

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: P708940

Luminaire Tested: **24APR-X-181L850-UNV**

Issue Date: 09/12/2023



Test Information

Test Method: LM-79-08
Report Number: P708940
Test Lab: INNOVATION CENTER(G2)
Issue Date: 09/12/2023
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: FAIL-SAFE
Catalog Number: 24APR-X-181L850-UNV
Description: ArcMed Patient Recessed 2x4 Fixture EXAM Light
Light Source: 5000K CCT, 80 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

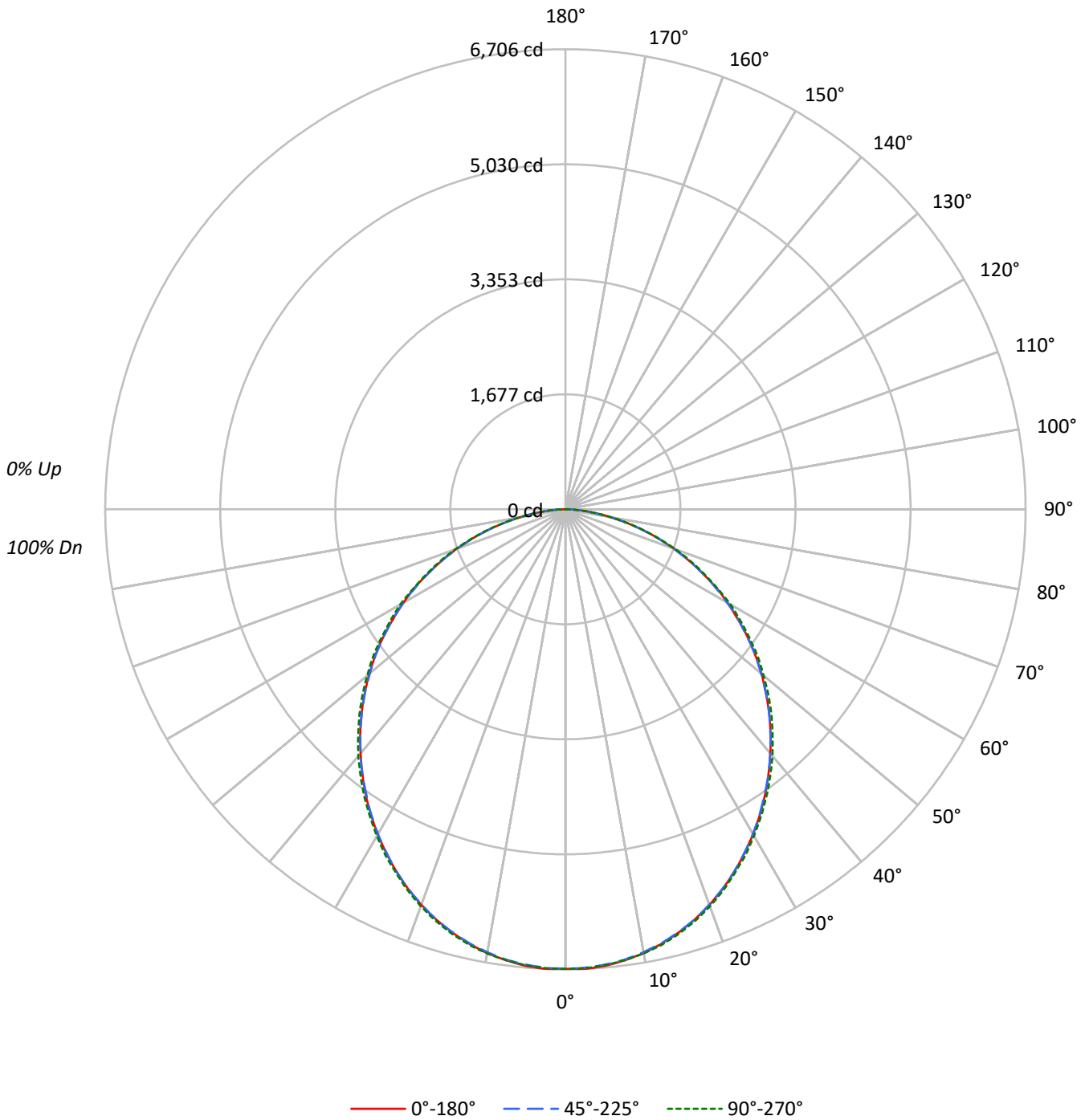
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 18178.9 lumens
Efficiency: N/A
Efficacy: 130.7 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°	9013	9013	9013
5°	9023	8999	9008
10°	8977	8957	8981
15°	8893	8886	8921
20°	8787	8780	8820
25°	8647	8650	8679
30°	8496	8491	8538
35°	8336	8316	8392
40°	8159	8154	8246
45°	7990	7985	8081
50°	7805	7790	7894
55°	7593	7582	7688
60°	7343	7338	7479
65°	7010	7021	7103
70°	6645	6591	6729
75°	6074	6026	6141
80°	5254	5190	5297
85°	4133	4091	4204



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	633.3	3.5
10°-20°	1800.5	9.9
20°-30°	2685.3	14.8
30°-40°	3177.4	17.5
40°-50°	3246.7	17.9
50°-60°	2901.5	16.0
60°-70°	2187.0	12.0
70°-80°	1231.0	6.8
80°-90°	316.2	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°	5119.0	28.2
0°-40°	8296.4	45.6
0°-60°	14444.7	79.5
0°-90°	18178.9	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	18178.9	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	6699	6699	6699	6699	6699	
5°	6680	6671	6663	6669	6669	634
15°	6384	6376	6380	6392	6404	1800
25°	5825	5816	5827	5845	5846	2684
35°	5075	5064	5063	5097	5109	3173
45°	4199	4195	4196	4228	4247	3239
55°	3237	3237	3232	3261	3277	2891
65°	2202	2192	2205	2226	2231	2186
75°	1168	1146	1159	1154	1181	1236
85°	268	257	265	269	272	319
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	6698.8	6698.8	6698.8	6698.8	6698.8
2.5°	6706.2	6696.0	6688.7	6692.4	6695.1
5°	6680.4	6671.2	6662.9	6669.4	6669.4
7.5°	6631.6	6627.0	6620.6	6626.1	6628.0
10°	6570.9	6560.8	6556.2	6569.1	6573.7
12.5°	6485.3	6473.4	6477.1	6493.6	6501.0
15°	6384.1	6375.9	6379.5	6392.4	6404.4
17.5°	6269.1	6259.9	6268.2	6279.3	6290.3
20°	6136.7	6127.5	6132.1	6147.7	6159.7
22.5°	5989.4	5980.2	5985.8	5999.6	6012.4
25°	5824.8	5816.5	5826.6	5845.0	5845.9
27.5°	5652.7	5643.5	5646.3	5665.6	5683.1
30°	5468.7	5456.7	5465.0	5484.3	5495.4
32.5°	5275.5	5264.5	5270.9	5293.0	5305.9
35°	5074.9	5063.9	5063.0	5097.0	5109.0
37.5°	4862.4	4856.0	4861.5	4889.1	4903.8
40°	4645.3	4636.1	4642.5	4677.5	4695.0
42.5°	4425.4	4419.9	4420.8	4455.7	4469.5
45°	4199.1	4195.4	4196.3	4228.5	4246.9
47.5°	3965.4	3957.1	3960.8	3993.9	4013.2
50°	3728.9	3727.1	3721.6	3754.7	3771.2
52.5°	3486.0	3482.3	3482.3	3511.8	3535.7
55°	3236.7	3236.7	3232.1	3260.6	3277.2
57.5°	2975.4	2977.2	2984.6	3010.4	3026.9
60°	2728.8	2719.6	2727.0	2750.0	2779.4
62.5°	2483.2	2455.6	2462.9	2484.1	2496.1
65°	2201.7	2191.5	2205.3	2226.5	2231.1
67.5°	1943.1	1933.0	1940.4	1955.1	1975.3
70°	1689.2	1662.5	1675.4	1691.0	1710.4
72.5°	1422.4	1399.4	1417.8	1430.7	1444.5
75°	1168.4	1146.4	1159.2	1153.7	1181.3
77.5°	913.6	898.0	909.0	920.0	941.2
80°	678.1	660.6	669.8	674.4	683.6
82.5°	461.9	449.0	451.7	470.1	464.6
85°	267.7	256.7	265.0	268.7	272.3
87.5°	105.8	95.7	104.0	106.7	107.6
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)