

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: P1007731

Luminaire Tested: S124IP-B590UB35-4F0-XX-W2A-4

Issue Date: 5/5/2025

Test Information

Test Method: LM-79-2019
Report Number: P1007731
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-B590UB35-4F0-XX-W2A-4
Description: Define 4 Indirect Pendant with 3500K BioUP LEDs {m-DER=0.721} {m-EER=0.792}
Light Source: -
Ballast/Driver: -

Summary

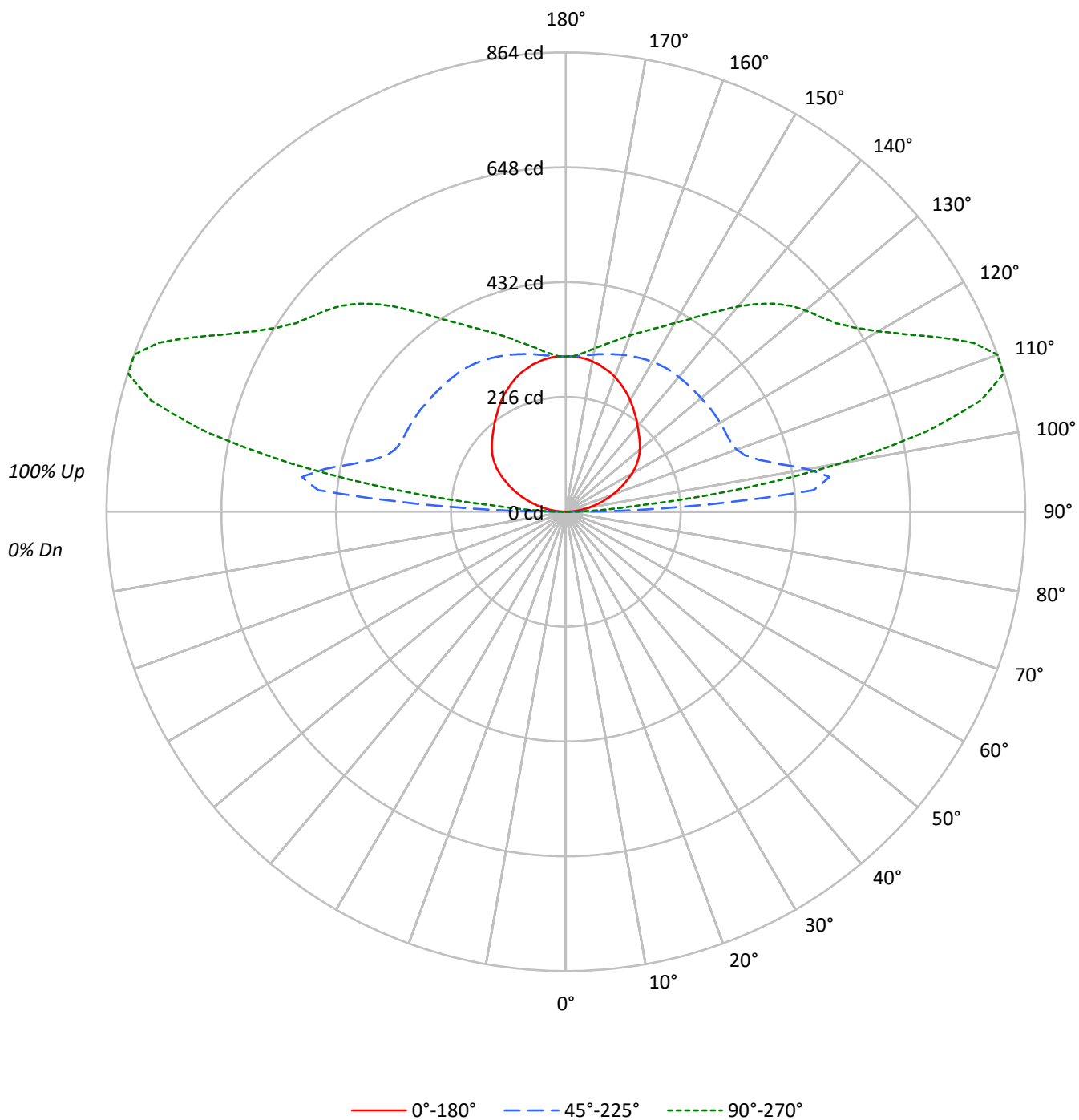
Lumens per Lamp: N/A
Luminaire Lumens: 2129.0 lumens
Efficiency: N/A
Efficacy: 138.2 lumens/watt
Spacing Criteria (0/90/45): - / - / -
Luminous Opening: Rectangular (W 0.33' x L: 4' x H: 0')
CIE Type: Indirect

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°	211.7	9.9
100°-110°	442.1	20.8
110°-120°	393.0	18.5
120°-130°	330.8	15.5
130°-140°	276.0	13.0
140°-150°	210.7	9.9
150°-160°	148.1	7.0
160°-170°	87.1	4.1
170°-180°	28.3	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°	1046.8	49.2
90°-150°	1864.2	87.6
90°-180°	2128.0	100.0
0°-180°	2129.0	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	5	10	12	12	1
95°	19	60	468	232	140	21
105°	67	97	376	811	808	72
115°	118	148	336	645	775	117
125°	165	196	334	549	619	147
135°	196	233	331	487	553	151
145°	226	258	330	411	452	142
155°	257	277	320	363	378	118
165°	280	288	307	325	330	79
175°	292	292	294	298	297	28
180°	292	292	292	292	292	

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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	4.6	4.6	8.0	8.0	9.2	10.3	9.8
92.5°	8.0	11.5	17.8	26.4	36.7	51.7	87.2	142.9	196.9	225.0	187.1
95°	18.9	20.7	26.4	33.9	47.6	71.7	121.7	215.8	353.0	467.8	481.0
97.5°	31.6	31.6	36.7	43.6	55.7	76.3	115.9	196.9	338.1	500.5	603.3
100°	43.6	43.6	47.6	54.5	65.4	83.8	117.7	182.5	299.6	461.5	608.4
102.5°	55.1	56.3	59.7	66.0	76.3	93.6	123.4	178.5	273.8	412.7	565.4
105°	67.2	68.9	71.7	78.6	89.0	105.6	133.2	180.8	261.2	376.5	511.4
107.5°	80.4	81.5	84.4	91.8	101.6	118.2	143.5	187.7	257.7	353.0	467.2
110°	93.6	94.7	97.6	104.5	114.8	130.3	155.5	195.7	258.9	342.1	435.7

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CANDELA DISTRIBUTION (continued):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	106.2	107.3	110.8	117.1	127.4	142.9	167.0	204.3	262.3	336.9	417.9
115°	118.2	120.0	124.0	129.7	140.6	156.1	179.1	213.5	266.9	335.8	408.1
117.5°	130.9	132.6	136.0	142.3	152.7	168.8	190.6	222.7	271.5	335.2	402.9
120°	143.5	144.6	148.7	155.0	164.7	180.8	202.6	232.5	276.7	335.2	398.9
122.5°	155.0	156.1	160.1	165.9	176.8	192.3	214.1	241.6	281.8	334.6	394.3
125°	164.7	167.0	170.5	176.8	187.7	203.8	224.4	250.8	287.0	334.1	389.2
127.5°	173.9	175.6	179.7	186.5	198.0	214.1	234.2	258.9	291.0	332.9	382.3
130°	181.4	183.7	188.3	196.9	207.8	224.4	243.9	266.3	295.6	332.3	376.0
132.5°	188.8	190.6	196.9	204.9	217.0	232.5	252.0	273.8	299.6	331.8	370.2
135°	195.7	198.0	203.8	213.5	225.6	240.5	259.4	280.1	303.6	331.2	364.5
137.5°	202.6	204.9	211.2	220.4	233.0	247.4	265.2	284.7	305.9	331.2	359.3
140°	210.1	211.8	218.1	227.9	239.9	253.7	270.9	289.3	308.8	330.6	355.3
142.5°	218.1	219.8	225.6	234.8	246.2	259.4	276.1	292.7	311.1	330.6	351.9
145°	225.6	227.3	233.0	241.1	252.0	264.6	279.5	295.0	311.7	329.5	347.8
147.5°	234.2	234.8	239.9	248.5	257.7	269.2	283.5	297.3	312.2	327.7	344.4
150°	242.2	242.8	247.4	254.3	262.9	273.8	286.4	299.0	312.2	326.0	340.4
152.5°	249.7	249.7	254.3	260.6	268.0	277.8	288.7	300.2	311.1	323.2	335.8
155°	256.6	257.1	260.6	266.3	272.6	281.3	291.0	300.8	310.0	320.3	331.2
157.5°	263.5	263.5	266.9	271.5	277.2	284.1	292.7	300.8	308.8	317.4	326.6
160°	269.8	269.8	272.1	276.1	280.7	287.0	293.9	300.8	307.1	314.0	321.4
162.5°	275.5	274.9	276.7	280.1	284.1	288.7	295.0	300.8	305.4	310.5	316.8
165°	279.5	279.5	280.7	283.5	286.4	289.9	295.0	299.6	303.1	307.1	311.7
167.5°	284.1	283.5	284.1	286.4	288.1	291.0	295.0	298.5	300.8	303.6	307.1
170°	287.0	286.4	287.0	288.7	289.9	291.6	294.5	297.3	298.5	300.2	302.5
172.5°	289.9	289.3	289.3	290.4	291.0	292.2	293.9	296.2	296.2	296.7	298.5
175°	291.6	291.0	291.0	291.6	292.2	292.2	293.3	295.0	294.5	294.5	295.6
177.5°	292.7	292.2	291.6	292.2	292.2	292.2	292.7	293.9	292.7	292.7	293.3
180°	292.2	292.2	292.2	292.2	292.2	292.2	292.2	292.2	292.2	292.2	292.2

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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°	10.3	10.9	11.5	11.5	12.1	12.6	12.1	12.1
92.5°	138.3	103.3	81.5	67.2	58.5	54.5	52.2	52.2
95°	425.3	336.4	259.4	203.8	175.6	157.8	147.5	140.1
97.5°	612.4	568.2	505.1	440.8	401.8	367.3	350.1	336.4
100°	692.2	703.7	675.6	633.1	583.2	548.2	530.9	526.3
102.5°	688.2	756.5	773.7	762.2	736.4	713.5	695.1	691.6
105°	642.9	742.2	799.0	822.5	823.7	819.1	811.0	807.6
107.5°	587.2	694.5	773.7	821.9	847.2	857.5	862.1	862.7
110°	537.8	637.1	720.3	783.5	824.2	848.3	858.7	863.8

TEST NUMBER: P1007731

CATALOG NUMBER: S124IP-B590UB35-4F0-XX-W2A-4

CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
112.5°	501.7	586.6	664.1	727.2	774.9	805.3	820.8	830.0
115°	479.8	550.4	617.6	672.7	718.1	752.5	770.9	775.4
117.5°	467.2	526.9	581.4	629.7	669.8	699.7	719.2	722.1
120°	459.2	512.6	558.5	599.2	632.0	657.2	672.1	678.4
122.5°	452.3	503.4	544.1	578.6	605.0	625.6	637.7	644.0
125°	444.3	493.6	533.2	564.8	587.8	604.4	615.3	618.8
127.5°	435.1	482.7	522.3	552.2	575.1	590.1	599.2	602.7
130°	423.6	468.9	508.0	538.4	561.9	576.3	585.5	588.9
132.5°	411.5	453.4	491.3	521.7	544.7	561.4	570.0	573.4
135°	400.6	437.9	473.0	501.7	524.6	540.7	549.9	553.3
137.5°	390.3	423.0	453.4	479.8	501.7	518.3	525.8	529.8
140°	381.7	408.7	434.5	458.6	478.7	491.3	499.4	504.0
142.5°	373.7	396.6	417.9	437.9	455.2	466.6	473.5	476.4
145°	366.2	385.7	402.9	419.0	433.4	443.1	448.9	451.7
147.5°	359.9	376.0	390.3	403.5	414.4	423.0	427.6	428.8
150°	354.1	367.3	378.8	389.2	398.3	405.8	409.2	409.8
152.5°	347.8	358.7	369.1	377.1	384.6	390.3	392.0	392.6
155°	341.5	350.7	359.3	366.2	371.9	376.5	378.3	378.3
157.5°	334.6	342.7	350.1	355.9	360.5	363.9	365.1	365.1
160°	328.3	334.6	340.9	345.5	349.0	352.4	353.0	353.0
162.5°	322.0	327.2	331.8	335.8	338.1	341.5	342.1	341.5
165°	316.3	319.7	323.7	326.6	328.9	331.2	330.6	330.0
167.5°	310.5	313.4	316.8	318.6	319.7	321.4	321.4	320.9
170°	305.4	307.1	309.4	311.1	312.2	312.8	312.2	312.2
172.5°	300.8	301.9	303.1	304.2	304.8	305.4	304.8	303.6
175°	296.7	297.3	298.5	298.5	298.5	299.6	298.5	297.3
177.5°	293.9	294.5	294.5	295.0	294.5	295.0	293.9	292.7
180°	292.2	292.2	292.2	292.2	292.2	292.2	292.2	292.2

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