

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: P677353

Luminaire Tested: **CCW-SA-1F-840-U-SLL-HSS**

Issue Date: 04/25/2023



Test Information

Test Method: LM-79-08
Report Number: P677353
Test Lab: INNOVATION CENTER(G1)
Issue Date: 04/25/2023
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: INVUE
Catalog Number: CCW-SA-1F-840-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) 4000K CCT, 80 CRI LEDs
Ballast/Driver: ELECTRONIC DRIVER

Summary

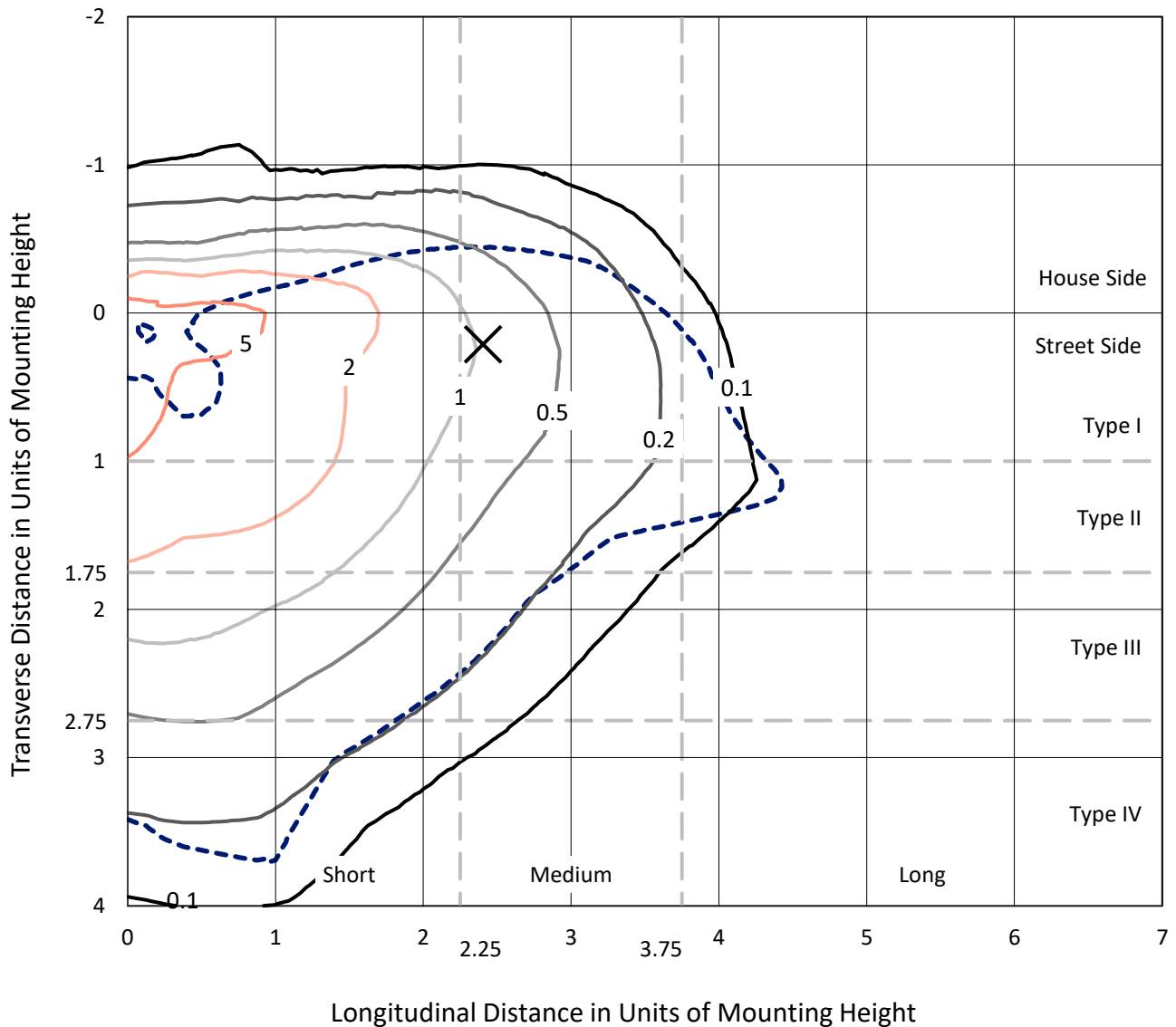
Lumens per Lamp: N/A
Luminaire Lumens: 4638 lumens
Efficiency: N/A
Efficacy: 69.2 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 0.5' x H: 0')
IES Classification: Type III - Medium
BUG Rating: B1 - U0 - G1

Input Watts (W): 67
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

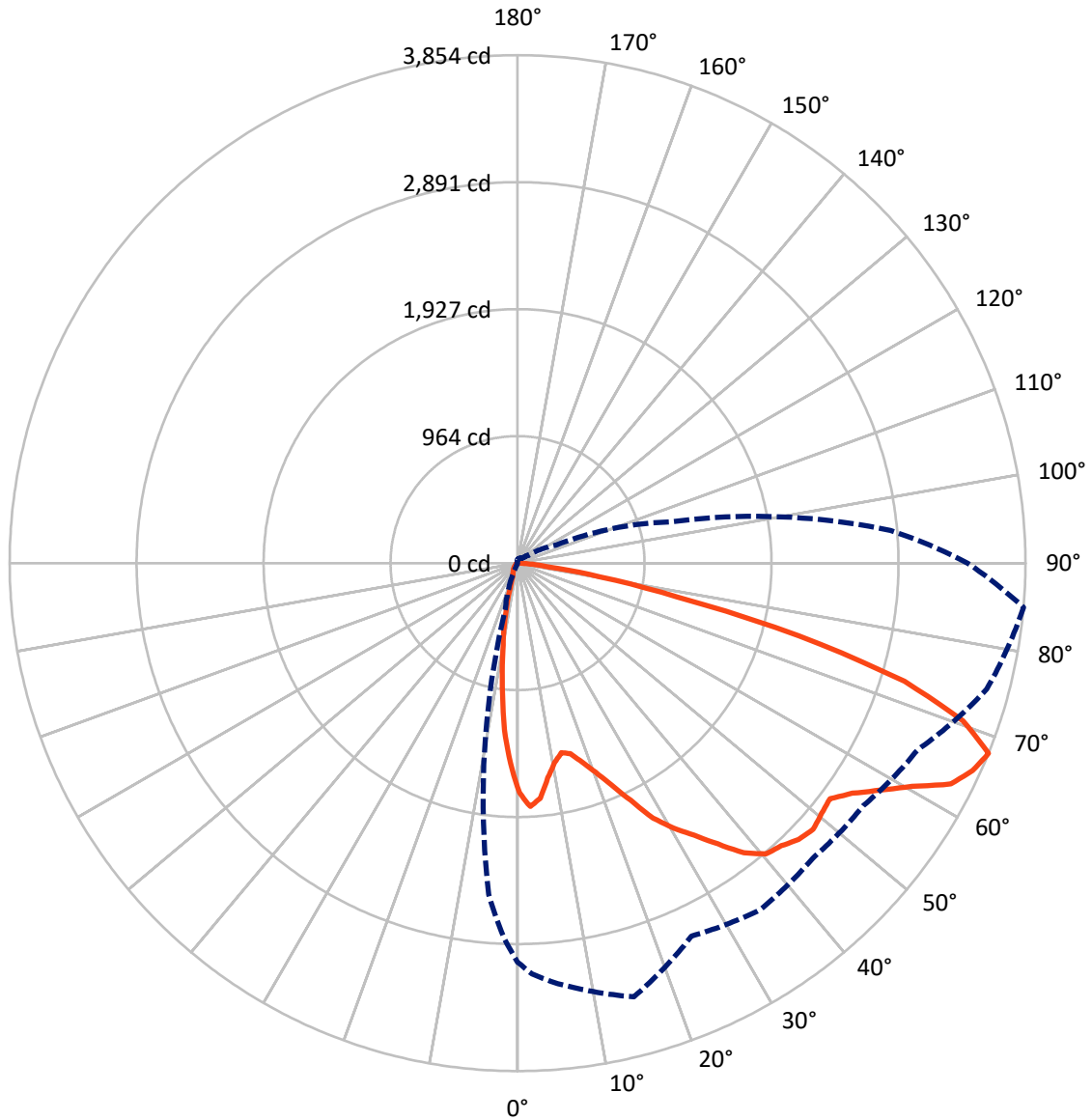
× Max cd
 - - - 1/2 Max cd



Based on 15 foot mounting height. Maximum calculated value = 8.7 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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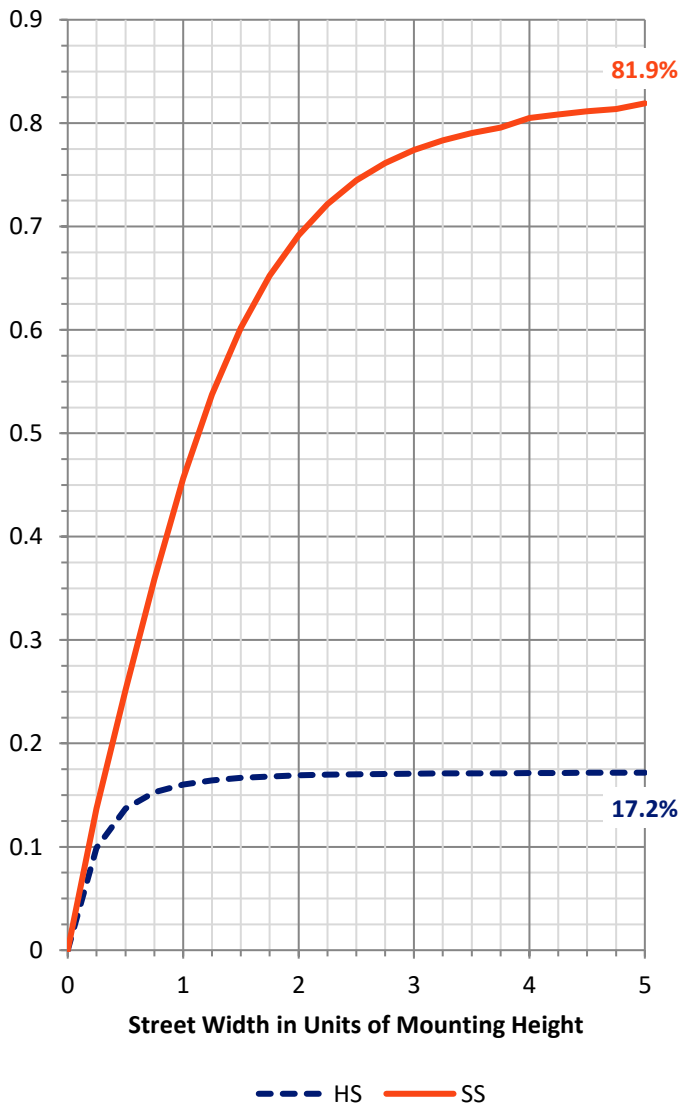
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	805.3	0.0	805.3
	% Fixture	17.4	0.0	17.4
Street Side	Lumens	3832.7	0.0	3832.7
	% Fixture	82.6	0.0	82.6
Total	Lumens	4638.0	0.0	4638.0
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	132.5	2.9
10°-20°	259.8	5.6
20°-30°	359.5	7.8
30°-40°	508.1	11.0
40°-50°	691.8	14.9
50°-60°	916.2	19.8
60°-70°	1063.8	22.9
70°-80°	602.4	13.0
80°-90°	104.1	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°	4638.0	100.0
0°-180°	4638.0	100.0

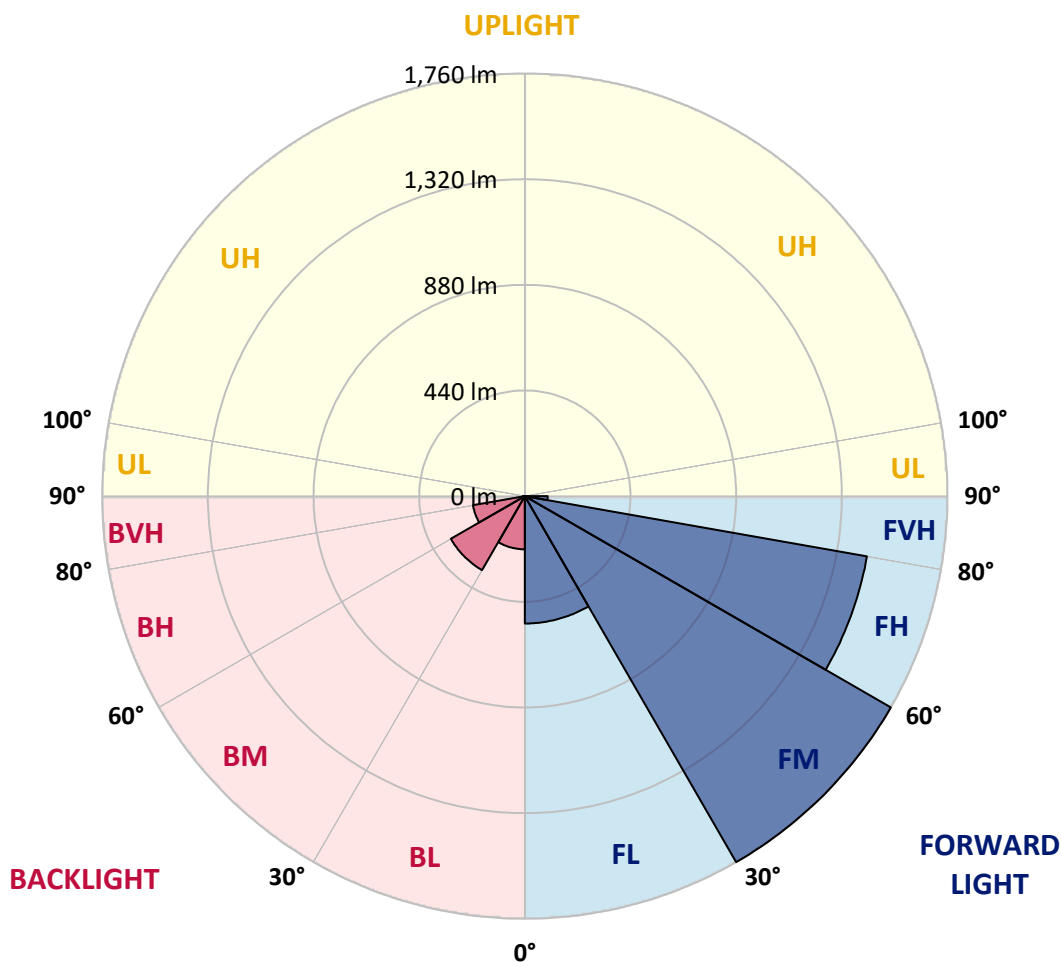


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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	530.4	11.4			
FM (30°-60°)	1760.2	38.0			
FH (60°-80°)	1446.8	31.2			G1/1800
FVH (80°-90°)	95.3	2.1			G1/100
BL (0°-30°)	221.4	4.8	B1/500		
BM (30°-60°)	355.8	7.7	B1/1000		
BH (60°-80°)	219.3	4.7	B1/500		G1/500
BVH (80°-90°)	8.8	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°	1743.9	1743.9	1743.9	1743.9	1743.9	1743.9	1743.9	1743.9	1743.9	1743.9	1743.9
2.5°	1812.0	1850.4	1851.6	1869.0	1886.3	1886.3	1927.2	1917.3	1881.3	1875.2	1849.1
5°	1825.6	1839.2	1849.1	1937.1	2011.4	2004.0	2026.3	2011.4	1942.0	1852.9	1792.2
7.5°	1707.9	1722.8	1762.4	1912.3	2012.6	2046.1	2088.2	1995.3	1922.2	1761.2	1644.8
10°	1551.9	1580.4	1653.5	1824.4	1948.2	2054.7	2054.7	1980.4	1839.2	1681.9	1539.5
12.5°	1465.2	1522.2	1561.8	1735.2	1896.2	1969.3	1966.8	1927.2	1835.5	1637.4	1476.3
15°	1480.1	1496.2	1580.4	1715.4	1821.9	1818.2	1862.8	1850.4	1786.0	1677.0	1499.9
17.5°	1548.2	1572.9	1646.0	1715.4	1766.2	1751.3	1750.1	1809.5	1813.2	1743.9	1587.8
20°	1659.6	1732.7	1767.4	1788.5	1726.5	1663.4	1655.9	1738.9	1803.3	1829.3	1693.1
22.5°	1838.0	1886.3	1956.9	1849.1	1688.1	1608.9	1594.0	1685.7	1815.7	1930.9	1829.3
25°	2012.6	2049.8	2117.9	1979.2	1731.5	1597.7	1571.7	1651.0	1862.8	2072.1	1994.1
27.5°	2197.2	2229.4	2236.8	2074.6	1755.0	1575.4	1544.5	1651.0	1902.4	2146.4	2191.0
30°	2309.9	2348.3	2355.7	2158.8	1793.4	1594.0	1579.1	1658.4	1929.6	2209.6	2332.2
32.5°	2436.2	2446.1	2439.9	2173.6	1835.5	1648.5	1586.6	1707.9	1960.6	2285.1	2461.0
35°	2587.3	2604.7	2541.5	2241.8	1929.6	1683.2	1660.9	1768.6	2013.9	2319.8	2617.0
37.5°	2702.5	2757.0	2614.6	2267.8	1948.2	1756.3	1760.0	1895.0	2051.0	2361.9	2789.2
40°	2919.2	2827.6	2738.4	2356.9	2018.8	1880.1	1860.3	2025.0	2176.1	2389.1	2901.9
42.5°	3038.1	2989.8	2786.7	2365.6	2127.8	2051.0	2056.0	2172.4	2241.8	2465.9	2932.9
45°	3067.9	3017.1	2852.4	2371.8	2235.6	2252.9	2338.4	2360.7	2338.4	2516.7	2991.1
47.5°	3143.4	3033.2	2844.9	2454.8	2410.2	2477.1	2586.1	2634.4	2469.7	2498.1	3018.3
50°	3128.6	3065.4	2828.8	2489.5	2623.2	2800.3	2873.4	2853.6	2615.8	2459.7	2988.6
52.5°	3066.6	2998.5	2878.4	2583.6	2822.6	3036.9	3138.5	3088.9	2745.8	2546.4	2968.8
55°	3157.0	3105.0	2942.8	2711.2	2972.5	3245.0	3316.8	3279.7	2905.6	2626.9	3081.5
57.5°	3254.9	3243.7	3117.4	2861.0	3149.6	3459.2	3459.2	3413.4	3044.3	2743.4	3248.7
60°	3396.1	3420.8	3246.2	2960.1	3210.3	3446.9	3626.4	3573.2	3184.3	2947.7	3438.2
62.5°	3350.3	3429.5	3412.2	3173.1	3279.7	3507.5	3605.4	3645.0	3357.7	3196.7	3690.9
65°	3202.9	3287.1	3410.9	3313.1	3227.6	3360.2	3409.7	3529.8	3444.4	3430.8	3794.9
67.5°	3027.0	3118.6	3195.4	3407.2	3122.4	3210.3	3166.9	3205.3	3350.3	3687.1	3854.3
70°	2643.0	2731.0	2852.4	3197.9	2843.7	2764.4	2753.3	2734.7	2960.1	3595.5	3584.3
72.5°	2173.6	2214.5	2415.2	2599.7	2104.3	2089.4	2106.8	2085.7	2347.0	3254.9	3070.3
75°	1627.4	1668.3	1782.3	1996.5	1433.0	1347.5	1446.6	1544.5	1792.2	2526.6	2205.8
77.5°	1223.7	1275.7	1347.5	1493.7	1051.5	917.8	931.4	1024.3	1295.5	2023.8	1236.1
80°	793.9	787.7	926.4	1028.0	791.4	816.2	781.5	849.6	938.8	1082.5	631.7
82.5°	458.3	464.5	522.7	589.5	551.2	630.4	454.5	759.2	670.1	440.9	235.3
85°	257.6	268.8	322.0	408.7	345.6	231.6	189.5	376.5	421.1	180.8	113.9
87.5°	26.0	22.3	43.3	154.8	94.1	38.4	57.0	90.4	101.6	68.1	33.4
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):

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	1743.9	1743.9	1743.9	1743.9	1743.9	1743.9	1743.9	1743.9	1743.9	1743.9	1743.9
2.5°	1812.0	1812.0	1781.0	1729.0	1707.9	1670.8	1620.0	1636.1	1618.8	1555.6	1539.5
5°	1737.7	1678.2	1613.8	1534.6	1488.7	1394.6	1364.9	1311.6	1320.3	1267.0	1269.5
7.5°	1582.9	1535.8	1426.8	1322.8	1232.3	1150.6	1035.4	992.1	950.0	928.9	953.7
10°	1492.4	1404.5	1255.9	1119.6	999.5	926.4	849.6	790.2	735.7	694.8	686.2
12.5°	1426.8	1348.8	1169.2	1003.2	909.1	849.6	779.0	697.3	644.0	573.4	552.4
15°	1407.0	1311.6	1122.1	957.4	865.7	767.9	687.4	606.9	537.5	463.2	437.2
17.5°	1475.1	1364.9	1120.9	920.2	791.4	686.2	574.7	484.3	413.7	345.6	329.5
20°	1590.3	1421.8	1156.8	897.9	720.8	579.6	453.3	362.9	283.6	239.0	227.9
22.5°	1721.6	1518.5	1160.5	838.5	650.2	473.1	330.7	239.0	194.5	173.4	167.2
25°	1882.6	1673.3	1205.1	790.2	567.3	359.2	235.3	183.3	157.3	144.9	142.4
27.5°	2015.1	1781.0	1253.4	739.4	485.5	266.3	184.5	149.9	136.2	123.9	122.6
30°	2152.6	1904.9	1267.0	708.4	414.9	219.2	158.5	132.5	117.7	111.5	110.2
32.5°	2272.7	2039.9	1310.4	657.7	348.0	193.2	143.7	118.9	109.0	99.1	97.8
35°	2427.5	2117.9	1331.4	630.4	323.3	174.6	131.3	109.0	94.1	87.9	85.5
37.5°	2593.5	2193.5	1345.1	609.4	302.2	163.5	123.9	102.8	89.2	80.5	78.0
40°	2748.3	2300.0	1325.2	583.4	286.1	149.9	118.9	95.4	83.0	74.3	70.6
42.5°	2867.2	2404.0	1319.0	558.6	268.8	144.9	112.7	91.7	78.0	68.1	66.9
45°	2934.1	2474.6	1275.7	538.8	255.1	147.4	110.2	86.7	74.3	65.6	60.7
47.5°	2918.0	2529.1	1286.8	532.6	236.6	137.5	109.0	83.0	68.1	60.7	57.0
50°	3007.2	2639.3	1268.3	512.8	222.9	123.9	118.9	83.0	66.9	58.2	54.5
52.5°	3022.0	2739.7	1307.9	476.8	201.9	113.9	117.7	81.7	64.4	55.7	50.8
55°	3145.9	2856.1	1384.7	457.0	184.5	99.1	107.8	79.3	58.2	50.8	48.3
57.5°	3314.3	3097.6	1434.2	438.4	161.0	86.7	90.4	78.0	53.3	47.1	43.3
60°	3476.6	3194.2	1437.9	405.0	138.7	78.0	70.6	78.0	49.5	42.1	38.4
62.5°	3598.0	3194.2	1413.2	376.5	121.4	69.4	61.9	74.3	44.6	37.2	34.7
65°	3532.3	3108.7	1348.8	353.0	110.2	60.7	53.3	57.0	39.6	32.2	29.7
67.5°	3414.7	2842.5	1206.3	324.5	109.0	53.3	45.8	42.1	34.7	28.5	26.0
70°	3226.4	2483.3	1004.5	292.3	106.5	48.3	40.9	35.9	31.0	24.8	22.3
72.5°	2599.7	2051.0	824.9	273.7	104.0	42.1	34.7	31.0	26.0	21.1	18.6
75°	1800.8	1310.4	635.4	234.1	101.6	38.4	32.2	27.2	22.3	17.3	16.1
77.5°	1080.0	875.6	410.0	175.9	66.9	31.0	27.2	21.1	18.6	14.9	13.6
80°	505.3	413.7	166.0	68.1	32.2	22.3	18.6	16.1	14.9	12.4	11.1
82.5°	198.2	174.6	80.5	39.6	26.0	17.3	14.9	13.6	12.4	9.9	8.7
85°	106.5	94.1	38.4	27.2	18.6	12.4	12.4	11.1	9.9	8.7	7.4
87.5°	23.5	17.3	16.1	16.1	13.6	9.9	9.9	8.7	7.4	6.2	5.0
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°	1743.9	1743.9	1743.9	1743.9	1743.9	1743.9	1743.9	1743.9	1743.9	1743.9	1743.9
2.5°	1530.8	1549.4	1519.7	1538.3	1512.3	1532.1	1534.6	1516.0	1520.9	1545.7	1556.8
5°	1304.2	1291.8	1264.6	1255.9	1257.1	1241.0	1247.2	1255.9	1269.5	1276.9	1299.2
7.5°	940.1	968.5	967.3	988.4	989.6	987.1	969.8	932.6	945.0	935.1	947.5
10°	672.5	684.9	708.4	722.1	746.8	733.2	693.6	678.7	671.3	670.1	682.4
12.5°	537.5	507.8	505.3	510.3	522.7	506.6	486.7	469.4	478.1	495.4	509.0
15°	416.1	391.4	359.2	354.2	356.7	349.3	328.2	305.9	312.1	329.5	339.4
17.5°	319.5	291.1	268.8	253.9	248.9	222.9	192.0	173.4	168.4	167.2	175.9
20°	215.5	210.6	206.8	188.3	188.3	151.1	125.1	111.5	111.5	113.9	115.2
22.5°	161.0	154.8	156.1	152.3	142.4	112.7	99.1	95.4	95.4	97.8	97.8
25°	140.0	131.3	128.8	127.6	117.7	96.6	86.7	83.0	83.0	85.5	85.5
27.5°	118.9	116.4	112.7	107.8	99.1	83.0	76.8	73.1	74.3	75.6	74.3
30°	109.0	102.8	97.8	97.8	87.9	74.3	69.4	66.9	64.4	66.9	68.1
32.5°	96.6	92.9	90.4	86.7	75.6	65.6	60.7	58.2	57.0	57.0	58.2
35°	83.0	83.0	80.5	75.6	65.6	59.4	53.3	50.8	49.5	50.8	50.8
37.5°	74.3	70.6	71.8	66.9	58.2	52.0	45.8	43.3	43.3	42.1	43.3
40°	69.4	63.2	59.4	57.0	52.0	44.6	39.6	37.2	35.9	35.9	35.9
42.5°	61.9	57.0	49.5	48.3	47.1	38.4	32.2	31.0	29.7	28.5	28.5
45°	58.2	50.8	44.6	38.4	38.4	32.2	27.2	24.8	23.5	22.3	23.5
47.5°	53.3	45.8	38.4	32.2	31.0	26.0	21.1	18.6	17.3	17.3	17.3
50°	50.8	40.9	33.4	27.2	23.5	21.1	16.1	13.6	12.4	12.4	12.4
52.5°	47.1	38.4	29.7	23.5	18.6	16.1	12.4	9.9	8.7	8.7	8.7
55°	42.1	34.7	26.0	19.8	16.1	12.4	8.7	6.2	5.0	5.0	5.0
57.5°	39.6	31.0	22.3	17.3	12.4	8.7	5.0	3.7	3.7	2.5	3.7
60°	35.9	27.2	18.6	13.6	9.9	6.2	3.7	1.2	1.2	1.2	1.2
62.5°	31.0	23.5	16.1	11.1	7.4	3.7	1.2	0.0	0.0	0.0	0.0
65°	26.0	18.6	12.4	8.7	5.0	1.2	0.0	0.0	0.0	0.0	0.0
67.5°	22.3	16.1	9.9	6.2	3.7	0.0	0.0	0.0	0.0	0.0	0.0
70°	19.8	13.6	7.4	5.0	1.2	0.0	0.0	0.0	0.0	0.0	0.0
72.5°	16.1	11.1	6.2	2.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0
75°	13.6	8.7	3.7	1.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0
77.5°	11.1	6.2	2.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
80°	8.7	5.0	1.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
82.5°	7.4	3.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
85°	5.0	1.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
87.5°	3.7	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°	1743.9	1743.9	1743.9	1743.9	1743.9	1743.9	1743.9	1743.9	1743.9	1743.9
2.5°	1572.9	1565.5	1602.7	1663.4	1694.3	1755.0	1769.9	1808.3	1798.4	1812.0
5°	1301.7	1316.6	1371.1	1460.2	1492.4	1580.4	1663.4	1746.3	1799.6	1825.6
7.5°	966.1	1015.6	1082.5	1164.2	1247.2	1362.4	1503.6	1600.2	1652.2	1707.9
10°	719.6	772.8	849.6	930.1	1065.1	1194.0	1335.1	1455.3	1499.9	1551.9
12.5°	566.0	649.0	738.2	824.9	905.4	1028.0	1202.6	1377.3	1425.6	1465.2
15°	393.9	495.4	623.0	735.7	848.4	954.9	1135.7	1347.5	1413.2	1480.1
17.5°	218.0	298.5	444.6	603.2	769.1	932.6	1158.0	1402.0	1501.1	1548.2
20°	126.3	158.5	262.6	450.8	670.1	884.3	1169.2	1504.8	1636.1	1659.6
22.5°	104.0	115.2	148.6	282.4	548.7	853.4	1226.2	1648.5	1782.3	1838.0
25°	89.2	97.8	115.2	169.7	414.9	787.7	1262.1	1828.1	1951.9	2012.6
27.5°	79.3	87.9	101.6	125.1	282.4	697.3	1321.5	1990.3	2114.2	2197.2
30°	69.4	76.8	90.4	106.5	195.7	595.7	1372.3	2109.2	2283.9	2309.9
32.5°	61.9	68.1	78.0	91.7	144.9	452.1	1413.2	2231.9	2379.2	2436.2
35°	53.3	60.7	66.9	78.0	110.2	340.6	1388.4	2327.2	2519.2	2587.3
37.5°	47.1	52.0	58.2	65.6	92.9	266.3	1337.6	2441.2	2639.3	2702.5
40°	39.6	43.3	50.8	58.2	84.2	205.6	1279.4	2578.6	2807.8	2919.2
42.5°	33.4	37.2	42.1	54.5	69.4	152.3	1161.8	2685.2	2944.0	3038.1
45°	26.0	31.0	38.4	54.5	55.7	112.7	1040.4	2764.4	3020.8	3067.9
47.5°	19.8	24.8	37.2	47.1	44.6	78.0	896.7	2854.8	3100.1	3143.4
50°	14.9	19.8	42.1	40.9	37.2	59.4	806.3	2918.0	3105.0	3128.6
52.5°	9.9	14.9	34.7	31.0	31.0	52.0	781.5	2915.5	3117.4	3066.6
55°	7.4	11.1	19.8	22.3	27.2	45.8	759.2	3008.4	3121.1	3157.0
57.5°	5.0	8.7	13.6	17.3	23.5	39.6	713.4	3119.9	3236.3	3254.9
60°	2.5	6.2	9.9	13.6	19.8	34.7	649.0	3201.6	3376.3	3396.1
62.5°	1.2	3.7	7.4	11.1	16.1	27.2	582.1	3071.6	3315.6	3350.3
65°	0.0	2.5	5.0	7.4	9.9	19.8	473.1	2773.1	3075.3	3202.9
67.5°	0.0	0.0	2.5	5.0	6.2	14.9	356.7	2522.9	2853.6	3027.0
70°	0.0	0.0	1.2	1.2	3.7	11.1	227.9	2089.4	2547.7	2643.0
72.5°	0.0	0.0	0.0	0.0	1.2	7.4	132.5	1551.9	1996.5	2173.6
75°	0.0	0.0	0.0	0.0	0.0	6.2	66.9	998.3	1389.6	1627.4
77.5°	0.0	0.0	0.0	0.0	0.0	5.0	35.9	644.0	1024.3	1223.7
80°	0.0	0.0	0.0	0.0	0.0	1.2	21.1	374.0	655.2	793.9
82.5°	0.0	0.0	0.0	0.0	0.0	0.0	8.7	183.3	391.4	458.3
85°	0.0	0.0	0.0	0.0	0.0	0.0	2.5	97.8	195.7	257.6
87.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.7	13.6	26.0
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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