

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: P677507

Luminaire Tested: **CCW-SA-1E-850-U-SLR-HSS**

Issue Date: 04/25/2023



Test Information

Test Method: LM-79-08
Report Number: P677507
Test Lab: INNOVATION CENTER(G1)
Issue Date: 04/25/2023
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: INVUE
Catalog Number: CCW-SA-1E-850-U-SLR-HSS
Description: INVUE CLEAR CURVE Wall Pack MOUNT Light Square Luminaire @1050mA w/
SLR distribution lens and House Side Shield
Light Source: (16) 5000K CCT, 80 CRI LEDs
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 4287.4 lumens
Efficiency: N/A
Efficacy: 76.4 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 0.5' x H: 0')
IES Classification: Type IV - Short
BUG Rating: B1 - U0 - G1

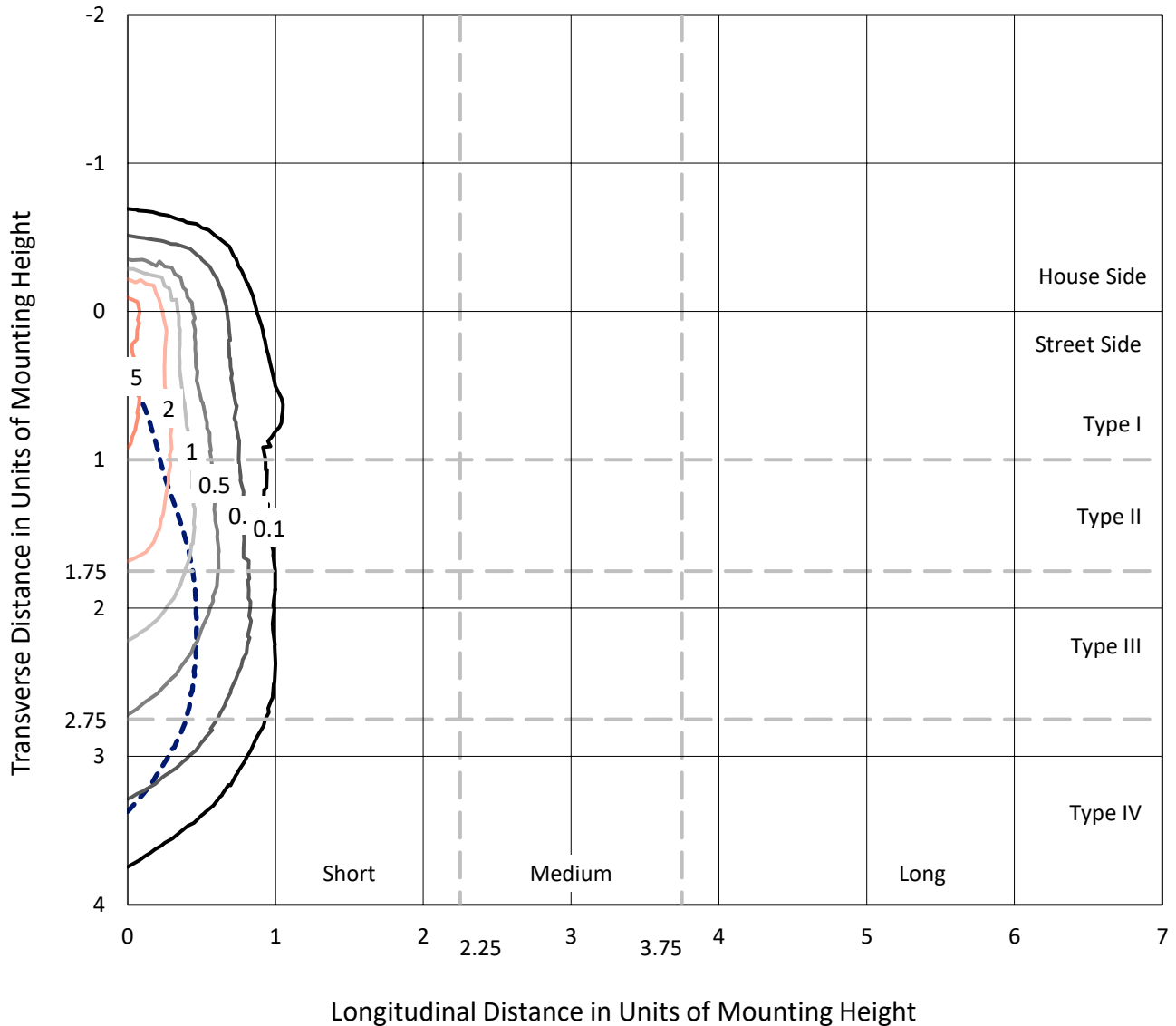
Input Watts (W): 56.1
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Iso-Footcandle Lines of Horizontal Illumination

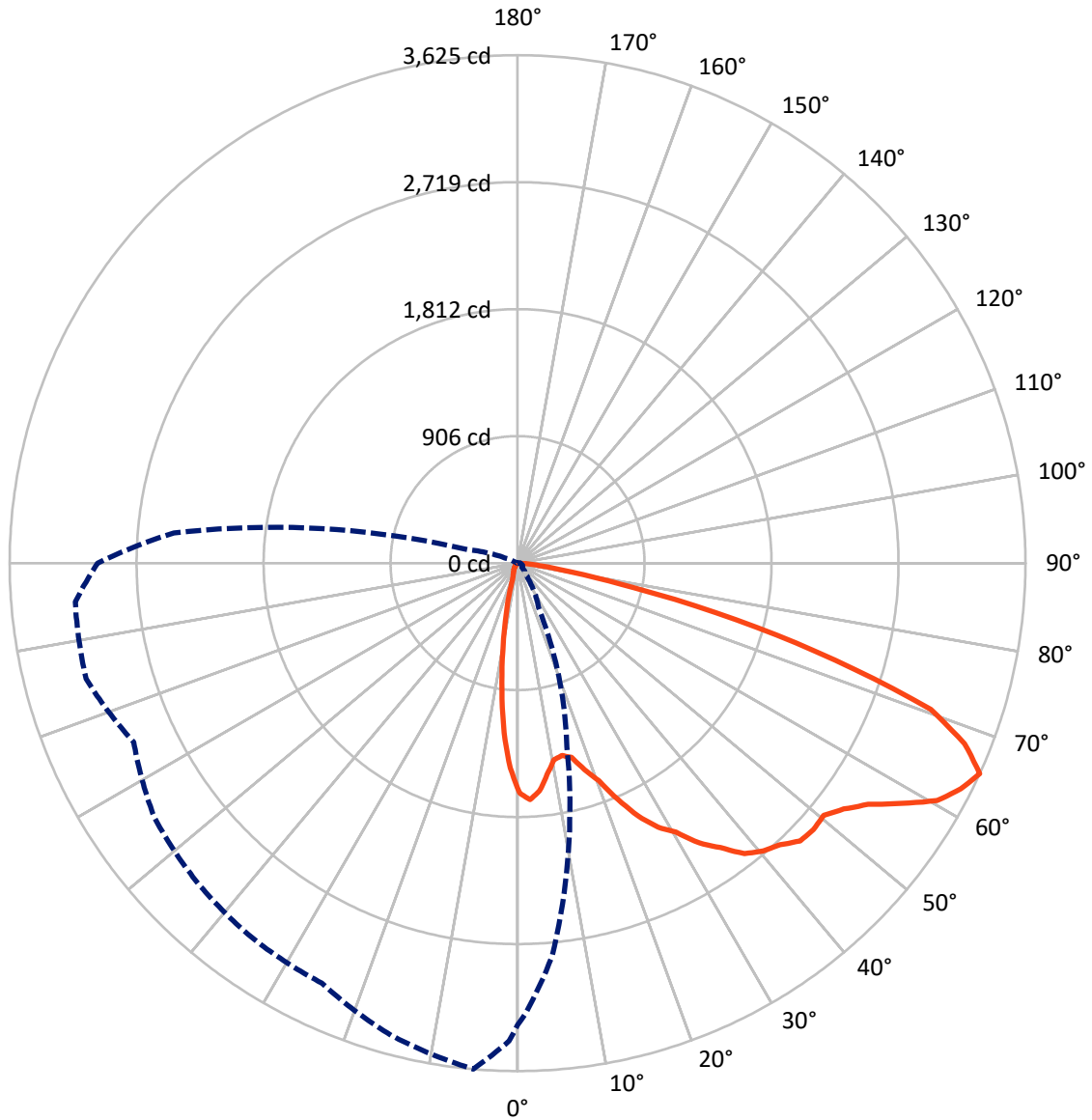
× Max cd
 - - - 1/2 Max cd



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	556.7	0.0	556.7
	% Fixture	13.0	0.0	13.0
Street Side	Lumens	3730.7	0.0	3730.7
	% Fixture	87.0	0.0	87.0
Total	Lumens	4287.4	0.0	4287.4
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	124.2	2.9
10°-20°	240.4	5.6
20°-30°	334.8	7.8
30°-40°	475.8	11.1
40°-50°	659.8	15.4
50°-60°	899.0	21.0
60°-70°	988.3	23.1
70°-80°	485.8	11.3
80°-90°	79.3	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°	4287.4	100.0
0°-180°	4287.4	100.0



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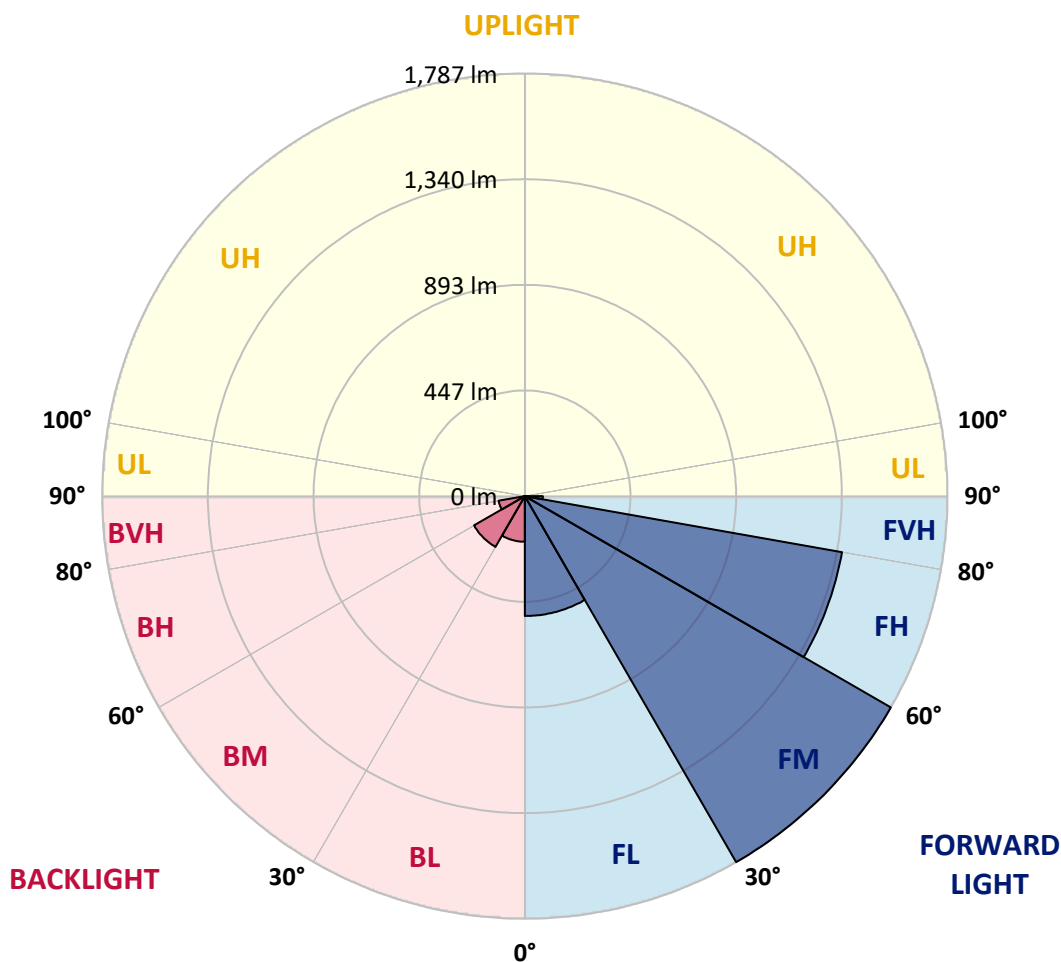
CATALOG NUMBER: CCW-SA-1E-850-U-SLR-HSS

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	506.7	11.8			
FM (30°-60°)	1786.7	41.7			
FH (60°-80°)	1361.6	31.8			G1/1800
FVH (80°-90°)	75.8	1.8			G1/100
BL (0°-30°)	192.7	4.5	B1/500		
BM (30°-60°)	247.8	5.8	B1/1000		
BH (60°-80°)	112.5	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°	1639.1	1639.1	1639.1	1639.1	1639.1	1639.1	1639.1	1639.1	1639.1	1639.1	1639.1
2.5°	1672.6	1692.2	1673.7	1609.0	1597.4	1566.2	1518.8	1515.4	1465.7	1471.4	1444.9
5°	1572.0	1591.7	1552.4	1466.8	1387.1	1323.5	1285.3	1217.2	1202.1	1168.6	1168.6
7.5°	1469.1	1468.0	1400.9	1329.3	1210.2	1093.5	1040.3	942.1	884.3	853.0	823.0
10°	1383.6	1365.1	1323.5	1175.5	1046.1	924.7	858.8	794.1	734.0	682.0	630.0
12.5°	1323.5	1335.1	1269.2	1108.5	940.9	856.5	786.0	717.8	646.1	587.2	529.4
15°	1354.7	1336.2	1258.8	1093.5	923.6	808.0	714.3	631.1	551.4	473.9	430.0
17.5°	1451.8	1404.4	1313.1	1093.5	887.7	734.0	620.7	522.5	436.9	367.6	313.2
20°	1582.4	1528.1	1429.8	1133.9	861.1	679.7	524.8	401.1	312.1	247.4	205.7
22.5°	1716.5	1673.7	1525.8	1150.1	829.9	606.8	413.8	290.1	208.1	166.4	145.6
25°	1877.2	1817.1	1655.2	1214.8	783.7	536.3	326.0	202.3	154.9	132.9	120.2
27.5°	2005.5	1995.1	1776.6	1254.1	749.0	478.5	257.8	160.7	128.3	112.1	104.0
30°	2167.3	2110.7	1924.6	1332.7	709.7	412.7	215.0	144.5	117.9	100.6	94.8
32.5°	2264.4	2237.8	2002.0	1376.7	665.8	358.3	184.9	127.1	107.5	94.8	89.0
35°	2405.4	2352.2	2113.0	1404.4	642.7	327.1	166.4	115.6	90.2	77.4	70.5
37.5°	2562.6	2543.0	2245.9	1403.3	609.2	308.6	153.7	107.5	85.5	71.7	63.6
40°	2723.3	2643.5	2326.8	1435.6	591.8	294.8	144.5	102.9	80.9	68.2	57.8
42.5°	2843.5	2752.2	2420.4	1424.1	571.0	270.5	141.0	95.9	77.4	62.4	53.2
45°	2875.9	2843.5	2504.8	1420.6	556.0	250.8	135.2	94.8	75.1	59.0	49.7
47.5°	2938.3	2916.3	2608.8	1426.4	544.4	235.8	121.4	97.1	71.7	55.5	47.4
50°	2966.0	2926.7	2693.2	1440.2	517.8	217.3	108.7	101.7	70.5	54.3	45.1
52.5°	3080.4	3045.8	2808.8	1479.5	495.9	193.0	95.9	97.1	72.8	50.9	42.8
55°	3192.6	3153.3	2986.8	1569.7	464.7	173.4	82.1	85.5	69.4	46.2	38.1
57.5°	3346.3	3281.6	3105.9	1606.7	436.9	146.8	72.8	70.5	64.7	41.6	33.5
60°	3369.4	3396.0	3088.5	1583.6	408.0	129.5	63.6	54.3	69.4	37.0	28.9
62.5°	3446.9	3335.9	3007.6	1530.4	387.2	119.1	56.6	45.1	60.1	32.4	24.3
65°	3297.8	3215.7	2818.1	1359.3	360.6	120.2	49.7	37.0	38.1	26.6	19.7
67.5°	3079.3	3014.6	2503.7	1173.2	334.1	117.9	43.9	32.4	28.9	23.1	17.3
70°	2702.5	2562.6	2126.8	952.5	294.8	109.8	37.0	28.9	24.3	18.5	12.7
72.5°	1966.2	1909.5	1525.8	736.3	264.7	99.4	34.7	24.3	20.8	13.9	10.4
75°	1323.5	1229.9	962.9	483.2	212.7	86.7	28.9	22.0	16.2	10.4	8.1
77.5°	699.3	661.2	545.6	230.0	117.9	40.5	16.2	12.7	9.2	8.1	4.6
80°	302.8	269.3	235.8	93.6	41.6	18.5	10.4	6.9	5.8	4.6	2.3
82.5°	154.9	148.0	122.5	40.5	24.3	13.9	5.8	4.6	3.5	2.3	1.2
85°	76.3	78.6	64.7	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°	1639.1	1639.1	1639.1	1639.1	1639.1	1639.1	1639.1	1639.1	1639.1	1639.1	1639.1
2.5°	1434.5	1450.6	1422.9	1440.2	1432.1	1435.6	1439.1	1429.8	1432.1	1464.5	1465.7
5°	1149.0	1180.2	1168.6	1184.8	1212.5	1198.7	1211.4	1209.1	1211.4	1216.0	1236.8
7.5°	819.5	810.3	832.2	875.0	924.7	954.8	939.7	931.6	927.0	915.5	929.3
10°	618.4	613.8	608.0	620.7	653.1	686.6	705.1	673.9	656.5	634.6	626.5
12.5°	513.2	484.3	468.1	448.5	457.7	487.8	488.9	458.9	431.1	419.6	432.3
15°	404.6	384.9	356.0	328.3	314.4	337.5	317.9	289.0	253.1	248.5	247.4
17.5°	289.0	277.4	256.6	245.0	228.9	223.1	202.3	158.4	132.9	126.0	128.3
20°	196.5	187.3	186.1	175.7	168.8	164.1	130.6	101.7	93.6	94.8	95.9
22.5°	145.6	141.0	135.2	134.1	128.3	122.5	95.9	85.5	79.8	79.8	83.2
25°	119.1	116.7	111.0	108.7	106.3	98.3	80.9	72.8	70.5	68.2	71.7
27.5°	101.7	100.6	97.1	93.6	91.3	83.2	70.5	63.6	61.3	61.3	61.3
30°	91.3	91.3	86.7	79.8	79.8	70.5	60.1	55.5	53.2	53.2	52.0
32.5°	85.5	83.2	77.4	72.8	69.4	60.1	53.2	48.5	45.1	45.1	46.2
35°	69.4	69.4	68.2	64.7	60.1	50.9	45.1	40.5	38.1	37.0	38.1
37.5°	61.3	57.8	53.2	54.3	52.0	43.9	38.1	34.7	31.2	31.2	31.2
40°	55.5	52.0	47.4	43.9	42.8	39.3	33.5	27.7	24.3	23.1	23.1
42.5°	49.7	47.4	40.5	34.7	33.5	33.5	25.4	20.8	17.3	17.3	17.3
45°	46.2	42.8	37.0	30.1	24.3	25.4	20.8	15.0	12.7	11.6	11.6
47.5°	43.9	40.5	32.4	25.4	18.5	18.5	15.0	10.4	8.1	6.9	6.9
50°	40.5	37.0	28.9	20.8	13.9	11.6	9.2	5.8	3.5	2.3	2.3
52.5°	38.1	34.7	25.4	17.3	11.6	8.1	5.8	1.2	0.0	0.0	0.0
55°	34.7	30.1	22.0	13.9	9.2	4.6	1.2	0.0	0.0	0.0	0.0
57.5°	30.1	26.6	17.3	10.4	5.8	1.2	0.0	0.0	0.0	0.0	0.0
60°	25.4	22.0	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	11.6	5.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
70°	11.6	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°	1639.1	1639.1	1639.1	1639.1	1639.1	1639.1	1639.1	1639.1	1639.1	1639.1	1639.1
2.5°	1470.3	1505.0	1537.3	1546.6	1572.0	1642.5	1642.5	1676.0	1736.1	1758.1	1762.7
5°	1240.3	1277.3	1284.2	1355.9	1389.4	1461.0	1508.4	1621.7	1689.9	1732.7	1759.3
7.5°	943.2	955.9	982.5	1049.5	1115.4	1202.1	1292.3	1436.8	1557.0	1605.5	1695.7
10°	648.5	686.6	744.4	804.5	907.4	1003.3	1120.1	1256.5	1404.4	1464.5	1542.0
12.5°	436.9	490.1	582.6	668.1	762.9	860.0	970.9	1153.6	1321.2	1404.4	1481.9
15°	255.5	320.2	399.9	538.6	664.6	773.3	884.3	1069.2	1272.6	1380.1	1474.9
17.5°	129.5	149.1	215.0	335.2	501.7	679.7	845.0	1080.8	1309.6	1441.4	1520.0
20°	97.1	102.9	121.4	178.0	343.3	561.8	808.0	1098.1	1412.5	1573.2	1615.9
22.5°	84.4	89.0	97.1	115.6	193.0	430.0	756.0	1140.9	1552.4	1703.8	1793.9
25°	71.7	76.3	83.2	94.8	123.7	292.4	692.4	1185.9	1677.2	1867.9	1952.3
27.5°	62.4	65.9	72.8	82.1	100.6	186.1	582.6	1246.0	1867.9	2066.7	2088.7
30°	53.2	56.6	62.4	72.8	85.5	131.8	427.7	1254.1	1973.1	2153.4	2214.7
32.5°	46.2	47.4	54.3	63.6	71.7	104.0	300.5	1262.2	2050.5	2265.5	2278.3
35°	38.1	40.5	47.4	53.2	62.4	82.1	227.7	1221.8	2151.1	2381.1	2377.7
37.5°	31.2	34.7	39.3	43.9	50.9	69.4	181.5	1146.6	2277.1	2560.3	2451.6
40°	24.3	27.7	32.4	38.1	42.8	62.4	136.4	1033.4	2408.9	2648.1	2532.6
42.5°	17.3	19.7	24.3	30.1	38.1	52.0	98.3	899.3	2460.9	2751.0	2629.6
45°	12.7	15.0	18.5	25.4	39.3	41.6	68.2	776.8	2516.4	2796.1	2607.7
47.5°	6.9	9.2	13.9	22.0	34.7	31.2	48.5	666.9	2579.9	2836.6	2625.0
50°	2.3	3.5	8.1	23.1	27.7	24.3	38.1	608.0	2642.4	2844.6	2659.7
52.5°	0.0	0.0	4.6	24.3	20.8	18.5	33.5	584.9	2626.2	2870.1	2637.7
55°	0.0	0.0	1.2	10.4	11.6	13.9	27.7	583.7	2740.6	2878.2	2758.0
57.5°	0.0	0.0	0.0	3.5	6.9	11.6	24.3	546.7	2813.4	3079.3	2919.8
60°	0.0	0.0	0.0	1.2	4.6	8.1	18.5	514.4	2887.4	3169.4	3093.2
62.5°	0.0	0.0	0.0	0.0	1.2	3.5	12.7	464.7	2738.3	3162.5	3260.8
65°	0.0	0.0	0.0	0.0	0.0	0.0	8.1	367.6	2463.2	2997.2	3168.3
67.5°	0.0	0.0	0.0	0.0	0.0	0.0	4.6	254.3	2156.9	2789.2	2998.4
70°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	153.7	1740.8	2445.9	2543.0
72.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	65.9	1242.6	1941.9	2086.4
75°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	26.6	768.7	1419.4	1597.4
77.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	10.4	498.2	1075.0	1212.5
80°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.3	265.9	673.9	783.7
82.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	115.6	409.2	471.6
85°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	37.0	248.5	283.2
87.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	38.1	50.9
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°	1639.1	1639.1	1639.1	1639.1	1639.1	1639.1	1639.1	1639.1	1639.1	1639.1
2.5°	1765.0	1798.6	1811.3	1791.6	1793.9	1753.5	1747.7	1691.1	1667.9	1672.6
5°	1846.0	1894.5	1921.1	1899.1	1849.4	1772.0	1701.5	1634.4	1592.8	1572.0
7.5°	1827.5	1881.8	1915.3	1936.1	1879.5	1754.6	1647.1	1521.2	1468.0	1469.1
10°	1725.7	1839.0	1907.2	1880.6	1854.0	1729.2	1562.8	1426.4	1379.0	1383.6
12.5°	1643.7	1769.7	1810.1	1830.9	1776.6	1677.2	1565.1	1409.0	1355.9	1323.5
15°	1592.8	1686.4	1688.8	1721.1	1699.2	1699.2	1589.3	1436.8	1390.5	1354.7
17.5°	1592.8	1613.6	1611.3	1622.9	1659.9	1703.8	1650.6	1548.9	1457.6	1451.8
20°	1628.6	1563.9	1548.9	1553.5	1584.7	1715.3	1785.8	1658.7	1600.9	1582.4
22.5°	1711.9	1569.7	1478.4	1462.2	1558.1	1714.2	1872.5	1832.1	1731.5	1716.5
25°	1826.3	1559.3	1459.9	1439.1	1511.9	1755.8	1991.6	1999.7	1908.4	1877.2
27.5°	1935.0	1605.5	1457.6	1453.0	1548.9	1746.5	2073.7	2133.8	2030.9	2005.5
30°	1971.9	1651.8	1500.3	1439.1	1562.8	1780.1	2071.4	2228.6	2161.5	2167.3
32.5°	2015.9	1698.0	1505.0	1480.7	1621.7	1834.4	2137.2	2381.1	2332.6	2264.4
35°	2080.6	1760.4	1548.9	1526.9	1663.3	1882.9	2151.1	2493.3	2485.2	2405.4
37.5°	2136.1	1821.7	1640.2	1643.7	1790.5	1961.5	2212.4	2630.8	2616.9	2562.6
40°	2175.4	1907.2	1782.4	1791.6	1901.4	2049.4	2321.0	2700.2	2803.0	2723.3
42.5°	2181.2	1983.5	1945.4	2019.3	2122.2	2185.8	2365.0	2747.6	2895.5	2843.5
45°	2203.1	2104.9	2211.2	2265.5	2349.9	2306.0	2362.6	2828.5	2902.4	2875.9
47.5°	2288.7	2325.7	2459.7	2625.0	2655.1	2510.6	2418.1	2841.2	2941.7	2938.3
50°	2377.7	2562.6	2751.0	2860.8	2899.0	2651.6	2470.1	2830.8	2993.8	2966.0
52.5°	2477.1	2768.4	3040.0	3175.2	3154.4	2807.7	2529.1	2915.2	3089.7	3080.4
55°	2539.5	2860.8	3226.1	3414.5	3398.3	2982.2	2716.3	3036.5	3215.7	3192.6
57.5°	2704.8	3011.1	3411.0	3498.9	3541.6	3211.1	2847.0	3235.3	3320.9	3346.3
60°	2841.2	3109.3	3459.6	3586.7	3601.8	3347.5	3075.8	3439.9	3455.0	3369.4
62.5°	3041.1	3147.5	3356.7	3471.1	3548.6	3424.9	3281.6	3549.7	3452.6	3446.9
65°	3187.9	3022.7	3164.8	3228.4	3278.1	3307.0	3488.5	3624.9	3409.9	3297.8
67.5°	3105.9	2786.9	2760.3	2763.7	2778.8	2953.3	3419.1	3441.1	3171.8	3079.3
70°	2733.7	2286.4	2250.5	2278.3	2203.1	2413.5	3138.2	3127.8	2798.4	2702.5
72.5°	2211.2	1666.8	1605.5	1643.7	1661.0	1884.1	2640.1	2371.9	2041.3	1966.2
75°	1757.0	1221.8	1031.1	1123.5	1182.5	1372.0	2062.1	1611.3	1425.2	1323.5
77.5°	1380.1	924.7	802.2	765.2	819.5	997.5	1500.3	846.1	746.7	699.3
80°	875.0	679.7	737.5	684.3	707.4	712.0	781.4	384.9	306.3	302.8
82.5°	527.1	464.7	552.5	304.0	553.7	494.7	324.8	174.5	154.9	154.9
85°	373.4	287.8	190.7	123.7	246.2	271.6	126.0	90.2	78.6	76.3
87.5°	187.3	89.0	42.8	27.7	31.2	50.9	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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