

Scaled data based on original data using
LM-79-08 Approved Method: Electrical and Photometric Measurements of Solid-State
Lighting Products

Test Report Prepared for

Cooper Lighting Solutions

(formerly Eaton)

Brand: NEO-RAY

Report Number: P334626

Luminaire Tested: **S123IP-S585U840-4F0-1E-UDD-4**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P334626
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1807-864-17)
Test Lab: INNOVATION CENTER
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: NEO-RAY
Catalog Number: S123IP-S585U840-4F0-1E-UDD-4
Description: DEFINE 3 INDIRECT LED LUMINAIRE, BATWING OPTIC
PENDANT MOUNT, 585 LUMENS PER FOOT
Light Source: 4000K CCT, 80 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 2141.9 lumens
Efficiency: N/A
Efficacy: 113.9 lumens/watt
Spacing Criteria (0/90/45): - / - / -
Luminous Opening: Rectangular (W 0.25' x L: 4' x H: 0')
CIE Type: Indirect

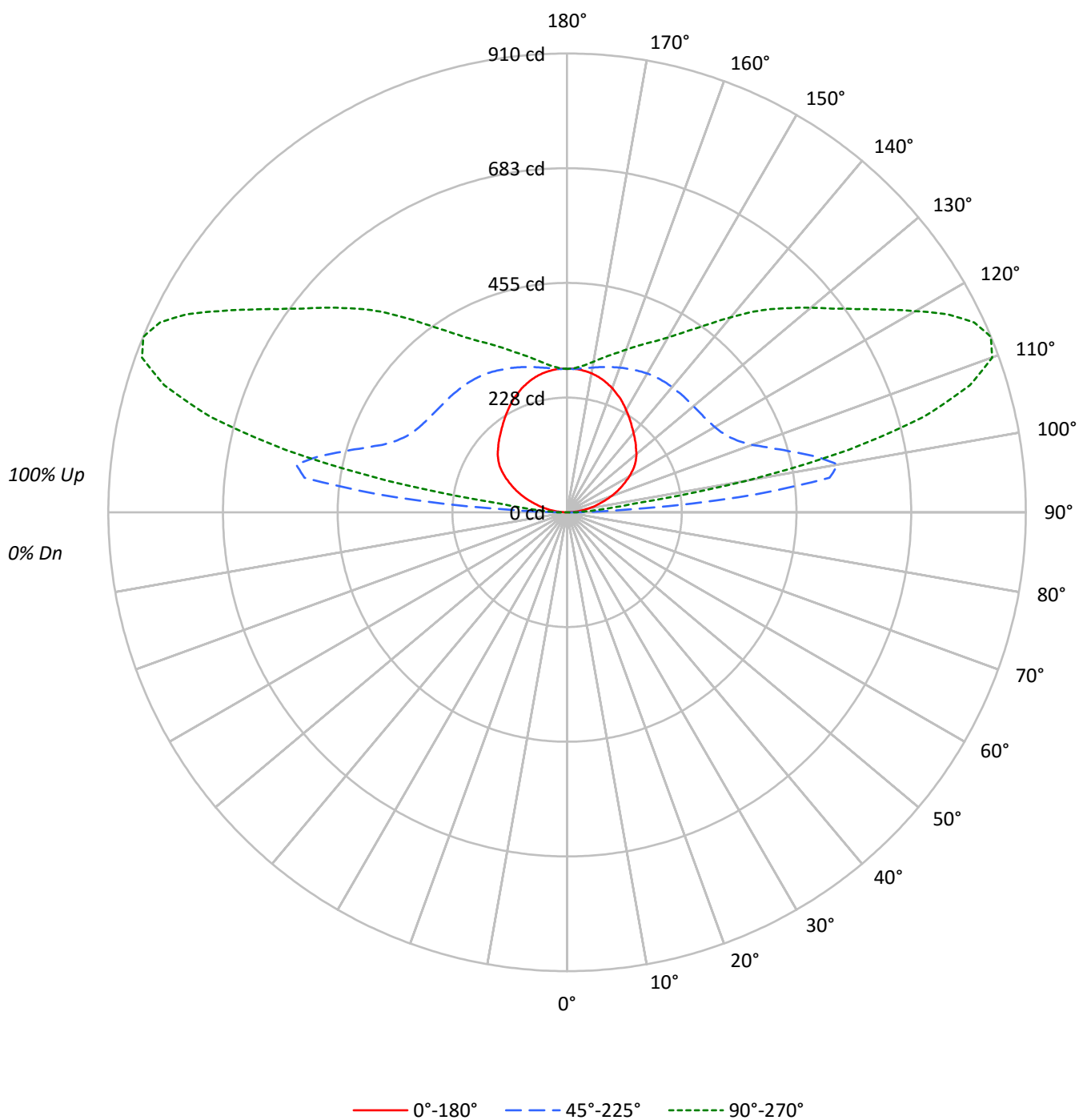
Input Watts (W): 18.8
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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
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

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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°	1.6	0.1
90°-100°	154.4	7.2
100°-110°	452.1	21.1
110°-120°	441.4	20.6
120°-130°	351.6	16.4
130°-140°	277.4	13.0
140°-150°	206.9	9.7
150°-160°	144.3	6.7
160°-170°	84.8	4.0
170°-180°	27.6	1.3
0°-30°	0.0	0.0
0°-40°	0.0	0.0
0°-60°	0.0	0.0
0°-90°	1.6	0.1
90°-120°	1047.9	48.9
90°-150°	1883.8	87.9
90°-180°	2140.0	99.9
0°-180°	2141.9	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	7	14	16	17	2
95°	20	64	342	100	67	21
105°	67	99	463	810	733	71
115°	118	147	354	777	891	117
125°	164	194	331	599	703	146
135°	192	230	326	493	570	149
145°	220	251	322	405	445	138
155°	249	269	312	354	369	115
165°	272	280	298	317	322	77
175°	284	284	286	290	290	27
180°	284	284	284	284	284	

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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°	1.2	2.3	3.5	5.2	6.3	7.5	9.2	10.9	12.7	14.4	13.8
92.5°	8.6	12.7	18.4	23.6	29.4	39.7	58.2	88.7	118.7	107.1	80.1
95°	19.6	21.3	27.6	37.4	52.4	74.9	123.8	209.7	304.1	341.6	277.1
97.5°	31.1	31.7	36.9	45.5	60.5	85.2	133.6	233.3	392.3	525.3	543.2
100°	42.6	43.2	47.2	55.3	69.1	91.6	131.9	217.2	368.6	545.5	658.9
102.5°	54.7	55.9	59.3	66.8	78.9	99.1	134.2	203.3	334.1	508.0	664.7
105°	66.8	68.5	72.0	78.9	89.9	107.7	138.8	198.1	307.0	463.1	628.4
107.5°	79.5	81.2	84.7	91.6	102.0	118.7	146.3	197.0	287.4	423.4	576.6
110°	93.3	95.0	97.9	104.3	114.0	130.2	156.1	199.9	277.1	390.5	528.2

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CANDELA DISTRIBUTION (continued):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	106.0	107.7	110.6	116.9	126.7	142.3	165.9	205.6	271.3	368.6	486.1
115°	118.1	120.4	123.8	129.6	139.4	154.9	176.8	212.0	270.7	354.2	453.9
117.5°	130.2	133.1	135.9	141.1	152.1	166.5	188.4	220.0	271.3	344.4	432.6
120°	142.8	144.6	147.5	153.2	164.2	178.6	199.3	229.2	273.6	338.1	416.4
122.5°	153.8	155.5	158.4	164.7	175.1	190.7	210.8	237.9	277.6	334.1	403.2
125°	164.2	165.3	168.8	175.1	186.0	201.6	221.8	247.1	281.7	330.6	392.3
127.5°	172.2	174.0	178.0	184.3	196.4	212.0	231.6	254.6	286.3	328.9	381.9
130°	179.7	181.4	186.6	193.5	205.6	221.2	240.2	262.1	290.9	327.2	373.8
132.5°	185.5	187.8	193.5	202.2	214.3	229.2	247.7	269.0	294.3	326.6	366.3
135°	192.4	194.7	201.0	209.7	221.8	237.3	255.2	274.8	297.8	326.0	360.0
137.5°	198.7	201.0	207.4	216.6	228.7	243.1	260.4	279.4	300.1	324.9	354.2
140°	205.1	207.9	213.7	222.9	234.4	248.8	265.5	282.8	302.4	324.3	349.1
142.5°	212.0	214.3	220.6	228.7	240.2	253.4	269.6	286.3	304.1	323.1	344.4
145°	219.5	221.2	226.4	235.0	244.8	258.0	273.0	288.6	304.7	322.0	340.4
147.5°	226.9	228.1	233.3	240.8	250.6	262.1	275.9	290.3	304.7	320.3	336.4
150°	234.4	235.0	239.6	247.1	255.2	265.5	278.8	290.9	304.7	318.0	332.4
152.5°	241.9	241.9	246.5	252.9	259.8	269.6	280.5	292.0	303.0	315.1	327.7
155°	249.4	249.4	252.9	258.6	265.0	273.0	282.8	292.0	301.8	311.6	323.1
157.5°	255.2	255.7	258.6	263.8	269.6	275.9	284.0	292.6	300.1	308.7	318.0
160°	262.1	262.1	264.4	269.0	273.0	278.8	285.7	292.6	298.9	305.3	312.8
162.5°	267.3	267.3	269.0	272.4	275.9	280.5	286.3	292.0	296.6	301.8	307.6
165°	272.4	271.9	273.0	275.9	278.2	282.2	286.8	290.9	294.3	298.4	303.0
167.5°	276.5	275.9	276.5	278.8	280.5	283.4	286.8	290.3	292.0	294.9	298.4
170°	279.9	278.8	279.4	281.1	282.2	283.4	286.3	288.6	289.7	291.5	294.3
172.5°	282.2	281.7	281.7	282.8	283.4	284.0	286.3	288.0	288.0	288.6	290.3
175°	284.0	283.4	282.8	284.0	284.0	284.5	285.7	286.8	286.3	286.3	287.4
177.5°	285.1	284.5	284.0	284.5	284.5	284.5	285.1	286.3	285.1	284.5	285.1
180°	284.5	284.5	284.5	284.5	284.5	284.5	284.5	284.5	284.5	284.5	284.5

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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°	14.4	15.0	15.6	16.7	16.1	16.7	17.3	16.7
92.5°	57.0	44.4	38.6	34.6	33.4	31.1	31.7	30.5
95°	207.4	140.5	110.0	89.3	78.3	73.2	69.1	66.8
97.5°	476.4	359.4	283.4	217.7	179.1	157.2	143.4	137.1
100°	679.1	632.4	565.1	483.3	425.1	383.0	360.6	361.2
102.5°	746.5	756.3	724.0	679.7	637.6	606.5	588.7	572.0
105°	748.8	806.4	817.3	802.4	775.9	754.0	735.6	732.7
107.5°	714.2	804.7	849.6	865.2	861.7	851.3	843.8	837.5
110°	660.1	766.1	838.7	879.0	895.1	899.7	898.6	897.4

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CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
112.5°	606.5	715.4	798.9	853.6	886.5	903.2	908.9	909.5
115°	560.4	660.7	745.3	808.1	851.3	876.7	888.2	891.1
117.5°	524.7	613.4	691.2	756.3	801.2	829.4	846.7	850.8
120°	497.7	575.4	644.5	702.7	748.2	780.5	794.3	797.8
122.5°	476.4	544.9	607.7	660.7	699.8	728.1	743.6	748.2
125°	457.9	520.7	576.0	622.1	658.9	684.3	698.7	702.7
127.5°	441.2	498.2	548.9	591.6	625.0	646.8	660.1	663.6
130°	425.7	477.5	524.2	563.3	593.9	614.6	626.7	631.3
132.5°	411.3	457.9	500.5	537.4	565.6	586.4	596.7	599.6
135°	398.6	439.5	476.9	509.8	538.0	555.3	565.6	569.7
137.5°	386.5	421.1	454.5	483.8	508.0	525.9	534.5	538.0
140°	376.1	405.5	433.2	457.9	479.8	495.9	505.2	504.6
142.5°	366.3	390.5	413.6	434.3	452.2	466.0	474.0	473.5
145°	358.8	377.9	396.3	413.0	427.4	439.5	444.1	445.2
147.5°	352.5	368.1	383.6	395.7	407.2	415.9	420.5	421.1
150°	345.6	358.8	370.9	381.9	390.5	396.9	400.3	400.3
152.5°	339.3	350.2	360.6	369.2	375.6	381.3	383.0	383.0
155°	332.9	342.1	350.8	357.7	362.9	367.5	368.6	369.2
157.5°	326.0	334.1	341.0	346.8	351.4	354.8	356.0	356.0
160°	320.3	326.6	332.4	336.4	340.4	343.9	343.9	343.3
162.5°	313.3	318.5	323.7	327.2	329.5	332.4	332.4	331.8
165°	307.6	311.0	315.1	318.0	320.3	322.6	322.0	322.0
167.5°	302.4	305.3	307.6	309.9	311.0	312.8	312.2	312.2
170°	297.2	298.9	301.2	302.4	303.0	304.1	303.6	303.6
172.5°	292.6	293.8	295.5	296.1	296.1	297.2	296.1	295.5
175°	288.6	289.2	290.3	290.3	290.3	290.9	290.3	289.7
177.5°	285.7	286.3	286.8	286.8	286.3	286.8	285.7	285.7
180°	284.5	284.5	284.5	284.5	284.5	284.5	284.5	284.5

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