

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-X-37L950-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-X-37L950-UNV-NP
Description: ArcMed Patient Recessed 4 FT x6 IN Fixture EXAM Light w/ Nature Pattern Lens
Light Source: 5000K CCT, 90 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

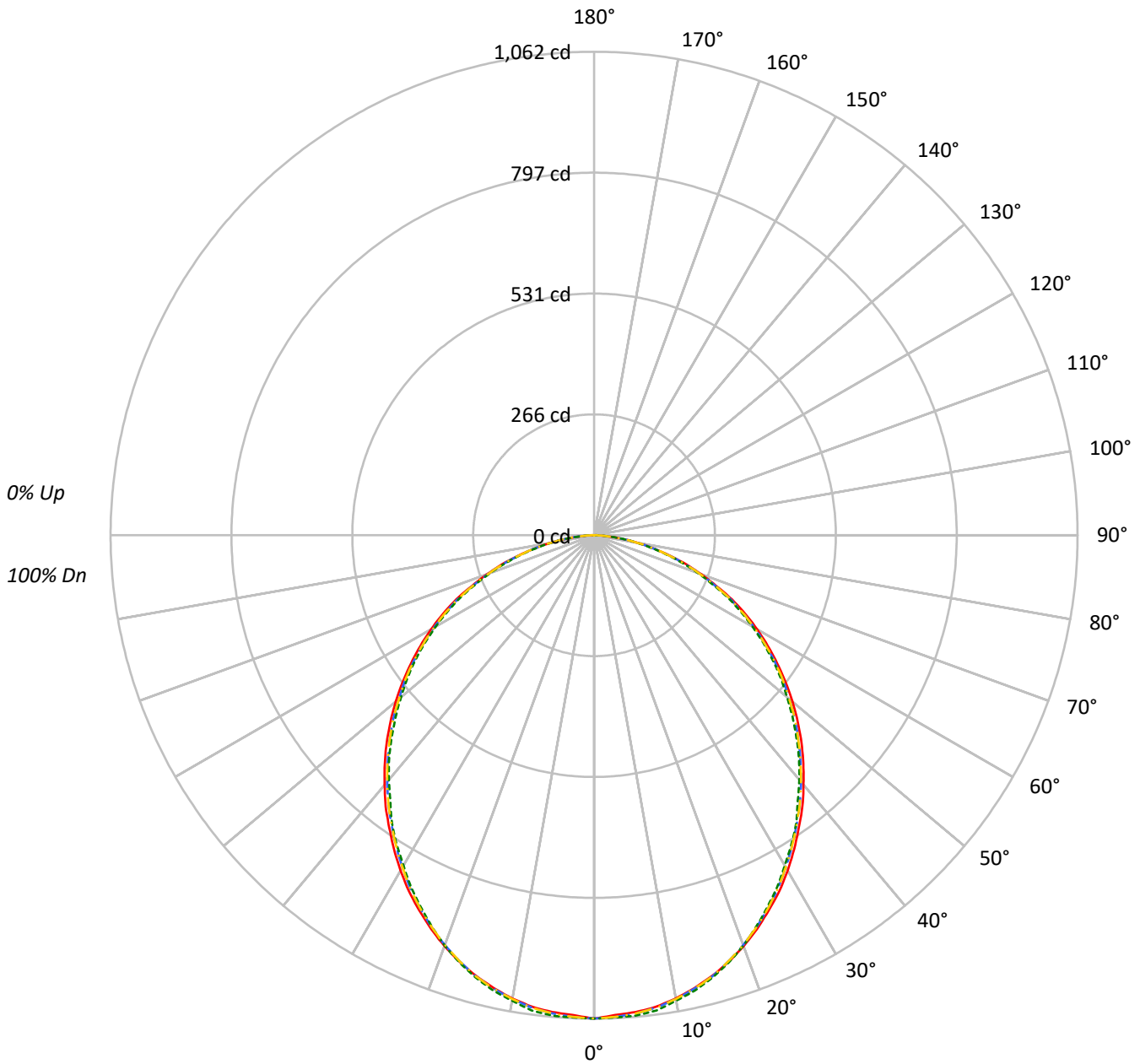
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 2762.0 lumens
Efficiency: N/A
Efficacy: 67.7 lumens/watt
Spacing Criteria (0/90/45): 1.2 / 1.18 / 1.3
Luminous Opening: Rectangular (W 0.29' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 40.8
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

TEST NUMBER: P
CATALOG NUMBER: 4APN-X-37L950-UNV-NP

Luminous Intensity Polar Plot



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



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 CATALOG NUMBER: 4APN-X-37L950-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	100	100	100	100
1	109	104	100	96	106	102	98	95	98	95	92	94	91	89	90	88	86	84	84	84	84
2	99	91	84	79	97	89	83	78	86	80	76	82	78	74	79	76	73	70	70	70	70
3	91	80	72	66	88	79	71	65	76	69	64	73	67	63	70	66	62	60	60	60	60
4	83	71	62	56	81	70	62	55	67	60	55	65	59	54	63	58	53	51	51	51	51
5	76	64	55	48	74	63	54	48	60	53	47	59	52	47	57	51	46	44	44	44	44
6	71	57	49	42	69	57	48	42	55	47	42	53	46	41	51	46	41	39	39	39	39
7	66	52	43	37	64	51	43	37	50	42	37	48	42	37	47	41	36	34	34	34	34
8	61	48	39	33	60	47	39	33	46	38	33	44	38	33	43	37	33	31	31	31	31
9	57	44	36	30	56	43	35	30	42	35	30	41	34	30	40	34	30	28	28	28	28
10	54	40	33	27	52	40	32	27	39	32	27	38	32	27	37	31	27	25	25	25	25

AVERAGE LUMINANCE (cd/sqm):

	0°	90°	180°	270°
0°	9795	9795	9795	9795
5°	9737	9808	9737	9808
10°	9679	9727	9679	9727
15°	9571	9608	9571	9608
20°	9430	9418	9430	9418
25°	9250	9171	9250	9171
30°	9060	8921	9060	8921
35°	8834	8715	8834	8715
40°	8619	8446	8619	8446
45°	8405	8203	8405	8203
50°	8169	7945	8169	7945
55°	7901	7715	7901	7715
60°	7630	7414	7630	7414
65°	7300	7075	7300	7075
70°	6747	6539	6747	6539
75°	6099	5917	6099	5917
80°	5233	5095	5233	5095
85°	3980	3980	3980	3980



TEST NUMBER: P
 CATALOG NUMBER: 4APN-X-37L950-UNV-NP

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	100.2	3.6
10°-20°	283.0	10.2
20°-30°	417.0	15.1
30°-40°	486.9	17.6
40°-50°	490.8	17.8
50°-60°	433.8	15.7
60°-70°	324.4	11.7
70°-80°	179.8	6.5
80°-90°	46.1	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°	800.2	29.0
0°-40°	1287.1	46.6
0°-60°	2211.7	80.1
0°-90°	2762.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2762.0	100.0

CANDELA DISTRIBUTION:

	0°	90°	180°	270°	360°	Flux
0°	1062	1062	1062	1062	1062	
5°	1051	1059	1051	1059	1051	100
15°	1002	1006	1002	1006	1002	282
25°	909	901	909	901	909	419
35°	784	774	784	774	784	491
45°	644	629	644	629	644	497
55°	491	480	491	480	491	439
65°	334	324	334	324	334	329
75°	171	166	171	166	171	182
85°	38	38	38	38	38	45
90°	0	0	0	0	0	



TEST NUMBER: P

CATALOG NUMBER: 4APN-X-37L950-UNV-NP

CANDELA DISTRIBUTION (FULL):

	0°	10°	20°	30°	40°	50°	60°	70°	80°	90°	100°
0°	1061.6	1061.6	1061.6	1061.6	1061.6	1061.6	1061.6	1061.6	1061.6	1061.6	1061.6
2.5°	1055.1	1060.3	1065.5	1064.2	1060.3	1057.7	1059.0	1059.0	1060.3	1060.3	1060.3
5°	1051.3	1056.4	1060.3	1059.0	1055.1	1053.8	1053.8	1053.8	1056.4	1059.0	1056.4
7.5°	1044.7	1048.7	1052.6	1051.3	1047.4	1046.1	1046.1	1047.4	1050.0	1052.6	1050.0
10°	1033.1	1038.3	1042.1	1039.6	1035.7	1033.1	1033.1	1033.1	1035.7	1038.3	1035.7
12.5°	1018.8	1022.7	1026.6	1025.4	1021.4	1018.8	1018.8	1018.8	1021.4	1024.1	1021.4
15°	1002.0	1005.9	1009.8	1008.5	1004.6	1002.0	1002.0	1002.0	1004.6	1005.9	1004.6
17.5°	982.6	986.4	990.3	987.7	982.6	980.0	980.0	980.0	982.6	983.9	982.6
20°	960.5	964.4	967.0	964.4	959.2	956.6	955.3	955.3	958.0	959.2	958.0
22.5°	935.9	938.5	941.1	938.5	933.2	930.7	929.4	928.1	929.4	930.7	929.4
25°	908.6	911.2	913.9	911.2	906.0	902.2	900.9	899.6	900.9	900.9	900.9
27.5°	881.4	882.7	885.3	881.4	876.3	872.4	871.1	869.8	871.1	871.1	871.1
30°	850.4	851.7	854.2	850.4	843.8	839.9	838.7	837.4	837.4	837.4	837.4
32.5°	817.9	820.5	823.1	817.9	811.5	807.6	806.3	805.0	806.3	806.3	806.3
35°	784.3	785.5	788.1	784.3	777.7	773.8	771.3	770.0	772.5	773.8	772.5
37.5°	751.8	753.1	754.4	750.5	744.1	740.2	737.6	736.2	734.9	734.9	734.9
40°	715.6	716.9	719.4	715.6	709.0	705.1	702.6	701.3	701.3	701.3	701.3
42.5°	680.5	681.8	683.1	679.2	672.8	668.8	666.2	664.9	666.2	666.2	666.2
45°	644.2	644.2	645.5	641.6	636.5	632.6	630.0	628.7	628.7	628.7	628.7
47.5°	606.7	608.0	609.3	605.4	600.1	596.3	593.7	591.1	591.1	591.1	591.1
50°	569.1	569.1	570.3	566.5	561.2	557.3	556.1	554.8	553.5	553.5	553.5
52.5°	530.1	531.4	532.7	528.9	525.0	521.1	518.5	517.1	517.1	517.1	517.1
55°	491.2	491.2	492.5	490.0	486.1	482.2	479.6	478.3	479.6	479.6	479.6
57.5°	452.4	453.7	455.0	451.0	447.2	443.3	442.0	440.7	440.7	440.7	440.7
60°	413.5	413.5	414.8	412.2	408.4	404.4	403.1	401.8	401.8	401.8	401.8
62.5°	374.6	374.6	375.9	373.3	369.4	365.6	364.3	362.9	362.9	362.9	362.9
65°	334.4	334.4	334.4	331.8	329.2	328.0	326.7	325.4	324.1	324.1	324.1
67.5°	290.3	290.3	291.6	289.0	286.5	285.2	283.9	282.6	281.3	281.3	281.3
70°	250.1	250.1	251.4	250.1	247.6	246.3	245.0	243.7	242.4	242.4	242.4
72.5°	211.3	211.3	211.3	210.0	208.6	207.4	206.1	204.8	203.5	203.5	203.5
75°	171.1	171.1	172.4	171.1	169.8	168.5	167.3	167.3	166.0	166.0	166.0
77.5°	133.5	134.8	136.1	134.8	133.5	132.2	130.9	130.9	129.6	129.6	129.6
80°	98.5	99.9	101.1	99.9	98.5	97.2	95.9	95.9	95.9	95.9	95.9
82.5°	66.1	67.4	68.7	67.4	66.1	66.1	64.8	64.8	64.8	64.8	64.8
85°	37.6	38.9	40.2	40.2	38.9	38.9	37.6	37.6	37.6	37.6	37.6
87.5°	14.3	15.6	16.9	16.9	15.6	15.6	15.6	15.6	15.6	15.6	15.6
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-X-37L950-UNV-NP

CANDELA DISTRIBUTION (continued):

	110°	120°	130°	140°	150°	160°	170°	180°	190°	200°	210°
0°	1061.6	1061.6	1061.6	1061.6	1061.6	1061.6	1061.6	1061.6	1061.6	1061.6	1061.6
2.5°	1059.0	1059.0	1057.7	1060.3	1064.2	1065.5	1060.3	1055.1	1060.3	1065.5	1064.2
5°	1053.8	1053.8	1053.8	1055.1	1059.0	1060.3	1056.4	1051.3	1056.4	1060.3	1059.0
7.5°	1047.4	1046.1	1046.1	1047.4	1051.3	1052.6	1048.7	1044.7	1048.7	1052.6	1051.3
10°	1033.1	1033.1	1033.1	1035.7	1039.6	1042.1	1038.3	1033.1	1038.3	1042.1	1039.6
12.5°	1018.8	1018.8	1018.8	1021.4	1025.4	1026.6	1022.7	1018.8	1022.7	1026.6	1025.4
15°	1002.0	1002.0	1002.0	1004.6	1008.5	1009.8	1005.9	1002.0	1005.9	1009.8	1008.5
17.5°	980.0	980.0	980.0	982.6	987.7	990.3	986.4	982.6	986.4	990.3	987.7
20°	955.3	955.3	956.6	959.2	964.4	967.0	964.4	960.5	964.4	967.0	964.4
22.5°	928.1	929.4	930.7	933.2	938.5	941.1	938.5	935.9	938.5	941.1	938.5
25°	899.6	900.9	902.2	906.0	911.2	913.9	911.2	908.6	911.2	913.9	911.2
27.5°	869.8	871.1	872.4	876.3	881.4	885.3	882.7	881.4	882.7	885.3	881.4
30°	837.4	838.7	839.9	843.8	850.4	854.2	851.7	850.4	851.7	854.2	850.4
32.5°	805.0	806.3	807.6	811.5	817.9	823.1	820.5	817.9	820.5	823.1	817.9
35°	770.0	771.3	773.8	777.7	784.3	788.1	785.5	784.3	785.5	788.1	784.3
37.5°	736.2	737.6	740.2	744.1	750.5	754.4	753.1	751.8	753.1	754.4	750.5
40°	701.3	702.6	705.1	709.0	715.6	719.4	716.9	715.6	716.9	719.4	715.6
42.5°	664.9	666.2	668.8	672.8	679.2	683.1	681.8	680.5	681.8	683.1	679.2
45°	628.7	630.0	632.6	636.5	641.6	645.5	644.2	644.2	644.2	645.5	641.6
47.5°	591.1	593.7	596.3	600.1	605.4	609.3	608.0	606.7	608.0	609.3	605.4
50°	554.8	556.1	557.3	561.2	566.5	570.3	569.1	569.1	569.1	570.3	566.5
52.5°	517.1	518.5	521.1	525.0	528.9	532.7	531.4	530.1	531.4	532.7	528.9
55°	478.3	479.6	482.2	486.1	490.0	492.5	491.2	491.2	491.2	492.5	490.0
57.5°	440.7	442.0	443.3	447.2	451.0	455.0	453.7	452.4	453.7	455.0	451.0
60°	401.8	403.1	404.4	408.4	412.2	414.8	413.5	413.5	413.5	414.8	412.2
62.5°	362.9	364.3	365.6	369.4	373.3	375.9	374.6	374.6	374.6	375.9	373.3
65°	325.4	326.7	328.0	329.2	331.8	334.4	334.4	334.4	334.4	334.4	331.8
67.5°	282.6	283.9	285.2	286.5	289.0	291.6	290.3	290.3	290.3	291.6	289.0
70°	243.7	245.0	246.3	247.6	250.1	251.4	250.1	250.1	250.1	251.4	250.1
72.5°	204.8	206.1	207.4	208.6	210.0	211.3	211.3	211.3	211.3	211.3	210.0
75°	167.3	167.3	168.5	169.8	171.1	172.4	171.1	171.1	171.1	172.4	171.1
77.5°	130.9	130.9	132.2	133.5	134.8	136.1	134.8	133.5	134.8	136.1	134.8
80°	95.9	95.9	97.2	98.5	99.9	101.1	99.9	98.5	99.9	101.1	99.9
82.5°	64.8	64.8	66.1	66.1	67.4	68.7	67.4	66.1	67.4	68.7	67.4
85°	37.6	37.6	38.9	38.9	40.2	40.2	38.9	37.6	38.9	40.2	40.2
87.5°	15.6	15.6	15.6	15.6	16.9	16.9	15.6	14.3	15.6	16.9	16.9
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-X-37L950-UNV-NP

CANDELA DISTRIBUTION (continued):

	220°	230°	240°	250°	260°	270°	280°	290°	300°	310°	320°
0°	1061.6	1061.6	1061.6	1061.6	1061.6	1061.6	1061.6	1061.6	1061.6	1061.6	1061.6
2.5°	1060.3	1057.7	1059.0	1059.0	1060.3	1060.3	1060.3	1059.0	1059.0	1057.7	1060.3
5°	1055.1	1053.8	1053.8	1053.8	1056.4	1059.0	1056.4	1053.8	1053.8	1053.8	1055.1
7.5°	1047.4	1046.1	1046.1	1047.4	1050.0	1052.6	1050.0	1047.4	1046.1	1046.1	1047.4
10°	1035.7	1033.1	1033.1	1033.1	1035.7	1038.3	1035.7	1033.1	1033.1	1033.1	1035.7
12.5°	1021.4	1018.8	1018.8	1018.8	1021.4	1024.1	1021.4	1018.8	1018.8	1018.8	1021.4
15°	1004.6	1002.0	1002.0	1002.0	1004.6	1005.9	1004.6	1002.0	1002.0	1002.0	1004.6
17.5°	982.6	980.0	980.0	980.0	982.6	983.9	982.6	980.0	980.0	980.0	982.6
20°	959.2	956.6	955.3	955.3	958.0	959.2	958.0	955.3	955.3	956.6	959.2
22.5°	933.2	930.7	929.4	928.1	929.4	930.7	929.4	928.1	929.4	930.7	933.2
25°	906.0	902.2	900.9	899.6	900.9	900.9	900.9	899.6	900.9	902.2	906.0
27.5°	876.3	872.4	871.1	869.8	871.1	871.1	871.1	869.8	871.1	872.4	876.3
30°	843.8	839.9	838.7	837.4	837.4	837.4	837.4	837.4	838.7	839.9	843.8
32.5°	811.5	807.6	806.3	805.0	806.3	806.3	806.3	805.0	806.3	807.6	811.5
35°	777.7	773.8	771.3	770.0	772.5	773.8	772.5	770.0	771.3	773.8	777.7
37.5°	744.1	740.2	737.6	736.2	734.9	734.9	734.9	736.2	737.6	740.2	744.1
40°	709.0	705.1	702.6	701.3	701.3	701.3	701.3	701.3	702.6	705.1	709.0
42.5°	672.8	668.8	666.2	664.9	666.2	666.2	666.2	664.9	666.2	668.8	672.8
45°	636.5	632.6	630.0	628.7	628.7	628.7	628.7	628.7	630.0	632.6	636.5
47.5°	600.1	596.3	593.7	591.1	591.1	591.1	591.1	591.1	593.7	596.3	600.1
50°	561.2	557.3	556.1	554.8	553.5	553.5	553.5	554.8	556.1	557.3	561.2
52.5°	525.0	521.1	518.5	517.1	517.1	517.1	517.1	517.1	518.5	521.1	525.0
55°	486.1	482.2	479.6	478.3	479.6	479.6	479.6	478.3	479.6	482.2	486.1
57.5°	447.2	443.3	442.0	440.7	440.7	440.7	440.7	440.7	442.0	443.3	447.2
60°	408.4	404.4	403.1	401.8	401.8	401.8	401.8	401.8	403.1	404.4	408.4
62.5°	369.4	365.6	364.3	362.9	362.9	362.9	362.9	362.9	364.3	365.6	369.4
65°	329.2	328.0	326.7	325.4	324.1	324.1	324.1	325.4	326.7	328.0	329.2
67.5°	286.5	285.2	283.9	282.6	281.3	281.3	281.3	282.6	283.9	285.2	286.5
70°	247.6	246.3	245.0	243.7	242.4	242.4	242.4	243.7	245.0	246.3	247.6
72.5°	208.6	207.4	206.1	204.8	203.5	203.5	203.5	204.8	206.1	207.4	208.6
75°	169.8	168.5	167.3	167.3	166.0	166.0	166.0	167.3	167.3	168.5	169.8
77.5°	133.5	132.2	130.9	130.9	129.6	129.6	129.6	130.9	130.9	132.2	133.5
80°	98.5	97.2	95.9	95.9	95.9	95.9	95.9	95.9	95.9	97.2	98.5
82.5°	66.1	66.1	64.8	64.8	64.8	64.8	64.8	64.8	64.8	66.1	66.1
85°	38.9	38.9	37.6	37.6	37.6	37.6	37.6	37.6	37.6	38.9	38.9
87.5°	15.6	15.6	15.6	15.6	15.6	15.6	15.6	15.6	15.6	15.6	15.6
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-X-37L950-UNV-NP

CANDELA DISTRIBUTION (continued):

	330°	340°	350°	360°
0°	1061.6	1061.6	1061.6	1061.6
2.5°	1064.2	1065.5	1060.3	1055.1
5°	1059.0	1060.3	1056.4	1051.3
7.5°	1051.3	1052.6	1048.7	1044.7
10°	1039.6	1042.1	1038.3	1033.1
12.5°	1025.4	1026.6	1022.7	1018.8
15°	1008.5	1009.8	1005.9	1002.0
17.5°	987.7	990.3	986.4	982.6
20°	964.4	967.0	964.4	960.5
22.5°	938.5	941.1	938.5	935.9
25°	911.2	913.9	911.2	908.6
27.5°	881.4	885.3	882.7	881.4
30°	850.4	854.2	851.7	850.4
32.5°	817.9	823.1	820.5	817.9
35°	784.3	788.1	785.5	784.3
37.5°	750.5	754.4	753.1	751.8
40°	715.6	719.4	716.9	715.6
42.5°	679.2	683.1	681.8	680.5
45°	641.6	645.5	644.2	644.2
47.5°	605.4	609.3	608.0	606.7
50°	566.5	570.3	569.1	569.1
52.5°	528.9	532.7	531.4	530.1
55°	490.0	492.5	491.2	491.2
57.5°	451.0	455.0	453.7	452.4
60°	412.2	414.8	413.5	413.5
62.5°	373.3	375.9	374.6	374.6
65°	331.8	334.4	334.4	334.4
67.5°	289.0	291.6	290.3	290.3
70°	250.1	251.4	250.1	250.1
72.5°	210.0	211.3	211.3	211.3
75°	171.1	172.4	171.1	171.1
77.5°	134.8	136.1	134.8	133.5
80°	99.9	101.1	99.9	98.5
82.5°	67.4	68.7	67.4	66.1
85°	40.2	40.2	38.9	37.6
87.5°	16.9	16.9	15.6	14.3
90°	0.0	0.0	0.0	0.0

(END OF REPORT)