

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: P708816

Luminaire Tested: **24APR-X-52L830-UNV**

Issue Date: 09/12/2023



Test Information

Test Method: LM-79-08
Report Number: P708816
Test Lab: INNOVATION CENTER(G2)
Issue Date: 09/12/2023
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: FAIL-SAFE
Catalog Number: 24APR-X-52L830-UNV
Description: ArcMed Patient Recessed 2x2 Fixture EXAM Light
Light Source: 3000K CCT, 80 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

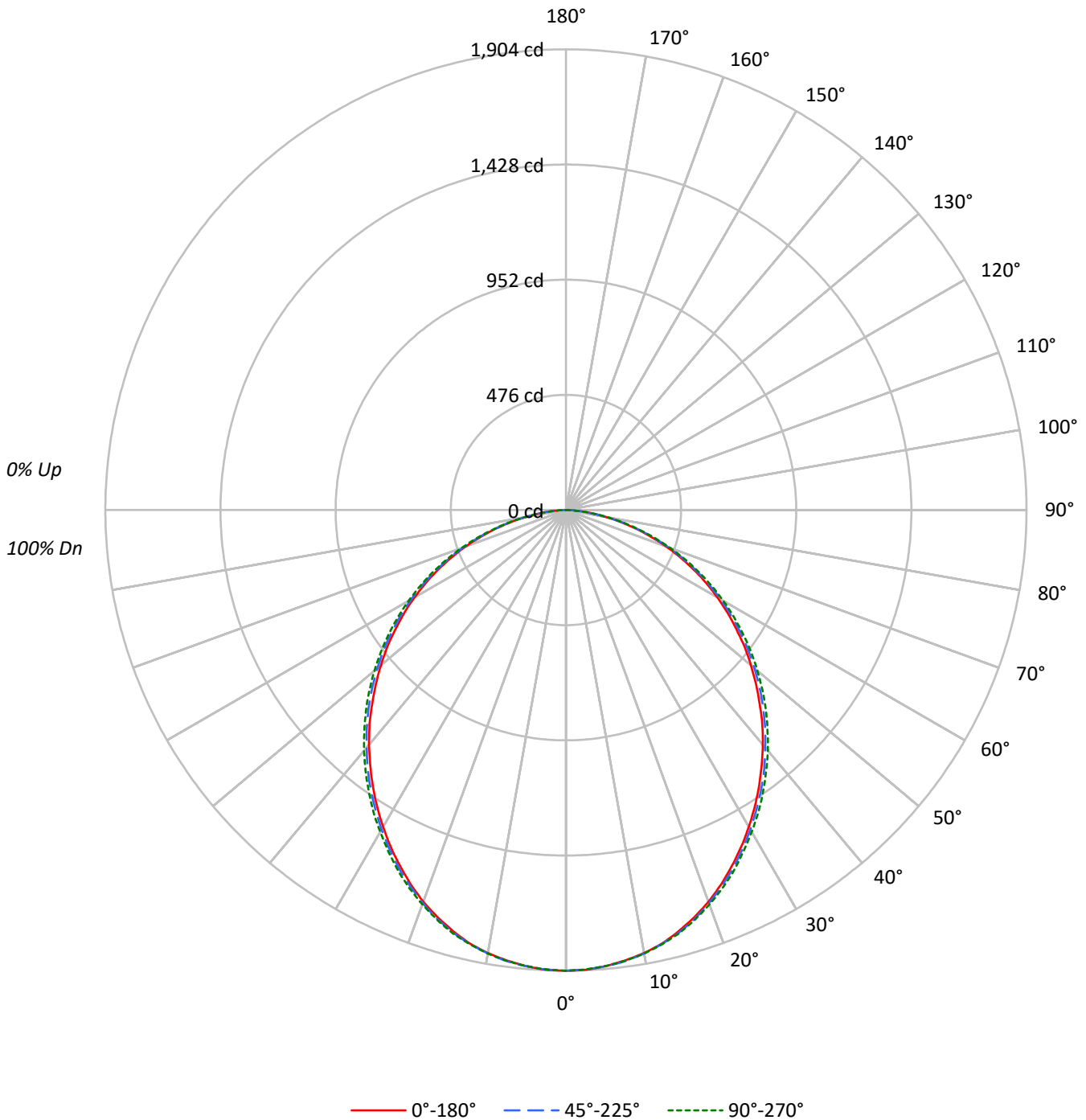
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 4990.3 lumens
Efficiency: N/A
Efficacy: 117.4 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): 42.5
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	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	73	73	73	73	70
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	62	56	81	70	62	55	67	60	55	65	59	54	63	58	53	53	53	53	51
5	76	64	55	48	74	63	54	48	60	53	47	58	52	47	57	51	46	46	46	46	44
6	71	57	49	42	69	56	48	42	55	47	42	53	46	41	51	45	41	41	41	41	39
7	66	52	43	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	40	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°	5124	5124	5124
5°	5111	5113	5110
10°	5081	5085	5087
15°	5020	5034	5044
20°	4936	4952	4968
25°	4819	4851	4880
30°	4697	4736	4772
35°	4573	4623	4668
40°	4449	4501	4560
45°	4309	4387	4448
50°	4179	4258	4325
55°	4036	4122	4194
60°	3891	3970	4047
65°	3703	3786	3858
70°	3467	3543	3615
75°	3130	3206	3265
80°	2641	2737	2763
85°	1964	2087	2050



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	179.7	3.6
10°-20°	509.1	10.2
20°-30°	752.0	15.1
30°-40°	879.9	17.6
40°-50°	888.7	17.8
50°-60°	785.5	15.7
60°-70°	588.0	11.8
70°-80°	326.8	6.5
80°-90°	80.8	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°	1440.7	28.9
0°-40°	2320.6	46.5
0°-60°	3994.7	80.1
0°-90°	4990.3	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4990.3	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1904	1904	1904	1904	1904	
5°	1892	1893	1893	1893	1892	180
15°	1802	1803	1807	1810	1810	508
25°	1623	1625	1634	1639	1644	748
35°	1392	1396	1407	1417	1421	871
45°	1132	1141	1153	1165	1169	875
55°	860	867	878	889	894	770
65°	582	586	595	602	606	576
75°	301	303	308	314	314	319
85°	64	66	68	66	66	78
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1904.1	1904.1	1904.1	1904.1	1904.1
2.5°	1902.4	1902.4	1900.7	1901.3	1900.1
5°	1892.2	1892.8	1892.8	1893.3	1891.6
7.5°	1877.4	1878.6	1880.3	1880.8	1879.1
10°	1859.3	1860.4	1861.0	1863.2	1861.5
12.5°	1835.4	1836.0	1836.5	1840.0	1838.2
15°	1801.9	1803.0	1807.0	1810.4	1810.4
17.5°	1764.4	1766.7	1771.2	1775.8	1774.6
20°	1723.5	1725.2	1729.2	1735.5	1734.9
22.5°	1675.3	1677.0	1682.6	1689.5	1691.2
25°	1623.0	1625.3	1633.8	1638.9	1643.5
27.5°	1569.1	1571.9	1579.9	1587.8	1590.1
30°	1511.7	1516.3	1524.2	1532.7	1535.6
32.5°	1453.2	1455.5	1466.3	1475.4	1481.0
35°	1391.9	1395.9	1407.2	1416.9	1420.9
37.5°	1328.9	1334.5	1346.5	1356.7	1360.1
40°	1266.4	1270.9	1281.2	1294.2	1298.2
42.5°	1201.6	1205.6	1218.1	1229.5	1233.4
45°	1132.4	1140.9	1152.8	1164.7	1168.7
47.5°	1065.4	1073.3	1085.2	1097.2	1101.7
50°	998.3	1006.9	1017.1	1029.6	1033.0
52.5°	931.3	938.1	948.9	959.7	964.8
55°	860.3	867.2	878.5	889.3	893.9
57.5°	793.3	797.9	808.7	818.9	822.9
60°	722.9	727.5	737.7	748.5	751.9
62.5°	653.6	656.5	666.1	676.4	678.6
65°	581.5	585.5	594.6	602.5	605.9
67.5°	511.1	514.5	522.5	531.0	532.7
70°	440.7	443.0	450.3	456.6	459.4
72.5°	369.7	372.0	379.9	383.3	386.2
75°	301.0	302.7	308.4	314.0	314.0
77.5°	234.0	236.8	241.4	243.6	244.8
80°	170.4	173.2	176.6	178.9	178.3
82.5°	112.4	115.3	117.6	118.7	117.6
85°	63.6	65.9	67.6	66.4	66.4
87.5°	25.0	26.1	27.3	26.7	25.6
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)