

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: P709011

Luminaire Tested: **24APR-67-160L835-UNV**

Issue Date: 09/12/2023



Test Information

Test Method: LM-79-08
Report Number: P709011
Test Lab: INNOVATION CENTER(G2)
Issue Date: 09/12/2023
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: FAIL-SAFE
Catalog Number: 24APR-67-160L835-UNV
Description: ArcMed Patient Recessed 2x4 Fixture Ambient and Exam Light
Light Source: 3500K CCT, 80 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

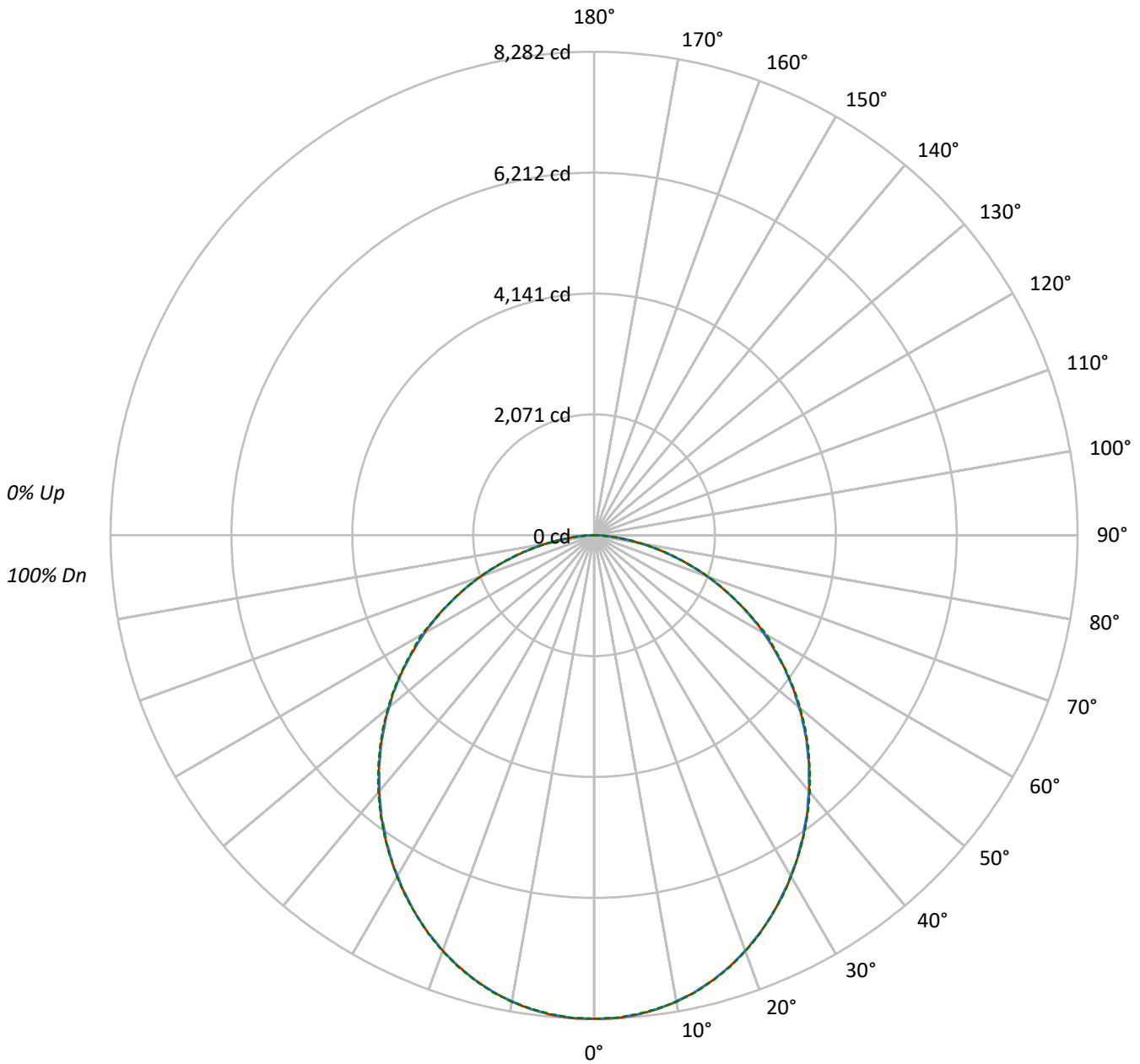
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 22351.3 lumens
Efficiency: N/A
Efficacy: 123.1 lumens/watt
Spacing Criteria (0/90/45): 1.21 / 1.21 / 1.33
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 181.5
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



0% Up
100% Dn

— 0°-180° - - 45°-225° - · - · 90°-270°



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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	92	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	73	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	51
5	76	63	54	48	74	62	54	47	60	53	47	58	52	46	56	51	46	46	46	46	44
6	70	57	48	42	68	56	48	42	54	47	41	53	46	41	51	45	40	40	40	40	38
7	65	52	43	37	64	51	43	37	49	42	36	48	41	36	47	41	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	40	34	29	29	29	29	27
10	53	40	32	27	52	40	32	27	39	32	27	38	31	27	37	31	26	26	26	26	25

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	11144	11144	11144
5°	11145	11134	11127
10°	11087	11077	11085
15°	10982	10982	10994
20°	10846	10840	10856
25°	10677	10672	10672
30°	10484	10468	10485
35°	10279	10251	10292
40°	10061	10041	10095
45°	9846	9826	9879
50°	9611	9586	9647
55°	9349	9325	9380
60°	9040	9018	9177
65°	8628	8631	8654
70°	8155	8111	8165
75°	7439	7381	7431
80°	6423	6342	6385
85°	5011	4962	4949



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	782.8	3.5
10°-20°	2223.1	9.9
20°-30°	3310.8	14.8
30°-40°	3911.5	17.5
40°-50°	3990.4	17.9
50°-60°	3560.5	15.9
60°-70°	2684.3	12.0
70°-80°	1505.0	6.7
80°-90°	383.0	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°	6316.7	28.3
0°-40°	10228.2	45.8
0°-60°	17779.0	79.5
0°-90°	22351.3	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	22351.3	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	8282	8282	8282	8282	8282	
5°	8251	8247	8243	8245	8239	783
15°	7884	7879	7884	7890	7893	2223
25°	7192	7183	7189	7195	7189	3312
35°	6258	6249	6241	6260	6266	3914
45°	5174	5171	5164	5179	5192	3991
55°	3985	3976	3975	3987	3999	3560
65°	2710	2697	2711	2719	2718	2689
75°	1431	1406	1420	1412	1430	1515
85°	325	313	321	321	321	388
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	8282.4	8282.4	8282.4	8282.4	8282.4
2.5°	8282.4	8278.4	8275.3	8274.5	8276.1
5°	8251.4	8247.4	8243.4	8245.0	8238.7
7.5°	8191.7	8192.5	8189.4	8190.1	8183.0
10°	8114.6	8110.6	8107.4	8114.6	8113.8
12.5°	8010.4	8003.2	8006.4	8017.5	8018.3
15°	7883.9	7879.1	7883.9	7889.5	7892.6
17.5°	7739.9	7735.9	7741.5	7742.3	7748.7
20°	7575.2	7570.5	7570.5	7578.4	7581.6
22.5°	7393.1	7385.9	7387.5	7393.1	7397.1
25°	7191.8	7183.1	7188.7	7195.0	7188.7
27.5°	6974.7	6969.9	6964.3	6972.3	6982.6
30°	6748.0	6738.4	6737.6	6743.2	6748.8
32.5°	6508.5	6497.4	6497.4	6504.5	6509.3
35°	6258.0	6249.2	6241.2	6259.5	6265.9
37.5°	5999.4	5989.1	5988.3	5999.4	6009.8
40°	5728.2	5719.4	5717.0	5736.1	5747.3
42.5°	5454.5	5449.0	5443.4	5462.5	5471.2
45°	5174.5	5171.3	5164.2	5179.3	5192.0
47.5°	4886.6	4876.2	4873.8	4891.3	4904.1
50°	4591.4	4587.5	4579.5	4595.4	4608.9
52.5°	4292.3	4287.6	4282.0	4296.3	4310.6
55°	3985.3	3976.5	3975.0	3986.9	3998.8
57.5°	3665.5	3658.4	3669.5	3680.6	3690.2
60°	3359.3	3342.6	3351.3	3364.0	3410.2
62.5°	3051.4	3022.0	3028.3	3063.3	3043.5
65°	2710.2	2696.6	2711.0	2718.9	2718.1
67.5°	2390.4	2374.5	2396.0	2389.6	2399.1
70°	2073.0	2045.2	2061.9	2064.2	2075.4
72.5°	1745.3	1721.4	1735.7	1742.9	1750.0
75°	1431.0	1406.4	1419.9	1412.0	1429.5
77.5°	1118.4	1103.3	1112.1	1117.6	1131.2
80°	828.9	812.2	818.5	819.3	824.1
82.5°	561.6	548.9	550.5	564.8	559.2
85°	324.6	312.6	321.4	320.6	320.6
87.5°	126.5	116.9	125.7	124.9	123.3
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)