

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: P401257

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

Issue Date: 5/20/2020

Test Information

Test Method: LM-79-08
Report Number: P401257
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-727-U-SLL-HSS
Description: ENTRI LED LUMINAIRE
(1) 70 CRI, 2700K, 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: 2837 lumens
Efficiency: N/A
Efficacy: 85.2 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

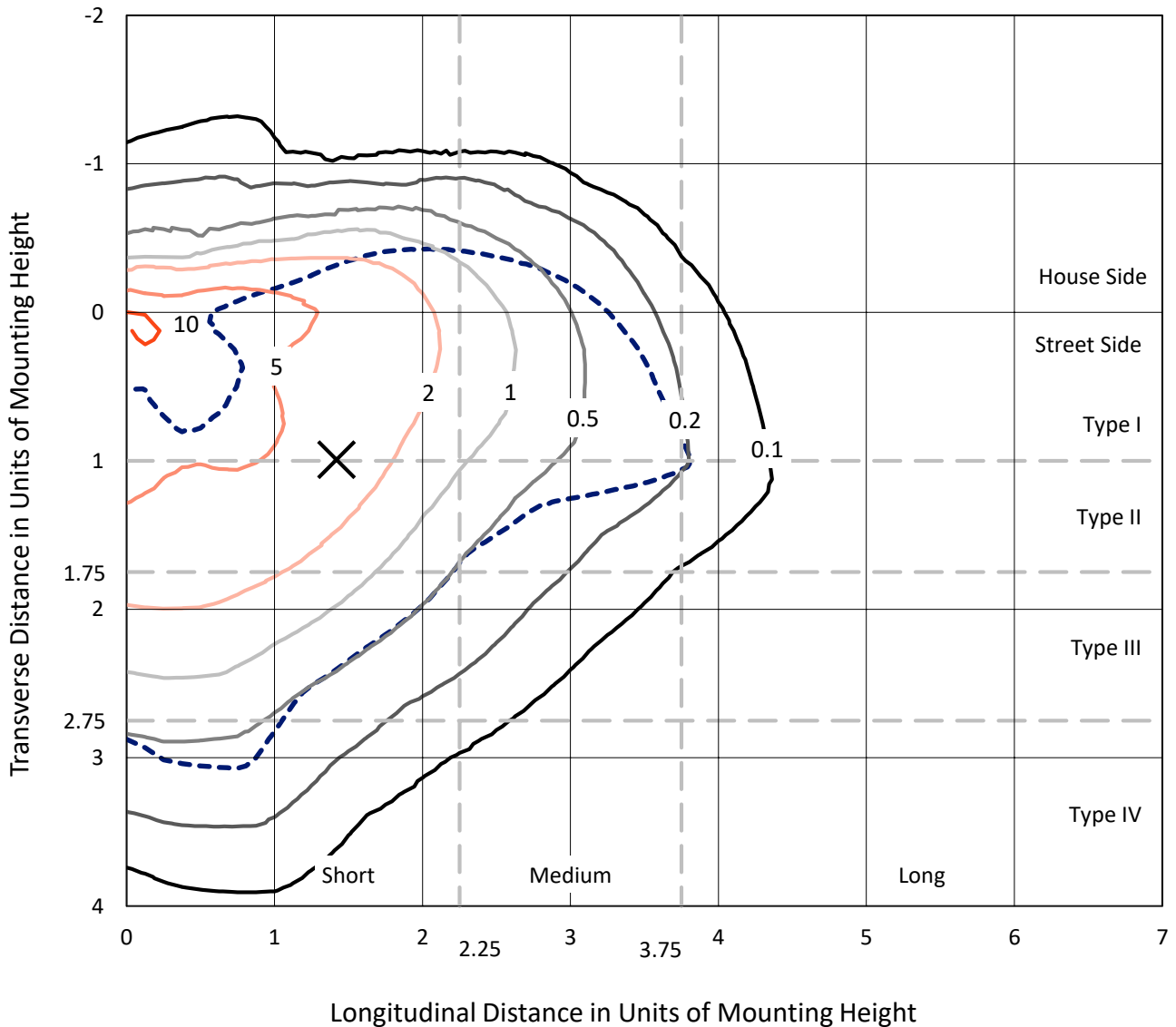


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Iso-Footcandle Lines of Horizontal Illumination

× Max cd
 - - - 1/2 Max cd

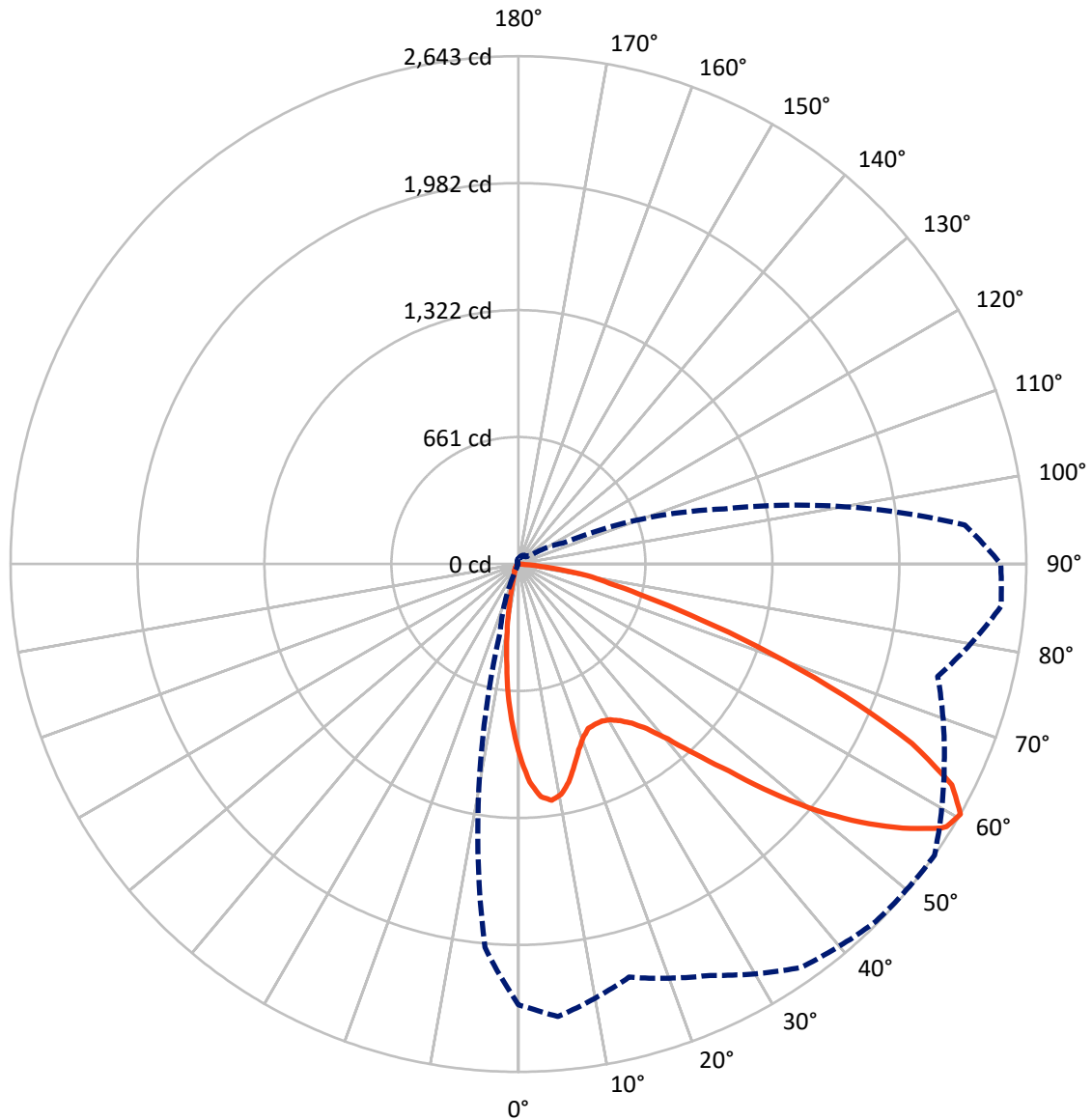


Based on 10 foot mounting height. Maximum calculated value = 11.8 fc
 Type III - Short - Semi-Cutoff

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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	502.4	0.0	502.4
	% Fixture	17.7	0.0	17.7
Street Side	Lumens	2334.6	0.0	2334.6
	% Fixture	82.3	0.0	82.3
Total	Lumens	2837.0	0.0	2837.0
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	75.4	2.7
10°-20°	143.4	5.1
20°-30°	204.6	7.2
30°-40°	300.0	10.6
40°-50°	442.4	15.6
50°-60°	655.4	23.1
60°-70°	698.4	24.6
70°-80°	289.7	10.2
80°-90°	27.8	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°	2837.0	100.0
0°-180°	2837.0	100.0



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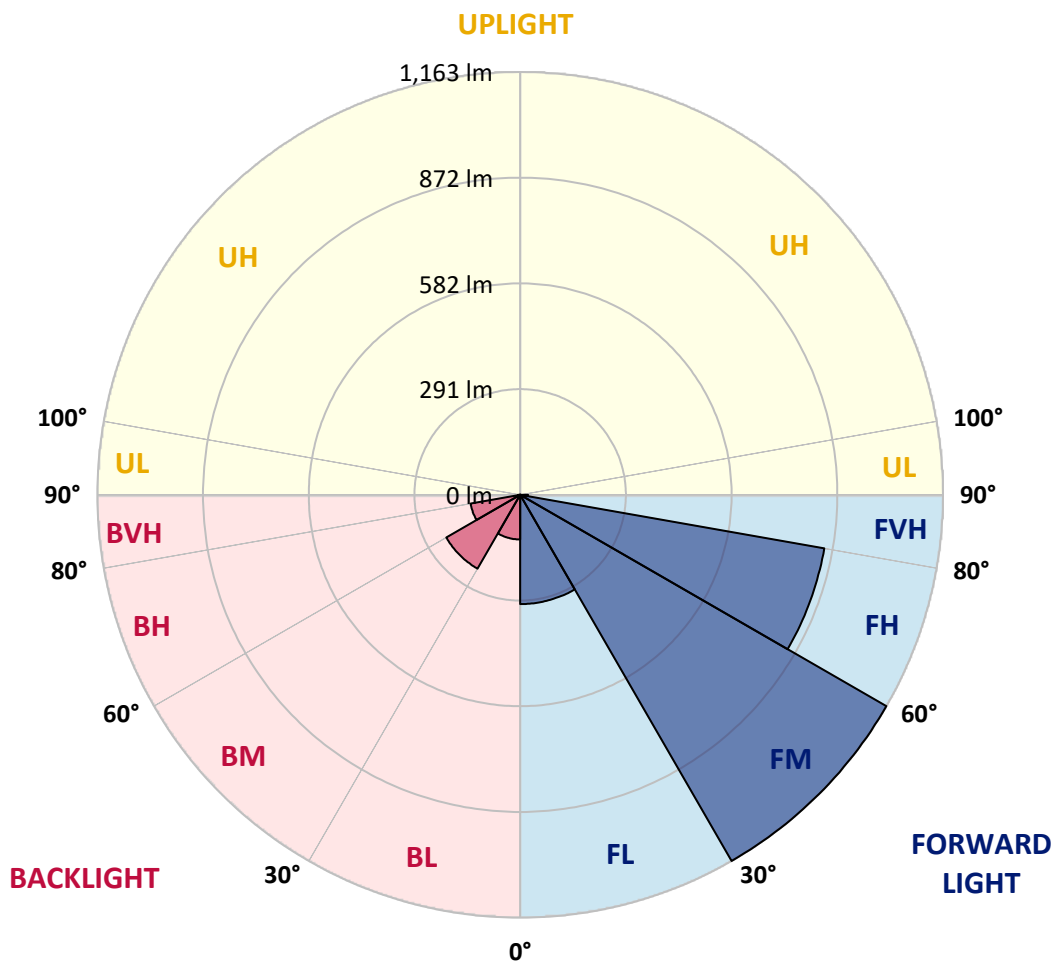
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	300.5	10.6			
FM	(30°-60°)	1163.2	41.0			
FH	(60°-80°)	849.6	29.9			G1/1800
FVH	(80°-90°)	21.3	0.8			G1/100
BL	(0°-30°)	122.8	4.3	B1/500		
BM	(30°-60°)	234.6	8.3	B1/1000		
BH	(60°-80°)	138.5	4.9	B1/500		G1/500
BVH	(80°-90°)	6.5	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°	1001.9	1001.9	1001.9	1001.9	1001.9	1001.9	1001.9	1001.9	1001.9	1001.9	1001.9
2.5°	1046.4	1044.8	1059.8	1090.9	1110.2	1122.0	1124.2	1136.5	1124.2	1117.8	1094.7
5°	1015.8	1015.3	1044.3	1112.4	1168.2	1210.0	1230.4	1216.4	1195.0	1152.6	1101.1
7.5°	931.1	931.1	985.8	1077.0	1170.3	1242.7	1267.4	1241.6	1190.7	1105.4	1013.2
10°	861.9	868.3	920.9	1029.8	1133.3	1212.7	1240.0	1220.2	1153.7	1043.2	934.9
12.5°	820.6	824.4	882.8	992.2	1088.8	1153.2	1169.8	1163.9	1115.6	995.5	880.7
15°	824.4	829.7	896.8	986.3	1049.1	1074.8	1080.7	1088.3	1068.4	976.2	863.0
17.5°	883.4	887.1	954.7	1012.6	1009.9	1001.9	1004.0	1016.4	1040.0	992.2	898.9
20°	977.8	987.4	1055.5	1056.6	989.6	952.0	942.4	962.7	1026.6	1034.6	975.6
22.5°	1099.0	1102.7	1171.9	1130.6	991.7	917.7	906.4	929.5	1030.9	1103.3	1081.8
25°	1239.5	1252.9	1290.5	1226.6	1022.8	912.9	905.4	924.7	1046.4	1176.2	1191.2
27.5°	1334.4	1345.2	1381.1	1292.1	1050.7	915.5	901.6	925.2	1065.2	1244.9	1308.2
30°	1419.2	1426.7	1440.1	1326.4	1082.4	929.0	906.4	940.2	1075.4	1259.3	1383.8
32.5°	1499.1	1508.2	1500.2	1367.7	1117.2	954.2	915.5	971.9	1097.4	1288.3	1449.8
35°	1602.1	1602.6	1575.3	1409.0	1156.9	984.2	942.4	1016.9	1140.3	1333.4	1520.5
37.5°	1724.4	1725.4	1656.2	1451.4	1202.0	1034.6	1005.7	1086.6	1202.5	1385.4	1621.9
40°	1831.1	1835.4	1743.7	1500.2	1257.2	1132.8	1130.1	1197.1	1282.4	1454.6	1730.8
42.5°	1923.9	1936.2	1824.1	1540.9	1335.5	1283.5	1289.9	1351.1	1379.5	1512.5	1798.4
45°	2017.7	2017.2	1890.1	1581.7	1466.4	1477.6	1538.8	1536.1	1489.4	1543.6	1851.5
47.5°	2076.2	2073.5	1930.3	1648.2	1642.8	1750.6	1815.5	1780.1	1611.2	1576.9	1918.0
50°	2098.7	2097.7	1962.0	1732.9	1822.5	1997.9	2090.7	2019.9	1760.3	1632.6	1997.4
52.5°	2162.6	2157.2	2034.9	1829.5	1985.0	2236.0	2312.7	2233.9	1908.9	1732.9	2089.6
55°	2262.3	2263.9	2160.4	1942.7	2115.4	2403.9	2497.8	2427.5	2060.7	1870.8	2216.2
57.5°	2329.4	2334.2	2299.3	2068.7	2254.8	2521.4	2612.6	2592.7	2262.9	2035.4	2364.8
58°	2335.8	2339.6	2321.3	2092.8	2275.7	2534.8	2628.1	2614.2	2307.4	2088.0	2400.2
60°	2294.5	2305.8	2364.2	2225.8	2362.1	2563.2	2630.8	2643.1	2445.2	2258.6	2521.4
62.5°	2182.4	2186.2	2292.4	2375.0	2421.1	2492.9	2499.4	2531.6	2502.1	2458.6	2629.7
65°	2045.1	2045.1	2159.9	2381.9	2268.2	2256.4	2218.9	2251.1	2336.3	2584.1	2622.2
67.5°	1806.4	1808.0	1954.5	2121.8	1880.4	1839.7	1815.5	1827.3	2009.2	2479.5	2476.3
70°	1459.9	1458.9	1609.6	1717.9	1395.6	1360.7	1389.7	1385.9	1632.1	2203.3	2162.0
72.5°	1032.5	1041.6	1196.6	1326.9	947.7	816.9	944.5	993.9	1227.7	1857.4	1672.9
75°	581.4	593.7	720.3	922.0	598.0	552.4	617.9	688.1	887.7	1478.7	1123.7
77.5°	291.8	296.6	369.0	443.6	362.6	421.0	417.3	484.3	608.8	997.6	642.5
80°	168.4	178.1	202.7	229.0	202.7	267.1	310.0	364.7	374.9	516.0	358.3
82.5°	67.6	75.6	94.9	107.8	84.2	79.4	54.2	170.6	225.8	249.4	137.3
85°	0.0	0.0	0.5	1.1	1.6	1.6	2.7	30.0	55.2	12.3	22.5
87.5°	0.0	0.0	0.5	0.5	1.1	1.6	2.1	3.8	4.8	5.9	20.4
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°	1001.9	1001.9	1001.9	1001.9	1001.9	1001.9	1001.9	1001.9	1001.9	1001.9	1001.9
2.5°	1086.1	1080.2	1060.4	1030.3	1011.6	982.6	970.8	943.4	929.5	906.4	906.4
5°	1075.4	1051.2	1001.4	936.5	890.3	842.1	826.5	794.3	771.3	743.9	732.7
7.5°	977.8	944.0	866.2	790.6	717.1	668.3	620.0	587.3	556.2	533.7	536.9
10°	888.2	839.9	754.6	658.6	582.5	531.5	488.1	450.0	417.8	386.2	381.3
12.5°	829.7	774.5	672.6	569.6	512.7	475.2	435.0	393.1	353.5	318.6	304.6
15°	805.1	745.0	631.3	534.2	482.2	433.9	387.2	335.8	290.2	248.3	237.1
17.5°	831.9	760.0	627.5	510.6	438.2	377.6	312.7	256.4	202.7	172.7	163.6
20°	904.8	811.5	639.9	487.0	389.4	311.1	231.7	167.9	137.8	119.6	113.7
22.5°	1010.5	896.8	660.8	463.9	340.0	231.7	159.8	121.2	103.5	93.9	91.2
25°	1125.3	1006.7	699.4	444.6	290.7	172.2	118.5	99.2	88.5	81.5	78.8
27.5°	1254.5	1115.6	746.6	430.2	245.1	137.8	101.9	87.4	78.8	74.0	71.9
30°	1335.5	1193.9	782.5	404.4	214.0	125.5	97.1	82.6	73.5	69.7	68.1
32.5°	1410.1	1255.6	816.9	374.9	190.4	111.0	94.4	86.9	76.2	68.7	65.4
35°	1492.1	1318.9	833.5	357.2	174.8	96.5	77.8	67.6	61.7	60.6	59.0
37.5°	1614.4	1394.0	844.2	347.6	165.2	88.0	72.4	61.1	54.2	47.7	45.1
40°	1730.3	1471.7	849.6	338.4	160.4	82.6	69.2	57.9	50.4	44.5	41.8
42.5°	1820.9	1542.5	852.8	332.0	151.8	79.4	66.5	55.8	47.7	41.8	39.2
45°	1894.9	1624.6	850.1	329.9	144.8	81.5	65.4	54.2	45.6	39.7	37.0
47.5°	1967.3	1713.6	860.3	327.2	137.8	78.3	66.0	53.6	44.0	38.1	35.4
50°	2062.3	1821.4	897.3	319.7	133.0	73.5	71.3	54.2	43.4	37.0	34.9
52.5°	2185.1	1970.5	964.4	311.6	127.1	69.2	74.6	54.2	42.4	35.9	33.3
55°	2334.2	2137.9	1038.4	299.8	116.9	63.8	71.3	54.2	41.3	35.4	32.2
57.5°	2455.9	2287.0	1096.8	285.9	98.2	57.4	65.4	52.0	38.6	33.3	30.6
58°	2466.7	2304.2	1104.9	282.1	96.0	56.3	63.8	51.5	37.5	32.7	30.0
60°	2510.1	2332.0	1108.1	261.7	79.9	53.6	55.2	49.9	35.4	30.6	28.4
62.5°	2495.1	2239.8	1040.0	225.8	71.3	48.8	46.1	51.0	32.7	27.9	25.7
65°	2420.5	2058.5	911.3	202.2	71.9	43.4	39.7	44.5	30.0	25.2	23.1
67.5°	2243.0	1783.4	740.2	189.3	75.1	38.6	34.3	33.3	26.8	22.5	20.9
70°	1913.2	1461.6	561.0	178.1	79.4	34.3	31.6	29.5	24.7	20.9	18.8
72.5°	1409.0	1082.4	408.2	166.8	77.2	30.6	29.5	26.8	22.5	18.8	17.7
75°	879.1	628.6	279.4	136.2	69.2	26.8	27.4	25.2	20.4	17.7	16.1
77.5°	513.3	441.4	137.8	101.4	47.7	23.6	24.1	23.1	20.9	16.6	15.6
80°	307.3	274.6	59.0	43.4	26.3	20.9	20.4	21.5	19.8	15.6	14.5
82.5°	133.0	119.1	28.4	24.1	21.5	18.2	17.7	18.2	17.2	12.9	12.3
85°	7.5	19.8	13.4	17.7	16.1	13.4	13.4	13.9	12.3	10.2	10.2
87.5°	7.0	15.0	8.6	10.7	11.8	10.2	10.7	10.7	10.2	9.1	8.6
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°	1001.9	1001.9	1001.9	1001.9	1001.9	1001.9	1001.9	1001.9	1001.9	1001.9	1001.9
2.5°	894.1	888.2	870.5	864.1	836.2	843.1	845.3	842.6	843.7	845.8	853.9
5°	740.7	731.0	708.0	693.0	684.9	679.6	654.3	654.9	658.6	644.2	662.9
7.5°	526.2	536.9	539.0	525.1	516.5	498.3	475.2	462.3	440.3	452.7	455.4
10°	376.5	371.2	381.3	376.5	363.1	356.1	331.5	329.3	327.2	325.6	341.1
12.5°	286.9	270.9	259.1	261.7	251.5	234.4	230.1	230.6	232.8	232.8	237.1
15°	227.4	202.7	184.0	172.7	174.3	157.2	152.3	136.2	134.1	129.3	130.3
17.5°	159.3	149.1	137.8	125.0	119.6	104.1	85.3	76.7	70.3	71.3	74.6
20°	110.0	105.7	102.4	96.0	90.6	72.4	60.6	56.9	56.3	57.4	58.5
22.5°	88.5	84.2	81.0	78.8	71.9	58.5	52.0	49.3	49.3	49.3	49.9
25°	76.2	71.9	67.6	67.6	61.1	51.0	46.1	44.0	43.4	42.9	44.0
27.5°	70.8	64.9	60.6	57.9	53.1	45.1	40.8	38.6	38.1	38.1	38.6
30°	65.4	59.5	55.2	51.5	46.1	40.2	35.9	34.3	33.3	33.3	33.8
32.5°	62.2	56.3	51.0	46.1	40.2	35.4	31.6	29.5	28.4	29.0	29.5
35°	55.2	50.4	45.6	40.8	35.4	31.1	27.4	25.2	24.7	24.7	25.2
37.5°	43.4	39.7	38.6	35.9	31.1	26.8	23.1	20.9	20.4	20.4	20.9
40°	39.2	34.3	32.2	31.1	28.4	23.1	18.8	16.6	16.6	16.1	17.2
42.5°	35.9	31.1	27.4	26.3	24.7	19.8	15.0	13.4	12.9	12.9	13.4
45°	33.8	28.4	23.6	20.9	20.9	16.1	12.3	10.2	9.7	9.7	10.2
47.5°	32.7	26.8	20.9	17.2	16.6	13.4	9.7	7.5	7.0	7.0	7.0
50°	31.6	24.7	18.8	14.5	12.9	11.3	7.5	5.9	5.4	5.4	5.4
52.5°	30.0	23.6	17.2	12.9	10.2	8.6	5.9	4.3	3.8	3.2	3.8
55°	29.0	22.0	16.6	11.8	8.6	6.4	4.3	3.2	2.7	2.7	2.7
57.5°	27.4	20.4	15.0	11.3	8.0	4.8	3.2	2.1	1.6	1.6	2.1
58°	26.8	20.4	14.5	10.7	7.5	4.8	3.2	2.1	1.6	1.6	2.1
60°	25.2	18.8	13.9	9.7	7.0	4.3	2.7	1.6	1.1	1.1	1.6
62.5°	23.6	17.2	12.3	8.6	5.9	3.8	2.1	1.1	0.5	0.5	0.5
65°	20.9	15.6	10.7	8.0	4.8	2.7	1.6	0.5	0.0	0.0	0.0
67.5°	18.8	14.5	9.7	7.0	4.3	2.1	1.1	0.0	0.0	0.0	0.0
70°	17.2	13.4	8.6	5.9	3.8	1.6	0.5	0.0	0.0	0.0	0.0
72.5°	16.1	12.3	8.0	5.4	2.7	1.6	0.5	0.0	0.0	0.0	0.0
75°	15.6	11.8	8.0	4.8	2.7	1.6	1.1	0.5	0.0	0.0	0.5
77.5°	15.0	11.8	8.0	4.8	3.2	1.6	1.6	1.1	1.1	0.5	1.6
80°	13.9	10.7	7.0	4.3	2.7	2.1	1.6	1.1	0.0	0.0	0.0
82.5°	11.8	8.6	5.9	4.3	2.7	1.6	0.5	0.0	0.0	0.0	0.0
85°	9.7	7.0	4.8	2.7	1.6	0.5	0.0	0.0	0.0	0.0	0.0
87.5°	8.6	5.4	3.8	2.1	1.1	0.5	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°	1001.9	1001.9	1001.9	1001.9	1001.9	1001.9	1001.9	1001.9	1001.9	1001.9
2.5°	860.8	885.5	895.7	930.0	945.0	976.2	1003.0	1026.0	1037.3	1046.4
5°	667.8	691.4	716.6	767.5	811.5	858.7	917.7	978.8	996.5	1015.8
7.5°	466.1	500.9	543.3	588.9	651.7	723.0	807.7	883.4	921.4	931.1
10°	362.0	403.3	448.4	493.4	545.5	621.6	706.9	804.5	845.3	861.9
12.5°	271.9	327.2	380.8	433.9	479.0	544.9	637.7	754.1	799.2	820.6
15°	163.6	225.8	291.8	363.1	425.9	503.1	607.7	743.4	800.2	824.4
17.5°	81.5	111.6	172.2	279.4	372.2	468.2	607.1	782.0	852.3	883.4
20°	60.6	68.7	91.7	174.3	309.5	439.3	613.6	848.0	951.5	977.8
22.5°	52.0	57.9	66.0	101.9	231.7	412.5	636.1	935.4	1064.1	1099.0
25°	45.6	50.4	56.9	70.3	158.8	380.8	678.5	1058.8	1191.8	1239.5
27.5°	40.2	44.5	49.9	59.0	106.2	321.3	702.6	1162.3	1294.7	1334.4
30°	35.4	38.6	44.0	50.4	78.3	248.3	725.1	1253.4	1388.1	1419.2
32.5°	31.1	33.8	38.1	42.9	59.5	188.3	726.2	1331.8	1469.6	1499.1
35°	26.3	29.5	32.7	37.0	47.2	147.0	704.2	1409.5	1566.1	1602.1
37.5°	22.0	24.7	28.4	32.2	42.9	113.7	658.6	1500.7	1683.6	1724.4
40°	18.8	21.5	24.7	29.0	38.1	82.6	585.7	1583.3	1793.6	1831.1
42.5°	15.0	17.7	21.5	28.4	31.6	59.5	512.2	1662.7	1889.0	1923.9
45°	11.8	15.0	19.8	27.4	26.3	41.8	448.9	1732.9	1971.1	2017.7
47.5°	8.6	12.3	19.8	24.7	21.5	30.0	416.7	1800.5	2044.6	2076.2
50°	6.4	10.2	21.5	20.9	18.2	25.7	421.6	1875.6	2078.4	2098.7
52.5°	4.8	8.6	16.6	15.0	15.6	22.5	440.3	1974.8	2148.1	2162.6
55°	4.3	6.4	10.2	11.3	13.9	21.5	435.5	2068.7	2237.1	2262.3
57.5°	3.8	5.4	8.0	9.1	12.3	20.4	408.2	2110.0	2294.5	2329.4
58°	3.2	5.4	7.5	9.1	12.3	19.8	401.2	2098.7	2291.8	2335.8
60°	2.7	4.8	7.0	8.0	10.7	17.7	367.4	2003.3	2232.8	2294.5
62.5°	2.1	3.2	5.4	5.9	8.6	14.5	302.5	1848.8	2106.2	2182.4
65°	1.1	2.1	3.2	4.3	5.9	10.7	215.1	1665.9	1970.5	2045.1
67.5°	0.0	1.1	2.1	2.7	3.8	8.0	123.9	1413.8	1747.4	1806.4
70°	0.0	0.5	1.1	1.6	2.1	5.4	65.4	1037.8	1353.7	1459.9
72.5°	0.5	0.5	0.5	0.0	1.1	4.3	29.0	615.7	923.1	1032.5
75°	0.5	0.5	0.0	0.0	0.0	2.1	12.3	324.5	529.4	581.4
77.5°	2.1	1.1	0.0	0.0	0.0	0.5	5.9	174.8	274.6	291.8
80°	0.5	0.0	0.0	0.0	0.0	0.0	2.1	58.5	164.7	168.4
82.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.1	70.8	67.6
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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