

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: P334616

Luminaire Tested: **S123IP-S585U830-4F0-1E-UDD-4**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P334616
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-S585U830-4F0-1E-UDD-4
Description: DEFINE 3 INDIRECT LED LUMINAIRE, BATWING OPTIC
PENDANT MOUNT, 585 LUMENS PER FOOT
Light Source: 3000K CCT, 80 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 1999.2 lumens
Efficiency: N/A
Efficacy: 106.3 lumens/watt
Spacing Criteria (0/90/45): - / - / -
Luminous Opening: Rectangular (W 0.25' x L: 4' x H: 0')
CIE Type: Indirect

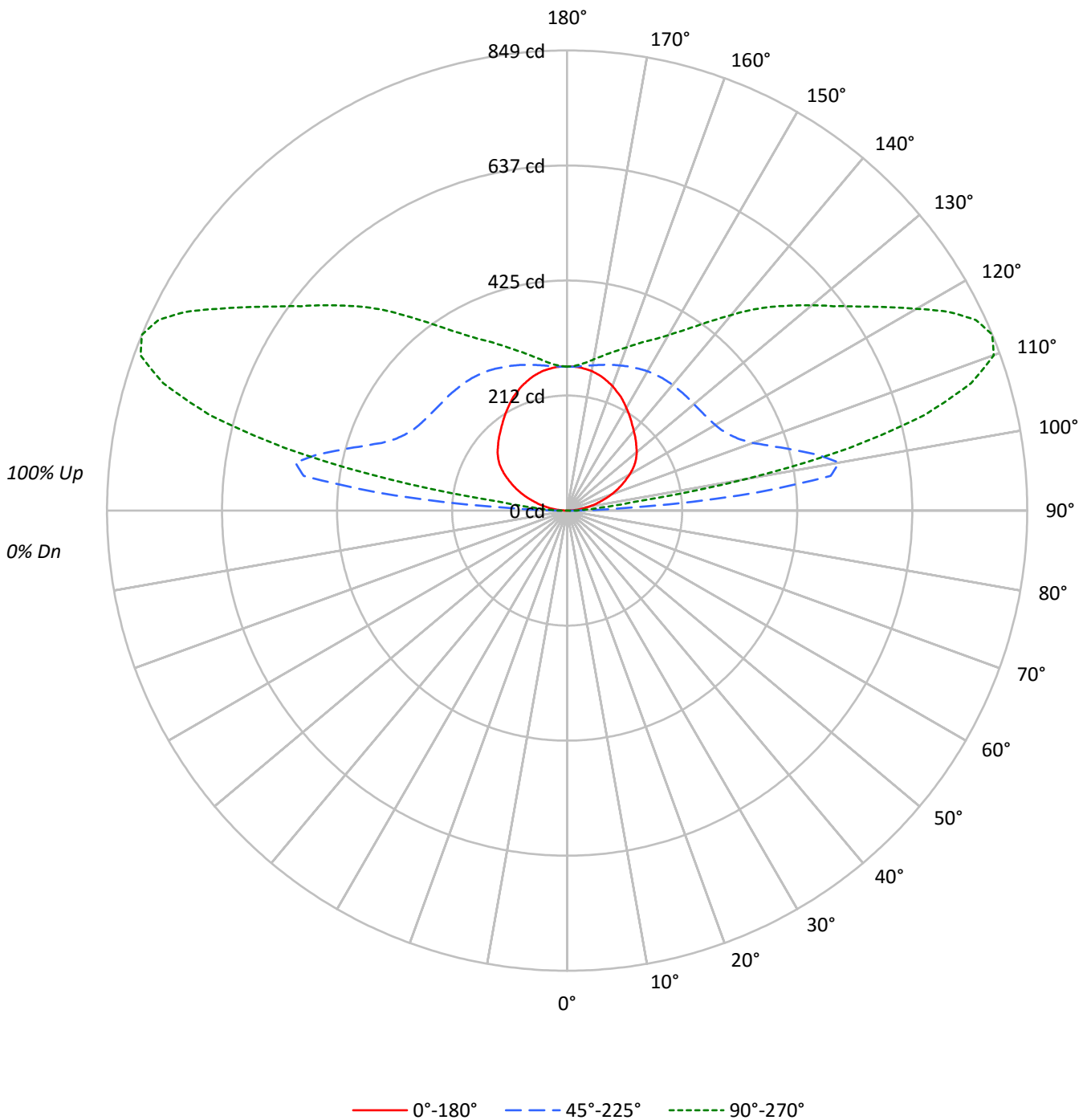
Input Watts (W): 18.8
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	1.5	0.1
90°-100°	144.1	7.2
100°-110°	421.9	21.1
110°-120°	412.0	20.6
120°-130°	328.1	16.4
130°-140°	258.9	12.9
140°-150°	193.1	9.7
150°-160°	134.7	6.7
160°-170°	79.1	4.0
170°-180°	25.7	1.3
0°-30°	0.0	0.0
0°-40°	0.0	0.0
0°-60°	0.0	0.0
0°-90°	1.5	0.1
90°-120°	978.1	48.9
90°-150°	1758.2	87.9
90°-180°	1998.0	99.9
0°-180°	1999.2	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	13	15	16	1
95°	18	59	319	93	62	19
105°	62	92	432	756	684	66
115°	110	137	331	725	832	109
125°	153	181	309	559	656	136
135°	180	214	304	460	532	139
145°	205	235	300	378	416	128
155°	233	251	291	331	345	107
165°	254	262	278	295	300	72
175°	265	265	267	271	270	25
180°	266	266	266	266	266	



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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°	1.1	2.2	3.2	4.8	5.9	7.0	8.6	10.2	11.8	13.4	12.9
92.5°	8.1	11.8	17.2	22.0	27.4	37.1	54.3	82.8	110.7	100.0	74.7
95°	18.3	19.9	25.8	34.9	48.9	69.9	115.6	195.7	283.9	318.8	258.6
97.5°	29.0	29.6	34.4	42.5	56.4	79.6	124.7	217.7	366.1	490.3	507.0
100°	39.8	40.3	44.1	51.6	64.5	85.5	123.1	202.7	344.1	509.1	615.0
102.5°	51.1	52.1	55.4	62.4	73.7	92.5	125.3	189.8	311.8	474.2	620.4
105°	62.4	64.0	67.2	73.7	83.9	100.5	129.6	184.9	286.5	432.2	586.5
107.5°	74.2	75.8	79.0	85.5	95.2	110.7	136.6	183.9	268.3	395.1	538.1
110°	87.1	88.7	91.4	97.3	106.4	121.5	145.7	186.5	258.6	364.5	493.0



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CANDELA DISTRIBUTION (continued):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	98.9	100.5	103.2	109.1	118.3	132.8	154.8	191.9	253.2	344.1	453.7
115°	110.2	112.4	115.6	121.0	130.1	144.6	165.0	197.8	252.7	330.6	423.6
117.5°	121.5	124.2	126.9	131.7	141.9	155.4	175.8	205.4	253.2	321.5	403.7
120°	133.3	134.9	137.6	143.0	153.2	166.7	186.0	214.0	255.4	315.6	388.7
122.5°	143.5	145.2	147.8	153.8	163.4	177.9	196.8	222.0	259.1	311.8	376.3
125°	153.2	154.3	157.5	163.4	173.6	188.2	207.0	230.6	262.9	308.6	366.1
127.5°	160.7	162.4	166.1	172.0	183.3	197.8	216.1	237.6	267.2	307.0	356.4
130°	167.7	169.3	174.2	180.6	191.9	206.4	224.2	244.6	271.5	305.4	348.9
132.5°	173.1	175.3	180.6	188.7	200.0	214.0	231.2	251.1	274.7	304.8	341.9
135°	179.6	181.7	187.6	195.7	207.0	221.5	238.2	256.4	277.9	304.3	336.0
137.5°	185.5	187.6	193.5	202.1	213.4	226.9	243.0	260.7	280.1	303.2	330.6
140°	191.4	194.1	199.5	208.1	218.8	232.2	247.8	264.0	282.2	302.7	325.8
142.5°	197.8	200.0	205.9	213.4	224.2	236.5	251.6	267.2	283.9	301.6	321.5
145°	204.8	206.4	211.3	219.3	228.5	240.8	254.8	269.3	284.4	300.5	317.7
147.5°	211.8	212.9	217.7	224.7	233.9	244.6	257.5	271.0	284.4	298.9	314.0
150°	218.8	219.3	223.6	230.6	238.2	247.8	260.2	271.5	284.4	296.8	310.2
152.5°	225.8	225.8	230.1	236.0	242.5	251.6	261.8	272.6	282.8	294.1	305.9
155°	232.8	232.8	236.0	241.4	247.3	254.8	264.0	272.6	281.7	290.8	301.6
157.5°	238.2	238.7	241.4	246.2	251.6	257.5	265.0	273.1	280.1	288.2	296.8
160°	244.6	244.6	246.8	251.1	254.8	260.2	266.7	273.1	279.0	284.9	291.9
162.5°	249.4	249.4	251.1	254.3	257.5	261.8	267.2	272.6	276.9	281.7	287.1
165°	254.3	253.7	254.8	257.5	259.7	263.4	267.7	271.5	274.7	278.5	282.8
167.5°	258.0	257.5	258.0	260.2	261.8	264.5	267.7	271.0	272.6	275.3	278.5
170°	261.3	260.2	260.7	262.3	263.4	264.5	267.2	269.3	270.4	272.0	274.7
172.5°	263.4	262.9	262.9	264.0	264.5	265.0	267.2	268.8	268.8	269.3	271.0
175°	265.0	264.5	264.0	265.0	265.0	265.6	266.7	267.7	267.2	267.2	268.3
177.5°	266.1	265.6	265.0	265.6	265.6	265.6	266.1	267.2	266.1	265.6	266.1
180°	265.6	265.6	265.6	265.6	265.6	265.6	265.6	265.6	265.6	265.6	265.6



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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°	13.4	14.0	14.5	15.6	15.1	15.6	16.1	15.6
92.5°	53.2	41.4	36.0	32.3	31.2	29.0	29.6	28.5
95°	193.5	131.2	102.7	83.3	73.1	68.3	64.5	62.4
97.5°	444.6	335.5	264.5	203.2	167.2	146.8	133.9	127.9
100°	633.8	590.3	527.4	451.0	396.8	357.5	336.5	337.1
102.5°	696.7	705.9	675.8	634.4	595.1	566.1	549.4	533.8
105°	698.9	752.6	762.9	748.9	724.1	703.7	686.5	683.8
107.5°	666.6	751.0	793.0	807.5	804.3	794.6	787.6	781.7
110°	616.1	715.0	782.7	820.4	835.4	839.7	838.7	837.6



TEST NUMBER: P334616

CATALOG NUMBER: S123IP-S585U830-4F0-1E-UDD-4

CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
112.5°	566.1	667.7	745.7	796.7	827.4	843.0	848.3	848.9
115°	523.1	616.6	695.7	754.3	794.6	818.2	829.0	831.7
117.5°	489.8	572.5	645.1	705.9	747.8	774.1	790.3	794.0
120°	464.5	537.1	601.6	655.9	698.3	728.5	741.4	744.6
122.5°	444.6	508.6	567.2	616.6	653.2	679.5	694.0	698.3
125°	427.4	486.0	537.6	580.6	615.0	638.7	652.1	655.9
127.5°	411.8	465.0	512.3	552.1	583.3	603.7	616.1	619.3
130°	397.3	445.7	489.2	525.8	554.3	573.6	584.9	589.2
132.5°	383.8	427.4	467.2	501.6	527.9	547.3	557.0	559.6
135°	372.0	410.2	445.1	475.8	502.1	518.2	527.9	531.7
137.5°	360.7	393.0	424.2	451.6	474.2	490.8	498.9	502.1
140°	351.1	378.5	404.3	427.4	447.8	462.9	471.5	470.9
142.5°	341.9	364.5	386.0	405.4	422.0	434.9	442.4	441.9
145°	334.9	352.7	369.9	385.5	398.9	410.2	414.5	415.6
147.5°	329.0	343.5	358.0	369.3	380.1	388.1	392.4	393.0
150°	322.6	334.9	346.2	356.4	364.5	370.4	373.6	373.6
152.5°	316.6	326.9	336.5	344.6	350.5	355.9	357.5	357.5
155°	310.7	319.3	327.4	333.9	338.7	343.0	344.1	344.6
157.5°	304.3	311.8	318.3	323.6	327.9	331.2	332.2	332.2
160°	298.9	304.8	310.2	314.0	317.7	320.9	320.9	320.4
162.5°	292.5	297.3	302.1	305.4	307.5	310.2	310.2	309.7
165°	287.1	290.3	294.1	296.8	298.9	301.1	300.5	300.5
167.5°	282.2	284.9	287.1	289.2	290.3	291.9	291.4	291.4
170°	277.4	279.0	281.2	282.2	282.8	283.9	283.3	283.3
172.5°	273.1	274.2	275.8	276.3	276.3	277.4	276.3	275.8
175°	269.3	269.9	271.0	271.0	271.0	271.5	271.0	270.4
177.5°	266.7	267.2	267.7	267.7	267.2	267.7	266.7	266.7
180°	265.6	265.6	265.6	265.6	265.6	265.6	265.6	265.6

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