

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: P708889

Luminaire Tested: **22APR-30-71L950-UNV**

Issue Date: 09/12/2023



**Test Information**

Test Method: LM-79-08  
Report Number: P708889  
Test Lab: INNOVATION CENTER(G2)  
Issue Date: 09/12/2023  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: FAIL-SAFE  
Catalog Number: 22APR-30-71L950-UNV  
Description: ArcMed Patient Recessed 2x2 Fixture Ambient and Exam Light  
Light Source: 5000K CCT, 90 CRI LEDS  
Ballast/Driver: ELECTRONIC DRIVER

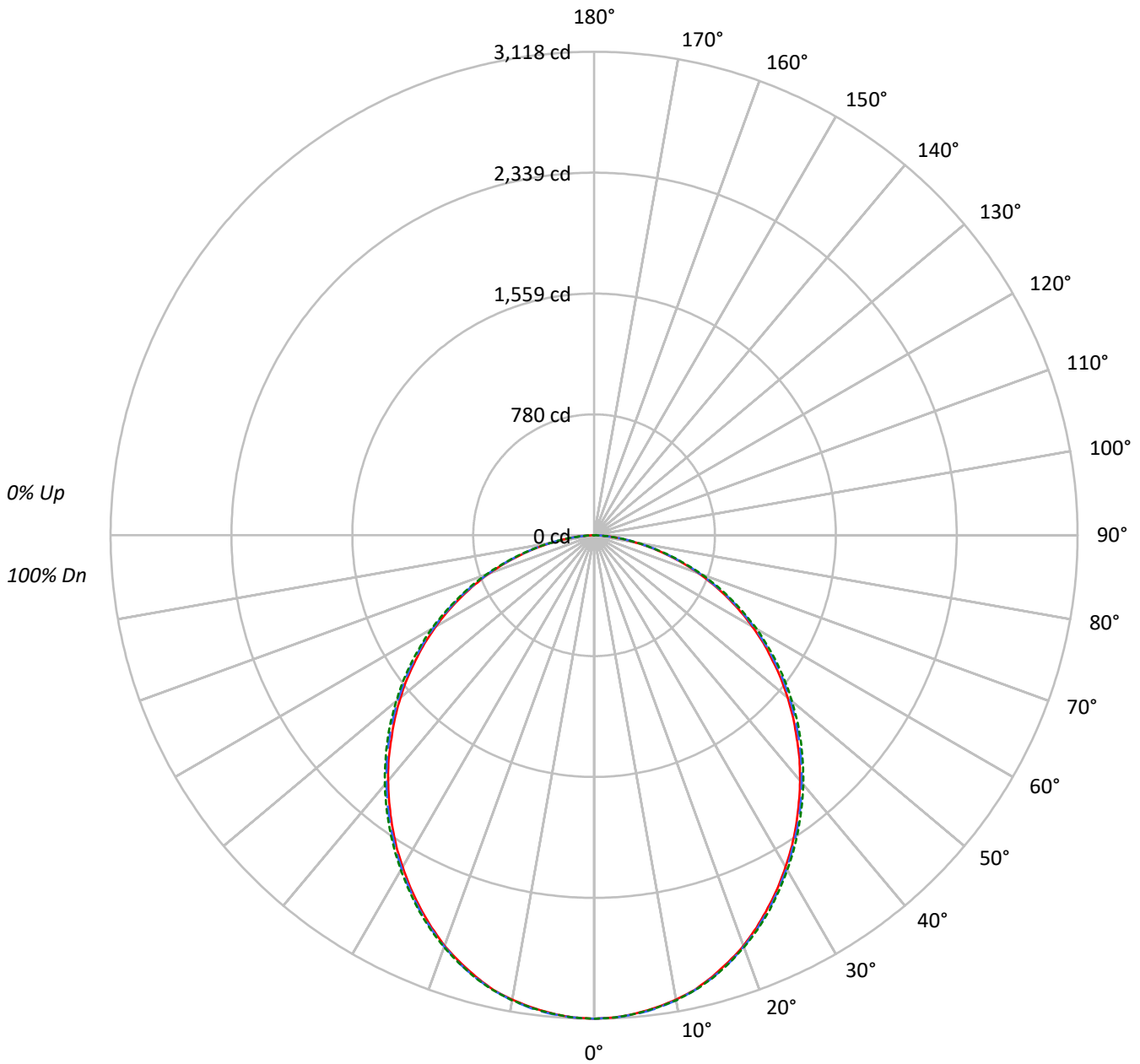
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 8110.6 lumens  
Efficiency: N/A  
Efficacy: 90.0 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°	8392	8392	8392
5°	8364	8374	8367
10°	8311	8324	8322
15°	8210	8232	8235
20°	8069	8086	8097
25°	7874	7911	7936
30°	7673	7716	7744
35°	7468	7519	7558
40°	7258	7315	7374
45°	7032	7119	7181
50°	6823	6904	6975
55°	6588	6677	6759
60°	6348	6432	6523
65°	6034	6134	6204
70°	5647	5724	5806
75°	5078	5173	5240
80°	4288	4398	4438
85°	3208	3350	3328



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	294.2	3.6
10°-20°	832.2	10.3
20°-30°	1226.5	15.1
30°-40°	1431.4	17.6
40°-50°	1442.6	17.8
50°-60°	1273.2	15.7
60°-70°	952.2	11.7
70°-80°	527.7	6.5
80°-90°	130.5	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°	2352.9	29.0
0°-40°	3784.3	46.7
0°-60°	6500.2	80.1
0°-90°	8110.6	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	8110.6	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	3118	3118	3118	3118	3118	
5°	3096	3100	3100	3101	3098	294
15°	2947	2952	2955	2957	2956	830
25°	2652	2658	2664	2670	2673	1222
35°	2273	2278	2289	2298	2301	1422
45°	1848	1860	1871	1884	1887	1427
55°	1404	1413	1423	1436	1441	1257
65°	948	952	963	971	974	939
75°	488	491	498	503	504	519
85°	104	107	108	107	108	127
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	3118.4	3118.4	3118.4	3118.4	3118.4
2.5°	3112.5	3115.8	3113.2	3115.8	3113.2
5°	3096.3	3100.2	3100.2	3100.9	3097.6
7.5°	3072.3	3076.8	3078.8	3079.4	3074.9
10°	3041.7	3046.3	3046.3	3048.9	3045.6
12.5°	3002.8	3005.4	3004.7	3008.6	3006.0
15°	2946.9	2952.1	2954.7	2957.3	2956.0
17.5°	2884.6	2891.1	2893.0	2897.6	2894.3
20°	2817.7	2822.2	2823.5	2830.7	2827.4
22.5°	2737.8	2742.3	2746.9	2753.4	2754.0
25°	2652.0	2657.9	2664.4	2669.6	2672.8
27.5°	2563.7	2569.5	2575.4	2581.9	2583.2
30°	2469.5	2476.7	2483.2	2490.9	2492.2
32.5°	2374.7	2377.3	2387.0	2395.5	2399.4
35°	2273.4	2278.5	2288.9	2298.0	2300.6
37.5°	2170.1	2177.9	2188.9	2198.7	2201.3
40°	2066.2	2072.6	2082.4	2095.4	2099.3
42.5°	1960.9	1965.5	1978.5	1989.5	1992.8
45°	1847.9	1859.6	1870.6	1883.6	1886.9
47.5°	1740.1	1749.2	1760.2	1772.6	1777.8
50°	1629.7	1640.7	1649.2	1662.8	1666.0
52.5°	1519.2	1526.4	1538.1	1549.8	1555.0
55°	1404.3	1412.7	1423.1	1436.1	1440.7
57.5°	1293.9	1298.4	1310.1	1321.1	1325.0
60°	1179.5	1184.1	1195.1	1206.8	1212.0
62.5°	1065.2	1069.1	1078.2	1091.9	1091.9
65°	947.7	952.2	963.3	971.0	974.3
67.5°	833.3	837.2	845.0	854.8	859.3
70°	717.7	721.0	727.5	737.2	737.9
72.5°	602.1	605.4	613.8	617.1	621.6
75°	488.4	491.0	497.5	502.7	504.0
77.5°	380.0	383.9	388.4	390.4	392.3
80°	276.7	280.6	283.8	285.8	286.4
82.5°	183.2	187.1	189.0	190.3	189.7
85°	103.9	107.2	108.5	107.2	107.8
87.5°	40.9	42.9	44.2	43.5	42.2
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)