

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: P708884

Luminaire Tested: **22APR-30-71L940-UNV**

Issue Date: 09/12/2023



Test Information

Test Method: LM-79-08
Report Number: P708884
Test Lab: INNOVATION CENTER(G2)
Issue Date: 09/12/2023
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: FAIL-SAFE
Catalog Number: 22APR-30-71L940-UNV
Description: ArcMed Patient Recessed 2x2 Fixture Ambient and Exam Light
Light Source: 4000K CCT, 90 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

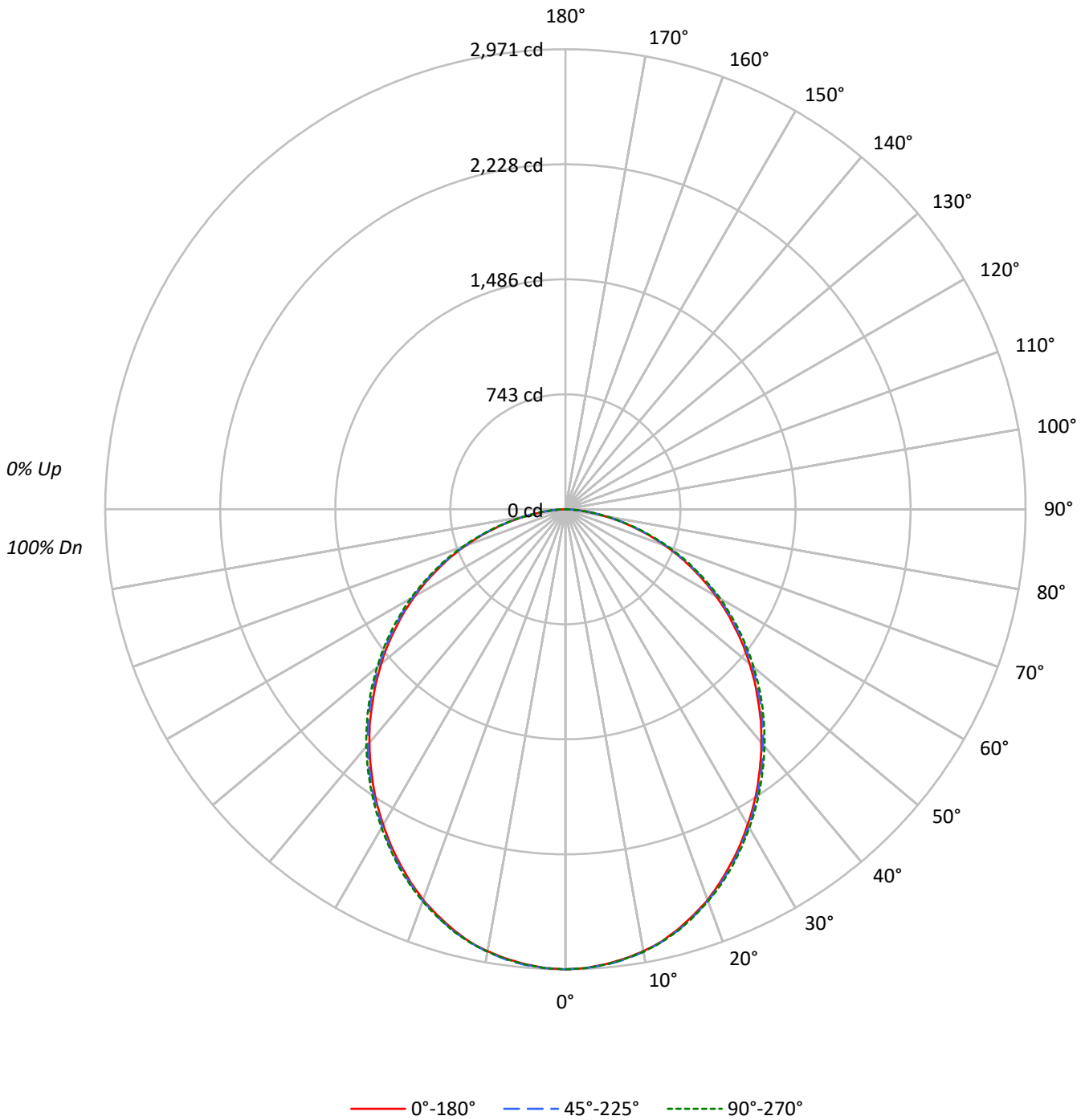
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 7727.4 lumens
Efficiency: N/A
Efficacy: 85.8 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

TEST NUMBER: P708884
CATALOG NUMBER: 22APR-30-71L940-UNV

Luminous Intensity Polar Plot





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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	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°	7995	7995	7995
5°	7969	7979	7972
10°	7919	7931	7929
15°	7822	7843	7846
20°	7688	7704	7714
25°	7502	7537	7561
30°	7311	7352	7378
35°	7115	7164	7201
40°	6915	6969	7026
45°	6700	6783	6842
50°	6500	6578	6645
55°	6277	6361	6440
60°	6048	6128	6215
65°	5749	5844	5911
70°	5380	5453	5531
75°	4839	4928	4993
80°	4085	4190	4229
85°	3057	3189	3171



TEST NUMBER: P708884
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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	280.3	3.6
10°-20°	792.8	10.3
20°-30°	1168.6	15.1
30°-40°	1363.8	17.6
40°-50°	1374.5	17.8
50°-60°	1213.1	15.7
60°-70°	907.2	11.7
70°-80°	502.8	6.5
80°-90°	124.3	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°	2241.7	29.0
0°-40°	3605.6	46.7
0°-60°	6193.1	80.1
0°-90°	7727.4	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	7727.4	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2971	2971	2971	2971	2971	
5°	2950	2954	2954	2954	2951	280
15°	2808	2813	2815	2818	2816	791
25°	2527	2532	2538	2544	2547	1164
35°	2166	2171	2181	2190	2192	1355
45°	1761	1772	1782	1795	1798	1360
55°	1338	1346	1356	1368	1373	1198
65°	903	907	918	925	928	894
75°	465	468	474	479	480	494
85°	99	102	103	102	103	121
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2971.1	2971.1	2971.1	2971.1	2971.1
2.5°	2965.5	2968.6	2966.1	2968.6	2966.1
5°	2950.0	2953.8	2953.8	2954.4	2951.3
7.5°	2927.1	2931.5	2933.3	2934.0	2929.6
10°	2898.1	2902.4	2902.4	2904.9	2901.8
12.5°	2860.9	2863.4	2862.8	2866.5	2864.0
15°	2807.7	2812.7	2815.1	2817.6	2816.4
17.5°	2748.3	2754.5	2756.3	2760.7	2757.6
20°	2684.6	2688.9	2690.1	2696.9	2693.8
22.5°	2608.4	2612.8	2617.1	2623.3	2623.9
25°	2526.8	2532.3	2538.5	2543.5	2546.6
27.5°	2442.6	2448.2	2453.7	2459.9	2461.2
30°	2352.9	2359.7	2365.9	2373.3	2374.5
32.5°	2262.5	2265.0	2274.3	2282.3	2286.0
35°	2166.0	2170.9	2180.8	2189.5	2192.0
37.5°	2067.6	2075.0	2085.5	2094.8	2097.3
40°	1968.6	1974.7	1984.0	1996.4	2000.1
42.5°	1868.3	1872.6	1885.0	1895.5	1898.6
45°	1760.6	1771.8	1782.3	1794.7	1797.8
47.5°	1657.9	1666.6	1677.1	1688.8	1693.8
50°	1552.7	1563.2	1571.3	1584.2	1587.3
52.5°	1447.5	1454.3	1465.4	1476.6	1481.5
55°	1337.9	1346.0	1355.9	1368.3	1372.6
57.5°	1232.7	1237.1	1248.2	1258.7	1262.4
60°	1123.8	1128.2	1138.7	1149.8	1154.8
62.5°	1014.9	1018.6	1027.3	1040.3	1040.3
65°	902.9	907.2	917.8	925.2	928.3
67.5°	794.0	797.7	805.1	814.4	818.7
70°	683.8	686.9	693.1	702.4	703.0
72.5°	573.7	576.8	584.8	587.9	592.2
75°	465.4	467.8	474.0	479.0	480.2
77.5°	362.0	365.7	370.1	371.9	373.8
80°	263.6	267.3	270.4	272.3	272.9
82.5°	174.5	178.2	180.1	181.3	180.7
85°	99.0	102.1	103.3	102.1	102.7
87.5°	39.0	40.8	42.1	41.5	40.2
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)