

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: P1007734

Luminaire Tested: S124IP-B590UB40-4F0-XX-W2A-4

Issue Date: 5/5/2025

Test Information

Test Method: LM-79-2019
Report Number: P1007734
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-B590UB40-4F0-XX-W2A-4
Description: Define 4 Indirect Pendant with 4000K BioUP LEDs {m-DER=0.865} {m-EER=0.951}
Light Source: -
Ballast/Driver: -

Summary

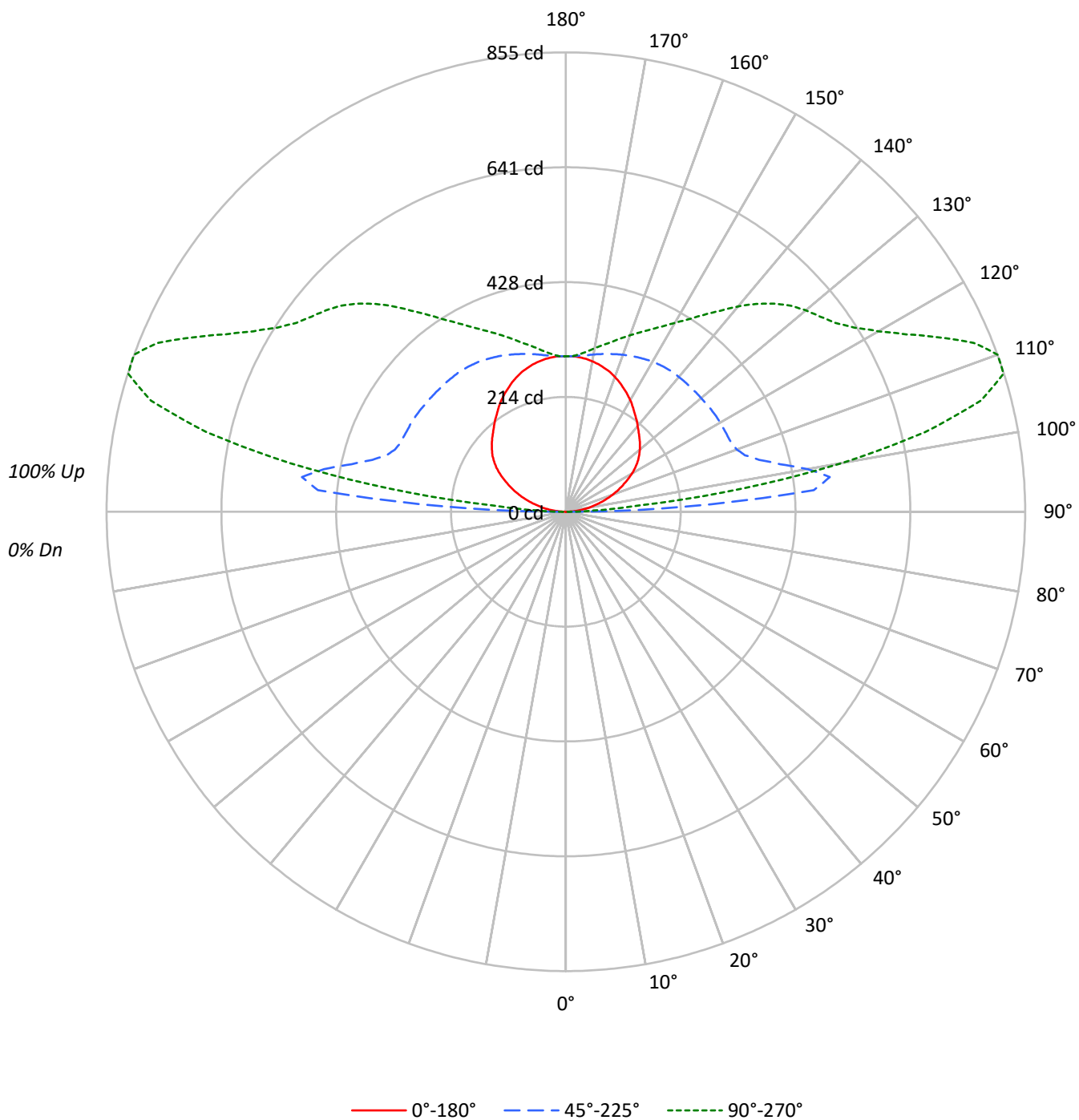
Lumens per Lamp: N/A
Luminaire Lumens: 2108.0 lumens
Efficiency: N/A
Efficacy: 136.9 lumens/watt
Spacing Criteria (0/90/45): - / - / -
Luminous Opening: Rectangular (W 0.33' x L: 4' x H: 0')
CIE Type: Indirect

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°	209.7	9.9
100°-110°	437.7	20.8
110°-120°	389.1	18.5
120°-130°	327.5	15.5
130°-140°	273.3	13.0
140°-150°	208.6	9.9
150°-160°	146.7	7.0
160°-170°	86.3	4.1
170°-180°	28.1	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°	1036.4	49.2
90°-150°	1845.9	87.6
90°-180°	2107.0	100.0
0°-180°	2108.0	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	463	229	139	21
105°	66	96	373	803	800	71
115°	117	147	332	639	768	116
125°	163	194	331	544	613	145
135°	194	231	328	482	548	150
145°	223	256	326	407	447	140
155°	254	274	317	359	374	117
165°	277	285	304	322	327	78
175°	289	289	292	296	294	27
180°	289	289	289	289	289	

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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	8.0	8.0	9.1	10.2	9.7
92.5°	8.0	11.4	17.6	26.1	36.4	51.1	86.4	141.5	194.9	222.8	185.3
95°	18.8	20.5	26.1	33.5	47.2	71.0	120.5	213.7	349.5	463.2	476.3
97.5°	31.3	31.3	36.4	43.2	55.1	75.6	114.8	194.9	334.7	495.6	597.3
100°	43.2	43.2	47.2	54.0	64.8	83.0	116.5	180.7	296.7	456.9	602.4
102.5°	54.6	55.7	59.1	65.4	75.6	92.6	122.2	176.7	271.1	408.6	559.8
105°	66.5	68.2	71.0	77.9	88.1	104.6	131.9	179.0	258.6	372.8	506.4
107.5°	79.6	80.7	83.5	90.9	100.6	117.1	142.1	185.8	255.2	349.5	462.6
110°	92.6	93.8	96.6	103.4	113.7	129.0	154.0	193.8	256.3	338.7	431.4

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CANDELA DISTRIBUTION (continued):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	105.1	106.3	109.7	115.9	126.2	141.5	165.4	202.3	259.7	333.6	413.7
115°	117.1	118.8	122.8	128.4	139.2	154.6	177.3	211.4	264.3	332.5	404.1
117.5°	129.6	131.3	134.7	140.9	151.2	167.1	188.7	220.5	268.8	331.9	399.0
120°	142.1	143.2	147.2	153.4	163.1	179.0	200.6	230.2	273.9	331.9	395.0
122.5°	153.4	154.6	158.6	164.2	175.0	190.4	212.0	239.3	279.0	331.3	390.4
125°	163.1	165.4	168.8	175.0	185.8	201.8	222.2	248.4	284.2	330.8	385.3
127.5°	172.2	173.9	177.9	184.7	196.1	212.0	231.9	256.3	288.1	329.6	378.5
130°	179.6	181.9	186.4	194.9	205.7	222.2	241.5	263.7	292.7	329.1	372.2
132.5°	187.0	188.7	194.9	202.9	214.8	230.2	249.5	271.1	296.7	328.5	366.6
135°	193.8	196.1	201.8	211.4	223.3	238.1	256.9	277.3	300.6	327.9	360.9
137.5°	200.6	202.9	209.1	218.2	230.7	244.9	262.6	281.9	302.9	327.9	355.8
140°	208.0	209.7	216.0	225.6	237.6	251.2	268.2	286.4	305.8	327.4	351.8
142.5°	216.0	217.7	223.3	232.4	243.8	256.9	273.4	289.8	308.0	327.4	348.4
145°	223.3	225.1	230.7	238.7	249.5	262.0	276.8	292.1	308.6	326.2	344.4
147.5°	231.9	232.4	237.6	246.1	255.2	266.5	280.8	294.4	309.2	324.5	341.0
150°	239.8	240.4	244.9	251.8	260.3	271.1	283.6	296.1	309.2	322.8	337.0
152.5°	247.2	247.2	251.8	258.0	265.4	275.1	285.9	297.2	308.0	320.0	332.5
155°	254.0	254.6	258.0	263.7	270.0	278.5	288.1	297.8	306.9	317.1	327.9
157.5°	260.9	260.9	264.3	268.8	274.5	281.3	289.8	297.8	305.8	314.3	323.4
160°	267.1	267.1	269.4	273.4	277.9	284.2	291.0	297.8	304.1	310.9	318.3
162.5°	272.8	272.2	273.9	277.3	281.3	285.9	292.1	297.8	302.3	307.5	313.7
165°	276.8	276.8	277.9	280.8	283.6	287.0	292.1	296.7	300.1	304.1	308.6
167.5°	281.3	280.8	281.3	283.6	285.3	288.1	292.1	295.5	297.8	300.6	304.1
170°	284.2	283.6	284.2	285.9	287.0	288.7	291.5	294.4	295.5	297.2	299.5
172.5°	287.0	286.4	286.4	287.6	288.1	289.3	291.0	293.3	293.3	293.8	295.5
175°	288.7	288.1	288.1	288.7	289.3	289.3	290.4	292.1	291.5	291.5	292.7
177.5°	289.8	289.3	288.7	289.3	289.3	289.3	289.8	291.0	289.8	289.8	290.4
180°	289.3	289.3	289.3	289.3	289.3	289.3	289.3	289.3	289.3	289.3	289.3

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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	11.4	11.4	11.9	12.5	11.9	11.9
92.5°	137.0	102.3	80.7	66.5	58.0	54.0	51.7	51.7
95°	421.1	333.0	256.9	201.8	173.9	156.3	146.1	138.7
97.5°	606.4	562.6	500.1	436.5	397.8	363.7	346.7	333.0
100°	685.4	696.8	668.9	626.9	577.4	542.7	525.7	521.1
102.5°	681.4	749.0	766.1	754.7	729.2	706.4	688.2	684.8
105°	636.5	734.8	791.1	814.4	815.5	811.0	803.0	799.6
107.5°	581.4	687.7	766.1	813.8	838.8	849.1	853.6	854.2
110°	532.5	630.8	713.2	775.8	816.1	840.0	850.2	855.3

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CATALOG NUMBER: S124IP-B590UB40-4F0-XX-W2A-4

CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
112.5°	496.7	580.8	657.5	720.1	767.2	797.4	812.7	821.8
115°	475.1	545.0	611.5	666.1	711.0	745.1	763.3	767.8
117.5°	462.6	521.7	575.7	623.4	663.2	692.8	712.1	714.9
120°	454.7	507.5	553.0	593.3	625.7	650.7	665.5	671.8
122.5°	447.8	498.4	538.8	572.9	599.0	619.5	631.4	637.7
125°	439.9	488.8	528.0	559.2	582.0	598.4	609.2	612.6
127.5°	430.8	478.0	517.2	546.7	569.5	584.2	593.3	596.7
130°	419.4	464.3	503.0	533.1	556.4	570.6	579.7	583.1
132.5°	407.5	449.0	486.5	516.6	539.3	555.8	564.3	567.8
135°	396.7	433.6	468.3	496.7	519.4	535.4	544.5	547.9
137.5°	386.5	418.9	449.0	475.1	496.7	513.2	520.6	524.6
140°	377.9	404.6	430.2	454.1	474.0	486.5	494.4	499.0
142.5°	370.0	392.7	413.7	433.6	450.7	462.0	468.9	471.7
145°	362.6	381.9	399.0	414.9	429.1	438.7	444.4	447.3
147.5°	356.3	372.2	386.5	399.5	410.3	418.9	423.4	424.5
150°	350.7	363.7	375.1	385.3	394.4	401.8	405.2	405.8
152.5°	344.4	355.2	365.4	373.4	380.8	386.5	388.2	388.7
155°	338.2	347.2	355.8	362.6	368.3	372.8	374.5	374.5
157.5°	331.3	339.3	346.7	352.4	356.9	360.3	361.5	361.5
160°	325.1	331.3	337.6	342.1	345.5	348.9	349.5	349.5
162.5°	318.8	323.9	328.5	332.5	334.7	338.2	338.7	338.2
165°	313.1	316.6	320.5	323.4	325.6	327.9	327.4	326.8
167.5°	307.5	310.3	313.7	315.4	316.6	318.3	318.3	317.7
170°	302.3	304.1	306.3	308.0	309.2	309.7	309.2	309.2
172.5°	297.8	298.9	300.1	301.2	301.8	302.3	301.8	300.6
175°	293.8	294.4	295.5	295.5	295.5	296.7	295.5	294.4
177.5°	291.0	291.5	291.5	292.1	291.5	292.1	291.0	289.8
180°	289.3	289.3	289.3	289.3	289.3	289.3	289.3	289.3

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