

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: P676358

Luminaire Tested: **CCW-SA-2B-850-U-T2-HSS**

Issue Date: 04/25/2023



Test Information

Test Method: LM-79-08
Report Number: P676358
Test Lab: INNOVATION CENTER(G1)
Issue Date: 04/25/2023
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: INVUE
Catalog Number: CCW-SA-2B-850-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) 5000K CCT, 80 CRI LEDs
Ballast/Driver: ELECTRONIC DRIVER

Summary

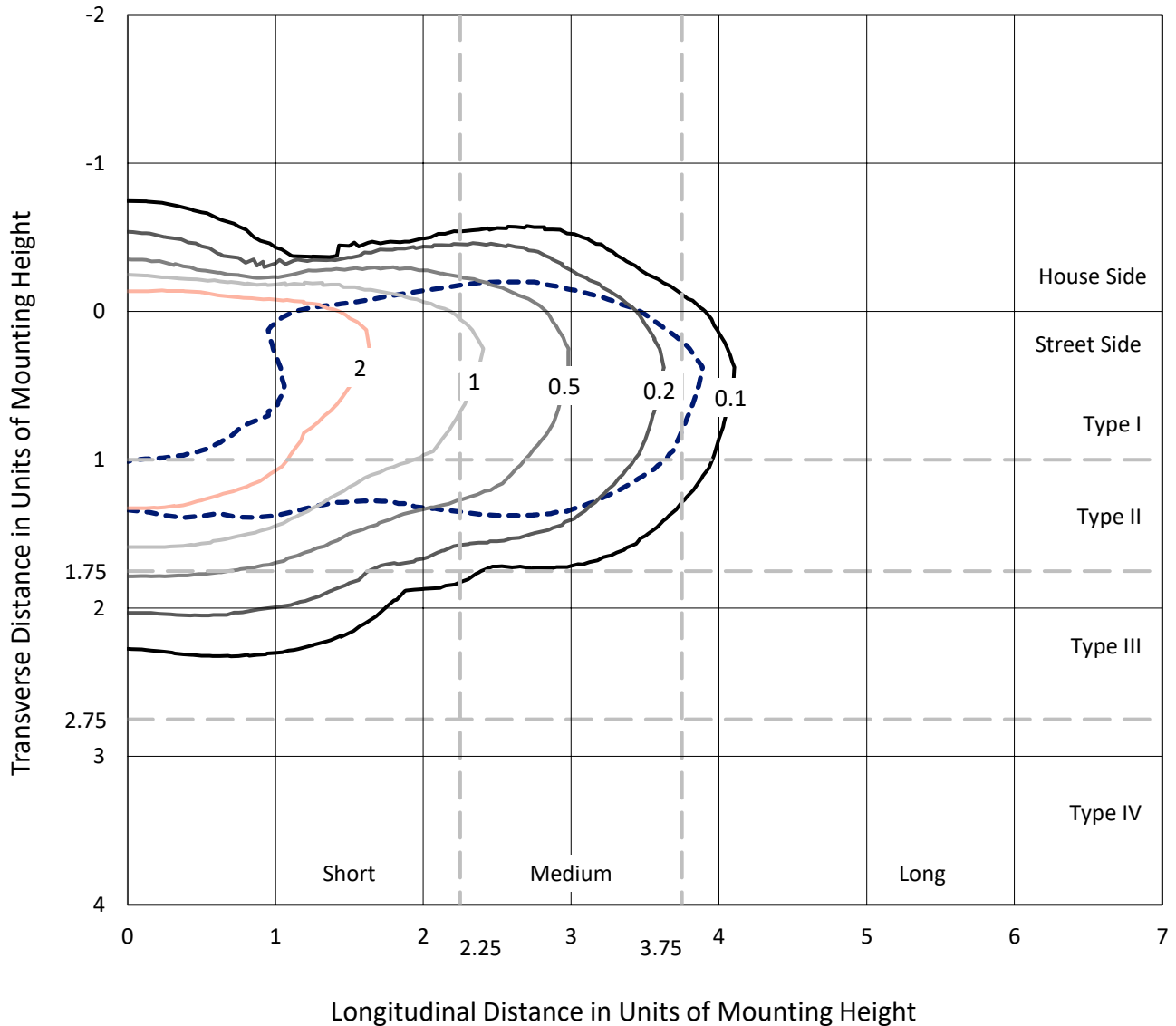
Lumens per Lamp: N/A
Luminaire Lumens: 4652.6 lumens
Efficiency: N/A
Efficacy: 101.1 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')
IES Classification: Type II - Short
BUG Rating: B1 - U0 - G1

Input Watts (W): 46
Input Voltage (V): 120
Input Current (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

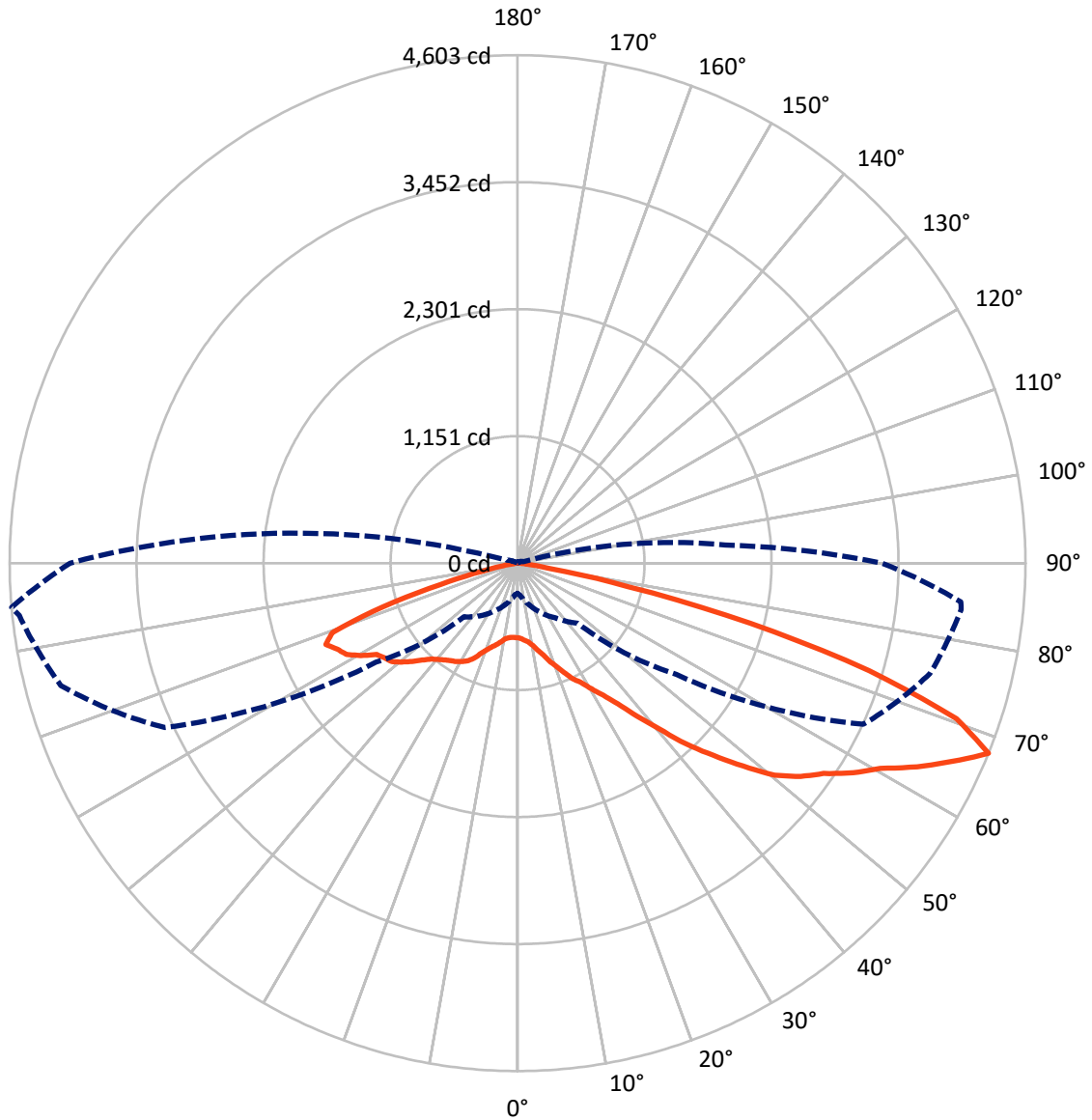
× Max cd
 - - - 1/2 Max cd



Based on 15 foot mounting height. Maximum calculated value = 3.6 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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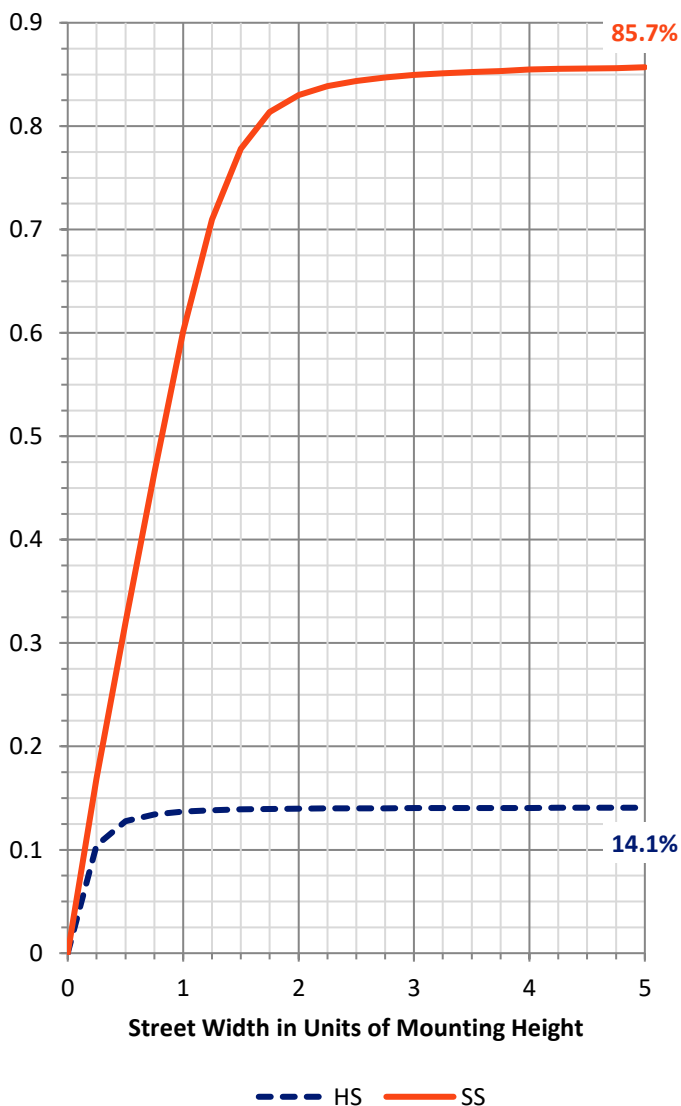
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	661.0	0.0	661.0
	% Fixture	14.2	0.0	14.2
Street Side	Lumens	3991.6	0.0	3991.6
	% Fixture	85.8	0.0	85.8
Total	Lumens	4652.6	0.0	4652.6
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	61.7	1.3
10°-20°	165.9	3.6
20°-30°	275.5	5.9
30°-40°	474.0	10.2
40°-50°	851.7	18.3
50°-60°	1212.6	26.1
60°-70°	1105.5	23.8
70°-80°	470.7	10.1
80°-90°	35.0	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°	4652.6	100.0
0°-180°	4652.6	100.0

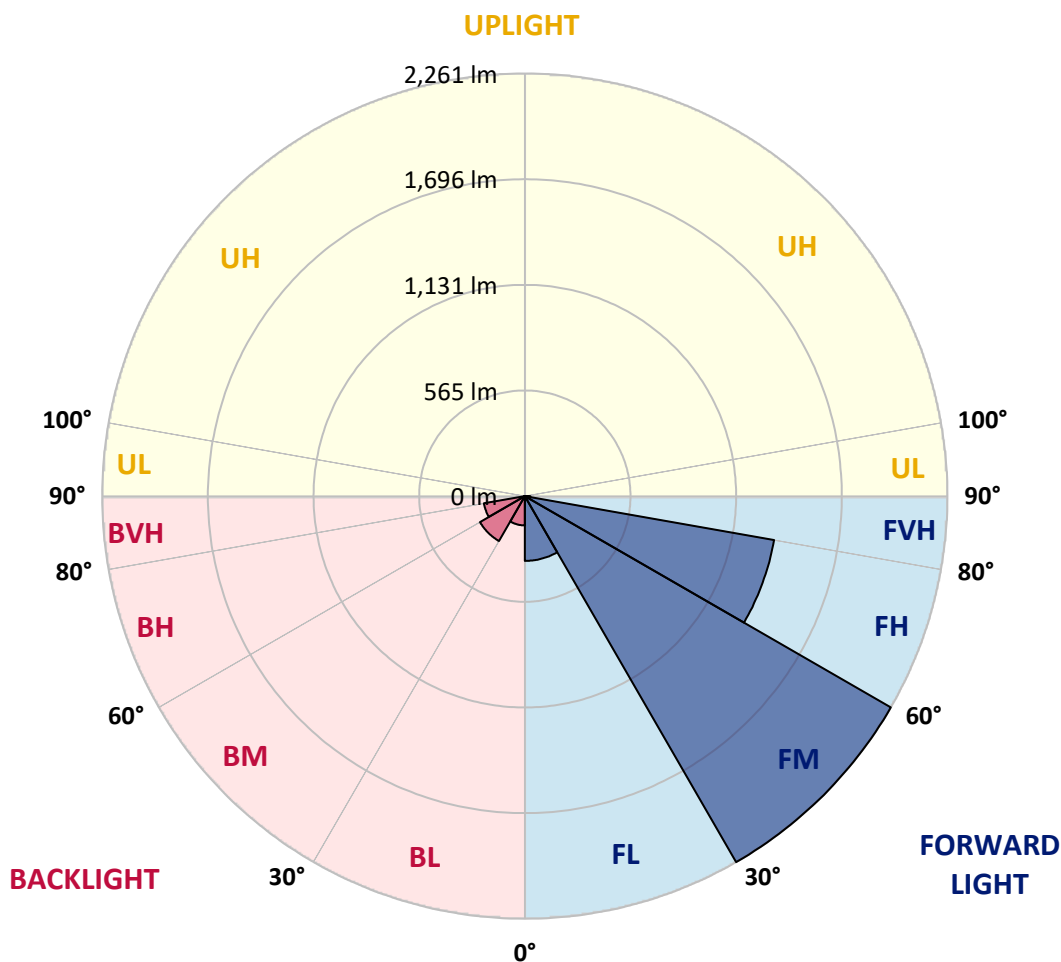


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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	346.6	7.4			
FM (30°-60°)	2261.2	48.6			
FH (60°-80°)	1354.1	29.1			G1/1800
FVH (80°-90°)	29.8	0.6			G1/100
BL (0°-30°)	156.5	3.4	B1/500		
BM (30°-60°)	277.1	6.0	B1/1000		
BH (60°-80°)	222.1	4.8	B1/500		G1/500
BVH (80°-90°)	5.3	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°	676.6	676.6	676.6	676.6	676.6	676.6	676.6	676.6	676.6	676.6	676.6
2.5°	701.0	707.6	707.6	705.4	698.7	694.3	692.1	687.6	683.2	683.2	685.4
5°	707.6	701.0	709.8	698.7	698.7	698.7	707.6	703.2	701.0	689.9	689.9
7.5°	707.6	701.0	701.0	707.6	701.0	705.4	716.5	712.0	720.9	701.0	705.4
10°	687.6	685.4	689.9	698.7	701.0	709.8	720.9	743.1	745.3	732.0	729.8
12.5°	647.7	645.5	661.0	665.5	692.1	714.3	747.5	765.3	785.2	778.6	765.3
15°	618.9	623.3	634.4	652.2	676.6	716.5	754.2	794.1	829.6	820.7	816.3
17.5°	630.0	627.8	630.0	641.1	672.1	712.0	776.4	823.0	874.0	874.0	878.4
20°	663.2	669.9	667.7	661.0	676.6	709.8	776.4	858.4	942.7	936.1	936.1
22.5°	720.9	723.1	709.8	705.4	703.2	723.1	789.7	902.8	1000.4	1013.7	1009.3
25°	780.8	783.0	778.6	765.3	747.5	752.0	814.1	938.3	1080.3	1102.4	1098.0
27.5°	880.6	878.4	867.3	851.8	825.2	805.2	851.8	964.9	1142.4	1180.1	1169.0
30°	980.4	973.8	958.3	938.3	913.9	876.2	898.4	1015.9	1220.0	1255.5	1231.1
32.5°	1102.4	1089.1	1093.6	1062.5	1011.5	951.6	947.2	1062.5	1282.1	1333.1	1313.2
35°	1257.7	1242.2	1220.0	1191.2	1142.4	1062.5	1038.1	1137.9	1386.4	1424.1	1424.1
37.5°	1461.8	1477.3	1450.7	1330.9	1277.7	1202.3	1151.2	1215.6	1477.3	1568.3	1546.1
40°	1670.3	1683.6	1634.8	1546.1	1430.7	1337.6	1306.5	1342.0	1614.9	1723.5	1681.4
42.5°	1838.9	1856.6	1838.9	1723.5	1632.6	1512.8	1457.4	1490.6	1792.3	1923.2	1867.7
45°	2016.3	2034.1	2014.1	1938.7	1850.0	1781.2	1641.5	1683.6	1978.6	2173.8	2111.7
47.5°	2149.4	2171.6	2136.1	2120.6	2049.6	2038.5	1801.2	1847.8	2173.8	2426.7	2349.1
50°	2180.5	2204.9	2236.0	2253.7	2229.3	2255.9	2016.3	2056.3	2377.9	2659.6	2584.2
52.5°	2107.3	2131.7	2200.5	2282.5	2395.7	2475.5	2233.7	2267.0	2590.9	2852.6	2812.7
55°	1892.1	1914.3	2054.1	2165.0	2435.6	2566.5	2442.2	2582.0	2743.9	3054.5	2956.9
57.5°	1530.6	1557.2	1741.3	1912.1	2302.5	2515.4	2566.5	2843.7	2996.8	3203.1	3090.0
60°	1086.9	1102.4	1262.2	1563.8	1934.3	2260.4	2542.1	3038.9	3196.4	3402.7	3342.8
62.5°	625.5	638.8	805.2	1089.1	1459.6	1887.7	2433.4	3223.1	3411.6	3622.3	3589.1
65°	414.8	419.2	532.4	687.6	949.4	1390.8	2158.3	3387.2	3624.5	3797.6	3759.9
67.5°	272.8	297.2	386.0	492.4	607.8	769.7	1759.0	3456.0	3868.5	4041.6	4032.7
70°	195.2	204.1	277.3	379.3	457.0	432.5	1029.2	2970.2	3857.5	4108.1	4034.9
72.5°	115.3	124.2	184.1	283.9	359.3	275.1	481.4	2100.6	3196.4	3278.5	3258.5
75°	84.3	84.3	113.1	204.1	261.7	197.4	226.3	1328.7	2122.8	2304.7	2302.5
77.5°	59.9	62.1	77.6	122.0	201.9	144.2	124.2	738.7	1160.1	1268.8	1208.9
80°	35.5	37.7	53.2	73.2	146.4	104.3	82.1	337.2	445.9	450.3	428.1
82.5°	26.6	26.6	35.5	51.0	102.0	71.0	51.0	128.7	144.2	130.9	110.9
85°	15.5	13.3	26.6	37.7	59.9	39.9	35.5	59.9	66.5	48.8	44.4
87.5°	4.4	4.4	11.1	13.3	26.6	22.2	15.5	22.2	31.1	17.7	13.3
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°	676.6	676.6	676.6	676.6	676.6	676.6	676.6	676.6	676.6	676.6	676.6
2.5°	681.0	674.3	663.2	658.8	643.3	636.6	632.2	621.1	623.3	616.7	616.7
5°	674.3	674.3	652.2	627.8	603.4	587.8	570.1	547.9	547.9	539.0	541.2
7.5°	698.7	681.0	652.2	607.8	567.9	532.4	516.8	494.7	481.4	474.7	474.7
10°	714.3	696.5	647.7	594.5	543.5	499.1	465.8	434.8	417.0	417.0	414.8
12.5°	756.4	729.8	665.5	592.3	516.8	450.3	399.3	363.8	339.4	321.6	326.1
15°	791.9	763.1	674.3	574.5	470.3	377.1	315.0	248.4	215.2	197.4	190.8
17.5°	847.4	794.1	694.3	543.5	399.3	295.0	204.1	148.6	135.3	133.1	133.1
20°	893.9	831.8	696.5	483.6	328.3	188.5	130.9	122.0	115.3	113.1	110.9
22.5°	958.3	880.6	687.6	414.8	235.1	126.4	110.9	102.0	97.6	90.9	90.9
25°	1024.8	945.0	669.9	350.5	144.2	108.7	97.6	88.7	79.9	75.4	77.6
27.5°	1095.8	993.8	618.9	272.8	110.9	95.4	79.9	73.2	68.8	66.5	66.5
30°	1153.5	1024.8	543.5	181.9	99.8	84.3	71.0	64.3	59.9	57.7	57.7
32.5°	1195.6	1051.4	459.2	122.0	90.9	75.4	64.3	57.7	53.2	51.0	51.0
35°	1266.6	1071.4	381.5	104.3	82.1	66.5	55.5	51.0	46.6	46.6	46.6
37.5°	1375.3	1098.0	303.9	95.4	75.4	59.9	53.2	46.6	44.4	42.1	42.1
40°	1470.7	1131.3	217.4	86.5	68.8	55.5	46.6	42.1	39.9	37.7	37.7
42.5°	1608.2	1169.0	142.0	77.6	62.1	51.0	42.1	37.7	35.5	33.3	33.3
45°	1783.4	1231.1	110.9	68.8	55.5	46.6	39.9	35.5	31.1	31.1	28.8
47.5°	1969.8	1306.5	99.8	64.3	51.0	42.1	35.5	31.1	28.8	26.6	26.6
50°	2142.8	1379.7	93.2	59.9	46.6	39.9	33.3	28.8	24.4	22.2	22.2
52.5°	2298.1	1448.5	88.7	55.5	44.4	35.5	28.8	24.4	22.2	20.0	20.0
55°	2380.1	1479.5	86.5	53.2	39.9	33.3	26.6	22.2	20.0	17.7	17.7
57.5°	2508.8	1519.5	84.3	51.0	37.7	28.8	24.4	20.0	17.7	15.5	15.5
60°	2717.3	1650.3	82.1	48.8	35.5	28.8	22.2	17.7	13.3	11.1	11.1
62.5°	2890.3	1759.0	73.2	42.1	31.1	24.4	17.7	13.3	8.9	6.7	6.7
65°	3087.7	1810.1	64.3	37.7	26.6	20.0	13.3	8.9	6.7	2.2	2.2
67.5°	3302.9	1887.7	53.2	33.3	24.4	15.5	11.1	6.7	2.2	0.0	0.0
70°	3189.8	1790.1	44.4	28.8	22.2	13.3	8.9	4.4	0.0	0.0	0.0
72.5°	2499.9	1282.1	35.5	26.6	20.0	13.3	8.9	2.2	0.0	0.0	0.0
75°	1670.3	725.4	31.1	22.2	15.5	11.1	6.7	2.2	0.0	0.0	0.0
77.5°	907.2	326.1	26.6	20.0	13.3	8.9	6.7	2.2	0.0	0.0	0.0
80°	295.0	128.7	22.2	17.7	13.3	8.9	6.7	2.2	0.0	0.0	0.0
82.5°	79.9	39.9	22.2	17.7	13.3	8.9	6.7	2.2	0.0	0.0	0.0
85°	33.3	26.6	22.2	17.7	13.3	8.9	6.7	2.2	0.0	0.0	0.0
87.5°	13.3	8.9	8.9	11.1	8.9	6.7	4.4	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°	676.6	676.6	676.6	676.6	676.6	676.6	676.6	676.6	676.6	676.6	676.6
2.5°	618.9	623.3	625.5	625.5	636.6	647.7	661.0	672.1	672.1	678.8	685.4
5°	543.5	547.9	554.6	574.5	596.7	621.1	645.5	663.2	687.6	698.7	705.4
7.5°	481.4	485.8	503.5	523.5	554.6	596.7	638.8	678.8	703.2	714.3	723.1
10°	417.0	423.7	443.6	479.1	519.1	570.1	618.9	687.6	727.6	749.8	758.6
12.5°	323.9	341.6	368.2	405.9	457.0	534.6	625.5	696.5	765.3	791.9	809.6
15°	204.1	219.6	261.7	321.6	390.4	481.4	607.8	709.8	805.2	831.8	860.7
17.5°	130.9	133.1	146.4	210.7	299.5	414.8	581.2	729.8	849.6	887.3	931.6
20°	110.9	115.3	117.6	126.4	199.6	341.6	525.7	754.2	902.8	953.8	996.0
22.5°	93.2	95.4	99.8	106.5	119.8	248.4	450.3	754.2	949.4	1024.8	1073.6
25°	75.4	79.9	84.3	90.9	104.3	155.3	372.7	740.9	1004.8	1098.0	1160.1
27.5°	66.5	66.5	71.0	77.6	88.7	108.7	295.0	701.0	1047.0	1142.4	1224.4
30°	57.7	59.9	62.1	68.8	79.9	95.4	204.1	636.6	1091.4	1228.9	1322.1
32.5°	51.0	51.0	55.5	59.9	71.0	86.5	130.9	539.0	1149.0	1295.4	1426.3
35°	46.6	46.6	48.8	53.2	64.3	77.6	102.0	457.0	1217.8	1421.9	1566.1
37.5°	42.1	42.1	44.4	48.8	57.7	68.8	93.2	392.6	1288.8	1548.3	1759.0
40°	37.7	37.7	39.9	44.4	51.0	62.1	84.3	317.2	1377.5	1734.6	1969.8
42.5°	33.3	33.3	35.5	39.9	46.6	55.5	73.2	237.3	1495.1	1936.5	2242.6
45°	28.8	28.8	31.1	35.5	39.9	51.0	66.5	181.9	1623.7	2160.5	2482.2
47.5°	24.4	26.6	28.8	33.3	37.7	46.6	59.9	159.7	1750.2	2397.9	2748.4
50°	22.2	22.2	24.4	28.8	35.5	42.1	55.5	157.5	1878.8	2579.8	3021.2
52.5°	20.0	20.0	22.2	26.6	33.3	39.9	53.2	161.9	1985.3	2748.4	3212.0
55°	17.7	17.7	20.0	22.2	28.8	37.7	48.8	166.4	2060.7	2919.2	3365.0
57.5°	15.5	15.5	17.7	22.2	26.6	33.3	44.4	170.8	2182.7	3087.7	3586.8
60°	11.1	11.1	15.5	20.0	24.4	28.8	42.1	175.2	2377.9	3320.7	3775.4
62.5°	6.7	6.7	8.9	15.5	20.0	26.6	37.7	166.4	2559.8	3620.1	4063.8
65°	2.2	4.4	6.7	8.9	15.5	22.2	31.1	150.8	2712.9	3919.6	4329.9
67.5°	0.0	0.0	2.2	6.7	13.3	17.7	26.6	110.9	2737.3	4054.9	4602.8
70°	0.0	0.0	2.2	6.7	11.1	17.7	24.4	62.1	2331.3	3622.3	4219.0
72.5°	0.0	0.0	0.0	4.4	11.1	15.5	22.2	46.6	1719.1	2730.6	3334.0
75°	0.0	0.0	0.0	2.2	8.9	13.3	20.0	35.5	1044.8	1821.1	2176.1
77.5°	0.0	0.0	0.0	2.2	6.7	13.3	20.0	31.1	368.2	867.3	1022.6
80°	0.0	0.0	0.0	4.4	8.9	13.3	17.7	26.6	88.7	217.4	292.8
82.5°	0.0	0.0	0.0	2.2	6.7	11.1	15.5	22.2	35.5	64.3	102.0
85°	0.0	0.0	0.0	2.2	4.4	11.1	15.5	20.0	24.4	31.1	44.4
87.5°	0.0	0.0	0.0	0.0	2.2	4.4	6.7	8.9	8.9	8.9	15.5
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°	676.6	676.6	676.6	676.6	676.6	676.6	676.6	676.6	676.6	676.6
2.5°	683.2	692.1	696.5	705.4	709.8	707.6	705.4	712.0	707.6	701.0
5°	707.6	707.6	714.3	716.5	716.5	709.8	714.3	712.0	707.6	707.6
7.5°	734.2	745.3	745.3	732.0	729.8	725.4	725.4	707.6	701.0	707.6
10°	760.8	769.7	771.9	756.4	736.4	727.6	716.5	694.3	683.2	687.6
12.5°	816.3	816.3	791.9	774.2	747.5	716.5	689.9	658.8	643.3	647.7
15°	856.2	865.1	831.8	791.9	745.3	687.6	658.8	634.4	625.5	618.9
17.5°	933.9	916.1	862.9	805.2	738.7	678.8	658.8	636.6	630.0	630.0
20°	1000.4	991.5	911.7	807.4	736.4	696.5	683.2	672.1	669.9	663.2
22.5°	1091.4	1051.4	949.4	831.8	760.8	725.4	720.9	732.0	725.4	720.9
25°	1160.1	1126.8	978.2	867.3	798.6	787.5	794.1	805.2	787.5	780.8
27.5°	1253.3	1191.2	1033.7	913.9	849.6	860.7	882.8	885.1	874.0	880.6
30°	1339.8	1273.2	1075.8	967.1	936.1	947.2	980.4	1004.8	989.3	980.4
32.5°	1464.0	1362.0	1160.1	1055.9	1044.8	1073.6	1111.3	1126.8	1106.9	1102.4
35°	1594.9	1464.0	1246.6	1155.7	1175.6	1215.6	1248.8	1275.5	1244.4	1257.7
37.5°	1799.0	1628.2	1393.0	1313.2	1322.1	1337.6	1399.7	1472.9	1488.4	1461.8
40°	2011.9	1805.6	1528.3	1466.2	1486.2	1528.3	1601.5	1670.3	1705.8	1670.3
42.5°	2258.1	1976.4	1736.9	1663.7	1683.6	1743.5	1841.1	1896.6	1892.1	1838.9
45°	2562.0	2213.8	1932.1	1841.1	1914.3	1967.5	2065.1	2071.8	2029.7	2016.3
47.5°	2794.9	2413.4	2142.8	2085.1	2184.9	2187.2	2209.3	2211.6	2165.0	2149.4
50°	3052.3	2644.1	2377.9	2293.6	2462.2	2384.6	2324.7	2284.8	2213.8	2180.5
52.5°	3305.1	2808.2	2595.3	2508.8	2684.0	2477.7	2369.0	2247.0	2142.8	2107.3
55°	3440.4	3078.9	2912.5	2710.6	2732.8	2504.4	2231.5	2078.5	1901.0	1892.1
57.5°	3600.1	3260.8	3180.9	2848.2	2650.8	2318.0	1945.4	1743.5	1552.7	1530.6
60°	3788.7	3549.1	3464.8	2826.0	2360.2	1947.6	1541.7	1282.1	1102.4	1086.9
62.5°	3999.4	3890.7	3640.1	2608.6	1874.4	1370.9	1018.2	800.8	634.4	625.5
65°	4332.2	4176.9	3733.2	2196.0	1240.0	878.4	676.6	519.1	419.2	414.8
67.5°	4540.7	4285.6	3524.7	1566.1	687.6	581.2	474.7	377.1	290.6	272.8
70°	4245.6	3932.9	2788.3	896.2	399.3	441.4	366.0	252.9	199.6	195.2
72.5°	3391.6	2919.2	1876.6	421.5	248.4	346.0	266.2	170.8	119.8	115.3
75°	2313.6	1836.7	1177.9	195.2	175.2	252.9	195.2	99.8	84.3	84.3
77.5°	1033.7	936.1	603.4	119.8	130.9	193.0	113.1	68.8	62.1	59.9
80°	315.0	330.5	246.2	82.1	97.6	146.4	68.8	46.6	37.7	35.5
82.5°	106.5	124.2	110.9	48.8	66.5	104.3	46.6	31.1	26.6	26.6
85°	51.0	62.1	55.5	31.1	35.5	51.0	37.7	24.4	15.5	15.5
87.5°	20.0	28.8	20.0	13.3	20.0	26.6	15.5	11.1	4.4	4.4
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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