

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: P708818

Luminaire Tested: **24APR-X-80L835-UNV**

Issue Date: 09/12/2023



Test Information

Test Method: LM-79-08
Report Number: P708818
Test Lab: INNOVATION CENTER(G2)
Issue Date: 09/12/2023
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: FAIL-SAFE
Catalog Number: 24APR-X-80L835-UNV
Description: ArcMed Patient Recessed 2x2 Fixture EXAM Light
Light Source: 3500K CCT, 80 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

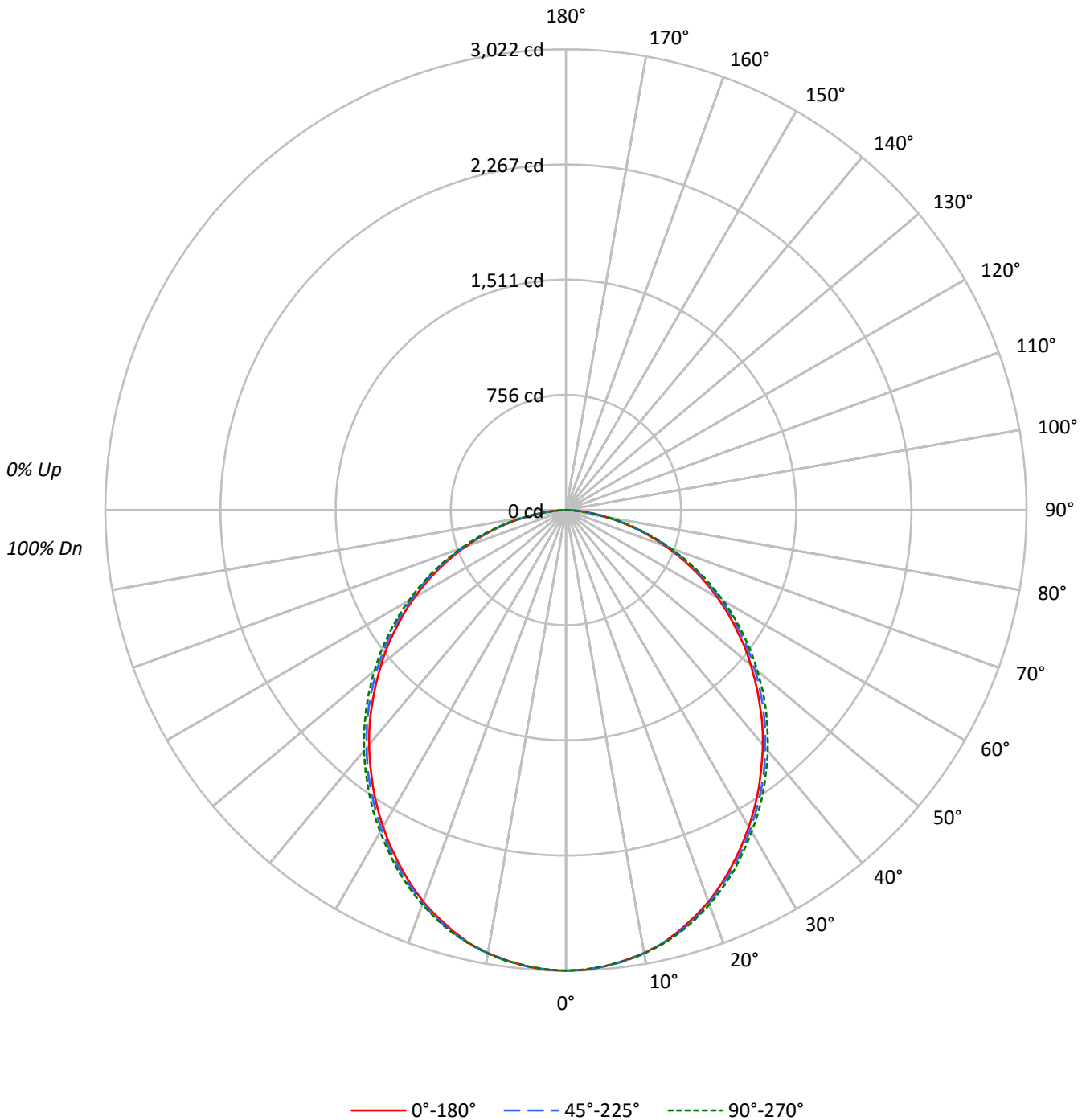
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 7919.4 lumens
Efficiency: N/A
Efficacy: 115.1 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): 68.8
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				
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°	8132	8132	8132
5°	8111	8114	8109
10°	8062	8070	8072
15°	7966	7989	8004
20°	7833	7859	7884
25°	7648	7698	7744
30°	7454	7516	7572
35°	7256	7336	7407
40°	7060	7142	7237
45°	6839	6962	7058
50°	6633	6757	6863
55°	6405	6541	6655
60°	6174	6301	6422
65°	5876	6008	6123
70°	5502	5623	5736
75°	4966	5088	5182
80°	4190	4344	4386
85°	3115	3310	3254



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	285.1	3.6
10°-20°	807.9	10.2
20°-30°	1193.4	15.1
30°-40°	1396.3	17.6
40°-50°	1410.3	17.8
50°-60°	1246.5	15.7
60°-70°	933.1	11.8
70°-80°	518.6	6.5
80°-90°	128.2	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°	2286.4	28.9
0°-40°	3682.7	46.5
0°-60°	6339.5	80.1
0°-90°	7919.4	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	7919.4	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	3022	3022	3022	3022	3022	
5°	3003	3004	3004	3005	3002	285
15°	2860	2861	2868	2873	2873	806
25°	2576	2579	2593	2601	2608	1186
35°	2209	2215	2233	2248	2255	1382
45°	1797	1810	1830	1848	1855	1388
55°	1365	1376	1394	1411	1418	1223
65°	923	929	944	956	962	914
75°	478	480	489	498	498	506
85°	101	104	107	105	105	124
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	3021.8	3021.8	3021.8	3021.8	3021.8
2.5°	3019.1	3019.1	3016.4	3017.3	3015.5
5°	3002.8	3003.7	3003.7	3004.6	3001.9
7.5°	2979.4	2981.2	2983.9	2984.8	2982.1
10°	2950.6	2952.4	2953.3	2956.9	2954.2
12.5°	2912.7	2913.6	2914.5	2919.9	2917.2
15°	2859.5	2861.3	2867.7	2873.1	2873.1
17.5°	2800.1	2803.7	2810.9	2818.1	2816.3
20°	2735.2	2737.9	2744.2	2754.1	2753.2
22.5°	2658.6	2661.3	2670.3	2681.1	2683.8
25°	2575.7	2579.3	2592.8	2600.9	2608.1
27.5°	2490.0	2494.6	2507.2	2519.8	2523.4
30°	2399.0	2406.2	2418.9	2432.4	2436.9
32.5°	2306.2	2309.8	2326.9	2341.3	2350.4
35°	2208.9	2215.2	2233.2	2248.5	2254.8
37.5°	2108.8	2117.8	2136.8	2153.0	2158.4
40°	2009.7	2016.9	2033.1	2053.9	2060.2
42.5°	1907.0	1913.3	1933.1	1951.1	1957.4
45°	1797.0	1810.5	1829.5	1848.4	1854.7
47.5°	1690.7	1703.3	1722.2	1741.1	1748.4
50°	1584.3	1597.8	1614.1	1633.9	1639.3
52.5°	1478.0	1488.8	1505.9	1523.0	1531.2
55°	1365.3	1376.2	1394.2	1411.3	1418.5
57.5°	1259.0	1266.2	1283.3	1299.5	1305.9
60°	1147.2	1154.5	1170.7	1187.8	1193.2
62.5°	1037.3	1041.8	1057.1	1073.3	1076.9
65°	922.8	929.1	943.6	956.2	961.6
67.5°	811.1	816.5	829.1	842.6	845.3
70°	699.3	702.9	714.7	724.6	729.1
72.5°	586.7	590.3	602.9	608.3	612.8
75°	477.6	480.3	489.4	498.4	498.4
77.5°	371.3	375.8	383.0	386.6	388.4
80°	270.4	274.9	280.3	283.9	283.0
82.5°	178.4	182.9	186.6	188.4	186.6
85°	100.9	104.5	107.2	105.4	105.4
87.5°	39.7	41.5	43.3	42.4	40.6
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)