

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: P708931

Luminaire Tested: **24APR-X-160L835-UNV**

Issue Date: 09/12/2023



Test Information

Test Method: LM-79-08
Report Number: P708931
Test Lab: INNOVATION CENTER(G2)
Issue Date: 09/12/2023
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: FAIL-SAFE
Catalog Number: 24APR-X-160L835-UNV
Description: ArcMed Patient Recessed 2x4 Fixture EXAM Light
Light Source: 3500K CCT, 80 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

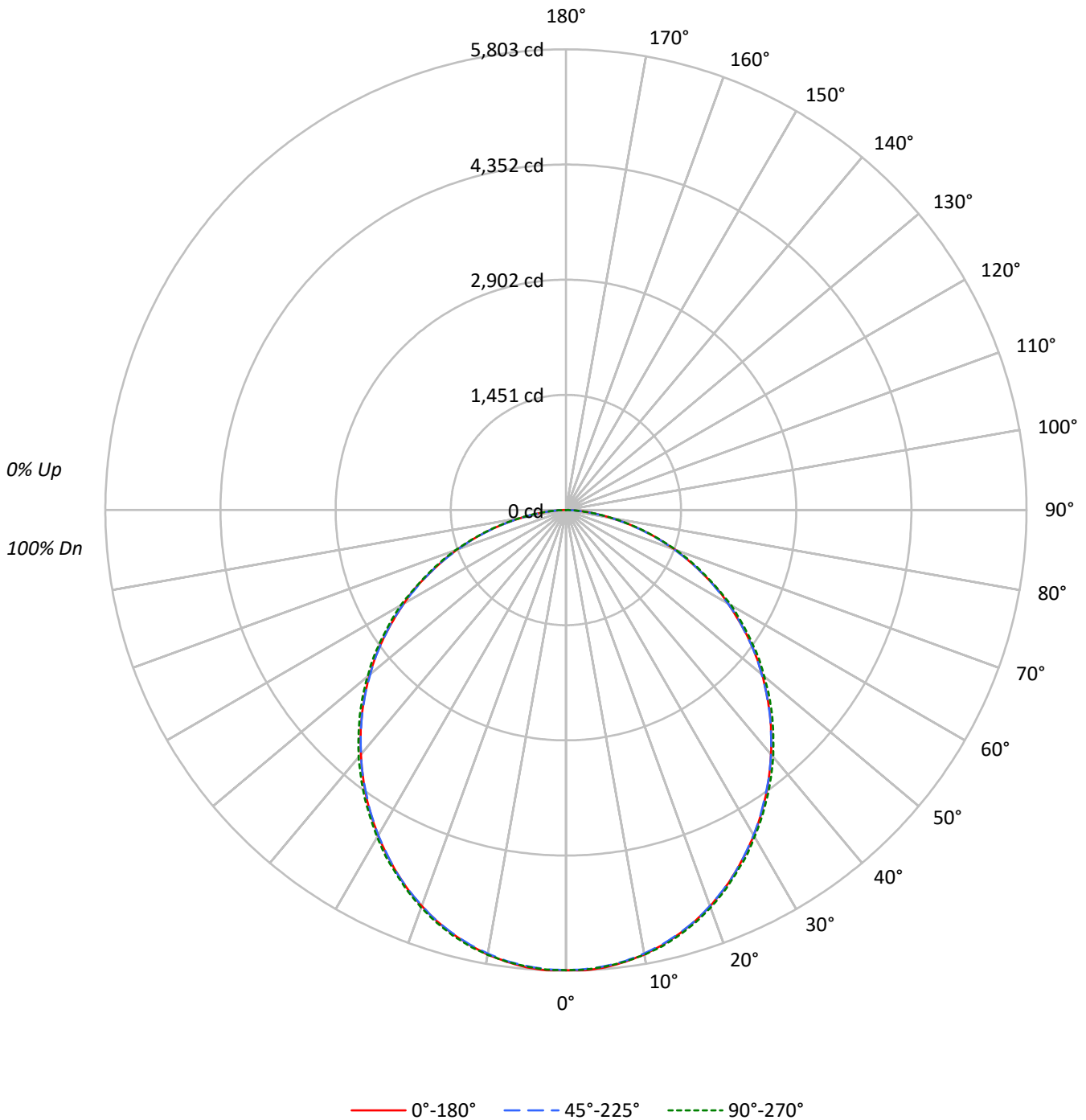
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 15730.7 lumens
Efficiency: N/A
Efficacy: 129.8 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): 121.2
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°	7799	7799	7799
5°	7808	7787	7795
10°	7768	7751	7772
15°	7695	7690	7720
20°	7603	7598	7632
25°	7483	7485	7510
30°	7352	7347	7388
35°	7213	7196	7262
40°	7060	7056	7136
45°	6914	6909	6993
50°	6754	6741	6831
55°	6570	6561	6652
60°	6354	6350	6472
65°	6065	6075	6146
70°	5750	5703	5822
75°	5256	5215	5314
80°	4547	4491	4583
85°	3577	3540	3639



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	548.0	3.5
10°-20°	1558.0	9.9
20°-30°	2323.6	14.8
30°-40°	2749.5	17.5
40°-50°	2809.5	17.9
50°-60°	2510.8	16.0
60°-70°	1892.5	12.0
70°-80°	1065.2	6.8
80°-90°	273.6	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°	4429.6	28.2
0°-40°	7179.1	45.6
0°-60°	12499.4	79.5
0°-90°	15730.7	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	15730.7	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	5797	5797	5797	5797	5797	
5°	5781	5773	5766	5771	5771	549
15°	5524	5517	5520	5532	5542	1558
25°	5040	5033	5042	5058	5059	2322
35°	4392	4382	4381	4411	4421	2746
45°	3634	3630	3631	3659	3675	2802
55°	2801	2801	2797	2822	2836	2501
65°	1905	1896	1908	1927	1931	1892
75°	1011	992	1003	998	1022	1070
85°	232	222	229	232	236	276
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	5796.7	5796.7	5796.7	5796.7	5796.7
2.5°	5803.0	5794.3	5787.9	5791.1	5793.5
5°	5780.7	5772.8	5765.6	5771.2	5771.2
7.5°	5738.5	5734.6	5729.0	5733.8	5735.3
10°	5686.0	5677.2	5673.2	5684.4	5688.4
12.5°	5611.9	5601.6	5604.8	5619.1	5625.5
15°	5524.4	5517.2	5520.4	5531.5	5541.9
17.5°	5424.9	5416.9	5424.1	5433.6	5443.2
20°	5310.2	5302.3	5306.2	5319.8	5330.1
22.5°	5182.8	5174.9	5179.6	5191.6	5202.7
25°	5040.3	5033.2	5041.9	5057.8	5058.6
27.5°	4891.4	4883.5	4885.9	4902.6	4917.7
30°	4732.2	4721.9	4729.0	4745.8	4755.3
32.5°	4565.0	4555.5	4561.1	4580.2	4591.3
35°	4391.5	4381.9	4381.1	4410.6	4420.9
37.5°	4207.6	4202.0	4206.8	4230.7	4243.4
40°	4019.7	4011.7	4017.3	4047.5	4062.7
42.5°	3829.4	3824.6	3825.4	3855.7	3867.6
45°	3633.6	3630.4	3631.2	3659.0	3675.0
47.5°	3431.3	3424.2	3427.4	3456.0	3472.7
50°	3226.7	3225.1	3220.4	3249.0	3263.4
52.5°	3016.6	3013.4	3013.4	3038.8	3059.5
55°	2800.8	2800.8	2796.8	2821.5	2835.8
57.5°	2574.7	2576.3	2582.7	2604.9	2619.3
60°	2361.3	2353.4	2359.7	2379.6	2405.1
62.5°	2148.8	2124.9	2131.3	2149.6	2159.9
65°	1905.1	1896.4	1908.3	1926.6	1930.6
67.5°	1681.4	1672.7	1679.0	1691.8	1709.3
70°	1461.7	1438.6	1449.8	1463.3	1480.0
72.5°	1230.8	1210.9	1226.8	1238.0	1249.9
75°	1011.1	992.0	1003.1	998.4	1022.2
77.5°	790.6	777.0	786.6	796.1	814.4
80°	586.8	571.6	579.6	583.6	591.5
82.5°	399.7	388.5	390.9	406.8	402.0
85°	231.7	222.1	229.3	232.5	235.7
87.5°	91.6	82.8	90.0	92.4	93.1
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)