

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: P708863

Luminaire Tested: **22APR-34-80L840-UNV**

Issue Date: 09/12/2023



Test Information

Test Method: LM-79-08
Report Number: P708863
Test Lab: INNOVATION CENTER(G2)
Issue Date: 09/12/2023
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: FAIL-SAFE
Catalog Number: 22APR-34-80L840-UNV
Description: ArcMed Patient Recessed 2x2 Fixture Ambient and Exam Light
Light Source: 4000K CCT, 80 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

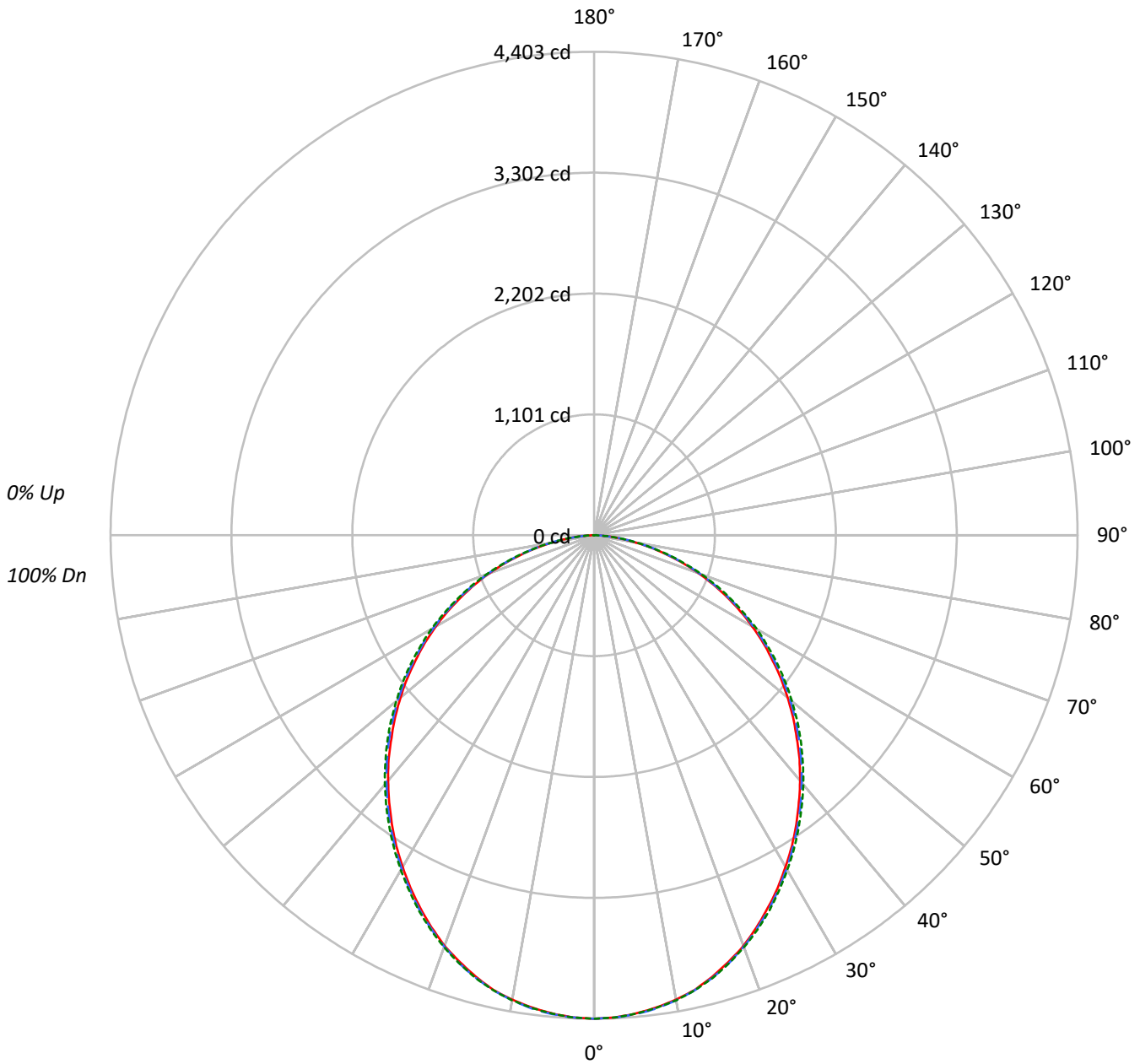
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 11452.8 lumens
Efficiency: N/A
Efficacy: 110.9 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): 103.3
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	100	100	100	100
1	109	104	100	96	106	102	98	95	98	95	92	94	91	89	90	88	86	84	84	84	84
2	99	91	84	79	97	89	83	78	86	81	76	82	78	74	79	76	73	71	71	71	71
3	91	80	72	66	88	79	71	65	76	69	64	73	67	63	70	66	62	60	60	60	60
4	83	71	63	56	81	70	62	56	67	60	55	65	59	54	63	58	53	51	51	51	51
5	76	64	55	48	74	63	54	48	61	53	47	59	52	47	57	51	46	44	44	44	44
6	71	57	49	42	69	57	48	42	55	47	42	53	46	41	51	46	41	39	39	39	39
7	66	52	44	37	64	51	43	37	50	42	37	48	42	37	47	41	36	34	34	34	34
8	61	48	39	33	60	47	39	33	46	38	33	44	38	33	43	37	33	31	31	31	31
9	57	44	36	30	56	43	35	30	42	35	30	41	34	30	40	34	30	28	28	28	28
10	54	41	33	27	52	40	32	27	39	32	27	38	32	27	37	31	27	25	25	25	25

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	11849	11849	11849
5°	11810	11825	11816
10°	11737	11754	11752
15°	11593	11624	11629
20°	11394	11417	11433
25°	11119	11171	11206
30°	10835	10895	10935
35°	10546	10618	10672
40°	10249	10329	10413
45°	9930	10053	10140
50°	9634	9749	9849
55°	9303	9428	9544
60°	8964	9083	9211
65°	8521	8661	8760
70°	7974	8082	8198
75°	7171	7305	7400
80°	6055	6211	6268
85°	4529	4730	4702



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	415.4	3.6
10°-20°	1175.1	10.3
20°-30°	1731.9	15.1
30°-40°	2021.3	17.6
40°-50°	2037.1	17.8
50°-60°	1797.9	15.7
60°-70°	1344.6	11.7
70°-80°	745.1	6.5
80°-90°	184.3	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°	3322.4	29.0
0°-40°	5343.8	46.7
0°-60°	9178.7	80.1
0°-90°	11452.8	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	11452.8	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	4403	4403	4403	4403	4403	
5°	4372	4378	4378	4379	4374	415
15°	4161	4169	4172	4176	4174	1173
25°	3745	3753	3762	3770	3774	1725
35°	3210	3218	3232	3245	3249	2008
45°	2609	2626	2642	2660	2664	2016
55°	1983	1995	2010	2028	2034	1775
65°	1338	1345	1360	1371	1376	1326
75°	690	693	703	710	712	732
85°	147	151	153	151	152	179
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	4403.4	4403.4	4403.4	4403.4	4403.4
2.5°	4395.2	4399.7	4396.1	4399.7	4396.1
5°	4372.2	4377.7	4377.7	4378.7	4374.1
7.5°	4338.3	4344.7	4347.5	4348.4	4342.0
10°	4295.2	4301.6	4301.6	4305.3	4300.7
12.5°	4240.2	4243.8	4242.9	4248.4	4244.7
15°	4161.3	4168.6	4172.3	4176.0	4174.1
17.5°	4073.2	4082.4	4085.2	4091.6	4087.0
20°	3978.8	3985.2	3987.0	3997.1	3992.5
22.5°	3865.9	3872.4	3878.8	3888.0	3888.9
25°	3744.9	3753.1	3762.3	3769.6	3774.2
27.5°	3620.1	3628.4	3636.6	3645.8	3647.7
30°	3487.1	3497.2	3506.4	3517.4	3519.2
32.5°	3353.2	3356.9	3370.7	3382.6	3388.1
35°	3210.2	3217.5	3232.2	3245.0	3248.7
37.5°	3064.3	3075.3	3090.9	3104.7	3108.3
40°	2917.6	2926.7	2940.5	2958.8	2964.3
42.5°	2769.0	2775.4	2793.8	2809.3	2813.9
45°	2609.4	2625.9	2641.5	2659.8	2664.4
47.5°	2457.1	2470.0	2485.6	2503.0	2510.3
50°	2301.2	2316.8	2328.7	2348.0	2352.6
52.5°	2145.3	2155.4	2171.9	2188.4	2195.7
55°	1983.0	1994.9	2009.6	2027.9	2034.3
57.5°	1827.0	1833.5	1850.0	1865.6	1871.1
60°	1665.6	1672.0	1687.6	1704.1	1711.5
62.5°	1504.2	1509.7	1522.5	1541.8	1541.8
65°	1338.2	1344.6	1360.2	1371.2	1375.8
67.5°	1176.8	1182.3	1193.3	1207.0	1213.4
70°	1013.5	1018.1	1027.2	1041.0	1041.9
72.5°	850.2	854.8	866.7	871.3	877.7
75°	689.7	693.4	702.6	709.9	711.7
77.5°	536.6	542.1	548.5	551.2	554.0
80°	390.7	396.2	400.8	403.6	404.5
82.5°	258.6	264.1	266.9	268.7	267.8
85°	146.7	151.3	153.2	151.3	152.3
87.5°	57.8	60.5	62.4	61.5	59.6
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)