

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: P708868

Luminaire Tested: **22APR-34-80L850-UNV**

Issue Date: 09/12/2023



**Test Information**

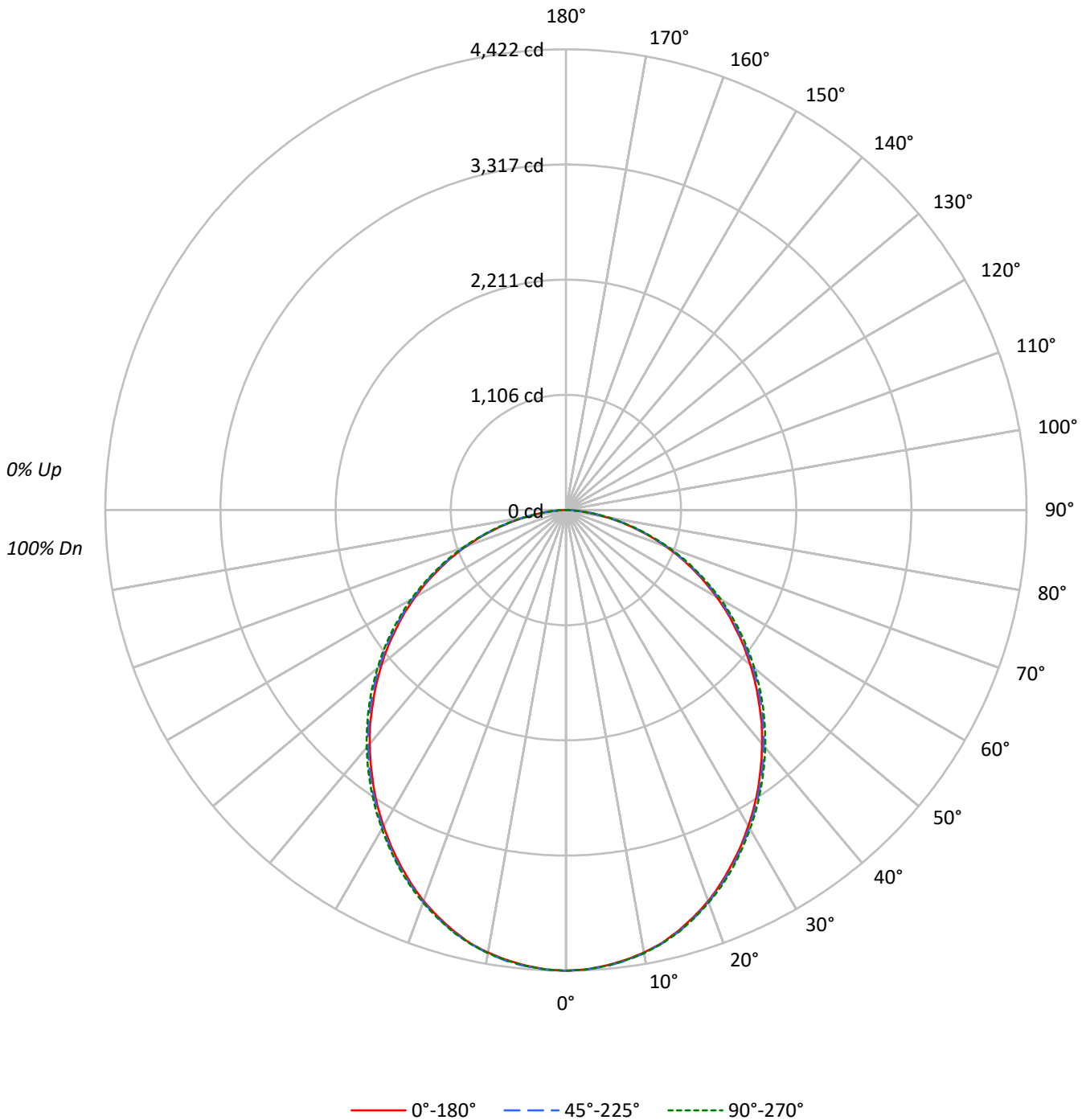
Test Method: LM-79-08  
Report Number: P708868  
Test Lab: INNOVATION CENTER(G2)  
Issue Date: 09/12/2023  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: FAIL-SAFE  
Catalog Number: 22APR-34-80L850-UNV  
Description: ArcMed Patient Recessed 2x2 Fixture Ambient and Exam Light  
Light Source: 5000K CCT, 80 CRI LEDS  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 11500.9 lumens  
Efficiency: N/A  
Efficacy: 111.3 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				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	100	100	100	100
1	109	104	100	96	106	102	98	95	98	95	92	94	91	89	90	88	86	84	84	84	84
2	99	91	84	79	97	89	83	78	86	81	76	82	78	74	79	76	73	71	71	71	71
3	91	80	72	66	88	79	71	65	76	69	64	73	67	63	70	66	62	60	60	60	60
4	83	71	63	56	81	70	62	56	67	60	55	65	59	54	63	58	53	51	51	51	51
5	76	64	55	48	74	63	54	48	61	53	47	59	52	47	57	51	46	44	44	44	44
6	71	57	49	42	69	57	48	42	55	47	42	53	46	41	51	46	41	39	39	39	39
7	66	52	44	37	64	51	43	37	50	42	37	48	42	37	47	41	36	34	34	34	34
8	61	48	39	33	60	47	39	33	46	38	33	44	38	33	43	37	33	31	31	31	31
9	57	44	36	30	56	43	35	30	42	35	30	41	34	30	40	34	30	28	28	28	28
10	54	41	33	27	52	40	32	27	39	32	27	38	32	27	37	31	27	25	25	25	25

**AVERAGE LUMINANCE (cd/sqm):**

	0°	45°	90°
0°	11899	11899	11899
5°	11860	11875	11865
10°	11786	11804	11801
15°	11642	11672	11678
20°	11442	11466	11481
25°	11166	11218	11253
30°	10881	10941	10981
35°	10590	10662	10717
40°	10292	10373	10457
45°	9972	10095	10182
50°	9674	9790	9890
55°	9342	9468	9584
60°	9002	9121	9250
65°	8557	8697	8797
70°	8007	8117	8232
75°	7201	7335	7431
80°	6081	6237	6295
85°	4551	4749	4721



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	417.2	3.6
10°-20°	1180.0	10.3
20°-30°	1739.2	15.1
30°-40°	2029.8	17.6
40°-50°	2045.7	17.8
50°-60°	1805.4	15.7
60°-70°	1350.3	11.7
70°-80°	748.3	6.5
80°-90°	185.1	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°	3336.4	29.0
0°-40°	5366.2	46.7
0°-60°	9217.3	80.1
0°-90°	11500.9	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	11500.9	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	4422	4422	4422	4422	4422	
5°	4391	4396	4396	4397	4392	417
15°	4179	4186	4190	4194	4192	1177
25°	3761	3769	3778	3786	3790	1732
35°	3224	3231	3246	3259	3262	2016
45°	2620	2637	2653	2671	2676	2024
55°	1991	2003	2018	2036	2043	1783
65°	1344	1350	1366	1377	1382	1331
75°	693	696	706	713	715	736
85°	147	152	154	152	153	180
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	4421.9	4421.9	4421.9	4421.9	4421.9
2.5°	4413.6	4418.2	4414.5	4418.2	4414.5
5°	4390.6	4396.1	4396.1	4397.0	4392.4
7.5°	4356.5	4363.0	4365.7	4366.6	4360.2
10°	4313.2	4319.7	4319.7	4323.4	4318.8
12.5°	4258.0	4261.6	4260.7	4266.3	4262.6
15°	4178.8	4186.1	4189.8	4193.5	4191.7
17.5°	4090.3	4099.5	4102.3	4108.8	4104.2
20°	3995.5	4001.9	4003.8	4013.9	4009.3
22.5°	3882.2	3888.6	3895.1	3904.3	3905.2
25°	3760.6	3768.9	3778.1	3785.5	3790.1
27.5°	3635.3	3643.6	3651.9	3661.1	3663.0
30°	3501.8	3511.9	3521.1	3532.2	3534.0
32.5°	3367.3	3371.0	3384.8	3396.8	3402.3
35°	3223.6	3231.0	3245.7	3258.6	3262.3
37.5°	3077.2	3088.2	3103.9	3117.7	3121.4
40°	2929.8	2939.0	2952.9	2971.3	2976.8
42.5°	2780.6	2787.1	2805.5	2821.1	2825.7
45°	2620.4	2636.9	2652.6	2671.0	2675.6
47.5°	2467.5	2480.4	2496.0	2513.5	2520.9
50°	2310.9	2326.5	2338.5	2357.9	2362.5
52.5°	2154.3	2164.4	2181.0	2197.6	2205.0
55°	1991.3	2003.3	2018.0	2036.4	2042.9
57.5°	1834.7	1841.2	1857.7	1873.4	1878.9
60°	1672.6	1679.1	1694.7	1711.3	1718.7
62.5°	1510.5	1516.0	1528.9	1548.3	1548.3
65°	1343.8	1350.2	1365.9	1377.0	1381.6
67.5°	1181.7	1187.2	1198.3	1212.1	1218.5
70°	1017.7	1022.4	1031.6	1045.4	1046.3
72.5°	853.8	858.4	870.4	875.0	881.4
75°	692.6	696.3	705.5	712.9	714.7
77.5°	538.8	544.3	550.8	553.5	556.3
80°	392.4	397.9	402.5	405.3	406.2
82.5°	259.7	265.3	268.0	269.9	268.9
85°	147.4	152.0	153.8	152.0	152.9
87.5°	58.0	60.8	62.6	61.7	59.9
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)