

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: P708934

Luminaire Tested: **24APR-X-200L840-UNV**

Issue Date: 09/12/2023



Test Information

Test Method: LM-79-08
Report Number: P708934
Test Lab: INNOVATION CENTER(G2)
Issue Date: 09/12/2023
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: FAIL-SAFE
Catalog Number: 24APR-X-200L840-UNV
Description: ArcMed Patient Recessed 2x4 Fixture EXAM Light
Light Source: 4000K CCT, 80 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

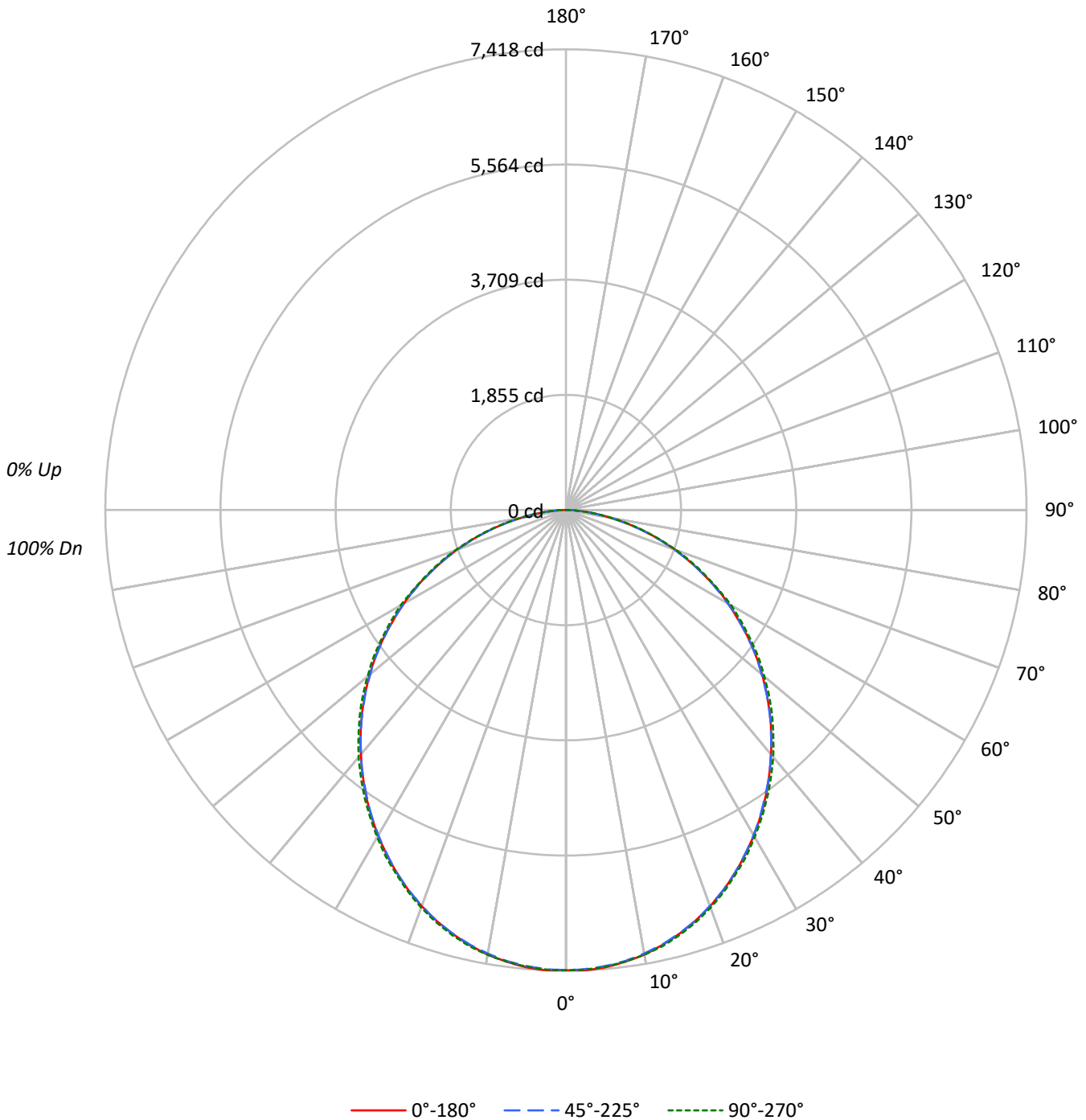
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 20109.8 lumens
Efficiency: N/A
Efficacy: 128.0 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): 157.1
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°	9970	9970	9970
5°	9981	9955	9965
10°	9931	9909	9935
15°	9837	9830	9869
20°	9720	9713	9756
25°	9566	9569	9601
30°	9399	9393	9445
35°	9221	9200	9283
40°	9026	9020	9122
45°	8839	8833	8939
50°	8634	8618	8732
55°	8399	8387	8504
60°	8123	8118	8274
65°	7754	7767	7858
70°	7351	7291	7443
75°	6720	6667	6793
80°	5812	5741	5859
85°	4573	4525	4651



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	700.5	3.5
10°-20°	1991.7	9.9
20°-30°	2970.5	14.8
30°-40°	3514.9	17.5
40°-50°	3591.6	17.9
50°-60°	3209.7	16.0
60°-70°	2419.3	12.0
70°-80°	1361.8	6.8
80°-90°	349.8	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°	5662.8	28.2
0°-40°	9177.7	45.6
0°-60°	15979.0	79.5
0°-90°	20109.8	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	20109.8	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	7410	7410	7410	7410	7410	
5°	7390	7380	7371	7378	7378	701
15°	7062	7053	7057	7071	7085	1992
25°	6444	6434	6446	6466	6467	2969
35°	5614	5602	5601	5638	5652	3510
45°	4645	4641	4642	4678	4698	3582
55°	3580	3580	3575	3607	3625	3198
65°	2436	2424	2440	2463	2468	2418
75°	1293	1268	1282	1276	1307	1367
85°	296	284	293	297	301	353
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	7410.3	7410.3	7410.3	7410.3	7410.3
2.5°	7418.5	7407.3	7399.1	7403.2	7406.3
5°	7390.0	7379.8	7370.6	7377.8	7377.8
7.5°	7336.0	7331.0	7323.8	7329.9	7332.0
10°	7268.9	7257.7	7252.6	7266.8	7271.9
12.5°	7174.2	7161.0	7165.1	7183.4	7191.5
15°	7062.3	7053.1	7057.2	7071.4	7084.7
17.5°	6935.0	6924.9	6934.0	6946.2	6958.5
20°	6788.5	6778.3	6783.4	6800.7	6813.9
22.5°	6625.6	6615.5	6621.6	6636.8	6651.1
25°	6443.5	6434.3	6445.5	6465.9	6466.9
27.5°	6253.1	6243.0	6246.0	6267.4	6286.7
30°	6049.6	6036.4	6045.5	6066.9	6079.1
32.5°	5835.9	5823.6	5830.8	5855.2	5869.4
35°	5614.0	5601.8	5600.8	5638.4	5651.6
37.5°	5378.9	5371.8	5377.9	5408.4	5424.7
40°	5138.7	5128.5	5135.6	5174.3	5193.6
42.5°	4895.4	4889.3	4890.4	4929.0	4944.3
45°	4645.1	4641.0	4642.0	4677.6	4698.0
47.5°	4386.6	4377.4	4381.5	4418.1	4439.5
50°	4125.0	4123.0	4116.9	4153.5	4171.8
52.5°	3856.3	3852.2	3852.2	3884.8	3911.3
55°	3580.5	3580.5	3575.4	3607.0	3625.3
57.5°	3291.4	3293.5	3301.6	3330.1	3348.4
60°	3018.7	3008.5	3016.7	3042.1	3074.7
62.5°	2746.9	2716.4	2724.6	2748.0	2761.2
65°	2435.5	2424.3	2439.6	2463.0	2468.1
67.5°	2149.5	2138.3	2146.5	2162.7	2185.1
70°	1868.6	1839.1	1853.3	1870.7	1892.0
72.5°	1573.5	1548.0	1568.4	1582.6	1597.9
75°	1292.6	1268.1	1282.4	1276.3	1306.8
77.5°	1010.6	993.3	1005.6	1017.8	1041.2
80°	750.1	730.8	740.9	746.0	756.2
82.5°	510.9	496.7	499.7	520.1	514.0
85°	296.2	284.0	293.1	297.2	301.3
87.5°	117.0	105.8	115.0	118.1	119.1
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)