

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: P677349

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

Issue Date: 04/25/2023



Test Information

Test Method: LM-79-08
Report Number: P677349
Test Lab: INNOVATION CENTER(G1)
Issue Date: 04/25/2023
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: INVUE
Catalog Number: CCW-SA-1B-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: (16) 4000K CCT, 80 CRI LEDs
Ballast/Driver: ELECTRONIC DRIVER

Summary

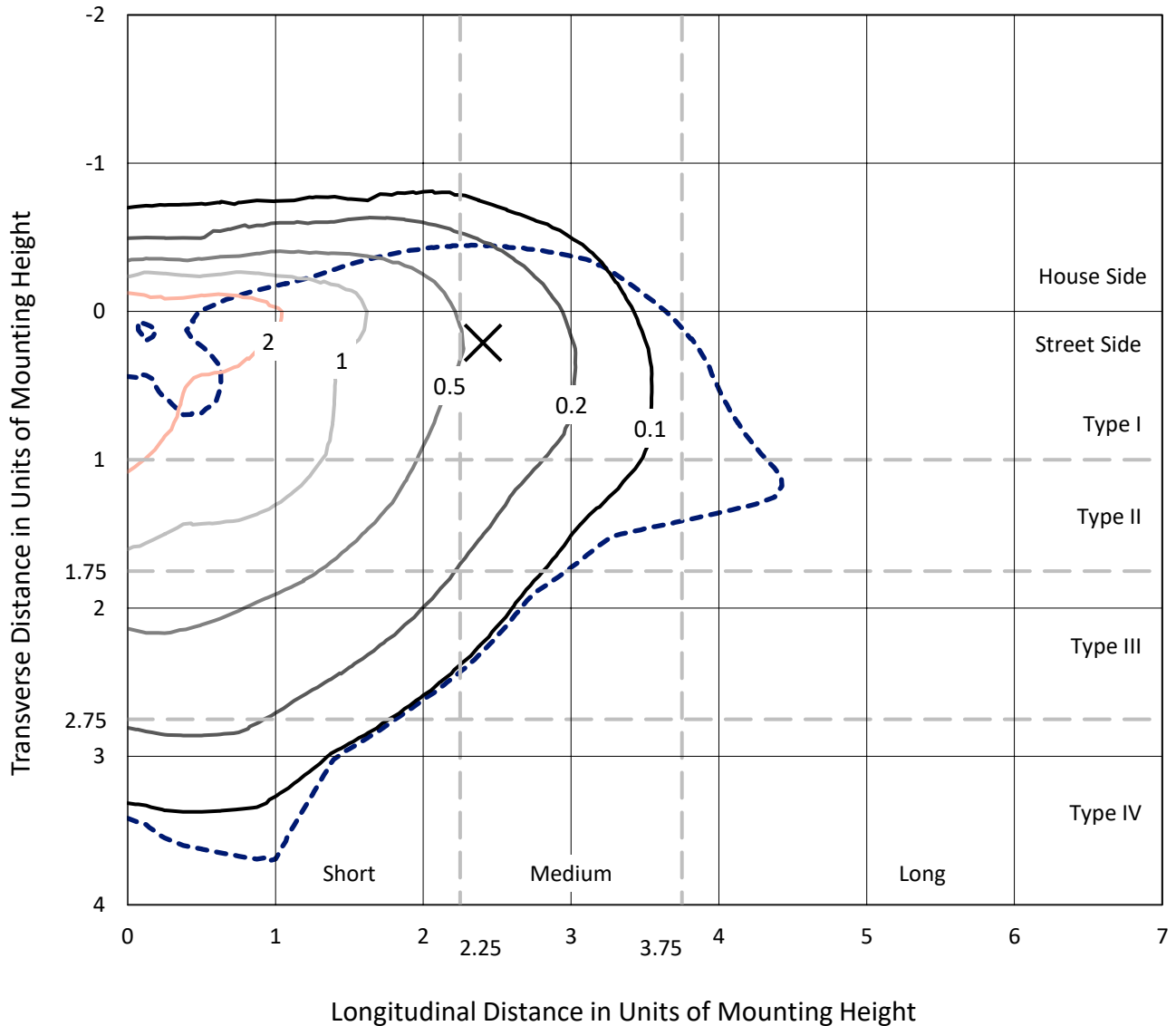
Lumens per Lamp: N/A
Luminaire Lumens: 2136.4 lumens
Efficiency: N/A
Efficacy: 89.0 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 0.5' x H: 0')
IES Classification: Type III - Medium
BUG Rating: B0 - U0 - G1

Input Watts (W): 24
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

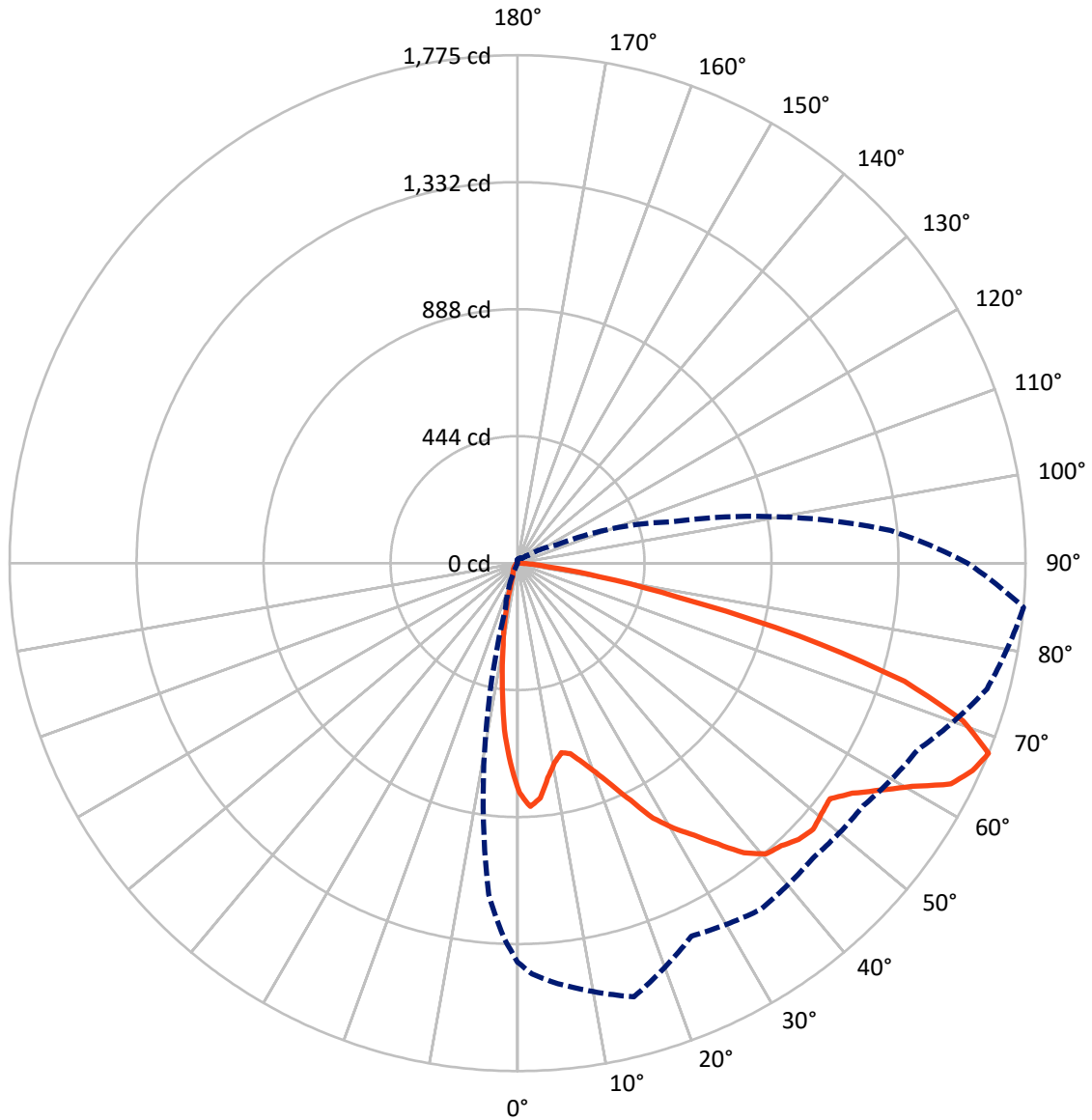
✕ Max cd
 - - - 1/2 Max cd



Based on 15 foot mounting height. Maximum calculated value = 4 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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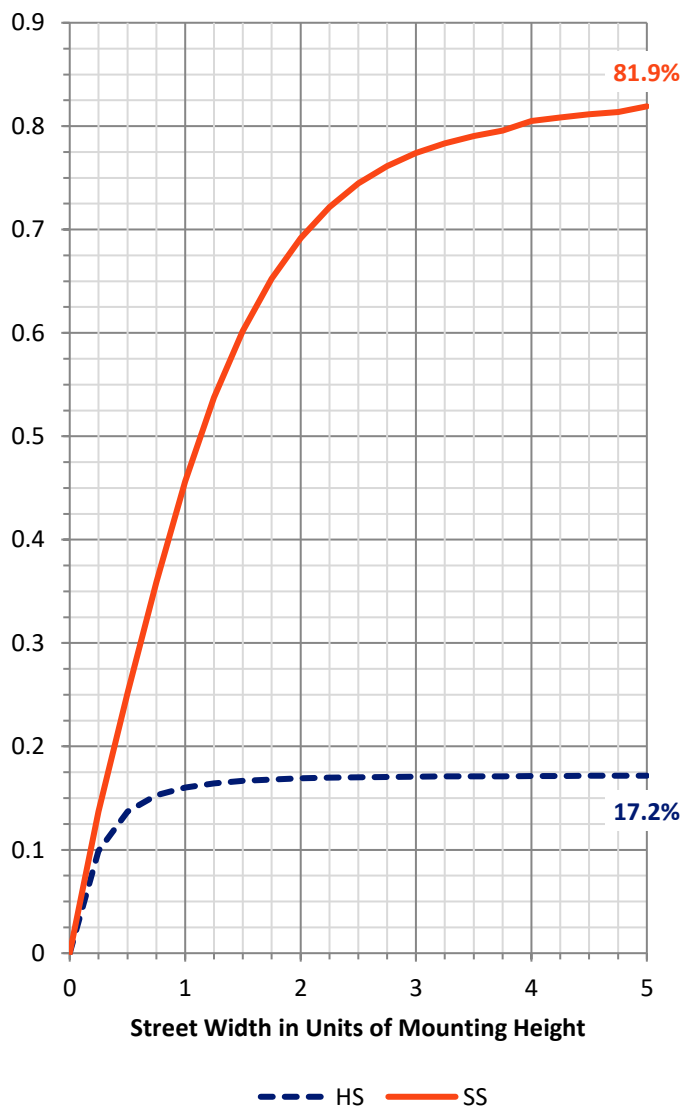
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	371.0	0.0	371.0
	% Fixture	17.4	0.0	17.4
Street Side	Lumens	1765.4	0.0	1765.4
	% Fixture	82.6	0.0	82.6
Total	Lumens	2136.4	0.0	2136.4
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	61.0	2.9
10°-20°	119.7	5.6
20°-30°	165.6	7.8
30°-40°	234.0	11.0
40°-50°	318.6	14.9
50°-60°	422.0	19.8
60°-70°	490.0	22.9
70°-80°	277.5	13.0
80°-90°	47.9	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°	2136.4	100.0
0°-180°	2136.4	100.0

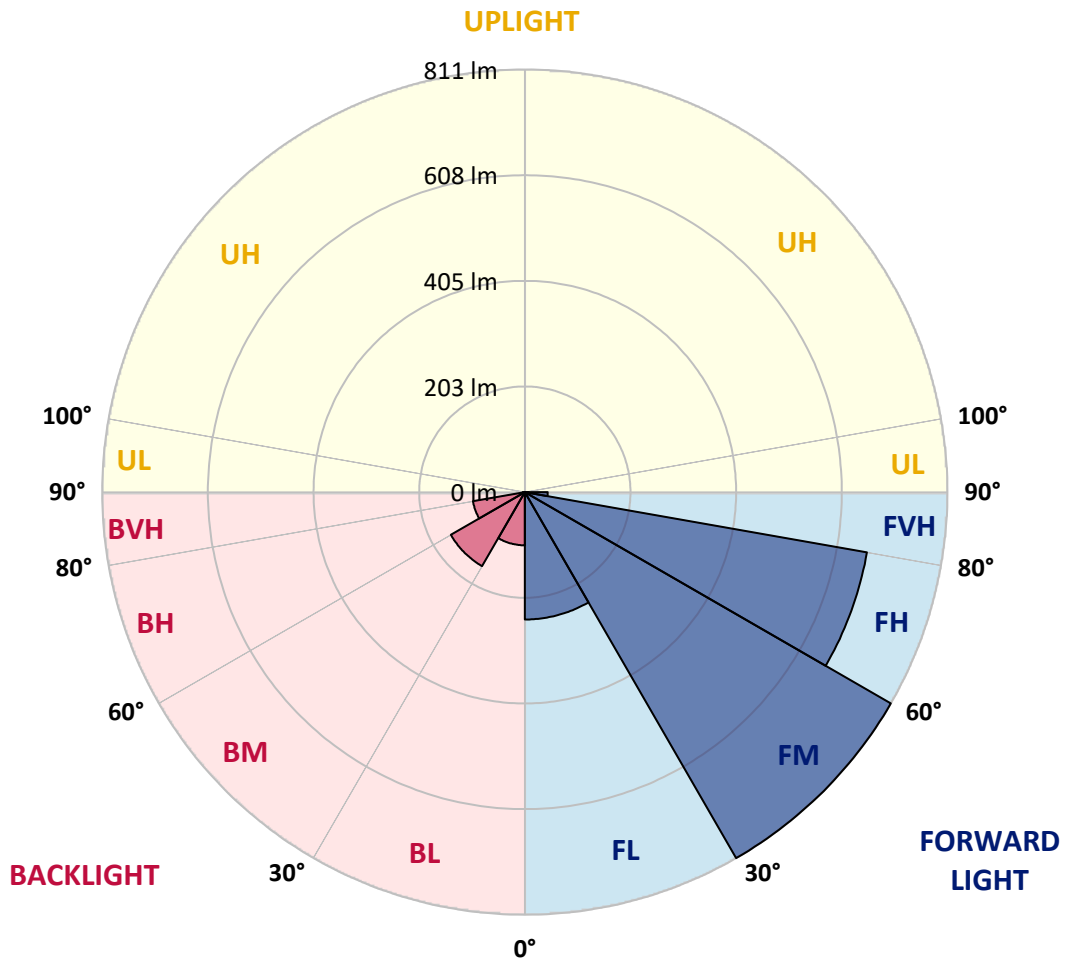


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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	244.3	11.4			
FM (30°-60°)	810.8	38.0			
FH (60°-80°)	666.4	31.2			G1/1800
FVH (80°-90°)	43.9	2.1			G1/100
BL (0°-30°)	102.0	4.8	B0/110		
BM (30°-60°)	163.9	7.7	B0/220		
BH (60°-80°)	101.0	4.7	B0/110		G0/110
BVH (80°-90°)	4.0	0.2			G0/10
UL (90°-100°)	0.0	0.0		U0/0	
UH (100°-180°)	0.0	0.0		U0/0	

BUG Rating: B0-U0-G1
 Type III Medium





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CANDELA DISTRIBUTION (FULL):

	0°	2°	5°	15°	25°	35°	45°	55°	65°	75°	85°
0°	803.3	803.3	803.3	803.3	803.3	803.3	803.3	803.3	803.3	803.3	803.3
2.5°	834.6	852.3	852.9	860.9	868.9	868.9	887.7	883.1	866.6	863.7	851.8
5°	840.9	847.2	851.8	892.3	926.5	923.1	933.3	926.5	894.5	853.5	825.5
7.5°	786.7	793.6	811.8	880.9	927.1	942.5	961.9	919.1	885.4	811.3	757.6
10°	714.8	728.0	761.6	840.3	897.4	946.5	946.5	912.2	847.2	774.7	709.1
12.5°	674.9	701.1	719.4	799.3	873.4	907.1	906.0	887.7	845.5	754.2	680.0
15°	681.7	689.2	728.0	790.1	839.2	837.5	858.0	852.3	822.7	772.5	690.9
17.5°	713.1	724.5	758.2	790.1	813.5	806.7	806.1	833.5	835.2	803.3	731.4
20°	764.5	798.1	814.1	823.8	795.3	766.2	762.8	801.0	830.6	842.6	779.9
22.5°	846.6	868.9	901.4	851.8	777.6	741.1	734.2	776.5	836.4	889.4	842.6
25°	927.1	944.2	975.6	911.7	797.6	735.9	724.0	760.5	858.0	954.4	918.5
27.5°	1012.1	1026.9	1030.3	955.6	808.4	725.7	711.4	760.5	876.3	988.7	1009.2
30°	1064.0	1081.7	1085.1	994.4	826.1	734.2	727.4	763.9	888.8	1017.8	1074.3
32.5°	1122.2	1126.7	1123.9	1001.2	845.5	759.3	730.8	786.7	903.1	1052.6	1133.6
35°	1191.8	1199.8	1170.7	1032.6	888.8	775.3	765.0	814.7	927.6	1068.5	1205.5
37.5°	1244.8	1269.9	1204.3	1044.6	897.4	809.0	810.7	872.9	944.7	1087.9	1284.8
40°	1344.7	1302.5	1261.4	1085.7	929.9	866.0	856.9	932.8	1002.4	1100.5	1336.7
42.5°	1399.4	1377.2	1283.6	1089.7	980.1	944.7	947.0	1000.7	1032.6	1135.9	1350.9
45°	1413.1	1389.7	1313.9	1092.5	1029.8	1037.7	1077.1	1087.4	1077.1	1159.3	1377.8
47.5°	1447.9	1397.2	1310.4	1130.7	1110.2	1141.0	1191.2	1213.5	1137.6	1150.7	1390.3
50°	1441.1	1412.0	1303.0	1146.7	1208.3	1289.9	1323.6	1314.4	1204.9	1133.0	1376.6
52.5°	1412.6	1381.2	1325.8	1190.1	1300.2	1398.9	1445.6	1422.8	1264.8	1172.9	1367.5
55°	1454.2	1430.2	1355.5	1248.8	1369.2	1494.7	1527.8	1510.7	1338.4	1210.0	1419.4
57.5°	1499.3	1494.1	1435.9	1317.9	1450.8	1593.4	1593.4	1572.3	1402.3	1263.7	1496.4
60°	1564.3	1575.7	1495.3	1363.5	1478.7	1587.7	1670.4	1645.9	1466.8	1357.8	1583.7
62.5°	1543.2	1579.7	1571.7	1461.6	1510.7	1615.7	1660.7	1679.0	1546.6	1472.5	1700.1
65°	1475.3	1514.1	1571.2	1526.1	1486.7	1547.8	1570.6	1625.9	1586.6	1580.3	1748.0
67.5°	1394.3	1436.5	1471.9	1569.4	1438.2	1478.7	1458.8	1476.5	1543.2	1698.4	1775.4
70°	1217.4	1258.0	1313.9	1473.0	1309.9	1273.4	1268.2	1259.7	1363.5	1656.2	1651.0
72.5°	1001.2	1020.1	1112.5	1197.5	969.3	962.4	970.4	960.7	1081.1	1499.3	1414.3
75°	749.6	768.5	821.0	919.6	660.1	620.7	666.3	711.4	825.5	1163.8	1016.1
77.5°	563.7	587.6	620.7	688.0	484.4	422.7	429.0	471.8	596.7	932.2	569.4
80°	365.7	362.8	426.7	473.5	364.5	376.0	360.0	391.4	432.4	498.6	291.0
82.5°	211.1	213.9	240.8	271.6	253.9	290.4	209.4	349.7	308.6	203.1	108.4
85°	118.7	123.8	148.3	188.3	159.2	106.7	87.3	173.4	194.0	83.3	52.5
87.5°	12.0	10.3	20.0	71.3	43.4	17.7	26.2	41.6	46.8	31.4	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):

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	803.3	803.3	803.3	803.3	803.3	803.3	803.3	803.3	803.3	803.3	803.3
2.5°	834.6	834.6	820.4	796.4	786.7	769.6	746.2	753.6	745.6	716.5	709.1
5°	800.4	773.0	743.4	706.9	685.7	642.4	628.7	604.2	608.2	583.6	584.8
7.5°	729.1	707.4	657.2	609.3	567.6	530.0	476.9	457.0	437.6	427.9	439.3
10°	687.5	646.9	578.5	515.7	460.4	426.7	391.4	364.0	338.9	320.1	316.1
12.5°	657.2	621.3	538.6	462.1	418.7	391.4	358.8	321.2	296.7	264.1	254.4
15°	648.1	604.2	516.9	441.0	398.8	353.7	316.6	279.5	247.6	213.4	201.4
17.5°	679.5	628.7	516.3	423.9	364.5	316.1	264.7	223.1	190.5	159.2	151.8
20°	732.5	654.9	532.8	413.6	332.0	267.0	208.8	167.2	130.6	110.1	105.0
22.5°	793.0	699.4	534.6	386.2	299.5	217.9	152.3	110.1	89.6	79.9	77.0
25°	867.2	770.7	555.1	364.0	261.3	165.4	108.4	84.4	72.5	66.7	65.6
27.5°	928.2	820.4	577.3	340.6	223.6	122.7	85.0	69.0	62.8	57.1	56.5
30°	991.5	877.4	583.6	326.3	191.1	101.0	73.0	61.0	54.2	51.3	50.8
32.5°	1046.9	939.6	603.6	302.9	160.3	89.0	66.2	54.8	50.2	45.6	45.1
35°	1118.2	975.6	613.3	290.4	148.9	80.4	60.5	50.2	43.4	40.5	39.4
37.5°	1194.6	1010.4	619.6	280.7	139.2	75.3	57.1	47.4	41.1	37.1	35.9
40°	1265.9	1059.4	610.4	268.7	131.8	69.0	54.8	43.9	38.2	34.2	32.5
42.5°	1320.7	1107.3	607.6	257.3	123.8	66.7	51.9	42.2	35.9	31.4	30.8
45°	1351.5	1139.9	587.6	248.2	117.5	67.9	50.8	39.9	34.2	30.2	28.0
47.5°	1344.1	1165.0	592.8	245.3	109.0	63.3	50.2	38.2	31.4	28.0	26.2
50°	1385.2	1215.7	584.2	236.2	102.7	57.1	54.8	38.2	30.8	26.8	25.1
52.5°	1392.0	1261.9	602.4	219.6	93.0	52.5	54.2	37.7	29.7	25.7	23.4
55°	1449.1	1315.6	637.8	210.5	85.0	45.6	49.6	36.5	26.8	23.4	22.2
57.5°	1526.7	1426.8	660.6	202.0	74.2	39.9	41.6	35.9	24.5	21.7	20.0
60°	1601.4	1471.3	662.4	186.6	63.9	35.9	32.5	35.9	22.8	19.4	17.7
62.5°	1657.3	1471.3	650.9	173.4	55.9	31.9	28.5	34.2	20.5	17.1	16.0
65°	1627.1	1432.0	621.3	162.6	50.8	28.0	24.5	26.2	18.3	14.8	13.7
67.5°	1572.9	1309.3	555.7	149.5	50.2	24.5	21.1	19.4	16.0	13.1	12.0
70°	1486.2	1143.9	462.7	134.6	49.1	22.2	18.8	16.5	14.3	11.4	10.3
72.5°	1197.5	944.7	380.0	126.1	47.9	19.4	16.0	14.3	12.0	9.7	8.6
75°	829.5	603.6	292.7	107.8	46.8	17.7	14.8	12.6	10.3	8.0	7.4
77.5°	497.5	403.3	188.8	81.0	30.8	14.3	12.6	9.7	8.6	6.8	6.3
80°	232.8	190.5	76.4	31.4	14.8	10.3	8.6	7.4	6.8	5.7	5.1
82.5°	91.3	80.4	37.1	18.3	12.0	8.0	6.8	6.3	5.7	4.6	4.0
85°	49.1	43.4	17.7	12.6	8.6	5.7	5.7	5.1	4.6	4.0	3.4
87.5°	10.8	8.0	7.4	7.4	6.3	4.6	4.6	4.0	3.4	2.9	2.3
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°	803.3	803.3	803.3	803.3	803.3	803.3	803.3	803.3	803.3	803.3	803.3
2.5°	705.1	713.7	700.0	708.6	696.6	705.7	706.9	698.3	700.6	712.0	717.1
5°	600.7	595.0	582.5	578.5	579.1	571.6	574.5	578.5	584.8	588.2	598.5
7.5°	433.0	446.1	445.6	455.3	455.8	454.7	446.7	429.6	435.3	430.7	436.4
10°	309.8	315.5	326.3	332.6	344.0	337.7	319.5	312.6	309.2	308.6	314.3
12.5°	247.6	233.9	232.8	235.0	240.8	233.3	224.2	216.2	220.2	228.2	234.5
15°	191.7	180.3	165.4	163.2	164.3	160.9	151.2	140.9	143.8	151.8	156.3
17.5°	147.2	134.1	123.8	117.0	114.7	102.7	88.4	79.9	77.6	77.0	81.0
20°	99.3	97.0	95.3	86.7	86.7	69.6	57.6	51.3	51.3	52.5	53.1
22.5°	74.2	71.3	71.9	70.2	65.6	51.9	45.6	43.9	43.9	45.1	45.1
25°	64.5	60.5	59.3	58.8	54.2	44.5	39.9	38.2	38.2	39.4	39.4
27.5°	54.8	53.6	51.9	49.6	45.6	38.2	35.4	33.7	34.2	34.8	34.2
30°	50.2	47.4	45.1	45.1	40.5	34.2	31.9	30.8	29.7	30.8	31.4
32.5°	44.5	42.8	41.6	39.9	34.8	30.2	28.0	26.8	26.2	26.2	26.8
35°	38.2	38.2	37.1	34.8	30.2	27.4	24.5	23.4	22.8	23.4	23.4
37.5°	34.2	32.5	33.1	30.8	26.8	24.0	21.1	20.0	20.0	19.4	20.0
40°	31.9	29.1	27.4	26.2	24.0	20.5	18.3	17.1	16.5	16.5	16.5
42.5°	28.5	26.2	22.8	22.2	21.7	17.7	14.8	14.3	13.7	13.1	13.1
45°	26.8	23.4	20.5	17.7	17.7	14.8	12.6	11.4	10.8	10.3	10.8
47.5°	24.5	21.1	17.7	14.8	14.3	12.0	9.7	8.6	8.0	8.0	8.0
50°	23.4	18.8	15.4	12.6	10.8	9.7	7.4	6.3	5.7	5.7	5.7
52.5°	21.7	17.7	13.7	10.8	8.6	7.4	5.7	4.6	4.0	4.0	4.0
55°	19.4	16.0	12.0	9.1	7.4	5.7	4.0	2.9	2.3	2.3	2.3
57.5°	18.3	14.3	10.3	8.0	5.7	4.0	2.3	1.7	1.7	1.1	1.7
60°	16.5	12.6	8.6	6.3	4.6	2.9	1.7	0.6	0.6	0.6	0.6
62.5°	14.3	10.8	7.4	5.1	3.4	1.7	0.6	0.0	0.0	0.0	0.0
65°	12.0	8.6	5.7	4.0	2.3	0.6	0.0	0.0	0.0	0.0	0.0
67.5°	10.3	7.4	4.6	2.9	1.7	0.0	0.0	0.0	0.0	0.0	0.0
70°	9.1	6.3	3.4	2.3	0.6	0.0	0.0	0.0	0.0	0.0	0.0
72.5°	7.4	5.1	2.9	1.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0
75°	6.3	4.0	1.7	0.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0
77.5°	5.1	2.9	1.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
80°	4.0	2.3	0.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
82.5°	3.4	1.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
85°	2.3	0.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
87.5°	1.7	0.6	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°	803.3	803.3	803.3	803.3	803.3	803.3	803.3	803.3	803.3	803.3
2.5°	724.5	721.1	738.2	766.2	780.4	808.4	815.2	832.9	828.4	834.6
5°	599.6	606.4	631.5	672.6	687.5	728.0	766.2	804.4	828.9	840.9
7.5°	445.0	467.8	498.6	536.3	574.5	627.6	692.6	737.1	761.0	786.7
10°	331.5	356.0	391.4	428.4	490.6	550.0	615.0	670.3	690.9	714.8
12.5°	260.7	298.9	340.0	380.0	417.0	473.5	554.0	634.4	656.6	674.9
15°	181.4	228.2	287.0	338.9	390.8	439.9	523.1	620.7	650.9	681.7
17.5°	100.4	137.5	204.8	277.8	354.3	429.6	533.4	645.8	691.4	713.1
20°	58.2	73.0	120.9	207.7	308.6	407.3	538.6	693.2	753.6	764.5
22.5°	47.9	53.1	68.5	130.1	252.7	393.1	564.8	759.3	821.0	846.6
25°	41.1	45.1	53.1	78.2	191.1	362.8	581.3	842.1	899.1	927.1
27.5°	36.5	40.5	46.8	57.6	130.1	321.2	608.7	916.8	973.8	1012.1
30°	31.9	35.4	41.6	49.1	90.1	274.4	632.1	971.6	1052.0	1064.0
32.5°	28.5	31.4	35.9	42.2	66.7	208.2	650.9	1028.0	1095.9	1122.2
35°	24.5	28.0	30.8	35.9	50.8	156.9	639.5	1072.0	1160.4	1191.8
37.5°	21.7	24.0	26.8	30.2	42.8	122.7	616.1	1124.5	1215.7	1244.8
40°	18.3	20.0	23.4	26.8	38.8	94.7	589.3	1187.8	1293.3	1344.7
42.5°	15.4	17.1	19.4	25.1	31.9	70.2	535.1	1236.8	1356.1	1399.4
45°	12.0	14.3	17.7	25.1	25.7	51.9	479.2	1273.4	1391.5	1413.1
47.5°	9.1	11.4	17.1	21.7	20.5	35.9	413.0	1315.0	1428.0	1447.9
50°	6.8	9.1	19.4	18.8	17.1	27.4	371.4	1344.1	1430.2	1441.1
52.5°	4.6	6.8	16.0	14.3	14.3	24.0	360.0	1343.0	1435.9	1412.6
55°	3.4	5.1	9.1	10.3	12.6	21.1	349.7	1385.7	1437.7	1454.2
57.5°	2.3	4.0	6.3	8.0	10.8	18.3	328.6	1437.1	1490.7	1499.3
60°	1.1	2.9	4.6	6.3	9.1	16.0	298.9	1474.7	1555.2	1564.3
62.5°	0.6	1.7	3.4	5.1	7.4	12.6	268.1	1414.8	1527.2	1543.2
65°	0.0	1.1	2.3	3.4	4.6	9.1	217.9	1277.4	1416.6	1475.3
67.5°	0.0	0.0	1.1	2.3	2.9	6.8	164.3	1162.1	1314.4	1394.3
70°	0.0	0.0	0.6	0.6	1.7	5.1	105.0	962.4	1173.5	1217.4
72.5°	0.0	0.0	0.0	0.0	0.6	3.4	61.0	714.8	919.6	1001.2
75°	0.0	0.0	0.0	0.0	0.0	2.9	30.8	459.8	640.1	749.6
77.5°	0.0	0.0	0.0	0.0	0.0	2.3	16.5	296.7	471.8	563.7
80°	0.0	0.0	0.0	0.0	0.0	0.6	9.7	172.3	301.8	365.7
82.5°	0.0	0.0	0.0	0.0	0.0	0.0	4.0	84.4	180.3	211.1
85°	0.0	0.0	0.0	0.0	0.0	0.0	1.1	45.1	90.1	118.7
87.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.7	6.3	12.0
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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