

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: P334460

Luminaire Tested: **S122IP-S330U930-4F0-1E-UDD-4**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P334460
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-S330U930-4F0-1E-UDD-4
Description: DEFINE 2 INDIRECT LED LUMINAIRE, BATWING OPTIC
PENDANT MOUNT, 330 LUMENS PER FOOT
Light Source: 3000K CCT, 90 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

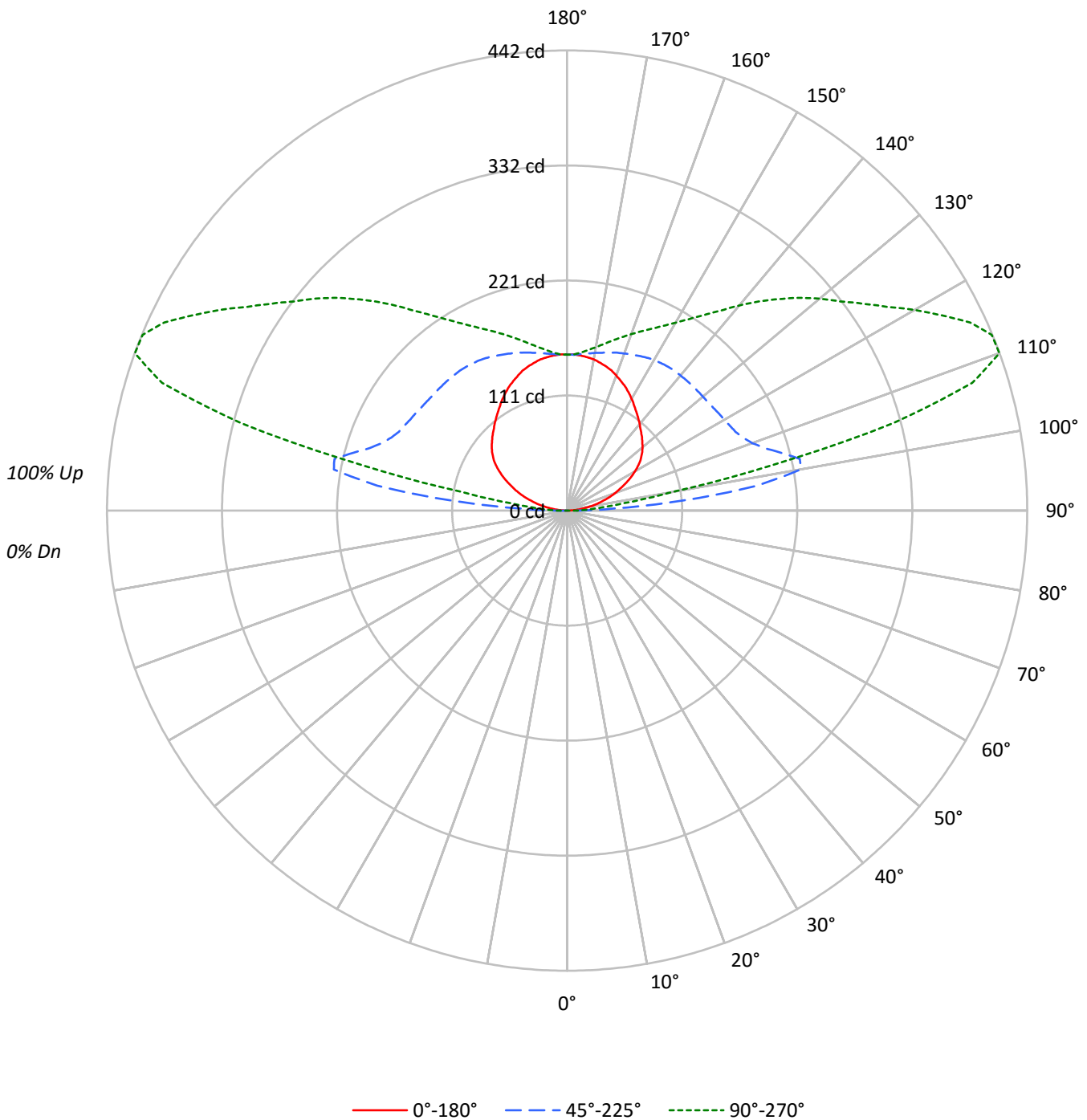
Lumens per Lamp: N/A
Luminaire Lumens: 1044.1 lumens
Efficiency: N/A
Efficacy: 91.6 lumens/watt
Spacing Criteria (0/90/45): - / - / -
Luminous Opening: Rectangular (W 0.17' x L: 4' x H: 0')
CIE Type: Indirect

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°	1.0	0.1
90°-100°	58.4	5.6
100°-110°	205.6	19.7
110°-120°	216.0	20.7
120°-130°	177.7	17.0
130°-140°	142.7	13.7
140°-150°	107.8	10.3
150°-160°	75.8	7.3
160°-170°	44.6	4.3
170°-180°	14.5	1.4
0°-30°	0.0	0.0
0°-40°	0.0	0.0
0°-60°	0.0	0.0
0°-90°	1.0	0.1
90°-120°	480.0	46.0
90°-150°	908.3	87.0
90°-180°	1043.0	99.9
0°-180°	1044.1	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	4	10	9	10	1
95°	10	25	113	43	33	10
105°	35	53	214	382	325	37
115°	62	78	179	369	427	61
125°	86	102	172	299	346	77
135°	101	121	170	251	287	78
145°	116	133	169	210	229	73
155°	132	142	164	185	193	61
165°	144	148	157	166	169	40
175°	150	150	151	153	152	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°	0.3	1.2	2.3	2.9	3.5	4.3	5.8	7.8	9.5	9.8	9.5
92.5°	4.3	6.0	8.4	9.8	12.1	15.3	23.0	34.0	43.8	44.4	37.2
95°	10.1	11.2	14.1	16.7	21.3	28.2	41.5	66.5	100.0	112.9	98.8
97.5°	15.0	16.7	19.9	23.6	28.8	36.6	53.6	88.4	142.3	184.1	185.5
100°	22.2	23.0	25.6	30.2	36.0	44.1	59.3	94.5	156.7	227.6	269.1
102.5°	28.8	29.4	32.0	36.6	42.6	50.7	64.5	94.8	151.2	229.0	300.2
105°	35.1	36.3	38.3	42.6	49.0	57.0	70.6	96.2	143.7	213.5	290.1
107.5°	42.1	42.9	44.9	49.0	55.3	63.4	76.6	99.4	139.7	199.1	268.8
110°	49.0	50.1	51.9	55.6	61.6	70.0	82.7	103.4	138.6	189.3	248.9



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CANDELA DISTRIBUTION (continued):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	55.3	56.5	58.5	61.9	67.7	76.3	88.4	107.7	138.8	182.9	235.1
115°	61.9	63.4	65.1	68.6	74.3	82.1	94.5	112.1	140.0	178.6	224.1
117.5°	68.8	70.0	71.7	74.9	80.4	88.4	100.0	116.7	141.7	176.3	216.6
120°	75.2	76.3	78.1	80.7	86.4	94.5	105.7	121.3	143.5	174.3	210.9
122.5°	81.2	82.1	83.8	86.7	92.5	100.8	111.2	125.3	145.5	173.1	206.0
125°	86.4	87.3	89.0	92.5	98.2	106.3	116.7	129.6	147.5	171.7	201.4
127.5°	90.7	91.9	94.2	97.9	103.4	111.8	121.9	133.7	149.5	170.8	197.0
130°	94.5	95.6	98.5	102.6	108.3	116.4	126.5	137.4	151.8	170.2	192.7
132.5°	97.9	99.4	102.6	106.9	112.9	121.0	130.5	141.2	154.1	170.0	189.3
135°	101.4	102.6	106.0	110.3	117.0	125.0	134.2	144.3	155.8	169.7	186.1
137.5°	104.6	106.0	109.5	114.1	120.7	128.2	137.4	146.9	157.6	169.7	183.8
140°	108.3	109.5	112.9	117.5	123.9	131.4	140.0	148.9	158.7	169.4	181.8
142.5°	112.1	112.9	116.1	120.7	126.7	133.7	142.0	150.7	159.6	169.4	179.8
145°	115.8	117.0	119.8	124.2	129.9	136.3	144.0	152.1	160.2	168.8	178.0
147.5°	119.8	120.7	123.6	127.6	132.5	138.3	145.8	153.0	160.5	167.9	176.3
150°	123.9	124.7	127.0	130.8	135.1	140.3	146.9	153.5	160.2	167.1	174.0
152.5°	127.9	128.2	130.5	133.7	137.7	142.3	148.1	153.8	159.6	165.6	172.0
155°	131.6	131.9	133.7	136.8	140.0	144.3	149.2	154.1	159.0	163.9	169.4
157.5°	134.8	135.1	136.5	139.4	142.0	145.8	150.1	154.1	157.9	162.2	167.1
160°	138.0	138.3	139.4	141.7	144.0	147.2	150.7	154.1	157.0	160.5	164.5
162.5°	141.2	140.9	142.0	143.7	145.8	148.1	150.9	153.8	156.1	159.0	162.2
165°	143.5	143.2	143.7	145.5	146.9	148.6	151.2	153.3	155.0	157.0	159.6
167.5°	145.5	145.2	145.8	146.9	148.1	149.2	151.2	153.0	153.8	155.3	157.0
170°	147.5	146.9	147.2	148.1	148.6	149.5	150.9	152.4	153.0	153.8	155.0
172.5°	148.6	148.4	148.1	148.9	149.2	149.8	150.7	151.5	151.8	152.1	153.0
175°	149.5	149.2	148.9	149.5	149.5	149.8	150.4	150.9	150.7	150.9	151.2
177.5°	150.1	149.5	149.2	149.8	149.8	149.8	150.1	150.7	150.1	149.8	150.1
180°	149.8	149.8	149.8	149.8	149.8	149.8	149.8	149.8	149.8	149.8	149.8



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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°	9.2	8.6	9.2	9.5	9.5	9.5	9.5	9.5
92.5°	29.1	24.8	21.6	19.3	19.0	17.9	18.1	17.6
95°	75.5	57.9	45.8	39.5	35.7	33.4	32.6	32.8
97.5°	154.4	123.3	94.2	76.9	65.7	59.9	56.7	55.0
100°	263.0	227.3	187.8	153.0	129.1	116.7	108.3	103.1
102.5°	334.2	333.0	306.8	269.3	242.8	219.5	208.6	201.1
105°	350.0	382.6	386.3	376.8	358.9	341.1	328.7	324.7
107.5°	333.0	381.4	409.6	421.2	420.9	418.3	414.5	407.9
110°	309.7	361.2	398.1	421.7	434.1	439.6	442.2	441.9



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CATALOG NUMBER: S122IP-S330U930-4F0-1E-UDD-4

CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
112.5°	288.4	337.3	377.4	405.3	423.7	433.8	439.3	441.3
115°	271.6	316.0	353.7	383.4	403.9	417.1	424.6	427.2
117.5°	257.8	297.6	332.7	360.9	382.0	396.1	403.9	405.9
120°	248.0	283.7	314.3	340.5	360.7	374.2	382.6	385.4
122.5°	240.2	272.2	300.7	323.8	341.4	354.6	361.8	364.1
125°	232.8	262.4	287.8	309.4	326.1	337.0	344.2	346.5
127.5°	225.3	252.6	276.8	297.0	311.7	322.1	328.4	330.1
130°	218.1	242.8	265.6	284.6	298.7	308.5	314.3	316.6
132.5°	211.2	233.6	254.1	271.6	285.5	295.3	300.5	302.5
135°	204.8	223.8	242.8	259.0	271.4	280.9	286.1	287.2
137.5°	199.6	216.1	231.6	246.0	257.8	266.2	270.8	272.5
140°	194.7	208.6	221.8	234.5	243.7	251.2	255.5	257.2
142.5°	190.7	201.9	212.9	223.0	231.6	238.2	242.0	242.0
145°	187.0	196.5	205.4	213.7	220.7	225.6	228.4	229.3
147.5°	184.1	191.9	199.1	205.4	211.4	215.5	217.5	218.1
150°	180.9	187.2	193.3	198.5	202.8	206.3	208.0	208.3
152.5°	177.7	183.5	188.4	192.7	195.9	198.8	199.9	199.9
155°	174.9	179.5	183.8	187.0	190.1	192.1	193.3	192.7
157.5°	171.4	175.4	179.2	181.8	184.1	185.8	186.4	186.4
160°	168.2	171.4	174.6	176.6	178.6	180.0	180.3	180.3
162.5°	165.1	167.7	170.2	171.7	173.7	174.6	174.9	174.6
165°	161.9	163.9	165.9	167.1	168.2	169.4	169.4	169.1
167.5°	158.7	160.5	161.9	163.0	163.6	164.2	164.2	163.9
170°	156.4	157.3	158.4	159.0	159.3	160.2	159.9	159.3
172.5°	153.8	154.4	155.3	155.6	155.8	156.1	155.8	155.6
175°	152.1	152.4	152.7	153.0	153.0	153.3	153.0	152.4
177.5°	150.7	150.7	150.9	150.9	150.9	150.9	150.7	150.1
180°	149.8	149.8	149.8	149.8	149.8	149.8	149.8	149.8

(END OF REPORT)