

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: P677473

Luminaire Tested: **CCW-SA-1D-830-U-SLR-HSS**

Issue Date: 04/25/2023



Test Information

Test Method: LM-79-08
Report Number: P677473
Test Lab: INNOVATION CENTER(G1)
Issue Date: 04/25/2023
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: INVUE
Catalog Number: CCW-SA-1D-830-U-SLR-HSS
Description: INVUE CLEAR CURVE Wall Pack MOUNT Light Square Luminaire @800mA w/
SLR 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: 3184.5 lumens
Efficiency: N/A
Efficacy: 72.4 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 0.5' x H: 0')
IES Classification: Type IV - Short
BUG Rating: B1 - U0 - G1

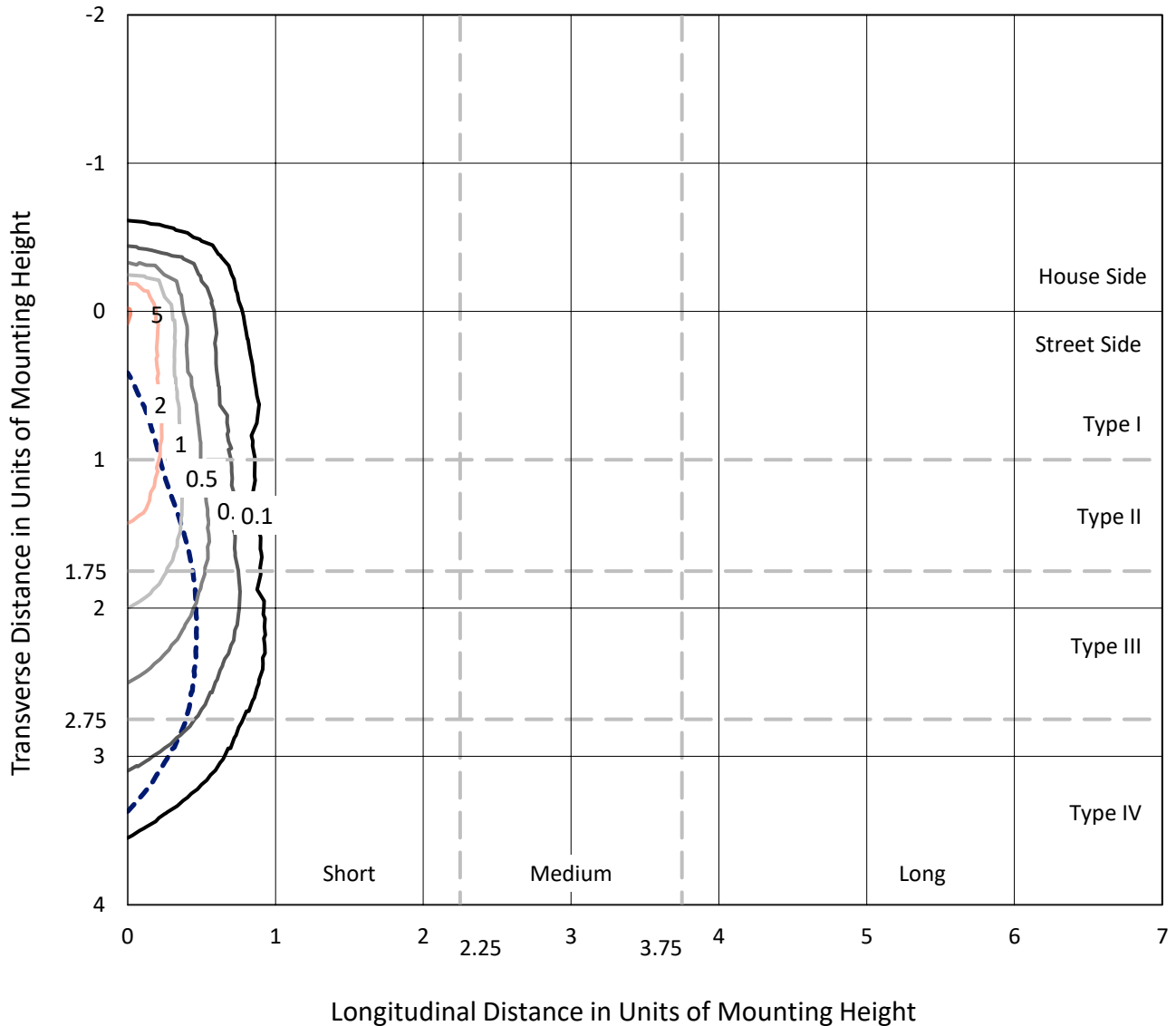
Input Watts (W): 44
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Iso-Footcandle Lines of Horizontal Illumination

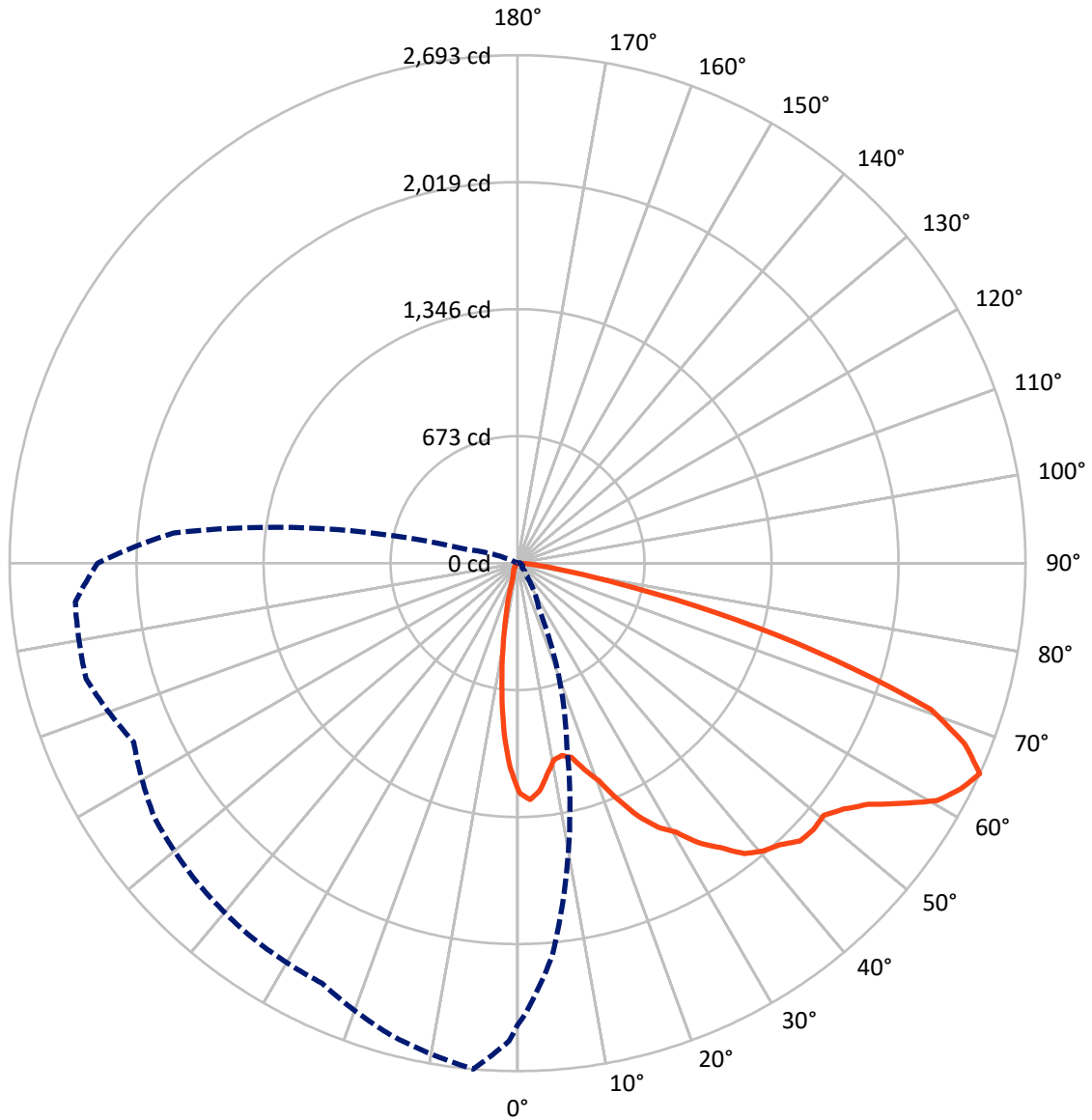
× Max cd
 - - - 1/2 Max cd



Based on 15 foot mounting height. Maximum calculated value = 5.4 fc
 Type IV - Short - N/A

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Luminous Intensity Polar Plot



— Vertical Plane Through 355-Deg Lateral - - - Horizontal Cone Through 65-Deg Vertical

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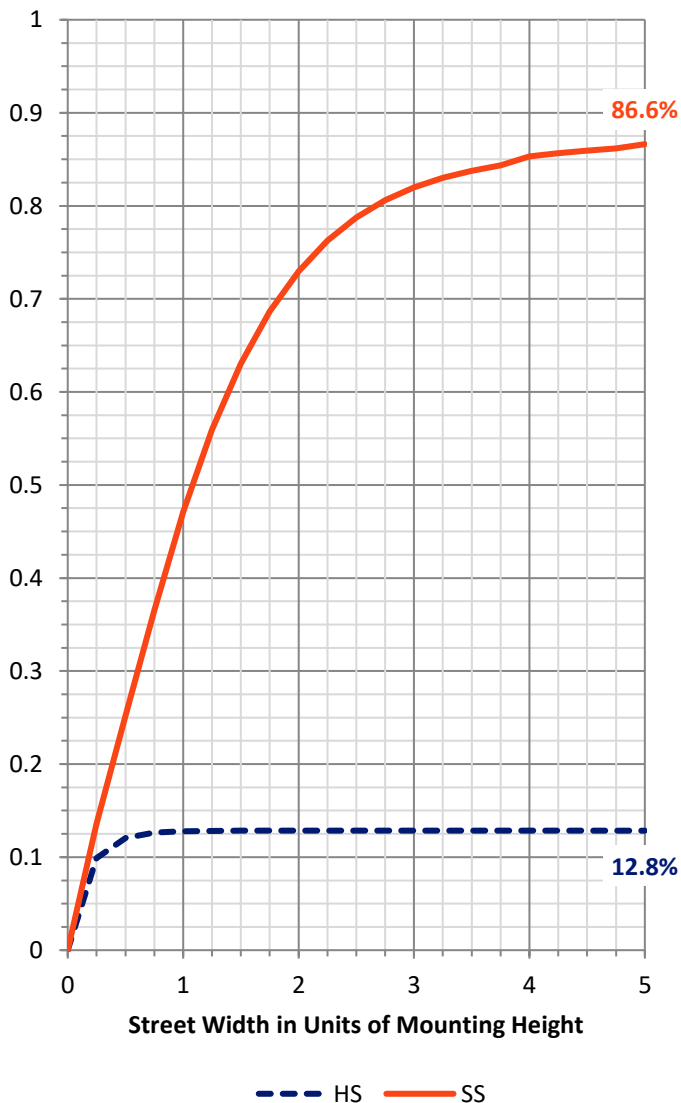
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	413.5	0.0	413.5
	% Fixture	13.0	0.0	13.0
Street Side	Lumens	2771.1	0.0	2771.1
	% Fixture	87.0	0.0	87.0
Total	Lumens	3184.5	0.0	3184.5
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	92.2	2.9
10°-20°	178.6	5.6
20°-30°	248.7	7.8
30°-40°	353.4	11.1
40°-50°	490.1	15.4
50°-60°	667.7	21.0
60°-70°	734.1	23.1
70°-80°	360.8	11.3
80°-90°	58.9	1.9
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°	3184.5	100.0
0°-180°	3184.5	100.0



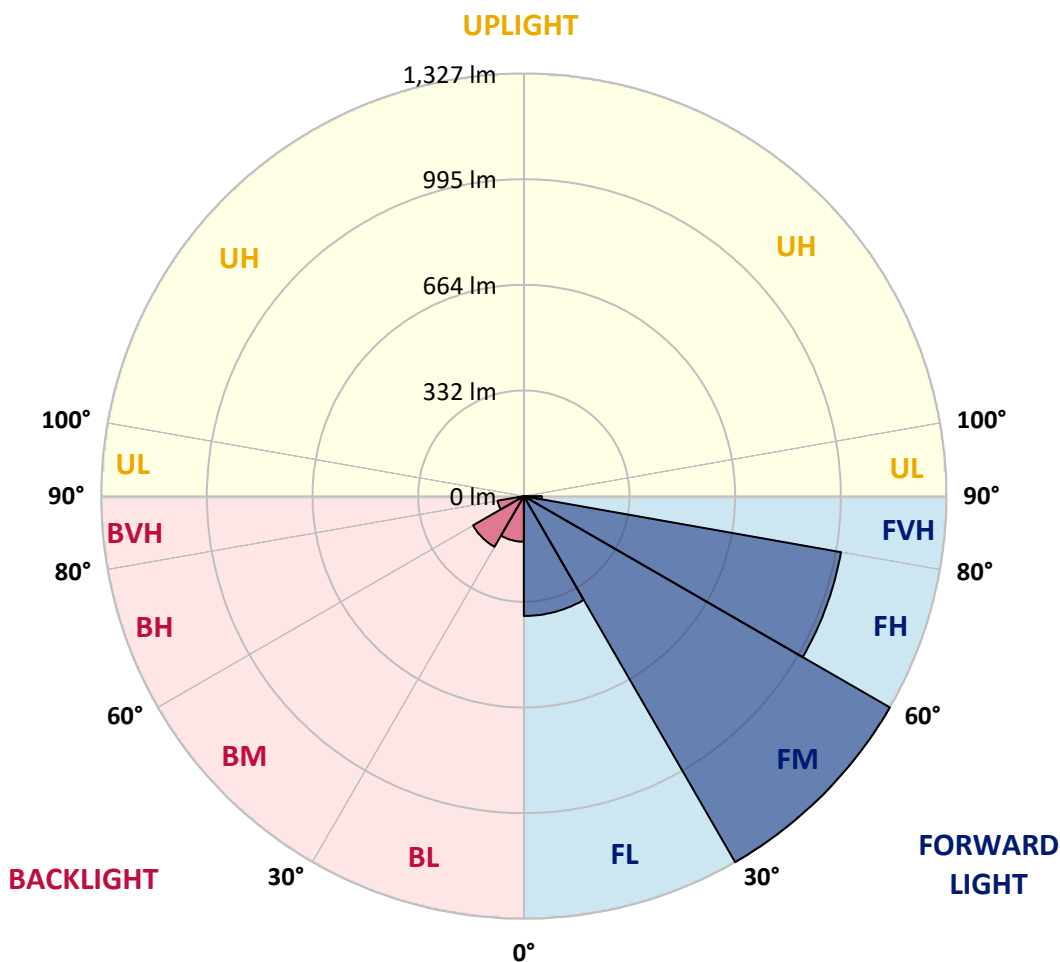
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	376.3	11.8			
FM (30°-60°)	1327.1	41.7			
FH (60°-80°)	1011.4	31.8			G1/1800
FVH (80°-90°)	56.3	1.8			G1/100
BL (0°-30°)	143.2	4.5	B1/500		
BM (30°-60°)	184.1	5.8	B0/220		
BH (60°-80°)	83.6	2.6	B0/110		G0/110
BVH (80°-90°)	2.7	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 IV Short





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CANDELA DISTRIBUTION (FULL):

	0°	1°	5°	15°	25°	35°	45°	55°	65°	75°	85°
0°	1217.4	1217.4	1217.4	1217.4	1217.4	1217.4	1217.4	1217.4	1217.4	1217.4	1217.4
2.5°	1242.3	1256.9	1243.2	1195.1	1186.5	1163.4	1128.2	1125.6	1088.7	1093.0	1073.2
5°	1167.7	1182.2	1153.1	1089.5	1030.3	983.1	954.7	904.1	892.9	868.0	868.0
7.5°	1091.2	1090.4	1040.6	987.4	898.9	812.2	772.7	699.7	656.8	633.6	611.3
10°	1027.7	1014.0	983.1	873.2	777.0	686.9	637.9	589.8	545.2	506.6	467.9
12.5°	983.1	991.6	942.7	823.4	698.9	636.2	583.8	533.2	479.9	436.2	393.2
15°	1006.2	992.5	935.0	812.2	686.0	600.1	530.6	468.8	409.5	352.0	319.4
17.5°	1078.4	1043.2	975.3	812.2	659.4	545.2	461.1	388.1	324.5	273.0	232.7
20°	1175.4	1135.0	1062.0	842.3	639.6	504.8	389.8	297.9	231.8	183.7	152.8
22.5°	1275.0	1243.2	1133.3	854.3	616.5	450.7	307.4	215.5	154.5	123.6	108.2
25°	1394.3	1349.7	1229.5	902.4	582.1	398.4	242.1	150.2	115.0	98.7	89.3
27.5°	1489.6	1481.9	1319.6	931.5	556.4	355.4	191.5	119.3	95.3	83.3	77.3
30°	1609.8	1567.7	1429.5	989.9	527.2	306.5	159.7	107.3	87.6	74.7	70.4
32.5°	1681.9	1662.2	1487.0	1022.6	494.5	266.2	137.4	94.4	79.8	70.4	66.1
35°	1786.7	1747.2	1569.5	1043.2	477.4	243.0	123.6	85.9	67.0	57.5	52.4
37.5°	1903.4	1888.8	1668.2	1042.3	452.5	229.2	114.2	79.8	63.5	53.2	47.2
40°	2022.8	1963.5	1728.3	1066.3	439.6	218.9	107.3	76.4	60.1	50.7	42.9
42.5°	2112.1	2044.2	1797.8	1057.8	424.1	200.9	104.7	71.3	57.5	46.4	39.5
45°	2136.1	2112.1	1860.5	1055.2	413.0	186.3	100.5	70.4	55.8	43.8	36.9
47.5°	2182.5	2166.2	1937.8	1059.5	404.4	175.1	90.1	72.1	53.2	41.2	35.2
50°	2203.1	2173.9	2000.5	1069.8	384.6	161.4	80.7	75.6	52.4	40.4	33.5
52.5°	2288.1	2262.3	2086.3	1099.0	368.3	143.4	71.3	72.1	54.1	37.8	31.8
55°	2371.4	2342.2	2218.5	1165.9	345.1	128.8	61.0	63.5	51.5	34.3	28.3
57.5°	2485.6	2437.5	2307.0	1193.4	324.5	109.0	54.1	52.4	48.1	30.9	24.9
60°	2502.7	2522.5	2294.1	1176.2	303.1	96.2	47.2	40.4	51.5	27.5	21.5
62.5°	2560.2	2477.8	2234.0	1136.7	287.6	88.4	42.1	33.5	44.6	24.0	18.0
65°	2449.5	2388.5	2093.2	1009.7	267.9	89.3	36.9	27.5	28.3	19.7	14.6
67.5°	2287.2	2239.1	1859.7	871.4	248.1	87.6	32.6	24.0	21.5	17.2	12.9
70°	2007.3	1903.4	1579.8	707.5	218.9	81.6	27.5	21.5	18.0	13.7	9.4
72.5°	1460.4	1418.4	1133.3	546.9	196.6	73.8	25.8	18.0	15.5	10.3	7.7
75°	983.1	913.5	715.2	358.9	158.0	64.4	21.5	16.3	12.0	7.7	6.0
77.5°	519.4	491.1	405.2	170.9	87.6	30.0	12.0	9.4	6.9	6.0	3.4
80°	224.9	200.0	175.1	69.5	30.9	13.7	7.7	5.2	4.3	3.4	1.7
82.5°	115.0	109.9	91.0	30.0	18.0	10.3	4.3	3.4	2.6	1.7	0.9
85°	56.7	58.4	48.1	9.4	10.3	6.0	0.9	0.9	0.0	0.0	0.0
87.5°	4.3	4.3	3.4	1.7	2.6	0.9	0.0	0.0	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):

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	1217.4	1217.4	1217.4	1217.4	1217.4	1217.4	1217.4	1217.4	1217.4	1217.4	1217.4
2.5°	1065.5	1077.5	1056.9	1069.8	1063.8	1066.3	1068.9	1062.0	1063.8	1087.8	1088.7
5°	853.4	876.6	868.0	880.0	900.6	890.3	899.8	898.1	899.8	903.2	918.7
7.5°	608.7	601.9	618.2	649.9	686.9	709.2	698.0	692.0	688.6	680.0	690.3
10°	459.3	455.9	451.6	461.1	485.1	510.0	523.7	500.5	487.7	471.4	465.3
12.5°	381.2	359.7	347.7	333.1	340.0	362.3	363.2	340.9	320.2	311.7	321.1
15°	300.5	285.9	264.4	243.8	233.5	250.7	236.1	214.6	188.0	184.6	183.7
17.5°	214.6	206.1	190.6	182.0	170.0	165.7	150.2	117.6	98.7	93.6	95.3
20°	146.0	139.1	138.2	130.5	125.4	121.9	97.0	75.6	69.5	70.4	71.3
22.5°	108.2	104.7	100.5	99.6	95.3	91.0	71.3	63.5	59.2	59.2	61.8
25°	88.4	86.7	82.4	80.7	79.0	73.0	60.1	54.1	52.4	50.7	53.2
27.5°	75.6	74.7	72.1	69.5	67.8	61.8	52.4	47.2	45.5	45.5	45.5
30°	67.8	67.8	64.4	59.2	59.2	52.4	44.6	41.2	39.5	39.5	38.6
32.5°	63.5	61.8	57.5	54.1	51.5	44.6	39.5	36.1	33.5	33.5	34.3
35°	51.5	51.5	50.7	48.1	44.6	37.8	33.5	30.0	28.3	27.5	28.3
37.5°	45.5	42.9	39.5	40.4	38.6	32.6	28.3	25.8	23.2	23.2	23.2
40°	41.2	38.6	35.2	32.6	31.8	29.2	24.9	20.6	18.0	17.2	17.2
42.5°	36.9	35.2	30.0	25.8	24.9	24.9	18.9	15.5	12.9	12.9	12.9
45°	34.3	31.8	27.5	22.3	18.0	18.9	15.5	11.2	9.4	8.6	8.6
47.5°	32.6	30.0	24.0	18.9	13.7	13.7	11.2	7.7	6.0	5.2	5.2
50°	30.0	27.5	21.5	15.5	10.3	8.6	6.9	4.3	2.6	1.7	1.7
52.5°	28.3	25.8	18.9	12.9	8.6	6.0	4.3	0.9	0.0	0.0	0.0
55°	25.8	22.3	16.3	10.3	6.9	3.4	0.9	0.0	0.0	0.0	0.0
57.5°	22.3	19.7	12.9	7.7	4.3	0.9	0.0	0.0	0.0	0.0	0.0
60°	18.9	16.3	10.3	6.0	1.7	0.0	0.0	0.0	0.0	0.0	0.0
62.5°	15.5	13.7	7.7	3.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0
65°	12.9	10.3	6.0	0.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0
67.5°	11.2	8.6	4.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
70°	8.6	6.0	2.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
72.5°	6.0	4.3	0.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
75°	4.3	2.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
77.5°	2.6	0.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
80°	0.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
82.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
85°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
87.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	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°	1217.4	1217.4	1217.4	1217.4	1217.4	1217.4	1217.4	1217.4	1217.4	1217.4	1217.4
2.5°	1092.1	1117.9	1141.9	1148.8	1167.7	1220.0	1220.0	1244.9	1289.6	1305.9	1309.3
5°	921.2	948.7	953.9	1007.1	1032.0	1085.2	1120.4	1204.6	1255.2	1287.0	1306.7
7.5°	700.6	710.0	729.8	779.6	828.5	892.9	959.9	1067.2	1156.5	1192.6	1259.5
10°	481.7	510.0	552.9	597.6	674.0	745.2	832.0	933.3	1043.2	1087.8	1145.3
12.5°	324.5	364.0	432.7	496.3	566.7	638.8	721.2	856.9	981.3	1043.2	1100.7
15°	189.7	237.8	297.1	400.1	493.7	574.4	656.8	794.2	945.3	1025.1	1095.5
17.5°	96.2	110.8	159.7	249.0	372.6	504.8	627.6	802.8	972.8	1070.6	1129.0
20°	72.1	76.4	90.1	132.2	255.0	417.3	600.1	815.6	1049.2	1168.5	1200.3
22.5°	62.7	66.1	72.1	85.9	143.4	319.4	561.5	847.4	1153.1	1265.5	1332.5
25°	53.2	56.7	61.8	70.4	91.9	217.2	514.3	880.9	1245.8	1387.4	1450.1
27.5°	46.4	48.9	54.1	61.0	74.7	138.2	432.7	925.5	1387.4	1535.1	1551.4
30°	39.5	42.1	46.4	54.1	63.5	97.9	317.7	931.5	1465.6	1599.5	1645.0
32.5°	34.3	35.2	40.4	47.2	53.2	77.3	223.2	937.6	1523.1	1682.8	1692.2
35°	28.3	30.0	35.2	39.5	46.4	61.0	169.1	907.5	1597.8	1768.6	1766.1
37.5°	23.2	25.8	29.2	32.6	37.8	51.5	134.8	851.7	1691.4	1901.7	1821.0
40°	18.0	20.6	24.0	28.3	31.8	46.4	101.3	767.6	1789.3	1967.0	1881.1
42.5°	12.9	14.6	18.0	22.3	28.3	38.6	73.0	668.0	1827.9	2043.4	1953.2
45°	9.4	11.2	13.7	18.9	29.2	30.9	50.7	577.0	1869.1	2076.9	1936.9
47.5°	5.2	6.9	10.3	16.3	25.8	23.2	36.1	495.4	1916.3	2106.9	1949.8
50°	1.7	2.6	6.0	17.2	20.6	18.0	28.3	451.6	1962.7	2112.9	1975.6
52.5°	0.0	0.0	3.4	18.0	15.5	13.7	24.9	434.4	1950.7	2131.8	1959.3
55°	0.0	0.0	0.9	7.7	8.6	10.3	20.6	433.6	2035.7	2137.8	2048.5
57.5°	0.0	0.0	0.0	2.6	5.2	8.6	18.0	406.1	2089.8	2287.2	2168.7
60°	0.0	0.0	0.0	0.9	3.4	6.0	13.7	382.1	2144.7	2354.2	2297.5
62.5°	0.0	0.0	0.0	0.0	0.9	2.6	9.4	345.1	2033.9	2349.0	2422.0
65°	0.0	0.0	0.0	0.0	0.0	0.0	6.0	273.0	1829.6	2226.3	2353.3
67.5°	0.0	0.0	0.0	0.0	0.0	0.0	3.4	188.9	1602.1	2071.7	2227.1
70°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	114.2	1293.0	1816.7	1888.8
72.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	48.9	923.0	1442.4	1549.7
75°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	19.7	570.9	1054.3	1186.5
77.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	7.7	370.0	798.5	900.6
80°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.7	197.5	500.5	582.1
82.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	85.9	303.9	350.3
85°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	27.5	184.6	210.3
87.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	28.3	37.8
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):

	285°	295°	305°	315°	325°	335°	345°	355°	359°	360°
0°	1217.4	1217.4	1217.4	1217.4	1217.4	1217.4	1217.4	1217.4	1217.4	1217.4
2.5°	1311.0	1335.9	1345.4	1330.8	1332.5	1302.4	1298.2	1256.1	1238.9	1242.3
5°	1371.1	1407.2	1426.9	1410.6	1373.7	1316.2	1263.8	1214.0	1183.1	1167.7
7.5°	1357.4	1397.7	1422.6	1438.1	1396.0	1303.3	1223.5	1129.9	1090.4	1091.2
10°	1281.8	1366.0	1416.6	1396.9	1377.1	1284.4	1160.8	1059.5	1024.3	1027.7
12.5°	1220.9	1314.5	1344.5	1360.0	1319.6	1245.8	1162.5	1046.6	1007.1	983.1
15°	1183.1	1252.7	1254.4	1278.4	1262.1	1262.1	1180.5	1067.2	1032.9	1006.2
17.5°	1183.1	1198.6	1196.8	1205.4	1232.9	1265.5	1226.0	1150.5	1082.7	1078.4
20°	1209.7	1161.6	1150.5	1153.9	1177.1	1274.1	1326.5	1232.0	1189.1	1175.4
22.5°	1271.5	1165.9	1098.1	1086.1	1157.3	1273.3	1390.9	1360.8	1286.1	1275.0
25°	1356.5	1158.2	1084.4	1068.9	1123.0	1304.2	1479.3	1485.3	1417.5	1394.3
27.5°	1437.2	1192.6	1082.7	1079.2	1150.5	1297.3	1540.3	1584.9	1508.5	1489.6
30°	1464.7	1226.9	1114.4	1068.9	1160.8	1322.2	1538.6	1655.3	1605.5	1609.8
32.5°	1497.3	1261.2	1117.9	1099.8	1204.6	1362.5	1587.5	1768.6	1732.6	1681.9
35°	1545.4	1307.6	1150.5	1134.2	1235.5	1398.6	1597.8	1851.9	1845.9	1786.7
37.5°	1586.6	1353.1	1218.3	1220.9	1329.9	1457.0	1643.3	1954.1	1943.8	1903.4
40°	1615.8	1416.6	1323.9	1330.8	1412.3	1522.2	1724.0	2005.6	2082.0	2022.8
42.5°	1620.1	1473.3	1445.0	1499.9	1576.3	1623.6	1756.6	2040.8	2150.7	2112.1
45°	1636.4	1563.5	1642.4	1682.8	1745.5	1712.8	1754.9	2100.9	2155.9	2136.1
47.5°	1700.0	1727.4	1827.0	1949.8	1972.1	1864.8	1796.1	2110.4	2185.1	2182.5
50°	1766.1	1903.4	2043.4	2125.0	2153.3	1969.6	1834.8	2102.6	2223.7	2203.1
52.5°	1839.9	2056.3	2258.0	2358.5	2343.0	2085.5	1878.5	2165.3	2295.0	2288.1
55°	1886.3	2125.0	2396.3	2536.2	2524.2	2215.1	2017.6	2255.5	2388.5	2371.4
57.5°	2009.0	2236.6	2533.6	2598.9	2630.7	2385.1	2114.7	2403.1	2466.7	2485.6
60°	2110.4	2309.5	2569.7	2664.1	2675.3	2486.4	2284.6	2555.1	2566.3	2502.7
62.5°	2258.9	2337.9	2493.3	2578.3	2635.8	2543.9	2437.5	2636.7	2564.5	2560.2
65°	2367.9	2245.2	2350.8	2398.0	2434.9	2456.4	2591.2	2692.5	2532.8	2449.5
67.5°	2307.0	2070.0	2050.3	2052.8	2064.0	2193.6	2539.6	2556.0	2355.9	2287.2
70°	2030.5	1698.2	1671.6	1692.2	1636.4	1792.7	2331.0	2323.3	2078.6	2007.3
72.5°	1642.4	1238.1	1192.6	1220.9	1233.8	1399.5	1961.0	1761.8	1516.2	1460.4
75°	1305.0	907.5	765.8	834.5	878.3	1019.1	1531.7	1196.8	1058.6	983.1
77.5°	1025.1	686.9	595.8	568.4	608.7	740.9	1114.4	628.5	554.6	519.4
80°	649.9	504.8	547.8	508.3	525.4	528.9	580.4	285.9	227.5	224.9
82.5°	391.5	345.1	410.4	225.8	411.3	367.5	241.3	129.6	115.0	115.0
85°	277.3	213.8	141.7	91.9	182.9	201.8	93.6	67.0	58.4	56.7
87.5°	139.1	66.1	31.8	20.6	23.2	37.8	11.2	5.2	5.2	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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