

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: P401078

Luminaire Tested: **ENT-SA1B-727-U-SLL**

Issue Date: 5/20/2020

Test Information

Test Method: LM-79-08
Report Number: P401078
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G1-2004-754-7)
Test Lab: INNOVATION CENTER
Issue Date: 5/20/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: INVUE
Catalog Number: ENT-SA1B-727-U-SLL
Description: ENTRI LED LUMINAIRE
(1) 70 CRI, 2700K, 450mA LIGHTSQUARE WITH 16 LEDS AND SPILL LIGHT ELIMINATOR LEFT OPTICS
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 2535 lumens
Efficiency: N/A
Efficacy: 99.8 lumens/watt
Luminous Opening: Rectangular (W 0.5' x L: 0.5' x H: 0')
IES Classification: Type III - Medium - Non-Cutoff
BUG Rating: B1 - U0 - G1

Input Watts (W): 25.4
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: 25 FT

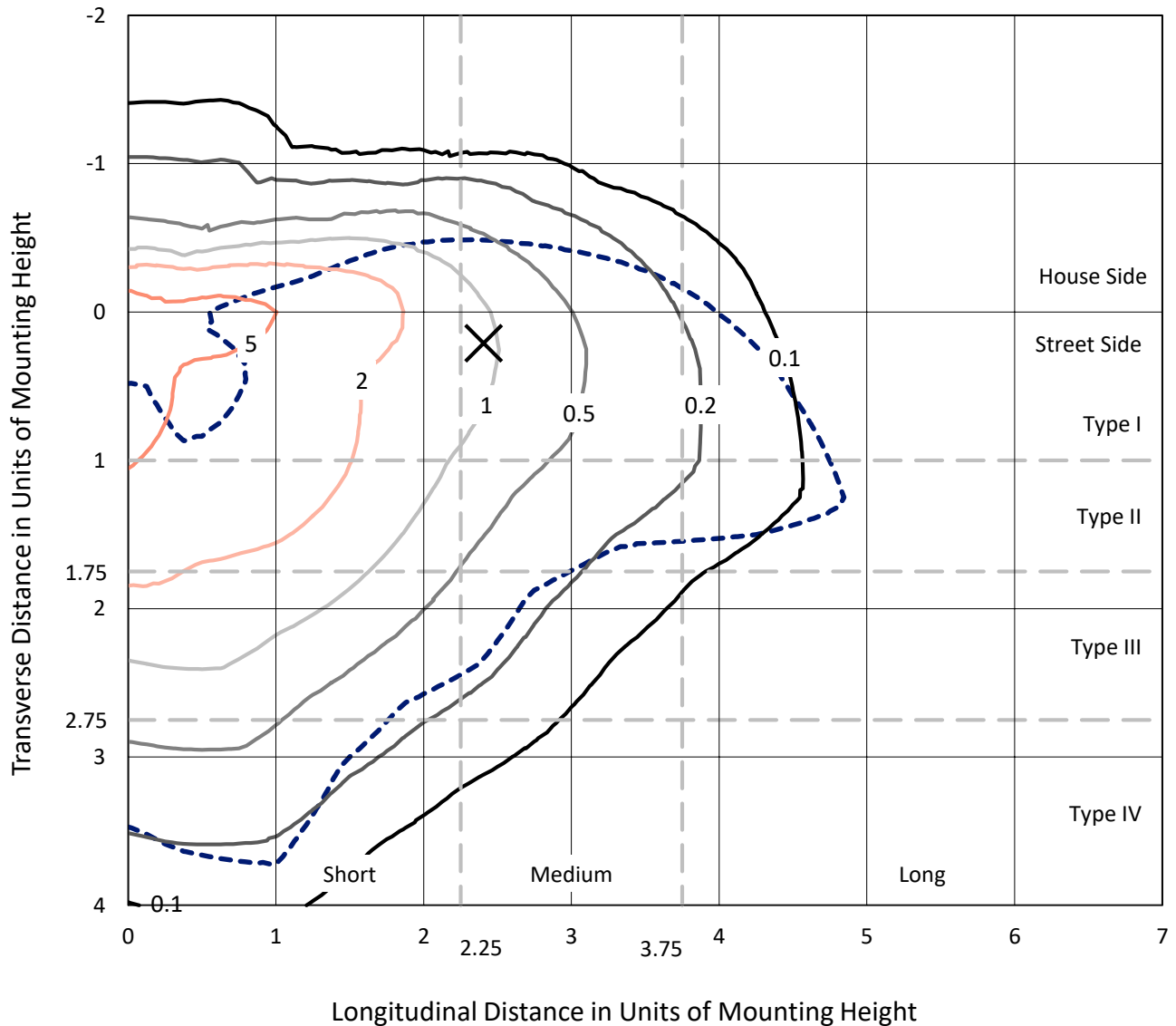


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Iso-Footcandle Lines of Horizontal Illumination

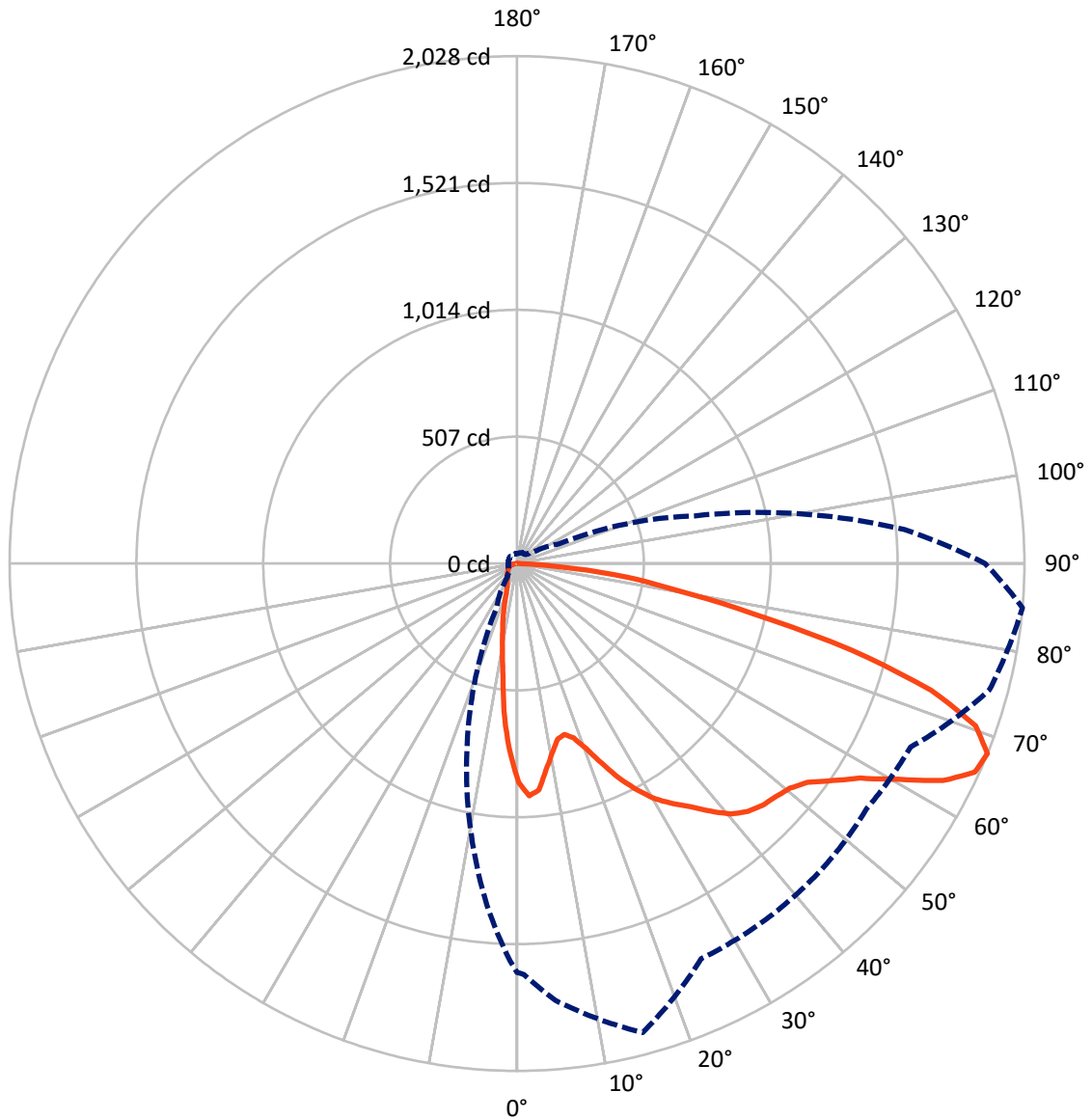
× Max cd
 - - - 1/2 Max cd



Based on 10 foot mounting height. Maximum calculated value = 9.3 fc
 Type III - Medium - Non-Cutoff

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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	510.8	0.0	510.8
	% Fixture	20.1	0.0	20.1
Street Side	Lumens	2024.2	0.0	2024.2
	% Fixture	79.9	0.0	79.9
Total	Lumens	2535.0	0.0	2535.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	66.6	2.6
10°-20°	131.3	5.2
20°-30°	183.5	7.2
30°-40°	258.6	10.2
40°-50°	358.4	14.1
50°-60°	503.6	19.9
60°-70°	615.7	24.3
70°-80°	361.8	14.3
80°-90°	55.4	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°	2535.0	100.0
0°-180°	2535.0	100.0

Coefficient of Utilization



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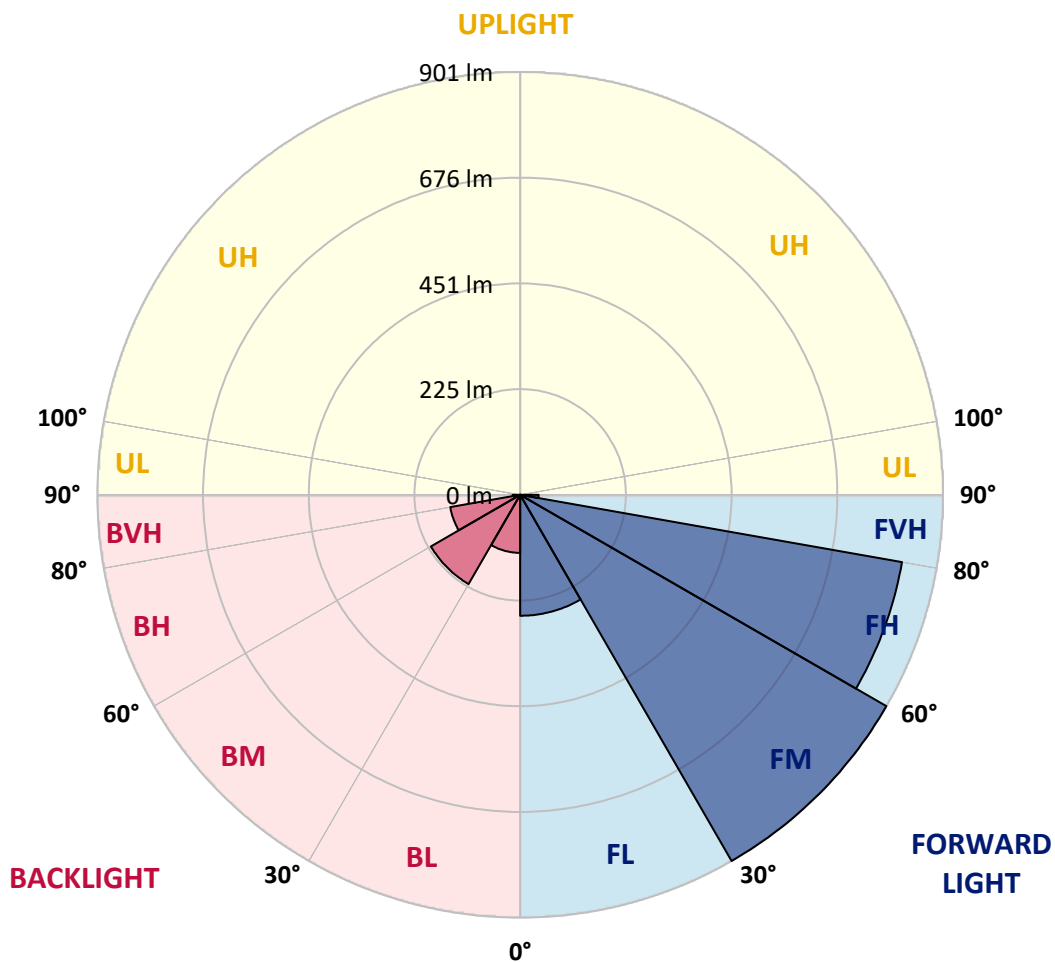
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	257.7	10.2			
FM	(30°-60°)	901.1	35.5			
FH	(60°-80°)	826.2	32.6			G1/1800
FVH	(80°-90°)	39.2	1.5			G1/100
BL	(0°-30°)	123.7	4.9	B1/500		
BM	(30°-60°)	219.6	8.7	B0/220		
BH	(60°-80°)	151.3	6.0	B1/500		G1/500
BVH	(80°-90°)	16.2	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 III Medium





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CANDELA DISTRIBUTION (FULL):

	0°	1°	5°	15°	25°	35°	45°	55°	65°	75°	85°
0°	875.8	875.8	875.8	875.8	875.8	875.8	875.8	875.8	875.8	875.8	875.8
2.5°	899.8	895.8	909.6	930.0	943.9	953.6	956.9	956.5	953.6	945.9	929.6
5°	859.9	856.2	884.4	929.6	969.1	997.6	1005.8	994.4	980.1	950.0	910.0
7.5°	784.1	789.8	825.7	889.2	952.8	998.1	1009.1	991.1	961.8	900.2	833.0
10°	726.6	729.5	769.8	846.5	914.1	960.6	979.7	963.8	925.5	847.7	769.8
12.5°	691.2	694.0	733.2	804.1	876.2	912.5	918.2	917.8	886.0	810.6	720.5
15°	696.1	699.7	738.9	797.5	838.3	854.2	854.6	859.1	849.7	792.2	708.7
17.5°	743.3	743.3	780.8	816.3	806.9	795.5	804.1	812.2	828.5	803.3	732.7
20°	817.9	821.2	855.8	849.7	792.7	764.1	753.9	768.2	818.7	836.3	789.4
22.5°	898.6	907.2	943.4	898.6	790.2	734.8	723.4	738.9	820.0	888.4	867.2
25°	987.9	998.5	1022.9	955.7	797.5	718.5	710.7	725.4	823.2	936.5	951.2
27.5°	1069.4	1070.2	1094.2	1003.8	816.7	720.1	707.1	726.2	832.2	974.4	1025.4
30°	1127.2	1127.2	1137.8	1028.2	840.3	730.3	710.3	738.5	844.8	995.2	1092.6
32.5°	1180.2	1183.1	1177.8	1053.9	862.8	745.0	718.1	762.9	864.8	1012.3	1144.4
35°	1247.5	1247.1	1223.4	1074.3	883.5	760.9	737.2	793.9	893.7	1037.6	1193.7
37.5°	1330.6	1326.5	1276.4	1092.6	908.8	788.2	773.5	836.3	932.4	1067.3	1256.0
40°	1406.0	1399.5	1324.9	1109.7	928.8	841.2	832.6	888.8	981.3	1104.4	1316.7
42.5°	1464.7	1454.9	1366.1	1121.9	958.9	924.3	931.6	983.4	1030.7	1137.4	1354.6
45°	1514.0	1503.8	1397.0	1128.1	1031.9	1042.9	1057.1	1100.3	1083.2	1146.4	1377.9
47.5°	1549.5	1532.7	1410.5	1146.0	1130.5	1181.4	1225.5	1228.3	1157.4	1146.0	1392.1
50°	1570.2	1551.9	1423.1	1190.4	1245.0	1338.8	1385.6	1363.6	1234.4	1153.3	1412.5
52.5°	1612.2	1593.1	1475.7	1262.5	1362.4	1498.1	1523.4	1487.9	1314.3	1191.2	1453.3
55°	1717.8	1709.2	1577.6	1359.5	1477.7	1626.9	1638.3	1602.8	1397.8	1256.8	1531.1
57.5°	1837.2	1818.4	1715.3	1481.4	1588.2	1727.5	1745.9	1697.0	1485.5	1348.9	1617.9
60°	1870.6	1866.9	1831.9	1623.6	1702.3	1835.1	1836.4	1774.0	1587.8	1458.6	1750.4
62.5°	1821.7	1833.5	1880.4	1755.3	1798.0	1907.3	1897.1	1832.3	1694.9	1633.0	1911.3
65°	1736.5	1753.2	1847.4	1879.6	1820.1	1893.0	1871.4	1830.2	1762.6	1820.9	2011.2
67.5°	1634.2	1643.2	1752.8	1941.5	1743.0	1736.1	1725.9	1707.2	1735.7	1954.5	2028.3
70°	1527.9	1535.6	1636.7	1856.3	1512.0	1432.5	1423.9	1407.6	1518.9	1952.9	1944.4
72.5°	1287.8	1282.9	1376.2	1549.5	1154.5	1046.6	1119.1	1083.6	1228.7	1754.4	1732.0
75°	800.0	826.9	943.9	1086.5	791.0	716.9	817.1	808.1	997.6	1510.7	1379.1
77.5°	487.4	492.7	558.7	677.3	476.4	496.8	525.3	580.7	739.7	1224.6	961.4
80°	255.1	237.2	285.7	371.7	282.8	333.4	385.1	446.3	469.5	798.4	642.7
82.5°	73.8	73.4	96.6	155.7	134.1	163.8	194.4	280.4	307.7	474.8	440.1
85°	0.4	0.4	0.4	0.8	1.2	2.0	8.6	72.1	95.4	220.1	180.9
87.5°	0.0	0.0	0.4	0.8	0.8	1.6	2.4	3.3	4.1	4.9	17.9
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°	875.8	875.8	875.8	875.8	875.8	875.8	875.8	875.8	875.8	875.8	875.8
2.5°	924.3	918.2	905.1	887.6	875.4	854.2	849.7	836.3	822.8	811.8	812.2
5°	890.9	870.1	838.3	801.6	766.6	735.2	729.1	710.7	705.4	700.1	685.5
7.5°	803.3	778.8	734.4	680.2	636.2	606.4	574.6	555.5	538.4	518.8	523.7
10°	736.0	701.0	639.8	576.3	521.2	481.3	446.3	428.3	403.5	385.5	383.1
12.5°	684.3	646.4	573.0	498.4	446.7	423.4	401.0	372.9	345.2	321.5	309.3
15°	667.1	624.3	539.2	465.0	424.2	396.1	364.7	332.5	298.7	273.5	263.7
17.5°	687.1	636.6	538.8	450.7	399.8	358.6	319.5	283.2	243.3	218.0	210.3
20°	742.1	679.0	550.2	437.3	370.0	314.2	259.2	220.1	179.3	161.4	153.2
22.5°	818.7	736.4	567.7	421.0	337.0	260.0	198.1	148.8	128.8	119.8	117.8
25°	897.4	809.4	592.6	407.1	300.8	207.0	142.2	119.0	109.6	105.6	105.6
27.5°	983.8	882.3	619.5	390.4	263.3	154.0	115.7	104.7	99.8	97.4	97.0
30°	1053.9	941.8	650.0	370.9	229.4	126.3	102.7	95.4	90.9	89.7	89.7
32.5°	1104.4	986.2	682.2	351.3	198.5	114.1	95.4	88.8	84.0	83.1	83.1
35°	1163.5	1028.6	696.9	340.3	179.7	106.4	90.1	83.5	79.1	77.0	77.0
37.5°	1234.4	1079.2	705.0	329.7	171.6	99.0	86.4	79.1	74.6	72.1	72.1
40°	1324.5	1136.6	713.6	319.1	166.7	92.9	82.3	75.0	71.3	68.5	68.5
42.5°	1388.9	1189.6	720.1	310.1	158.1	90.1	79.1	72.1	67.7	65.2	64.8
45°	1422.7	1238.9	723.0	304.8	148.3	92.5	76.6	69.7	64.4	61.9	61.5
47.5°	1445.5	1279.7	726.6	300.8	140.6	88.0	76.2	67.2	61.9	58.7	58.7
50°	1481.8	1333.5	736.0	293.0	136.1	82.3	82.3	66.0	59.1	56.2	55.8
52.5°	1546.6	1410.5	761.3	284.5	131.2	76.6	84.8	66.4	57.1	53.8	53.0
55°	1644.4	1533.2	803.3	272.2	124.3	69.7	79.1	66.8	55.0	52.2	50.9
57.5°	1771.6	1681.5	852.2	262.5	112.5	64.0	72.1	64.8	52.6	50.1	49.3
60°	1857.1	1780.5	883.1	249.8	95.8	60.3	61.9	62.8	50.1	47.3	46.9
62.5°	1903.2	1782.2	883.5	232.3	80.3	57.1	55.4	64.0	48.1	44.4	44.0
65°	1906.5	1695.3	839.1	209.9	75.0	53.4	50.9	56.6	46.1	42.4	42.0
67.5°	1871.0	1553.9	737.6	184.2	77.0	50.5	47.3	47.7	43.6	40.3	39.9
70°	1743.8	1371.0	591.7	163.8	77.4	46.9	44.4	43.2	41.2	38.3	37.5
72.5°	1504.6	1145.6	448.3	157.3	78.7	44.0	41.2	39.9	38.3	35.9	35.0
75°	1135.4	893.7	336.6	146.7	79.5	40.8	37.5	36.7	35.0	32.6	32.2
77.5°	784.5	662.7	233.9	123.9	70.9	37.1	33.8	33.0	31.8	29.3	28.9
80°	529.8	454.4	143.5	92.9	53.8	32.6	29.3	29.3	28.1	25.7	25.7
82.5°	368.8	339.5	82.7	60.7	39.1	26.9	25.7	25.7	24.5	22.0	21.6
85°	154.0	205.4	37.1	33.0	27.3	21.2	21.2	21.6	20.4	18.3	17.9
87.5°	5.3	22.0	14.7	15.5	16.3	14.7	16.3	16.3	15.9	14.3	13.9
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°	875.8	875.8	875.8	875.8	875.8	875.8	875.8	875.8	875.8	875.8	875.8
2.5°	800.4	795.1	778.8	776.8	764.5	763.7	769.0	760.1	760.9	771.9	770.2
5°	688.7	676.5	676.1	662.7	647.6	643.9	630.9	626.0	623.9	619.5	635.8
7.5°	538.8	533.1	537.9	536.3	522.5	514.7	487.0	465.8	455.2	459.7	460.9
10°	383.1	391.6	404.7	417.3	407.5	381.9	370.0	352.9	350.9	349.7	357.8
12.5°	303.6	293.8	299.9	304.4	295.1	284.1	279.2	271.8	275.9	285.3	290.6
15°	252.3	235.1	227.4	222.1	224.6	218.0	220.5	218.0	220.9	223.7	233.5
17.5°	199.3	193.2	178.5	171.6	172.0	169.1	169.9	169.5	167.9	174.4	182.2
20°	150.0	148.3	145.1	140.2	141.0	139.0	137.7	130.8	128.0	130.0	136.5
22.5°	117.0	119.0	121.0	120.6	122.7	117.4	112.5	106.4	105.6	106.0	107.6
25°	104.7	105.6	107.2	109.2	110.4	105.6	98.6	95.0	94.5	95.4	95.4
27.5°	97.4	96.6	98.6	101.1	102.7	96.6	90.9	87.6	86.8	86.0	85.6
30°	89.7	89.7	91.3	93.7	95.0	89.7	84.8	81.5	79.5	78.2	77.8
32.5°	84.0	84.4	85.2	86.8	88.8	83.5	79.5	76.6	72.9	71.7	70.9
35°	77.4	79.1	80.3	80.7	82.3	78.7	74.6	70.1	66.8	65.6	65.6
37.5°	72.1	73.4	75.4	75.0	76.2	73.8	69.3	64.4	62.8	62.4	61.9
40°	68.1	68.1	69.7	71.3	72.9	68.5	63.2	60.7	59.5	58.7	59.1
42.5°	64.4	64.0	64.0	66.8	69.7	63.2	58.7	57.1	56.6	55.8	56.2
45°	61.1	60.7	59.5	60.7	64.8	57.9	55.0	53.8	53.4	53.4	53.4
47.5°	58.3	57.5	55.8	56.2	59.1	53.8	51.3	50.9	50.5	50.5	50.9
50°	55.0	54.2	53.0	52.6	53.4	50.9	48.9	48.1	48.1	48.1	48.9
52.5°	52.2	51.8	50.1	49.7	50.1	48.5	46.5	46.1	46.1	46.1	47.3
55°	50.1	49.3	48.5	47.7	48.5	46.5	44.8	44.0	44.0	44.8	45.6
57.5°	48.1	47.3	46.9	46.1	46.9	44.8	43.2	42.4	42.8	43.2	43.2
60°	46.1	45.2	44.8	44.0	45.2	43.2	41.6	41.2	41.2	40.8	40.8
62.5°	44.0	43.6	42.8	42.0	43.6	41.2	39.9	39.1	38.7	38.7	38.7
65°	41.6	41.2	40.8	40.3	41.2	39.1	37.9	37.5	36.7	36.3	36.7
67.5°	39.5	39.5	38.7	37.9	39.1	36.7	35.9	35.5	34.2	33.8	34.2
70°	37.1	37.1	36.3	35.9	37.5	34.2	33.4	33.0	32.2	31.8	31.8
72.5°	34.6	34.6	33.8	33.4	35.5	31.8	31.0	30.6	29.3	28.9	28.9
75°	32.2	31.8	31.4	31.0	33.4	29.3	28.1	27.3	26.1	25.7	25.3
77.5°	29.3	28.9	28.1	28.5	30.2	26.1	24.5	24.0	22.8	22.4	22.0
80°	25.7	25.3	24.9	25.7	25.7	22.8	20.8	20.0	18.7	17.9	17.5
82.5°	22.0	21.6	21.6	22.4	21.2	20.0	17.5	15.9	13.9	12.6	12.2
85°	17.9	18.7	17.9	18.7	15.9	15.9	12.2	9.4	6.5	5.3	4.9
87.5°	13.9	14.3	13.9	14.3	11.0	10.6	5.7	3.3	0.4	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°	359°	360°
0°	875.8	875.8	875.8	875.8	875.8	875.8	875.8	875.8	875.8	875.8
2.5°	782.5	783.3	800.8	818.3	828.9	855.4	868.5	883.1	890.9	899.8
5°	628.0	643.5	657.8	692.8	710.7	752.7	783.3	832.2	847.7	859.9
7.5°	474.4	497.6	515.1	558.7	592.6	644.7	698.1	756.4	773.1	784.1
10°	377.0	398.2	431.2	465.4	503.3	566.5	624.3	684.7	714.0	726.6
12.5°	316.7	350.5	389.2	421.0	451.1	497.6	571.0	647.2	677.7	691.2
15°	261.2	299.1	338.7	377.8	415.3	467.9	544.9	643.9	682.6	696.1
17.5°	207.4	238.4	278.3	325.6	380.2	447.1	549.8	678.5	725.8	743.3
20°	147.5	177.7	218.4	276.7	341.5	425.5	561.2	730.7	798.0	817.9
22.5°	111.3	128.0	165.5	222.9	306.9	408.4	579.1	802.0	880.7	898.6
25°	97.8	103.5	122.7	178.1	272.2	392.9	602.7	872.9	968.3	987.9
27.5°	86.8	90.1	99.8	143.0	246.6	377.0	630.9	949.6	1043.7	1069.4
30°	78.2	82.3	90.5	119.8	221.7	354.1	656.5	1018.4	1107.7	1127.2
32.5°	71.7	76.2	83.5	108.4	200.5	337.0	671.2	1069.8	1162.3	1180.2
35°	67.2	71.3	78.7	98.2	181.8	325.2	675.7	1120.7	1229.1	1247.5
37.5°	63.2	67.2	73.8	88.0	168.7	309.7	682.6	1181.4	1306.6	1330.6
40°	60.3	63.6	69.7	81.1	150.8	293.0	690.8	1252.4	1382.0	1406.0
42.5°	57.5	61.1	66.4	81.5	132.9	278.8	696.1	1307.0	1441.9	1464.7
45°	55.0	59.1	65.2	79.9	119.4	265.7	693.6	1352.6	1496.5	1514.0
47.5°	52.6	57.5	68.5	76.6	115.3	253.9	695.7	1396.6	1535.6	1549.5
50°	50.9	57.1	73.4	71.7	116.1	248.6	715.2	1449.2	1564.9	1570.2
52.5°	49.7	58.3	69.3	64.8	116.1	246.2	752.7	1534.0	1615.9	1612.2
55°	47.7	57.9	64.8	58.7	111.3	247.4	788.2	1646.0	1738.1	1717.8
57.5°	46.1	55.4	58.3	54.2	99.8	247.8	840.7	1740.6	1834.3	1837.2
60°	44.0	59.5	50.5	50.5	85.6	245.7	887.2	1739.0	1851.8	1870.6
62.5°	42.0	58.3	45.2	46.9	75.8	238.0	915.3	1637.5	1787.0	1821.7
65°	39.5	46.1	41.6	43.6	71.7	218.8	875.4	1511.6	1699.4	1736.5
67.5°	36.7	37.9	37.9	40.3	70.1	189.9	774.7	1372.6	1589.4	1634.2
70°	33.4	33.8	34.6	38.3	65.2	163.4	630.9	1224.6	1471.2	1527.9
72.5°	30.2	30.6	30.6	34.6	61.1	141.0	446.7	970.3	1228.3	1287.8
75°	26.5	26.9	26.5	30.2	53.4	105.6	265.3	613.7	732.7	800.0
77.5°	22.4	22.4	21.6	23.6	36.7	66.8	145.1	372.9	445.8	487.4
80°	18.3	16.7	13.9	14.3	20.0	38.3	64.8	214.0	244.5	255.1
82.5°	12.2	9.4	5.7	5.3	6.5	10.6	15.1	84.8	77.8	73.8
85°	2.4	0.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.4
87.5°	0.0	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

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