

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-30L950-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-30L950-UNV-ASY  
Description: ArcMed Patient Recessed 4 FT x6 IN Fixture EXAM Light w/  
ASYMMETRIC Lens  
Light Source: 5000K CCT, 90 CRI LEDS  
Ballast/Driver: ELECTRONIC DRIVER

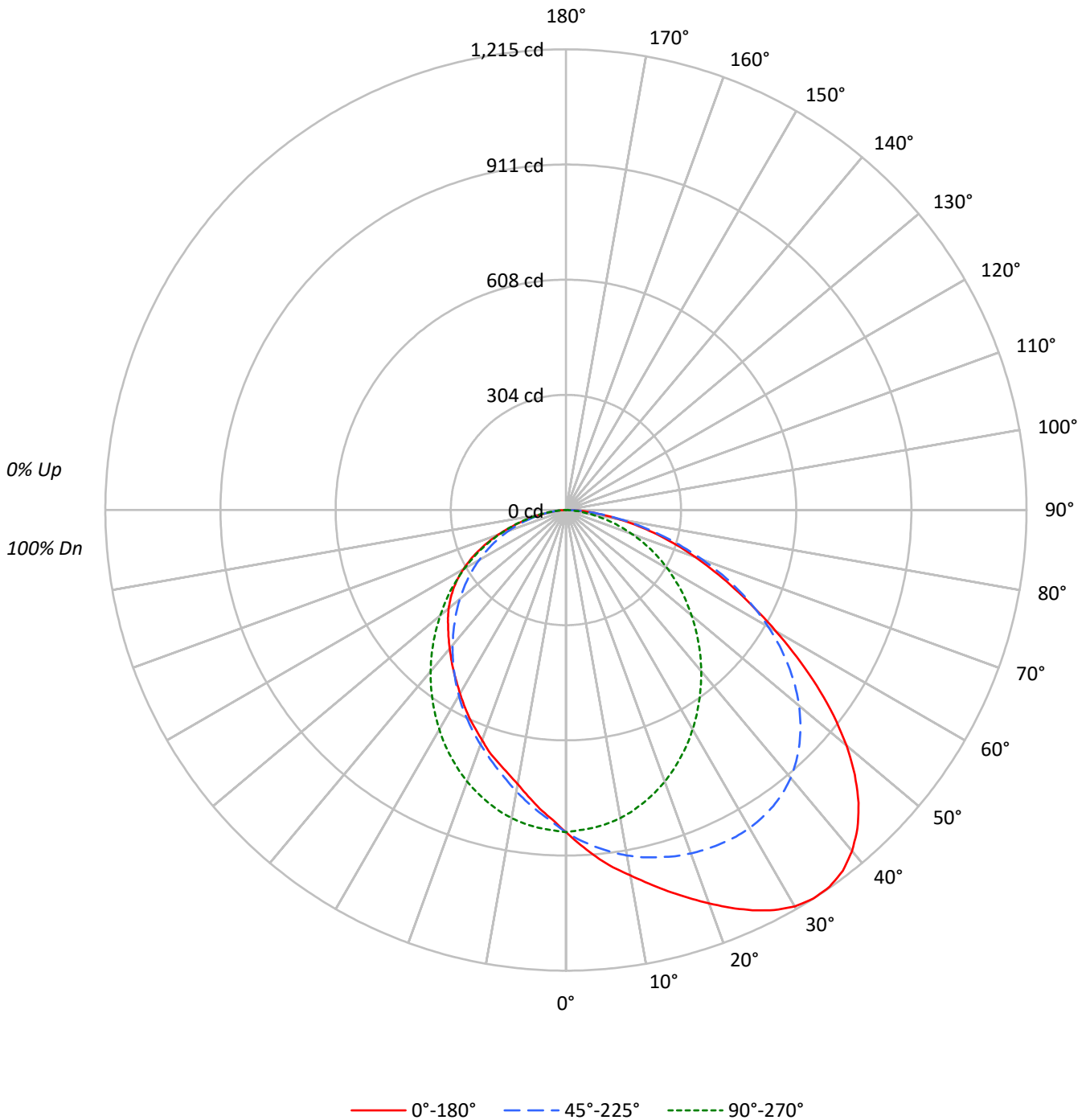
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 2631.7 lumens  
Efficiency: N/A  
Efficacy: 81.0 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): 32.5  
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

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### Luminous Intensity Polar Plot





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**COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:**

RF	20				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°	8180	8180	8180
5°	8876	8130	7640
10°	9563	8067	7170
15°	10373	7950	6874
20°	11310	7810	6619
25°	12371	7627	6414
30°	13421	7427	6208
35°	14254	7207	6074
40°	14759	6979	5995
45°	14864	6737	5981
50°	14473	6481	6046
55°	13552	6249	6084
60°	12319	5965	6025
65°	11169	5640	5791
70°	10224	5230	5317
75°	9273	4702	4572
80°	8111	3931	3526
85°	6827	2850	2618



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	80.7	3.1
10°-20°	234.7	8.9
20°-30°	367.7	14.0
30°-40°	460.9	17.5
40°-50°	490.7	18.6
50°-60°	443.0	16.8
60°-70°	327.9	12.5
70°-80°	179.9	6.8
80°-90°	46.2	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°	683.1	26.0
0°-40°	1144.0	43.5
0°-60°	2077.7	78.9
0°-90°	2631.7	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2631.7	100.0

**CANDELA DISTRIBUTION:**

	0°	45°	90°	135°	180°	Flux
0°	850	850	850	850	850	
5°	918	892	841	801	791	89
15°	1041	948	798	704	690	297
25°	1165	970	718	612	604	539
35°	1213	953	613	515	517	756
45°	1092	871	495	414	439	837
55°	807	717	372	315	362	720
65°	490	505	248	213	254	489
75°	249	264	126	109	123	265
85°	62	61	26	24	24	73
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	15°	25°	35°	45°	55°	65°	75°	85°	90°
0°	849.7	849.7	849.7	849.7	849.7	849.7	849.7	849.7	849.7	849.7	849.7
2.5°	883.9	882.1	880.0	879.3	876.2	872.0	868.2	868.2	863.6	852.8	845.1
5°	918.4	915.7	910.4	906.2	899.6	891.6	883.5	878.6	867.8	851.4	841.3
7.5°	950.2	946.7	940.1	932.1	921.2	909.4	896.1	885.6	869.2	847.2	834.3
10°	978.2	975.0	967.0	957.2	941.8	925.1	905.5	889.8	867.5	840.2	825.2
12.5°	1008.9	1005.8	994.6	981.3	960.4	938.0	912.2	890.5	862.9	830.1	813.0
15°	1040.7	1036.5	1023.9	1006.1	978.2	948.1	916.4	888.4	855.6	817.9	797.6
17.5°	1072.1	1067.9	1052.2	1029.5	994.6	957.2	918.1	883.5	845.1	802.9	780.9
20°	1103.9	1099.7	1079.8	1051.1	1008.9	963.8	917.7	876.2	832.5	785.7	762.3
22.5°	1135.7	1130.8	1106.7	1071.8	1020.8	968.4	913.9	866.1	816.8	766.2	741.0
25°	1164.6	1159.8	1133.2	1092.0	1033.3	970.5	907.3	852.1	799.4	744.5	718.0
27.5°	1189.8	1183.9	1156.3	1110.9	1044.2	971.2	898.5	836.4	779.1	721.1	694.2
30°	1207.3	1202.0	1172.7	1124.1	1050.5	968.7	887.4	817.9	755.7	696.0	668.1
32.5°	1214.9	1210.4	1181.4	1130.4	1051.5	962.4	873.7	797.3	731.3	669.5	641.2
35°	1212.8	1208.3	1180.7	1129.4	1048.4	953.4	856.6	773.9	705.1	641.9	613.2
37.5°	1199.6	1194.3	1169.2	1119.9	1039.3	940.1	837.1	748.4	676.8	613.6	584.6
40°	1174.4	1169.2	1147.5	1102.1	1023.9	922.3	814.7	721.1	647.8	583.9	555.3
42.5°	1138.5	1132.9	1115.8	1074.2	1001.9	898.9	789.2	692.2	617.1	555.3	525.2
45°	1091.7	1086.1	1074.5	1039.3	973.3	871.3	760.2	660.7	584.9	522.8	494.8
47.5°	1033.7	1028.8	1023.2	996.0	938.0	839.5	727.8	627.2	551.4	492.4	463.8
50°	966.3	961.4	963.1	944.6	897.1	802.9	692.2	591.9	516.8	458.5	432.7
52.5°	889.8	886.0	894.4	886.3	849.7	762.0	654.1	555.6	481.6	426.4	401.6
55°	807.4	803.2	819.3	821.7	796.6	716.9	610.8	517.9	446.0	395.0	372.3
57.5°	722.5	719.0	739.6	751.2	738.6	668.4	567.1	479.1	409.3	362.1	339.4
60°	639.8	637.0	658.6	677.5	676.1	617.1	521.7	437.2	372.6	329.0	309.8
62.5°	561.9	558.8	580.4	602.8	610.8	562.2	476.7	396.0	335.9	295.8	278.7
65°	490.3	487.2	505.7	528.7	543.4	505.0	428.1	353.4	298.9	262.3	247.6
67.5°	424.7	424.7	436.2	457.5	475.3	446.3	378.6	312.9	260.9	231.2	216.5
70°	363.2	362.8	371.2	386.2	406.8	383.4	328.3	270.3	224.9	198.7	185.8
72.5°	304.9	307.3	310.5	322.0	343.6	323.4	278.3	228.4	189.6	166.6	155.8
75°	249.3	249.0	253.5	263.7	279.4	264.4	228.4	187.5	154.7	135.8	126.4
77.5°	196.3	195.9	199.8	205.7	219.0	207.1	180.2	149.8	120.5	104.8	98.1
80°	146.3	146.3	149.8	153.0	162.7	153.3	134.4	112.1	88.4	76.1	70.9
82.5°	101.6	103.7	102.3	106.5	112.1	104.1	92.2	76.8	58.7	50.3	46.8
85°	61.8	63.6	61.8	65.3	67.7	60.8	54.8	45.7	33.9	28.3	25.8
87.5°	31.8	31.4	31.1	32.8	33.5	29.3	25.8	22.0	15.0	11.5	9.8
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):**

	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	849.7	849.7	849.7	849.7	849.7	849.7	849.7	849.7	849.7	849.7
2.5°	840.6	842.7	839.5	828.0	823.5	818.6	816.5	814.4	818.2	817.2
5°	833.6	831.1	823.1	808.4	800.8	792.7	788.9	786.4	791.7	790.6
7.5°	824.2	817.2	805.3	787.5	777.7	766.9	761.6	758.5	762.0	761.3
10°	812.3	800.8	786.1	764.8	753.3	741.4	735.5	730.9	733.7	733.4
12.5°	797.3	782.3	764.4	740.3	728.5	716.2	711.0	707.9	711.4	710.3
15°	780.5	762.3	741.7	717.3	704.4	693.2	689.4	686.9	689.7	689.7
17.5°	762.0	740.7	718.0	693.2	681.0	672.2	668.4	666.7	668.1	670.2
20°	741.4	717.6	693.2	669.1	658.6	649.5	646.1	644.3	647.5	646.1
22.5°	718.7	693.5	668.1	645.4	635.9	626.8	623.4	622.3	625.8	624.4
25°	694.6	667.4	642.2	621.6	612.2	604.5	601.4	600.3	602.1	603.8
27.5°	671.9	641.2	616.4	597.9	589.5	582.1	579.4	577.6	579.0	581.1
30°	644.3	614.6	590.2	573.1	565.0	558.1	556.0	554.6	556.7	558.4
32.5°	618.5	588.4	564.0	547.2	540.2	533.6	533.3	532.6	535.0	537.1
35°	590.5	561.2	537.4	521.7	515.1	509.5	510.6	511.6	514.4	516.8
37.5°	562.2	533.6	510.9	496.6	490.3	485.8	488.9	490.3	494.1	496.6
40°	533.6	505.0	484.0	471.1	464.8	462.7	467.3	470.4	474.9	477.0
42.5°	504.3	477.7	456.8	444.9	439.7	439.7	445.6	450.5	455.7	457.8
45°	474.9	449.1	429.2	418.4	414.5	417.3	424.3	430.6	437.2	439.3
47.5°	445.3	420.1	402.0	392.2	390.1	394.3	403.0	411.4	419.1	421.9
50°	415.6	392.9	374.7	365.6	365.6	370.9	382.0	392.5	400.9	403.7
52.5°	385.9	364.2	345.7	339.1	340.5	347.8	360.7	371.6	381.0	383.8
55°	355.9	334.6	318.5	312.9	315.3	324.4	337.7	350.3	359.3	362.5
57.5°	326.2	305.9	291.2	286.7	290.2	300.3	315.7	326.5	335.9	338.7
60°	296.1	275.5	264.0	260.5	265.1	275.5	291.2	301.4	310.1	312.9
62.5°	266.5	247.2	237.1	234.0	239.2	250.4	265.8	274.8	281.5	284.3
65°	236.4	219.3	209.9	207.8	213.4	224.2	238.9	246.5	251.4	254.2
67.5°	206.7	192.1	183.3	181.6	187.5	197.3	210.9	215.1	219.7	222.5
70°	177.4	164.1	156.8	155.8	161.0	170.4	181.9	184.0	186.5	188.9
72.5°	148.4	137.9	130.6	130.3	135.1	142.8	152.3	152.6	153.3	155.8
75°	120.5	111.1	105.5	106.5	109.3	115.6	122.9	120.8	121.2	122.9
77.5°	93.6	85.9	82.1	82.8	84.9	89.4	94.3	91.8	90.4	92.2
80°	67.4	60.8	59.4	59.7	61.1	64.3	67.1	65.0	62.2	63.6
82.5°	44.4	40.2	39.5	39.8	40.9	42.6	43.3	40.2	39.5	40.5
85°	24.4	22.7	22.7	23.7	24.1	24.4	24.4	22.7	23.0	23.7
87.5°	9.8	9.8	10.8	11.9	11.2	9.8	8.4	5.6	5.6	6.6
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)