

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: P708960

Luminaire Tested: **24APR-X-181L950-UNV**

Issue Date: 09/12/2023



Test Information

Test Method: LM-79-08
Report Number: P708960
Test Lab: INNOVATION CENTER(G2)
Issue Date: 09/12/2023
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: FAIL-SAFE
Catalog Number: 24APR-X-181L950-UNV
Description: ArcMed Patient Recessed 2x4 Fixture EXAM Light
Light Source: 5000K CCT, 90 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

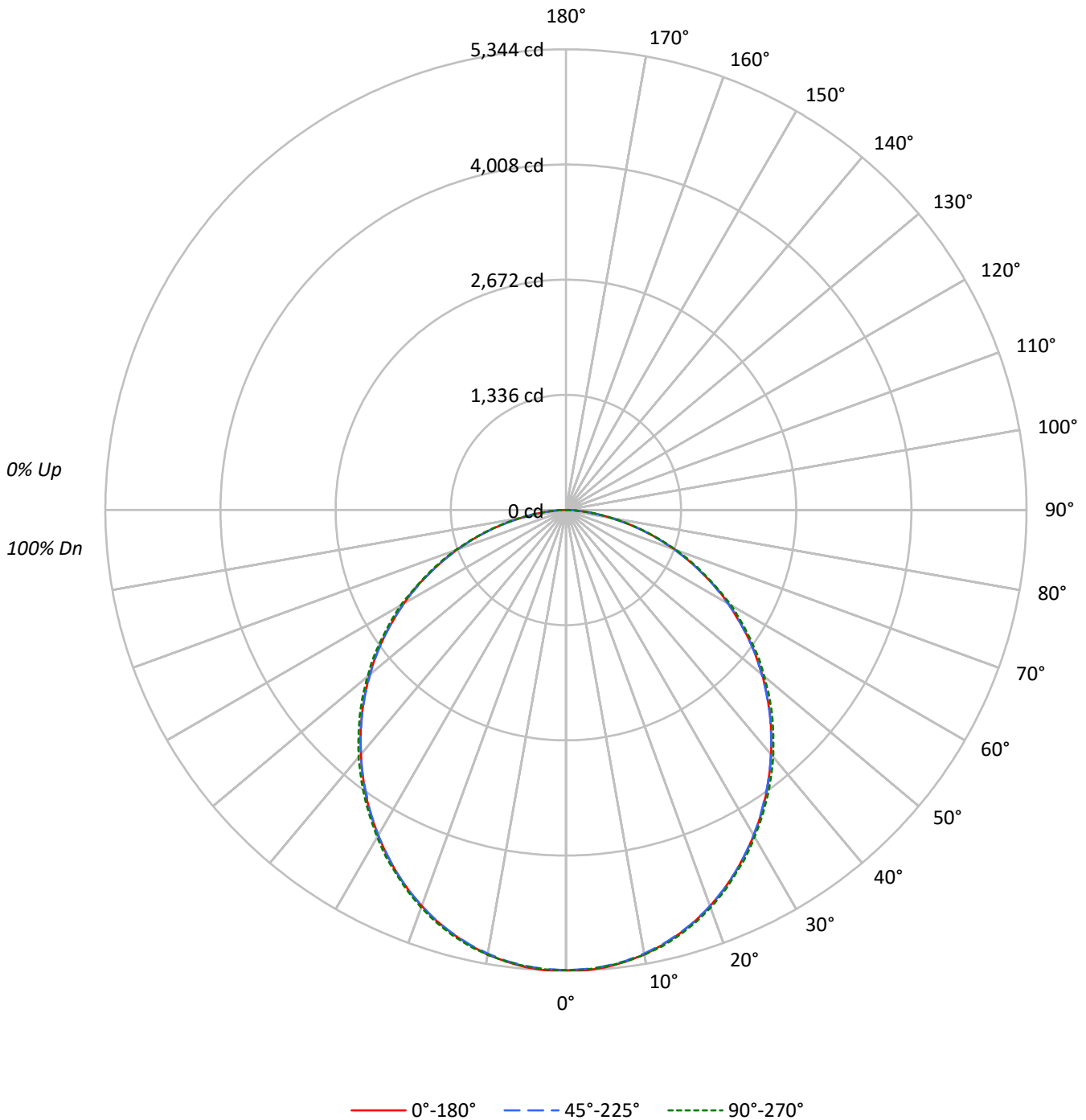
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 14485.8 lumens
Efficiency: N/A
Efficacy: 104.1 lumens/watt
Spacing Criteria (0/90/45): 1.22 / 1.22 / 1.33
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 139.1
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	91	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	72	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	50
5	76	63	54	48	74	62	54	47	60	53	47	58	51	46	56	50	46	46	46	46	44
6	70	57	48	42	68	56	48	41	54	47	41	53	46	41	51	45	40	40	40	40	38
7	65	52	43	37	63	51	43	37	49	42	36	48	41	36	47	40	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	39	33	29	29	29	29	27
10	53	40	32	27	52	39	32	27	39	32	27	38	31	27	37	31	26	26	26	26	25

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	7182	7182	7182
5°	7190	7171	7178
10°	7154	7138	7157
15°	7086	7081	7109
20°	7002	6996	7028
25°	6891	6893	6916
30°	6770	6766	6803
35°	6642	6627	6687
40°	6502	6498	6571
45°	6367	6363	6439
50°	6220	6207	6290
55°	6050	6042	6126
60°	5852	5847	5960
65°	5585	5595	5660
70°	5295	5252	5362
75°	4840	4802	4893
80°	4186	4135	4221
85°	3293	3259	3350



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	504.6	3.5
10°-20°	1434.7	9.9
20°-30°	2139.8	14.8
30°-40°	2531.9	17.5
40°-50°	2587.2	17.9
50°-60°	2312.1	16.0
60°-70°	1742.7	12.0
70°-80°	980.9	6.8
80°-90°	251.9	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°	4079.1	28.2
0°-40°	6611.0	45.6
0°-60°	11510.3	79.5
0°-90°	14485.8	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	14485.8	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	5338	5338	5338	5338	5338	
5°	5323	5316	5309	5314	5314	505
15°	5087	5081	5084	5094	5103	1435
25°	4642	4635	4643	4658	4658	2138
35°	4044	4035	4034	4062	4071	2529
45°	3346	3343	3344	3370	3384	2581
55°	2579	2579	2576	2598	2611	2304
65°	1754	1746	1757	1774	1778	1742
75°	931	914	924	919	941	985
85°	213	204	211	214	217	255
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	5338.0	5338.0	5338.0	5338.0	5338.0
2.5°	5343.8	5335.8	5329.9	5332.8	5335.0
5°	5323.3	5316.0	5309.4	5314.5	5314.5
7.5°	5284.4	5280.8	5275.6	5280.0	5281.5
10°	5236.1	5228.0	5224.3	5234.6	5238.3
12.5°	5167.9	5158.3	5161.3	5174.5	5180.3
15°	5087.2	5080.6	5083.6	5093.8	5103.4
17.5°	4995.6	4988.3	4994.9	5003.6	5012.4
20°	4890.0	4882.7	4886.3	4898.8	4908.3
22.5°	4772.7	4765.4	4769.8	4780.8	4791.0
25°	4641.5	4634.9	4642.9	4657.6	4658.3
27.5°	4504.4	4497.1	4499.3	4514.6	4528.6
30°	4357.8	4348.2	4354.8	4370.2	4379.0
32.5°	4203.8	4195.0	4200.1	4217.7	4228.0
35°	4044.0	4035.2	4034.4	4061.6	4071.1
37.5°	3874.6	3869.5	3873.9	3895.9	3907.6
40°	3701.6	3694.3	3699.4	3727.3	3741.2
42.5°	3526.4	3522.0	3522.7	3550.6	3561.6
45°	3346.0	3343.1	3343.8	3369.5	3384.2
47.5°	3159.8	3153.2	3156.1	3182.5	3197.9
50°	2971.4	2969.9	2965.5	2991.9	3005.1
52.5°	2777.8	2774.9	2774.9	2798.4	2817.4
55°	2579.2	2579.2	2575.5	2598.2	2611.4
57.5°	2371.0	2372.4	2378.3	2398.8	2412.0
60°	2174.5	2167.1	2173.0	2191.3	2214.8
62.5°	1978.7	1956.7	1962.6	1979.5	1989.0
65°	1754.4	1746.3	1757.3	1774.2	1777.9
67.5°	1548.4	1540.3	1546.2	1557.9	1574.0
70°	1346.0	1324.8	1335.0	1347.5	1362.9
72.5°	1133.4	1115.1	1129.8	1140.0	1151.0
75°	931.1	913.5	923.8	919.4	941.3
77.5°	728.0	715.5	724.3	733.1	750.0
80°	540.3	526.4	533.7	537.4	544.7
82.5°	368.0	357.8	360.0	374.6	370.2
85°	213.3	204.5	211.1	214.1	217.0
87.5°	84.3	76.2	82.8	85.0	85.8
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)