

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: P334635

Luminaire Tested: **S123IP-S365U930-4F0-1E-UDD-4**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P334635
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-S365U930-4F0-1E-UDD-4
Description: DEFINE 3 INDIRECT LED LUMINAIRE, BATWING OPTIC
PENDANT MOUNT, 365 LUMENS PER FOOT
Light Source: 3000K CCT, 90 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

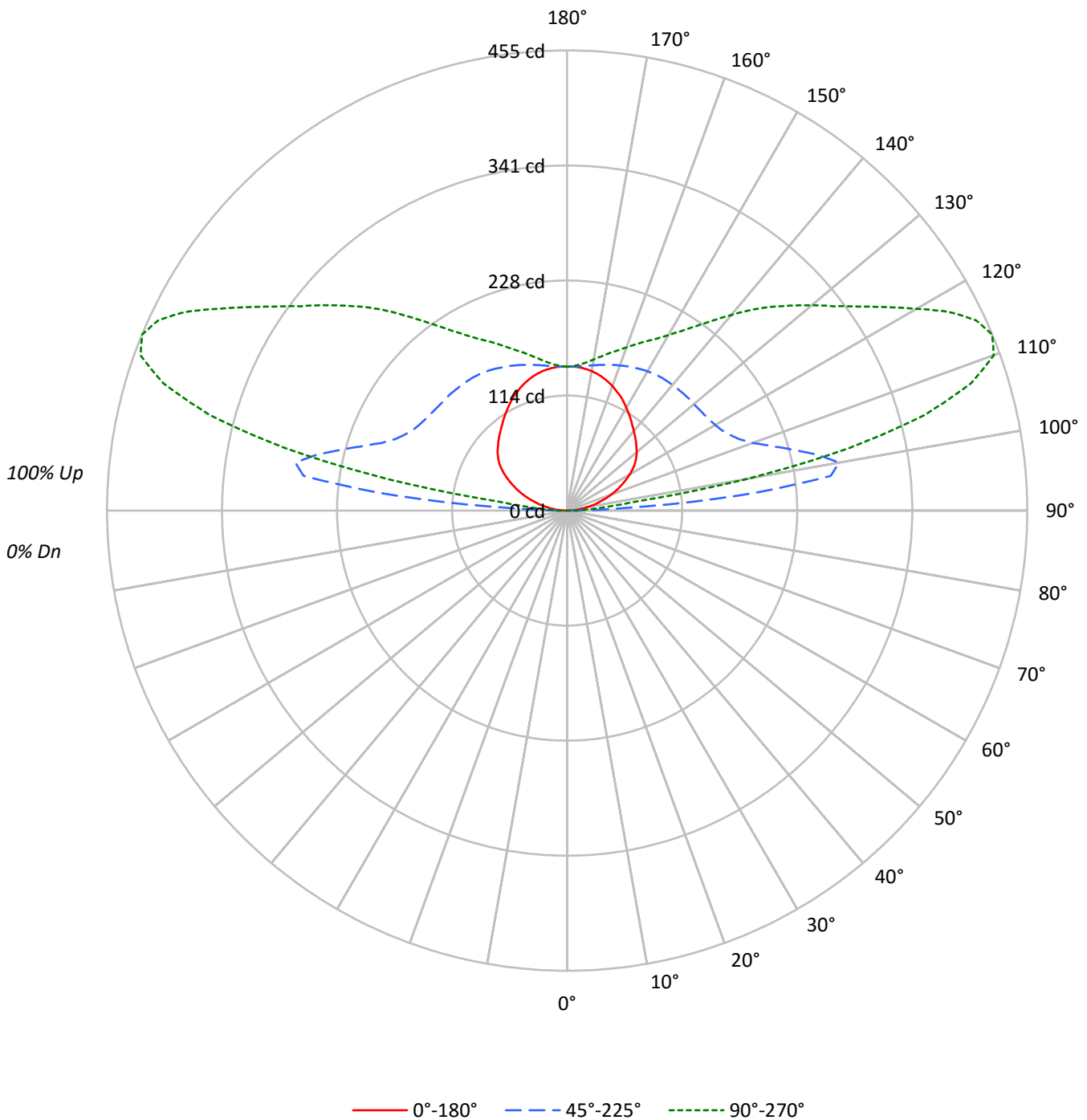
Lumens per Lamp: N/A
Luminaire Lumens: 1071.4 lumens
Efficiency: N/A
Efficacy: 94.0 lumens/watt
Spacing Criteria (0/90/45): - / - / -
Luminous Opening: Rectangular (W 0.25' x L: 4' x H: 0')
CIE Type: Indirect

Input Watts (W): 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°	0.8	0.1
90°-100°	77.2	7.2
100°-110°	226.1	21.1
110°-120°	220.8	20.6
120°-130°	175.9	16.4
130°-140°	138.7	12.9
140°-150°	103.5	9.7
150°-160°	72.2	6.7
160°-170°	42.4	4.0
170°-180°	13.8	1.3
0°-30°	0.0	0.0
0°-40°	0.0	0.0
0°-60°	0.0	0.0
0°-90°	0.8	0.1
90°-120°	524.2	48.9
90°-150°	942.3	87.9
90°-180°	1071.0	100.0
0°-180°	1071.4	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	3	7	8	8	1
95°	10	32	171	50	33	10
105°	33	49	232	405	366	36
115°	59	74	177	388	446	58
125°	82	97	165	300	352	73
135°	96	115	163	247	285	74
145°	110	126	161	202	223	69
155°	125	135	156	177	185	57
165°	136	140	149	158	161	38
175°	142	142	143	145	145	13
180°	142	142	142	142	142	



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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	1.2	1.7	2.6	3.2	3.7	4.6	5.5	6.3	7.2	6.9
92.5°	4.3	6.3	9.2	11.8	14.7	19.9	29.1	44.4	59.4	53.6	40.0
95°	9.8	10.7	13.8	18.7	26.2	37.5	61.9	104.9	152.1	170.8	138.6
97.5°	15.6	15.8	18.4	22.8	30.3	42.6	66.8	116.7	196.2	262.8	271.7
100°	21.3	21.6	23.6	27.7	34.6	45.8	66.0	108.6	184.4	272.8	329.6
102.5°	27.4	27.9	29.7	33.4	39.5	49.6	67.1	101.7	167.1	254.1	332.5
105°	33.4	34.3	36.0	39.5	44.9	53.9	69.4	99.1	153.6	231.6	314.3
107.5°	39.8	40.6	42.4	45.8	51.0	59.4	73.2	98.5	143.8	211.8	288.4
110°	46.7	47.5	49.0	52.1	57.0	65.1	78.1	100.0	138.6	195.3	264.2



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CANDELA DISTRIBUTION (continued):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	53.0	53.9	55.3	58.5	63.4	71.2	83.0	102.9	135.7	184.4	243.2
115°	59.1	60.2	61.9	64.8	69.7	77.5	88.5	106.0	135.4	177.2	227.0
117.5°	65.1	66.6	68.0	70.6	76.1	83.3	94.2	110.1	135.7	172.3	216.4
120°	71.5	72.3	73.8	76.6	82.1	89.3	99.7	114.7	136.9	169.1	208.3
122.5°	76.9	77.8	79.2	82.4	87.6	95.4	105.4	119.0	138.9	167.1	201.7
125°	82.1	82.7	84.4	87.6	93.1	100.8	110.9	123.6	140.9	165.4	196.2
127.5°	86.1	87.0	89.0	92.2	98.2	106.0	115.8	127.3	143.2	164.5	191.0
130°	89.9	90.8	93.3	96.8	102.9	110.6	120.1	131.1	145.5	163.6	187.0
132.5°	92.8	93.9	96.8	101.1	107.2	114.7	123.9	134.5	147.2	163.4	183.2
135°	96.2	97.4	100.6	104.9	110.9	118.7	127.6	137.4	149.0	163.1	180.1
137.5°	99.4	100.6	103.7	108.3	114.4	121.6	130.2	139.7	150.1	162.5	177.2
140°	102.6	104.0	106.9	111.5	117.3	124.5	132.8	141.5	151.3	162.2	174.6
142.5°	106.0	107.2	110.3	114.4	120.1	126.8	134.8	143.2	152.1	161.6	172.3
145°	109.8	110.6	113.2	117.5	122.4	129.1	136.6	144.3	152.4	161.1	170.3
147.5°	113.5	114.1	116.7	120.4	125.3	131.1	138.0	145.2	152.4	160.2	168.3
150°	117.3	117.5	119.9	123.6	127.6	132.8	139.4	145.5	152.4	159.0	166.2
152.5°	121.0	121.0	123.3	126.5	129.9	134.8	140.3	146.1	151.5	157.6	163.9
155°	124.8	124.8	126.5	129.4	132.5	136.6	141.5	146.1	151.0	155.9	161.6
157.5°	127.6	127.9	129.4	132.0	134.8	138.0	142.0	146.4	150.1	154.4	159.0
160°	131.1	131.1	132.2	134.5	136.6	139.4	142.9	146.4	149.5	152.7	156.4
162.5°	133.7	133.7	134.5	136.3	138.0	140.3	143.2	146.1	148.4	151.0	153.9
165°	136.3	136.0	136.6	138.0	139.2	141.2	143.5	145.5	147.2	149.2	151.5
167.5°	138.3	138.0	138.3	139.4	140.3	141.8	143.5	145.2	146.1	147.5	149.2
170°	140.0	139.4	139.7	140.6	141.2	141.8	143.2	144.3	144.9	145.8	147.2
172.5°	141.2	140.9	140.9	141.5	141.8	142.0	143.2	144.1	144.1	144.3	145.2
175°	142.0	141.8	141.5	142.0	142.0	142.3	142.9	143.5	143.2	143.2	143.8
177.5°	142.6	142.3	142.0	142.3	142.3	142.3	142.6	143.2	142.6	142.3	142.6
180°	142.3	142.3	142.3	142.3	142.3	142.3	142.3	142.3	142.3	142.3	142.3



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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°	7.2	7.5	7.8	8.4	8.1	8.4	8.6	8.4
92.5°	28.5	22.2	19.3	17.3	16.7	15.6	15.8	15.3
95°	103.7	70.3	55.0	44.7	39.2	36.6	34.6	33.4
97.5°	238.3	179.8	141.8	108.9	89.6	78.7	71.7	68.6
100°	339.7	316.3	282.6	241.7	212.6	191.6	180.4	180.6
102.5°	373.4	378.3	362.2	340.0	318.9	303.4	294.4	286.1
105°	374.5	403.4	408.8	401.3	388.1	377.1	367.9	366.5
107.5°	357.3	402.5	425.0	432.7	431.0	425.8	422.1	418.9
110°	330.2	383.2	419.5	439.7	447.7	450.0	449.5	448.9



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CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
112.5°	303.4	357.8	399.6	427.0	443.4	451.8	454.6	454.9
115°	280.3	330.5	372.8	404.2	425.8	438.5	444.3	445.7
117.5°	262.5	306.8	345.7	378.3	400.8	414.9	423.5	425.5
120°	248.9	287.8	322.4	351.5	374.3	390.4	397.3	399.0
122.5°	238.3	272.6	304.0	330.5	350.1	364.2	372.0	374.3
125°	229.0	260.5	288.1	311.2	329.6	342.3	349.5	351.5
127.5°	220.7	249.2	274.6	295.9	312.6	323.5	330.2	331.9
130°	212.9	238.8	262.2	281.8	297.0	307.4	313.5	315.8
132.5°	205.7	229.0	250.4	268.8	282.9	293.3	298.5	299.9
135°	199.4	219.8	238.6	255.0	269.1	277.7	282.9	284.9
137.5°	193.3	210.6	227.3	242.0	254.1	263.0	267.4	269.1
140°	188.1	202.8	216.7	229.0	240.0	248.1	252.7	252.4
142.5°	183.2	195.3	206.9	217.2	226.2	233.1	237.1	236.8
145°	179.5	189.0	198.2	206.6	213.8	219.8	222.1	222.7
147.5°	176.3	184.1	191.9	197.9	203.7	208.0	210.3	210.6
150°	172.9	179.5	185.5	191.0	195.3	198.5	200.2	200.2
152.5°	169.7	175.2	180.4	184.7	187.8	190.7	191.6	191.6
155°	166.5	171.1	175.5	178.9	181.5	183.8	184.4	184.7
157.5°	163.1	167.1	170.6	173.4	175.7	177.5	178.1	178.1
160°	160.2	163.4	166.2	168.3	170.3	172.0	172.0	171.7
162.5°	156.7	159.3	161.9	163.6	164.8	166.2	166.2	166.0
165°	153.9	155.6	157.6	159.0	160.2	161.3	161.1	161.1
167.5°	151.3	152.7	153.9	155.0	155.6	156.4	156.2	156.2
170°	148.7	149.5	150.7	151.3	151.5	152.1	151.8	151.8
172.5°	146.4	146.9	147.8	148.1	148.1	148.7	148.1	147.8
175°	144.3	144.6	145.2	145.2	145.2	145.5	145.2	144.9
177.5°	142.9	143.2	143.5	143.5	143.2	143.5	142.9	142.9
180°	142.3	142.3	142.3	142.3	142.3	142.3	142.3	142.3

(END OF REPORT)