

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: P401293

Luminaire Tested: **ENV-SA1C-735-U-SLL-HSS**

Issue Date: 5/20/2020

Test Information

Test Method: LM-79-08
Report Number: P401293
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-SA1C-735-U-SLL-HSS
Description: ENTRI LED LUMINAIRE
(1) 70 CRI, 3500K, 615mA 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: 3186 lumens
Efficiency: N/A
Efficacy: 95.7 lumens/watt
Luminous Opening: Rectangular (W 0.5' x L: 0.5' x H: 0')
IES Classification: Type III - Short - Semi-Cutoff
BUG Rating: B1 - U0 - G1

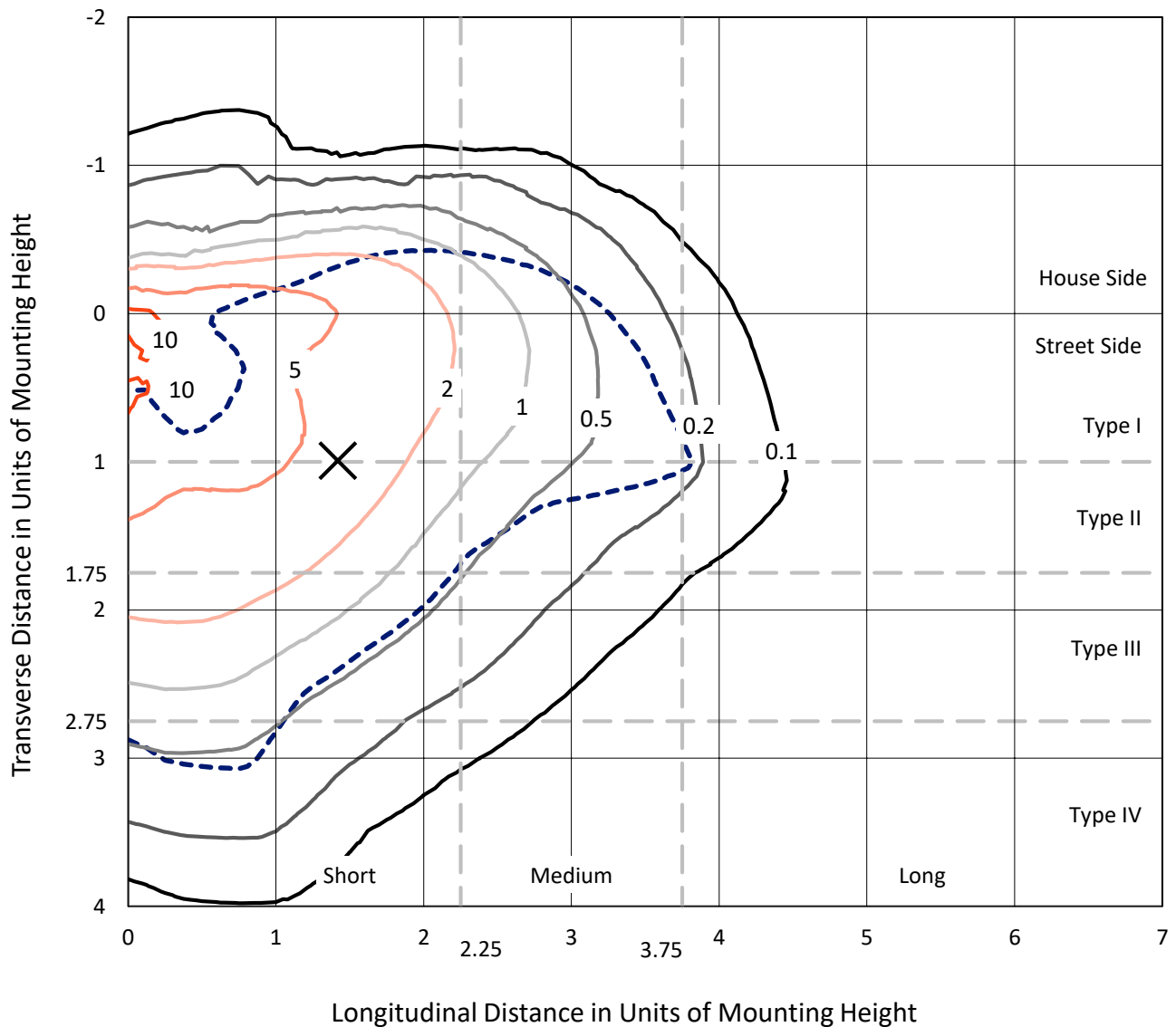
Input Watts (W): 33.3
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Iso-Footcandle Lines of Horizontal Illumination

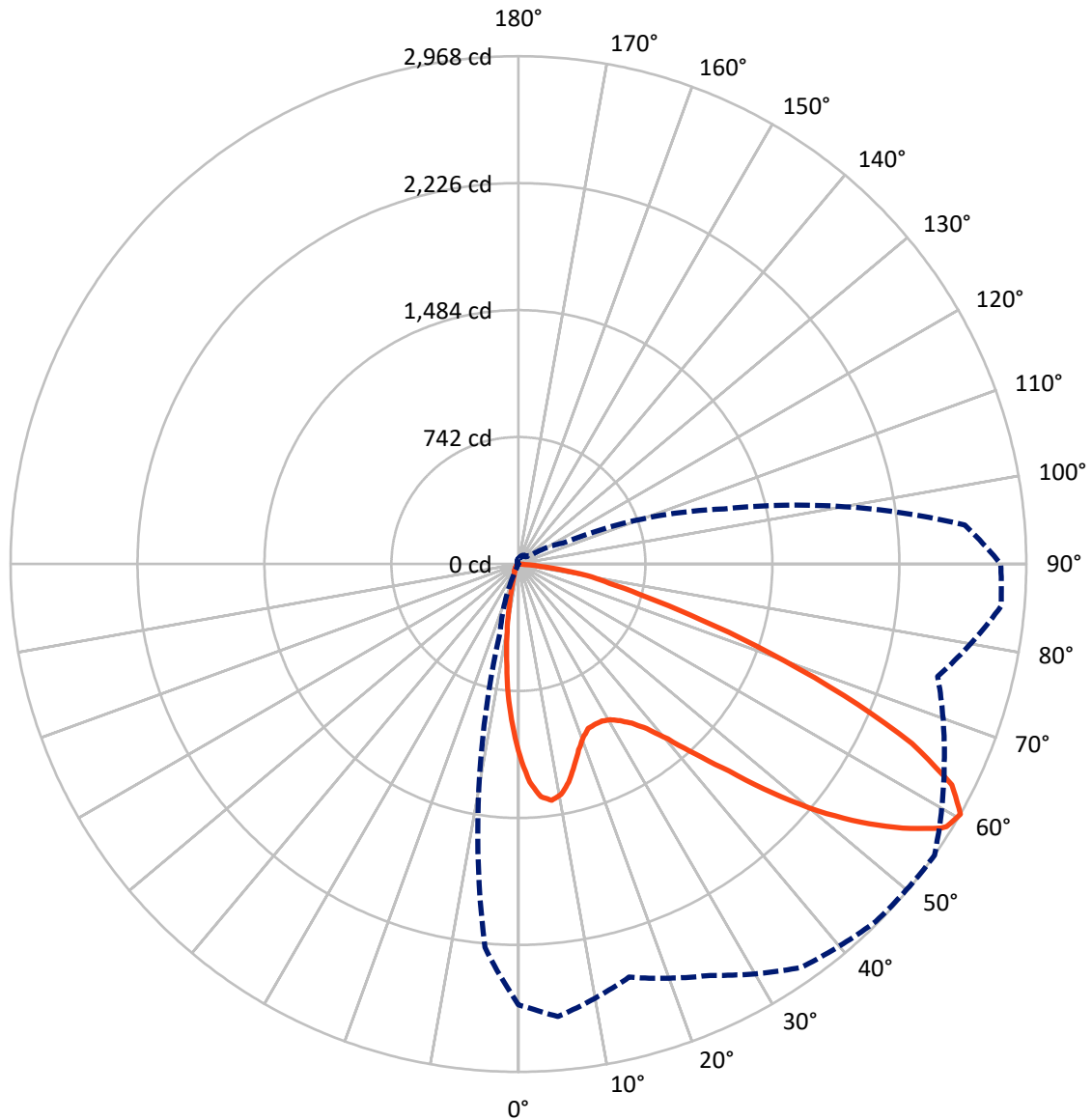
✕ Max cd
 - - - 1/2 Max cd



Based on 10 foot mounting height. Maximum calculated value = 13.3 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	564.2	0.0	564.2
	% Fixture	17.7	0.0	17.7
Street Side	Lumens	2621.8	0.0	2621.8
	% Fixture	82.3	0.0	82.3
Total	Lumens	3186.0	0.0	3186.0
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	84.7	2.7
10°-20°	161.0	5.1
20°-30°	229.7	7.2
30°-40°	336.9	10.6
40°-50°	496.8	15.6
50°-60°	736.0	23.1
60°-70°	784.3	24.6
70°-80°	325.3	10.2
80°-90°	31.3	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°	3186.0	100.0
0°-180°	3186.0	100.0



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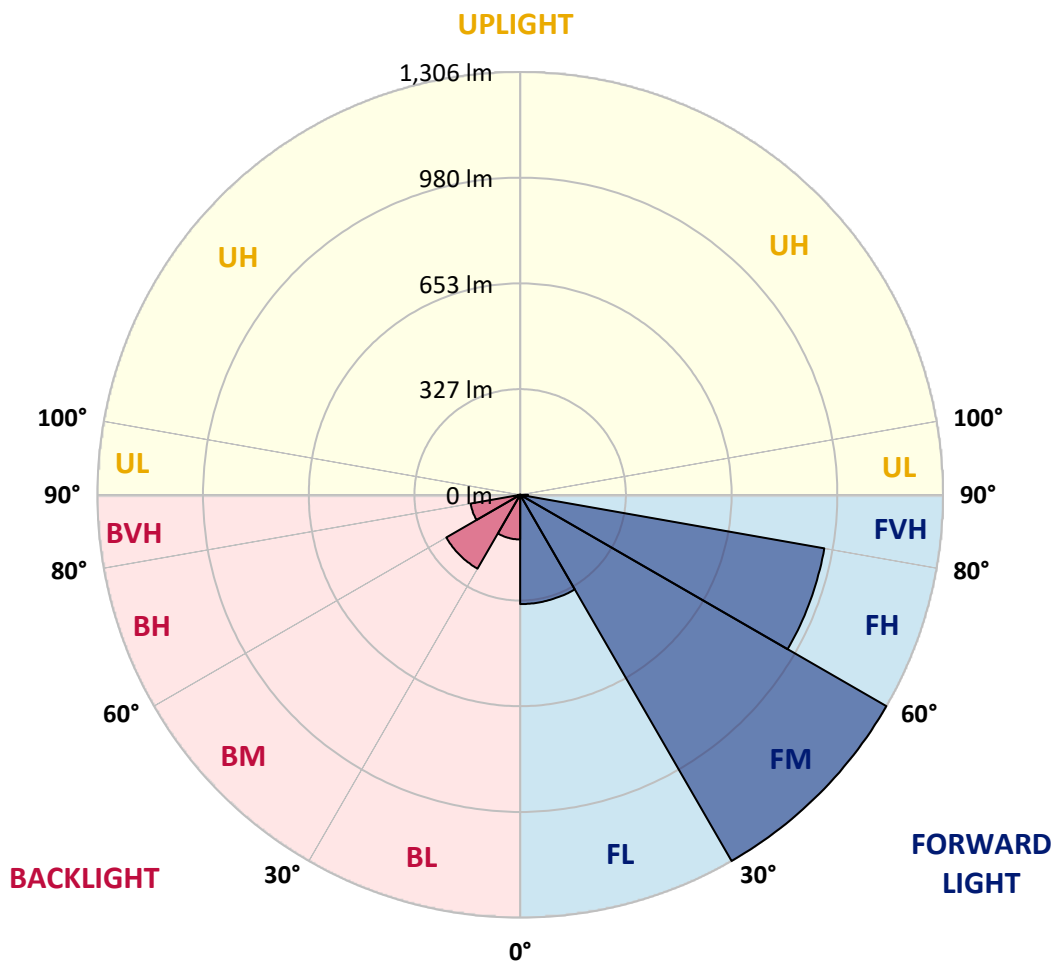
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	337.5	10.6			
FM	(30°-60°)	1306.3	41.0			
FH	(60°-80°)	954.1	29.9			G1/1800
FVH	(80°-90°)	23.9	0.8			G1/100
BL	(0°-30°)	137.9	4.3	B1/500		
BM	(30°-60°)	263.4	8.3	B1/1000		
BH	(60°-80°)	155.5	4.9	B1/500		G1/500
BVH	(80°-90°)	7.3	0.2			G0/10
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

BUG Rating: B1-U0-G1

Type III Short





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CANDELA DISTRIBUTION (FULL):

	0°	1°	5°	15°	25°	35°	45°	55°	65°	75°	85°
0°	1125.2	1125.2	1125.2	1125.2	1125.2	1125.2	1125.2	1125.2	1125.2	1125.2	1125.2
2.5°	1175.1	1173.3	1190.2	1225.1	1246.8	1260.1	1262.5	1276.3	1262.5	1255.3	1229.4
5°	1140.8	1140.2	1172.7	1249.2	1311.9	1358.9	1381.7	1366.1	1342.0	1294.4	1236.6
7.5°	1045.6	1045.6	1107.1	1209.5	1314.3	1395.6	1423.3	1394.4	1337.2	1241.4	1137.8
10°	967.9	975.2	1034.2	1156.5	1272.7	1361.9	1392.6	1370.3	1295.6	1171.5	1049.9
12.5°	921.6	925.8	991.4	1114.3	1222.7	1295.0	1313.7	1307.1	1252.8	1117.9	989.0
15°	925.8	931.8	1007.1	1107.7	1178.2	1207.1	1213.7	1222.1	1199.8	1096.2	969.1
17.5°	992.0	996.3	1072.1	1137.2	1134.2	1125.2	1127.6	1141.4	1167.9	1114.3	1009.5
20°	1098.0	1108.9	1185.4	1186.6	1111.3	1069.1	1058.3	1081.2	1152.9	1161.9	1095.6
22.5°	1234.2	1238.4	1316.1	1269.7	1113.7	1030.6	1017.9	1043.8	1157.7	1239.0	1214.9
25°	1392.0	1407.0	1449.2	1377.5	1148.6	1025.2	1016.7	1038.4	1175.1	1320.9	1337.8
27.5°	1498.6	1510.6	1551.0	1451.0	1180.0	1028.2	1012.5	1039.0	1196.2	1398.0	1469.1
30°	1593.8	1602.2	1617.3	1489.6	1215.5	1043.2	1017.9	1055.9	1207.7	1414.3	1554.0
32.5°	1683.5	1693.7	1684.7	1535.9	1254.7	1071.5	1028.2	1091.4	1232.4	1446.8	1628.1
35°	1799.2	1799.8	1769.0	1582.3	1299.2	1105.3	1058.3	1142.0	1280.6	1497.4	1707.6
37.5°	1936.5	1937.7	1860.0	1629.9	1349.8	1161.9	1129.4	1220.3	1350.4	1555.8	1821.4
40°	2056.4	2061.2	1958.2	1684.7	1411.9	1272.1	1269.1	1344.4	1440.2	1633.5	1943.7
42.5°	2160.6	2174.4	2048.5	1730.5	1499.8	1441.4	1448.6	1517.3	1549.2	1698.6	2019.6
45°	2266.0	2265.4	2122.6	1776.3	1646.8	1659.4	1728.1	1725.1	1672.7	1733.5	2079.2
47.5°	2331.6	2328.6	2167.8	1851.0	1844.9	1966.0	2038.9	1999.1	1809.4	1770.8	2153.9
50°	2356.9	2355.7	2203.3	1946.1	2046.7	2243.7	2347.9	2268.4	1976.8	1833.5	2243.1
52.5°	2428.6	2422.6	2285.2	2054.5	2229.2	2511.1	2597.2	2508.7	2143.7	1946.1	2346.7
55°	2540.6	2542.4	2426.2	2181.6	2375.6	2699.6	2805.0	2726.1	2314.1	2100.9	2488.8
57.5°	2615.9	2621.3	2582.2	2323.2	2532.2	2831.5	2933.9	2911.7	2541.2	2285.8	2655.7
58°	2623.1	2627.4	2606.9	2350.3	2555.7	2846.6	2951.4	2935.8	2591.2	2344.9	2695.4
60°	2576.8	2589.4	2655.1	2499.7	2652.7	2878.5	2954.4	2968.3	2746.0	2536.4	2831.5
62.5°	2450.9	2455.1	2574.4	2667.1	2718.9	2799.6	2806.9	2843.0	2809.9	2761.1	2953.2
65°	2296.7	2296.7	2425.6	2674.9	2547.2	2534.0	2491.8	2528.0	2623.7	2902.0	2944.8
67.5°	2028.6	2030.5	2194.9	2382.8	2111.8	2066.0	2038.9	2052.1	2256.3	2784.6	2781.0
70°	1639.5	1638.3	1807.6	1929.3	1567.3	1528.1	1560.6	1556.4	1832.9	2474.4	2428.0
72.5°	1159.5	1169.7	1343.8	1490.2	1064.3	917.3	1060.7	1116.1	1378.7	2085.9	1878.7
75°	652.9	666.8	808.9	1035.4	671.6	620.4	693.9	772.8	996.9	1660.6	1261.9
77.5°	327.7	333.1	414.4	498.1	407.2	472.8	468.6	543.9	683.6	1120.3	721.6
80°	189.1	200.0	227.7	257.2	227.7	300.0	348.1	409.6	421.0	579.4	402.4
82.5°	75.9	84.9	106.6	121.1	94.6	89.1	60.8	191.5	253.6	280.1	154.2
85°	0.0	0.0	0.6	1.2	1.8	1.8	3.0	33.7	62.0	13.9	25.3
87.5°	0.0	0.0	0.6	0.6	1.2	1.8	2.4	4.2	5.4	6.6	22.9
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°	1125.2	1125.2	1125.2	1125.2	1125.2	1125.2	1125.2	1125.2	1125.2	1125.2	1125.2
2.5°	1219.7	1213.1	1190.8	1157.1	1136.0	1103.5	1090.2	1059.5	1043.8	1017.9	1017.9
5°	1207.7	1180.6	1124.5	1051.7	999.9	945.7	928.2	892.0	866.1	835.4	822.8
7.5°	1098.0	1060.1	972.8	887.8	805.3	750.5	696.3	659.6	624.6	599.3	602.9
10°	997.5	943.2	847.5	739.7	654.1	596.9	548.1	505.4	469.2	433.7	428.3
12.5°	931.8	869.8	755.3	639.7	575.8	533.7	488.5	441.5	396.9	357.8	342.1
15°	904.1	836.6	708.9	599.9	541.5	487.3	434.9	377.1	325.9	278.9	266.2
17.5°	934.2	853.5	704.7	573.4	492.1	424.0	351.2	287.9	227.7	193.9	183.7
20°	1016.1	911.3	718.6	546.9	437.3	349.4	260.2	188.5	154.8	134.3	127.7
22.5°	1134.8	1007.1	742.1	521.0	381.9	260.2	179.5	136.1	116.2	105.4	102.4
25°	1263.7	1130.6	785.4	499.3	326.5	193.3	133.1	111.4	99.4	91.6	88.5
27.5°	1408.8	1252.8	838.4	483.1	275.3	154.8	114.4	98.2	88.5	83.1	80.7
30°	1499.8	1340.8	878.8	454.2	240.3	140.9	109.0	92.8	82.5	78.3	76.5
32.5°	1583.5	1410.1	917.3	421.0	213.8	124.7	106.0	97.6	85.5	77.1	73.5
35°	1675.7	1481.1	936.0	401.2	196.4	108.4	87.3	75.9	69.3	68.1	66.3
37.5°	1813.0	1565.5	948.1	390.3	185.5	98.8	81.3	68.7	60.8	53.6	50.6
40°	1943.1	1652.8	954.1	380.1	180.1	92.8	77.7	65.1	56.6	50.0	47.0
42.5°	2044.9	1732.3	957.7	372.8	170.5	89.1	74.7	62.6	53.6	47.0	44.0
45°	2128.0	1824.5	954.7	370.4	162.6	91.6	73.5	60.8	51.2	44.6	41.6
47.5°	2209.3	1924.4	966.1	367.4	154.8	87.9	74.1	60.2	49.4	42.8	39.8
50°	2316.0	2045.5	1007.7	359.0	149.4	82.5	80.1	60.8	48.8	41.6	39.2
52.5°	2453.9	2213.0	1083.0	350.0	142.8	77.7	83.7	60.8	47.6	40.4	37.3
55°	2621.3	2400.9	1166.1	336.7	131.3	71.7	80.1	60.8	46.4	39.8	36.1
57.5°	2758.1	2568.3	1231.8	321.0	110.2	64.4	73.5	58.4	43.4	37.3	34.3
58°	2770.1	2587.6	1240.8	316.8	107.8	63.2	71.7	57.8	42.2	36.7	33.7
60°	2818.9	2618.9	1244.4	293.9	89.7	60.2	62.0	56.0	39.8	34.3	31.9
62.5°	2802.0	2515.3	1167.9	253.6	80.1	54.8	51.8	57.2	36.7	31.3	28.9
65°	2718.3	2311.7	1023.4	227.1	80.7	48.8	44.6	50.0	33.7	28.3	25.9
67.5°	2518.9	2002.7	831.2	212.6	84.3	43.4	38.5	37.3	30.1	25.3	23.5
70°	2148.5	1641.3	630.0	200.0	89.1	38.5	35.5	33.1	27.7	23.5	21.1
72.5°	1582.3	1215.5	458.4	187.3	86.7	34.3	33.1	30.1	25.3	21.1	19.9
75°	987.2	705.9	313.8	153.0	77.7	30.1	30.7	28.3	22.9	19.9	18.1
77.5°	576.4	495.7	154.8	113.8	53.6	26.5	27.1	25.9	23.5	18.7	17.5
80°	345.1	308.4	66.3	48.8	29.5	23.5	22.9	24.1	22.3	17.5	16.3
82.5°	149.4	133.7	31.9	27.1	24.1	20.5	19.9	20.5	19.3	14.5	13.9
85°	8.4	22.3	15.1	19.9	18.1	15.1	15.1	15.7	13.9	11.4	11.4
87.5°	7.8	16.9	9.6	12.0	13.3	11.4	12.0	12.0	11.4	10.2	9.6
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):

	185°	195°	205°	215°	225°	235°	245°	255°	265°	270°	275°
0°	1125.2	1125.2	1125.2	1125.2	1125.2	1125.2	1125.2	1125.2	1125.2	1125.2	1125.2
2.5°	1004.1	997.5	977.6	970.4	939.0	946.9	949.3	946.3	947.5	949.9	958.9
5°	831.8	821.0	795.1	778.2	769.2	763.2	734.8	735.4	739.7	723.4	744.5
7.5°	590.9	602.9	605.3	589.7	580.0	559.6	533.7	519.2	494.5	508.4	511.4
10°	422.8	416.8	428.3	422.8	407.8	399.9	372.2	369.8	367.4	365.6	383.1
12.5°	322.2	304.2	290.9	293.9	282.5	263.2	258.4	259.0	261.4	261.4	266.2
15°	255.4	227.7	206.6	193.9	195.8	176.5	171.1	153.0	150.6	145.2	146.4
17.5°	178.9	167.4	154.8	140.3	134.3	116.9	95.8	86.1	78.9	80.1	83.7
20°	123.5	118.7	115.0	107.8	101.8	81.3	68.1	63.8	63.2	64.4	65.7
22.5°	99.4	94.6	91.0	88.5	80.7	65.7	58.4	55.4	55.4	55.4	56.0
25°	85.5	80.7	75.9	75.9	68.7	57.2	51.8	49.4	48.8	48.2	49.4
27.5°	79.5	72.9	68.1	65.1	59.6	50.6	45.8	43.4	42.8	42.8	43.4
30°	73.5	66.9	62.0	57.8	51.8	45.2	40.4	38.5	37.3	37.3	37.9
32.5°	69.9	63.2	57.2	51.8	45.2	39.8	35.5	33.1	31.9	32.5	33.1
35°	62.0	56.6	51.2	45.8	39.8	34.9	30.7	28.3	27.7	27.7	28.3
37.5°	48.8	44.6	43.4	40.4	34.9	30.1	25.9	23.5	22.9	22.9	23.5
40°	44.0	38.5	36.1	34.9	31.9	25.9	21.1	18.7	18.7	18.1	19.3
42.5°	40.4	34.9	30.7	29.5	27.7	22.3	16.9	15.1	14.5	14.5	15.1
45°	37.9	31.9	26.5	23.5	23.5	18.1	13.9	11.4	10.8	10.8	11.4
47.5°	36.7	30.1	23.5	19.3	18.7	15.1	10.8	8.4	7.8	7.8	7.8
50°	35.5	27.7	21.1	16.3	14.5	12.6	8.4	6.6	6.0	6.0	6.0
52.5°	33.7	26.5	19.3	14.5	11.4	9.6	6.6	4.8	4.2	3.6	4.2
55°	32.5	24.7	18.7	13.3	9.6	7.2	4.8	3.6	3.0	3.0	3.0
57.5°	30.7	22.9	16.9	12.6	9.0	5.4	3.6	2.4	1.8	1.8	2.4
58°	30.1	22.9	16.3	12.0	8.4	5.4	3.6	2.4	1.8	1.8	2.4
60°	28.3	21.1	15.7	10.8	7.8	4.8	3.0	1.8	1.2	1.2	1.8
62.5°	26.5	19.3	13.9	9.6	6.6	4.2	2.4	1.2	0.6	0.6	0.6
65°	23.5	17.5	12.0	9.0	5.4	3.0	1.8	0.6	0.0	0.0	0.0
67.5°	21.1	16.3	10.8	7.8	4.8	2.4	1.2	0.0	0.0	0.0	0.0
70°	19.3	15.1	9.6	6.6	4.2	1.8	0.6	0.0	0.0	0.0	0.0
72.5°	18.1	13.9	9.0	6.0	3.0	1.8	0.6	0.0	0.0	0.0	0.0
75°	17.5	13.3	9.0	5.4	3.0	1.8	1.2	0.6	0.0	0.0	0.6
77.5°	16.9	13.3	9.0	5.4	3.6	1.8	1.8	1.2	1.2	0.6	1.8
80°	15.7	12.0	7.8	4.8	3.0	2.4	1.8	1.2	0.0	0.0	0.0
82.5°	13.3	9.6	6.6	4.8	3.0	1.8	0.6	0.0	0.0	0.0	0.0
85°	10.8	7.8	5.4	3.0	1.8	0.6	0.0	0.0	0.0	0.0	0.0
87.5°	9.6	6.0	4.2	2.4	1.2	0.6	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°	1125.2	1125.2	1125.2	1125.2	1125.2	1125.2	1125.2	1125.2	1125.2	1125.2
2.5°	966.7	994.4	1005.9	1044.4	1061.3	1096.2	1126.4	1152.3	1164.9	1175.1
5°	749.9	776.4	804.7	861.9	911.3	964.3	1030.6	1099.3	1119.1	1140.8
7.5°	523.4	562.6	610.2	661.4	731.8	811.9	907.1	992.0	1034.8	1045.6
10°	406.6	453.0	503.5	554.1	612.6	698.1	793.9	903.5	949.3	967.9
12.5°	305.4	367.4	427.7	487.3	537.9	612.0	716.2	846.9	897.5	921.6
15°	183.7	253.6	327.7	407.8	478.2	565.0	682.4	834.8	898.7	925.8
17.5°	91.6	125.3	193.3	313.8	418.0	525.8	681.8	878.2	957.1	992.0
20°	68.1	77.1	103.0	195.8	347.5	493.3	689.1	952.3	1068.5	1098.0
22.5°	58.4	65.1	74.1	114.4	260.2	463.2	714.4	1050.5	1195.0	1234.2
25°	51.2	56.6	63.8	78.9	178.3	427.7	761.9	1189.0	1338.4	1392.0
27.5°	45.2	50.0	56.0	66.3	119.3	360.8	789.1	1305.2	1454.0	1498.6
30°	39.8	43.4	49.4	56.6	87.9	278.9	814.3	1407.6	1558.8	1593.8
32.5°	34.9	37.9	42.8	48.2	66.9	211.4	815.6	1495.6	1650.4	1683.5
35°	29.5	33.1	36.7	41.6	53.0	165.0	790.9	1582.9	1758.8	1799.2
37.5°	24.7	27.7	31.9	36.1	48.2	127.7	739.7	1685.3	1890.7	1936.5
40°	21.1	24.1	27.7	32.5	42.8	92.8	657.7	1778.1	2014.2	2056.4
42.5°	16.9	19.9	24.1	31.9	35.5	66.9	575.2	1867.2	2121.4	2160.6
45°	13.3	16.9	22.3	30.7	29.5	47.0	504.1	1946.1	2213.6	2266.0
47.5°	9.6	13.9	22.3	27.7	24.1	33.7	468.0	2022.0	2296.1	2331.6
50°	7.2	11.4	24.1	23.5	20.5	28.9	473.4	2106.3	2334.0	2356.9
52.5°	5.4	9.6	18.7	16.9	17.5	25.3	494.5	2217.8	2412.3	2428.6
55°	4.8	7.2	11.4	12.6	15.7	24.1	489.1	2323.2	2512.3	2540.6
57.5°	4.2	6.0	9.0	10.2	13.9	22.9	458.4	2369.6	2576.8	2615.9
58°	3.6	6.0	8.4	10.2	13.9	22.3	450.5	2356.9	2573.8	2623.1
60°	3.0	5.4	7.8	9.0	12.0	19.9	412.6	2249.7	2507.5	2576.8
62.5°	2.4	3.6	6.0	6.6	9.6	16.3	339.7	2076.2	2365.3	2450.9
65°	1.2	2.4	3.6	4.8	6.6	12.0	241.5	1870.8	2213.0	2296.7
67.5°	0.0	1.2	2.4	3.0	4.2	9.0	139.1	1587.7	1962.4	2028.6
70°	0.0	0.6	1.2	1.8	2.4	6.0	73.5	1165.5	1520.3	1639.5
72.5°	0.6	0.6	0.6	0.0	1.2	4.8	32.5	691.5	1036.6	1159.5
75°	0.6	0.6	0.0	0.0	0.0	2.4	13.9	364.4	594.5	652.9
77.5°	2.4	1.2	0.0	0.0	0.0	0.6	6.6	196.4	308.4	327.7
80°	0.6	0.0	0.0	0.0	0.0	0.0	2.4	65.7	184.9	189.1
82.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.2	79.5	75.9
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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