

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-35L950-X-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-35L950-X-UNV-ASY
Description: ArcMed Patient Recessed 4 FT x6 IN Fixture Ambient Light w/
ASYMMETRIC Lens
Light Source: 5000K CCT, 90 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

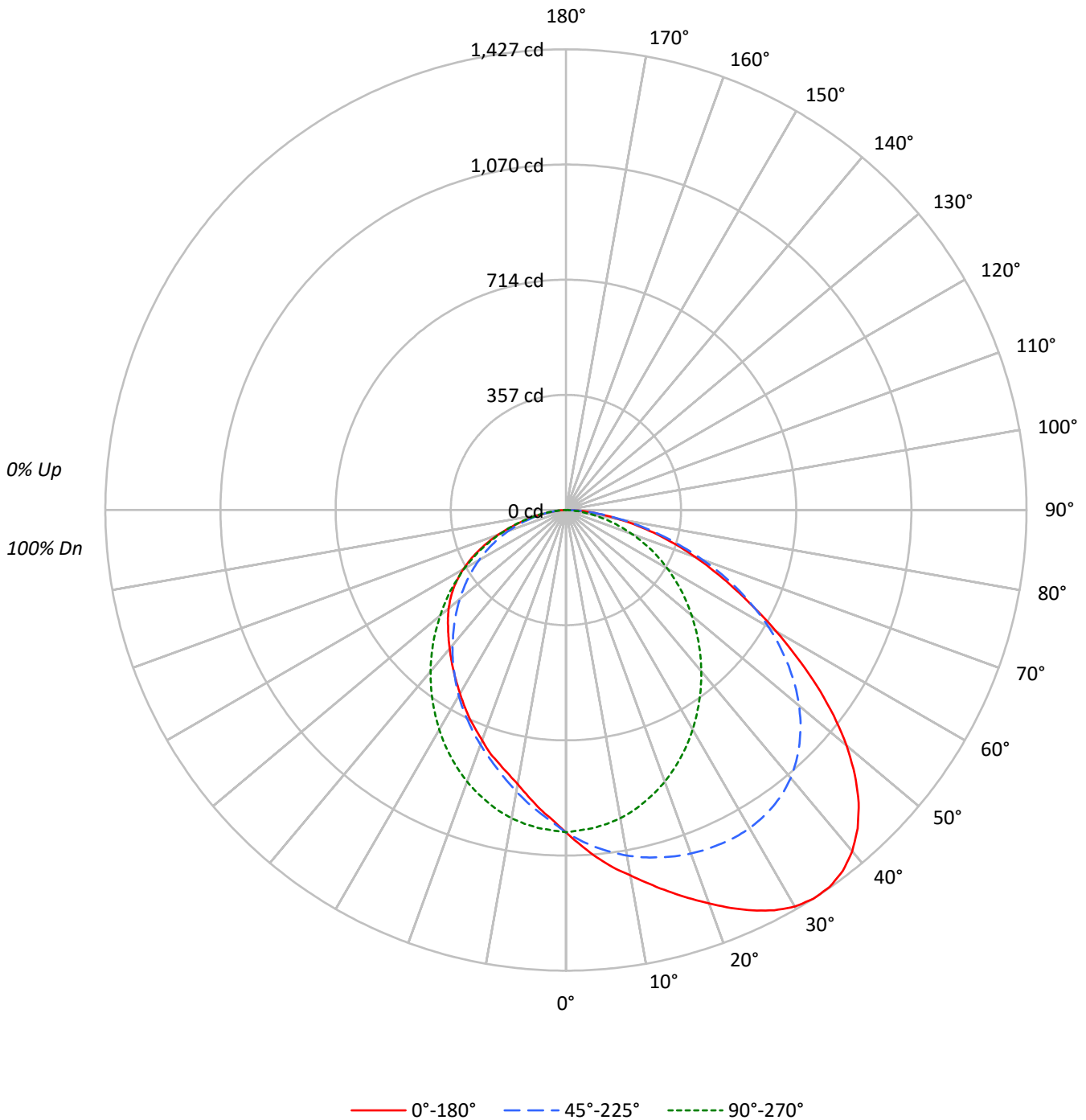
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 3092.0 lumens
Efficiency: N/A
Efficacy: 76.5 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): 40.4
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				
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°	9610	9610	9610
5°	10429	9552	8977
10°	11234	9478	8423
15°	12187	9340	8076
20°	13287	9177	7776
25°	14535	8961	7536
30°	15768	8725	7294
35°	16747	8468	7136
40°	17341	8199	7044
45°	17463	7916	7027
50°	17004	7615	7104
55°	15922	7342	7149
60°	14474	7007	7078
65°	13124	6627	6804
70°	12011	6145	6249
75°	10895	5524	5371
80°	9530	4618	4141
85°	8019	3358	3082



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	94.8	3.1
10°-20°	275.7	8.9
20°-30°	432.0	14.0
30°-40°	541.5	17.5
40°-50°	576.5	18.6
50°-60°	520.5	16.8
60°-70°	385.3	12.5
70°-80°	211.4	6.8
80°-90°	54.3	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°	802.5	26.0
0°-40°	1344.1	43.5
0°-60°	2441.0	78.9
0°-90°	3092.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3092.0	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	998	998	998	998	998	
5°	1079	1048	988	941	929	105
15°	1223	1114	937	828	810	349
25°	1368	1140	844	719	709	633
35°	1425	1120	720	605	607	889
45°	1283	1024	581	487	516	983
55°	949	842	437	370	426	846
65°	576	593	291	251	299	575
75°	293	311	148	128	144	311
85°	73	71	30	28	28	86
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°	998.2	998.2	998.2	998.2	998.2	998.2	998.2	998.2	998.2	998.2	998.2
2.5°	1038.5	1036.4	1033.9	1033.1	1029.4	1024.5	1020.0	1020.0	1014.7	1001.9	992.9
5°	1079.1	1075.8	1069.6	1064.7	1056.9	1047.5	1038.0	1032.3	1019.6	1000.3	988.4
7.5°	1116.4	1112.3	1104.5	1095.1	1082.4	1068.4	1052.8	1040.5	1021.2	995.4	980.2
10°	1149.2	1145.5	1136.1	1124.6	1106.6	1086.9	1063.9	1045.4	1019.2	987.2	969.5
12.5°	1185.3	1181.6	1168.5	1152.9	1128.3	1102.0	1071.7	1046.2	1013.8	975.3	955.2
15°	1222.7	1217.8	1203.0	1182.1	1149.2	1113.9	1076.6	1043.8	1005.2	960.9	937.1
17.5°	1259.6	1254.7	1236.2	1209.5	1168.5	1124.6	1078.7	1038.0	992.9	943.3	917.4
20°	1296.9	1292.0	1268.6	1235.0	1185.3	1132.4	1078.3	1029.4	978.1	923.2	895.7
22.5°	1334.3	1328.5	1300.2	1259.2	1199.3	1137.7	1073.7	1017.5	959.7	900.2	870.6
25°	1368.3	1362.6	1331.4	1283.0	1214.1	1140.2	1065.9	1001.1	939.2	874.7	843.6
27.5°	1397.9	1390.9	1358.5	1305.1	1226.8	1141.0	1055.7	982.7	915.4	847.3	815.7
30°	1418.4	1412.2	1377.8	1320.7	1234.2	1138.2	1042.6	960.9	887.9	817.7	784.9
32.5°	1427.4	1422.1	1388.0	1328.1	1235.4	1130.8	1026.6	936.7	859.2	786.5	753.3
35°	1424.9	1419.6	1387.2	1326.9	1231.7	1120.1	1006.5	909.2	828.4	754.1	720.5
37.5°	1409.4	1403.2	1373.7	1315.8	1221.0	1104.5	983.5	879.3	795.1	720.9	686.8
40°	1379.8	1373.7	1348.2	1294.9	1203.0	1083.6	957.2	847.3	761.1	686.0	652.4
42.5°	1337.6	1331.0	1310.9	1262.1	1177.1	1056.1	927.3	813.2	725.0	652.4	617.1
45°	1282.6	1276.0	1262.5	1221.0	1143.5	1023.7	893.2	776.3	687.2	614.2	581.4
47.5°	1214.5	1208.7	1202.2	1170.2	1102.0	986.3	855.1	736.9	647.9	578.5	544.9
50°	1135.3	1129.5	1131.6	1109.8	1054.0	943.3	813.2	695.4	607.2	538.7	508.4
52.5°	1045.4	1040.9	1050.8	1041.3	998.2	895.3	768.5	652.8	565.8	501.0	471.8
55°	948.6	943.7	962.5	965.4	935.9	842.3	717.6	608.5	523.9	464.0	437.4
57.5°	848.9	844.8	869.0	882.5	867.8	785.3	666.3	562.9	480.9	425.5	398.8
60°	751.7	748.4	773.8	796.0	794.3	725.0	613.0	513.7	437.8	386.5	363.9
62.5°	660.2	656.5	681.9	708.2	717.6	660.6	560.1	465.3	394.7	347.5	327.4
65°	576.1	572.4	594.1	621.2	638.4	593.3	503.0	415.2	351.2	308.1	290.9
67.5°	498.9	498.9	512.5	537.5	558.4	524.4	444.8	367.6	306.5	271.6	254.4
70°	426.7	426.3	436.1	453.8	478.0	450.5	385.7	317.6	264.2	233.5	218.3
72.5°	358.2	361.1	364.8	378.3	403.7	379.9	327.0	268.3	222.8	195.7	183.0
75°	292.9	292.5	297.9	309.8	328.2	310.6	268.3	220.3	181.8	159.6	148.5
77.5°	230.6	230.2	234.7	241.7	257.3	243.3	211.7	176.0	141.6	123.1	115.3
80°	171.9	171.9	176.0	179.7	191.2	180.1	158.0	131.7	103.8	89.4	83.3
82.5°	119.4	121.9	120.2	125.1	131.7	122.3	108.3	90.3	68.9	59.1	55.0
85°	72.6	74.7	72.6	76.7	79.6	71.4	64.4	53.7	39.8	33.2	30.4
87.5°	37.3	36.9	36.5	38.6	39.4	34.5	30.4	25.8	17.6	13.5	11.5
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):

	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	998.2	998.2	998.2	998.2	998.2	998.2	998.2	998.2	998.2	998.2
2.5°	987.6	990.0	986.3	972.8	967.5	961.7	959.3	956.8	961.3	960.1
5°	979.4	976.5	967.1	949.8	940.8	931.4	926.9	924.0	930.1	928.9
7.5°	968.3	960.1	946.1	925.2	913.7	901.0	894.9	891.2	895.3	894.4
10°	954.3	940.8	923.6	898.5	885.0	871.1	864.1	858.7	862.0	861.6
12.5°	936.7	919.1	898.1	869.8	855.9	841.5	835.4	831.7	835.8	834.5
15°	917.0	895.7	871.5	842.7	827.6	814.4	809.9	807.0	810.3	810.3
17.5°	895.3	870.2	843.6	814.4	800.1	789.8	785.3	783.3	784.9	787.4
20°	871.1	843.2	814.4	786.1	773.8	763.1	759.0	757.0	760.7	759.0
22.5°	844.4	814.8	784.9	758.2	747.1	736.5	732.4	731.1	735.2	733.6
25°	816.1	784.1	754.5	730.3	719.2	710.2	706.5	705.3	707.3	709.4
27.5°	789.4	753.3	724.2	702.4	692.6	684.0	680.7	678.6	680.3	682.7
30°	757.0	722.1	693.4	673.3	663.9	655.6	653.2	651.5	654.0	656.1
32.5°	726.6	691.3	662.6	642.9	634.7	626.9	626.5	625.7	628.6	631.0
35°	693.8	659.3	631.4	613.0	605.2	598.6	599.8	601.1	604.4	607.2
37.5°	660.6	626.9	600.3	583.4	576.1	570.7	574.4	576.1	580.6	583.4
40°	626.9	593.3	568.7	553.5	546.1	543.6	549.0	552.7	558.0	560.5
42.5°	592.5	561.3	536.7	522.7	516.6	516.6	523.5	529.3	535.4	537.9
45°	558.0	527.6	504.3	491.5	487.0	490.3	498.5	505.9	513.7	516.1
47.5°	523.1	493.6	472.2	460.8	458.3	463.2	473.5	483.3	492.4	495.6
50°	488.2	461.6	440.2	429.6	429.6	435.7	448.9	461.2	471.0	474.3
52.5°	453.4	427.9	406.2	398.4	400.0	408.7	423.8	436.6	447.6	450.9
55°	418.1	393.1	374.2	367.6	370.5	381.2	396.8	411.5	422.2	425.9
57.5°	383.2	359.4	342.2	336.9	341.0	352.9	370.9	383.6	394.7	398.0
60°	347.9	323.7	310.2	306.1	311.4	323.7	342.2	354.1	364.3	367.6
62.5°	313.1	290.5	278.6	274.9	281.1	294.2	312.2	322.9	330.7	334.0
65°	277.8	257.7	246.6	244.1	250.7	263.4	280.6	289.7	295.4	298.7
67.5°	242.9	225.7	215.4	213.4	220.3	231.8	247.8	252.7	258.1	261.4
70°	208.4	192.8	184.2	183.0	189.1	200.2	213.8	216.2	219.1	222.0
72.5°	174.4	162.1	153.4	153.0	158.8	167.8	178.9	179.3	180.1	183.0
75°	141.6	130.5	123.9	125.1	128.4	135.8	144.4	142.0	142.4	144.4
77.5°	110.0	100.9	96.4	97.2	99.7	105.0	110.8	107.9	106.3	108.3
80°	79.2	71.4	69.7	70.2	71.8	75.5	78.8	76.3	73.0	74.7
82.5°	52.1	47.2	46.4	46.8	48.0	50.1	50.9	47.2	46.4	47.6
85°	28.7	26.7	26.7	27.9	28.3	28.7	28.7	26.7	27.1	27.9
87.5°	11.5	11.5	12.7	13.9	13.1	11.5	9.8	6.6	6.6	7.8
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)