

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: P334815

Luminaire Tested: **S124IP-S365U935-4F0-1E-UDD-4**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P334815
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1807-864-18)
Test Lab: INNOVATION CENTER
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: NEO-RAY
Catalog Number: S124IP-S365U935-4F0-1E-UDD-4
Description: DEFINE 4 INDIRECT LED LUMINAIRE, BATWING OPTIC
PENDANT MOUNT, 365 LUMENS PER FOOT
Light Source: 3500K CCT, 90 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

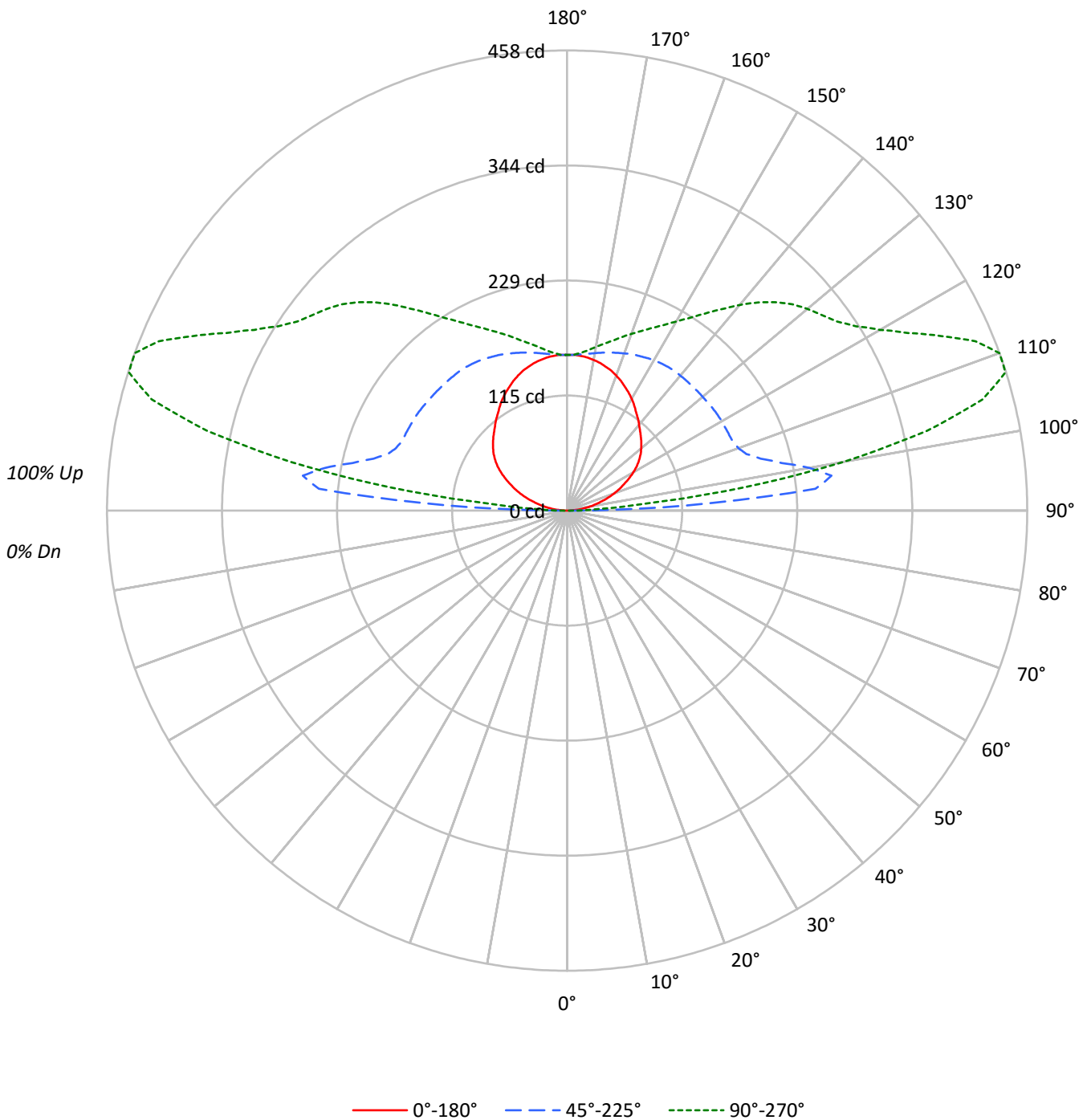
Lumens per Lamp: N/A
Luminaire Lumens: 1128.7 lumens
Efficiency: N/A
Efficacy: 99.0 lumens/watt
Spacing Criteria (0/90/45): - / - / -
Luminous Opening: Rectangular (W 0.33' x L: 4' x H: 0')
CIE Type: Indirect

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°	0.6	0.1
90°-100°	112.3	9.9
100°-110°	234.4	20.8
110°-120°	208.3	18.5
120°-130°	175.4	15.5
130°-140°	146.3	13.0
140°-150°	111.7	9.9
150°-160°	78.5	7.0
160°-170°	46.2	4.1
170°-180°	15.0	1.3
0°-30°	0.0	0.0
0°-40°	0.0	0.0
0°-60°	0.0	0.0
0°-90°	0.6	0.1
90°-120°	555.0	49.2
90°-150°	988.4	87.6
90°-180°	1128.0	99.9
0°-180°	1128.7	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	2	6	6	6	1
95°	10	32	248	123	74	11
105°	36	52	200	430	428	38
115°	63	79	178	342	411	62
125°	87	104	177	291	328	78
135°	104	124	176	258	293	80
145°	120	137	175	218	240	75
155°	136	147	170	192	200	63
165°	148	153	163	172	175	42
175°	155	155	156	158	158	15
180°	155	155	155	155	155	



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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	0.9	1.8	2.1	2.4	2.4	4.3	4.3	4.9	5.5	5.2
92.5°	4.3	6.1	9.4	14.0	19.5	27.4	46.3	75.8	104.4	119.3	99.2
95°	10.0	11.0	14.0	18.0	25.3	38.0	64.5	114.4	187.1	248.0	255.0
97.5°	16.7	16.7	19.5	23.1	29.5	40.5	61.5	104.4	179.2	265.4	319.8
100°	23.1	23.1	25.3	28.9	34.7	44.4	62.4	96.8	158.8	244.7	322.6
102.5°	29.2	29.8	31.6	35.0	40.5	49.6	65.4	94.6	145.2	218.8	299.7
105°	35.6	36.5	38.0	41.7	47.2	56.0	70.6	95.9	138.5	199.6	271.1
107.5°	42.6	43.2	44.7	48.7	53.9	62.7	76.1	99.5	136.6	187.1	247.7
110°	49.6	50.2	51.7	55.4	60.9	69.1	82.5	103.8	137.2	181.4	231.0



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CANDELA DISTRIBUTION (continued):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	56.3	56.9	58.7	62.1	67.6	75.8	88.6	108.3	139.1	178.6	221.5
115°	62.7	63.6	65.7	68.8	74.6	82.8	94.9	113.2	141.5	178.0	216.4
117.5°	69.4	70.3	72.1	75.5	80.9	89.5	101.0	118.1	143.9	177.7	213.6
120°	76.1	76.7	78.8	82.2	87.3	95.9	107.4	123.2	146.7	177.7	211.5
122.5°	82.2	82.8	84.9	87.9	93.7	101.9	113.5	128.1	149.4	177.4	209.1
125°	87.3	88.6	90.4	93.7	99.5	108.0	119.0	133.0	152.2	177.1	206.3
127.5°	92.2	93.1	95.2	98.9	105.0	113.5	124.2	137.2	154.3	176.5	202.7
130°	96.2	97.4	99.8	104.4	110.2	119.0	129.3	141.2	156.7	176.2	199.3
132.5°	100.1	101.0	104.4	108.6	115.0	123.2	133.6	145.2	158.8	175.9	196.3
135°	103.8	105.0	108.0	113.2	119.6	127.5	137.5	148.5	161.0	175.6	193.2
137.5°	107.4	108.6	112.0	116.9	123.5	131.2	140.6	150.9	162.2	175.6	190.5
140°	111.4	112.3	115.6	120.8	127.2	134.5	143.6	153.4	163.7	175.3	188.4
142.5°	115.6	116.5	119.6	124.5	130.5	137.5	146.4	155.2	164.9	175.3	186.5
145°	119.6	120.5	123.5	127.8	133.6	140.3	148.2	156.4	165.2	174.7	184.4
147.5°	124.2	124.5	127.2	131.8	136.6	142.7	150.3	157.6	165.5	173.8	182.6
150°	128.4	128.7	131.2	134.8	139.4	145.2	151.8	158.5	165.5	172.8	180.5
152.5°	132.4	132.4	134.8	138.2	142.1	147.3	153.1	159.1	164.9	171.3	178.0
155°	136.0	136.3	138.2	141.2	144.5	149.1	154.3	159.5	164.3	169.8	175.6
157.5°	139.7	139.7	141.5	143.9	147.0	150.6	155.2	159.5	163.7	168.3	173.1
160°	143.0	143.0	144.2	146.4	148.8	152.2	155.8	159.5	162.8	166.5	170.4
162.5°	146.1	145.8	146.7	148.5	150.6	153.1	156.4	159.5	161.9	164.6	168.0
165°	148.2	148.2	148.8	150.3	151.8	153.7	156.4	158.8	160.7	162.8	165.2
167.5°	150.6	150.3	150.6	151.8	152.8	154.3	156.4	158.2	159.5	161.0	162.8
170°	152.2	151.8	152.2	153.1	153.7	154.6	156.1	157.6	158.2	159.1	160.4
172.5°	153.7	153.4	153.4	154.0	154.3	154.9	155.8	157.0	157.0	157.3	158.2
175°	154.6	154.3	154.3	154.6	154.9	154.9	155.5	156.4	156.1	156.1	156.7
177.5°	155.2	154.9	154.6	154.9	154.9	154.9	155.2	155.8	155.2	155.2	155.5
180°	154.9	154.9	154.9	154.9	154.9	154.9	154.9	154.9	154.9	154.9	154.9



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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°	5.5	5.8	6.1	6.1	6.4	6.7	6.4	6.4
92.5°	73.3	54.8	43.2	35.6	31.0	28.9	27.7	27.7
95°	225.5	178.3	137.5	108.0	93.1	83.7	78.2	74.2
97.5°	324.7	301.3	267.8	233.7	213.0	194.8	185.6	178.3
100°	367.0	373.1	358.2	335.6	309.2	290.6	281.5	279.0
102.5°	364.9	401.1	410.2	404.1	390.4	378.2	368.5	366.7
105°	340.8	393.5	423.6	436.1	436.7	434.2	430.0	428.2
107.5°	311.3	368.2	410.2	435.8	449.1	454.6	457.1	457.4
110°	285.1	337.8	381.9	415.4	437.0	449.8	455.2	458.0



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CATALOG NUMBER: S124IP-S365U935-4F0-1E-UDD-4

CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
112.5°	266.0	311.0	352.1	385.5	410.8	426.9	435.2	440.0
115°	254.4	291.8	327.4	356.6	380.7	398.9	408.7	411.1
117.5°	247.7	279.3	308.3	333.8	355.1	370.9	381.3	382.8
120°	243.4	271.7	296.1	317.7	335.0	348.4	356.3	359.7
122.5°	239.8	266.9	288.5	306.7	320.7	331.7	338.1	341.4
125°	235.5	261.7	282.7	299.4	311.6	320.4	326.2	328.0
127.5°	230.7	255.9	276.9	292.7	304.9	312.8	317.7	319.5
130°	224.6	248.6	269.3	285.4	297.9	305.5	310.4	312.2
132.5°	218.2	240.4	260.5	276.6	288.8	297.6	302.2	304.0
135°	212.4	232.2	250.7	266.0	278.1	286.7	291.5	293.3
137.5°	206.9	224.3	240.4	254.4	266.0	274.8	278.7	280.9
140°	202.4	216.7	230.4	243.1	253.8	260.5	264.7	267.2
142.5°	198.1	210.3	221.5	232.2	241.3	247.4	251.0	252.6
145°	194.1	204.5	213.6	222.1	229.7	234.9	238.0	239.5
147.5°	190.8	199.3	206.9	213.9	219.7	224.3	226.7	227.3
150°	187.8	194.8	200.8	206.3	211.2	215.1	217.0	217.3
152.5°	184.4	190.2	195.7	199.9	203.9	206.9	207.8	208.1
155°	181.1	185.9	190.5	194.1	197.2	199.6	200.5	200.5
157.5°	177.4	181.7	185.6	188.7	191.1	192.9	193.5	193.5
160°	174.1	177.4	180.8	183.2	185.0	186.8	187.1	187.1
162.5°	170.7	173.5	175.9	178.0	179.2	181.1	181.4	181.1
165°	167.7	169.5	171.6	173.1	174.4	175.6	175.3	175.0
167.5°	164.6	166.1	168.0	168.9	169.5	170.4	170.4	170.1
170°	161.9	162.8	164.0	164.9	165.5	165.8	165.5	165.5
172.5°	159.5	160.1	160.7	161.3	161.6	161.9	161.6	161.0
175°	157.3	157.6	158.2	158.2	158.2	158.8	158.2	157.6
177.5°	155.8	156.1	156.1	156.4	156.1	156.4	155.8	155.2
180°	154.9	154.9	154.9	154.9	154.9	154.9	154.9	154.9

(END OF REPORT)