

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: P709004

Luminaire Tested: **24APR-85-200L830-UNV**

Issue Date: 09/12/2023



Test Information

Test Method: LM-79-08
Report Number: P709004
Test Lab: INNOVATION CENTER(G2)
Issue Date: 09/12/2023
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: FAIL-SAFE
Catalog Number: 24APR-85-200L830-UNV
Description: ArcMed Patient Recessed 2x4 Fixture Ambient and Exam Light
Light Source: 3000K CCT, 80 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

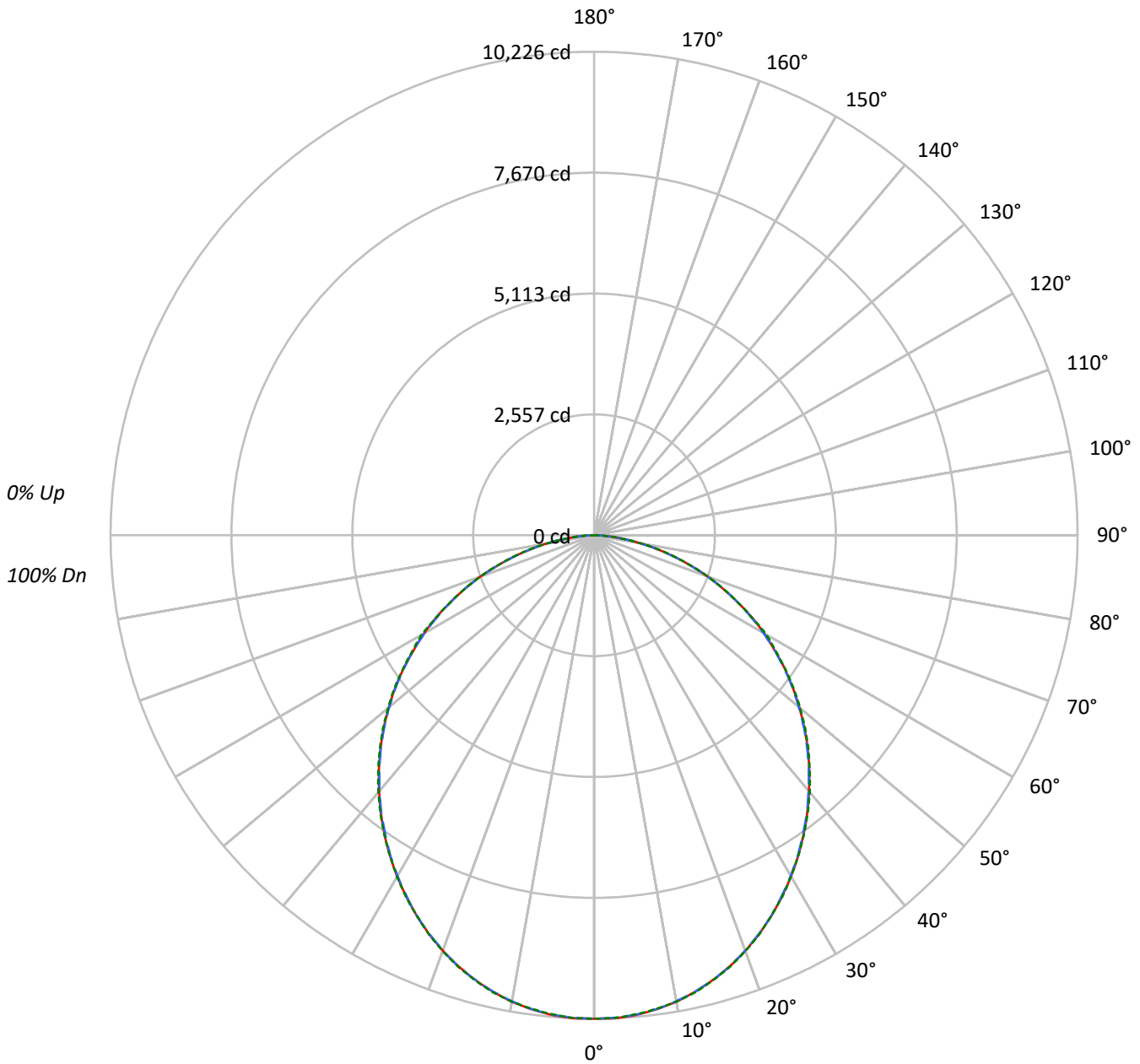
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 27596.4 lumens
Efficiency: N/A
Efficacy: 117.2 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): 235.4
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	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°	13759	13759	13759
5°	13760	13747	13739
10°	13688	13676	13687
15°	13559	13559	13574
20°	13392	13383	13403
25°	13182	13177	13177
30°	12944	12924	12946
35°	12691	12657	12707
40°	12422	12398	12463
45°	12157	12132	12198
50°	11866	11835	11911
55°	11542	11512	11582
60°	11161	11134	11330
65°	10653	10656	10684
70°	10069	10015	10080
75°	9185	9114	9175
80°	7930	7830	7884
85°	6186	6126	6110



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	966.5	3.5
10°-20°	2744.8	9.9
20°-30°	4087.7	14.8
30°-40°	4829.4	17.5
40°-50°	4926.8	17.9
50°-60°	4396.0	15.9
60°-70°	3314.2	12.0
70°-80°	1858.2	6.7
80°-90°	472.8	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°	7799.0	28.3
0°-40°	12628.4	45.8
0°-60°	21951.2	79.5
0°-90°	27596.4	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	27596.4	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	10226	10226	10226	10226	10226	
5°	10188	10183	10178	10180	10172	967
15°	9734	9728	9734	9741	9745	2745
25°	8880	8869	8876	8883	8876	4090
35°	7726	7716	7706	7728	7736	4833
45°	6389	6385	6376	6395	6410	4928
55°	4920	4910	4908	4922	4937	4395
65°	3346	3329	3347	3357	3356	3320
75°	1767	1736	1753	1743	1765	1870
85°	401	386	397	396	396	479
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	10226.0	10226.0	10226.0	10226.0	10226.0
2.5°	10226.0	10221.1	10217.2	10216.2	10218.2
5°	10187.7	10182.8	10177.9	10179.9	10172.0
7.5°	10114.0	10115.0	10111.1	10112.1	10103.2
10°	10018.8	10013.9	10009.9	10018.8	10017.8
12.5°	9890.1	9881.3	9885.2	9899.0	9899.9
15°	9734.0	9728.1	9734.0	9740.8	9744.8
17.5°	9556.2	9551.3	9558.2	9559.1	9567.0
20°	9352.9	9347.0	9347.0	9356.8	9360.7
22.5°	9128.0	9119.1	9121.1	9128.0	9132.9
25°	8879.5	8868.7	8875.6	8883.4	8875.6
27.5°	8611.4	8605.5	8598.6	8608.4	8621.2
30°	8331.5	8319.7	8318.7	8325.6	8332.5
32.5°	8035.8	8022.1	8022.1	8030.9	8036.8
35°	7726.5	7715.7	7705.8	7728.4	7736.3
37.5°	7407.3	7394.5	7393.5	7407.3	7420.0
40°	7072.4	7061.6	7058.6	7082.2	7095.9
42.5°	6734.5	6727.6	6720.8	6744.3	6755.1
45°	6388.8	6384.9	6376.0	6394.7	6410.4
47.5°	6033.3	6020.5	6017.6	6039.2	6054.9
50°	5668.9	5664.0	5654.2	5673.8	5690.5
52.5°	5299.6	5293.7	5286.8	5304.5	5322.2
55°	4920.5	4909.7	4907.7	4922.5	4937.2
57.5°	4525.7	4516.8	4530.6	4544.3	4556.1
60°	4147.6	4126.9	4137.7	4153.5	4210.4
62.5°	3767.5	3731.1	3739.0	3782.2	3757.7
65°	3346.1	3329.4	3347.1	3356.9	3356.0
67.5°	2951.3	2931.7	2958.2	2950.3	2962.1
70°	2559.4	2525.1	2545.7	2548.6	2562.4
72.5°	2154.8	2125.3	2143.0	2151.9	2160.7
75°	1766.9	1736.4	1753.1	1743.3	1764.9
77.5°	1380.9	1362.2	1373.0	1379.9	1396.6
80°	1023.4	1002.8	1010.6	1011.6	1017.5
82.5°	693.4	677.7	679.6	697.3	690.4
85°	400.7	386.0	396.8	395.8	395.8
87.5°	156.2	144.4	155.2	154.2	152.2
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)