

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: P334820

Luminaire Tested: **S124IP-S365U940-4F0-1E-UDD-4**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P334820
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-S365U940-4F0-1E-UDD-4
Description: DEFINE 4 INDIRECT LED LUMINAIRE, BATWING OPTIC
PENDANT MOUNT, 365 LUMENS PER FOOT
Light Source: 4000K CCT, 90 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

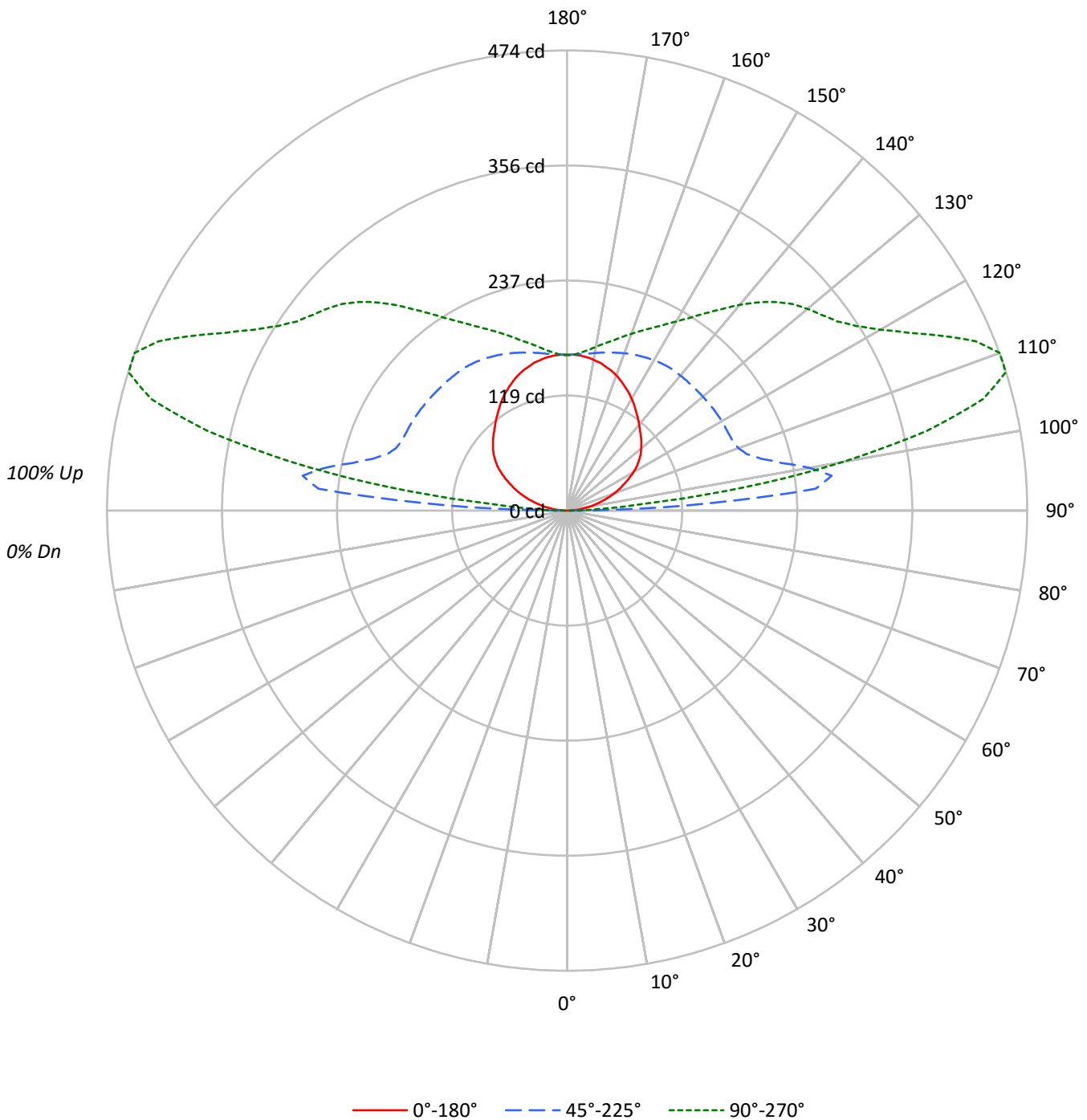
Lumens per Lamp: N/A
Luminaire Lumens: 1169.0 lumens
Efficiency: N/A
Efficacy: 102.5 lumens/watt
Spacing Criteria (0/90/45): - / - / -
Luminous Opening: Rectangular (W 0.33' x L: 4' x H: 0')
CIE Type: Indirect

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°	116.3	9.9
100°-110°	242.7	20.8
110°-120°	215.8	18.5
120°-130°	181.6	15.5
130°-140°	151.5	13.0
140°-150°	115.7	9.9
150°-160°	81.3	7.0
160°-170°	47.8	4.1
170°-180°	15.6	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°	574.7	49.2
90°-150°	1023.6	87.6
90°-180°	1168.0	99.9
0°-180°	1169.0	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	6	6	7	1
95°	10	33	257	127	77	11
105°	37	53	207	445	443	39
115°	65	81	184	354	426	64
125°	90	108	183	301	340	81
135°	108	128	182	268	304	83
145°	124	142	181	226	248	78
155°	141	152	176	199	208	65
165°	154	158	169	178	181	43
175°	160	160	162	164	163	15
180°	160	160	160	160	160	



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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	1.9	2.2	2.5	2.5	4.4	4.4	5.0	5.7	5.4
92.5°	4.4	6.3	9.8	14.5	20.2	28.4	47.9	78.5	108.1	123.5	102.7
95°	10.4	11.3	14.5	18.6	26.2	39.4	66.8	118.5	193.8	256.9	264.1
97.5°	17.3	17.3	20.2	24.0	30.6	41.9	63.7	108.1	185.6	274.8	331.2
100°	24.0	24.0	26.2	29.9	35.9	46.0	64.6	100.2	164.5	253.4	334.1
102.5°	30.3	30.9	32.8	36.2	41.9	51.4	67.8	98.0	150.3	226.6	310.4
105°	36.9	37.8	39.4	43.2	48.8	58.0	73.1	99.3	143.4	206.7	280.8
107.5°	44.1	44.8	46.3	50.4	55.8	64.9	78.8	103.1	141.5	193.8	256.5
110°	51.4	52.0	53.6	57.4	63.0	71.5	85.4	107.5	142.1	187.8	239.2



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CANDELA DISTRIBUTION (continued):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	58.3	58.9	60.8	64.3	70.0	78.5	91.7	112.2	144.0	185.0	229.4
115°	64.9	65.9	68.1	71.2	77.2	85.7	98.3	117.2	146.5	184.4	224.1
117.5°	71.9	72.8	74.7	78.2	83.8	92.7	104.6	122.3	149.1	184.1	221.2
120°	78.8	79.4	81.6	85.1	90.4	99.3	111.2	127.6	151.9	184.1	219.0
122.5°	85.1	85.7	87.9	91.1	97.1	105.6	117.6	132.7	154.7	183.7	216.5
125°	90.4	91.7	93.6	97.1	103.1	111.9	123.2	137.7	157.6	183.4	213.7
127.5°	95.5	96.4	98.6	102.4	108.7	117.6	128.6	142.1	159.8	182.8	209.9
130°	99.6	100.8	103.4	108.1	114.1	123.2	133.9	146.2	162.3	182.5	206.4
132.5°	103.7	104.6	108.1	112.5	119.1	127.6	138.4	150.3	164.5	182.2	203.3
135°	107.5	108.7	111.9	117.2	123.9	132.0	142.5	153.8	166.7	181.8	200.1
137.5°	111.2	112.5	116.0	121.0	128.0	135.8	145.6	156.3	168.0	181.8	197.3
140°	115.3	116.3	119.8	125.1	131.7	139.3	148.8	158.8	169.6	181.5	195.1
142.5°	119.8	120.7	123.9	128.9	135.2	142.5	151.6	160.7	170.8	181.5	193.2
145°	123.9	124.8	128.0	132.4	138.4	145.3	153.5	162.0	171.1	180.9	191.0
147.5°	128.6	128.9	131.7	136.5	141.5	147.8	155.7	163.3	171.4	180.0	189.1
150°	133.0	133.3	135.8	139.6	144.3	150.3	157.3	164.2	171.4	179.0	186.9
152.5°	137.1	137.1	139.6	143.1	147.2	152.5	158.5	164.8	170.8	177.4	184.4
155°	140.9	141.2	143.1	146.2	149.7	154.4	159.8	165.1	170.2	175.9	181.8
157.5°	144.7	144.7	146.5	149.1	152.2	156.0	160.7	165.1	169.6	174.3	179.3
160°	148.1	148.1	149.4	151.6	154.1	157.6	161.4	165.1	168.6	172.4	176.5
162.5°	151.3	151.0	151.9	153.8	156.0	158.5	162.0	165.1	167.7	170.5	174.0
165°	153.5	153.5	154.1	155.7	157.3	159.2	162.0	164.5	166.4	168.6	171.1
167.5°	156.0	155.7	156.0	157.3	158.2	159.8	162.0	163.9	165.1	166.7	168.6
170°	157.6	157.3	157.6	158.5	159.2	160.1	161.7	163.3	163.9	164.8	166.1
172.5°	159.2	158.8	158.8	159.5	159.8	160.4	161.4	162.6	162.6	162.9	163.9
175°	160.1	159.8	159.8	160.1	160.4	160.4	161.0	162.0	161.7	161.7	162.3
177.5°	160.7	160.4	160.1	160.4	160.4	160.4	160.7	161.4	160.7	160.7	161.0
180°	160.4	160.4	160.4	160.4	160.4	160.4	160.4	160.4	160.4	160.4	160.4



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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°	5.7	6.0	6.3	6.3	6.6	6.9	6.6	6.6
92.5°	76.0	56.7	44.8	36.9	32.1	29.9	28.7	28.7
95°	233.5	184.7	142.5	111.9	96.4	86.7	81.0	76.9
97.5°	336.3	312.0	277.3	242.0	220.6	201.7	192.2	184.7
100°	380.1	386.4	370.9	347.6	320.2	301.0	291.5	289.0
102.5°	377.9	415.4	424.8	418.5	404.3	391.7	381.7	379.8
105°	353.0	407.5	438.7	451.6	452.2	449.7	445.3	443.4
107.5°	322.4	381.3	424.8	451.3	465.2	470.8	473.4	473.7
110°	295.3	349.8	395.5	430.2	452.6	465.8	471.5	474.3



TEST NUMBER: P334820

CATALOG NUMBER: S124IP-S365U940-4F0-1E-UDD-4

CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
112.5°	275.4	322.1	364.6	399.3	425.5	442.2	450.7	455.7
115°	263.5	302.2	339.1	369.4	394.3	413.2	423.3	425.8
117.5°	256.5	289.3	319.3	345.7	367.8	384.2	394.9	396.5
120°	252.1	281.4	306.6	329.0	347.0	360.9	369.0	372.5
122.5°	248.3	276.4	298.8	317.7	332.2	343.5	350.1	353.6
125°	243.9	271.0	292.8	310.1	322.7	331.9	337.8	339.7
127.5°	238.9	265.0	286.8	303.2	315.8	324.0	329.0	330.9
130°	232.6	257.5	278.9	295.6	308.5	316.4	321.5	323.3
132.5°	226.0	249.0	269.8	286.5	299.1	308.2	312.9	314.8
135°	220.0	240.5	259.7	275.4	288.1	296.9	301.9	303.8
137.5°	214.3	232.3	249.0	263.5	275.4	284.6	288.7	290.9
140°	209.6	224.4	238.6	251.8	262.8	269.8	274.2	276.7
142.5°	205.2	217.8	229.4	240.5	249.9	256.2	260.0	261.6
145°	201.1	211.8	221.2	230.1	237.9	243.3	246.5	248.0
147.5°	197.6	206.4	214.3	221.6	227.5	232.3	234.8	235.4
150°	194.5	201.7	208.0	213.7	218.7	222.8	224.7	225.0
152.5°	191.0	197.0	202.6	207.1	211.2	214.3	215.3	215.6
155°	187.5	192.6	197.3	201.1	204.2	206.7	207.7	207.7
157.5°	183.7	188.1	192.2	195.4	197.9	199.8	200.4	200.4
160°	180.3	183.7	187.2	189.7	191.6	193.5	193.8	193.8
162.5°	176.8	179.6	182.2	184.4	185.6	187.5	187.8	187.5
165°	173.7	175.5	177.7	179.3	180.6	181.8	181.5	181.2
167.5°	170.5	172.1	174.0	174.9	175.5	176.5	176.5	176.2
170°	167.7	168.6	169.9	170.8	171.4	171.8	171.4	171.4
172.5°	165.1	165.8	166.4	167.0	167.3	167.7	167.3	166.7
175°	162.9	163.3	163.9	163.9	163.9	164.5	163.9	163.3
177.5°	161.4	161.7	161.7	162.0	161.7	162.0	161.4	160.7
180°	160.4	160.4	160.4	160.4	160.4	160.4	160.4	160.4

(END OF REPORT)