

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: P400916

Luminaire Tested: **ENT-SA1A-730-U-SLL**

Issue Date: 5/20/2020

Test Information

Test Method: LM-79-08
Report Number: P400916
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-SA1A-730-U-SLL
Description: ENTRI LED LUMINAIRE
(1) 70 CRI, 3000K, 350mA LIGHTSQUARE WITH 16 LEDS AND SPILL LIGHT ELIMINATOR LEFT OPTICS
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 2201 lumens
Efficiency: N/A
Efficacy: 109.5 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

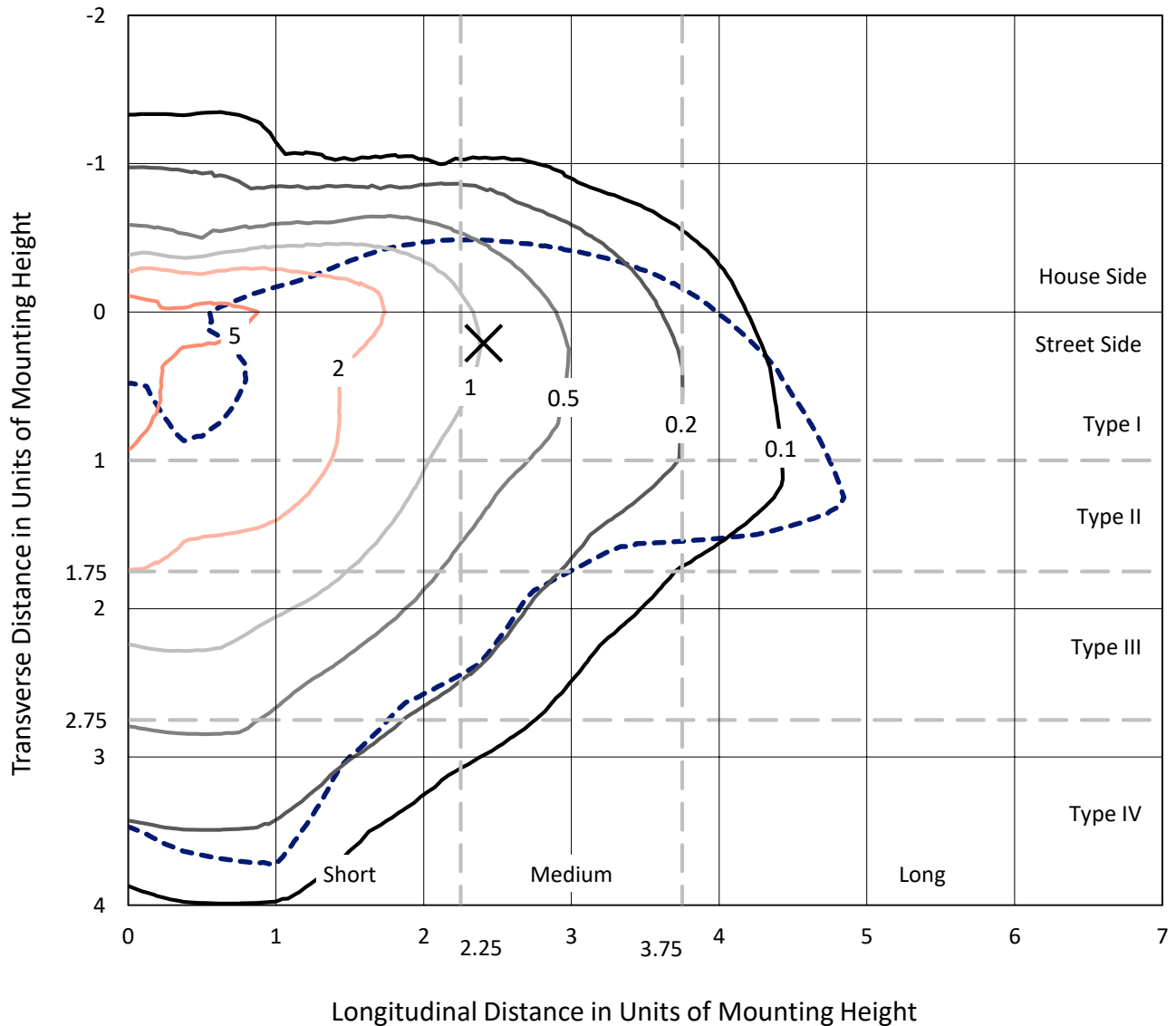
Input Watts (W): 20.1
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Iso-Footcandle Lines of Horizontal Illumination

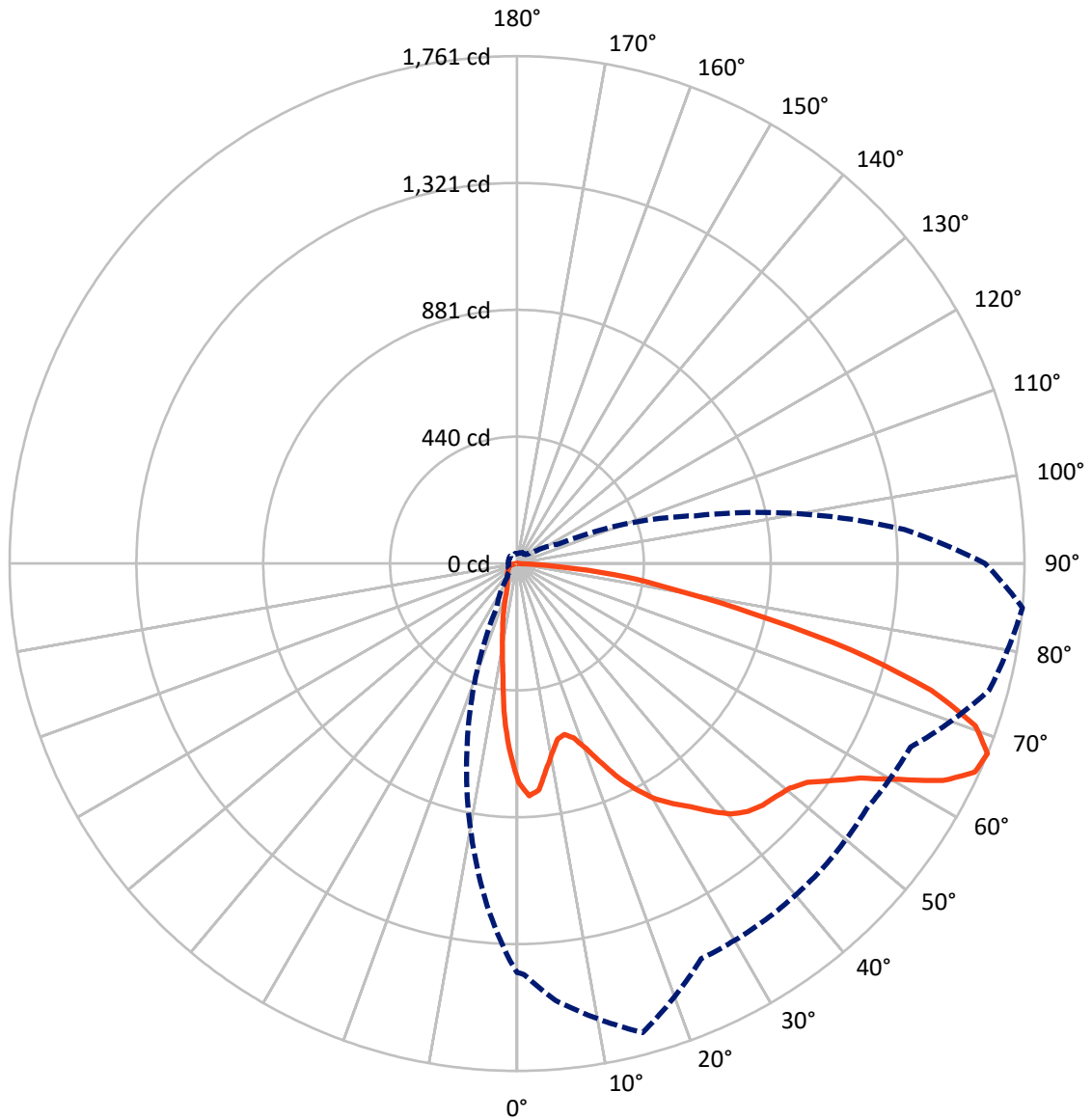
✕ Max cd
 - - - 1/2 Max cd



Based on 10 foot mounting height. Maximum calculated value = 8.1 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	443.5	0.0	443.5
	% Fixture	20.1	0.0	20.1
Street Side	Lumens	1757.5	0.0	1757.5
	% Fixture	79.9	0.0	79.9
Total	Lumens	2201.0	0.0	2201.0
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	57.8	2.6
10°-20°	114.0	5.2
20°-30°	159.3	7.2
30°-40°	224.6	10.2
40°-50°	311.2	14.1
50°-60°	437.3	19.9
60°-70°	534.6	24.3
70°-80°	314.2	14.3
80°-90°	48.1	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°	2201.0	100.0
0°-180°	2201.0	100.0



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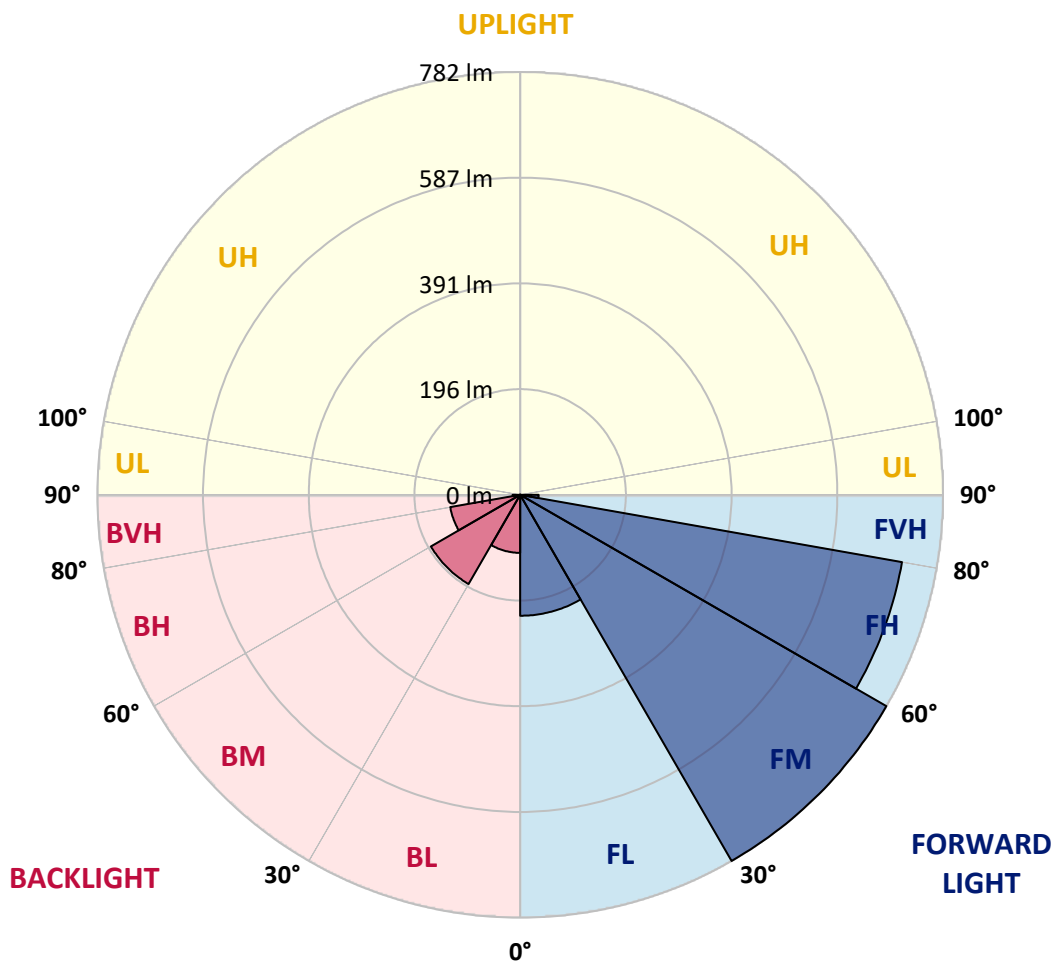
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	223.7	10.2			
FM	(30°-60°)	782.4	35.5			
FH	(60°-80°)	717.4	32.6			G1/1800
FVH	(80°-90°)	34.0	1.5			G1/100
BL	(0°-30°)	107.4	4.9	B0/110		
BM	(30°-60°)	190.6	8.7	B0/220		
BH	(60°-80°)	131.4	6.0	B1/500		G1/500
BVH	(80°-90°)	14.1	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°	760.4	760.4	760.4	760.4	760.4	760.4	760.4	760.4	760.4	760.4	760.4
2.5°	781.3	777.7	789.8	807.5	819.5	828.0	830.8	830.5	828.0	821.3	807.1
5°	746.6	743.4	767.8	807.1	841.4	866.2	873.3	863.4	851.0	824.8	790.1
7.5°	680.8	685.7	716.9	772.1	827.3	866.6	876.1	860.5	835.1	781.6	723.3
10°	630.9	633.4	668.4	734.9	793.7	834.0	850.6	836.8	803.6	736.0	668.4
12.5°	600.1	602.6	636.6	698.1	760.8	792.2	797.2	796.8	769.3	703.8	625.6
15°	604.4	607.5	641.5	692.5	727.9	741.7	742.0	745.9	737.8	687.9	615.3
17.5°	645.4	645.4	678.0	708.7	700.6	690.7	698.1	705.2	719.4	697.4	636.2
20°	710.2	713.0	743.1	737.8	688.2	663.5	654.6	667.0	710.9	726.1	685.4
22.5°	780.2	787.6	819.1	780.2	686.1	638.0	628.1	641.5	711.9	771.4	753.0
25°	857.7	866.9	888.1	829.8	692.5	623.8	617.1	629.8	714.8	813.1	825.9
27.5°	928.5	929.2	950.1	871.5	709.1	625.2	613.9	630.5	722.5	846.0	890.3
30°	978.7	978.7	987.9	892.7	729.6	634.1	616.7	641.2	733.5	864.1	948.6
32.5°	1024.7	1027.2	1022.6	915.0	749.1	646.8	623.5	662.4	750.9	878.9	993.6
35°	1083.1	1082.8	1062.2	932.7	767.1	660.6	640.1	689.3	776.0	900.9	1036.4
37.5°	1155.3	1151.8	1108.2	948.6	789.1	684.3	671.6	726.1	809.6	926.7	1090.5
40°	1220.8	1215.1	1150.3	963.5	806.4	730.3	722.9	771.7	852.0	958.9	1143.3
42.5°	1271.7	1263.2	1186.1	974.1	832.6	802.5	808.9	853.8	894.9	987.6	1176.2
45°	1314.5	1305.7	1213.0	979.4	895.9	905.5	917.9	955.4	940.5	995.4	1196.3
47.5°	1345.3	1330.8	1224.6	995.0	981.6	1025.8	1064.0	1066.5	1004.9	995.0	1208.7
50°	1363.3	1347.4	1235.6	1033.6	1081.0	1162.4	1203.1	1184.0	1071.8	1001.4	1226.4
52.5°	1399.8	1383.2	1281.3	1096.2	1182.9	1300.7	1322.7	1291.9	1141.1	1034.3	1261.8
55°	1491.4	1484.0	1369.7	1180.4	1283.0	1412.5	1422.4	1391.7	1213.7	1091.2	1329.4
57.5°	1595.1	1578.8	1489.3	1286.2	1378.9	1499.9	1515.9	1473.4	1289.8	1171.2	1404.7
60°	1624.1	1620.9	1590.5	1409.7	1478.0	1593.3	1594.4	1540.3	1378.6	1266.4	1519.7
62.5°	1581.7	1591.9	1632.6	1524.0	1561.1	1656.0	1647.1	1590.9	1471.6	1417.8	1659.5
65°	1507.7	1522.2	1604.0	1631.9	1580.3	1643.6	1624.8	1589.1	1530.4	1581.0	1746.2
67.5°	1418.9	1426.7	1521.9	1685.7	1513.4	1507.4	1498.5	1482.2	1507.0	1697.0	1761.1
70°	1326.5	1333.3	1421.0	1611.7	1312.7	1243.8	1236.3	1222.2	1318.8	1695.6	1688.2
72.5°	1118.1	1113.9	1194.9	1345.3	1002.4	908.7	971.6	940.9	1066.8	1523.3	1503.8
75°	694.6	717.9	819.5	943.3	686.8	622.4	709.5	701.7	866.2	1311.7	1197.4
77.5°	423.2	427.8	485.1	588.1	413.6	431.3	456.1	504.2	642.2	1063.3	834.7
80°	221.5	205.9	248.0	322.7	245.6	289.4	334.4	387.5	407.6	693.2	558.0
82.5°	64.0	63.7	83.9	135.2	116.4	142.2	168.8	243.4	267.1	412.2	382.1
85°	0.4	0.4	0.4	0.7	1.1	1.8	7.4	62.6	82.8	191.1	157.1
87.5°	0.0	0.0	0.4	0.7	0.7	1.4	2.1	2.8	3.5	4.2	15.6
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):

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	760.4	760.4	760.4	760.4	760.4	760.4	760.4	760.4	760.4	760.4	760.4
2.5°	802.5	797.2	785.9	770.7	760.1	741.7	737.8	726.1	714.4	704.9	705.2
5°	773.5	755.5	727.9	696.0	665.6	638.3	633.0	617.1	612.5	607.9	595.2
7.5°	697.4	676.2	637.6	590.6	552.3	526.5	498.9	482.3	467.4	450.4	454.7
10°	639.0	608.6	555.5	500.3	452.6	417.9	387.5	371.9	350.3	334.7	332.6
12.5°	594.1	561.2	497.5	432.7	387.8	367.6	348.2	323.8	299.7	279.2	268.6
15°	579.2	542.1	468.1	403.7	368.3	343.9	316.7	288.7	259.4	237.4	228.9
17.5°	596.6	552.7	467.8	391.3	347.1	311.4	277.4	245.9	211.2	189.3	182.6
20°	644.3	589.5	477.7	379.7	321.3	272.8	225.0	191.1	155.7	140.1	133.0
22.5°	710.9	639.4	492.9	365.5	292.6	225.8	172.0	129.2	111.8	104.0	102.3
25°	779.2	702.7	514.5	353.5	261.1	179.8	123.5	103.3	95.2	91.6	91.6
27.5°	854.2	766.1	537.8	339.0	228.6	133.8	100.5	90.9	86.7	84.6	84.2
30°	915.0	817.7	564.4	322.0	199.2	109.7	89.2	82.8	78.9	77.8	77.8
32.5°	958.9	856.3	592.3	305.0	172.3	99.1	82.8	77.1	72.9	72.2	72.2
35°	1010.2	893.1	605.1	295.5	156.0	92.4	78.2	72.5	68.6	66.9	66.9
37.5°	1071.8	937.0	612.1	286.3	149.0	86.0	75.0	68.6	64.8	62.6	62.6
40°	1150.0	986.9	619.6	277.1	144.7	80.7	71.5	65.1	61.9	59.4	59.4
42.5°	1205.9	1032.9	625.2	269.3	137.3	78.2	68.6	62.6	58.7	56.6	56.3
45°	1235.3	1075.7	627.7	264.7	128.8	80.3	66.5	60.5	55.9	53.8	53.4
47.5°	1255.1	1111.1	630.9	261.1	122.1	76.4	66.2	58.4	53.8	51.0	51.0
50°	1286.6	1157.8	639.0	254.4	118.2	71.5	71.5	57.3	51.3	48.8	48.5
52.5°	1342.8	1224.6	661.0	247.0	113.9	66.5	73.6	57.7	49.5	46.7	46.0
55°	1427.7	1331.1	697.4	236.4	107.9	60.5	68.6	58.0	47.8	45.3	44.2
57.5°	1538.1	1459.9	739.9	227.9	97.7	55.6	62.6	56.3	45.6	43.5	42.8
60°	1612.5	1545.9	766.8	216.9	83.2	52.4	53.8	54.5	43.5	41.0	40.7
62.5°	1652.4	1547.3	767.1	201.7	69.7	49.5	48.1	55.6	41.8	38.6	38.2
65°	1655.3	1472.0	728.6	182.2	65.1	46.4	44.2	49.2	40.0	36.8	36.4
67.5°	1624.5	1349.2	640.5	159.9	66.9	43.9	41.0	41.4	37.9	35.0	34.7
70°	1514.1	1190.3	513.8	142.2	67.2	40.7	38.6	37.5	35.7	33.3	32.6
72.5°	1306.4	994.6	389.2	136.6	68.3	38.2	35.7	34.7	33.3	31.1	30.4
75°	985.8	776.0	292.3	127.4	69.0	35.4	32.6	31.8	30.4	28.3	28.0
77.5°	681.1	575.3	203.1	107.6	61.6	32.2	29.4	28.7	27.6	25.5	25.1
80°	460.0	394.5	124.6	80.7	46.7	28.3	25.5	25.5	24.4	22.3	22.3
82.5°	320.2	294.7	71.8	52.7	34.0	23.4	22.3	22.3	21.2	19.1	18.8
85°	133.8	178.3	32.2	28.7	23.7	18.4	18.4	18.8	17.7	15.9	15.6
87.5°	4.6	19.1	12.7	13.4	14.2	12.7	14.2	14.2	13.8	12.4	12.0
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°	760.4	760.4	760.4	760.4	760.4	760.4	760.4	760.4	760.4	760.4	760.4
2.5°	694.9	690.3	676.2	674.4	663.8	663.1	667.7	659.9	660.6	670.2	668.8
5°	598.0	587.4	587.0	575.3	562.3	559.1	547.7	543.5	541.7	537.8	552.0
7.5°	467.8	462.8	467.1	465.7	453.6	446.9	422.8	404.4	395.2	399.1	400.2
10°	332.6	340.0	351.4	362.3	353.8	331.5	321.3	306.4	304.7	303.6	310.7
12.5°	263.6	255.1	260.4	264.3	256.2	246.6	242.4	236.0	239.6	247.7	252.3
15°	219.0	204.2	197.4	192.8	195.0	189.3	191.4	189.3	191.8	194.3	202.8
17.5°	173.0	167.7	155.0	149.0	149.3	146.8	147.6	147.2	145.8	151.4	158.2
20°	130.2	128.8	126.0	121.7	122.4	120.7	119.6	113.6	111.1	112.9	118.5
22.5°	101.6	103.3	105.1	104.7	106.5	101.9	97.7	92.4	91.6	92.0	93.4
25°	90.9	91.6	93.1	94.8	95.9	91.6	85.6	82.4	82.1	82.8	82.8
27.5°	84.6	83.9	85.6	87.8	89.2	83.9	78.9	76.1	75.4	74.7	74.3
30°	77.8	77.8	79.3	81.4	82.4	77.8	73.6	70.8	69.0	67.9	67.6
32.5°	72.9	73.2	74.0	75.4	77.1	72.5	69.0	66.5	63.3	62.3	61.6
35°	67.2	68.6	69.7	70.1	71.5	68.3	64.8	60.9	58.0	57.0	57.0
37.5°	62.6	63.7	65.5	65.1	66.2	64.0	60.2	55.9	54.5	54.1	53.8
40°	59.1	59.1	60.5	61.9	63.3	59.4	54.8	52.7	51.7	51.0	51.3
42.5°	55.9	55.6	55.6	58.0	60.5	54.8	51.0	49.5	49.2	48.5	48.8
45°	53.1	52.7	51.7	52.7	56.3	50.2	47.8	46.7	46.4	46.4	46.4
47.5°	50.6	49.9	48.5	48.8	51.3	46.7	44.6	44.2	43.9	43.9	44.2
50°	47.8	47.1	46.0	45.6	46.4	44.2	42.5	41.8	41.8	41.8	42.5
52.5°	45.3	44.9	43.5	43.2	43.5	42.1	40.3	40.0	40.0	40.0	41.0
55°	43.5	42.8	42.1	41.4	42.1	40.3	38.9	38.2	38.2	38.9	39.6
57.5°	41.8	41.0	40.7	40.0	40.7	38.9	37.5	36.8	37.2	37.5	37.5
60°	40.0	39.3	38.9	38.2	39.3	37.5	36.1	35.7	35.7	35.4	35.4
62.5°	38.2	37.9	37.2	36.4	37.9	35.7	34.7	34.0	33.6	33.6	33.6
65°	36.1	35.7	35.4	35.0	35.7	34.0	32.9	32.6	31.8	31.5	31.8
67.5°	34.3	34.3	33.6	32.9	34.0	31.8	31.1	30.8	29.7	29.4	29.7
70°	32.2	32.2	31.5	31.1	32.6	29.7	29.0	28.7	28.0	27.6	27.6
72.5°	30.1	30.1	29.4	29.0	30.8	27.6	26.9	26.5	25.5	25.1	25.1
75°	28.0	27.6	27.2	26.9	29.0	25.5	24.4	23.7	22.6	22.3	21.9
77.5°	25.5	25.1	24.4	24.8	26.2	22.6	21.2	20.9	19.8	19.5	19.1
80°	22.3	21.9	21.6	22.3	22.3	19.8	18.0	17.3	16.3	15.6	15.2
82.5°	19.1	18.8	18.8	19.5	18.4	17.3	15.2	13.8	12.0	11.0	10.6
85°	15.6	16.3	15.6	16.3	13.8	13.8	10.6	8.1	5.7	4.6	4.2
87.5°	12.0	12.4	12.0	12.4	9.6	9.2	5.0	2.8	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°	760.4	760.4	760.4	760.4	760.4	760.4	760.4	760.4	760.4	760.4
2.5°	679.4	680.1	695.3	710.5	719.7	742.7	754.0	766.8	773.5	781.3
5°	545.3	558.7	571.1	601.5	617.1	653.5	680.1	722.5	736.0	746.6
7.5°	411.9	432.0	447.3	485.1	514.5	559.8	606.1	656.7	671.2	680.8
10°	327.3	345.7	374.4	404.1	437.0	491.8	542.1	594.5	619.9	630.9
12.5°	274.9	304.3	337.9	365.5	391.7	432.0	495.7	561.9	588.4	600.1
15°	226.8	259.7	294.0	328.0	360.6	406.2	473.1	559.1	592.7	604.4
17.5°	180.1	207.0	241.7	282.7	330.1	388.2	477.3	589.1	630.2	645.4
20°	128.1	154.3	189.7	240.3	296.5	369.4	487.2	634.4	692.8	710.2
22.5°	96.6	111.1	143.7	193.6	266.4	354.5	502.8	696.4	764.7	780.2
25°	84.9	89.9	106.5	154.6	236.4	341.1	523.3	757.9	840.7	857.7
27.5°	75.4	78.2	86.7	124.2	214.1	327.3	547.7	824.4	906.2	928.5
30°	67.9	71.5	78.6	104.0	192.5	307.5	570.0	884.2	961.7	978.7
32.5°	62.3	66.2	72.5	94.1	174.1	292.6	582.8	928.8	1009.2	1024.7
35°	58.4	61.9	68.3	85.3	157.8	282.4	586.7	973.1	1067.2	1083.1
37.5°	54.8	58.4	64.0	76.4	146.5	268.9	592.7	1025.8	1134.4	1155.3
40°	52.4	55.2	60.5	70.4	130.9	254.4	599.8	1087.4	1199.9	1220.8
42.5°	49.9	53.1	57.7	70.8	115.4	242.0	604.4	1134.8	1251.9	1271.7
45°	47.8	51.3	56.6	69.4	103.7	230.7	602.2	1174.4	1299.3	1314.5
47.5°	45.6	49.9	59.4	66.5	100.1	220.4	604.0	1212.6	1333.3	1345.3
50°	44.2	49.5	63.7	62.3	100.8	215.8	621.0	1258.3	1358.7	1363.3
52.5°	43.2	50.6	60.2	56.3	100.8	213.7	653.5	1331.9	1403.0	1399.8
55°	41.4	50.2	56.3	51.0	96.6	214.8	684.3	1429.2	1509.1	1491.4
57.5°	40.0	48.1	50.6	47.1	86.7	215.1	730.0	1511.3	1592.6	1595.1
60°	38.2	51.7	43.9	43.9	74.3	213.4	770.3	1509.8	1607.9	1624.1
62.5°	36.4	50.6	39.3	40.7	65.8	206.6	794.7	1421.7	1551.6	1581.7
65°	34.3	40.0	36.1	37.9	62.3	190.0	760.1	1312.4	1475.5	1507.7
67.5°	31.8	32.9	32.9	35.0	60.9	164.9	672.7	1191.7	1380.0	1418.9
70°	29.0	29.4	30.1	33.3	56.6	141.9	547.7	1063.3	1277.4	1326.5
72.5°	26.2	26.5	26.5	30.1	53.1	122.4	387.8	842.5	1066.5	1118.1
75°	23.0	23.4	23.0	26.2	46.4	91.6	230.4	532.9	636.2	694.6
77.5°	19.5	19.5	18.8	20.5	31.8	58.0	126.0	323.8	387.1	423.2
80°	15.9	14.5	12.0	12.4	17.3	33.3	56.3	185.8	212.3	221.5
82.5°	10.6	8.1	5.0	4.6	5.7	9.2	13.1	73.6	67.6	64.0
85°	2.1	0.7	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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