

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: P334640

Luminaire Tested: **S123IP-S365U935-4F0-1E-UDD-4**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P334640
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-S365U935-4F0-1E-UDD-4
Description: DEFINE 3 INDIRECT LED LUMINAIRE, BATWING OPTIC
PENDANT MOUNT, 365 LUMENS PER FOOT
Light Source: 3500K CCT, 90 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

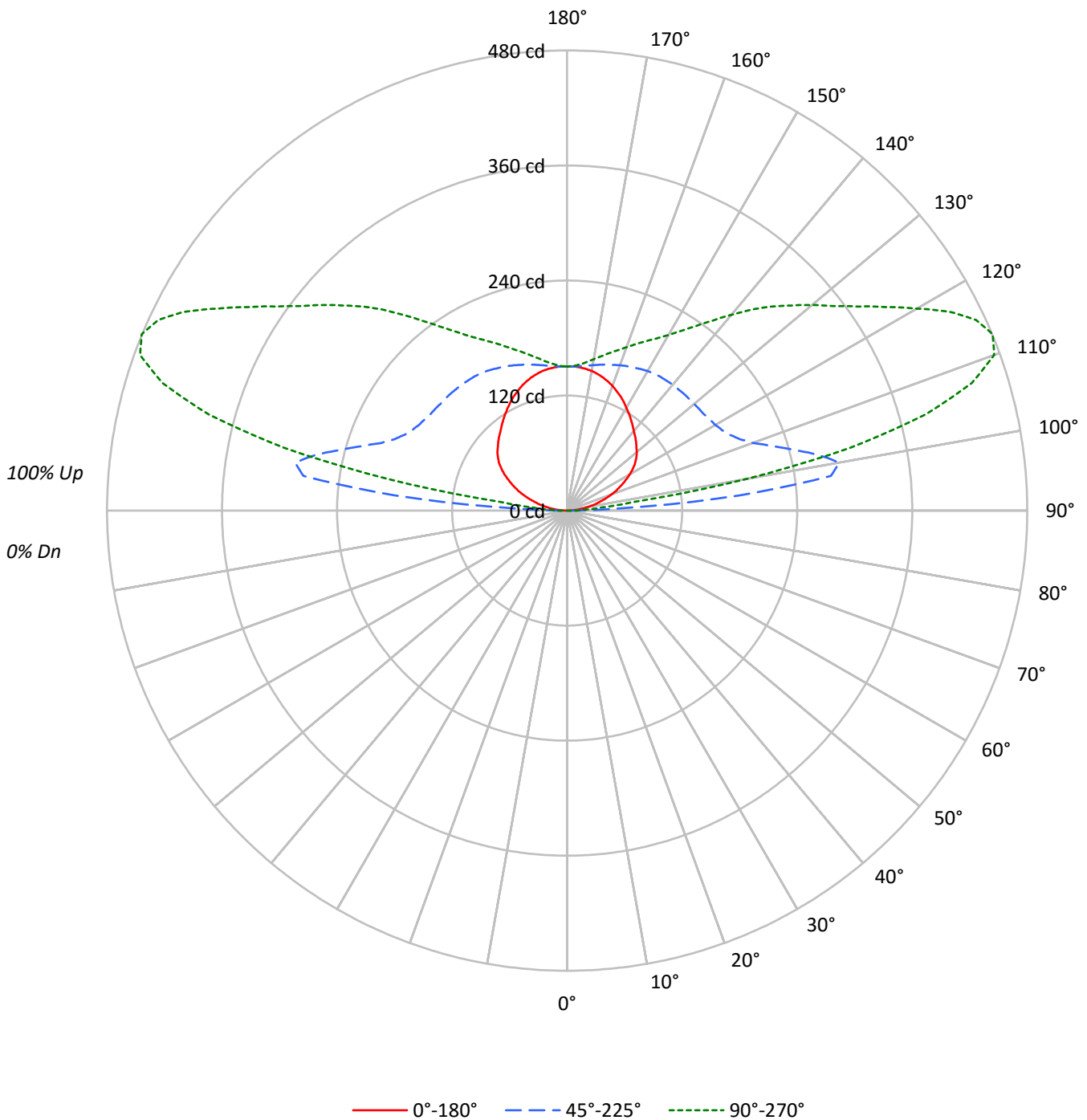
Lumens per Lamp: N/A
Luminaire Lumens: 1131.4 lumens
Efficiency: N/A
Efficacy: 99.2 lumens/watt
Spacing Criteria (0/90/45): - / - / -
Luminous Opening: Rectangular (W 0.25' x L: 4' x H: 0')
CIE Type: Indirect

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°	81.6	7.2
100°-110°	238.8	21.1
110°-120°	233.2	20.6
120°-130°	185.7	16.4
130°-140°	146.5	12.9
140°-150°	109.3	9.7
150°-160°	76.2	6.7
160°-170°	44.8	4.0
170°-180°	14.6	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°	553.5	48.9
90°-150°	995.1	87.9
90°-180°	1131.0	100.0
0°-180°	1131.4	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	4	8	8	9	1
95°	10	34	180	53	35	11
105°	35	52	245	428	387	37
115°	62	78	187	410	471	62
125°	87	102	175	316	371	77
135°	102	121	172	261	301	79
145°	116	133	170	214	235	73
155°	132	142	165	187	195	61
165°	144	148	158	167	170	41
175°	150	150	151	153	153	14
180°	150	150	150	150	150	



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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	1.8	2.7	3.3	4.0	4.9	5.8	6.7	7.6	7.3
92.5°	4.6	6.7	9.7	12.5	15.5	21.0	30.7	46.9	62.7	56.6	42.3
95°	10.3	11.3	14.6	19.8	27.7	39.6	65.4	110.8	160.6	180.4	146.3
97.5°	16.4	16.7	19.5	24.0	31.9	45.0	70.6	123.2	207.2	277.5	286.9
100°	22.5	22.8	24.9	29.2	36.5	48.4	69.7	114.7	194.7	288.1	348.1
102.5°	28.9	29.5	31.3	35.3	41.7	52.3	70.9	107.4	176.5	268.4	351.1
105°	35.3	36.2	38.0	41.7	47.5	56.9	73.3	104.7	162.2	244.6	331.9
107.5°	42.0	42.9	44.7	48.4	53.9	62.7	77.3	104.1	151.8	223.6	304.6
110°	49.3	50.2	51.7	55.1	60.2	68.8	82.5	105.6	146.3	206.3	279.0



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CANDELA DISTRIBUTION (continued):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	56.0	56.9	58.4	61.8	66.9	75.2	87.6	108.6	143.3	194.7	256.8
115°	62.4	63.6	65.4	68.5	73.6	81.8	93.4	112.0	143.0	187.1	239.8
117.5°	68.8	70.3	71.8	74.5	80.3	87.9	99.5	116.2	143.3	181.9	228.5
120°	75.5	76.4	77.9	80.9	86.7	94.3	105.3	121.1	144.5	178.6	220.0
122.5°	81.2	82.2	83.7	87.0	92.5	100.7	111.4	125.7	146.7	176.5	213.0
125°	86.7	87.3	89.1	92.5	98.3	106.5	117.1	130.5	148.8	174.6	207.2
127.5°	91.0	91.9	94.0	97.4	103.8	112.0	122.3	134.5	151.2	173.7	201.7
130°	94.9	95.8	98.6	102.2	108.6	116.8	126.9	138.4	153.7	172.8	197.5
132.5°	98.0	99.2	102.2	106.8	113.2	121.1	130.8	142.1	155.5	172.5	193.5
135°	101.6	102.8	106.2	110.8	117.1	125.4	134.8	145.1	157.3	172.2	190.2
137.5°	105.0	106.2	109.5	114.4	120.8	128.4	137.5	147.6	158.5	171.6	187.1
140°	108.3	109.8	112.9	117.7	123.8	131.4	140.3	149.4	159.7	171.3	184.4
142.5°	112.0	113.2	116.5	120.8	126.9	133.9	142.4	151.2	160.6	170.7	181.9
145°	115.9	116.8	119.6	124.1	129.3	136.3	144.2	152.4	161.0	170.1	179.8
147.5°	119.9	120.5	123.2	127.2	132.4	138.4	145.7	153.3	161.0	169.2	177.7
150°	123.8	124.1	126.6	130.5	134.8	140.3	147.3	153.7	161.0	168.0	175.6
152.5°	127.8	127.8	130.2	133.6	137.2	142.4	148.2	154.3	160.0	166.4	173.1
155°	131.7	131.7	133.6	136.6	140.0	144.2	149.4	154.3	159.4	164.6	170.7
157.5°	134.8	135.1	136.6	139.4	142.4	145.7	150.0	154.6	158.5	163.1	168.0
160°	138.4	138.4	139.7	142.1	144.2	147.3	150.9	154.6	157.9	161.3	165.2
162.5°	141.2	141.2	142.1	143.9	145.7	148.2	151.2	154.3	156.7	159.4	162.5
165°	143.9	143.6	144.2	145.7	147.0	149.1	151.5	153.7	155.5	157.6	160.0
167.5°	146.0	145.7	146.0	147.3	148.2	149.7	151.5	153.3	154.3	155.8	157.6
170°	147.9	147.3	147.6	148.5	149.1	149.7	151.2	152.4	153.0	154.0	155.5
172.5°	149.1	148.8	148.8	149.4	149.7	150.0	151.2	152.1	152.1	152.4	153.3
175°	150.0	149.7	149.4	150.0	150.0	150.3	150.9	151.5	151.2	151.2	151.8
177.5°	150.6	150.3	150.0	150.3	150.3	150.3	150.6	151.2	150.6	150.3	150.6
180°	150.3	150.3	150.3	150.3	150.3	150.3	150.3	150.3	150.3	150.3	150.3



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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°	7.6	7.9	8.2	8.8	8.5	8.8	9.1	8.8
92.5°	30.1	23.4	20.4	18.3	17.6	16.4	16.7	16.1
95°	109.5	74.2	58.1	47.2	41.4	38.6	36.5	35.3
97.5°	251.6	189.9	149.7	115.0	94.6	83.1	75.8	72.4
100°	358.7	334.1	298.5	255.3	224.5	202.3	190.5	190.8
102.5°	394.3	399.5	382.5	359.0	336.8	320.4	311.0	302.1
105°	395.5	426.0	431.7	423.8	409.8	398.3	388.5	387.0
107.5°	377.3	425.1	448.8	457.0	455.2	449.7	445.7	442.4
110°	348.7	404.7	443.0	464.3	472.8	475.3	474.6	474.0



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CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
112.5°	320.4	377.9	422.0	450.9	468.3	477.1	480.1	480.4
115°	296.0	349.0	393.7	426.9	449.7	463.1	469.2	470.7
117.5°	277.2	324.0	365.1	399.5	423.2	438.1	447.3	449.4
120°	262.9	304.0	340.5	371.2	395.2	412.3	419.6	421.4
122.5°	251.6	287.8	321.0	349.0	369.7	384.6	392.8	395.2
125°	241.9	275.1	304.3	328.6	348.1	361.5	369.1	371.2
127.5°	233.1	263.2	290.0	312.5	330.1	341.7	348.7	350.5
130°	224.8	252.2	276.9	297.6	313.7	324.6	331.0	333.5
132.5°	217.2	241.9	264.4	283.9	298.8	309.7	315.2	316.7
135°	210.5	232.2	251.9	269.3	284.2	293.3	298.8	300.9
137.5°	204.2	222.4	240.1	255.6	268.4	277.8	282.4	284.2
140°	198.7	214.2	228.8	241.9	253.4	262.0	266.8	266.5
142.5°	193.5	206.3	218.5	229.4	238.8	246.1	250.4	250.1
145°	189.6	199.6	209.3	218.2	225.8	232.2	234.6	235.2
147.5°	186.2	194.4	202.6	209.0	215.1	219.7	222.1	222.4
150°	182.6	189.6	195.9	201.7	206.3	209.6	211.5	211.5
152.5°	179.2	185.0	190.5	195.0	198.4	201.4	202.3	202.3
155°	175.9	180.7	185.3	188.9	191.7	194.1	194.7	195.0
157.5°	172.2	176.5	180.1	183.2	185.6	187.4	188.0	188.0
160°	169.2	172.5	175.6	177.7	179.8	181.6	181.6	181.3
162.5°	165.5	168.3	171.0	172.8	174.0	175.6	175.6	175.3
165°	162.5	164.3	166.4	168.0	169.2	170.4	170.1	170.1
167.5°	159.7	161.3	162.5	163.7	164.3	165.2	164.9	164.9
170°	157.0	157.9	159.1	159.7	160.0	160.6	160.3	160.3
172.5°	154.6	155.2	156.1	156.4	156.4	157.0	156.4	156.1
175°	152.4	152.7	153.3	153.3	153.3	153.7	153.3	153.0
177.5°	150.9	151.2	151.5	151.5	151.2	151.5	150.9	150.9
180°	150.3	150.3	150.3	150.3	150.3	150.3	150.3	150.3

(END OF REPORT)