

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: P708854

Luminaire Tested: **22APR-30-71L830-UNV**

Issue Date: 09/12/2023



Test Information

Test Method: LM-79-08
Report Number: P708854
Test Lab: INNOVATION CENTER(G2)
Issue Date: 09/12/2023
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: FAIL-SAFE
Catalog Number: 22APR-30-71L830-UNV
Description: ArcMed Patient Recessed 2x2 Fixture Ambient and Exam Light
Light Source: 3000K CCT, 80 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

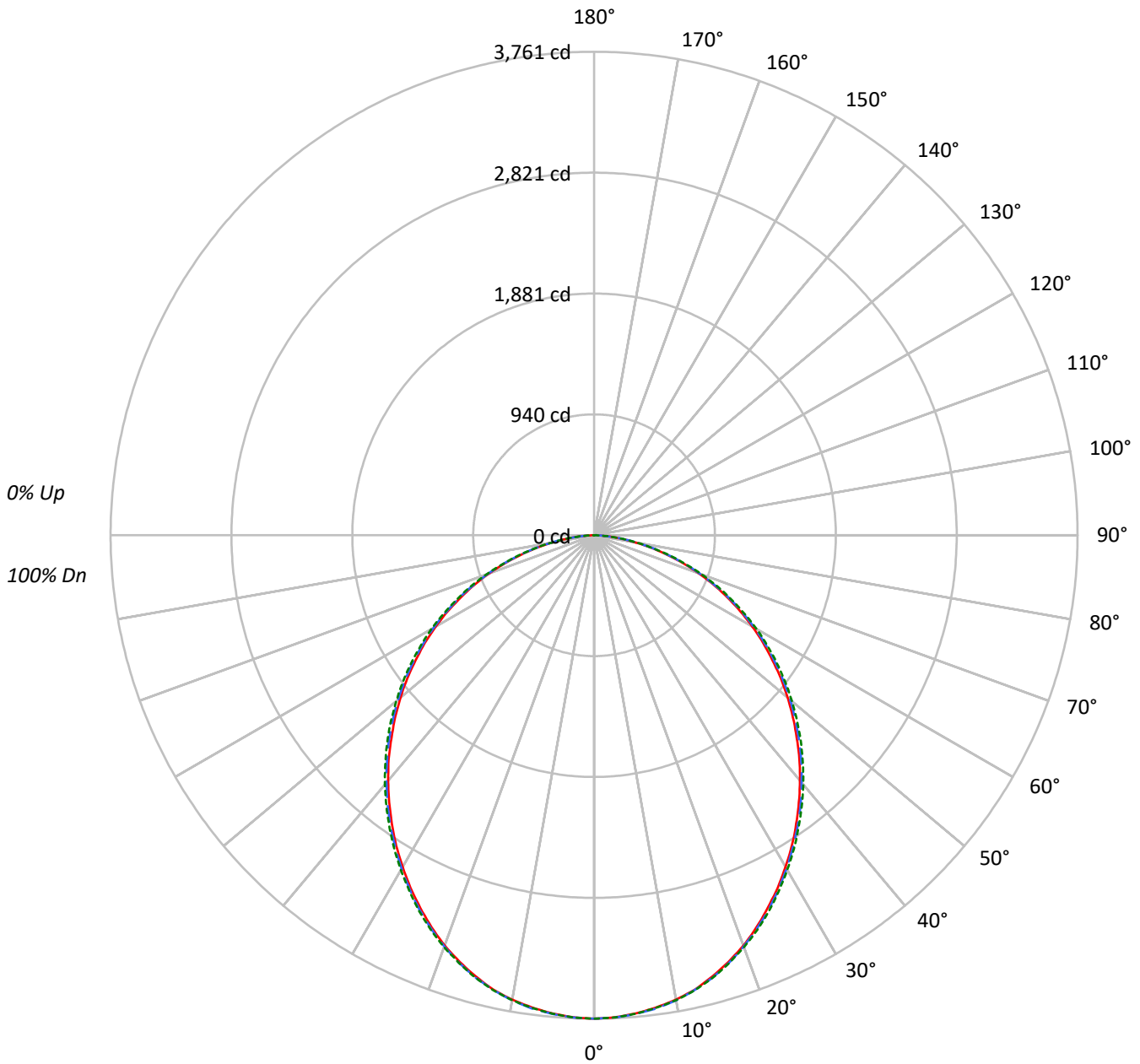
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 9780.9 lumens
Efficiency: N/A
Efficacy: 108.6 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): 90.1
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



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



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COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:

RF	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°	10120	10120	10120
5°	10086	10099	10091
10°	10023	10038	10036
15°	9901	9927	9931
20°	9731	9751	9764
25°	9496	9540	9571
30°	9254	9305	9339
35°	9006	9068	9114
40°	8753	8822	8893
45°	8481	8585	8660
50°	8228	8326	8411
55°	7945	8052	8151
60°	7656	7757	7866
65°	7277	7396	7481
70°	6810	6903	7001
75°	6124	6238	6319
80°	5171	5305	5353
85°	3869	4039	4014



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	354.8	3.6
10°-20°	1003.5	10.3
20°-30°	1479.1	15.1
30°-40°	1726.2	17.6
40°-50°	1739.7	17.8
50°-60°	1535.4	15.7
60°-70°	1148.3	11.7
70°-80°	636.4	6.5
80°-90°	157.4	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°	2837.4	29.0
0°-40°	4563.7	46.7
0°-60°	7838.9	80.1
0°-90°	9780.9	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	9780.9	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	3761	3761	3761	3761	3761	
5°	3734	3739	3739	3740	3736	354
15°	3554	3560	3563	3566	3565	1001
25°	3198	3205	3213	3219	3223	1473
35°	2742	2748	2760	2771	2774	1715
45°	2228	2243	2256	2272	2276	1721
55°	1694	1704	1716	1732	1737	1516
65°	1143	1148	1162	1171	1175	1132
75°	589	592	600	606	608	626
85°	125	129	131	129	130	153
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	3760.6	3760.6	3760.6	3760.6	3760.6
2.5°	3753.6	3757.5	3754.4	3757.5	3754.4
5°	3734.0	3738.7	3738.7	3739.5	3735.6
7.5°	3705.0	3710.5	3712.8	3713.6	3708.1
10°	3668.2	3673.7	3673.7	3676.8	3672.9
12.5°	3621.2	3624.3	3623.5	3628.2	3625.1
15°	3553.8	3560.1	3563.2	3566.4	3564.8
17.5°	3478.6	3486.5	3488.8	3494.3	3490.4
20°	3398.0	3403.4	3405.0	3413.6	3409.7
22.5°	3301.6	3307.1	3312.6	3320.4	3321.2
25°	3198.2	3205.3	3213.1	3219.4	3223.3
27.5°	3091.7	3098.7	3105.8	3113.6	3115.2
30°	2978.1	2986.7	2994.6	3004.0	3005.5
32.5°	2863.7	2866.9	2878.6	2888.8	2893.5
35°	2741.5	2747.8	2760.3	2771.3	2774.4
37.5°	2617.0	2626.4	2639.7	2651.5	2654.6
40°	2491.7	2499.5	2511.3	2526.9	2531.6
42.5°	2364.8	2370.3	2385.9	2399.2	2403.2
45°	2228.5	2242.6	2255.9	2271.6	2275.5
47.5°	2098.5	2109.4	2122.7	2137.6	2143.9
50°	1965.3	1978.6	1988.8	2005.2	2009.2
52.5°	1832.1	1840.8	1854.9	1869.0	1875.2
55°	1693.5	1703.7	1716.2	1731.9	1737.4
57.5°	1560.3	1565.8	1579.9	1593.2	1597.9
60°	1422.5	1428.0	1441.3	1455.4	1461.6
62.5°	1284.6	1289.3	1300.3	1316.7	1316.7
65°	1142.8	1148.3	1161.6	1171.0	1174.9
67.5°	1005.0	1009.7	1019.1	1030.8	1036.3
70°	865.5	869.5	877.3	889.0	889.8
72.5°	726.1	730.0	740.2	744.1	749.6
75°	589.0	592.2	600.0	606.3	607.8
77.5°	458.2	462.9	468.4	470.8	473.1
80°	333.7	338.4	342.3	344.7	345.4
82.5°	220.9	225.6	227.9	229.5	228.7
85°	125.3	129.2	130.8	129.2	130.0
87.5°	49.3	51.7	53.3	52.5	50.9
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)