

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: P677363

Luminaire Tested: **CCW-SA-1E-850-U-SLL-HSS**

Issue Date: 04/25/2023



Test Information

Test Method: LM-79-08
Report Number: P677363
Test Lab: INNOVATION CENTER(G1)
Issue Date: 04/25/2023
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: INVUE
Catalog Number: CCW-SA-1E-850-U-SLL-HSS
Description: INVUE CLEAR CURVE Wall Pack MOUNT Light Square Luminaire @1050mA w/
SLL distribution lens and House Side Shield
Light Source: (16) 5000K CCT, 80 CRI LEDs
Ballast/Driver: ELECTRONIC DRIVER

Summary

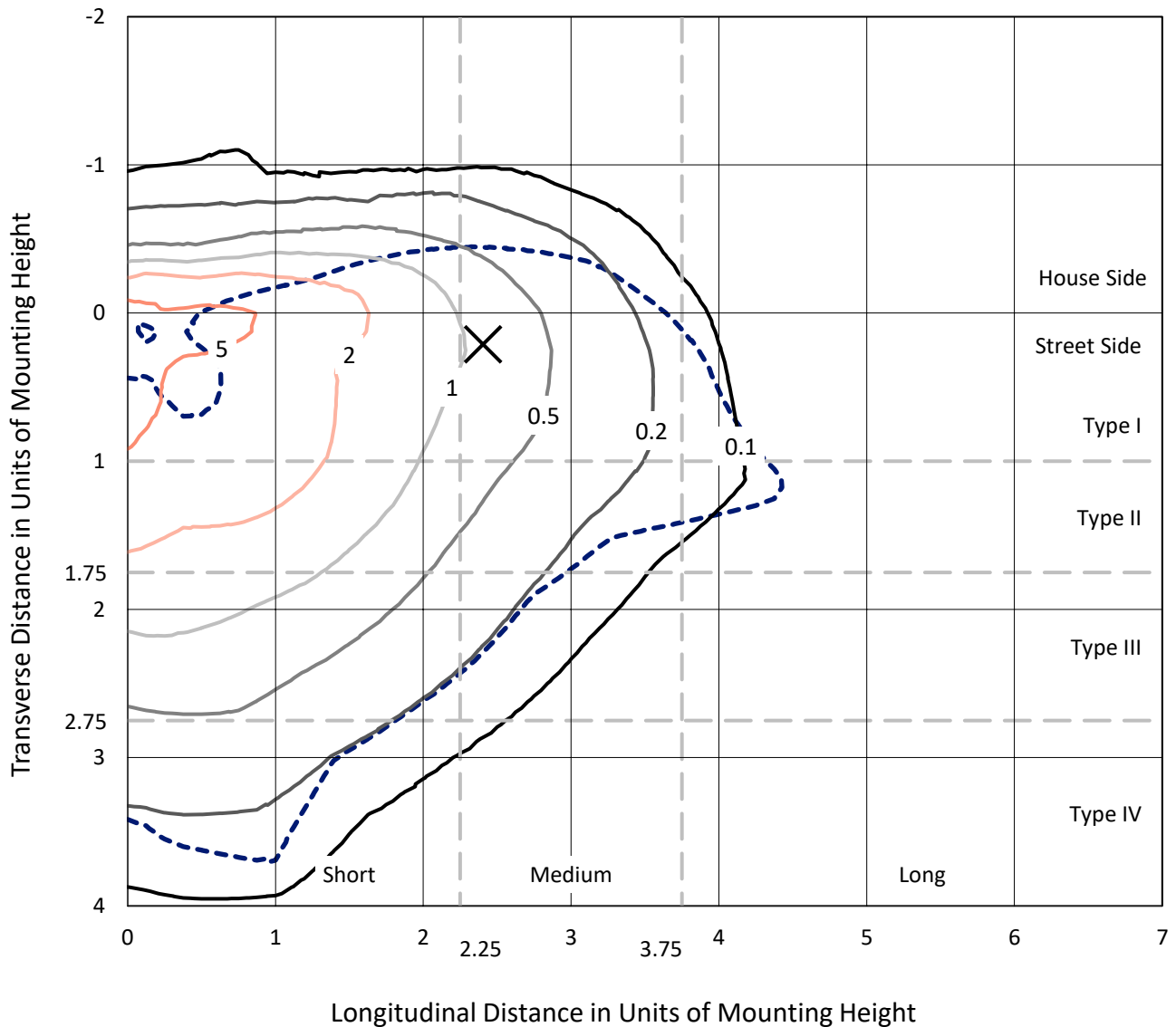
Lumens per Lamp: N/A
Luminaire Lumens: 4328.6 lumens
Efficiency: N/A
Efficacy: 77.2 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 0.5' x H: 0')
IES Classification: Type III - Medium
BUG Rating: B1 - U0 - G1

Input Watts (W): 56.1
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

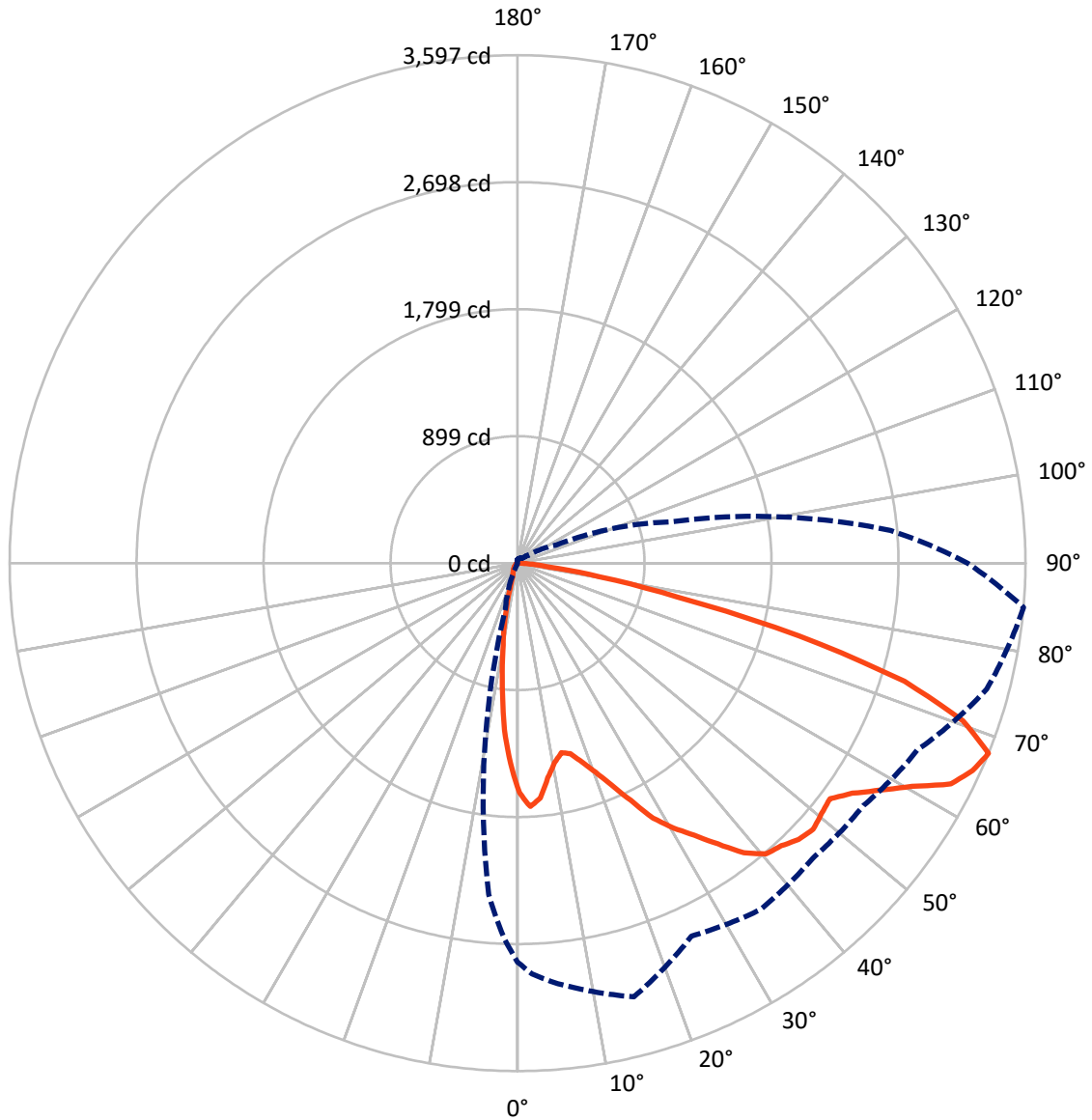
✕ Max cd
 - - - 1/2 Max cd



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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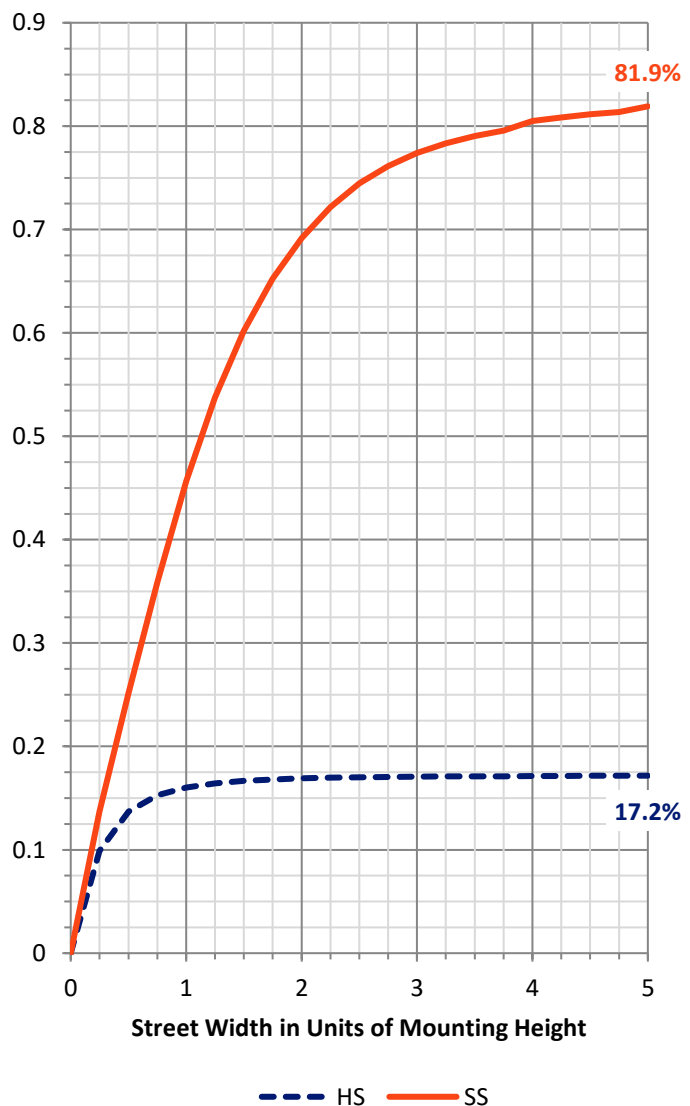
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	751.6	0.0	751.6
	% Fixture	17.4	0.0	17.4
Street Side	Lumens	3577.0	0.0	3577.0
	% Fixture	82.6	0.0	82.6
Total	Lumens	4328.6	0.0	4328.6
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	123.6	2.9
10°-20°	242.5	5.6
20°-30°	335.5	7.8
30°-40°	474.2	11.0
40°-50°	645.6	14.9
50°-60°	855.0	19.8
60°-70°	992.8	22.9
70°-80°	562.2	13.0
80°-90°	97.1	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°	4328.6	100.0
0°-180°	4328.6	100.0

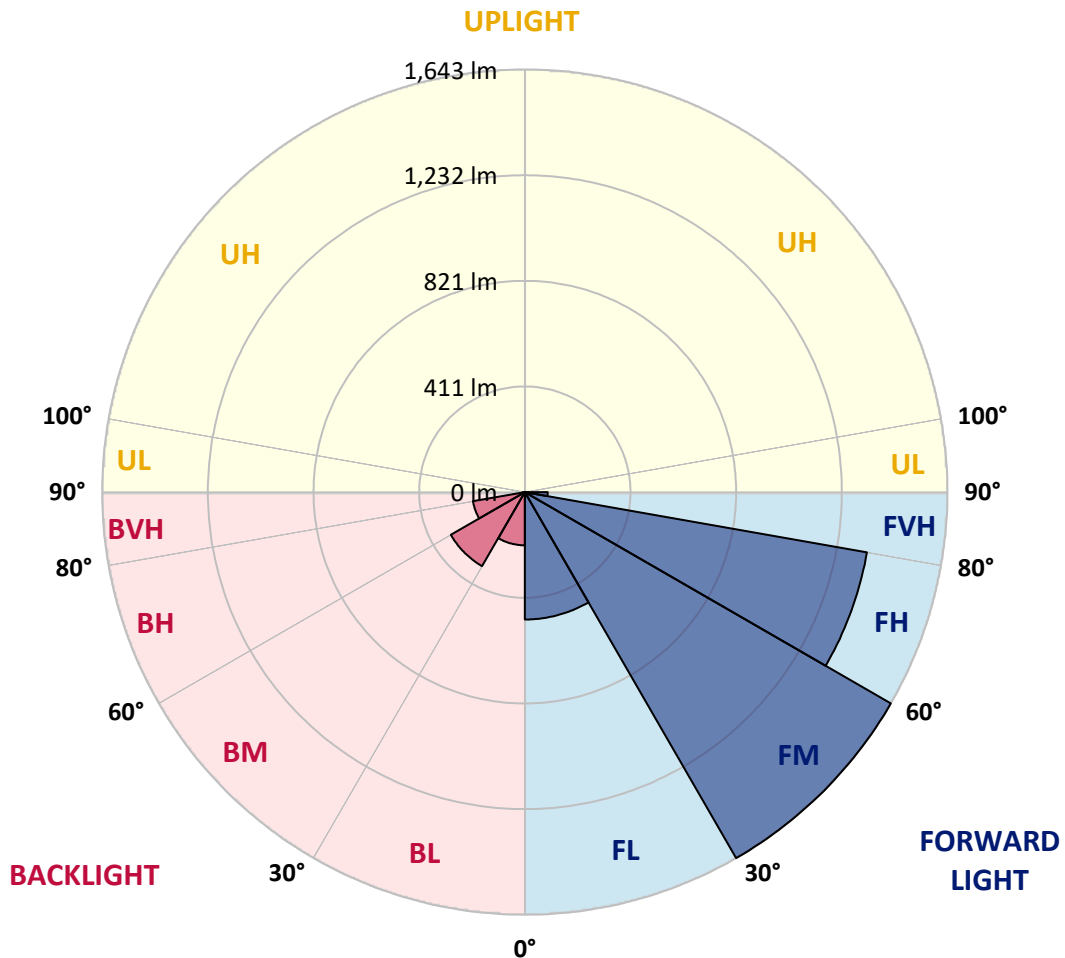


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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	495.0	11.4			
FM (30°-60°)	1642.7	38.0			
FH (60°-80°)	1350.3	31.2			G1/1800
FVH (80°-90°)	89.0	2.1			G1/100
BL (0°-30°)	206.6	4.8	B1/500		
BM (30°-60°)	332.1	7.7	B1/1000		
BH (60°-80°)	204.7	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°	1627.5	1627.5	1627.5	1627.5	1627.5	1627.5	1627.5	1627.5	1627.5	1627.5	1627.5
2.5°	1691.1	1726.9	1728.1	1744.3	1760.4	1760.4	1798.6	1789.3	1755.8	1750.0	1725.8
5°	1703.8	1716.5	1725.8	1807.8	1877.2	1870.2	1891.1	1877.2	1812.5	1729.2	1672.6
7.5°	1594.0	1607.9	1644.8	1784.7	1878.3	1909.6	1948.9	1862.2	1794.0	1643.7	1535.0
10°	1448.3	1474.9	1543.1	1702.6	1818.2	1917.6	1917.6	1848.3	1716.5	1569.7	1436.8
12.5°	1367.4	1420.6	1457.6	1619.4	1769.7	1837.9	1835.6	1798.6	1713.0	1528.1	1377.8
15°	1381.3	1396.3	1474.9	1600.9	1700.3	1696.9	1738.5	1726.9	1666.8	1565.1	1399.8
17.5°	1444.9	1468.0	1536.2	1600.9	1648.3	1634.4	1633.3	1688.8	1692.2	1627.5	1481.9
20°	1548.9	1617.1	1649.5	1669.1	1611.3	1552.4	1545.4	1622.9	1683.0	1707.3	1580.1
22.5°	1715.4	1760.4	1826.3	1725.8	1575.5	1501.5	1487.6	1573.2	1694.6	1802.1	1707.3
25°	1878.3	1913.0	1976.6	1847.1	1616.0	1491.1	1466.8	1540.8	1738.5	1933.8	1861.0
27.5°	2050.6	2080.6	2087.6	1936.1	1637.9	1470.3	1441.4	1540.8	1775.5	2003.2	2044.8
30°	2155.8	2191.6	2198.5	2014.7	1673.7	1487.6	1473.8	1547.8	1800.9	2062.1	2176.6
32.5°	2273.7	2282.9	2277.1	2028.6	1713.0	1538.5	1480.7	1594.0	1829.8	2132.6	2296.8
35°	2414.7	2430.9	2371.9	2092.2	1800.9	1570.9	1550.1	1650.6	1879.5	2165.0	2442.4
37.5°	2522.2	2573.0	2440.1	2116.5	1818.2	1639.1	1642.5	1768.5	1914.2	2204.3	2603.1
40°	2724.5	2638.9	2555.7	2199.7	1884.1	1754.7	1736.2	1889.9	2030.9	2229.7	2708.3
42.5°	2835.4	2790.3	2600.8	2207.8	1985.8	1914.2	1918.8	2027.5	2092.2	2301.4	2737.2
45°	2863.2	2815.8	2662.0	2213.6	2086.4	2102.6	2182.3	2203.1	2182.3	2348.8	2791.5
47.5°	2933.7	2830.8	2655.1	2291.0	2249.4	2311.8	2413.5	2458.6	2304.9	2331.5	2816.9
50°	2919.8	2860.9	2640.1	2323.4	2448.2	2613.5	2681.7	2663.2	2441.3	2295.6	2789.2
52.5°	2862.0	2798.4	2686.3	2411.2	2634.3	2834.3	2929.1	2882.8	2562.6	2376.5	2770.7
55°	2946.4	2897.8	2746.4	2530.3	2774.2	3028.5	3095.5	3060.8	2711.7	2451.7	2875.9
57.5°	3037.7	3027.3	2909.4	2670.1	2939.5	3228.4	3228.4	3185.7	2841.2	2560.3	3031.9
60°	3169.5	3192.6	3029.6	2762.6	2996.1	3216.9	3384.5	3334.8	2971.8	2751.0	3208.8
62.5°	3126.7	3200.7	3184.5	2961.4	3060.8	3273.5	3364.8	3401.8	3133.7	2983.4	3444.6
65°	2989.2	3067.8	3183.4	3092.0	3012.3	3136.0	3182.2	3294.3	3214.6	3201.8	3541.7
67.5°	2825.0	2910.6	2982.2	3179.9	2914.0	2996.1	2955.6	2991.5	3126.7	3441.1	3597.2
70°	2466.7	2548.8	2662.0	2984.5	2654.0	2580.0	2569.6	2552.2	2762.6	3355.6	3345.2
72.5°	2028.6	2066.8	2254.0	2426.2	1963.9	1950.0	1966.2	1946.5	2190.4	3037.7	2865.5
75°	1518.9	1557.0	1663.3	1863.3	1337.4	1257.6	1350.1	1441.4	1672.6	2358.0	2058.7
77.5°	1142.0	1190.6	1257.6	1394.0	981.4	856.5	869.2	955.9	1209.1	1888.7	1153.6
80°	740.9	735.2	864.6	959.4	738.6	761.7	729.4	792.9	876.2	1010.3	589.5
82.5°	427.7	433.5	487.8	550.2	514.4	588.4	424.2	708.6	625.3	411.5	219.6
85°	240.4	250.8	300.5	381.4	322.5	216.2	176.9	351.4	393.0	168.8	106.3
87.5°	24.3	20.8	40.5	144.5	87.8	35.8	53.2	84.4	94.8	63.6	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°	1627.5	1627.5	1627.5	1627.5	1627.5	1627.5	1627.5	1627.5	1627.5	1627.5	1627.5
2.5°	1691.1	1691.1	1662.2	1613.6	1594.0	1559.3	1511.9	1526.9	1510.8	1451.8	1436.8
5°	1621.7	1566.2	1506.1	1432.2	1389.4	1301.5	1273.8	1224.1	1232.2	1182.5	1184.8
7.5°	1477.2	1433.3	1331.6	1234.5	1150.1	1073.8	966.3	925.9	886.6	866.9	890.0
10°	1392.9	1310.8	1172.1	1044.9	932.8	864.6	792.9	737.5	686.6	648.5	640.4
12.5°	1331.6	1258.8	1091.2	936.3	848.4	792.9	727.1	650.8	601.1	535.2	515.5
15°	1313.1	1224.1	1047.2	893.5	808.0	716.7	641.5	566.4	501.7	432.3	408.0
17.5°	1376.7	1273.8	1046.1	858.8	738.6	640.4	536.3	452.0	386.1	322.5	307.5
20°	1484.2	1327.0	1079.6	838.0	672.7	541.0	423.1	338.7	264.7	223.1	212.7
22.5°	1606.7	1417.1	1083.1	782.5	606.8	441.6	308.6	223.1	181.5	161.8	156.0
25°	1757.0	1561.6	1124.7	737.5	529.4	335.2	219.6	171.1	146.8	135.2	132.9
27.5°	1880.7	1662.2	1169.8	690.1	453.1	248.5	172.2	139.9	127.1	115.6	114.4
30°	2009.0	1777.8	1182.5	661.2	387.2	204.6	148.0	123.7	109.8	104.0	102.9
32.5°	2121.1	1903.8	1222.9	613.8	324.8	180.3	134.1	111.0	101.7	92.5	91.3
35°	2265.6	1976.6	1242.6	588.4	301.7	163.0	122.5	101.7	87.8	82.1	79.8
37.5°	2420.5	2047.1	1255.3	568.7	282.0	152.6	115.6	95.9	83.2	75.1	72.8
40°	2564.9	2146.5	1236.8	544.4	267.0	139.9	111.0	89.0	77.4	69.4	65.9
42.5°	2675.9	2243.6	1231.0	521.3	250.8	135.2	105.2	85.5	72.8	63.6	62.4
45°	2738.3	2309.5	1190.6	502.8	238.1	137.6	102.9	80.9	69.4	61.3	56.6
47.5°	2723.3	2360.4	1201.0	497.0	220.8	128.3	101.7	77.4	63.6	56.6	53.2
50°	2806.5	2463.2	1183.6	478.5	208.1	115.6	111.0	77.4	62.4	54.3	50.9
52.5°	2820.4	2556.9	1220.6	445.0	188.4	106.3	109.8	76.3	60.1	52.0	47.4
55°	2936.0	2665.5	1292.3	426.5	172.2	92.5	100.6	74.0	54.3	47.4	45.1
57.5°	3093.2	2890.9	1338.5	409.2	150.3	80.9	84.4	72.8	49.7	43.9	40.5
60°	3244.6	2981.1	1342.0	378.0	129.5	72.8	65.9	72.8	46.2	39.3	35.8
62.5°	3357.9	2981.1	1318.9	351.4	113.3	64.7	57.8	69.4	41.6	34.7	32.4
65°	3296.6	2901.3	1258.8	329.4	102.9	56.6	49.7	53.2	37.0	30.1	27.7
67.5°	3186.8	2652.8	1125.8	302.8	101.7	49.7	42.8	39.3	32.4	26.6	24.3
70°	3011.1	2317.6	937.4	272.8	99.4	45.1	38.1	33.5	28.9	23.1	20.8
72.5°	2426.2	1914.2	769.8	255.5	97.1	39.3	32.4	28.9	24.3	19.7	17.3
75°	1680.7	1222.9	593.0	218.5	94.8	35.8	30.1	25.4	20.8	16.2	15.0
77.5°	1007.9	817.2	382.6	164.1	62.4	28.9	25.4	19.7	17.3	13.9	12.7
80°	471.6	386.1	154.9	63.6	30.1	20.8	17.3	15.0	13.9	11.6	10.4
82.5°	184.9	163.0	75.1	37.0	24.3	16.2	13.9	12.7	11.6	9.2	8.1
85°	99.4	87.8	35.8	25.4	17.3	11.6	11.6	10.4	9.2	8.1	6.9
87.5°	22.0	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°	1627.5	1627.5	1627.5	1627.5	1627.5	1627.5	1627.5	1627.5	1627.5	1627.5	1627.5
2.5°	1428.7	1446.0	1418.3	1435.6	1411.4	1429.9	1432.2	1414.8	1419.4	1442.6	1453.0
5°	1217.2	1205.6	1180.2	1172.1	1173.2	1158.2	1164.0	1172.1	1184.8	1191.7	1212.5
7.5°	877.3	903.9	902.8	922.4	923.6	921.3	905.1	870.4	882.0	872.7	884.3
10°	627.7	639.2	661.2	673.9	697.0	684.3	647.3	633.4	626.5	625.3	636.9
12.5°	501.7	473.9	471.6	476.2	487.8	472.8	454.3	438.1	446.2	462.4	475.1
15°	388.4	365.3	335.2	330.6	332.9	326.0	306.3	285.5	291.3	307.5	316.7
17.5°	298.2	271.6	250.8	237.0	232.3	208.1	179.2	161.8	157.2	156.0	164.1
20°	201.1	196.5	193.0	175.7	175.7	141.0	116.7	104.0	104.0	106.3	107.5
22.5°	150.3	144.5	145.6	142.2	132.9	105.2	92.5	89.0	89.0	91.3	91.3
25°	130.6	122.5	120.2	119.1	109.8	90.2	80.9	77.4	77.4	79.8	79.8
27.5°	111.0	108.7	105.2	100.6	92.5	77.4	71.7	68.2	69.4	70.5	69.4
30°	101.7	95.9	91.3	91.3	82.1	69.4	64.7	62.4	60.1	62.4	63.6
32.5°	90.2	86.7	84.4	80.9	70.5	61.3	56.6	54.3	53.2	53.2	54.3
35°	77.4	77.4	75.1	70.5	61.3	55.5	49.7	47.4	46.2	47.4	47.4
37.5°	69.4	65.9	67.0	62.4	54.3	48.5	42.8	40.5	40.5	39.3	40.5
40°	64.7	59.0	55.5	53.2	48.5	41.6	37.0	34.7	33.5	33.5	33.5
42.5°	57.8	53.2	46.2	45.1	43.9	35.8	30.1	28.9	27.7	26.6	26.6
45°	54.3	47.4	41.6	35.8	35.8	30.1	25.4	23.1	22.0	20.8	22.0
47.5°	49.7	42.8	35.8	30.1	28.9	24.3	19.7	17.3	16.2	16.2	16.2
50°	47.4	38.1	31.2	25.4	22.0	19.7	15.0	12.7	11.6	11.6	11.6
52.5°	43.9	35.8	27.7	22.0	17.3	15.0	11.6	9.2	8.1	8.1	8.1
55°	39.3	32.4	24.3	18.5	15.0	11.6	8.1	5.8	4.6	4.6	4.6
57.5°	37.0	28.9	20.8	16.2	11.6	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	22.0	15.0	10.4	6.9	3.5	1.2	0.0	0.0	0.0	0.0
65°	24.3	17.3	11.6	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°	1627.5	1627.5	1627.5	1627.5	1627.5	1627.5	1627.5	1627.5	1627.5	1627.5
2.5°	1468.0	1461.1	1495.7	1552.4	1581.3	1637.9	1651.8	1687.6	1678.4	1691.1
5°	1214.9	1228.7	1279.6	1362.8	1392.9	1474.9	1552.4	1629.8	1679.5	1703.8
7.5°	901.6	947.8	1010.3	1086.5	1164.0	1271.5	1403.3	1493.4	1542.0	1594.0
10°	671.6	721.3	792.9	868.1	994.1	1114.3	1246.1	1358.2	1399.8	1448.3
12.5°	528.2	605.7	688.9	769.8	845.0	959.4	1122.4	1285.4	1330.4	1367.4
15°	367.6	462.4	581.4	686.6	791.8	891.2	1060.0	1257.6	1318.9	1381.3
17.5°	203.4	278.6	415.0	562.9	717.8	870.4	1080.8	1308.5	1401.0	1444.9
20°	117.9	148.0	245.1	420.7	625.3	825.3	1091.2	1404.4	1526.9	1548.9
22.5°	97.1	107.5	138.7	263.5	512.1	796.4	1144.3	1538.5	1663.3	1715.4
25°	83.2	91.3	107.5	158.4	387.2	735.2	1177.9	1706.1	1821.7	1878.3
27.5°	74.0	82.1	94.8	116.7	263.5	650.8	1233.3	1857.5	1973.1	2050.6
30°	64.7	71.7	84.4	99.4	182.6	556.0	1280.7	1968.5	2131.5	2155.8
32.5°	57.8	63.6	72.8	85.5	135.2	421.9	1318.9	2082.9	2220.5	2273.7
35°	49.7	56.6	62.4	72.8	102.9	317.9	1295.8	2171.9	2351.1	2414.7
37.5°	43.9	48.5	54.3	61.3	86.7	248.5	1248.4	2278.3	2463.2	2522.2
40°	37.0	40.5	47.4	54.3	78.6	191.9	1194.0	2406.6	2620.4	2724.5
42.5°	31.2	34.7	39.3	50.9	64.7	142.2	1084.2	2506.0	2747.6	2835.4
45°	24.3	28.9	35.8	50.9	52.0	105.2	971.0	2580.0	2819.2	2863.2
47.5°	18.5	23.1	34.7	43.9	41.6	72.8	836.9	2664.4	2893.2	2933.7
50°	13.9	18.5	39.3	38.1	34.7	55.5	752.5	2723.3	2897.8	2919.8
52.5°	9.2	13.9	32.4	28.9	28.9	48.5	729.4	2721.0	2909.4	2862.0
55°	6.9	10.4	18.5	20.8	25.4	42.8	708.6	2807.7	2912.9	2946.4
57.5°	4.6	8.1	12.7	16.2	22.0	37.0	665.8	2911.7	3020.4	3037.7
60°	2.3	5.8	9.2	12.7	18.5	32.4	605.7	2988.0	3151.0	3169.5
62.5°	1.2	3.5	6.9	10.4	15.0	25.4	543.3	2866.6	3094.3	3126.7
65°	0.0	2.3	4.6	6.9	9.2	18.5	441.6	2588.1	2870.1	2989.2
67.5°	0.0	0.0	2.3	4.6	5.8	13.9	332.9	2354.6	2663.2	2825.0
70°	0.0	0.0	1.2	1.2	3.5	10.4	212.7	1950.0	2377.7	2466.7
72.5°	0.0	0.0	0.0	0.0	1.2	6.9	123.7	1448.3	1863.3	2028.6
75°	0.0	0.0	0.0	0.0	0.0	5.8	62.4	931.7	1296.9	1518.9
77.5°	0.0	0.0	0.0	0.0	0.0	4.6	33.5	601.1	955.9	1142.0
80°	0.0	0.0	0.0	0.0	0.0	1.2	19.7	349.1	611.5	740.9
82.5°	0.0	0.0	0.0	0.0	0.0	0.0	8.1	171.1	365.3	427.7
85°	0.0	0.0	0.0	0.0	0.0	0.0	2.3	91.3	182.6	240.4
87.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.5	12.7	24.3
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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