

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: P334795

Luminaire Tested: **S124IP-S365U835-4F0-1E-UDD-4**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P334795
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-S365U835-4F0-1E-UDD-4
Description: DEFINE 4 INDIRECT LED LUMINAIRE, BATWING OPTIC
PENDANT MOUNT, 365 LUMENS PER FOOT
Light Source: 3500K CCT, 80 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

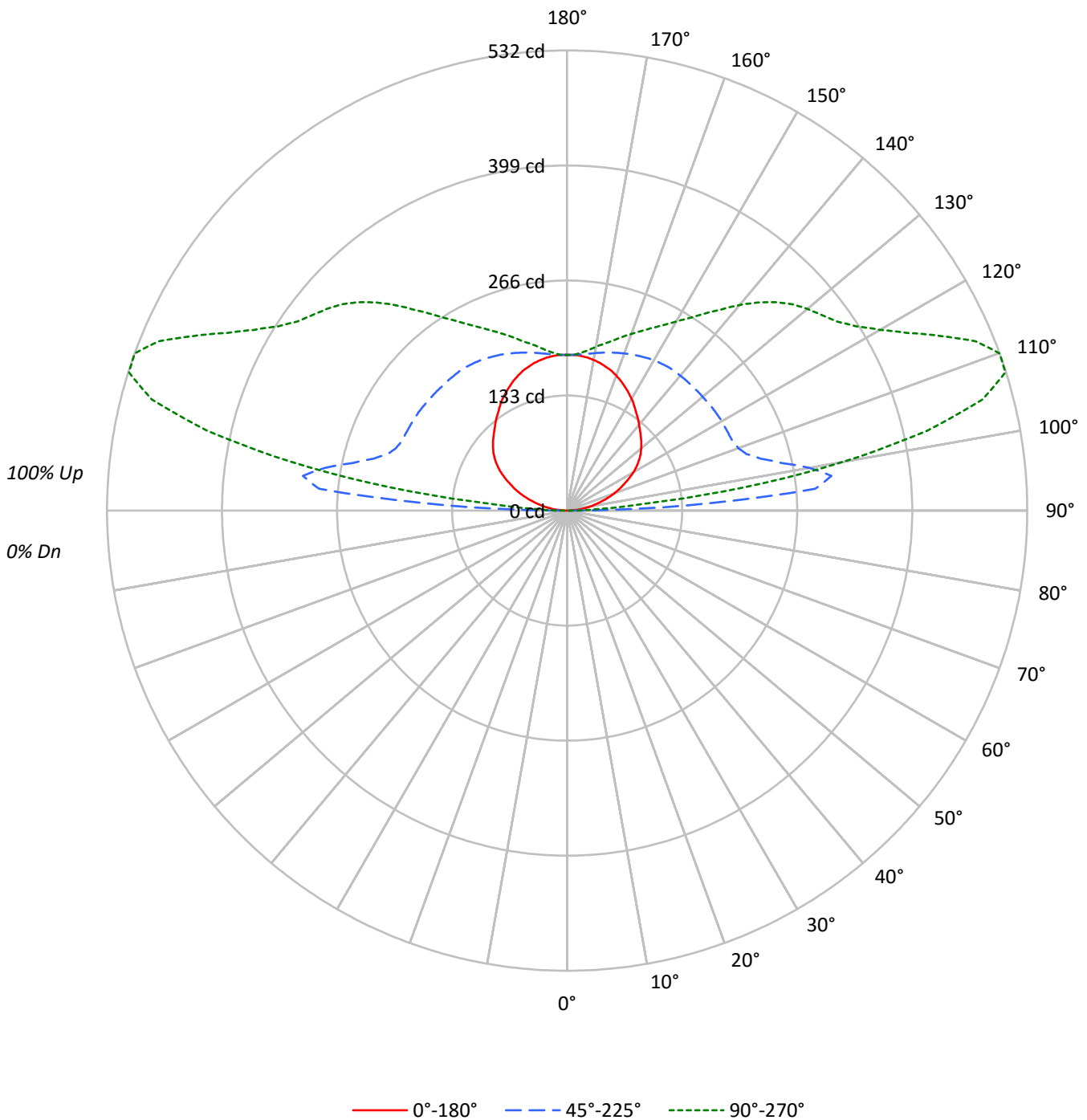
Lumens per Lamp: N/A
Luminaire Lumens: 1310.9 lumens
Efficiency: N/A
Efficacy: 115.0 lumens/watt
Spacing Criteria (0/90/45): - / - / -
Luminous Opening: Rectangular (W 0.33' x L: 4' x H: 0')
CIE Type: Indirect

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°	0.7	0.1
90°-100°	130.4	9.9
100°-110°	272.2	20.8
110°-120°	242.0	18.5
120°-130°	203.7	15.5
130°-140°	169.9	13.0
140°-150°	129.7	9.9
150°-160°	91.2	7.0
160°-170°	53.7	4.1
170°-180°	17.4	1.3
0°-30°	0.0	0.0
0°-40°	0.0	0.0
0°-60°	0.0	0.0
0°-90°	0.7	0.1
90°-120°	644.5	49.2
90°-150°	1147.9	87.6
90°-180°	1310.0	99.9
0°-180°	1310.9	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°	0	3	6	7	7	1
95°	12	37	288	143	86	13
105°	41	60	232	499	497	44
115°	73	91	207	397	478	72
125°	101	121	206	338	381	90
135°	120	144	204	300	341	93
145°	139	159	203	253	278	87
155°	158	171	197	223	233	73
165°	172	177	189	200	203	49
175°	180	180	181	184	183	17
180°	180	180	180	180	180	



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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°	0.4	1.1	2.1	2.5	2.8	2.8	4.9	4.9	5.7	6.4	6.0
92.5°	4.9	7.1	11.0	16.3	22.6	31.8	53.7	88.0	121.2	138.5	115.2
95°	11.7	12.7	16.3	20.9	29.3	44.2	74.9	132.9	217.4	288.0	296.2
97.5°	19.4	19.4	22.6	26.9	34.3	47.0	71.4	121.2	208.2	308.2	371.5
100°	26.9	26.9	29.3	33.6	40.3	51.6	72.5	112.4	184.5	284.2	374.6
102.5°	33.9	34.6	36.8	40.6	47.0	57.6	76.0	109.9	168.6	254.1	348.1
105°	41.4	42.4	44.2	48.4	54.8	65.0	82.0	111.3	160.8	231.8	314.9
107.5°	49.5	50.2	52.0	56.5	62.6	72.8	88.4	115.6	158.7	217.4	287.7
110°	57.6	58.3	60.1	64.3	70.7	80.2	95.8	120.5	159.4	210.6	268.3



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CANDELA DISTRIBUTION (continued):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	65.4	66.1	68.2	72.1	78.5	88.0	102.8	125.8	161.5	207.5	257.3
115°	72.8	73.9	76.3	79.9	86.6	96.1	110.3	131.5	164.3	206.8	251.3
117.5°	80.6	81.6	83.8	87.6	94.0	103.9	117.3	137.1	167.2	206.4	248.1
120°	88.4	89.1	91.5	95.4	101.4	111.3	124.8	143.1	170.4	206.4	245.6
122.5°	95.4	96.1	98.6	102.1	108.9	118.4	131.8	148.8	173.5	206.0	242.8
125°	101.4	102.8	105.0	108.9	115.6	125.5	138.2	154.4	176.7	205.7	239.6
127.5°	107.1	108.1	110.6	114.9	121.9	131.8	144.2	159.4	179.2	205.0	235.4
130°	111.7	113.1	115.9	121.2	127.9	138.2	150.2	164.0	182.0	204.6	231.5
132.5°	116.3	117.3	121.2	126.2	133.6	143.1	155.2	168.6	184.5	204.3	228.0
135°	120.5	121.9	125.5	131.5	138.9	148.1	159.7	172.5	187.0	203.9	224.4
137.5°	124.8	126.2	130.1	135.7	143.5	152.3	163.3	175.3	188.4	203.9	221.2
140°	129.4	130.4	134.3	140.3	147.7	156.2	166.8	178.1	190.1	203.6	218.8
142.5°	134.3	135.4	138.9	144.6	151.6	159.7	170.0	180.2	191.6	203.6	216.7
145°	138.9	140.0	143.5	148.4	155.2	162.9	172.1	181.7	191.9	202.9	214.2
147.5°	144.2	144.6	147.7	153.0	158.7	165.8	174.6	183.1	192.3	201.8	212.1
150°	149.1	149.5	152.3	156.6	161.9	168.6	176.4	184.1	192.3	200.7	209.6
152.5°	153.7	153.7	156.6	160.5	165.1	171.1	177.8	184.8	191.6	199.0	206.8
155°	158.0	158.3	160.5	164.0	167.9	173.2	179.2	185.2	190.9	197.2	203.9
157.5°	162.2	162.2	164.3	167.2	170.7	174.9	180.2	185.2	190.1	195.4	201.1
160°	166.1	166.1	167.5	170.0	172.8	176.7	181.0	185.2	189.1	193.3	197.9
162.5°	169.6	169.3	170.4	172.5	174.9	177.8	181.7	185.2	188.0	191.2	195.1
165°	172.1	172.1	172.8	174.6	176.4	178.5	181.7	184.5	186.6	189.1	191.9
167.5°	174.9	174.6	174.9	176.4	177.4	179.2	181.7	183.8	185.2	187.0	189.1
170°	176.7	176.4	176.7	177.8	178.5	179.5	181.3	183.1	183.8	184.8	186.3
172.5°	178.5	178.1	178.1	178.8	179.2	179.9	181.0	182.4	182.4	182.7	183.8
175°	179.5	179.2	179.2	179.5	179.9	179.9	180.6	181.7	181.3	181.3	182.0
177.5°	180.2	179.9	179.5	179.9	179.9	179.9	180.2	181.0	180.2	180.2	180.6
180°	179.9	179.9	179.9	179.9	179.9	179.9	179.9	179.9	179.9	179.9	179.9



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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°	6.4	6.7	7.1	7.1	7.4	7.8	7.4	7.4
92.5°	85.2	63.6	50.2	41.4	36.0	33.6	32.2	32.2
95°	261.9	207.1	159.7	125.5	108.1	97.2	90.8	86.2
97.5°	377.1	349.9	311.0	271.4	247.4	226.2	215.6	207.1
100°	426.2	433.3	416.0	389.8	359.1	337.5	326.9	324.1
102.5°	423.8	465.8	476.4	469.4	453.4	439.3	428.0	425.9
105°	395.8	457.0	492.0	506.5	507.2	504.3	499.4	497.3
107.5°	361.6	427.6	476.4	506.1	521.7	528.0	530.8	531.2
110°	331.2	392.3	443.6	482.4	507.5	522.4	528.7	531.9



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CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
112.5°	308.9	361.2	408.9	447.8	477.1	495.9	505.4	511.1
115°	295.5	338.9	380.3	414.2	442.1	463.3	474.7	477.5
117.5°	287.7	324.4	358.0	387.7	412.4	430.8	442.8	444.6
120°	282.7	315.6	343.9	369.0	389.1	404.7	413.9	417.8
122.5°	278.5	310.0	335.0	356.3	372.5	385.2	392.7	396.5
125°	273.6	303.9	328.3	347.8	361.9	372.2	378.9	381.0
127.5°	267.9	297.2	321.6	340.0	354.1	363.3	369.0	371.1
130°	260.8	288.8	312.8	331.5	346.0	354.8	360.5	362.6
132.5°	253.4	279.2	302.5	321.3	335.4	345.7	351.0	353.1
135°	246.7	269.7	291.2	308.9	323.0	332.9	338.6	340.7
137.5°	240.3	260.5	279.2	295.5	308.9	319.1	323.7	326.2
140°	235.0	251.6	267.5	282.4	294.8	302.5	307.5	310.3
142.5°	230.1	244.2	257.3	269.7	280.3	287.3	291.6	293.3
145°	225.5	237.5	248.1	258.0	266.8	272.8	276.4	278.1
147.5°	221.6	231.5	240.3	248.5	255.2	260.5	263.3	264.0
150°	218.1	226.2	233.3	239.6	245.3	249.9	252.0	252.3
152.5°	214.2	220.9	227.3	232.2	236.8	240.3	241.4	241.7
155°	210.3	215.9	221.2	225.5	229.0	231.8	232.9	232.9
157.5°	206.0	211.0	215.6	219.1	222.0	224.1	224.8	224.8
160°	202.2	206.0	209.9	212.8	214.9	217.0	217.4	217.4
162.5°	198.3	201.5	204.3	206.8	208.2	210.3	210.6	210.3
165°	194.7	196.9	199.3	201.1	202.5	203.9	203.6	203.2
167.5°	191.2	193.0	195.1	196.2	196.9	197.9	197.9	197.6
170°	188.0	189.1	190.5	191.6	192.3	192.6	192.3	192.3
172.5°	185.2	185.9	186.6	187.3	187.7	188.0	187.7	187.0
175°	182.7	183.1	183.8	183.8	183.8	184.5	183.8	183.1
177.5°	181.0	181.3	181.3	181.7	181.3	181.7	181.0	180.2
180°	179.9	179.9	179.9	179.9	179.9	179.9	179.9	179.9

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