

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: P334636

Luminaire Tested: **S123IP-S585U930-4F0-1E-UDD-4**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P334636
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-S585U930-4F0-1E-UDD-4
Description: DEFINE 3 INDIRECT LED LUMINAIRE, BATWING OPTIC
PENDANT MOUNT, 585 LUMENS PER FOOT
Light Source: 3000K CCT, 90 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

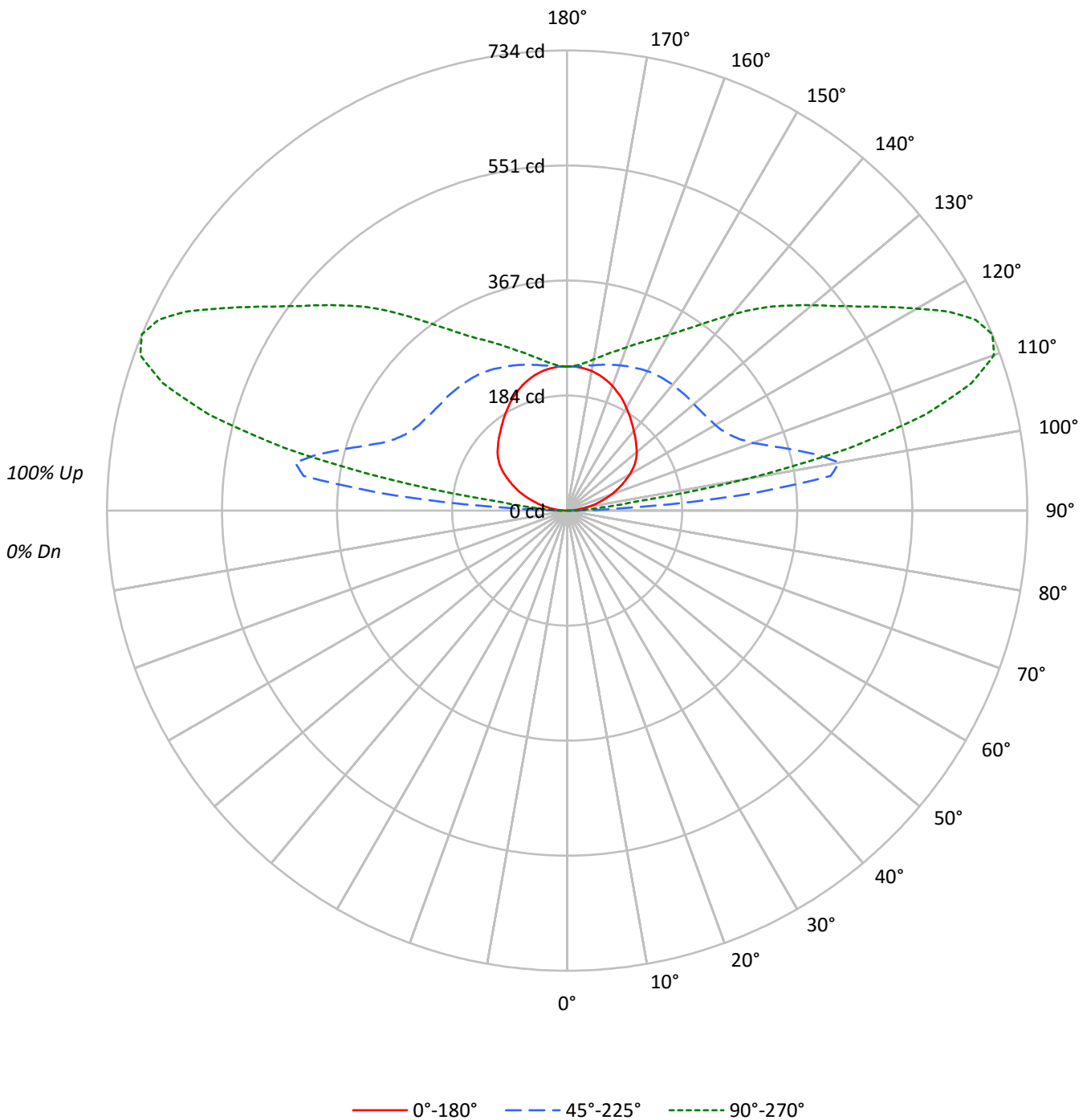
Lumens per Lamp: N/A
Luminaire Lumens: 1729.3 lumens
Efficiency: N/A
Efficacy: 92.0 lumens/watt
Spacing Criteria (0/90/45): - / - / -
Luminous Opening: Rectangular (W 0.25' x L: 4' x H: 0')
CIE Type: Indirect

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

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°	1.3	0.1
90°-100°	124.7	7.2
100°-110°	365.0	21.1
110°-120°	356.4	20.6
120°-130°	283.8	16.4
130°-140°	223.9	12.9
140°-150°	167.1	9.7
150°-160°	116.5	6.7
160°-170°	68.4	4.0
170°-180°	22.3	1.3
0°-30°	0.0	0.0
0°-40°	0.0	0.0
0°-60°	0.0	0.0
0°-90°	1.3	0.1
90°-120°	846.0	48.9
90°-150°	1520.8	87.9
90°-180°	1728.0	99.9
0°-180°	1729.3	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	6	12	13	14	1
95°	16	51	276	80	54	17
105°	54	80	374	654	592	57
115°	95	119	286	627	719	94
125°	132	156	267	484	567	118
135°	155	185	263	398	460	120
145°	177	203	260	327	360	111
155°	201	217	252	286	298	93
165°	220	226	241	256	260	62
175°	229	230	231	234	234	22
180°	230	230	230	230	230	



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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°	0.9	1.9	2.8	4.2	5.1	6.0	7.4	8.8	10.2	11.6	11.2
92.5°	7.0	10.2	14.9	19.1	23.7	32.1	47.0	71.6	95.8	86.5	64.6
95°	15.8	17.2	22.3	30.2	42.3	60.5	100.0	169.3	245.5	275.8	223.7
97.5°	25.1	25.6	29.8	36.7	48.8	68.8	107.9	188.3	316.7	424.1	438.5
100°	34.4	34.9	38.1	44.6	55.8	73.9	106.5	175.3	297.6	440.4	532.0
102.5°	44.2	45.1	47.9	53.9	63.7	80.0	108.4	164.2	269.7	410.2	536.6
105°	53.9	55.3	58.1	63.7	72.5	87.0	112.1	160.0	247.9	373.9	507.3
107.5°	64.2	65.6	68.4	73.9	82.3	95.8	118.1	159.0	232.0	341.8	465.5
110°	75.3	76.7	79.1	84.2	92.1	105.1	126.0	161.4	223.7	315.3	426.4



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CANDELA DISTRIBUTION (continued):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	85.6	87.0	89.3	94.4	102.3	114.9	133.9	166.0	219.0	297.6	392.5
115°	95.3	97.2	100.0	104.6	112.5	125.1	142.8	171.1	218.6	286.0	366.4
117.5°	105.1	107.4	109.7	113.9	122.8	134.4	152.1	177.6	219.0	278.1	349.2
120°	115.3	116.7	119.0	123.7	132.5	144.2	160.9	185.1	220.9	273.0	336.2
122.5°	124.2	125.6	127.9	133.0	141.4	153.9	170.2	192.1	224.1	269.7	325.5
125°	132.5	133.5	136.3	141.4	150.2	162.8	179.0	199.5	227.4	266.9	316.7
127.5°	139.0	140.4	143.7	148.8	158.6	171.1	186.9	205.5	231.1	265.5	308.3
130°	145.1	146.5	150.7	156.2	166.0	178.6	193.9	211.6	234.8	264.1	301.8
132.5°	149.7	151.6	156.2	163.2	173.0	185.1	200.0	217.2	237.6	263.7	295.8
135°	155.3	157.2	162.3	169.3	179.0	191.6	206.0	221.8	240.4	263.2	290.6
137.5°	160.4	162.3	167.4	174.8	184.6	196.2	210.2	225.5	242.3	262.3	286.0
140°	165.5	167.9	172.5	180.0	189.3	200.9	214.4	228.3	244.1	261.8	281.8
142.5°	171.1	173.0	178.1	184.6	193.9	204.6	217.6	231.1	245.5	260.9	278.1
145°	177.2	178.6	182.8	189.7	197.6	208.3	220.4	233.0	246.0	259.9	274.8
147.5°	183.2	184.2	188.3	194.4	202.3	211.6	222.7	234.4	246.0	258.6	271.6
150°	189.3	189.7	193.5	199.5	206.0	214.4	225.1	234.8	246.0	256.7	268.3
152.5°	195.3	195.3	199.0	204.1	209.7	217.6	226.5	235.8	244.6	254.4	264.6
155°	201.4	201.4	204.1	208.8	213.9	220.4	228.3	235.8	243.7	251.6	260.9
157.5°	206.0	206.5	208.8	213.0	217.6	222.7	229.3	236.2	242.3	249.3	256.7
160°	211.6	211.6	213.4	217.2	220.4	225.1	230.7	236.2	241.3	246.5	252.5
162.5°	215.8	215.8	217.2	220.0	222.7	226.5	231.1	235.8	239.5	243.7	248.3
165°	220.0	219.5	220.4	222.7	224.6	227.9	231.6	234.8	237.6	240.9	244.6
167.5°	223.2	222.7	223.2	225.1	226.5	228.8	231.6	234.4	235.8	238.1	240.9
170°	226.0	225.1	225.5	226.9	227.9	228.8	231.1	233.0	233.9	235.3	237.6
172.5°	227.9	227.4	227.4	228.3	228.8	229.3	231.1	232.5	232.5	233.0	234.4
175°	229.3	228.8	228.3	229.3	229.3	229.7	230.7	231.6	231.1	231.1	232.0
177.5°	230.2	229.7	229.3	229.7	229.7	229.7	230.2	231.1	230.2	229.7	230.2
180°	229.7	229.7	229.7	229.7	229.7	229.7	229.7	229.7	229.7	229.7	229.7



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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°	11.6	12.1	12.6	13.5	13.0	13.5	14.0	13.5
92.5°	46.0	35.8	31.2	27.9	27.0	25.1	25.6	24.6
95°	167.4	113.5	88.8	72.1	63.2	59.1	55.8	53.9
97.5°	384.6	290.2	228.8	175.8	144.6	127.0	115.8	110.7
100°	548.3	510.6	456.2	390.2	343.2	309.2	291.1	291.6
102.5°	602.7	610.6	584.5	548.7	514.8	489.7	475.3	461.8
105°	604.5	651.0	659.9	647.8	626.4	608.7	593.8	591.5
107.5°	576.6	649.6	685.9	698.5	695.7	687.3	681.3	676.1
110°	532.9	618.5	677.1	709.6	722.6	726.4	725.4	724.5



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CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
112.5°	489.7	577.6	645.0	689.2	715.7	729.2	733.8	734.3
115°	452.5	533.4	601.7	652.4	687.3	707.8	717.1	719.4
117.5°	423.6	495.3	558.0	610.6	646.9	669.6	683.6	686.8
120°	401.8	464.6	520.4	567.3	604.1	630.1	641.3	644.1
122.5°	384.6	439.9	490.6	533.4	565.0	587.8	600.3	604.1
125°	369.7	420.4	465.0	502.2	532.0	552.5	564.1	567.3
127.5°	356.2	402.2	443.2	477.6	504.6	522.2	532.9	535.7
130°	343.7	385.5	423.2	454.8	479.4	496.2	505.9	509.7
132.5°	332.0	369.7	404.1	433.9	456.7	473.4	481.8	484.1
135°	321.8	354.8	385.0	411.5	434.3	448.3	456.7	459.9
137.5°	312.0	339.9	366.9	390.6	410.2	424.6	431.5	434.3
140°	303.7	327.4	349.7	369.7	387.4	400.4	407.8	407.4
142.5°	295.8	315.3	333.9	350.6	365.0	376.2	382.7	382.3
145°	289.7	305.1	319.9	333.4	345.0	354.8	358.5	359.5
147.5°	284.6	297.2	309.7	319.5	328.8	335.7	339.5	339.9
150°	279.0	289.7	299.5	308.3	315.3	320.4	323.2	323.2
152.5°	273.9	282.7	291.1	298.1	303.2	307.8	309.2	309.2
155°	268.8	276.2	283.2	288.8	293.0	296.7	297.6	298.1
157.5°	263.2	269.7	275.3	279.9	283.7	286.5	287.4	287.4
160°	258.6	263.7	268.3	271.6	274.8	277.6	277.6	277.2
162.5°	253.0	257.2	261.3	264.1	266.0	268.3	268.3	267.9
165°	248.3	251.1	254.4	256.7	258.6	260.4	259.9	259.9
167.5°	244.1	246.5	248.3	250.2	251.1	252.5	252.0	252.0
170°	240.0	241.3	243.2	244.1	244.6	245.5	245.1	245.1
172.5°	236.2	237.2	238.6	239.0	239.0	240.0	239.0	238.6
175°	233.0	233.4	234.4	234.4	234.4	234.8	234.4	233.9
177.5°	230.7	231.1	231.6	231.6	231.1	231.6	230.7	230.7
180°	229.7	229.7	229.7	229.7	229.7	229.7	229.7	229.7

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