

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: P708955

Luminaire Tested: **24APR-X-181L940-UNV**

Issue Date: 09/12/2023



Test Information

Test Method: LM-79-08
Report Number: P708955
Test Lab: INNOVATION CENTER(G2)
Issue Date: 09/12/2023
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: FAIL-SAFE
Catalog Number: 24APR-X-181L940-UNV
Description: ArcMed Patient Recessed 2x4 Fixture EXAM Light
Light Source: 4000K CCT, 90 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

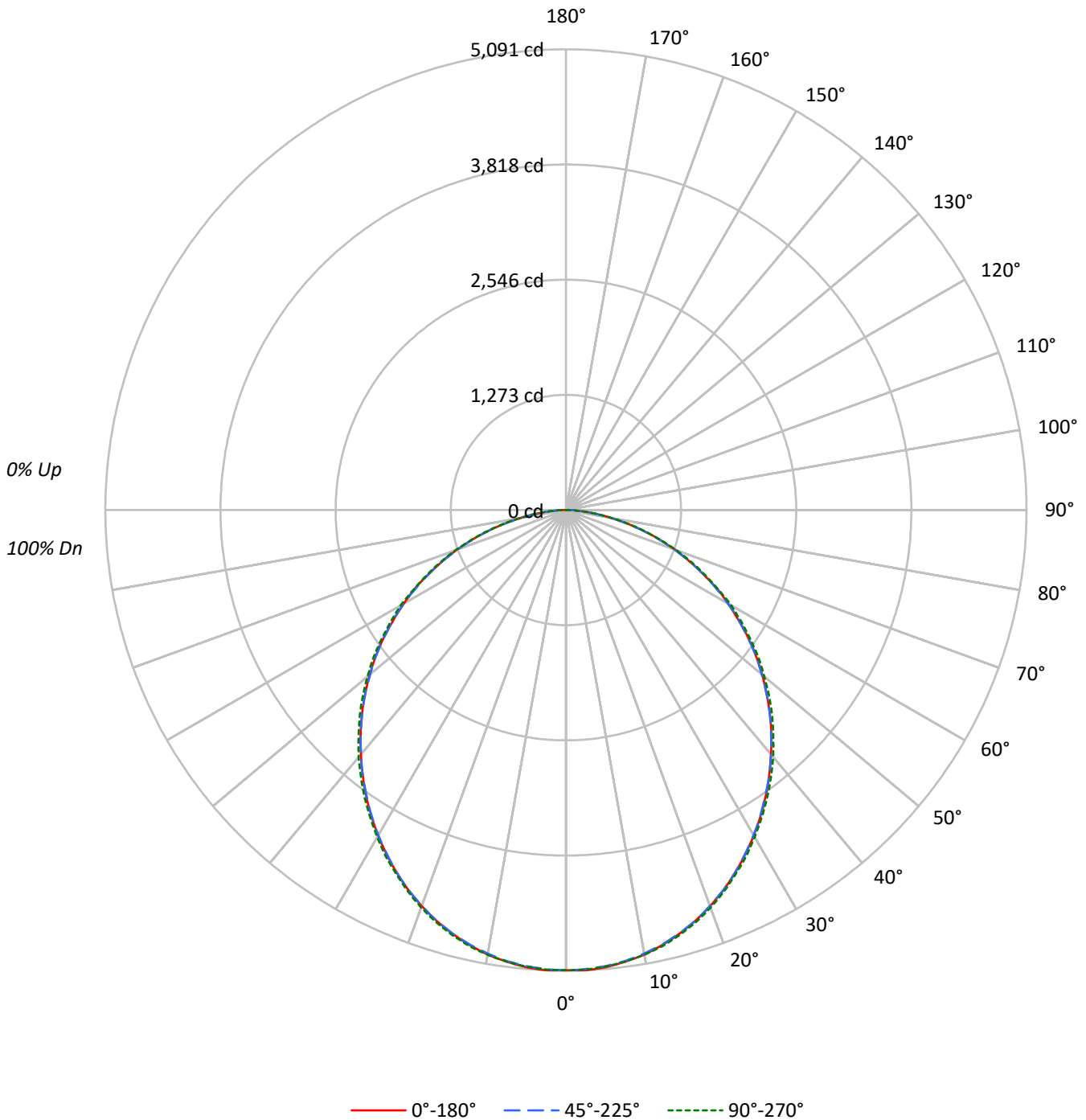
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 13801.6 lumens
Efficiency: N/A
Efficacy: 99.2 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°	6843	6843	6843
5°	6850	6832	6839
10°	6816	6800	6819
15°	6752	6747	6773
20°	6671	6666	6696
25°	6565	6567	6589
30°	6451	6446	6482
35°	6329	6314	6371
40°	6194	6191	6261
45°	6066	6062	6135
50°	5926	5914	5993
55°	5764	5756	5837
60°	5575	5571	5679
65°	5322	5330	5393
70°	5045	5004	5108
75°	4612	4575	4663
80°	3989	3940	4021
85°	3138	3106	3193



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	480.8	3.5
10°-20°	1367.0	9.9
20°-30°	2038.7	14.8
30°-40°	2412.3	17.5
40°-50°	2465.0	17.9
50°-60°	2202.9	16.0
60°-70°	1660.4	12.0
70°-80°	934.6	6.8
80°-90°	240.1	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°	3886.4	28.2
0°-40°	6298.7	45.6
0°-60°	10966.6	79.5
0°-90°	13801.6	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	13801.6	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	5086	5086	5086	5086	5086	
5°	5072	5065	5059	5064	5064	481
15°	4847	4841	4843	4853	4862	1367
25°	4422	4416	4424	4438	4438	2037
35°	3853	3845	3844	3870	3879	2409
45°	3188	3185	3186	3210	3224	2459
55°	2457	2457	2454	2476	2488	2195
65°	1672	1664	1674	1690	1694	1660
75°	887	870	880	876	897	938
85°	203	195	201	204	207	243
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	5085.8	5085.8	5085.8	5085.8	5085.8
2.5°	5091.4	5083.7	5078.1	5080.9	5083.0
5°	5071.8	5064.8	5058.6	5063.5	5063.5
7.5°	5034.8	5031.3	5026.4	5030.6	5032.0
10°	4988.7	4981.0	4977.5	4987.3	4990.8
12.5°	4923.7	4914.7	4917.5	4930.0	4935.6
15°	4846.9	4840.6	4843.4	4853.2	4862.3
17.5°	4759.6	4752.6	4758.9	4767.3	4775.7
20°	4659.0	4652.0	4655.5	4667.4	4676.5
22.5°	4547.3	4540.3	4544.5	4554.9	4564.7
25°	4422.2	4415.9	4423.6	4437.6	4438.3
27.5°	4291.6	4284.6	4286.7	4301.4	4314.7
30°	4151.9	4142.8	4149.1	4163.8	4172.2
32.5°	4005.2	3996.8	4001.7	4018.5	4028.3
35°	3852.9	3844.6	3843.9	3869.7	3878.8
37.5°	3691.6	3686.7	3690.9	3711.8	3723.0
40°	3526.7	3519.8	3524.6	3551.2	3564.5
42.5°	3359.8	3355.6	3356.3	3382.9	3393.3
45°	3188.0	3185.2	3185.9	3210.3	3224.3
47.5°	3010.5	3004.3	3007.1	3032.2	3046.9
50°	2831.0	2829.6	2825.4	2850.6	2863.2
52.5°	2646.6	2643.8	2643.8	2666.2	2684.3
55°	2457.3	2457.3	2453.8	2475.5	2488.1
57.5°	2259.0	2260.4	2265.9	2285.5	2298.1
60°	2071.8	2064.8	2070.4	2087.8	2110.2
62.5°	1885.3	1864.3	1869.9	1886.0	1895.0
65°	1671.5	1663.8	1674.3	1690.4	1693.9
67.5°	1475.2	1467.6	1473.1	1484.3	1499.7
70°	1282.5	1262.2	1272.0	1283.8	1298.5
72.5°	1079.9	1062.4	1076.4	1086.2	1096.7
75°	887.1	870.3	880.1	875.9	896.9
77.5°	693.6	681.7	690.1	698.5	714.6
80°	514.8	501.5	508.5	512.0	519.0
82.5°	350.6	340.9	343.0	356.9	352.7
85°	203.3	194.9	201.2	204.0	206.8
87.5°	80.3	72.6	78.9	81.0	81.7
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)