

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: P334637

Luminaire Tested: **S123IP-S805U930-4F0-1E-UDD-4**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P334637
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-S805U930-4F0-1E-UDD-4
Description: DEFINE 3 INDIRECT LED LUMINAIRE, BATWING OPTIC
PENDANT MOUNT, 805 LUMENS PER FOOT
Light Source: 3000K CCT, 90 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

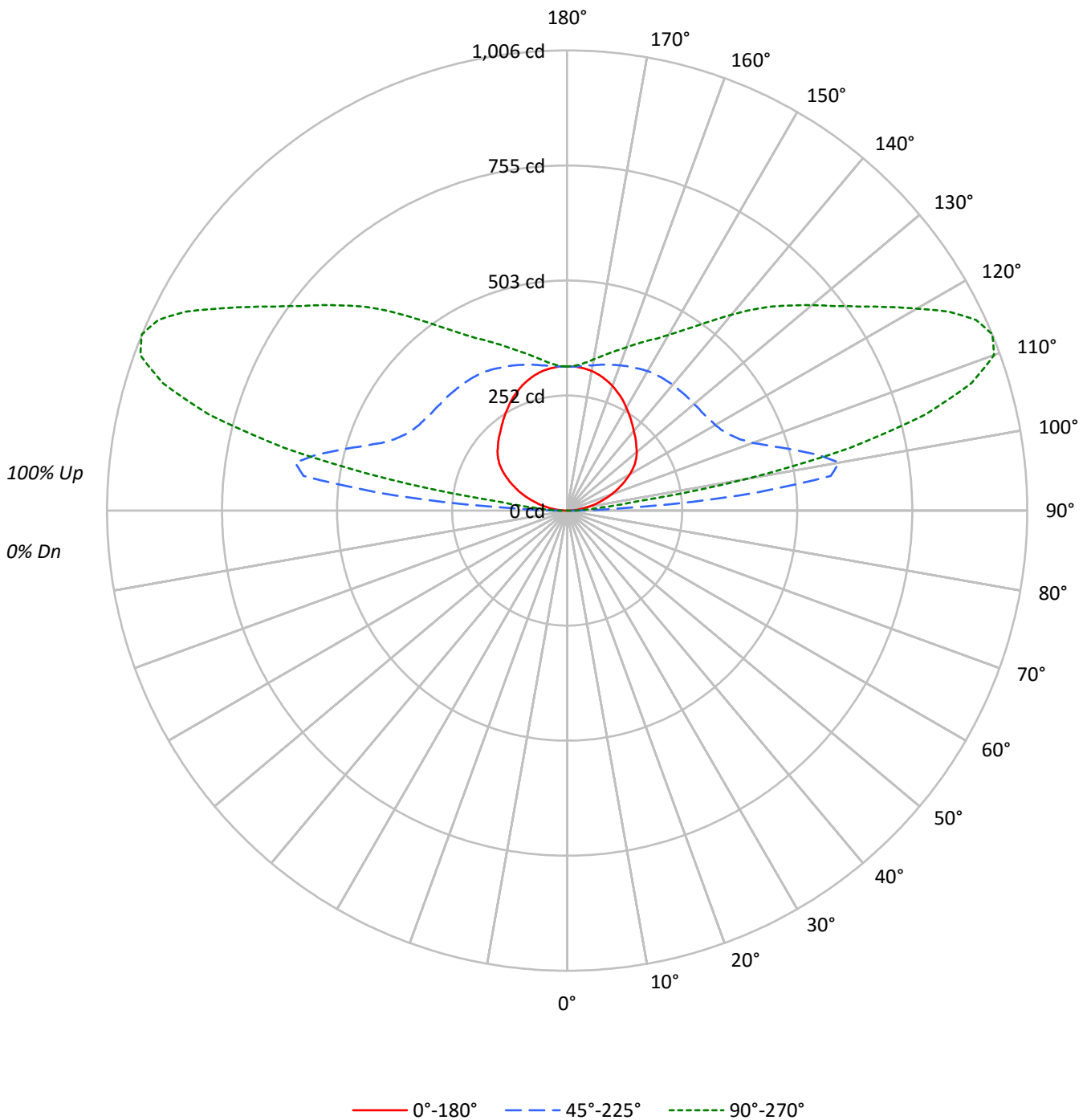
Lumens per Lamp: N/A
Luminaire Lumens: 2370.3 lumens
Efficiency: N/A
Efficacy: 89.8 lumens/watt
Spacing Criteria (0/90/45): - / - / -
Luminous Opening: Rectangular (W 0.25' x L: 4' x H: 0')
CIE Type: Indirect

Input Watts (W): 26.4
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°	1.7	0.1
90°-100°	170.9	7.2
100°-110°	500.3	21.1
110°-120°	488.5	20.6
120°-130°	389.1	16.4
130°-140°	307.0	12.9
140°-150°	229.0	9.7
150°-160°	159.7	6.7
160°-170°	93.8	4.0
170°-180°	30.5	1.3
0°-30°	0.0	0.0
0°-40°	0.0	0.0
0°-60°	0.0	0.0
0°-90°	1.7	0.1
90°-120°	1159.6	48.9
90°-150°	2084.6	87.9
90°-180°	2369.0	99.9
0°-180°	2370.3	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	8	16	18	18	2
95°	22	70	378	110	74	23
105°	74	109	512	896	811	79
115°	131	163	392	860	986	129
125°	182	214	366	663	778	161
135°	213	254	361	546	630	164
145°	243	278	356	448	493	152
155°	276	298	345	392	409	127
165°	302	310	330	350	356	85
175°	314	315	317	321	321	30
180°	315	315	315	315	315	



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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°	1.3	2.5	3.8	5.7	7.0	8.3	10.2	12.1	14.0	15.9	15.3
92.5°	9.6	14.0	20.4	26.1	32.5	44.0	64.4	98.2	131.3	118.6	88.6
95°	21.7	23.6	30.6	41.4	58.0	82.9	137.0	232.0	336.6	378.0	306.6
97.5°	34.4	35.1	40.8	50.4	66.9	94.3	147.9	258.2	434.1	581.3	601.1
100°	47.2	47.8	52.3	61.2	76.5	101.3	146.0	240.3	407.9	603.6	729.2
102.5°	60.6	61.8	65.7	73.9	87.3	109.6	148.5	225.0	369.7	562.2	735.6
105°	73.9	75.9	79.7	87.3	99.4	119.2	153.6	219.3	339.7	512.5	695.4
107.5°	88.0	89.9	93.7	101.3	112.8	131.3	161.9	218.0	318.1	468.5	638.1
110°	103.3	105.2	108.4	115.4	126.2	144.1	172.7	221.2	306.6	432.2	584.5



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CANDELA DISTRIBUTION (continued):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	117.3	119.2	122.4	129.4	140.2	157.4	183.6	227.6	300.2	407.9	538.0
115°	130.7	133.2	137.0	143.4	154.3	171.5	195.7	234.6	299.6	392.0	502.3
117.5°	144.1	147.2	150.4	156.2	168.3	184.2	208.4	243.5	300.2	381.2	478.7
120°	158.1	160.0	163.2	169.6	181.7	197.6	220.5	253.7	302.8	374.2	460.9
122.5°	170.2	172.1	175.3	182.3	193.8	211.0	233.3	263.3	307.2	369.7	446.2
125°	181.7	182.9	186.8	193.8	205.9	223.1	245.4	273.5	311.7	365.9	434.1
127.5°	190.6	192.5	197.0	204.0	217.4	234.6	256.2	281.7	316.8	364.0	422.6
130°	198.9	200.8	206.5	214.2	227.6	244.8	265.8	290.0	321.9	362.1	413.7
132.5°	205.2	207.8	214.2	223.7	237.1	253.7	274.1	297.7	325.7	361.4	405.4
135°	212.9	215.4	222.5	232.0	245.4	262.6	282.4	304.0	329.5	360.8	398.4
137.5°	219.9	222.5	229.5	239.7	253.1	269.0	288.1	309.1	332.1	359.5	392.0
140°	226.9	230.1	236.5	246.7	259.4	275.4	293.8	313.0	334.6	358.9	386.3
142.5°	234.6	237.1	244.1	253.1	265.8	280.5	298.3	316.8	336.6	357.6	381.2
145°	242.9	244.8	250.5	260.1	270.9	285.6	302.1	319.3	337.2	356.3	376.7
147.5°	251.1	252.4	258.2	266.4	277.3	290.0	305.3	321.3	337.2	354.4	372.3
150°	259.4	260.1	265.2	273.5	282.4	293.8	308.5	321.9	337.2	351.9	367.8
152.5°	267.7	267.7	272.8	279.8	287.5	298.3	310.4	323.2	335.3	348.7	362.7
155°	276.0	276.0	279.8	286.2	293.2	302.1	313.0	323.2	334.0	344.8	357.6
157.5°	282.4	283.0	286.2	291.9	298.3	305.3	314.2	323.8	332.1	341.7	351.9
160°	290.0	290.0	292.6	297.7	302.1	308.5	316.2	323.8	330.8	337.8	346.1
162.5°	295.8	295.8	297.7	301.5	305.3	310.4	316.8	323.2	328.3	334.0	340.4
165°	301.5	300.9	302.1	305.3	307.9	312.3	317.4	321.9	325.7	330.2	335.3
167.5°	306.0	305.3	306.0	308.5	310.4	313.6	317.4	321.3	323.2	326.4	330.2
170°	309.8	308.5	309.1	311.1	312.3	313.6	316.8	319.3	320.6	322.5	325.7
172.5°	312.3	311.7	311.7	313.0	313.6	314.2	316.8	318.7	318.7	319.3	321.3
175°	314.2	313.6	313.0	314.2	314.2	314.9	316.2	317.4	316.8	316.8	318.1
177.5°	315.5	314.9	314.2	314.9	314.9	314.9	315.5	316.8	315.5	314.9	315.5
180°	314.9	314.9	314.9	314.9	314.9	314.9	314.9	314.9	314.9	314.9	314.9



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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°	15.9	16.6	17.2	18.5	17.8	18.5	19.1	18.5
92.5°	63.1	49.1	42.7	38.2	37.0	34.4	35.1	33.8
95°	229.5	155.5	121.7	98.8	86.7	81.0	76.5	73.9
97.5°	527.1	397.7	313.6	240.9	198.2	174.0	158.7	151.7
100°	751.5	699.9	625.3	534.8	470.4	423.9	399.0	399.7
102.5°	826.1	836.9	801.2	752.2	705.6	671.2	651.4	633.0
105°	828.6	892.4	904.5	887.9	858.6	834.4	814.0	810.8
107.5°	790.4	890.5	940.2	957.4	953.6	942.1	933.8	926.8
110°	730.5	847.8	928.1	972.7	990.5	995.6	994.4	993.1



TEST NUMBER: P334637

CATALOG NUMBER: S123IP-S805U930-4F0-1E-UDD-4

CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
112.5°	671.2	791.7	884.1	944.7	981.0	999.5	1005.8	1006.5
115°	620.2	731.1	824.8	894.3	942.1	970.1	982.9	986.1
117.5°	580.7	678.8	764.9	836.9	886.6	917.9	937.0	941.5
120°	550.7	636.8	713.3	777.6	828.0	863.7	879.0	882.8
122.5°	527.1	603.0	672.5	731.1	774.5	805.7	822.9	828.0
125°	506.7	576.2	637.4	688.4	729.2	757.3	773.2	777.6
127.5°	488.3	551.4	607.5	654.6	691.6	715.8	730.5	734.3
130°	471.1	528.4	580.0	623.4	657.2	680.1	693.5	698.6
132.5°	455.1	506.7	553.9	594.7	625.9	648.9	660.4	663.6
135°	441.1	486.3	527.8	564.1	595.3	614.5	625.9	630.4
137.5°	427.7	466.0	502.9	535.4	562.2	582.0	591.5	595.3
140°	416.2	448.7	479.3	506.7	531.0	548.8	559.0	558.4
142.5°	405.4	432.2	457.7	480.6	500.4	515.7	524.6	524.0
145°	397.1	418.1	438.5	457.0	473.0	486.3	491.4	492.7
147.5°	390.1	407.3	424.5	437.9	450.7	460.2	465.3	466.0
150°	382.5	397.1	410.5	422.6	432.2	439.2	443.0	443.0
152.5°	375.4	387.5	399.0	408.6	415.6	422.0	423.9	423.9
155°	368.4	378.6	388.2	395.8	401.6	406.7	407.9	408.6
157.5°	360.8	369.7	377.4	383.7	388.8	392.6	393.9	393.9
160°	354.4	361.4	367.8	372.3	376.7	380.5	380.5	379.9
162.5°	346.8	352.5	358.2	362.1	364.6	367.8	367.8	367.2
165°	340.4	344.2	348.7	351.9	354.4	357.0	356.3	356.3
167.5°	334.6	337.8	340.4	342.9	344.2	346.1	345.5	345.5
170°	328.9	330.8	333.4	334.6	335.3	336.6	335.9	335.9
172.5°	323.8	325.1	327.0	327.6	327.6	328.9	327.6	327.0
175°	319.3	320.0	321.3	321.3	321.3	321.9	321.3	320.6
177.5°	316.2	316.8	317.4	317.4	316.8	317.4	316.2	316.2
180°	314.9	314.9	314.9	314.9	314.9	314.9	314.9	314.9

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