

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: P708925

Luminaire Tested: **24APR-X-181L830-UNV**

Issue Date: 09/12/2023



Test Information

Test Method: LM-79-08
Report Number: P708925
Test Lab: INNOVATION CENTER(G2)
Issue Date: 09/12/2023
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: FAIL-SAFE
Catalog Number: 24APR-X-181L830-UNV
Description: ArcMed Patient Recessed 2x4 Fixture EXAM Light
Light Source: 3000K CCT, 80 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

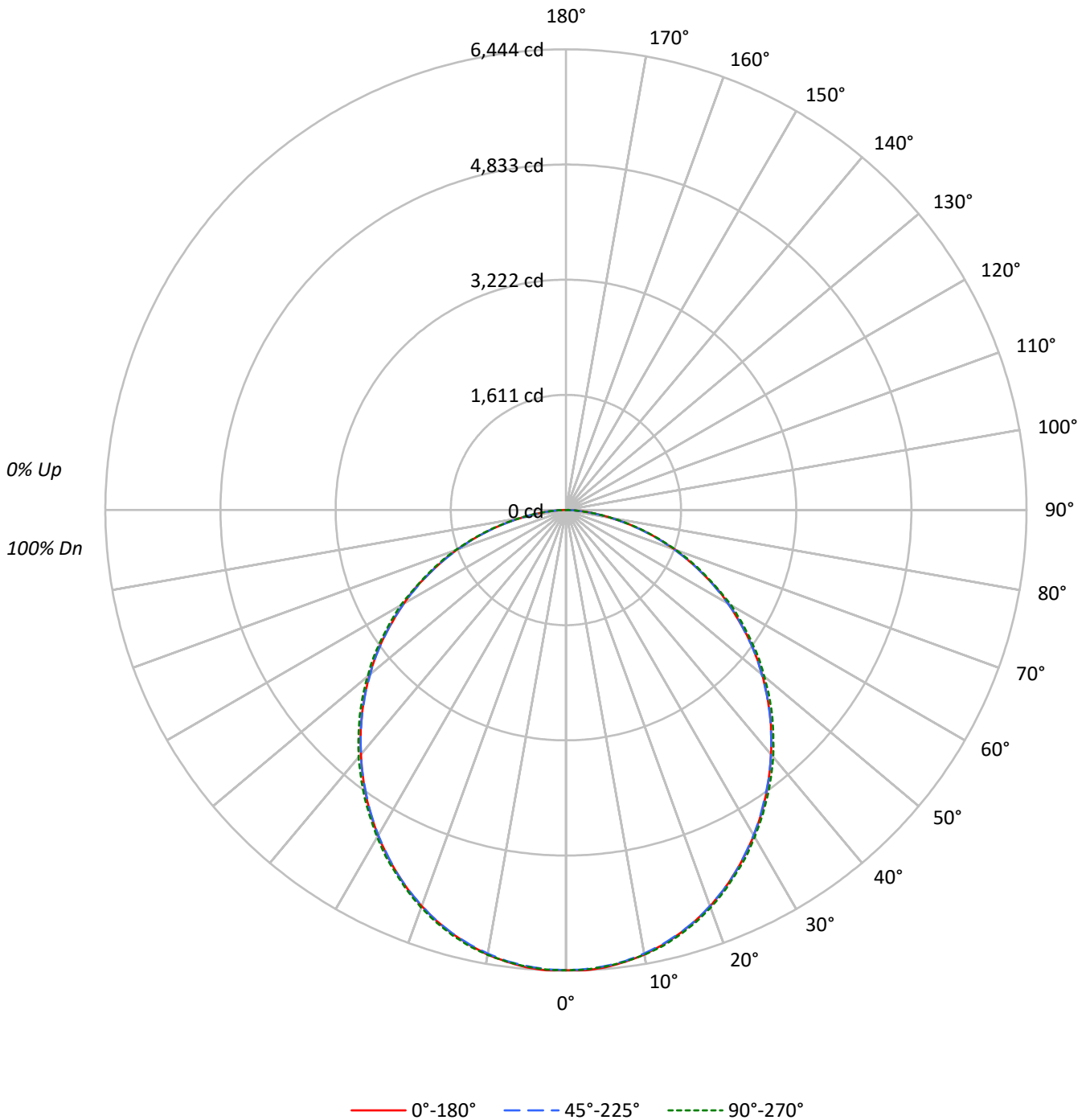
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 17469.2 lumens
Efficiency: N/A
Efficacy: 125.6 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	100	100	100	100
1	109	104	100	96	106	102	98	94	98	94	91	94	91	89	90	88	86	84	84	84	84
2	99	91	84	78	96	89	83	77	85	80	76	82	78	74	79	75	72	70	70	70	70
3	90	80	72	65	88	78	71	65	75	69	63	72	67	62	70	65	61	59	59	59	59
4	83	71	62	55	80	69	61	55	67	60	54	65	58	53	62	57	53	50	50	50	50
5	76	63	54	48	74	62	54	47	60	53	47	58	51	46	56	50	46	44	44	44	44
6	70	57	48	42	68	56	48	41	54	47	41	53	46	41	51	45	40	38	38	38	38
7	65	52	43	37	63	51	43	37	49	42	36	48	41	36	47	40	36	34	34	34	34
8	61	47	39	33	59	47	38	33	45	38	33	44	37	32	43	37	32	30	30	30	30
9	57	43	35	30	55	43	35	30	42	34	29	41	34	29	39	33	29	27	27	27	27
10	53	40	32	27	52	39	32	27	39	32	27	38	31	27	37	31	26	25	25	25	25

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	8661	8661	8661
5°	8670	8648	8656
10°	8627	8608	8631
15°	8546	8539	8573
20°	8444	8437	8475
25°	8310	8312	8340
30°	8165	8159	8205
35°	8010	7991	8064
40°	7840	7836	7924
45°	7678	7673	7766
50°	7501	7486	7586
55°	7296	7286	7387
60°	7057	7052	7187
65°	6736	6747	6826
70°	6386	6334	6466
75°	5837	5791	5901
80°	5049	4987	5090
85°	3972	3930	4040



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	608.6	3.5
10°-20°	1730.2	9.9
20°-30°	2580.4	14.8
30°-40°	3053.4	17.5
40°-50°	3120.0	17.9
50°-60°	2788.2	16.0
60°-70°	2101.6	12.0
70°-80°	1182.9	6.8
80°-90°	303.9	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°	4919.2	28.2
0°-40°	7972.6	45.6
0°-60°	13880.8	79.5
0°-90°	17469.2	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	17469.2	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	6437	6437	6437	6437	6437	
5°	6420	6411	6403	6409	6409	609
15°	6135	6127	6130	6143	6154	1730
25°	5597	5589	5599	5617	5618	2579
35°	4877	4866	4865	4898	4910	3049
45°	4035	4032	4032	4063	4081	3112
55°	3110	3110	3106	3133	3149	2778
65°	2116	2106	2119	2140	2144	2101
75°	1123	1102	1114	1109	1135	1188
85°	257	247	255	258	262	307
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	6437.3	6437.3	6437.3	6437.3	6437.3
2.5°	6444.4	6434.7	6427.6	6431.1	6433.8
5°	6419.6	6410.8	6402.8	6409.0	6409.0
7.5°	6372.8	6368.3	6362.2	6367.5	6369.2
10°	6314.4	6304.7	6300.3	6312.6	6317.1
12.5°	6232.2	6220.7	6224.2	6240.1	6247.2
15°	6134.9	6127.0	6130.5	6142.9	6154.4
17.5°	6024.4	6015.6	6023.5	6034.1	6044.8
20°	5897.1	5888.3	5892.7	5907.7	5919.2
22.5°	5755.6	5746.8	5752.1	5765.4	5777.7
25°	5597.4	5589.4	5599.2	5616.8	5617.7
27.5°	5432.1	5423.2	5425.9	5444.4	5461.2
30°	5255.2	5243.7	5251.7	5270.3	5280.9
32.5°	5069.6	5059.0	5065.1	5086.4	5098.7
35°	4876.8	4866.2	4865.3	4898.0	4909.5
37.5°	4672.6	4666.4	4671.7	4698.2	4712.4
40°	4463.9	4455.1	4461.3	4494.9	4511.7
42.5°	4252.6	4247.3	4248.2	4281.8	4295.1
45°	4035.1	4031.6	4032.5	4063.4	4081.1
47.5°	3810.6	3802.6	3806.2	3838.0	3856.5
50°	3583.4	3581.6	3576.3	3608.1	3624.0
52.5°	3349.9	3346.4	3346.4	3374.7	3397.7
55°	3110.3	3110.3	3105.9	3133.3	3149.2
57.5°	2859.3	2861.0	2868.1	2892.9	2908.8
60°	2622.3	2613.5	2620.5	2642.6	2670.9
62.5°	2386.2	2359.7	2366.8	2387.1	2398.6
65°	2115.7	2106.0	2119.2	2139.6	2144.0
67.5°	1867.3	1857.5	1864.6	1878.8	1898.2
70°	1623.3	1597.6	1610.0	1625.0	1643.6
72.5°	1366.9	1344.8	1362.4	1374.8	1388.1
75°	1122.8	1101.6	1114.0	1108.7	1135.2
77.5°	877.9	862.9	873.5	884.1	904.5
80°	651.6	634.8	643.6	648.1	656.9
82.5°	443.8	431.5	434.1	451.8	446.5
85°	257.3	246.7	254.6	258.2	261.7
87.5°	101.7	91.9	99.9	102.6	103.4
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)