

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: P708867

Luminaire Tested: **22APR-38-89L850-UNV**

Issue Date: 09/12/2023



Test Information

Test Method: LM-79-08
Report Number: P708867
Test Lab: INNOVATION CENTER(G2)
Issue Date: 09/12/2023
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: FAIL-SAFE
Catalog Number: 22APR-38-89L850-UNV
Description: ArcMed Patient Recessed 2x2 Fixture Ambient and Exam Light
Light Source: 5000K CCT, 80 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

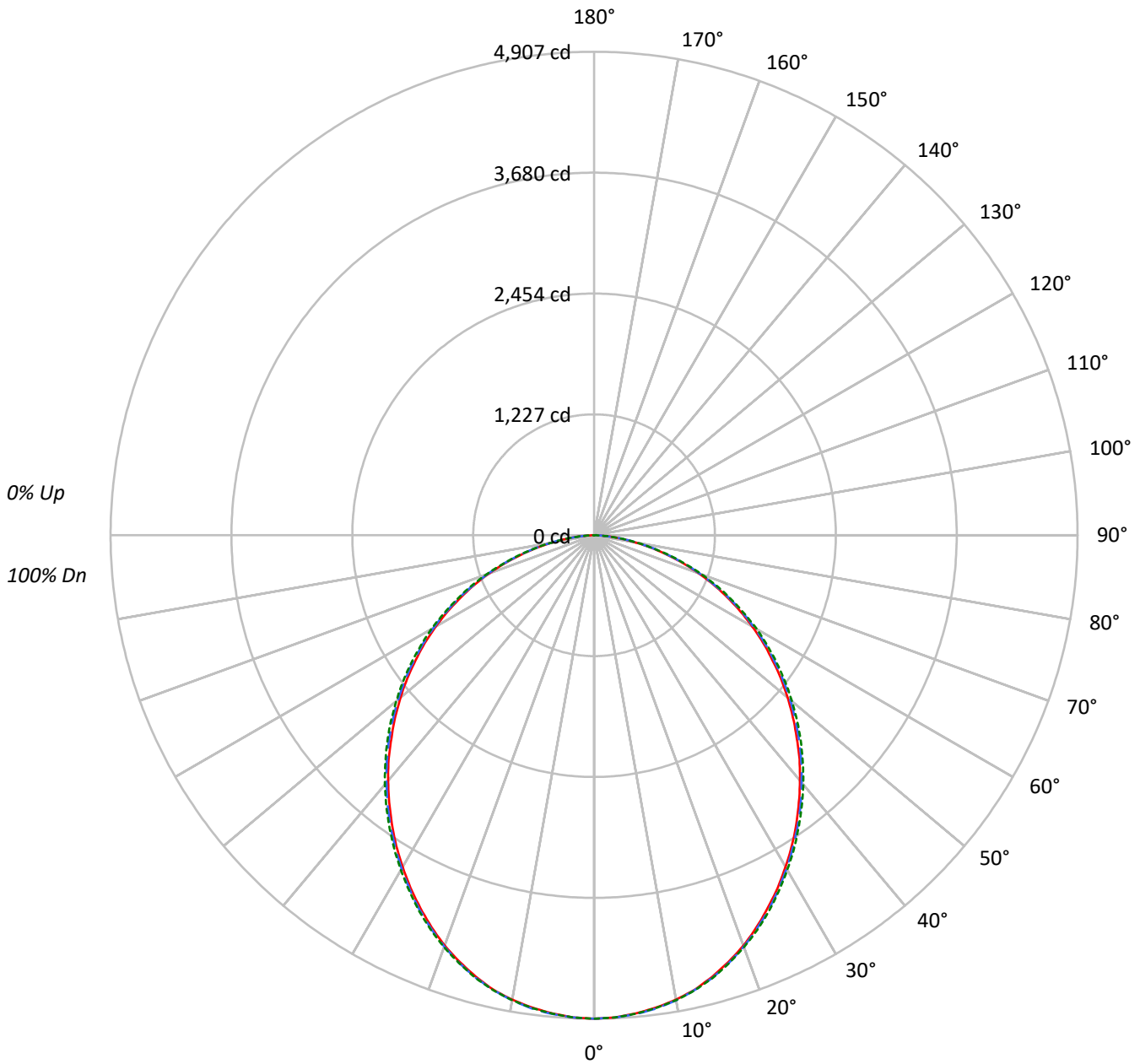
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 12762.3 lumens
Efficiency: N/A
Efficacy: 109.4 lumens/watt
Spacing Criteria (0/90/45): 1.18 / 1.19 / 1.31
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

Input Watts (W): 116.7
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°-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	95	98	95	92	94	91	89	90	88	86	86	86	86	84
2	99	91	84	79	97	89	83	78	86	81	76	82	78	74	79	76	73	73	73	73	71
3	91	80	72	66	88	79	71	65	76	69	64	73	67	63	70	66	62	62	62	62	60
4	83	71	63	56	81	70	62	56	67	60	55	65	59	54	63	58	53	53	53	53	51
5	76	64	55	48	74	63	54	48	61	53	47	59	52	47	57	51	46	46	46	46	44
6	71	57	49	42	69	57	48	42	55	47	42	53	46	41	51	46	41	41	41	41	39
7	66	52	44	37	64	51	43	37	50	42	37	48	42	37	47	41	36	36	36	36	34
8	61	48	39	33	60	47	39	33	46	38	33	44	38	33	43	37	33	33	33	33	31
9	57	44	36	30	56	43	35	30	42	35	30	41	34	30	40	34	30	30	30	30	28
10	54	41	33	27	52	40	32	27	39	32	27	38	32	27	37	31	27	27	27	27	25

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	13204	13204	13204
5°	13161	13178	13166
10°	13079	13098	13095
15°	12919	12953	12958
20°	12697	12723	12741
25°	12390	12448	12488
30°	12075	12141	12185
35°	11751	11832	11892
40°	11421	11510	11604
45°	11066	11202	11299
50°	10735	10864	10975
55°	10367	10506	10635
60°	9989	10121	10264
65°	9495	9651	9762
70°	8886	9006	9135
75°	7991	8140	8246
80°	6747	6921	6984
85°	5048	5270	5240



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	462.9	3.6
10°-20°	1309.4	10.3
20°-30°	1930.0	15.1
30°-40°	2252.4	17.6
40°-50°	2270.0	17.8
50°-60°	2003.4	15.7
60°-70°	1498.3	11.7
70°-80°	830.3	6.5
80°-90°	205.4	1.6
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°	3702.3	29.0
0°-40°	5954.7	46.7
0°-60°	10228.2	80.1
0°-90°	12762.3	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	12762.3	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	4907	4907	4907	4907	4907	
5°	4872	4878	4878	4879	4874	462
15°	4637	4645	4649	4653	4651	1307
25°	4173	4182	4192	4201	4206	1922
35°	3577	3585	3602	3616	3620	2238
45°	2908	2926	2944	2964	2969	2246
55°	2210	2223	2239	2260	2267	1978
65°	1491	1498	1516	1528	1533	1477
75°	769	773	783	791	793	816
85°	164	169	171	169	170	200
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	4906.9	4906.9	4906.9	4906.9	4906.9
2.5°	4897.7	4902.8	4898.7	4902.8	4898.7
5°	4872.1	4878.3	4878.3	4879.3	4874.2
7.5°	4834.3	4841.5	4844.5	4845.6	4838.4
10°	4786.3	4793.4	4793.4	4797.5	4792.4
12.5°	4725.0	4729.0	4728.0	4734.2	4730.1
15°	4637.1	4645.2	4649.3	4653.4	4651.4
17.5°	4538.9	4549.2	4552.2	4559.4	4554.3
20°	4433.7	4440.8	4442.9	4454.1	4449.0
22.5°	4308.0	4315.1	4322.3	4332.5	4333.5
25°	4173.0	4182.2	4192.5	4200.6	4205.8
27.5°	4034.0	4043.2	4052.4	4062.7	4064.7
30°	3885.9	3897.1	3907.3	3919.6	3921.6
32.5°	3736.6	3740.7	3756.1	3769.3	3775.5
35°	3577.2	3585.4	3601.7	3616.0	3620.1
37.5°	3414.7	3426.9	3444.3	3459.7	3463.7
40°	3251.2	3261.4	3276.7	3297.1	3303.3
42.5°	3085.6	3092.7	3113.2	3130.6	3135.7
45°	2907.7	2926.1	2943.5	2964.0	2969.1
47.5°	2738.1	2752.4	2769.8	2789.2	2797.4
50°	2564.3	2581.7	2595.0	2616.5	2621.6
52.5°	2390.6	2401.8	2420.2	2438.6	2446.8
55°	2209.7	2223.0	2239.3	2259.8	2266.9
57.5°	2035.9	2043.1	2061.5	2078.9	2085.0
60°	1856.1	1863.2	1880.6	1899.0	1907.2
62.5°	1676.2	1682.3	1696.6	1718.1	1718.1
65°	1491.2	1498.3	1515.7	1528.0	1533.1
67.5°	1311.3	1317.4	1329.7	1345.0	1352.2
70°	1129.4	1134.5	1144.7	1160.0	1161.1
72.5°	947.4	952.6	965.8	971.0	978.1
75°	768.6	772.7	782.9	791.1	793.1
77.5°	597.9	604.0	611.2	614.3	617.3
80°	435.4	441.5	446.6	449.7	450.7
82.5°	288.2	294.4	297.4	299.5	298.4
85°	163.5	168.6	170.7	168.6	169.7
87.5°	64.4	67.5	69.5	68.5	66.4
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)