

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: P677360

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

Issue Date: 04/25/2023



Test Information

Test Method: LM-79-08
Report Number: P677360
Test Lab: INNOVATION CENTER(G1)
Issue Date: 04/25/2023
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: INVUE
Catalog Number: CCW-SA-1B-850-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) 5000K CCT, 80 CRI LEDs
Ballast/Driver: ELECTRONIC DRIVER

Summary

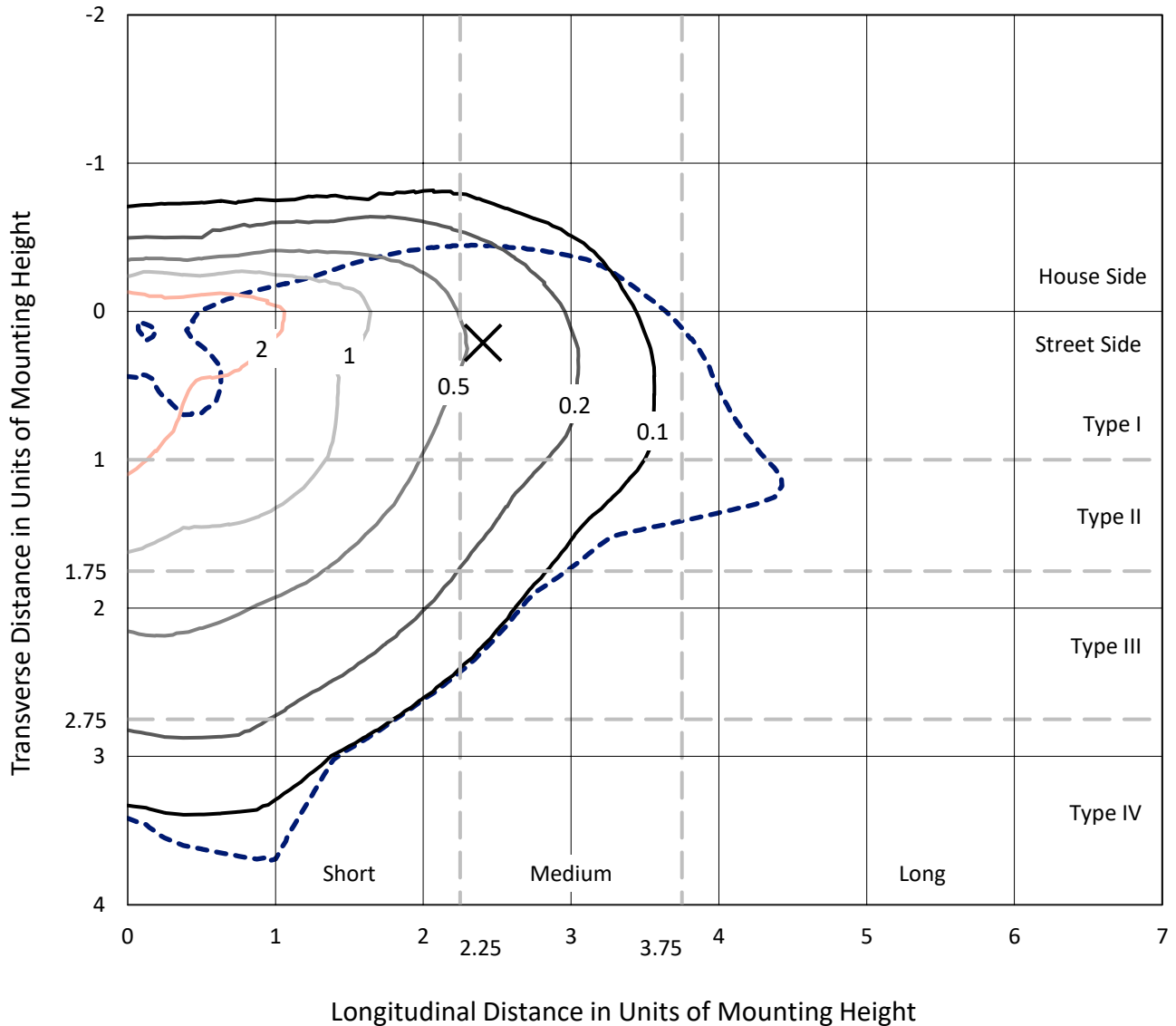
Lumens per Lamp: N/A
Luminaire Lumens: 2186.5 lumens
Efficiency: N/A
Efficacy: 91.1 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 0.5' x H: 0')
IES Classification: Type III - Medium
BUG Rating: B0 - U0 - G1

Input Watts (W): 24
Input Voltage (V): 120
Input Current (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

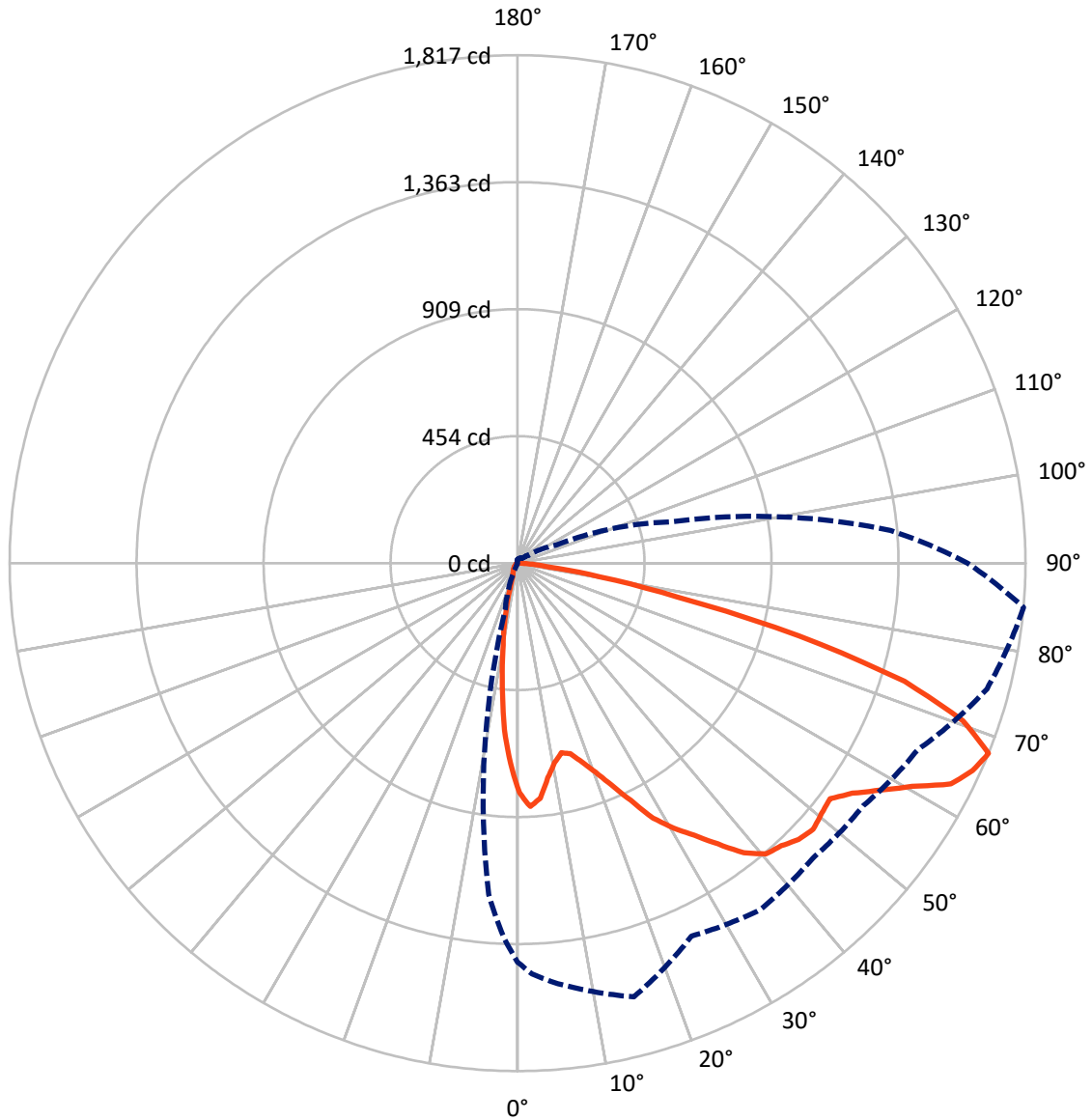
× Max cd
 - - - 1/2 Max cd



Based on 15 foot mounting height. Maximum calculated value = 4.1 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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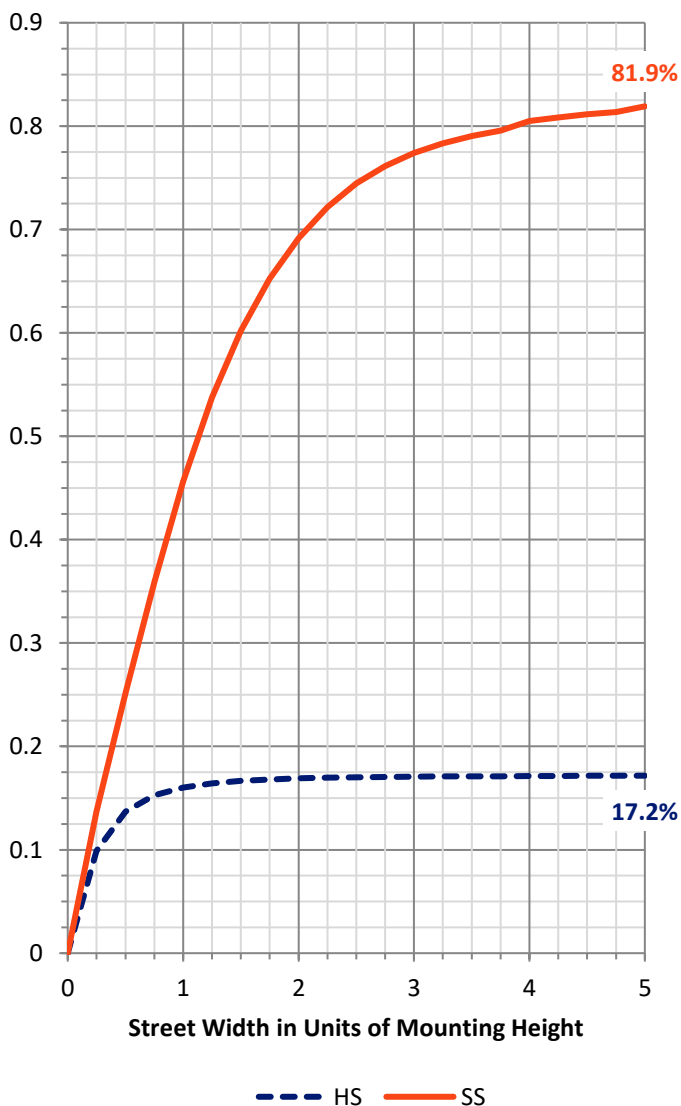
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	379.6	0.0	379.6
	% Fixture	17.4	0.0	17.4
Street Side	Lumens	1806.8	0.0	1806.8
	% Fixture	82.6	0.0	82.6
Total	Lumens	2186.5	0.0	2186.5
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	62.5	2.9
10°-20°	122.5	5.6
20°-30°	169.5	7.8
30°-40°	239.5	11.0
40°-50°	326.1	14.9
50°-60°	431.9	19.8
60°-70°	501.5	22.9
70°-80°	284.0	13.0
80°-90°	49.1	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°	2186.5	100.0
0°-180°	2186.5	100.0

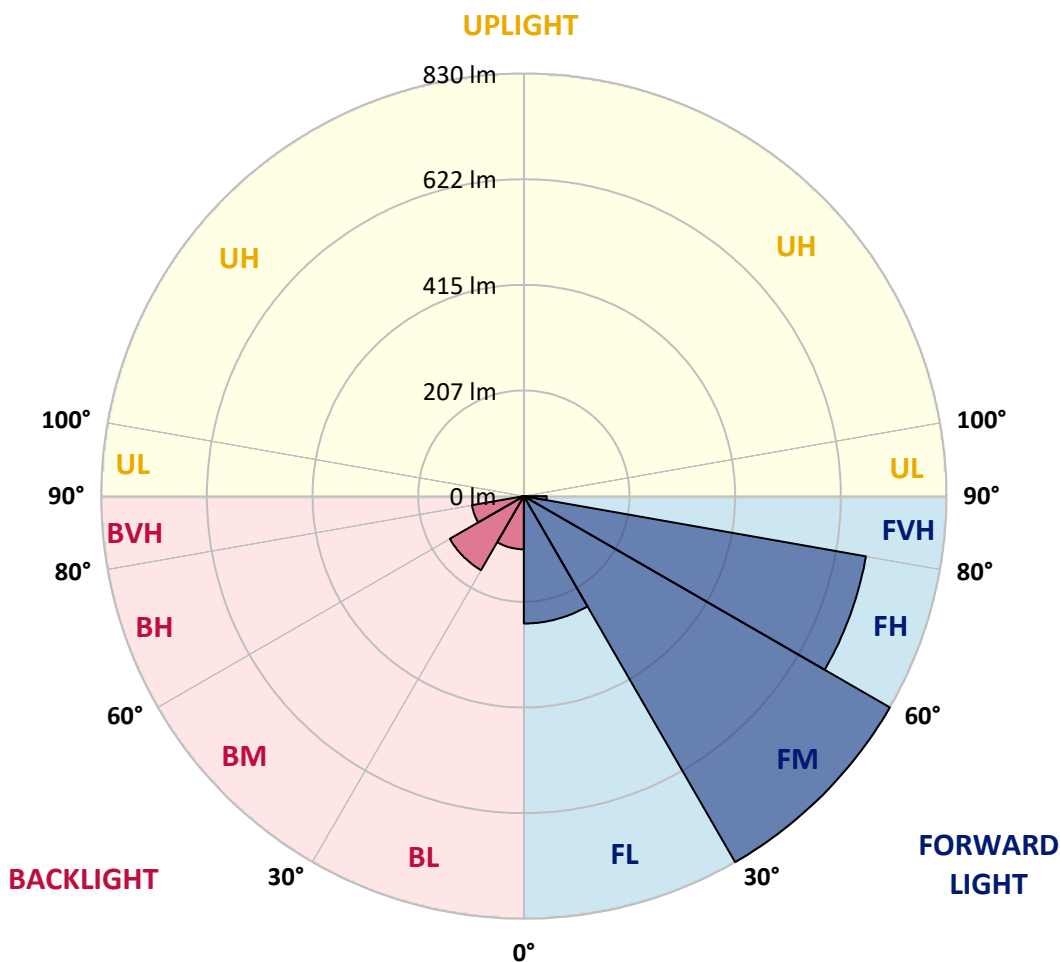


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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	250.0	11.4			
FM (30°-60°)	829.8	38.0			
FH (60°-80°)	682.1	31.2			G1/1800
FVH (80°-90°)	44.9	2.1			G1/100
BL (0°-30°)	104.4	4.8	B0/110		
BM (30°-60°)	167.7	7.7	B0/220		
BH (60°-80°)	103.4	4.7	B0/110		G0/110
BVH (80°-90°)	4.1	0.2			G0/10
UL (90°-100°)	0.0	0.0		U0/0	
UH (100°-180°)	0.0	0.0		U0/0	

BUG Rating: 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°	822.1	822.1	822.1	822.1	822.1	822.1	822.1	822.1	822.1	822.1	822.1
2.5°	854.2	872.3	872.9	881.1	889.3	889.3	908.5	903.9	886.9	884.0	871.7
5°	860.6	867.1	871.7	913.2	948.2	944.7	955.2	948.2	915.5	873.5	844.9
7.5°	805.2	812.2	830.9	901.5	948.8	964.6	984.4	940.6	906.2	830.3	775.4
10°	731.6	745.0	779.5	860.1	918.4	968.7	968.7	933.6	867.1	792.9	725.8
12.5°	690.7	717.6	736.3	818.0	893.9	928.4	927.2	908.5	865.3	771.9	696.0
15°	697.7	705.3	745.0	808.7	858.9	857.1	878.2	872.3	842.0	790.6	707.1
17.5°	729.9	741.5	776.0	808.7	832.6	825.6	825.0	853.1	854.8	822.1	748.5
20°	782.4	816.9	833.2	843.1	813.9	784.2	780.7	819.8	850.1	862.4	798.2
22.5°	866.5	889.3	922.5	871.7	795.8	758.5	751.5	794.7	856.0	910.3	862.4
25°	948.8	966.3	998.4	933.0	816.3	753.2	740.9	778.3	878.2	976.8	940.1
27.5°	1035.8	1051.0	1054.5	978.0	827.4	742.7	728.1	778.3	896.8	1011.9	1032.9
30°	1088.9	1107.0	1110.5	1017.7	845.5	751.5	744.5	781.8	909.7	1041.6	1099.5
32.5°	1148.5	1153.2	1150.2	1024.7	865.3	777.1	748.0	805.2	924.3	1077.3	1160.2
35°	1219.7	1227.9	1198.1	1056.8	909.7	793.5	783.0	833.8	949.4	1093.6	1233.7
37.5°	1274.0	1299.7	1232.6	1069.1	918.4	827.9	829.7	893.3	966.9	1113.5	1314.9
40°	1376.2	1333.0	1291.0	1111.1	951.7	886.3	877.0	954.6	1025.9	1126.3	1368.0
42.5°	1432.3	1409.5	1313.7	1115.2	1003.1	966.9	969.2	1024.1	1056.8	1162.5	1382.6
45°	1446.3	1422.3	1344.7	1118.1	1053.9	1062.1	1102.4	1112.9	1102.4	1186.5	1410.1
47.5°	1481.9	1429.9	1341.2	1157.3	1136.2	1167.8	1219.1	1241.9	1164.3	1177.7	1422.9
50°	1474.9	1445.1	1333.6	1173.6	1236.7	1320.2	1354.6	1345.3	1233.2	1159.6	1408.9
52.5°	1445.7	1413.6	1356.9	1218.0	1330.7	1431.7	1479.6	1456.2	1294.5	1200.5	1399.6
55°	1488.3	1463.8	1387.3	1278.1	1401.3	1529.8	1563.6	1546.1	1369.8	1238.4	1452.7
57.5°	1534.4	1529.2	1469.6	1348.8	1484.8	1630.8	1630.8	1609.2	1435.2	1293.3	1531.5
60°	1601.0	1612.7	1530.4	1395.5	1513.4	1624.9	1709.6	1684.5	1501.2	1389.6	1620.9
62.5°	1579.4	1616.8	1608.6	1495.9	1546.1	1653.6	1699.7	1718.4	1582.9	1507.0	1740.0
65°	1509.9	1549.6	1608.0	1561.9	1521.6	1584.1	1607.4	1664.1	1623.8	1617.4	1789.0
67.5°	1427.0	1470.2	1506.4	1606.3	1472.0	1513.4	1493.0	1511.1	1579.4	1738.2	1817.0
70°	1246.0	1287.5	1344.7	1507.6	1340.6	1303.2	1298.0	1289.2	1395.5	1695.0	1689.8
72.5°	1024.7	1044.0	1138.6	1225.6	992.0	985.0	993.2	983.3	1106.5	1534.4	1447.4
75°	767.2	786.5	840.2	941.2	675.6	635.3	682.0	728.1	844.9	1191.1	1039.9
77.5°	576.9	601.4	635.3	704.2	495.7	432.7	439.1	482.9	610.7	954.1	582.7
80°	374.3	371.3	436.7	484.6	373.1	384.8	368.4	400.5	442.6	510.3	297.8
82.5°	216.0	219.0	246.4	277.9	259.8	297.2	214.3	357.9	315.9	207.9	110.9
85°	121.4	126.7	151.8	192.7	162.9	109.2	89.3	177.5	198.5	85.2	53.7
87.5°	12.3	10.5	20.4	73.0	44.4	18.1	26.9	42.6	47.9	32.1	15.8
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°	822.1	822.1	822.1	822.1	822.1	822.1	822.1	822.1	822.1	822.1	822.1
2.5°	854.2	854.2	839.6	815.1	805.2	787.7	763.7	771.3	763.1	733.4	725.8
5°	819.2	791.2	760.8	723.4	701.8	657.5	643.4	618.3	622.4	597.3	598.5
7.5°	746.2	724.0	672.6	623.6	581.0	542.4	488.1	467.7	447.8	437.9	449.6
10°	703.6	662.1	592.1	527.8	471.2	436.7	400.5	372.5	346.8	327.6	323.5
12.5°	672.6	635.8	551.2	472.9	428.6	400.5	367.3	328.7	303.6	270.3	260.4
15°	663.3	618.3	529.0	451.3	408.1	362.0	324.1	286.1	253.4	218.4	206.1
17.5°	695.4	643.4	528.4	433.8	373.1	323.5	270.9	228.3	195.0	162.9	155.3
20°	749.7	670.3	545.3	423.3	339.8	273.3	213.7	171.1	133.7	112.7	107.4
22.5°	811.6	715.8	547.1	395.3	306.5	223.0	155.9	112.7	91.7	81.7	78.8
25°	887.5	788.8	568.1	372.5	267.4	169.3	110.9	86.4	74.2	68.3	67.1
27.5°	950.0	839.6	590.9	348.6	228.9	125.5	87.0	70.6	64.2	58.4	57.8
30°	1014.8	898.0	597.3	334.0	195.6	103.3	74.7	62.5	55.5	52.5	52.0
32.5°	1071.4	961.7	617.7	310.0	164.1	91.1	67.7	56.1	51.4	46.7	46.1
35°	1144.4	998.4	627.7	297.2	152.4	82.3	61.9	51.4	44.4	41.5	40.3
37.5°	1222.7	1034.1	634.1	287.3	142.5	77.1	58.4	48.5	42.0	38.0	36.8
40°	1295.6	1084.3	624.8	275.0	134.9	70.6	56.1	45.0	39.1	35.0	33.3
42.5°	1351.7	1133.3	621.8	263.3	126.7	68.3	53.1	43.2	36.8	32.1	31.5
45°	1383.2	1166.6	601.4	254.0	120.3	69.5	52.0	40.9	35.0	30.9	28.6
47.5°	1375.6	1192.3	606.7	251.1	111.5	64.8	51.4	39.1	32.1	28.6	26.9
50°	1417.7	1244.3	597.9	241.7	105.1	58.4	56.1	39.1	31.5	27.4	25.7
52.5°	1424.7	1291.5	616.6	224.8	95.2	53.7	55.5	38.5	30.4	26.3	23.9
55°	1483.1	1346.4	652.8	215.5	87.0	46.7	50.8	37.4	27.4	23.9	22.8
57.5°	1562.5	1460.3	676.1	206.7	75.9	40.9	42.6	36.8	25.1	22.2	20.4
60°	1639.0	1505.8	677.9	190.9	65.4	36.8	33.3	36.8	23.4	19.9	18.1
62.5°	1696.2	1505.8	666.2	177.5	57.2	32.7	29.2	35.0	21.0	17.5	16.3
65°	1665.2	1465.5	635.8	166.4	52.0	28.6	25.1	26.9	18.7	15.2	14.0
67.5°	1609.8	1340.0	568.7	153.0	51.4	25.1	21.6	19.9	16.3	13.4	12.3
70°	1521.0	1170.7	473.5	137.8	50.2	22.8	19.3	16.9	14.6	11.7	10.5
72.5°	1225.6	966.9	388.9	129.0	49.0	19.9	16.3	14.6	12.3	9.9	8.8
75°	849.0	617.7	299.5	110.4	47.9	18.1	15.2	12.8	10.5	8.2	7.6
77.5°	509.1	412.8	193.3	82.9	31.5	14.6	12.8	9.9	8.8	7.0	6.4
80°	238.2	195.0	78.2	32.1	15.2	10.5	8.8	7.6	7.0	5.8	5.3
82.5°	93.4	82.3	38.0	18.7	12.3	8.2	7.0	6.4	5.8	4.7	4.1
85°	50.2	44.4	18.1	12.8	8.8	5.8	5.8	5.3	4.7	4.1	3.5
87.5°	11.1	8.2	7.6	7.6	6.4	4.7	4.7	4.1	3.5	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°	822.1	822.1	822.1	822.1	822.1	822.1	822.1	822.1	822.1	822.1	822.1
2.5°	721.7	730.4	716.4	725.2	712.9	722.3	723.4	714.7	717.0	728.7	733.9
5°	614.8	609.0	596.1	592.1	592.6	585.1	588.0	592.1	598.5	602.0	612.5
7.5°	443.2	456.6	456.0	465.9	466.5	465.4	457.2	439.7	445.5	440.8	446.7
10°	317.0	322.9	334.0	340.4	352.1	345.7	327.0	320.0	316.5	315.9	321.7
12.5°	253.4	239.4	238.2	240.6	246.4	238.8	229.5	221.3	225.4	233.6	240.0
15°	196.2	184.5	169.3	167.0	168.2	164.7	154.7	144.2	147.1	155.3	160.0
17.5°	150.6	137.2	126.7	119.7	117.4	105.1	90.5	81.7	79.4	78.8	82.9
20°	101.6	99.3	97.5	88.8	88.8	71.2	59.0	52.5	52.5	53.7	54.3
22.5°	75.9	73.0	73.6	71.8	67.1	53.1	46.7	45.0	45.0	46.1	46.1
25°	66.0	61.9	60.7	60.1	55.5	45.5	40.9	39.1	39.1	40.3	40.3
27.5°	56.1	54.9	53.1	50.8	46.7	39.1	36.2	34.4	35.0	35.6	35.0
30°	51.4	48.5	46.1	46.1	41.5	35.0	32.7	31.5	30.4	31.5	32.1
32.5°	45.5	43.8	42.6	40.9	35.6	30.9	28.6	27.4	26.9	26.9	27.4
35°	39.1	39.1	38.0	35.6	30.9	28.0	25.1	23.9	23.4	23.9	23.9
37.5°	35.0	33.3	33.9	31.5	27.4	24.5	21.6	20.4	20.4	19.9	20.4
40°	32.7	29.8	28.0	26.9	24.5	21.0	18.7	17.5	16.9	16.9	16.9
42.5°	29.2	26.9	23.4	22.8	22.2	18.1	15.2	14.6	14.0	13.4	13.4
45°	27.4	23.9	21.0	18.1	18.1	15.2	12.8	11.7	11.1	10.5	11.1
47.5°	25.1	21.6	18.1	15.2	14.6	12.3	9.9	8.8	8.2	8.2	8.2
50°	23.9	19.3	15.8	12.8	11.1	9.9	7.6	6.4	5.8	5.8	5.8
52.5°	22.2	18.1	14.0	11.1	8.8	7.6	5.8	4.7	4.1	4.1	4.1
55°	19.9	16.3	12.3	9.3	7.6	5.8	4.1	2.9	2.3	2.3	2.3
57.5°	18.7	14.6	10.5	8.2	5.8	4.1	2.3	1.8	1.8	1.2	1.8
60°	16.9	12.8	8.8	6.4	4.7	2.9	1.8	0.6	0.6	0.6	0.6
62.5°	14.6	11.1	7.6	5.3	3.5	1.8	0.6	0.0	0.0	0.0	0.0
65°	12.3	8.8	5.8	4.1	2.3	0.6	0.0	0.0	0.0	0.0	0.0
67.5°	10.5	7.6	4.7	2.9	1.8	0.0	0.0	0.0	0.0	0.0	0.0
70°	9.3	6.4	3.5	2.3	0.6	0.0	0.0	0.0	0.0	0.0	0.0
72.5°	7.6	5.3	2.9	1.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0
75°	6.4	4.1	1.8	0.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0
77.5°	5.3	2.9	1.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
80°	4.1	2.3	0.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
82.5°	3.5	1.8	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°	1.8	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°	822.1	822.1	822.1	822.1	822.1	822.1	822.1	822.1	822.1	822.1
2.5°	741.5	738.0	755.5	784.2	798.8	827.4	834.4	852.5	847.8	854.2
5°	613.7	620.7	646.4	688.4	703.6	745.0	784.2	823.3	848.4	860.6
7.5°	455.4	478.8	510.3	548.9	588.0	642.3	708.8	754.4	778.9	805.2
10°	339.2	364.3	400.5	438.5	502.1	562.9	629.4	686.1	707.1	731.6
12.5°	266.8	306.0	348.0	388.9	426.8	484.6	567.0	649.3	672.0	690.7
15°	185.7	233.6	293.7	346.8	400.0	450.2	535.4	635.3	666.2	697.7
17.5°	102.8	140.7	209.6	284.4	362.6	439.7	545.9	661.0	707.7	729.9
20°	59.6	74.7	123.8	212.5	315.9	416.9	551.2	709.4	771.3	782.4
22.5°	49.0	54.3	70.1	133.1	258.7	402.3	578.0	777.1	840.2	866.5
25°	42.0	46.1	54.3	80.0	195.6	371.3	595.0	861.8	920.2	948.8
27.5°	37.4	41.5	47.9	59.0	133.1	328.7	623.0	938.3	996.7	1035.8
30°	32.7	36.2	42.6	50.2	92.3	280.8	646.9	994.4	1076.7	1088.9
32.5°	29.2	32.1	36.8	43.2	68.3	213.1	666.2	1052.2	1121.6	1148.5
35°	25.1	28.6	31.5	36.8	52.0	160.6	654.5	1097.1	1187.6	1219.7
37.5°	22.2	24.5	27.4	30.9	43.8	125.5	630.6	1150.8	1244.3	1274.0
40°	18.7	20.4	23.9	27.4	39.7	96.9	603.2	1215.6	1323.7	1376.2
42.5°	15.8	17.5	19.9	25.7	32.7	71.8	547.7	1265.9	1387.9	1432.3
45°	12.3	14.6	18.1	25.7	26.3	53.1	490.5	1303.2	1424.1	1446.3
47.5°	9.3	11.7	17.5	22.2	21.0	36.8	422.7	1345.9	1461.5	1481.9
50°	7.0	9.3	19.9	19.3	17.5	28.0	380.1	1375.6	1463.8	1474.9
52.5°	4.7	7.0	16.3	14.6	14.6	24.5	368.4	1374.5	1469.6	1445.7
55°	3.5	5.3	9.3	10.5	12.8	21.6	357.9	1418.3	1471.4	1488.3
57.5°	2.3	4.1	6.4	8.2	11.1	18.7	336.3	1470.8	1525.7	1534.4
60°	1.2	2.9	4.7	6.4	9.3	16.3	306.0	1509.3	1591.7	1601.0
62.5°	0.6	1.8	3.5	5.3	7.6	12.8	274.4	1448.0	1563.1	1579.4
65°	0.0	1.2	2.3	3.5	4.7	9.3	223.0	1307.3	1449.8	1509.9
67.5°	0.0	0.0	1.2	2.3	2.9	7.0	168.2	1189.4	1345.3	1427.0
70°	0.0	0.0	0.6	0.6	1.8	5.3	107.4	985.0	1201.0	1246.0
72.5°	0.0	0.0	0.0	0.0	0.6	3.5	62.5	731.6	941.2	1024.7
75°	0.0	0.0	0.0	0.0	0.0	2.9	31.5	470.6	655.1	767.2
77.5°	0.0	0.0	0.0	0.0	0.0	2.3	16.9	303.6	482.9	576.9
80°	0.0	0.0	0.0	0.0	0.0	0.6	9.9	176.3	308.9	374.3
82.5°	0.0	0.0	0.0	0.0	0.0	0.0	4.1	86.4	184.5	216.0
85°	0.0	0.0	0.0	0.0	0.0	0.0	1.2	46.1	92.3	121.4
87.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.8	6.4	12.3
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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