

Scaled data based on original data using  
LM-66-11 Electrical and Photometric Measurements of Single-Ended Compact  
Fluorescent Lamps

Test Report Prepared for  
Cooper Lighting Solutions  
(formerly Eaton)

Brand: SHAPER

Report Number: 253P216

Luminaire Tested: **1200-OB-44-CFL/4/27**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-66-11  
Report Number: 253P216  
Test Lab: METALUX LABORATORIES  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: SHAPER  
Catalog Number: 1200-OB-44-CFL/4/27  
Description: SHAPER 44 INCH 1200 SERIES DIRECT/INDIRECT INDOOR PENDANT FIXTURE  
Light Source: FOUR - F24BX/SPX35 - 1800 LUMENS - 24 WATTS  
Ballast/Driver: -

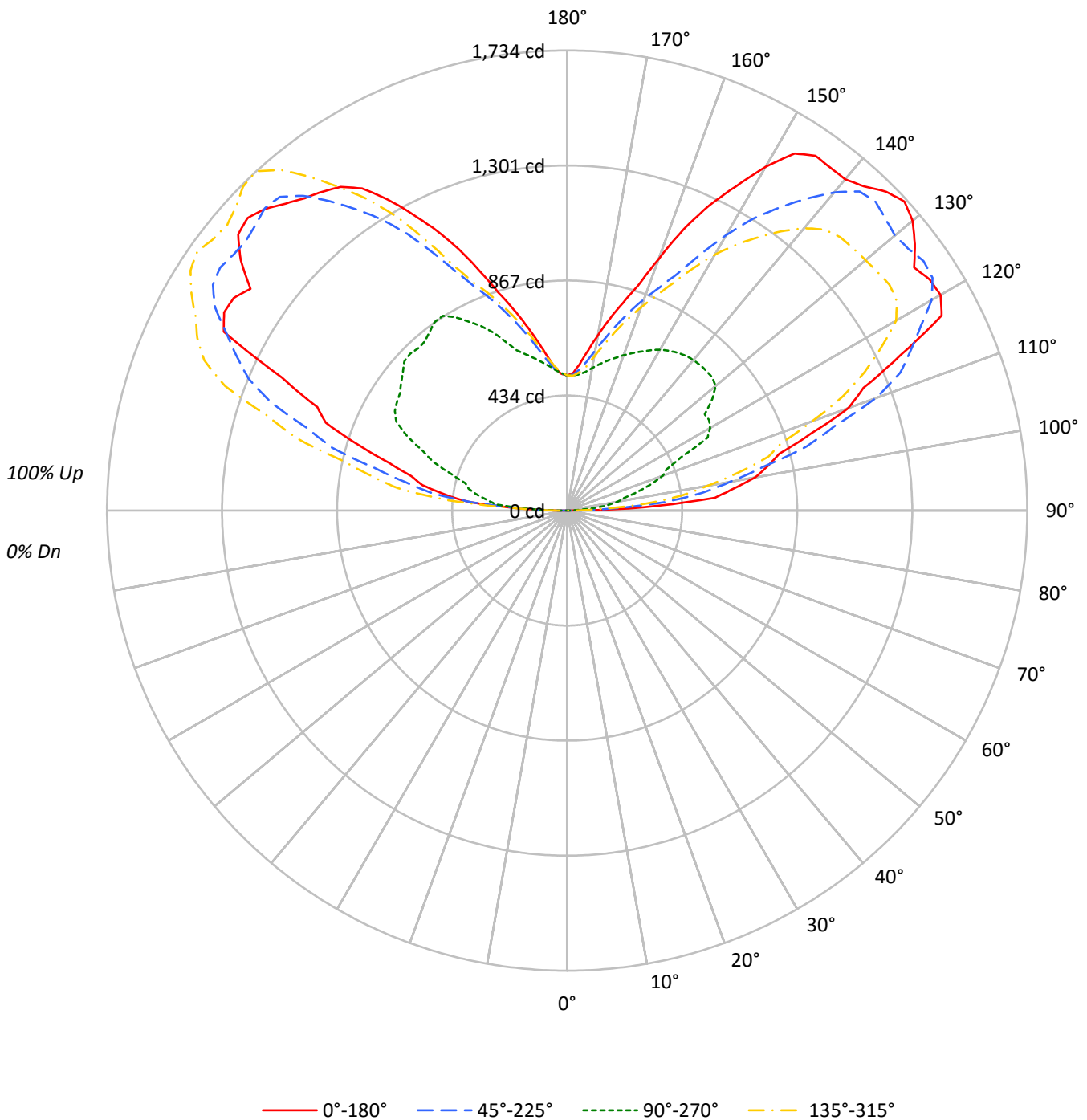
**Summary**

Lumens per Lamp: 1800 (4 lamps)  
Luminaire Lumens: 6222.7 lumens  
Efficiency: 86.4%  
Efficacy: 38.9 lumens/watt  
Spacing Criteria (0/90/45): - / - / -  
Luminous Opening: Vertical Cylinder (Dia: 3.67' x H: 0.1')  
CIE Type: Indirect

Input Watts (W): 160  
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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### Luminous Intensity Polar Plot





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**COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:**

RF	20				20				20				20				20	
RC	80				70				50				30				10	0
RW	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10	0
RCR																		
0	82	82	82	82	70	70	70	70	48	48	48	28	28	28	9	9	9	0
1	75	71	68	65	64	61	59	56	42	40	39	24	23	23	8	8	7	0
2	68	62	57	53	58	53	49	46	37	34	32	21	20	19	7	6	6	0
3	62	55	49	44	53	47	42	38	32	29	27	19	17	16	6	6	5	0
4	57	48	42	37	48	41	36	32	28	25	23	16	15	13	5	5	4	0
5	52	43	36	31	44	37	31	27	25	22	19	15	13	11	5	4	4	0
6	47	38	31	27	40	33	27	23	22	19	17	13	11	10	4	4	3	0
7	44	34	28	23	37	29	24	20	20	17	14	12	10	9	4	3	3	0
8	40	30	24	20	34	26	21	18	18	15	12	11	9	7	3	3	2	0
9	37	28	22	18	32	24	19	15	16	13	11	10	8	7	3	3	2	0
10	35	25	19	16	29	22	17	14	15	12	10	9	7	6	3	2	2	0

**AVERAGE LUMINANCE (cd/sqm):**

	0°	90°	180°	270°
0°	0	0	0	0
5°	0	0	0	0
10°	0	0	0	0
15°	0	0	0	0
20°	0	0	0	0
25°	0	0	0	0
30°	0	0	0	0
35°	0	0	0	0
40°	0	0	0	0
45°	0	0	0	0
50°	0	0	0	0
55°	0	0	0	0
60°	0	0	0	0
65°	0	0	0	0
70°	0	0	0	0
75°	0	0	0	0
80°	0	0	0	0
85°	0	0	0	0



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture	% Lamp
0°-10°	0.0	0.0	0.0
10°-20°	0.0	0.0	0.0
20°-30°	0.0	0.0	0.0
30°-40°	0.0	0.0	0.0
40°-50°	0.0	0.0	0.0
50°-60°	0.0	0.0	0.0
60°-70°	0.0	0.0	0.0
70°-80°	0.0	0.0	0.0
80°-90°	0.3	0.0	0.0
90°-100°	346.2	5.6	4.8
100°-110°	821.8	13.2	11.4
110°-120°	1193.1	19.2	16.6
120°-130°	1255.0	20.2	17.4
130°-140°	1086.7	17.5	15.1
140°-150°	799.4	12.8	11.1
150°-160°	461.6	7.4	6.4
160°-170°	205.2	3.3	2.8
170°-180°	53.5	0.9	0.7
0°-30°	0.0	0.0	0.0
0°-40°	0.0	0.0	0.0
0°-60°	0.0	0.0	0.0
0°-90°	0.3	0.0	0.0
90°-120°	2361.1	37.9	32.8
90°-150°	5502.2	88.4	76.4
90°-180°	6222.0	100.0	86.4
0°-180°	6222.7	100.0	86.4

**CANDELA DISTRIBUTION:**

	0°	90°	180°	270°	360°	Flux
0°	0	0	0	0	0	
5°	0	0	0	0	0	0
15°	0	0	0	0	0	0
25°	0	0	0	0	0	0
35°	0	0	0	0	0	0
45°	0	0	0	0	0	0
55°	0	0	0	0	0	0
65°	0	0	0	0	0	0
75°	0	0	0	0	0	0
85°	0	0	0	0	0	0
90°	1	1	2	0	1	40
95°	559	91	372	270	559	461
105°	827	275	695	397	827	921
115°	1386	471	1186	666	1386	1376
125°	1596	633	1457	769	1596	1464
135°	1699	743	1608	836	1699	1307
145°	1632	726	1489	869	1632	1009
155°	1269	661	1164	767	1269	590
165°	809	585	787	610	809	237
175°	555	515	541	533	555	57
180°	510	510	510	510	510	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°	202.5°	225°
0°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
7.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
10°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
12.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
15°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
17.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
20°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
22.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
25°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
27.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
30°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
32.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
35°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
37.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
40°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
42.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
45°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
47.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
50°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
52.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
55°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
57.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
60°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
62.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
65°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
67.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
70°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
72.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
75°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
77.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
80°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
82.5°	0.0	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°	1.0	2.0	3.0	1.0	1.0	4.0	6.0	3.0	2.0	0.0	0.0
92.5°	289.7	345.7	167.4	30.3	22.3	79.4	113.1	150.9	165.1	205.1	144.0
95°	558.9	544.6	370.3	155.4	90.9	225.1	296.6	347.4	372.0	417.7	359.4
97.5°	631.4	636.0	513.1	308.6	149.7	336.0	433.1	474.3	465.7	531.4	518.9
100°	719.4	738.9	622.9	452.6	194.3	413.7	536.6	558.9	554.3	633.7	618.9
102.5°	773.7	830.9	753.7	605.1	220.0	521.1	660.6	650.3	601.1	735.4	745.1
105°	827.4	933.7	934.3	710.9	275.4	644.6	785.7	770.9	694.9	854.3	917.1
107.5°	961.7	1110.3	1054.9	820.6	332.6	738.9	845.7	931.4	826.9	1001.7	1021.1
110°	1128.0	1228.6	1236.6	905.1	384.0	798.3	981.1	1022.3	968.0	1103.4	1182.9



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**CANDELA DISTRIBUTION (continued):**

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°	202.5°	225°
112.5°	1209.1	1358.9	1358.9	948.6	405.1	841.1	1124.6	1093.1	1019.4	1199.4	1300.0
115°	1385.7	1561.7	1429.1	1044.0	471.4	941.7	1237.1	1296.6	1186.3	1427.4	1373.1
117.5°	1590.9	1619.4	1501.1	1162.3	597.1	988.6	1336.0	1454.3	1458.9	1506.3	1448.0
120°	1625.1	1626.3	1585.7	1238.9	621.7	1016.6	1432.0	1528.0	1492.6	1535.4	1532.0
122.5°	1620.0	1624.6	1632.6	1220.0	634.3	1041.1	1472.0	1483.4	1490.3	1562.9	1582.9
125°	1596.0	1677.1	1639.4	1230.9	632.6	1082.3	1482.9	1550.9	1457.1	1651.4	1596.6
127.5°	1651.4	1732.0	1620.6	1238.3	688.6	1106.3	1475.4	1622.3	1550.3	1720.6	1584.6
130°	1699.4	1757.7	1612.6	1216.6	730.3	1097.7	1468.0	1638.3	1618.9	1731.4	1580.0
132.5°	1723.4	1738.9	1626.9	1172.0	742.3	1076.6	1462.3	1618.3	1632.6	1704.6	1593.1
135°	1699.4	1694.3	1644.6	1121.1	743.4	1050.9	1456.6	1583.4	1608.0	1659.4	1610.9
137.5°	1656.6	1662.9	1630.9	1068.6	742.3	1017.7	1436.0	1549.1	1569.1	1613.7	1603.4
140°	1629.7	1660.6	1565.1	1022.9	740.6	982.9	1389.1	1524.6	1537.1	1581.7	1548.6
142.5°	1628.6	1665.1	1481.1	985.7	735.4	948.0	1326.3	1499.4	1514.9	1550.3	1469.1
145°	1632.0	1634.3	1393.1	952.0	725.7	913.1	1257.7	1459.4	1488.6	1502.3	1385.7
147.5°	1595.4	1540.0	1304.0	914.3	714.3	877.7	1188.6	1384.0	1439.4	1420.6	1300.6
150°	1495.4	1431.4	1198.3	876.0	700.0	841.7	1113.7	1296.6	1354.3	1330.9	1202.3
152.5°	1377.7	1322.3	1086.9	834.9	681.1	802.9	1029.1	1204.0	1257.7	1238.9	1094.3
155°	1268.6	1208.0	984.6	793.7	661.1	762.9	946.9	1113.1	1164.0	1142.9	993.1
157.5°	1147.4	1074.3	909.1	752.6	642.3	723.4	874.3	1010.9	1065.7	1037.7	913.7
160°	1009.1	948.0	847.4	710.9	622.9	684.6	814.9	911.4	958.3	935.4	851.4
162.5°	888.0	852.0	785.7	670.9	602.9	646.3	754.9	825.7	860.6	849.1	788.6
165°	809.1	782.3	725.1	633.1	584.6	612.0	697.1	756.6	786.9	777.7	729.1
167.5°	738.9	716.6	665.7	596.6	565.1	580.6	638.9	690.3	716.0	708.6	669.7
170°	671.4	654.3	613.1	568.0	545.1	553.7	589.1	630.3	649.7	643.4	616.0
172.5°	609.7	596.6	566.3	540.6	527.4	530.9	546.3	574.9	589.7	584.6	569.1
175°	554.9	548.0	533.7	520.6	514.9	516.0	522.9	533.7	541.1	539.4	537.1
177.5°	518.9	516.0	512.0	509.7	510.3	509.1	508.6	512.6	516.0	516.0	516.6
180°	509.7	509.7	509.7	509.7	509.7	509.7	509.7	509.7	509.7	509.7	509.7



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**CANDELA DISTRIBUTION (continued):**

	247.5°	270°	292.5°	315°	337.5°	360°
0°	0.0	0.0	0.0	0.0	0.0	0.0
2.5°	0.0	0.0	0.0	0.0	0.0	0.0
5°	0.0	0.0	0.0	0.0	0.0	0.0
7.5°	0.0	0.0	0.0	0.0	0.0	0.0
10°	0.0	0.0	0.0	0.0	0.0	0.0
12.5°	0.0	0.0	0.0	0.0	0.0	0.0
15°	0.0	0.0	0.0	0.0	0.0	0.0
17.5°	0.0	0.0	0.0	0.0	0.0	0.0
20°	0.0	0.0	0.0	0.0	0.0	0.0
22.5°	0.0	0.0	0.0	0.0	0.0	0.0
25°	0.0	0.0	0.0	0.0	0.0	0.0
27.5°	0.0	0.0	0.0	0.0	0.0	0.0
30°	0.0	0.0	0.0	0.0	0.0	0.0
32.5°	0.0	0.0	0.0	0.0	0.0	0.0
35°	0.0	0.0	0.0	0.0	0.0	0.0
37.5°	0.0	0.0	0.0	0.0	0.0	0.0
40°	0.0	0.0	0.0	0.0	0.0	0.0
42.5°	0.0	0.0	0.0	0.0	0.0	0.0
45°	0.0	0.0	0.0	0.0	0.0	0.0
47.5°	0.0	0.0	0.0	0.0	0.0	0.0
50°	0.0	0.0	0.0	0.0	0.0	0.0
52.5°	0.0	0.0	0.0	0.0	0.0	0.0
55°	0.0	0.0	0.0	0.0	0.0	0.0
57.5°	0.0	0.0	0.0	0.0	0.0	0.0
60°	0.0	0.0	0.0	0.0	0.0	0.0
62.5°	0.0	0.0	0.0	0.0	0.0	0.0
65°	0.0	0.0	0.0	0.0	0.0	0.0
67.5°	0.0	0.0	0.0	0.0	0.0	0.0
70°	0.0	0.0	0.0	0.0	0.0	0.0
72.5°	0.0	0.0	0.0	0.0	0.0	0.0
75°	0.0	0.0	0.0	0.0	0.0	0.0
77.5°	0.0	0.0	0.0	0.0	0.0	0.0
80°	0.0	0.0	0.0	0.0	0.0	0.0
82.5°	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
87.5°	0.0	0.0	0.0	0.0	0.0	0.0
90°	1.0	0.0	2.0	3.0	3.0	1.0
92.5°	130.3	144.6	220.0	181.1	230.3	289.7
95°	288.6	269.7	426.3	448.0	486.3	558.9
97.5°	416.6	302.9	524.0	642.3	636.0	631.4
100°	535.4	344.6	627.4	747.4	782.3	719.4
102.5°	649.7	380.0	735.4	864.6	888.0	773.7
105°	738.9	396.6	829.1	1056.6	981.7	827.4
107.5°	871.4	457.1	934.3	1181.1	1159.4	961.7
110°	966.9	537.1	1022.9	1372.0	1288.6	1128.0





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**CANDELA DISTRIBUTION (continued):**

	247.5°	270°	292.5°	315°	337.5°	360°
112.5°	1050.3	589.1	1114.9	1480.6	1406.3	1209.1
115°	1132.0	666.3	1196.0	1537.7	1592.6	1385.7
117.5°	1185.7	725.7	1238.9	1577.7	1713.1	1590.9
120°	1218.9	749.7	1273.1	1635.4	1772.0	1625.1
122.5°	1217.7	760.6	1293.7	1682.9	1738.3	1620.0
125°	1213.1	769.1	1296.6	1701.7	1762.9	1596.0
127.5°	1211.4	788.6	1292.6	1680.6	1800.0	1651.4
130°	1208.6	808.6	1282.9	1673.1	1815.4	1699.4
132.5°	1185.1	832.0	1258.3	1692.6	1786.9	1723.4
135°	1146.3	836.0	1216.0	1726.9	1730.9	1699.4
137.5°	1112.6	829.7	1173.1	1734.3	1684.6	1656.6
140°	1094.9	833.1	1146.3	1675.4	1665.1	1629.7
142.5°	1089.1	850.3	1128.0	1581.7	1662.3	1628.6
145°	1074.3	869.1	1104.6	1483.4	1638.9	1632.0
147.5°	1029.1	870.3	1055.4	1386.3	1552.6	1595.4
150°	974.3	841.1	999.4	1274.3	1447.4	1495.4
152.5°	917.1	802.3	942.3	1144.0	1336.6	1377.7
155°	861.7	766.9	881.7	1022.9	1229.1	1268.6
157.5°	794.9	726.3	812.6	932.6	1098.9	1147.4
160°	729.1	676.0	746.3	871.4	972.0	1009.1
162.5°	678.3	633.7	694.9	809.1	872.0	888.0
165°	641.1	610.3	657.7	749.1	798.9	809.1
167.5°	608.0	590.3	622.9	688.6	729.1	738.9
170°	581.7	570.3	592.0	634.3	665.7	671.4
172.5°	554.9	552.0	562.3	583.4	604.0	609.7
175°	532.0	533.1	538.3	545.7	553.1	554.9
177.5°	515.4	518.9	520.6	520.0	519.4	518.9
180°	509.7	509.7	509.7	509.7	509.7	509.7

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