

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: P334450

Luminaire Tested: **S122IP-S330U840-4F0-1E-UDD-4**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P334450
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-S330U840-4F0-1E-UDD-4
Description: DEFINE 2 INDIRECT LED LUMINAIRE, BATWING OPTIC
PENDANT MOUNT, 330 LUMENS PER FOOT
Light Source: 4000K CCT, 80 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

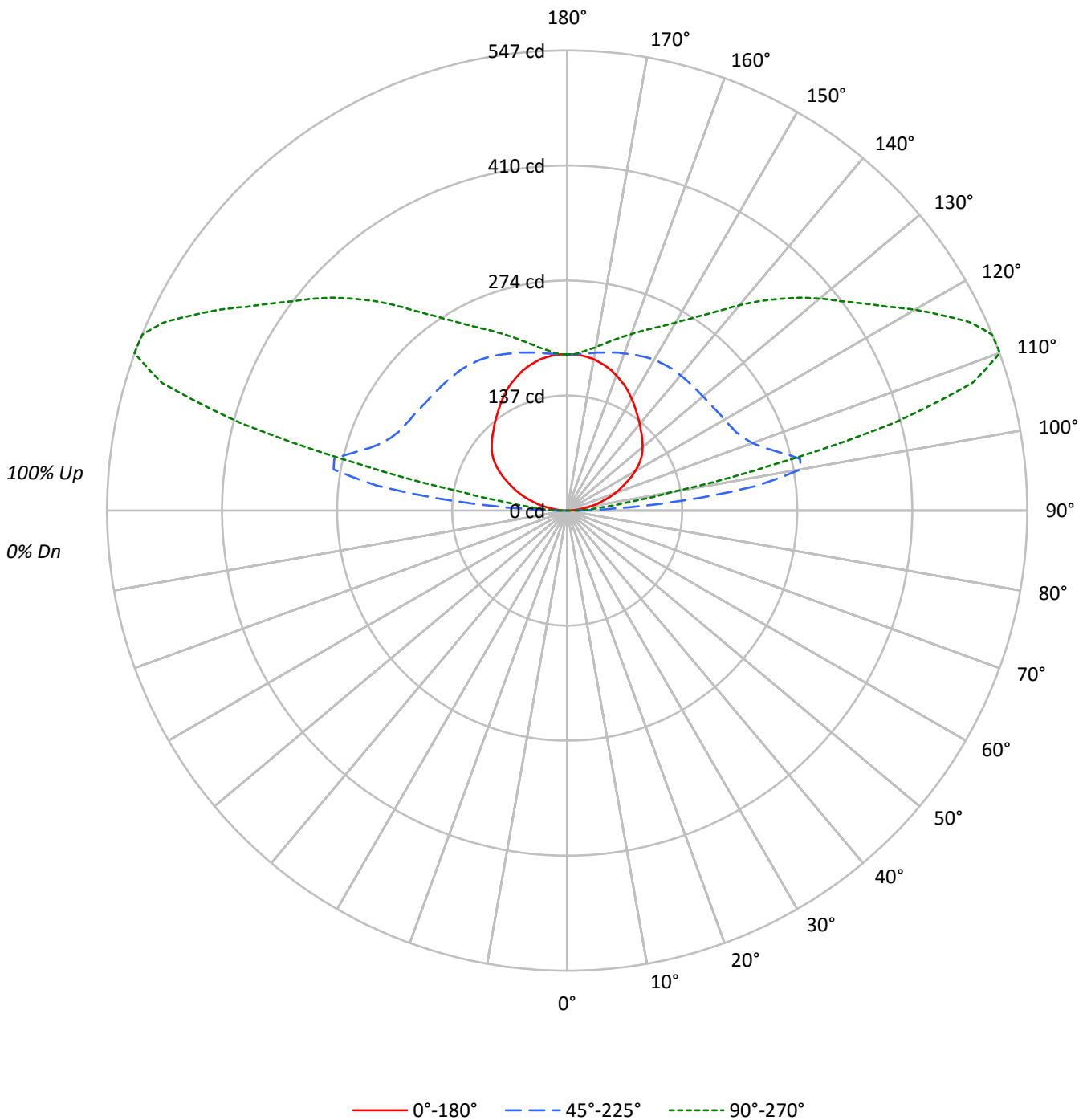
Lumens per Lamp: N/A
Luminaire Lumens: 1293.3 lumens
Efficiency: N/A
Efficacy: 113.4 lumens/watt
Spacing Criteria (0/90/45): - / - / -
Luminous Opening: Rectangular (W 0.17' x L: 4' x H: 0')
CIE Type: Indirect

Input Watts (W): 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°	1.2	0.1
90°-100°	72.3	5.6
100°-110°	254.7	19.7
110°-120°	267.5	20.7
120°-130°	220.1	17.0
130°-140°	176.8	13.7
140°-150°	133.6	10.3
150°-160°	93.9	7.3
160°-170°	55.3	4.3
170°-180°	18.0	1.4
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°	594.6	46.0
90°-150°	1125.0	87.0
90°-180°	1292.0	99.9
0°-180°	1293.3	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	5	12	12	12	1
95°	12	31	140	53	41	13
105°	44	66	264	473	402	46
115°	77	97	221	457	529	76
125°	107	127	213	370	429	95
135°	126	150	210	311	356	97
145°	143	165	209	260	284	90
155°	163	176	203	230	239	75
165°	178	183	194	206	209	50
175°	185	185	187	189	189	18
180°	186	186	186	186	186	



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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°	0.4	1.4	2.9	3.6	4.3	5.4	7.1	9.6	11.8	12.1	11.8
92.5°	5.4	7.5	10.3	12.1	15.0	18.9	28.5	42.1	54.2	54.9	46.0
95°	12.5	13.9	17.5	20.7	26.4	35.0	51.4	82.4	123.8	139.9	122.4
97.5°	18.6	20.7	24.6	29.3	35.7	45.3	66.4	109.5	176.3	228.0	229.8
100°	27.5	28.5	31.8	37.5	44.6	54.6	73.5	117.0	194.1	281.9	333.3
102.5°	35.7	36.4	39.6	45.3	52.8	62.8	79.9	117.4	187.3	283.7	371.8
105°	43.5	45.0	47.5	52.8	60.7	70.6	87.4	119.2	178.0	264.4	359.3
107.5°	52.1	53.2	55.7	60.7	68.5	78.5	94.9	123.1	173.1	246.6	332.9
110°	60.7	62.1	64.2	68.9	76.4	86.7	102.4	128.1	171.6	234.4	308.3



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CANDELA DISTRIBUTION (continued):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	68.5	69.9	72.4	76.7	83.9	94.6	109.5	133.4	172.0	226.6	291.2
115°	76.7	78.5	80.6	84.9	92.1	101.7	117.0	138.8	173.4	221.2	277.6
117.5°	85.3	86.7	88.8	92.8	99.6	109.5	123.8	144.5	175.6	218.4	268.3
120°	93.1	94.6	96.7	99.9	107.0	117.0	131.0	150.2	177.7	215.9	261.2
122.5°	100.6	101.7	103.8	107.4	114.5	124.9	137.7	155.2	180.2	214.4	255.1
125°	107.0	108.1	110.3	114.5	121.7	131.7	144.5	160.6	182.7	212.7	249.4
127.5°	112.4	113.8	116.7	121.3	128.1	138.4	150.9	165.6	185.2	211.6	244.1
130°	117.0	118.5	122.0	127.0	134.2	144.2	156.6	170.2	188.0	210.9	238.7
132.5°	121.3	123.1	127.0	132.4	139.9	149.9	161.6	174.8	190.9	210.5	234.4
135°	125.6	127.0	131.3	136.7	144.9	154.9	166.3	178.8	193.0	210.2	230.5
137.5°	129.5	131.3	135.6	141.3	149.5	158.8	170.2	182.0	195.2	210.2	227.6
140°	134.2	135.6	139.9	145.6	153.4	162.7	173.4	184.5	196.6	209.8	225.1
142.5°	138.8	139.9	143.8	149.5	157.0	165.6	175.9	186.6	197.7	209.8	222.7
145°	143.4	144.9	148.4	153.8	160.9	168.8	178.4	188.4	198.4	209.1	220.5
147.5°	148.4	149.5	153.1	158.1	164.1	171.3	180.5	189.5	198.7	208.0	218.4
150°	153.4	154.5	157.4	162.0	167.3	173.8	182.0	190.2	198.4	207.0	215.5
152.5°	158.4	158.8	161.6	165.6	170.6	176.3	183.4	190.5	197.7	205.2	213.0
155°	163.1	163.4	165.6	169.5	173.4	178.8	184.8	190.9	197.0	203.0	209.8
157.5°	167.0	167.3	169.1	172.7	175.9	180.5	185.9	190.9	195.5	200.9	207.0
160°	170.9	171.3	172.7	175.6	178.4	182.3	186.6	190.9	194.5	198.7	203.7
162.5°	174.8	174.5	175.9	178.0	180.5	183.4	187.0	190.5	193.4	197.0	200.9
165°	177.7	177.3	178.0	180.2	182.0	184.1	187.3	189.8	192.0	194.5	197.7
167.5°	180.2	179.8	180.5	182.0	183.4	184.8	187.3	189.5	190.5	192.3	194.5
170°	182.7	182.0	182.3	183.4	184.1	185.2	187.0	188.8	189.5	190.5	192.0
172.5°	184.1	183.8	183.4	184.5	184.8	185.5	186.6	187.7	188.0	188.4	189.5
175°	185.2	184.8	184.5	185.2	185.2	185.5	186.3	187.0	186.6	187.0	187.3
177.5°	185.9	185.2	184.8	185.5	185.5	185.5	185.9	186.6	185.9	185.5	185.9
180°	185.5	185.5	185.5	185.5	185.5	185.5	185.5	185.5	185.5	185.5	185.5



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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°	11.4	10.7	11.4	11.8	11.8	11.8	11.8	11.8
92.5°	36.0	30.7	26.8	23.9	23.5	22.1	22.5	21.8
95°	93.5	71.7	56.7	48.9	44.2	41.4	40.3	40.7
97.5°	191.3	152.7	116.7	95.3	81.4	74.2	70.3	68.2
100°	325.8	281.5	232.6	189.5	159.9	144.5	134.2	127.7
102.5°	413.9	412.5	380.0	333.6	300.8	271.9	258.3	249.1
105°	433.5	473.8	478.5	466.7	444.6	422.5	407.1	402.1
107.5°	412.5	472.4	507.4	521.7	521.3	518.1	513.5	505.2
110°	383.6	447.4	493.1	522.4	537.7	544.5	547.7	547.4



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CATALOG NUMBER: S122IP-S330U840-4F0-1E-UDD-4

CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
112.5°	357.2	417.8	467.4	502.0	524.9	537.4	544.1	546.6
115°	336.5	391.4	438.2	474.9	500.3	516.7	525.9	529.2
117.5°	319.3	368.6	412.1	447.1	473.1	490.6	500.3	502.7
120°	307.2	351.5	389.3	421.8	446.7	463.5	473.8	477.4
122.5°	297.6	337.2	372.5	401.1	422.8	439.2	448.2	451.0
125°	288.3	325.1	356.5	383.2	403.9	417.5	426.4	429.2
127.5°	279.0	312.9	342.9	367.9	386.1	398.9	406.8	408.9
130°	270.1	300.8	329.0	352.5	370.0	382.1	389.3	392.1
132.5°	261.5	289.4	314.7	336.5	353.6	365.7	372.2	374.7
135°	253.7	277.2	300.8	320.8	336.1	347.9	354.3	355.7
137.5°	247.3	267.6	286.9	304.7	319.3	329.7	335.4	337.5
140°	241.2	258.3	274.7	290.4	301.9	311.1	316.5	318.6
142.5°	236.2	250.1	263.7	276.2	286.9	295.1	299.7	299.7
145°	231.6	243.3	254.4	264.8	273.3	279.4	283.0	284.0
147.5°	228.0	237.6	246.6	254.4	261.9	266.9	269.4	270.1
150°	224.1	231.9	239.4	245.8	251.2	255.5	257.6	258.0
152.5°	220.2	227.3	233.4	238.7	242.6	246.2	247.6	247.6
155°	216.6	222.3	227.6	231.6	235.5	238.0	239.4	238.7
157.5°	212.3	217.3	221.9	225.1	228.0	230.1	230.9	230.9
160°	208.4	212.3	216.2	218.7	221.2	223.0	223.4	223.4
162.5°	204.5	207.7	210.9	212.7	215.2	216.2	216.6	216.2
165°	200.5	203.0	205.5	207.0	208.4	209.8	209.8	209.4
167.5°	196.6	198.7	200.5	202.0	202.7	203.4	203.4	203.0
170°	193.7	194.8	196.2	197.0	197.3	198.4	198.0	197.3
172.5°	190.5	191.3	192.3	192.7	193.0	193.4	193.0	192.7
175°	188.4	188.8	189.1	189.5	189.5	189.8	189.5	188.8
177.5°	186.6	186.6	187.0	187.0	187.0	187.0	186.6	185.9
180°	185.5	185.5	185.5	185.5	185.5	185.5	185.5	185.5

(END OF REPORT)