

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-26L850-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-26L850-UNV-ASY  
Description: ArcMed Patient Recessed 4 FT x6 IN Fixture EXAM Light w/  
ASYMMETRIC Lens  
Light Source: 5000K CCT, 80 CRI LEDS  
Ballast/Driver: ELECTRONIC DRIVER

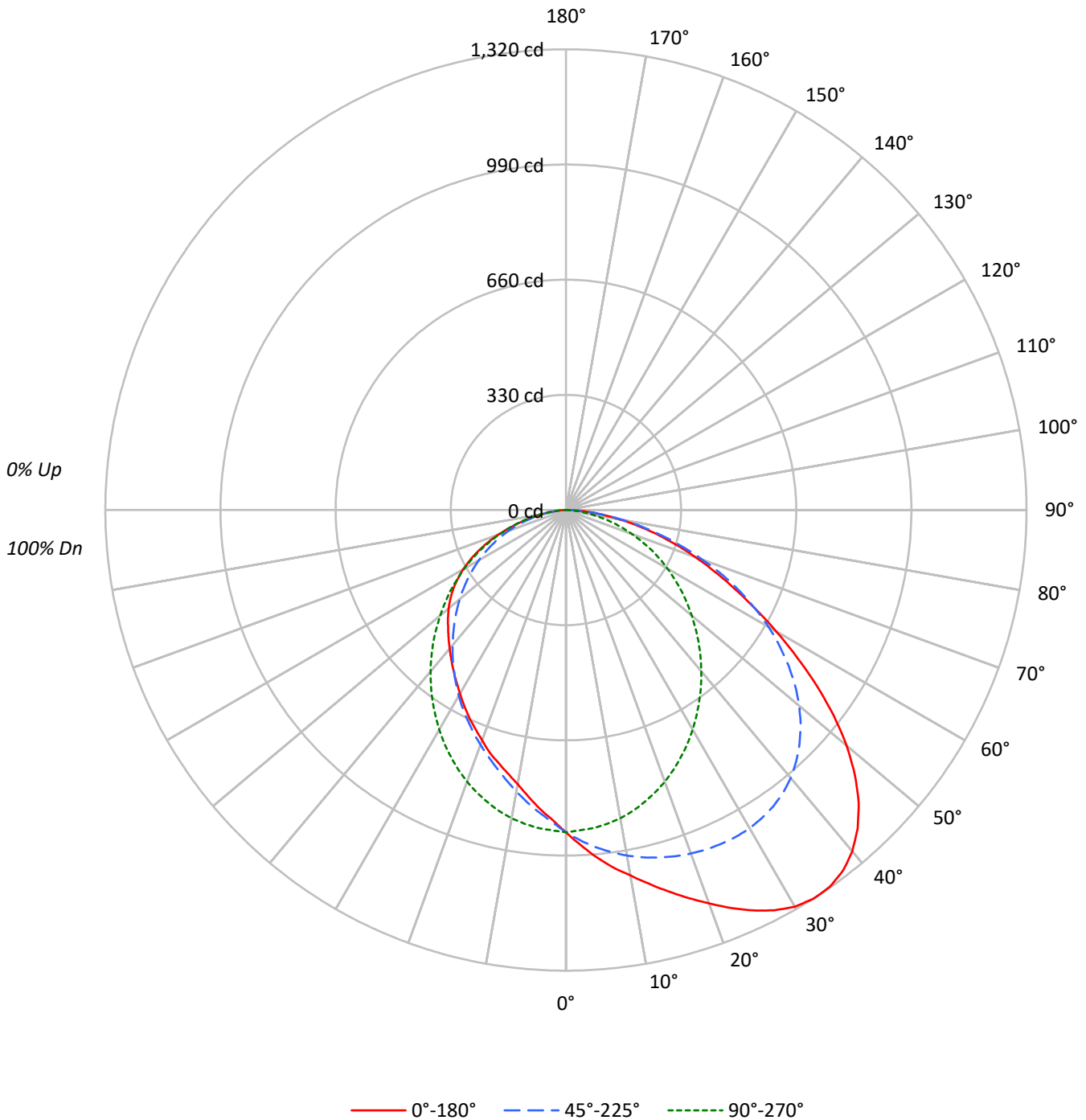
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 2860.2 lumens  
Efficiency: N/A  
Efficacy: 101.4 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): 28.2  
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

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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	100	100	100	100
1	109	104	100	96	106	102	98	94	97	94	91	93	91	88	90	88	86	84	84	84	84
2	99	90	83	78	96	88	82	77	85	80	75	82	77	73	79	75	72	69	69	69	69
3	90	79	71	64	87	78	70	64	75	68	63	72	66	61	69	64	60	58	58	58	58
4	82	70	61	54	80	69	60	54	66	59	53	64	57	52	62	56	52	49	49	49	49
5	75	62	53	46	73	61	53	46	59	51	46	57	50	45	55	49	45	43	43	43	43
6	69	56	47	40	68	55	46	40	53	46	40	51	45	39	50	44	39	37	37	37	37
7	64	51	42	36	63	50	41	35	48	41	35	47	40	35	45	39	35	33	33	33	33
8	60	46	37	32	58	45	37	31	44	37	31	43	36	31	42	35	31	29	29	29	29
9	56	42	34	28	54	42	34	28	40	33	28	39	33	28	38	32	28	26	26	26	26
10	52	39	31	26	51	38	31	26	37	30	25	36	30	25	36	30	25	23	23	23	23

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

	0°	90°	180°
0°	8890	8890	8890
5°	9647	8836	8304
10°	10393	8768	7791
15°	11273	8640	7471
20°	12291	8488	7194
25°	13446	8289	6971
30°	14586	8072	6747
35°	15493	7833	6602
40°	16041	7585	6516
45°	16154	7322	6501
50°	15729	7044	6572
55°	14729	6791	6613
60°	13388	6483	6549
65°	12140	6130	6294
70°	11110	5683	5779
75°	10080	5111	4970
80°	8815	4269	3831
85°	7423	3104	2850



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	87.7	3.1
10°-20°	255.1	8.9
20°-30°	399.6	14.0
30°-40°	501.0	17.5
40°-50°	533.3	18.6
50°-60°	481.4	16.8
60°-70°	356.4	12.5
70°-80°	195.6	6.8
80°-90°	50.2	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°	742.4	26.0
0°-40°	1243.3	43.5
0°-60°	2258.1	78.9
0°-90°	2860.2	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2860.2	100.0

**CANDELA DISTRIBUTION:**

	0°	45°	90°	135°	180°	Flux
0°	923	923	923	923	923	
5°	998	969	914	870	859	97
15°	1131	1030	867	766	750	323
25°	1266	1055	780	665	656	586
35°	1318	1036	666	560	562	822
45°	1186	947	538	450	478	910
55°	878	779	405	343	394	783
65°	533	549	269	232	276	532
75°	271	287	137	119	134	288
85°	67	66	28	26	26	79
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°	923.4	923.4	923.4	923.4	923.4	923.4	923.4	923.4	923.4	923.4	923.4
2.5°	960.6	958.7	956.5	955.7	952.3	947.7	943.5	943.5	938.6	926.8	918.5
5°	998.2	995.2	989.5	984.9	977.7	969.0	960.2	954.9	943.2	925.3	914.3
7.5°	1032.7	1028.9	1021.7	1013.0	1001.2	988.3	973.9	962.5	944.7	920.8	906.7
10°	1063.1	1059.7	1051.0	1040.3	1023.6	1005.4	984.2	967.1	942.8	913.2	896.9
12.5°	1096.5	1093.1	1080.9	1066.5	1043.7	1019.5	991.4	967.8	937.9	902.2	883.6
15°	1131.0	1126.5	1112.8	1093.5	1063.1	1030.5	995.9	965.6	929.9	888.9	866.9
17.5°	1165.2	1160.6	1143.6	1118.9	1080.9	1040.3	997.8	960.2	918.5	872.6	848.7
20°	1199.7	1195.2	1173.5	1142.4	1096.5	1047.5	997.4	952.3	904.8	854.0	828.5
22.5°	1234.3	1229.0	1202.8	1164.8	1109.4	1052.5	993.3	941.3	887.8	832.7	805.4
25°	1265.8	1260.5	1231.6	1186.8	1123.1	1054.8	986.1	926.1	868.8	809.2	780.3
27.5°	1293.1	1286.7	1256.7	1207.3	1134.8	1055.5	976.6	909.0	846.8	783.8	754.5
30°	1312.1	1306.4	1274.5	1221.8	1141.7	1052.9	964.4	888.9	821.3	756.4	726.1
32.5°	1320.4	1315.5	1284.0	1228.6	1142.8	1046.0	949.6	866.5	794.8	727.6	696.8
35°	1318.2	1313.2	1283.2	1227.4	1139.4	1036.2	931.0	841.1	766.3	697.6	666.5
37.5°	1303.7	1298.0	1270.7	1217.2	1129.5	1021.7	909.8	813.4	735.6	666.9	635.4
40°	1276.4	1270.7	1247.2	1197.8	1112.8	1002.4	885.5	783.8	704.1	634.6	603.5
42.5°	1237.3	1231.2	1212.6	1167.5	1088.9	976.9	857.8	752.3	670.7	603.5	570.8
45°	1186.5	1180.4	1167.9	1129.5	1057.8	947.0	826.3	718.1	635.7	568.2	537.8
47.5°	1123.5	1118.1	1112.1	1082.5	1019.5	912.4	791.0	681.7	599.3	535.2	504.0
50°	1050.2	1044.9	1046.8	1026.7	975.0	872.6	752.3	643.3	561.7	498.3	470.3
52.5°	967.1	962.9	972.0	963.3	923.4	828.2	710.9	603.9	523.4	463.4	436.5
55°	877.5	873.0	890.4	893.1	865.7	779.2	663.8	562.9	484.7	429.3	404.6
57.5°	785.3	781.5	803.9	816.4	802.7	726.4	616.4	520.7	444.8	393.6	368.9
60°	695.3	692.3	715.8	736.3	734.8	670.7	567.0	475.2	405.0	357.5	336.7
62.5°	610.7	607.3	630.8	655.1	663.8	611.1	518.1	430.4	365.1	321.5	302.9
65°	532.9	529.5	549.6	574.6	590.6	548.8	465.3	384.1	324.9	285.0	269.1
67.5°	461.5	461.5	474.1	497.2	516.6	485.1	411.4	340.1	283.5	251.3	235.3
70°	394.7	394.3	403.5	419.8	442.2	416.7	356.8	293.8	244.4	216.0	201.9
72.5°	331.3	334.0	337.4	349.9	373.5	351.5	302.5	248.2	206.1	181.0	169.3
75°	271.0	270.6	275.5	286.6	303.6	287.3	248.2	203.8	168.1	147.6	137.4
77.5°	213.3	212.9	217.1	223.6	238.0	225.1	195.8	162.8	130.9	113.9	106.7
80°	159.0	159.0	162.8	166.2	176.9	166.6	146.1	121.8	96.0	82.7	77.0
82.5°	110.4	112.7	111.2	115.8	121.8	113.1	100.2	83.5	63.8	54.7	50.9
85°	67.2	69.1	67.2	71.0	73.6	66.0	59.6	49.7	36.8	30.7	28.1
87.5°	34.5	34.2	33.8	35.7	36.4	31.9	28.1	23.9	16.3	12.5	10.6
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°	923.4	923.4	923.4	923.4	923.4	923.4	923.4	923.4	923.4	923.4
2.5°	913.6	915.8	912.4	899.9	895.0	889.7	887.4	885.1	889.3	888.1
5°	906.0	903.3	894.6	878.6	870.3	861.6	857.4	854.7	860.4	859.3
7.5°	895.7	888.1	875.2	855.9	845.2	833.5	827.8	824.4	828.2	827.4
10°	882.8	870.3	854.4	831.2	818.7	805.8	799.3	794.4	797.4	797.0
12.5°	866.5	850.2	830.8	804.6	791.7	778.4	772.8	769.3	773.1	772.0
15°	848.3	828.5	806.2	779.6	765.5	753.4	749.2	746.6	749.6	749.6
17.5°	828.2	805.0	780.3	753.4	740.1	730.6	726.4	724.5	726.1	728.3
20°	805.8	780.0	753.4	727.2	715.8	706.0	702.2	700.3	703.7	702.2
22.5°	781.1	753.8	726.1	701.4	691.1	681.3	677.5	676.3	680.1	678.6
25°	754.9	725.3	698.0	675.6	665.3	657.0	653.6	652.4	654.3	656.2
27.5°	730.2	696.8	669.9	649.8	640.7	632.7	629.7	627.8	629.3	631.6
30°	700.3	668.0	641.4	622.8	614.1	606.5	604.2	602.7	605.0	606.9
32.5°	672.2	639.5	613.0	594.7	587.2	579.9	579.6	578.8	581.5	583.7
35°	641.8	609.9	584.1	567.0	559.8	553.8	554.9	556.0	559.1	561.7
37.5°	611.1	579.9	555.3	539.7	532.9	527.9	531.4	532.9	537.1	539.7
40°	579.9	548.8	526.0	512.0	505.2	502.9	507.8	511.2	516.2	518.5
42.5°	548.1	519.2	496.4	483.5	477.8	477.8	484.3	489.6	495.3	497.6
45°	516.2	488.1	466.5	454.7	450.5	453.6	461.1	468.0	475.2	477.5
47.5°	483.9	456.6	436.9	426.2	424.0	428.5	438.0	447.1	455.5	458.5
50°	451.7	427.0	407.3	397.4	397.4	403.1	415.2	426.6	435.7	438.8
52.5°	419.4	395.9	375.7	368.5	370.1	378.0	392.1	403.8	414.1	417.1
55°	386.8	363.6	346.1	340.1	342.7	352.6	367.0	380.7	390.6	394.0
57.5°	354.5	332.5	316.5	311.6	315.4	326.4	343.1	354.9	365.1	368.2
60°	321.9	299.5	286.9	283.1	288.1	299.5	316.5	327.5	337.0	340.1
62.5°	289.6	268.7	257.7	254.3	260.0	272.1	288.8	298.7	305.9	308.9
65°	257.0	238.4	228.1	225.8	231.9	243.7	259.6	268.0	273.3	276.3
67.5°	224.7	208.7	199.3	197.4	203.8	214.4	229.2	233.8	238.7	241.8
70°	192.8	178.4	170.4	169.3	175.0	185.2	197.7	200.0	202.7	205.3
72.5°	161.3	149.9	141.9	141.6	146.9	155.2	165.5	165.9	166.6	169.3
75°	130.9	120.7	114.6	115.8	118.8	125.6	133.6	131.3	131.7	133.6
77.5°	101.7	93.4	89.2	90.0	92.2	97.2	102.5	99.8	98.3	100.2
80°	73.3	66.0	64.5	64.9	66.4	69.8	72.9	70.6	67.6	69.1
82.5°	48.2	43.6	42.9	43.3	44.4	46.3	47.1	43.6	42.9	44.0
85°	26.6	24.7	24.7	25.8	26.2	26.6	26.6	24.7	25.0	25.8
87.5°	10.6	10.6	11.8	12.9	12.1	10.6	9.1	6.1	6.1	7.2
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)