

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: P709042

Luminaire Tested: **24APR-58-138L950-UNV**

Issue Date: 09/12/2023



**Test Information**

Test Method: LM-79-08  
Report Number: P709042  
Test Lab: INNOVATION CENTER(G2)  
Issue Date: 09/12/2023  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: FAIL-SAFE  
Catalog Number: 24APR-58-138L950-UNV  
Description: ArcMed Patient Recessed 2x4 Fixture Ambient and Exam Light  
Light Source: 5000K CCT, 90 CRI LEDS  
Ballast/Driver: ELECTRONIC DRIVER

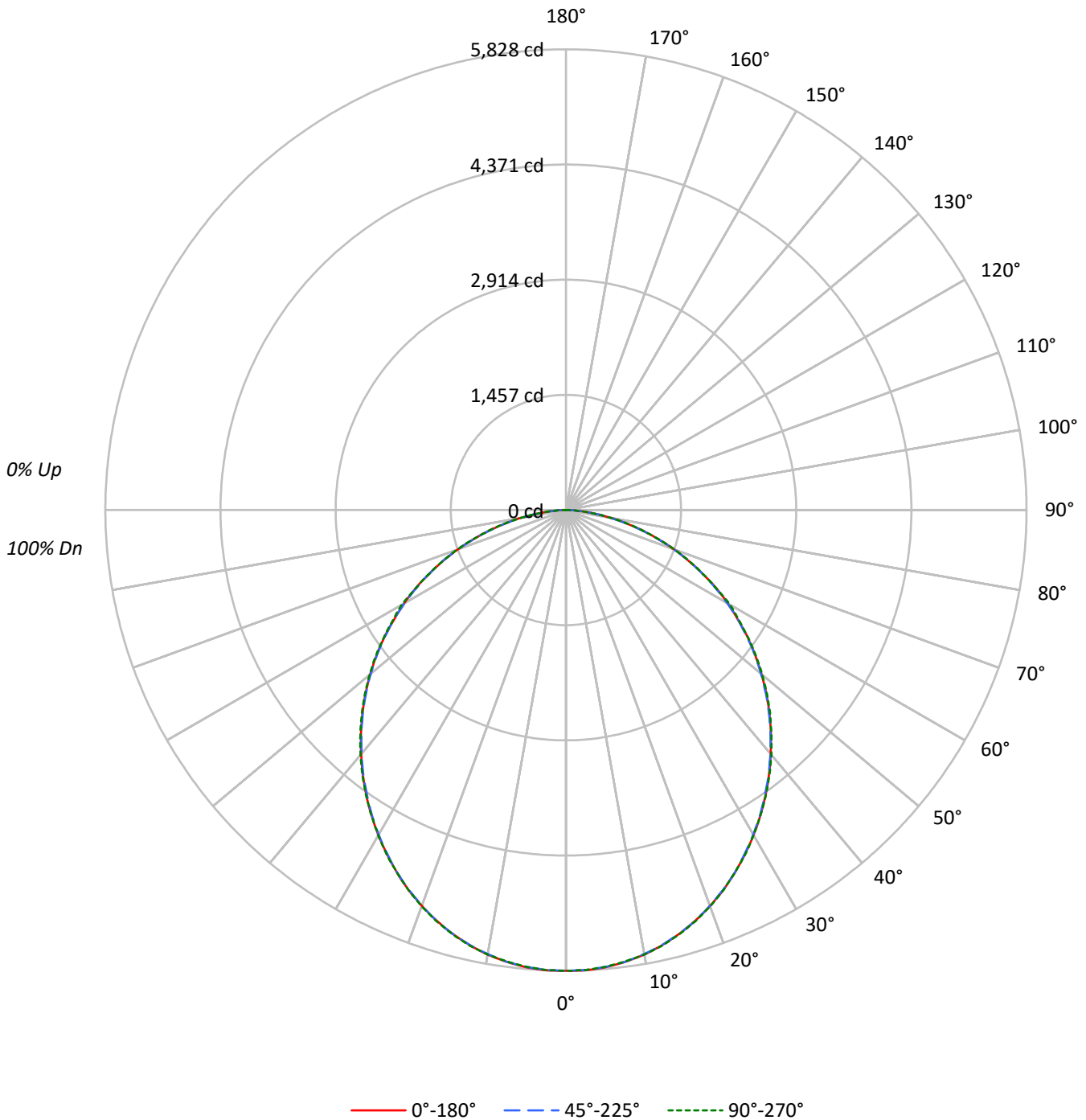
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 15729.2 lumens  
Efficiency: N/A  
Efficacy: 101.2 lumens/watt  
Spacing Criteria (0/90/45): 1.21 / 1.21 / 1.33  
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')  
CIE Type: Direct

Input Watts (W): 155.4  
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				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	98	94	92	94	91	89	90	88	86	86	86	86	84
2	99	91	84	78	96	89	83	77	85	80	76	82	78	74	79	75	72	72	72	72	70
3	90	80	72	65	88	78	71	65	75	69	63	73	67	62	70	65	61	61	61	61	59
4	83	71	62	55	80	69	61	55	67	60	54	65	58	53	62	57	53	53	53	53	51
5	76	63	54	48	74	62	54	47	60	53	47	58	52	46	56	51	46	46	46	46	44
6	70	57	48	42	68	56	48	42	54	47	41	53	46	41	51	45	40	40	40	40	38
7	65	52	43	37	64	51	43	37	49	42	36	48	41	36	47	41	36	36	36	36	34
8	61	47	39	33	59	47	38	33	45	38	33	44	37	32	43	37	32	32	32	32	30
9	57	43	35	30	55	43	35	30	42	34	29	41	34	29	40	34	29	29	29	29	27
10	53	40	32	27	52	40	32	27	39	32	27	38	31	27	37	31	26	26	26	26	25

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

	0°	45°	90°
0°	7842	7842	7842
5°	7843	7835	7831
10°	7802	7795	7801
15°	7728	7728	7737
20°	7633	7628	7639
25°	7514	7510	7510
30°	7378	7366	7379
35°	7234	7214	7243
40°	7080	7066	7104
45°	6929	6915	6952
50°	6763	6746	6789
55°	6579	6562	6601
60°	6361	6346	6458
65°	6072	6074	6090
70°	5739	5708	5746
75°	5235	5194	5229
80°	4520	4463	4493
85°	3526	3492	3483



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	550.9	3.5
10°-20°	1564.4	9.9
20°-30°	2329.9	14.8
30°-40°	2752.6	17.5
40°-50°	2808.1	17.9
50°-60°	2505.6	15.9
60°-70°	1889.0	12.0
70°-80°	1059.1	6.7
80°-90°	269.5	1.7
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°	4445.2	28.3
0°-40°	7197.8	45.8
0°-60°	12511.5	79.5
0°-90°	15729.2	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	15729.2	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	5828	5828	5828	5828	5828	
5°	5807	5804	5801	5802	5798	551
15°	5548	5545	5548	5552	5554	1564
25°	5061	5055	5059	5063	5059	2331
35°	4404	4398	4392	4405	4410	2755
45°	3641	3639	3634	3645	3654	2809
55°	2804	2798	2797	2806	2814	2505
65°	1907	1898	1908	1913	1913	1892
75°	1007	990	999	994	1006	1066
85°	228	220	226	226	226	273
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	5828.5	5828.5	5828.5	5828.5	5828.5
2.5°	5828.5	5825.7	5823.5	5822.9	5824.1
5°	5806.7	5803.9	5801.1	5802.2	5797.7
7.5°	5764.7	5765.3	5763.0	5763.6	5758.6
10°	5710.4	5707.6	5705.4	5710.4	5709.9
12.5°	5637.1	5632.0	5634.3	5642.1	5642.7
15°	5548.1	5544.7	5548.1	5552.0	5554.2
17.5°	5446.8	5444.0	5447.9	5448.4	5452.9
20°	5330.9	5327.5	5327.5	5333.1	5335.4
22.5°	5202.7	5197.6	5198.8	5202.7	5205.5
25°	5061.1	5054.9	5058.8	5063.3	5058.8
27.5°	4908.2	4904.9	4901.0	4906.6	4913.8
30°	4748.7	4742.0	4741.4	4745.3	4749.3
32.5°	4580.2	4572.4	4572.4	4577.4	4580.8
35°	4403.9	4397.7	4392.1	4405.0	4409.5
37.5°	4221.9	4214.7	4214.1	4221.9	4229.2
40°	4031.0	4024.9	4023.2	4036.6	4044.5
42.5°	3838.5	3834.6	3830.6	3844.1	3850.2
45°	3641.4	3639.2	3634.2	3644.8	3653.7
47.5°	3438.8	3431.5	3429.8	3442.1	3451.1
50°	3231.1	3228.3	3222.7	3233.9	3243.4
52.5°	3020.6	3017.3	3013.3	3023.4	3033.5
55°	2804.5	2798.4	2797.3	2805.7	2814.1
57.5°	2579.5	2574.5	2582.3	2590.1	2596.9
60°	2364.0	2352.2	2358.4	2367.4	2399.8
62.5°	2147.4	2126.6	2131.1	2155.8	2141.8
65°	1907.2	1897.7	1907.8	1913.4	1912.8
67.5°	1682.2	1671.0	1686.1	1681.6	1688.3
70°	1458.8	1439.2	1451.0	1452.7	1460.5
72.5°	1228.2	1211.4	1221.5	1226.5	1231.5
75°	1007.1	989.7	999.2	993.6	1005.9
77.5°	787.1	776.4	782.6	786.5	796.0
80°	583.3	571.5	576.0	576.6	579.9
82.5°	395.2	386.3	387.4	397.5	393.5
85°	228.4	220.0	226.2	225.6	225.6
87.5°	89.0	82.3	88.4	87.9	86.8
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)