

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: P677475

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

Issue Date: 04/25/2023



Test Information

Test Method: LM-79-08
Report Number: P677475
Test Lab: INNOVATION CENTER(G1)
Issue Date: 04/25/2023
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: INVUE
Catalog Number: CCW-SA-1F-830-U-SLR-HSS
Description: INVUE CLEAR CURVE Wall Pack MOUNT Light Square Luminaire @1200mA 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: 4281.4 lumens
Efficiency: N/A
Efficacy: 63.9 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 0.5' x H: 0')
IES Classification: Type IV - Short
BUG Rating: B1 - U0 - G1

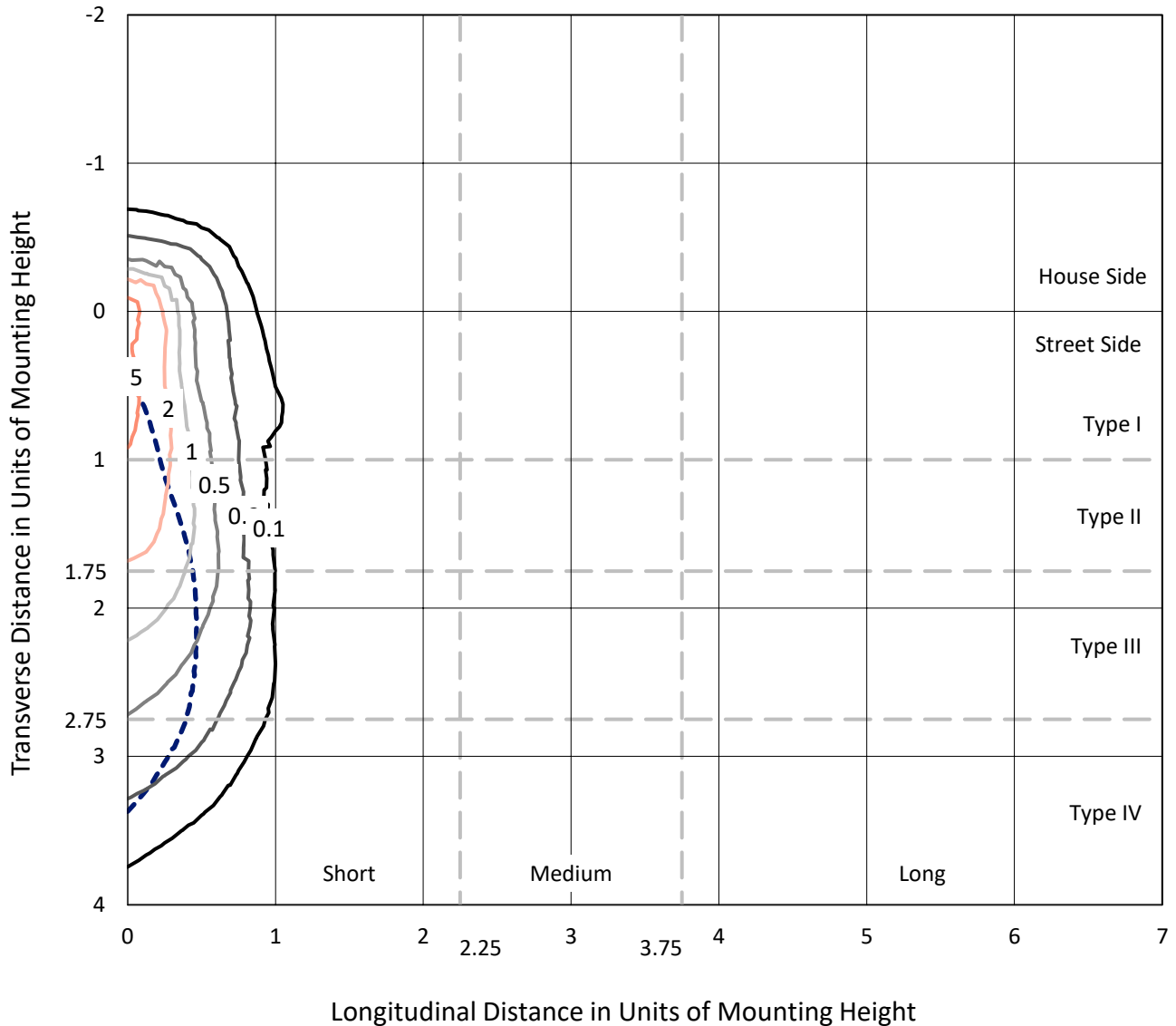
Input Watts (W): 67
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Iso-Footcandle Lines of Horizontal Illumination

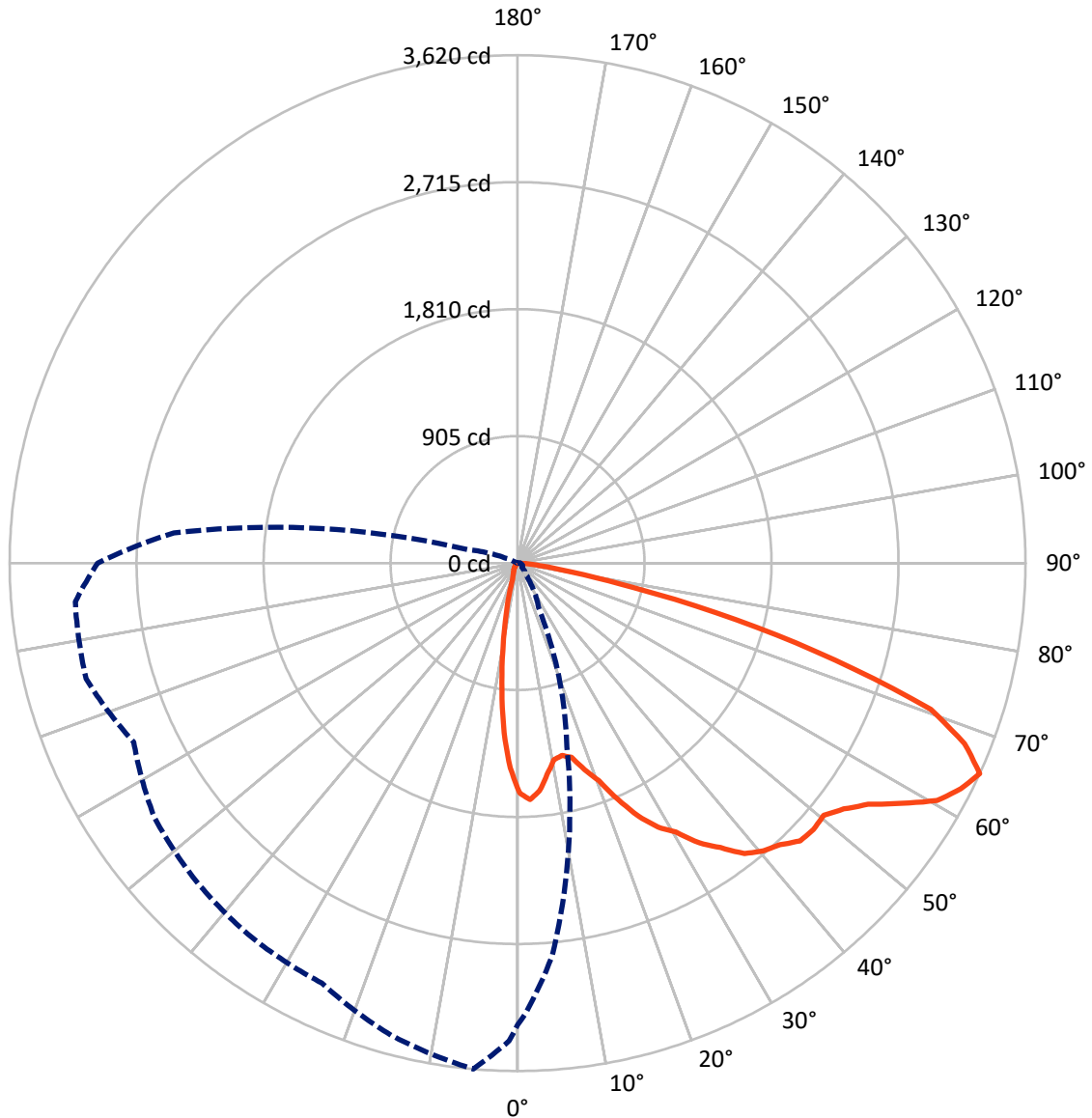
× Max cd
 - - - 1/2 Max cd



Based on 15 foot mounting height. Maximum calculated value = 7.3 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	555.9	0.0	555.9
	% Fixture	13.0	0.0	13.0
Street Side	Lumens	3725.5	0.0	3725.5
	% Fixture	87.0	0.0	87.0
Total	Lumens	4281.4	0.0	4281.4
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	124.0	2.9
10°-20°	240.1	5.6
20°-30°	334.4	7.8
30°-40°	475.1	11.1
40°-50°	658.8	15.4
50°-60°	897.7	21.0
60°-70°	987.0	23.1
70°-80°	485.1	11.3
80°-90°	79.2	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°	4281.4	100.0
0°-180°	4281.4	100.0



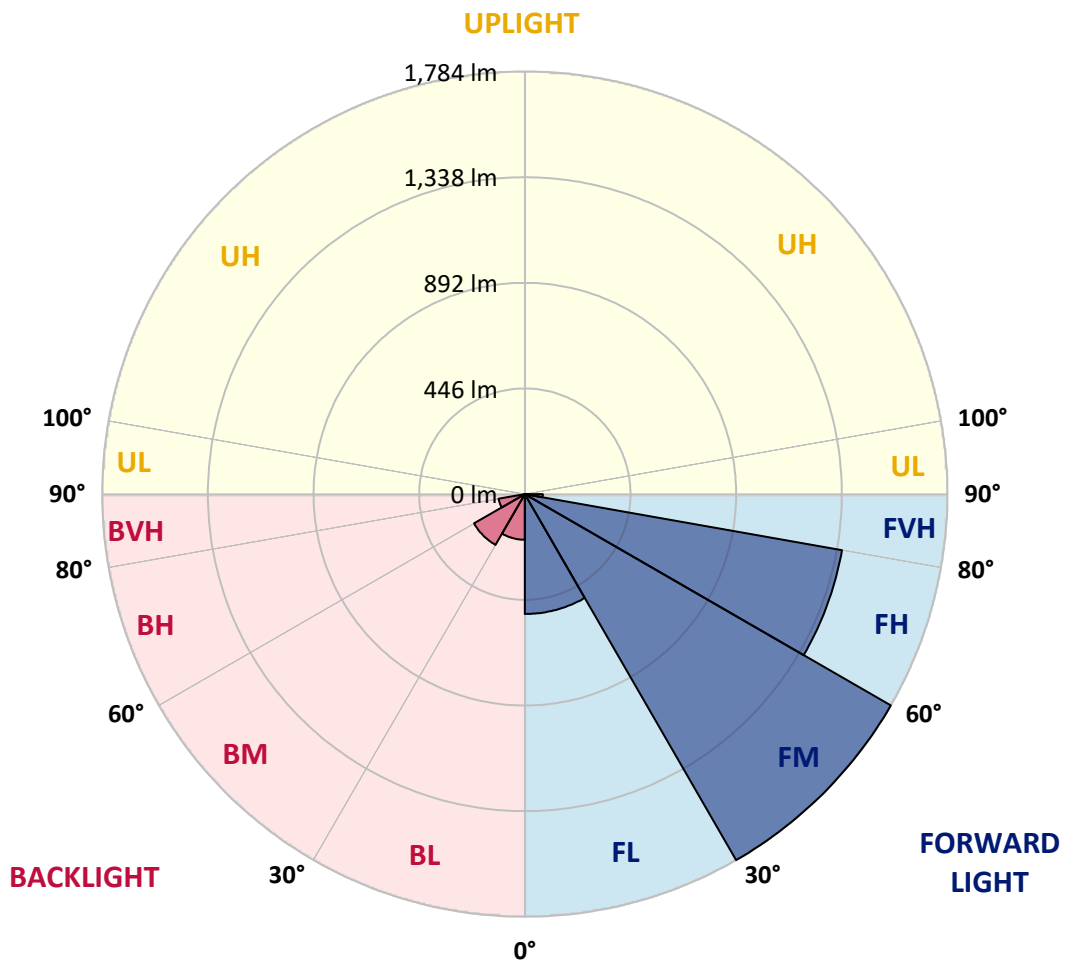
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	506.0	11.8			
FM (30°-60°)	1784.2	41.7			
FH (60°-80°)	1359.7	31.8			G1/1800
FVH (80°-90°)	75.6	1.8			G1/100
BL (0°-30°)	192.5	4.5	B1/500		
BM (30°-60°)	247.5	5.8	B1/1000		
BH (60°-80°)	112.3	2.6	B1/500		G1/500
BVH (80°-90°)	3.6	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 IV Short





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CANDELA DISTRIBUTION (FULL):

	0°	1°	5°	15°	25°	35°	45°	55°	65°	75°	85°
0°	1636.8	1636.8	1636.8	1636.8	1636.8	1636.8	1636.8	1636.8	1636.8	1636.8	1636.8
2.5°	1670.2	1689.9	1671.4	1606.7	1595.2	1564.0	1516.7	1513.3	1463.6	1469.4	1442.8
5°	1569.8	1589.4	1550.2	1464.8	1385.1	1321.6	1283.6	1215.5	1200.4	1167.0	1167.0
7.5°	1467.1	1465.9	1399.0	1327.4	1208.5	1091.9	1038.8	940.7	883.0	851.9	821.8
10°	1381.7	1363.2	1321.6	1173.9	1044.6	923.4	857.6	793.0	733.0	681.0	629.1
12.5°	1321.6	1333.2	1267.4	1106.9	939.6	855.3	784.9	716.8	645.2	586.4	528.7
15°	1352.8	1334.3	1257.0	1091.9	922.3	806.8	713.3	630.2	550.6	473.3	429.4
17.5°	1449.8	1402.4	1311.3	1091.9	886.5	733.0	619.8	521.7	436.3	367.1	312.8
20°	1580.2	1526.0	1427.8	1132.3	859.9	678.7	524.0	400.5	311.7	247.0	205.5
22.5°	1714.1	1671.4	1523.6	1148.5	828.8	606.0	413.2	289.7	207.8	166.2	145.4
25°	1874.5	1814.5	1652.9	1213.1	782.6	535.6	325.5	202.0	154.7	132.7	120.0
27.5°	2002.7	1992.3	1774.1	1252.4	748.0	477.9	257.4	160.4	128.1	112.0	103.9
30°	2164.3	2107.7	1921.9	1330.9	708.7	412.1	214.7	144.3	117.7	100.4	94.7
32.5°	2261.2	2234.7	1999.2	1374.7	664.9	357.8	184.7	127.0	107.3	94.7	88.9
35°	2402.0	2348.9	2110.0	1402.4	641.8	326.7	166.2	115.4	90.0	77.3	70.4
37.5°	2559.0	2539.4	2242.8	1401.3	608.3	308.2	153.5	107.3	85.4	71.6	63.5
40°	2719.5	2639.8	2323.6	1433.6	591.0	294.3	144.3	102.7	80.8	68.1	57.7
42.5°	2839.5	2748.3	2417.1	1422.1	570.2	270.1	140.8	95.8	77.3	62.3	53.1
45°	2871.8	2839.5	2501.3	1418.6	555.2	250.5	135.1	94.7	75.0	58.9	49.6
47.5°	2934.2	2912.2	2605.2	1424.4	543.7	235.5	121.2	97.0	71.6	55.4	47.3
50°	2961.9	2922.6	2689.5	1438.2	517.1	217.0	108.5	101.6	70.4	54.3	45.0
52.5°	3076.1	3041.5	2804.9	1477.5	495.2	192.8	95.8	97.0	72.7	50.8	42.7
55°	3188.1	3148.9	2982.6	1567.5	464.0	173.1	82.0	85.4	69.3	46.2	38.1
57.5°	3341.6	3277.0	3101.5	1604.4	436.3	146.6	72.7	70.4	64.6	41.6	33.5
60°	3364.7	3391.3	3084.2	1581.4	407.5	129.3	63.5	54.3	69.3	36.9	28.9
62.5°	3442.0	3331.2	3003.4	1528.3	386.7	118.9	56.6	45.0	60.0	32.3	24.2
65°	3293.1	3211.2	2814.1	1357.4	360.1	120.0	49.6	36.9	38.1	26.5	19.6
67.5°	3075.0	3010.3	2500.2	1171.6	333.6	117.7	43.9	32.3	28.9	23.1	17.3
70°	2698.7	2559.0	2123.9	951.1	294.3	109.7	36.9	28.9	24.2	18.5	12.7
72.5°	1963.4	1906.9	1523.6	735.3	264.3	99.3	34.6	24.2	20.8	13.9	10.4
75°	1321.6	1228.1	961.5	482.5	212.4	86.6	28.9	21.9	16.2	10.4	8.1
77.5°	698.3	660.2	544.8	229.7	117.7	40.4	16.2	12.7	9.2	8.1	4.6
80°	302.4	268.9	235.5	93.5	41.6	18.5	10.4	6.9	5.8	4.6	2.3
82.5°	154.7	147.7	122.4	40.4	24.2	13.9	5.8	4.6	3.5	2.3	1.2
85°	76.2	78.5	64.6	12.7	13.9	8.1	1.2	1.2	0.0	0.0	0.0
87.5°	5.8	5.8	4.6	2.3	3.5	1.2	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°	1636.8	1636.8	1636.8	1636.8	1636.8	1636.8	1636.8	1636.8	1636.8	1636.8	1636.8
2.5°	1432.5	1448.6	1420.9	1438.2	1430.1	1433.6	1437.1	1427.8	1430.1	1462.5	1463.6
5°	1147.3	1178.5	1167.0	1183.1	1210.8	1197.0	1209.7	1207.4	1209.7	1214.3	1235.1
7.5°	818.4	809.1	831.1	873.8	923.4	953.4	938.4	930.3	925.7	914.2	928.0
10°	617.5	612.9	607.1	619.8	652.2	685.6	704.1	672.9	655.6	633.7	625.6
12.5°	512.5	483.6	467.5	447.9	457.1	487.1	488.3	458.2	430.5	419.0	431.7
15°	404.0	384.4	355.5	327.8	314.0	337.0	317.4	288.6	252.8	248.2	247.0
17.5°	288.6	277.0	256.2	244.7	228.5	222.8	202.0	158.1	132.7	125.8	128.1
20°	196.2	187.0	185.8	175.4	168.5	163.9	130.4	101.6	93.5	94.7	95.8
22.5°	145.4	140.8	135.1	133.9	128.1	122.4	95.8	85.4	79.6	79.6	83.1
25°	118.9	116.6	110.8	108.5	106.2	98.1	80.8	72.7	70.4	68.1	71.6
27.5°	101.6	100.4	97.0	93.5	91.2	83.1	70.4	63.5	61.2	61.2	61.2
30°	91.2	91.2	86.6	79.6	79.6	70.4	60.0	55.4	53.1	53.1	51.9
32.5°	85.4	83.1	77.3	72.7	69.3	60.0	53.1	48.5	45.0	45.0	46.2
35°	69.3	69.3	68.1	64.6	60.0	50.8	45.0	40.4	38.1	36.9	38.1
37.5°	61.2	57.7	53.1	54.3	51.9	43.9	38.1	34.6	31.2	31.2	31.2
40°	55.4	51.9	47.3	43.9	42.7	39.2	33.5	27.7	24.2	23.1	23.1
42.5°	49.6	47.3	40.4	34.6	33.5	33.5	25.4	20.8	17.3	17.3	17.3
45°	46.2	42.7	36.9	30.0	24.2	25.4	20.8	15.0	12.7	11.5	11.5
47.5°	43.9	40.4	32.3	25.4	18.5	18.5	15.0	10.4	8.1	6.9	6.9
50°	40.4	36.9	28.9	20.8	13.9	11.5	9.2	5.8	3.5	2.3	2.3
52.5°	38.1	34.6	25.4	17.3	11.5	8.1	5.8	1.2	0.0	0.0	0.0
55°	34.6	30.0	21.9	13.9	9.2	4.6	1.2	0.0	0.0	0.0	0.0
57.5°	30.0	26.5	17.3	10.4	5.8	1.2	0.0	0.0	0.0	0.0	0.0
60°	25.4	21.9	13.9	8.1	2.3	0.0	0.0	0.0	0.0	0.0	0.0
62.5°	20.8	18.5	10.4	4.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0
65°	17.3	13.9	8.1	1.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0
67.5°	15.0	11.5	5.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
70°	11.5	8.1	3.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
72.5°	8.1	5.8	1.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
75°	5.8	3.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
77.5°	3.5	1.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
80°	1.2	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°	1636.8	1636.8	1636.8	1636.8	1636.8	1636.8	1636.8	1636.8	1636.8	1636.8	1636.8
2.5°	1468.2	1502.9	1535.2	1544.4	1569.8	1640.2	1640.2	1673.7	1733.7	1755.7	1760.3
5°	1238.5	1275.5	1282.4	1354.0	1387.4	1459.0	1506.3	1619.4	1687.5	1730.3	1756.8
7.5°	941.9	954.6	981.1	1048.1	1113.9	1200.4	1290.5	1434.8	1554.8	1603.3	1693.3
10°	647.5	685.6	743.4	803.4	906.1	1001.9	1118.5	1254.7	1402.4	1462.5	1539.8
12.5°	436.3	489.4	581.8	667.2	761.8	858.8	969.6	1152.0	1319.3	1402.4	1479.8
15°	255.1	319.7	399.4	537.9	663.7	772.2	883.0	1067.7	1270.9	1378.2	1472.9
17.5°	129.3	148.9	214.7	334.7	501.0	678.7	843.8	1079.2	1307.8	1439.4	1517.9
20°	97.0	102.7	121.2	177.8	342.8	561.0	806.8	1096.6	1410.5	1571.0	1613.7
22.5°	84.3	88.9	97.0	115.4	192.8	429.4	754.9	1139.3	1550.2	1701.4	1791.4
25°	71.6	76.2	83.1	94.7	123.5	292.0	691.4	1184.3	1674.9	1865.3	1949.6
27.5°	62.3	65.8	72.7	82.0	100.4	185.8	581.8	1244.3	1865.3	2063.8	2085.8
30°	53.1	56.6	62.3	72.7	85.4	131.6	427.1	1252.4	1970.3	2150.4	2211.6
32.5°	46.2	47.3	54.3	63.5	71.6	103.9	300.1	1260.5	2047.7	2262.4	2275.1
35°	38.1	40.4	47.3	53.1	62.3	82.0	227.4	1220.1	2148.1	2377.8	2374.3
37.5°	31.2	34.6	39.2	43.9	50.8	69.3	181.2	1145.0	2273.9	2556.7	2448.2
40°	24.2	27.7	32.3	38.1	42.7	62.3	136.2	1031.9	2405.5	2644.4	2529.0
42.5°	17.3	19.6	24.2	30.0	38.1	51.9	98.1	898.0	2457.4	2747.2	2626.0
45°	12.7	15.0	18.5	25.4	39.2	41.6	68.1	775.7	2512.9	2792.2	2604.0
47.5°	6.9	9.2	13.9	21.9	34.6	31.2	48.5	666.0	2576.3	2832.6	2621.4
50°	2.3	3.5	8.1	23.1	27.7	24.2	38.1	607.1	2638.7	2840.7	2656.0
52.5°	0.0	0.0	4.6	24.2	20.8	18.5	33.5	584.1	2622.5	2866.1	2634.1
55°	0.0	0.0	1.2	10.4	11.5	13.9	27.7	582.9	2736.8	2874.1	2754.1
57.5°	0.0	0.0	0.0	3.5	6.9	11.5	24.2	546.0	2809.5	3075.0	2915.7
60°	0.0	0.0	0.0	1.2	4.6	8.1	18.5	513.7	2883.4	3165.0	3088.8
62.5°	0.0	0.0	0.0	0.0	1.2	3.5	12.7	464.0	2734.5	3158.1	3256.2
65°	0.0	0.0	0.0	0.0	0.0	0.0	8.1	367.1	2459.8	2993.0	3163.9
67.5°	0.0	0.0	0.0	0.0	0.0	0.0	4.6	253.9	2153.9	2785.3	2994.2
70°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	153.5	1738.3	2442.4	2539.4
72.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	65.8	1240.8	1939.2	2083.5
75°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	26.5	767.6	1417.4	1595.2
77.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	10.4	497.5	1073.5	1210.8
80°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.3	265.5	672.9	782.6
82.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	115.4	408.6	470.9
85°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	36.9	248.2	282.8
87.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	38.1	50.8
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°	1636.8	1636.8	1636.8	1636.8	1636.8	1636.8	1636.8	1636.8	1636.8	1636.8
2.5°	1762.6	1796.1	1808.7	1789.1	1791.4	1751.0	1745.3	1688.7	1665.6	1670.2
5°	1843.4	1891.9	1918.4	1896.5	1846.8	1769.5	1699.1	1632.1	1590.6	1569.8
7.5°	1824.9	1879.2	1912.6	1933.4	1876.8	1752.2	1644.8	1519.0	1465.9	1467.1
10°	1723.3	1836.5	1904.6	1878.0	1851.5	1726.8	1560.6	1424.4	1377.0	1381.7
12.5°	1641.4	1767.2	1807.6	1828.4	1774.1	1674.9	1562.9	1407.1	1354.0	1321.6
15°	1590.6	1684.1	1686.4	1718.7	1696.8	1696.8	1587.1	1434.8	1388.6	1352.8
17.5°	1590.6	1611.4	1609.1	1620.6	1657.5	1701.4	1648.3	1546.7	1455.5	1449.8
20°	1626.4	1561.7	1546.7	1551.3	1582.5	1712.9	1783.4	1656.4	1598.7	1580.2
22.5°	1709.5	1567.5	1476.3	1460.2	1556.0	1711.8	1869.9	1829.5	1729.1	1714.1
25°	1823.8	1557.1	1457.8	1437.1	1509.8	1753.3	1988.8	1996.9	1905.7	1874.5
27.5°	1932.3	1603.3	1455.5	1450.9	1546.7	1744.1	2070.8	2130.8	2028.1	2002.7
30°	1969.2	1649.5	1498.2	1437.1	1560.6	1777.6	2068.5	2225.4	2158.5	2164.3
32.5°	2013.1	1695.6	1502.9	1478.6	1619.4	1831.8	2134.3	2377.8	2329.3	2261.2
35°	2077.7	1758.0	1546.7	1524.8	1661.0	1880.3	2148.1	2489.8	2481.7	2402.0
37.5°	2133.1	1819.1	1637.9	1641.4	1788.0	1958.8	2209.3	2627.1	2613.3	2559.0
40°	2172.3	1904.6	1779.9	1789.1	1898.8	2046.5	2317.8	2696.4	2799.1	2719.5
42.5°	2178.1	1980.7	1942.6	2016.5	2119.2	2182.7	2361.6	2743.7	2891.5	2839.5
45°	2200.0	2101.9	2208.1	2262.4	2346.6	2302.8	2359.3	2824.5	2898.4	2871.8
47.5°	2285.5	2322.4	2456.3	2621.4	2651.4	2507.1	2414.7	2837.2	2937.6	2934.2
50°	2374.3	2559.0	2747.2	2856.8	2894.9	2647.9	2466.7	2826.8	2989.6	2961.9
52.5°	2473.6	2764.5	3035.7	3170.8	3150.0	2803.7	2525.6	2911.1	3085.4	3076.1
55°	2535.9	2856.8	3221.6	3409.7	3393.6	2978.0	2712.5	3032.3	3211.2	3188.1
57.5°	2701.0	3006.9	3406.3	3494.0	3536.7	3206.6	2843.0	3230.8	3316.2	3341.6
60°	2837.2	3105.0	3454.7	3581.7	3596.7	3342.8	3071.5	3435.1	3450.1	3364.7
62.5°	3036.9	3143.1	3352.0	3466.3	3543.6	3420.1	3277.0	3544.8	3447.8	3442.0
65°	3183.5	3018.4	3160.4	3223.9	3273.5	3302.4	3483.6	3619.8	3405.1	3293.1
67.5°	3101.5	2783.0	2756.4	2759.9	2774.9	2949.2	3414.3	3436.3	3167.3	3075.0
70°	2729.9	2283.2	2247.4	2275.1	2200.0	2410.1	3133.9	3123.5	2794.5	2698.7
72.5°	2208.1	1664.5	1603.3	1641.4	1658.7	1881.5	2636.4	2368.6	2038.4	1963.4
75°	1754.5	1220.1	1029.6	1122.0	1180.8	1370.1	2059.2	1609.1	1423.2	1321.6
77.5°	1378.2	923.4	801.1	764.1	818.4	996.1	1498.2	844.9	745.7	698.3
80°	873.8	678.7	736.4	683.3	706.4	711.0	780.3	384.4	305.9	302.4
82.5°	526.3	464.0	551.7	303.6	552.9	494.0	324.4	174.3	154.7	154.7
85°	372.8	287.4	190.5	123.5	245.9	271.3	125.8	90.0	78.5	76.2
87.5°	187.0	88.9	42.7	27.7	31.2	50.8	15.0	6.9	6.9	5.8
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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