

Scaled data based on original data using
LM-79-2019 Approved Method: Electrical and Photometric Measurements of Solid-
State Lighting Products

Test Report Prepared for
Cooper Lighting Solutions

Brand: NEO-RAY

Report Number: P1007710

Luminaire Tested: S124IP-B590UB27-4F0-XX-W2A-4

Issue Date: 5/5/2025

Test Information

Test Method: LM-79-2019
Report Number: P1007710
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1807-864-18)
Test Lab: INNOVATION CENTER
Issue Date: 5/5/2025
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: NEO-RAY
Catalog Number: S124IP-B590UB27-4F0-XX-W2A-4
Description: Define 4 Indirect Pendant with 2700K BioUP LEDs {m-DER=0.473} {m-EER=0.52}
Light Source: -
Ballast/Driver: -

Summary

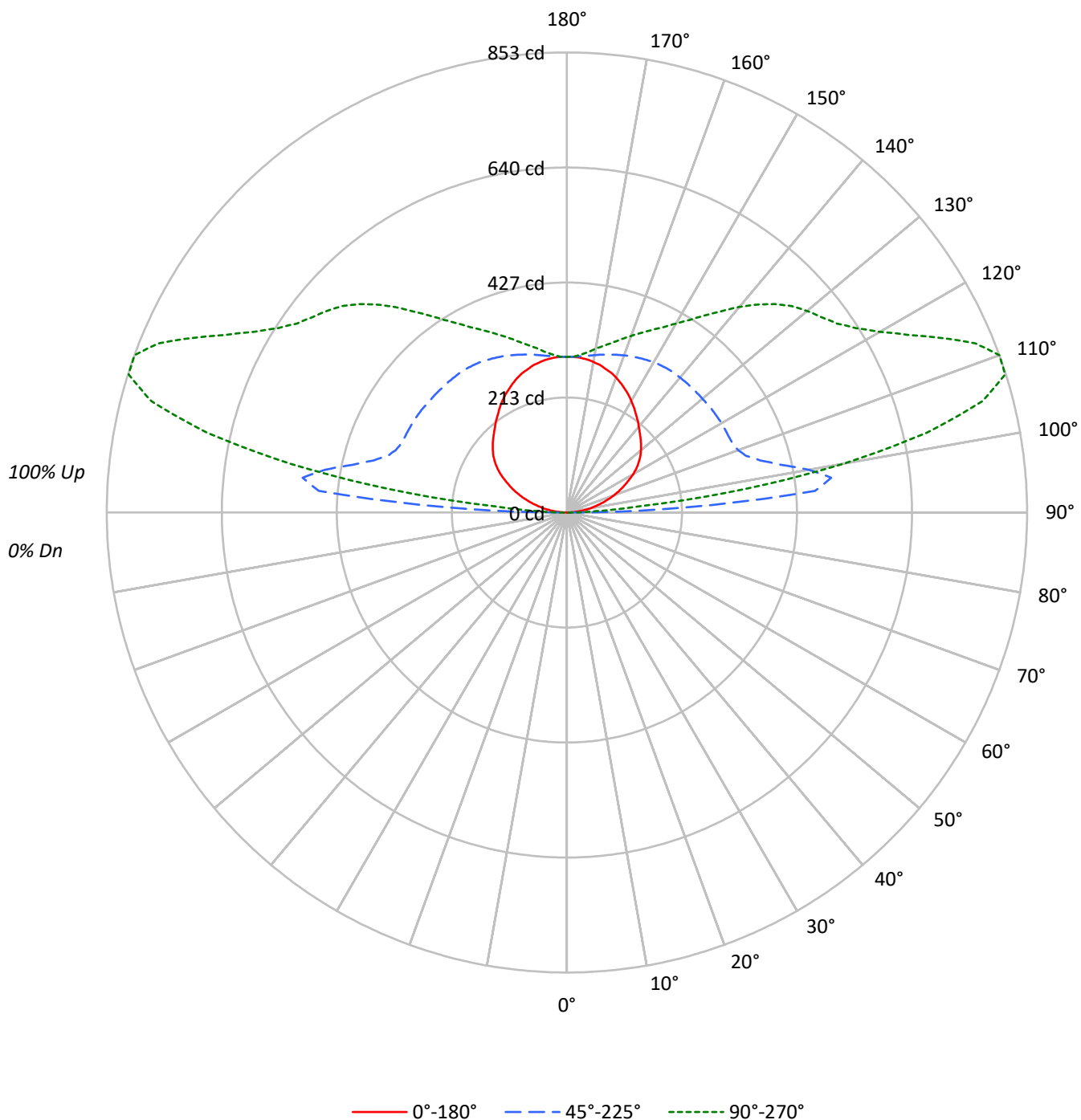
Lumens per Lamp: N/A
Luminaire Lumens: 2102.0 lumens
Efficiency: N/A
Efficacy: 136.5 lumens/watt
Spacing Criteria (0/90/45): - / - / -
Luminous Opening: Rectangular (W 0.33' x L: 4' x H: 0')
CIE Type: Indirect

Input Watts (W): 15.4
Input Voltage (V):
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: 24 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
RW	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10
RCR																	
0	95	95	95	95	81	81	81	81	56	56	56	32	32	32	10	10	10
1	87	83	79	76	74	71	68	65	48	47	45	28	27	26	9	9	8
2	79	72	66	62	67	62	57	53	42	40	37	24	23	22	8	7	7
3	72	63	56	51	61	54	49	44	37	34	31	21	20	18	7	6	6
4	65	56	48	43	56	48	42	37	33	29	26	19	17	16	6	6	5
5	60	49	42	36	51	42	36	32	29	25	22	17	15	13	5	5	4
6	55	44	36	31	47	38	32	27	26	22	19	15	13	11	5	4	4
7	50	39	32	27	43	34	28	23	23	19	17	14	11	10	4	4	3
8	47	35	28	23	40	30	24	20	21	17	14	12	10	9	4	3	3
9	43	32	25	20	37	27	22	18	19	15	13	11	9	8	4	3	3
10	40	29	22	18	34	25	19	16	17	14	11	10	8	7	3	3	2

AVERAGE LUMINANCE (cd/sqm):

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

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
Vertical Angle: 0°
Luminance: 0 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	0.0	0.0
10°-20°	0.0	0.0
20°-30°	0.0	0.0
30°-40°	0.0	0.0
40°-50°	0.0	0.0
50°-60°	0.0	0.0
60°-70°	0.0	0.0
70°-80°	0.0	0.0
80°-90°	1.1	0.1
90°-100°	209.1	9.9
100°-110°	436.5	20.8
110°-120°	388.0	18.5
120°-130°	326.6	15.5
130°-140°	272.5	13.0
140°-150°	208.0	9.9
150°-160°	146.3	7.0
160°-170°	86.0	4.1
170°-180°	28.0	1.3
0°-30°	0.0	0.0
0°-40°	0.0	0.0
0°-60°	0.0	0.0
0°-90°	1.1	0.1
90°-120°	1033.5	49.2
90°-150°	1840.6	87.6
90°-180°	2101.0	100.0
0°-180°	2102.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	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	4	10	11	12	1
95°	19	59	462	229	138	21
105°	66	96	372	800	797	71
115°	117	146	332	637	766	116
125°	163	193	330	542	611	145
135°	193	230	327	481	546	149
145°	223	255	325	406	446	140
155°	253	273	316	358	374	117
165°	276	284	303	321	326	78
175°	288	288	291	295	294	27
180°	288	288	288	288	288	

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CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
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°	0.6	1.7	3.4	4.0	4.5	4.5	7.9	7.9	9.1	10.2	9.6
92.5°	7.9	11.3	17.6	26.1	36.3	51.0	86.1	141.1	194.4	222.1	184.7
95°	18.7	20.4	26.1	33.4	47.0	70.8	120.1	213.1	348.5	461.9	474.9
97.5°	31.2	31.2	36.3	43.1	55.0	75.4	114.5	194.4	333.8	494.2	595.6
100°	43.1	43.1	47.0	53.8	64.6	82.7	116.2	180.2	295.8	455.6	600.7
102.5°	54.4	55.5	58.9	65.2	75.4	92.4	121.8	176.2	270.3	407.5	558.2
105°	66.3	68.0	70.8	77.6	87.8	104.3	131.5	178.5	257.8	371.8	504.9
107.5°	79.3	80.5	83.3	90.7	100.3	116.7	141.7	185.3	254.4	348.5	461.3
110°	92.4	93.5	96.3	103.1	113.3	128.6	153.6	193.2	255.6	337.8	430.1

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CANDELA DISTRIBUTION (continued):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	104.8	106.0	109.4	115.6	125.8	141.1	164.9	201.7	259.0	332.7	412.6
115°	116.7	118.4	122.4	128.1	138.8	154.1	176.8	210.8	263.5	331.5	402.9
117.5°	129.2	130.9	134.3	140.5	150.7	166.6	188.1	219.9	268.1	331.0	397.8
120°	141.7	142.8	146.8	153.0	162.6	178.5	200.0	229.5	273.2	331.0	393.9
122.5°	153.0	154.1	158.1	163.8	174.5	189.8	211.4	238.6	278.3	330.4	389.3
125°	162.6	164.9	168.3	174.5	185.3	201.2	221.6	247.6	283.4	329.8	384.2
127.5°	171.7	173.4	177.4	184.2	195.5	211.4	231.2	255.6	287.3	328.7	377.4
130°	179.1	181.3	185.9	194.4	205.1	221.6	240.8	262.9	291.9	328.1	371.2
132.5°	186.4	188.1	194.4	202.3	214.2	229.5	248.8	270.3	295.8	327.6	365.5
135°	193.2	195.5	201.2	210.8	222.7	237.4	256.1	276.6	299.8	327.0	359.9
137.5°	200.0	202.3	208.5	217.6	230.1	244.2	261.8	281.1	302.1	327.0	354.8
140°	207.4	209.1	215.3	225.0	236.9	250.5	267.5	285.6	304.9	326.4	350.8
142.5°	215.3	217.0	222.7	231.8	243.1	256.1	272.6	289.0	307.2	326.4	347.4
145°	222.7	224.4	230.1	238.0	248.8	261.2	276.0	291.3	307.7	325.3	343.4
147.5°	231.2	231.8	236.9	245.4	254.4	265.8	280.0	293.6	308.3	323.6	340.0
150°	239.1	239.7	244.2	251.0	259.5	270.3	282.8	295.3	308.3	321.9	336.1
152.5°	246.5	246.5	251.0	257.3	264.6	274.3	285.1	296.4	307.2	319.1	331.5
155°	253.3	253.9	257.3	262.9	269.2	277.7	287.3	297.0	306.0	316.2	327.0
157.5°	260.1	260.1	263.5	268.1	273.7	280.5	289.0	297.0	304.9	313.4	322.5
160°	266.4	266.4	268.6	272.6	277.1	283.4	290.2	297.0	303.2	310.0	317.4
162.5°	272.0	271.5	273.2	276.6	280.5	285.1	291.3	297.0	301.5	306.6	312.8
165°	276.0	276.0	277.1	280.0	282.8	286.2	291.3	295.8	299.2	303.2	307.7
167.5°	280.5	280.0	280.5	282.8	284.5	287.3	291.3	294.7	297.0	299.8	303.2
170°	283.4	282.8	283.4	285.1	286.2	287.9	290.7	293.6	294.7	296.4	298.7
172.5°	286.2	285.6	285.6	286.8	287.3	288.5	290.2	292.4	292.4	293.0	294.7
175°	287.9	287.3	287.3	287.9	288.5	288.5	289.6	291.3	290.7	290.7	291.9
177.5°	289.0	288.5	287.9	288.5	288.5	288.5	289.0	290.2	289.0	289.0	289.6
180°	288.5	288.5	288.5	288.5	288.5	288.5	288.5	288.5	288.5	288.5	288.5

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CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
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
5°	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
10°	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
15°	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
20°	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
25°	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
30°	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
35°	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
40°	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
45°	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
50°	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
55°	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
60°	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
65°	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
70°	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
75°	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
80°	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
85°	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
90°	10.2	10.8	11.3	11.3	11.9	12.5	11.9	11.9
92.5°	136.6	102.0	80.5	66.3	57.8	53.8	51.6	51.6
95°	419.9	332.1	256.1	201.2	173.4	155.8	145.6	138.3
97.5°	604.7	561.0	498.7	435.2	396.7	362.7	345.7	332.1
100°	683.4	694.8	667.0	625.1	575.8	541.2	524.2	519.7
102.5°	679.5	746.9	763.9	752.6	727.1	704.4	686.3	682.9
105°	634.7	732.7	788.8	812.1	813.2	808.7	800.8	797.4
107.5°	579.7	685.7	763.9	811.5	836.5	846.7	851.2	851.8
110°	531.0	629.0	711.2	773.5	813.8	837.6	847.8	852.9

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CATALOG NUMBER: S124IP-B590UB27-4F0-XX-W2A-4

CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
112.5°	495.3	579.2	655.7	718.0	765.0	795.1	810.4	819.5
115°	473.8	543.5	609.8	664.2	708.9	742.9	761.1	765.6
117.5°	461.3	520.2	574.1	621.7	661.3	690.8	710.1	712.9
120°	453.4	506.1	551.4	591.6	623.9	648.9	663.6	669.8
122.5°	446.6	497.0	537.2	571.2	597.3	617.7	629.6	635.8
125°	438.6	487.4	526.5	557.6	580.3	596.7	607.5	610.9
127.5°	429.6	476.6	515.7	545.2	567.8	582.6	591.6	595.0
130°	418.2	463.0	501.5	531.6	554.8	569.0	578.0	581.4
132.5°	406.3	447.7	485.1	515.1	537.8	554.2	562.7	566.1
135°	395.6	432.4	467.0	495.3	518.0	533.8	542.9	546.3
137.5°	385.4	417.7	447.7	473.8	495.3	511.7	519.1	523.1
140°	376.9	403.5	429.0	452.8	472.6	485.1	493.0	497.6
142.5°	368.9	391.6	412.6	432.4	449.4	460.7	467.5	470.4
145°	361.6	380.8	397.8	413.7	427.9	437.5	443.2	446.0
147.5°	355.3	371.2	385.4	398.4	409.2	417.7	422.2	423.3
150°	349.7	362.7	374.0	384.2	393.3	400.7	404.1	404.6
152.5°	343.4	354.2	364.4	372.3	379.7	385.4	387.1	387.6
155°	337.2	346.3	354.8	361.6	367.2	371.8	373.5	373.5
157.5°	330.4	338.3	345.7	351.4	355.9	359.3	360.4	360.4
160°	324.2	330.4	336.6	341.2	344.6	348.0	348.5	348.5
162.5°	317.9	323.0	327.6	331.5	333.8	337.2	337.8	337.2
165°	312.3	315.7	319.6	322.5	324.7	327.0	326.4	325.9
167.5°	306.6	309.4	312.8	314.5	315.7	317.4	317.4	316.8
170°	301.5	303.2	305.5	307.2	308.3	308.9	308.3	308.3
172.5°	297.0	298.1	299.2	300.4	300.9	301.5	300.9	299.8
175°	293.0	293.6	294.7	294.7	294.7	295.8	294.7	293.6
177.5°	290.2	290.7	290.7	291.3	290.7	291.3	290.2	289.0
180°	288.5	288.5	288.5	288.5	288.5	288.5	288.5	288.5

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