

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: P676341

Luminaire Tested: **CCW-SA-1B-840-U-T2-HSS**

Issue Date: 04/25/2023



Test Information

Test Method: LM-79-08
Report Number: P676341
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-T2-HSS
Description: INVUE CLEAR CURVE Wall Pack MOUNT Light Square Luminaire @450mA w/
T2 distribution lens and House Side Shield
Light Source: (16) 4000K CCT, 80 CRI LEDs
Ballast/Driver: ELECTRONIC DRIVER

Summary

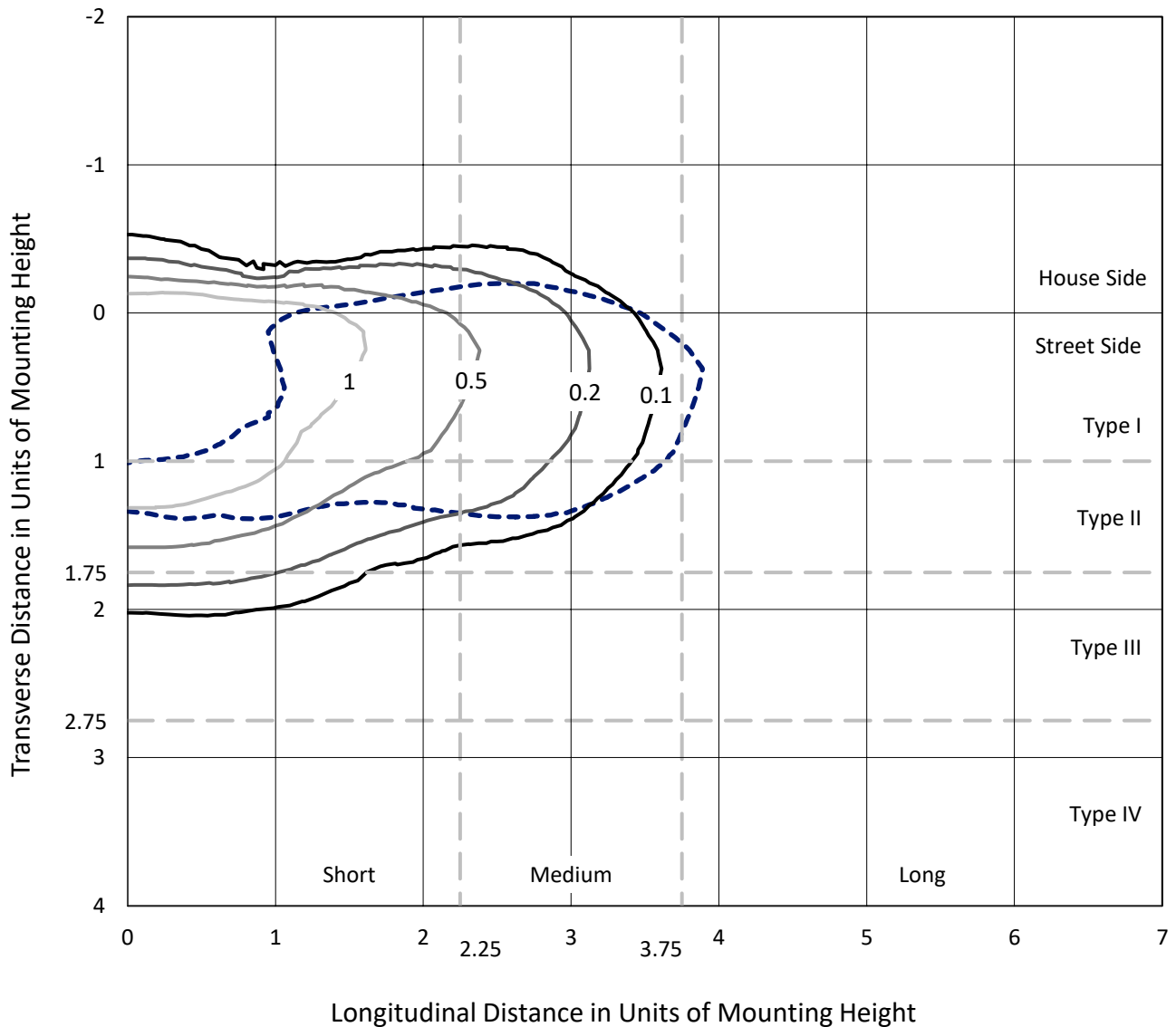
Lumens per Lamp: N/A
Luminaire Lumens: 2273.3 lumens
Efficiency: N/A
Efficacy: 94.7 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 0.5' x H: 0')
IES Classification: Type II - Short
BUG Rating: B0 - U0 - G1

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

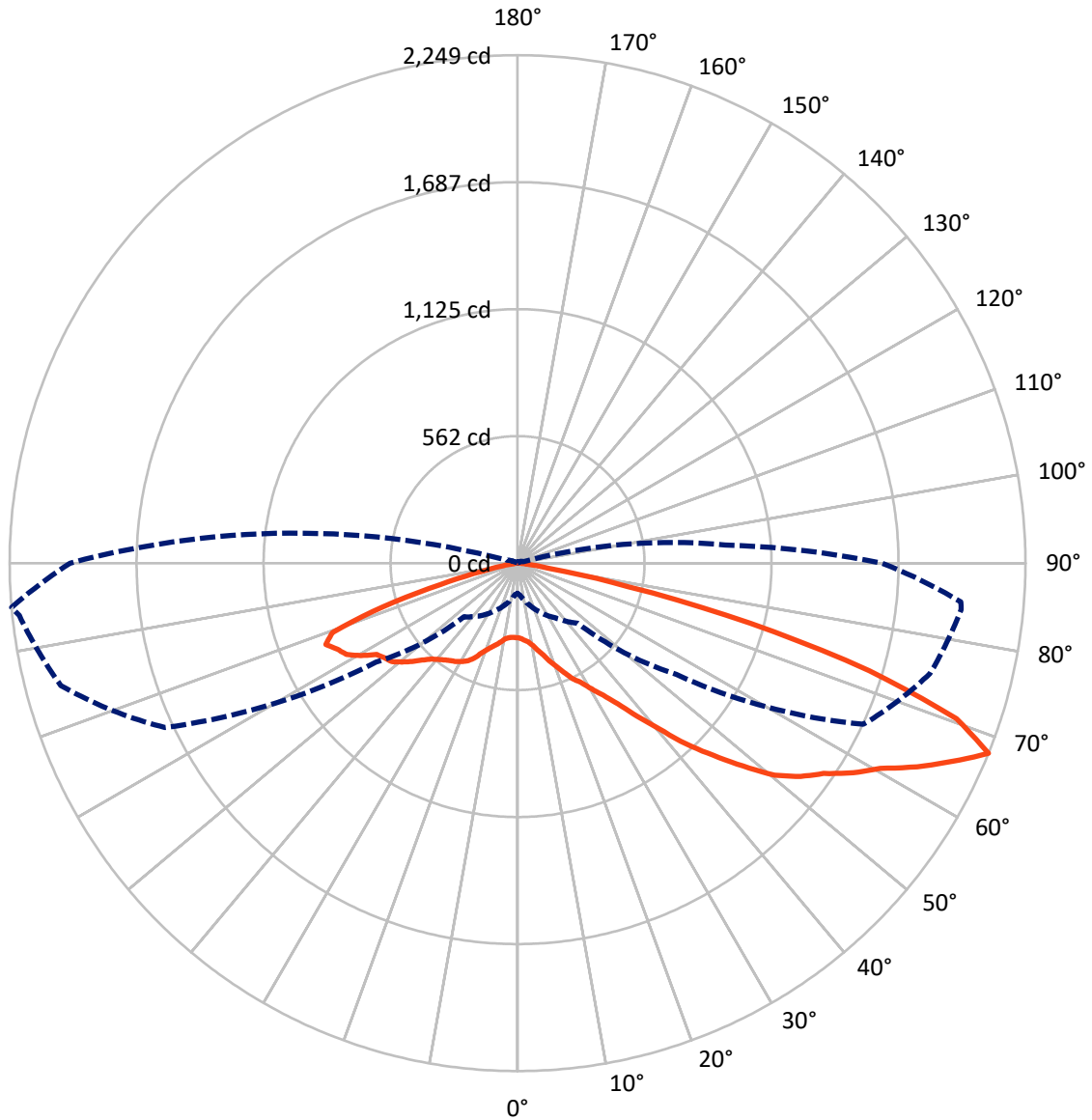
× Max cd
 - - - 1/2 Max cd



Based on 15 foot mounting height. Maximum calculated value = 1.7 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	323.0	0.0	323.0
	% Fixture	14.2	0.0	14.2
Street Side	Lumens	1950.3	0.0	1950.3
	% Fixture	85.8	0.0	85.8
Total	Lumens	2273.3	0.0	2273.3
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	30.1	1.3
10°-20°	81.1	3.6
20°-30°	134.6	5.9
30°-40°	231.6	10.2
40°-50°	416.2	18.3
50°-60°	592.5	26.1
60°-70°	540.1	23.8
70°-80°	230.0	10.1
80°-90°	17.1	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°	2273.3	100.0
0°-180°	2273.3	100.0



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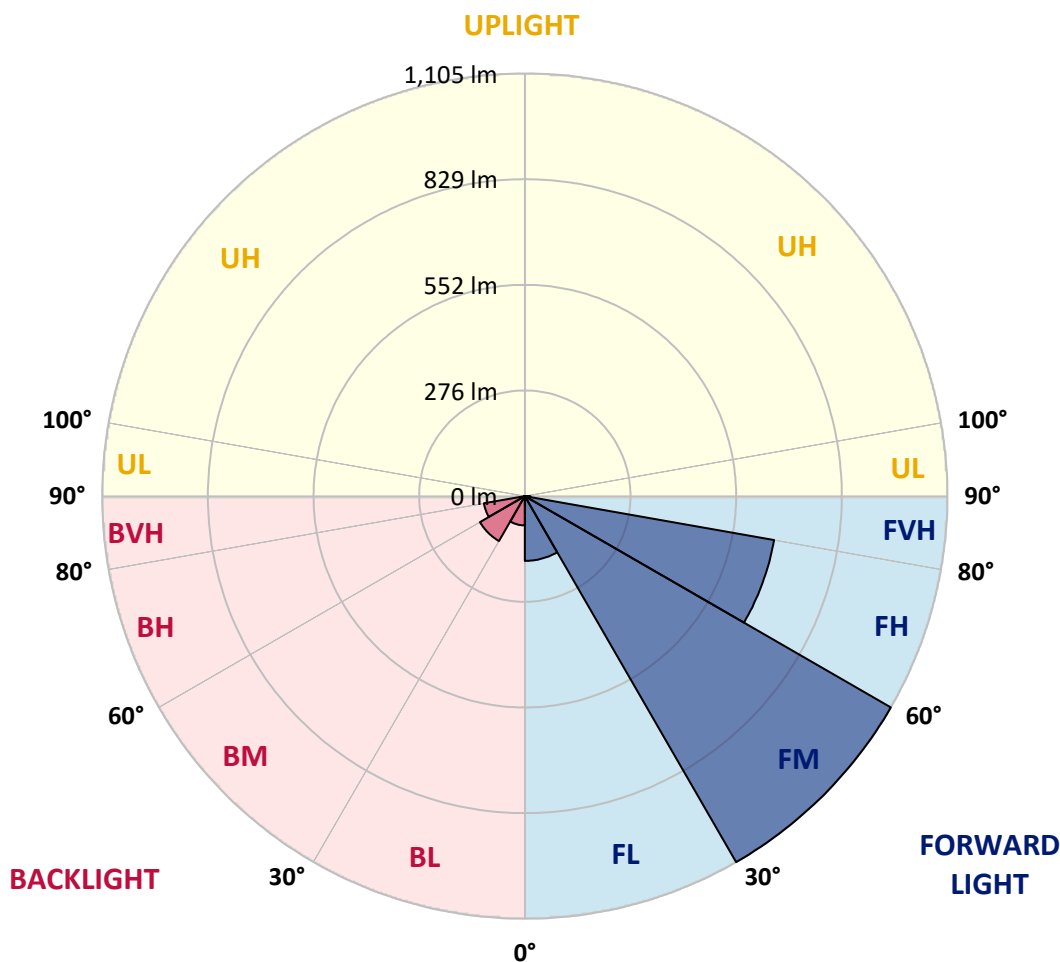
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	169.4	7.4			
FM (30°-60°)	1104.8	48.6			
FH (60°-80°)	661.6	29.1			G1/1800
FVH (80°-90°)	14.5	0.6			G1/100
BL (0°-30°)	76.5	3.4	B0/110		
BM (30°-60°)	135.4	6.0	B0/220		
BH (60°-80°)	108.5	4.8	B0/110		G0/110
BVH (80°-90°)	2.6	0.1			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 II Short





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	75°	84°	85°
0°	330.6	330.6	330.6	330.6	330.6	330.6	330.6	330.6	330.6	330.6	330.6
2.5°	342.5	345.7	345.7	344.7	341.4	339.2	338.2	336.0	333.8	333.8	334.9
5°	345.7	342.5	346.8	341.4	341.4	341.4	345.7	343.6	342.5	337.1	337.1
7.5°	345.7	342.5	342.5	345.7	342.5	344.7	350.1	347.9	352.2	342.5	344.7
10°	336.0	334.9	337.1	341.4	342.5	346.8	352.2	363.1	364.2	357.7	356.6
12.5°	316.5	315.4	323.0	325.2	338.2	349.0	365.3	373.9	383.7	380.4	373.9
15°	302.4	304.6	310.0	318.6	330.6	350.1	368.5	388.0	405.4	401.0	398.9
17.5°	307.8	306.7	307.8	313.2	328.4	347.9	379.3	402.1	427.0	427.0	429.2
20°	324.1	327.3	326.2	323.0	330.6	346.8	379.3	419.4	460.6	457.4	457.4
22.5°	352.2	353.3	346.8	344.7	343.6	353.3	385.8	441.1	488.8	495.3	493.1
25°	381.5	382.6	380.4	373.9	365.3	367.4	397.8	458.5	527.8	538.7	536.5
27.5°	430.3	429.2	423.8	416.2	403.2	393.4	416.2	471.5	558.2	576.6	571.2
30°	479.1	475.8	468.2	458.5	446.5	428.1	439.0	496.4	596.1	613.5	601.5
32.5°	538.7	532.2	534.3	519.2	494.2	465.0	462.8	519.2	626.5	651.4	641.6
35°	614.5	606.9	596.1	582.0	558.2	519.2	507.2	556.0	677.4	695.8	695.8
37.5°	714.3	721.8	708.8	650.3	624.3	587.4	562.5	593.9	721.8	766.3	755.4
40°	816.1	822.6	798.8	755.4	699.1	653.6	638.4	655.7	789.0	842.1	821.6
42.5°	898.5	907.2	898.5	842.1	797.7	739.2	712.1	728.3	875.7	939.7	912.6
45°	985.2	993.9	984.1	947.3	903.9	870.3	802.0	822.6	966.8	1062.2	1031.8
47.5°	1050.2	1061.1	1043.7	1036.2	1001.5	996.0	880.1	902.8	1062.2	1185.7	1147.8
50°	1065.4	1077.3	1092.5	1101.2	1089.3	1102.3	985.2	1004.7	1161.9	1299.5	1262.7
52.5°	1029.6	1041.6	1075.2	1115.3	1170.5	1209.6	1091.4	1107.7	1265.9	1393.8	1374.3
55°	924.5	935.4	1003.6	1057.8	1190.1	1254.0	1193.3	1261.6	1340.7	1492.4	1444.8
57.5°	747.8	760.9	850.8	934.3	1125.0	1229.1	1254.0	1389.5	1464.3	1565.1	1509.8
60°	531.1	538.7	616.7	764.1	945.1	1104.4	1242.1	1484.9	1561.8	1662.6	1633.3
62.5°	305.6	312.1	393.4	532.2	713.2	922.3	1189.0	1574.8	1666.9	1769.9	1753.7
65°	202.7	204.8	260.1	336.0	463.9	679.6	1054.6	1655.0	1771.0	1855.5	1837.1
67.5°	133.3	145.2	188.6	240.6	297.0	376.1	859.5	1688.6	1890.2	1974.8	1970.4
70°	95.4	99.7	135.5	185.3	223.3	211.3	502.9	1451.3	1884.8	2007.3	1971.5
72.5°	56.4	60.7	90.0	138.7	175.6	134.4	235.2	1026.4	1561.8	1601.9	1592.2
75°	41.2	41.2	55.3	99.7	127.9	96.5	110.6	649.2	1037.2	1126.1	1125.0
77.5°	29.3	30.3	37.9	59.6	98.6	70.4	60.7	360.9	566.8	620.0	590.7
80°	17.3	18.4	26.0	35.8	71.5	50.9	40.1	164.7	217.9	220.0	209.2
82.5°	13.0	13.0	17.3	24.9	49.9	34.7	24.9	62.9	70.4	63.9	54.2
85°	7.6	6.5	13.0	18.4	29.3	19.5	17.3	29.3	32.5	23.8	21.7
87.5°	2.2	2.2	5.4	6.5	13.0	10.8	7.6	10.8	15.2	8.7	6.5
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°	330.6	330.6	330.6	330.6	330.6	330.6	330.6	330.6	330.6	330.6	330.6
2.5°	332.7	329.5	324.1	321.9	314.3	311.1	308.9	303.5	304.6	301.3	301.3
5°	329.5	329.5	318.6	306.7	294.8	287.2	278.5	267.7	267.7	263.4	264.5
7.5°	341.4	332.7	318.6	297.0	277.5	260.1	252.5	241.7	235.2	231.9	231.9
10°	349.0	340.3	316.5	290.5	265.5	243.9	227.6	212.4	203.8	203.8	202.7
12.5°	369.6	356.6	325.2	289.4	252.5	220.0	195.1	177.7	165.8	157.2	159.3
15°	386.9	372.8	329.5	280.7	229.8	184.3	153.9	121.4	105.1	96.5	93.2
17.5°	414.0	388.0	339.2	265.5	195.1	144.2	99.7	72.6	66.1	65.0	65.0
20°	436.8	406.4	340.3	236.3	160.4	92.1	63.9	59.6	56.4	55.3	54.2
22.5°	468.2	430.3	336.0	202.7	114.9	61.8	54.2	49.9	47.7	44.4	44.4
25°	500.7	461.7	327.3	171.2	70.4	53.1	47.7	43.4	39.0	36.9	37.9
27.5°	535.4	485.6	302.4	133.3	54.2	46.6	39.0	35.8	33.6	32.5	32.5
30°	563.6	500.7	265.5	88.9	48.8	41.2	34.7	31.4	29.3	28.2	28.2
32.5°	584.2	513.7	224.4	59.6	44.4	36.9	31.4	28.2	26.0	24.9	24.9
35°	618.9	523.5	186.4	50.9	40.1	32.5	27.1	24.9	22.8	22.8	22.8
37.5°	672.0	536.5	148.5	46.6	36.9	29.3	26.0	22.8	21.7	20.6	20.6
40°	718.6	552.8	106.2	42.3	33.6	27.1	22.8	20.6	19.5	18.4	18.4
42.5°	785.8	571.2	69.4	37.9	30.3	24.9	20.6	18.4	17.3	16.3	16.3
45°	871.4	601.5	54.2	33.6	27.1	22.8	19.5	17.3	15.2	15.2	14.1
47.5°	962.4	638.4	48.8	31.4	24.9	20.6	17.3	15.2	14.1	13.0	13.0
50°	1047.0	674.1	45.5	29.3	22.8	19.5	16.3	14.1	11.9	10.8	10.8
52.5°	1122.9	707.7	43.4	27.1	21.7	17.3	14.1	11.9	10.8	9.8	9.8
55°	1163.0	722.9	42.3	26.0	19.5	16.3	13.0	10.8	9.8	8.7	8.7
57.5°	1225.8	742.4	41.2	24.9	18.4	14.1	11.9	9.8	8.7	7.6	7.6
60°	1327.7	806.4	40.1	23.8	17.3	14.1	10.8	8.7	6.5	5.4	5.4
62.5°	1412.2	859.5	35.8	20.6	15.2	11.9	8.7	6.5	4.3	3.3	3.3
65°	1508.7	884.4	31.4	18.4	13.0	9.8	6.5	4.3	3.3	1.1	1.1
67.5°	1613.8	922.3	26.0	16.3	11.9	7.6	5.4	3.3	1.1	0.0	0.0
70°	1558.6	874.7	21.7	14.1	10.8	6.5	4.3	2.2	0.0	0.0	0.0
72.5°	1221.5	626.5	17.3	13.0	9.8	6.5	4.3	1.1	0.0	0.0	0.0
75°	816.1	354.4	15.2	10.8	7.6	5.4	3.3	1.1	0.0	0.0	0.0
77.5°	443.3	159.3	13.0	9.8	6.5	4.3	3.3	1.1	0.0	0.0	0.0
80°	144.2	62.9	10.8	8.7	6.5	4.3	3.3	1.1	0.0	0.0	0.0
82.5°	39.0	19.5	10.8	8.7	6.5	4.3	3.3	1.1	0.0	0.0	0.0
85°	16.3	13.0	10.8	8.7	6.5	4.3	3.3	1.1	0.0	0.0	0.0
87.5°	6.5	4.3	4.3	5.4	4.3	3.3	2.2	1.1	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°	330.6	330.6	330.6	330.6	330.6	330.6	330.6	330.6	330.6	330.6	330.6
2.5°	302.4	304.6	305.6	305.6	311.1	316.5	323.0	328.4	328.4	331.7	334.9
5°	265.5	267.7	271.0	280.7	291.6	303.5	315.4	324.1	336.0	341.4	344.7
7.5°	235.2	237.4	246.0	255.8	271.0	291.6	312.1	331.7	343.6	349.0	353.3
10°	203.8	207.0	216.8	234.1	253.6	278.5	302.4	336.0	355.5	366.3	370.7
12.5°	158.2	166.9	179.9	198.3	223.3	261.2	305.6	340.3	373.9	386.9	395.6
15°	99.7	107.3	127.9	157.2	190.8	235.2	297.0	346.8	393.4	406.4	420.5
17.5°	63.9	65.0	71.5	103.0	146.3	202.7	284.0	356.6	415.1	433.5	455.2
20°	54.2	56.4	57.4	61.8	97.5	166.9	256.9	368.5	441.1	466.1	486.6
22.5°	45.5	46.6	48.8	52.0	58.5	121.4	220.0	368.5	463.9	500.7	524.6
25°	36.9	39.0	41.2	44.4	50.9	75.9	182.1	362.0	491.0	536.5	566.8
27.5°	32.5	32.5	34.7	37.9	43.4	53.1	144.2	342.5	511.6	558.2	598.3
30°	28.2	29.3	30.3	33.6	39.0	46.6	99.7	311.1	533.2	600.4	646.0
32.5°	24.9	24.9	27.1	29.3	34.7	42.3	63.9	263.4	561.4	633.0	696.9
35°	22.8	22.8	23.8	26.0	31.4	37.9	49.9	223.3	595.0	694.7	765.2
37.5°	20.6	20.6	21.7	23.8	28.2	33.6	45.5	191.8	629.7	756.5	859.5
40°	18.4	18.4	19.5	21.7	24.9	30.3	41.2	155.0	673.1	847.6	962.4
42.5°	16.3	16.3	17.3	19.5	22.8	27.1	35.8	116.0	730.5	946.2	1095.8
45°	14.1	14.1	15.2	17.3	19.5	24.9	32.5	88.9	793.4	1055.7	1212.8
47.5°	11.9	13.0	14.1	16.3	18.4	22.8	29.3	78.0	855.1	1171.6	1342.9
50°	10.8	10.8	11.9	14.1	17.3	20.6	27.1	77.0	918.0	1260.5	1476.2
52.5°	9.8	9.8	10.8	13.0	16.3	19.5	26.0	79.1	970.0	1342.9	1569.4
55°	8.7	8.7	9.8	10.8	14.1	18.4	23.8	81.3	1006.9	1426.3	1644.2
57.5°	7.6	7.6	8.7	10.8	13.0	16.3	21.7	83.5	1066.5	1508.7	1752.6
60°	5.4	5.4	7.6	9.8	11.9	14.1	20.6	85.6	1161.9	1622.5	1844.7
62.5°	3.3	3.3	4.3	7.6	9.8	13.0	18.4	81.3	1250.8	1768.8	1985.6
65°	1.1	2.2	3.3	4.3	7.6	10.8	15.2	73.7	1325.5	1915.1	2115.7
67.5°	0.0	0.0	1.1	3.3	6.5	8.7	13.0	54.2	1337.5	1981.3	2249.0
70°	0.0	0.0	1.1	3.3	5.4	8.7	11.9	30.3	1139.1	1769.9	2061.5
72.5°	0.0	0.0	0.0	2.2	5.4	7.6	10.8	22.8	840.0	1334.2	1629.0
75°	0.0	0.0	0.0	1.1	4.3	6.5	9.8	17.3	510.5	889.8	1063.2
77.5°	0.0	0.0	0.0	1.1	3.3	6.5	9.8	15.2	179.9	423.8	499.6
80°	0.0	0.0	0.0	2.2	4.3	6.5	8.7	13.0	43.4	106.2	143.1
82.5°	0.0	0.0	0.0	1.1	3.3	5.4	7.6	10.8	17.3	31.4	49.9
85°	0.0	0.0	0.0	1.1	2.2	5.4	7.6	9.8	11.9	15.2	21.7
87.5°	0.0	0.0	0.0	0.0	1.1	2.2	3.3	4.3	4.3	4.3	7.6
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):

	276°	285°	295°	305°	315°	325°	335°	345°	355°	360°
0°	330.6	330.6	330.6	330.6	330.6	330.6	330.6	330.6	330.6	330.6
2.5°	333.8	338.2	340.3	344.7	346.8	345.7	344.7	347.9	345.7	342.5
5°	345.7	345.7	349.0	350.1	350.1	346.8	349.0	347.9	345.7	345.7
7.5°	358.8	364.2	364.2	357.7	356.6	354.4	354.4	345.7	342.5	345.7
10°	371.8	376.1	377.2	369.6	359.8	355.5	350.1	339.2	333.8	336.0
12.5°	398.9	398.9	386.9	378.3	365.3	350.1	337.1	321.9	314.3	316.5
15°	418.4	422.7	406.4	386.9	364.2	336.0	321.9	310.0	305.6	302.4
17.5°	456.3	447.6	421.6	393.4	360.9	331.7	321.9	311.1	307.8	307.8
20°	488.8	484.5	445.5	394.5	359.8	340.3	333.8	328.4	327.3	324.1
22.5°	533.2	513.7	463.9	406.4	371.8	354.4	352.2	357.7	354.4	352.2
25°	566.8	550.6	478.0	423.8	390.2	384.8	388.0	393.4	384.8	381.5
27.5°	612.4	582.0	505.1	446.5	415.1	420.5	431.4	432.5	427.0	430.3
30°	654.6	622.1	525.7	472.6	457.4	462.8	479.1	491.0	483.4	479.1
32.5°	715.3	665.5	566.8	515.9	510.5	524.6	543.0	550.6	540.8	538.7
35°	779.3	715.3	609.1	564.7	574.4	593.9	610.2	623.2	608.0	614.5
37.5°	879.0	795.5	680.7	641.6	646.0	653.6	683.9	719.7	727.3	714.3
40°	983.0	882.2	746.8	716.4	726.2	746.8	782.5	816.1	833.5	816.1
42.5°	1103.3	965.7	848.6	812.9	822.6	851.9	899.6	926.7	924.5	898.5
45°	1251.8	1081.7	944.0	899.6	935.4	961.4	1009.1	1012.3	991.7	985.2
47.5°	1365.6	1179.2	1047.0	1018.8	1067.6	1068.7	1079.5	1080.6	1057.8	1050.2
50°	1491.4	1291.9	1161.9	1120.7	1203.1	1165.1	1135.9	1116.4	1081.7	1065.4
52.5°	1614.9	1372.1	1268.1	1225.8	1311.4	1210.6	1157.5	1097.9	1047.0	1029.6
55°	1681.0	1504.4	1423.1	1324.5	1335.3	1223.7	1090.3	1015.6	928.9	924.5
57.5°	1759.1	1593.2	1554.2	1391.6	1295.2	1132.6	950.5	851.9	758.7	747.8
60°	1851.2	1734.1	1693.0	1380.8	1153.2	951.6	753.3	626.5	538.7	531.1
62.5°	1954.2	1901.1	1778.6	1274.6	915.8	669.8	497.5	391.3	310.0	305.6
65°	2116.7	2040.9	1824.1	1073.0	605.9	429.2	330.6	253.6	204.8	202.7
67.5°	2218.6	2094.0	1722.2	765.2	336.0	284.0	231.9	184.3	142.0	133.3
70°	2074.5	1921.6	1362.4	437.9	195.1	215.7	178.8	123.6	97.5	95.4
72.5°	1657.2	1426.3	916.9	205.9	121.4	169.1	130.1	83.5	58.5	56.4
75°	1130.4	897.4	575.5	95.4	85.6	123.6	95.4	48.8	41.2	41.2
77.5°	505.1	457.4	294.8	58.5	63.9	94.3	55.3	33.6	30.3	29.3
80°	153.9	161.5	120.3	40.1	47.7	71.5	33.6	22.8	18.4	17.3
82.5°	52.0	60.7	54.2	23.8	32.5	50.9	22.8	15.2	13.0	13.0
85°	24.9	30.3	27.1	15.2	17.3	24.9	18.4	11.9	7.6	7.6
87.5°	9.8	14.1	9.8	6.5	9.8	13.0	7.6	5.4	2.2	2.2
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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