

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: P596090

Luminaire Tested: **MSA-SA3A-AMB-U-SLR**

Issue Date: 4/29/2022

Test Information

Test Method: LM-79-08
Report Number: P596090
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2109-400-25)
Test Lab: INNOVATIONS CENTER
Issue Date: 4/29/2022
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: INVUE
Catalog Number: MSA-SA3A-AMB-U-SLR
Description: POST TOP DECORATIVE LUMINAIRE. (3) LIGHTSQUARES WITH 16 LEDS EACH
AND SPILL LIGHT ELIMINATOR RIGHT OPTICS.
Light Source: (48) 1549K CCT, -21.5 CRI LEDS
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 1783 lumens
Efficiency: N/A
Efficacy: 29.8 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')
IES Classification: Type II - Short
BUG Rating: B1 - U0 - G1

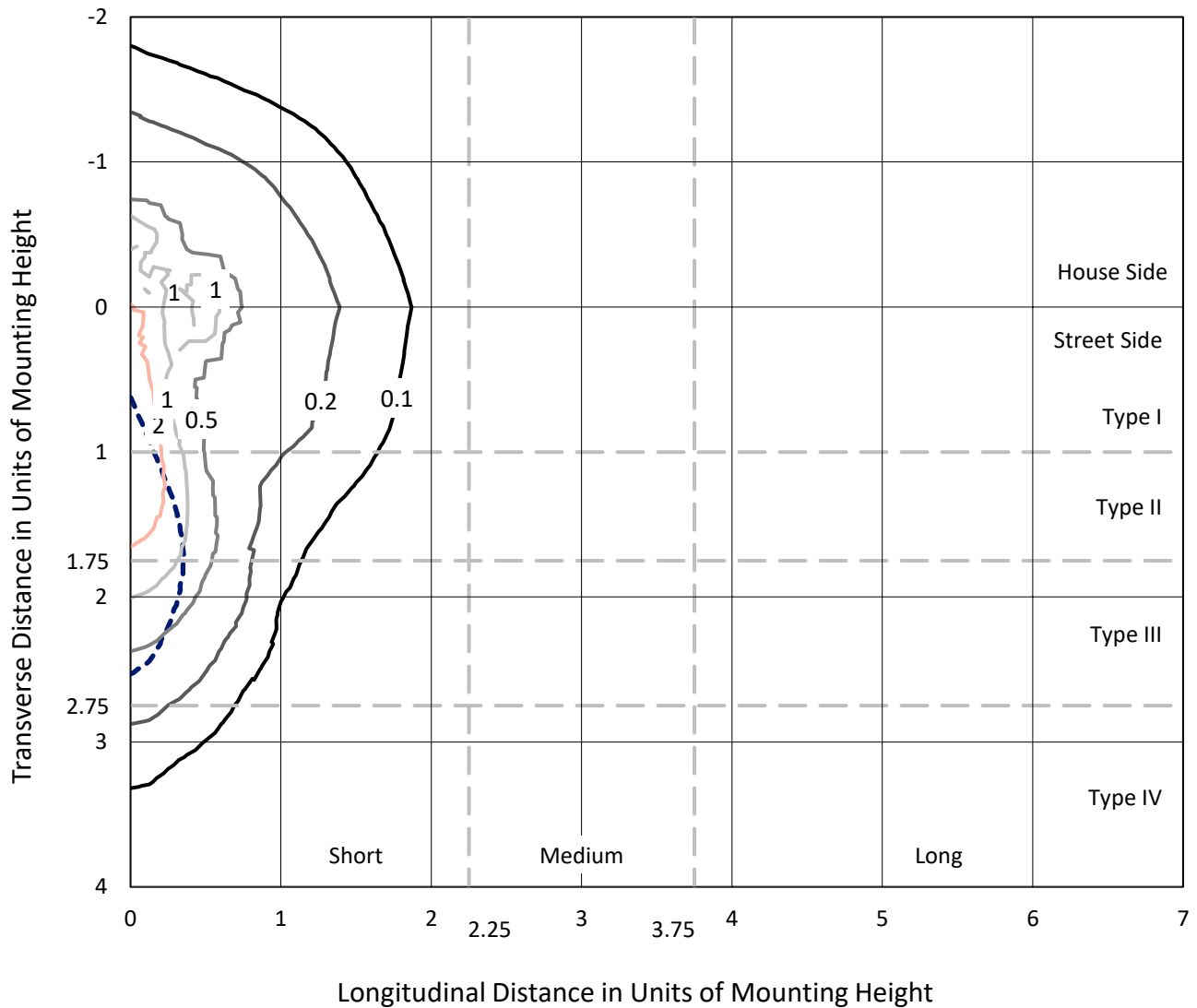
Input Watts (W): 59.9
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 28.75 FT



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Iso-Footcandle Lines of Horizontal Illumination

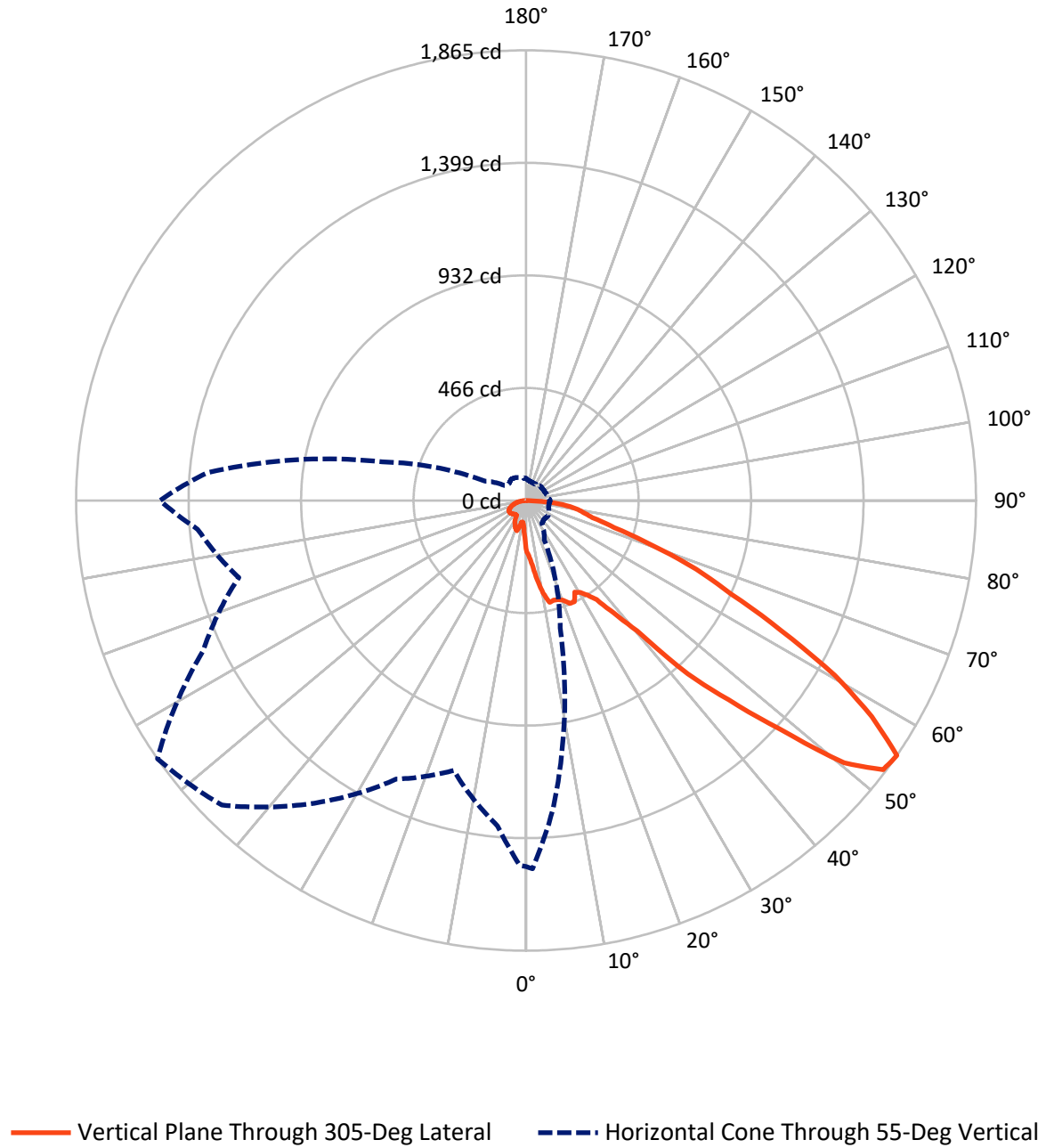
× Max cd
 - - - 1/2 Max cd



Based on 10 foot mounting height. Maximum calculated value = 4.7 fc
 Type II - Short - N/A

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Luminous Intensity Polar Plot



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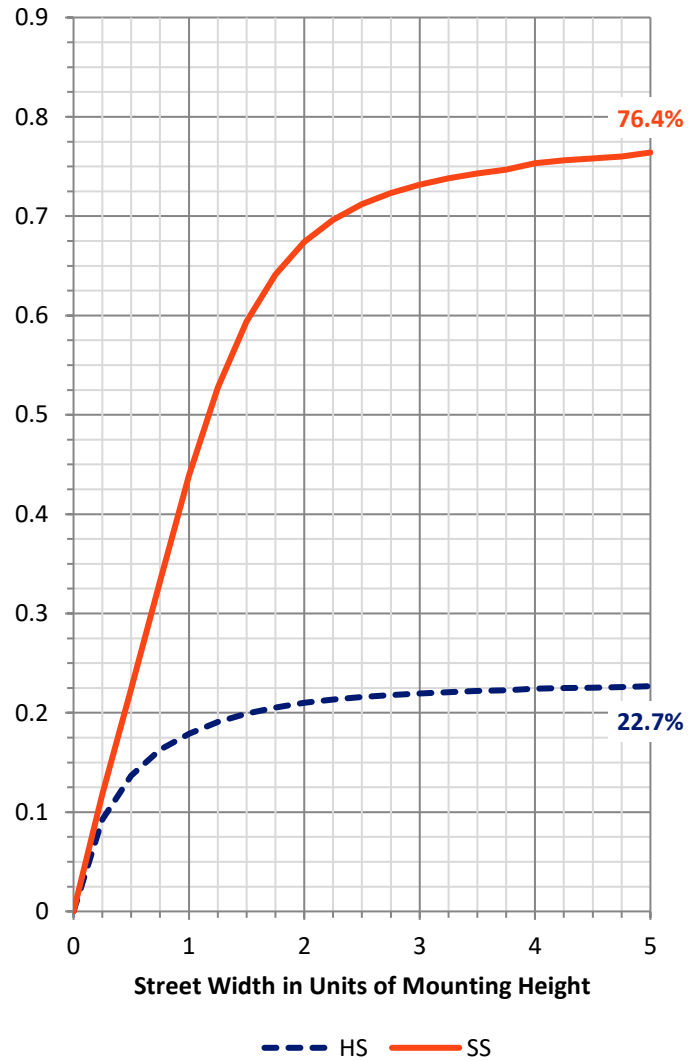
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	408.5	0.0	408.5
	% Fixture	22.9	0.0	22.9
Street Side	Lumens	1374.6	0.0	1374.6
	% Fixture	77.1	0.0	77.1
Total	Lumens	1783.0	0.0	1783.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	19.8	1.1
10°-20°	59.3	3.3
20°-30°	136.5	7.7
30°-40°	186.3	10.4
40°-50°	331.8	18.6
50°-60°	467.0	26.2
60°-70°	369.9	20.7
70°-80°	169.6	9.5
80°-90°	42.8	2.4
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°	1783.0	100.0
0°-180°	1783.0	100.0

Coefficient of Utilization

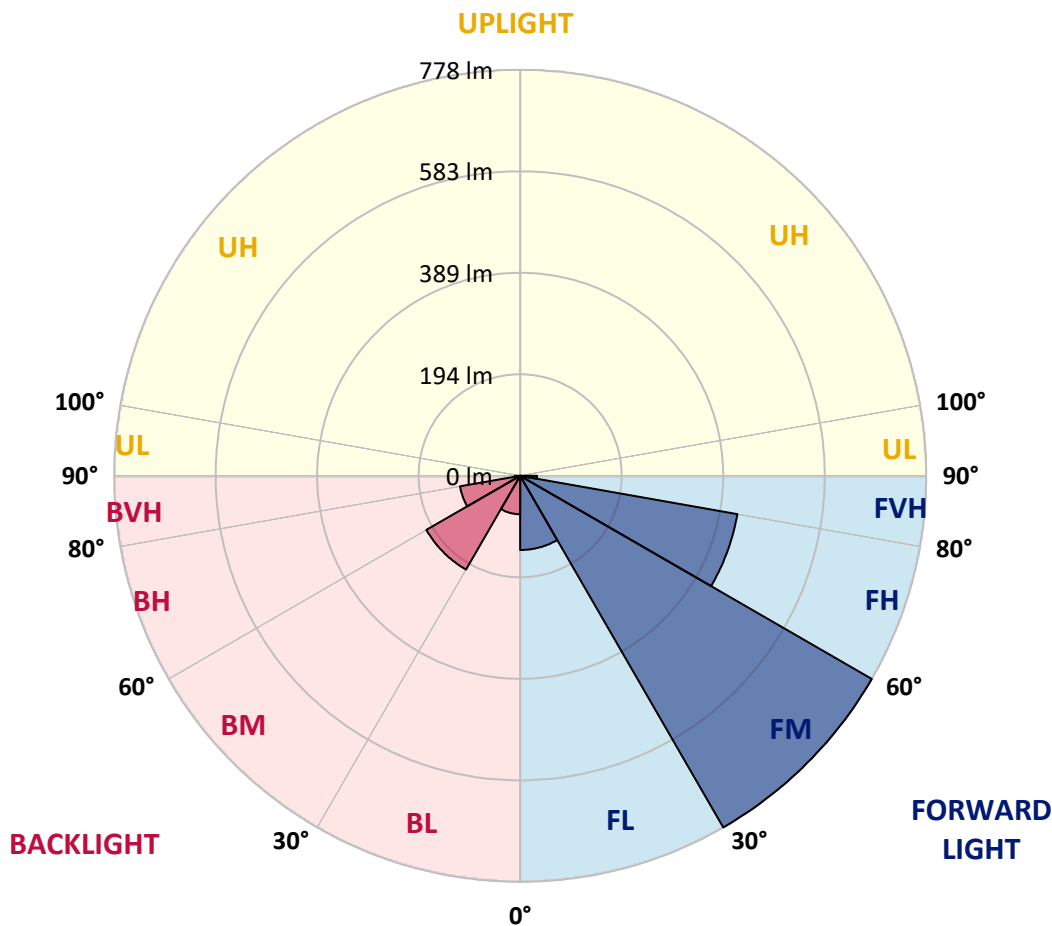


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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	142.0	8.0			
FM (30°-60°)	777.6	43.6			
FH (60°-80°)	422.4	23.7			G0/660
FVH (80°-90°)	32.4	1.8			G1/100
BL (0°-30°)	73.6	4.1	B0/110		
BM (30°-60°)	207.4	11.6	B0/220		
BH (60°-80°)	117.0	6.6	B1/500		G1/500
BVH (80°-90°)	10.4	0.6			G1/100
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°	1°	5°	15°	25°	35°	45°	55°	65°	75°	85°
0°	209.9	209.9	209.9	209.9	209.9	209.9	209.9	209.9	209.9	209.9	209.9
2.5°	259.4	264.1	237.0	264.1	224.2	217.1	219.5	217.1	195.5	203.5	176.4
5°	317.6	317.6	284.9	267.3	237.0	200.3	176.4	170.8	167.6	176.4	166.8
7.5°	304.0	308.0	270.5	244.2	199.5	166.8	149.2	140.4	145.2	154.0	153.2
10°	263.3	266.5	249.8	209.1	177.2	167.6	154.0	138.9	126.9	126.1	117.3
12.5°	254.6	254.6	235.4	206.7	181.1	164.4	148.4	130.1	114.9	106.1	99.8
15°	268.9	270.5	250.6	211.5	178.8	150.8	130.1	113.3	99.8	87.8	83.8
17.5°	316.0	319.2	291.3	221.0	165.2	137.3	118.1	100.5	83.8	77.4	79.0
20°	442.1	452.5	375.9	232.2	152.4	123.7	103.7	87.0	79.0	79.0	86.2
22.5°	588.1	604.9	486.0	254.6	154.0	118.9	101.3	90.2	87.0	90.2	107.7
25°	639.2	652.8	531.5	277.7	181.9	151.6	141.2	138.1	134.9	136.5	166.0
27.5°	639.2	653.6	537.9	259.4	178.0	154.8	154.8	180.4	210.7	222.6	260.2
30°	694.3	706.2	596.1	232.2	123.7	98.2	99.0	102.1	110.9	136.5	198.7
32.5°	774.1	790.0	632.8	244.2	114.9	88.6	81.4	76.6	77.4	82.2	102.1
35°	832.3	843.5	704.6	252.2	123.7	91.0	81.4	79.0	76.6	80.6	90.2
37.5°	946.4	963.2	747.7	268.1	135.7	93.4	83.8	80.6	79.0	83.8	91.8
40°	1039.8	1063.7	802.8	283.3	148.4	97.4	87.0	83.8	83.8	87.0	95.0
42.5°	1157.1	1175.5	905.7	316.8	158.8	101.3	91.0	89.4	88.6	91.0	95.8
45°	1263.2	1290.4	984.7	347.9	165.2	101.3	98.2	94.2	93.4	94.2	95.8
47.5°	1367.0	1383.0	1082.1	400.6	170.0	104.5	100.5	98.2	96.6	95.8	96.6
50°	1431.6	1434.0	1174.7	455.7	168.4	107.7	103.7	104.5	100.5	96.6	97.4
52.5°	1471.5	1473.9	1247.3	502.7	174.0	111.7	106.9	109.3	101.3	95.8	96.6
55°	1516.2	1525.8	1282.4	546.6	179.6	114.1	106.9	110.9	103.7	96.6	96.6
57.5°	1497.1	1508.2	1267.2	561.8	184.3	118.9	106.9	112.5	105.3	97.4	95.8
60°	1383.0	1394.9	1189.8	556.2	185.9	122.9	106.1	106.1	105.3	95.8	94.2
62.5°	1206.6	1232.9	1018.3	505.1	174.8	120.5	102.9	102.9	100.5	91.8	90.2
65°	1017.5	1032.6	862.6	422.9	162.8	110.1	96.6	97.4	93.4	87.0	85.4
67.5°	831.5	845.1	695.9	339.2	151.6	102.1	88.6	91.8	87.8	82.2	79.8
70°	622.4	644.8	515.5	260.9	133.3	91.0	81.4	82.2	79.8	75.0	71.8
72.5°	449.3	464.4	361.5	205.1	118.1	79.0	70.2	72.6	70.2	67.0	63.8
75°	333.6	340.0	280.9	152.4	95.0	68.6	60.6	63.8	63.0	59.9	56.7
77.5°	267.3	279.3	224.2	104.5	77.4	59.1	51.9	54.3	52.7	49.5	43.9
80°	199.5	208.3	175.6	75.0	56.7	46.3	41.5	43.9	42.3	37.5	32.7
82.5°	133.3	130.1	128.5	51.1	39.1	33.5	29.5	31.1	31.9	27.9	21.5
85°	47.1	42.3	45.5	27.9	23.1	20.0	15.2	18.4	16.8	15.2	12.0
87.5°	7.2	5.6	4.8	6.4	7.2	4.8	4.8	5.6	5.6	4.8	4.0
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):

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	209.9	209.9	209.9	209.9	209.9	209.9	209.9	209.9	209.9	209.9	209.9
2.5°	209.9	205.9	178.8	158.0	151.6	147.6	134.9	133.3	158.0	159.6	197.1
5°	185.9	174.8	168.4	148.4	114.1	102.1	106.1	129.3	152.4	163.6	185.9
7.5°	158.0	138.9	135.7	118.1	95.0	79.0	82.2	106.9	125.3	141.2	151.6
10°	115.7	105.3	100.5	90.2	90.2	86.2	83.8	93.4	107.7	118.1	122.9
12.5°	96.6	94.2	89.4	89.4	93.4	103.7	105.3	106.9	103.7	103.7	106.1
15°	81.4	84.6	87.0	97.4	115.7	126.9	130.1	118.9	110.1	96.6	93.4
17.5°	77.4	82.2	102.9	122.1	130.9	134.9	134.1	124.5	116.5	105.3	94.2
20°	92.6	95.0	111.7	120.5	126.1	117.3	112.5	122.1	120.5	114.9	104.5
22.5°	112.5	118.1	138.9	132.5	119.7	95.8	94.2	122.1	138.1	137.3	123.7
25°	166.0	172.4	161.2	146.8	108.5	79.0	80.6	124.5	153.2	176.4	163.6
27.5°	248.2	236.2	199.5	159.6	102.9	75.0	79.0	121.3	168.4	222.6	239.4
30°	216.3	217.9	174.0	133.3	91.0	72.6	74.2	106.1	158.8	237.0	263.3
32.5°	112.5	106.9	107.7	91.0	74.2	71.0	71.0	80.6	104.5	138.1	142.8
35°	91.8	91.0	83.0	76.6	72.6	70.2	71.0	74.2	82.2	93.4	95.0
37.5°	95.8	91.8	83.0	75.8	72.6	71.8	71.0	75.0	79.8	89.4	95.0
40°	97.4	92.6	83.8	76.6	73.4	73.4	73.4	75.0	79.0	89.4	95.8
42.5°	99.0	93.4	84.6	78.2	75.8	76.6	76.6	76.6	79.8	89.4	97.4
45°	99.8	93.4	86.2	80.6	78.2	80.6	79.0	79.0	80.6	88.6	97.4
47.5°	99.8	94.2	87.8	82.2	79.8	83.0	81.4	80.6	80.6	88.6	98.2
50°	100.5	95.0	88.6	83.8	82.2	83.8	82.2	79.8	81.4	88.6	97.4
52.5°	100.5	95.0	89.4	85.4	83.0	83.0	81.4	79.0	80.6	86.2	94.2
55°	100.5	94.2	89.4	85.4	83.8	83.8	79.8	77.4	79.8	84.6	92.6
57.5°	100.5	95.0	87.8	83.8	83.8	82.2	78.2	75.8	77.4	83.0	91.0
60°	98.2	91.8	85.4	81.4	82.2	80.6	75.8	72.6	74.2	80.6	88.6
62.5°	94.2	88.6	82.2	78.2	79.0	77.4	71.8	68.6	71.0	76.6	84.6
65°	88.6	83.8	78.2	73.4	74.2	71.8	67.8	64.6	67.0	72.6	79.0
67.5°	82.2	79.0	72.6	68.6	68.6	65.4	62.2	59.9	62.2	67.8	75.0
70°	75.0	71.8	66.2	63.0	63.0	59.1	55.9	55.1	57.5	62.2	67.8
72.5°	66.2	64.6	59.9	55.9	55.9	51.9	50.3	49.5	51.1	55.9	59.9
75°	58.3	57.5	54.3	50.3	49.5	45.5	43.9	43.9	45.5	50.3	52.7
77.5°	45.5	46.3	43.9	42.3	41.5	38.3	37.5	38.3	39.9	43.9	43.1
80°	32.7	35.1	35.1	33.5	33.5	30.3	31.1	31.1	31.9	32.7	32.7
82.5°	21.5	24.7	24.7	23.9	23.9	20.0	21.5	22.3	23.1	22.3	20.7
85°	11.2	12.8	15.2	13.6	13.6	9.6	12.8	13.6	13.6	12.0	9.6
87.5°	1.6	3.2	4.0	3.2	2.4	0.0	2.4	3.2	4.0	4.0	1.6
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):

	185°	195°	205°	215°	225°	235°	245°	255°	265°	270°	275°
0°	209.9	209.9	209.9	209.9	209.9	209.9	209.9	209.9	209.9	209.9	209.9
2.5°	200.3	203.5	198.7	212.3	220.3	207.5	209.9	236.2	235.4	291.3	287.3
5°	183.5	198.7	189.1	181.9	181.9	193.9	225.8	274.5	282.5	340.0	336.0
7.5°	154.0	156.4	159.6	162.0	158.0	171.6	224.2	280.1	308.8	349.5	347.9
10°	130.1	133.3	141.2	152.4	166.8	174.0	194.7	253.0	290.5	324.0	332.8
12.5°	106.9	118.9	131.7	146.0	167.6	185.9	204.3	250.6	273.7	293.7	323.2
15°	93.4	99.0	106.1	124.5	151.6	172.4	203.5	249.0	306.4	333.6	355.9
17.5°	91.8	95.0	96.6	105.3	129.3	163.6	209.1	268.1	373.5	396.6	422.9
20°	96.6	93.4	94.2	102.9	117.3	152.4	201.1	326.4	475.6	505.1	533.1
22.5°	110.1	99.8	99.8	107.7	131.7	165.2	226.6	426.1	652.8	768.5	775.7
25°	150.8	120.5	130.9	160.4	185.1	211.5	257.0	446.9	743.7	850.7	900.2
27.5°	238.6	253.8	251.4	251.4	225.0	213.1	229.8	363.9	644.0	745.3	766.1
30°	280.9	263.3	230.6	181.9	152.4	152.4	164.4	343.9	671.9	739.0	748.5
32.5°	142.8	126.9	106.9	104.5	105.3	119.7	150.0	363.1	762.9	811.6	806.0
35°	95.8	90.2	89.4	91.8	98.2	115.7	155.6	372.7	837.1	893.8	862.6
37.5°	95.0	91.0	87.8	91.0	95.8	115.7	162.0	379.9	959.2	1045.4	954.4
40°	96.6	93.4	90.2	91.0	94.2	113.3	174.0	397.4	1062.9	1158.7	1061.4
42.5°	98.2	96.6	93.4	93.4	93.4	110.9	178.8	424.5	1142.7	1279.2	1169.9
45°	98.2	99.8	98.2	95.8	95.0	107.7	183.5	450.1	1197.8	1384.5	1225.7
47.5°	99.0	102.9	102.1	100.5	96.6	104.5	182.7	501.9	1257.7	1426.8	1282.4
50°	99.0	103.7	104.5	104.5	97.4	105.3	178.0	549.0	1306.3	1469.1	1300.8
52.5°	95.8	101.3	104.5	106.9	99.0	105.3	182.7	580.2	1315.1	1494.7	1341.5
55°	92.6	99.0	104.5	107.7	99.0	107.7	190.7	616.9	1325.5	1517.8	1366.2
57.5°	91.8	99.0	105.3	106.9	99.8	113.3	201.1	628.8	1277.6	1497.1	1379.8
60°	90.2	98.2	105.3	102.9	99.0	118.9	202.7	614.5	1151.5	1419.7	1355.0
62.5°	87.8	95.0	102.9	97.4	95.8	120.5	202.7	568.2	1023.0	1297.6	1277.6
65°	82.2	89.4	94.2	91.8	91.0	115.7	194.7	469.2	857.9	1134.8	1125.2
67.5°	77.4	83.8	87.8	85.4	84.6	109.3	183.5	372.7	666.3	932.1	977.6
70°	69.4	76.6	80.6	79.8	77.4	99.8	169.2	290.5	485.2	713.4	806.0
72.5°	61.4	68.6	71.8	70.2	69.4	87.0	143.6	221.8	328.0	501.9	608.9
75°	53.5	60.6	63.8	60.6	58.3	69.4	111.7	154.8	253.0	348.7	422.1
77.5°	44.7	52.7	55.9	51.1	47.9	55.9	79.0	111.7	221.8	273.7	296.9
80°	34.3	40.7	45.5	40.7	37.5	42.3	56.7	74.2	174.0	220.3	225.0
82.5°	21.5	27.1	31.1	28.7	26.3	29.5	34.3	47.1	118.9	166.0	174.0
85°	12.8	16.0	16.8	16.0	12.0	17.6	20.0	26.3	61.4	79.8	110.1
87.5°	4.0	4.8	4.8	3.2	0.8	2.4	3.2	4.8	2.4	0.8	2.4
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):

	285°	295°	305°	315°	325°	335°	345°	355°	359°	360°
0°	209.9	209.9	209.9	209.9	209.9	209.9	209.9	209.9	209.9	209.9
2.5°	266.5	238.6	229.0	231.4	233.8	214.7	219.5	234.6	268.9	259.4
5°	334.4	304.8	267.3	248.2	247.4	263.3	324.0	289.7	321.6	317.6
7.5°	375.9	363.9	330.4	312.0	307.2	342.3	340.8	306.4	313.6	304.0
10°	355.1	367.1	390.2	393.4	359.1	340.0	336.0	282.5	275.3	263.3
12.5°	385.4	400.6	433.3	453.3	413.4	366.3	327.2	284.1	265.7	254.6
15°	391.0	419.8	428.5	435.7	417.4	391.8	354.3	300.8	282.5	268.9
17.5°	438.1	439.7	431.7	424.5	427.7	413.4	423.7	382.2	336.0	316.0
20°	494.8	443.7	441.3	438.1	442.9	462.8	543.4	506.7	495.6	442.1
22.5°	616.1	519.5	462.8	457.3	487.6	577.8	705.4	679.9	623.2	588.1
25°	745.3	562.6	465.2	453.3	490.8	691.1	805.2	770.1	701.5	639.2
27.5°	649.6	535.5	430.1	391.8	442.9	612.9	660.8	711.8	700.7	639.2
30°	613.7	528.3	441.3	390.2	448.5	541.1	612.1	746.1	698.3	694.3
32.5°	664.7	545.0	466.8	419.0	437.3	557.0	667.1	806.8	811.6	774.1
35°	715.8	594.5	503.5	462.0	507.5	596.1	723.8	857.1	862.6	832.3
37.5°	804.4	663.1	590.5	566.6	603.3	686.3	778.1	964.8	991.9	946.4
40°	894.6	787.6	709.4	728.6	703.8	764.5	835.5	1072.5	1106.0	1039.8
42.5°	1000.7	928.1	982.3	902.5	855.5	883.4	908.1	1166.7	1219.4	1157.1
45°	1061.4	1067.7	1177.9	1191.4	1019.1	969.6	960.8	1217.0	1329.5	1263.2
47.5°	1111.6	1240.1	1414.1	1420.5	1225.7	1101.3	1027.0	1272.8	1390.9	1367.0
50°	1149.1	1343.1	1708.5	1667.0	1330.3	1141.2	1080.5	1296.0	1427.6	1431.6
52.5°	1198.6	1446.0	1853.0	1782.0	1455.6	1204.2	1118.8	1323.9	1473.1	1471.5
55°	1232.9	1477.1	1864.9	1784.3	1530.6	1273.6	1157.9	1353.4	1511.4	1516.2
57.5°	1250.5	1396.5	1690.2	1612.0	1471.5	1240.9	1162.7	1354.2	1496.3	1497.1
60°	1244.9	1227.3	1469.9	1379.8	1244.1	1115.6	1124.4	1296.8	1404.5	1383.0
62.5°	1177.9	1025.4	1184.2	1127.6	987.9	952.0	1084.5	1195.4	1277.6	1206.6
65°	1097.3	914.5	934.5	930.5	809.2	773.3	1009.5	1042.2	1090.1	1017.5
67.5°	990.3	785.2	761.3	700.7	644.0	648.0	865.0	878.6	895.4	831.5
70°	842.7	619.3	552.2	493.2	458.9	513.9	757.3	702.2	707.8	622.4
72.5°	681.5	468.4	383.0	338.4	323.2	399.0	616.9	523.5	522.7	449.3
75°	542.6	331.2	284.1	253.0	249.0	298.5	485.2	380.7	375.1	333.6
77.5°	379.1	243.4	245.0	229.0	213.9	236.2	354.3	279.3	288.9	267.3
80°	238.6	188.3	213.9	203.5	192.3	189.9	244.2	197.1	211.5	199.5
82.5°	184.3	141.2	165.2	163.6	156.4	151.6	171.6	129.3	134.1	133.3
85°	165.2	95.0	102.1	82.2	87.0	91.0	126.1	59.1	45.5	47.1
87.5°	13.6	10.4	8.8	4.8	11.2	13.6	16.8	4.0	4.8	7.2
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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