

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: FAIL-SAFE

Report Number: P

Luminaire Tested: **4APN-35L950-X-UNV-NP**

Issue Date: 06/06/2024



Test Information

Test Method: LM-79-08
Report Number: P
Test Lab: INNOVATION CENTER(G2)
Issue Date: 06/06/2024
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: FAIL-SAFE
Catalog Number: 4APN-35L950-X-UNV-NP
Description: ArcMed Patient Recessed 4 FT x6 IN Fixture Ambient Light w/ Nature Pattern Lens
Light Source: 5000K CCT, 90 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

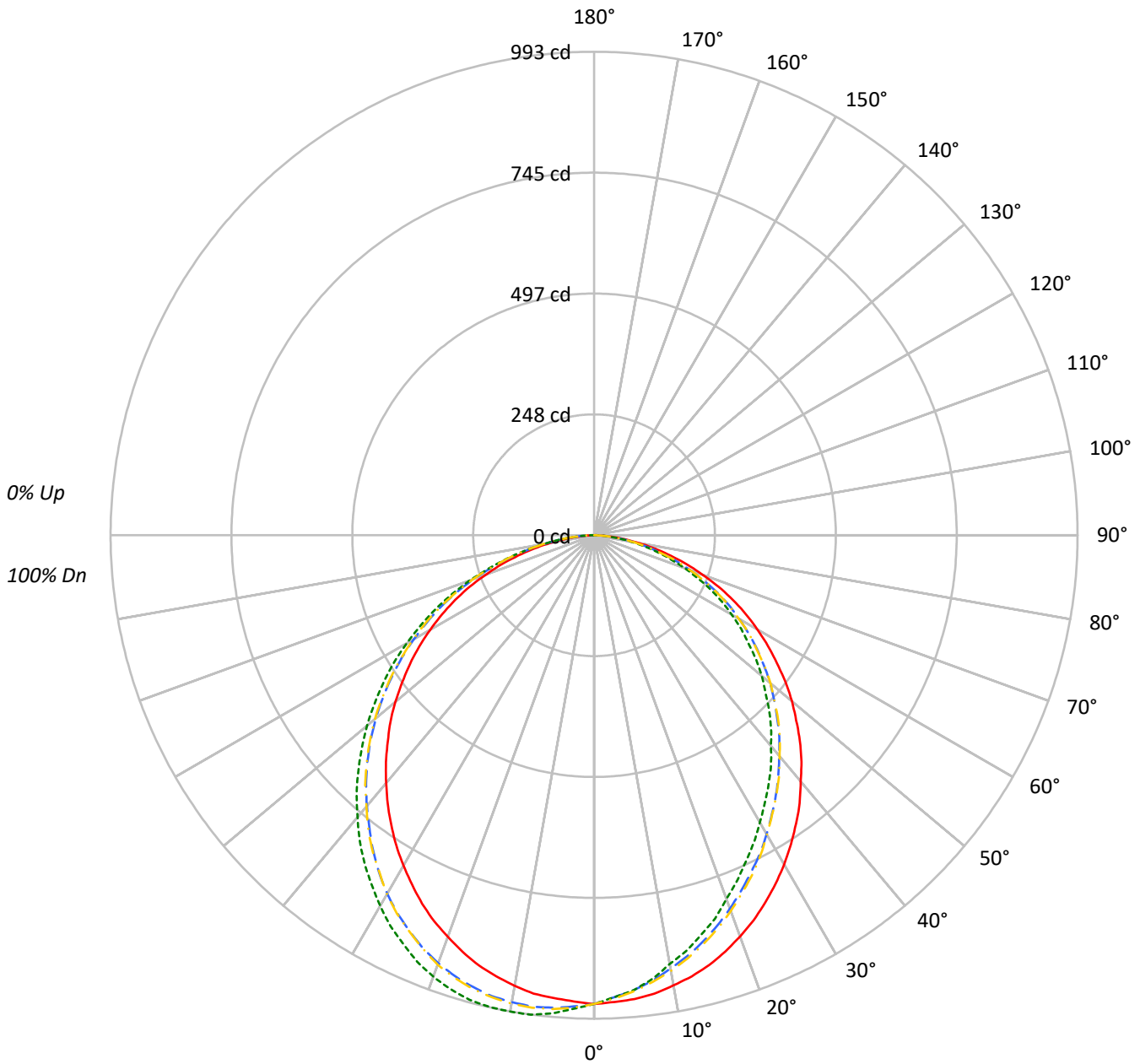
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 2582.0 lumens
Efficiency: N/A
Efficacy: 63.9 lumens/watt
Spacing Criteria (0/90/45): 1.21 / 1.21 / 1.33
Luminous Opening: Rectangular (W 0.29' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 40.4
Input Voltage (V): 120
Input Current (A_{in}): 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



— 0°-180° - - 45°-225° - · - · 90°-270° - · - · 135°-315°



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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	50	30	10	0
RCR																					
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	102	102	102	100
1	109	104	100	96	106	102	98	95	98	94	92	94	91	89	90	88	86	86	86	86	84
2	99	91	84	78	96	89	83	77	85	80	76	82	78	74	79	76	72	72	72	72	70
3	90	80	72	65	88	78	71	65	75	69	64	73	67	62	70	65	61	61	61	61	59
4	83	71	62	55	81	70	61	55	67	60	54	65	59	54	63	57	53	53	53	53	51
5	76	63	54	48	74	62	54	48	60	53	47	58	52	47	56	51	46	46	46	46	44
6	70	57	48	42	68	56	48	42	54	47	41	53	46	41	51	45	41	41	41	41	38
7	65	52	43	37	64	51	43	37	49	42	37	48	41	36	47	41	36	36	36	36	34
8	61	47	39	33	59	47	39	33	45	38	33	44	37	33	43	37	32	32	32	32	30
9	57	43	35	30	55	43	35	30	42	35	30	41	34	29	40	34	29	29	29	29	27
10	53	40	32	27	52	40	32	27	39	32	27	38	31	27	37	31	27	27	27	27	25

AVERAGE LUMINANCE (cd/sqm):

	0°	90°	180°	270°
0°	8883	8883	8883	8883
5°	8856	8684	8836	9128
10°	8795	8377	8805	9306
15°	8728	8114	8738	9435
20°	8608	7806	8619	9475
25°	8471	7517	8503	9435
30°	8318	7252	8343	9363
35°	8144	7041	8182	9261
40°	7949	6808	8002	9104
45°	7801	6636	7816	8938
50°	7613	6456	7643	8738
55°	7375	6219	7427	8496
60°	7154	6030	7174	8198
65°	6872	5776	6872	7846
70°	6404	5347	6374	7316
75°	5825	4855	5746	6559
80°	5037	4166	4862	5616
85°	3927	3112	3694	4605



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	91.0	3.5
10°-20°	258.2	10.0
20°-30°	383.8	14.9
30°-40°	452.4	17.5
40°-50°	460.6	17.8
50°-60°	410.4	15.9
60°-70°	309.2	12.0
70°-80°	171.9	6.7
80°-90°	44.7	1.7
90°-100°	0.0	0.0
100°-110°	0.0	0.0
110°-120°	0.0	0.0
120°-130°	0.0	0.0
130°-140°	0.0	0.0
140°-150°	0.0	0.0
150°-160°	0.0	0.0
160°-170°	0.0	0.0
170°-180°	0.0	0.0
0°-30°	733.0	28.4
0°-40°	1185.4	45.9
0°-60°	2056.3	79.6
0°-90°	2582.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2582.0	100.0

CANDELA DISTRIBUTION:

	0°	90°	180°	270°	360°	Flux
0°	963	963	963	963	963	
5°	956	938	954	986	956	91
15°	914	850	915	988	914	257
25°	832	738	835	927	832	383
35°	723	625	726	822	723	452
45°	598	509	599	685	598	461
55°	458	387	462	528	458	411
65°	315	265	315	359	315	311
75°	163	136	161	184	163	174
85°	37	29	35	44	37	45
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	10°	20°	30°	40°	50°	60°	70°	80°	90°	100°
0°	962.8	962.8	962.8	962.8	962.8	962.8	962.8	962.8	962.8	962.8	962.8
2.5°	959.5	959.5	960.5	956.2	950.8	948.6	947.5	946.4	948.6	949.7	948.6
5°	956.2	954.1	951.9	946.4	939.9	935.6	933.3	932.2	934.4	937.7	934.4
7.5°	949.7	945.3	941.0	933.3	925.7	919.2	915.9	913.8	915.9	919.2	917.0
10°	938.8	933.3	926.8	918.1	907.2	899.6	896.4	893.0	894.2	894.2	894.2
12.5°	927.9	920.2	912.7	901.8	889.8	881.1	875.6	871.3	873.4	874.5	874.5
15°	913.8	903.9	893.0	881.1	869.1	859.3	852.8	848.4	849.5	849.5	850.5
17.5°	896.4	885.4	874.5	860.4	846.2	835.3	827.7	822.2	824.5	825.6	826.7
20°	876.7	864.7	852.8	837.5	822.2	810.3	802.7	796.1	795.0	795.0	796.1
22.5°	856.0	843.0	828.8	812.5	796.1	783.1	775.4	768.9	767.8	767.8	768.9
25°	832.1	817.9	803.7	787.4	770.0	757.0	747.1	740.6	739.5	738.4	740.6
27.5°	807.0	792.8	778.7	762.4	743.9	730.8	721.0	714.5	712.2	711.1	713.4
30°	780.8	764.5	749.3	731.9	715.6	702.5	692.7	685.0	682.8	680.7	682.8
32.5°	752.5	736.2	719.9	702.5	686.2	673.1	663.3	655.6	653.4	652.4	654.5
35°	723.1	706.8	691.6	674.2	657.8	644.8	635.0	628.4	626.2	625.1	626.2
37.5°	693.7	677.4	662.2	644.8	628.4	615.3	605.6	599.0	597.9	596.8	597.9
40°	660.0	645.9	630.6	614.2	597.9	584.8	577.3	569.6	567.4	565.3	568.5
42.5°	630.6	616.4	601.1	585.9	569.6	556.5	547.9	541.3	539.1	538.0	539.1
45°	597.9	582.7	567.4	553.3	538.0	526.0	517.3	510.8	509.7	508.6	509.7
47.5°	563.1	550.0	536.9	522.8	507.6	495.6	487.9	481.4	479.2	477.0	479.2
50°	530.4	517.3	504.2	491.1	477.0	466.2	458.5	452.0	450.9	449.8	450.9
52.5°	495.6	482.5	470.5	457.4	445.4	434.5	426.9	421.4	420.4	419.3	420.4
55°	458.5	447.6	436.8	425.9	413.9	404.0	397.5	391.0	388.8	386.6	388.8
57.5°	423.7	413.9	403.0	392.0	381.2	372.5	365.9	360.5	359.4	358.3	359.4
60°	387.7	379.0	369.2	359.4	348.5	339.8	334.3	330.0	327.9	326.8	327.9
62.5°	351.7	343.1	335.4	325.7	315.9	309.3	303.9	299.5	297.3	296.2	297.3
65°	314.8	307.1	299.5	290.8	283.1	276.6	271.2	266.8	265.7	264.6	264.6
67.5°	276.6	270.1	263.6	255.9	247.2	240.7	235.2	232.0	230.9	229.8	230.9
70°	237.4	232.0	225.4	218.9	212.3	206.9	203.7	200.4	199.3	198.2	198.2
72.5°	200.4	196.0	190.6	185.1	179.7	174.3	171.0	168.8	167.7	166.6	166.6
75°	163.4	159.0	155.7	151.4	146.0	142.6	139.4	137.2	136.2	136.2	136.2
77.5°	128.5	125.2	122.0	117.6	114.3	111.1	108.9	107.8	106.8	106.8	106.8
80°	94.8	92.6	90.4	88.2	84.9	81.7	80.6	79.5	78.4	78.4	78.4
82.5°	64.3	63.2	60.9	58.8	56.6	55.5	54.5	53.4	53.4	53.4	53.4
85°	37.1	36.0	34.9	33.7	32.6	32.6	31.6	30.5	29.4	29.4	29.4
87.5°	15.2	15.2	15.2	14.2	13.1	13.1	13.1	13.1	13.1	13.1	13.1
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0



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CANDELA DISTRIBUTION (continued):

	110°	120°	130°	140°	150°	160°	170°	180°	190°	200°	210°
0°	962.8	962.8	962.8	962.8	962.8	962.8	962.8	962.8	962.8	962.8	962.8
2.5°	946.4	948.6	950.8	954.1	957.3	960.5	959.5	958.4	962.8	968.2	969.3
5°	932.2	934.4	937.7	943.1	948.6	953.0	954.1	954.1	962.8	970.4	972.5
7.5°	914.8	918.1	922.5	927.9	935.6	942.1	945.3	949.7	958.4	968.2	972.5
10°	893.0	898.5	905.0	912.7	920.2	927.9	934.4	939.9	950.8	961.6	968.2
12.5°	873.4	878.9	885.4	894.2	903.9	913.8	920.2	927.9	941.0	954.1	961.6
15°	851.7	857.1	864.7	873.4	884.4	895.3	905.0	914.8	927.9	942.1	950.8
17.5°	827.7	833.1	840.8	851.7	863.6	875.6	886.5	897.4	912.7	927.9	937.7
20°	798.3	805.9	815.7	826.7	840.8	855.0	865.9	877.8	894.2	910.5	921.4
22.5°	770.0	777.6	788.5	801.6	816.8	832.1	845.1	858.2	875.6	891.9	903.9
25°	742.8	751.4	762.4	775.4	789.6	804.8	820.1	835.3	852.8	870.2	882.2
27.5°	715.6	723.1	734.1	747.1	763.4	778.7	793.9	809.2	827.7	846.2	859.3
30°	685.0	693.7	703.6	716.7	734.1	751.4	766.7	783.1	801.6	820.1	833.1
32.5°	656.7	664.4	674.2	687.3	704.7	722.1	738.4	755.9	773.3	791.8	804.8
35°	628.4	636.0	645.9	658.9	676.3	693.7	710.1	726.4	743.9	761.3	774.4
37.5°	600.1	607.7	617.6	630.6	647.0	664.4	679.6	695.9	713.4	730.8	742.8
40°	570.7	578.3	585.9	599.0	615.3	632.8	648.0	664.4	681.8	699.2	711.1
42.5°	541.3	548.9	558.7	571.7	587.0	602.3	617.6	632.8	649.1	665.4	677.4
45°	511.9	518.4	528.2	540.2	555.4	569.6	584.8	599.0	615.3	630.6	642.5
47.5°	481.4	487.9	495.6	507.6	522.8	538.0	553.3	567.4	581.6	596.8	607.7
50°	452.0	458.5	467.2	478.1	492.3	506.5	519.5	532.5	546.7	560.9	570.7
52.5°	421.4	428.0	435.6	446.5	458.5	471.6	483.6	496.6	509.7	522.8	532.5
55°	391.0	395.4	401.9	411.7	424.8	437.9	449.8	461.7	473.7	484.6	494.5
57.5°	360.5	365.9	373.6	382.3	393.1	404.0	414.9	425.9	436.8	447.6	456.3
60°	330.0	334.3	339.8	347.4	358.3	368.2	379.0	388.8	398.6	408.4	416.0
62.5°	298.5	302.8	308.2	315.9	324.5	333.3	343.1	351.7	360.5	369.2	376.8
65°	265.7	270.1	275.6	282.0	289.7	297.3	306.0	314.8	321.3	327.9	335.4
67.5°	232.0	236.3	241.7	247.2	253.7	261.4	269.0	276.6	283.1	289.7	295.1
70°	199.3	202.6	208.0	212.3	217.8	223.3	229.8	236.3	240.7	246.2	252.6
72.5°	167.7	171.0	175.4	179.7	182.9	187.4	193.9	199.3	204.8	211.3	214.5
75°	137.2	139.4	142.6	146.0	149.2	152.5	156.8	161.2	165.5	168.8	173.2
77.5°	106.8	108.9	112.2	114.3	116.5	118.8	122.0	125.2	128.5	130.6	135.1
80°	78.4	80.6	82.8	84.9	87.1	89.3	90.4	91.5	95.8	99.1	101.3
82.5°	53.4	54.5	55.5	57.7	58.8	59.9	60.9	60.9	63.2	65.4	68.6
85°	30.5	31.6	32.6	32.6	32.6	32.6	33.7	34.9	36.0	38.1	40.3
87.5°	12.0	12.0	13.1	13.1	13.1	13.1	13.1	13.1	14.2	16.3	17.4
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0



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CANDELA DISTRIBUTION (continued):

	220°	230°	240°	250°	260°	270°	280°	290°	300°	310°	320°
0°	962.8	962.8	962.8	962.8	962.8	962.8	962.8	962.8	962.8	962.8	962.8
2.5°	968.2	969.3	971.5	972.5	973.6	973.6	974.7	975.8	973.6	971.5	970.4
5°	973.6	974.7	978.0	981.3	983.5	985.6	984.5	983.5	981.3	978.0	975.8
7.5°	974.7	978.0	981.3	985.6	988.9	993.3	991.1	988.9	984.5	980.2	977.0
10°	971.5	975.8	981.3	986.7	990.0	993.3	991.1	988.9	984.5	979.1	974.7
12.5°	967.1	972.5	979.1	984.5	987.8	992.2	988.9	985.6	980.2	974.7	969.3
15°	957.3	963.9	971.5	978.0	983.5	987.8	984.5	982.4	975.8	968.2	960.5
17.5°	945.3	954.1	961.6	969.3	973.6	978.0	975.8	973.6	966.1	957.3	948.6
20°	931.2	939.9	947.5	955.1	960.5	965.0	961.6	958.4	950.8	943.1	934.4
22.5°	913.8	922.5	931.2	938.8	944.2	948.6	944.2	938.8	931.2	923.6	914.8
25°	891.9	901.8	911.6	919.2	922.5	926.8	922.5	918.1	910.5	902.8	893.0
27.5°	870.2	880.0	889.8	897.4	900.7	905.0	900.7	896.4	888.7	881.1	871.3
30°	845.1	855.0	864.7	872.4	875.6	878.9	874.5	870.2	863.6	856.0	846.2
32.5°	816.8	826.7	834.2	841.9	846.2	850.5	846.2	843.0	835.3	825.6	815.7
35°	786.3	796.1	805.9	813.6	817.9	822.2	816.8	811.4	804.8	797.3	788.5
37.5°	752.5	763.4	774.4	783.1	786.3	790.7	786.3	780.8	774.4	766.7	757.0
40°	721.0	730.8	740.6	749.3	752.5	755.9	751.4	747.1	739.5	731.9	722.1
42.5°	688.3	698.1	706.8	714.5	717.7	722.1	717.7	712.2	706.8	700.3	691.6
45°	653.4	663.3	670.8	678.5	681.8	685.0	680.7	675.3	669.8	664.4	655.6
47.5°	617.6	626.2	633.9	641.4	643.6	647.0	642.5	639.3	633.9	628.4	620.8
50°	580.5	589.2	596.8	603.4	605.6	608.8	604.5	600.1	595.7	591.4	584.8
52.5°	542.4	550.0	557.6	564.2	566.3	568.5	564.2	559.8	555.4	551.1	544.5
55°	503.1	510.8	518.4	523.9	526.0	528.2	523.9	520.6	516.2	513.0	506.5
57.5°	464.0	471.6	478.1	483.6	485.7	487.9	483.6	479.2	475.9	472.7	467.2
60°	423.7	431.3	436.8	441.1	443.3	444.3	440.0	436.8	434.5	432.3	426.9
62.5°	384.5	389.9	395.4	398.6	400.8	401.9	398.6	396.5	394.2	392.0	387.7
65°	343.1	349.6	354.0	357.2	358.3	359.4	356.2	354.0	351.7	349.6	346.3
67.5°	301.7	307.1	310.4	313.7	314.8	314.8	314.8	313.7	311.5	308.2	304.9
70°	260.3	264.6	267.9	270.1	271.2	271.2	269.0	266.8	266.8	265.7	263.6
72.5°	217.8	221.1	223.3	225.4	225.4	225.4	225.4	226.5	225.4	223.3	220.0
75°	177.5	180.8	182.9	184.0	184.0	184.0	184.0	185.1	184.0	182.9	180.8
77.5°	139.4	141.6	142.6	143.7	143.7	143.7	144.8	146.0	144.8	143.7	142.6
80°	103.4	104.6	105.7	106.8	105.7	105.7	106.8	108.9	107.8	106.8	105.7
82.5°	70.8	71.9	72.9	72.9	74.0	75.1	75.1	75.1	75.1	74.0	72.9
85°	42.5	43.5	43.5	43.5	43.5	43.5	44.6	45.7	45.7	44.6	44.6
87.5°	19.6	20.7	19.6	18.5	17.4	17.4	19.6	21.8	21.8	20.7	20.7
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0



TEST NUMBER: P
 CATALOG NUMBER: 4APN-35L950-X-UNV-NP

CANDELA DISTRIBUTION (continued):

	330°	340°	350°	360°
0°	962.8	962.8	962.8	962.8
2.5°	971.5	970.4	965.0	959.5
5°	974.7	971.5	963.9	956.2
7.5°	974.7	970.4	959.5	949.7
10°	969.3	962.8	950.8	938.8
12.5°	962.8	955.1	941.0	927.9
15°	953.0	944.2	929.0	913.8
17.5°	938.8	927.9	912.7	896.4
20°	924.7	912.7	894.2	876.7
22.5°	905.0	894.2	874.5	856.0
25°	883.3	871.3	851.7	832.1
27.5°	860.4	846.2	826.7	807.0
30°	834.2	820.1	800.5	780.8
32.5°	805.9	792.8	773.3	752.5
35°	777.6	763.4	743.9	723.1
37.5°	746.0	733.0	713.4	693.7
40°	712.2	699.2	679.6	660.0
42.5°	680.7	668.7	649.1	630.6
45°	645.9	633.9	615.3	597.9
47.5°	609.9	597.9	580.5	563.1
50°	575.1	563.1	546.7	530.4
52.5°	535.9	526.0	510.8	495.6
55°	497.7	487.9	472.7	458.5
57.5°	459.6	450.9	436.8	423.7
60°	419.3	410.6	399.7	387.7
62.5°	381.2	373.6	362.7	351.7
65°	340.9	334.3	324.5	314.8
67.5°	299.5	294.0	285.4	276.6
70°	258.2	251.6	245.1	237.4
72.5°	216.8	213.4	206.9	200.4
75°	177.5	174.3	168.8	163.4
77.5°	140.5	137.2	132.9	128.5
80°	103.4	101.3	98.0	94.8
82.5°	71.9	69.7	67.5	64.3
85°	43.5	41.4	39.2	37.1
87.5°	19.6	18.5	16.3	15.2
90°	0.0	0.0	0.0	0.0

(END OF REPORT)