

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: P677499

Luminaire Tested: **CCW-SA-2B-840-U-SLR-HSS**

Issue Date: 04/25/2023



Test Information

Test Method: LM-79-08
Report Number: P677499
Test Lab: INNOVATION CENTER(G1)
Issue Date: 04/25/2023
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: INVUE
Catalog Number: CCW-SA-2B-840-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) 4000K CCT, 80 CRI LEDs
Ballast/Driver: ELECTRONIC DRIVER

Summary

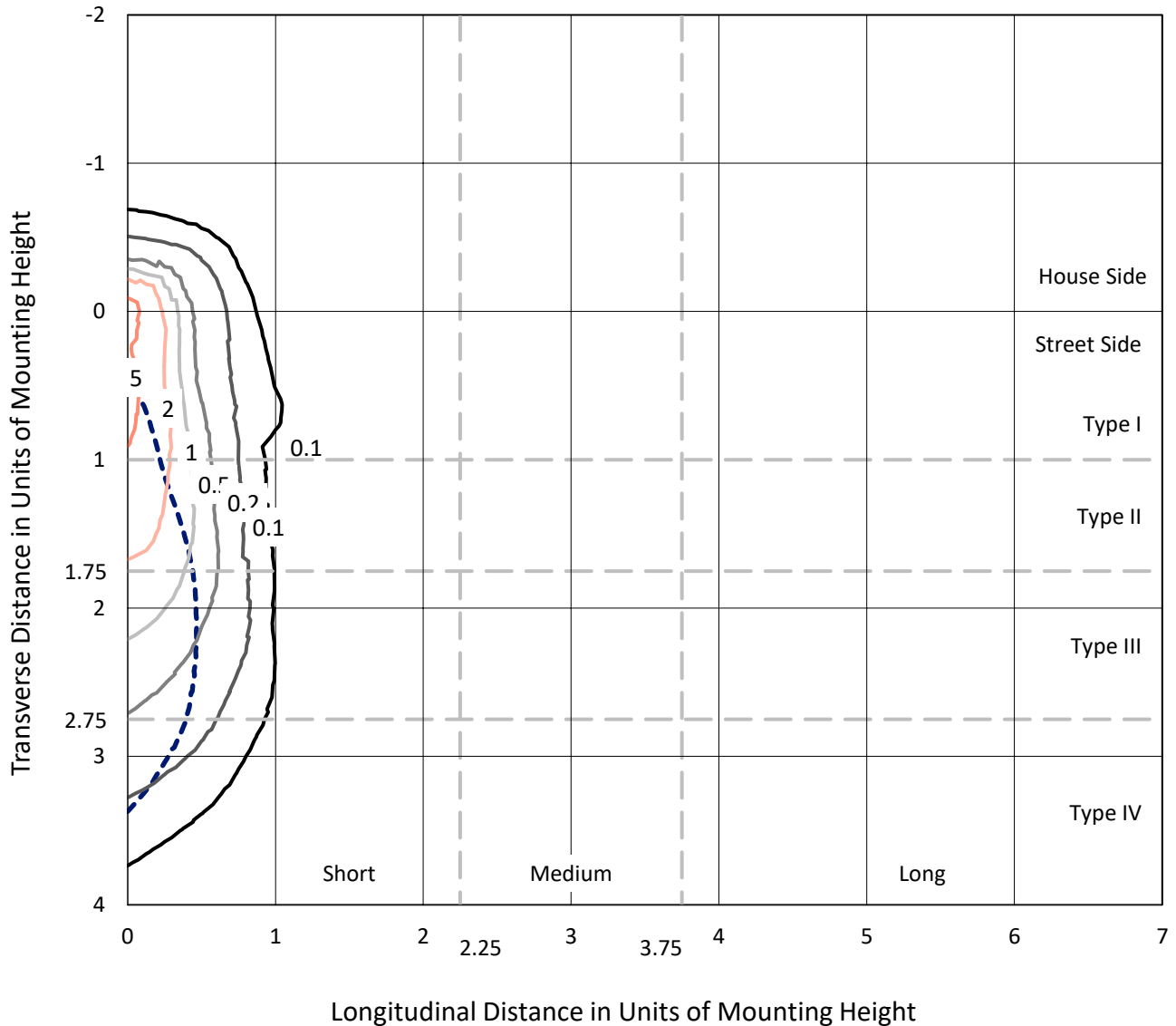
Lumens per Lamp: N/A
Luminaire Lumens: 4231.5 lumens
Efficiency: N/A
Efficacy: 92.0 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')
IES Classification: Type IV - Short
BUG Rating: B1 - U0 - G1

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

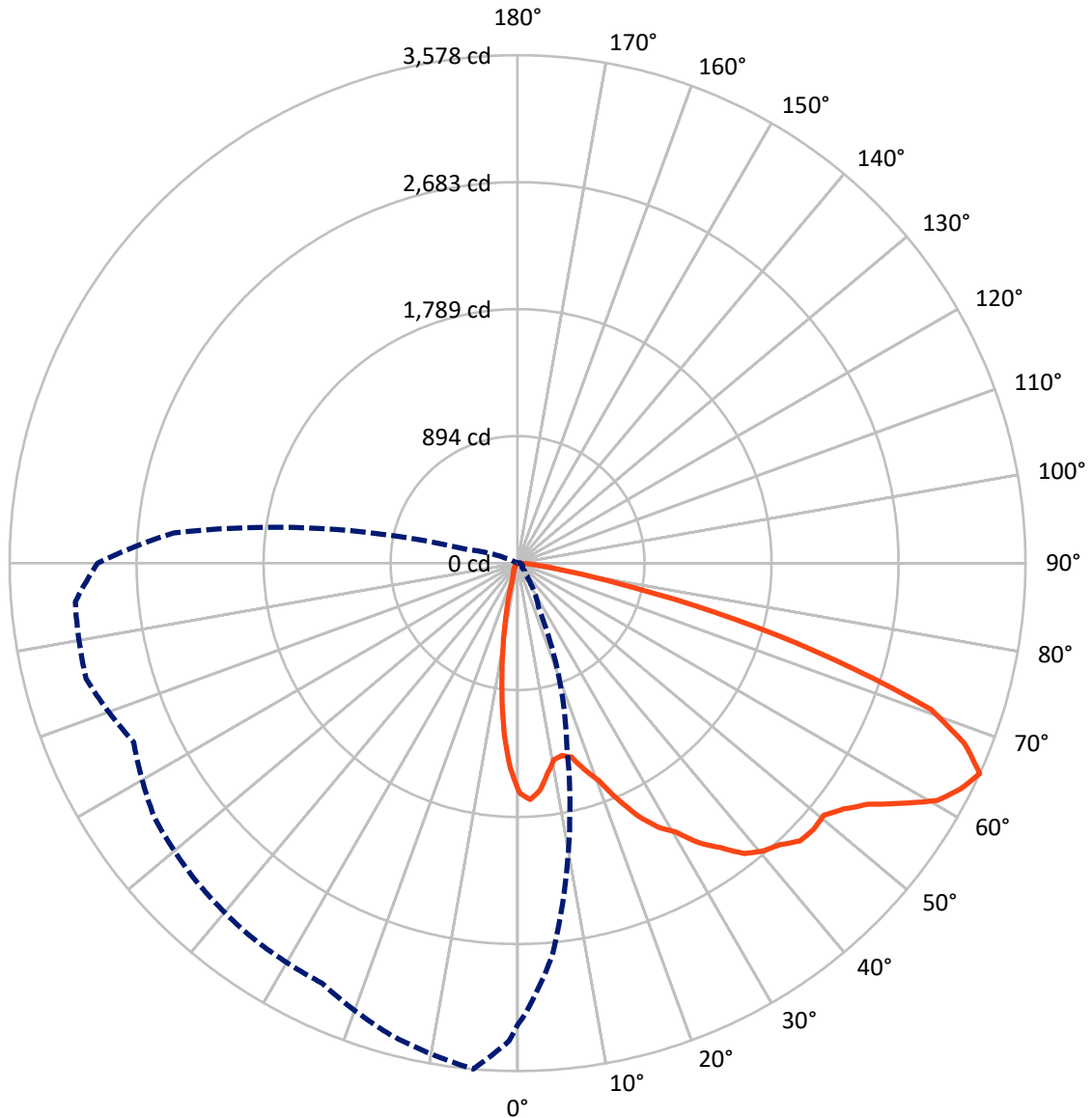
× Max cd
 - - - 1/2 Max cd



Based on 15 foot mounting height. Maximum calculated value = 7.2 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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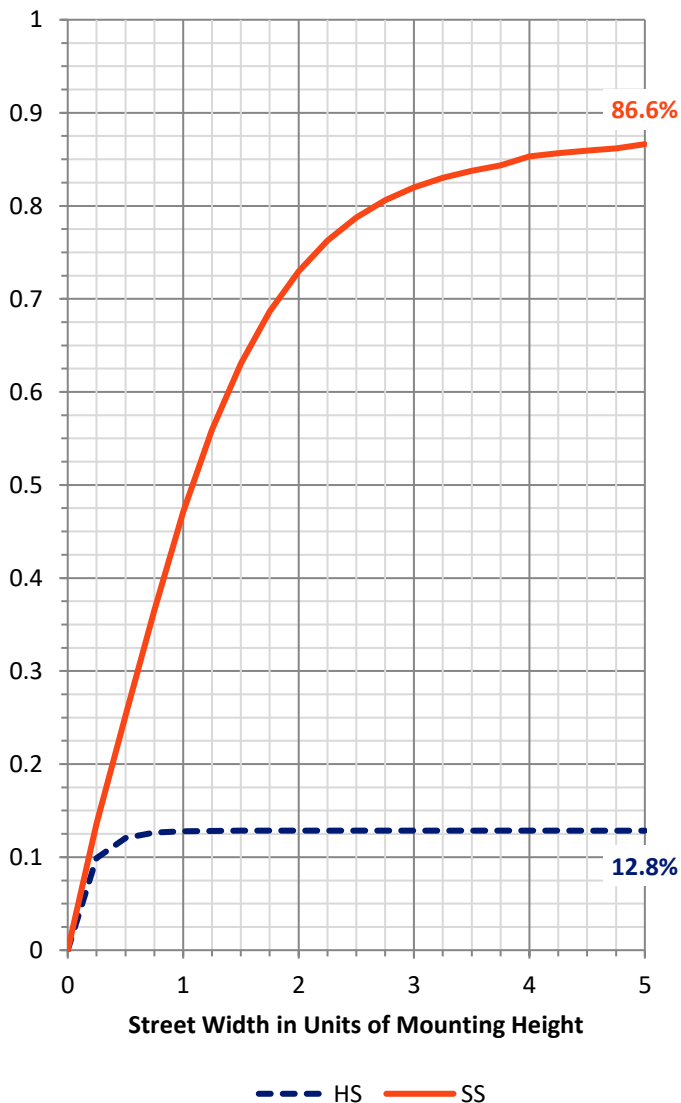
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	549.4	0.0	549.4
	% Fixture	13.0	0.0	13.0
Street Side	Lumens	3682.1	0.0	3682.1
	% Fixture	87.0	0.0	87.0
Total	Lumens	4231.5	0.0	4231.5
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	122.5	2.9
10°-20°	237.3	5.6
20°-30°	330.5	7.8
30°-40°	469.6	11.1
40°-50°	651.2	15.4
50°-60°	887.2	21.0
60°-70°	975.5	23.1
70°-80°	479.4	11.3
80°-90°	78.3	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°	4231.5	100.0
0°-180°	4231.5	100.0



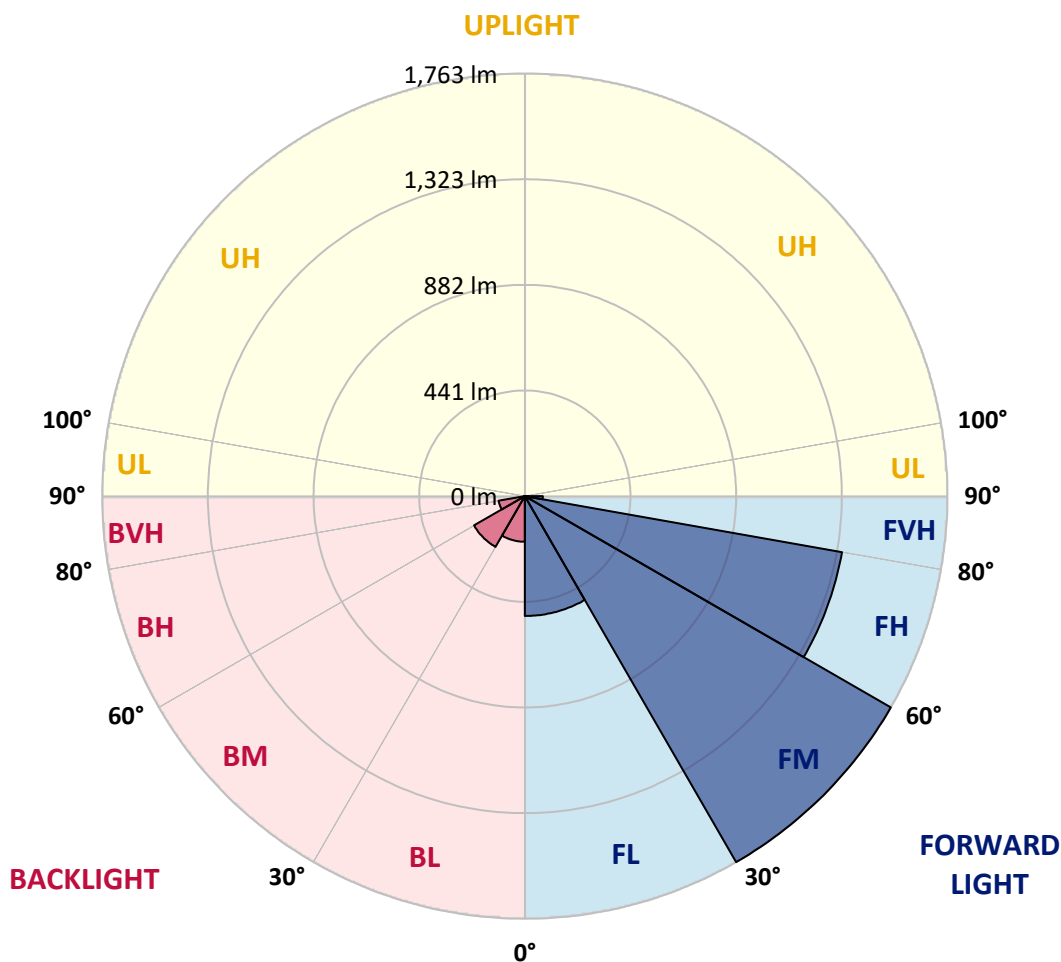
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	500.1	11.8			
FM (30°-60°)	1763.4	41.7			
FH (60°-80°)	1343.9	31.8			G1/1800
FVH (80°-90°)	74.8	1.8			G1/100
BL (0°-30°)	190.2	4.5	B1/500		
BM (30°-60°)	244.6	5.8	B1/1000		
BH (60°-80°)	111.0	2.6	B1/500		G1/500
BVH (80°-90°)	3.5	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°	1617.7	1617.7	1617.7	1617.7	1617.7	1617.7	1617.7	1617.7	1617.7	1617.7	1617.7
2.5°	1650.8	1670.2	1651.9	1588.0	1576.6	1545.8	1499.0	1495.6	1446.6	1452.3	1426.0
5°	1551.5	1570.9	1532.1	1447.7	1369.0	1306.2	1268.6	1201.3	1186.5	1153.4	1153.4
7.5°	1450.0	1448.8	1382.7	1311.9	1194.4	1079.2	1026.7	929.8	872.7	841.9	812.3
10°	1365.6	1347.3	1306.2	1160.2	1032.4	912.7	847.6	783.7	724.4	673.1	621.7
12.5°	1306.2	1317.7	1252.6	1094.0	928.6	845.4	775.8	708.5	637.7	579.5	522.5
15°	1337.0	1318.8	1242.4	1079.2	911.5	797.4	705.0	622.9	544.2	467.7	424.4
17.5°	1432.9	1386.1	1296.0	1079.2	876.2	724.4	612.6	515.7	431.2	362.8	309.2
20°	1561.8	1508.2	1411.2	1119.1	849.9	670.8	517.9	395.9	308.0	244.1	203.1
22.5°	1694.1	1651.9	1505.9	1135.1	819.1	598.9	408.4	286.3	205.3	164.3	143.7
25°	1852.7	1793.4	1633.7	1199.0	773.5	529.3	321.7	199.6	152.9	131.2	118.6
27.5°	1979.3	1969.1	1753.4	1237.8	739.3	472.3	254.4	158.6	126.6	110.7	102.7
30°	2139.0	2083.1	1899.5	1315.4	700.5	407.3	212.2	142.6	116.4	99.3	93.5
32.5°	2234.9	2208.6	1975.9	1358.7	657.1	353.7	182.5	125.5	106.1	93.5	87.8
35°	2374.1	2321.6	2085.4	1386.1	634.3	322.9	164.3	114.1	89.0	76.4	69.6
37.5°	2529.2	2509.8	2216.6	1385.0	601.2	304.6	151.7	106.1	84.4	70.7	62.7
40°	2687.8	2609.1	2296.5	1416.9	584.1	290.9	142.6	101.5	79.9	67.3	57.0
42.5°	2806.4	2716.3	2388.9	1405.5	563.6	267.0	139.2	94.7	76.4	61.6	52.5
45°	2838.4	2806.4	2472.2	1402.1	548.7	247.6	133.5	93.5	74.2	58.2	49.1
47.5°	2900.0	2878.3	2574.8	1407.8	537.3	232.7	119.8	95.8	70.7	54.8	46.8
50°	2927.4	2888.6	2658.1	1421.5	511.1	214.5	107.2	100.4	69.6	53.6	44.5
52.5°	3040.3	3006.1	2772.2	1460.3	489.4	190.5	94.7	95.8	71.9	50.2	42.2
55°	3151.0	3112.2	2947.9	1549.2	458.6	171.1	81.0	84.4	68.4	45.6	37.6
57.5°	3302.7	3238.8	3065.4	1585.7	431.2	144.9	71.9	69.6	63.9	41.1	33.1
60°	3325.5	3351.7	3048.3	1562.9	402.7	127.8	62.7	53.6	68.4	36.5	28.5
62.5°	3401.9	3292.4	2968.4	1510.5	382.2	117.5	55.9	44.5	59.3	31.9	24.0
65°	3254.8	3173.8	2781.3	1341.6	355.9	118.6	49.1	36.5	37.6	26.2	19.4
67.5°	3039.2	2975.3	2471.0	1157.9	329.7	116.4	43.4	31.9	28.5	22.8	17.1
70°	2667.2	2529.2	2099.1	940.0	290.9	108.4	36.5	28.5	24.0	18.3	12.5
72.5°	1940.5	1884.6	1505.9	726.7	261.2	98.1	34.2	24.0	20.5	13.7	10.3
75°	1306.2	1213.8	950.3	476.9	209.9	85.6	28.5	21.7	16.0	10.3	8.0
77.5°	690.2	652.6	538.5	227.0	116.4	39.9	16.0	12.5	9.1	8.0	4.6
80°	298.9	265.8	232.7	92.4	41.1	18.3	10.3	6.8	5.7	4.6	2.3
82.5°	152.9	146.0	120.9	39.9	24.0	13.7	5.7	4.6	3.4	2.3	1.1
85°	75.3	77.6	63.9	12.5	13.7	8.0	1.1	1.1	0.0	0.0	0.0
87.5°	5.7	5.7	4.6	2.3	3.4	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°	1617.7	1617.7	1617.7	1617.7	1617.7	1617.7	1617.7	1617.7	1617.7	1617.7	1617.7
2.5°	1415.8	1431.7	1404.4	1421.5	1413.5	1416.9	1420.3	1411.2	1413.5	1445.4	1446.6
5°	1134.0	1164.8	1153.4	1169.3	1196.7	1183.0	1195.6	1193.3	1195.6	1200.1	1220.7
7.5°	808.8	799.7	821.4	863.6	912.7	942.3	927.5	919.5	914.9	903.5	917.2
10°	610.3	605.8	600.1	612.6	644.6	677.6	695.9	665.1	648.0	626.3	618.3
12.5°	506.5	478.0	462.0	442.6	451.8	481.4	482.6	452.9	425.5	414.1	426.7
15°	399.3	379.9	351.4	324.0	310.3	333.1	313.7	285.2	249.8	245.3	244.1
17.5°	285.2	273.8	253.3	241.9	225.9	220.2	199.6	156.3	131.2	124.3	126.6
20°	193.9	184.8	183.7	173.4	166.6	162.0	128.9	100.4	92.4	93.5	94.7
22.5°	143.7	139.2	133.5	132.3	126.6	120.9	94.7	84.4	78.7	78.7	82.1
25°	117.5	115.2	109.5	107.2	105.0	97.0	79.9	71.9	69.6	67.3	70.7
27.5°	100.4	99.3	95.8	92.4	90.1	82.1	69.6	62.7	60.5	60.5	60.5
30°	90.1	90.1	85.6	78.7	78.7	69.6	59.3	54.8	52.5	52.5	51.3
32.5°	84.4	82.1	76.4	71.9	68.4	59.3	52.5	47.9	44.5	44.5	45.6
35°	68.4	68.4	67.3	63.9	59.3	50.2	44.5	39.9	37.6	36.5	37.6
37.5°	60.5	57.0	52.5	53.6	51.3	43.4	37.6	34.2	30.8	30.8	30.8
40°	54.8	51.3	46.8	43.4	42.2	38.8	33.1	27.4	24.0	22.8	22.8
42.5°	49.1	46.8	39.9	34.2	33.1	33.1	25.1	20.5	17.1	17.1	17.1
45°	45.6	42.2	36.5	29.7	24.0	25.1	20.5	14.8	12.5	11.4	11.4
47.5°	43.4	39.9	31.9	25.1	18.3	18.3	14.8	10.3	8.0	6.8	6.8
50°	39.9	36.5	28.5	20.5	13.7	11.4	9.1	5.7	3.4	2.3	2.3
52.5°	37.6	34.2	25.1	17.1	11.4	8.0	5.7	1.1	0.0	0.0	0.0
55°	34.2	29.7	21.7	13.7	9.1	4.6	1.1	0.0	0.0	0.0	0.0
57.5°	29.7	26.2	17.1	10.3	5.7	1.1	0.0	0.0	0.0	0.0	0.0
60°	25.1	21.7	13.7	8.0	2.3	0.0	0.0	0.0	0.0	0.0	0.0
62.5°	20.5	18.3	10.3	4.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0
65°	17.1	13.7	8.0	1.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0
67.5°	14.8	11.4	5.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
70°	11.4	8.0	3.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
72.5°	8.0	5.7	1.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
75°	5.7	3.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
77.5°	3.4	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°	1617.7	1617.7	1617.7	1617.7	1617.7	1617.7	1617.7	1617.7	1617.7	1617.7	1617.7
2.5°	1451.1	1485.4	1517.3	1526.4	1551.5	1621.1	1621.1	1654.2	1713.5	1735.2	1739.8
5°	1224.1	1260.6	1267.5	1338.2	1371.3	1442.0	1488.8	1600.6	1667.9	1710.1	1736.3
7.5°	930.9	943.5	969.7	1035.9	1100.9	1186.5	1275.4	1418.0	1536.7	1584.6	1673.6
10°	640.0	677.6	734.7	794.0	895.5	990.2	1105.5	1240.1	1386.1	1445.4	1521.9
12.5°	431.2	483.7	575.0	659.4	752.9	848.8	958.3	1138.5	1304.0	1386.1	1462.5
15°	252.1	316.0	394.7	531.6	656.0	763.2	872.7	1055.3	1256.0	1362.1	1455.7
17.5°	127.8	147.2	212.2	330.8	495.1	670.8	833.9	1066.7	1292.6	1422.6	1500.2
20°	95.8	101.5	119.8	175.7	338.8	554.4	797.4	1083.8	1394.1	1552.7	1594.9
22.5°	83.3	87.8	95.8	114.1	190.5	424.4	746.1	1126.0	1532.1	1681.6	1770.6
25°	70.7	75.3	82.1	93.5	122.1	288.6	683.4	1170.5	1655.3	1843.6	1926.9
27.5°	61.6	65.0	71.9	81.0	99.3	183.7	575.0	1229.8	1843.6	2039.8	2061.5
30°	52.5	55.9	61.6	71.9	84.4	130.1	422.1	1237.8	1947.4	2125.4	2185.8
32.5°	45.6	46.8	53.6	62.7	70.7	102.7	296.6	1245.8	2023.8	2236.0	2248.6
35°	37.6	39.9	46.8	52.5	61.6	81.0	224.7	1205.9	2123.1	2350.1	2346.7
37.5°	30.8	34.2	38.8	43.4	50.2	68.4	179.1	1131.7	2247.4	2526.9	2419.7
40°	24.0	27.4	31.9	37.6	42.2	61.6	134.6	1019.9	2377.5	2613.6	2499.5
42.5°	17.1	19.4	24.0	29.7	37.6	51.3	97.0	887.6	2428.8	2715.2	2595.4
45°	12.5	14.8	18.3	25.1	38.8	41.1	67.3	766.6	2483.6	2759.7	2573.7
47.5°	6.8	9.1	13.7	21.7	34.2	30.8	47.9	658.3	2546.3	2799.6	2590.8
50°	2.3	3.4	8.0	22.8	27.4	24.0	37.6	600.1	2607.9	2807.6	2625.0
52.5°	0.0	0.0	4.6	24.0	20.5	18.3	33.1	577.3	2592.0	2832.7	2603.4
55°	0.0	0.0	1.1	10.3	11.4	13.7	27.4	576.1	2704.9	2840.7	2722.0
57.5°	0.0	0.0	0.0	3.4	6.8	11.4	24.0	539.6	2776.8	3039.2	2881.7
60°	0.0	0.0	0.0	1.1	4.6	8.0	18.3	507.7	2849.8	3128.1	3052.8
62.5°	0.0	0.0	0.0	0.0	1.1	3.4	12.5	458.6	2702.6	3121.3	3218.3
65°	0.0	0.0	0.0	0.0	0.0	0.0	8.0	362.8	2431.1	2958.2	3127.0
67.5°	0.0	0.0	0.0	0.0	0.0	0.0	4.6	251.0	2128.8	2752.8	2959.3
70°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	151.7	1718.1	2414.0	2509.8
72.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	65.0	1226.4	1916.6	2059.2
75°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	26.2	758.6	1400.9	1576.6
77.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	10.3	491.7	1061.0	1196.7
80°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.3	262.4	665.1	773.5
82.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	114.1	403.9	465.5
85°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	36.5	245.3	279.5
87.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	37.6	50.2
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°	1617.7	1617.7	1617.7	1617.7	1617.7	1617.7	1617.7	1617.7	1617.7	1617.7
2.5°	1742.0	1775.1	1787.7	1768.3	1770.6	1730.6	1724.9	1669.0	1646.2	1650.8
5°	1821.9	1869.8	1896.0	1874.4	1825.3	1748.9	1679.3	1613.1	1572.1	1551.5
7.5°	1803.6	1857.3	1890.3	1910.9	1855.0	1731.8	1625.7	1501.3	1448.8	1450.0
10°	1703.2	1815.0	1882.4	1856.1	1829.9	1706.7	1542.4	1407.8	1361.0	1365.6
12.5°	1622.3	1746.6	1786.5	1807.1	1753.4	1655.3	1544.7	1390.7	1338.2	1306.2
15°	1572.1	1664.5	1666.7	1698.7	1677.0	1677.0	1568.6	1418.0	1372.4	1337.0
17.5°	1572.1	1592.6	1590.3	1601.7	1638.2	1681.6	1629.1	1528.7	1438.6	1432.9
20°	1607.4	1543.5	1528.7	1533.3	1564.1	1693.0	1762.6	1637.1	1580.0	1561.8
22.5°	1689.6	1549.2	1459.1	1443.1	1537.8	1691.8	1848.1	1808.2	1709.0	1694.1
25°	1802.5	1539.0	1440.9	1420.3	1492.2	1732.9	1965.6	1973.6	1883.5	1852.7
27.5°	1909.7	1584.6	1438.6	1434.0	1528.7	1723.8	2046.6	2106.0	2004.4	1979.3
30°	1946.2	1630.2	1480.8	1420.3	1542.4	1756.9	2044.4	2199.5	2133.3	2139.0
32.5°	1989.6	1675.9	1485.4	1461.4	1600.6	1810.5	2109.4	2350.1	2302.2	2234.9
35°	2053.5	1737.5	1528.7	1507.0	1641.6	1858.4	2123.1	2460.8	2452.8	2374.1
37.5°	2108.2	1797.9	1618.8	1622.3	1767.1	1936.0	2183.5	2596.5	2582.8	2529.2
40°	2147.0	1882.4	1759.1	1768.3	1876.7	2022.7	2290.8	2665.0	2766.5	2687.8
42.5°	2152.7	1957.7	1920.0	1993.0	2094.6	2157.3	2334.1	2711.7	2857.8	2806.4
45°	2174.4	2077.4	2182.4	2236.0	2319.3	2275.9	2331.8	2791.6	2864.6	2838.4
47.5°	2258.8	2295.3	2427.7	2590.8	2620.5	2477.9	2386.6	2804.1	2903.4	2900.0
50°	2346.7	2529.2	2715.2	2823.5	2861.2	2617.0	2437.9	2793.9	2954.7	2927.4
52.5°	2444.8	2732.3	3000.4	3133.8	3113.3	2771.1	2496.1	2877.2	3049.4	3040.3
55°	2506.4	2823.5	3184.0	3370.0	3354.0	2943.3	2680.9	2996.9	3173.8	3151.0
57.5°	2669.5	2971.8	3366.6	3453.3	3495.5	3169.2	2809.8	3193.2	3277.6	3302.7
60°	2804.1	3068.8	3414.5	3540.0	3554.8	3303.8	3035.7	3395.1	3409.9	3325.5
62.5°	3001.5	3106.5	3313.0	3425.9	3502.3	3380.3	3238.8	3503.5	3407.6	3401.9
65°	3146.4	2983.3	3123.6	3186.3	3235.4	3263.9	3443.0	3577.6	3365.4	3254.8
67.5°	3065.4	2750.5	2724.3	2727.7	2742.5	2914.8	3374.6	3396.2	3130.4	3039.2
70°	2698.0	2256.5	2221.2	2248.6	2174.4	2382.0	3097.3	3087.1	2761.9	2667.2
72.5°	2182.4	1645.1	1584.6	1622.3	1639.4	1859.5	2605.6	2341.0	2014.7	1940.5
75°	1734.1	1205.9	1017.6	1108.9	1167.1	1354.2	2035.2	1590.3	1406.6	1306.2
77.5°	1362.1	912.7	791.7	755.2	808.8	984.5	1480.8	835.1	737.0	690.2
80°	863.6	670.8	727.8	675.4	698.2	702.7	771.2	379.9	302.3	298.9
82.5°	520.2	458.6	545.3	300.0	546.5	488.3	320.6	172.3	152.9	152.9
85°	368.5	284.1	188.2	122.1	243.0	268.1	124.3	89.0	77.6	75.3
87.5°	184.8	87.8	42.2	27.4	30.8	50.2	14.8	6.8	6.8	5.7
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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