

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: P400915

Luminaire Tested: **ENV-SA1A-730-U-SLL-HSS**

Issue Date: 5/20/2020

Test Information

Test Method: LM-79-08
Report Number: P400915
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G1-2004-754-8)
Test Lab: INNOVATION CENTER
Issue Date: 5/20/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: INVUE
Catalog Number: ENV-SA1A-730-U-SLL-HSS
Description: ENTRI LED LUMINAIRE
(1) 70 CRI, 3000K, 350mA LIGHTSQUARE WITH 16 LEDS AND SPILL LIGHT
ELIMINATOR LEFT OPTICS WITH HOUSE SIDE SHIELD
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 1872 lumens
Efficiency: N/A
Efficacy: 93.1 lumens/watt
Luminous Opening: Rectangular (W 0.5' x L: 0.5' x H: 0')
IES Classification: Type III - Short - Semi-Cutoff
BUG Rating: B0 - U0 - G1

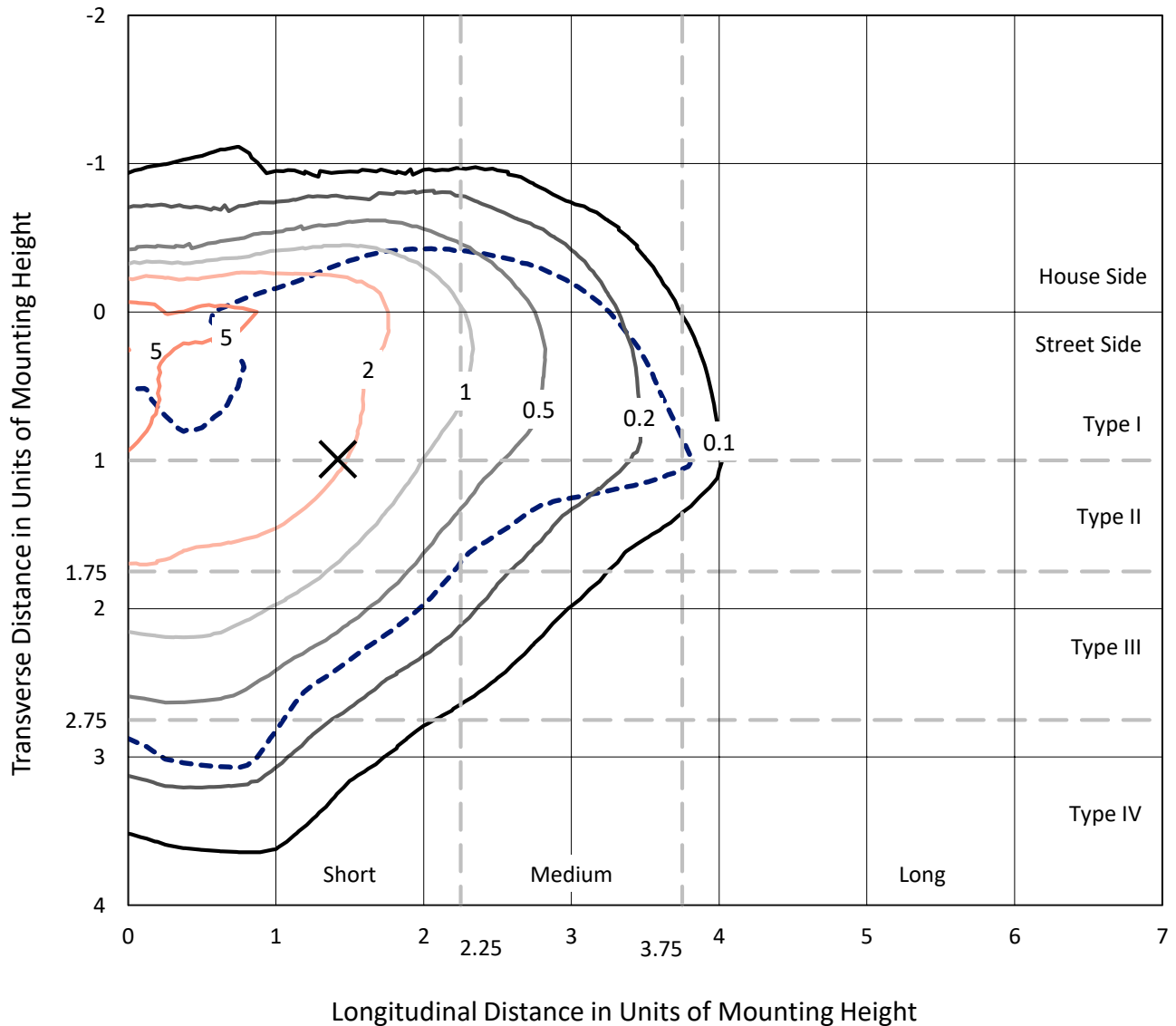
Input Watts (W): 20.1
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Iso-Footcandle Lines of Horizontal Illumination

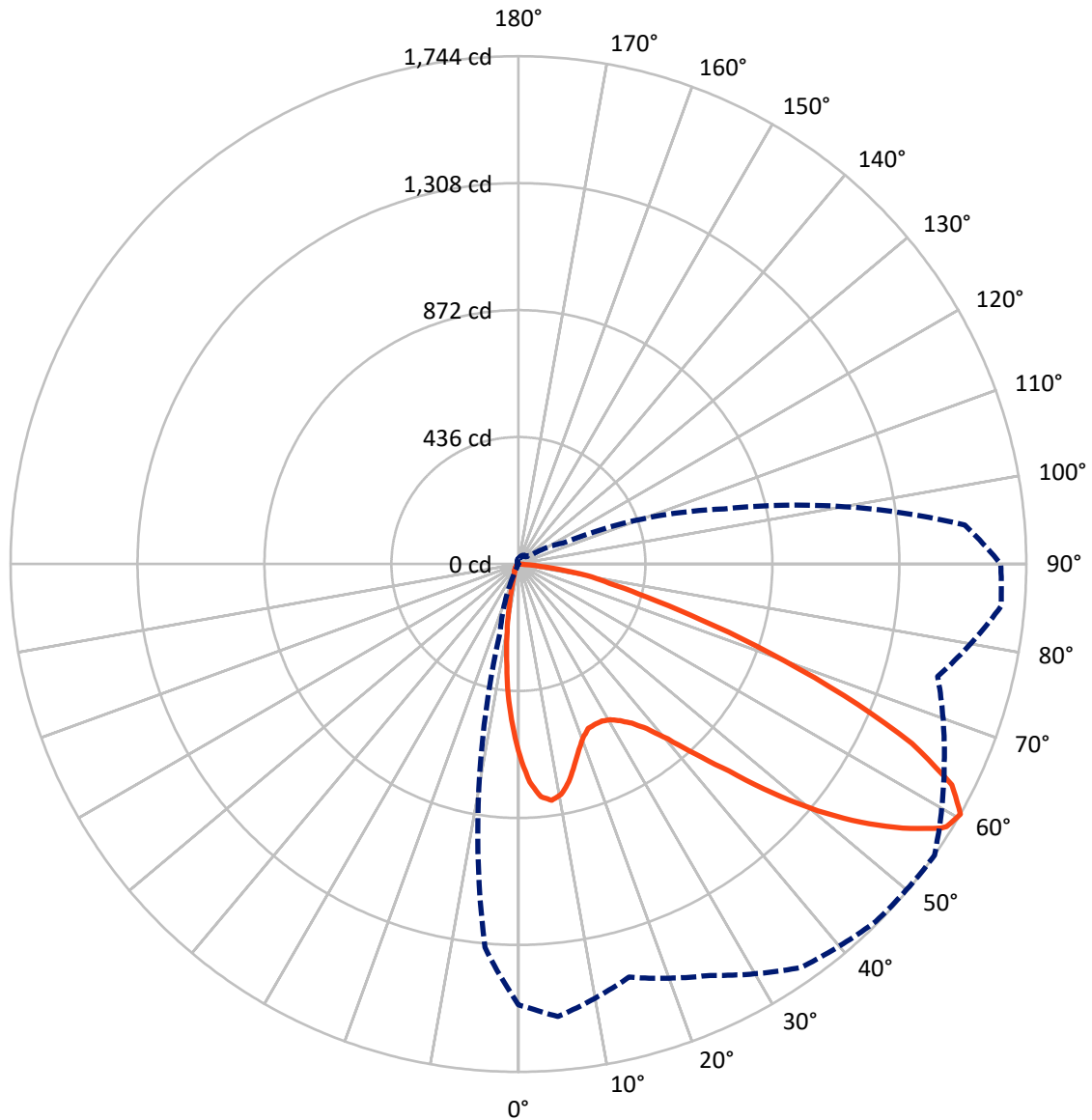
✕ Max cd
 - - - 1/2 Max cd



Based on 10 foot mounting height. Maximum calculated value = 7.8 fc
 Type III - Short - Semi-Cutoff

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Luminous Intensity Polar Plot



— Vertical Plane Through 55-Deg Lateral - - - Horizontal Cone Through 60-Deg Vertical

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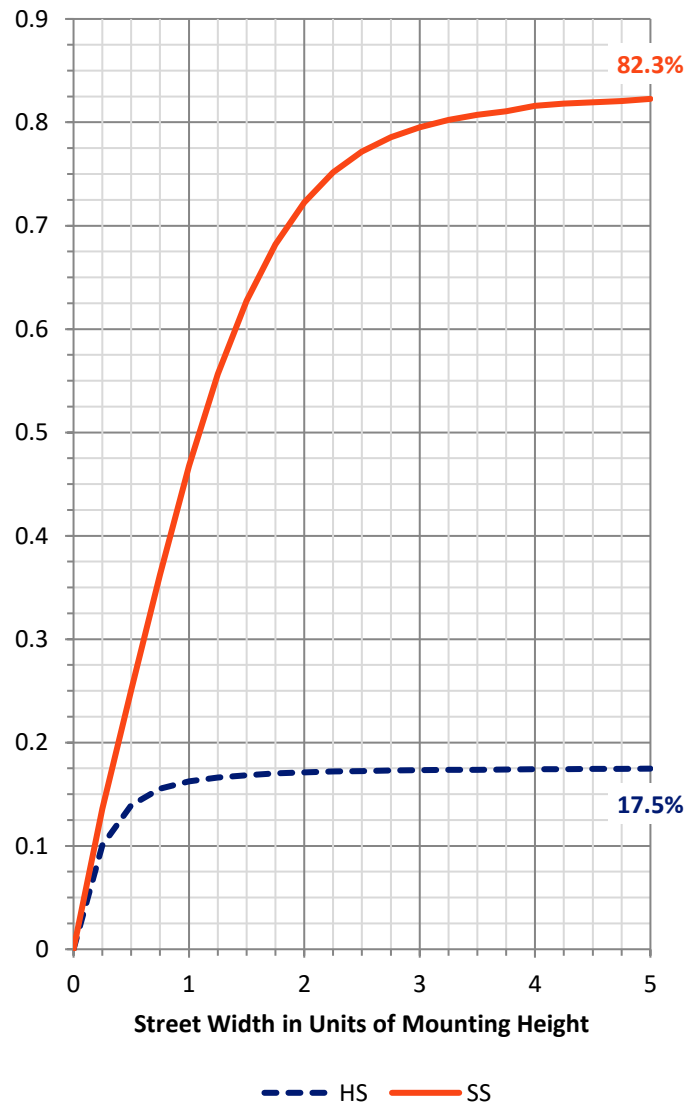
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	331.5	0.0	331.5
	% Fixture	17.7	0.0	17.7
Street Side	Lumens	1540.5	0.0	1540.5
	% Fixture	82.3	0.0	82.3
Total	Lumens	1872.0	0.0	1872.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	49.7	2.7
10°-20°	94.6	5.1
20°-30°	135.0	7.2
30°-40°	198.0	10.6
40°-50°	291.9	15.6
50°-60°	432.4	23.1
60°-70°	460.8	24.6
70°-80°	191.2	10.2
80°-90°	18.4	1.0
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°	1872.0	100.0
0°-180°	1872.0	100.0

Coefficient of Utilization



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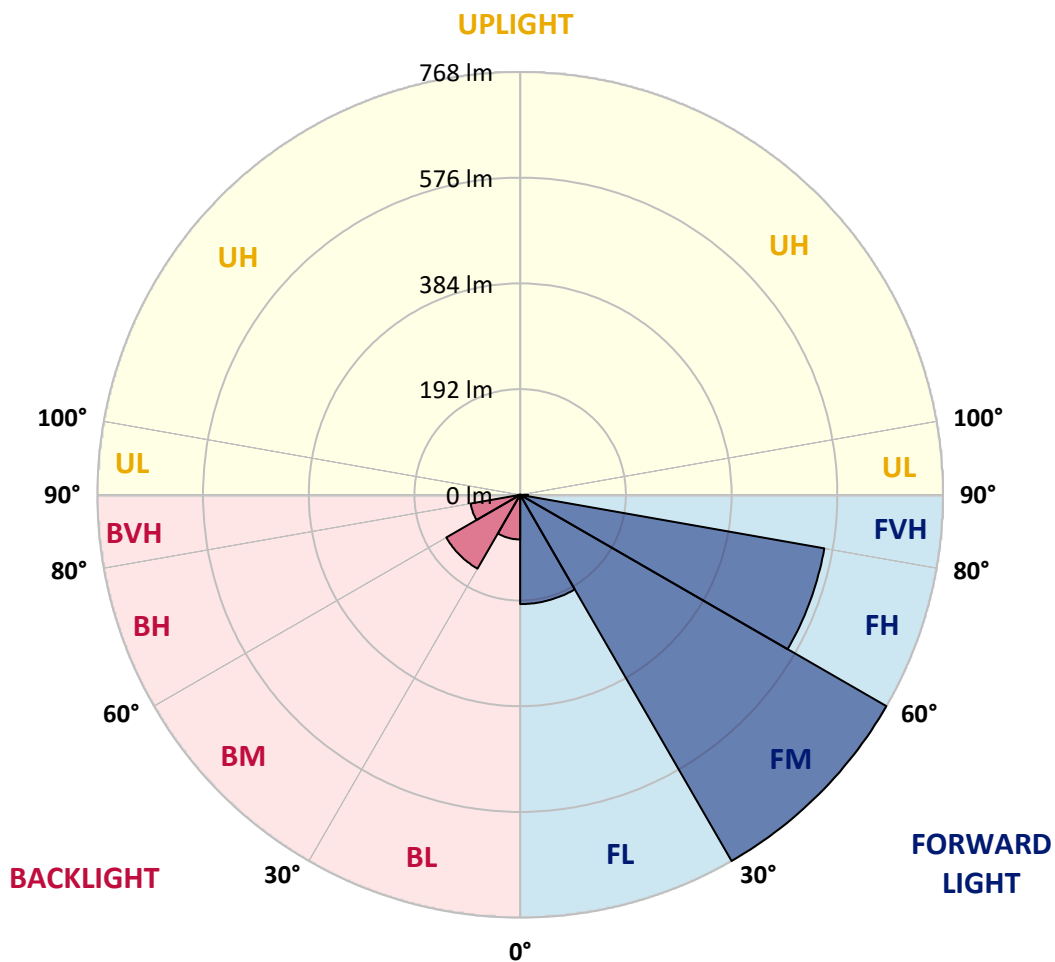
CATALOG NUMBER: ENV-SA1A-730-U-SLL-HSS

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	198.3	10.6			
FM	(30°-60°)	767.5	41.0			
FH	(60°-80°)	560.6	29.9			G0/660
FVH	(80°-90°)	14.1	0.8			G1/100
BL	(0°-30°)	81.1	4.3	B0/110		
BM	(30°-60°)	154.8	8.3	B0/220		
BH	(60°-80°)	91.4	4.9	B0/110		G0/110
BVH	(80°-90°)	4.3	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 Short





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CANDELA DISTRIBUTION (FULL):

	0°	1°	5°	15°	25°	35°	45°	55°	65°	75°	85°
0°	661.1	661.1	661.1	661.1	661.1	661.1	661.1	661.1	661.1	661.1	661.1
2.5°	690.5	689.4	699.3	719.9	732.6	740.4	741.8	749.9	741.8	737.6	722.3
5°	670.3	670.0	689.1	734.0	770.8	798.4	811.9	802.7	788.5	760.6	726.6
7.5°	614.4	614.4	650.5	710.7	772.2	820.0	836.3	819.3	785.7	729.4	668.5
10°	568.7	573.0	607.7	679.5	747.8	800.2	818.2	805.1	761.3	688.4	616.9
12.5°	541.5	544.0	582.5	654.7	718.4	760.9	771.9	768.0	736.1	656.9	581.1
15°	544.0	547.5	591.7	650.8	692.2	709.2	713.1	718.1	705.0	644.1	569.4
17.5°	582.9	585.4	630.0	668.2	666.4	661.1	662.5	670.7	686.2	654.7	593.2
20°	645.2	651.5	696.5	697.2	653.0	628.2	621.8	635.3	677.4	682.7	643.8
22.5°	725.2	727.6	773.3	746.0	654.4	605.5	598.1	613.3	680.2	728.0	713.8
25°	817.9	826.7	851.5	809.4	674.9	602.4	597.4	610.1	690.5	776.1	786.0
27.5°	880.5	887.6	911.3	852.6	693.3	604.1	594.9	610.5	702.9	821.4	863.2
30°	936.4	941.4	950.3	875.2	714.2	613.0	598.1	620.4	709.6	831.0	913.1
32.5°	989.2	995.2	989.9	902.5	737.2	629.6	604.1	641.3	724.1	850.1	956.6
35°	1057.1	1057.5	1039.4	929.7	763.4	649.4	621.8	671.0	752.4	879.8	1003.3
37.5°	1137.8	1138.5	1092.9	957.7	793.1	682.7	663.6	717.0	793.5	914.2	1070.2
40°	1208.3	1211.1	1150.6	989.9	829.6	747.5	745.7	789.9	846.2	959.8	1142.1
42.5°	1269.5	1277.6	1203.7	1016.8	881.2	846.9	851.2	891.5	910.3	998.0	1186.7
45°	1331.4	1331.1	1247.2	1043.7	967.6	975.0	1015.4	1013.6	982.8	1018.6	1221.7
47.5°	1370.0	1368.2	1273.7	1087.6	1084.0	1155.2	1198.0	1174.6	1063.1	1040.5	1265.6
50°	1384.9	1384.1	1294.6	1143.5	1202.6	1318.3	1379.5	1332.8	1161.5	1077.3	1318.0
52.5°	1427.0	1423.4	1342.7	1207.2	1309.8	1475.5	1526.1	1474.0	1259.6	1143.5	1378.8
55°	1492.8	1493.9	1425.6	1281.9	1395.8	1586.2	1648.2	1601.8	1359.7	1234.4	1462.4
57.5°	1537.0	1540.2	1517.2	1365.0	1487.8	1663.7	1723.9	1710.8	1493.2	1343.1	1560.4
58°	1541.3	1543.8	1531.7	1381.0	1501.6	1672.6	1734.2	1725.0	1522.5	1377.8	1583.8
60°	1514.0	1521.5	1560.0	1468.7	1558.6	1691.3	1735.9	1744.1	1613.5	1490.3	1663.7
62.5°	1440.1	1442.5	1512.6	1567.1	1597.6	1645.0	1649.2	1670.5	1651.0	1622.3	1735.2
65°	1349.5	1349.5	1425.2	1571.7	1496.7	1488.9	1464.1	1485.4	1541.6	1705.1	1730.3
67.5°	1192.0	1193.0	1289.7	1400.1	1240.8	1213.9	1198.0	1205.8	1325.8	1636.1	1634.0
70°	963.3	962.6	1062.1	1133.6	920.9	897.9	917.0	914.5	1077.0	1453.9	1426.6
72.5°	681.3	687.3	789.6	875.6	625.4	539.0	623.2	655.8	810.1	1225.6	1103.8
75°	383.6	391.8	475.3	608.4	394.6	364.5	407.7	454.1	585.7	975.7	741.4
77.5°	192.5	195.7	243.5	292.7	239.2	277.8	275.3	319.6	401.7	658.3	424.0
80°	111.1	117.5	133.8	151.1	133.8	176.2	204.6	240.7	247.4	340.5	236.4
82.5°	44.6	49.9	62.6	71.1	55.6	52.4	35.7	112.5	149.0	164.6	90.6
85°	0.0	0.0	0.4	0.7	1.1	1.1	1.8	19.8	36.5	8.1	14.9
87.5°	0.0	0.0	0.4	0.4	0.7	1.1	1.4	2.5	3.2	3.9	13.4
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):

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	661.1	661.1	661.1	661.1	661.1	661.1	661.1	661.1	661.1	661.1	661.1
2.5°	716.7	712.8	699.7	679.9	667.5	648.4	640.6	622.5	613.3	598.1	598.1
5°	709.6	693.7	660.8	617.9	587.5	555.6	545.4	524.1	508.9	490.9	483.4
7.5°	645.2	622.9	571.6	521.7	473.2	441.0	409.1	387.5	367.0	352.1	354.3
10°	586.1	554.2	498.0	434.6	384.3	350.7	322.1	296.9	275.7	254.8	251.6
12.5°	547.5	511.0	443.8	375.9	338.3	313.6	287.0	259.4	233.2	210.2	201.0
15°	531.2	491.6	416.6	352.5	318.2	286.3	255.5	221.5	191.5	163.9	156.4
17.5°	548.9	501.5	414.1	336.9	289.1	249.2	206.3	169.2	133.8	114.0	107.9
20°	597.0	535.5	422.2	321.4	256.9	205.3	152.9	110.8	91.0	78.9	75.0
22.5°	666.8	591.7	436.0	306.1	224.4	152.9	105.5	80.0	68.3	61.9	60.2
25°	742.5	664.3	461.5	293.4	191.8	113.6	78.2	65.5	58.4	53.8	52.0
27.5°	827.8	736.1	492.6	283.8	161.7	91.0	67.2	57.7	52.0	48.8	47.4
30°	881.2	787.8	516.4	266.8	141.2	82.8	64.1	54.5	48.5	46.0	44.9
32.5°	930.4	828.5	539.0	247.4	125.6	73.3	62.3	57.3	50.3	45.3	43.2
35°	984.6	870.3	550.0	235.7	115.4	63.7	51.3	44.6	40.7	40.0	38.9
37.5°	1065.3	919.8	557.1	229.3	109.0	58.0	47.8	40.3	35.7	31.5	29.7
40°	1141.7	971.1	560.6	223.3	105.8	54.5	45.7	38.2	33.3	29.4	27.6
42.5°	1201.5	1017.8	562.7	219.1	100.2	52.4	43.9	36.8	31.5	27.6	25.8
45°	1250.4	1072.0	560.9	217.7	95.6	53.8	43.2	35.7	30.1	26.2	24.4
47.5°	1298.1	1130.7	567.7	215.9	91.0	51.7	43.5	35.4	29.0	25.1	23.4
50°	1360.8	1201.9	592.1	210.9	87.8	48.5	47.1	35.7	28.7	24.4	23.0
52.5°	1441.8	1300.3	636.3	205.6	83.9	45.7	49.2	35.7	28.0	23.7	21.9
55°	1540.2	1410.7	685.2	197.8	77.2	42.1	47.1	35.7	27.3	23.4	21.2
57.5°	1620.6	1509.1	723.7	188.6	64.8	37.9	43.2	34.3	25.5	21.9	20.2
58°	1627.6	1520.4	729.1	186.2	63.4	37.2	42.1	34.0	24.8	21.6	19.8
60°	1656.3	1538.8	731.2	172.7	52.7	35.4	36.5	32.9	23.4	20.2	18.8
62.5°	1646.4	1477.9	686.2	149.0	47.1	32.2	30.4	33.6	21.6	18.4	17.0
65°	1597.2	1358.3	601.3	133.4	47.4	28.7	26.2	29.4	19.8	16.6	15.2
67.5°	1480.1	1176.8	488.4	124.9	49.5	25.5	22.7	21.9	17.7	14.9	13.8
70°	1262.4	964.4	370.2	117.5	52.4	22.7	20.9	19.5	16.3	13.8	12.4
72.5°	929.7	714.2	269.3	110.1	51.0	20.2	19.5	17.7	14.9	12.4	11.7
75°	580.1	414.8	184.4	89.9	45.7	17.7	18.0	16.6	13.4	11.7	10.6
77.5°	338.7	291.3	91.0	66.9	31.5	15.6	15.9	15.2	13.8	11.0	10.3
80°	202.8	181.2	38.9	28.7	17.3	13.8	13.4	14.2	13.1	10.3	9.6
82.5°	87.8	78.6	18.8	15.9	14.2	12.0	11.7	12.0	11.3	8.5	8.1
85°	5.0	13.1	8.8	11.7	10.6	8.8	8.8	9.2	8.1	6.7	6.7
87.5°	4.6	9.9	5.7	7.1	7.8	6.7	7.1	7.1	6.7	6.0	5.7
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°	661.1	661.1	661.1	661.1	661.1	661.1	661.1	661.1	661.1	661.1	661.1
2.5°	590.0	586.1	574.4	570.2	551.7	556.3	557.8	556.0	556.7	558.1	563.4
5°	488.8	482.4	467.2	457.3	451.9	448.4	431.8	432.1	434.6	425.0	437.4
7.5°	347.2	354.3	355.7	346.5	340.8	328.8	313.6	305.1	290.6	298.7	300.5
10°	248.4	244.9	251.6	248.4	239.6	235.0	218.7	217.3	215.9	214.8	225.1
12.5°	189.3	178.7	170.9	172.7	166.0	154.7	151.8	152.2	153.6	153.6	156.4
15°	150.1	133.8	121.4	114.0	115.0	103.7	100.5	89.9	88.5	85.3	86.0
17.5°	105.1	98.4	91.0	82.5	78.9	68.7	56.3	50.6	46.4	47.1	49.2
20°	72.6	69.7	67.6	63.4	59.8	47.8	40.0	37.5	37.2	37.9	38.6
22.5°	58.4	55.6	53.4	52.0	47.4	38.6	34.3	32.6	32.6	32.6	32.9
25°	50.3	47.4	44.6	44.6	40.3	33.6	30.4	29.0	28.7	28.3	29.0
27.5°	46.7	42.8	40.0	38.2	35.0	29.7	26.9	25.5	25.1	25.1	25.5
30°	43.2	39.3	36.5	34.0	30.4	26.5	23.7	22.7	21.9	21.9	22.3
32.5°	41.1	37.2	33.6	30.4	26.5	23.4	20.9	19.5	18.8	19.1	19.5
35°	36.5	33.3	30.1	26.9	23.4	20.5	18.0	16.6	16.3	16.3	16.6
37.5°	28.7	26.2	25.5	23.7	20.5	17.7	15.2	13.8	13.4	13.4	13.8
40°	25.8	22.7	21.2	20.5	18.8	15.2	12.4	11.0	11.0	10.6	11.3
42.5°	23.7	20.5	18.0	17.3	16.3	13.1	9.9	8.8	8.5	8.5	8.8
45°	22.3	18.8	15.6	13.8	13.8	10.6	8.1	6.7	6.4	6.4	6.7
47.5°	21.6	17.7	13.8	11.3	11.0	8.8	6.4	5.0	4.6	4.6	4.6
50°	20.9	16.3	12.4	9.6	8.5	7.4	5.0	3.9	3.5	3.5	3.5
52.5°	19.8	15.6	11.3	8.5	6.7	5.7	3.9	2.8	2.5	2.1	2.5
55°	19.1	14.5	11.0	7.8	5.7	4.2	2.8	2.1	1.8	1.8	1.8
57.5°	18.0	13.4	9.9	7.4	5.3	3.2	2.1	1.4	1.1	1.1	1.4
58°	17.7	13.4	9.6	7.1	5.0	3.2	2.1	1.4	1.1	1.1	1.4
60°	16.6	12.4	9.2	6.4	4.6	2.8	1.8	1.1	0.7	0.7	1.1
62.5°	15.6	11.3	8.1	5.7	3.9	2.5	1.4	0.7	0.4	0.4	0.4
65°	13.8	10.3	7.1	5.3	3.2	1.8	1.1	0.4	0.0	0.0	0.0
67.5°	12.4	9.6	6.4	4.6	2.8	1.4	0.7	0.0	0.0	0.0	0.0
70°	11.3	8.8	5.7	3.9	2.5	1.1	0.4	0.0	0.0	0.0	0.0
72.5°	10.6	8.1	5.3	3.5	1.8	1.1	0.4	0.0	0.0	0.0	0.0
75°	10.3	7.8	5.3	3.2	1.8	1.1	0.7	0.4	0.0	0.0	0.4
77.5°	9.9	7.8	5.3	3.2	2.1	1.1	1.1	0.7	0.7	0.4	1.1
80°	9.2	7.1	4.6	2.8	1.8	1.4	1.1	0.7	0.0	0.0	0.0
82.5°	7.8	5.7	3.9	2.8	1.8	1.1	0.4	0.0	0.0	0.0	0.0
85°	6.4	4.6	3.2	1.8	1.1	0.4	0.0	0.0	0.0	0.0	0.0
87.5°	5.7	3.5	2.5	1.4	0.7	0.4	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°	359°	360°
0°	661.1	661.1	661.1	661.1	661.1	661.1	661.1	661.1	661.1	661.1
2.5°	568.0	584.3	591.0	613.7	623.6	644.1	661.8	677.0	684.5	690.5
5°	440.6	456.2	472.8	506.4	535.5	566.6	605.5	645.9	657.6	670.3
7.5°	307.5	330.6	358.5	388.6	430.0	477.1	533.0	582.9	608.0	614.4
10°	238.9	266.1	295.9	325.6	359.9	410.2	466.5	530.9	557.8	568.7
12.5°	179.4	215.9	251.3	286.3	316.0	359.6	420.8	497.6	527.3	541.5
15°	107.9	149.0	192.5	239.6	281.0	332.0	401.0	490.5	528.0	544.0
17.5°	53.8	73.6	113.6	184.4	245.6	309.0	400.6	516.0	562.4	582.9
20°	40.0	45.3	60.5	115.0	204.2	289.9	404.9	559.5	627.8	645.2
22.5°	34.3	38.2	43.5	67.2	152.9	272.2	419.7	617.2	702.2	725.2
25°	30.1	33.3	37.5	46.4	104.8	251.3	447.7	698.6	786.4	817.9
27.5°	26.5	29.4	32.9	38.9	70.1	212.0	463.6	766.9	854.3	880.5
30°	23.4	25.5	29.0	33.3	51.7	163.9	478.5	827.1	915.9	936.4
32.5°	20.5	22.3	25.1	28.3	39.3	124.2	479.2	878.8	969.7	989.2
35°	17.3	19.5	21.6	24.4	31.1	97.0	464.7	930.1	1033.4	1057.1
37.5°	14.5	16.3	18.8	21.2	28.3	75.0	434.6	990.2	1110.9	1137.8
40°	12.4	14.2	16.3	19.1	25.1	54.5	386.5	1044.7	1183.5	1208.3
42.5°	9.9	11.7	14.2	18.8	20.9	39.3	338.0	1097.1	1246.5	1269.5
45°	7.8	9.9	13.1	18.0	17.3	27.6	296.2	1143.5	1300.6	1331.4
47.5°	5.7	8.1	13.1	16.3	14.2	19.8	275.0	1188.1	1349.1	1370.0
50°	4.2	6.7	14.2	13.8	12.0	17.0	278.2	1237.6	1371.4	1384.9
52.5°	3.2	5.7	11.0	9.9	10.3	14.9	290.6	1303.1	1417.4	1427.0
55°	2.8	4.2	6.7	7.4	9.2	14.2	287.4	1365.0	1476.2	1492.8
57.5°	2.5	3.5	5.3	6.0	8.1	13.4	269.3	1392.3	1514.0	1537.0
58°	2.1	3.5	5.0	6.0	8.1	13.1	264.7	1384.9	1512.3	1541.3
60°	1.8	3.2	4.6	5.3	7.1	11.7	242.4	1321.9	1473.3	1514.0
62.5°	1.4	2.1	3.5	3.9	5.7	9.6	199.6	1219.9	1389.8	1440.1
65°	0.7	1.4	2.1	2.8	3.9	7.1	141.9	1099.2	1300.3	1349.5
67.5°	0.0	0.7	1.4	1.8	2.5	5.3	81.8	932.9	1153.0	1192.0
70°	0.0	0.4	0.7	1.1	1.4	3.5	43.2	684.8	893.3	963.3
72.5°	0.4	0.4	0.4	0.0	0.7	2.8	19.1	406.3	609.1	681.3
75°	0.4	0.4	0.0	0.0	0.0	1.4	8.1	214.1	349.3	383.6
77.5°	1.4	0.7	0.0	0.0	0.0	0.4	3.9	115.4	181.2	192.5
80°	0.4	0.0	0.0	0.0	0.0	0.0	1.4	38.6	108.7	111.1
82.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.7	46.7	44.6
85°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
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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