

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: P709005

Luminaire Tested: **24APR-76-181L830-UNV**

Issue Date: 09/12/2023



Test Information

Test Method: LM-79-08
Report Number: P709005
Test Lab: INNOVATION CENTER(G2)
Issue Date: 09/12/2023
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: FAIL-SAFE
Catalog Number: 24APR-76-181L830-UNV
Description: ArcMed Patient Recessed 2x4 Fixture Ambient and Exam Light
Light Source: 3000K CCT, 80 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

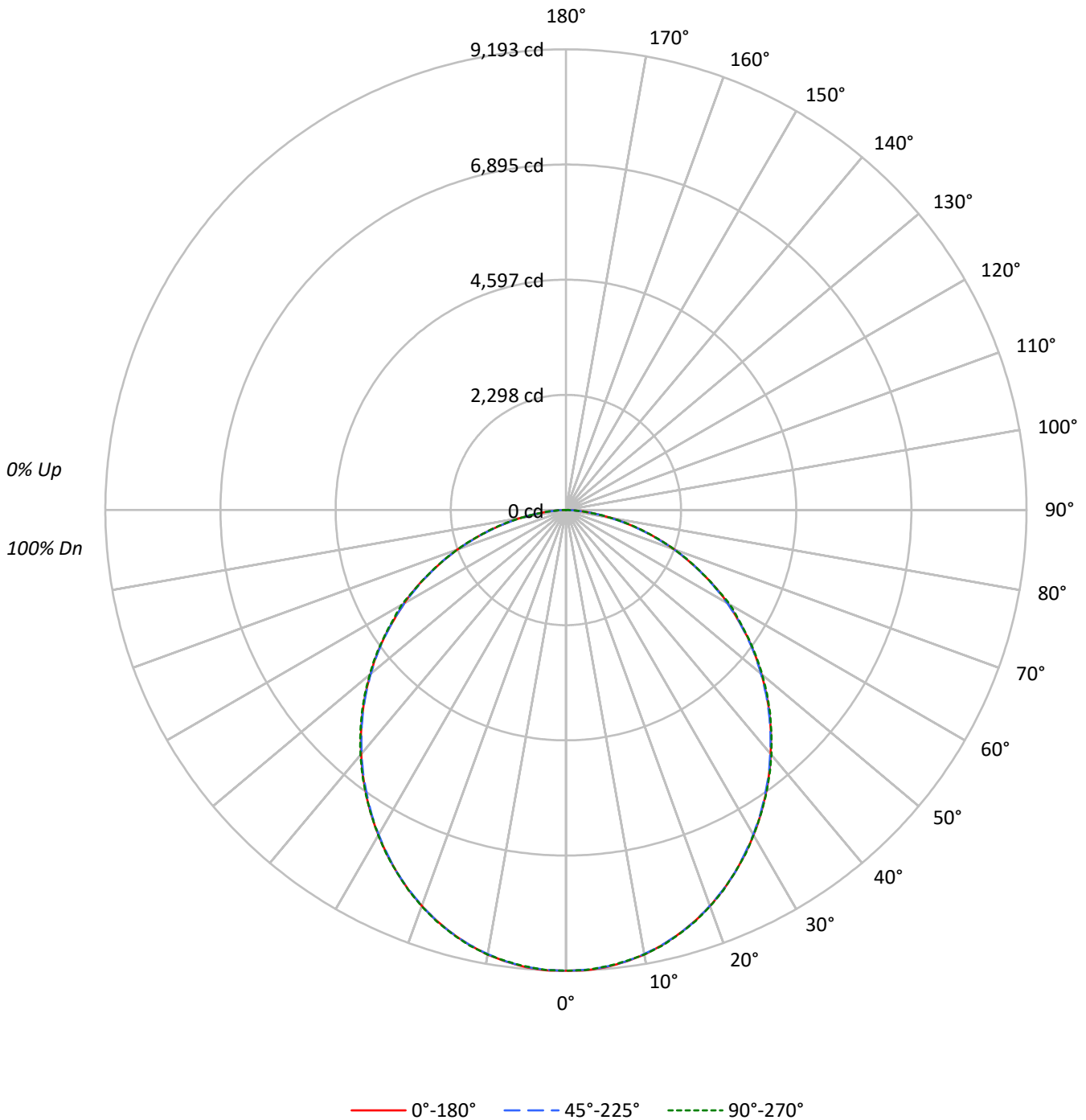
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 24808.6 lumens
Efficiency: N/A
Efficacy: 119.0 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): 208.5
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

TEST NUMBER: P709005
CATALOG NUMBER: 24APR-76-181L830-UNV

Luminous Intensity Polar Plot





TEST NUMBER: P709005
 CATALOG NUMBER: 24APR-76-181L830-UNV

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°	12369	12369	12369
5°	12370	12358	12351
10°	12305	12294	12304
15°	12189	12189	12203
20°	12039	12031	12049
25°	11851	11845	11845
30°	11636	11619	11638
35°	11409	11379	11424
40°	11167	11145	11204
45°	10929	10907	10966
50°	10667	10640	10708
55°	10376	10350	10412
60°	10034	10010	10186
65°	9577	9580	9605
70°	9052	9003	9062
75°	8257	8193	8248
80°	7128	7039	7087
85°	5561	5507	5493



TEST NUMBER: P709005
 CATALOG NUMBER: 24APR-76-181L830-UNV

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	868.8	3.5
10°-20°	2467.5	9.9
20°-30°	3674.8	14.8
30°-40°	4341.5	17.5
40°-50°	4429.0	17.9
50°-60°	3951.9	15.9
60°-70°	2979.4	12.0
70°-80°	1670.5	6.7
80°-90°	425.1	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°	7011.1	28.3
0°-40°	11352.6	45.8
0°-60°	19733.6	79.5
0°-90°	24808.6	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	24808.6	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	9193	9193	9193	9193	9193	
5°	9158	9154	9150	9152	9144	869
15°	8751	8745	8751	8757	8760	2467
25°	7982	7973	7979	7986	7979	3676
35°	6946	6936	6927	6948	6955	4345
45°	5743	5740	5732	5749	5763	4430
55°	4423	4414	4412	4425	4438	3951
65°	3008	2993	3009	3018	3017	2984
75°	1588	1561	1576	1567	1587	1681
85°	360	347	357	356	356	431
90°	0	0	0	0	0	



TEST NUMBER: P709005

CATALOG NUMBER: 24APR-76-181L830-UNV

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	9193.0	9193.0	9193.0	9193.0	9193.0
2.5°	9193.0	9188.6	9185.0	9184.1	9185.9
5°	9158.5	9154.1	9149.7	9151.5	9144.4
7.5°	9092.3	9093.2	9089.7	9090.6	9082.6
10°	9006.7	9002.3	8998.7	9006.7	9005.8
12.5°	8891.0	8883.1	8886.6	8899.0	8899.8
15°	8750.6	8745.3	8750.6	8756.8	8760.3
17.5°	8590.8	8586.4	8592.6	8593.5	8600.5
20°	8408.1	8402.8	8402.8	8411.6	8415.1
22.5°	8205.9	8197.9	8199.7	8205.9	8210.3
25°	7982.5	7972.8	7979.0	7986.0	7979.0
27.5°	7741.4	7736.2	7730.0	7738.8	7750.3
30°	7489.8	7479.2	7478.3	7484.5	7490.7
32.5°	7224.1	7211.7	7211.7	7219.6	7224.9
35°	6945.9	6936.2	6927.4	6947.7	6954.8
37.5°	6659.0	6647.5	6646.6	6659.0	6670.5
40°	6357.9	6348.2	6345.6	6366.7	6379.1
42.5°	6054.2	6048.0	6041.8	6063.0	6072.7
45°	5743.4	5739.9	5731.9	5748.7	5762.8
47.5°	5423.8	5412.3	5409.7	5429.1	5443.2
50°	5096.2	5091.8	5083.0	5100.6	5115.6
52.5°	4764.2	4758.9	4752.8	4768.7	4784.5
55°	4423.4	4413.7	4412.0	4425.2	4438.4
57.5°	4068.5	4060.6	4072.9	4085.3	4095.9
60°	3728.6	3710.0	3719.7	3733.9	3785.1
62.5°	3386.9	3354.2	3361.3	3400.1	3378.1
65°	3008.1	2993.1	3009.0	3017.8	3016.9
67.5°	2653.2	2635.5	2659.4	2652.3	2662.9
70°	2300.9	2270.0	2288.5	2291.2	2303.5
72.5°	1937.1	1910.6	1926.5	1934.5	1942.4
75°	1588.4	1561.0	1576.0	1567.2	1586.6
77.5°	1241.4	1224.6	1234.3	1240.5	1255.5
80°	920.0	901.5	908.5	909.4	914.7
82.5°	623.3	609.2	611.0	626.9	620.7
85°	360.2	347.0	356.7	355.8	355.8
87.5°	140.4	129.8	139.5	138.6	136.9
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)