

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: 25487

Luminaire Tested: **103-CFL/2/39-120V-CNK**

Issue Date: 3/3/2020

Test Information

Test Method: LM-66-11
Report Number: 25487
Test Lab: LIGHTING SCIENCES, INC.
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: SHAPER
Catalog Number: 103-CFL/2/39-120V-CNK
Description: DARK FABRIC SHADE RECTILINEAR WALL SCONCE

Light Source: TWO SYLVANIA 36 WATT CFL LAMPS

FT36DL/830/ECO. LUMEN RATING = 5800 LMS.

Ballast/Driver: -

Summary

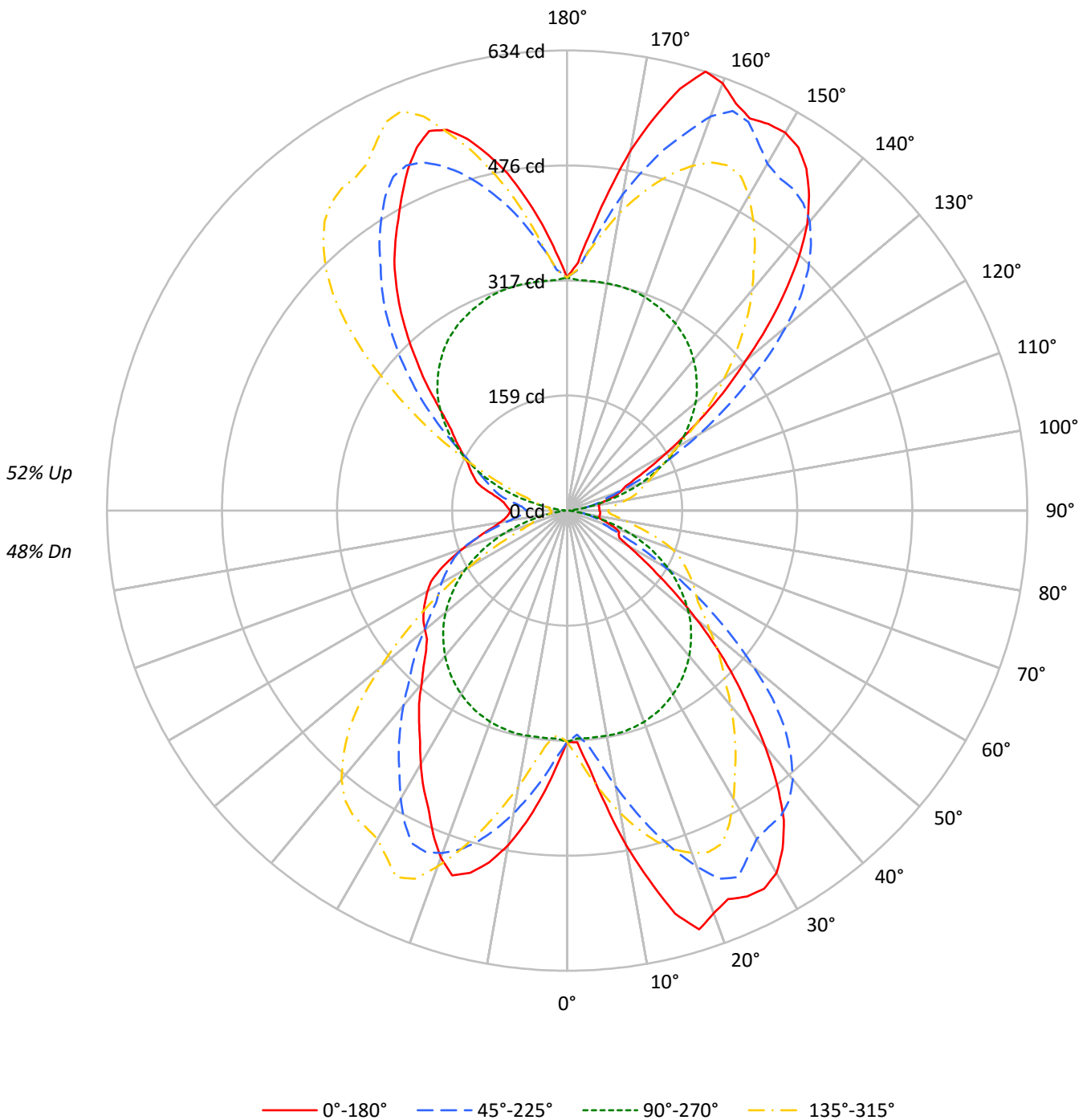
Lumens per Lamp: 5800 (1 lamp)
Luminaire Lumens: 2839.6 lumens
Efficiency: 49.0%
Efficacy: 40.0 lumens/watt
Spacing Criteria (0/90/45): 1.71 / 1.36 / 1.69
Luminous Opening: Rectangular w/ Sides (W: 0.33' x L: 2.17' x H: 0.71')
CIE Type: General Diffuse

Input Watts (W): 71
Input Voltage (V): NR
Input Current (A_{in}): 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	50	30	10	50	30	10	50	30	10	50	30	10	0																
RCR																																														
0	52	52	52	52	48	48	48	48	40	40	40	33	33	33	27	27	27	24									24																			
1	48	45	43	42	44	42	40	39	35	34	33	29	28	27	23	23	22	20									20																			
2	43	40	37	34	40	37	34	32	31	29	27	25	24	23	21	20	19	16									16																			
3	40	35	31	28	36	32	29	27	27	25	23	23	21	19	18	17	16	14									14																			
4	36	31	27	24	33	28	25	22	24	22	19	20	18	17	16	15	14	12									12																			
5	33	27	23	20	30	25	22	19	22	19	17	18	16	14	15	13	12	10									10																			
6	30	25	21	18	28	23	19	17	19	17	15	16	14	12	13	12	10	9									9																			
7	28	22	18	15	26	21	17	15	18	15	13	15	13	11	12	10	9	8									8																			
8	26	20	16	14	24	19	15	13	16	13	11	13	11	10	11	9	8	7									7																			
9	24	18	15	12	22	17	14	11	15	12	10	12	10	9	10	9	7	6									6																			
10	23	17	13	11	21	16	12	10	13	11	9	11	9	8	9	8	7	6									6																			

AVERAGE LUMINANCE (cd/sqm):

	0°	90°	180°	270°
0°	4790	4790	4790	4790
5°	5234	3997	5793	3997
10°	6754	3484	6754	3484
15°	8227	3098	7393	3098
20°	8438	2780	7273	2780
25°	8442	2505	6508	2505
30°	8421	2260	5891	2260
35°	7775	2038	5307	2038
40°	6534	1830	4800	1830
45°	5217	1628	4406	1628
50°	3898	1434	4302	1434
55°	2677	1231	4310	1231
60°	1854	1027	4260	1027
65°	1637	815	4047	815
70°	1646	591	3536	591
75°	1318	354	3080	354
80°	1370	155	2837	155
85°	1659	47	2998	47



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ZONAL LUMENS:

Zone	Lumens	% Fixture	% Lamp
0°-10°	34.6	1.2	0.6
10°-20°	126.8	4.5	2.2
20°-30°	215.2	7.6	3.7
30°-40°	263.3	9.3	4.5
40°-50°	255.0	9.0	4.4
50°-60°	204.1	7.2	3.5
60°-70°	141.3	5.0	2.4
70°-80°	80.5	2.8	1.4
80°-90°	44.5	1.6	0.8
90°-100°	45.9	1.6	0.8
100°-110°	82.6	2.9	1.4
110°-120°	147.4	5.2	2.5
120°-130°	226.1	8.0	3.9
130°-140°	285.6	10.1	4.9
140°-150°	287.6	10.1	5.0
150°-160°	229.6	8.1	4.0
160°-170°	133.4	4.7	2.3
170°-180°	36.1	1.3	0.6
0°-30°	376.6	13.3	6.5
0°-40°	639.9	22.5	11.0
0°-60°	1099.0	38.7	18.9
0°-90°	1365.4	48.1	23.5
90°-120°	275.9	9.7	4.8
90°-150°	1075.2	37.9	18.5
90°-180°	1474.0	51.9	25.4
0°-180°	2839.6	100.0	49.0

CANDELA DISTRIBUTION:

	0°	90°	180°	270°	360°	Flux
0°	319	319	319	319	319	
5°	357	315	395	315	357	38
15°	575	314	517	314	575	160
25°	587	303	452	303	587	270
35°	521	278	356	278	521	320
45°	326	241	275	241	326	251
55°	150	191	241	191	150	138
65°	78	129	194	129	78	80
75°	50	55	118	55	50	56
85°	46	7	82	7	46	37
90°	44	3	78	3	44	25
95°	44	7	85	7	44	36
105°	58	66	120	66	58	63
115°	104	142	150	142	104	108
125°	232	204	195	204	232	209
135°	423	252	294	252	423	324
145°	575	286	415	286	575	356
155°	596	306	519	306	596	279
165°	602	317	530	317	602	169
175°	389	318	396	318	389	41
180°	321	321	321	321	321	



TEST NUMBER: 25487

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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°	202.5°	225°
0°	318.7	318.7	318.7	318.7	318.7	318.7	318.7	318.7	318.7	318.7	318.7
2.5°	319.7	313.8	309.1	310.0	314.2	325.1	340.4	349.1	354.4	349.1	340.4
5°	356.8	344.0	323.3	309.1	314.8	338.2	369.0	387.9	394.9	387.9	369.0
7.5°	409.7	387.7	350.7	314.9	314.6	352.1	395.8	424.4	433.0	424.4	395.8
10°	468.0	441.0	386.1	326.0	314.9	365.8	423.3	459.1	468.0	459.1	423.3
12.5°	520.8	492.4	420.8	336.3	315.0	377.7	448.7	488.3	496.4	488.3	448.7
15°	575.0	541.7	456.3	349.4	313.9	389.7	471.2	511.9	516.7	511.9	471.2
17.5°	605.0	584.0	490.3	362.9	312.0	400.1	489.7	526.6	527.0	526.6	489.7
20°	590.3	591.2	521.9	377.1	309.9	410.2	502.0	523.0	508.8	523.0	502.0
22.5°	579.5	574.1	549.1	387.4	306.3	419.0	509.2	501.1	482.5	501.1	509.2
25°	586.7	567.2	557.2	398.9	302.6	424.6	505.9	471.9	452.3	471.9	505.9
27.5°	587.3	572.0	538.7	407.1	297.6	430.2	484.7	442.2	428.9	442.2	484.7
30°	576.8	568.9	522.3	415.2	292.0	433.0	458.6	419.2	403.5	419.2	458.6
32.5°	552.5	554.5	516.7	421.4	285.7	431.6	430.0	389.9	376.9	389.9	430.0
35°	520.8	530.6	513.6	422.8	278.4	429.3	404.6	363.8	355.5	363.8	404.6
37.5°	475.0	496.6	502.7	425.5	270.3	423.7	377.7	342.4	335.2	342.4	377.7
40°	424.4	452.5	483.6	418.8	261.7	413.3	351.0	321.3	311.8	321.3	351.0
42.5°	371.5	401.4	455.9	402.4	251.9	391.8	323.5	297.1	292.9	297.1	323.5
45°	325.7	350.3	424.4	383.4	241.4	365.8	301.5	279.4	275.1	279.4	301.5
47.5°	279.1	303.7	383.8	365.2	230.9	337.9	280.1	262.9	261.8	262.9	280.1
50°	231.7	256.5	335.7	349.6	218.5	307.7	256.0	250.7	255.7	250.7	256.0
52.5°	188.4	212.1	288.4	332.1	205.3	281.8	237.9	243.4	249.5	243.4	237.9
55°	149.9	170.4	242.0	310.7	191.3	253.2	220.1	235.3	241.3	235.3	220.1
57.5°	120.2	136.4	198.8	284.3	177.4	226.0	209.2	227.4	231.8	227.4	209.2
60°	96.6	105.8	156.5	253.5	161.5	199.2	200.1	217.5	222.0	217.5	200.1
62.5°	81.2	83.9	121.4	220.1	145.4	176.5	189.3	207.1	211.4	207.1	189.3
65°	78.3	72.2	90.5	182.3	128.6	151.5	178.3	194.0	193.6	194.0	178.3
67.5°	77.6	70.6	66.2	143.9	110.6	133.1	167.7	174.5	172.9	174.5	167.7
70°	71.1	67.3	51.7	106.7	92.9	118.9	154.0	155.1	152.8	155.1	154.0
72.5°	60.1	57.4	47.7	72.5	73.3	106.7	134.4	135.3	133.7	135.3	134.4
75°	50.4	47.0	42.3	44.8	55.1	93.6	114.5	117.8	117.8	117.8	114.5
77.5°	44.4	39.2	31.3	26.1	38.0	80.1	95.6	101.5	103.1	101.5	95.6
80°	45.2	37.5	23.6	20.0	23.7	63.0	81.1	91.2	93.6	91.2	81.1
82.5°	45.5	38.0	22.2	12.5	11.7	46.1	70.2	82.8	86.4	82.8	70.2
85°	45.6	38.0	21.6	9.4	7.0	34.9	61.4	77.2	82.4	77.2	61.4
87.5°	45.6	37.3	22.0	8.9	4.1	27.2	57.4	74.1	79.7	74.1	57.4
90°	44.5	37.8	21.9	7.8	2.9	25.9	56.5	72.9	78.3	72.9	56.5
92.5°	44.4	38.0	23.9	9.7	3.7	32.6	58.9	76.1	81.5	76.1	58.9
95°	44.5	38.3	24.3	10.1	6.7	40.9	62.8	77.8	84.8	77.8	62.8
97.5°	44.1	39.4	23.9	13.9	14.2	50.2	70.5	83.1	88.4	83.1	70.5
100°	44.4	39.4	28.1	23.0	28.9	60.1	82.2	90.5	95.4	90.5	82.2
102.5°	47.0	44.4	38.0	35.3	45.4	69.3	94.1	102.2	105.6	102.2	94.1
105°	57.8	56.5	49.7	58.7	66.1	82.6	102.5	116.2	119.8	116.2	102.5
107.5°	71.1	67.8	57.4	90.0	86.0	98.6	109.8	124.0	130.8	124.0	109.8
110°	79.5	74.7	76.7	127.4	106.2	120.9	119.1	131.7	136.9	131.7	119.1



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CATALOG NUMBER: 103-CFL/2/39-120V-CNK

CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°	202.5°	225°
112.5°	86.9	87.3	101.1	166.8	124.8	145.2	129.2	138.0	144.0	138.0	129.2
115°	103.7	105.8	132.2	208.9	141.9	171.1	142.5	146.4	150.1	146.4	142.5
117.5°	127.2	132.8	168.6	251.5	159.8	199.7	156.0	156.7	158.4	156.7	156.0
120°	156.0	165.3	210.1	287.4	175.3	229.0	174.9	168.4	170.4	168.4	174.9
122.5°	191.5	203.3	252.8	320.1	190.9	257.3	200.1	181.5	182.8	181.5	200.1
125°	232.3	245.9	299.0	345.5	204.3	284.8	225.4	196.5	195.0	196.5	225.4
127.5°	276.7	291.3	348.7	367.9	217.8	312.9	254.2	220.6	213.9	220.6	254.2
130°	320.8	335.4	393.3	384.3	231.0	341.5	281.6	246.0	238.4	246.0	281.6
132.5°	373.0	387.2	435.6	398.7	242.5	370.4	311.6	274.9	266.5	274.9	311.6
135°	423.3	435.8	469.7	415.6	252.3	394.9	339.9	303.7	294.3	303.7	339.9
137.5°	471.9	480.5	497.3	435.8	262.3	418.3	369.7	332.1	324.9	332.1	369.7
140°	514.9	519.6	520.0	456.3	271.0	434.5	396.6	362.7	356.0	362.7	396.6
142.5°	547.5	549.4	534.0	475.5	279.3	442.2	421.9	391.9	385.7	391.9	421.9
145°	574.8	573.6	541.7	485.2	286.5	446.6	451.0	420.1	414.9	420.1	451.0
147.5°	593.0	586.7	543.7	484.7	292.3	445.5	476.6	445.8	440.4	445.8	476.6
150°	601.1	591.4	551.8	476.4	298.1	443.0	500.9	474.1	464.7	474.1	500.9
152.5°	600.4	588.5	570.7	469.9	301.9	438.8	518.7	500.9	491.9	500.9	518.7
155°	596.2	589.8	590.8	460.2	306.5	432.1	524.5	526.6	519.2	526.6	524.5
157.5°	607.2	605.6	595.9	449.8	309.5	424.9	519.2	544.4	541.2	544.4	519.2
160°	626.4	626.1	577.9	435.6	313.3	416.0	505.5	548.9	556.5	548.9	505.5
162.5°	634.2	621.8	545.5	421.6	315.4	405.5	487.7	535.2	550.0	535.2	487.7
165°	601.8	585.3	514.7	405.2	316.7	393.0	465.8	513.1	530.0	513.1	465.8
167.5°	554.5	539.2	478.6	386.6	317.7	380.5	441.7	484.1	501.9	484.1	441.7
170°	503.4	490.1	442.4	368.3	317.9	367.4	416.3	453.6	471.4	453.6	416.3
172.5°	444.4	437.9	402.1	349.6	318.0	352.4	387.4	417.7	433.6	417.7	387.4
175°	388.6	384.7	362.4	333.0	318.0	338.2	360.7	380.5	396.3	380.5	360.7
177.5°	341.8	338.8	331.6	321.9	318.0	321.5	332.5	343.8	356.8	343.8	332.5
180°	321.1	321.1	321.1	321.1	321.1	321.1	321.1	321.1	321.1	321.1	321.1



TEST NUMBER: 25487

CATALOG NUMBER: 103-CFL/2/39-120V-CNK

CANDELA DISTRIBUTION (continued):

	247.5°	270°	292.5°	315°	337.5°	360°
0°	318.7	318.7	318.7	318.7	318.7	318.7
2.5°	325.1	314.2	310.0	309.1	313.8	319.7
5°	338.2	314.8	309.1	323.3	344.0	356.8
7.5°	352.1	314.6	314.9	350.7	387.7	409.7
10°	365.8	314.9	326.0	386.1	441.0	468.0
12.5°	377.7	315.0	336.3	420.8	492.4	520.8
15°	389.7	313.9	349.4	456.3	541.7	575.0
17.5°	400.1	312.0	362.9	490.3	584.0	605.0
20°	410.2	309.9	377.1	521.9	591.2	590.3
22.5°	419.0	306.3	387.4	549.1	574.1	579.5
25°	424.6	302.6	398.9	557.2	567.2	586.7
27.5°	430.2	297.6	407.1	538.7	572.0	587.3
30°	433.0	292.0	415.2	522.3	568.9	576.8
32.5°	431.6	285.7	421.4	516.7	554.5	552.5
35°	429.3	278.4	422.8	513.6	530.6	520.8
37.5°	423.7	270.3	425.5	502.7	496.6	475.0
40°	413.3	261.7	418.8	483.6	452.5	424.4
42.5°	391.8	251.9	402.4	455.9	401.4	371.5
45°	365.8	241.4	383.4	424.4	350.3	325.7
47.5°	337.9	230.9	365.2	383.8	303.7	279.1
50°	307.7	218.5	349.6	335.7	256.5	231.7
52.5°	281.8	205.3	332.1	288.4	212.1	188.4
55°	253.2	191.3	310.7	242.0	170.4	149.9
57.5°	226.0	177.4	284.3	198.8	136.4	120.2
60°	199.2	161.5	253.5	156.5	105.8	96.6
62.5°	176.5	145.4	220.1	121.4	83.9	81.2
65°	151.5	128.6	182.3	90.5	72.2	78.3
67.5°	133.1	110.6	143.9	66.2	70.6	77.6
70°	118.9	92.9	106.7	51.7	67.3	71.1
72.5°	106.7	73.3	72.5	47.7	57.4	60.1
75°	93.6	55.1	44.8	42.3	47.0	50.4
77.5°	80.1	38.0	26.1	31.3	39.2	44.4
80°	63.0	23.7	20.0	23.6	37.5	45.2
82.5°	46.1	11.7	12.5	22.2	38.0	45.5
85°	34.9	7.0	9.4	21.6	38.0	45.6
87.5°	27.2	4.1	8.9	22.0	37.3	45.6
90°	25.9	2.9	7.8	21.9	37.8	44.5
92.5°	32.6	3.7	9.7	23.9	38.0	44.4
95°	40.9	6.7	10.1	24.3	38.3	44.5
97.5°	50.2	14.2	13.9	23.9	39.4	44.1
100°	60.1	28.9	23.0	28.1	39.4	44.4
102.5°	69.3	45.4	35.3	38.0	44.4	47.0
105°	82.6	66.1	58.7	49.7	56.5	57.8
107.5°	98.6	86.0	90.0	57.4	67.8	71.1
110°	120.9	106.2	127.4	76.7	74.7	79.5



TEST NUMBER: 25487

CATALOG NUMBER: 103-CFL/2/39-120V-CNK

CANDELA DISTRIBUTION (continued):

	247.5°	270°	292.5°	315°	337.5°	360°
112.5°	145.2	124.8	166.8	101.1	87.3	86.9
115°	171.1	141.9	208.9	132.2	105.8	103.7
117.5°	199.7	159.8	251.5	168.6	132.8	127.2
120°	229.0	175.3	287.4	210.1	165.3	156.0
122.5°	257.3	190.9	320.1	252.8	203.3	191.5
125°	284.8	204.3	345.5	299.0	245.9	232.3
127.5°	312.9	217.8	367.9	348.7	291.3	276.7
130°	341.5	231.0	384.3	393.3	335.4	320.8
132.5°	370.4	242.5	398.7	435.6	387.2	373.0
135°	394.9	252.3	415.6	469.7	435.8	423.3
137.5°	418.3	262.3	435.8	497.3	480.5	471.9
140°	434.5	271.0	456.3	520.0	519.6	514.9
142.5°	442.2	279.3	475.5	534.0	549.4	547.5
145°	446.6	286.5	485.2	541.7	573.6	574.8
147.5°	445.5	292.3	484.7	543.7	586.7	593.0
150°	443.0	298.1	476.4	551.8	591.4	601.1
152.5°	438.8	301.9	469.9	570.7	588.5	600.4
155°	432.1	306.5	460.2	590.8	589.8	596.2
157.5°	424.9	309.5	449.8	595.9	605.6	607.2
160°	416.0	313.3	435.6	577.9	626.1	626.4
162.5°	405.5	315.4	421.6	545.5	621.8	634.2
165°	393.0	316.7	405.2	514.7	585.3	601.8
167.5°	380.5	317.7	386.6	478.6	539.2	554.5
170°	367.4	317.9	368.3	442.4	490.1	503.4
172.5°	352.4	318.0	349.6	402.1	437.9	444.4
175°	338.2	318.0	333.0	362.4	384.7	388.6
177.5°	321.5	318.0	321.9	331.6	338.8	341.8
180°	321.1	321.1	321.1	321.1	321.1	321.1

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