

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: P401322

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

Issue Date: 5/20/2020

Test Information

Test Method: LM-79-08
Report Number: P401322
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G1-2004-754-10)
Test Lab: INNOVATION CENTER
Issue Date: 5/20/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: INVUE
Catalog Number: ENT-SA1C-740-U-SLR-HSS
Description: ENTRI LED LUMINAIRE
(1) 70 CRI, 4000K, 615mA LIGHTSQUARE WITH 16 LEDS AND SPILL LIGHT
ELIMINATOR RIGHT 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 IV - 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

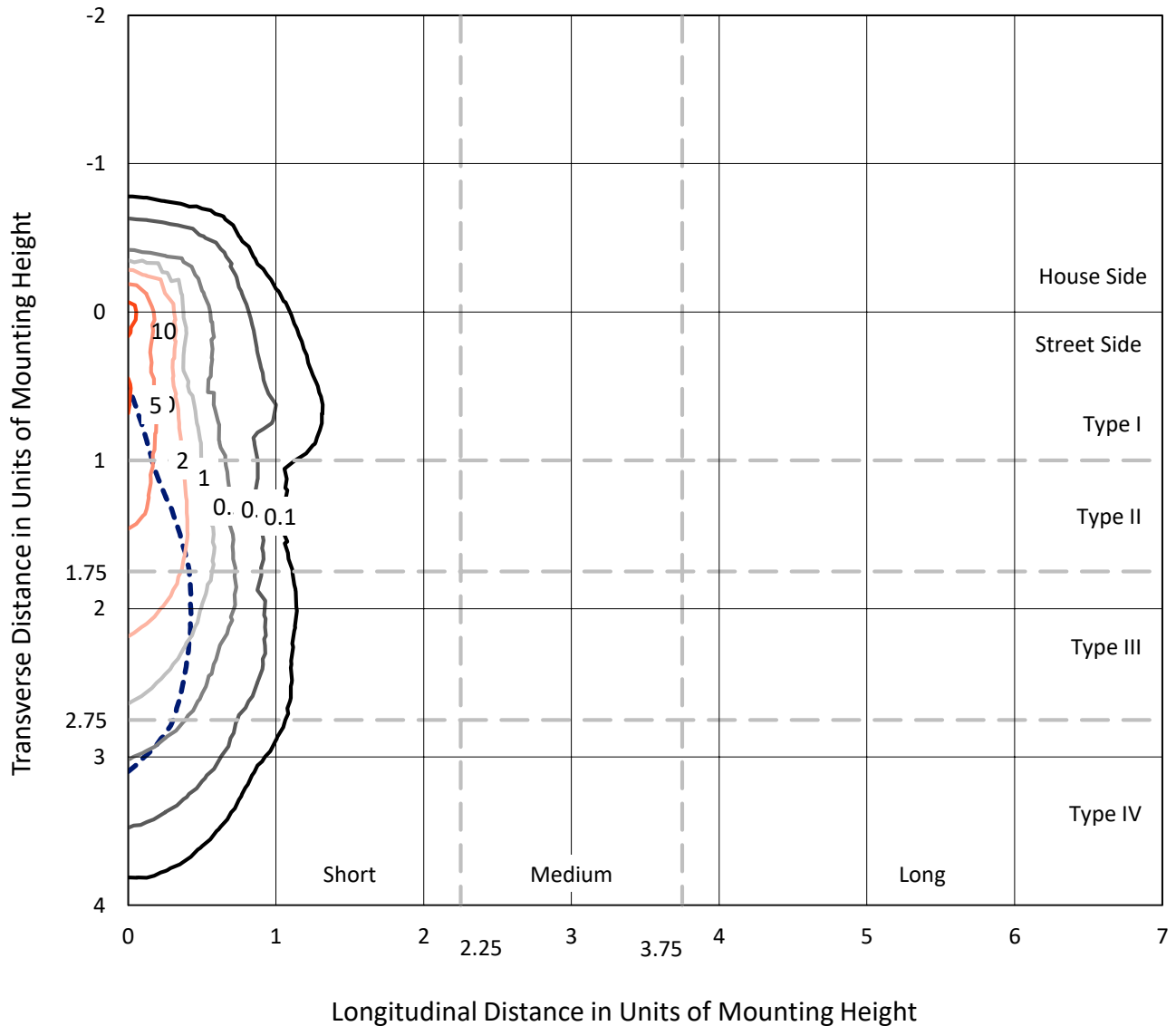


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Iso-Footcandle Lines of Horizontal Illumination

× Max cd
 - - - 1/2 Max cd

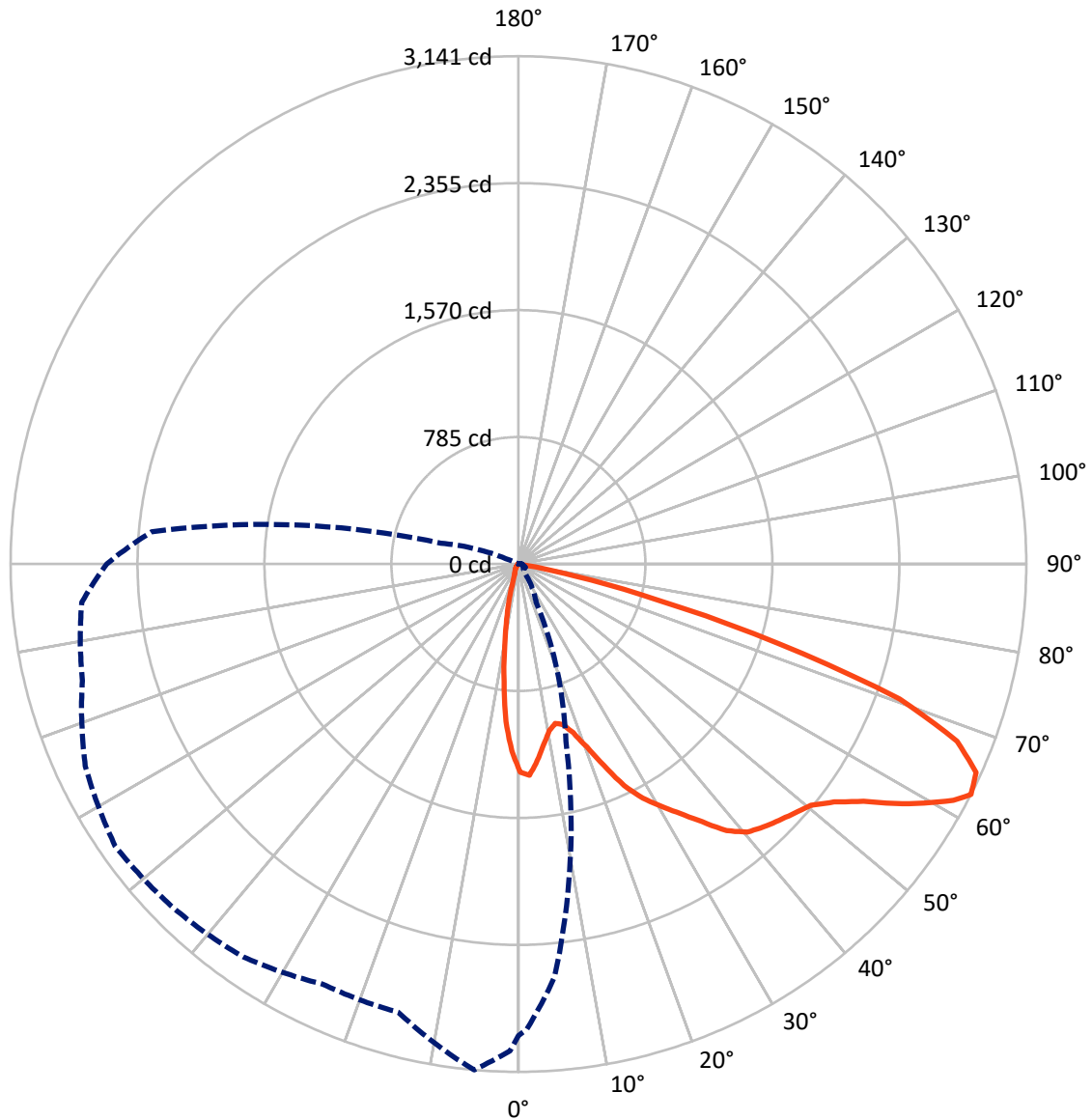


Based on 10 foot mounting height. Maximum calculated value = 12.9 fc
 Type IV - Short - Semi-Cutoff

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Luminous Intensity Polar Plot



— Vertical Plane Through 355-Deg Lateral - - - Horizontal Cone Through 62.5-Deg Vertical

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FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	477.1	0.0	477.1
	% Fixture	14.1	0.0	14.1
Street Side	Lumens	2914.9	0.0	2914.9
	% Fixture	85.9	0.0	85.9
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°	96.5	2.8
10°-20°	183.4	5.4
20°-30°	255.2	7.5
30°-40°	369.1	10.9
40°-50°	529.2	15.6
50°-60°	767.7	22.6
60°-70°	830.6	24.5
70°-80°	335.5	9.9
80°-90°	24.8	0.7
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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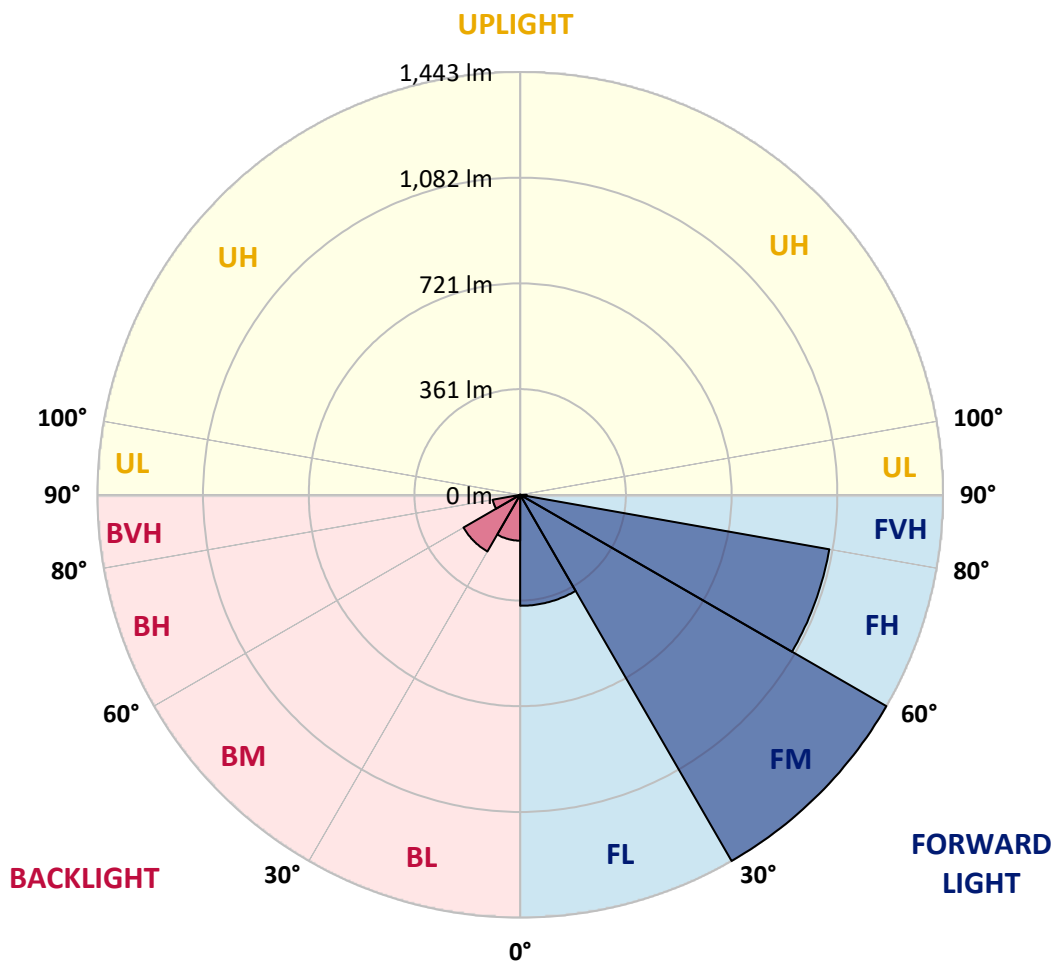
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	378.7	11.2			
FM	(30°-60°)	1442.7	42.5			
FH	(60°-80°)	1071.2	31.6			G1/1800
FVH	(80°-90°)	22.3	0.7			G1/100
BL	(0°-30°)	156.4	4.6	B1/500		
BM	(30°-60°)	223.3	6.6	B1/1000		
BH	(60°-80°)	94.9	2.8	B0/110		G0/110
BVH	(80°-90°)	2.5	0.1			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 IV Short





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CANDELA DISTRIBUTION (FULL):

	0°	1°	5°	15°	25°	35°	45°	55°	65°	75°	85°
0°	1286.7	1286.7	1286.7	1286.7	1286.7	1286.7	1286.7	1286.7	1286.7	1286.7	1286.7
2.5°	1292.0	1286.7	1274.6	1248.4	1210.8	1186.7	1171.2	1151.1	1130.3	1123.6	1110.1
5°	1179.3	1170.5	1153.8	1088.0	1028.9	969.9	927.6	887.3	873.9	847.0	863.1
7.5°	1070.5	1066.5	1027.6	942.3	848.4	772.5	724.2	665.1	647.7	620.2	598.0
10°	985.3	981.9	935.0	823.5	722.2	659.1	620.8	582.6	544.3	505.4	474.5
12.5°	942.3	935.0	880.6	760.4	666.5	614.1	573.9	522.9	481.9	429.6	392.0
15°	949.1	942.3	879.9	750.4	639.6	567.1	507.4	447.0	389.3	337.6	300.7
17.5°	1002.7	1000.1	924.2	759.1	607.4	511.4	431.6	350.4	281.9	226.2	194.6
20°	1107.5	1099.4	989.3	777.9	573.9	447.0	337.6	237.6	180.5	142.3	128.9
22.5°	1237.0	1218.9	1092.0	805.4	541.6	377.9	244.3	159.7	128.9	114.1	104.7
25°	1389.3	1390.0	1219.5	842.3	509.4	313.4	171.2	126.9	108.7	98.0	89.9
27.5°	1512.8	1503.4	1334.3	879.2	474.5	257.1	143.6	110.7	95.3	83.9	79.2
30°	1604.1	1590.0	1410.2	904.8	429.6	217.5	128.9	105.4	89.9	77.2	71.1
32.5°	1698.1	1680.6	1478.6	918.8	402.7	198.7	114.1	92.0	80.5	75.2	67.1
35°	1808.2	1792.7	1554.5	917.5	388.6	187.9	103.4	83.2	68.5	59.7	54.4
37.5°	1931.0	1899.4	1633.0	911.5	378.5	182.6	94.0	77.2	63.8	54.4	47.7
40°	2036.4	2004.8	1705.5	903.4	371.8	177.2	88.6	73.2	60.4	50.3	43.6
42.5°	2118.9	2088.7	1773.3	893.3	368.5	165.8	91.3	70.5	57.7	47.7	40.3
45°	2190.1	2159.2	1853.8	892.0	367.1	157.7	89.9	69.8	56.4	44.3	37.6
47.5°	2272.6	2256.5	1959.9	914.2	361.8	151.7	82.6	75.2	55.7	43.0	35.6
50°	2394.8	2380.7	2098.8	979.9	353.7	145.6	75.2	82.6	55.7	41.6	33.6
52.5°	2565.9	2549.8	2317.6	1065.8	346.3	138.9	67.8	79.9	56.4	39.6	32.2
55°	2743.1	2740.4	2524.3	1157.1	339.6	124.2	59.7	71.8	55.0	36.9	30.2
57.5°	2882.1	2880.0	2679.4	1218.9	326.9	100.0	54.4	59.7	51.0	33.6	27.5
60°	2939.1	2922.3	2696.1	1218.9	297.3	82.6	49.7	47.0	51.7	30.2	24.2
61°	2939.1	2917.6	2665.9	1200.7	282.6	78.5	47.0	43.6	53.0	28.9	22.8
62.5°	2916.3	2880.7	2562.6	1135.6	259.1	78.5	43.0	38.9	48.3	27.5	20.8
65°	2814.9	2756.5	2320.3	987.3	234.9	80.5	36.9	32.9	34.9	23.5	18.1
67.5°	2564.6	2498.8	2006.2	781.3	215.4	85.2	30.9	28.9	26.8	20.8	16.1
70°	2112.9	2057.2	1637.0	585.3	200.0	86.6	26.8	24.2	22.8	18.1	14.1
72.5°	1350.4	1258.5	1022.2	396.7	160.4	75.2	22.1	22.8	20.8	14.8	11.4
75°	652.4	677.9	594.7	200.0	108.1	49.0	17.5	18.8	16.8	13.4	10.1
77.5°	292.0	286.6	283.9	51.0	27.5	16.8	10.7	12.8	13.4	12.1	8.7
80°	30.2	40.9	24.2	15.4	10.1	7.4	6.0	6.7	8.1	8.7	4.7
82.5°	1.3	0.7	0.7	2.0	2.0	1.3	0.0	0.0	1.3	1.3	0.7
85°	0.0	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	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):

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	1286.7	1286.7	1286.7	1286.7	1286.7	1286.7	1286.7	1286.7	1286.7	1286.7	1286.7
2.5°	1098.1	1116.2	1108.1	1106.1	1116.8	1111.5	1127.6	1128.3	1140.3	1156.4	1166.5
5°	863.1	849.0	877.2	896.0	919.5	912.1	940.3	937.0	952.4	977.9	967.8
7.5°	599.4	601.4	616.1	632.9	696.0	708.8	718.2	725.5	724.9	730.9	741.7
10°	458.4	447.0	436.9	460.4	485.3	512.8	516.8	526.9	499.4	510.8	516.1
12.5°	375.2	361.8	339.6	327.5	333.6	349.7	356.4	362.4	346.3	347.0	359.1
15°	284.6	266.5	257.7	241.6	235.6	234.2	237.6	228.9	226.9	219.5	224.2
17.5°	185.2	179.9	175.2	171.8	167.1	165.8	153.7	132.9	120.8	118.1	118.1
20°	123.5	119.5	119.5	126.2	124.2	118.8	102.7	85.2	76.5	73.8	75.2
22.5°	101.3	98.7	94.6	94.6	97.3	93.3	78.5	65.8	59.7	59.7	59.7
25°	87.9	86.6	82.6	78.5	79.9	76.5	63.8	55.7	51.7	51.0	51.7
27.5°	77.2	76.5	71.8	67.8	67.8	65.1	55.0	47.7	45.0	43.6	44.3
30°	69.8	68.5	63.1	59.7	59.1	56.4	47.0	41.6	38.9	38.3	38.3
32.5°	64.4	61.7	57.1	53.7	51.7	47.7	40.9	35.6	32.9	32.2	32.2
35°	51.7	51.7	49.7	47.7	45.0	38.9	34.2	29.5	26.8	26.2	26.2
37.5°	45.0	42.3	38.9	39.6	38.3	32.9	28.2	23.5	21.5	20.8	20.8
40°	40.9	37.6	32.9	30.9	31.5	28.9	23.5	18.1	15.4	16.1	15.4
42.5°	36.9	34.2	28.9	24.2	23.5	24.2	18.1	12.8	10.7	10.7	10.7
45°	34.2	31.5	25.5	20.1	16.8	18.8	14.1	8.7	6.7	6.7	6.7
47.5°	32.2	29.5	22.8	16.8	12.1	12.8	10.1	5.4	4.0	2.7	3.4
50°	30.9	27.5	20.8	13.4	8.7	7.4	6.7	2.7	0.7	0.7	0.0
52.5°	28.9	26.2	18.8	11.4	6.7	4.7	3.4	0.7	0.0	0.0	0.0
55°	27.5	24.2	16.8	10.1	5.4	2.7	0.7	0.0	0.0	0.0	0.0
57.5°	24.8	22.1	14.8	8.1	4.0	1.3	0.0	0.0	0.0	0.0	0.0
60°	22.1	20.1	12.8	6.0	2.7	0.0	0.0	0.0	0.0	0.0	0.0
61°	20.8	18.8	12.1	5.4	2.0	0.0	0.0	0.0	0.0	0.0	0.0
62.5°	19.5	17.5	10.7	4.0	1.3	0.0	0.0	0.0	0.0	0.0	0.0
65°	16.8	14.8	9.4	2.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0
67.5°	14.8	13.4	8.1	1.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0
70°	12.8	11.4	6.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
72.5°	10.7	10.1	4.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
75°	9.4	8.1	4.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
77.5°	7.4	6.7	3.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
80°	4.0	3.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
82.5°	0.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
85°	0.0	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	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):

	185°	195°	205°	215°	225°	235°	245°	255°	265°	270°	275°
0°	1286.7	1286.7	1286.7	1286.7	1286.7	1286.7	1286.7	1286.7	1286.7	1286.7	1286.7
2.5°	1175.9	1199.4	1221.6	1249.7	1265.2	1307.5	1337.7	1363.2	1383.3	1387.3	1403.4
5°	994.7	1027.6	1049.1	1108.1	1141.0	1211.5	1265.8	1330.3	1388.0	1419.6	1448.4
7.5°	749.0	765.1	802.1	861.1	939.0	1000.1	1092.0	1173.2	1277.3	1334.3	1388.0
10°	528.9	543.7	598.0	659.8	730.9	833.6	945.0	1051.7	1157.1	1230.3	1293.4
12.5°	371.8	420.2	473.9	552.4	622.2	697.4	816.2	941.0	1072.5	1142.4	1210.8
15°	244.3	287.3	361.8	460.4	547.7	620.8	731.6	877.9	1045.0	1122.9	1188.0
17.5°	120.8	152.4	218.1	324.2	440.3	555.7	689.3	866.5	1080.6	1168.5	1229.6
20°	75.8	85.2	109.4	183.2	316.8	487.3	657.8	889.3	1177.3	1274.6	1314.2
22.5°	61.1	63.8	73.2	97.3	193.3	402.7	630.2	920.2	1283.3	1402.1	1443.0
25°	52.4	54.4	59.7	71.8	112.1	302.0	596.7	974.6	1406.8	1550.4	1560.5
27.5°	45.0	47.0	51.7	61.1	79.9	203.4	548.4	1038.3	1554.5	1680.6	1673.9
30°	38.3	40.9	45.6	52.4	63.1	137.6	458.4	1102.8	1663.2	1764.5	1753.8
32.5°	32.9	34.9	38.9	45.0	52.4	94.6	344.3	1145.0	1753.8	1843.7	1820.2
35°	26.8	28.9	32.2	37.6	42.3	67.1	260.4	1146.4	1847.1	1941.7	1882.7
37.5°	21.5	22.8	26.2	30.9	34.9	52.4	191.3	1124.2	1962.5	2069.3	1953.8
40°	16.1	18.1	21.5	25.5	29.5	44.3	143.0	1070.5	2075.3	2196.8	2039.7
42.5°	10.7	13.4	16.8	20.8	28.2	35.6	100.7	981.3	2166.6	2310.2	2123.6
45°	6.7	8.7	12.8	17.5	28.9	28.2	67.1	874.6	2231.7	2396.8	2180.7
47.5°	3.4	5.4	9.4	16.8	25.5	20.8	41.6	772.5	2290.7	2447.1	2206.8
50°	0.7	2.0	6.7	20.8	21.5	15.4	27.5	708.8	2321.6	2434.4	2204.2
52.5°	0.0	0.0	4.7	20.1	15.4	12.1	21.5	699.4	2369.9	2451.2	2250.5
55°	0.0	0.0	2.0	8.7	8.7	10.1	18.8	686.6	2455.9	2551.2	2390.1
57.5°	0.0	0.0	0.0	4.0	5.4	8.1	17.5	653.1	2546.5	2657.2	2559.9
60°	0.0	0.0	0.0	2.0	3.4	6.7	15.4	576.5	2463.2	2657.9	2700.8
61°	0.0	0.0	0.0	2.0	2.7	6.0	14.1	549.7	2388.7	2614.9	2718.3
62.5°	0.0	0.0	0.0	0.7	2.0	4.7	12.1	496.7	2277.3	2545.8	2710.2
65°	0.0	0.0	0.0	0.0	0.7	2.7	9.4	401.4	2091.4	2372.0	2617.6
67.5°	0.0	0.0	0.0	0.0	0.0	0.7	6.0	282.6	1824.3	2175.3	2419.6
70°	0.0	0.0	0.0	0.0	0.0	0.0	2.7	163.8	1469.9	1841.7	2072.6
72.5°	0.0	0.0	0.0	0.0	0.0	0.0	1.3	74.5	953.7	1422.2	1635.0
75°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	31.5	587.3	1027.6	1221.6
77.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	14.1	398.0	683.9	822.2
80°	0.0	1.3	0.7	0.0	0.0	0.0	0.0	5.4	245.0	426.9	463.8
82.5°	0.0	0.7	0.7	0.0	0.0	0.0	0.0	0.0	126.9	301.4	307.4
85°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	53.0	63.8
87.5°	0.0	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	0.0



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CANDELA DISTRIBUTION (continued):

	285°	295°	305°	315°	325°	335°	345°	355°	359°	360°
0°	1286.7	1286.7	1286.7	1286.7	1286.7	1286.7	1286.7	1286.7	1286.7	1286.7
2.5°	1418.2	1422.2	1424.9	1420.2	1391.4	1375.3	1343.0	1307.5	1295.4	1292.0
5°	1500.8	1523.6	1519.6	1488.7	1438.3	1376.6	1300.1	1220.9	1190.7	1179.3
7.5°	1484.7	1544.4	1555.8	1523.6	1438.3	1330.3	1219.5	1125.6	1081.9	1070.5
10°	1402.8	1477.9	1514.2	1504.1	1424.2	1299.4	1163.2	1047.7	1000.1	985.3
12.5°	1323.6	1396.1	1418.9	1426.9	1383.3	1275.2	1135.0	1010.8	961.1	942.3
15°	1270.5	1315.5	1314.2	1328.9	1325.6	1265.8	1153.1	1029.6	973.9	949.1
17.5°	1253.1	1239.7	1222.2	1234.3	1257.8	1268.5	1212.2	1096.7	1031.6	1002.7
20°	1263.8	1198.1	1159.8	1159.1	1208.8	1290.7	1298.7	1207.5	1146.4	1107.5
22.5°	1318.9	1177.3	1118.2	1119.5	1180.6	1323.6	1398.7	1352.4	1285.3	1237.0
25°	1400.1	1181.3	1102.1	1110.1	1177.9	1352.4	1506.8	1517.5	1431.6	1389.3
27.5°	1482.6	1216.2	1102.8	1111.5	1189.3	1367.9	1568.6	1639.0	1565.2	1512.8
30°	1540.4	1259.1	1114.8	1124.2	1207.5	1380.0	1592.0	1739.0	1662.5	1604.1
32.5°	1594.7	1303.4	1134.3	1143.7	1243.7	1404.8	1636.3	1839.7	1755.8	1698.1
35°	1647.8	1347.1	1170.5	1187.3	1302.1	1449.8	1681.3	1957.8	1888.0	1808.2
37.5°	1693.4	1395.4	1233.0	1268.5	1381.3	1518.9	1742.4	2092.1	2020.3	1931.0
40°	1731.7	1452.4	1361.8	1401.4	1502.1	1592.0	1810.2	2180.0	2132.3	2036.4
42.5°	1762.5	1553.1	1546.4	1602.1	1672.6	1675.9	1829.6	2222.3	2204.2	2118.9
45°	1814.2	1733.7	1788.7	1880.0	1875.3	1776.6	1824.3	2261.2	2262.6	2190.1
47.5°	1898.8	1959.9	2118.9	2180.7	2149.1	1914.2	1829.6	2299.5	2329.7	2272.6
50°	2019.6	2216.2	2424.3	2506.2	2414.2	2052.5	1877.3	2345.1	2436.4	2394.8
52.5°	2122.9	2410.2	2706.2	2779.4	2653.9	2200.1	1988.7	2443.8	2579.4	2565.9
55°	2270.6	2577.3	2906.9	2963.3	2862.6	2367.3	2138.4	2588.7	2736.4	2743.1
57.5°	2421.6	2728.4	3037.8	3094.8	3018.3	2575.3	2351.2	2796.8	2884.1	2882.1
60°	2589.4	2869.3	3096.8	3128.4	3084.8	2783.4	2580.0	2987.4	2985.4	2939.1
61°	2685.4	2914.3	3092.8	3102.2	3059.9	2844.5	2698.2	3060.6	3000.2	2939.1
62.5°	2791.4	2955.2	3043.1	3011.6	2966.0	2865.9	2869.3	3140.5	3010.3	2916.3
65°	2898.8	2852.5	2814.3	2663.3	2620.3	2668.6	3013.6	3110.3	2949.2	2814.9
67.5°	2714.9	2444.4	2361.9	2210.2	2040.4	2237.7	2876.7	2925.7	2743.1	2564.6
70°	2218.9	1796.1	1698.1	1692.7	1570.6	1787.4	2537.1	2501.5	2276.7	2112.9
72.5°	1739.0	1225.6	1092.0	1122.9	1098.7	1332.3	2075.3	1678.6	1459.8	1350.4
75°	1363.2	871.2	751.7	746.4	720.2	907.4	1519.6	884.6	730.2	652.4
77.5°	899.4	627.6	625.5	577.9	557.8	492.0	681.9	354.4	289.3	292.0
80°	518.2	384.6	451.0	357.7	358.4	288.6	275.9	51.7	41.6	30.2
82.5°	297.3	184.6	139.6	55.0	115.4	115.4	22.1	0.7	0.7	1.3
85°	28.9	8.7	0.0	0.0	0.0	0.0	0.0	0.0	0.7	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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