

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: P708858

Luminaire Tested: **22APR-34-80L835-UNV**

Issue Date: 09/12/2023



**Test Information**

Test Method: LM-79-08  
Report Number: P708858  
Test Lab: INNOVATION CENTER(G2)  
Issue Date: 09/12/2023  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: FAIL-SAFE  
Catalog Number: 22APR-34-80L835-UNV  
Description: ArcMed Patient Recessed 2x2 Fixture Ambient and Exam Light  
Light Source: 3500K CCT, 80 CRI LEDS  
Ballast/Driver: ELECTRONIC DRIVER

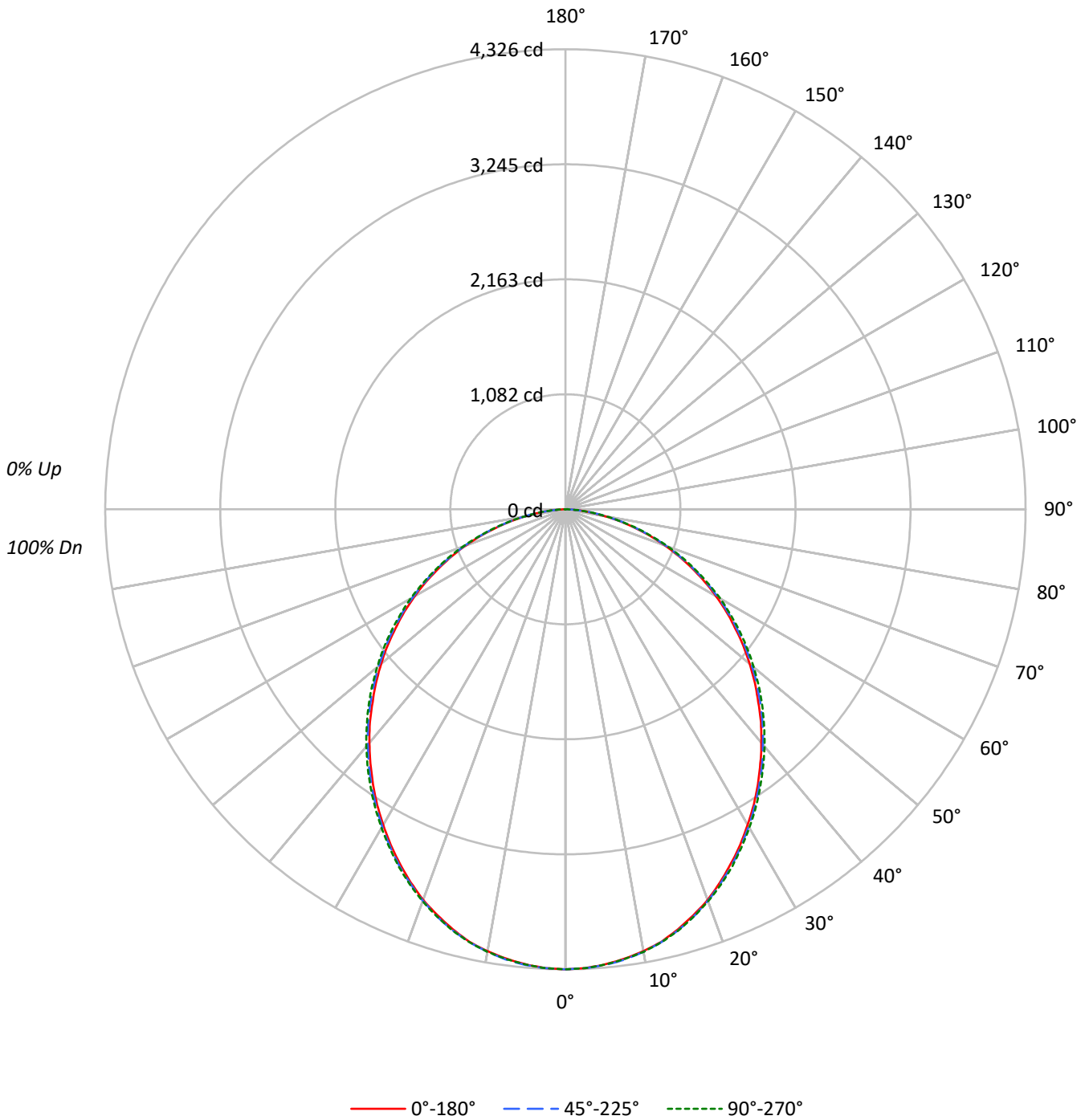
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 11252.4 lumens  
Efficiency: N/A  
Efficacy: 108.9 lumens/watt  
Spacing Criteria (0/90/45): 1.18 / 1.19 / 1.31  
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')  
CIE Type: Direct

Input Watts (W): 103.3  
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	81	76	82	78	74	79	76	73	73	73	73	71
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	63	56	81	70	62	56	67	60	55	65	59	54	63	58	53	53	53	53	51
5	76	64	55	48	74	63	54	48	61	53	47	59	52	47	57	51	46	46	46	46	44
6	71	57	49	42	69	57	48	42	55	47	42	53	46	41	51	46	41	41	41	41	39
7	66	52	44	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	41	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°	11642	11642	11642
5°	11604	11618	11609
10°	11531	11548	11546
15°	11390	11420	11425
20°	11194	11218	11233
25°	10924	10976	11010
30°	10646	10705	10744
35°	10361	10432	10485
40°	10070	10149	10231
45°	9756	9877	9962
50°	9465	9579	9676
55°	9141	9263	9377
60°	8808	8924	9050
65°	8372	8509	8607
70°	7835	7941	8054
75°	7046	7177	7271
80°	5949	6103	6158
85°	4452	4647	4619



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	408.2	3.6
10°-20°	1154.5	10.3
20°-30°	1701.6	15.1
30°-40°	1985.9	17.6
40°-50°	2001.5	17.8
50°-60°	1766.4	15.7
60°-70°	1321.1	11.7
70°-80°	732.1	6.5
80°-90°	181.1	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°	3264.3	29.0
0°-40°	5250.2	46.7
0°-60°	9018.1	80.1
0°-90°	11252.4	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	11252.4	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	4326	4326	4326	4326	4326	
5°	4296	4301	4301	4302	4298	408
15°	4088	4096	4099	4103	4101	1152
25°	3679	3688	3696	3704	3708	1695
35°	3154	3161	3176	3188	3192	1973
45°	2564	2580	2595	2613	2618	1980
55°	1948	1960	1974	1992	1999	1744
65°	1315	1321	1336	1347	1352	1302
75°	678	681	690	698	699	720
85°	144	149	150	149	150	176
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	4326.4	4326.4	4326.4	4326.4	4326.4
2.5°	4318.2	4322.8	4319.1	4322.8	4319.1
5°	4295.7	4301.1	4301.1	4302.0	4297.5
7.5°	4262.4	4268.7	4271.4	4272.3	4266.0
10°	4220.0	4226.3	4226.3	4229.9	4225.4
12.5°	4166.0	4169.6	4168.7	4174.1	4170.5
15°	4088.5	4095.7	4099.3	4102.9	4101.1
17.5°	4001.9	4011.0	4013.7	4020.0	4015.5
20°	3909.1	3915.4	3917.2	3927.2	3922.6
22.5°	3798.3	3804.6	3810.9	3819.9	3820.8
25°	3679.3	3687.5	3696.5	3703.7	3708.2
27.5°	3556.8	3564.9	3573.0	3582.0	3583.8
30°	3426.1	3436.0	3445.0	3455.9	3457.7
32.5°	3294.6	3298.2	3311.7	3323.4	3328.8
35°	3154.0	3161.2	3175.6	3188.2	3191.8
37.5°	3010.7	3021.5	3036.8	3050.3	3054.0
40°	2866.5	2875.5	2889.0	2907.1	2912.5
42.5°	2720.5	2726.8	2744.9	2760.2	2764.7
45°	2563.7	2580.0	2595.3	2613.3	2617.8
47.5°	2414.1	2426.8	2442.1	2459.2	2466.4
50°	2261.0	2276.3	2288.0	2306.9	2311.4
52.5°	2107.8	2117.7	2133.9	2150.1	2157.3
55°	1948.3	1960.0	1974.4	1992.4	1998.7
57.5°	1795.1	1801.4	1817.6	1832.9	1838.3
60°	1636.5	1642.8	1658.1	1674.3	1681.5
62.5°	1477.9	1483.3	1495.9	1514.8	1514.8
65°	1314.8	1321.1	1336.4	1347.2	1351.7
67.5°	1156.2	1161.6	1172.4	1185.9	1192.2
70°	995.8	1000.3	1009.3	1022.8	1023.7
72.5°	835.4	839.9	851.6	856.1	862.4
75°	677.7	681.3	690.3	697.5	699.3
77.5°	527.2	532.6	538.9	541.6	544.3
80°	383.9	389.3	393.8	396.5	397.4
82.5°	254.1	259.5	262.2	264.0	263.1
85°	144.2	148.7	150.5	148.7	149.6
87.5°	56.8	59.5	61.3	60.4	58.6
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)