

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-26L835-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-26L835-UNV-ASY
Description: ArcMed Patient Recessed 4 FT x6 IN Fixture EXAM Light w/
ASYMMETRIC Lens
Light Source: 3500K CCT, 80 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

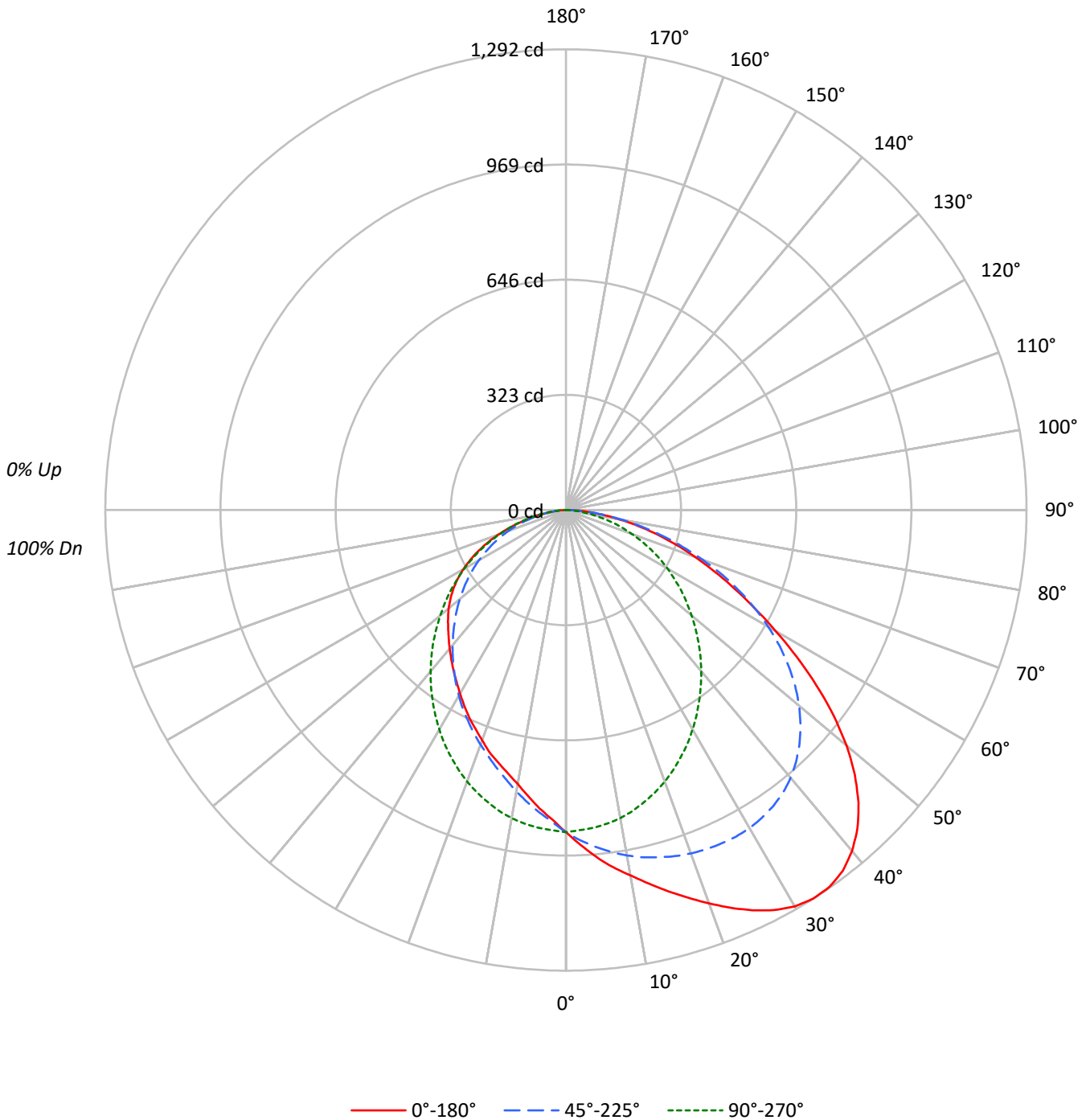
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 2798.4 lumens
Efficiency: N/A
Efficacy: 99.2 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): 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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CATALOG NUMBER: 4APN-X-26L835-UNV-ASY

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°	8698	8698	8698
5°	9438	8646	8125
10°	10168	8578	7623
15°	11029	8453	7310
20°	12026	8305	7038
25°	13155	8110	6820
30°	14271	7897	6601
35°	15158	7664	6459
40°	15694	7420	6376
45°	15804	7164	6360
50°	15389	6891	6430
55°	14410	6643	6471
60°	13099	6342	6406
65°	11878	5998	6157
70°	10871	5562	5655
75°	9861	4999	4862
80°	8627	4180	3748
85°	7257	3038	2795



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 CATALOG NUMBER: 4APN-X-26L835-UNV-ASY

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	85.8	3.1
10°-20°	249.6	8.9
20°-30°	391.0	14.0
30°-40°	490.1	17.5
40°-50°	521.8	18.6
50°-60°	471.0	16.8
60°-70°	348.7	12.5
70°-80°	191.3	6.8
80°-90°	49.1	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°	726.3	26.0
0°-40°	1216.4	43.5
0°-60°	2209.3	78.9
0°-90°	2798.4	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2798.4	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	904	904	904	904	904	
5°	977	948	895	852	841	95
15°	1107	1008	848	749	733	316
25°	1238	1032	764	651	642	573
35°	1290	1014	652	548	550	804
45°	1161	926	526	441	467	890
55°	858	762	396	335	386	766
65°	521	537	263	227	270	520
75°	265	281	134	116	131	282
85°	66	65	28	26	25	78
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°	903.5	903.5	903.5	903.5	903.5	903.5	903.5	903.5	903.5	903.5	903.5
2.5°	939.9	938.0	935.8	935.0	931.7	927.2	923.2	923.2	918.3	906.8	898.6
5°	976.6	973.7	968.1	963.6	956.6	948.0	939.5	934.3	922.8	905.3	894.6
7.5°	1010.4	1006.7	999.6	991.1	979.6	967.0	952.9	941.7	924.3	900.9	887.1
10°	1040.1	1036.8	1028.2	1017.8	1001.5	983.7	962.9	946.2	922.4	893.4	877.5
12.5°	1072.8	1069.5	1057.6	1043.5	1021.2	997.4	969.9	946.9	917.6	882.7	864.5
15°	1106.6	1102.1	1088.8	1069.8	1040.1	1008.2	974.4	944.7	909.8	869.7	848.1
17.5°	1140.0	1135.6	1118.8	1094.7	1057.6	1017.8	976.3	939.5	898.6	853.7	830.3
20°	1173.8	1169.4	1148.2	1117.7	1072.8	1024.9	975.9	931.7	885.3	835.5	810.6
22.5°	1207.6	1202.4	1176.8	1139.6	1085.4	1029.7	971.8	920.9	868.6	814.7	788.0
25°	1238.4	1233.2	1205.0	1161.2	1098.8	1032.0	964.7	906.1	850.0	791.7	763.5
27.5°	1265.2	1258.8	1229.5	1181.2	1110.3	1032.7	955.5	889.4	828.5	766.8	738.2
30°	1283.7	1278.2	1247.0	1195.3	1117.0	1030.1	943.6	869.7	803.6	740.1	710.4
32.5°	1291.9	1287.1	1256.2	1202.0	1118.1	1023.4	929.1	847.8	777.6	711.9	681.8
35°	1289.7	1284.8	1255.5	1200.9	1114.8	1013.8	910.9	822.9	749.7	682.5	652.1
37.5°	1275.6	1270.0	1243.2	1190.9	1105.1	999.6	890.1	795.8	719.7	652.4	621.6
40°	1248.8	1243.2	1220.2	1171.9	1088.8	980.7	866.3	766.8	688.8	620.9	590.4
42.5°	1210.6	1204.6	1186.4	1142.2	1065.4	955.8	839.2	736.0	656.2	590.4	558.5
45°	1160.8	1154.9	1142.6	1105.1	1034.9	926.5	808.4	702.6	622.0	555.9	526.2
47.5°	1099.2	1094.0	1088.0	1059.1	997.4	892.7	773.9	666.9	586.3	523.6	493.1
50°	1027.5	1022.3	1024.2	1004.5	954.0	853.7	736.0	629.4	549.6	487.6	460.1
52.5°	946.2	942.1	951.0	942.5	903.5	810.3	695.5	590.8	512.1	453.4	427.0
55°	858.5	854.1	871.2	873.8	847.0	762.4	649.5	550.7	474.2	420.0	395.8
57.5°	768.3	764.6	786.5	798.8	785.4	710.7	603.1	509.5	435.2	385.1	360.9
60°	680.3	677.3	700.3	720.4	718.9	656.2	554.8	464.9	396.2	349.8	329.4
62.5°	597.5	594.1	617.2	640.9	649.5	597.9	506.9	421.1	357.2	314.5	296.3
65°	521.4	518.0	537.7	562.2	577.8	537.0	455.3	375.8	317.9	278.9	263.3
67.5°	451.5	451.5	463.8	486.5	505.4	474.6	402.5	332.7	277.4	245.8	230.2
70°	386.2	385.8	394.7	410.7	432.6	407.7	349.1	287.4	239.1	211.3	197.6
72.5°	324.2	326.8	330.1	342.4	365.4	343.9	296.0	242.9	201.6	177.1	165.6
75°	265.1	264.8	269.6	280.4	297.1	281.1	242.9	199.4	164.5	144.5	134.4
77.5°	208.7	208.3	212.4	218.7	232.8	220.2	191.6	159.3	128.1	111.4	104.3
80°	155.6	155.6	159.3	162.6	173.0	163.0	143.0	119.2	93.9	81.0	75.4
82.5°	108.1	110.3	108.8	113.3	119.2	110.7	98.0	81.7	62.4	53.5	49.8
85°	65.7	67.6	65.7	69.4	72.0	64.6	58.3	48.6	36.0	30.1	27.5
87.5°	33.8	33.4	33.0	34.9	35.6	31.2	27.5	23.4	16.0	12.3	10.4
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°	903.5	903.5	903.5	903.5	903.5	903.5	903.5	903.5	903.5	903.5
2.5°	893.8	896.0	892.7	880.4	875.6	870.4	868.2	866.0	870.0	868.9
5°	886.4	883.8	875.2	859.7	851.5	842.9	838.9	836.3	841.8	840.7
7.5°	876.4	868.9	856.3	837.4	827.0	815.5	809.9	806.6	810.3	809.5
10°	863.7	851.5	835.9	813.2	801.0	788.4	782.0	777.2	780.2	779.8
12.5°	847.8	831.8	812.9	787.2	774.6	761.6	756.0	752.7	756.4	755.3
15°	829.9	810.6	788.7	762.7	749.0	737.1	733.0	730.4	733.4	733.4
17.5°	810.3	787.6	763.5	737.1	724.1	714.8	710.7	708.9	710.4	712.6
20°	788.4	763.1	737.1	711.5	700.3	690.7	687.0	685.1	688.5	687.0
22.5°	764.2	737.5	710.4	686.2	676.2	666.6	662.8	661.7	665.4	664.0
25°	738.6	709.6	682.9	661.0	651.0	642.8	639.4	638.3	640.2	642.0
27.5°	714.5	681.8	655.4	635.7	626.8	619.0	616.1	614.2	615.7	617.9
30°	685.1	653.6	627.6	609.4	600.8	593.4	591.2	589.7	591.9	593.8
32.5°	657.6	625.7	599.7	581.9	574.5	567.4	567.0	566.3	568.9	571.1
35°	627.9	596.7	571.5	554.8	547.7	541.8	542.9	544.0	547.0	549.6
37.5°	597.9	567.4	543.3	528.0	521.4	516.5	519.9	521.4	525.4	528.0
40°	567.4	537.0	514.7	500.9	494.3	492.0	496.9	500.2	505.0	507.3
42.5°	536.2	508.0	485.7	473.1	467.5	467.5	473.8	479.0	484.6	486.8
45°	505.0	477.5	456.4	444.9	440.8	443.8	451.2	457.9	464.9	467.1
47.5°	473.5	446.7	427.4	417.0	414.8	419.2	428.5	437.4	445.6	448.6
50°	441.9	417.8	398.4	388.8	388.8	394.4	406.2	417.4	426.3	429.3
52.5°	410.3	387.3	367.6	360.6	362.1	369.9	383.6	395.1	405.1	408.1
55°	378.4	355.7	338.7	332.7	335.3	345.0	359.1	372.5	382.1	385.5
57.5°	346.8	325.3	309.7	304.9	308.6	319.4	335.7	347.2	357.2	360.2
60°	314.9	293.0	280.7	277.0	281.8	293.0	309.7	320.5	329.8	332.7
62.5°	283.3	262.9	252.1	248.8	254.4	266.3	282.6	292.2	299.3	302.3
65°	251.4	233.2	223.2	220.9	226.9	238.4	254.0	262.2	267.4	270.3
67.5°	219.8	204.2	195.0	193.1	199.4	209.8	224.3	228.7	233.6	236.5
70°	188.6	174.5	166.7	165.6	171.2	181.2	193.5	195.7	198.3	200.9
72.5°	157.8	146.7	138.9	138.5	143.7	151.9	161.9	162.3	163.0	165.6
75°	128.1	118.1	112.1	113.3	116.2	122.9	130.7	128.5	128.9	130.7
77.5°	99.5	91.3	87.3	88.0	90.2	95.1	100.3	97.7	96.2	98.0
80°	71.7	64.6	63.1	63.5	65.0	68.3	71.3	69.1	66.1	67.6
82.5°	47.2	42.7	42.0	42.3	43.4	45.3	46.0	42.7	42.0	43.1
85°	26.0	24.1	24.1	25.3	25.6	26.0	26.0	24.1	24.5	25.3
87.5°	10.4	10.4	11.5	12.6	11.9	10.4	8.9	5.9	5.9	7.1
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)