

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: P334631

Luminaire Tested: **S123IP-S585U927-4F0-1E-UDD-4**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P334631
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-S585U927-4F0-1E-UDD-4
Description: DEFINE 3 INDIRECT LED LUMINAIRE, BATWING OPTIC
PENDANT MOUNT, 585 LUMENS PER FOOT
Light Source: 2700K CCT, 90 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

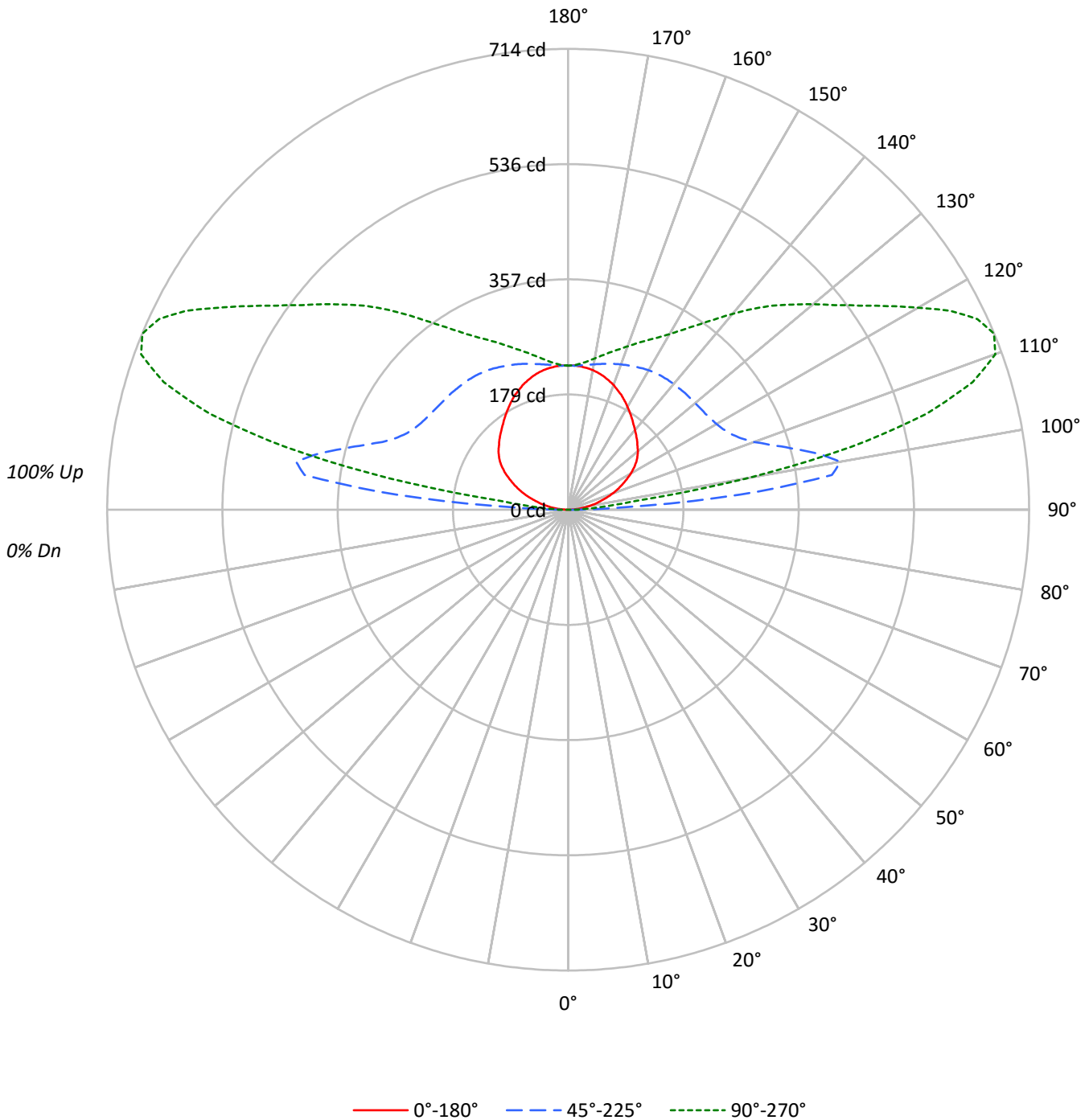
Lumens per Lamp: N/A
Luminaire Lumens: 1680.2 lumens
Efficiency: N/A
Efficacy: 89.4 lumens/watt
Spacing Criteria (0/90/45): - / - / -
Luminous Opening: Rectangular (W 0.25' x L: 4' x H: 0')
CIE Type: Indirect

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°	1.2	0.1
90°-100°	121.1	7.2
100°-110°	354.6	21.1
110°-120°	346.3	20.6
120°-130°	275.8	16.4
130°-140°	217.6	12.9
140°-150°	162.3	9.7
150°-160°	113.2	6.7
160°-170°	66.5	4.0
170°-180°	21.6	1.3
0°-30°	0.0	0.0
0°-40°	0.0	0.0
0°-60°	0.0	0.0
0°-90°	1.2	0.1
90°-120°	822.0	48.9
90°-150°	1477.7	87.9
90°-180°	1679.0	99.9
0°-180°	1680.2	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	5	11	13	13	1
95°	15	50	268	78	52	16
105°	52	78	363	635	575	56
115°	93	115	278	609	699	92
125°	129	152	259	470	551	114
135°	151	180	256	387	447	117
145°	172	197	253	317	349	108
155°	196	211	244	278	290	90
165°	214	220	234	248	253	60
175°	223	223	225	228	227	21
180°	223	223	223	223	223	



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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°	0.9	1.8	2.7	4.1	5.0	5.9	7.2	8.6	9.9	11.3	10.8
92.5°	6.8	9.9	14.5	18.5	23.0	31.2	45.6	69.6	93.1	84.0	62.8
95°	15.4	16.7	21.7	29.4	41.1	58.7	97.1	164.5	238.6	267.9	217.3
97.5°	24.4	24.9	28.9	35.7	47.4	66.9	104.8	183.0	307.7	412.1	426.1
100°	33.4	33.9	37.1	43.4	54.2	71.8	103.5	170.3	289.2	427.9	516.9
102.5°	42.9	43.8	46.5	52.4	61.9	77.7	105.3	159.5	262.1	398.5	521.4
105°	52.4	53.8	56.5	61.9	70.5	84.5	108.9	155.4	240.8	363.3	493.0
107.5°	62.4	63.7	66.4	71.8	80.0	93.1	114.8	154.5	225.5	332.1	452.3
110°	73.2	74.6	76.8	81.8	89.5	102.1	122.4	156.8	217.3	306.3	414.3



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CANDELA DISTRIBUTION (continued):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	83.1	84.5	86.8	91.7	99.4	111.6	130.1	161.3	212.8	289.2	381.4
115°	92.6	94.4	97.1	101.7	109.3	121.5	138.7	166.3	212.4	277.9	356.1
117.5°	102.1	104.4	106.6	110.7	119.3	130.6	147.8	172.6	212.8	270.2	339.3
120°	112.1	113.4	115.7	120.2	128.8	140.1	156.3	179.8	214.6	265.2	326.7
122.5°	120.6	122.0	124.3	129.2	137.4	149.6	165.4	186.6	217.8	262.1	316.3
125°	128.8	129.7	132.4	137.4	145.9	158.1	174.0	193.8	220.9	259.4	307.7
127.5°	135.1	136.5	139.6	144.6	154.1	166.3	181.6	199.7	224.6	258.0	299.6
130°	141.0	142.3	146.4	151.8	161.3	173.5	188.4	205.6	228.2	256.6	293.2
132.5°	145.5	147.3	151.8	158.6	168.1	179.8	194.3	211.0	230.9	256.2	287.4
135°	150.9	152.7	157.7	164.5	174.0	186.2	200.2	215.5	233.6	255.7	282.4
137.5°	155.9	157.7	162.7	169.9	179.4	190.7	204.2	219.1	235.4	254.8	277.9
140°	160.9	163.1	167.6	174.9	183.9	195.2	208.3	221.9	237.2	254.4	273.8
142.5°	166.3	168.1	173.1	179.4	188.4	198.8	211.5	224.6	238.6	253.5	270.2
145°	172.2	173.5	177.6	184.4	192.0	202.4	214.2	226.4	239.0	252.6	267.0
147.5°	178.0	178.9	183.0	188.9	196.6	205.6	216.4	227.7	239.0	251.2	263.9
150°	183.9	184.4	188.0	193.8	200.2	208.3	218.7	228.2	239.0	249.4	260.7
152.5°	189.8	189.8	193.4	198.4	203.8	211.5	220.0	229.1	237.7	247.2	257.1
155°	195.6	195.6	198.4	202.9	207.8	214.2	221.9	229.1	236.8	244.4	253.5
157.5°	200.2	200.6	202.9	206.9	211.5	216.4	222.8	229.5	235.4	242.2	249.4
160°	205.6	205.6	207.4	211.0	214.2	218.7	224.1	229.5	234.5	239.5	245.3
162.5°	209.7	209.7	211.0	213.7	216.4	220.0	224.6	229.1	232.7	236.8	241.3
165°	213.7	213.3	214.2	216.4	218.2	221.4	225.0	228.2	230.9	234.1	237.7
167.5°	216.9	216.4	216.9	218.7	220.0	222.3	225.0	227.7	229.1	231.3	234.1
170°	219.6	218.7	219.1	220.5	221.4	222.3	224.6	226.4	227.3	228.6	230.9
172.5°	221.4	220.9	220.9	221.9	222.3	222.8	224.6	225.9	225.9	226.4	227.7
175°	222.8	222.3	221.9	222.8	222.8	223.2	224.1	225.0	224.6	224.6	225.5
177.5°	223.7	223.2	222.8	223.2	223.2	223.2	223.7	224.6	223.7	223.2	223.7
180°	223.2	223.2	223.2	223.2	223.2	223.2	223.2	223.2	223.2	223.2	223.2



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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°	11.3	11.7	12.2	13.1	12.7	13.1	13.6	13.1
92.5°	44.7	34.8	30.3	27.1	26.2	24.4	24.9	23.9
95°	162.7	110.2	86.3	70.0	61.5	57.4	54.2	52.4
97.5°	373.7	281.9	222.3	170.8	140.5	123.4	112.5	107.5
100°	532.7	496.1	443.3	379.1	333.5	300.5	282.9	283.3
102.5°	585.6	593.3	568.0	533.2	500.2	475.8	461.8	448.7
105°	587.4	632.6	641.2	629.4	608.6	591.5	577.0	574.7
107.5°	560.3	631.2	666.5	678.7	676.0	667.8	661.9	657.0
110°	517.8	600.9	657.9	689.5	702.2	705.8	704.9	704.0



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CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
112.5°	475.8	561.2	626.7	669.6	695.4	708.5	713.0	713.5
115°	439.6	518.3	584.7	633.9	667.8	687.7	696.7	699.0
117.5°	411.6	481.2	542.2	593.3	628.5	650.6	664.2	667.4
120°	390.4	451.4	505.6	551.2	586.9	612.2	623.1	625.8
122.5°	373.7	427.4	476.7	518.3	549.0	571.1	583.3	586.9
125°	359.2	408.5	451.8	488.0	516.9	536.8	548.1	551.2
127.5°	346.1	390.8	430.6	464.0	490.2	507.4	517.8	520.5
130°	333.9	374.6	411.2	441.9	465.8	482.1	491.6	495.2
132.5°	322.6	359.2	392.6	421.6	443.7	460.0	468.1	470.4
135°	312.7	344.8	374.1	399.9	422.0	435.6	443.7	446.9
137.5°	303.2	330.3	356.5	379.5	398.5	412.5	419.3	422.0
140°	295.1	318.1	339.8	359.2	376.4	389.0	396.3	395.8
142.5°	287.4	306.3	324.4	340.7	354.7	365.5	371.9	371.4
145°	281.5	296.4	310.9	324.0	335.3	344.8	348.4	349.3
147.5°	276.5	288.7	300.9	310.4	319.5	326.2	329.8	330.3
150°	271.1	281.5	291.0	299.6	306.3	311.3	314.0	314.0
152.5°	266.1	274.7	282.9	289.6	294.6	299.1	300.5	300.5
155°	261.2	268.4	275.2	280.6	284.7	288.3	289.2	289.6
157.5°	255.7	262.1	267.5	272.0	275.6	278.3	279.2	279.2
160°	251.2	256.2	260.7	263.9	267.0	269.7	269.7	269.3
162.5°	245.8	249.9	253.9	256.6	258.5	260.7	260.7	260.3
165°	241.3	244.0	247.2	249.4	251.2	253.0	252.6	252.6
167.5°	237.2	239.5	241.3	243.1	244.0	245.3	244.9	244.9
170°	233.1	234.5	236.3	237.2	237.7	238.6	238.1	238.1
172.5°	229.5	230.4	231.8	232.2	232.2	233.1	232.2	231.8
175°	226.4	226.8	227.7	227.7	227.7	228.2	227.7	227.3
177.5°	224.1	224.6	225.0	225.0	224.6	225.0	224.1	224.1
180°	223.2	223.2	223.2	223.2	223.2	223.2	223.2	223.2

(END OF REPORT)