

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: P708973

Luminaire Tested: **24APR-49L835-X-UNV**

Issue Date: 09/12/2023



Test Information

Test Method: LM-79-08
Report Number: P708973
Test Lab: INNOVATION CENTER(G2)
Issue Date: 09/12/2023
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: FAIL-SAFE
Catalog Number: 24APR-49L835-X-UNV
Description: ArcMed Patient Recessed 2x4 Fixture Ambient Light
Light Source: 3500K CCT, 80 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

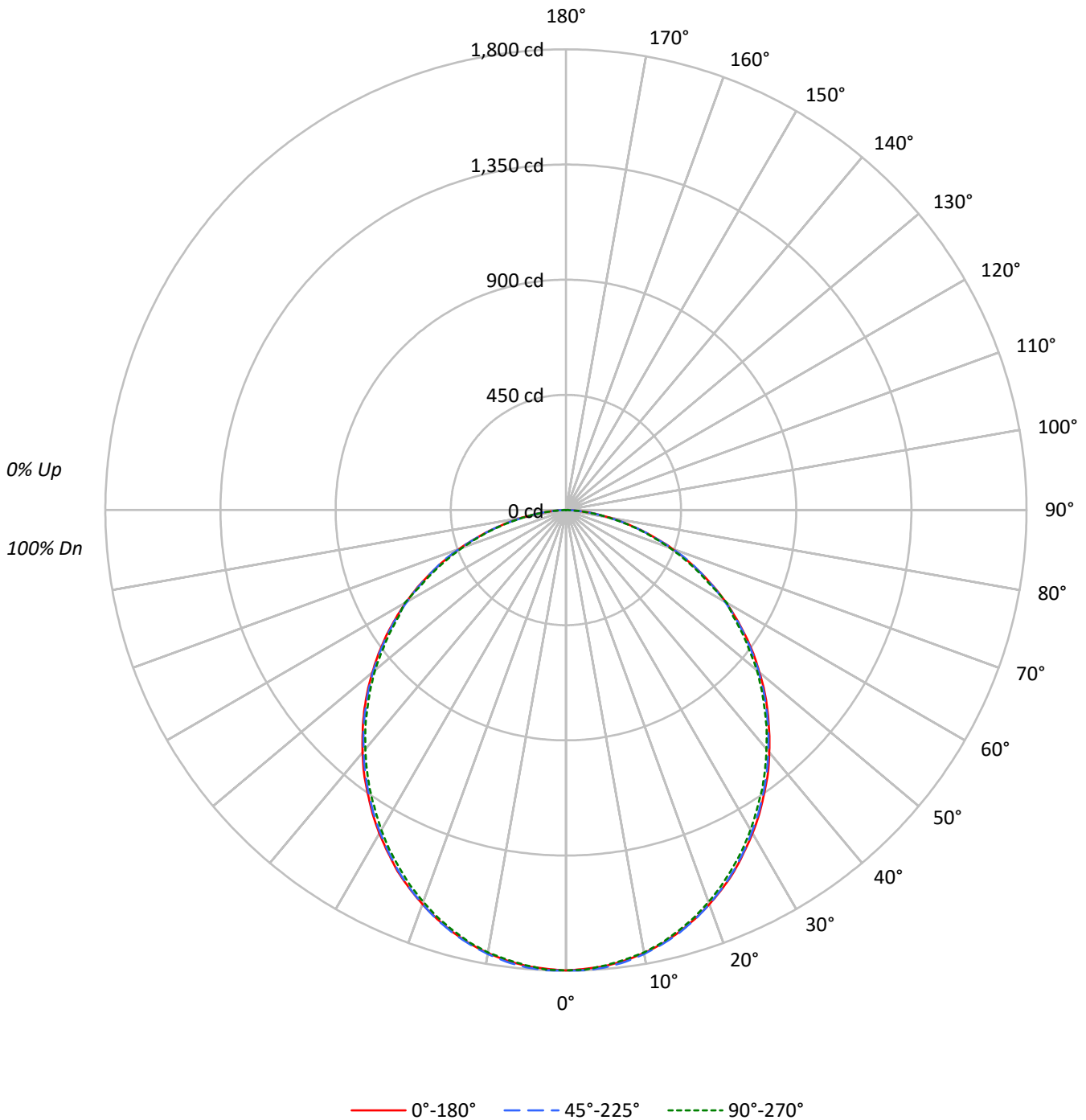
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 4791.3 lumens
Efficiency: N/A
Efficacy: 111.9 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°	2420	2420	2420
5°	2415	2422	2412
10°	2401	2407	2398
15°	2378	2383	2370
20°	2347	2346	2333
25°	2311	2306	2288
30°	2266	2258	2241
35°	2219	2211	2193
40°	2172	2161	2141
45°	2122	2111	2089
50°	2067	2059	2038
55°	2011	2000	1974
60°	1943	1931	1957
65°	1855	1849	1814
70°	1740	1743	1695
75°	1580	1568	1532
80°	1358	1340	1304
85°	1037	1028	949



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	169.9	3.5
10°-20°	481.3	10.0
20°-30°	714.4	14.9
30°-40°	840.9	17.6
40°-50°	854.6	17.8
50°-60°	759.7	15.9
60°-70°	573.1	12.0
70°-80°	318.3	6.6
80°-90°	79.1	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°	1365.6	28.5
0°-40°	2206.6	46.1
0°-60°	3820.9	79.7
0°-90°	4791.3	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4791.3	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1799	1799	1799	1799	1799	
5°	1788	1791	1793	1790	1786	170
15°	1708	1709	1710	1706	1701	481
25°	1557	1556	1554	1547	1542	716
35°	1351	1351	1346	1338	1335	846
45°	1115	1115	1109	1100	1098	860
55°	857	851	853	843	842	766
65°	583	579	581	573	570	577
75°	304	300	302	299	295	322
85°	67	66	67	64	62	81
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1798.9	1798.9	1798.9	1798.9	1798.9
2.5°	1794.3	1797.7	1800.0	1797.2	1796.6
5°	1788.0	1790.8	1793.1	1790.3	1785.7
7.5°	1775.3	1778.8	1780.5	1777.6	1771.3
10°	1757.5	1761.0	1761.5	1758.7	1755.2
12.5°	1735.7	1738.0	1738.0	1735.7	1731.7
15°	1707.5	1709.3	1710.4	1706.4	1701.2
17.5°	1675.4	1678.2	1677.1	1670.8	1668.5
20°	1639.2	1641.5	1638.6	1634.6	1629.4
22.5°	1599.5	1600.1	1597.8	1593.2	1588.0
25°	1557.0	1555.9	1553.6	1546.7	1541.5
27.5°	1507.6	1509.9	1504.1	1497.8	1494.4
30°	1458.8	1459.3	1453.6	1445.5	1442.7
32.5°	1406.5	1405.3	1401.3	1392.7	1388.1
35°	1350.7	1351.3	1346.1	1338.1	1335.2
37.5°	1296.7	1293.3	1289.3	1280.1	1278.3
40°	1236.4	1235.8	1230.1	1222.0	1219.2
42.5°	1176.1	1175.5	1170.9	1162.9	1160.6
45°	1115.2	1115.2	1109.4	1100.2	1097.9
47.5°	1053.1	1050.8	1046.8	1038.8	1035.9
50°	987.6	985.9	983.6	974.4	973.8
52.5°	923.3	922.1	918.1	910.1	905.5
55°	857.2	850.9	852.6	843.4	841.7
57.5°	789.4	783.1	786.5	778.5	775.1
60°	722.2	715.9	717.6	712.4	727.4
62.5°	653.3	649.2	649.2	661.3	639.5
65°	582.6	579.1	580.9	573.4	569.9
67.5°	513.1	507.9	518.8	505.0	499.3
70°	442.4	438.9	443.0	434.9	430.9
72.5°	372.3	369.4	368.3	365.4	362.0
75°	303.9	299.9	301.6	299.3	294.7
77.5°	237.3	236.1	235.6	232.7	229.2
80°	175.2	174.1	172.9	170.6	168.3
82.5°	117.2	116.1	115.5	114.3	113.8
85°	67.2	65.5	66.6	63.8	61.5
87.5°	25.3	24.7	25.9	23.6	21.8
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)