

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: P677510

Luminaire Tested: **CCW-SA-2B-850-U-SLR-HSS**

Issue Date: 04/25/2023



Test Information

Test Method: LM-79-08
Report Number: P677510
Test Lab: INNOVATION CENTER(G1)
Issue Date: 04/25/2023
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: INVUE
Catalog Number: CCW-SA-2B-850-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) 5000K CCT, 80 CRI LEDs
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 4330.7 lumens
Efficiency: N/A
Efficacy: 94.1 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')
IES Classification: Type IV - Short
BUG Rating: B1 - U0 - G1

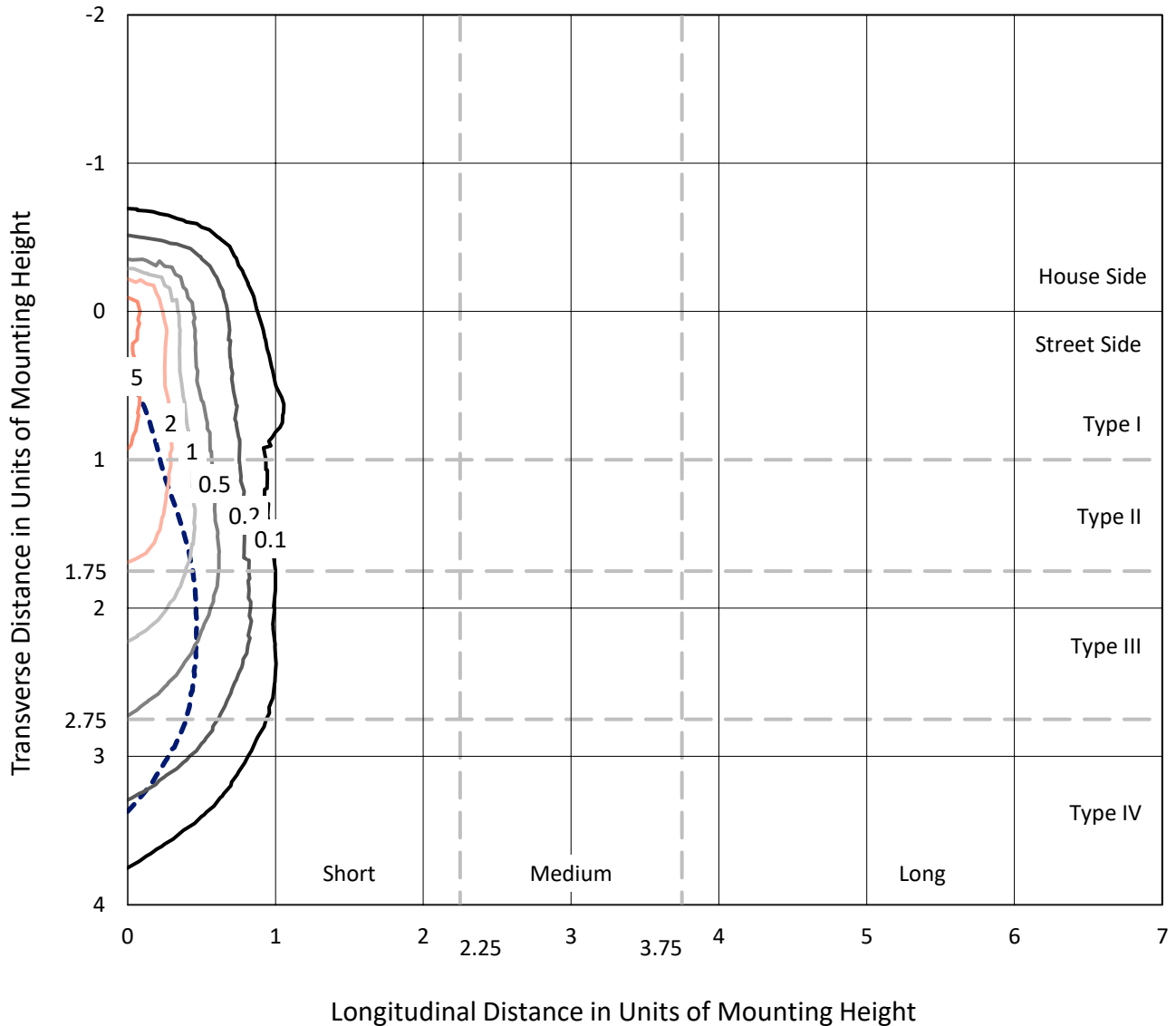
Input Watts (W): 46
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Iso-Footcandle Lines of Horizontal Illumination

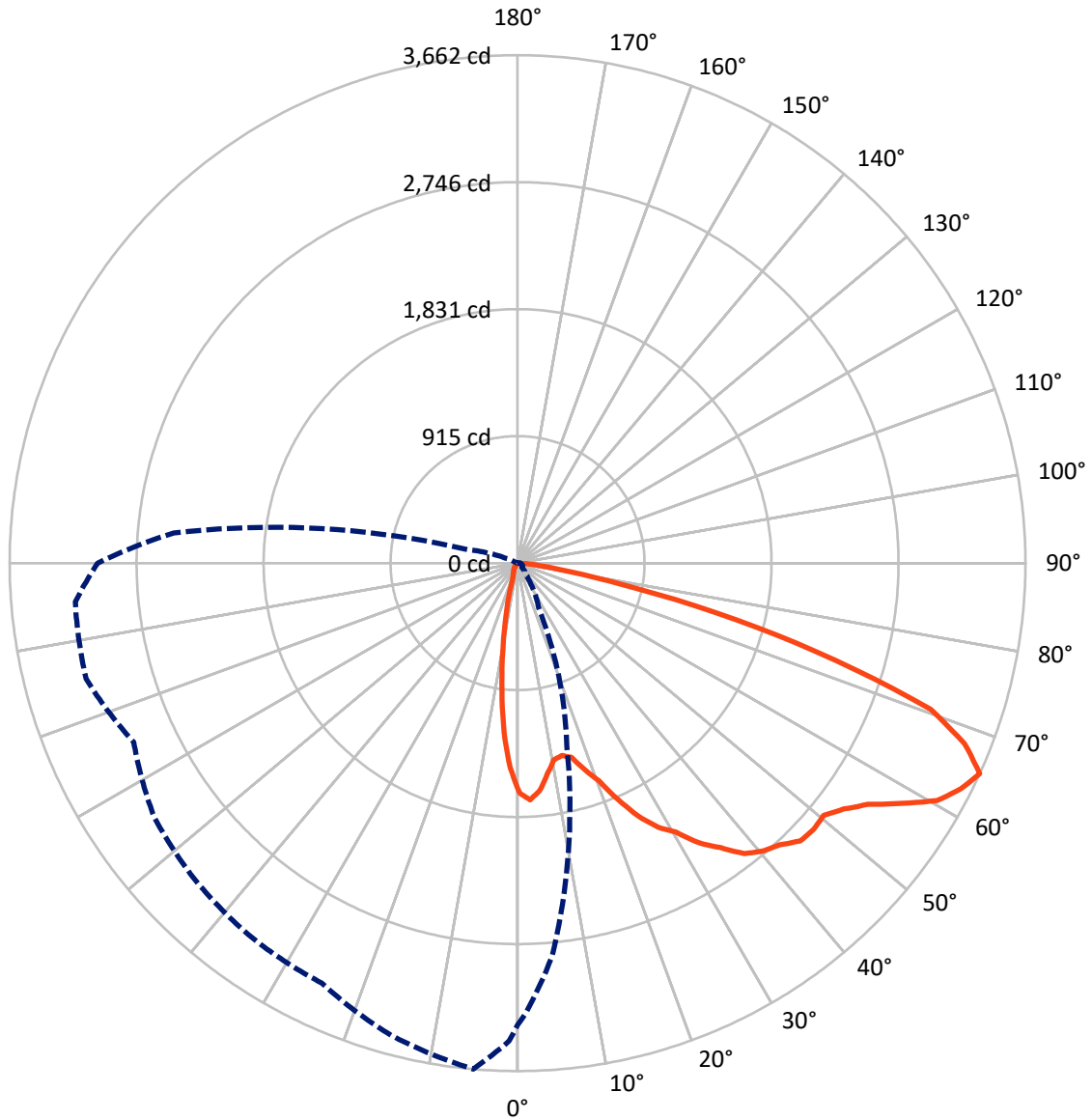
× Max cd
 - - - 1/2 Max cd



Based on 15 foot mounting height. Maximum calculated value = 7.4 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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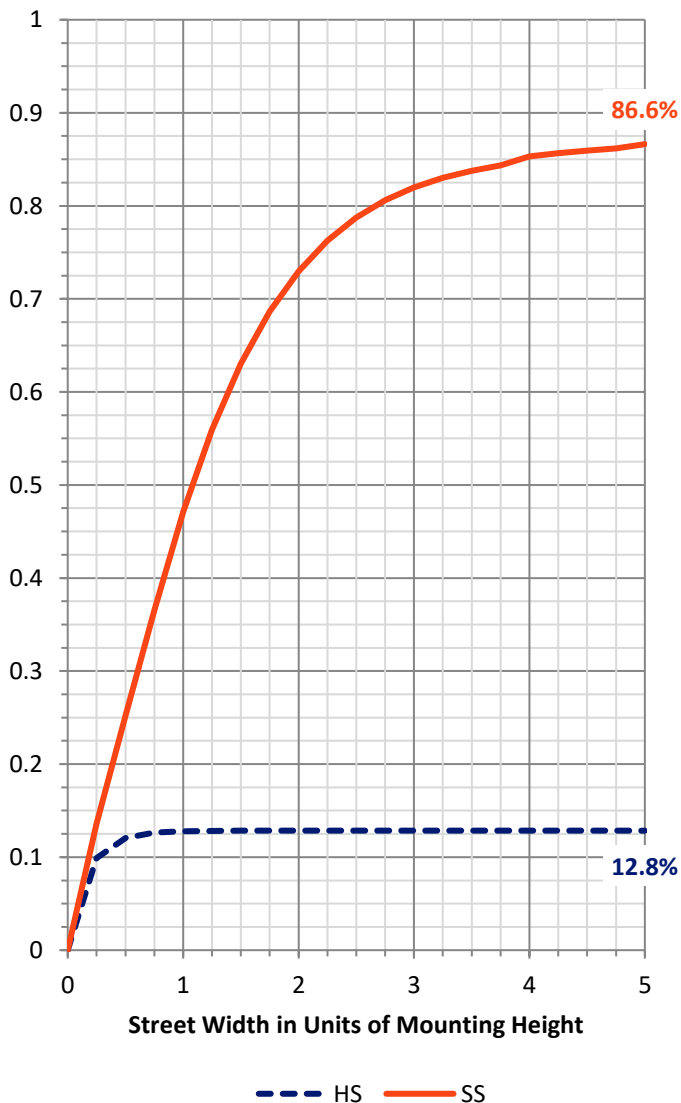
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	562.3	0.0	562.3
	% Fixture	13.0	0.0	13.0
Street Side	Lumens	3768.4	0.0	3768.4
	% Fixture	87.0	0.0	87.0
Total	Lumens	4330.7	0.0	4330.7
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	125.4	2.9
10°-20°	242.8	5.6
20°-30°	338.2	7.8
30°-40°	480.6	11.1
40°-50°	666.4	15.4
50°-60°	908.1	21.0
60°-70°	998.3	23.1
70°-80°	490.7	11.3
80°-90°	80.1	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°	4330.7	100.0
0°-180°	4330.7	100.0



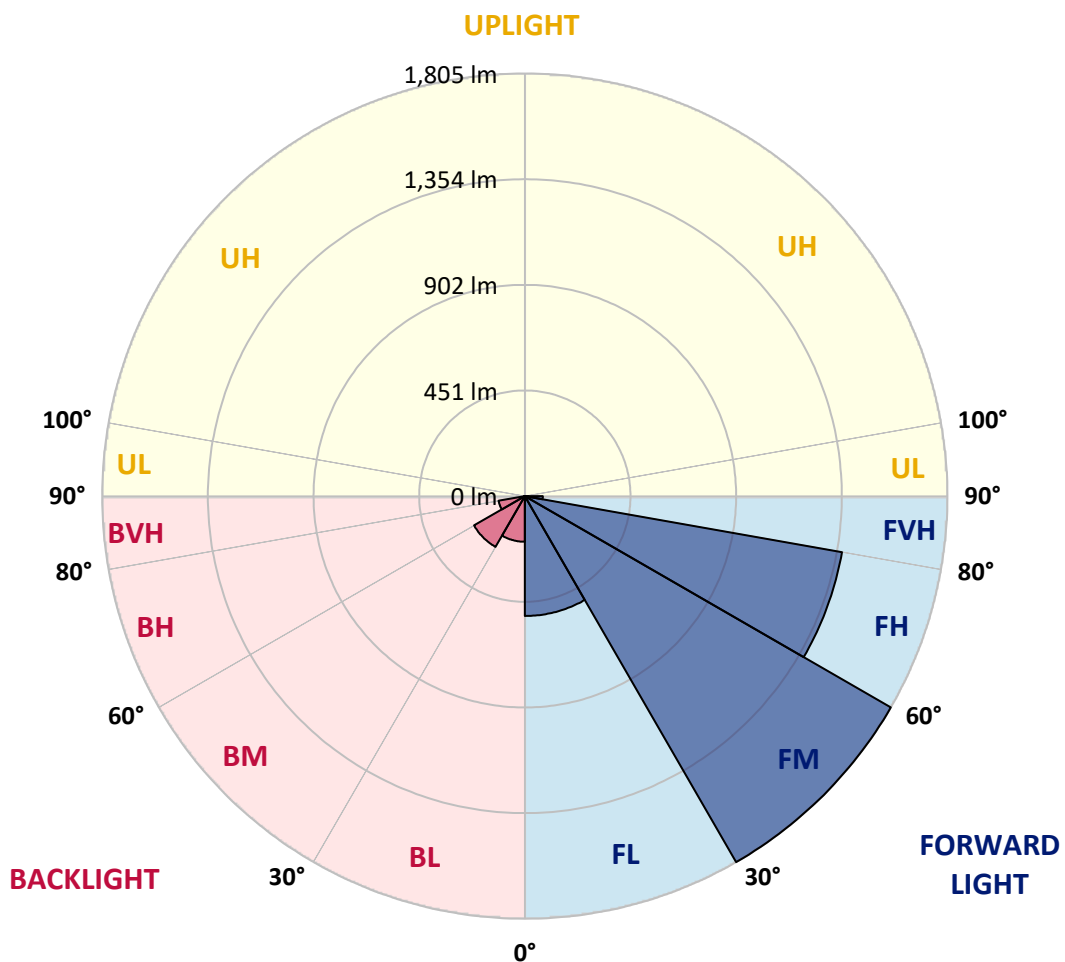
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	511.8	11.8			
FM (30°-60°)	1804.7	41.7			
FH (60°-80°)	1375.4	31.8			G1/1800
FVH (80°-90°)	76.5	1.8			G1/100
BL (0°-30°)	194.7	4.5	B1/500		
BM (30°-60°)	250.3	5.8	B1/1000		
BH (60°-80°)	113.6	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°	1655.6	1655.6	1655.6	1655.6	1655.6	1655.6	1655.6	1655.6	1655.6	1655.6	1655.6
2.5°	1689.5	1709.3	1690.7	1625.3	1613.6	1582.1	1534.2	1530.7	1480.5	1486.3	1459.5
5°	1587.9	1607.8	1568.1	1481.7	1401.1	1336.9	1298.4	1229.5	1214.3	1180.4	1180.4
7.5°	1484.0	1482.8	1415.1	1342.7	1222.5	1104.5	1050.8	951.6	893.2	861.7	831.3
10°	1397.6	1378.9	1336.9	1187.4	1056.7	934.1	867.5	802.1	741.4	688.9	636.3
12.5°	1336.9	1348.6	1282.0	1119.7	950.4	865.2	794.0	725.1	652.7	593.1	534.8
15°	1368.4	1349.7	1271.5	1104.5	932.9	816.1	721.6	637.5	556.9	478.7	434.3
17.5°	1466.5	1418.6	1326.4	1104.5	896.7	741.4	627.0	527.7	441.3	371.3	316.4
20°	1598.4	1543.5	1444.3	1145.4	869.9	686.5	530.1	405.2	315.2	249.9	207.8
22.5°	1733.9	1690.7	1541.2	1161.7	838.3	613.0	418.0	293.1	210.2	168.1	147.1
25°	1896.2	1835.4	1672.0	1227.1	791.6	541.8	329.3	204.3	156.5	134.3	121.4
27.5°	2025.8	2015.3	1794.6	1266.8	756.6	483.4	260.4	162.3	129.6	113.3	105.1
30°	2189.2	2132.0	1944.0	1346.2	716.9	416.8	217.2	145.9	119.1	101.6	95.7
32.5°	2287.3	2260.4	2022.3	1390.6	672.5	362.0	186.8	128.4	108.6	95.7	89.9
35°	2429.7	2376.0	2134.3	1418.6	649.2	330.4	168.1	116.8	91.1	78.2	71.2
37.5°	2588.5	2568.7	2268.6	1417.4	615.3	311.7	155.3	108.6	86.4	72.4	64.2
40°	2750.8	2670.3	2350.3	1450.1	597.8	297.7	145.9	103.9	81.7	68.9	58.4
42.5°	2872.3	2780.0	2444.9	1438.5	576.8	273.2	142.4	96.9	78.2	63.0	53.7
45°	2904.9	2872.3	2530.2	1435.0	561.6	253.4	136.6	95.7	75.9	59.5	50.2
47.5°	2968.0	2945.8	2635.2	1440.8	549.9	238.2	122.6	98.1	72.4	56.0	47.9
50°	2996.0	2956.3	2720.5	1454.8	523.1	219.5	109.8	102.7	71.2	54.9	45.5
52.5°	3111.6	3076.6	2837.2	1494.5	500.9	195.0	96.9	98.1	73.6	51.4	43.2
55°	3224.9	3185.2	3017.0	1585.6	469.4	175.1	82.9	86.4	70.1	46.7	38.5
57.5°	3380.2	3314.8	3137.3	1622.9	441.3	148.3	73.6	71.2	65.4	42.0	33.9
60°	3403.5	3430.4	3119.8	1599.6	412.2	130.8	64.2	54.9	70.1	37.4	29.2
62.5°	3481.7	3369.6	3038.1	1545.9	391.1	120.3	57.2	45.5	60.7	32.7	24.5
65°	3331.1	3248.2	2846.6	1373.1	364.3	121.4	50.2	37.4	38.5	26.9	19.8
67.5°	3110.4	3045.1	2529.0	1185.1	337.4	119.1	44.4	32.7	29.2	23.4	17.5
70°	2729.8	2588.5	2148.4	962.1	297.7	110.9	37.4	29.2	24.5	18.7	12.8
72.5°	1986.1	1928.8	1541.2	743.8	267.4	100.4	35.0	24.5	21.0	14.0	10.5
75°	1336.9	1242.3	972.6	488.1	214.8	87.6	29.2	22.2	16.3	10.5	8.2
77.5°	706.4	667.9	551.1	232.3	119.1	40.9	16.3	12.8	9.3	8.2	4.7
80°	305.9	272.0	238.2	94.6	42.0	18.7	10.5	7.0	5.8	4.7	2.3
82.5°	156.5	149.5	123.8	40.9	24.5	14.0	5.8	4.7	3.5	2.3	1.2
85°	77.1	79.4	65.4	12.8	14.0	8.2	1.2	1.2	0.0	0.0	0.0
87.5°	5.8	5.8	4.7	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°	1655.6	1655.6	1655.6	1655.6	1655.6	1655.6	1655.6	1655.6	1655.6	1655.6	1655.6
2.5°	1449.0	1465.3	1437.3	1454.8	1446.6	1450.1	1453.6	1444.3	1446.6	1479.3	1480.5
5°	1160.6	1192.1	1180.4	1196.8	1224.8	1210.8	1223.6	1221.3	1223.6	1228.3	1249.3
7.5°	827.8	818.5	840.7	883.9	934.1	964.4	949.2	941.1	936.4	924.7	938.7
10°	624.7	620.0	614.1	627.0	659.7	693.5	712.2	680.7	663.2	641.0	632.8
12.5°	518.4	489.2	472.9	453.0	462.4	492.7	493.9	463.5	435.5	423.8	436.7
15°	408.7	388.8	359.6	331.6	317.6	340.9	321.1	291.9	255.7	251.0	249.9
17.5°	291.9	280.2	259.2	247.5	231.2	225.3	204.3	160.0	134.3	127.3	129.6
20°	198.5	189.1	188.0	177.5	170.5	165.8	131.9	102.7	94.6	95.7	96.9
22.5°	147.1	142.4	136.6	135.4	129.6	123.8	96.9	86.4	80.6	80.6	84.1
25°	120.3	117.9	112.1	109.8	107.4	99.2	81.7	73.6	71.2	68.9	72.4
27.5°	102.7	101.6	98.1	94.6	92.2	84.1	71.2	64.2	61.9	61.9	61.9
30°	92.2	92.2	87.6	80.6	80.6	71.2	60.7	56.0	53.7	53.7	52.5
32.5°	86.4	84.1	78.2	73.6	70.1	60.7	53.7	49.0	45.5	45.5	46.7
35°	70.1	70.1	68.9	65.4	60.7	51.4	45.5	40.9	38.5	37.4	38.5
37.5°	61.9	58.4	53.7	54.9	52.5	44.4	38.5	35.0	31.5	31.5	31.5
40°	56.0	52.5	47.9	44.4	43.2	39.7	33.9	28.0	24.5	23.4	23.4
42.5°	50.2	47.9	40.9	35.0	33.9	33.9	25.7	21.0	17.5	17.5	17.5
45°	46.7	43.2	37.4	30.4	24.5	25.7	21.0	15.2	12.8	11.7	11.7
47.5°	44.4	40.9	32.7	25.7	18.7	18.7	15.2	10.5	8.2	7.0	7.0
50°	40.9	37.4	29.2	21.0	14.0	11.7	9.3	5.8	3.5	2.3	2.3
52.5°	38.5	35.0	25.7	17.5	11.7	8.2	5.8	1.2	0.0	0.0	0.0
55°	35.0	30.4	22.2	14.0	9.3	4.7	1.2	0.0	0.0	0.0	0.0
57.5°	30.4	26.9	17.5	10.5	5.8	1.2	0.0	0.0	0.0	0.0	0.0
60°	25.7	22.2	14.0	8.2	2.3	0.0	0.0	0.0	0.0	0.0	0.0
62.5°	21.0	18.7	10.5	4.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0
65°	17.5	14.0	8.2	1.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0
67.5°	15.2	11.7	5.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
70°	11.7	8.2	3.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
72.5°	8.2	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°	1655.6	1655.6	1655.6	1655.6	1655.6	1655.6	1655.6	1655.6	1655.6	1655.6	1655.6
2.5°	1485.2	1520.2	1552.9	1562.2	1587.9	1659.1	1659.1	1693.0	1753.7	1775.9	1780.6
5°	1252.8	1290.2	1297.2	1369.6	1403.4	1475.8	1523.7	1638.1	1707.0	1750.2	1777.1
7.5°	952.7	965.6	992.4	1060.2	1126.7	1214.3	1305.4	1451.3	1572.7	1621.8	1712.8
10°	655.0	693.5	751.9	812.6	916.6	1013.5	1131.4	1269.2	1418.6	1479.3	1557.6
12.5°	441.3	495.1	588.5	674.9	770.6	868.7	980.8	1165.2	1334.5	1418.6	1496.8
15°	258.0	323.4	404.0	544.1	671.4	781.1	893.2	1080.0	1285.5	1394.1	1489.8
17.5°	130.8	150.6	217.2	338.6	506.7	686.5	853.5	1091.7	1322.9	1456.0	1535.4
20°	98.1	103.9	122.6	179.8	346.8	567.4	816.1	1109.2	1426.8	1589.1	1632.3
22.5°	85.2	89.9	98.1	116.8	195.0	434.3	763.6	1152.4	1568.1	1721.0	1812.1
25°	72.4	77.1	84.1	95.7	124.9	295.4	699.4	1197.9	1694.2	1886.8	1972.0
27.5°	63.0	66.6	73.6	82.9	101.6	188.0	588.5	1258.7	1886.8	2087.6	2109.8
30°	53.7	57.2	63.0	73.6	86.4	133.1	432.0	1266.8	1993.1	2175.2	2237.1
32.5°	46.7	47.9	54.9	64.2	72.4	105.1	303.6	1275.0	2071.3	2288.5	2301.3
35°	38.5	40.9	47.9	53.7	63.0	82.9	230.0	1234.1	2172.9	2405.2	2401.7
37.5°	31.5	35.0	39.7	44.4	51.4	70.1	183.3	1158.2	2300.1	2586.2	2476.4
40°	24.5	28.0	32.7	38.5	43.2	63.0	137.8	1043.8	2433.2	2674.9	2558.2
42.5°	17.5	19.8	24.5	30.4	38.5	52.5	99.2	908.4	2485.8	2778.9	2656.3
45°	12.8	15.2	18.7	25.7	39.7	42.0	68.9	784.6	2541.8	2824.4	2634.1
47.5°	7.0	9.3	14.0	22.2	35.0	31.5	49.0	673.7	2606.0	2865.3	2651.6
50°	2.3	3.5	8.2	23.4	28.0	24.5	38.5	614.1	2669.1	2873.4	2686.6
52.5°	0.0	0.0	4.7	24.5	21.0	18.7	33.9	590.8	2652.8	2899.1	2664.4
55°	0.0	0.0	1.2	10.5	11.7	14.0	28.0	589.6	2768.3	2907.3	2785.9
57.5°	0.0	0.0	0.0	3.5	7.0	11.7	24.5	552.3	2841.9	3110.4	2949.3
60°	0.0	0.0	0.0	1.2	4.7	8.2	18.7	519.6	2916.6	3201.5	3124.5
62.5°	0.0	0.0	0.0	0.0	1.2	3.5	12.8	469.4	2766.0	3194.5	3293.8
65°	0.0	0.0	0.0	0.0	0.0	0.0	8.2	371.3	2488.1	3027.5	3200.3
67.5°	0.0	0.0	0.0	0.0	0.0	0.0	4.7	256.9	2178.7	2817.4	3028.7
70°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	155.3	1758.4	2470.6	2568.7
72.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	66.6	1255.2	1961.5	2107.5
75°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	26.9	776.4	1433.8	1613.6
77.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	10.5	503.2	1085.9	1224.8
80°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.3	268.5	680.7	791.6
82.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	116.8	413.3	476.4
85°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	37.4	251.0	286.1
87.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	38.5	51.4
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°	1655.6	1655.6	1655.6	1655.6	1655.6	1655.6	1655.6	1655.6	1655.6	1655.6
2.5°	1782.9	1816.8	1829.6	1809.8	1812.1	1771.2	1765.4	1708.2	1684.8	1689.5
5°	1864.6	1913.7	1940.5	1918.3	1868.1	1789.9	1718.7	1651.0	1608.9	1587.9
7.5°	1846.0	1900.8	1934.7	1955.7	1898.5	1772.4	1663.8	1536.5	1482.8	1484.0
10°	1743.2	1857.6	1926.5	1899.7	1872.8	1746.7	1578.6	1440.8	1392.9	1397.6
12.5°	1660.3	1787.6	1828.4	1849.5	1794.6	1694.2	1580.9	1423.3	1369.6	1336.9
15°	1608.9	1703.5	1705.8	1738.5	1716.3	1716.3	1605.4	1451.3	1404.6	1368.4
17.5°	1608.9	1629.9	1627.6	1639.3	1676.7	1721.0	1667.3	1564.6	1472.3	1466.5
20°	1645.1	1579.7	1564.6	1569.2	1600.8	1732.7	1803.9	1675.5	1617.1	1598.4
22.5°	1729.2	1585.6	1493.3	1477.0	1573.9	1731.5	1891.5	1850.6	1749.0	1733.9
25°	1844.8	1575.1	1474.7	1453.6	1527.2	1773.6	2011.7	2019.9	1927.7	1896.2
27.5°	1954.5	1621.8	1472.3	1467.7	1564.6	1764.2	2094.6	2155.4	2051.4	2025.8
30°	1991.9	1668.5	1515.5	1453.6	1578.6	1798.1	2092.3	2251.1	2183.4	2189.2
32.5°	2036.3	1715.2	1520.2	1495.7	1638.1	1853.0	2158.9	2405.2	2356.2	2287.3
35°	2101.7	1778.2	1564.6	1542.4	1680.2	1902.0	2172.9	2518.5	2510.3	2429.7
37.5°	2157.7	1840.1	1656.8	1660.3	1808.6	1981.4	2234.8	2657.4	2643.4	2588.5
40°	2197.4	1926.5	1800.4	1809.8	1920.7	2070.1	2344.5	2727.5	2831.4	2750.8
42.5°	2203.2	2003.6	1965.0	2039.8	2143.7	2207.9	2388.9	2775.3	2924.8	2872.3
45°	2225.4	2126.2	2233.6	2288.5	2373.7	2329.3	2386.5	2857.1	2931.8	2904.9
47.5°	2311.8	2349.2	2484.6	2651.6	2681.9	2536.0	2442.6	2869.9	2971.5	2968.0
50°	2401.7	2588.5	2778.9	2889.8	2928.3	2678.4	2495.1	2859.4	3024.0	2996.0
52.5°	2502.1	2796.4	3070.7	3207.4	3186.3	2836.1	2554.7	2944.6	3121.0	3111.6
55°	2565.2	2889.8	3258.7	3449.0	3432.7	3012.4	2743.8	3067.2	3248.2	3224.9
57.5°	2732.1	3041.6	3445.5	3534.3	3577.5	3243.5	2875.8	3268.1	3354.5	3380.2
60°	2869.9	3140.8	3494.6	3623.0	3638.2	3381.3	3106.9	3474.7	3489.9	3403.5
62.5°	3071.9	3179.3	3390.7	3506.3	3584.5	3459.6	3314.8	3585.7	3487.6	3481.7
65°	3220.2	3053.2	3196.8	3261.1	3311.3	3340.5	3523.8	3661.5	3444.4	3331.1
67.5°	3137.3	2815.0	2788.2	2791.7	2806.9	2983.2	3453.7	3475.9	3203.9	3110.4
70°	2761.3	2309.5	2273.3	2301.3	2225.4	2437.9	3170.0	3159.5	2826.7	2729.8
72.5°	2233.6	1683.7	1621.8	1660.3	1677.8	1903.2	2666.8	2395.9	2062.0	1986.1
75°	1774.7	1234.1	1041.5	1134.9	1194.4	1385.9	2083.0	1627.6	1439.6	1336.9
77.5°	1394.1	934.1	810.3	772.9	827.8	1007.6	1515.5	854.7	754.3	706.4
80°	883.9	686.5	744.9	691.2	714.6	719.2	789.3	388.8	309.4	305.9
82.5°	532.4	469.4	558.1	307.1	559.3	499.7	328.1	176.3	156.5	156.5
85°	377.1	290.7	192.7	124.9	248.7	274.4	127.3	91.1	79.4	77.1
87.5°	189.1	89.9	43.2	28.0	31.5	51.4	15.2	7.0	7.0	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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