

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: P676345

Luminaire Tested: **CCW-SA-1F-840-U-T2-HSS**

Issue Date: 04/25/2023



Test Information

Test Method: LM-79-08
Report Number: P676345
Test Lab: INNOVATION CENTER(G1)
Issue Date: 04/25/2023
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: INVUE
Catalog Number: CCW-SA-1F-840-U-T2-HSS
Description: INVUE CLEAR CURVE Wall Pack MOUNT Light Square Luminaire @1200mA w/
T2 distribution lens and House Side Shield
Light Source: (16) 4000K CCT, 80 CRI LEDs
Ballast/Driver: ELECTRONIC DRIVER

Summary

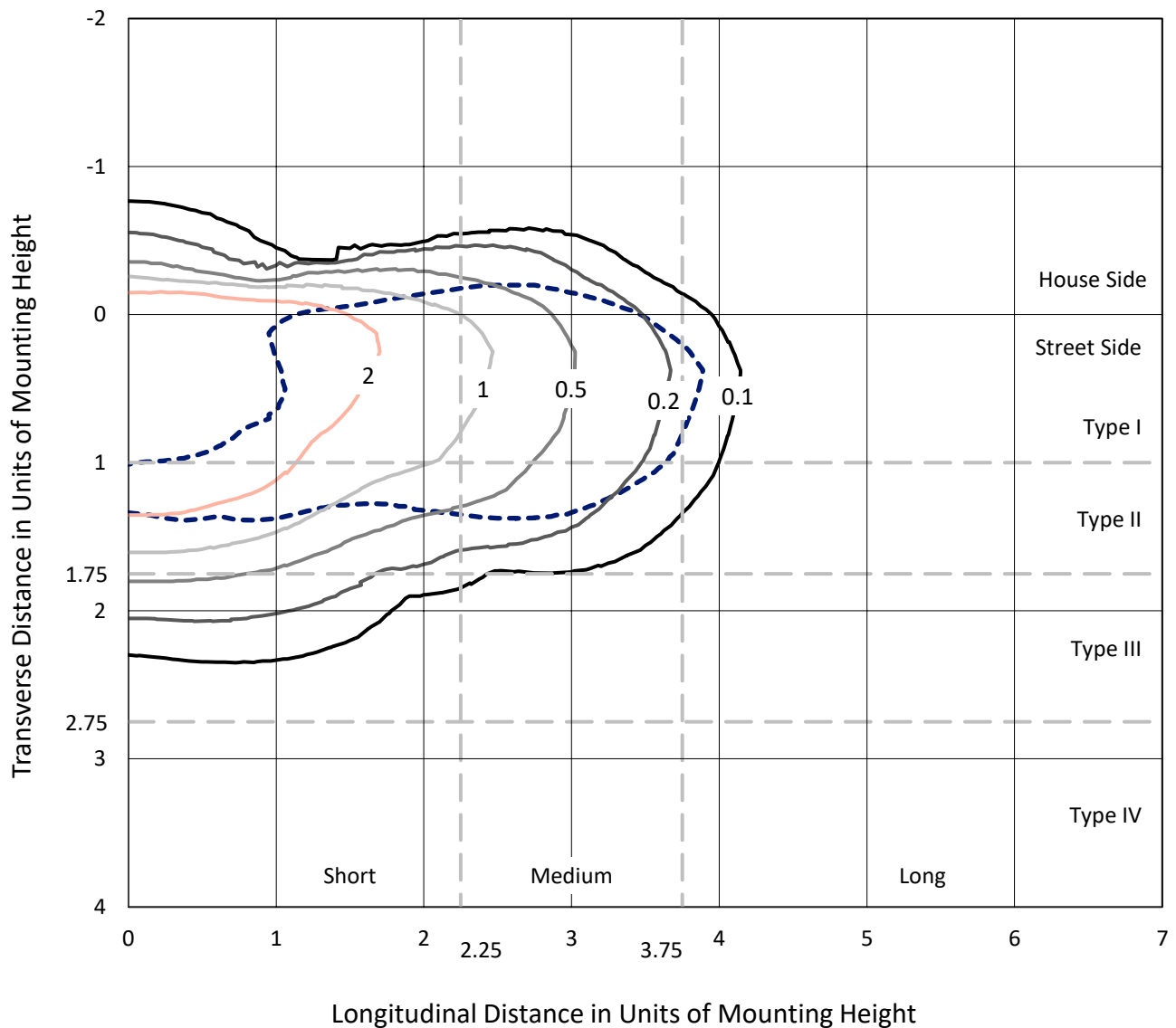
Lumens per Lamp: N/A
Luminaire Lumens: 4935.3 lumens
Efficiency: N/A
Efficacy: 73.7 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 0.5' x H: 0')
IES Classification: Type II - Short
BUG Rating: B1 - U0 - G1

Input Watts (W): 67
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

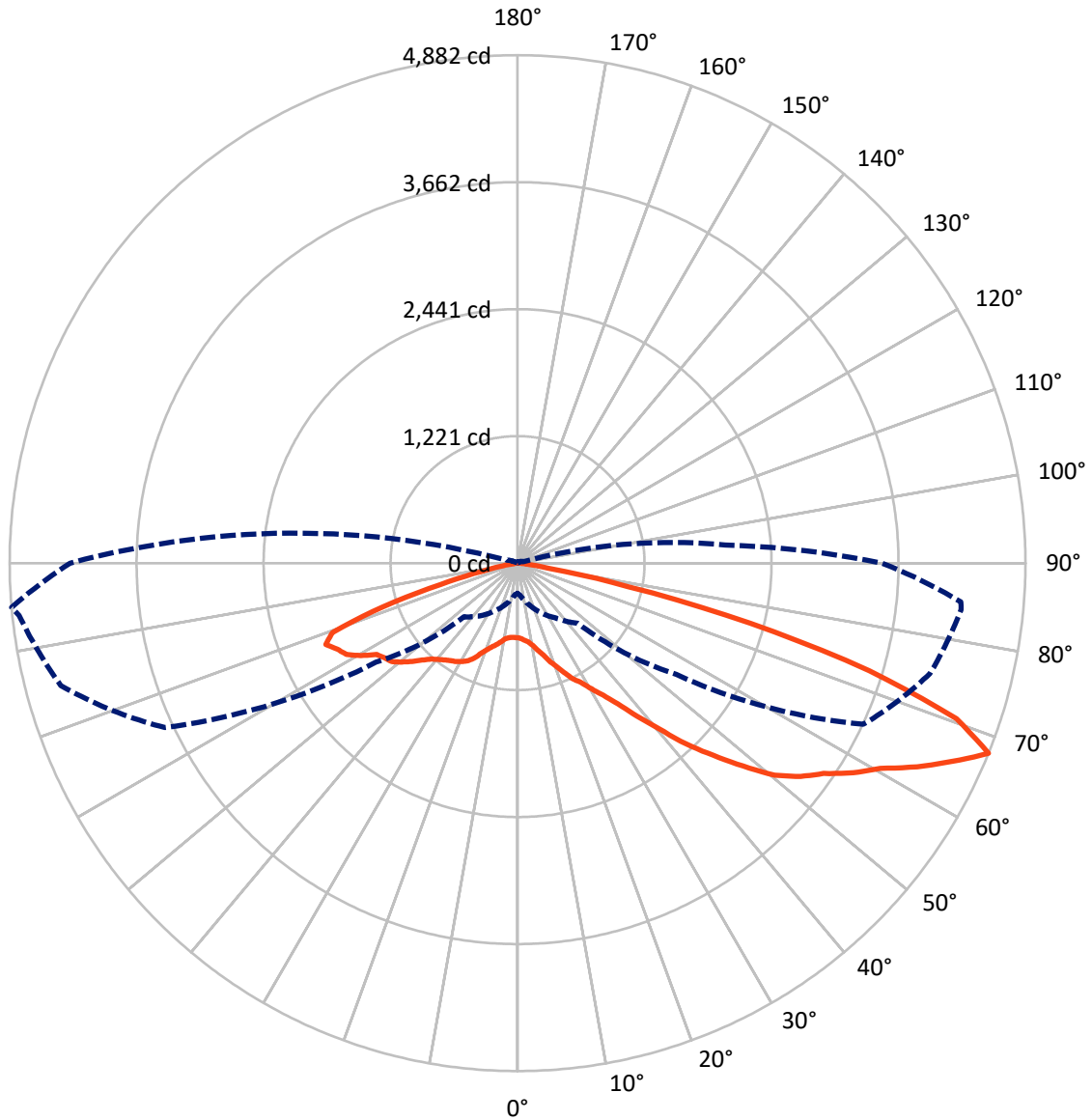
× Max cd
 - - - 1/2 Max cd



Based on 15 foot mounting height. Maximum calculated value = 3.8 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	701.1	0.0	701.1
	% Fixture	14.2	0.0	14.2
Street Side	Lumens	4234.1	0.0	4234.1
	% Fixture	85.8	0.0	85.8
Total	Lumens	4935.3	0.0	4935.3
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	65.4	1.3
10°-20°	176.0	3.6
20°-30°	292.2	5.9
30°-40°	502.8	10.2
40°-50°	903.5	18.3
50°-60°	1286.2	26.1
60°-70°	1172.6	23.8
70°-80°	499.3	10.1
80°-90°	37.2	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°	4935.3	100.0
0°-180°	4935.3	100.0



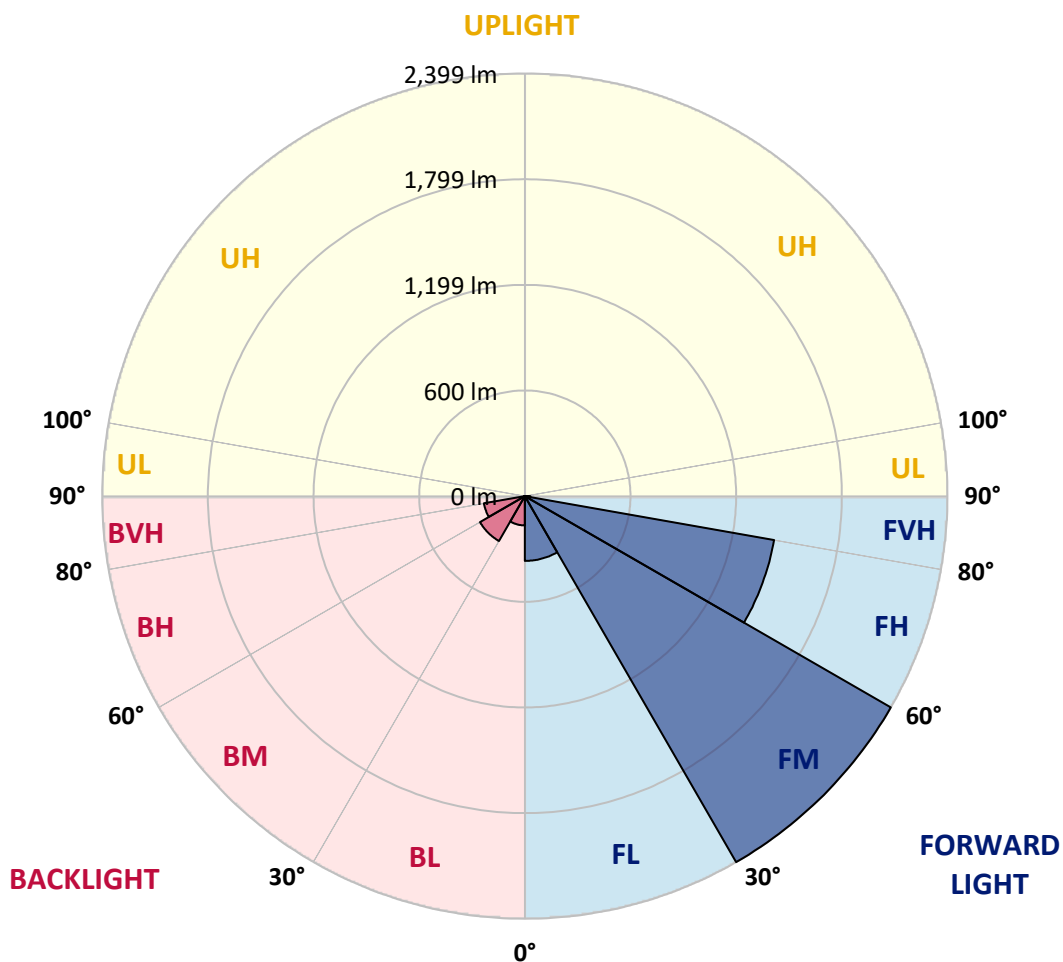
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	367.7	7.4			
FM (30°-60°)	2398.5	48.6			
FH (60°-80°)	1436.4	29.1			G1/1800
FVH (80°-90°)	31.6	0.6			G1/100
BL (0°-30°)	166.0	3.4	B1/500		
BM (30°-60°)	294.0	6.0	B1/1000		
BH (60°-80°)	235.6	4.8	B1/500		G1/500
BVH (80°-90°)	5.6	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°	717.7	717.7	717.7	717.7	717.7	717.7	717.7	717.7	717.7	717.7	717.7
2.5°	743.5	750.6	750.6	748.2	741.2	736.5	734.1	729.4	724.7	724.7	727.1
5°	750.6	743.5	753.0	741.2	741.2	741.2	750.6	745.9	743.5	731.8	731.8
7.5°	750.6	743.5	743.5	750.6	743.5	748.2	760.0	755.3	764.7	743.5	748.2
10°	729.4	727.1	731.8	741.2	743.5	753.0	764.7	788.2	790.6	776.5	774.1
12.5°	687.1	684.7	701.2	705.9	734.1	757.7	793.0	811.8	833.0	825.9	811.8
15°	656.5	661.2	673.0	691.8	717.7	760.0	800.0	842.4	880.0	870.6	865.9
17.5°	668.2	665.9	668.2	680.0	713.0	755.3	823.5	873.0	927.1	927.1	931.8
20°	703.5	710.6	708.2	701.2	717.7	753.0	823.5	910.6	1000.0	993.0	993.0
22.5°	764.7	767.1	753.0	748.2	745.9	767.1	837.7	957.7	1061.2	1075.3	1070.6
25°	828.3	830.6	825.9	811.8	793.0	797.7	863.5	995.3	1145.9	1169.4	1164.7
27.5°	934.1	931.8	920.0	903.5	875.3	854.1	903.5	1023.5	1211.8	1251.8	1240.0
30°	1040.0	1033.0	1016.5	995.3	969.4	929.4	953.0	1077.7	1294.1	1331.8	1305.9
32.5°	1169.4	1155.3	1160.0	1127.1	1073.0	1009.4	1004.7	1127.1	1360.0	1414.1	1393.0
35°	1334.1	1317.7	1294.1	1263.6	1211.8	1127.1	1101.2	1207.1	1470.6	1510.6	1510.6
37.5°	1550.6	1567.1	1538.9	1411.8	1355.3	1275.3	1221.2	1289.4	1567.1	1663.6	1640.0
40°	1771.8	1785.9	1734.1	1640.0	1517.7	1418.8	1385.9	1423.6	1713.0	1828.3	1783.6
42.5°	1950.6	1969.4	1950.6	1828.3	1731.8	1604.7	1545.9	1581.2	1901.2	2040.0	1981.2
45°	2138.9	2157.7	2136.5	2056.5	1962.4	1889.4	1741.2	1785.9	2098.9	2305.9	2240.0
47.5°	2280.0	2303.6	2265.9	2249.5	2174.2	2162.4	1910.6	1960.0	2305.9	2574.2	2491.8
50°	2313.0	2338.9	2371.8	2390.6	2364.7	2393.0	2138.9	2181.2	2522.4	2821.2	2741.2
52.5°	2235.3	2261.2	2334.2	2421.2	2541.2	2625.9	2369.5	2404.8	2748.3	3025.9	2983.6
55°	2007.1	2030.6	2178.9	2296.5	2583.6	2722.4	2590.6	2738.9	2910.6	3240.1	3136.5
57.5°	1623.6	1651.8	1847.1	2028.3	2442.4	2668.3	2722.4	3016.5	3178.9	3397.7	3277.7
60°	1153.0	1169.4	1338.8	1658.9	2051.8	2397.7	2696.5	3223.6	3390.7	3609.5	3545.9
62.5°	663.5	677.7	854.1	1155.3	1548.3	2002.4	2581.2	3418.9	3618.9	3842.4	3807.1
65°	440.0	444.7	564.7	729.4	1007.1	1475.3	2289.5	3593.0	3844.8	4028.3	3988.3
67.5°	289.4	315.3	409.4	522.4	644.7	816.5	1865.9	3666.0	4103.6	4287.1	4277.7
70°	207.1	216.5	294.1	402.4	484.7	458.8	1091.8	3150.6	4091.8	4357.7	4280.1
72.5°	122.4	131.8	195.3	301.2	381.2	291.8	510.6	2228.3	3390.7	3477.7	3456.5
75°	89.4	89.4	120.0	216.5	277.7	209.4	240.0	1409.4	2251.8	2444.8	2442.4
77.5°	63.5	65.9	82.4	129.4	214.1	152.9	131.8	783.5	1230.6	1345.9	1282.4
80°	37.6	40.0	56.5	77.6	155.3	110.6	87.1	357.7	472.9	477.7	454.1
82.5°	28.2	28.2	37.6	54.1	108.2	75.3	54.1	136.5	152.9	138.8	117.6
85°	16.5	14.1	28.2	40.0	63.5	42.4	37.6	63.5	70.6	51.8	47.1
87.5°	4.7	4.7	11.8	14.1	28.2	23.5	16.5	23.5	32.9	18.8	14.1
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°	717.7	717.7	717.7	717.7	717.7	717.7	717.7	717.7	717.7	717.7	717.7
2.5°	722.4	715.3	703.5	698.8	682.4	675.3	670.6	658.8	661.2	654.1	654.1
5°	715.3	715.3	691.8	665.9	640.0	623.5	604.7	581.2	581.2	571.8	574.1
7.5°	741.2	722.4	691.8	644.7	602.4	564.7	548.2	524.7	510.6	503.5	503.5
10°	757.7	738.8	687.1	630.6	576.5	529.4	494.1	461.2	442.4	442.4	440.0
12.5°	802.4	774.1	705.9	628.2	548.2	477.7	423.5	385.9	360.0	341.2	345.9
15°	840.0	809.4	715.3	609.4	498.8	400.0	334.1	263.5	228.2	209.4	202.4
17.5°	898.8	842.4	736.5	576.5	423.5	312.9	216.5	157.6	143.5	141.2	141.2
20°	948.3	882.4	738.8	513.0	348.2	200.0	138.8	129.4	122.4	120.0	117.6
22.5°	1016.5	934.1	729.4	440.0	249.4	134.1	117.6	108.2	103.5	96.5	96.5
25°	1087.1	1002.4	710.6	371.8	152.9	115.3	103.5	94.1	84.7	80.0	82.4
27.5°	1162.4	1054.1	656.5	289.4	117.6	101.2	84.7	77.6	72.9	70.6	70.6
30°	1223.6	1087.1	576.5	192.9	105.9	89.4	75.3	68.2	63.5	61.2	61.2
32.5°	1268.3	1115.3	487.1	129.4	96.5	80.0	68.2	61.2	56.5	54.1	54.1
35°	1343.6	1136.5	404.7	110.6	87.1	70.6	58.8	54.1	49.4	49.4	49.4
37.5°	1458.9	1164.7	322.4	101.2	80.0	63.5	56.5	49.4	47.1	44.7	44.7
40°	1560.0	1200.0	230.6	91.8	72.9	58.8	49.4	44.7	42.4	40.0	40.0
42.5°	1705.9	1240.0	150.6	82.4	65.9	54.1	44.7	40.0	37.6	35.3	35.3
45°	1891.8	1305.9	117.6	72.9	58.8	49.4	42.4	37.6	32.9	32.9	30.6
47.5°	2089.5	1385.9	105.9	68.2	54.1	44.7	37.6	32.9	30.6	28.2	28.2
50°	2273.0	1463.6	98.8	63.5	49.4	42.4	35.3	30.6	25.9	23.5	23.5
52.5°	2437.7	1536.5	94.1	58.8	47.1	37.6	30.6	25.9	23.5	21.2	21.2
55°	2524.8	1569.4	91.8	56.5	42.4	35.3	28.2	23.5	21.2	18.8	18.8
57.5°	2661.2	1611.8	89.4	54.1	40.0	30.6	25.9	21.2	18.8	16.5	16.5
60°	2882.4	1750.6	87.1	51.8	37.6	30.6	23.5	18.8	14.1	11.8	11.8
62.5°	3065.9	1865.9	77.6	44.7	32.9	25.9	18.8	14.1	9.4	7.1	7.1
65°	3275.4	1920.0	68.2	40.0	28.2	21.2	14.1	9.4	7.1	2.4	2.4
67.5°	3503.6	2002.4	56.5	35.3	25.9	16.5	11.8	7.1	2.4	0.0	0.0
70°	3383.6	1898.9	47.1	30.6	23.5	14.1	9.4	4.7	0.0	0.0	0.0
72.5°	2651.8	1360.0	37.6	28.2	21.2	14.1	9.4	2.4	0.0	0.0	0.0
75°	1771.8	769.4	32.9	23.5	16.5	11.8	7.1	2.4	0.0	0.0	0.0
77.5°	962.4	345.9	28.2	21.2	14.1	9.4	7.1	2.4	0.0	0.0	0.0
80°	312.9	136.5	23.5	18.8	14.1	9.4	7.1	2.4	0.0	0.0	0.0
82.5°	84.7	42.4	23.5	18.8	14.1	9.4	7.1	2.4	0.0	0.0	0.0
85°	35.3	28.2	23.5	18.8	14.1	9.4	7.1	2.4	0.0	0.0	0.0
87.5°	14.1	9.4	9.4	11.8	9.4	7.1	4.7	2.4	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°	717.7	717.7	717.7	717.7	717.7	717.7	717.7	717.7	717.7	717.7	717.7
2.5°	656.5	661.2	663.5	663.5	675.3	687.1	701.2	713.0	713.0	720.0	727.1
5°	576.5	581.2	588.2	609.4	633.0	658.8	684.7	703.5	729.4	741.2	748.2
7.5°	510.6	515.3	534.1	555.3	588.2	633.0	677.7	720.0	745.9	757.7	767.1
10°	442.4	449.4	470.6	508.2	550.6	604.7	656.5	729.4	771.8	795.3	804.7
12.5°	343.5	362.4	390.6	430.6	484.7	567.1	663.5	738.8	811.8	840.0	858.8
15°	216.5	232.9	277.7	341.2	414.1	510.6	644.7	753.0	854.1	882.4	913.0
17.5°	138.8	141.2	155.3	223.5	317.7	440.0	616.5	774.1	901.2	941.2	988.3
20°	117.6	122.4	124.7	134.1	211.8	362.4	557.7	800.0	957.7	1011.8	1056.5
22.5°	98.8	101.2	105.9	112.9	127.1	263.5	477.7	800.0	1007.1	1087.1	1138.8
25°	80.0	84.7	89.4	96.5	110.6	164.7	395.3	785.9	1065.9	1164.7	1230.6
27.5°	70.6	70.6	75.3	82.4	94.1	115.3	312.9	743.5	1110.6	1211.8	1298.8
30°	61.2	63.5	65.9	72.9	84.7	101.2	216.5	675.3	1157.7	1303.6	1402.4
32.5°	54.1	54.1	58.8	63.5	75.3	91.8	138.8	571.8	1218.8	1374.1	1513.0
35°	49.4	49.4	51.8	56.5	68.2	82.4	108.2	484.7	1291.8	1508.3	1661.2
37.5°	44.7	44.7	47.1	51.8	61.2	72.9	98.8	416.5	1367.1	1642.4	1865.9
40°	40.0	40.0	42.4	47.1	54.1	65.9	89.4	336.5	1461.2	1840.0	2089.5
42.5°	35.3	35.3	37.6	42.4	49.4	58.8	77.6	251.8	1585.9	2054.2	2378.9
45°	30.6	30.6	32.9	37.6	42.4	54.1	70.6	192.9	1722.4	2291.8	2633.0
47.5°	25.9	28.2	30.6	35.3	40.0	49.4	63.5	169.4	1856.5	2543.6	2915.3
50°	23.5	23.5	25.9	30.6	37.6	44.7	58.8	167.1	1993.0	2736.5	3204.8
52.5°	21.2	21.2	23.5	28.2	35.3	42.4	56.5	171.8	2105.9	2915.3	3407.1
55°	18.8	18.8	21.2	23.5	30.6	40.0	51.8	176.5	2185.9	3096.5	3569.5
57.5°	16.5	16.5	18.8	23.5	28.2	35.3	47.1	181.2	2315.3	3275.4	3804.8
60°	11.8	11.8	16.5	21.2	25.9	30.6	44.7	185.9	2522.4	3522.4	4004.8
62.5°	7.1	7.1	9.4	16.5	21.2	28.2	40.0	176.5	2715.3	3840.1	4310.7
65°	2.4	4.7	7.1	9.4	16.5	23.5	32.9	160.0	2877.7	4157.7	4593.0
67.5°	0.0	0.0	2.4	7.1	14.1	18.8	28.2	117.6	2903.6	4301.3	4882.4
70°	0.0	0.0	2.4	7.1	11.8	18.8	25.9	65.9	2473.0	3842.4	4475.4
72.5°	0.0	0.0	0.0	4.7	11.8	16.5	23.5	49.4	1823.6	2896.5	3536.5
75°	0.0	0.0	0.0	2.4	9.4	14.1	21.2	37.6	1108.3	1931.8	2308.3
77.5°	0.0	0.0	0.0	2.4	7.1	14.1	21.2	32.9	390.6	920.0	1084.7
80°	0.0	0.0	0.0	4.7	9.4	14.1	18.8	28.2	94.1	230.6	310.6
82.5°	0.0	0.0	0.0	2.4	7.1	11.8	16.5	23.5	37.6	68.2	108.2
85°	0.0	0.0	0.0	2.4	4.7	11.8	16.5	21.2	25.9	32.9	47.1
87.5°	0.0	0.0	0.0	0.0	2.4	4.7	7.1	9.4	9.4	9.4	16.5
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°	717.7	717.7	717.7	717.7	717.7	717.7	717.7	717.7	717.7	717.7
2.5°	724.7	734.1	738.8	748.2	753.0	750.6	748.2	755.3	750.6	743.5
5°	750.6	750.6	757.7	760.0	760.0	753.0	757.7	755.3	750.6	750.6
7.5°	778.8	790.6	790.6	776.5	774.1	769.4	769.4	750.6	743.5	750.6
10°	807.1	816.5	818.8	802.4	781.2	771.8	760.0	736.5	724.7	729.4
12.5°	865.9	865.9	840.0	821.2	793.0	760.0	731.8	698.8	682.4	687.1
15°	908.3	917.7	882.4	840.0	790.6	729.4	698.8	673.0	663.5	656.5
17.5°	990.6	971.8	915.3	854.1	783.5	720.0	698.8	675.3	668.2	668.2
20°	1061.2	1051.8	967.1	856.5	781.2	738.8	724.7	713.0	710.6	703.5
22.5°	1157.7	1115.3	1007.1	882.4	807.1	769.4	764.7	776.5	769.4	764.7
25°	1230.6	1195.3	1037.7	920.0	847.1	835.3	842.4	854.1	835.3	828.3
27.5°	1329.4	1263.6	1096.5	969.4	901.2	913.0	936.5	938.8	927.1	934.1
30°	1421.2	1350.6	1141.2	1025.9	993.0	1004.7	1040.0	1065.9	1049.4	1040.0
32.5°	1553.0	1444.7	1230.6	1120.0	1108.3	1138.8	1178.8	1195.3	1174.1	1169.4
35°	1691.8	1553.0	1322.4	1225.9	1247.1	1289.4	1324.7	1353.0	1320.0	1334.1
37.5°	1908.3	1727.1	1477.7	1393.0	1402.4	1418.8	1484.7	1562.4	1578.9	1550.6
40°	2134.2	1915.3	1621.2	1555.3	1576.5	1621.2	1698.9	1771.8	1809.4	1771.8
42.5°	2395.3	2096.5	1842.4	1764.7	1785.9	1849.4	1953.0	2011.8	2007.1	1950.6
45°	2717.7	2348.3	2049.4	1953.0	2030.6	2087.1	2190.6	2197.7	2153.0	2138.9
47.5°	2964.8	2560.0	2273.0	2211.8	2317.7	2320.0	2343.6	2345.9	2296.5	2280.0
50°	3237.7	2804.8	2522.4	2433.0	2611.8	2529.5	2465.9	2423.6	2348.3	2313.0
52.5°	3505.9	2978.9	2753.0	2661.2	2847.1	2628.3	2513.0	2383.6	2273.0	2235.3
55°	3649.5	3265.9	3089.5	2875.3	2898.9	2656.5	2367.1	2204.7	2016.5	2007.1
57.5°	3818.9	3458.9	3374.2	3021.2	2811.8	2458.9	2063.6	1849.4	1647.1	1623.6
60°	4018.9	3764.8	3675.4	2997.7	2503.6	2065.9	1635.3	1360.0	1169.4	1153.0
62.5°	4242.4	4127.1	3861.2	2767.1	1988.3	1454.1	1080.0	849.4	673.0	663.5
65°	4595.4	4430.7	3960.1	2329.5	1315.3	931.8	717.7	550.6	444.7	440.0
67.5°	4816.6	4546.0	3738.9	1661.2	729.4	616.5	503.5	400.0	308.2	289.4
70°	4503.6	4171.8	2957.7	950.6	423.5	468.2	388.2	268.2	211.8	207.1
72.5°	3597.7	3096.5	1990.6	447.1	263.5	367.1	282.4	181.2	127.1	122.4
75°	2454.2	1948.3	1249.4	207.1	185.9	268.2	207.1	105.9	89.4	89.4
77.5°	1096.5	993.0	640.0	127.1	138.8	204.7	120.0	72.9	65.9	63.5
80°	334.1	350.6	261.2	87.1	103.5	155.3	72.9	49.4	40.0	37.6
82.5°	112.9	131.8	117.6	51.8	70.6	110.6	49.4	32.9	28.2	28.2
85°	54.1	65.9	58.8	32.9	37.6	54.1	40.0	25.9	16.5	16.5
87.5°	21.2	30.6	21.2	14.1	21.2	28.2	16.5	11.8	4.7	4.7
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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