

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-39L940-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-39L940-X-UNV-NP  
Description: ArcMed Patient Recessed 4 FT x6 IN Fixture Ambient Light w/ Nature Pattern Lens  
Light Source: 4000K CCT, 90 CRI LEDS  
Ballast/Driver: ELECTRONIC DRIVER

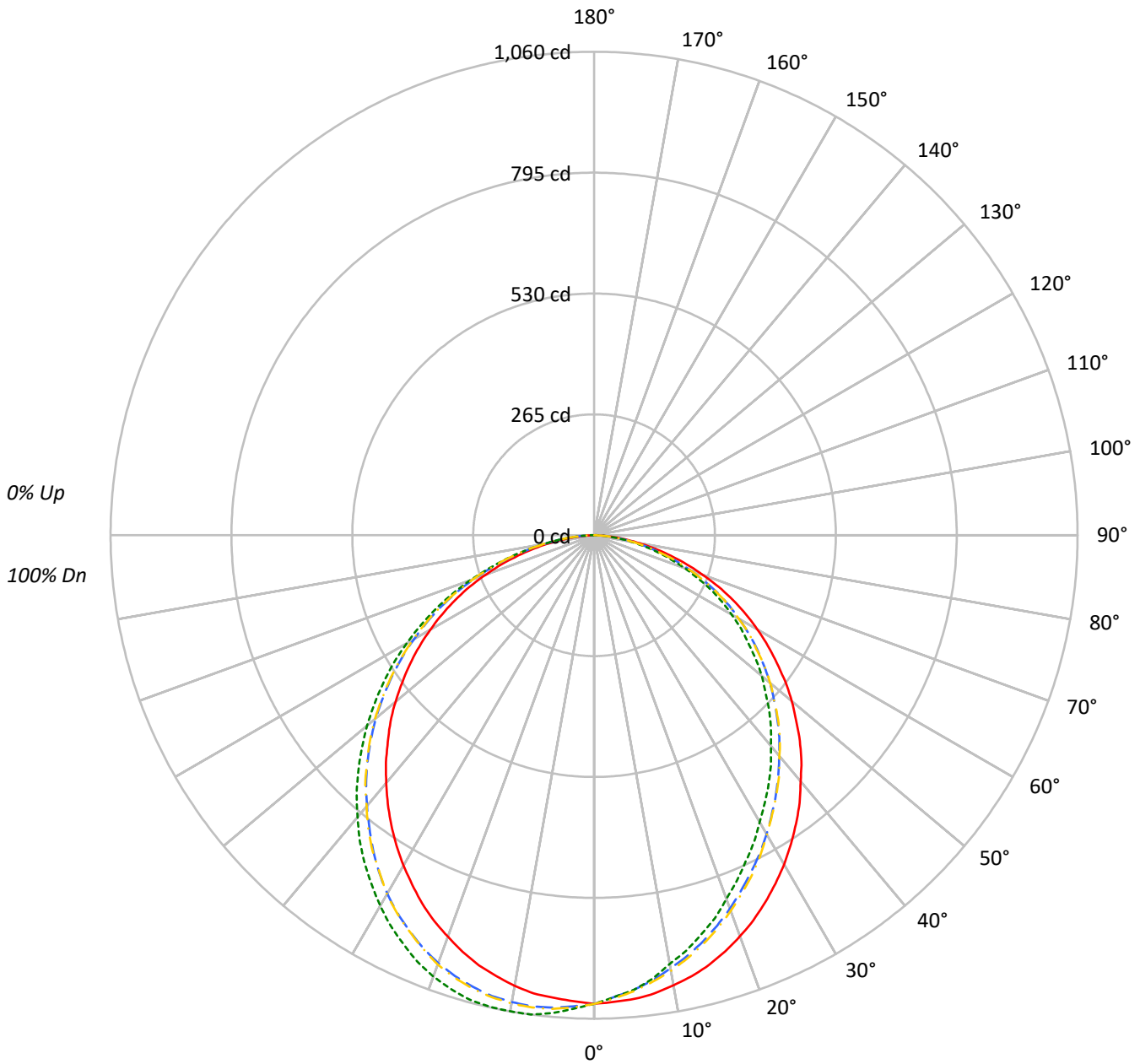
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 2755.3 lumens  
Efficiency: N/A  
Efficacy: 60.2 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): 45.8  
Input Voltage (V): 120  
Input Current (A<sub>in</sub>): 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

TEST NUMBER: P  
CATALOG NUMBER: 4APN-39L940-X-UNV-NP

### Luminous Intensity Polar Plot



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



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 CATALOG NUMBER: 4APN-39L940-X-UNV-NP

**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°	9479	9479	9479	9479
5°	9450	9267	9429	9740
10°	9385	8939	9397	9930
15°	9313	8659	9324	10068
20°	9186	8330	9198	10110
25°	9039	8021	9074	10068
30°	8878	7739	8902	9992
35°	8692	7514	8730	9883
40°	8483	7265	8538	9715
45°	8325	7081	8340	9538
50°	8124	6890	8157	9324
55°	7871	6637	7925	9066
60°	7634	6433	7656	8750
65°	7333	6165	7333	8374
70°	6836	5705	6803	7807
75°	6217	5180	6131	7001
80°	5372	4447	5186	5993
85°	4192	3313	3938	4922



TEST NUMBER: P  
 CATALOG NUMBER: 4APN-39L940-X-UNV-NP

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	97.1	3.5
10°-20°	275.5	10.0
20°-30°	409.6	14.9
30°-40°	482.7	17.5
40°-50°	491.5	17.8
50°-60°	437.9	15.9
60°-70°	329.9	12.0
70°-80°	183.5	6.7
80°-90°	47.7	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°	782.1	28.4
0°-40°	1264.9	45.9
0°-60°	2194.3	79.6
0°-90°	2755.3	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2755.3	100.0

**CANDELA DISTRIBUTION:**

	0°	90°	180°	270°	360°	Flux
0°	1027	1027	1027	1027	1027	
5°	1020	1001	1018	1052	1020	97
15°	975	906	976	1054	975	275
25°	888	788	891	989	888	409
35°	772	667	775	878	772	483
45°	638	543	639	731	638	492
55°	489	413	493	564	489	438
65°	336	282	336	384	336	332
75°	174	145	172	196	174	185
85°	40	31	37	46	40	48
90°	0	0	0	0	0	



TEST NUMBER: P

CATALOG NUMBER: 4APN-39L940-X-UNV-NP

**CANDELA DISTRIBUTION (FULL):**

	0°	10°	20°	30°	40°	50°	60°	70°	80°	90°	100°
0°	1027.4	1027.4	1027.4	1027.4	1027.4	1027.4	1027.4	1027.4	1027.4	1027.4	1027.4
2.5°	1023.9	1023.9	1025.0	1020.4	1014.6	1012.3	1011.1	1010.0	1012.3	1013.4	1012.3
5°	1020.4	1018.1	1015.8	1010.0	1003.0	998.3	995.9	994.8	997.1	1000.6	997.1
7.5°	1013.4	1008.8	1004.2	995.9	987.8	980.8	977.4	975.0	977.4	980.8	978.5
10°	1001.8	995.9	989.0	979.7	968.1	960.0	956.5	953.0	954.2	954.2	954.2
12.5°	990.1	982.0	973.9	962.3	949.5	940.2	934.4	929.7	932.0	933.2	933.2
15°	975.0	964.6	953.0	940.2	927.4	916.9	910.0	905.3	906.5	906.5	907.6
17.5°	956.5	944.9	933.2	918.1	903.0	891.4	883.3	877.5	879.8	880.9	882.1
20°	935.6	922.7	910.0	893.7	877.5	864.7	856.5	849.5	848.4	848.4	849.5
22.5°	913.4	899.5	884.4	867.0	849.5	835.6	827.5	820.5	819.3	819.3	820.5
25°	887.9	872.8	857.6	840.2	821.7	807.7	797.3	790.2	789.1	787.9	790.2
27.5°	861.1	846.0	830.9	813.5	793.7	779.8	769.3	762.4	760.1	758.9	761.2
30°	833.3	815.9	799.6	780.9	763.5	749.6	739.2	731.0	728.7	726.4	728.7
32.5°	803.1	785.6	768.2	749.6	732.2	718.2	707.7	699.6	697.3	696.1	698.5
35°	771.7	754.3	738.0	719.3	701.9	688.0	677.6	670.6	668.3	667.1	668.3
37.5°	740.3	722.8	706.6	688.0	670.6	656.6	646.1	639.2	638.0	636.8	638.0
40°	704.3	689.2	672.9	655.4	638.0	624.1	616.0	607.8	605.5	603.2	606.7
42.5°	672.9	657.8	641.5	625.2	607.8	593.9	584.5	577.6	575.2	574.1	575.2
45°	638.0	621.8	605.5	590.4	574.1	561.3	552.0	545.1	543.9	542.7	543.9
47.5°	600.9	586.9	572.9	557.8	541.6	528.8	520.7	513.6	511.3	509.0	511.3
50°	566.0	552.0	538.1	524.2	509.0	497.4	489.3	482.3	481.1	480.0	481.1
52.5°	528.8	514.8	502.0	488.1	475.3	463.7	455.6	449.8	448.6	447.4	448.6
55°	489.3	477.7	466.1	454.4	441.6	431.1	424.2	417.2	414.9	412.6	414.9
57.5°	452.1	441.6	430.0	418.4	406.8	397.5	390.5	384.7	383.6	382.4	383.6
60°	413.7	404.4	394.0	383.6	371.9	362.6	356.8	352.1	349.8	348.6	349.8
62.5°	375.3	366.1	357.9	347.5	337.0	330.1	324.3	319.6	317.3	316.2	317.3
65°	335.9	327.8	319.6	310.3	302.1	295.2	289.4	284.7	283.6	282.4	282.4
67.5°	295.2	288.2	281.2	273.1	263.8	256.9	251.1	247.6	246.4	245.3	246.4
70°	253.4	247.6	240.5	233.6	226.6	220.8	217.3	213.8	212.7	211.5	211.5
72.5°	213.8	209.2	203.4	197.6	191.8	186.0	182.5	180.2	179.0	177.9	177.9
75°	174.4	169.6	166.1	161.5	155.7	152.2	148.7	146.4	145.3	145.3	145.3
77.5°	137.1	133.7	130.2	125.5	122.1	118.6	116.2	115.1	113.9	113.9	113.9
80°	101.1	98.7	96.4	94.1	90.6	87.1	86.0	84.8	83.7	83.7	83.7
82.5°	68.6	67.4	65.1	62.8	60.4	59.3	58.1	57.0	57.0	57.0	57.0
85°	39.6	38.4	37.2	36.1	34.9	34.9	33.7	32.5	31.3	31.3	31.3
87.5°	16.2	16.2	16.2	15.1	13.9	13.9	13.9	13.9	13.9	13.9	13.9
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-39L940-X-UNV-NP

**CANDELA DISTRIBUTION (continued):**

	110°	120°	130°	140°	150°	160°	170°	180°	190°	200°	210°
0°	1027.4	1027.4	1027.4	1027.4	1027.4	1027.4	1027.4	1027.4	1027.4	1027.4	1027.4
2.5°	1010.0	1012.3	1014.6	1018.1	1021.6	1025.0	1023.9	1022.7	1027.4	1033.2	1034.3
5°	994.8	997.1	1000.6	1006.5	1012.3	1016.9	1018.1	1018.1	1027.4	1035.5	1037.8
7.5°	976.2	979.7	984.3	990.1	998.3	1005.3	1008.8	1013.4	1022.7	1033.2	1037.8
10°	953.0	958.8	965.8	973.9	982.0	990.1	997.1	1003.0	1014.6	1026.2	1033.2
12.5°	932.0	937.9	944.9	954.2	964.6	975.0	982.0	990.1	1004.2	1018.1	1026.2
15°	908.8	914.6	922.7	932.0	943.7	955.3	965.8	976.2	990.1	1005.3	1014.6
17.5°	883.3	889.1	897.2	908.8	921.6	934.4	946.0	957.6	973.9	990.1	1000.6
20°	851.8	860.0	870.5	882.1	897.2	912.3	923.9	936.8	954.2	971.6	983.2
22.5°	821.7	829.8	841.4	855.3	871.7	887.9	901.8	915.8	934.4	951.8	964.6
25°	792.6	801.9	813.5	827.5	842.6	858.8	875.1	891.4	910.0	928.5	941.4
27.5°	763.5	771.7	783.3	797.3	814.7	830.9	847.2	863.5	883.3	903.0	916.9
30°	731.0	740.3	750.8	764.7	783.3	801.9	818.2	835.6	855.3	875.1	889.1
32.5°	700.8	708.9	719.3	733.4	751.9	770.5	787.9	806.6	825.1	844.9	858.8
35°	670.6	678.7	689.2	703.1	721.7	740.3	757.7	775.1	793.7	812.4	826.3
37.5°	640.3	648.5	659.0	672.9	690.3	708.9	725.2	742.6	761.2	779.8	792.6
40°	609.0	617.1	625.2	639.2	656.6	675.2	691.5	708.9	727.6	746.1	758.9
42.5°	577.6	585.7	596.2	610.2	626.4	642.6	659.0	675.2	692.6	710.1	722.8
45°	546.2	553.2	563.6	576.4	592.7	607.8	624.1	639.2	656.6	672.9	685.7
47.5°	513.6	520.7	528.8	541.6	557.8	574.1	590.4	605.5	620.6	636.8	648.5
50°	482.3	489.3	498.5	510.2	525.3	540.4	554.4	568.3	583.4	598.5	609.0
52.5°	449.8	456.8	464.9	476.5	489.3	503.2	516.0	530.0	543.9	557.8	568.3
55°	417.2	421.9	428.8	439.3	453.3	467.2	480.0	492.7	505.5	517.1	527.7
57.5°	384.7	390.5	398.6	407.9	419.5	431.1	442.7	454.4	466.1	477.7	486.9
60°	352.1	356.8	362.6	370.7	382.4	392.8	404.4	414.9	425.3	435.8	443.9
62.5°	318.5	323.1	328.9	337.0	346.3	355.6	366.1	375.3	384.7	394.0	402.1
65°	283.6	288.2	294.0	301.0	309.1	317.3	326.6	335.9	342.8	349.8	357.9
67.5°	247.6	252.2	258.0	263.8	270.8	278.9	287.0	295.2	302.1	309.1	315.0
70°	212.7	216.2	222.0	226.6	232.4	238.2	245.3	252.2	256.9	262.7	269.6
72.5°	179.0	182.5	187.1	191.8	195.3	199.9	206.9	212.7	218.5	225.4	228.9
75°	146.4	148.7	152.2	155.7	159.2	162.7	167.3	172.0	176.7	180.2	184.8
77.5°	113.9	116.2	119.7	122.1	124.4	126.7	130.2	133.7	137.1	139.5	144.1
80°	83.7	86.0	88.3	90.6	92.9	95.3	96.4	97.6	102.2	105.8	108.1
82.5°	57.0	58.1	59.3	61.6	62.8	63.9	65.1	65.1	67.4	69.7	73.2
85°	32.5	33.7	34.9	34.9	34.9	34.9	36.1	37.2	38.4	40.7	43.0
87.5°	12.8	12.8	13.9	13.9	13.9	13.9	13.9	13.9	15.1	17.4	18.6
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-39L940-X-UNV-NP

**CANDELA DISTRIBUTION (continued):**

	220°	230°	240°	250°	260°	270°	280°	290°	300°	310°	320°
0°	1027.4	1027.4	1027.4	1027.4	1027.4	1027.4	1027.4	1027.4	1027.4	1027.4	1027.4
2.5°	1033.2	1034.3	1036.7	1037.8	1039.0	1039.0	1040.1	1041.3	1039.0	1036.7	1035.5
5°	1039.0	1040.1	1043.6	1047.1	1049.4	1051.7	1050.6	1049.4	1047.1	1043.6	1041.3
7.5°	1040.1	1043.6	1047.1	1051.7	1055.2	1059.9	1057.5	1055.2	1050.6	1045.9	1042.5
10°	1036.7	1041.3	1047.1	1052.9	1056.4	1059.9	1057.5	1055.2	1050.6	1044.8	1040.1
12.5°	1032.0	1037.8	1044.8	1050.6	1054.1	1058.7	1055.2	1051.7	1045.9	1040.1	1034.3
15°	1021.6	1028.5	1036.7	1043.6	1049.4	1054.1	1050.6	1048.3	1041.3	1033.2	1025.0
17.5°	1008.8	1018.1	1026.2	1034.3	1039.0	1043.6	1041.3	1039.0	1030.8	1021.6	1012.3
20°	993.6	1003.0	1011.1	1019.2	1025.0	1029.7	1026.2	1022.7	1014.6	1006.5	997.1
22.5°	975.0	984.3	993.6	1001.8	1007.6	1012.3	1007.6	1001.8	993.6	985.5	976.2
25°	951.8	962.3	972.7	980.8	984.3	989.0	984.3	979.7	971.6	963.4	953.0
27.5°	928.5	939.1	949.5	957.6	961.1	965.8	961.1	956.5	948.4	940.2	929.7
30°	901.8	912.3	922.7	930.9	934.4	937.9	933.2	928.5	921.6	913.4	903.0
32.5°	871.7	882.1	890.2	898.4	903.0	907.6	903.0	899.5	891.4	880.9	870.5
35°	839.1	849.5	860.0	868.2	872.8	877.5	871.7	865.9	858.8	850.7	841.4
37.5°	803.1	814.7	826.3	835.6	839.1	843.7	839.1	833.3	826.3	818.2	807.7
40°	769.3	779.8	790.2	799.6	803.1	806.6	801.9	797.3	789.1	780.9	770.5
42.5°	734.5	745.0	754.3	762.4	765.9	770.5	765.9	760.1	754.3	747.3	738.0
45°	697.3	707.7	715.9	724.0	727.6	731.0	726.4	720.5	714.7	708.9	699.6
47.5°	659.0	668.3	676.4	684.5	686.8	690.3	685.7	682.2	676.4	670.6	662.5
50°	619.4	628.7	636.8	643.8	646.1	649.6	645.0	640.3	635.7	631.0	624.1
52.5°	578.7	586.9	595.1	602.0	604.4	606.7	602.0	597.4	592.7	588.1	581.0
55°	536.9	545.1	553.2	559.0	561.3	563.6	559.0	555.5	550.9	547.4	540.4
57.5°	495.1	503.2	510.2	516.0	518.3	520.7	516.0	511.3	507.8	504.4	498.5
60°	452.1	460.3	466.1	470.7	473.0	474.2	469.5	466.1	463.7	461.4	455.6
62.5°	410.3	416.1	421.9	425.3	427.7	428.8	425.3	423.0	420.7	418.4	413.7
65°	366.1	373.0	377.7	381.2	382.4	383.6	380.0	377.7	375.3	373.0	369.5
67.5°	322.0	327.8	331.2	334.7	335.9	335.9	335.9	334.7	332.4	328.9	325.4
70°	277.8	282.4	285.9	288.2	289.4	289.4	287.0	284.7	284.7	283.6	281.2
72.5°	232.4	235.9	238.2	240.5	240.5	240.5	240.5	241.7	240.5	238.2	234.7
75°	189.5	192.9	195.3	196.4	196.4	196.4	196.4	197.6	196.4	195.3	192.9
77.5°	148.7	151.1	152.2	153.4	153.4	153.4	154.5	155.7	154.5	153.4	152.2
80°	110.4	111.6	112.8	113.9	112.8	112.8	113.9	116.2	115.1	113.9	112.8
82.5°	75.5	76.7	77.9	77.9	79.0	80.2	80.2	80.2	80.2	79.0	77.9
85°	45.4	46.5	46.5	46.5	46.5	46.5	47.7	48.8	48.8	47.7	47.7
87.5°	20.9	22.0	20.9	19.7	18.6	18.6	20.9	23.2	23.2	22.0	22.0
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-39L940-X-UNV-NP

**CANDELA DISTRIBUTION (continued):**

	330°	340°	350°	360°
0°	1027.4	1027.4	1027.4	1027.4
2.5°	1036.7	1035.5	1029.7	1023.9
5°	1040.1	1036.7	1028.5	1020.4
7.5°	1040.1	1035.5	1023.9	1013.4
10°	1034.3	1027.4	1014.6	1001.8
12.5°	1027.4	1019.2	1004.2	990.1
15°	1016.9	1007.6	991.3	975.0
17.5°	1001.8	990.1	973.9	956.5
20°	986.7	973.9	954.2	935.6
22.5°	965.8	954.2	933.2	913.4
25°	942.6	929.7	908.8	887.9
27.5°	918.1	903.0	882.1	861.1
30°	890.2	875.1	854.2	833.3
32.5°	860.0	846.0	825.1	803.1
35°	829.8	814.7	793.7	771.7
37.5°	796.1	782.1	761.2	740.3
40°	760.1	746.1	725.2	704.3
42.5°	726.4	713.5	692.6	672.9
45°	689.2	676.4	656.6	638.0
47.5°	650.8	638.0	619.4	600.9
50°	613.6	600.9	583.4	566.0
52.5°	571.8	561.3	545.1	528.8
55°	531.1	520.7	504.4	489.3
57.5°	490.4	481.1	466.1	452.1
60°	447.4	438.1	426.5	413.7
62.5°	406.8	398.6	387.0	375.3
65°	363.7	356.8	346.3	335.9
67.5°	319.6	313.8	304.4	295.2
70°	275.4	268.5	261.5	253.4
72.5°	231.2	227.8	220.8	213.8
75°	189.5	186.0	180.2	174.4
77.5°	149.9	146.4	141.8	137.1
80°	110.4	108.1	104.6	101.1
82.5°	76.7	74.4	72.1	68.6
85°	46.5	44.2	41.9	39.6
87.5°	20.9	19.7	17.4	16.2
90°	0.0	0.0	0.0	0.0

(END OF REPORT)