

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: P334810

Luminaire Tested: **S124IP-S365U930-4F0-1E-UDD-4**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P334810
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1807-864-18)
Test Lab: INNOVATION CENTER
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: NEO-RAY
Catalog Number: S124IP-S365U930-4F0-1E-UDD-4
Description: DEFINE 4 INDIRECT LED LUMINAIRE, BATWING OPTIC
PENDANT MOUNT, 365 LUMENS PER FOOT
Light Source: 3000K CCT, 90 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

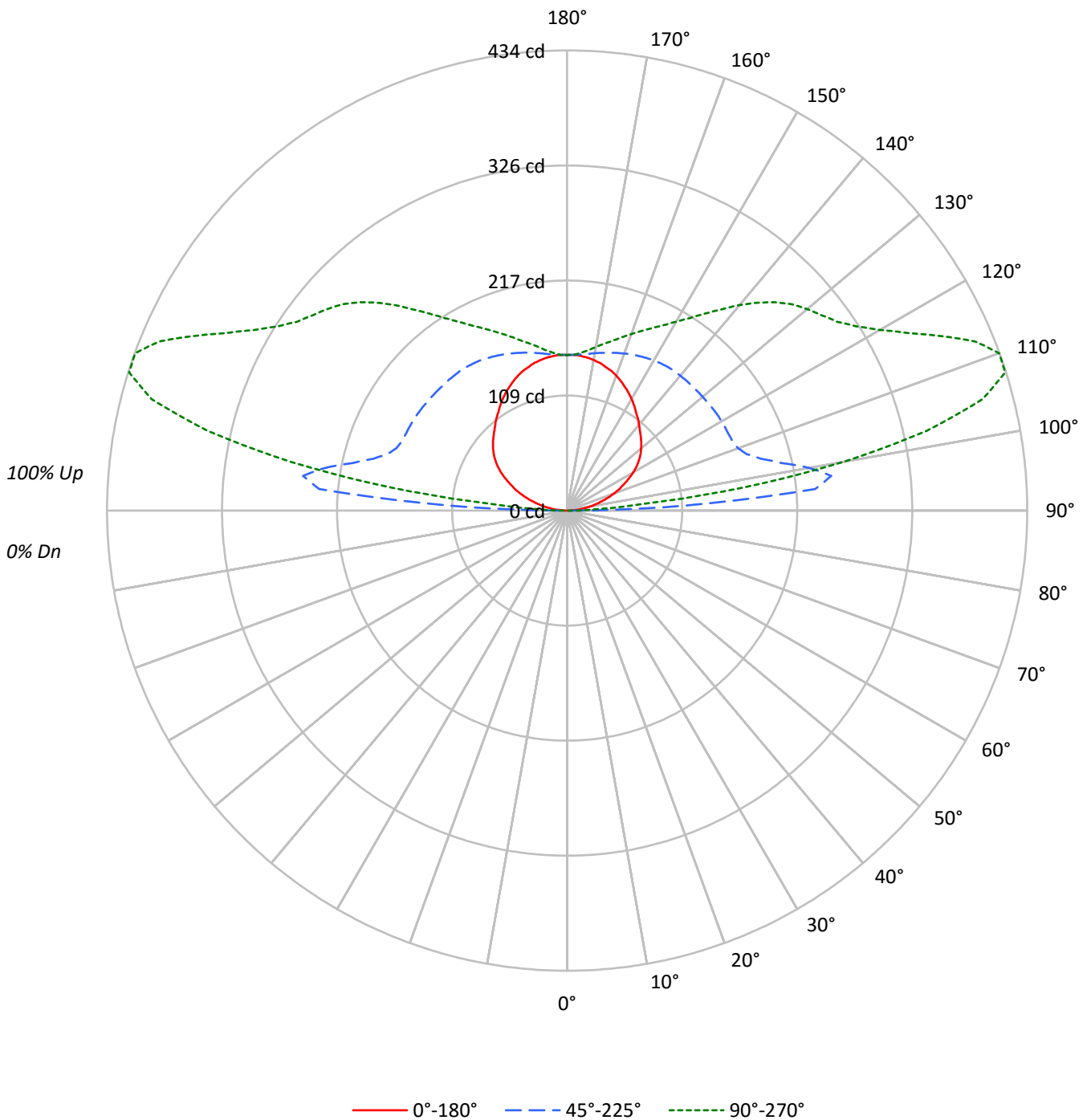
Lumens per Lamp: N/A
Luminaire Lumens: 1068.8 lumens
Efficiency: N/A
Efficacy: 93.8 lumens/watt
Spacing Criteria (0/90/45): - / - / -
Luminous Opening: Rectangular (W 0.33' x L: 4' x H: 0')
CIE Type: Indirect

Input Watts (W): 11.4
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°	0.6	0.1
90°-100°	106.3	9.9
100°-110°	221.9	20.8
110°-120°	197.3	18.5
120°-130°	166.1	15.5
130°-140°	138.5	13.0
140°-150°	105.8	9.9
150°-160°	74.4	7.0
160°-170°	43.7	4.1
170°-180°	14.2	1.3
0°-30°	0.0	0.0
0°-40°	0.0	0.0
0°-60°	0.0	0.0
0°-90°	0.6	0.1
90°-120°	525.5	49.2
90°-150°	935.9	87.6
90°-180°	1068.0	99.9
0°-180°	1068.8	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°	0	2	5	6	6	1
95°	10	30	235	116	70	10
105°	34	49	189	407	405	36
115°	59	74	169	324	389	59
125°	83	98	168	276	311	74
135°	98	117	166	245	278	76
145°	113	130	165	206	227	71
155°	129	139	161	182	190	59
165°	140	145	154	163	166	40
175°	146	147	148	150	149	14
180°	147	147	147	147	147	



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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°	0.3	0.9	1.7	2.0	2.3	2.3	4.0	4.0	4.6	5.2	4.9
92.5°	4.0	5.8	8.9	13.3	18.4	25.9	43.8	71.7	98.8	113.0	93.9
95°	9.5	10.4	13.3	17.0	23.9	36.0	61.1	108.3	177.2	234.8	241.5
97.5°	15.8	15.8	18.4	21.9	28.0	38.3	58.2	98.8	169.7	251.3	302.8
100°	21.9	21.9	23.9	27.4	32.8	42.1	59.1	91.6	150.4	231.7	305.4
102.5°	27.7	28.2	30.0	33.1	38.3	47.0	62.0	89.6	137.4	207.2	283.8
105°	33.7	34.6	36.0	39.5	44.7	53.0	66.9	90.8	131.1	189.0	256.7
107.5°	40.3	40.9	42.4	46.1	51.0	59.4	72.0	94.2	129.4	177.2	234.6
110°	47.0	47.5	49.0	52.4	57.6	65.4	78.1	98.3	130.0	171.7	218.7



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CANDELA DISTRIBUTION (continued):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	53.3	53.9	55.6	58.8	64.0	71.7	83.9	102.6	131.7	169.1	209.8
115°	59.4	60.2	62.2	65.1	70.6	78.4	89.9	107.2	134.0	168.6	204.9
117.5°	65.7	66.6	68.3	71.5	76.6	84.7	95.7	111.8	136.3	168.3	202.3
120°	72.0	72.6	74.6	77.8	82.7	90.8	101.7	116.7	138.9	168.3	200.3
122.5°	77.8	78.4	80.4	83.3	88.7	96.5	107.5	121.3	141.5	168.0	198.0
125°	82.7	83.9	85.6	88.7	94.2	102.3	112.7	125.9	144.1	167.7	195.4
127.5°	87.3	88.2	90.2	93.6	99.4	107.5	117.6	130.0	146.1	167.1	191.9
130°	91.1	92.2	94.5	98.8	104.3	112.7	122.5	133.7	148.4	166.8	188.7
132.5°	94.8	95.7	98.8	102.9	108.9	116.7	126.5	137.4	150.4	166.6	185.9
135°	98.3	99.4	102.3	107.2	113.2	120.7	130.2	140.6	152.4	166.3	183.0
137.5°	101.7	102.9	106.0	110.6	117.0	124.2	133.1	142.9	153.6	166.3	180.4
140°	105.5	106.3	109.5	114.4	120.4	127.4	136.0	145.2	155.0	166.0	178.4
142.5°	109.5	110.4	113.2	117.9	123.6	130.2	138.6	147.0	156.2	166.0	176.6
145°	113.2	114.1	117.0	121.0	126.5	132.8	140.3	148.1	156.5	165.4	174.6
147.5°	117.6	117.9	120.4	124.8	129.4	135.1	142.3	149.3	156.8	164.5	172.9
150°	121.6	121.9	124.2	127.7	132.0	137.4	143.8	150.1	156.8	163.7	170.9
152.5°	125.3	125.3	127.7	130.8	134.6	139.5	144.9	150.7	156.2	162.2	168.6
155°	128.8	129.1	130.8	133.7	136.9	141.2	146.1	151.0	155.6	160.8	166.3
157.5°	132.3	132.3	134.0	136.3	139.2	142.6	147.0	151.0	155.0	159.3	164.0
160°	135.4	135.4	136.6	138.6	140.9	144.1	147.5	151.0	154.2	157.6	161.4
162.5°	138.3	138.0	138.9	140.6	142.6	144.9	148.1	151.0	153.3	155.9	159.1
165°	140.3	140.3	140.9	142.3	143.8	145.5	148.1	150.4	152.1	154.2	156.5
167.5°	142.6	142.3	142.6	143.8	144.7	146.1	148.1	149.8	151.0	152.4	154.2
170°	144.1	143.8	144.1	144.9	145.5	146.4	147.8	149.3	149.8	150.7	151.9
172.5°	145.5	145.2	145.2	145.8	146.1	146.7	147.5	148.7	148.7	149.0	149.8
175°	146.4	146.1	146.1	146.4	146.7	146.7	147.2	148.1	147.8	147.8	148.4
177.5°	147.0	146.7	146.4	146.7	146.7	146.7	147.0	147.5	147.0	147.0	147.2
180°	146.7	146.7	146.7	146.7	146.7	146.7	146.7	146.7	146.7	146.7	146.7



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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°	5.2	5.5	5.8	5.8	6.1	6.3	6.1	6.1
92.5°	69.4	51.9	40.9	33.7	29.4	27.4	26.2	26.2
95°	213.5	168.9	130.2	102.3	88.2	79.2	74.1	70.3
97.5°	307.5	285.3	253.6	221.3	201.7	184.4	175.8	168.9
100°	347.5	353.3	339.2	317.8	292.8	275.2	266.5	264.2
102.5°	345.5	379.8	388.4	382.7	369.7	358.2	348.9	347.2
105°	322.7	372.6	401.1	412.9	413.5	411.2	407.2	405.4
107.5°	294.8	348.7	388.4	412.6	425.3	430.5	432.8	433.1
110°	270.0	319.8	361.6	393.3	413.8	425.9	431.1	433.7



TEST NUMBER: P334810

CATALOG NUMBER: S124IP-S365U930-4F0-1E-UDD-4

CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
112.5°	251.8	294.5	333.4	365.1	389.0	404.3	412.1	416.7
115°	240.9	276.3	310.0	337.7	360.5	377.8	387.0	389.3
117.5°	234.6	264.5	291.9	316.1	336.3	351.3	361.1	362.5
120°	230.5	257.3	280.4	300.8	317.3	329.9	337.4	340.6
122.5°	227.1	252.7	273.2	290.5	303.7	314.1	320.1	323.3
125°	223.0	247.8	267.7	283.5	295.1	303.4	308.9	310.6
127.5°	218.4	242.3	262.2	277.2	288.7	296.2	300.8	302.6
130°	212.7	235.4	255.0	270.3	282.1	289.3	293.9	295.6
132.5°	206.6	227.6	246.7	261.9	273.5	281.8	286.1	287.9
135°	201.1	219.9	237.4	251.8	263.4	271.4	276.0	277.8
137.5°	195.9	212.4	227.6	240.9	251.8	260.2	263.9	266.0
140°	191.6	205.2	218.1	230.2	240.3	246.7	250.7	253.0
142.5°	187.6	199.1	209.8	219.9	228.5	234.3	237.7	239.2
145°	183.8	193.6	202.3	210.3	217.6	222.5	225.3	226.8
147.5°	180.7	188.7	195.9	202.6	208.0	212.4	214.7	215.2
150°	177.8	184.4	190.2	195.4	200.0	203.7	205.5	205.7
152.5°	174.6	180.1	185.3	189.3	193.1	195.9	196.8	197.1
155°	171.4	176.1	180.4	183.8	186.7	189.0	189.9	189.9
157.5°	168.0	172.0	175.8	178.7	181.0	182.7	183.3	183.3
160°	164.8	168.0	171.2	173.5	175.2	176.9	177.2	177.2
162.5°	161.7	164.2	166.6	168.6	169.7	171.4	171.7	171.4
165°	158.8	160.5	162.5	164.0	165.1	166.3	166.0	165.7
167.5°	155.9	157.3	159.1	159.9	160.5	161.4	161.4	161.1
170°	153.3	154.2	155.3	156.2	156.8	157.0	156.8	156.8
172.5°	151.0	151.6	152.1	152.7	153.0	153.3	153.0	152.4
175°	149.0	149.3	149.8	149.8	149.8	150.4	149.8	149.3
177.5°	147.5	147.8	147.8	148.1	147.8	148.1	147.5	147.0
180°	146.7	146.7	146.7	146.7	146.7	146.7	146.7	146.7

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