.1	1467.7	1553.5	1649.5	1634.4
65°	188.9	190.9	242.4	313.1	432.3	633.3	982.8	1542.4	1650.5	1729.3	1712.1
67.5°	124.2	135.4	175.8	224.2	276.8	350.5	801.0	1573.7	1761.6	1840.4	1836.4
70°	88.9	92.9	126.3	172.7	208.1	197.0	468.7	1352.5	1756.6	1870.7	1837.4
72.5°	52.5	56.6	83.8	129.3	163.6	125.3	219.2	956.6	1455.6	1492.9	1483.8
75°	38.4	38.4	51.5	92.9	119.2	89.9	103.0	605.1	966.7	1049.5	1048.5
77.5°	27.3	28.3	35.4	55.6	91.9	65.7	56.6	336.4	528.3	577.8	550.5
80°	16.2	17.2	24.2	33.3	66.7	47.5	37.4	153.5	203.0	205.1	195.0
82.5°	12.1	12.1	16.2	23.2	46.5	32.3	23.2	58.6	65.7	59.6	50.5
85°	7.1	6.1	12.1	17.2	27.3	18.2	16.2	27.3	30.3	22.2	20.2
87.5°	2.0	2.0	5.1	6.1	12.1	10.1	7.1	10.1	14.1	8.1	6.1
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):

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	308.1	308.1	308.1	308.1	308.1	308.1	308.1	308.1	308.1	308.1	308.1
2.5°	310.1	307.1	302.0	300.0	292.9	289.9	287.9	282.8	283.8	280.8	280.8
5°	307.1	307.1	297.0	285.9	274.7	267.7	259.6	249.5	249.5	245.5	246.5
7.5°	318.2	310.1	297.0	276.8	258.6	242.4	235.4	225.3	219.2	216.2	216.2
10°	325.3	317.2	295.0	270.7	247.5	227.3	212.1	198.0	189.9	189.9	188.9
12.5°	344.4	332.3	303.0	269.7	235.4	205.1	181.8	165.7	154.5	146.5	148.5
15°	360.6	347.5	307.1	261.6	214.1	171.7	143.4	113.1	98.0	89.9	86.9
17.5°	385.9	361.6	316.2	247.5	181.8	134.3	92.9	67.7	61.6	60.6	60.6
20°	407.1	378.8	317.2	220.2	149.5	85.9	59.6	55.6	52.5	51.5	50.5
22.5°	436.4	401.0	313.1	188.9	107.1	57.6	50.5	46.5	44.4	41.4	41.4
25°	466.7	430.3	305.1	159.6	65.7	49.5	44.4	40.4	36.4	34.3	35.4
27.5°	499.0	452.5	281.8	124.2	50.5	43.4	36.4	33.3	31.3	30.3	30.3
30°	525.3	466.7	247.5	82.8	45.5	38.4	32.3	29.3	27.3	26.3	26.3
32.5°	544.4	478.8	209.1	55.6	41.4	34.3	29.3	26.3	24.2	23.2	23.2
35°	576.8	487.9	173.7	47.5	37.4	30.3	25.3	23.2	21.2	21.2	21.2
37.5°	626.3	500.0	138.4	43.4	34.3	27.3	24.2	21.2	20.2	19.2	19.2
40°	669.7	515.2	99.0	39.4	31.3	25.3	21.2	19.2	18.2	17.2	17.2
42.5°	732.3	532.3	64.6	35.4	28.3	23.2	19.2	17.2	16.2	15.2	15.2
45°	812.1	560.6	50.5	31.3	25.3	21.2	18.2	16.2	14.1	14.1	13.1
47.5°	897.0	595.0	45.5	29.3	23.2	19.2	16.2	14.1	13.1	12.1	12.1
50°	975.8	628.3	42.4	27.3	21.2	18.2	15.2	13.1	11.1	10.1	10.1
52.5°	1046.5	659.6	40.4	25.3	20.2	16.2	13.1	11.1	10.1	9.1	9.1
55°	1083.8	673.7	39.4	24.2	18.2	15.2	12.1	10.1	9.1	8.1	8.1
57.5°	1142.4	691.9	38.4	23.2	17.2	13.1	11.1	9.1	8.1	7.1	7.1
60°	1237.4	751.5	37.4	22.2	16.2	13.1	10.1	8.1	6.1	5.1	5.1
62.5°	1316.2	801.0	33.3	19.2	14.1	11.1	8.1	6.1	4.0	3.0	3.0
65°	1406.1	824.2	29.3	17.2	12.1	9.1	6.1	4.0	3.0	1.0	1.0
67.5°	1504.1	859.6	24.2	15.2	11.1	7.1	5.1	3.0	1.0	0.0	0.0
70°	1452.5	815.2	20.2	13.1	10.1	6.1	4.0	2.0	0.0	0.0	0.0
72.5°	1138.4	583.8	16.2	12.1	9.1	6.1	4.0	1.0	0.0	0.0	0.0
75°	760.6	330.3	14.1	10.1	7.1	5.1	3.0	1.0	0.0	0.0	0.0
77.5°	413.1	148.5	12.1	9.1	6.1	4.0	3.0	1.0	0.0	0.0	0.0
80°	134.3	58.6	10.1	8.1	6.1	4.0	3.0	1.0	0.0	0.0	0.0
82.5°	36.4	18.2	10.1	8.1	6.1	4.0	3.0	1.0	0.0	0.0	0.0
85°	15.2	12.1	10.1	8.1	6.1	4.0	3.0	1.0	0.0	0.0	0.0
87.5°	6.1	4.0	4.0	5.1	4.0	3.0	2.0	1.0	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):

	185°	195°	205°	215°	225°	235°	245°	255°	265°	270°	275°
0°	308.1	308.1	308.1	308.1	308.1	308.1	308.1	308.1	308.1	308.1	308.1
2.5°	281.8	283.8	284.9	284.9	289.9	295.0	301.0	306.1	306.1	309.1	312.1
5°	247.5	249.5	252.5	261.6	271.7	282.8	293.9	302.0	313.1	318.2	321.2
7.5°	219.2	221.2	229.3	238.4	252.5	271.7	290.9	309.1	320.2	325.3	329.3
10°	189.9	192.9	202.0	218.2	236.4	259.6	281.8	313.1	331.3	341.4	345.5
12.5°	147.5	155.6	167.7	184.8	208.1	243.4	284.9	317.2	348.5	360.6	368.7
15°	92.9	100.0	119.2	146.5	177.8	219.2	276.8	323.2	366.7	378.8	391.9
17.5°	59.6	60.6	66.7	96.0	136.4	188.9	264.6	332.3	386.9	404.0	424.2
20°	50.5	52.5	53.5	57.6	90.9	155.6	239.4	343.4	411.1	434.3	453.5
22.5°	42.4	43.4	45.5	48.5	54.5	113.1	205.1	343.4	432.3	466.7	488.9
25°	34.3	36.4	38.4	41.4	47.5	70.7	169.7	337.4	457.6	500.0	528.3
27.5°	30.3	30.3	32.3	35.4	40.4	49.5	134.3	319.2	476.8	520.2	557.6
30°	26.3	27.3	28.3	31.3	36.4	43.4	92.9	289.9	497.0	559.6	602.0
32.5°	23.2	23.2	25.3	27.3	32.3	39.4	59.6	245.5	523.2	589.9	649.5
35°	21.2	21.2	22.2	24.2	29.3	35.4	46.5	208.1	554.5	647.5	713.1
37.5°	19.2	19.2	20.2	22.2	26.3	31.3	42.4	178.8	586.9	705.1	801.0
40°	17.2	17.2	18.2	20.2	23.2	28.3	38.4	144.4	627.3	789.9	897.0
42.5°	15.2	15.2	16.2	18.2	21.2	25.3	33.3	108.1	680.8	881.8	1021.2
45°	13.1	13.1	14.1	16.2	18.2	23.2	30.3	82.8	739.4	983.8	1130.3
47.5°	11.1	12.1	13.1	15.2	17.2	21.2	27.3	72.7	797.0	1091.9	1251.5
50°	10.1	10.1	11.1	13.1	16.2	19.2	25.3	71.7	855.6	1174.8	1375.8
52.5°	9.1	9.1	10.1	12.1	15.2	18.2	24.2	73.7	904.0	1251.5	1462.6
55°	8.1	8.1	9.1	10.1	13.1	17.2	22.2	75.8	938.4	1329.3	1532.3
57.5°	7.1	7.1	8.1	10.1	12.1	15.2	20.2	77.8	993.9	1406.1	1633.3
60°	5.1	5.1	7.1	9.1	11.1	13.1	19.2	79.8	1082.8	1512.1	1719.2
62.5°	3.0	3.0	4.0	7.1	9.1	12.1	17.2	75.8	1165.7	1648.5	1850.5
65°	1.0	2.0	3.0	4.0	7.1	10.1	14.1	68.7	1235.4	1784.9	1971.7
67.5°	0.0	0.0	1.0	3.0	6.1	8.1	12.1	50.5	1246.5	1846.5	2096.0
70°	0.0	0.0	1.0	3.0	5.1	8.1	11.1	28.3	1061.6	1649.5	1921.2
72.5°	0.0	0.0	0.0	2.0	5.1	7.1	10.1	21.2	782.8	1243.4	1518.2
75°	0.0	0.0	0.0	1.0	4.0	6.1	9.1	16.2	475.8	829.3	990.9
77.5°	0.0	0.0	0.0	1.0	3.0	6.1	9.1	14.1	167.7	395.0	465.7
80°	0.0	0.0	0.0	2.0	4.0	6.1	8.1	12.1	40.4	99.0	133.3
82.5°	0.0	0.0	0.0	1.0	3.0	5.1	7.1	10.1	16.2	29.3	46.5
85°	0.0	0.0	0.0	1.0	2.0	5.1	7.1	9.1	11.1	14.1	20.2
87.5°	0.0	0.0	0.0	0.0	1.0	2.0	3.0	4.0	4.0	4.0	7.1
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):

	276°	285°	295°	305°	315°	325°	335°	345°	355°	360°
0°	308.1	308.1	308.1	308.1	308.1	308.1	308.1	308.1	308.1	308.1
2.5°	311.1	315.2	317.2	321.2	323.2	322.2	321.2	324.2	322.2	319.2
5°	322.2	322.2	325.3	326.3	326.3	323.2	325.3	324.2	322.2	322.2
7.5°	334.3	339.4	339.4	333.3	332.3	330.3	330.3	322.2	319.2	322.2
10°	346.5	350.5	351.5	344.4	335.4	331.3	326.3	316.2	311.1	313.1
12.5°	371.7	371.7	360.6	352.5	340.4	326.3	314.1	300.0	292.9	295.0
15°	389.9	393.9	378.8	360.6	339.4	313.1	300.0	288.9	284.9	281.8
17.5°	425.3	417.2	392.9	366.7	336.4	309.1	300.0	289.9	286.9	286.9
20°	455.6	451.5	415.2	367.7	335.4	317.2	311.1	306.1	305.1	302.0
22.5°	497.0	478.8	432.3	378.8	346.5	330.3	328.3	333.3	330.3	328.3
25°	528.3	513.1	445.5	395.0	363.6	358.6	361.6	366.7	358.6	355.6
27.5°	570.7	542.4	470.7	416.2	386.9	391.9	402.0	403.0	398.0	401.0
30°	610.1	579.8	489.9	440.4	426.3	431.3	446.5	457.6	450.5	446.5
32.5°	666.7	620.2	528.3	480.8	475.8	488.9	506.1	513.1	504.0	502.0
35°	726.3	666.7	567.7	526.3	535.4	553.5	568.7	580.8	566.7	572.7
37.5°	819.2	741.4	634.3	598.0	602.0	609.1	637.4	670.7	677.8	665.7
40°	916.2	822.2	696.0	667.7	676.8	696.0	729.3	760.6	776.8	760.6
42.5°	1028.3	900.0	790.9	757.6	766.7	793.9	838.4	863.6	861.6	837.4
45°	1166.7	1008.1	879.8	838.4	871.7	896.0	940.4	943.4	924.2	918.2
47.5°	1272.7	1099.0	975.8	949.5	995.0	996.0	1006.1	1007.1	985.9	978.8
50°	1389.9	1204.0	1082.8	1044.5	1121.2	1085.9	1058.6	1040.4	1008.1	992.9
52.5°	1505.1	1278.8	1181.8	1142.4	1222.2	1128.3	1078.8	1023.2	975.8	959.6
55°	1566.7	1402.0	1326.3	1234.4	1244.5	1140.4	1016.2	946.5	865.7	861.6
57.5°	1639.4	1484.9	1448.5	1297.0	1207.1	1055.6	885.9	793.9	707.1	697.0
60°	1725.3	1616.2	1577.8	1286.9	1074.8	886.9	702.0	583.8	502.0	495.0
62.5°	1821.2	1771.7	1657.6	1187.9	853.5	624.2	463.6	364.6	288.9	284.9
65°	1972.7	1902.0	1700.0	1000.0	564.7	400.0	308.1	236.4	190.9	188.9
67.5°	2067.7	1951.5	1605.1	713.1	313.1	264.6	216.2	171.7	132.3	124.2
70°	1933.3	1790.9	1269.7	408.1	181.8	201.0	166.7	115.2	90.9	88.9
72.5°	1544.5	1329.3	854.6	191.9	113.1	157.6	121.2	77.8	54.5	52.5
75°	1053.5	836.4	536.4	88.9	79.8	115.2	88.9	45.5	38.4	38.4
77.5°	470.7	426.3	274.7	54.5	59.6	87.9	51.5	31.3	28.3	27.3
80°	143.4	150.5	112.1	37.4	44.4	66.7	31.3	21.2	17.2	16.2
82.5°	48.5	56.6	50.5	22.2	30.3	47.5	21.2	14.1	12.1	12.1
85°	23.2	28.3	25.3	14.1	16.2	23.2	17.2	11.1	7.1	7.1
87.5°	9.1	13.1	9.1	6.1	9.1	12.1	7.1	5.1	2.0	2.0
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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