

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: P677355

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

Issue Date: 04/25/2023



Test Information

Test Method: LM-79-08
Report Number: P677355
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-SLL-HSS
Description: INVUE CLEAR CURVE Wall Pack MOUNT Light Square Luminaire @450mA w/
SLL distribution lens and House Side Shield
Light Source: (32) 4000K CCT, 80 CRI LEDs
Ballast/Driver: ELECTRONIC DRIVER

Summary

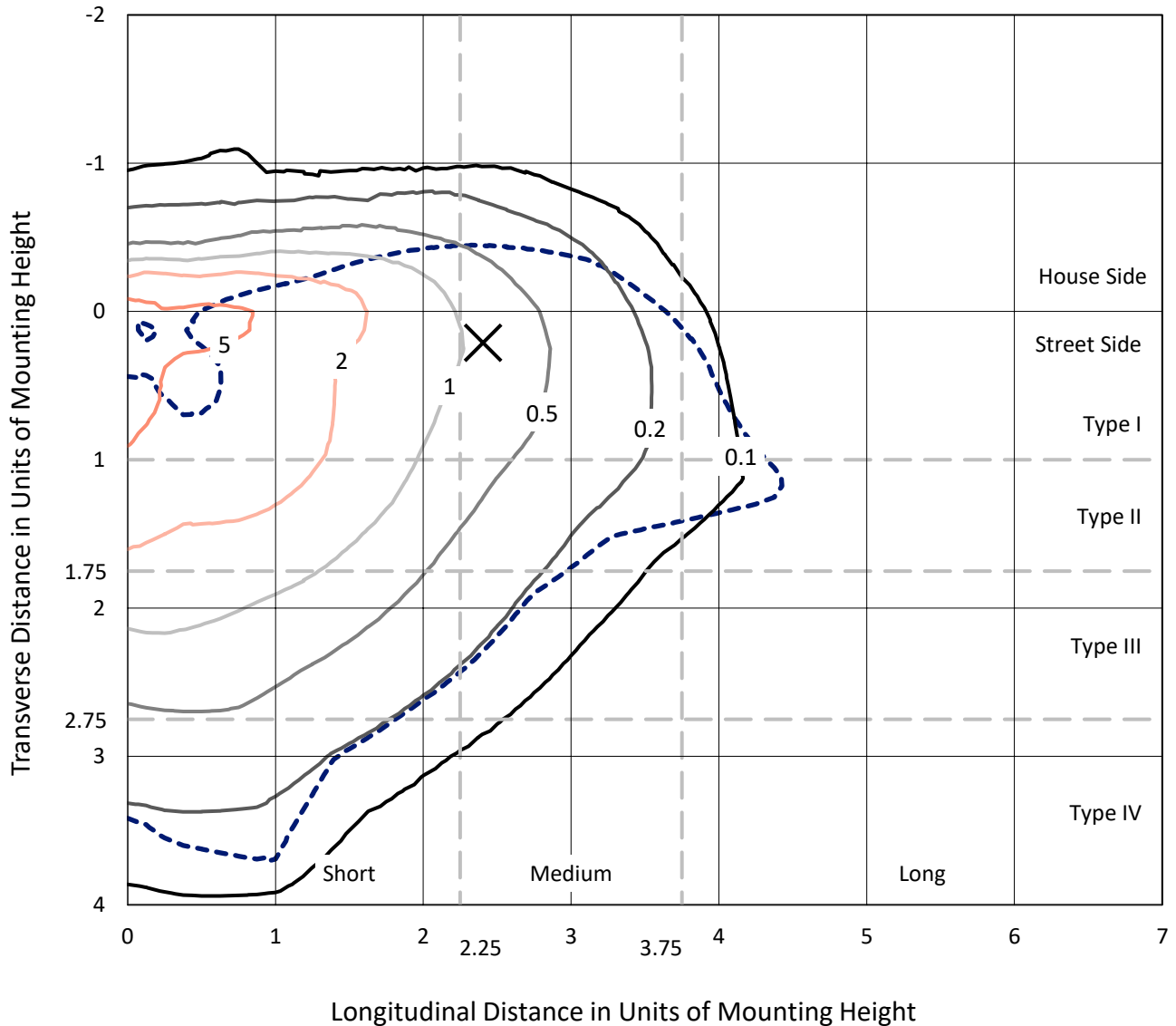
Lumens per Lamp: N/A
Luminaire Lumens: 4272.1 lumens
Efficiency: N/A
Efficacy: 92.9 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')
IES Classification: Type III - Medium
BUG Rating: B1 - U0 - G1

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

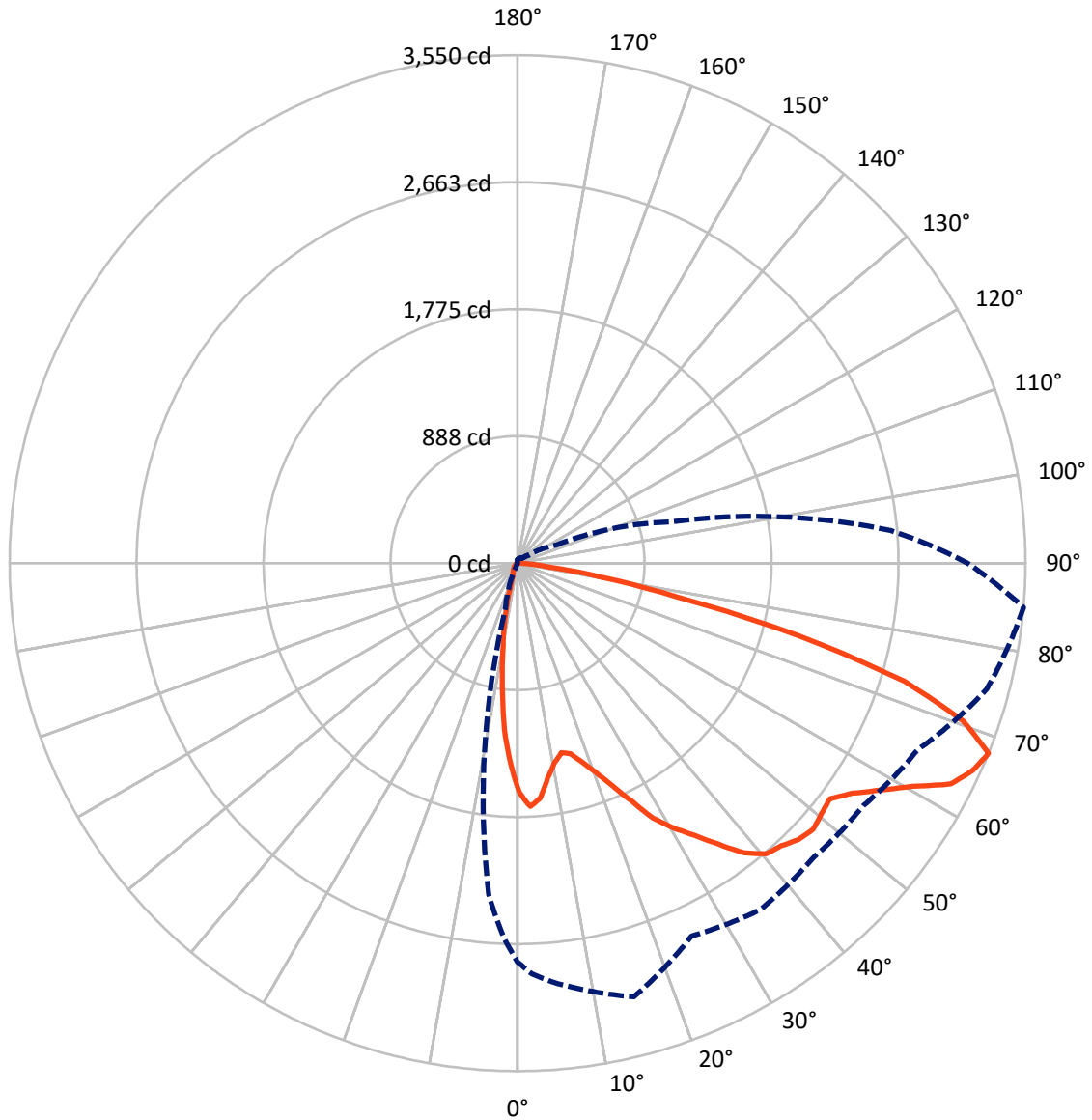
✕ Max cd
 - - - 1/2 Max cd



Based on 15 foot mounting height. Maximum calculated value = 8 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	741.8	0.0	741.8
	% Fixture	17.4	0.0	17.4
Street Side	Lumens	3530.4	0.0	3530.4
	% Fixture	82.6	0.0	82.6
Total	Lumens	4272.1	0.0	4272.1
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	122.0	2.9
10°-20°	239.3	5.6
20°-30°	331.1	7.8
30°-40°	468.0	11.0
40°-50°	637.2	14.9
50°-60°	843.9	19.8
60°-70°	979.8	22.9
70°-80°	554.9	13.0
80°-90°	95.9	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°	4272.1	100.0
0°-180°	4272.1	100.0

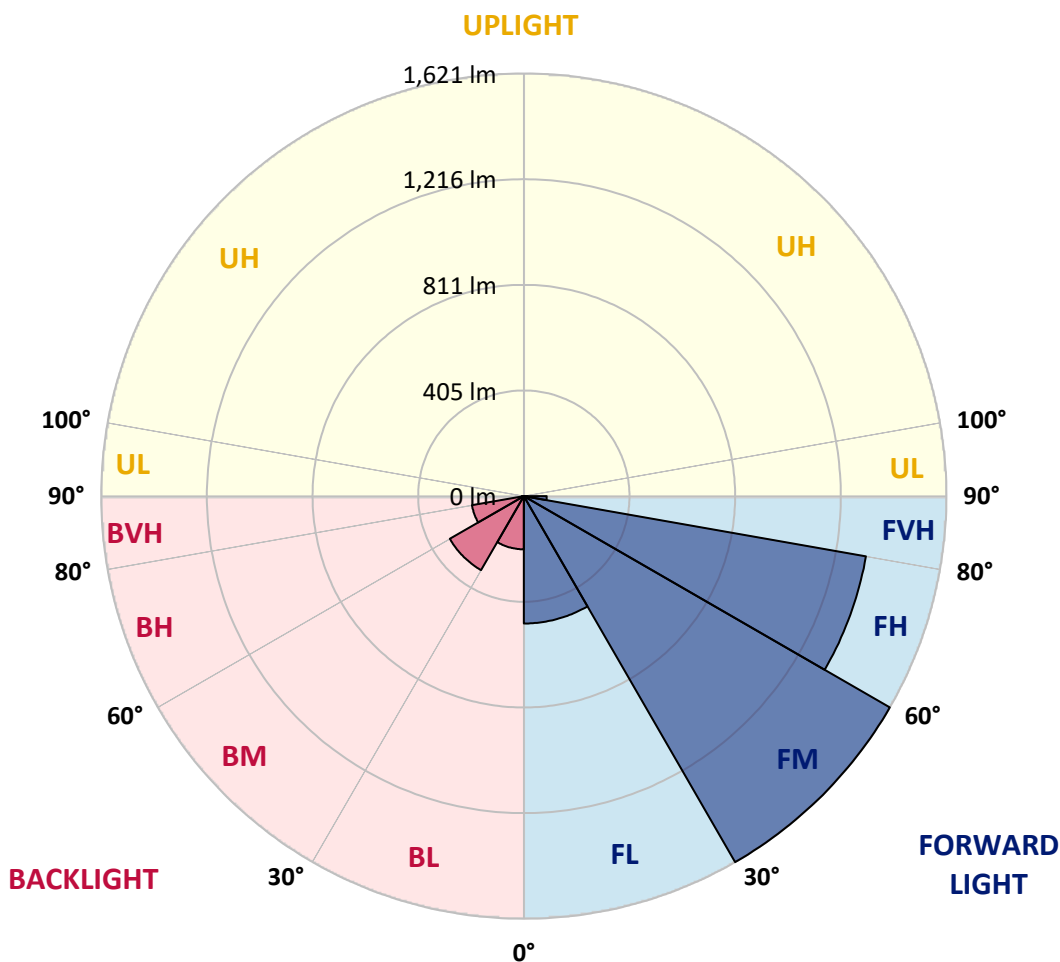


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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	488.5	11.4			
FM (30°-60°)	1621.3	38.0			
FH (60°-80°)	1332.7	31.2			G1/1800
FVH (80°-90°)	87.8	2.1			G1/100
BL (0°-30°)	203.9	4.8	B1/500		
BM (30°-60°)	327.8	7.7	B1/1000		
BH (60°-80°)	202.0	4.7	B1/500		G1/500
BVH (80°-90°)	8.1	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°	1606.3	1606.3	1606.3	1606.3	1606.3	1606.3	1606.3	1606.3	1606.3	1606.3	1606.3
2.5°	1669.0	1704.4	1705.5	1721.5	1737.5	1737.5	1775.1	1766.0	1732.9	1727.2	1703.3
5°	1681.6	1694.1	1703.3	1784.3	1852.7	1845.9	1866.4	1852.7	1788.8	1706.7	1650.8
7.5°	1573.2	1586.9	1623.4	1761.4	1853.9	1884.7	1923.4	1837.9	1770.6	1622.3	1515.0
10°	1429.5	1455.7	1523.0	1680.5	1794.5	1892.6	1892.6	1824.2	1694.1	1549.3	1418.1
12.5°	1349.6	1402.1	1438.6	1598.3	1746.6	1813.9	1811.6	1775.1	1690.7	1508.2	1359.9
15°	1363.3	1378.1	1455.7	1580.1	1678.2	1674.7	1715.8	1704.4	1645.1	1544.7	1381.6
17.5°	1426.0	1448.9	1516.2	1580.1	1626.8	1613.1	1612.0	1666.8	1670.2	1606.3	1462.6
20°	1528.7	1596.0	1628.0	1647.4	1590.3	1532.1	1525.3	1601.7	1661.1	1685.0	1559.5
22.5°	1693.0	1737.5	1802.5	1703.3	1555.0	1481.9	1468.3	1552.7	1672.5	1778.6	1685.0
25°	1853.9	1888.1	1950.8	1823.1	1594.9	1471.7	1447.7	1520.7	1715.8	1908.6	1836.7
27.5°	2023.8	2053.5	2060.3	1910.9	1616.6	1451.1	1422.6	1520.7	1752.3	1977.1	2018.1
30°	2127.7	2163.0	2169.9	1988.5	1651.9	1468.3	1454.6	1527.6	1777.4	2035.3	2148.2
32.5°	2244.0	2253.1	2247.4	2002.2	1690.7	1518.5	1461.4	1573.2	1805.9	2104.8	2266.8
35°	2383.2	2399.2	2341.0	2064.9	1777.4	1550.4	1529.9	1629.1	1855.0	2136.8	2410.6
37.5°	2489.3	2539.5	2408.3	2088.9	1794.5	1617.7	1621.1	1745.5	1889.2	2175.6	2569.2
40°	2688.9	2604.5	2522.4	2171.0	1859.6	1731.8	1713.5	1865.3	2004.4	2200.7	2673.0
42.5°	2798.5	2754.0	2566.9	2179.0	1960.0	1889.2	1893.8	2001.0	2064.9	2271.4	2701.5
45°	2825.8	2779.1	2627.3	2184.7	2059.2	2075.2	2153.9	2174.4	2153.9	2318.2	2755.1
47.5°	2895.4	2793.9	2620.5	2261.1	2220.1	2281.7	2382.1	2426.6	2274.8	2301.1	2780.2
50°	2881.8	2823.6	2605.7	2293.1	2416.3	2579.4	2646.7	2628.5	2409.4	2265.7	2752.8
52.5°	2824.7	2762.0	2651.3	2379.8	2600.0	2797.3	2890.9	2845.2	2529.2	2345.6	2734.6
55°	2908.0	2860.1	2710.6	2497.3	2738.0	2989.0	3055.2	3020.9	2676.4	2419.7	2838.4
57.5°	2998.1	2987.8	2871.5	2635.3	2901.1	3186.4	3186.4	3144.1	2804.2	2527.0	2992.4
60°	3128.2	3151.0	2990.1	2726.6	2957.0	3174.9	3340.4	3291.3	2933.1	2715.2	3167.0
62.5°	3086.0	3159.0	3143.0	2922.8	3020.9	3230.8	3321.0	3357.5	3092.8	2944.5	3399.7
65°	2950.2	3027.8	3141.9	3051.7	2973.0	3095.1	3140.7	3251.4	3172.7	3160.1	3495.5
67.5°	2788.2	2872.6	2943.4	3138.4	2876.0	2957.0	2917.1	2952.5	3086.0	3396.3	3550.3
70°	2434.5	2515.5	2627.3	2945.6	2619.4	2546.3	2536.1	2519.0	2726.6	3311.8	3301.6
72.5°	2002.2	2039.8	2224.6	2394.6	1938.3	1924.6	1940.6	1921.2	2161.9	2998.1	2828.1
75°	1499.1	1536.7	1641.7	1839.0	1319.9	1241.2	1332.5	1422.6	1650.8	2327.3	2031.8
77.5°	1127.1	1175.1	1241.2	1375.8	968.6	845.4	857.9	943.5	1193.3	1864.1	1138.6
80°	731.3	725.6	853.3	946.9	729.0	751.8	719.9	782.6	864.8	997.1	581.8
82.5°	422.1	427.8	481.4	543.0	507.7	580.7	418.7	699.3	617.2	406.1	216.8
85°	237.3	247.6	296.6	376.5	318.3	213.3	174.5	346.8	387.9	166.6	105.0
87.5°	24.0	20.5	39.9	142.6	86.7	35.4	52.5	83.3	93.5	62.7	30.8
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°	1606.3	1606.3	1606.3	1606.3	1606.3	1606.3	1606.3	1606.3	1606.3	1606.3	1606.3
2.5°	1669.0	1669.0	1640.5	1592.6	1573.2	1539.0	1492.2	1507.0	1491.1	1432.9	1418.1
5°	1600.6	1545.8	1486.5	1413.5	1371.3	1284.6	1257.2	1208.1	1216.1	1167.1	1169.4
7.5°	1458.0	1414.6	1314.2	1218.4	1135.1	1059.8	953.7	913.8	875.0	855.6	878.4
10°	1374.7	1293.7	1156.8	1031.3	920.7	853.3	782.6	727.9	677.7	640.0	632.0
12.5°	1314.2	1242.4	1076.9	924.1	837.4	782.6	717.6	642.3	593.2	528.2	508.8
15°	1296.0	1208.1	1033.6	881.9	797.4	707.3	633.2	559.0	495.1	426.7	402.7
17.5°	1358.7	1257.2	1032.5	847.6	729.0	632.0	529.3	446.1	381.0	318.3	303.5
20°	1464.8	1309.7	1065.5	827.1	664.0	533.9	417.5	334.3	261.3	220.2	209.9
22.5°	1585.8	1398.7	1069.0	772.3	598.9	435.8	304.6	220.2	179.1	159.7	154.0
25°	1734.1	1541.3	1110.0	727.9	522.5	330.8	216.8	168.8	144.9	133.5	131.2
27.5°	1856.1	1640.5	1154.5	681.1	447.2	245.3	170.0	138.0	125.5	114.1	112.9
30°	1982.8	1754.6	1167.1	652.6	382.2	201.9	146.0	122.1	108.4	102.7	101.5
32.5°	2093.4	1879.0	1207.0	605.8	320.6	178.0	132.3	109.5	100.4	91.3	90.1
35°	2236.0	1950.8	1226.4	580.7	297.8	160.9	120.9	100.4	86.7	81.0	78.7
37.5°	2388.9	2020.4	1238.9	561.3	278.4	150.6	114.1	94.7	82.1	74.2	71.9
40°	2531.5	2118.5	1220.7	537.3	263.5	138.0	109.5	87.8	76.4	68.5	65.0
42.5°	2641.0	2214.4	1215.0	514.5	247.6	133.5	103.8	84.4	71.9	62.7	61.6
45°	2702.6	2279.4	1175.1	496.3	235.0	135.8	101.5	79.9	68.5	60.5	55.9
47.5°	2687.8	2329.6	1185.3	490.6	217.9	126.6	100.4	76.4	62.7	55.9	52.5
50°	2769.9	2431.1	1168.2	472.3	205.4	114.1	109.5	76.4	61.6	53.6	50.2
52.5°	2783.6	2523.5	1204.7	439.2	186.0	105.0	108.4	75.3	59.3	51.3	46.8
55°	2897.7	2630.8	1275.5	421.0	170.0	91.3	99.3	73.0	53.6	46.8	44.5
57.5°	3052.9	2853.2	1321.1	403.9	148.3	79.9	83.3	71.9	49.1	43.4	39.9
60°	3202.3	2942.2	1324.5	373.1	127.8	71.9	65.0	71.9	45.6	38.8	35.4
62.5°	3314.1	2942.2	1301.7	346.8	111.8	63.9	57.0	68.5	41.1	34.2	31.9
65°	3253.7	2863.5	1242.4	325.1	101.5	55.9	49.1	52.5	36.5	29.7	27.4
67.5°	3145.3	2618.2	1111.2	298.9	100.4	49.1	42.2	38.8	31.9	26.2	24.0
70°	2971.9	2287.4	925.2	269.2	98.1	44.5	37.6	33.1	28.5	22.8	20.5
72.5°	2394.6	1889.2	759.8	252.1	95.8	38.8	31.9	28.5	24.0	19.4	17.1
75°	1658.8	1207.0	585.2	215.6	93.5	35.4	29.7	25.1	20.5	16.0	14.8
77.5°	994.8	806.6	377.6	162.0	61.6	28.5	25.1	19.4	17.1	13.7	12.5
80°	465.5	381.0	152.9	62.7	29.7	20.5	17.1	14.8	13.7	11.4	10.3
82.5°	182.5	160.9	74.2	36.5	24.0	16.0	13.7	12.5	11.4	9.1	8.0
85°	98.1	86.7	35.4	25.1	17.1	11.4	11.4	10.3	9.1	8.0	6.8
87.5°	21.7	16.0	14.8	14.8	12.5	9.1	9.1	8.0	6.8	5.7	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°	1606.3	1606.3	1606.3	1606.3	1606.3	1606.3	1606.3	1606.3	1606.3	1606.3	1606.3
2.5°	1410.1	1427.2	1399.8	1416.9	1393.0	1411.2	1413.5	1396.4	1400.9	1423.8	1434.0
5°	1201.3	1189.9	1164.8	1156.8	1157.9	1143.1	1148.8	1156.8	1169.4	1176.2	1196.7
7.5°	865.9	892.1	891.0	910.4	911.5	909.2	893.3	859.0	870.5	861.3	872.7
10°	619.5	630.9	652.6	665.1	687.9	675.4	638.9	625.2	618.3	617.2	628.6
12.5°	495.1	467.7	465.5	470.0	481.4	466.6	448.3	432.4	440.4	456.3	468.9
15°	383.3	360.5	330.8	326.3	328.6	321.7	302.3	281.8	287.5	303.5	312.6
17.5°	294.3	268.1	247.6	233.9	229.3	205.4	176.8	159.7	155.2	154.0	162.0
20°	198.5	193.9	190.5	173.4	173.4	139.2	115.2	102.7	102.7	105.0	106.1
22.5°	148.3	142.6	143.7	140.3	131.2	103.8	91.3	87.8	87.8	90.1	90.1
25°	128.9	120.9	118.6	117.5	108.4	89.0	79.9	76.4	76.4	78.7	78.7
27.5°	109.5	107.2	103.8	99.3	91.3	76.4	70.7	67.3	68.5	69.6	68.5
30°	100.4	94.7	90.1	90.1	81.0	68.5	63.9	61.6	59.3	61.6	62.7
32.5°	89.0	85.6	83.3	79.9	69.6	60.5	55.9	53.6	52.5	52.5	53.6
35°	76.4	76.4	74.2	69.6	60.5	54.8	49.1	46.8	45.6	46.8	46.8
37.5°	68.5	65.0	66.2	61.6	53.6	47.9	42.2	39.9	39.9	38.8	39.9
40°	63.9	58.2	54.8	52.5	47.9	41.1	36.5	34.2	33.1	33.1	33.1
42.5°	57.0	52.5	45.6	44.5	43.4	35.4	29.7	28.5	27.4	26.2	26.2
45°	53.6	46.8	41.1	35.4	35.4	29.7	25.1	22.8	21.7	20.5	21.7
47.5°	49.1	42.2	35.4	29.7	28.5	24.0	19.4	17.1	16.0	16.0	16.0
50°	46.8	37.6	30.8	25.1	21.7	19.4	14.8	12.5	11.4	11.4	11.4
52.5°	43.4	35.4	27.4	21.7	17.1	14.8	11.4	9.1	8.0	8.0	8.0
55°	38.8	31.9	24.0	18.3	14.8	11.4	8.0	5.7	4.6	4.6	4.6
57.5°	36.5	28.5	20.5	16.0	11.4	8.0	4.6	3.4	3.4	2.3	3.4
60°	33.1	25.1	17.1	12.5	9.1	5.7	3.4	1.1	1.1	1.1	1.1
62.5°	28.5	21.7	14.8	10.3	6.8	3.4	1.1	0.0	0.0	0.0	0.0
65°	24.0	17.1	11.4	8.0	4.6	1.1	0.0	0.0	0.0	0.0	0.0
67.5°	20.5	14.8	9.1	5.7	3.4	0.0	0.0	0.0	0.0	0.0	0.0
70°	18.3	12.5	6.8	4.6	1.1	0.0	0.0	0.0	0.0	0.0	0.0
72.5°	14.8	10.3	5.7	2.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0
75°	12.5	8.0	3.4	1.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0
77.5°	10.3	5.7	2.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
80°	8.0	4.6	1.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
82.5°	6.8	3.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
85°	4.6	1.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
87.5°	3.4	1.1	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°	1606.3	1606.3	1606.3	1606.3	1606.3	1606.3	1606.3	1606.3	1606.3	1606.3
2.5°	1448.9	1442.0	1476.2	1532.1	1560.7	1616.6	1630.3	1665.6	1656.5	1669.0
5°	1199.0	1212.7	1262.9	1345.0	1374.7	1455.7	1532.1	1608.6	1657.6	1681.6
7.5°	889.9	935.5	997.1	1072.4	1148.8	1254.9	1385.0	1474.0	1521.9	1573.2
10°	662.8	711.9	782.6	856.8	981.1	1099.8	1229.8	1340.5	1381.6	1429.5
12.5°	521.4	597.8	679.9	759.8	834.0	946.9	1107.8	1268.6	1313.1	1349.6
15°	362.8	456.3	573.8	677.7	781.5	879.6	1046.1	1241.2	1301.7	1363.3
17.5°	200.8	274.9	409.6	555.6	708.5	859.0	1066.7	1291.4	1382.7	1426.0
20°	116.4	146.0	241.9	415.3	617.2	814.6	1076.9	1386.1	1507.0	1528.7
22.5°	95.8	106.1	136.9	260.1	505.4	786.0	1129.4	1518.5	1641.7	1693.0
25°	82.1	90.1	106.1	156.3	382.2	725.6	1162.5	1683.9	1798.0	1853.9
27.5°	73.0	81.0	93.5	115.2	260.1	642.3	1217.3	1833.3	1947.4	2023.8
30°	63.9	70.7	83.3	98.1	180.3	548.7	1264.0	1942.8	2103.7	2127.7
32.5°	57.0	62.7	71.9	84.4	133.5	416.4	1301.7	2055.8	2191.5	2244.0
35°	49.1	55.9	61.6	71.9	101.5	313.7	1278.9	2143.6	2320.5	2383.2
37.5°	43.4	47.9	53.6	60.5	85.6	245.3	1232.1	2248.6	2431.1	2489.3
40°	36.5	39.9	46.8	53.6	77.6	189.4	1178.5	2375.2	2586.3	2688.9
42.5°	30.8	34.2	38.8	50.2	63.9	140.3	1070.1	2473.3	2711.8	2798.5
45°	24.0	28.5	35.4	50.2	51.3	103.8	958.3	2546.3	2782.5	2825.8
47.5°	18.3	22.8	34.2	43.4	41.1	71.9	826.0	2629.6	2855.5	2895.4
50°	13.7	18.3	38.8	37.6	34.2	54.8	742.7	2687.8	2860.1	2881.8
52.5°	9.1	13.7	31.9	28.5	28.5	47.9	719.9	2685.5	2871.5	2824.7
55°	6.8	10.3	18.3	20.5	25.1	42.2	699.3	2771.1	2874.9	2908.0
57.5°	4.6	8.0	12.5	16.0	21.7	36.5	657.1	2873.8	2981.0	2998.1
60°	2.3	5.7	9.1	12.5	18.3	31.9	597.8	2949.1	3109.9	3128.2
62.5°	1.1	3.4	6.8	10.3	14.8	25.1	536.2	2829.3	3054.0	3086.0
65°	0.0	2.3	4.6	6.8	9.1	18.3	435.8	2554.3	2832.7	2950.2
67.5°	0.0	0.0	2.3	4.6	5.7	13.7	328.6	2323.9	2628.5	2788.2
70°	0.0	0.0	1.1	1.1	3.4	10.3	209.9	1924.6	2346.7	2434.5
72.5°	0.0	0.0	0.0	0.0	1.1	6.8	122.1	1429.5	1839.0	2002.2
75°	0.0	0.0	0.0	0.0	0.0	5.7	61.6	919.5	1280.0	1499.1
77.5°	0.0	0.0	0.0	0.0	0.0	4.6	33.1	593.2	943.5	1127.1
80°	0.0	0.0	0.0	0.0	0.0	1.1	19.4	344.5	603.5	731.3
82.5°	0.0	0.0	0.0	0.0	0.0	0.0	8.0	168.8	360.5	422.1
85°	0.0	0.0	0.0	0.0	0.0	0.0	2.3	90.1	180.3	237.3
87.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.4	12.5	24.0
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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