

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: P708968

Luminaire Tested: **24APR-49L830-X-UNV**

Issue Date: 09/12/2023



Test Information

Test Method: LM-79-08
Report Number: P708968
Test Lab: INNOVATION CENTER(G2)
Issue Date: 09/12/2023
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: FAIL-SAFE
Catalog Number: 24APR-49L830-X-UNV
Description: ArcMed Patient Recessed 2x4 Fixture Ambient Light
Light Source: 3000K CCT, 80 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

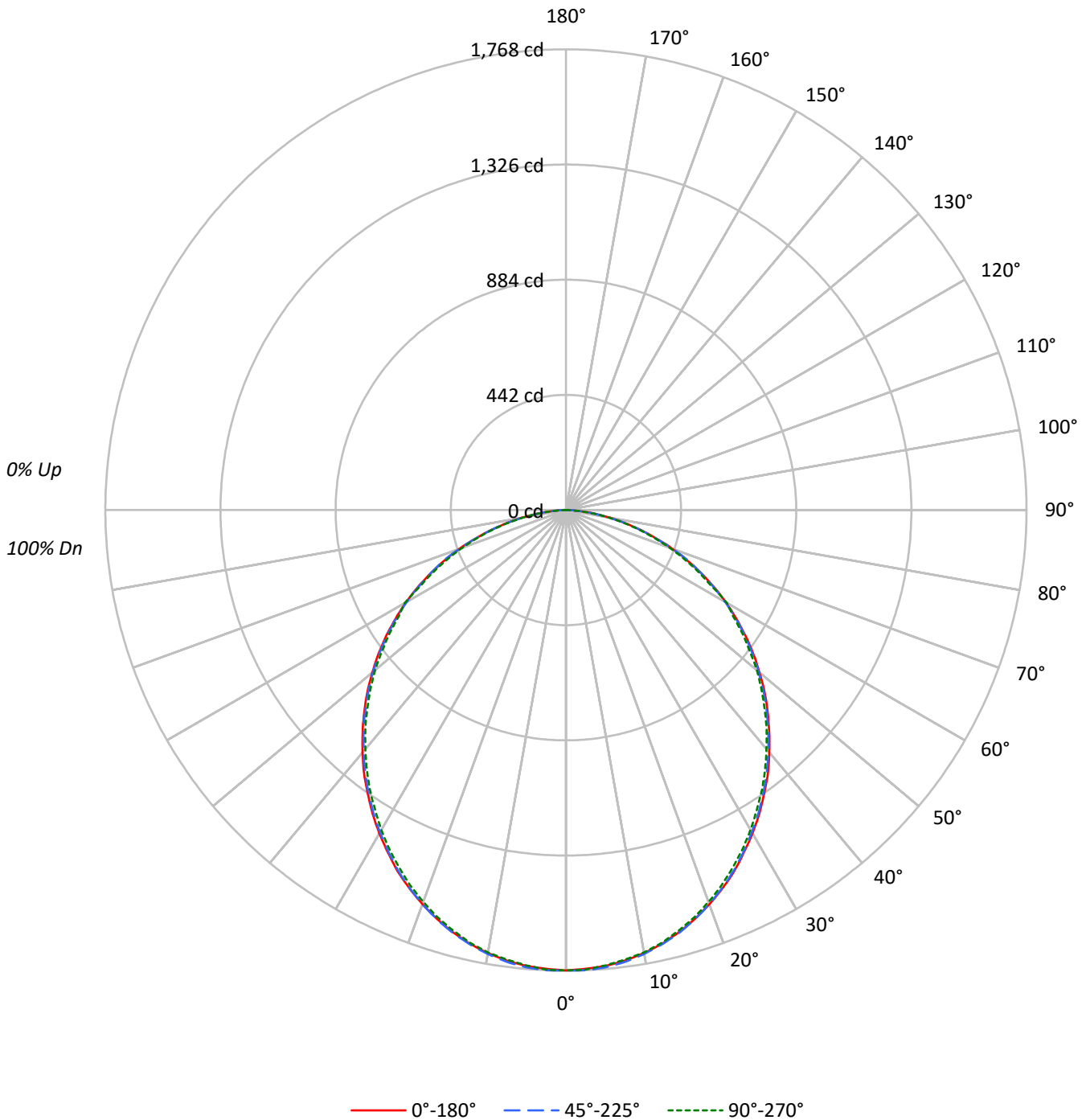
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 4706.0 lumens
Efficiency: N/A
Efficacy: 110.0 lumens/watt
Spacing Criteria (0/90/45): 1.21 / 1.2 / 1.32
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 42.8
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				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	80	76	82	78	74	79	76	72	72	72	72	70
3	90	80	72	65	88	78	71	65	75	69	64	73	67	63	70	65	61	61	61	61	59
4	83	71	62	56	81	70	61	55	67	60	54	65	59	54	63	57	53	53	53	53	51
5	76	63	55	48	74	62	54	48	60	53	47	58	52	47	56	51	46	46	46	46	44
6	70	57	48	42	69	56	48	42	54	47	41	53	46	41	51	45	41	41	41	41	39
7	65	52	43	37	64	51	43	37	50	42	37	48	41	36	47	41	36	36	36	36	34
8	61	47	39	33	59	47	39	33	45	38	33	44	37	33	43	37	32	32	32	32	30
9	57	44	35	30	55	43	35	30	42	35	30	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	27	27	27	27	25

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	2377	2377	2377
5°	2372	2379	2369
10°	2358	2364	2355
15°	2336	2340	2327
20°	2305	2304	2292
25°	2270	2265	2248
30°	2226	2218	2202
35°	2179	2172	2154
40°	2133	2122	2103
45°	2084	2073	2052
50°	2030	2022	2002
55°	1975	1964	1939
60°	1909	1897	1922
65°	1822	1816	1782
70°	1709	1712	1665
75°	1552	1540	1505
80°	1333	1316	1281
85°	1019	1011	932



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	166.9	3.5
10°-20°	472.7	10.0
20°-30°	701.7	14.9
30°-40°	826.0	17.6
40°-50°	839.4	17.8
50°-60°	746.2	15.9
60°-70°	562.8	12.0
70°-80°	312.6	6.6
80°-90°	77.7	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°	1341.3	28.5
0°-40°	2167.2	46.1
0°-60°	3752.8	79.7
0°-90°	4706.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4706.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1767	1767	1767	1767	1767	
5°	1756	1759	1761	1758	1754	167
15°	1677	1679	1680	1676	1671	473
25°	1529	1528	1526	1519	1514	704
35°	1327	1327	1322	1314	1311	831
45°	1095	1095	1090	1081	1078	845
55°	842	836	837	828	827	752
65°	572	569	570	563	560	566
75°	298	295	296	294	290	317
85°	66	64	66	63	60	79
90°	0	0	0	0	0	

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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1766.8	1766.8	1766.8	1766.8	1766.8
2.5°	1762.3	1765.7	1768.0	1765.1	1764.6
5°	1756.1	1758.9	1761.2	1758.4	1753.9
7.5°	1743.7	1747.1	1748.8	1746.0	1739.8
10°	1726.2	1729.6	1730.2	1727.3	1724.0
12.5°	1704.8	1707.0	1707.0	1704.8	1700.8
15°	1677.1	1678.8	1679.9	1676.0	1670.9
17.5°	1645.5	1648.3	1647.2	1641.0	1638.7
20°	1610.0	1612.2	1609.4	1605.4	1600.4
22.5°	1571.0	1571.6	1569.3	1564.8	1559.7
25°	1529.3	1528.1	1525.9	1519.1	1514.0
27.5°	1480.7	1483.0	1477.4	1471.1	1467.8
30°	1432.8	1433.3	1427.7	1419.8	1417.0
32.5°	1381.4	1380.3	1376.3	1367.9	1363.4
35°	1326.7	1327.2	1322.2	1314.3	1311.4
37.5°	1273.6	1270.3	1266.3	1257.3	1255.6
40°	1214.4	1213.8	1208.2	1200.3	1197.5
42.5°	1155.1	1154.6	1150.1	1142.2	1139.9
45°	1095.3	1095.3	1089.7	1080.6	1078.4
47.5°	1034.4	1032.1	1028.2	1020.3	1017.4
50°	970.0	968.3	966.1	957.1	956.5
52.5°	906.8	905.7	901.8	893.9	889.3
55°	841.9	835.7	837.4	828.4	826.7
57.5°	775.4	769.1	772.5	764.6	761.2
60°	709.3	703.1	704.8	699.7	714.4
62.5°	641.6	637.7	637.7	649.5	628.1
65°	572.2	568.8	570.5	563.2	559.8
67.5°	503.9	498.8	509.6	496.0	490.4
70°	434.5	431.1	435.1	427.2	423.2
72.5°	365.7	362.8	361.7	358.9	355.5
75°	298.5	294.6	296.3	294.0	289.5
77.5°	233.1	231.9	231.4	228.5	225.2
80°	172.1	171.0	169.9	167.6	165.3
82.5°	115.1	114.0	113.4	112.3	111.7
85°	66.0	64.3	65.5	62.6	60.4
87.5°	24.8	24.3	25.4	23.1	21.4
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)