

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: P708817

Luminaire Tested: **24APR-X-89L835-UNV**

Issue Date: 09/12/2023



Test Information

Test Method: LM-79-08
Report Number: P708817
Test Lab: INNOVATION CENTER(G2)
Issue Date: 09/12/2023
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: FAIL-SAFE
Catalog Number: 24APR-X-89L835-UNV
Description: ArcMed Patient Recessed 2x2 Fixture EXAM Light
Light Source: 3500K CCT, 80 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

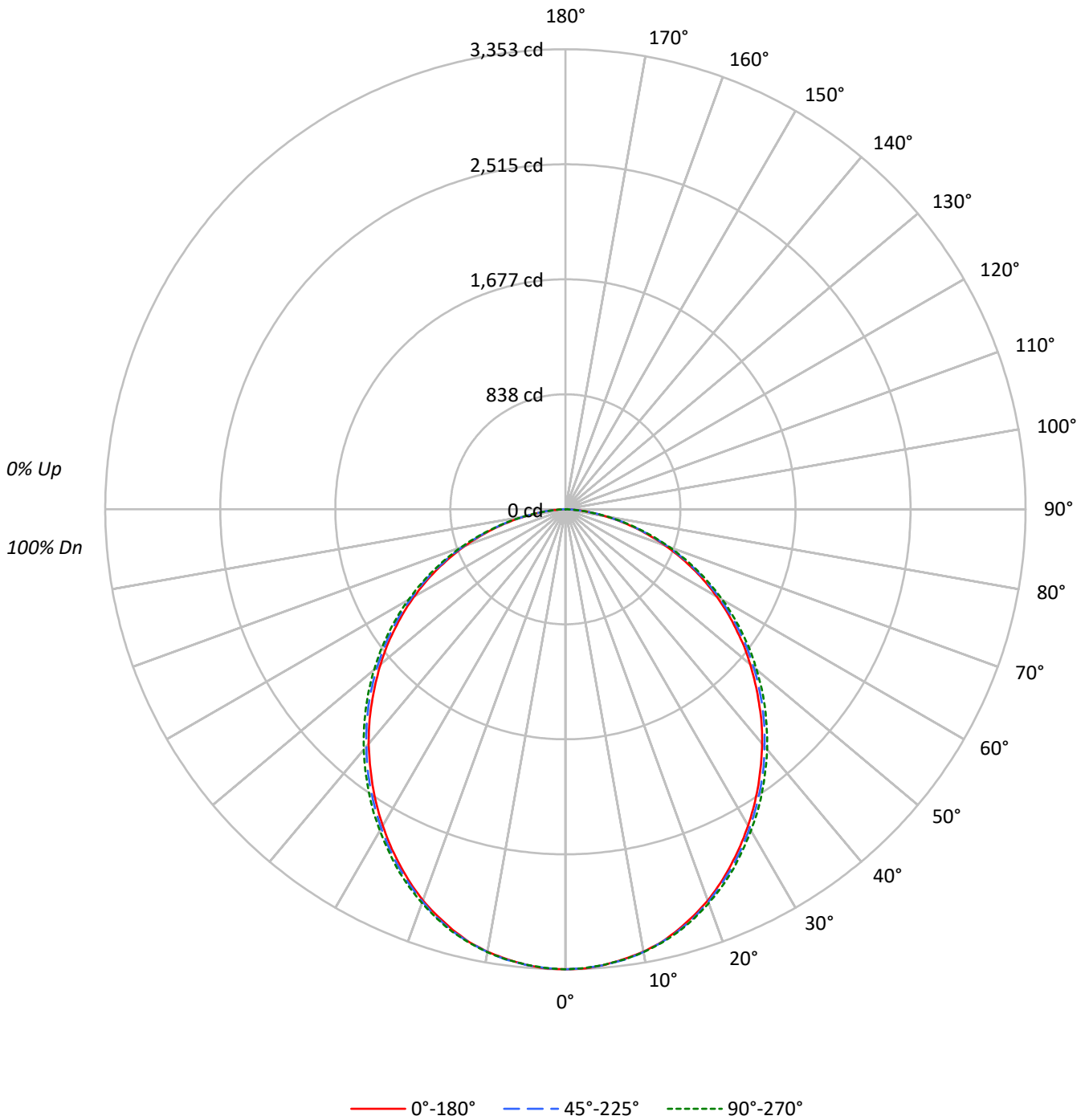
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 8787.0 lumens
Efficiency: N/A
Efficacy: 113.1 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): 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

TEST NUMBER: P708817
CATALOG NUMBER: 24APR-X-89L835-UNV

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	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°	9022	9022	9022
5°	9000	9003	8997
10°	8946	8954	8957
15°	8839	8864	8881
20°	8691	8719	8748
25°	8485	8542	8592
30°	8271	8339	8401
35°	8051	8140	8219
40°	7833	7925	8030
45°	7588	7725	7832
50°	7359	7497	7615
55°	7107	7257	7384
60°	6851	6991	7125
65°	6520	6666	6793
70°	6105	6239	6365
75°	5510	5646	5750
80°	4649	4819	4866
85°	3458	3674	3612



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	316.4	3.6
10°-20°	896.4	10.2
20°-30°	1324.1	15.1
30°-40°	1549.3	17.6
40°-50°	1564.8	17.8
50°-60°	1383.0	15.7
60°-70°	1035.3	11.8
70°-80°	575.4	6.5
80°-90°	142.3	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°	2536.8	28.9
0°-40°	4086.2	46.5
0°-60°	7034.0	80.1
0°-90°	8787.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	8787.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	3353	3353	3353	3353	3353	
5°	3332	3333	3333	3334	3331	316
15°	3173	3175	3182	3188	3188	894
25°	2858	2862	2877	2886	2894	1316
35°	2451	2458	2478	2495	2502	1533
45°	1994	2009	2030	2051	2058	1540
55°	1515	1527	1547	1566	1574	1357
65°	1024	1031	1047	1061	1067	1014
75°	530	533	543	553	553	562
85°	112	116	119	117	117	137
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	3352.8	3352.8	3352.8	3352.8	3352.8
2.5°	3349.8	3349.8	3346.8	3347.8	3345.8
5°	3331.8	3332.8	3332.8	3333.8	3330.8
7.5°	3305.8	3307.8	3310.8	3311.8	3308.8
10°	3273.8	3275.8	3276.8	3280.8	3277.8
12.5°	3231.8	3232.8	3233.8	3239.8	3236.8
15°	3172.8	3174.8	3181.8	3187.8	3187.8
17.5°	3106.8	3110.8	3118.8	3126.8	3124.8
20°	3034.8	3037.8	3044.8	3055.8	3054.8
22.5°	2949.8	2952.8	2962.8	2974.8	2977.8
25°	2857.8	2861.8	2876.8	2885.8	2893.8
27.5°	2762.8	2767.8	2781.8	2795.8	2799.8
30°	2661.8	2669.8	2683.8	2698.8	2703.8
32.5°	2558.9	2562.9	2581.9	2597.9	2607.9
35°	2450.9	2457.9	2477.9	2494.9	2501.9
37.5°	2339.9	2349.9	2370.9	2388.9	2394.9
40°	2229.9	2237.9	2255.9	2278.9	2285.9
42.5°	2115.9	2122.9	2144.9	2164.9	2171.9
45°	1993.9	2008.9	2029.9	2050.9	2057.9
47.5°	1875.9	1889.9	1910.9	1931.9	1939.9
50°	1757.9	1772.9	1790.9	1812.9	1818.9
52.5°	1639.9	1651.9	1670.9	1689.9	1698.9
55°	1514.9	1526.9	1546.9	1565.9	1573.9
57.5°	1396.9	1404.9	1423.9	1441.9	1448.9
60°	1272.9	1280.9	1298.9	1317.9	1323.9
62.5°	1150.9	1155.9	1172.9	1190.9	1194.9
65°	1023.9	1030.9	1046.9	1060.9	1066.9
67.5°	899.9	905.9	919.9	934.9	937.9
70°	776.0	780.0	793.0	804.0	809.0
72.5°	651.0	655.0	669.0	675.0	680.0
75°	530.0	533.0	543.0	553.0	553.0
77.5°	412.0	417.0	425.0	429.0	431.0
80°	300.0	305.0	311.0	315.0	314.0
82.5°	198.0	203.0	207.0	209.0	207.0
85°	112.0	116.0	119.0	117.0	117.0
87.5°	44.0	46.0	48.0	47.0	45.0
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)