

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-42L950-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-42L950-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

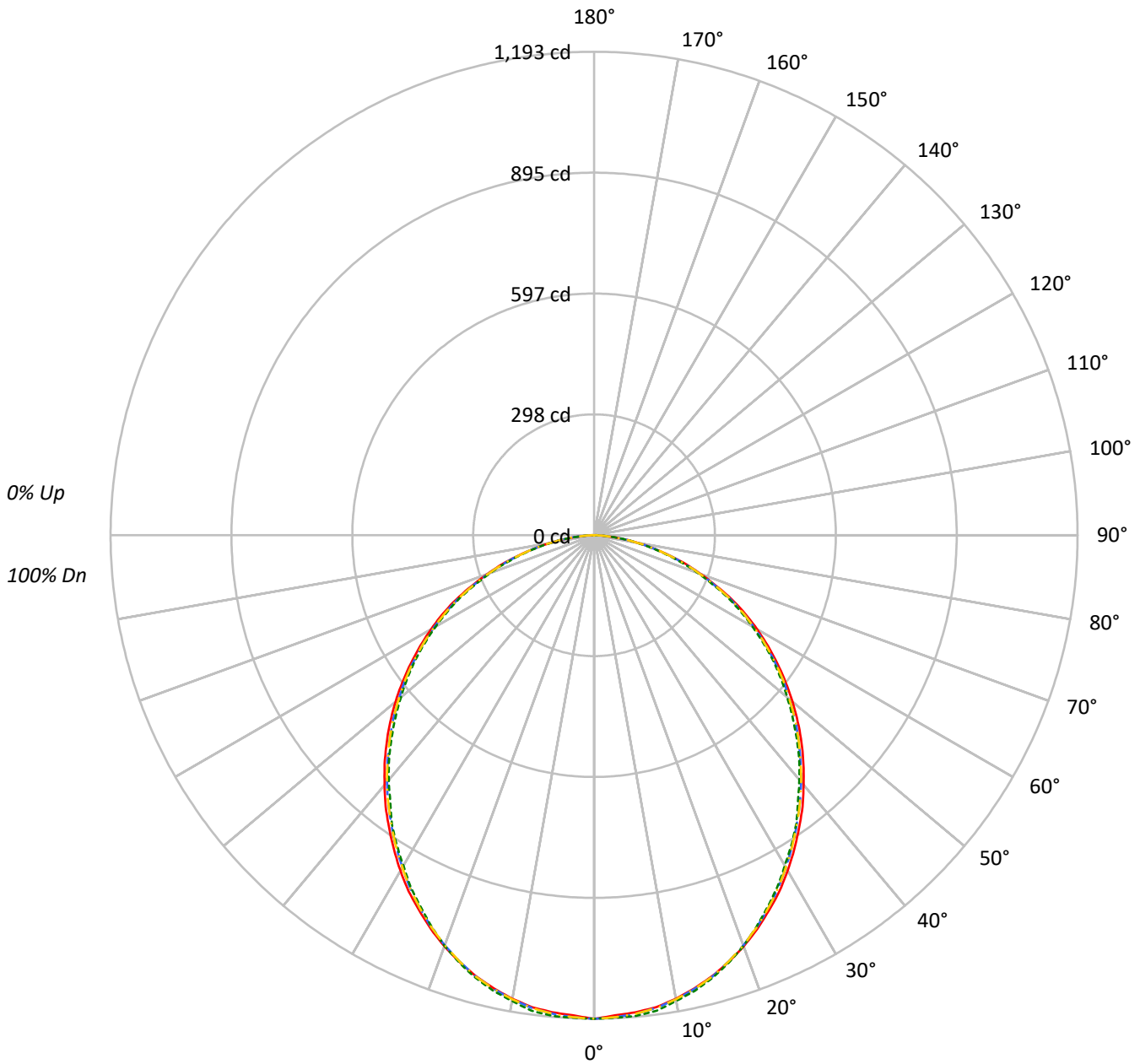
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 3104.3 lumens
Efficiency: N/A
Efficacy: 67.2 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): 46.2
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	0
RCR																		
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100
1	109	104	100	96	106	102	98	95	98	95	92	94	91	89	90	88	86	84
2	99	91	84	79	97	89	83	78	86	80	76	82	78	74	79	76	73	70
3	91	80	72	66	88	79	71	65	76	69	64	73	67	63	70	66	62	60
4	83	71	62	56	81	70	62	55	67	60	55	65	59	54	63	58	53	51
5	76	64	55	48	74	63	54	48	60	53	47	59	52	47	57	51	46	44
6	71	57	49	42	69	57	48	42	55	47	42	53	46	41	51	46	41	39
7	66	52	43	37	64	51	43	37	50	42	37	48	42	37	47	41	36	34
8	61	48	39	33	60	47	39	33	46	38	33	44	38	33	43	37	33	31
9	57	44	36	30	56	43	35	30	42	35	30	41	34	30	40	34	30	28
10	54	40	33	27	52	40	32	27	39	32	27	38	32	27	37	31	27	25

AVERAGE LUMINANCE (cd/sqm):

	0°	90°	180°	270°
0°	11009	11009	11009	11009
5°	10942	11024	10942	11024
10°	10879	10933	10879	10933
15°	10756	10799	10756	10799
20°	10600	10585	10600	10585
25°	10397	10307	10397	10307
30°	10182	10027	10182	10027
35°	9927	9796	9927	9796
40°	9686	9492	9686	9492
45°	9447	9220	9447	9220
50°	9180	8929	9180	8929
55°	8882	8670	8882	8670
60°	8577	8333	8577	8333
65°	8206	7951	8206	7951
70°	7586	7351	7586	7351
75°	6855	6648	6855	6648
80°	5882	5728	5882	5728
85°	4467	4467	4467	4467



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	112.6	3.6
10°-20°	318.0	10.2
20°-30°	468.7	15.1
30°-40°	547.2	17.6
40°-50°	551.7	17.8
50°-60°	487.6	15.7
60°-70°	364.6	11.7
70°-80°	202.1	6.5
80°-90°	51.8	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°	899.4	29.0
0°-40°	1446.6	46.6
0°-60°	2485.8	80.1
0°-90°	3104.3	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3104.3	100.0

CANDELA DISTRIBUTION:

	0°	90°	180°	270°	360°	Flux
0°	1193	1193	1193	1193	1193	
5°	1182	1190	1182	1190	1182	112
15°	1126	1131	1126	1131	1126	317
25°	1021	1012	1021	1012	1021	471
35°	881	870	881	870	881	552
45°	724	707	724	707	724	558
55°	552	539	552	539	552	494
65°	376	364	376	364	376	370
75°	192	186	192	186	192	205
85°	42	42	42	42	42	51
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°	1193.2	1193.2	1193.2	1193.2	1193.2	1193.2	1193.2	1193.2	1193.2	1193.2	1193.2
2.5°	1185.9	1191.7	1197.6	1196.1	1191.7	1188.8	1190.3	1190.3	1191.7	1191.7	1191.7
5°	1181.5	1187.4	1191.7	1190.3	1185.9	1184.4	1184.4	1184.4	1187.4	1190.3	1187.4
7.5°	1174.3	1178.6	1183.0	1181.5	1177.1	1175.7	1175.7	1177.1	1180.1	1183.0	1180.1
10°	1161.2	1167.0	1171.3	1168.5	1164.0	1161.2	1161.2	1161.2	1164.0	1167.0	1164.0
12.5°	1145.1	1149.5	1153.9	1152.4	1148.0	1145.1	1145.1	1145.1	1148.0	1150.9	1148.0
15°	1126.1	1130.6	1134.9	1133.4	1129.1	1126.1	1126.1	1126.1	1129.1	1130.6	1129.1
17.5°	1104.3	1108.7	1113.0	1110.2	1104.3	1101.4	1101.4	1101.4	1104.3	1105.8	1104.3
20°	1079.6	1083.9	1086.9	1083.9	1078.1	1075.1	1073.8	1073.8	1076.6	1078.1	1076.6
22.5°	1051.8	1054.8	1057.7	1054.8	1049.0	1046.0	1044.5	1043.2	1044.5	1046.0	1044.5
25°	1021.3	1024.2	1027.1	1024.2	1018.3	1014.0	1012.5	1011.1	1012.5	1012.5	1012.5
27.5°	990.7	992.2	995.0	990.7	984.9	980.5	979.0	977.6	979.0	979.0	979.0
30°	955.7	957.1	960.1	955.7	948.5	944.0	942.6	941.2	941.2	941.2	941.2
32.5°	919.3	922.2	925.1	919.3	912.0	907.6	906.1	904.8	906.1	906.1	906.1
35°	881.4	882.9	885.8	881.4	874.1	869.7	866.9	865.4	868.3	869.7	868.3
37.5°	845.0	846.5	847.9	843.5	836.3	831.9	829.0	827.5	826.0	826.0	826.0
40°	804.2	805.6	808.6	804.2	796.9	792.6	789.6	788.1	788.1	788.1	788.1
42.5°	764.9	766.3	767.7	763.4	756.1	751.7	748.8	747.4	748.8	748.8	748.8
45°	724.0	724.0	725.5	721.2	715.3	711.0	708.0	706.6	706.6	706.6	706.6
47.5°	681.8	683.3	684.8	680.3	674.5	670.2	667.3	664.3	664.3	664.3	664.3
50°	639.6	639.6	641.1	636.6	630.8	626.5	625.0	623.5	622.1	622.1	622.1
52.5°	595.9	597.4	598.7	594.4	590.0	585.7	582.7	581.3	581.3	581.3	581.3
55°	552.2	552.2	553.6	550.7	546.3	542.0	539.0	537.6	539.0	539.0	539.0
57.5°	508.5	509.9	511.3	507.0	502.6	498.2	496.8	495.3	495.3	495.3	495.3
60°	464.8	464.8	466.2	463.3	458.9	454.5	453.1	451.6	451.6	451.6	451.6
62.5°	421.1	421.1	422.5	419.6	415.2	410.8	409.4	407.9	407.9	407.9	407.9
65°	375.9	375.9	375.9	372.9	370.1	368.6	367.1	365.7	364.2	364.2	364.2
67.5°	326.3	326.3	327.8	324.9	322.0	320.5	319.0	317.6	316.2	316.2	316.2
70°	281.2	281.2	282.6	281.2	278.3	276.8	275.3	273.9	272.5	272.5	272.5
72.5°	237.5	237.5	237.5	236.0	234.6	233.1	231.6	230.2	228.7	228.7	228.7
75°	192.3	192.3	193.8	192.3	190.9	189.4	187.9	187.9	186.5	186.5	186.5
77.5°	150.1	151.5	153.0	151.5	150.1	148.6	147.2	147.2	145.7	145.7	145.7
80°	110.7	112.2	113.6	112.2	110.7	109.3	107.8	107.8	107.8	107.8	107.8
82.5°	74.3	75.8	77.2	75.8	74.3	74.3	72.8	72.8	72.8	72.8	72.8
85°	42.2	43.7	45.2	45.2	43.7	43.7	42.2	42.2	42.2	42.2	42.2
87.5°	16.0	17.5	18.9	18.9	17.5	17.5	17.5	17.5	17.5	17.5	17.5
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°	1193.2	1193.2	1193.2	1193.2	1193.2	1193.2	1193.2	1193.2	1193.2	1193.2	1193.2
2.5°	1190.3	1190.3	1188.8	1191.7	1196.1	1197.6	1191.7	1185.9	1191.7	1197.6	1196.1
5°	1184.4	1184.4	1184.4	1185.9	1190.3	1191.7	1187.4	1181.5	1187.4	1191.7	1190.3
7.5°	1177.1	1175.7	1175.7	1177.1	1181.5	1183.0	1178.6	1174.3	1178.6	1183.0	1181.5
10°	1161.2	1161.2	1161.2	1164.0	1168.5	1171.3	1167.0	1161.2	1167.0	1171.3	1168.5
12.5°	1145.1	1145.1	1145.1	1148.0	1152.4	1153.9	1149.5	1145.1	1149.5	1153.9	1152.4
15°	1126.1	1126.1	1126.1	1129.1	1133.4	1134.9	1130.6	1126.1	1130.6	1134.9	1133.4
17.5°	1101.4	1101.4	1101.4	1104.3	1110.2	1113.0	1108.7	1104.3	1108.7	1113.0	1110.2
20°	1073.8	1073.8	1075.1	1078.1	1083.9	1086.9	1083.9	1079.6	1083.9	1086.9	1083.9
22.5°	1043.2	1044.5	1046.0	1049.0	1054.8	1057.7	1054.8	1051.8	1054.8	1057.7	1054.8
25°	1011.1	1012.5	1014.0	1018.3	1024.2	1027.1	1024.2	1021.3	1024.2	1027.1	1024.2
27.5°	977.6	979.0	980.5	984.9	990.7	995.0	992.2	990.7	992.2	995.0	990.7
30°	941.2	942.6	944.0	948.5	955.7	960.1	957.1	955.7	957.1	960.1	955.7
32.5°	904.8	906.1	907.6	912.0	919.3	925.1	922.2	919.3	922.2	925.1	919.3
35°	865.4	866.9	869.7	874.1	881.4	885.8	882.9	881.4	882.9	885.8	881.4
37.5°	827.5	829.0	831.9	836.3	843.5	847.9	846.5	845.0	846.5	847.9	843.5
40°	788.1	789.6	792.6	796.9	804.2	808.6	805.6	804.2	805.6	808.6	804.2
42.5°	747.4	748.8	751.7	756.1	763.4	767.7	766.3	764.9	766.3	767.7	763.4
45°	706.6	708.0	711.0	715.3	721.2	725.5	724.0	724.0	724.0	725.5	721.2
47.5°	664.3	667.3	670.2	674.5	680.3	684.8	683.3	681.8	683.3	684.8	680.3
50°	623.5	625.0	626.5	630.8	636.6	641.1	639.6	639.6	639.6	641.1	636.6
52.5°	581.3	582.7	585.7	590.0	594.4	598.7	597.4	595.9	597.4	598.7	594.4
55°	537.6	539.0	542.0	546.3	550.7	553.6	552.2	552.2	552.2	553.6	550.7
57.5°	495.3	496.8	498.2	502.6	507.0	511.3	509.9	508.5	509.9	511.3	507.0
60°	451.6	453.1	454.5	458.9	463.3	466.2	464.8	464.8	464.8	466.2	463.3
62.5°	407.9	409.4	410.8	415.2	419.6	422.5	421.1	421.1	421.1	422.5	419.6
65°	365.7	367.1	368.6	370.1	372.9	375.9	375.9	375.9	375.9	375.9	372.9
67.5°	317.6	319.0	320.5	322.0	324.9	327.8	326.3	326.3	326.3	327.8	324.9
70°	273.9	275.3	276.8	278.3	281.2	282.6	281.2	281.2	281.2	282.6	281.2
72.5°	230.2	231.6	233.1	234.6	236.0	237.5	237.5	237.5	237.5	237.5	236.0
75°	187.9	187.9	189.4	190.9	192.3	193.8	192.3	192.3	192.3	193.8	192.3
77.5°	147.2	147.2	148.6	150.1	151.5	153.0	151.5	150.1	151.5	153.0	151.5
80°	107.8	107.8	109.3	110.7	112.2	113.6	112.2	110.7	112.2	113.6	112.2
82.5°	72.8	72.8	74.3	74.3	75.8	77.2	75.8	74.3	75.8	77.2	75.8
85°	42.2	42.2	43.7	43.7	45.2	45.2	43.7	42.2	43.7	45.2	45.2
87.5°	17.5	17.5	17.5	17.5	18.9	18.9	17.5	16.0	17.5	18.9	18.9
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°	1193.2	1193.2	1193.2	1193.2	1193.2	1193.2	1193.2	1193.2	1193.2	1193.2	1193.2
2.5°	1191.7	1188.8	1190.3	1190.3	1191.7	1191.7	1191.7	1190.3	1190.3	1188.8	1191.7
5°	1185.9	1184.4	1184.4	1184.4	1187.4	1190.3	1187.4	1184.4	1184.4	1184.4	1185.9
7.5°	1177.1	1175.7	1175.7	1177.1	1180.1	1183.0	1180.1	1177.1	1175.7	1175.7	1177.1
10°	1164.0	1161.2	1161.2	1161.2	1164.0	1167.0	1164.0	1161.2	1161.2	1161.2	1164.0
12.5°	1148.0	1145.1	1145.1	1145.1	1148.0	1150.9	1148.0	1145.1	1145.1	1145.1	1148.0
15°	1129.1	1126.1	1126.1	1126.1	1129.1	1130.6	1129.1	1126.1	1126.1	1126.1	1129.1
17.5°	1104.3	1101.4	1101.4	1101.4	1104.3	1105.8	1104.3	1101.4	1101.4	1101.4	1104.3
20°	1078.1	1075.1	1073.8	1073.8	1076.6	1078.1	1076.6	1073.8	1073.8	1075.1	1078.1
22.5°	1049.0	1046.0	1044.5	1043.2	1044.5	1046.0	1044.5	1043.2	1044.5	1046.0	1049.0
25°	1018.3	1014.0	1012.5	1011.1	1012.5	1012.5	1012.5	1011.1	1012.5	1014.0	1018.3
27.5°	984.9	980.5	979.0	977.6	979.0	979.0	979.0	977.6	979.0	980.5	984.9
30°	948.5	944.0	942.6	941.2	941.2	941.2	941.2	941.2	942.6	944.0	948.5
32.5°	912.0	907.6	906.1	904.8	906.1	906.1	906.1	904.8	906.1	907.6	912.0
35°	874.1	869.7	866.9	865.4	868.3	869.7	868.3	865.4	866.9	869.7	874.1
37.5°	836.3	831.9	829.0	827.5	826.0	826.0	826.0	827.5	829.0	831.9	836.3
40°	796.9	792.6	789.6	788.1	788.1	788.1	788.1	788.1	789.6	792.6	796.9
42.5°	756.1	751.7	748.8	747.4	748.8	748.8	748.8	747.4	748.8	751.7	756.1
45°	715.3	711.0	708.0	706.6	706.6	706.6	706.6	706.6	708.0	711.0	715.3
47.5°	674.5	670.2	667.3	664.3	664.3	664.3	664.3	664.3	667.3	670.2	674.5
50°	630.8	626.5	625.0	623.5	622.1	622.1	622.1	623.5	625.0	626.5	630.8
52.5°	590.0	585.7	582.7	581.3	581.3	581.3	581.3	581.3	582.7	585.7	590.0
55°	546.3	542.0	539.0	537.6	539.0	539.0	539.0	537.6	539.0	542.0	546.3
57.5°	502.6	498.2	496.8	495.3	495.3	495.3	495.3	495.3	496.8	498.2	502.6
60°	458.9	454.5	453.1	451.6	451.6	451.6	451.6	451.6	453.1	454.5	458.9
62.5°	415.2	410.8	409.4	407.9	407.9	407.9	407.9	407.9	409.4	410.8	415.2
65°	370.1	368.6	367.1	365.7	364.2	364.2	364.2	365.7	367.1	368.6	370.1
67.5°	322.0	320.5	319.0	317.6	316.2	316.2	316.2	317.6	319.0	320.5	322.0
70°	278.3	276.8	275.3	273.9	272.5	272.5	272.5	273.9	275.3	276.8	278.3
72.5°	234.6	233.1	231.6	230.2	228.7	228.7	228.7	230.2	231.6	233.1	234.6
75°	190.9	189.4	187.9	187.9	186.5	186.5	186.5	187.9	187.9	189.4	190.9
77.5°	150.1	148.6	147.2	147.2	145.7	145.7	145.7	147.2	147.2	148.6	150.1
80°	110.7	109.3	107.8	107.8	107.8	107.8	107.8	107.8	107.8	109.3	110.7
82.5°	74.3	74.3	72.8	72.8	72.8	72.8	72.8	72.8	72.8	74.3	74.3
85°	43.7	43.7	42.2	42.2	42.2	42.2	42.2	42.2	42.2	43.7	43.7
87.5°	17.5	17.5	17.5	17.5	17.5	17.5	17.5	17.5	17.5	17.5	17.5
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-42L950-UNV-NP

CANDELA DISTRIBUTION (continued):

	330°	340°	350°	360°
0°	1193.2	1193.2	1193.2	1193.2
2.5°	1196.1	1197.6	1191.7	1185.9
5°	1190.3	1191.7	1187.4	1181.5
7.5°	1181.5	1183.0	1178.6	1174.3
10°	1168.5	1171.3	1167.0	1161.2
12.5°	1152.4	1153.9	1149.5	1145.1
15°	1133.4	1134.9	1130.6	1126.1
17.5°	1110.2	1113.0	1108.7	1104.3
20°	1083.9	1086.9	1083.9	1079.6
22.5°	1054.8	1057.7	1054.8	1051.8
25°	1024.2	1027.1	1024.2	1021.3
27.5°	990.7	995.0	992.2	990.7
30°	955.7	960.1	957.1	955.7
32.5°	919.3	925.1	922.2	919.3
35°	881.4	885.8	882.9	881.4
37.5°	843.5	847.9	846.5	845.0
40°	804.2	808.6	805.6	804.2
42.5°	763.4	767.7	766.3	764.9
45°	721.2	725.5	724.0	724.0
47.5°	680.3	684.8	683.3	681.8
50°	636.6	641.1	639.6	639.6
52.5°	594.4	598.7	597.4	595.9
55°	550.7	553.6	552.2	552.2
57.5°	507.0	511.3	509.9	508.5
60°	463.3	466.2	464.8	464.8
62.5°	419.6	422.5	421.1	421.1
65°	372.9	375.9	375.9	375.9
67.5°	324.9	327.8	326.3	326.3
70°	281.2	282.6	281.2	281.2
72.5°	236.0	237.5	237.5	237.5
75°	192.3	193.8	192.3	192.3
77.5°	151.5	153.0	151.5	150.1
80°	112.2	113.6	112.2	110.7
82.5°	75.8	77.2	75.8	74.3
85°	45.2	45.2	43.7	42.2
87.5°	18.9	18.9	17.5	16.0
90°	0.0	0.0	0.0	0.0

(END OF REPORT)