

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: P677331

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

Issue Date: 04/25/2023



Test Information

Test Method: LM-79-08
Report Number: P677331
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-SLL-HSS
Description: INVUE CLEAR CURVE Wall Pack MOUNT Light Square Luminaire @1200mA w/
SLL distribution lens and House Side Shield
Light Source: (16) 3000K CCT, 80 CRI LEDs
Ballast/Driver: ELECTRONIC DRIVER

Summary

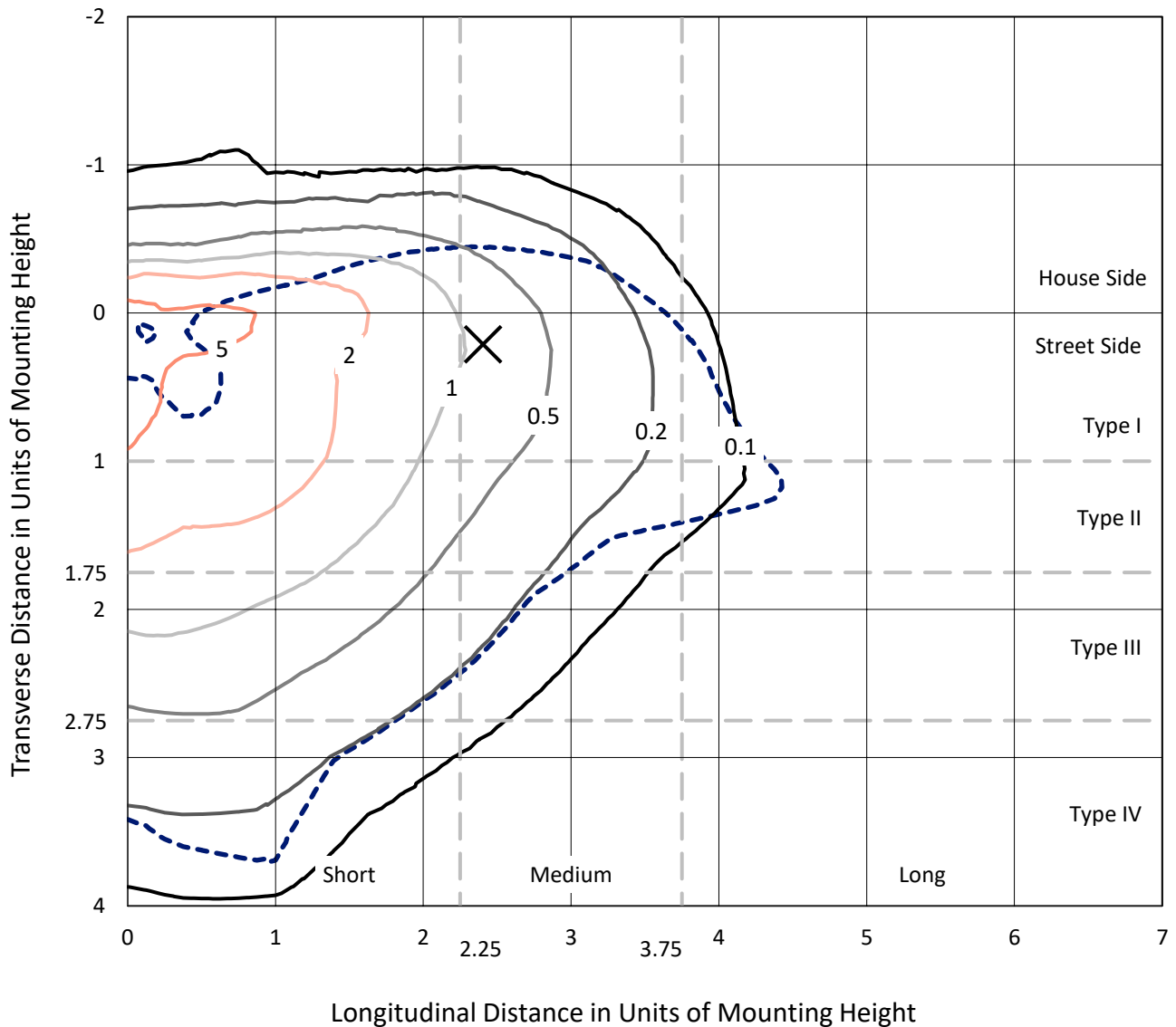
Lumens per Lamp: N/A
Luminaire Lumens: 4322.5 lumens
Efficiency: N/A
Efficacy: 64.5 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 0.5' x H: 0')
IES Classification: Type III - Medium
BUG Rating: B1 - U0 - G1

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

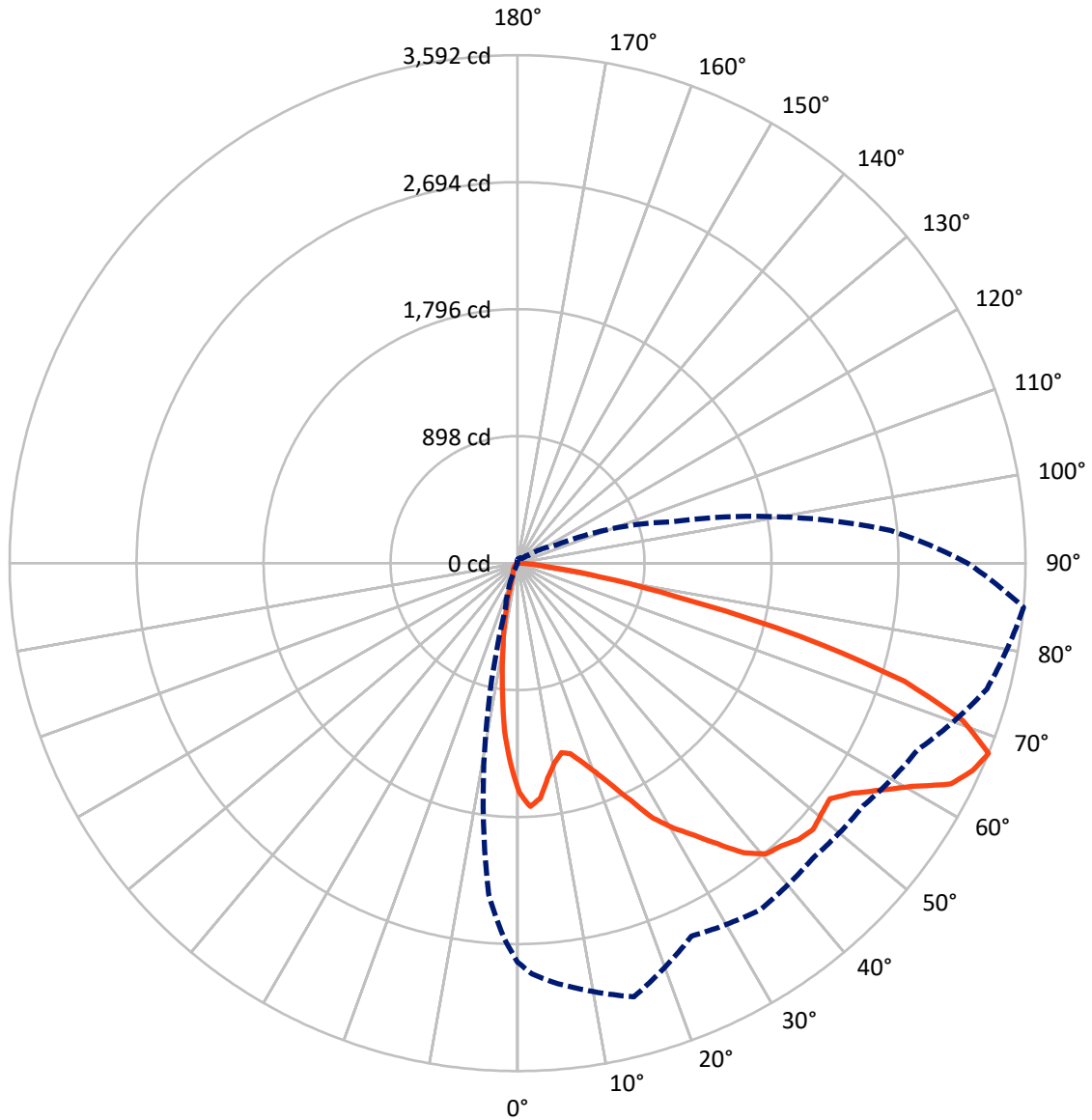
× Max cd
 - - - 1/2 Max cd



Based on 15 foot mounting height. Maximum calculated value = 8.1 fc
 Type III - Medium - N/A

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Luminous Intensity Polar Plot



— Vertical Plane Through 85-Deg Lateral - - - Horizontal Cone Through 67.5-Deg Vertical

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FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	750.5	0.0	750.5
	% Fixture	17.4	0.0	17.4
Street Side	Lumens	3572.0	0.0	3572.0
	% Fixture	82.6	0.0	82.6
Total	Lumens	4322.5	0.0	4322.5
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	123.5	2.9
10°-20°	242.1	5.6
20°-30°	335.0	7.8
30°-40°	473.5	11.0
40°-50°	644.7	14.9
50°-60°	853.9	19.8
60°-70°	991.4	22.9
70°-80°	561.4	13.0
80°-90°	97.0	2.2
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°	4322.5	100.0
0°-180°	4322.5	100.0



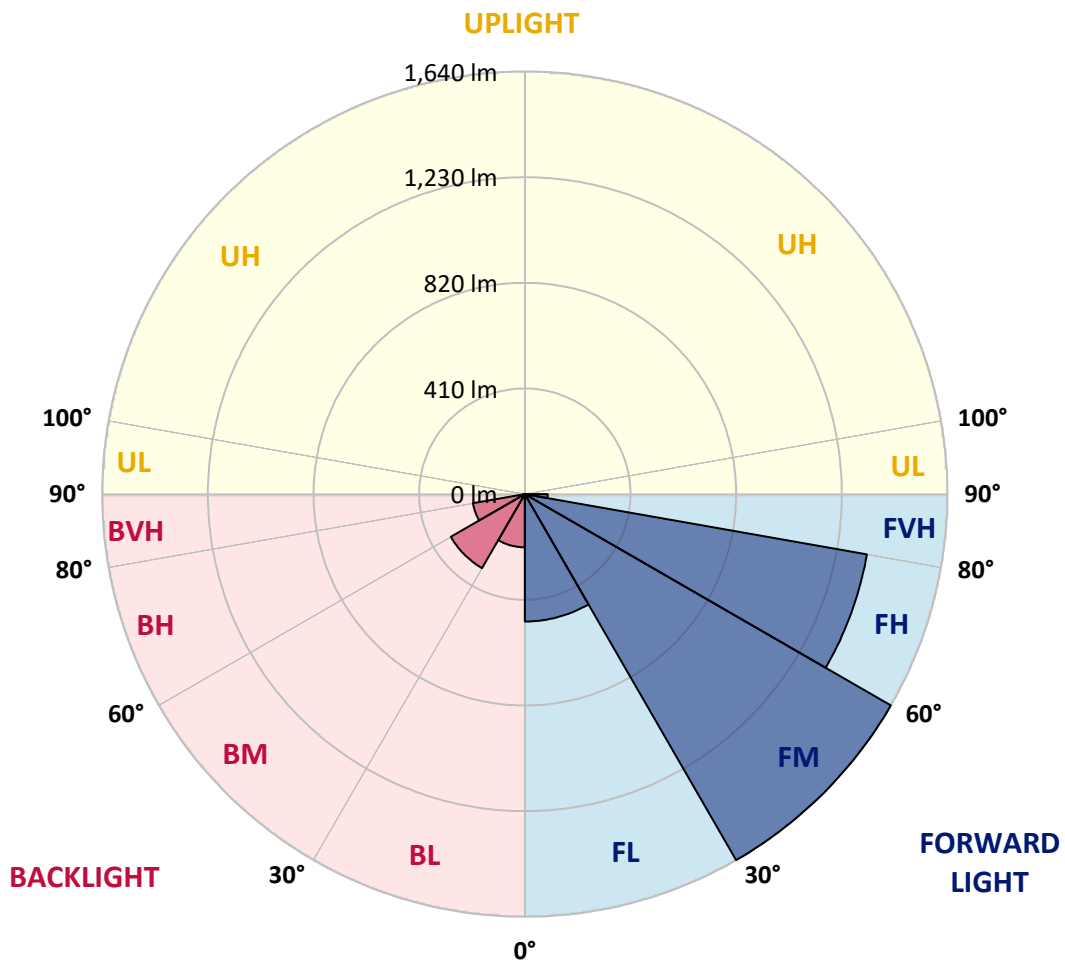
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	494.3	11.4			
FM (30°-60°)	1640.4	38.0			
FH (60°-80°)	1348.4	31.2			G1/1800
FVH (80°-90°)	88.8	2.1			G1/100
BL (0°-30°)	206.3	4.8	B1/500		
BM (30°-60°)	331.6	7.7	B1/1000		
BH (60°-80°)	204.4	4.7	B1/500		G1/500
BVH (80°-90°)	8.2	0.2			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 III Medium





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CANDELA DISTRIBUTION (FULL):

	0°	2°	5°	15°	25°	35°	45°	55°	65°	75°	85°
0°	1625.2	1625.2	1625.2	1625.2	1625.2	1625.2	1625.2	1625.2	1625.2	1625.2	1625.2
2.5°	1688.7	1724.5	1725.7	1741.8	1758.0	1758.0	1796.1	1786.8	1753.4	1747.6	1723.3
5°	1701.4	1714.1	1723.3	1805.3	1874.6	1867.6	1888.4	1874.6	1809.9	1726.8	1670.3
7.5°	1591.8	1605.6	1642.5	1782.2	1875.7	1906.9	1946.1	1859.6	1791.5	1641.4	1532.9
10°	1446.3	1472.9	1541.0	1700.3	1815.7	1915.0	1915.0	1845.7	1714.1	1567.5	1434.8
12.5°	1365.5	1418.6	1455.6	1617.2	1767.2	1835.3	1833.0	1796.1	1710.7	1526.0	1375.9
15°	1379.4	1394.4	1472.9	1598.7	1698.0	1694.5	1736.0	1724.5	1664.5	1562.9	1397.8
17.5°	1442.9	1465.9	1534.0	1598.7	1646.0	1632.2	1631.0	1686.4	1689.9	1625.2	1479.8
20°	1546.7	1614.8	1647.2	1666.8	1609.1	1550.2	1543.3	1620.6	1680.6	1704.9	1577.9
22.5°	1713.0	1758.0	1823.8	1723.3	1573.3	1499.4	1485.6	1571.0	1692.2	1799.5	1704.9
25°	1875.7	1910.3	1973.8	1844.5	1613.7	1489.0	1464.8	1538.7	1736.0	1931.1	1858.4
27.5°	2047.7	2077.7	2084.6	1933.4	1635.6	1468.3	1439.4	1538.7	1773.0	2000.4	2041.9
30°	2152.7	2188.5	2195.5	2011.9	1671.4	1485.6	1471.7	1545.6	1798.4	2059.2	2173.5
32.5°	2270.5	2279.7	2273.9	2025.8	1710.7	1536.4	1478.6	1591.8	1827.2	2129.7	2293.6
35°	2411.3	2427.5	2368.6	2089.3	1798.4	1568.7	1547.9	1648.3	1876.9	2162.0	2439.0
37.5°	2518.7	2569.4	2436.7	2113.5	1815.7	1636.8	1640.2	1766.1	1911.5	2201.2	2599.5
40°	2720.7	2635.2	2552.1	2196.6	1881.5	1752.2	1733.7	1887.3	2028.1	2226.6	2704.5
42.5°	2831.5	2786.4	2597.1	2204.7	1983.1	1911.5	1916.1	2024.6	2089.3	2298.2	2733.4
45°	2859.2	2811.8	2658.3	2210.5	2083.5	2099.6	2179.3	2200.1	2179.3	2345.5	2787.6
47.5°	2929.6	2826.8	2651.4	2287.8	2246.2	2308.6	2410.1	2455.2	2301.6	2328.2	2813.0
50°	2915.7	2856.9	2636.4	2320.1	2444.8	2609.8	2677.9	2659.5	2437.9	2292.4	2785.3
52.5°	2858.0	2794.5	2682.6	2407.8	2630.6	2830.3	2925.0	2878.8	2559.1	2373.2	2766.8
55°	2942.3	2893.8	2742.6	2526.7	2770.3	3024.2	3091.2	3056.6	2708.0	2448.2	2871.9
57.5°	3033.5	3023.1	2905.3	2666.4	2935.4	3223.9	3223.9	3181.2	2837.2	2556.7	3027.7
60°	3165.1	3188.1	3025.4	2758.7	2991.9	3212.4	3379.8	3330.1	2967.7	2747.2	3204.3
62.5°	3122.3	3196.2	3180.1	2957.3	3056.6	3268.9	3360.1	3397.1	3129.3	2979.2	3439.8
65°	2985.0	3063.5	3178.9	3087.7	3008.1	3131.6	3177.8	3289.7	3210.1	3197.4	3536.7
67.5°	2821.1	2906.5	2978.1	3175.4	2910.0	2991.9	2951.5	2987.3	3122.3	3436.3	3592.1
70°	2463.2	2545.2	2658.3	2980.4	2650.2	2576.4	2566.0	2548.7	2758.7	3350.9	3340.5
72.5°	2025.8	2063.9	2250.9	2422.8	1961.1	1947.3	1963.4	1943.8	2187.4	3033.5	2861.5
75°	1516.7	1554.8	1661.0	1860.7	1335.5	1255.9	1348.2	1439.4	1670.3	2354.7	2055.8
77.5°	1140.4	1188.9	1255.9	1392.1	980.0	855.3	868.0	954.6	1207.4	1886.1	1152.0
80°	739.9	734.1	863.4	958.1	737.6	760.7	728.4	791.8	874.9	1008.8	588.7
82.5°	427.1	432.9	487.1	549.4	513.7	587.5	423.6	707.6	624.5	410.9	219.3
85°	240.1	250.5	300.1	380.9	322.0	215.9	176.6	350.9	392.5	168.5	106.2
87.5°	24.2	20.8	40.4	144.3	87.7	35.8	53.1	84.3	94.7	63.5	31.2
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):

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	1625.2	1625.2	1625.2	1625.2	1625.2	1625.2	1625.2	1625.2	1625.2	1625.2	1625.2
2.5°	1688.7	1688.7	1659.9	1611.4	1591.8	1557.1	1509.8	1524.8	1508.7	1449.8	1434.8
5°	1619.5	1564.1	1504.0	1430.2	1387.5	1299.7	1272.0	1222.4	1230.5	1180.8	1183.1
7.5°	1475.2	1431.3	1329.7	1232.8	1148.5	1072.3	965.0	924.6	885.3	865.7	888.8
10°	1390.9	1309.0	1170.4	1043.5	931.5	863.4	791.8	736.4	685.6	647.6	639.5
12.5°	1329.7	1257.0	1089.6	935.0	847.2	791.8	726.0	649.9	600.2	534.4	514.8
15°	1311.3	1222.4	1045.8	892.3	806.8	715.7	640.6	565.6	501.0	431.7	407.5
17.5°	1374.8	1272.0	1044.6	857.6	737.6	639.5	535.6	451.3	385.5	322.0	307.0
20°	1482.1	1325.1	1078.1	836.9	671.8	540.2	422.5	338.2	264.3	222.8	212.4
22.5°	1604.5	1415.2	1081.6	781.5	606.0	440.9	308.2	222.8	181.2	161.6	155.8
25°	1754.5	1559.4	1123.1	736.4	528.7	334.7	219.3	170.8	146.6	135.1	132.7
27.5°	1878.0	1659.9	1168.1	689.1	452.5	248.2	172.0	139.7	127.0	115.4	114.3
30°	2006.1	1775.3	1180.8	660.3	386.7	204.3	147.7	123.5	109.7	103.9	102.7
32.5°	2118.1	1901.1	1221.2	612.9	324.4	180.1	133.9	110.8	101.6	92.3	91.2
35°	2262.4	1973.8	1240.9	587.5	301.3	162.8	122.4	101.6	87.7	82.0	79.6
37.5°	2417.1	2044.2	1253.6	567.9	281.6	152.4	115.4	95.8	83.1	75.0	72.7
40°	2561.4	2143.5	1235.1	543.7	266.6	139.7	110.8	88.9	77.3	69.3	65.8
42.5°	2672.2	2240.5	1229.3	520.6	250.5	135.1	105.0	85.4	72.7	63.5	62.3
45°	2734.5	2306.3	1188.9	502.1	237.8	137.4	102.7	80.8	69.3	61.2	56.6
47.5°	2719.5	2357.1	1199.3	496.3	220.5	128.1	101.6	77.3	63.5	56.6	53.1
50°	2802.6	2459.8	1182.0	477.9	207.8	115.4	110.8	77.3	62.3	54.3	50.8
52.5°	2816.5	2553.3	1218.9	444.4	188.1	106.2	109.7	76.2	60.0	51.9	47.3
55°	2931.9	2661.8	1290.5	425.9	172.0	92.3	100.4	73.9	54.3	47.3	45.0
57.5°	3088.9	2886.9	1336.7	408.6	150.1	80.8	84.3	72.7	49.6	43.9	40.4
60°	3240.1	2976.9	1340.1	377.5	129.3	72.7	65.8	72.7	46.2	39.2	35.8
62.5°	3353.2	2976.9	1317.0	350.9	113.1	64.6	57.7	69.3	41.6	34.6	32.3
65°	3292.0	2897.3	1257.0	329.0	102.7	56.6	49.6	53.1	36.9	30.0	27.7
67.5°	3182.4	2649.1	1124.3	302.4	101.6	49.6	42.7	39.2	32.3	26.5	24.2
70°	3006.9	2314.3	936.1	272.4	99.3	45.0	38.1	33.5	28.9	23.1	20.8
72.5°	2422.8	1911.5	768.8	255.1	97.0	39.2	32.3	28.9	24.2	19.6	17.3
75°	1678.3	1221.2	592.1	218.2	94.7	35.8	30.0	25.4	20.8	16.2	15.0
77.5°	1006.5	816.1	382.1	163.9	62.3	28.9	25.4	19.6	17.3	13.9	12.7
80°	470.9	385.5	154.7	63.5	30.0	20.8	17.3	15.0	13.9	11.5	10.4
82.5°	184.7	162.8	75.0	36.9	24.2	16.2	13.9	12.7	11.5	9.2	8.1
85°	99.3	87.7	35.8	25.4	17.3	11.5	11.5	10.4	9.2	8.1	6.9
87.5°	21.9	16.2	15.0	15.0	12.7	9.2	9.2	8.1	6.9	5.8	4.6
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°	1625.2	1625.2	1625.2	1625.2	1625.2	1625.2	1625.2	1625.2	1625.2	1625.2	1625.2
2.5°	1426.7	1444.0	1416.3	1433.6	1409.4	1427.9	1430.2	1412.8	1417.5	1440.5	1450.9
5°	1215.5	1203.9	1178.5	1170.4	1171.6	1156.6	1162.4	1170.4	1183.1	1190.1	1210.8
7.5°	876.1	902.7	901.5	921.1	922.3	920.0	903.8	869.2	880.7	871.5	883.0
10°	626.8	638.3	660.3	672.9	696.0	683.3	646.4	632.5	625.6	624.5	636.0
12.5°	501.0	473.3	470.9	475.6	487.1	472.1	453.6	437.5	445.6	461.7	474.4
15°	387.8	364.8	334.7	330.1	332.4	325.5	305.9	285.1	290.9	307.0	316.3
17.5°	297.8	271.3	250.5	236.6	232.0	207.8	178.9	161.6	157.0	155.8	163.9
20°	200.8	196.2	192.8	175.5	175.5	140.8	116.6	103.9	103.9	106.2	107.3
22.5°	150.1	144.3	145.4	142.0	132.7	105.0	92.3	88.9	88.9	91.2	91.2
25°	130.4	122.4	120.0	118.9	109.7	90.0	80.8	77.3	77.3	79.6	79.6
27.5°	110.8	108.5	105.0	100.4	92.3	77.3	71.6	68.1	69.3	70.4	69.3
30°	101.6	95.8	91.2	91.2	82.0	69.3	64.6	62.3	60.0	62.3	63.5
32.5°	90.0	86.6	84.3	80.8	70.4	61.2	56.6	54.3	53.1	53.1	54.3
35°	77.3	77.3	75.0	70.4	61.2	55.4	49.6	47.3	46.2	47.3	47.3
37.5°	69.3	65.8	66.9	62.3	54.3	48.5	42.7	40.4	40.4	39.2	40.4
40°	64.6	58.9	55.4	53.1	48.5	41.6	36.9	34.6	33.5	33.5	33.5
42.5°	57.7	53.1	46.2	45.0	43.9	35.8	30.0	28.9	27.7	26.5	26.5
45°	54.3	47.3	41.6	35.8	35.8	30.0	25.4	23.1	21.9	20.8	21.9
47.5°	49.6	42.7	35.8	30.0	28.9	24.2	19.6	17.3	16.2	16.2	16.2
50°	47.3	38.1	31.2	25.4	21.9	19.6	15.0	12.7	11.5	11.5	11.5
52.5°	43.9	35.8	27.7	21.9	17.3	15.0	11.5	9.2	8.1	8.1	8.1
55°	39.2	32.3	24.2	18.5	15.0	11.5	8.1	5.8	4.6	4.6	4.6
57.5°	36.9	28.9	20.8	16.2	11.5	8.1	4.6	3.5	3.5	2.3	3.5
60°	33.5	25.4	17.3	12.7	9.2	5.8	3.5	1.2	1.2	1.2	1.2
62.5°	28.9	21.9	15.0	10.4	6.9	3.5	1.2	0.0	0.0	0.0	0.0
65°	24.2	17.3	11.5	8.1	4.6	1.2	0.0	0.0	0.0	0.0	0.0
67.5°	20.8	15.0	9.2	5.8	3.5	0.0	0.0	0.0	0.0	0.0	0.0
70°	18.5	12.7	6.9	4.6	1.2	0.0	0.0	0.0	0.0	0.0	0.0
72.5°	15.0	10.4	5.8	2.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0
75°	12.7	8.1	3.5	1.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0
77.5°	10.4	5.8	2.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
80°	8.1	4.6	1.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
82.5°	6.9	3.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
85°	4.6	1.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
87.5°	3.5	1.2	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):

	285°	295°	305°	315°	325°	335°	345°	355°	358°	360°
0°	1625.2	1625.2	1625.2	1625.2	1625.2	1625.2	1625.2	1625.2	1625.2	1625.2
2.5°	1465.9	1459.0	1493.6	1550.2	1579.1	1635.6	1649.5	1685.3	1676.0	1688.7
5°	1213.2	1227.0	1277.8	1360.9	1390.9	1472.9	1550.2	1627.5	1677.2	1701.4
7.5°	900.3	946.5	1008.8	1085.0	1162.4	1269.7	1401.3	1491.3	1539.8	1591.8
10°	670.6	720.3	791.8	866.9	992.7	1112.7	1244.3	1356.3	1397.8	1446.3
12.5°	527.5	604.8	688.0	768.8	843.8	958.1	1120.8	1283.6	1328.6	1365.5
15°	367.1	461.7	580.6	685.6	790.7	890.0	1058.5	1255.9	1317.0	1379.4
17.5°	203.2	278.2	414.4	562.1	716.8	869.2	1079.3	1306.7	1399.0	1442.9
20°	117.7	147.7	244.7	420.2	624.5	824.2	1089.6	1402.5	1524.8	1546.7
22.5°	97.0	107.3	138.5	263.2	511.3	795.3	1142.7	1536.4	1661.0	1713.0
25°	83.1	91.2	107.3	158.1	386.7	734.1	1176.2	1703.7	1819.2	1875.7
27.5°	73.9	82.0	94.7	116.6	263.2	649.9	1231.6	1854.9	1970.4	2047.7
30°	64.6	71.6	84.3	99.3	182.4	555.2	1278.9	1965.7	2128.5	2152.7
32.5°	57.7	63.5	72.7	85.4	135.1	421.3	1317.0	2080.0	2217.4	2270.5
35°	49.6	56.6	62.3	72.7	102.7	317.4	1294.0	2168.9	2347.8	2411.3
37.5°	43.9	48.5	54.3	61.2	86.6	248.2	1246.6	2275.1	2459.8	2518.7
40°	36.9	40.4	47.3	54.3	78.5	191.6	1192.4	2403.2	2616.8	2720.7
42.5°	31.2	34.6	39.2	50.8	64.6	142.0	1082.7	2502.5	2743.7	2831.5
45°	24.2	28.9	35.8	50.8	51.9	105.0	969.6	2576.4	2815.3	2859.2
47.5°	18.5	23.1	34.6	43.9	41.6	72.7	835.7	2660.6	2889.2	2929.6
50°	13.9	18.5	39.2	38.1	34.6	55.4	751.4	2719.5	2893.8	2915.7
52.5°	9.2	13.9	32.3	28.9	28.9	48.5	728.4	2717.2	2905.3	2858.0
55°	6.9	10.4	18.5	20.8	25.4	42.7	707.6	2803.8	2908.8	2942.3
57.5°	4.6	8.1	12.7	16.2	21.9	36.9	664.9	2907.6	3016.2	3033.5
60°	2.3	5.8	9.2	12.7	18.5	32.3	604.8	2983.8	3146.6	3165.1
62.5°	1.2	3.5	6.9	10.4	15.0	25.4	542.5	2862.6	3090.0	3122.3
65°	0.0	2.3	4.6	6.9	9.2	18.5	440.9	2584.4	2866.1	2985.0
67.5°	0.0	0.0	2.3	4.6	5.8	13.9	332.4	2351.3	2659.5	2821.1
70°	0.0	0.0	1.2	1.2	3.5	10.4	212.4	1947.3	2374.4	2463.2
72.5°	0.0	0.0	0.0	0.0	1.2	6.9	123.5	1446.3	1860.7	2025.8
75°	0.0	0.0	0.0	0.0	0.0	5.8	62.3	930.4	1295.1	1516.7
77.5°	0.0	0.0	0.0	0.0	0.0	4.6	33.5	600.2	954.6	1140.4
80°	0.0	0.0	0.0	0.0	0.0	1.2	19.6	348.6	610.6	739.9
82.5°	0.0	0.0	0.0	0.0	0.0	0.0	8.1	170.8	364.8	427.1
85°	0.0	0.0	0.0	0.0	0.0	0.0	2.3	91.2	182.4	240.1
87.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.5	12.7	24.2
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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