

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: P676347

Luminaire Tested: **CCW-SA-2B-840-U-T2-HSS**

Issue Date: 04/25/2023



Test Information

Test Method: LM-79-08
Report Number: P676347
Test Lab: INNOVATION CENTER(G1)
Issue Date: 04/25/2023
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: INVUE
Catalog Number: CCW-SA-2B-840-U-T2-HSS
Description: INVUE CLEAR CURVE Wall Pack MOUNT Light Square Luminaire @450mA w/
T2 distribution lens and House Side Shield
Light Source: (32) 4000K CCT, 80 CRI LEDs
Ballast/Driver: ELECTRONIC DRIVER

Summary

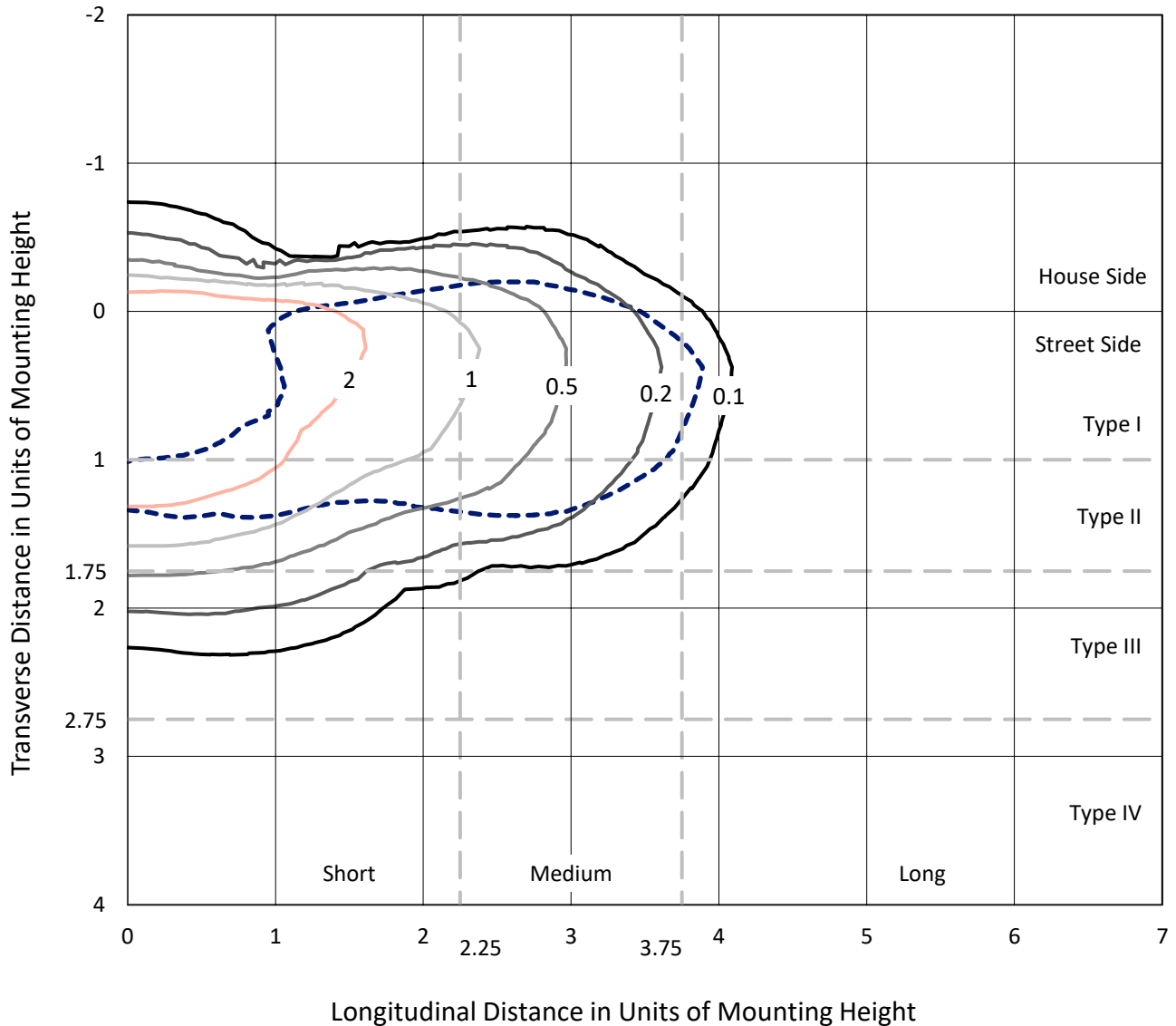
Lumens per Lamp: N/A
Luminaire Lumens: 4545.9 lumens
Efficiency: N/A
Efficacy: 98.8 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')
IES Classification: Type II - Short
BUG Rating: B1 - U0 - G1

Input Watts (W): 46
Input Voltage (V): 120
Input Current (A_{in}): 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

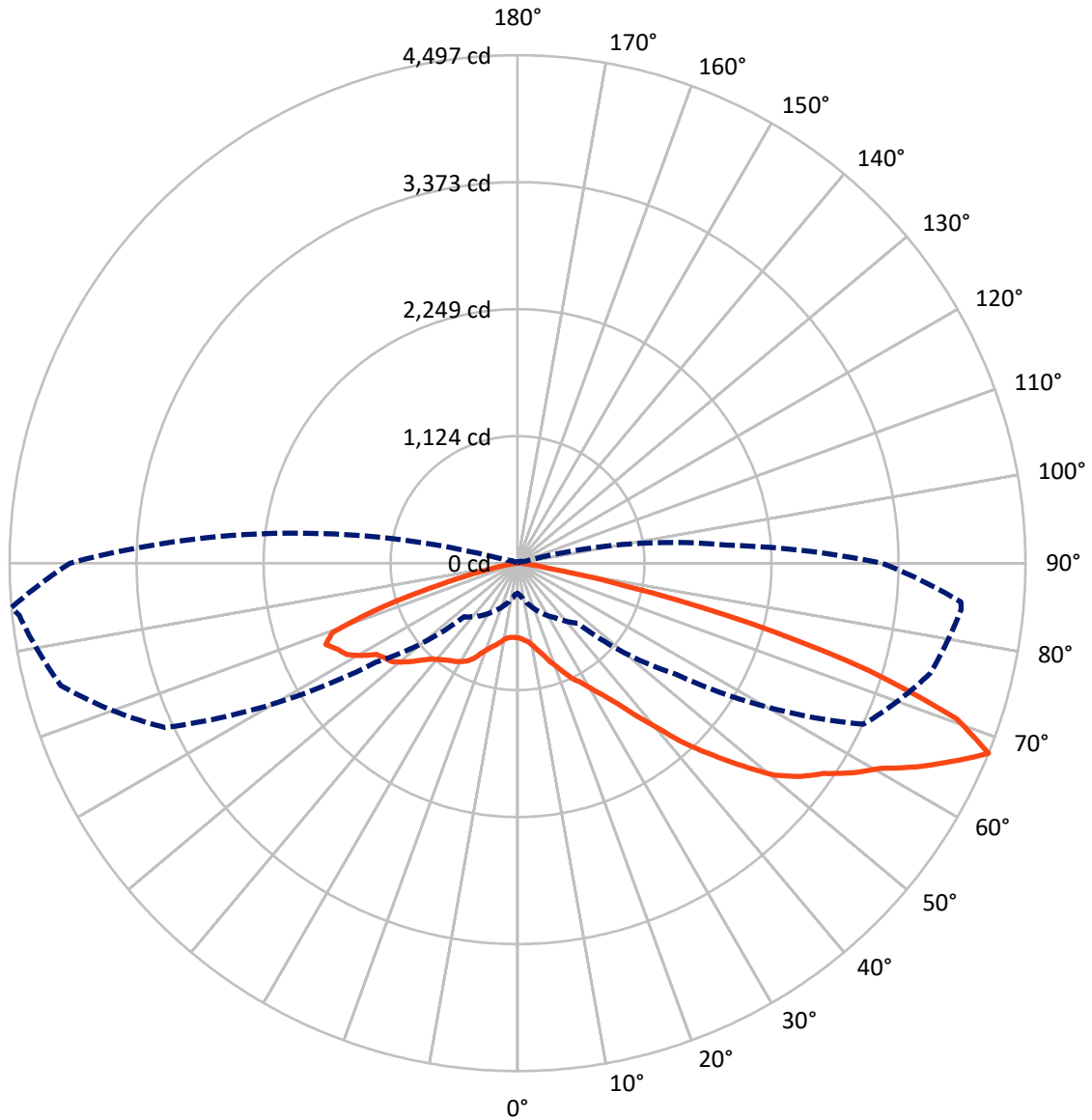
× Max cd
 - - - 1/2 Max cd



Based on 15 foot mounting height. Maximum calculated value = 3.5 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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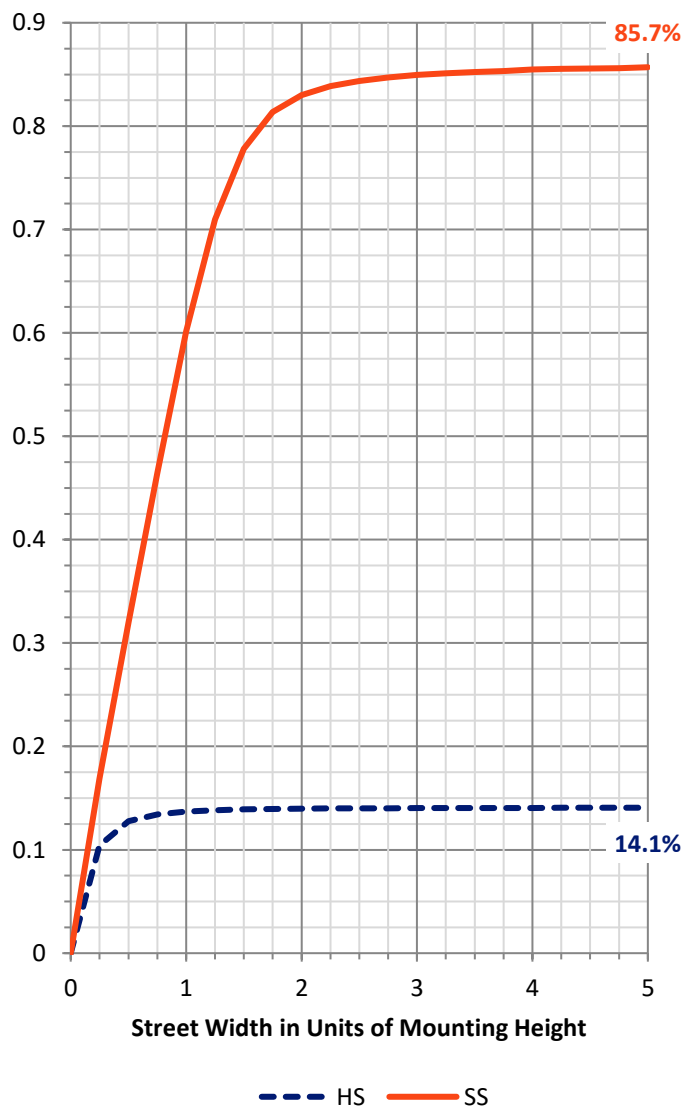
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	645.8	0.0	645.8
	% Fixture	14.2	0.0	14.2
Street Side	Lumens	3900.1	0.0	3900.1
	% Fixture	85.8	0.0	85.8
Total	Lumens	4545.9	0.0	4545.9
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	60.3	1.3
10°-20°	162.1	3.6
20°-30°	269.2	5.9
30°-40°	463.1	10.2
40°-50°	832.2	18.3
50°-60°	1184.8	26.1
60°-70°	1080.1	23.8
70°-80°	459.9	10.1
80°-90°	34.2	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°	4545.9	100.0
0°-180°	4545.9	100.0



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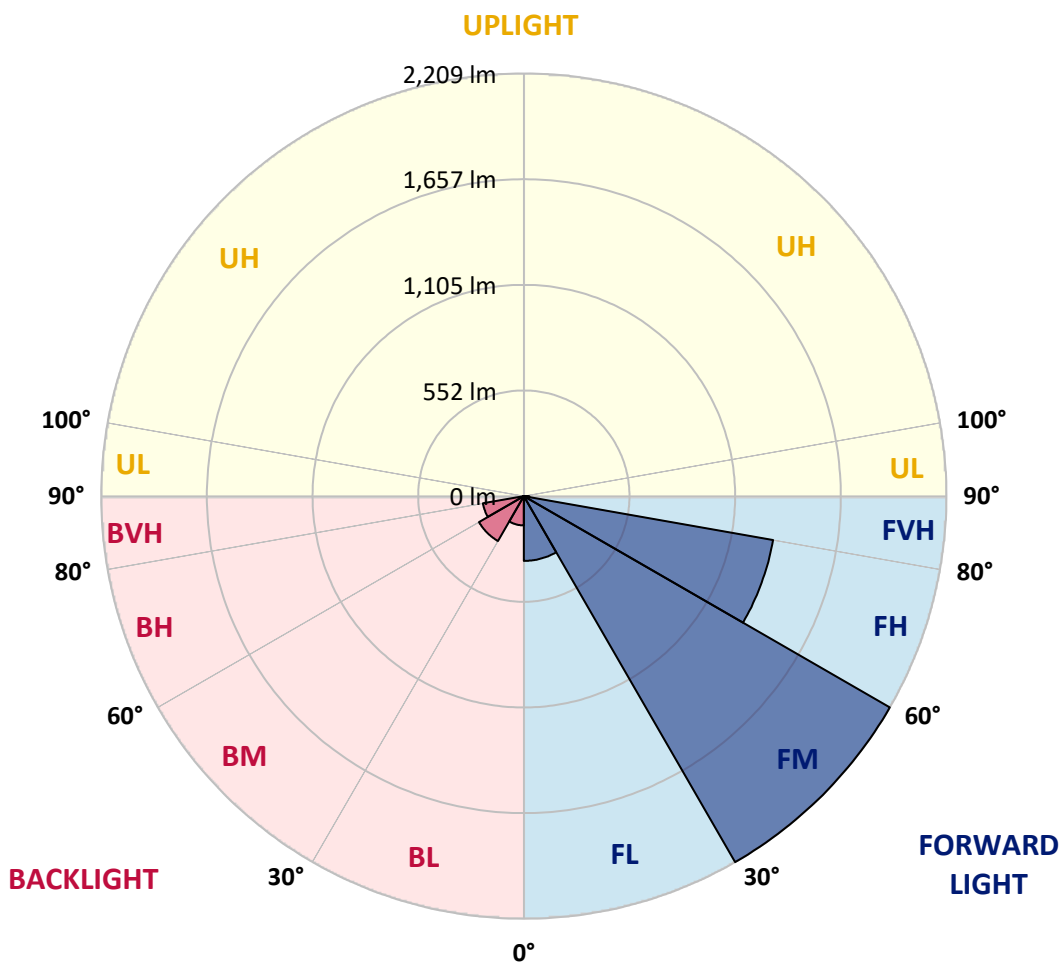
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	338.7	7.4			
FM (30°-60°)	2209.3	48.6			
FH (60°-80°)	1323.1	29.1			G1/1800
FVH (80°-90°)	29.1	0.6			G1/100
BL (0°-30°)	152.9	3.4	B1/500		
BM (30°-60°)	270.8	6.0	B1/1000		
BH (60°-80°)	217.0	4.8	B1/500		G1/500
BVH (80°-90°)	5.2	0.1			G0/10
UL (90°-100°)	0.0	0.0		U0/0	
UH (100°-180°)	0.0	0.0		U0/0	

BUG Rating: B1-U0-G1

Type II Short





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	75°	84°	85°
0°	661.0	661.0	661.0	661.0	661.0	661.0	661.0	661.0	661.0	661.0	661.0
2.5°	684.9	691.4	691.4	689.2	682.7	678.4	676.2	671.9	667.5	667.5	669.7
5°	691.4	684.9	693.6	682.7	682.7	682.7	691.4	687.1	684.9	674.1	674.1
7.5°	691.4	684.9	684.9	691.4	684.9	689.2	700.1	695.7	704.4	684.9	689.2
10°	671.9	669.7	674.1	682.7	684.9	693.6	704.4	726.1	728.2	715.2	713.1
12.5°	632.9	630.7	645.9	650.2	676.2	697.9	730.4	747.7	767.2	760.7	747.7
15°	604.7	609.0	619.9	637.2	661.0	700.1	736.9	775.9	810.6	801.9	797.6
17.5°	615.5	613.4	615.5	626.4	656.7	695.7	758.6	804.1	853.9	853.9	858.3
20°	648.0	654.5	652.4	645.9	661.0	693.6	758.6	838.8	921.1	914.6	914.6
22.5°	704.4	706.6	693.6	689.2	687.1	706.6	771.6	882.1	977.5	990.5	986.2
25°	762.9	765.1	760.7	747.7	730.4	734.7	795.4	916.8	1055.5	1077.2	1072.8
27.5°	860.4	858.3	847.4	832.3	806.3	786.8	832.3	942.8	1116.2	1153.0	1142.2
30°	958.0	951.5	936.3	916.8	893.0	856.1	877.8	992.7	1192.1	1226.7	1202.9
32.5°	1077.2	1064.2	1068.5	1038.2	988.3	929.8	925.5	1038.2	1252.7	1302.6	1283.1
35°	1228.9	1213.7	1192.1	1163.9	1116.2	1038.2	1014.3	1111.9	1354.6	1391.4	1391.4
37.5°	1428.3	1443.5	1417.5	1300.4	1248.4	1174.7	1124.9	1187.7	1443.5	1532.3	1510.7
40°	1632.0	1645.0	1597.3	1510.7	1397.9	1306.9	1276.6	1311.3	1577.8	1684.0	1642.9
42.5°	1796.7	1814.1	1796.7	1684.0	1595.2	1478.1	1424.0	1456.5	1751.2	1879.1	1824.9
45°	1970.1	1987.5	1968.0	1894.3	1807.6	1740.4	1603.8	1645.0	1933.3	2124.0	2063.3
47.5°	2100.2	2121.8	2087.2	2072.0	2002.6	1991.8	1759.9	1805.4	2124.0	2371.1	2295.2
50°	2130.5	2154.4	2184.7	2202.0	2178.2	2204.2	1970.1	2009.1	2323.4	2598.7	2525.0
52.5°	2059.0	2082.8	2150.0	2230.2	2340.8	2418.8	2182.5	2215.0	2531.5	2787.2	2748.2
55°	1848.8	1870.4	2007.0	2115.3	2379.8	2507.6	2386.3	2522.8	2681.0	2984.5	2889.1
57.5°	1495.5	1521.5	1701.4	1868.3	2249.7	2457.8	2507.6	2778.6	2928.1	3129.7	3019.1
60°	1062.0	1077.2	1233.2	1528.0	1889.9	2208.5	2483.8	2969.3	3123.2	3324.7	3266.2
62.5°	611.2	624.2	786.8	1064.2	1426.1	1844.4	2377.6	3149.2	3333.4	3539.3	3506.8
65°	405.3	409.6	520.2	671.9	927.6	1358.9	2108.8	3309.6	3541.5	3710.5	3673.7
67.5°	266.6	290.4	377.1	481.2	593.9	752.1	1718.7	3376.8	3779.9	3948.9	3940.3
70°	190.7	199.4	270.9	370.6	446.5	422.6	1005.7	2902.1	3769.0	4014.0	3942.4
72.5°	112.7	121.4	179.9	277.4	351.1	268.8	470.3	2052.5	3123.2	3203.4	3183.9
75°	82.4	82.4	110.5	199.4	255.7	192.9	221.1	1298.3	2074.2	2251.9	2249.7
77.5°	58.5	60.7	75.9	119.2	197.2	140.9	121.4	721.7	1133.5	1239.7	1181.2
80°	34.7	36.8	52.0	71.5	143.0	101.9	80.2	329.4	435.6	440.0	418.3
82.5°	26.0	26.0	34.7	49.8	99.7	69.4	49.8	125.7	140.9	127.9	108.4
85°	15.2	13.0	26.0	36.8	58.5	39.0	34.7	58.5	65.0	47.7	43.3
87.5°	4.3	4.3	10.8	13.0	26.0	21.7	15.2	21.7	30.3	17.3	13.0
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):

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	661.0	661.0	661.0	661.0	661.0	661.0	661.0	661.0	661.0	661.0	661.0
2.5°	665.4	658.9	648.0	643.7	628.5	622.0	617.7	606.9	609.0	602.5	602.5
5°	658.9	658.9	637.2	613.4	589.5	574.4	557.0	535.3	535.3	526.7	528.8
7.5°	682.7	665.4	637.2	593.9	554.8	520.2	505.0	483.3	470.3	463.8	463.8
10°	697.9	680.6	632.9	580.9	531.0	487.7	455.1	424.8	407.5	407.5	405.3
12.5°	739.1	713.1	650.2	578.7	505.0	440.0	390.1	355.4	331.6	314.3	318.6
15°	773.7	745.6	658.9	561.3	459.5	368.5	307.8	242.7	210.2	192.9	186.4
17.5°	827.9	775.9	678.4	531.0	390.1	288.3	199.4	145.2	132.2	130.0	130.0
20°	873.4	812.8	680.6	472.5	320.8	184.2	127.9	119.2	112.7	110.5	108.4
22.5°	936.3	860.4	671.9	405.3	229.7	123.5	108.4	99.7	95.4	88.9	88.9
25°	1001.3	923.3	654.5	342.4	140.9	106.2	95.4	86.7	78.0	73.7	75.9
27.5°	1070.7	971.0	604.7	266.6	108.4	93.2	78.0	71.5	67.2	65.0	65.0
30°	1127.0	1001.3	531.0	177.7	97.5	82.4	69.4	62.9	58.5	56.4	56.4
32.5°	1168.2	1027.3	448.6	119.2	88.9	73.7	62.9	56.4	52.0	49.8	49.8
35°	1237.6	1046.8	372.8	101.9	80.2	65.0	54.2	49.8	45.5	45.5	45.5
37.5°	1343.8	1072.8	296.9	93.2	73.7	58.5	52.0	45.5	43.3	41.2	41.2
40°	1437.0	1105.4	212.4	84.5	67.2	54.2	45.5	41.2	39.0	36.8	36.8
42.5°	1571.3	1142.2	138.7	75.9	60.7	49.8	41.2	36.8	34.7	32.5	32.5
45°	1742.6	1202.9	108.4	67.2	54.2	45.5	39.0	34.7	30.3	30.3	28.2
47.5°	1924.6	1276.6	97.5	62.9	49.8	41.2	34.7	30.3	28.2	26.0	26.0
50°	2093.7	1348.1	91.0	58.5	45.5	39.0	32.5	28.2	23.8	21.7	21.7
52.5°	2245.4	1415.3	86.7	54.2	43.3	34.7	28.2	23.8	21.7	19.5	19.5
55°	2325.6	1445.6	84.5	52.0	39.0	32.5	26.0	21.7	19.5	17.3	17.3
57.5°	2451.3	1484.6	82.4	49.8	36.8	28.2	23.8	19.5	17.3	15.2	15.2
60°	2655.0	1612.5	80.2	47.7	34.7	28.2	21.7	17.3	13.0	10.8	10.8
62.5°	2824.1	1718.7	71.5	41.2	30.3	23.8	17.3	13.0	8.7	6.5	6.5
65°	3017.0	1768.6	62.9	36.8	26.0	19.5	13.0	8.7	6.5	2.2	2.2
67.5°	3227.2	1844.4	52.0	32.5	23.8	15.2	10.8	6.5	2.2	0.0	0.0
70°	3116.7	1749.1	43.3	28.2	21.7	13.0	8.7	4.3	0.0	0.0	0.0
72.5°	2442.6	1252.7	34.7	26.0	19.5	13.0	8.7	2.2	0.0	0.0	0.0
75°	1632.0	708.7	30.3	21.7	15.2	10.8	6.5	2.2	0.0	0.0	0.0
77.5°	886.5	318.6	26.0	19.5	13.0	8.7	6.5	2.2	0.0	0.0	0.0
80°	288.3	125.7	21.7	17.3	13.0	8.7	6.5	2.2	0.0	0.0	0.0
82.5°	78.0	39.0	21.7	17.3	13.0	8.7	6.5	2.2	0.0	0.0	0.0
85°	32.5	26.0	21.7	17.3	13.0	8.7	6.5	2.2	0.0	0.0	0.0
87.5°	13.0	8.7	8.7	10.8	8.7	6.5	4.3	2.2	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°	661.0	661.0	661.0	661.0	661.0	661.0	661.0	661.0	661.0	661.0	661.0
2.5°	604.7	609.0	611.2	611.2	622.0	632.9	645.9	656.7	656.7	663.2	669.7
5°	531.0	535.3	541.8	561.3	583.0	606.9	630.7	648.0	671.9	682.7	689.2
7.5°	470.3	474.7	492.0	511.5	541.8	583.0	624.2	663.2	687.1	697.9	706.6
10°	407.5	414.0	433.5	468.2	507.2	557.0	604.7	671.9	710.9	732.6	741.2
12.5°	316.4	333.8	359.8	396.6	446.5	522.3	611.2	680.6	747.7	773.7	791.1
15°	199.4	214.6	255.7	314.3	381.5	470.3	593.9	693.6	786.8	812.8	840.9
17.5°	127.9	130.0	143.0	205.9	292.6	405.3	567.8	713.1	830.1	866.9	910.3
20°	108.4	112.7	114.9	123.5	195.1	333.8	513.7	736.9	882.1	932.0	973.1
22.5°	91.0	93.2	97.5	104.0	117.0	242.7	440.0	736.9	927.6	1001.3	1049.0
25°	73.7	78.0	82.4	88.9	101.9	151.7	364.1	723.9	981.8	1072.8	1133.5
27.5°	65.0	65.0	69.4	75.9	86.7	106.2	288.3	684.9	1023.0	1116.2	1196.4
30°	56.4	58.5	60.7	67.2	78.0	93.2	199.4	622.0	1066.3	1200.7	1291.7
32.5°	49.8	49.8	54.2	58.5	69.4	84.5	127.9	526.7	1122.7	1265.7	1393.6
35°	45.5	45.5	47.7	52.0	62.9	75.9	99.7	446.5	1189.9	1389.3	1530.2
37.5°	41.2	41.2	43.3	47.7	56.4	67.2	91.0	383.6	1259.2	1512.8	1718.7
40°	36.8	36.8	39.0	43.3	49.8	60.7	82.4	309.9	1345.9	1694.9	1924.6
42.5°	32.5	32.5	34.7	39.0	45.5	54.2	71.5	231.9	1460.8	1892.1	2191.2
45°	28.2	28.2	30.3	34.7	39.0	49.8	65.0	177.7	1586.5	2111.0	2425.3
47.5°	23.8	26.0	28.2	32.5	36.8	45.5	58.5	156.1	1710.1	2342.9	2685.4
50°	21.7	21.7	23.8	28.2	34.7	41.2	54.2	153.9	1835.8	2520.6	2951.9
52.5°	19.5	19.5	21.7	26.0	32.5	39.0	52.0	158.2	1939.8	2685.4	3138.3
55°	17.3	17.3	19.5	21.7	28.2	36.8	47.7	162.6	2013.5	2852.3	3287.9
57.5°	15.2	15.2	17.3	21.7	26.0	32.5	43.3	166.9	2132.7	3017.0	3504.6
60°	10.8	10.8	15.2	19.5	23.8	28.2	41.2	171.2	2323.4	3244.5	3688.9
62.5°	6.5	6.5	8.7	15.2	19.5	26.0	36.8	162.6	2501.1	3537.1	3970.6
65°	2.2	4.3	6.5	8.7	15.2	21.7	30.3	147.4	2650.7	3829.7	4230.7
67.5°	0.0	0.0	2.2	6.5	13.0	17.3	26.0	108.4	2674.5	3961.9	4497.3
70°	0.0	0.0	2.2	6.5	10.8	17.3	23.8	60.7	2277.9	3539.3	4122.3
72.5°	0.0	0.0	0.0	4.3	10.8	15.2	21.7	45.5	1679.7	2668.0	3257.5
75°	0.0	0.0	0.0	2.2	8.7	13.0	19.5	34.7	1020.8	1779.4	2126.2
77.5°	0.0	0.0	0.0	2.2	6.5	13.0	19.5	30.3	359.8	847.4	999.2
80°	0.0	0.0	0.0	4.3	8.7	13.0	17.3	26.0	86.7	212.4	286.1
82.5°	0.0	0.0	0.0	2.2	6.5	10.8	15.2	21.7	34.7	62.9	99.7
85°	0.0	0.0	0.0	2.2	4.3	10.8	15.2	19.5	23.8	30.3	43.3
87.5°	0.0	0.0	0.0	0.0	2.2	4.3	6.5	8.7	8.7	8.7	15.2
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°	661.0	661.0	661.0	661.0	661.0	661.0	661.0	661.0	661.0	661.0
2.5°	667.5	676.2	680.6	689.2	693.6	691.4	689.2	695.7	691.4	684.9
5°	691.4	691.4	697.9	700.1	700.1	693.6	697.9	695.7	691.4	691.4
7.5°	717.4	728.2	728.2	715.2	713.1	708.7	708.7	691.4	684.9	691.4
10°	743.4	752.1	754.2	739.1	719.6	710.9	700.1	678.4	667.5	671.9
12.5°	797.6	797.6	773.7	756.4	730.4	700.1	674.1	643.7	628.5	632.9
15°	836.6	845.3	812.8	773.7	728.2	671.9	643.7	619.9	611.2	604.7
17.5°	912.5	895.1	843.1	786.8	721.7	663.2	643.7	622.0	615.5	615.5
20°	977.5	968.8	890.8	788.9	719.6	680.6	667.5	656.7	654.5	648.0
22.5°	1066.3	1027.3	927.6	812.8	743.4	708.7	704.4	715.2	708.7	704.4
25°	1133.5	1101.0	955.8	847.4	780.3	769.4	775.9	786.8	769.4	762.9
27.5°	1224.6	1163.9	1010.0	893.0	830.1	840.9	862.6	864.8	853.9	860.4
30°	1309.1	1244.1	1051.2	945.0	914.6	925.5	958.0	981.8	966.6	958.0
32.5°	1430.5	1330.8	1133.5	1031.7	1020.8	1049.0	1085.8	1101.0	1081.5	1077.2
35°	1558.3	1430.5	1218.1	1129.2	1148.7	1187.7	1220.2	1246.2	1215.9	1228.9
37.5°	1757.7	1590.8	1361.1	1283.1	1291.7	1306.9	1367.6	1439.1	1454.3	1428.3
40°	1965.8	1764.2	1493.3	1432.6	1452.1	1493.3	1564.8	1632.0	1666.7	1632.0
42.5°	2206.4	1931.1	1697.0	1625.5	1645.0	1703.5	1798.9	1853.1	1848.8	1796.7
45°	2503.3	2163.0	1887.8	1798.9	1870.4	1922.5	2017.8	2024.3	1983.1	1970.1
47.5°	2730.9	2358.1	2093.7	2037.3	2134.9	2137.0	2158.7	2160.9	2115.3	2100.2
50°	2982.3	2583.5	2323.4	2241.1	2405.8	2329.9	2271.4	2232.4	2163.0	2130.5
52.5°	3229.4	2743.9	2535.8	2451.3	2622.5	2420.9	2314.7	2195.5	2093.7	2059.0
55°	3361.6	3008.3	2845.7	2648.5	2670.2	2447.0	2180.4	2030.8	1857.4	1848.8
57.5°	3517.6	3186.0	3108.0	2782.9	2590.0	2264.9	1900.8	1703.5	1517.2	1495.5
60°	3701.9	3467.8	3385.4	2761.2	2306.1	1902.9	1506.3	1252.7	1077.2	1062.0
62.5°	3907.8	3801.6	3556.6	2548.8	1831.4	1339.4	994.8	782.4	619.9	611.2
65°	4232.9	4081.1	3647.7	2145.7	1211.6	858.3	661.0	507.2	409.6	405.3
67.5°	4436.6	4187.3	3443.9	1530.2	671.9	567.8	463.8	368.5	283.9	266.6
70°	4148.3	3842.7	2724.4	875.6	390.1	431.3	357.6	247.1	195.1	190.7
72.5°	3313.9	2852.3	1833.6	411.8	242.7	338.1	260.1	166.9	117.0	112.7
75°	2260.6	1794.6	1150.9	190.7	171.2	247.1	190.7	97.5	82.4	82.4
77.5°	1010.0	914.6	589.5	117.0	127.9	188.6	110.5	67.2	60.7	58.5
80°	307.8	322.9	240.6	80.2	95.4	143.0	67.2	45.5	36.8	34.7
82.5°	104.0	121.4	108.4	47.7	65.0	101.9	45.5	30.3	26.0	26.0
85°	49.8	60.7	54.2	30.3	34.7	49.8	36.8	23.8	15.2	15.2
87.5°	19.5	28.2	19.5	13.0	19.5	26.0	15.2	10.8	4.3	4.3
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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