

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: P401318

Luminaire Tested: **ENT-SA1C-740-U-SLL-HSS**

Issue Date: 5/20/2020

Test Information

Test Method: LM-79-08
Report Number: P401318
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: ENT-SA1C-740-U-SLL-HSS
Description: ENTRI LED LUMINAIRE
(1) 70 CRI, 4000K, 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: 3392 lumens
Efficiency: N/A
Efficacy: 101.9 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

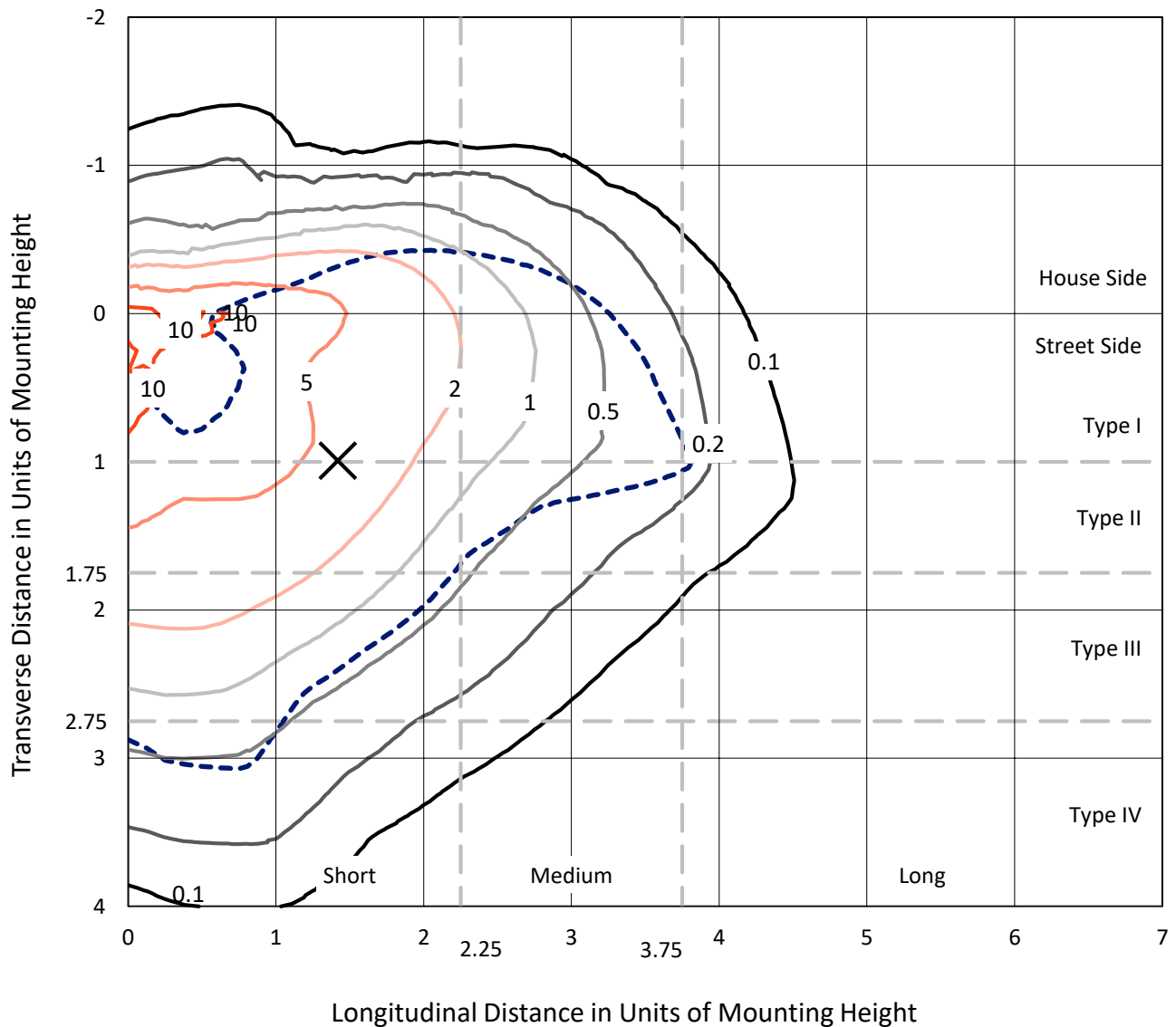


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Iso-Footcandle Lines of Horizontal Illumination

✕ Max cd
 - - - 1/2 Max cd

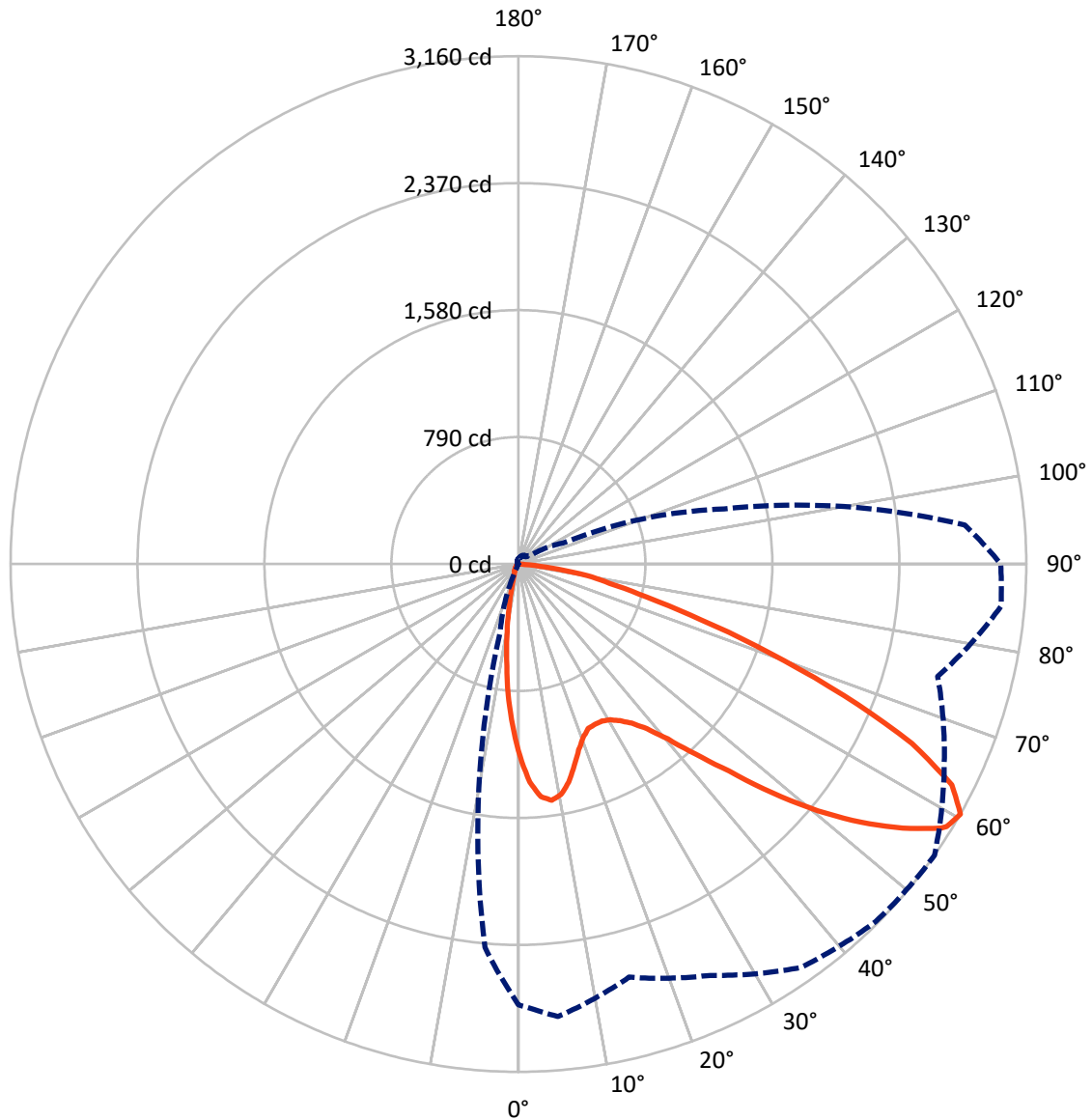


Based on 10 foot mounting height. Maximum calculated value = 14.1 fc
 Type III - Short - Semi-Cutoff

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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	600.7	0.0	600.7
	% Fixture	17.7	0.0	17.7
Street Side	Lumens	2791.3	0.0	2791.3
	% Fixture	82.3	0.0	82.3
Total	Lumens	3392.0	0.0	3392.0
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	90.1	2.7
10°-20°	171.4	5.1
20°-30°	244.6	7.2
30°-40°	358.7	10.6
40°-50°	528.9	15.6
50°-60°	783.6	23.1
60°-70°	835.0	24.6
70°-80°	346.4	10.2
80°-90°	33.3	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°	3392.0	100.0
0°-180°	3392.0	100.0



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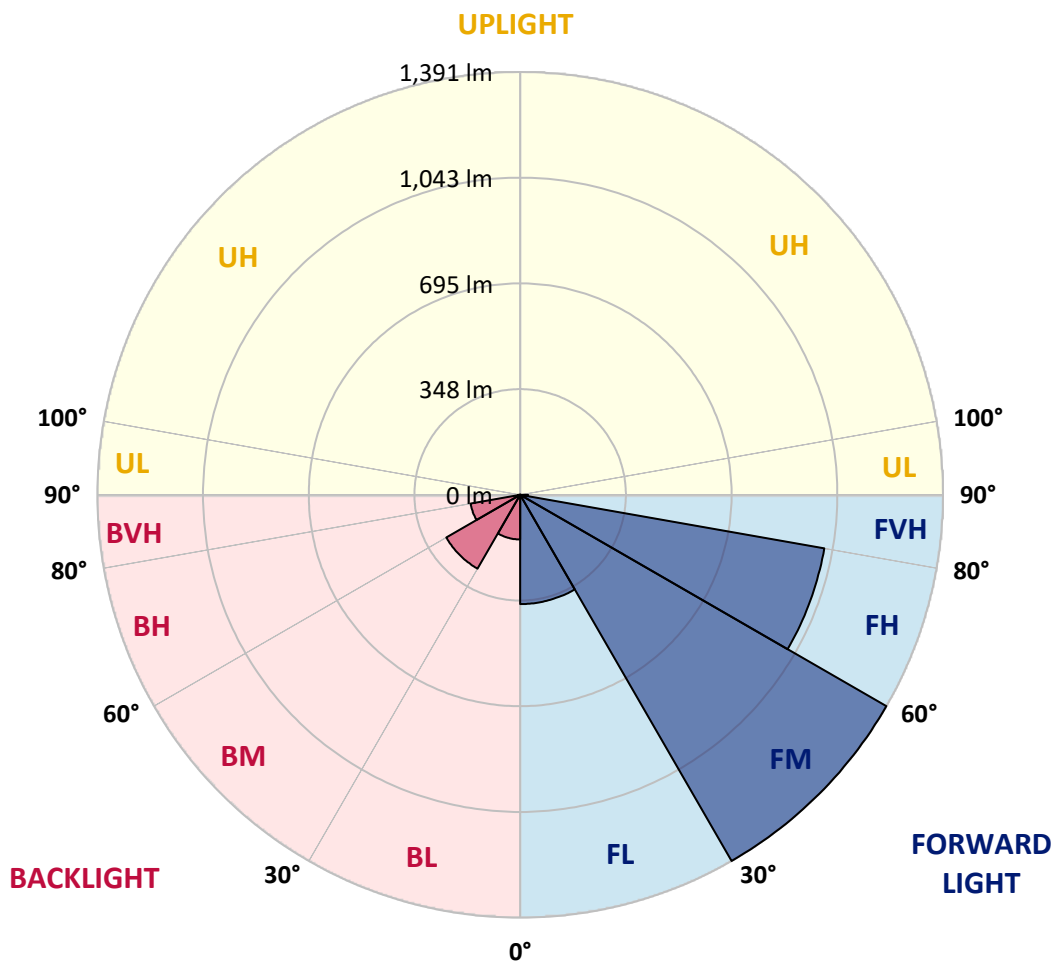
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	359.3	10.6			
FM	(30°-60°)	1390.8	41.0			
FH	(60°-80°)	1015.8	29.9			G1/1800
FVH	(80°-90°)	25.5	0.8			G1/100
BL	(0°-30°)	146.9	4.3	B1/500		
BM	(30°-60°)	280.4	8.3	B1/1000		
BH	(60°-80°)	165.6	4.9	B1/500		G1/500
BVH	(80°-90°)	7.8	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°	1197.9	1197.9	1197.9	1197.9	1197.9	1197.9	1197.9	1197.9	1197.9	1197.9	1197.9
2.5°	1251.1	1249.2	1267.2	1304.4	1327.4	1341.5	1344.1	1358.9	1344.1	1336.4	1308.8
5°	1214.6	1213.9	1248.6	1330.0	1396.7	1446.7	1471.1	1454.4	1428.8	1378.1	1316.5
7.5°	1113.3	1113.3	1178.7	1287.7	1399.3	1485.8	1515.3	1484.6	1423.6	1321.7	1211.4
10°	1030.5	1038.2	1101.1	1231.2	1355.0	1449.9	1482.6	1458.9	1379.4	1247.3	1117.7
12.5°	981.1	985.6	1055.5	1186.4	1301.8	1378.7	1398.6	1391.6	1333.9	1190.2	1053.0
15°	985.6	992.1	1072.2	1179.3	1254.3	1285.1	1292.2	1301.1	1277.4	1167.1	1031.8
17.5°	1056.2	1060.7	1141.5	1210.7	1207.5	1197.9	1200.5	1215.2	1243.4	1186.4	1074.8
20°	1169.0	1180.6	1262.0	1263.3	1183.2	1138.3	1126.7	1151.1	1227.4	1237.0	1166.5
22.5°	1314.0	1318.5	1401.2	1351.8	1185.7	1097.2	1083.8	1111.3	1232.5	1319.1	1293.5
25°	1482.0	1498.0	1542.9	1466.6	1222.9	1091.4	1082.5	1105.6	1251.1	1406.3	1424.3
27.5°	1595.5	1608.3	1651.3	1544.8	1256.3	1094.7	1078.0	1106.2	1273.6	1488.4	1564.1
30°	1696.8	1705.8	1721.8	1585.9	1294.1	1110.7	1083.8	1124.2	1285.8	1505.7	1654.5
32.5°	1792.4	1803.3	1793.6	1635.2	1335.8	1140.8	1094.7	1162.0	1312.0	1540.3	1733.4
35°	1915.5	1916.1	1883.4	1684.6	1383.2	1176.7	1126.7	1215.9	1363.3	1594.2	1818.0
37.5°	2061.7	2063.0	1980.3	1735.3	1437.1	1237.0	1202.4	1299.2	1437.7	1656.4	1939.2
40°	2189.3	2194.4	2084.8	1793.6	1503.1	1354.4	1351.2	1431.3	1533.3	1739.1	2069.4
42.5°	2300.3	2315.0	2181.0	1842.4	1596.8	1534.6	1542.3	1615.4	1649.4	1808.4	2150.2
45°	2412.5	2411.8	2259.9	1891.1	1753.2	1766.7	1839.8	1836.6	1780.8	1845.6	2213.7
47.5°	2482.4	2479.2	2307.9	1970.6	1964.2	2093.1	2170.7	2128.4	1926.4	1885.3	2293.2
50°	2509.3	2508.0	2345.8	2072.0	2179.1	2388.7	2499.7	2415.0	2104.7	1952.0	2388.1
52.5°	2585.6	2579.2	2433.0	2187.4	2373.4	2673.5	2765.2	2670.9	2282.3	2072.0	2498.4
55°	2704.9	2706.8	2583.1	2322.7	2529.2	2874.2	2986.4	2902.4	2463.8	2236.8	2649.7
57.5°	2785.1	2790.8	2749.1	2473.4	2695.9	3014.6	3123.6	3099.9	2705.5	2433.6	2827.4
58°	2792.8	2797.2	2775.4	2502.3	2720.9	3030.7	3142.2	3125.6	2758.8	2496.5	2869.7
60°	2743.4	2756.8	2826.7	2661.3	2824.2	3064.7	3145.5	3160.2	2923.6	2700.4	3014.6
62.5°	2609.3	2613.8	2740.8	2839.6	2894.7	2980.6	2988.3	3026.8	2991.5	2939.6	3144.2
65°	2445.2	2445.2	2582.4	2847.9	2711.9	2697.8	2653.0	2691.4	2793.4	3089.7	3135.2
67.5°	2159.8	2161.7	2336.8	2536.9	2248.3	2199.6	2170.7	2184.8	2402.2	2964.6	2960.8
70°	1745.5	1744.3	1924.5	2054.0	1668.6	1626.9	1661.5	1657.1	1951.4	2634.4	2585.0
72.5°	1234.5	1245.4	1430.7	1586.5	1133.1	976.7	1129.3	1188.3	1467.9	2220.7	2000.1
75°	695.1	709.9	861.2	1102.4	715.0	660.5	738.7	822.8	1061.3	1768.0	1343.5
77.5°	348.9	354.6	441.2	530.3	433.5	503.4	498.9	579.1	727.8	1192.8	768.2
80°	201.4	212.9	242.4	273.8	242.4	319.4	370.7	436.1	448.3	616.9	428.4
82.5°	80.8	90.4	113.5	128.9	100.7	94.9	64.8	203.9	270.0	298.2	164.2
85°	0.0	0.0	0.6	1.3	1.9	1.9	3.2	35.9	66.1	14.7	26.9
87.5°	0.0	0.0	0.6	0.6	1.3	1.9	2.6	4.5	5.8	7.1	24.4
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°	1197.9	1197.9	1197.9	1197.9	1197.9	1197.9	1197.9	1197.9	1197.9	1197.9	1197.9
2.5°	1298.6	1291.5	1267.8	1231.9	1209.4	1174.8	1160.7	1128.0	1111.3	1083.8	1083.8
5°	1285.8	1256.9	1197.3	1119.7	1064.5	1006.8	988.2	949.7	922.2	889.4	876.0
7.5°	1169.0	1128.6	1035.7	945.2	857.4	799.0	741.3	702.2	665.0	638.1	641.9
10°	1062.0	1004.2	902.3	787.5	696.4	635.5	583.6	538.0	499.6	461.7	455.9
12.5°	992.1	926.0	804.2	681.0	613.1	568.2	520.1	470.1	422.6	380.9	364.2
15°	962.6	890.7	754.8	638.7	576.5	518.8	463.0	401.4	346.9	296.9	283.4
17.5°	994.6	908.7	750.3	610.5	523.9	451.5	373.9	306.5	242.4	206.5	195.6
20°	1081.8	970.2	765.0	582.3	465.6	371.9	277.0	200.7	164.8	143.0	136.0
22.5°	1208.2	1072.2	790.1	554.7	406.6	277.0	191.1	144.9	123.8	112.2	109.0
25°	1345.4	1203.7	836.2	531.6	347.6	205.8	141.7	118.6	105.8	97.5	94.3
27.5°	1499.9	1333.9	892.7	514.3	293.1	164.8	121.8	104.5	94.3	88.5	85.9
30°	1596.8	1427.5	935.6	483.5	255.9	150.1	116.1	98.8	87.9	83.4	81.4
32.5°	1685.9	1501.2	976.7	448.3	227.7	132.7	112.9	103.9	91.1	82.1	78.2
35°	1784.0	1576.9	996.5	427.1	209.1	115.4	93.0	80.8	73.7	72.5	70.5
37.5°	1930.2	1666.7	1009.4	415.5	197.5	105.2	86.6	73.1	64.8	57.1	53.9
40°	2068.8	1759.7	1015.8	404.6	191.7	98.8	82.7	69.3	60.3	53.2	50.0
42.5°	2177.1	1844.3	1019.6	396.9	181.5	94.9	79.5	66.7	57.1	50.0	46.8
45°	2265.6	1942.4	1016.4	394.4	173.1	97.5	78.2	64.8	54.5	47.5	44.2
47.5°	2352.2	2048.9	1028.6	391.2	164.8	93.6	78.9	64.1	52.6	45.5	42.3
50°	2465.7	2177.8	1072.9	382.2	159.0	87.9	85.3	64.8	51.9	44.2	41.7
52.5°	2612.6	2356.0	1153.0	372.6	152.0	82.7	89.1	64.8	50.7	43.0	39.8
55°	2790.8	2556.1	1241.5	358.5	139.8	76.3	85.3	64.8	49.4	42.3	38.5
57.5°	2936.4	2734.4	1311.4	341.8	117.4	68.6	78.2	62.2	46.2	39.8	36.6
58°	2949.2	2754.9	1321.0	337.3	114.8	67.3	76.3	61.6	44.9	39.1	35.9
60°	3001.2	2788.3	1324.9	312.9	95.5	64.1	66.1	59.6	42.3	36.6	34.0
62.5°	2983.2	2678.0	1243.4	270.0	85.3	58.4	55.1	60.9	39.1	33.3	30.8
65°	2894.1	2461.2	1089.5	241.8	85.9	51.9	47.5	53.2	35.9	30.1	27.6
67.5°	2681.8	2132.2	885.0	226.4	89.8	46.2	41.0	39.8	32.1	26.9	25.0
70°	2287.4	1747.5	670.8	212.9	94.9	41.0	37.8	35.3	29.5	25.0	22.4
72.5°	1684.6	1294.1	488.0	199.4	92.3	36.6	35.3	32.1	26.9	22.4	21.2
75°	1051.0	751.6	334.1	162.9	82.7	32.1	32.7	30.1	24.4	21.2	19.2
77.5°	613.7	527.8	164.8	121.2	57.1	28.2	28.9	27.6	25.0	19.9	18.6
80°	367.5	328.3	70.5	51.9	31.4	25.0	24.4	25.7	23.7	18.6	17.3
82.5°	159.0	142.4	34.0	28.9	25.7	21.8	21.2	21.8	20.5	15.4	14.7
85°	9.0	23.7	16.0	21.2	19.2	16.0	16.0	16.7	14.7	12.2	12.2
87.5°	8.3	18.0	10.3	12.8	14.1	12.2	12.8	12.8	12.2	10.9	10.3
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°	1197.9	1197.9	1197.9	1197.9	1197.9	1197.9	1197.9	1197.9	1197.9	1197.9	1197.9
2.5°	1069.0	1062.0	1040.8	1033.1	999.7	1008.1	1010.6	1007.4	1008.7	1011.3	1020.9
5°	885.6	874.1	846.5	828.5	818.9	812.5	782.4	783.0	787.5	770.2	792.6
7.5°	629.1	641.9	644.5	627.8	617.5	595.7	568.2	552.8	526.5	541.2	544.4
10°	450.2	443.8	455.9	450.2	434.1	425.8	396.3	393.7	391.2	389.3	407.9
12.5°	343.1	323.8	309.7	312.9	300.8	280.2	275.1	275.7	278.3	278.3	283.4
15°	271.9	242.4	220.0	206.5	208.4	187.9	182.1	162.9	160.3	154.5	155.8
17.5°	190.5	178.3	164.8	149.4	143.0	124.4	102.0	91.7	84.0	85.3	89.1
20°	131.5	126.3	122.5	114.8	108.4	86.6	72.5	68.0	67.3	68.6	69.9
22.5°	105.8	100.7	96.8	94.3	85.9	69.9	62.2	59.0	59.0	59.0	59.6
25°	91.1	85.9	80.8	80.8	73.1	60.9	55.1	52.6	51.9	51.3	52.6
27.5°	84.6	77.6	72.5	69.3	63.5	53.9	48.7	46.2	45.5	45.5	46.2
30°	78.2	71.2	66.1	61.6	55.1	48.1	43.0	41.0	39.8	39.8	40.4
32.5°	74.4	67.3	60.9	55.1	48.1	42.3	37.8	35.3	34.0	34.6	35.3
35°	66.1	60.3	54.5	48.7	42.3	37.2	32.7	30.1	29.5	29.5	30.1
37.5°	51.9	47.5	46.2	43.0	37.2	32.1	27.6	25.0	24.4	24.4	25.0
40°	46.8	41.0	38.5	37.2	34.0	27.6	22.4	19.9	19.9	19.2	20.5
42.5°	43.0	37.2	32.7	31.4	29.5	23.7	18.0	16.0	15.4	15.4	16.0
45°	40.4	34.0	28.2	25.0	25.0	19.2	14.7	12.2	11.5	11.5	12.2
47.5°	39.1	32.1	25.0	20.5	19.9	16.0	11.5	9.0	8.3	8.3	8.3
50°	37.8	29.5	22.4	17.3	15.4	13.5	9.0	7.1	6.4	6.4	6.4
52.5°	35.9	28.2	20.5	15.4	12.2	10.3	7.1	5.1	4.5	3.8	4.5
55°	34.6	26.3	19.9	14.1	10.3	7.7	5.1	3.8	3.2	3.2	3.2
57.5°	32.7	24.4	18.0	13.5	9.6	5.8	3.8	2.6	1.9	1.9	2.6
58°	32.1	24.4	17.3	12.8	9.0	5.8	3.8	2.6	1.9	1.9	2.6
60°	30.1	22.4	16.7	11.5	8.3	5.1	3.2	1.9	1.3	1.3	1.9
62.5°	28.2	20.5	14.7	10.3	7.1	4.5	2.6	1.3	0.6	0.6	0.6
65°	25.0	18.6	12.8	9.6	5.8	3.2	1.9	0.6	0.0	0.0	0.0
67.5°	22.4	17.3	11.5	8.3	5.1	2.6	1.3	0.0	0.0	0.0	0.0
70°	20.5	16.0	10.3	7.1	4.5	1.9	0.6	0.0	0.0	0.0	0.0
72.5°	19.2	14.7	9.6	6.4	3.2	1.9	0.6	0.0	0.0	0.0	0.0
75°	18.6	14.1	9.6	5.8	3.2	1.9	1.3	0.6	0.0	0.0	0.6
77.5°	18.0	14.1	9.6	5.8	3.8	1.9	1.9	1.3	1.3	0.6	1.9
80°	16.7	12.8	8.3	5.1	3.2	2.6	1.9	1.3	0.0	0.0	0.0
82.5°	14.1	10.3	7.1	5.1	3.2	1.9	0.6	0.0	0.0	0.0	0.0
85°	11.5	8.3	5.8	3.2	1.9	0.6	0.0	0.0	0.0	0.0	0.0
87.5°	10.3	6.4	4.5	2.6	1.3	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°	1197.9	1197.9	1197.9	1197.9	1197.9	1197.9	1197.9	1197.9	1197.9	1197.9
2.5°	1029.2	1058.7	1070.9	1112.0	1129.9	1167.1	1199.2	1226.8	1240.2	1251.1
5°	798.4	826.6	856.7	917.7	970.2	1026.7	1097.2	1170.3	1191.5	1214.6
7.5°	557.3	599.0	649.6	704.1	779.1	864.4	965.8	1056.2	1101.7	1113.3
10°	432.9	482.2	536.1	590.0	652.2	743.2	845.2	961.9	1010.6	1030.5
12.5°	325.1	391.2	455.3	518.8	572.7	651.5	762.5	901.6	955.5	981.1
15°	195.6	270.0	348.9	434.1	509.2	601.5	726.6	888.8	956.8	985.6
17.5°	97.5	133.4	205.8	334.1	445.0	559.8	725.9	935.0	1019.0	1056.2
20°	72.5	82.1	109.7	208.4	370.0	525.2	733.6	1013.9	1137.6	1169.0
22.5°	62.2	69.3	78.9	121.8	277.0	493.1	760.6	1118.4	1272.3	1314.0
25°	54.5	60.3	68.0	84.0	189.8	455.3	811.2	1265.9	1424.9	1482.0
27.5°	48.1	53.2	59.6	70.5	127.0	384.1	840.1	1389.6	1548.0	1595.5
30°	42.3	46.2	52.6	60.3	93.6	296.9	867.0	1498.7	1659.6	1696.8
32.5°	37.2	40.4	45.5	51.3	71.2	225.1	868.3	1592.3	1757.1	1792.4
35°	31.4	35.3	39.1	44.2	56.4	175.7	842.0	1685.3	1872.5	1915.5
37.5°	26.3	29.5	34.0	38.5	51.3	136.0	787.5	1794.3	2013.0	2061.7
40°	22.4	25.7	29.5	34.6	45.5	98.8	700.3	1893.0	2144.4	2189.3
42.5°	18.0	21.2	25.7	34.0	37.8	71.2	612.4	1988.0	2258.6	2300.3
45°	14.1	18.0	23.7	32.7	31.4	50.0	536.7	2072.0	2356.7	2412.5
47.5°	10.3	14.7	23.7	29.5	25.7	35.9	498.3	2152.8	2444.5	2482.4
50°	7.7	12.2	25.7	25.0	21.8	30.8	504.0	2242.5	2484.9	2509.3
52.5°	5.8	10.3	19.9	18.0	18.6	26.9	526.5	2361.2	2568.3	2585.6
55°	5.1	7.7	12.2	13.5	16.7	25.7	520.7	2473.4	2674.8	2704.9
57.5°	4.5	6.4	9.6	10.9	14.7	24.4	488.0	2522.8	2743.4	2785.1
58°	3.8	6.4	9.0	10.9	14.7	23.7	479.7	2509.3	2740.2	2792.8
60°	3.2	5.8	8.3	9.6	12.8	21.2	439.3	2395.2	2669.6	2743.4
62.5°	2.6	3.8	6.4	7.1	10.3	17.3	361.7	2210.5	2518.3	2609.3
65°	1.3	2.6	3.8	5.1	7.1	12.8	257.2	1991.8	2356.0	2445.2
67.5°	0.0	1.3	2.6	3.2	4.5	9.6	148.1	1690.4	2089.3	2159.8
70°	0.0	0.6	1.3	1.9	2.6	6.4	78.2	1240.9	1618.6	1745.5
72.5°	0.6	0.6	0.6	0.0	1.3	5.1	34.6	736.2	1103.6	1234.5
75°	0.6	0.6	0.0	0.0	0.0	2.6	14.7	388.0	632.9	695.1
77.5°	2.6	1.3	0.0	0.0	0.0	0.6	7.1	209.1	328.3	348.9
80°	0.6	0.0	0.0	0.0	0.0	0.0	2.6	69.9	196.9	201.4
82.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.3	84.6	80.8
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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