

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: P334451

Luminaire Tested: **S122IP-S530U840-4F0-1E-UDD-4**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P334451
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1807-864-16)
Test Lab: INNOVATION CENTER
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: NEO-RAY
Catalog Number: S122IP-S530U840-4F0-1E-UDD-4
Description: DEFINE 2 INDIRECT LED LUMINAIRE, BATWING OPTIC
PENDANT MOUNT, 530 LUMENS PER FOOT
Light Source: 4000K CCT, 80 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

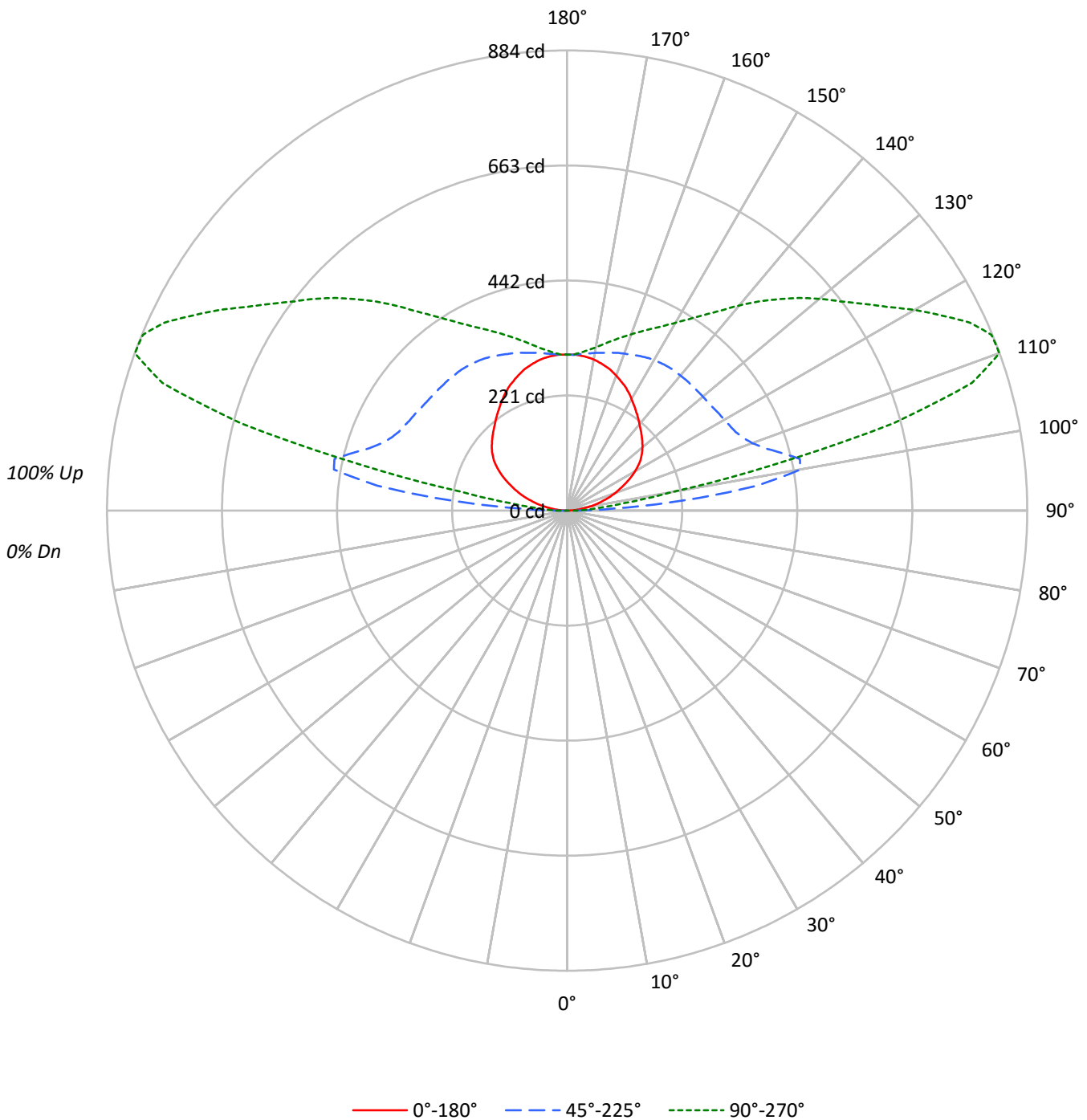
Lumens per Lamp: N/A
Luminaire Lumens: 2087.5 lumens
Efficiency: N/A
Efficacy: 111.0 lumens/watt
Spacing Criteria (0/90/45): - / - / -
Luminous Opening: Rectangular (W 0.17' x L: 4' x H: 0')
CIE Type: Indirect

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°	1.9	0.1
90°-100°	116.7	5.6
100°-110°	411.1	19.7
110°-120°	431.8	20.7
120°-130°	355.2	17.0
130°-140°	285.4	13.7
140°-150°	215.6	10.3
150°-160°	151.5	7.3
160°-170°	89.2	4.3
170°-180°	29.0	1.4
0°-30°	0.0	0.0
0°-40°	0.0	0.0
0°-60°	0.0	0.0
0°-90°	1.9	0.1
90°-120°	959.6	46.0
90°-150°	1815.8	87.0
90°-180°	2086.0	99.9
0°-180°	2087.5	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	20	19	19	1
95°	20	50	226	85	66	21
105°	70	106	427	763	649	75
115°	124	156	357	737	854	123
125°	173	204	343	597	693	154
135°	203	242	339	502	574	157
145°	232	266	338	419	458	145
155°	263	284	328	371	385	121
165°	287	295	314	333	338	81
175°	299	299	302	306	305	28
180°	300	300	300	300	300	



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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°	0.6	2.3	4.6	5.8	6.9	8.6	11.5	15.5	19.0	19.6	19.0
92.5°	8.6	12.1	16.7	19.6	24.2	30.5	46.1	68.0	87.5	88.7	74.3
95°	20.2	22.5	28.2	33.4	42.6	56.4	82.9	133.0	199.8	225.8	197.5
97.5°	29.9	33.4	39.7	47.2	57.6	73.1	107.1	176.8	284.5	368.0	370.9
100°	44.3	46.1	51.3	60.5	72.0	88.1	118.6	188.9	313.3	455.0	537.9
102.5°	57.6	58.7	63.9	73.1	85.2	101.4	129.0	189.5	302.4	457.9	600.1
105°	70.3	72.6	76.6	85.2	97.9	114.0	141.1	192.4	287.4	426.8	579.9
107.5°	84.1	85.8	89.8	97.9	110.6	126.7	153.2	198.7	279.3	398.0	537.3
110°	97.9	100.2	103.7	111.2	123.2	139.9	165.3	206.8	277.0	378.4	497.6



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CANDELA DISTRIBUTION (continued):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	110.6	112.9	116.9	123.8	135.3	152.6	176.8	215.4	277.6	365.7	469.9
115°	123.8	126.7	130.2	137.1	148.6	164.1	188.9	224.0	279.9	357.1	448.1
117.5°	137.6	139.9	143.4	149.7	160.7	176.8	199.8	233.2	283.3	352.5	433.1
120°	150.3	152.6	156.1	161.3	172.8	188.9	211.4	242.5	286.8	348.4	421.6
122.5°	162.4	164.1	167.6	173.3	184.9	201.6	222.3	250.5	290.8	346.1	411.8
125°	172.8	174.5	178.0	184.9	196.4	212.5	233.2	259.2	294.9	343.2	402.6
127.5°	181.4	183.7	188.3	195.8	206.8	223.5	243.6	267.2	298.9	341.5	393.9
130°	188.9	191.2	197.0	205.0	216.5	232.7	252.8	274.7	303.5	340.4	385.3
132.5°	195.8	198.7	205.0	213.7	225.8	241.9	260.9	282.2	308.1	339.8	378.4
135°	202.7	205.0	211.9	220.6	233.8	249.9	268.4	288.5	311.6	339.2	372.0
137.5°	209.1	211.9	218.8	228.1	241.3	256.3	274.7	293.7	315.0	339.2	367.4
140°	216.5	218.8	225.8	235.0	247.6	262.6	279.9	297.7	317.3	338.6	363.4
142.5°	224.0	225.8	232.1	241.3	253.4	267.2	283.9	301.2	319.1	338.6	359.4
145°	231.5	233.8	239.6	248.2	259.7	272.4	288.0	304.1	320.2	337.5	355.9
147.5°	239.6	241.3	247.1	255.1	264.9	276.4	291.4	305.8	320.8	335.8	352.5
150°	247.6	249.4	254.0	261.5	270.1	280.5	293.7	307.0	320.2	334.0	347.9
152.5°	255.7	256.3	260.9	267.2	275.3	284.5	296.0	307.5	319.1	331.2	343.8
155°	263.2	263.8	267.2	273.6	279.9	288.5	298.3	308.1	317.9	327.7	338.6
157.5°	269.5	270.1	273.0	278.7	283.9	291.4	300.1	308.1	315.6	324.2	334.0
160°	275.9	276.4	278.7	283.3	288.0	294.3	301.2	308.1	313.9	320.8	328.8
162.5°	282.2	281.6	283.9	287.4	291.4	296.0	301.8	307.5	312.1	317.9	324.2
165°	286.8	286.2	287.4	290.8	293.7	297.2	302.4	306.4	309.8	313.9	319.1
167.5°	290.8	290.3	291.4	293.7	296.0	298.3	302.4	305.8	307.5	310.4	313.9
170°	294.9	293.7	294.3	296.0	297.2	298.9	301.8	304.7	305.8	307.5	309.8
172.5°	297.2	296.6	296.0	297.7	298.3	299.5	301.2	302.9	303.5	304.1	305.8
175°	298.9	298.3	297.7	298.9	298.9	299.5	300.6	301.8	301.2	301.8	302.4
177.5°	300.1	298.9	298.3	299.5	299.5	299.5	300.1	301.2	300.1	299.5	300.1
180°	299.5	299.5	299.5	299.5	299.5	299.5	299.5	299.5	299.5	299.5	299.5



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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°	18.4	17.3	18.4	19.0	19.0	19.0	19.0	19.0
92.5°	58.2	49.5	43.2	38.6	38.0	35.7	36.3	35.1
95°	150.9	115.8	91.6	78.9	71.4	66.8	65.1	65.7
97.5°	308.7	246.5	188.3	153.8	131.3	119.8	113.5	110.0
100°	525.8	454.4	375.5	305.8	258.0	233.2	216.5	206.2
102.5°	668.1	665.8	613.3	538.5	485.5	438.8	417.0	402.0
105°	699.7	764.8	772.3	753.3	717.6	681.9	657.1	649.1
107.5°	665.8	762.5	818.9	842.0	841.4	836.2	828.7	815.5
110°	619.1	722.2	795.9	843.1	867.9	878.8	884.0	883.5



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CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
112.5°	576.5	674.4	754.4	810.3	847.2	867.3	878.3	882.3
115°	543.1	631.8	707.2	766.5	807.4	833.9	848.9	854.1
117.5°	515.4	594.9	665.2	721.6	763.7	791.9	807.4	811.5
120°	495.9	567.3	628.3	680.7	721.0	748.1	764.8	770.6
122.5°	480.3	544.2	601.3	647.3	682.5	708.9	723.3	728.0
125°	465.3	524.7	575.3	618.5	651.9	673.8	688.2	692.8
127.5°	450.4	505.1	553.5	593.8	623.1	643.9	656.5	660.0
130°	436.0	485.5	531.0	569.0	597.2	616.8	628.3	632.9
132.5°	422.1	467.1	508.0	543.1	570.7	590.3	600.7	604.7
135°	409.5	447.5	485.5	517.7	542.5	561.5	571.9	574.2
137.5°	399.1	431.9	463.0	491.8	515.4	532.1	541.4	544.8
140°	389.3	417.0	443.5	468.8	487.2	502.2	510.8	514.3
142.5°	381.3	403.7	425.6	445.8	463.0	476.3	483.8	483.8
145°	373.8	392.8	410.6	427.3	441.1	450.9	456.7	458.4
147.5°	368.0	383.6	398.0	410.6	422.7	430.8	434.8	436.0
150°	361.7	374.3	386.4	396.8	405.4	412.4	415.8	416.4
152.5°	355.3	366.9	376.6	385.3	391.6	397.4	399.7	399.7
155°	349.6	358.8	367.4	373.8	380.1	384.1	386.4	385.3
157.5°	342.7	350.7	358.2	363.4	368.0	371.5	372.6	372.6
160°	336.3	342.7	349.0	353.0	357.1	359.9	360.5	360.5
162.5°	330.0	335.2	340.4	343.2	347.3	349.0	349.6	349.0
165°	323.7	327.7	331.7	334.0	336.3	338.6	338.6	338.1
167.5°	317.3	320.8	323.7	326.0	327.1	328.3	328.3	327.7
170°	312.7	314.4	316.8	317.9	318.5	320.2	319.6	318.5
172.5°	307.5	308.7	310.4	311.0	311.6	312.1	311.6	311.0
175°	304.1	304.7	305.2	305.8	305.8	306.4	305.8	304.7
177.5°	301.2	301.2	301.8	301.8	301.8	301.8	301.2	300.1
180°	299.5	299.5	299.5	299.5	299.5	299.5	299.5	299.5

(END OF REPORT)