

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: P708938

Luminaire Tested: **24APR-X-116L840-UNV**

Issue Date: 09/12/2023



Test Information

Test Method: LM-79-08
Report Number: P708938
Test Lab: INNOVATION CENTER(G2)
Issue Date: 09/12/2023
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: FAIL-SAFE
Catalog Number: 24APR-X-116L840-UNV
Description: ArcMed Patient Recessed 2x4 Fixture EXAM Light
Light Source: 4000K CCT, 80 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

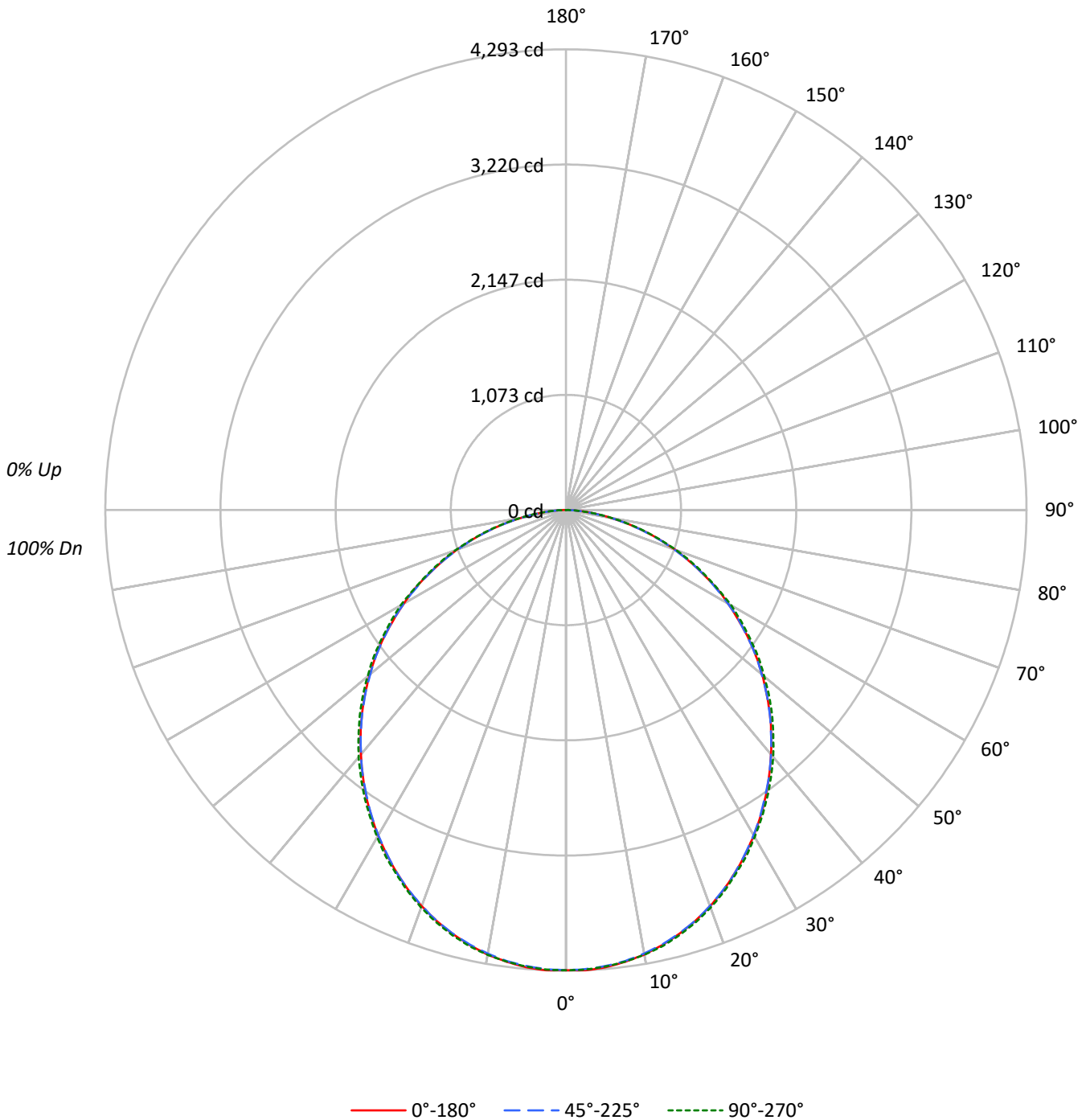
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 11637.9 lumens
Efficiency: N/A
Efficacy: 135.5 lumens/watt
Spacing Criteria (0/90/45): 1.22 / 1.22 / 1.33
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 85.9
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	91	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	72	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	50
5	76	63	54	48	74	62	54	47	60	53	47	58	51	46	56	50	46	46	46	46	44
6	70	57	48	42	68	56	48	41	54	47	41	53	46	41	51	45	40	40	40	40	38
7	65	52	43	37	63	51	43	37	49	42	36	48	41	36	47	40	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	39	33	29	29	29	29	27
10	53	40	32	27	52	39	32	27	39	32	27	38	31	27	37	31	26	26	26	26	25

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	5770	5770	5770
5°	5776	5761	5767
10°	5747	5734	5750
15°	5693	5689	5711
20°	5625	5621	5646
25°	5536	5538	5556
30°	5439	5436	5466
35°	5336	5324	5372
40°	5223	5220	5279
45°	5115	5112	5173
50°	4997	4987	5054
55°	4861	4854	4921
60°	4701	4698	4788
65°	4487	4495	4547
70°	4254	4220	4307
75°	3889	3858	3932
80°	3364	3322	3391
85°	2646	2618	2691



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	405.4	3.5
10°-20°	1152.7	9.9
20°-30°	1719.1	14.8
30°-40°	2034.1	17.5
40°-50°	2078.5	17.9
50°-60°	1857.5	16.0
60°-70°	1400.1	12.0
70°-80°	788.1	6.8
80°-90°	202.4	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°	3277.1	28.2
0°-40°	5311.3	45.6
0°-60°	9247.3	79.5
0°-90°	11637.9	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	11637.9	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	4288	4288	4288	4288	4288	
5°	4277	4271	4266	4270	4270	406
15°	4087	4082	4084	4092	4100	1153
25°	3729	3724	3730	3742	3742	1718
35°	3249	3242	3241	3263	3271	2031
45°	2688	2686	2686	2707	2719	2073
55°	2072	2072	2069	2087	2098	1851
65°	1410	1403	1412	1425	1428	1400
75°	748	734	742	739	756	791
85°	171	164	170	172	174	204
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	4288.5	4288.5	4288.5	4288.5	4288.5
2.5°	4293.2	4286.7	4282.0	4284.4	4286.1
5°	4276.7	4270.8	4265.5	4269.6	4269.6
7.5°	4245.5	4242.5	4238.4	4242.0	4243.1
10°	4206.6	4200.1	4197.2	4205.4	4208.4
12.5°	4151.8	4144.2	4146.5	4157.1	4161.9
15°	4087.1	4081.8	4084.1	4092.4	4100.0
17.5°	4013.4	4007.5	4012.8	4019.9	4027.0
20°	3928.6	3922.7	3925.7	3935.7	3943.3
22.5°	3834.4	3828.5	3832.0	3840.9	3849.1
25°	3728.9	3723.6	3730.1	3741.9	3742.5
27.5°	3618.8	3612.9	3614.7	3627.0	3638.2
30°	3501.0	3493.3	3498.6	3511.0	3518.1
32.5°	3377.3	3370.2	3374.4	3388.5	3396.7
35°	3248.9	3241.8	3241.3	3263.0	3270.7
37.5°	3112.9	3108.7	3112.3	3129.9	3139.4
40°	2973.8	2968.0	2972.1	2994.5	3005.7
42.5°	2833.1	2829.5	2830.1	2852.5	2861.3
45°	2688.2	2685.8	2686.4	2707.0	2718.8
47.5°	2538.6	2533.3	2535.6	2556.8	2569.2
50°	2387.2	2386.0	2382.5	2403.7	2414.3
52.5°	2231.7	2229.4	2229.4	2248.2	2263.5
55°	2072.1	2072.1	2069.1	2087.4	2098.0
57.5°	1904.8	1906.0	1910.7	1927.2	1937.8
60°	1747.0	1741.1	1745.8	1760.5	1779.4
62.5°	1589.7	1572.0	1576.7	1590.3	1597.9
65°	1409.5	1403.0	1411.8	1425.4	1428.3
67.5°	1244.0	1237.5	1242.2	1251.6	1264.6
70°	1081.4	1064.3	1072.6	1082.6	1094.9
72.5°	910.6	895.9	907.6	915.9	924.7
75°	748.0	733.9	742.1	738.6	756.3
77.5°	584.9	574.9	581.9	589.0	602.5
80°	434.1	422.9	428.8	431.7	437.6
82.5°	295.7	287.4	289.2	301.0	297.4
85°	171.4	164.3	169.6	172.0	174.3
87.5°	67.7	61.3	66.6	68.3	68.9
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)