

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: P401096

Luminaire Tested: **ENT-SA1B-730-U-SLL**

Issue Date: 5/20/2020

Test Information

Test Method: LM-79-08
Report Number: P401096
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-730-U-SLL
Description: ENTRI LED LUMINAIRE
(1) 70 CRI, 3000K, 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: 2761 lumens
Efficiency: N/A
Efficacy: 108.7 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

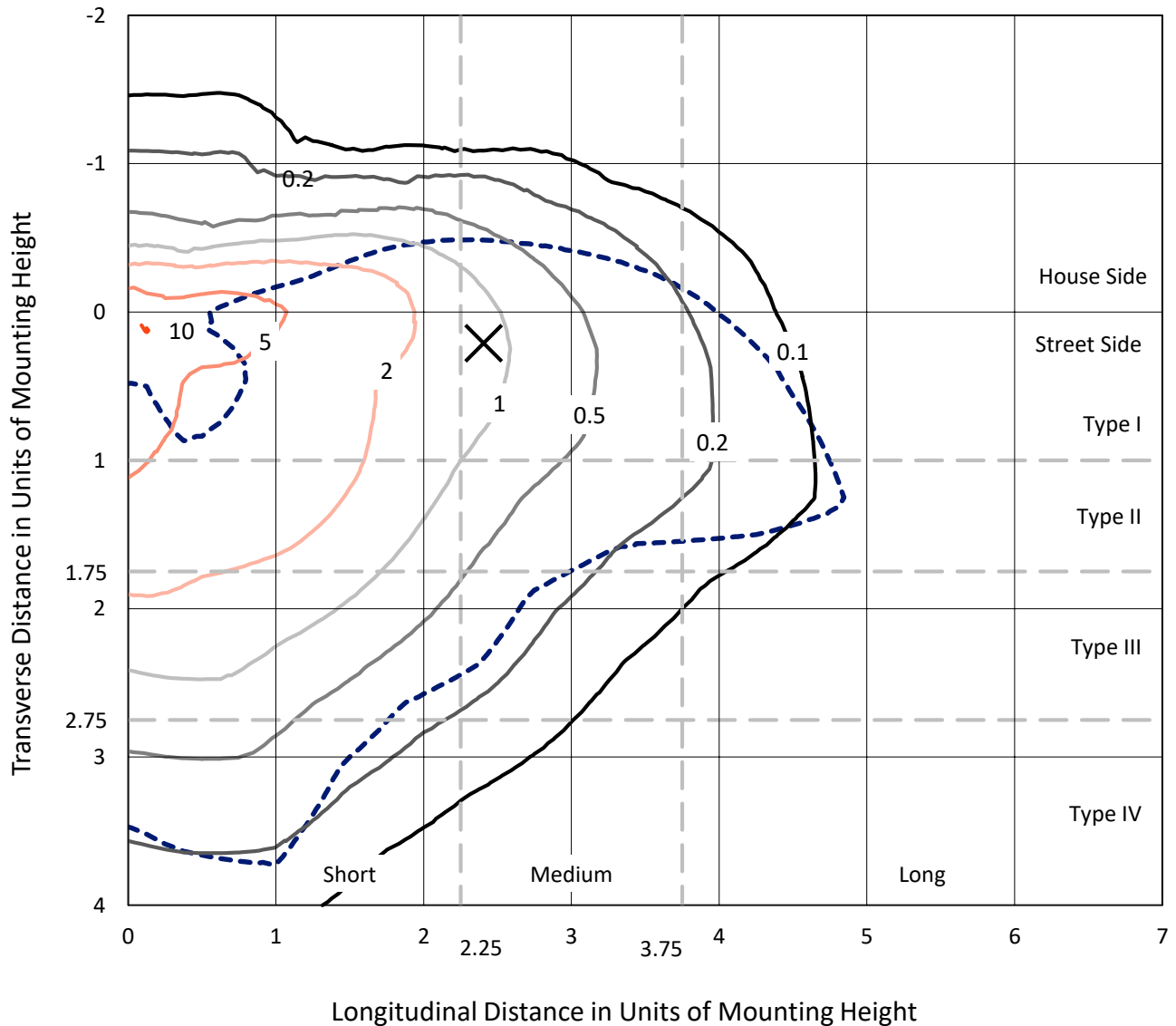
Input Watts (W): 25.4
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Iso-Footcandle Lines of Horizontal Illumination

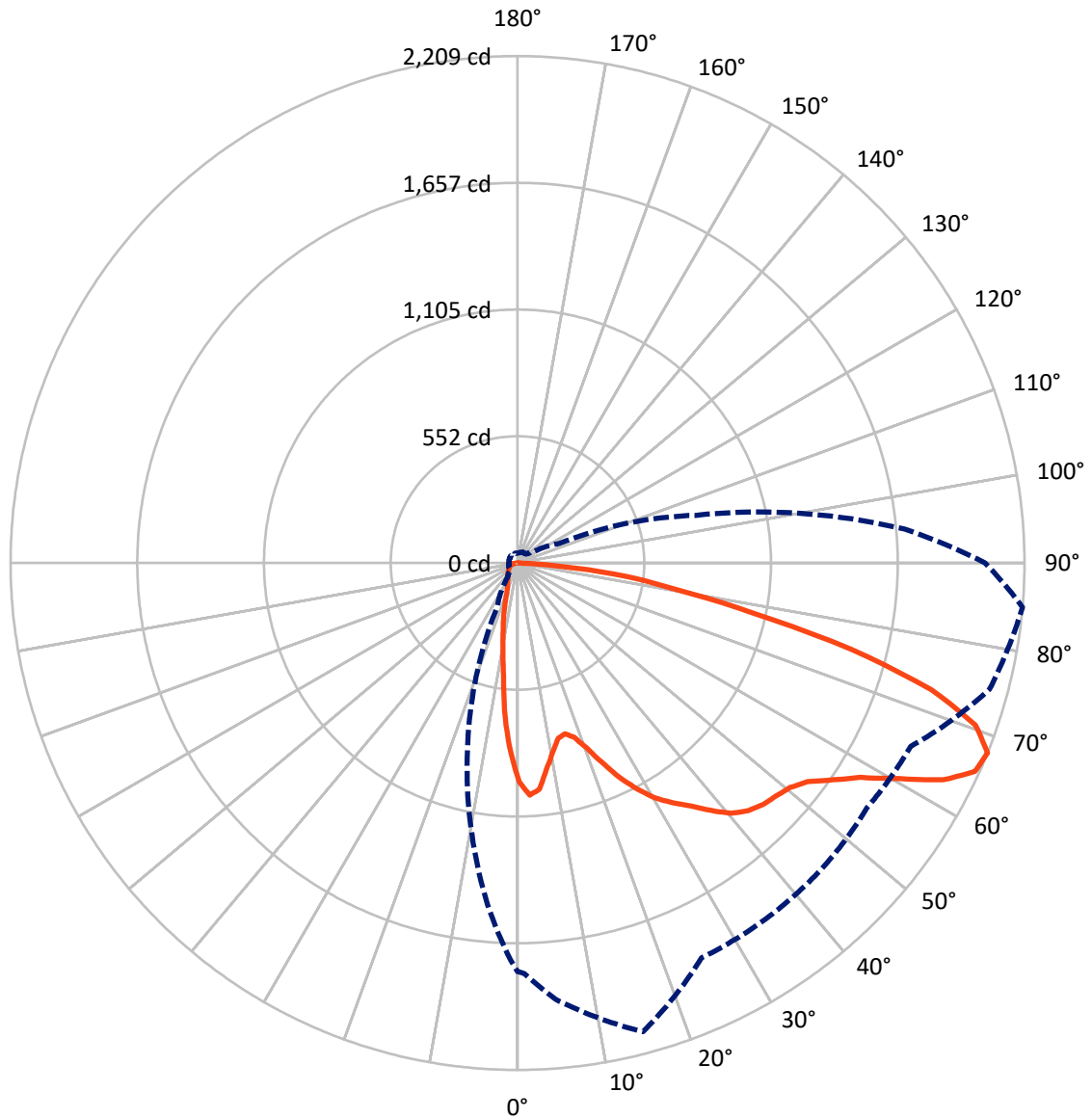
✕ Max cd
 - - - 1/2 Max cd



Based on 10 foot mounting height. Maximum calculated value = 10.2 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	556.3	0.0	556.3
	% Fixture	20.1	0.0	20.1
Street Side	Lumens	2204.7	0.0	2204.7
	% Fixture	79.9	0.0	79.9
Total	Lumens	2761.0	0.0	2761.0
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	72.5	2.6
10°-20°	143.0	5.2
20°-30°	199.8	7.2
30°-40°	281.7	10.2
40°-50°	390.4	14.1
50°-60°	548.5	19.9
60°-70°	670.6	24.3
70°-80°	394.1	14.3
80°-90°	60.3	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°	2761.0	100.0
0°-180°	2761.0	100.0



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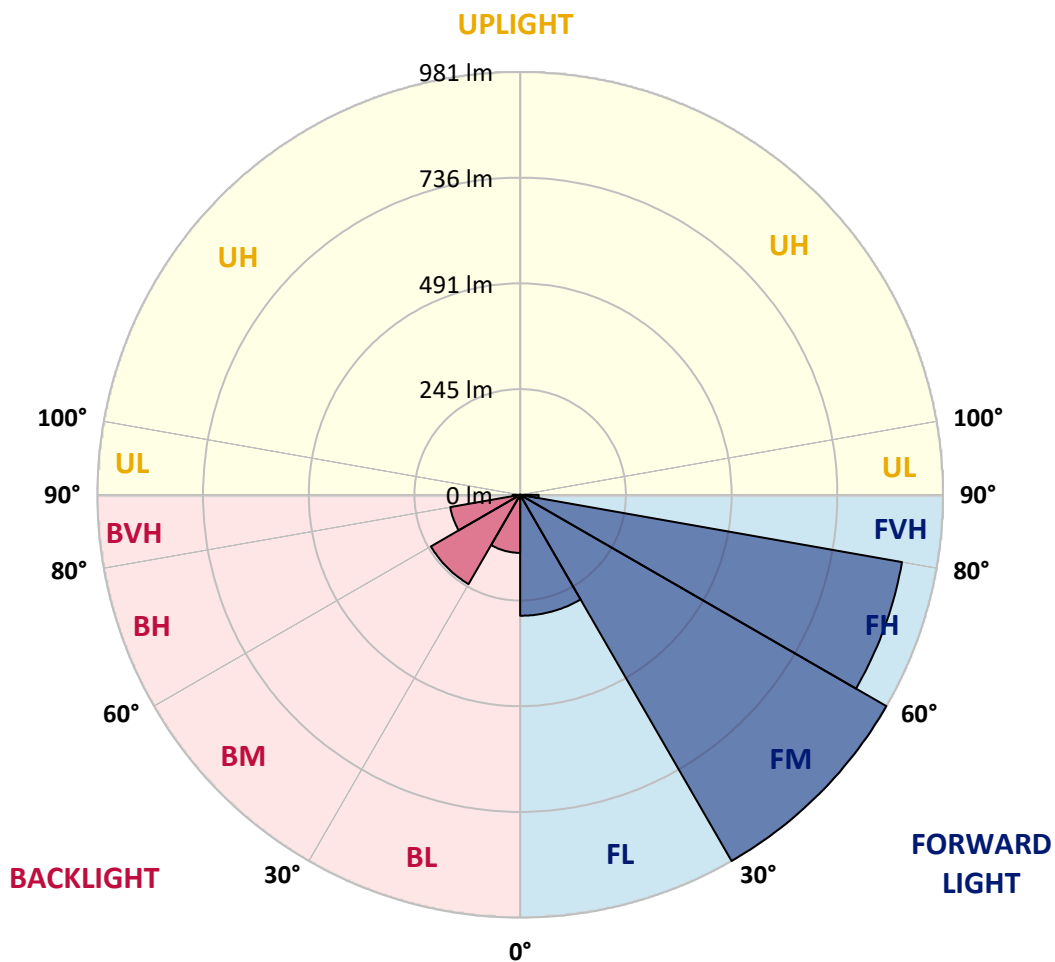
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	280.7	10.2			
FM	(30°-60°)	981.4	35.5			
FH	(60°-80°)	899.9	32.6			G1/1800
FVH	(80°-90°)	42.7	1.5			G1/100
BL	(0°-30°)	134.7	4.9	B1/500		
BM	(30°-60°)	239.1	8.7	B1/1000		
BH	(60°-80°)	164.8	6.0	B1/500		G1/500
BVH	(80°-90°)	17.6	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°	953.9	953.9	953.9	953.9	953.9	953.9	953.9	953.9	953.9	953.9	953.9
2.5°	980.1	975.6	990.7	1012.9	1028.0	1038.7	1042.2	1041.8	1038.7	1030.2	1012.5
5°	936.6	932.6	963.2	1012.5	1055.5	1086.6	1095.5	1083.0	1067.5	1034.7	991.2
7.5°	854.0	860.2	899.3	968.5	1037.8	1087.0	1099.0	1079.5	1047.5	980.5	907.3
10°	791.4	794.5	838.5	921.9	995.6	1046.2	1067.1	1049.7	1008.0	923.2	838.5
12.5°	752.8	755.9	798.5	875.8	954.3	993.8	1000.0	999.6	965.0	882.9	784.8
15°	758.1	762.1	804.7	868.7	913.0	930.3	930.8	935.7	925.5	862.9	771.9
17.5°	809.6	809.6	850.5	889.1	878.9	866.4	875.8	884.6	902.4	874.9	798.1
20°	890.8	894.4	932.1	925.5	863.3	832.3	821.2	836.7	891.7	910.8	859.8
22.5°	978.7	988.1	1027.6	978.7	860.7	800.3	787.9	804.7	893.1	967.6	944.6
25°	1075.9	1087.5	1114.1	1040.9	868.7	782.5	774.1	790.1	896.6	1020.0	1036.0
27.5°	1164.7	1165.6	1191.8	1093.2	889.5	784.3	770.1	791.0	906.4	1061.3	1116.8
30°	1227.7	1227.7	1239.3	1119.9	915.3	795.4	773.7	804.3	920.1	1083.9	1190.0
32.5°	1285.4	1288.6	1282.8	1147.8	939.7	811.4	782.1	830.9	941.9	1102.6	1246.4
35°	1358.7	1358.2	1332.5	1170.0	962.3	828.7	803.0	864.7	973.4	1130.1	1300.1
37.5°	1449.2	1444.8	1390.2	1190.0	989.8	858.4	842.5	910.8	1015.6	1162.5	1368.0
40°	1531.3	1524.2	1443.0	1208.7	1011.6	916.1	906.8	968.1	1068.8	1202.9	1434.1
42.5°	1595.3	1584.6	1487.8	1222.0	1044.4	1006.7	1014.7	1071.1	1122.5	1238.8	1475.4
45°	1649.0	1637.9	1521.6	1228.6	1123.9	1135.9	1151.4	1198.4	1179.8	1248.6	1500.7
47.5°	1687.6	1669.4	1536.2	1248.2	1231.3	1286.8	1334.7	1337.8	1260.6	1248.2	1516.3
50°	1710.2	1690.3	1550.0	1296.5	1356.0	1458.1	1509.2	1485.2	1344.5	1256.1	1538.4
52.5°	1755.9	1735.1	1607.2	1375.1	1483.9	1631.7	1659.2	1620.6	1431.5	1297.4	1582.8
55°	1870.9	1861.6	1718.2	1480.7	1609.5	1771.9	1784.4	1745.7	1522.5	1368.9	1667.6
57.5°	2001.0	1980.5	1868.2	1613.5	1729.8	1881.6	1901.5	1848.3	1617.9	1469.2	1762.2
60°	2037.4	2033.4	1995.2	1768.4	1854.0	1998.7	2000.1	1932.2	1729.3	1588.6	1906.4
62.5°	1984.1	1997.0	2048.0	1911.7	1958.3	2077.3	2066.2	1995.6	1846.0	1778.6	2081.7
65°	1891.3	1909.5	2012.1	2047.1	1982.3	2061.8	2038.2	1993.4	1919.7	1983.2	2190.5
67.5°	1779.9	1789.7	1909.1	2114.6	1898.4	1890.9	1879.8	1859.4	1890.4	2128.8	2209.1
70°	1664.1	1672.5	1782.6	2021.8	1646.8	1560.2	1550.9	1533.1	1654.3	2127.0	2117.7
72.5°	1402.6	1397.3	1498.9	1687.6	1257.5	1139.9	1218.9	1180.2	1338.3	1910.9	1886.4
75°	871.3	900.6	1028.0	1183.4	861.5	780.8	890.0	880.2	1086.6	1645.4	1502.1
77.5°	530.9	536.6	608.5	737.7	518.9	541.1	572.1	632.5	805.6	1333.8	1047.1
80°	277.9	258.3	311.2	404.8	308.0	363.1	419.5	486.0	511.3	869.5	700.0
82.5°	80.3	79.9	105.2	169.6	146.0	178.4	211.7	305.4	335.1	517.1	479.4
85°	0.4	0.4	0.4	0.9	1.3	2.2	9.3	78.6	103.9	239.7	197.1
87.5°	0.0	0.0	0.4	0.9	0.9	1.8	2.7	3.6	4.4	5.3	19.5
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°	953.9	953.9	953.9	953.9	953.9	953.9	953.9	953.9	953.9	953.9	953.9
2.5°	1006.7	1000.0	985.8	966.7	953.4	930.3	925.5	910.8	896.2	884.2	884.6
5°	970.3	947.7	913.0	873.1	834.9	800.7	794.1	774.1	768.3	762.6	746.6
7.5°	874.9	848.2	799.9	740.8	692.9	660.5	625.9	605.0	586.4	565.0	570.4
10°	801.6	763.5	696.9	627.6	567.7	524.2	486.0	466.5	439.4	419.9	417.2
12.5°	745.3	704.0	624.1	542.9	486.5	461.2	436.8	406.1	376.0	350.2	336.9
15°	726.6	680.0	587.2	506.5	462.1	431.4	397.3	362.2	325.4	297.8	287.2
17.5°	748.4	693.3	586.8	490.9	435.4	390.6	348.0	308.5	265.0	237.5	229.0
20°	808.3	739.5	599.2	476.3	403.0	342.2	282.3	239.7	195.3	175.8	166.9
22.5°	891.7	802.1	618.3	458.5	367.1	283.2	215.7	162.0	140.3	130.5	128.3
25°	977.4	881.5	645.4	443.4	327.6	225.5	154.9	129.6	119.4	115.0	115.0
27.5°	1071.5	961.0	674.7	425.2	286.7	167.8	126.1	114.1	108.7	106.1	105.6
30°	1147.8	1025.8	708.0	403.9	249.9	137.6	111.9	103.9	99.0	97.7	97.7
32.5°	1202.9	1074.2	743.0	382.6	216.2	124.3	103.9	96.8	91.4	90.5	90.5
35°	1267.2	1120.3	759.0	370.6	195.7	115.8	98.1	91.0	86.1	83.9	83.9
37.5°	1344.5	1175.4	767.9	359.1	186.9	107.9	94.1	86.1	81.2	78.6	78.6
40°	1442.6	1237.9	777.2	347.5	181.5	101.2	89.7	81.7	77.7	74.6	74.6
42.5°	1512.7	1295.7	784.3	337.8	172.2	98.1	86.1	78.6	73.7	71.0	70.6
45°	1549.5	1349.4	787.4	332.0	161.6	100.8	83.4	75.9	70.1	67.5	67.0
47.5°	1574.4	1393.7	791.4	327.6	153.1	95.9	83.0	73.2	67.5	63.9	63.9
50°	1613.9	1452.3	801.6	319.1	148.3	89.7	89.7	71.9	64.4	61.3	60.8
52.5°	1684.5	1536.2	829.1	309.8	142.9	83.4	92.3	72.4	62.1	58.6	57.7
55°	1791.0	1669.8	874.9	296.5	135.4	75.9	86.1	72.8	59.9	56.8	55.5
57.5°	1929.5	1831.4	928.1	285.9	122.5	69.7	78.6	70.6	57.3	54.6	53.7
60°	2022.7	1939.3	961.9	272.1	104.3	65.7	67.5	68.4	54.6	51.5	51.0
62.5°	2072.9	1941.0	962.3	253.0	87.4	62.1	60.4	69.7	52.4	48.4	47.9
65°	2076.4	1846.5	913.9	228.6	81.7	58.1	55.5	61.7	50.2	46.2	45.7
67.5°	2037.8	1692.5	803.4	200.6	83.9	55.0	51.5	51.9	47.5	43.9	43.5
70°	1899.3	1493.2	644.5	178.4	84.3	51.0	48.4	47.1	44.8	41.7	40.8
72.5°	1638.8	1247.7	488.3	171.3	85.7	47.9	44.8	43.5	41.7	39.1	38.2
75°	1236.6	973.4	366.6	159.8	86.6	44.4	40.8	39.9	38.2	35.5	35.1
77.5°	854.4	721.7	254.8	134.9	77.2	40.4	36.8	36.0	34.6	32.0	31.5
80°	577.0	494.9	156.2	101.2	58.6	35.5	32.0	32.0	30.6	28.0	28.0
82.5°	401.7	369.7	90.1	66.1	42.6	29.3	28.0	28.0	26.6	24.0	23.5
85°	167.8	223.7	40.4	36.0	29.7	23.1	23.1	23.5	22.2	20.0	19.5
87.5°	5.8	24.0	16.0	16.9	17.8	16.0	17.8	17.8	17.3	15.5	15.1
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°	953.9	953.9	953.9	953.9	953.9	953.9	953.9	953.9	953.9	953.9	953.9
2.5°	871.8	866.0	848.2	846.0	832.7	831.8	837.6	827.8	828.7	840.7	838.9
5°	750.1	736.8	736.4	721.7	705.3	701.3	687.1	681.8	679.6	674.7	692.4
7.5°	586.8	580.6	585.9	584.1	569.0	560.6	530.4	507.3	495.8	500.7	502.0
10°	417.2	426.6	440.8	454.5	443.9	415.9	403.0	384.4	382.2	380.8	389.7
12.5°	330.7	320.0	326.7	331.6	321.4	309.4	304.0	296.1	300.5	310.7	316.5
15°	274.8	256.1	247.7	241.9	244.6	237.5	240.1	237.5	240.6	243.7	254.3
17.5°	217.1	210.4	194.4	186.9	187.3	184.2	185.1	184.6	182.9	190.0	198.4
20°	163.3	161.6	158.0	152.7	153.6	151.4	150.0	142.5	139.4	141.6	148.7
22.5°	127.4	129.6	131.8	131.4	133.6	127.8	122.5	115.8	115.0	115.4	117.2
25°	114.1	115.0	116.7	119.0	120.3	115.0	107.4	103.4	103.0	103.9	103.9
27.5°	106.1	105.2	107.4	110.1	111.9	105.2	99.0	95.4	94.5	93.7	93.2
30°	97.7	97.7	99.4	102.1	103.4	97.7	92.3	88.8	86.6	85.2	84.8
32.5°	91.4	91.9	92.8	94.5	96.8	91.0	86.6	83.4	79.5	78.1	77.2
35°	84.3	86.1	87.4	87.9	89.7	85.7	81.2	76.3	72.8	71.5	71.5
37.5°	78.6	79.9	82.1	81.7	83.0	80.3	75.5	70.1	68.4	67.9	67.5
40°	74.1	74.1	75.9	77.7	79.5	74.6	68.8	66.1	64.8	63.9	64.4
42.5°	70.1	69.7	69.7	72.8	75.9	68.8	63.9	62.1	61.7	60.8	61.3
45°	66.6	66.1	64.8	66.1	70.6	63.0	59.9	58.6	58.1	58.1	58.1
47.5°	63.5	62.6	60.8	61.3	64.4	58.6	55.9	55.5	55.0	55.0	55.5
50°	59.9	59.0	57.7	57.3	58.1	55.5	53.3	52.4	52.4	52.4	53.3
52.5°	56.8	56.4	54.6	54.2	54.6	52.8	50.6	50.2	50.2	50.2	51.5
55°	54.6	53.7	52.8	51.9	52.8	50.6	48.8	47.9	47.9	48.8	49.7
57.5°	52.4	51.5	51.0	50.2	51.0	48.8	47.1	46.2	46.6	47.1	47.1
60°	50.2	49.3	48.8	47.9	49.3	47.1	45.3	44.8	44.8	44.4	44.4
62.5°	47.9	47.5	46.6	45.7	47.5	44.8	43.5	42.6	42.2	42.2	42.2
65°	45.3	44.8	44.4	43.9	44.8	42.6	41.3	40.8	39.9	39.5	39.9
67.5°	43.1	43.1	42.2	41.3	42.6	39.9	39.1	38.6	37.3	36.8	37.3
70°	40.4	40.4	39.5	39.1	40.8	37.3	36.4	36.0	35.1	34.6	34.6
72.5°	37.7	37.7	36.8	36.4	38.6	34.6	33.7	33.3	32.0	31.5	31.5
75°	35.1	34.6	34.2	33.7	36.4	32.0	30.6	29.7	28.4	28.0	27.5
77.5°	32.0	31.5	30.6	31.1	32.8	28.4	26.6	26.2	24.9	24.4	24.0
80°	28.0	27.5	27.1	28.0	28.0	24.9	22.6	21.7	20.4	19.5	19.1
82.5°	24.0	23.5	23.5	24.4	23.1	21.7	19.1	17.3	15.1	13.8	13.3
85°	19.5	20.4	19.5	20.4	17.3	17.3	13.3	10.2	7.1	5.8	5.3
87.5°	15.1	15.5	15.1	15.5	12.0	11.5	6.2	3.6	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°	953.9	953.9	953.9	953.9	953.9	953.9	953.9	953.9	953.9	953.9
2.5°	852.2	853.1	872.2	891.3	902.8	931.7	945.9	961.9	970.3	980.1
5°	684.0	700.9	716.4	754.6	774.1	819.8	853.1	906.4	923.2	936.6
7.5°	516.7	542.0	561.0	608.5	645.4	702.2	760.3	823.8	842.0	854.0
10°	410.6	433.7	469.6	506.9	548.2	617.0	680.0	745.7	777.7	791.4
12.5°	344.9	381.7	423.9	458.5	491.4	542.0	621.9	704.9	738.2	752.8
15°	284.5	325.8	368.9	411.5	452.3	509.6	593.5	701.3	743.5	758.1
17.5°	225.9	259.7	303.2	354.7	414.1	486.9	598.8	739.0	790.5	809.6
20°	160.7	193.5	237.9	301.4	372.0	463.4	611.2	795.9	869.1	890.8
22.5°	121.2	139.4	180.2	242.8	334.2	444.8	630.7	873.5	959.2	978.7
25°	106.5	112.7	133.6	194.0	296.5	427.9	656.5	950.8	1054.6	1075.9
27.5°	94.5	98.1	108.7	155.8	268.5	410.6	687.1	1034.2	1136.7	1164.7
30°	85.2	89.7	98.5	130.5	241.5	385.7	715.1	1109.2	1206.4	1227.7
32.5°	78.1	83.0	91.0	118.1	218.4	367.1	731.1	1165.2	1265.9	1285.4
35°	73.2	77.7	85.7	107.0	198.0	354.2	735.9	1220.6	1338.7	1358.7
37.5°	68.8	73.2	80.3	95.9	183.8	337.3	743.5	1286.8	1423.0	1449.2
40°	65.7	69.2	75.9	88.3	164.2	319.1	752.4	1364.0	1505.2	1531.3
42.5°	62.6	66.6	72.4	88.8	144.7	303.6	758.1	1423.5	1570.4	1595.3
45°	59.9	64.4	71.0	87.0	130.1	289.4	755.5	1473.2	1629.9	1649.0
47.5°	57.3	62.6	74.6	83.4	125.6	276.5	757.7	1521.1	1672.5	1687.6
50°	55.5	62.1	79.9	78.1	126.5	270.8	779.0	1578.4	1704.5	1710.2
52.5°	54.2	63.5	75.5	70.6	126.5	268.1	819.8	1670.7	1759.9	1755.9
55°	51.9	63.0	70.6	63.9	121.2	269.4	858.4	1792.8	1893.1	1870.9
57.5°	50.2	60.4	63.5	59.0	108.7	269.9	915.7	1895.8	1997.9	2001.0
60°	47.9	64.8	55.0	55.0	93.2	267.7	966.3	1894.0	2016.9	2037.4
62.5°	45.7	63.5	49.3	51.0	82.6	259.2	996.9	1783.5	1946.4	1984.1
65°	43.1	50.2	45.3	47.5	78.1	238.4	953.4	1646.3	1850.9	1891.3
67.5°	39.9	41.3	41.3	43.9	76.3	206.8	843.8	1494.9	1731.1	1779.9
70°	36.4	36.8	37.7	41.7	71.0	178.0	687.1	1333.8	1602.4	1664.1
72.5°	32.8	33.3	33.3	37.7	66.6	153.6	486.5	1056.9	1337.8	1402.6
75°	28.9	29.3	28.9	32.8	58.1	115.0	289.0	668.5	798.1	871.3
77.5°	24.4	24.4	23.5	25.7	39.9	72.8	158.0	406.1	485.6	530.9
80°	20.0	18.2	15.1	15.5	21.7	41.7	70.6	233.0	266.3	277.9
82.5°	13.3	10.2	6.2	5.8	7.1	11.5	16.4	92.3	84.8	80.3
85°	2.7	0.9	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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