

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: P708974

Luminaire Tested: **24APR-85L840-X-UNV**

Issue Date: 09/12/2023



Test Information

Test Method: LM-79-08
Report Number: P708974
Test Lab: INNOVATION CENTER(G2)
Issue Date: 09/12/2023
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: FAIL-SAFE
Catalog Number: 24APR-85L840-X-UNV
Description: ArcMed Patient Recessed 2x4 Fixture Ambient Light
Light Source: 4000K CCT, 80 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

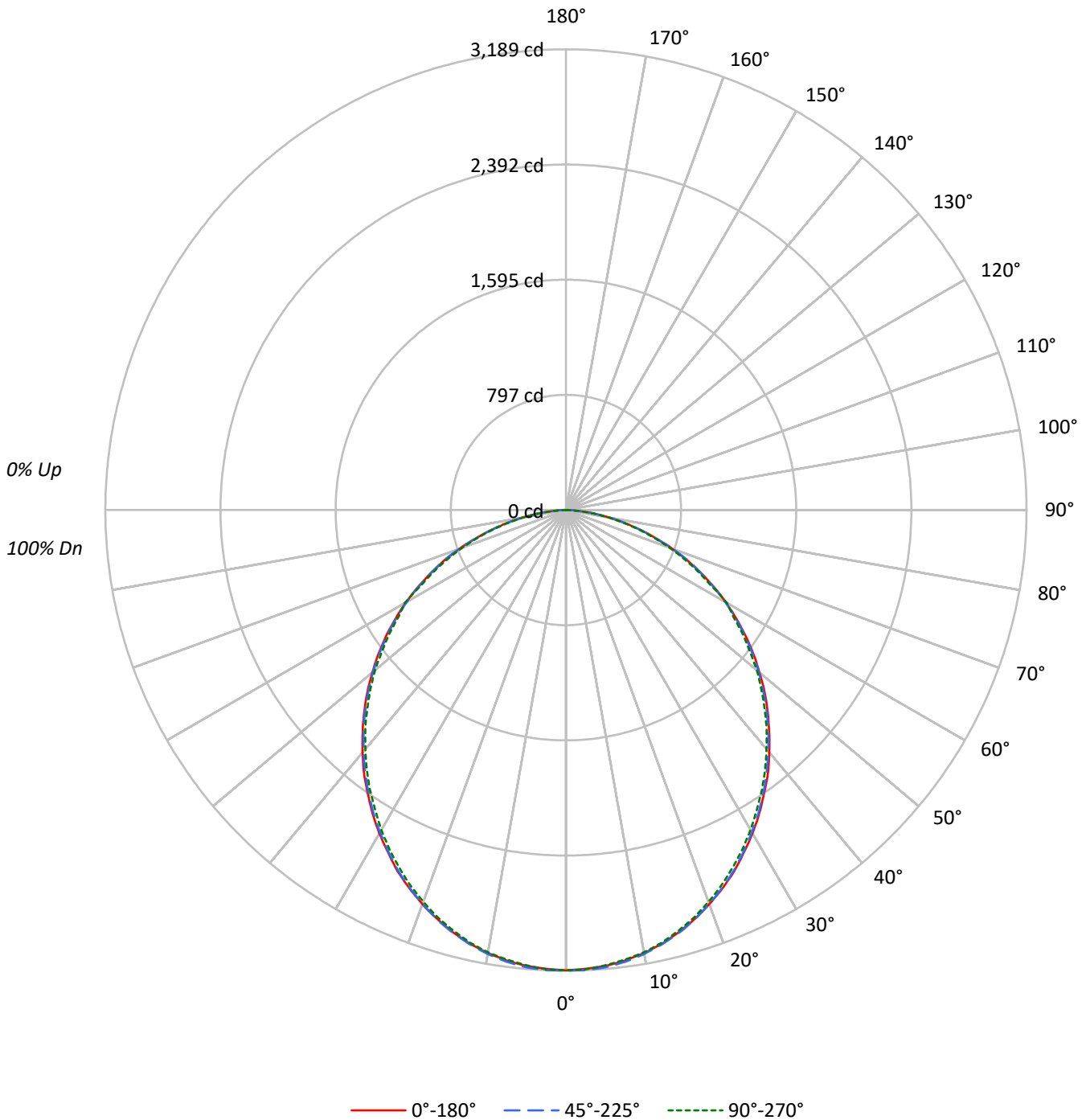
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 8487.5 lumens
Efficiency: N/A
Efficacy: 108.4 lumens/watt
Spacing Criteria (0/90/45): 1.21 / 1.2 / 1.32
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 78.3
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	80	76	82	78	74	79	76	72	72	72	72	70
3	90	80	72	65	88	78	71	65	75	69	64	73	67	63	70	65	61	61	61	61	59
4	83	71	62	56	81	70	61	55	67	60	54	65	59	54	63	57	53	53	53	53	51
5	76	63	55	48	74	62	54	48	60	53	47	58	52	47	56	51	46	46	46	46	44
6	70	57	48	42	69	56	48	42	54	47	41	53	46	41	51	45	41	41	41	41	39
7	65	52	43	37	64	51	43	37	50	42	37	48	41	36	47	41	36	36	36	36	34
8	61	47	39	33	59	47	39	33	45	38	33	44	37	33	43	37	32	32	32	32	30
9	57	44	35	30	55	43	35	30	42	35	30	41	34	29	40	34	29	29	29	29	27
10	53	40	32	27	52	40	32	27	39	32	27	38	31	27	37	31	27	27	27	27	25

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	4288	4288	4288
5°	4278	4290	4272
10°	4254	4263	4248
15°	4213	4220	4198
20°	4157	4156	4133
25°	4095	4086	4054
30°	4015	4000	3970
35°	3930	3917	3885
40°	3847	3827	3793
45°	3759	3740	3701
50°	3662	3647	3611
55°	3562	3543	3498
60°	3443	3421	3467
65°	3286	3276	3214
70°	3083	3087	3003
75°	2799	2778	2714
80°	2405	2373	2311
85°	1839	1823	1681



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	301.0	3.5
10°-20°	852.6	10.0
20°-30°	1265.5	14.9
30°-40°	1489.6	17.6
40°-50°	1513.9	17.8
50°-60°	1345.8	15.9
60°-70°	1015.1	12.0
70°-80°	563.8	6.6
80°-90°	140.2	1.7
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°	2419.1	28.5
0°-40°	3908.7	46.1
0°-60°	6768.3	79.7
0°-90°	8487.5	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	8487.5	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	3187	3187	3187	3187	3187	
5°	3167	3172	3176	3171	3163	301
15°	3025	3028	3030	3023	3014	853
25°	2758	2756	2752	2740	2731	1269
35°	2393	2394	2385	2370	2365	1498
45°	1975	1975	1965	1949	1945	1524
55°	1518	1507	1510	1494	1491	1357
65°	1032	1026	1029	1016	1010	1022
75°	538	531	534	530	522	571
85°	119	116	118	113	109	143
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	3186.6	3186.6	3186.6	3186.6	3186.6
2.5°	3178.4	3184.5	3188.6	3183.5	3182.5
5°	3167.2	3172.3	3176.4	3171.3	3163.2
7.5°	3144.8	3150.9	3154.0	3148.9	3137.7
10°	3113.3	3119.4	3120.4	3115.3	3109.2
12.5°	3074.6	3078.7	3078.7	3074.6	3067.5
15°	3024.7	3027.8	3029.8	3022.7	3013.5
17.5°	2967.7	2972.8	2970.8	2959.6	2955.5
20°	2903.6	2907.7	2902.6	2895.5	2886.3
22.5°	2833.4	2834.4	2830.4	2822.2	2813.0
25°	2758.1	2756.1	2752.0	2739.8	2730.6
27.5°	2670.6	2674.6	2664.5	2653.3	2647.2
30°	2584.1	2585.1	2574.9	2560.6	2555.6
32.5°	2491.4	2489.4	2482.3	2467.0	2458.9
35°	2392.7	2393.7	2384.6	2370.3	2365.2
37.5°	2297.1	2290.9	2283.8	2267.5	2264.5
40°	2190.2	2189.2	2179.0	2164.7	2159.7
42.5°	2083.3	2082.3	2074.2	2059.9	2055.8
45°	1975.4	1975.4	1965.3	1949.0	1944.9
47.5°	1865.5	1861.5	1854.3	1840.1	1835.0
50°	1749.5	1746.5	1742.4	1726.1	1725.1
52.5°	1635.5	1633.5	1626.4	1612.1	1604.0
55°	1518.5	1507.3	1510.3	1494.1	1491.0
57.5°	1398.4	1387.2	1393.3	1379.0	1372.9
60°	1279.3	1268.1	1271.2	1262.0	1288.5
62.5°	1157.2	1150.1	1150.1	1171.4	1132.8
65°	1032.0	1025.9	1028.9	1015.7	1009.6
67.5°	908.8	899.7	919.0	894.6	884.4
70°	783.7	777.6	784.7	770.4	763.3
72.5°	659.5	654.4	652.4	647.3	641.2
75°	538.4	531.3	534.3	530.2	522.1
77.5°	420.3	418.3	417.3	412.2	406.1
80°	310.4	308.4	306.3	302.3	298.2
82.5°	207.6	205.6	204.6	202.5	201.5
85°	119.1	116.0	118.1	113.0	108.9
87.5°	44.8	43.8	45.8	41.7	38.7
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)