

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: P708825

Luminaire Tested: **24APR-X-62L840-UNV**

Issue Date: 09/12/2023



**Test Information**

Test Method: LM-79-08  
Report Number: P708825  
Test Lab: INNOVATION CENTER(G2)  
Issue Date: 09/12/2023  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: FAIL-SAFE  
Catalog Number: 24APR-X-62L840-UNV  
Description: ArcMed Patient Recessed 2x2 Fixture EXAM Light  
Light Source: 4000K CCT, 80 CRI LEDS  
Ballast/Driver: ELECTRONIC DRIVER

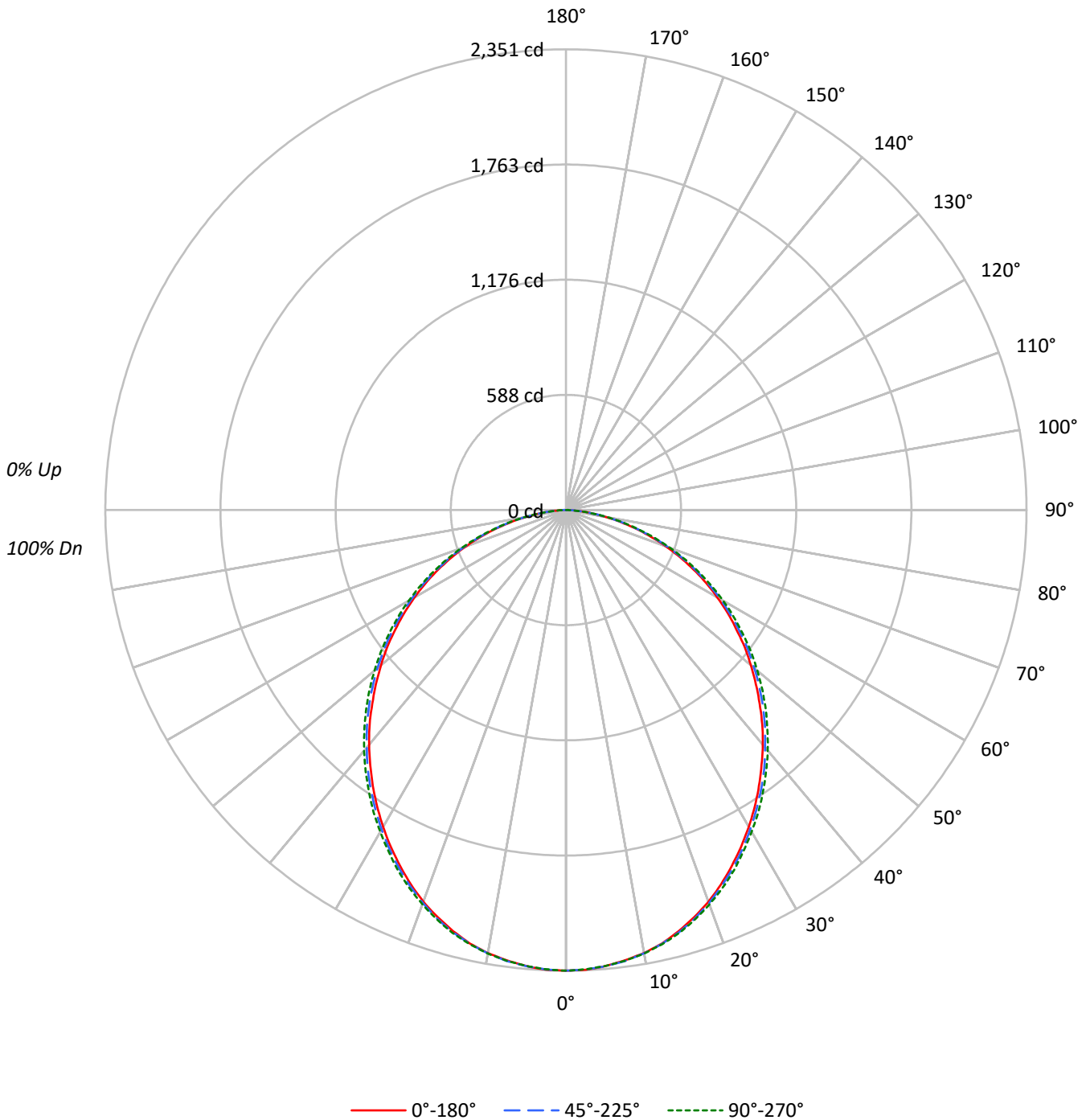
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 6160.3 lumens  
Efficiency: N/A  
Efficacy: 120.1 lumens/watt  
Spacing Criteria (0/90/45): 1.19 / 1.2 / 1.31  
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')  
CIE Type: Direct

Input Watts (W): 51.3  
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	95	98	95	92	94	91	89	90	88	86	86	86	86	84	
2	99	91	84	79	97	89	83	78	86	80	76	82	78	74	79	76	73	73	73	73	70	
3	91	80	72	66	88	79	71	65	76	69	64	73	67	63	70	66	62	62	62	62	60	
4	83	71	62	56	81	70	62	55	67	60	55	65	59	54	63	58	53	53	53	53	51	
5	76	64	55	48	74	63	54	48	60	53	47	58	52	47	57	51	46	46	46	46	44	
6	71	57	49	42	69	56	48	42	55	47	42	53	46	41	51	45	41	41	41	41	39	
7	66	52	43	37	64	51	43	37	50	42	37	48	42	37	47	41	36	36	36	36	34	
8	61	48	39	33	60	47	39	33	46	38	33	44	38	33	43	37	33	33	33	33	31	
9	57	44	36	30	56	43	35	30	42	35	30	41	34	30	40	34	30	30	30	30	28	
10	54	40	33	27	52	40	32	27	39	32	27	38	32	27	37	31	27	27	27	27	25	

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

	0°	45°	90°
0°	6325	6325	6325
5°	6310	6312	6308
10°	6272	6277	6279
15°	6197	6215	6226
20°	6093	6113	6133
25°	5949	5989	6024
30°	5799	5847	5890
35°	5644	5707	5762
40°	5492	5556	5630
45°	5320	5416	5490
50°	5159	5256	5339
55°	4983	5088	5177
60°	4803	4901	4996
65°	4571	4674	4763
70°	4280	4374	4462
75°	3863	3958	4031
80°	3259	3378	3411
85°	2424	2575	2532



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	221.8	3.6
10°-20°	628.4	10.2
20°-30°	928.3	15.1
30°-40°	1086.2	17.6
40°-50°	1097.0	17.8
50°-60°	969.6	15.7
60°-70°	725.8	11.8
70°-80°	403.4	6.5
80°-90°	99.7	1.6
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°	1778.5	28.9
0°-40°	2864.7	46.5
0°-60°	4931.4	80.1
0°-90°	6160.3	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	6160.3	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	2351	2351	2351	2351	2351	
5°	2336	2337	2337	2337	2335	222
15°	2224	2226	2231	2235	2235	627
25°	2004	2006	2017	2023	2029	923
35°	1718	1723	1737	1749	1754	1075
45°	1398	1408	1423	1438	1443	1080
55°	1062	1070	1084	1098	1103	951
65°	718	723	734	744	748	711
75°	372	374	381	388	388	394
85°	78	81	83	82	82	96
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	2350.6	2350.6	2350.6	2350.6	2350.6
2.5°	2348.5	2348.5	2346.4	2347.1	2345.7
5°	2335.9	2336.6	2336.6	2337.3	2335.1
7.5°	2317.6	2319.0	2321.1	2321.8	2319.7
10°	2295.2	2296.6	2297.3	2300.1	2298.0
12.5°	2265.7	2266.4	2267.1	2271.4	2269.3
15°	2224.4	2225.8	2230.7	2234.9	2234.9
17.5°	2178.1	2180.9	2186.5	2192.1	2190.7
20°	2127.6	2129.7	2134.7	2142.4	2141.7
22.5°	2068.1	2070.2	2077.2	2085.6	2087.7
25°	2003.6	2006.4	2016.9	2023.2	2028.8
27.5°	1937.0	1940.5	1950.3	1960.1	1962.9
30°	1866.2	1871.8	1881.6	1892.1	1895.6
32.5°	1794.0	1796.8	1810.1	1821.3	1828.3
35°	1718.2	1723.1	1737.2	1749.1	1754.0
37.5°	1640.4	1647.4	1662.2	1674.8	1679.0
40°	1563.3	1568.9	1581.5	1597.7	1602.6
42.5°	1483.4	1488.3	1503.7	1517.7	1522.6
45°	1397.9	1408.4	1423.1	1437.8	1442.7
47.5°	1315.1	1325.0	1339.7	1354.4	1360.0
50°	1232.4	1242.9	1255.6	1271.0	1275.2
52.5°	1149.7	1158.1	1171.4	1184.8	1191.1
55°	1062.1	1070.5	1084.5	1097.8	1103.4
57.5°	979.3	985.0	998.3	1010.9	1015.8
60°	892.4	898.0	910.6	924.0	928.2
62.5°	806.9	810.4	822.3	834.9	837.7
65°	717.9	722.8	734.0	743.8	748.0
67.5°	630.9	635.1	645.0	655.5	657.6
70°	544.0	546.8	555.9	563.6	567.1
72.5°	456.4	459.2	469.0	473.2	476.7
75°	371.5	373.7	380.7	387.7	387.7
77.5°	288.8	292.3	297.9	300.7	302.1
80°	210.3	213.8	218.0	220.8	220.1
82.5°	138.8	142.3	145.1	146.5	145.1
85°	78.5	81.3	83.4	82.0	82.0
87.5°	30.8	32.2	33.6	32.9	31.5
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)