

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: P401258

Luminaire Tested: **ENT-SA1C-727-U-SLL**

Issue Date: 5/20/2020

Test Information

Test Method: LM-79-08
Report Number: P401258
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-SA1C-727-U-SLL
Description: ENTRI LED LUMINAIRE
(1) 70 CRI, 2700K, 615mA LIGHTSQUARE WITH 16 LEDS AND SPILL LIGHT ELIMINATOR LEFT OPTICS
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 3336 lumens
Efficiency: N/A
Efficacy: 100.2 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

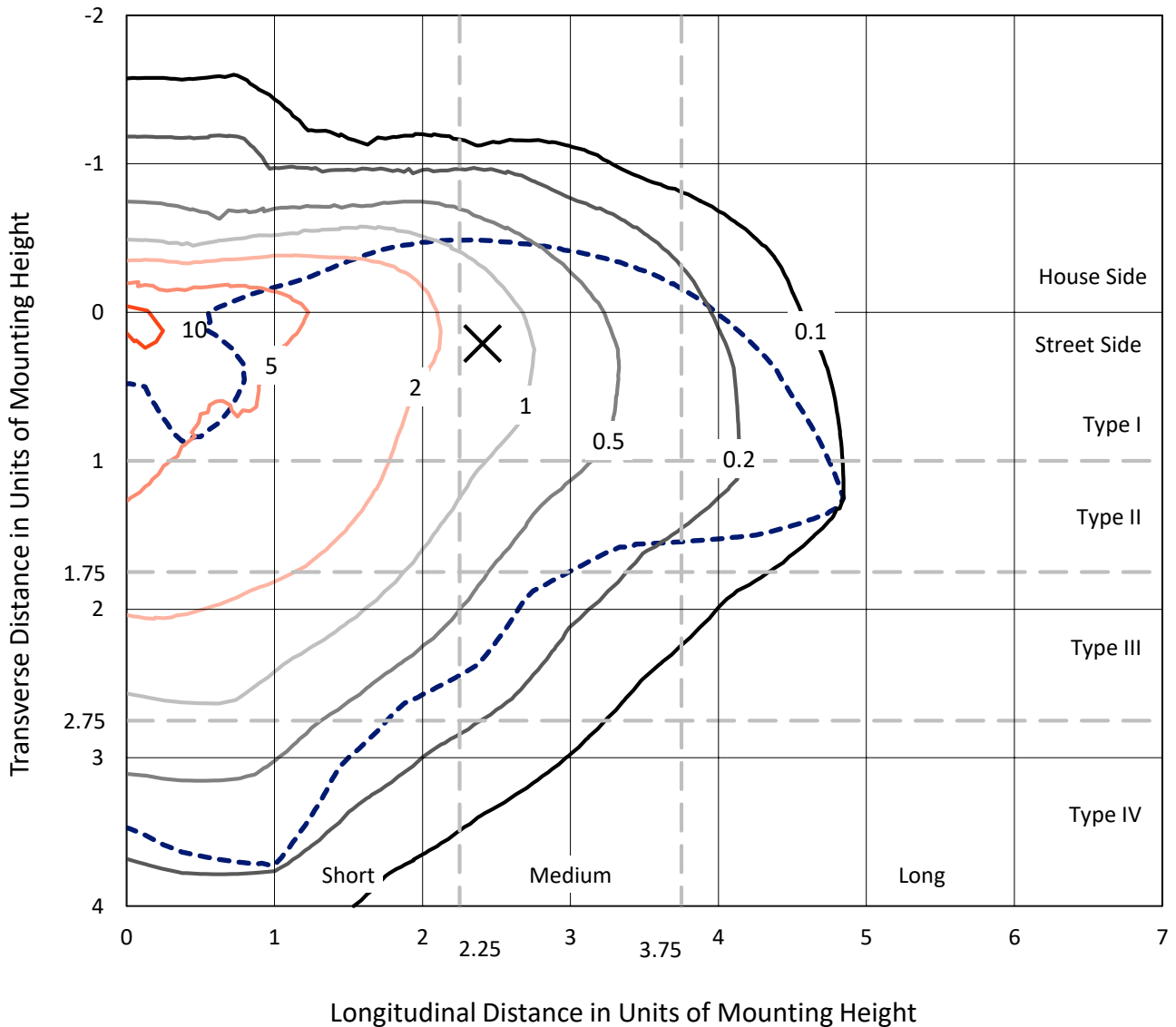
Input Watts (W): 33.3
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Iso-Footcandle Lines of Horizontal Illumination

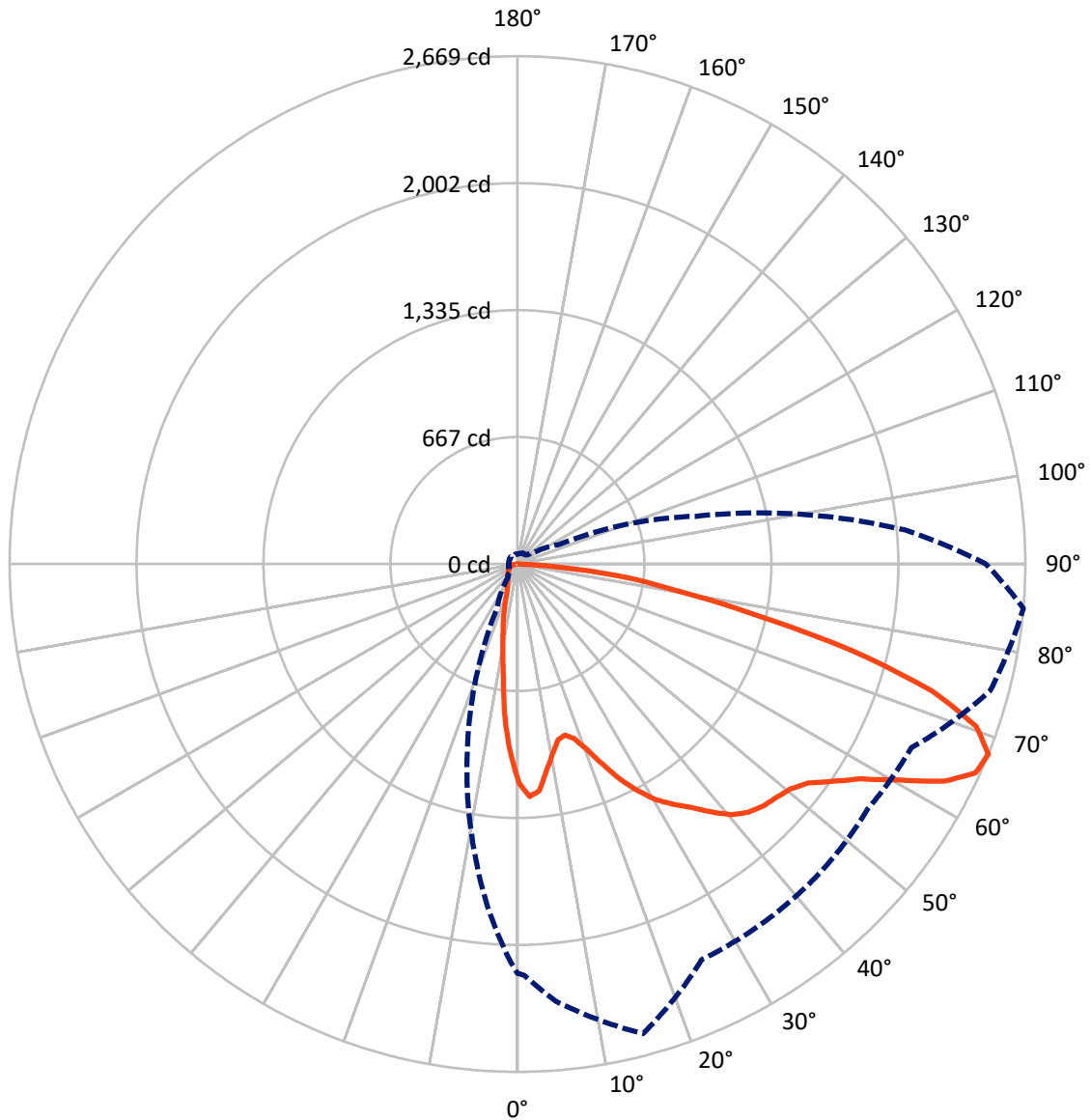
× Max cd
 - - - 1/2 Max cd



Based on 10 foot mounting height. Maximum calculated value = 12.3 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	672.1	0.0	672.1
	% Fixture	20.1	0.0	20.1
Street Side	Lumens	2663.8	0.0	2663.8
	% Fixture	79.9	0.0	79.9
Total	Lumens	3336.0	0.0	3336.0
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	87.6	2.6
10°-20°	172.8	5.2
20°-30°	241.5	7.2
30°-40°	340.4	10.2
40°-50°	471.6	14.1
50°-60°	662.7	19.9
60°-70°	810.2	24.3
70°-80°	476.2	14.3
80°-90°	72.9	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°	3336.0	100.0
0°-180°	3336.0	100.0



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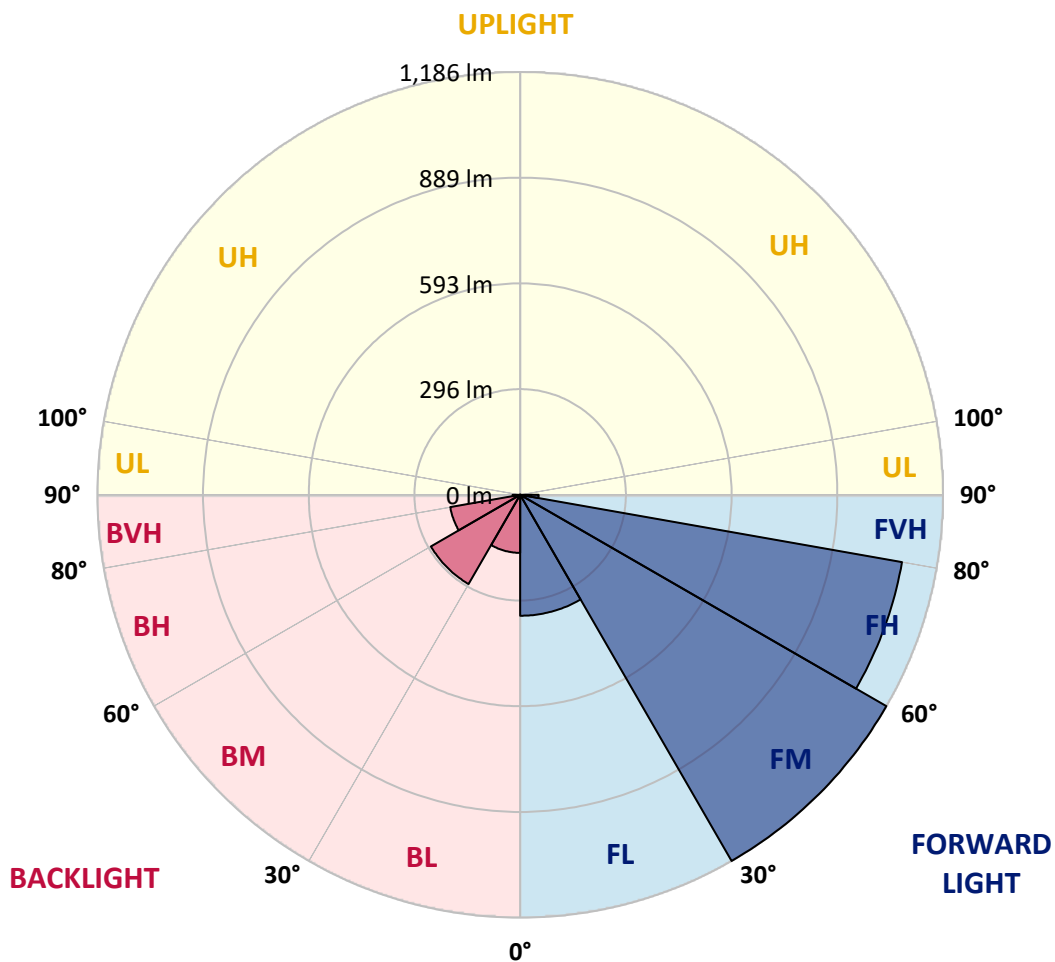
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	339.1	10.2			
FM	(30°-60°)	1185.8	35.5			
FH	(60°-80°)	1087.3	32.6			G1/1800
FVH	(80°-90°)	51.6	1.5			G1/100
BL	(0°-30°)	162.8	4.9	B1/500		
BM	(30°-60°)	288.9	8.7	B1/1000		
BH	(60°-80°)	199.1	6.0	B1/500		G1/500
BVH	(80°-90°)	21.3	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°	1152.5	1152.5	1152.5	1152.5	1152.5	1152.5	1152.5	1152.5	1152.5	1152.5	1152.5
2.5°	1184.2	1178.8	1197.0	1223.9	1242.1	1255.0	1259.3	1258.7	1255.0	1244.8	1223.3
5°	1131.6	1126.8	1163.8	1223.3	1275.3	1312.9	1323.6	1308.6	1289.8	1250.1	1197.6
7.5°	1031.9	1039.4	1086.6	1170.2	1253.9	1313.4	1327.9	1304.3	1265.7	1184.7	1096.2
10°	956.2	960.0	1013.1	1113.9	1202.9	1264.1	1289.3	1268.4	1218.0	1115.5	1013.1
12.5°	909.6	913.3	964.8	1058.1	1153.1	1200.8	1208.3	1207.8	1165.9	1066.7	948.2
15°	916.0	920.8	972.3	1049.6	1103.2	1124.1	1124.6	1130.5	1118.2	1042.6	932.6
17.5°	978.2	978.2	1027.6	1074.2	1061.9	1046.9	1058.1	1068.9	1090.3	1057.1	964.3
20°	1076.4	1080.7	1126.2	1118.2	1043.1	1005.6	992.2	1010.9	1077.4	1100.5	1038.8
22.5°	1182.6	1193.8	1241.6	1182.6	1039.9	967.0	951.9	972.3	1079.1	1169.2	1141.3
25°	1300.0	1314.0	1346.1	1257.6	1049.6	945.5	935.3	954.6	1083.3	1232.4	1251.7
27.5°	1407.3	1408.3	1440.0	1320.9	1074.8	947.7	930.5	955.7	1095.1	1282.3	1349.4
30°	1483.4	1483.4	1497.4	1353.1	1105.9	961.1	934.8	971.8	1111.8	1309.7	1437.8
32.5°	1553.1	1556.9	1549.9	1386.9	1135.4	980.4	945.0	1004.0	1138.0	1332.2	1506.0
35°	1641.6	1641.1	1610.0	1413.7	1162.7	1001.3	970.2	1044.7	1176.1	1365.4	1570.8
37.5°	1751.0	1745.7	1679.7	1437.8	1196.0	1037.2	1017.9	1100.5	1227.1	1404.6	1652.9
40°	1850.3	1841.7	1743.5	1460.4	1222.2	1106.9	1095.7	1169.7	1291.4	1453.4	1732.8
42.5°	1927.5	1914.6	1797.7	1476.5	1261.9	1216.3	1226.0	1294.1	1356.3	1496.8	1782.7
45°	1992.4	1979.0	1838.5	1484.5	1357.9	1372.4	1391.2	1448.0	1425.5	1508.6	1813.3
47.5°	2039.0	2017.1	1856.2	1508.1	1487.7	1554.8	1612.7	1616.4	1523.1	1508.1	1832.0
50°	2066.4	2042.3	1872.8	1566.6	1638.4	1761.8	1823.4	1794.5	1624.5	1517.8	1858.8
52.5°	2121.6	2096.4	1942.0	1661.5	1792.9	1971.5	2004.7	1958.1	1729.6	1567.6	1912.5
55°	2260.5	2249.3	2076.0	1789.1	1944.7	2140.9	2156.0	2109.3	1839.5	1654.0	2014.9
57.5°	2417.7	2393.0	2257.3	1949.5	2090.0	2273.4	2297.5	2233.2	1954.8	1775.2	2129.1
60°	2461.7	2456.8	2410.7	2136.6	2240.2	2415.0	2416.6	2334.5	2089.5	1919.4	2303.4
62.5°	2397.3	2412.8	2474.5	2309.9	2366.2	2509.9	2496.5	2411.2	2230.5	2149.0	2515.3
65°	2285.2	2307.2	2431.1	2473.5	2395.2	2491.1	2462.7	2408.6	2319.5	2396.2	2646.7
67.5°	2150.6	2162.4	2306.7	2555.0	2293.8	2284.7	2271.3	2246.6	2284.1	2572.1	2669.2
70°	2010.6	2020.8	2153.8	2442.9	1989.7	1885.1	1873.9	1852.4	1998.8	2570.0	2558.7
72.5°	1694.7	1688.3	1811.1	2039.0	1519.4	1377.2	1472.7	1426.0	1617.0	2308.8	2279.3
75°	1052.8	1088.2	1242.1	1429.8	1041.0	943.4	1075.3	1063.5	1312.9	1988.1	1814.9
77.5°	641.4	648.4	735.3	891.3	626.9	653.8	691.3	764.2	973.4	1611.6	1265.1
80°	335.7	312.1	376.0	489.1	372.2	438.7	506.8	587.3	617.8	1050.6	845.8
82.5°	97.1	96.5	127.1	204.9	176.4	215.6	255.8	369.0	404.9	624.8	579.2
85°	0.5	0.5	0.5	1.1	1.6	2.7	11.3	94.9	125.5	289.6	238.1
87.5°	0.0	0.0	0.5	1.1	1.1	2.1	3.2	4.3	5.4	6.4	23.6
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°	1152.5	1152.5	1152.5	1152.5	1152.5	1152.5	1152.5	1152.5	1152.5	1152.5	1152.5
2.5°	1216.3	1208.3	1191.1	1168.1	1152.0	1124.1	1118.2	1100.5	1082.8	1068.3	1068.9
5°	1172.4	1145.0	1103.2	1054.9	1008.8	967.5	959.5	935.3	928.3	921.4	902.1
7.5°	1057.1	1024.9	966.4	895.1	837.2	798.0	756.2	731.0	708.5	682.7	689.2
10°	968.6	922.4	842.0	758.3	685.9	633.4	587.3	563.7	530.9	507.3	504.1
12.5°	900.5	850.6	754.0	655.9	587.8	557.2	527.7	490.7	454.3	423.1	407.1
15°	877.9	821.6	709.5	611.9	558.3	521.3	480.0	437.6	393.1	359.9	347.0
17.5°	904.2	837.7	709.0	593.2	526.1	472.0	420.5	372.7	320.2	286.9	276.7
20°	976.6	893.5	724.0	575.5	487.0	413.5	341.1	289.6	236.0	212.4	201.7
22.5°	1077.4	969.1	747.1	554.0	443.5	342.2	260.6	195.8	169.5	157.7	155.0
25°	1180.9	1065.1	779.8	535.8	395.8	272.4	187.2	156.6	144.3	138.9	138.9
27.5°	1294.6	1161.1	815.2	513.8	346.5	202.7	152.3	137.8	131.4	128.2	127.6
30°	1386.9	1239.4	855.4	488.0	301.9	166.3	135.1	125.5	119.6	118.0	118.0
32.5°	1453.4	1297.9	897.8	462.3	261.2	150.2	125.5	116.9	110.5	109.4	109.4
35°	1531.2	1353.6	917.1	447.8	236.5	140.0	118.5	109.9	104.0	101.4	101.4
37.5°	1624.5	1420.1	927.8	433.9	225.8	130.3	113.7	104.0	98.1	94.9	94.9
40°	1743.0	1495.8	939.1	419.9	219.3	122.3	108.3	98.7	93.9	90.1	90.1
42.5°	1827.7	1565.5	947.7	408.1	208.1	118.5	104.0	94.9	89.0	85.8	85.3
45°	1872.3	1630.4	951.4	401.2	195.2	121.7	100.8	91.7	84.7	81.5	81.0
47.5°	1902.3	1684.0	956.2	395.8	185.0	115.8	100.3	88.5	81.5	77.2	77.2
50°	1950.0	1754.8	968.6	385.6	179.1	108.3	108.3	86.9	77.8	74.0	73.5
52.5°	2035.3	1856.2	1001.8	374.3	172.7	100.8	111.6	87.4	75.1	70.8	69.7
55°	2164.0	2017.6	1057.1	358.3	163.6	91.7	104.0	88.0	72.4	68.6	67.0
57.5°	2331.3	2212.8	1121.4	345.4	148.0	84.2	94.9	85.3	69.2	66.0	64.9
60°	2444.0	2343.1	1162.2	328.8	126.0	79.4	81.5	82.6	66.0	62.2	61.7
62.5°	2504.6	2345.3	1162.7	305.7	105.7	75.1	72.9	84.2	63.3	58.5	57.9
65°	2508.8	2231.0	1104.3	276.2	98.7	70.3	67.0	74.5	60.6	55.8	55.2
67.5°	2462.2	2044.9	970.7	242.4	101.4	66.5	62.2	62.7	57.4	53.1	52.6
70°	2294.9	1804.1	778.7	215.6	101.9	61.7	58.5	56.8	54.2	50.4	49.3
72.5°	1980.0	1507.6	589.9	207.0	103.5	57.9	54.2	52.6	50.4	47.2	46.1
75°	1494.2	1176.1	443.0	193.1	104.6	53.6	49.3	48.3	46.1	42.9	42.4
77.5°	1032.4	872.0	307.8	163.0	93.3	48.8	44.5	43.4	41.8	38.6	38.1
80°	697.2	598.0	188.8	122.3	70.8	42.9	38.6	38.6	37.0	33.8	33.8
82.5°	485.4	446.7	108.9	79.9	51.5	35.4	33.8	33.8	32.2	29.0	28.4
85°	202.7	270.3	48.8	43.4	35.9	27.9	27.9	28.4	26.8	24.1	23.6
87.5°	7.0	29.0	19.3	20.4	21.5	19.3	21.5	21.5	20.9	18.8	18.2
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°	1152.5	1152.5	1152.5	1152.5	1152.5	1152.5	1152.5	1152.5	1152.5	1152.5	1152.5
2.5°	1053.3	1046.3	1024.9	1022.2	1006.1	1005.0	1012.0	1000.2	1001.3	1015.8	1013.6
5°	906.4	890.3	889.7	872.0	852.2	847.4	830.2	823.8	821.1	815.2	836.6
7.5°	709.0	701.5	707.9	705.8	687.5	677.4	640.9	613.0	599.1	605.0	606.6
10°	504.1	515.4	532.6	549.2	536.3	502.5	487.0	464.4	461.8	460.2	470.9
12.5°	399.5	386.7	394.7	400.6	388.3	373.8	367.4	357.7	363.1	375.4	382.4
15°	332.0	309.4	299.3	292.3	295.5	286.9	290.1	286.9	290.7	294.4	307.3
17.5°	262.3	254.2	234.9	225.8	226.3	222.6	223.6	223.1	221.0	229.5	239.7
20°	197.4	195.2	190.9	184.5	185.6	182.9	181.3	172.2	168.4	171.1	179.7
22.5°	153.9	156.6	159.3	158.7	161.4	154.5	148.0	140.0	138.9	139.4	141.6
25°	137.8	138.9	141.0	143.7	145.3	138.9	129.8	125.0	124.4	125.5	125.5
27.5°	128.2	127.1	129.8	133.0	135.1	127.1	119.6	115.3	114.2	113.2	112.6
30°	118.0	118.0	120.1	123.4	125.0	118.0	111.6	107.3	104.6	103.0	102.4
32.5°	110.5	111.0	112.1	114.2	116.9	109.9	104.6	100.8	96.0	94.4	93.3
35°	101.9	104.0	105.7	106.2	108.3	103.5	98.1	92.2	88.0	86.3	86.3
37.5°	94.9	96.5	99.2	98.7	100.3	97.1	91.2	84.7	82.6	82.1	81.5
40°	89.6	89.6	91.7	93.9	96.0	90.1	83.1	79.9	78.3	77.2	77.8
42.5°	84.7	84.2	84.2	88.0	91.7	83.1	77.2	75.1	74.5	73.5	74.0
45°	80.4	79.9	78.3	79.9	85.3	76.2	72.4	70.8	70.3	70.3	70.3
47.5°	76.7	75.6	73.5	74.0	77.8	70.8	67.6	67.0	66.5	66.5	67.0
50°	72.4	71.3	69.7	69.2	70.3	67.0	64.4	63.3	63.3	63.3	64.4
52.5°	68.6	68.1	66.0	65.4	66.0	63.8	61.1	60.6	60.6	60.6	62.2
55°	66.0	64.9	63.8	62.7	63.8	61.1	59.0	57.9	57.9	59.0	60.1
57.5°	63.3	62.2	61.7	60.6	61.7	59.0	56.8	55.8	56.3	56.8	56.8
60°	60.6	59.5	59.0	57.9	59.5	56.8	54.7	54.2	54.2	53.6	53.6
62.5°	57.9	57.4	56.3	55.2	57.4	54.2	52.6	51.5	50.9	50.9	50.9
65°	54.7	54.2	53.6	53.1	54.2	51.5	49.9	49.3	48.3	47.7	48.3
67.5°	52.0	52.0	50.9	49.9	51.5	48.3	47.2	46.7	45.0	44.5	45.0
70°	48.8	48.8	47.7	47.2	49.3	45.0	44.0	43.4	42.4	41.8	41.8
72.5°	45.6	45.6	44.5	44.0	46.7	41.8	40.8	40.2	38.6	38.1	38.1
75°	42.4	41.8	41.3	40.8	44.0	38.6	37.0	35.9	34.3	33.8	33.3
77.5°	38.6	38.1	37.0	37.5	39.7	34.3	32.2	31.6	30.0	29.5	29.0
80°	33.8	33.3	32.7	33.8	33.8	30.0	27.4	26.3	24.7	23.6	23.1
82.5°	29.0	28.4	28.4	29.5	27.9	26.3	23.1	20.9	18.2	16.6	16.1
85°	23.6	24.7	23.6	24.7	20.9	20.9	16.1	12.3	8.6	7.0	6.4
87.5°	18.2	18.8	18.2	18.8	14.5	13.9	7.5	4.3	0.5	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°	1152.5	1152.5	1152.5	1152.5	1152.5	1152.5	1152.5	1152.5	1152.5	1152.5
2.5°	1029.7	1030.8	1053.8	1076.9	1090.8	1125.7	1142.9	1162.2	1172.4	1184.2
5°	826.5	846.8	865.6	911.7	935.3	990.6	1030.8	1095.1	1115.5	1131.6
7.5°	624.3	654.8	677.9	735.3	779.8	848.4	918.7	995.4	1017.4	1031.9
10°	496.1	524.0	567.4	612.5	662.3	745.5	821.6	901.0	939.6	956.2
12.5°	416.7	461.2	512.2	554.0	593.7	654.8	751.4	851.7	891.9	909.6
15°	343.8	393.6	445.7	497.2	546.5	615.7	717.0	847.4	898.3	916.0
17.5°	273.0	313.7	366.3	428.5	500.4	588.3	723.5	893.0	955.2	978.2
20°	194.1	233.8	287.5	364.2	449.4	559.9	738.5	961.6	1050.1	1076.4
22.5°	146.4	168.4	217.7	293.4	403.8	537.4	762.1	1055.5	1159.0	1182.6
25°	128.7	136.2	161.4	234.4	358.3	517.0	793.2	1148.8	1274.3	1300.0
27.5°	114.2	118.5	131.4	188.2	324.5	496.1	830.2	1249.6	1373.5	1407.3
30°	103.0	108.3	119.1	157.7	291.8	466.1	864.0	1340.2	1457.7	1483.4
32.5°	94.4	100.3	109.9	142.7	263.9	443.5	883.3	1407.8	1529.5	1553.1
35°	88.5	93.9	103.5	129.3	239.2	428.0	889.2	1474.8	1617.5	1641.6
37.5°	83.1	88.5	97.1	115.8	222.0	407.6	898.3	1554.8	1719.4	1751.0
40°	79.4	83.7	91.7	106.7	198.4	385.6	909.0	1648.1	1818.6	1850.3
42.5°	75.6	80.4	87.4	107.3	174.8	366.8	916.0	1719.9	1897.5	1927.5
45°	72.4	77.8	85.8	105.1	157.1	349.7	912.8	1780.0	1969.3	1992.4
47.5°	69.2	75.6	90.1	100.8	151.8	334.1	915.5	1837.9	2020.8	2039.0
50°	67.0	75.1	96.5	94.4	152.8	327.1	941.2	1907.1	2059.4	2066.4
52.5°	65.4	76.7	91.2	85.3	152.8	323.9	990.6	2018.7	2126.5	2121.6
55°	62.7	76.2	85.3	77.2	146.4	325.5	1037.2	2166.1	2287.4	2260.5
57.5°	60.6	72.9	76.7	71.3	131.4	326.1	1106.4	2290.6	2413.9	2417.7
60°	57.9	78.3	66.5	66.5	112.6	323.4	1167.5	2288.4	2437.0	2461.7
62.5°	55.2	76.7	59.5	61.7	99.8	313.2	1204.5	2154.9	2351.7	2397.3
65°	52.0	60.6	54.7	57.4	94.4	288.0	1152.0	1989.2	2236.4	2285.2
67.5°	48.3	49.9	49.9	53.1	92.2	249.9	1019.5	1806.3	2091.6	2150.6
70°	44.0	44.5	45.6	50.4	85.8	215.1	830.2	1611.6	1936.1	2010.6
72.5°	39.7	40.2	40.2	45.6	80.4	185.6	587.8	1276.9	1616.4	1694.7
75°	34.9	35.4	34.9	39.7	70.3	138.9	349.1	807.7	964.3	1052.8
77.5°	29.5	29.5	28.4	31.1	48.3	88.0	190.9	490.7	586.7	641.4
80°	24.1	22.0	18.2	18.8	26.3	50.4	85.3	281.6	321.8	335.7
82.5°	16.1	12.3	7.5	7.0	8.6	13.9	19.8	111.6	102.4	97.1
85°	3.2	1.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.5
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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