

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: P709014

Luminaire Tested: **24APR-85-200L840-UNV**

Issue Date: 09/12/2023



Test Information

Test Method: LM-79-08
Report Number: P709014
Test Lab: INNOVATION CENTER(G2)
Issue Date: 09/12/2023
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: FAIL-SAFE
Catalog Number: 24APR-85-200L840-UNV
Description: ArcMed Patient Recessed 2x4 Fixture Ambient and Exam Light
Light Source: 4000K CCT, 80 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

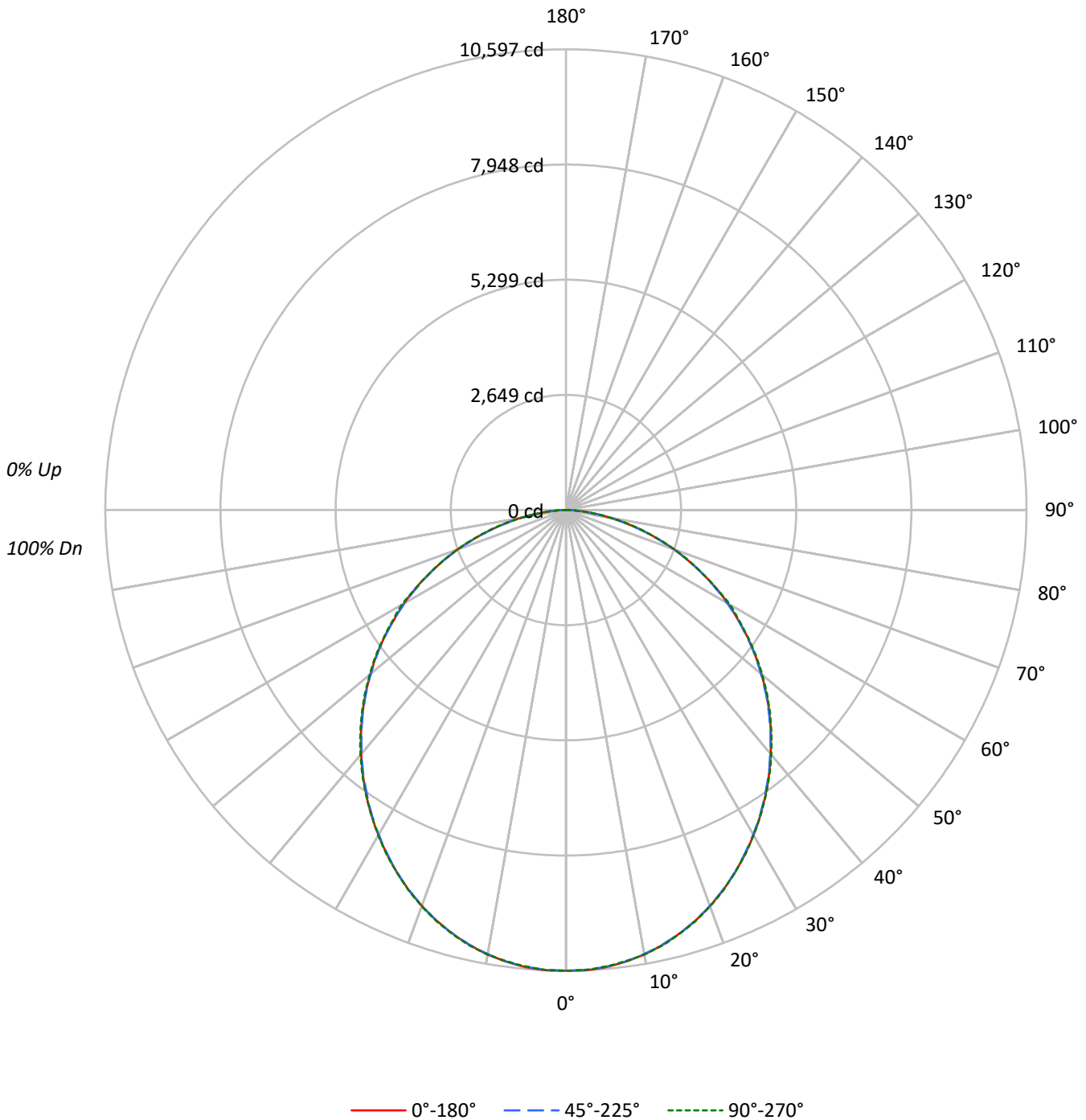
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 28597.3 lumens
Efficiency: N/A
Efficacy: 121.5 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): 235.4
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°	14258	14258	14258
5°	14259	14245	14237
10°	14185	14172	14183
15°	14051	14051	14066
20°	13878	13869	13889
25°	13661	13654	13654
30°	13413	13393	13415
35°	13151	13116	13168
40°	12873	12847	12915
45°	12598	12572	12640
50°	12297	12265	12343
55°	11961	11930	12002
60°	11566	11538	11741
65°	11039	11043	11072
70°	10434	10378	10446
75°	9518	9444	9508
80°	8217	8115	8170
85°	6410	6348	6333



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	1001.5	3.5
10°-20°	2844.3	9.9
20°-30°	4236.0	14.8
30°-40°	5004.5	17.5
40°-50°	5105.4	17.9
50°-60°	4555.5	15.9
60°-70°	3434.4	12.0
70°-80°	1925.6	6.7
80°-90°	490.0	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°	8081.8	28.3
0°-40°	13086.4	45.8
0°-60°	22747.3	79.5
0°-90°	28597.3	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	28597.3	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	10597	10597	10597	10597	10597	
5°	10557	10552	10547	10549	10541	1002
15°	10087	10081	10087	10094	10098	2844
25°	9202	9190	9198	9206	9198	4238
35°	8007	7996	7985	8009	8017	5008
45°	6620	6616	6607	6627	6643	5106
55°	5099	5088	5086	5101	5116	4554
65°	3468	3450	3468	3479	3478	3440
75°	1831	1799	1817	1806	1829	1938
85°	415	400	411	410	410	497
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	10596.9	10596.9	10596.9	10596.9	10596.9
2.5°	10596.9	10591.8	10587.7	10586.7	10588.8
5°	10557.2	10552.1	10547.0	10549.1	10540.9
7.5°	10480.9	10481.9	10477.8	10478.8	10469.7
10°	10382.2	10377.1	10373.0	10382.2	10381.1
12.5°	10248.8	10239.7	10243.7	10258.0	10259.0
15°	10087.0	10080.9	10087.0	10094.1	10098.2
17.5°	9902.8	9897.7	9904.8	9905.8	9914.0
20°	9692.1	9686.0	9686.0	9696.2	9700.3
22.5°	9459.0	9449.9	9451.9	9459.0	9464.1
25°	9201.6	9190.4	9197.5	9205.6	9197.5
27.5°	8923.7	8917.6	8910.5	8920.7	8933.9
30°	8633.6	8621.4	8620.4	8627.5	8634.7
32.5°	8327.3	8313.1	8313.1	8322.2	8328.3
35°	8006.7	7995.5	7985.3	8008.7	8016.9
37.5°	7675.9	7662.7	7661.7	7675.9	7689.2
40°	7328.9	7317.7	7314.6	7339.1	7353.3
42.5°	6978.8	6971.6	6964.5	6988.9	7000.1
45°	6620.5	6616.4	6607.3	6626.6	6642.9
47.5°	6252.1	6238.9	6235.8	6258.2	6274.5
50°	5874.5	5869.4	5859.2	5879.6	5896.9
52.5°	5491.8	5485.7	5478.6	5496.9	5515.2
55°	5099.0	5087.8	5085.7	5101.0	5116.3
57.5°	4689.8	4680.7	4694.9	4709.2	4721.4
60°	4298.0	4276.6	4287.8	4304.1	4363.1
62.5°	3904.1	3866.5	3874.6	3919.4	3893.9
65°	3467.5	3450.2	3468.5	3478.7	3477.7
67.5°	3058.4	3038.0	3065.5	3057.3	3069.6
70°	2652.3	2616.7	2638.0	2641.1	2655.3
72.5°	2233.0	2202.4	2220.7	2229.9	2239.1
75°	1830.9	1799.4	1816.7	1806.5	1828.9
77.5°	1431.0	1411.6	1422.8	1430.0	1447.3
80°	1060.5	1039.1	1047.3	1048.3	1054.4
82.5°	718.5	702.3	704.3	722.6	715.5
85°	415.2	400.0	411.2	410.2	410.2
87.5°	161.8	149.6	160.8	159.8	157.8
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)