

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: P676323

Luminaire Tested: **CCW-SA-1F-830-U-T2-HSS**

Issue Date: 04/25/2023



Test Information

Test Method: LM-79-08
Report Number: P676323
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-T2-HSS
Description: INVUE CLEAR CURVE Wall Pack MOUNT Light Square Luminaire @1200mA w/
T2 distribution lens and House Side Shield
Light Source: (16) 3000K CCT, 80 CRI LEDs
Ballast/Driver: ELECTRONIC DRIVER

Summary

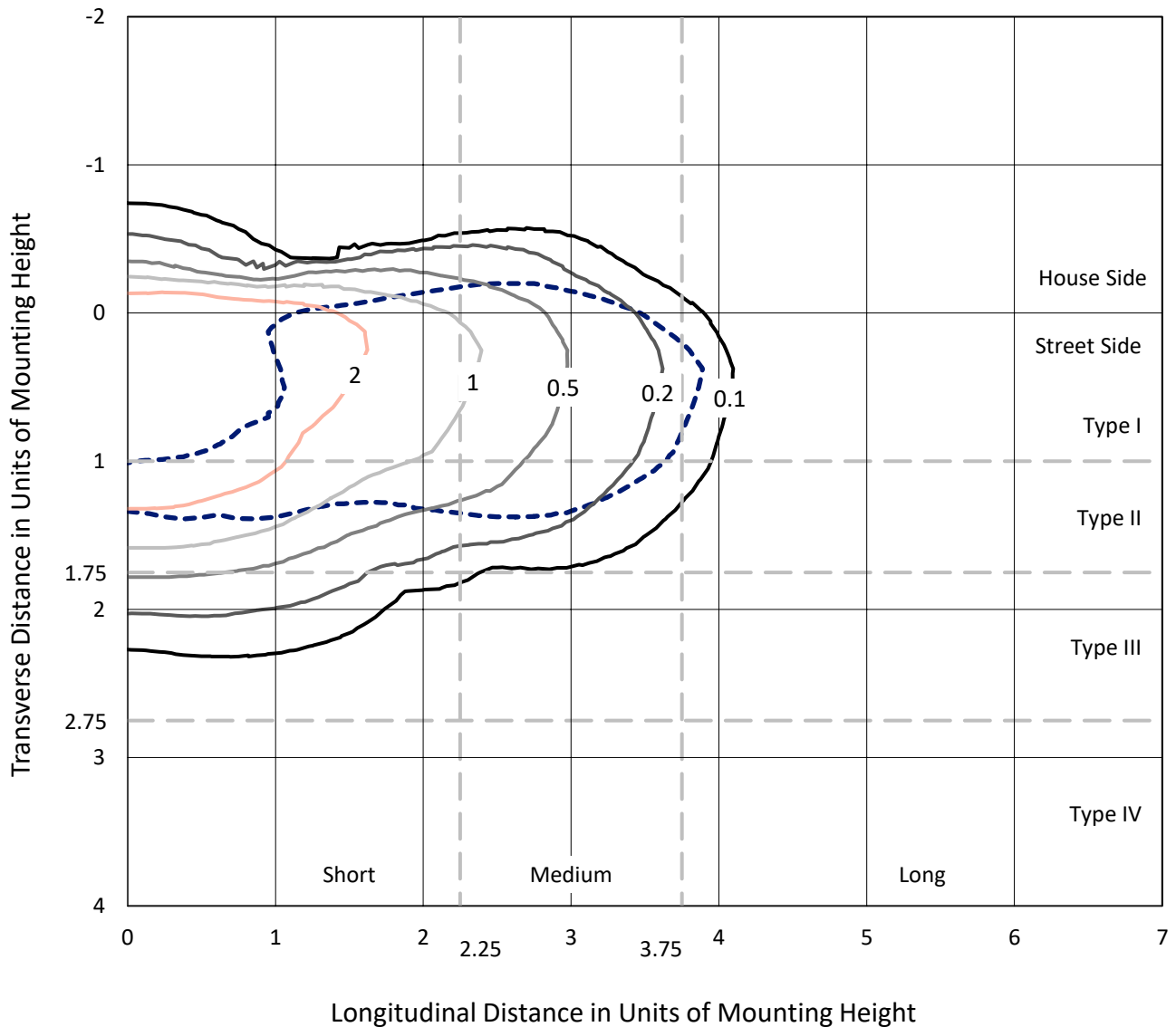
Lumens per Lamp: N/A
Luminaire Lumens: 4599.5 lumens
Efficiency: N/A
Efficacy: 68.6 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 0.5' x H: 0')
IES Classification: Type II - Short
BUG Rating: B1 - U0 - G1

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

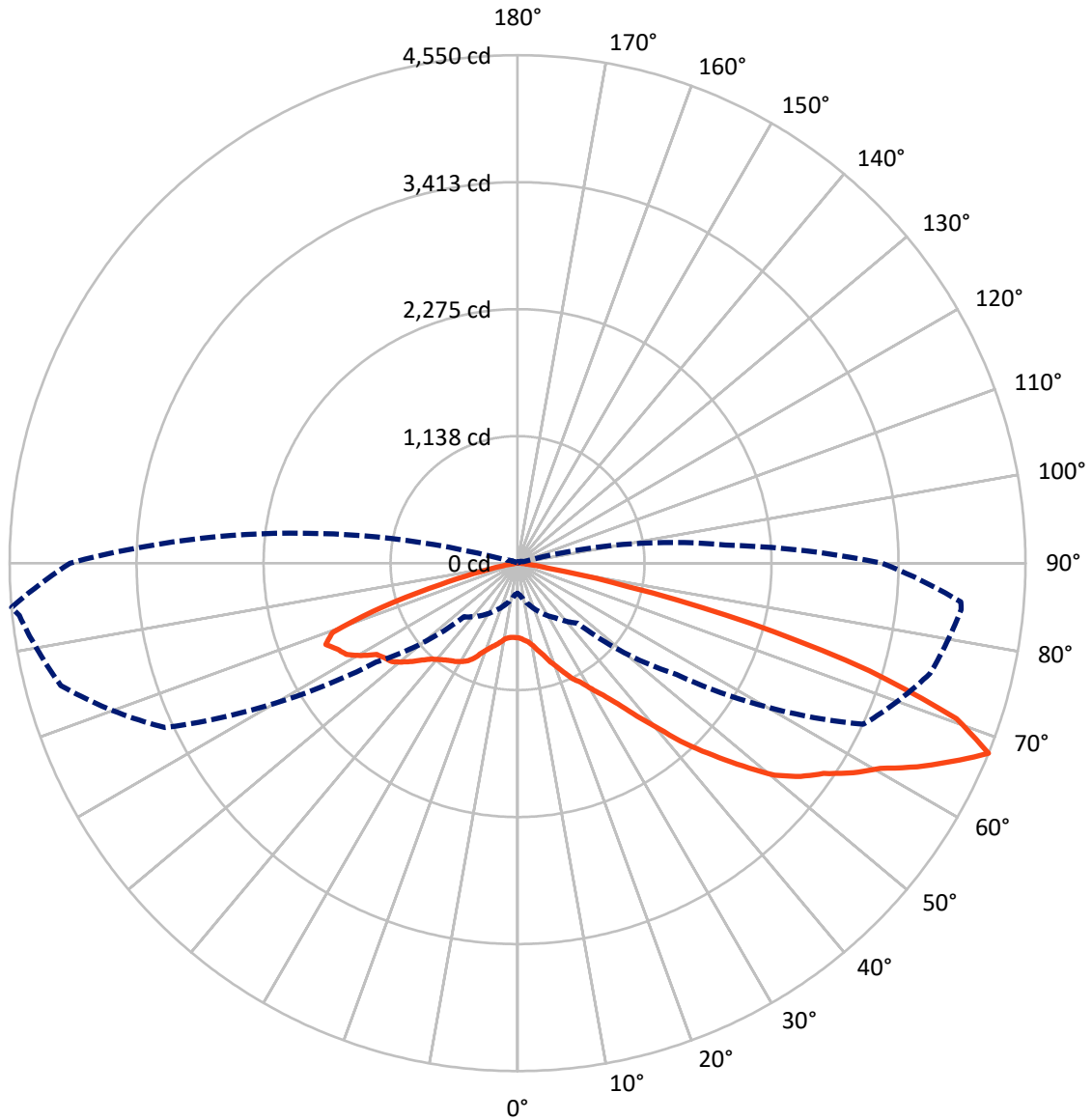
× Max cd
 - - - 1/2 Max cd



Based on 15 foot mounting height. Maximum calculated value = 3.5 fc
 Type II - Short - N/A

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Luminous Intensity Polar Plot



— Vertical Plane Through 275-Deg Lateral - - - Horizontal Cone Through 67.5-Deg Vertical

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FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	653.4	0.0	653.4
	% Fixture	14.2	0.0	14.2
Street Side	Lumens	3946.1	0.0	3946.1
	% Fixture	85.8	0.0	85.8
Total	Lumens	4599.5	0.0	4599.5
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	61.0	1.3
10°-20°	164.0	3.6
20°-30°	272.4	5.9
30°-40°	468.6	10.2
40°-50°	842.0	18.3
50°-60°	1198.7	26.1
60°-70°	1092.9	23.8
70°-80°	465.4	10.1
80°-90°	34.6	0.8
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°	4599.5	100.0
0°-180°	4599.5	100.0



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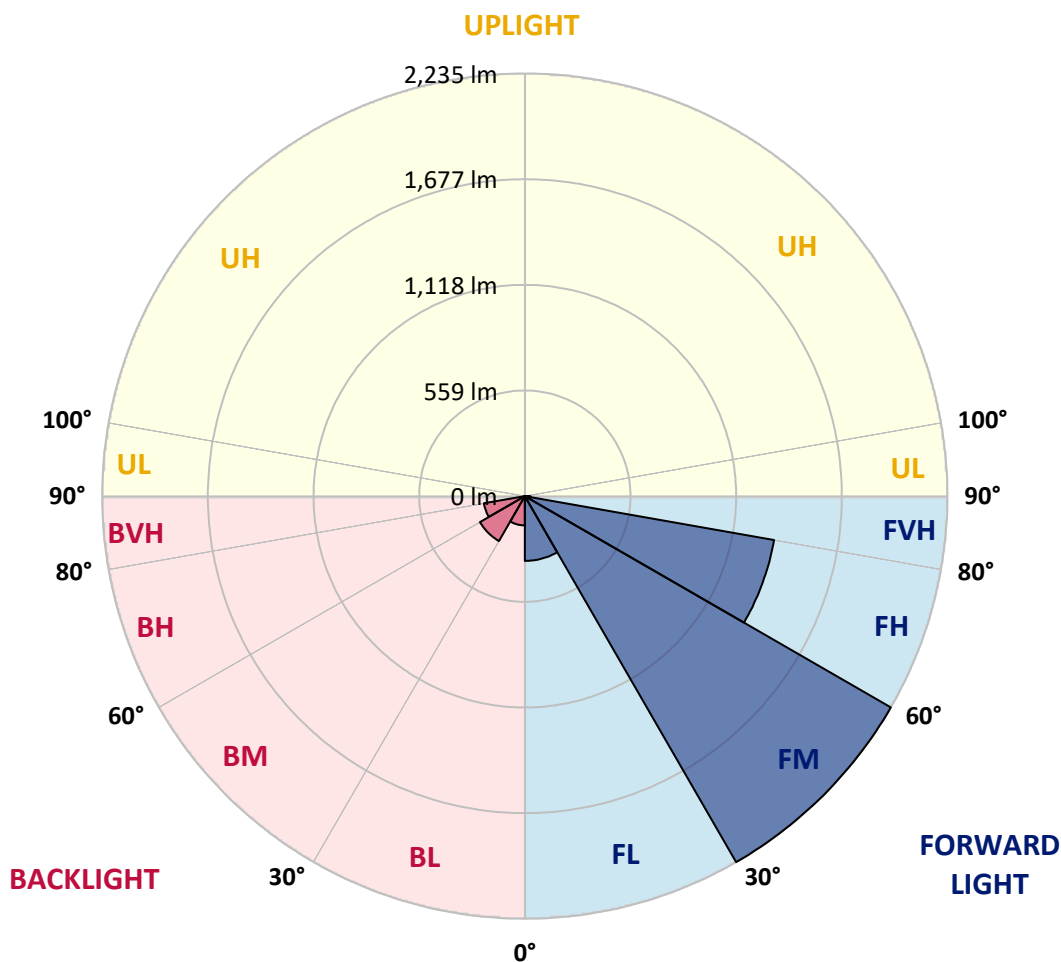
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	342.7	7.4			
FM (30°-60°)	2235.4	48.6			
FH (60°-80°)	1338.7	29.1			G1/1800
FVH (80°-90°)	29.4	0.6			G1/100
BL (0°-30°)	154.7	3.4	B1/500		
BM (30°-60°)	274.0	6.0	B1/1000		
BH (60°-80°)	219.6	4.8	B1/500		G1/500
BVH (80°-90°)	5.2	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 II Short





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	75°	84°	85°
0°	668.8	668.8	668.8	668.8	668.8	668.8	668.8	668.8	668.8	668.8	668.8
2.5°	693.0	699.5	699.5	697.3	690.8	686.4	684.2	679.8	675.4	675.4	677.6
5°	699.5	693.0	701.7	690.8	690.8	690.8	699.5	695.2	693.0	682.0	682.0
7.5°	699.5	693.0	693.0	699.5	693.0	697.3	708.3	703.9	712.7	693.0	697.3
10°	679.8	677.6	682.0	690.8	693.0	701.7	712.7	734.6	736.8	723.7	721.5
12.5°	640.3	638.1	653.5	657.9	684.2	706.1	739.0	756.6	776.3	769.7	756.6
15°	611.8	616.2	627.2	644.7	668.8	708.3	745.6	785.1	820.2	811.4	807.0
17.5°	622.8	620.6	622.8	633.8	664.5	703.9	767.5	813.6	864.0	864.0	868.4
20°	655.7	662.3	660.1	653.5	668.8	701.7	767.5	848.7	932.0	925.4	925.4
22.5°	712.7	714.9	701.7	697.3	695.2	714.9	780.7	892.5	989.0	1002.2	997.8
25°	771.9	774.1	769.7	756.6	739.0	743.4	804.8	927.6	1068.0	1089.9	1085.5
27.5°	870.6	868.4	857.4	842.1	815.8	796.0	842.1	953.9	1129.4	1166.6	1155.7
30°	969.3	962.7	947.3	927.6	903.5	866.2	888.1	1004.4	1206.1	1241.2	1217.1
32.5°	1089.9	1076.7	1081.1	1050.4	1000.0	940.8	936.4	1050.4	1267.5	1317.9	1298.2
35°	1243.4	1228.0	1206.1	1177.6	1129.4	1050.4	1026.3	1125.0	1370.6	1407.9	1407.9
37.5°	1445.1	1460.5	1434.2	1315.8	1263.1	1188.6	1138.1	1201.7	1460.5	1550.4	1528.5
40°	1651.3	1664.4	1616.2	1528.5	1414.4	1322.3	1291.6	1326.7	1596.4	1703.9	1662.2
42.5°	1817.9	1835.5	1817.9	1703.9	1614.0	1495.6	1440.7	1473.6	1771.9	1901.3	1846.4
45°	1993.4	2010.9	1991.2	1916.6	1828.9	1760.9	1622.8	1664.4	1956.1	2149.1	2087.7
47.5°	2124.9	2146.9	2111.8	2096.4	2026.3	2015.3	1780.6	1826.7	2149.1	2399.1	2322.3
50°	2155.6	2179.8	2210.5	2228.0	2203.9	2230.2	1993.4	2032.8	2350.8	2629.3	2554.7
52.5°	2083.3	2107.4	2175.4	2256.5	2368.4	2447.3	2208.3	2241.2	2561.3	2820.1	2780.6
55°	1870.6	1892.5	2030.6	2140.3	2407.8	2537.2	2414.4	2552.6	2712.6	3019.6	2923.2
57.5°	1513.1	1539.4	1721.4	1890.3	2276.2	2486.8	2537.2	2811.3	2962.6	3166.6	3054.7
60°	1074.5	1089.9	1247.8	1546.0	1912.2	2234.6	2513.1	3004.3	3160.0	3363.9	3304.7
62.5°	618.4	631.6	796.0	1076.7	1442.9	1866.2	2405.6	3186.3	3372.7	3581.0	3548.1
65°	410.1	414.5	526.3	679.8	938.6	1375.0	2133.7	3348.6	3583.2	3754.3	3717.0
67.5°	269.7	293.9	381.6	486.8	600.9	760.9	1739.0	3416.6	3824.4	3995.5	3986.7
70°	193.0	201.7	274.1	375.0	451.7	427.6	1017.5	2936.3	3813.5	4061.3	3988.9
72.5°	114.0	122.8	182.0	280.7	355.3	271.9	475.9	2076.7	3160.0	3241.1	3221.4
75°	83.3	83.3	111.8	201.7	258.8	195.2	223.7	1313.6	2098.6	2278.4	2276.2
77.5°	59.2	61.4	76.8	120.6	199.6	142.5	122.8	730.2	1146.9	1254.3	1195.1
80°	35.1	37.3	52.6	72.4	144.7	103.1	81.1	333.3	440.8	445.2	423.2
82.5°	26.3	26.3	35.1	50.4	100.9	70.2	50.4	127.2	142.5	129.4	109.6
85°	15.4	13.2	26.3	37.3	59.2	39.5	35.1	59.2	65.8	48.2	43.9
87.5°	4.4	4.4	11.0	13.2	26.3	21.9	15.4	21.9	30.7	17.5	13.2
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°	668.8	668.8	668.8	668.8	668.8	668.8	668.8	668.8	668.8	668.8	668.8
2.5°	673.2	666.6	655.7	651.3	635.9	629.4	625.0	614.0	616.2	609.6	609.6
5°	666.6	666.6	644.7	620.6	596.5	581.1	563.6	541.7	541.7	532.9	535.1
7.5°	690.8	673.2	644.7	600.9	561.4	526.3	510.9	489.0	475.9	469.3	469.3
10°	706.1	688.6	640.3	587.7	537.3	493.4	460.5	429.8	412.3	412.3	410.1
12.5°	747.8	721.5	657.9	585.5	510.9	445.2	394.7	359.6	335.5	318.0	322.4
15°	782.9	754.4	666.6	568.0	464.9	372.8	311.4	245.6	212.7	195.2	188.6
17.5°	837.7	785.1	686.4	537.3	394.7	291.7	201.7	146.9	133.8	131.6	131.6
20°	883.7	822.3	688.6	478.1	324.6	186.4	129.4	120.6	114.0	111.8	109.6
22.5°	947.3	870.6	679.8	410.1	232.4	125.0	109.6	100.9	96.5	89.9	89.9
25°	1013.1	934.2	662.3	346.5	142.5	107.5	96.5	87.7	78.9	74.6	76.8
27.5°	1083.3	982.4	611.8	269.7	109.6	94.3	78.9	72.4	68.0	65.8	65.8
30°	1140.3	1013.1	537.3	179.8	98.7	83.3	70.2	63.6	59.2	57.0	57.0
32.5°	1182.0	1039.4	453.9	120.6	89.9	74.6	63.6	57.0	52.6	50.4	50.4
35°	1252.2	1059.2	377.2	103.1	81.1	65.8	54.8	50.4	46.1	46.1	46.1
37.5°	1359.6	1085.5	300.4	94.3	74.6	59.2	52.6	46.1	43.9	41.7	41.7
40°	1453.9	1118.4	214.9	85.5	68.0	54.8	46.1	41.7	39.5	37.3	37.3
42.5°	1589.9	1155.7	140.3	76.8	61.4	50.4	41.7	37.3	35.1	32.9	32.9
45°	1763.1	1217.1	109.6	68.0	54.8	46.1	39.5	35.1	30.7	30.7	28.5
47.5°	1947.3	1291.6	98.7	63.6	50.4	41.7	35.1	30.7	28.5	26.3	26.3
50°	2118.4	1364.0	92.1	59.2	46.1	39.5	32.9	28.5	24.1	21.9	21.9
52.5°	2271.9	1432.0	87.7	54.8	43.9	35.1	28.5	24.1	21.9	19.7	19.7
55°	2353.0	1462.7	85.5	52.6	39.5	32.9	26.3	21.9	19.7	17.5	17.5
57.5°	2480.2	1502.1	83.3	50.4	37.3	28.5	24.1	19.7	17.5	15.4	15.4
60°	2686.3	1631.5	81.1	48.2	35.1	28.5	21.9	17.5	13.2	11.0	11.0
62.5°	2857.4	1739.0	72.4	41.7	30.7	24.1	17.5	13.2	8.8	6.6	6.6
65°	3052.5	1789.4	63.6	37.3	26.3	19.7	13.2	8.8	6.6	2.2	2.2
67.5°	3265.3	1866.2	52.6	32.9	24.1	15.4	11.0	6.6	2.2	0.0	0.0
70°	3153.4	1769.7	43.9	28.5	21.9	13.2	8.8	4.4	0.0	0.0	0.0
72.5°	2471.4	1267.5	35.1	26.3	19.7	13.2	8.8	2.2	0.0	0.0	0.0
75°	1651.3	717.1	30.7	21.9	15.4	11.0	6.6	2.2	0.0	0.0	0.0
77.5°	896.9	322.4	26.3	19.7	13.2	8.8	6.6	2.2	0.0	0.0	0.0
80°	291.7	127.2	21.9	17.5	13.2	8.8	6.6	2.2	0.0	0.0	0.0
82.5°	78.9	39.5	21.9	17.5	13.2	8.8	6.6	2.2	0.0	0.0	0.0
85°	32.9	26.3	21.9	17.5	13.2	8.8	6.6	2.2	0.0	0.0	0.0
87.5°	13.2	8.8	8.8	11.0	8.8	6.6	4.4	2.2	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°	668.8	668.8	668.8	668.8	668.8	668.8	668.8	668.8	668.8	668.8	668.8
2.5°	611.8	616.2	618.4	618.4	629.4	640.3	653.5	664.5	664.5	671.0	677.6
5°	537.3	541.7	548.2	568.0	589.9	614.0	638.1	655.7	679.8	690.8	697.3
7.5°	475.9	480.2	497.8	517.5	548.2	589.9	631.6	671.0	695.2	706.1	714.9
10°	412.3	418.8	438.6	473.7	513.1	563.6	611.8	679.8	719.3	741.2	750.0
12.5°	320.2	337.7	364.0	401.3	451.7	528.5	618.4	688.6	756.6	782.9	800.4
15°	201.7	217.1	258.8	318.0	386.0	475.9	600.9	701.7	796.0	822.3	850.9
17.5°	129.4	131.6	144.7	208.3	296.0	410.1	574.5	721.5	839.9	877.2	921.0
20°	109.6	114.0	116.2	125.0	197.4	337.7	519.7	745.6	892.5	943.0	984.6
22.5°	92.1	94.3	98.7	105.3	118.4	245.6	445.2	745.6	938.6	1013.1	1061.4
25°	74.6	78.9	83.3	89.9	103.1	153.5	368.4	732.4	993.4	1085.5	1146.9
27.5°	65.8	65.8	70.2	76.8	87.7	107.5	291.7	693.0	1035.1	1129.4	1210.5
30°	57.0	59.2	61.4	68.0	78.9	94.3	201.7	629.4	1078.9	1214.9	1307.0
32.5°	50.4	50.4	54.8	59.2	70.2	85.5	129.4	532.9	1135.9	1280.7	1410.0
35°	46.1	46.1	48.2	52.6	63.6	76.8	100.9	451.7	1203.9	1405.7	1548.2
37.5°	41.7	41.7	43.9	48.2	57.0	68.0	92.1	388.1	1274.1	1530.7	1739.0
40°	37.3	37.3	39.5	43.9	50.4	61.4	83.3	313.6	1361.8	1714.9	1947.3
42.5°	32.9	32.9	35.1	39.5	46.1	54.8	72.4	234.6	1478.0	1914.4	2217.0
45°	28.5	28.5	30.7	35.1	39.5	50.4	65.8	179.8	1605.2	2135.9	2453.9
47.5°	24.1	26.3	28.5	32.9	37.3	46.1	59.2	157.9	1730.2	2370.5	2717.0
50°	21.9	21.9	24.1	28.5	35.1	41.7	54.8	155.7	1857.4	2550.4	2986.8
52.5°	19.7	19.7	21.9	26.3	32.9	39.5	52.6	160.1	1962.7	2717.0	3175.3
55°	17.5	17.5	19.7	21.9	28.5	37.3	48.2	164.5	2037.2	2885.9	3326.7
57.5°	15.4	15.4	17.5	21.9	26.3	32.9	43.9	168.9	2157.8	3052.5	3545.9
60°	11.0	11.0	15.4	19.7	24.1	28.5	41.7	173.2	2350.8	3282.8	3732.3
62.5°	6.6	6.6	8.8	15.4	19.7	26.3	37.3	164.5	2530.6	3578.8	4017.4
65°	2.2	4.4	6.6	8.8	15.4	21.9	30.7	149.1	2681.9	3874.9	4280.6
67.5°	0.0	0.0	2.2	6.6	13.2	17.5	26.3	109.6	2706.1	4008.7	4550.3
70°	0.0	0.0	2.2	6.6	11.0	17.5	24.1	61.4	2304.8	3581.0	4170.9
72.5°	0.0	0.0	0.0	4.4	11.0	15.4	21.9	46.1	1699.5	2699.5	3296.0
75°	0.0	0.0	0.0	2.2	8.8	13.2	19.7	35.1	1032.9	1800.4	2151.3
77.5°	0.0	0.0	0.0	2.2	6.6	13.2	19.7	30.7	364.0	857.4	1010.9
80°	0.0	0.0	0.0	4.4	8.8	13.2	17.5	26.3	87.7	214.9	289.5
82.5°	0.0	0.0	0.0	2.2	6.6	11.0	15.4	21.9	35.1	63.6	100.9
85°	0.0	0.0	0.0	2.2	4.4	11.0	15.4	19.7	24.1	30.7	43.9
87.5°	0.0	0.0	0.0	0.0	2.2	4.4	6.6	8.8	8.8	8.8	15.4
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):

	276°	285°	295°	305°	315°	325°	335°	345°	355°	360°
0°	668.8	668.8	668.8	668.8	668.8	668.8	668.8	668.8	668.8	668.8
2.5°	675.4	684.2	688.6	697.3	701.7	699.5	697.3	703.9	699.5	693.0
5°	699.5	699.5	706.1	708.3	708.3	701.7	706.1	703.9	699.5	699.5
7.5°	725.9	736.8	736.8	723.7	721.5	717.1	717.1	699.5	693.0	699.5
10°	752.2	760.9	763.1	747.8	728.0	719.3	708.3	686.4	675.4	679.8
12.5°	807.0	807.0	782.9	765.3	739.0	708.3	682.0	651.3	635.9	640.3
15°	846.5	855.2	822.3	782.9	736.8	679.8	651.3	627.2	618.4	611.8
17.5°	923.2	905.7	853.0	796.0	730.2	671.0	651.3	629.4	622.8	622.8
20°	989.0	980.2	901.3	798.2	728.0	688.6	675.4	664.5	662.3	655.7
22.5°	1078.9	1039.4	938.6	822.3	752.2	717.1	712.7	723.7	717.1	712.7
25°	1146.9	1114.0	967.1	857.4	789.5	778.5	785.1	796.0	778.5	771.9
27.5°	1239.0	1177.6	1021.9	903.5	839.9	850.9	872.8	875.0	864.0	870.6
30°	1324.5	1258.7	1063.6	956.1	925.4	936.4	969.3	993.4	978.0	969.3
32.5°	1447.3	1346.5	1146.9	1043.8	1032.9	1061.4	1098.7	1114.0	1094.3	1089.9
35°	1576.7	1447.3	1232.4	1142.5	1162.2	1201.7	1234.6	1260.9	1230.2	1243.4
37.5°	1778.5	1609.6	1377.2	1298.2	1307.0	1322.3	1383.7	1456.1	1471.4	1445.1
40°	1989.0	1785.0	1510.9	1449.5	1469.3	1510.9	1583.3	1651.3	1686.4	1651.3
42.5°	2232.4	1953.9	1717.1	1644.7	1664.4	1723.6	1820.1	1874.9	1870.6	1817.9
45°	2532.8	2188.5	1910.0	1820.1	1892.5	1945.1	2041.6	2048.2	2006.5	1993.4
47.5°	2763.1	2385.9	2118.4	2061.3	2160.0	2162.2	2184.1	2186.3	2140.3	2124.9
50°	3017.5	2614.0	2350.8	2267.5	2434.1	2357.4	2298.2	2258.7	2188.5	2155.6
52.5°	3267.4	2776.2	2565.7	2480.2	2653.4	2449.5	2342.0	2221.4	2118.4	2083.3
55°	3401.2	3043.8	2879.3	2679.7	2701.7	2475.8	2206.1	2054.8	1879.3	1870.6
57.5°	3559.1	3223.6	3144.6	2815.7	2620.5	2291.6	1923.2	1723.6	1535.0	1513.1
60°	3745.5	3508.7	3425.3	2793.8	2333.3	1925.4	1524.1	1267.5	1089.9	1074.5
62.5°	3953.8	3846.4	3598.6	2578.9	1853.0	1355.2	1006.5	791.6	627.2	618.4
65°	4282.8	4129.3	3690.7	2171.0	1225.8	868.4	668.8	513.1	414.5	410.1
67.5°	4488.9	4236.7	3484.5	1548.2	679.8	574.5	469.3	372.8	287.3	269.7
70°	4197.2	3888.0	2756.5	885.9	394.7	436.4	361.8	250.0	197.4	193.0
72.5°	3353.0	2885.9	1855.2	416.7	245.6	342.1	263.2	168.9	118.4	114.0
75°	2287.2	1815.7	1164.4	193.0	173.2	250.0	193.0	98.7	83.3	83.3
77.5°	1021.9	925.4	596.5	118.4	129.4	190.8	111.8	68.0	61.4	59.2
80°	311.4	326.7	243.4	81.1	96.5	144.7	68.0	46.1	37.3	35.1
82.5°	105.3	122.8	109.6	48.2	65.8	103.1	46.1	30.7	26.3	26.3
85°	50.4	61.4	54.8	30.7	35.1	50.4	37.3	24.1	15.4	15.4
87.5°	19.7	28.5	19.7	13.2	19.7	26.3	15.4	11.0	4.4	4.4
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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