

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: P677488

Luminaire Tested: **CCW-SA-2B-835-U-SLR-HSS**

Issue Date: 04/25/2023



Test Information

Test Method: LM-79-08
Report Number: P677488
Test Lab: INNOVATION CENTER(G1)
Issue Date: 04/25/2023
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: INVUE
Catalog Number: CCW-SA-2B-835-U-SLR-HSS
Description: INVUE CLEAR CURVE Wall Pack MOUNT Light Square Luminaire @450mA w/
SLR distribution lens and House Side Shield
Light Source: (32) 3500K CCT, 80 CRI LEDs
Ballast/Driver: ELECTRONIC DRIVER

Summary

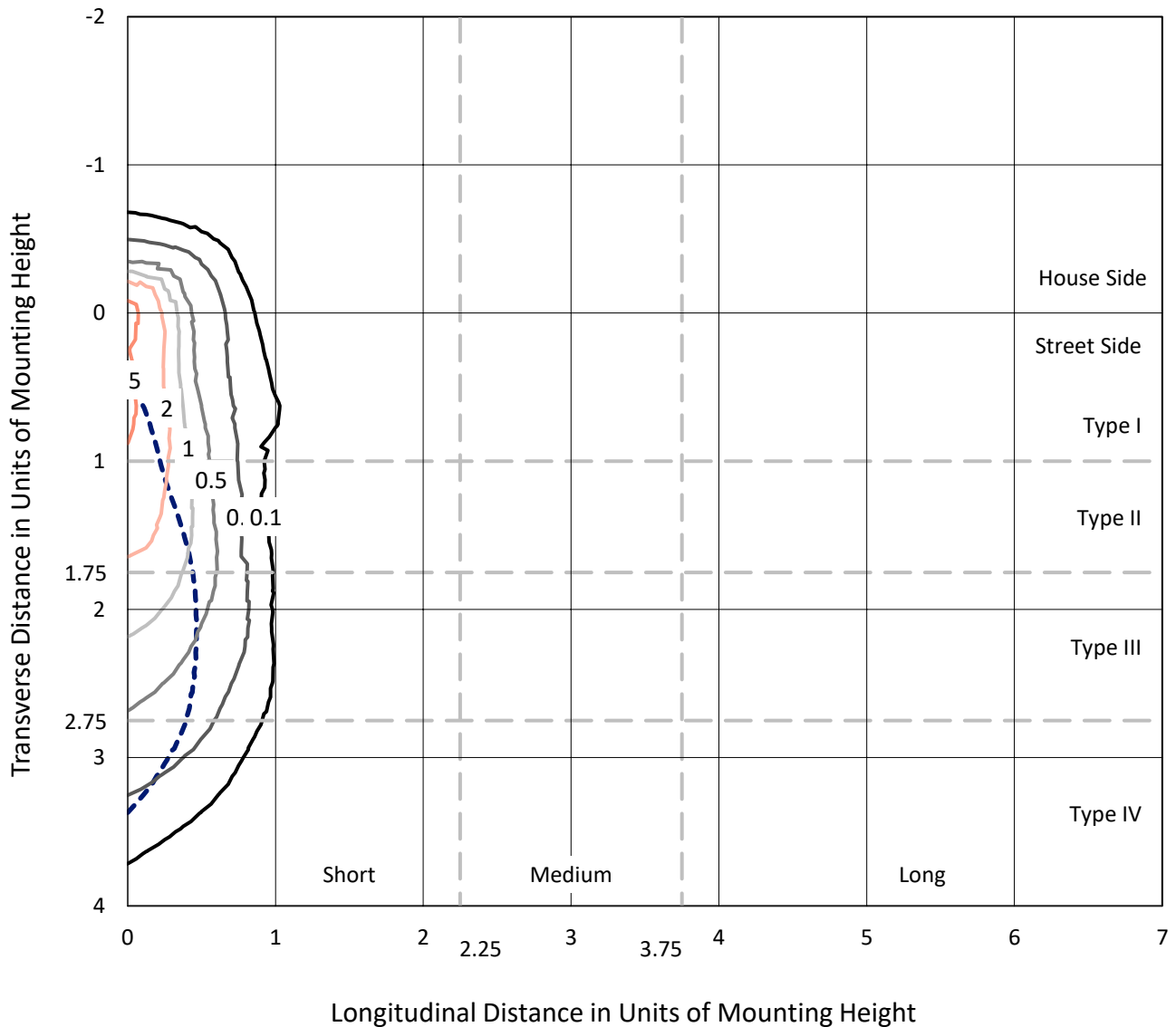
Lumens per Lamp: N/A
Luminaire Lumens: 4089.5 lumens
Efficiency: N/A
Efficacy: 88.9 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')
IES Classification: Type IV - Short
BUG Rating: B1 - U0 - G1

Input Watts (W): 46
Input Voltage (V): 120
Input Current (A_{in}): 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

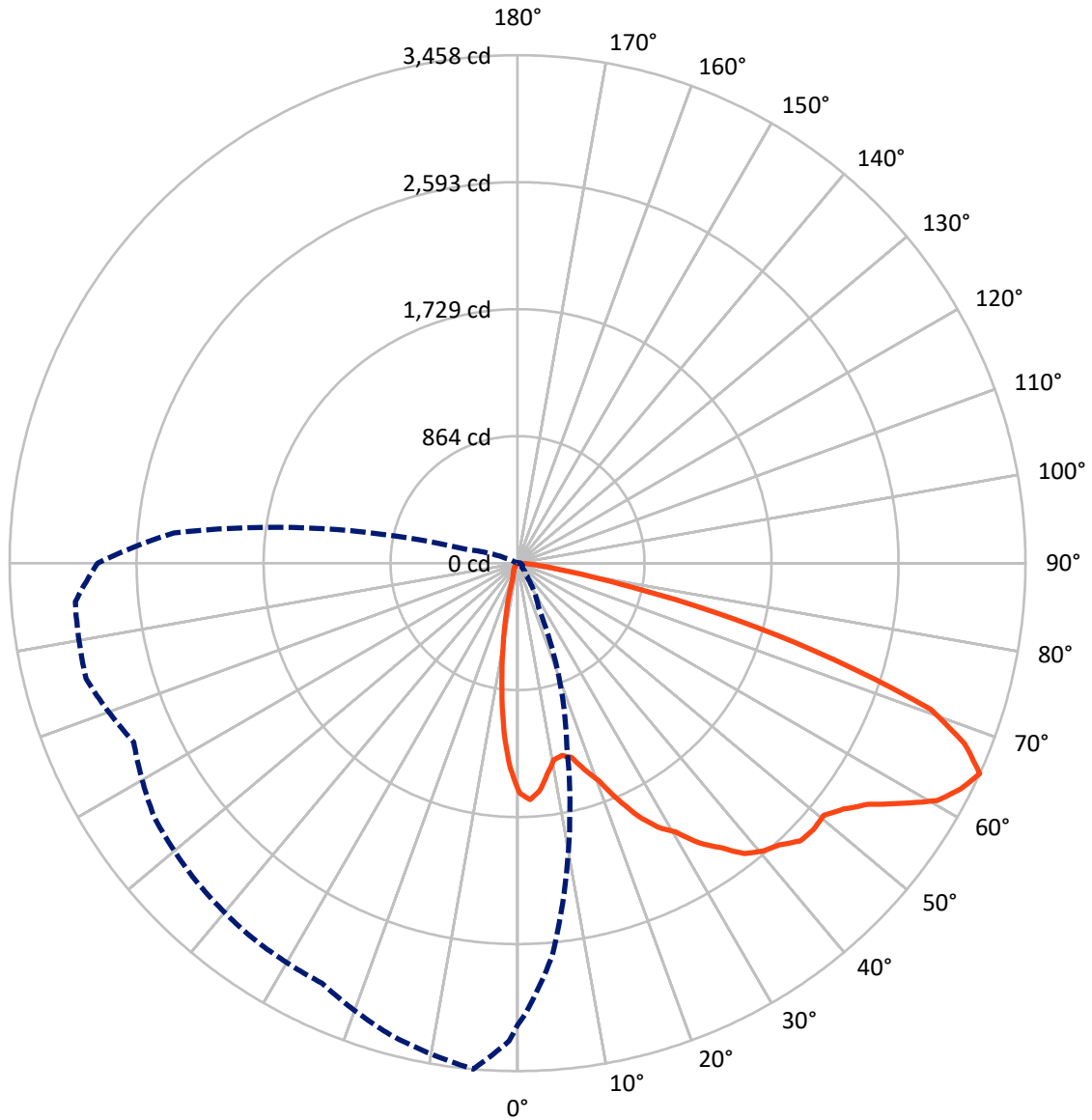
× Max cd
 - - - 1/2 Max cd



Based on 15 foot mounting height. Maximum calculated value = 6.9 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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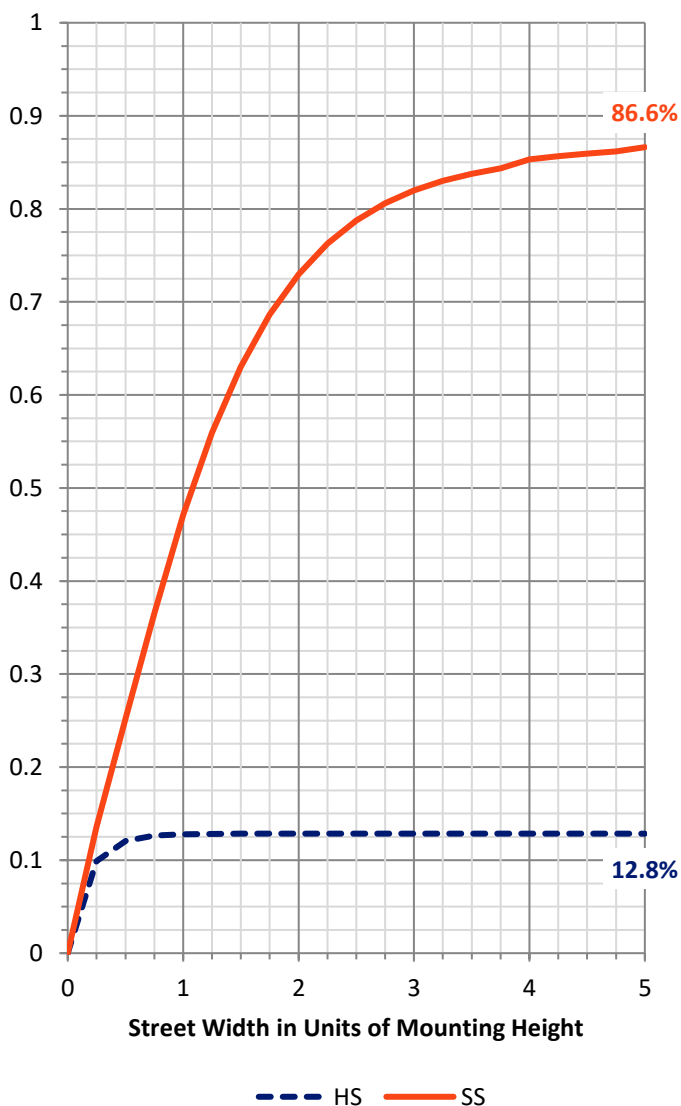
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	531.0	0.0	531.0
	% Fixture	13.0	0.0	13.0
Street Side	Lumens	3558.6	0.0	3558.6
	% Fixture	87.0	0.0	87.0
Total	Lumens	4089.5	0.0	4089.5
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	118.4	2.9
10°-20°	229.3	5.6
20°-30°	319.4	7.8
30°-40°	453.8	11.1
40°-50°	629.3	15.4
50°-60°	857.5	21.0
60°-70°	942.7	23.1
70°-80°	463.3	11.3
80°-90°	75.7	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°	4089.5	100.0
0°-180°	4089.5	100.0

Coefficient of Utilization



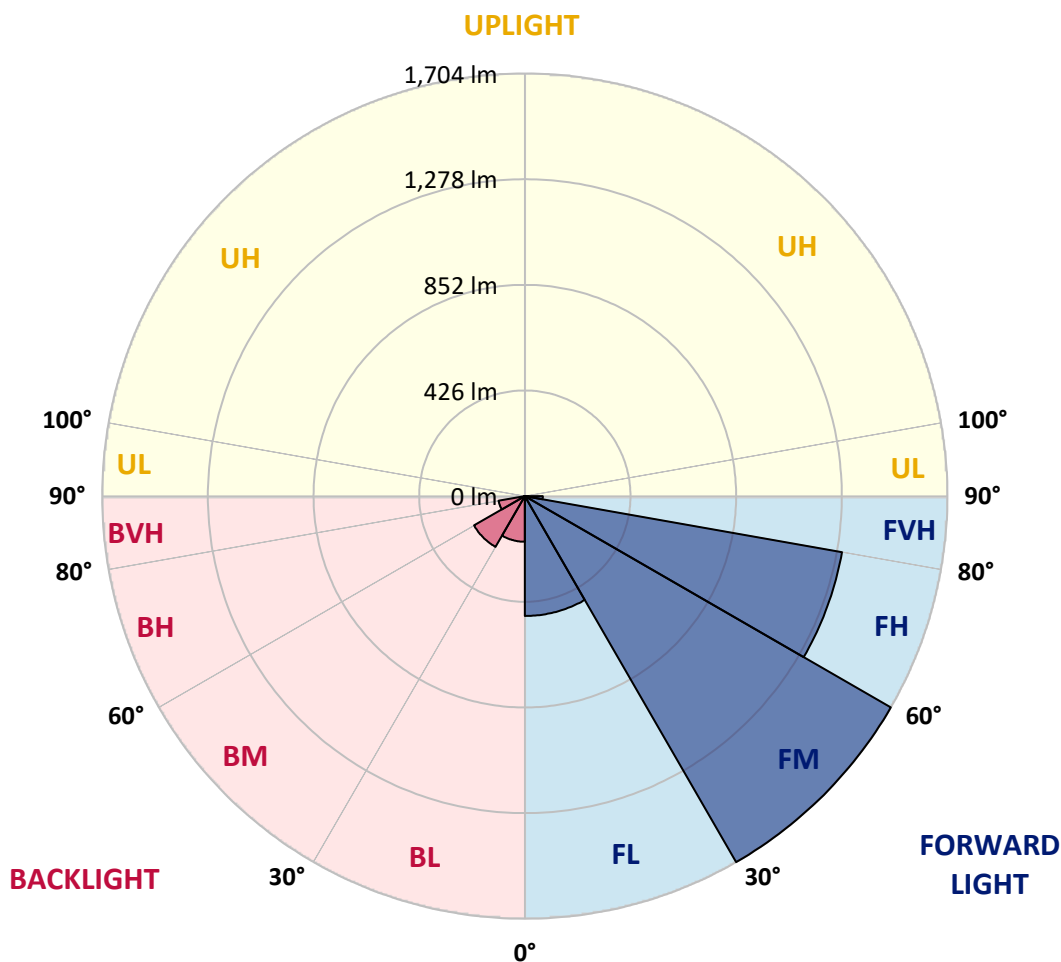
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	483.3	11.8			
FM (30°-60°)	1704.2	41.7			
FH (60°-80°)	1298.8	31.8			G1/1800
FVH (80°-90°)	72.3	1.8			G1/100
BL (0°-30°)	183.9	4.5	B1/500		
BM (30°-60°)	236.4	5.8	B1/1000		
BH (60°-80°)	107.3	2.6	B0/110		G0/110
BVH (80°-90°)	3.4	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°	1563.4	1563.4	1563.4	1563.4	1563.4	1563.4	1563.4	1563.4	1563.4	1563.4	1563.4
2.5°	1595.4	1614.1	1596.5	1534.8	1523.7	1494.0	1448.8	1445.4	1398.0	1403.6	1378.2
5°	1499.5	1518.2	1480.7	1399.1	1323.1	1262.4	1226.0	1161.0	1146.7	1114.7	1114.7
7.5°	1401.3	1400.2	1336.3	1267.9	1154.4	1043.0	992.3	898.6	843.5	813.7	785.0
10°	1319.8	1302.1	1262.4	1121.3	997.8	882.0	819.2	757.5	700.1	650.5	600.9
12.5°	1262.4	1273.5	1210.6	1057.4	897.5	817.0	749.7	684.7	616.3	560.1	505.0
15°	1292.2	1274.6	1200.7	1043.0	880.9	770.7	681.4	602.0	525.9	452.0	410.2
17.5°	1384.8	1339.6	1252.5	1043.0	846.8	700.1	592.1	498.4	416.8	350.6	298.8
20°	1509.4	1457.6	1363.9	1081.6	821.4	648.3	500.6	382.6	297.7	235.9	196.3
22.5°	1637.3	1596.5	1455.4	1097.0	791.6	578.8	394.7	276.7	198.5	158.8	138.9
25°	1790.5	1733.2	1578.9	1158.8	747.5	511.6	310.9	192.9	147.7	126.8	114.7
27.5°	1912.9	1903.0	1694.6	1196.3	714.5	456.5	245.9	153.3	122.4	106.9	99.2
30°	2067.3	2013.3	1835.8	1271.2	677.0	393.6	205.1	137.8	112.5	95.9	90.4
32.5°	2159.9	2134.5	1909.6	1313.1	635.1	341.8	176.4	121.3	102.5	90.4	84.9
35°	2294.4	2243.7	2015.5	1339.6	613.0	312.0	158.8	110.3	86.0	73.9	67.3
37.5°	2444.4	2425.6	2142.3	1338.5	581.0	294.4	146.6	102.5	81.6	68.4	60.6
40°	2597.6	2521.5	2219.4	1369.4	564.5	281.2	137.8	98.1	77.2	65.1	55.1
42.5°	2712.3	2625.2	2308.8	1358.3	544.7	258.0	134.5	91.5	73.9	59.5	50.7
45°	2743.2	2712.3	2389.2	1355.0	530.3	239.3	129.0	90.4	71.7	56.2	47.4
47.5°	2802.7	2781.7	2488.5	1360.6	519.3	224.9	115.8	92.6	68.4	52.9	45.2
50°	2829.2	2791.7	2569.0	1373.8	493.9	207.3	103.6	97.0	67.3	51.8	43.0
52.5°	2938.3	2905.2	2679.2	1411.3	473.0	184.1	91.5	92.6	69.5	48.5	40.8
55°	3045.3	3007.8	2849.0	1497.3	443.2	165.4	78.3	81.6	66.2	44.1	36.4
57.5°	3191.9	3130.2	2962.6	1532.6	416.8	140.0	69.5	67.3	61.7	39.7	32.0
60°	3213.9	3239.3	2946.0	1510.5	389.2	123.5	60.6	51.8	66.2	35.3	27.6
62.5°	3287.8	3182.0	2868.8	1459.8	369.4	113.6	54.0	43.0	57.3	30.9	23.2
65°	3145.6	3067.3	2688.0	1296.6	344.0	114.7	47.4	35.3	36.4	25.4	18.7
67.5°	2937.2	2875.5	2388.1	1119.1	318.6	112.5	41.9	30.9	27.6	22.1	16.5
70°	2577.8	2444.4	2028.7	908.5	281.2	104.7	35.3	27.6	23.2	17.6	12.1
72.5°	1875.4	1821.4	1455.4	702.3	252.5	94.8	33.1	23.2	19.8	13.2	9.9
75°	1262.4	1173.1	918.4	460.9	202.9	82.7	27.6	20.9	15.4	9.9	7.7
77.5°	667.0	630.7	520.4	219.4	112.5	38.6	15.4	12.1	8.8	7.7	4.4
80°	288.9	256.9	224.9	89.3	39.7	17.6	9.9	6.6	5.5	4.4	2.2
82.5°	147.7	141.1	116.9	38.6	23.2	13.2	5.5	4.4	3.3	2.2	1.1
85°	72.8	75.0	61.7	12.1	13.2	7.7	1.1	1.1	0.0	0.0	0.0
87.5°	5.5	5.5	4.4	2.2	3.3	1.1	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°	1563.4	1563.4	1563.4	1563.4	1563.4	1563.4	1563.4	1563.4	1563.4	1563.4	1563.4
2.5°	1368.3	1383.7	1357.2	1373.8	1366.1	1369.4	1372.7	1363.9	1366.1	1396.9	1398.0
5°	1095.9	1125.7	1114.7	1130.1	1156.6	1143.3	1155.5	1153.3	1155.5	1159.9	1179.7
7.5°	781.7	772.9	793.8	834.6	882.0	910.7	896.4	888.7	884.2	873.2	886.5
10°	589.9	585.5	579.9	592.1	622.9	654.9	672.6	642.8	626.3	605.3	597.6
12.5°	489.5	462.0	446.5	427.8	436.6	465.3	466.4	437.7	411.3	400.2	412.4
15°	385.9	367.2	339.6	313.1	299.9	321.9	303.2	275.6	241.5	237.0	235.9
17.5°	275.6	264.6	244.8	233.7	218.3	212.8	192.9	151.1	126.8	120.2	122.4
20°	187.4	178.6	177.5	167.6	161.0	156.6	124.6	97.0	89.3	90.4	91.5
22.5°	138.9	134.5	129.0	127.9	122.4	116.9	91.5	81.6	76.1	76.1	79.4
25°	113.6	111.4	105.8	103.6	101.4	93.7	77.2	69.5	67.3	65.1	68.4
27.5°	97.0	95.9	92.6	89.3	87.1	79.4	67.3	60.6	58.4	58.4	58.4
30°	87.1	87.1	82.7	76.1	76.1	67.3	57.3	52.9	50.7	50.7	49.6
32.5°	81.6	79.4	73.9	69.5	66.2	57.3	50.7	46.3	43.0	43.0	44.1
35°	66.2	66.2	65.1	61.7	57.3	48.5	43.0	38.6	36.4	35.3	36.4
37.5°	58.4	55.1	50.7	51.8	49.6	41.9	36.4	33.1	29.8	29.8	29.8
40°	52.9	49.6	45.2	41.9	40.8	37.5	32.0	26.5	23.2	22.1	22.1
42.5°	47.4	45.2	38.6	33.1	32.0	32.0	24.3	19.8	16.5	16.5	16.5
45°	44.1	40.8	35.3	28.7	23.2	24.3	19.8	14.3	12.1	11.0	11.0
47.5°	41.9	38.6	30.9	24.3	17.6	17.6	14.3	9.9	7.7	6.6	6.6
50°	38.6	35.3	27.6	19.8	13.2	11.0	8.8	5.5	3.3	2.2	2.2
52.5°	36.4	33.1	24.3	16.5	11.0	7.7	5.5	1.1	0.0	0.0	0.0
55°	33.1	28.7	20.9	13.2	8.8	4.4	1.1	0.0	0.0	0.0	0.0
57.5°	28.7	25.4	16.5	9.9	5.5	1.1	0.0	0.0	0.0	0.0	0.0
60°	24.3	20.9	13.2	7.7	2.2	0.0	0.0	0.0	0.0	0.0	0.0
62.5°	19.8	17.6	9.9	4.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0
65°	16.5	13.2	7.7	1.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0
67.5°	14.3	11.0	5.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
70°	11.0	7.7	3.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
72.5°	7.7	5.5	1.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
75°	5.5	3.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
77.5°	3.3	1.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
80°	1.1	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°	1563.4	1563.4	1563.4	1563.4	1563.4	1563.4	1563.4	1563.4	1563.4	1563.4	1563.4
2.5°	1402.4	1435.5	1466.4	1475.2	1499.5	1566.7	1566.7	1598.7	1656.0	1677.0	1681.4
5°	1183.0	1218.3	1224.9	1293.3	1325.3	1393.6	1438.8	1546.9	1611.9	1652.7	1678.1
7.5°	899.7	911.8	937.2	1001.1	1064.0	1146.7	1232.7	1370.5	1485.1	1531.4	1617.4
10°	618.5	654.9	710.0	767.4	865.5	957.0	1068.4	1198.5	1339.6	1396.9	1470.8
12.5°	416.8	467.5	555.7	637.3	727.7	820.3	926.1	1100.3	1260.2	1339.6	1413.5
15°	243.7	305.4	381.5	513.8	634.0	737.6	843.5	1019.9	1213.9	1316.5	1406.9
17.5°	123.5	142.2	205.1	319.7	478.5	648.3	806.0	1030.9	1249.2	1374.9	1449.9
20°	92.6	98.1	115.8	169.8	327.5	535.8	770.7	1047.4	1347.3	1500.6	1541.4
22.5°	80.5	84.9	92.6	110.3	184.1	410.2	721.1	1088.2	1480.7	1625.2	1711.2
25°	68.4	72.8	79.4	90.4	118.0	278.9	660.4	1131.2	1599.8	1781.7	1862.2
27.5°	59.5	62.8	69.5	78.3	95.9	177.5	555.7	1188.6	1781.7	1971.4	1992.3
30°	50.7	54.0	59.5	69.5	81.6	125.7	407.9	1196.3	1882.1	2054.1	2112.5
32.5°	44.1	45.2	51.8	60.6	68.4	99.2	286.7	1204.0	1955.9	2161.0	2173.1
35°	36.4	38.6	45.2	50.7	59.5	78.3	217.2	1165.4	2051.9	2271.3	2268.0
37.5°	29.8	33.1	37.5	41.9	48.5	66.2	173.1	1093.7	2172.0	2442.2	2338.5
40°	23.2	26.5	30.9	36.4	40.8	59.5	130.1	985.7	2297.7	2526.0	2415.7
42.5°	16.5	18.7	23.2	28.7	36.4	49.6	93.7	857.8	2347.3	2624.1	2508.3
45°	12.1	14.3	17.6	24.3	37.5	39.7	65.1	740.9	2400.3	2667.1	2487.4
47.5°	6.6	8.8	13.2	20.9	33.1	29.8	46.3	636.2	2460.9	2705.7	2503.9
50°	2.2	3.3	7.7	22.1	26.5	23.2	36.4	579.9	2520.4	2713.4	2537.0
52.5°	0.0	0.0	4.4	23.2	19.8	17.6	32.0	557.9	2505.0	2737.6	2516.0
55°	0.0	0.0	1.1	9.9	11.0	13.2	26.5	556.8	2614.2	2745.4	2630.7
57.5°	0.0	0.0	0.0	3.3	6.6	11.0	23.2	521.5	2683.6	2937.2	2785.1
60°	0.0	0.0	0.0	1.1	4.4	7.7	17.6	490.6	2754.2	3023.2	2950.4
62.5°	0.0	0.0	0.0	0.0	1.1	3.3	12.1	443.2	2612.0	3016.6	3110.3
65°	0.0	0.0	0.0	0.0	0.0	0.0	7.7	350.6	2349.5	2858.9	3022.1
67.5°	0.0	0.0	0.0	0.0	0.0	0.0	4.4	242.6	2057.4	2660.5	2860.0
70°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	146.6	1660.4	2333.0	2425.6
72.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	62.8	1185.2	1852.3	1990.1
75°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	25.4	733.2	1353.9	1523.7
77.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	9.9	475.2	1025.4	1156.6
80°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.2	253.6	642.8	747.5
82.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	110.3	390.3	449.8
85°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	35.3	237.0	270.1
87.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	36.4	48.5
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):

	285°	295°	305°	315°	325°	335°	345°	355°	359°	360°
0°	1563.4	1563.4	1563.4	1563.4	1563.4	1563.4	1563.4	1563.4	1563.4	1563.4
2.5°	1683.6	1715.6	1727.7	1709.0	1711.2	1672.6	1667.1	1613.0	1591.0	1595.4
5°	1760.8	1807.1	1832.4	1811.5	1764.1	1690.2	1623.0	1559.0	1519.3	1499.5
7.5°	1743.1	1795.0	1826.9	1846.8	1792.8	1673.7	1571.1	1451.0	1400.2	1401.3
10°	1646.1	1754.2	1819.2	1793.9	1768.5	1649.4	1490.7	1360.6	1315.3	1319.8
12.5°	1567.8	1688.0	1726.6	1746.4	1694.6	1599.8	1492.9	1344.0	1293.3	1262.4
15°	1519.3	1608.6	1610.8	1641.7	1620.8	1620.8	1516.0	1370.5	1326.4	1292.2
17.5°	1519.3	1539.2	1537.0	1548.0	1583.3	1625.2	1574.4	1477.4	1390.3	1384.8
20°	1553.5	1491.8	1477.4	1481.8	1511.6	1636.2	1703.4	1582.2	1527.0	1509.4
22.5°	1632.9	1497.3	1410.2	1394.7	1486.2	1635.1	1786.1	1747.5	1651.6	1637.3
25°	1742.0	1487.3	1392.5	1372.7	1442.1	1674.8	1899.7	1907.4	1820.3	1790.5
27.5°	1845.7	1531.4	1390.3	1385.9	1477.4	1666.0	1978.0	2035.3	1937.2	1912.9
30°	1881.0	1575.6	1431.1	1372.7	1490.7	1697.9	1975.8	2125.7	2061.8	2067.3
32.5°	1922.9	1619.7	1435.5	1412.4	1546.9	1749.8	2038.6	2271.3	2225.0	2159.9
35°	1984.6	1679.2	1477.4	1456.5	1586.6	1796.1	2051.9	2378.2	2370.5	2294.4
37.5°	2037.5	1737.6	1564.5	1567.8	1707.9	1871.0	2110.3	2509.4	2496.2	2444.4
40°	2075.0	1819.2	1700.1	1709.0	1813.7	1954.8	2213.9	2575.6	2673.7	2597.6
42.5°	2080.5	1892.0	1855.6	1926.2	2024.3	2084.9	2255.8	2620.8	2761.9	2712.3
45°	2101.5	2007.8	2109.2	2161.0	2241.5	2199.6	2253.6	2698.0	2768.5	2743.2
47.5°	2183.1	2218.3	2346.2	2503.9	2532.6	2394.7	2306.5	2710.1	2806.0	2802.7
50°	2268.0	2444.4	2624.1	2728.8	2765.2	2529.3	2356.2	2700.2	2855.6	2829.2
52.5°	2362.8	2640.6	2899.7	3028.7	3008.9	2678.1	2412.4	2780.6	2947.1	2938.3
55°	2422.3	2728.8	3077.2	3256.9	3241.5	2844.6	2591.0	2896.4	3067.3	3045.3
57.5°	2580.0	2872.2	3253.6	3337.4	3378.2	3062.9	2715.6	3086.1	3167.6	3191.9
60°	2710.1	2965.9	3299.9	3421.2	3435.6	3193.0	2933.9	3281.2	3295.5	3213.9
62.5°	2900.8	3002.3	3201.8	3311.0	3384.8	3266.9	3130.2	3385.9	3293.3	3287.8
65°	3040.8	2883.2	3018.8	3079.4	3126.8	3154.4	3327.5	3457.6	3252.5	3145.6
67.5°	2962.6	2658.3	2632.9	2636.2	2650.5	2817.0	3261.4	3282.3	3025.4	2937.2
70°	2607.5	2180.9	2146.7	2173.1	2101.5	2302.1	2993.4	2983.5	2669.3	2577.8
72.5°	2109.2	1589.9	1531.4	1567.8	1584.4	1797.2	2518.2	2262.4	1947.1	1875.4
75°	1675.9	1165.4	983.5	1071.7	1127.9	1308.7	1967.0	1537.0	1359.5	1262.4
77.5°	1316.5	882.0	765.2	729.9	781.7	951.5	1431.1	807.1	712.3	667.0
80°	834.6	648.3	703.4	652.7	674.8	679.2	745.3	367.2	292.2	288.9
82.5°	502.8	443.2	527.0	290.0	528.1	471.9	309.8	166.5	147.7	147.7
85°	356.1	274.5	181.9	118.0	234.8	259.1	120.2	86.0	75.0	72.8
87.5°	178.6	84.9	40.8	26.5	29.8	48.5	14.3	6.6	6.6	5.5
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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