

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: P708832

Luminaire Tested: **24APR-X-89L930-UNV**

Issue Date: 09/12/2023



Test Information

Test Method: LM-79-08
Report Number: P708832
Test Lab: INNOVATION CENTER(G2)
Issue Date: 09/12/2023
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: FAIL-SAFE
Catalog Number: 24APR-X-89L930-UNV
Description: ArcMed Patient Recessed 2x2 Fixture EXAM Light
Light Source: 3000K CCT, 90 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

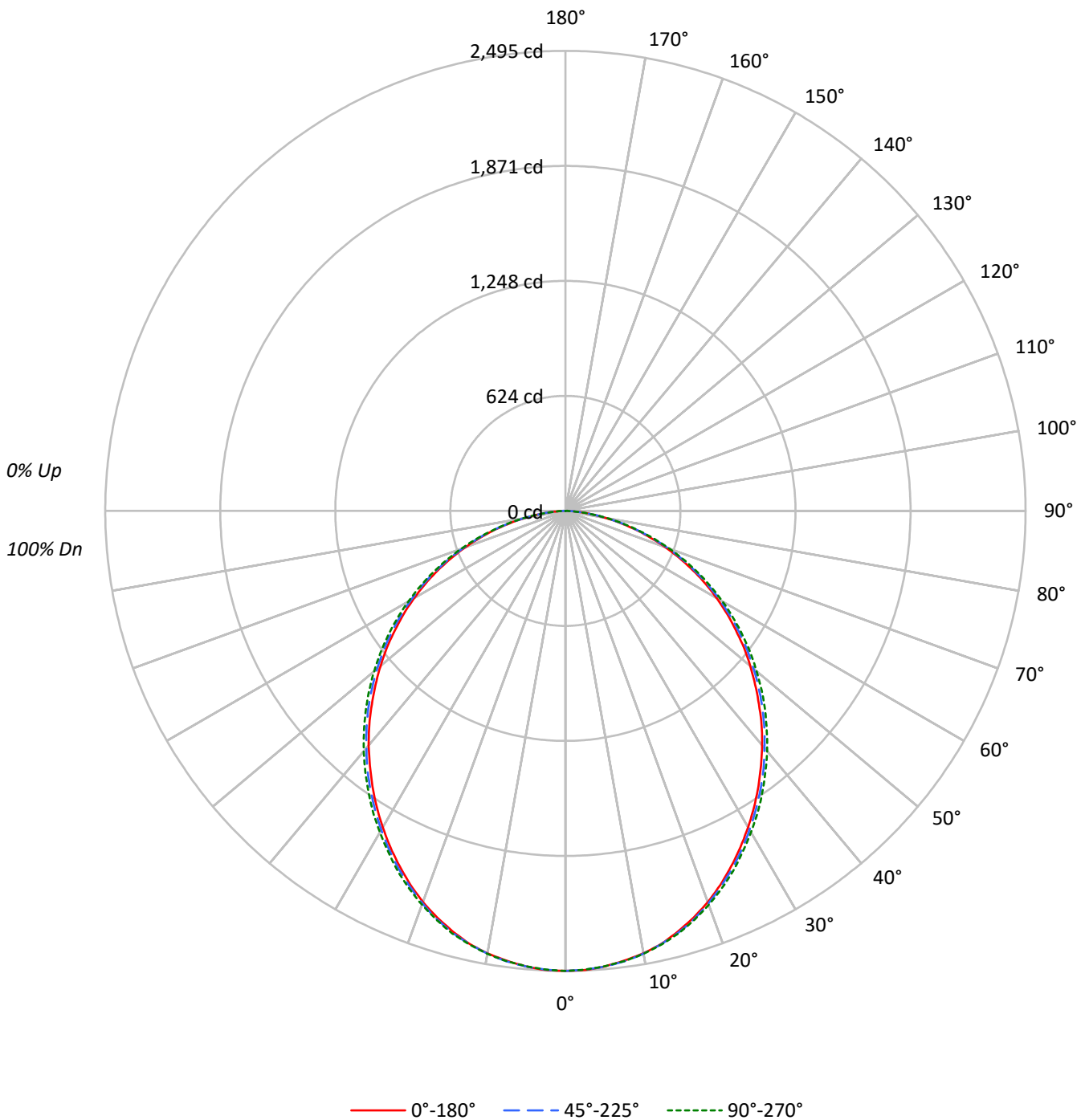
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 6538.6 lumens
Efficiency: N/A
Efficacy: 84.2 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 1.2 / 1.31
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

Input Watts (W): 77.7
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





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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	100	100	100	100
1	109	104	100	96	106	102	98	95	98	95	92	94	91	89	90	88	86	84	84	84	84
2	99	91	84	79	97	89	83	78	86	80	76	82	78	74	79	76	73	70	70	70	70
3	91	80	72	66	88	79	71	65	76	69	64	73	67	63	70	66	62	60	60	60	60
4	83	71	62	56	81	70	62	55	67	60	55	65	59	54	63	58	53	51	51	51	51
5	76	64	55	48	74	63	54	48	60	53	47	58	52	47	57	51	46	44	44	44	44
6	71	57	49	42	69	56	48	42	55	47	42	53	46	41	51	45	41	39	39	39	39
7	66	52	43	37	64	51	43	37	50	42	37	48	42	37	47	41	36	34	34	34	34
8	61	48	39	33	60	47	39	33	46	38	33	44	38	33	43	37	33	31	31	31	31
9	57	44	36	30	56	43	35	30	42	35	30	41	34	30	40	34	30	28	28	28	28
10	54	40	33	27	52	40	32	27	39	32	27	38	32	27	37	31	27	25	25	25	25

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	6714	6714	6714
5°	6697	6699	6695
10°	6657	6663	6665
15°	6578	6596	6608
20°	6467	6488	6510
25°	6314	6356	6394
30°	6155	6206	6252
35°	5991	6057	6116
40°	5829	5897	5975
45°	5646	5748	5828
50°	5476	5579	5666
55°	5289	5400	5495
60°	5098	5202	5302
65°	4851	4961	5055
70°	4543	4643	4736
75°	4101	4200	4278
80°	3459	3586	3620
85°	2572	2732	2689



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	235.4	3.6
10°-20°	667.0	10.2
20°-30°	985.3	15.1
30°-40°	1152.9	17.6
40°-50°	1164.4	17.8
50°-60°	1029.2	15.7
60°-70°	770.4	11.8
70°-80°	428.2	6.5
80°-90°	105.8	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°	1887.7	28.9
0°-40°	3040.6	46.5
0°-60°	5234.2	80.1
0°-90°	6538.6	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	6538.6	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2495	2495	2495	2495	2495	
5°	2479	2480	2480	2481	2478	235
15°	2361	2362	2368	2372	2372	665
25°	2127	2130	2141	2147	2153	979
35°	1824	1829	1844	1856	1862	1141
45°	1484	1495	1510	1526	1531	1146
55°	1127	1136	1151	1165	1171	1010
65°	762	767	779	790	794	755
75°	394	397	404	412	412	418
85°	83	86	88	87	87	102
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2494.9	2494.9	2494.9	2494.9	2494.9
2.5°	2492.7	2492.7	2490.4	2491.2	2489.7
5°	2479.3	2480.0	2480.0	2480.8	2478.5
7.5°	2459.9	2461.4	2463.6	2464.4	2462.2
10°	2436.1	2437.6	2438.3	2441.3	2439.1
12.5°	2404.9	2405.6	2406.4	2410.8	2408.6
15°	2361.0	2362.5	2367.7	2372.1	2372.1
17.5°	2311.9	2314.8	2320.8	2326.7	2325.2
20°	2258.3	2260.5	2265.7	2273.9	2273.2
22.5°	2195.0	2197.3	2204.7	2213.6	2215.9
25°	2126.6	2129.6	2140.7	2147.4	2153.4
27.5°	2055.9	2059.6	2070.0	2080.4	2083.4
30°	1980.7	1986.7	1997.1	2008.3	2012.0
32.5°	1904.1	1907.1	1921.2	1933.1	1940.6
35°	1823.7	1828.9	1843.8	1856.5	1861.7
37.5°	1741.1	1748.6	1764.2	1777.6	1782.1
40°	1659.3	1665.3	1678.6	1695.8	1701.0
42.5°	1574.5	1579.7	1596.1	1610.9	1616.1
45°	1483.7	1494.9	1510.5	1526.1	1531.3
47.5°	1395.9	1406.3	1421.9	1437.6	1443.5
50°	1308.1	1319.3	1332.6	1349.0	1353.5
52.5°	1220.3	1229.2	1243.4	1257.5	1264.2
55°	1127.3	1136.2	1151.1	1165.2	1171.2
57.5°	1039.5	1045.4	1059.6	1073.0	1078.2
60°	947.2	953.2	966.6	980.7	985.2
62.5°	856.4	860.2	872.8	886.2	889.2
65°	761.9	767.1	779.1	789.5	793.9
67.5°	669.7	674.1	684.6	695.7	697.9
70°	577.4	580.4	590.1	598.2	602.0
72.5°	484.4	487.4	497.8	502.3	506.0
75°	394.4	396.6	404.0	411.5	411.5
77.5°	306.6	310.3	316.2	319.2	320.7
80°	223.2	226.9	231.4	234.4	233.6
82.5°	147.3	151.0	154.0	155.5	154.0
85°	83.3	86.3	88.5	87.1	87.1
87.5°	32.7	34.2	35.7	35.0	33.5
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)