

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-42L935-UNV-ASY**

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-42L935-UNV-ASY  
Description: ArcMed Patient Recessed 4 FT x6 IN Fixture EXAM Light w/  
ASYMMETRIC Lens  
Light Source: 3500K CCT, 90 CRI LEDS  
Ballast/Driver: ELECTRONIC DRIVER

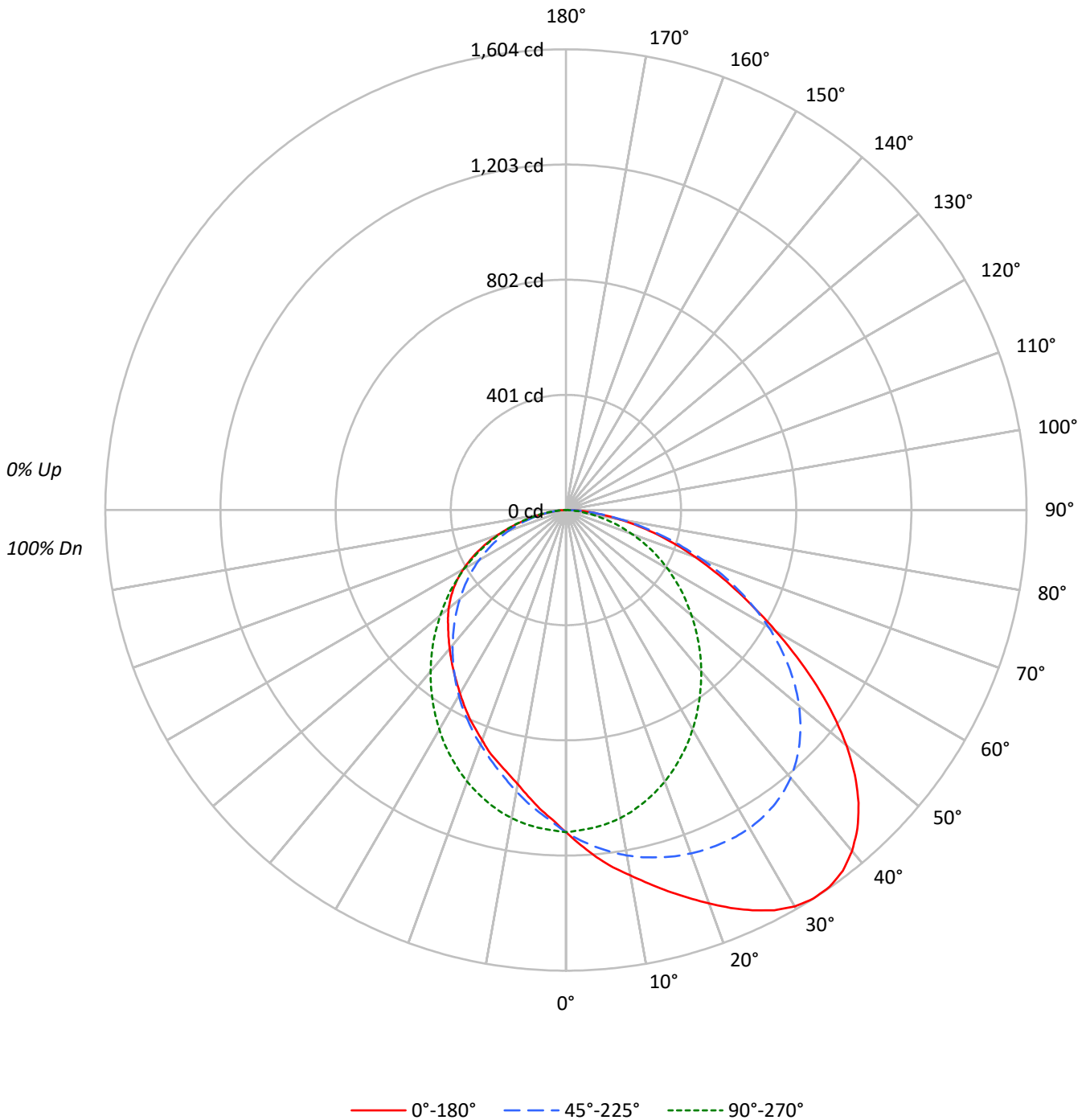
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 3474.5 lumens  
Efficiency: N/A  
Efficacy: 75.2 lumens/watt  
Spacing Criteria (0/90/45): 1.53 / 1.18 / 1.46  
Luminous Opening: Rectangular (W 0.29' x L: 3.83' x H: 0')  
CIE Type: Direct

Input Watts (W): 46.2  
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

TEST NUMBER: P  
CATALOG NUMBER: 4APN-X-42L935-UNV-ASY

### Luminous Intensity Polar Plot





TEST NUMBER: P  
 CATALOG NUMBER: 4APN-X-42L935-UNV-ASY

**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	94	97	94	91	93	91	88	90	88	86	86	86	86	84
2	99	90	83	78	96	88	82	77	85	80	75	82	77	73	79	75	72	72	72	72	69
3	90	79	71	64	87	78	70	64	75	68	63	72	66	61	69	64	60	60	60	60	58
4	82	70	61	54	80	69	60	54	66	59	53	64	57	52	62	56	52	52	52	52	49
5	75	62	53	46	73	61	53	46	59	51	46	57	50	45	55	49	45	45	45	45	43
6	69	56	47	40	68	55	46	40	53	46	40	51	45	39	50	44	39	39	39	39	37
7	64	51	42	36	63	50	41	35	48	41	35	47	40	35	45	39	35	35	35	35	33
8	60	46	37	32	58	45	37	31	44	37	31	43	36	31	42	35	31	31	31	31	29
9	56	42	34	28	54	42	34	28	40	33	28	39	33	28	38	32	28	28	28	28	26
10	52	39	31	26	51	38	31	26	37	30	25	36	30	25	36	30	25	25	25	25	23

**AVERAGE LUMINANCE (cd/sqm):**

	0°	90°	180°
0°	10799	10799	10799
5°	11719	10734	10087
10°	12625	10651	9465
15°	13694	10495	9076
20°	14931	10312	8739
25°	16333	10069	8468
30°	17719	9805	8195
35°	18819	9515	8020
40°	19486	9213	7915
45°	19623	8895	7897
50°	19107	8555	7983
55°	17893	8250	8033
60°	16264	7875	7954
65°	14746	7447	7645
70°	13497	6905	7020
75°	12245	6208	6037
80°	10711	5189	4652
85°	9014	3767	3468



TEST NUMBER: P  
 CATALOG NUMBER: 4APN-X-42L935-UNV-ASY

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	106.5	3.1
10°-20°	309.8	8.9
20°-30°	485.4	14.0
30°-40°	608.5	17.5
40°-50°	647.9	18.6
50°-60°	584.8	16.8
60°-70°	432.9	12.5
70°-80°	237.5	6.8
80°-90°	61.0	1.8
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°	901.8	26.0
0°-40°	1510.3	43.5
0°-60°	2743.0	78.9
0°-90°	3474.5	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3474.5	100.0

**CANDELA DISTRIBUTION:**

	0°	45°	90°	135°	180°	Flux
0°	1122	1122	1122	1122	1122	
5°	1213	1177	1111	1057	1044	118
15°	1374	1252	1053	930	911	392
25°	1538	1281	948	808	797	712
35°	1601	1259	810	680	682	998
45°	1441	1150	653	547	580	1105
55°	1066	946	492	416	479	951
65°	647	667	327	282	336	646
75°	329	349	167	144	162	350
85°	82	80	34	32	31	96
90°	0	0	0	0	0	



TEST NUMBER: P

CATALOG NUMBER: 4APN-X-42L935-UNV-ASY

**CANDELA DISTRIBUTION (FULL):**

	0°	5°	15°	25°	35°	45°	55°	65°	75°	85°	90°
0°	1121.7	1121.7	1121.7	1121.7	1121.7	1121.7	1121.7	1121.7	1121.7	1121.7	1121.7
2.5°	1166.9	1164.6	1161.9	1160.9	1156.8	1151.3	1146.2	1146.2	1140.2	1125.9	1115.8
5°	1212.6	1208.9	1202.0	1196.4	1187.7	1177.1	1166.5	1160.0	1145.7	1124.1	1110.7
7.5°	1254.5	1249.9	1241.2	1230.6	1216.3	1200.6	1183.1	1169.2	1147.6	1118.5	1101.5
10°	1291.4	1287.3	1276.7	1263.8	1243.5	1221.3	1195.5	1174.8	1145.3	1109.3	1089.5
12.5°	1332.0	1327.8	1313.1	1295.6	1267.9	1238.4	1204.3	1175.7	1139.3	1095.9	1073.3
15°	1373.9	1368.4	1351.8	1328.3	1291.4	1251.8	1209.8	1172.9	1129.6	1079.8	1053.0
17.5°	1415.4	1409.9	1389.2	1359.2	1313.1	1263.8	1212.1	1166.5	1115.8	1060.0	1030.9
20°	1457.4	1451.9	1425.6	1387.8	1332.0	1272.5	1211.7	1156.8	1099.2	1037.4	1006.5
22.5°	1499.4	1492.9	1461.1	1415.0	1347.7	1278.5	1206.6	1143.4	1078.4	1011.6	978.4
25°	1537.6	1531.2	1496.1	1441.7	1364.3	1281.3	1197.8	1125.0	1055.4	983.0	947.9
27.5°	1570.8	1563.0	1526.6	1466.6	1378.6	1282.2	1186.3	1104.2	1028.6	952.1	916.6
30°	1593.9	1587.0	1548.2	1484.1	1386.9	1279.0	1171.5	1079.8	997.7	918.9	882.0
32.5°	1604.0	1598.0	1559.7	1492.4	1388.2	1270.7	1153.6	1052.6	965.4	883.8	846.5
35°	1601.2	1595.2	1558.8	1491.1	1384.1	1258.7	1131.0	1021.7	930.9	847.4	809.6
37.5°	1583.7	1576.8	1543.6	1478.6	1372.1	1241.2	1105.1	988.0	893.5	810.1	771.8
40°	1550.5	1543.6	1515.0	1455.1	1351.8	1217.6	1075.6	952.1	855.3	770.9	733.1
42.5°	1503.0	1495.7	1473.1	1418.2	1322.8	1186.8	1042.0	913.8	814.7	733.1	693.4
45°	1441.3	1433.9	1418.7	1372.1	1285.0	1150.3	1003.7	872.3	772.3	690.2	653.3
47.5°	1364.7	1358.3	1350.9	1314.9	1238.4	1108.4	960.8	828.1	728.0	650.1	612.3
50°	1275.7	1269.3	1271.6	1247.2	1184.4	1060.0	913.8	781.5	682.4	605.4	571.2
52.5°	1174.8	1169.7	1180.8	1170.2	1121.7	1006.0	863.6	733.5	635.8	562.9	530.2
55°	1066.0	1060.4	1081.6	1084.9	1051.7	946.5	806.4	683.7	588.8	521.5	491.5
57.5°	953.9	949.3	976.5	991.7	975.1	882.5	748.8	632.6	540.4	478.1	448.1
60°	844.7	841.0	869.5	894.4	892.6	814.7	688.8	577.2	491.9	434.3	409.0
62.5°	741.8	737.7	766.3	795.8	806.4	742.3	629.3	522.8	443.5	390.5	367.9
65°	647.3	643.2	667.6	698.0	717.4	666.7	565.3	466.6	394.7	346.3	326.9
67.5°	560.6	560.6	575.9	604.0	627.5	589.2	499.8	413.1	344.4	305.2	285.9
70°	479.5	479.0	490.1	509.9	537.1	506.2	433.4	356.9	296.9	262.3	245.3
72.5°	402.5	405.7	409.9	425.1	453.7	426.9	367.5	301.5	250.4	219.9	205.6
75°	329.2	328.7	334.7	348.1	368.8	349.0	301.5	247.6	204.2	179.4	166.9
77.5°	259.1	258.7	263.7	271.6	289.1	273.4	237.9	197.8	159.1	138.3	129.6
80°	193.2	193.2	197.8	201.9	214.9	202.4	177.5	148.0	116.6	100.5	93.6
82.5°	134.2	136.9	135.1	140.6	148.0	137.4	121.7	101.4	77.5	66.4	61.8
85°	81.6	83.9	81.6	86.2	89.4	80.2	72.4	60.4	44.7	37.3	34.1
87.5°	42.0	41.5	41.0	43.3	44.3	38.7	34.1	29.0	19.8	15.2	12.9
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-42L935-UNV-ASY

**CANDELA DISTRIBUTION (continued):**

	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	1121.7	1121.7	1121.7	1121.7	1121.7	1121.7	1121.7	1121.7	1121.7	1121.7
2.5°	1109.8	1112.5	1108.4	1093.2	1087.2	1080.7	1077.9	1075.2	1080.3	1078.9
5°	1100.5	1097.3	1086.7	1067.3	1057.2	1046.6	1041.5	1038.3	1045.2	1043.8
7.5°	1088.1	1078.9	1063.2	1039.7	1026.8	1012.5	1005.6	1001.4	1006.0	1005.1
10°	1072.4	1057.2	1037.8	1009.7	994.5	978.8	971.0	965.0	968.7	968.2
12.5°	1052.6	1032.8	1009.2	977.4	961.8	945.6	938.7	934.6	939.2	937.8
15°	1030.5	1006.5	979.3	947.0	929.9	915.2	910.1	906.9	910.6	910.6
17.5°	1006.0	977.9	947.9	915.2	899.1	887.5	882.5	880.2	882.0	884.8
20°	978.8	947.5	915.2	883.4	869.5	857.6	853.0	850.6	854.8	853.0
22.5°	948.9	915.7	882.0	852.0	839.6	827.6	823.0	821.6	826.2	824.4
25°	917.0	881.1	847.9	820.7	808.2	798.1	793.9	792.6	794.9	797.2
27.5°	887.1	846.5	813.8	789.3	778.3	768.6	764.9	762.6	764.4	767.2
30°	850.6	811.5	779.2	756.6	746.0	736.8	734.0	732.2	734.9	737.2
32.5°	816.5	776.9	744.6	722.5	713.3	704.5	704.0	703.1	706.3	709.1
35°	779.6	740.9	709.6	688.8	680.1	672.7	674.1	675.4	679.1	682.4
37.5°	742.3	704.5	674.5	655.6	647.3	641.3	645.5	647.3	652.4	655.6
40°	704.5	666.7	639.0	622.0	613.7	610.9	616.9	621.0	627.0	629.8
42.5°	665.8	630.7	603.1	587.4	580.5	580.5	588.3	594.8	601.7	604.4
45°	627.0	592.9	566.6	552.3	547.3	551.0	560.2	568.5	577.2	580.0
47.5°	587.8	554.6	530.7	517.8	515.0	520.5	532.1	543.1	553.3	557.0
50°	548.7	518.7	494.7	482.7	482.7	489.6	504.4	518.2	529.3	533.0
52.5°	509.5	480.9	456.4	447.7	449.5	459.2	476.3	490.6	503.0	506.7
55°	469.8	441.7	420.5	413.1	416.3	428.3	445.8	462.4	474.4	478.6
57.5°	430.6	403.9	384.5	378.5	383.1	396.5	416.8	431.1	443.5	447.2
60°	391.0	363.8	348.6	343.9	349.9	363.8	384.5	397.9	409.4	413.1
62.5°	351.8	326.4	313.1	308.9	315.8	330.6	350.9	362.9	371.6	375.3
65°	312.1	289.5	277.1	274.3	281.7	296.0	315.4	325.5	332.0	335.6
67.5°	272.9	253.6	242.1	239.7	247.6	260.5	278.5	284.0	290.0	293.7
70°	234.2	216.7	207.0	205.6	212.5	225.0	240.2	243.0	246.2	249.4
72.5°	195.9	182.1	172.4	172.0	178.4	188.6	201.0	201.5	202.4	205.6
75°	159.1	146.6	139.2	140.6	144.3	152.6	162.3	159.5	160.0	162.3
77.5°	123.6	113.4	108.3	109.3	112.0	118.0	124.5	121.3	119.4	121.7
80°	89.0	80.2	78.4	78.8	80.7	84.8	88.5	85.8	82.1	83.9
82.5°	58.6	53.0	52.1	52.6	53.9	56.2	57.2	53.0	52.1	53.5
85°	32.3	30.0	30.0	31.4	31.8	32.3	32.3	30.0	30.4	31.4
87.5°	12.9	12.9	14.3	15.7	14.8	12.9	11.1	7.4	7.4	8.8
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)