

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: P709017

Luminaire Tested: **24APR-58-138L840-UNV**

Issue Date: 09/12/2023



Test Information

Test Method: LM-79-08
Report Number: P709017
Test Lab: INNOVATION CENTER(G2)
Issue Date: 09/12/2023
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: FAIL-SAFE
Catalog Number: 24APR-58-138L840-UNV
Description: ArcMed Patient Recessed 2x4 Fixture Ambient and Exam Light
Light Source: 4000K CCT, 80 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

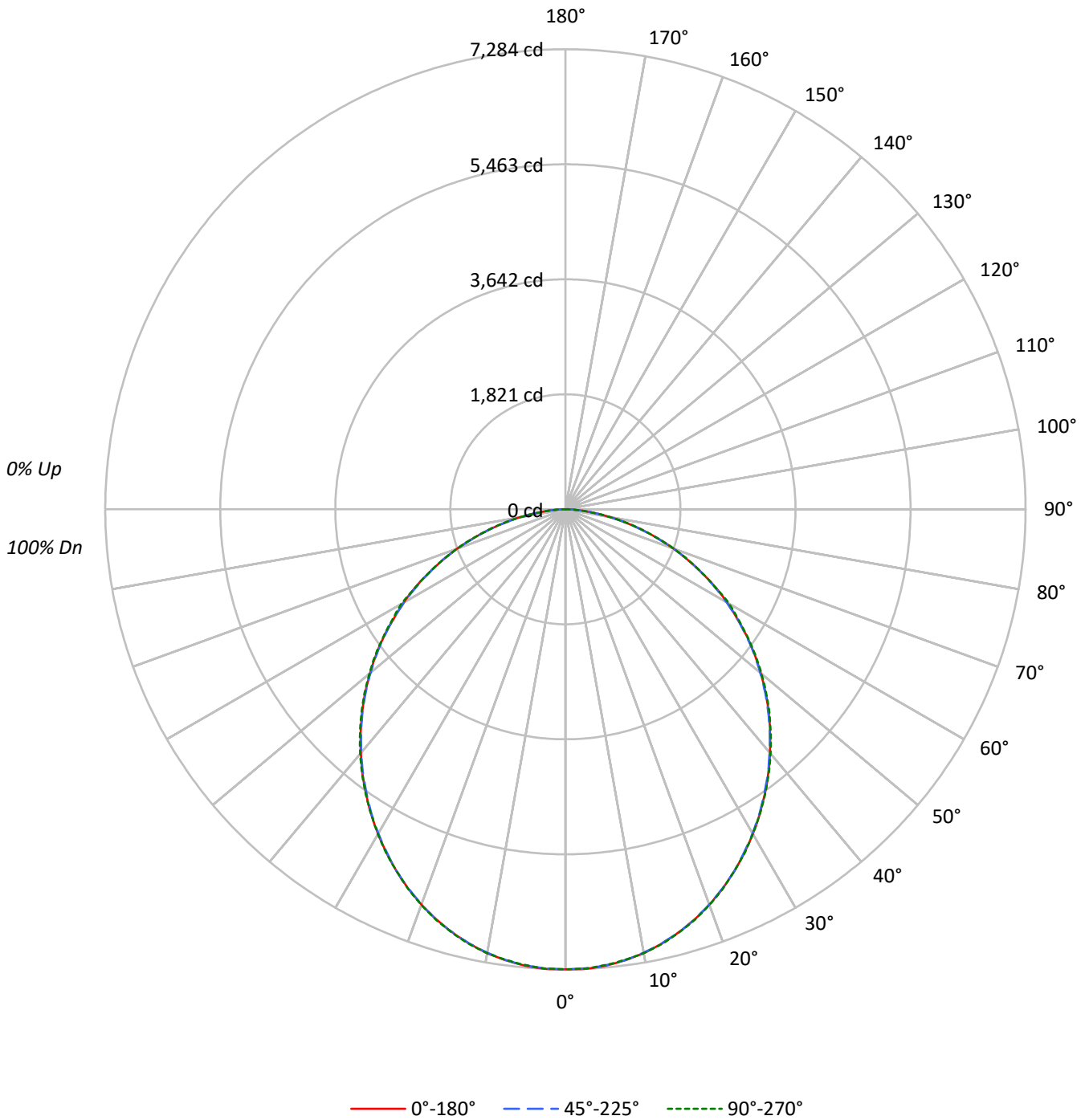
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 19656.5 lumens
Efficiency: N/A
Efficacy: 126.5 lumens/watt
Spacing Criteria (0/90/45): 1.21 / 1.21 / 1.33
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 155.4
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	102	102	102	100
1	109	104	100	96	106	102	98	94	98	94	92	94	91	89	90	88	86	86	86	86	84
2	99	91	84	78	96	89	83	77	85	80	76	82	78	74	79	75	72	72	72	72	70
3	90	80	72	65	88	78	71	65	75	69	63	73	67	62	70	65	61	61	61	61	59
4	83	71	62	55	80	69	61	55	67	60	54	65	58	53	62	57	53	53	53	53	51
5	76	63	54	48	74	62	54	47	60	53	47	58	52	46	56	51	46	46	46	46	44
6	70	57	48	42	68	56	48	42	54	47	41	53	46	41	51	45	40	40	40	40	38
7	65	52	43	37	64	51	43	37	49	42	36	48	41	36	47	41	36	36	36	36	34
8	61	47	39	33	59	47	38	33	45	38	33	44	37	32	43	37	32	32	32	32	30
9	57	43	35	30	55	43	35	30	42	34	29	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	26	26	26	26	25

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	9800	9800	9800
5°	9801	9792	9786
10°	9750	9741	9749
15°	9658	9658	9669
20°	9539	9533	9547
25°	9390	9385	9385
30°	9220	9206	9221
35°	9040	9016	9051
40°	8848	8831	8877
45°	8659	8642	8688
50°	8452	8430	8484
55°	8222	8200	8249
60°	7950	7931	8070
65°	7588	7590	7610
70°	7172	7133	7180
75°	6542	6491	6535
80°	5648	5577	5615
85°	4406	4363	4352



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	688.4	3.5
10°-20°	1955.1	9.9
20°-30°	2911.6	14.8
30°-40°	3439.9	17.5
40°-50°	3509.3	17.9
50°-60°	3131.2	15.9
60°-70°	2360.7	12.0
70°-80°	1323.6	6.7
80°-90°	336.8	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°	5555.1	28.3
0°-40°	8995.0	45.8
0°-60°	15635.5	79.5
0°-90°	19656.5	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	19656.5	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	7284	7284	7284	7284	7284	
5°	7257	7253	7250	7251	7245	689
15°	6933	6929	6933	6938	6941	1955
25°	6325	6317	6322	6328	6322	2913
35°	5504	5496	5489	5505	5510	3442
45°	4551	4548	4542	4555	4566	3510
55°	3505	3497	3496	3506	3517	3131
65°	2383	2372	2384	2391	2390	2365
75°	1258	1237	1249	1242	1257	1332
85°	285	275	283	282	282	341
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	7283.8	7283.8	7283.8	7283.8	7283.8
2.5°	7283.8	7280.3	7277.5	7276.8	7278.2
5°	7256.6	7253.1	7249.6	7251.0	7245.4
7.5°	7204.1	7204.8	7202.0	7202.7	7196.4
10°	7136.2	7132.7	7129.9	7136.2	7135.5
12.5°	7044.6	7038.3	7041.1	7050.9	7051.6
15°	6933.4	6929.2	6933.4	6938.3	6941.1
17.5°	6806.7	6803.2	6808.1	6808.8	6814.4
20°	6661.9	6657.7	6657.7	6664.7	6667.5
22.5°	6501.7	6495.4	6496.8	6501.7	6505.2
25°	6324.7	6317.0	6321.9	6327.5	6321.9
27.5°	6133.8	6129.6	6124.7	6131.7	6140.8
30°	5934.4	5926.0	5925.3	5930.2	5935.1
32.5°	5723.8	5714.0	5714.0	5720.3	5724.5
35°	5503.5	5495.8	5488.8	5504.9	5510.5
37.5°	5276.1	5267.0	5266.3	5276.1	5285.2
40°	5037.5	5029.9	5027.8	5044.5	5054.3
42.5°	4796.9	4792.0	4787.1	4803.9	4811.6
45°	4550.7	4547.9	4541.6	4554.8	4566.0
47.5°	4297.4	4288.3	4286.2	4301.6	4312.8
50°	4037.9	4034.4	4027.4	4041.4	4053.3
52.5°	3774.8	3770.6	3765.7	3778.3	3790.9
55°	3504.8	3497.1	3495.7	3506.2	3516.7
57.5°	3223.6	3217.3	3227.1	3236.9	3245.3
60°	2954.3	2939.6	2947.3	2958.4	2999.0
62.5°	2683.5	2657.6	2663.2	2694.0	2676.5
65°	2383.4	2371.5	2384.1	2391.1	2390.4
67.5°	2102.2	2088.2	2107.1	2101.5	2109.9
70°	1823.1	1798.6	1813.3	1815.4	1825.2
72.5°	1534.8	1513.9	1526.4	1532.7	1539.0
75°	1258.5	1236.8	1248.7	1241.7	1257.1
77.5°	983.6	970.3	978.0	982.9	994.8
80°	728.9	714.3	719.8	720.5	724.7
82.5°	493.9	482.7	484.1	496.7	491.8
85°	285.4	274.9	282.6	281.9	281.9
87.5°	111.2	102.8	110.5	109.8	108.4
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)