

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: P708928

Luminaire Tested: **24APR-X-116L830-UNV**

Issue Date: 09/12/2023



Test Information

Test Method: LM-79-08
Report Number: P708928
Test Lab: INNOVATION CENTER(G2)
Issue Date: 09/12/2023
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: FAIL-SAFE
Catalog Number: 24APR-X-116L830-UNV
Description: ArcMed Patient Recessed 2x4 Fixture EXAM Light
Light Source: 3000K CCT, 80 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

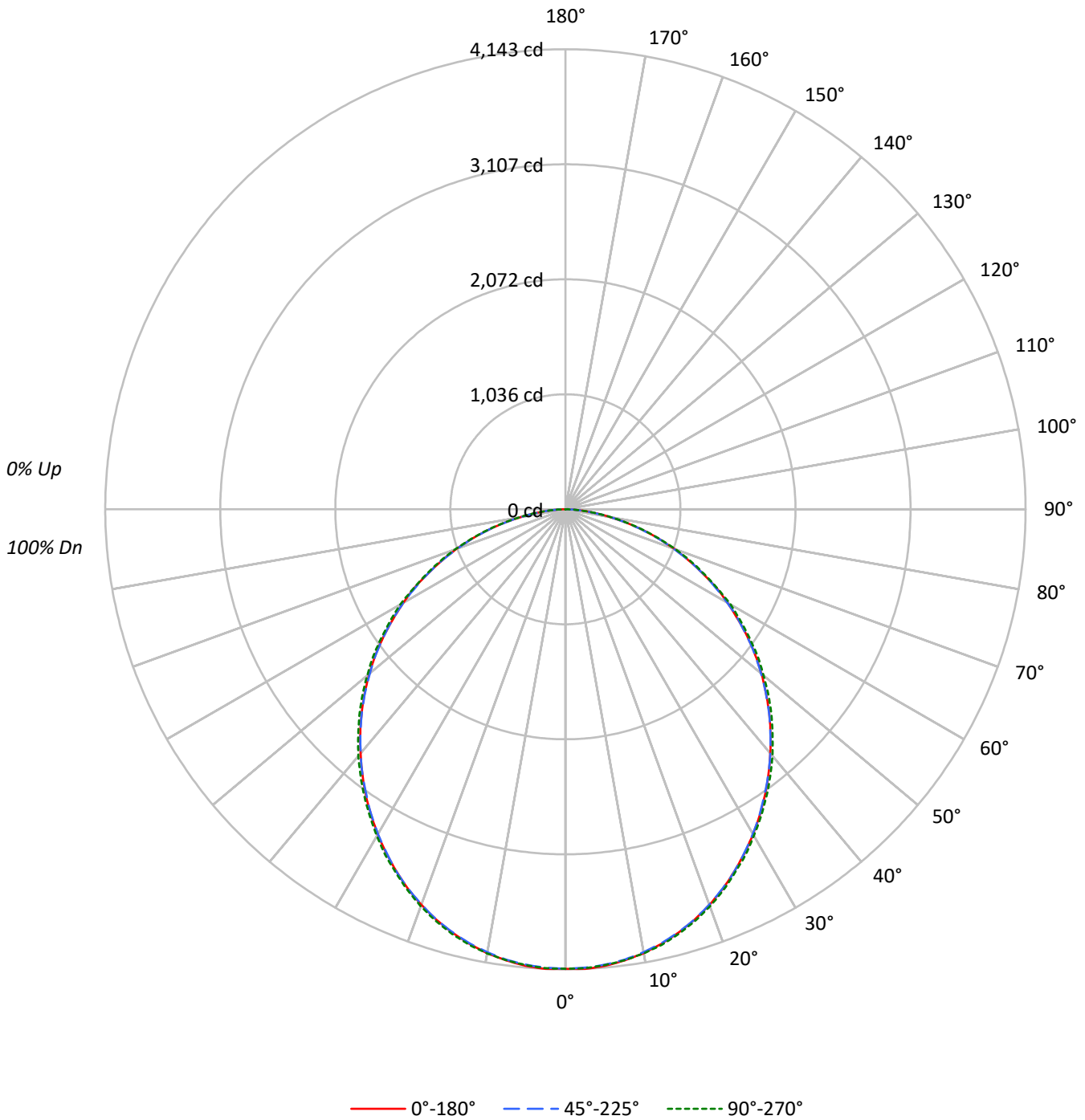
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 11230.6 lumens
Efficiency: N/A
Efficacy: 130.7 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	100	100	100	100
1	109	104	100	96	106	102	98	94	98	94	91	94	91	89	90	88	86	84	84	84	84
2	99	91	84	78	96	89	83	77	85	80	76	82	78	74	79	75	72	70	70	70	70
3	90	80	72	65	88	78	71	65	75	69	63	72	67	62	70	65	61	59	59	59	59
4	83	71	62	55	80	69	61	55	67	60	54	65	58	53	62	57	53	50	50	50	50
5	76	63	54	48	74	62	54	47	60	53	47	58	51	46	56	50	46	44	44	44	44
6	70	57	48	42	68	56	48	41	54	47	41	53	46	41	51	45	40	38	38	38	38
7	65	52	43	37	63	51	43	37	49	42	36	48	41	36	47	40	36	34	34	34	34
8	61	47	39	33	59	47	38	33	45	38	33	44	37	32	43	37	32	30	30	30	30
9	57	43	35	30	55	43	35	30	42	34	29	41	34	29	39	33	29	27	27	27	27
10	53	40	32	27	52	39	32	27	39	32	27	38	31	27	37	31	26	25	25	25	25

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	5568	5568	5568
5°	5574	5559	5565
10°	5546	5534	5548
15°	5494	5490	5511
20°	5428	5424	5449
25°	5342	5344	5362
30°	5249	5245	5274
35°	5150	5138	5184
40°	5041	5038	5094
45°	4936	4933	4992
50°	4822	4812	4877
55°	4691	4684	4749
60°	4536	4533	4621
65°	4330	4337	4388
70°	4105	4072	4157
75°	3752	3723	3794
80°	3246	3206	3272
85°	2553	2527	2597



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	391.2	3.5
10°-20°	1112.3	9.9
20°-30°	1658.9	14.8
30°-40°	1962.9	17.5
40°-50°	2005.8	17.9
50°-60°	1792.5	16.0
60°-70°	1351.1	12.0
70°-80°	760.5	6.8
80°-90°	195.3	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°	3162.4	28.2
0°-40°	5125.4	45.6
0°-60°	8923.7	79.5
0°-90°	11230.6	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	11230.6	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	4138	4138	4138	4138	4138	
5°	4127	4121	4116	4120	4120	392
15°	3944	3939	3941	3949	3956	1112
25°	3598	3593	3600	3611	3612	1658
35°	3135	3128	3128	3149	3156	1960
45°	2594	2592	2592	2612	2624	2001
55°	2000	2000	1997	2014	2025	1786
65°	1360	1354	1362	1376	1378	1351
75°	722	708	716	713	730	764
85°	165	159	164	166	168	197
90°	0	0	0	0	0	

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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	4138.4	4138.4	4138.4	4138.4	4138.4
2.5°	4142.9	4136.7	4132.1	4134.4	4136.1
5°	4127.0	4121.3	4116.2	4120.2	4120.2
7.5°	4096.9	4094.1	4090.1	4093.5	4094.6
10°	4059.4	4053.1	4050.3	4058.3	4061.1
12.5°	4006.5	3999.1	4001.4	4011.6	4016.2
15°	3944.0	3938.9	3941.2	3949.1	3956.5
17.5°	3873.0	3867.3	3872.4	3879.2	3886.0
20°	3791.1	3785.4	3788.3	3797.9	3805.3
22.5°	3700.2	3694.5	3697.9	3706.4	3714.4
25°	3598.4	3593.3	3599.6	3610.9	3611.5
27.5°	3492.1	3486.5	3488.2	3500.1	3510.9
30°	3378.5	3371.1	3376.2	3388.1	3394.9
32.5°	3259.1	3252.3	3256.3	3269.9	3277.9
35°	3135.2	3128.4	3127.8	3148.8	3156.2
37.5°	3003.9	2999.9	3003.3	3020.4	3029.5
40°	2869.8	2864.1	2868.1	2889.7	2900.5
42.5°	2733.9	2730.5	2731.1	2752.7	2761.2
45°	2594.1	2591.8	2592.4	2612.3	2623.7
47.5°	2449.7	2444.6	2446.9	2467.3	2479.3
50°	2303.7	2302.5	2299.1	2319.6	2329.8
52.5°	2153.6	2151.3	2151.3	2169.5	2184.3
55°	1999.6	1999.6	1996.7	2014.3	2024.6
57.5°	1838.1	1839.3	1843.8	1859.7	1870.0
60°	1685.8	1680.1	1684.7	1698.9	1717.1
62.5°	1534.1	1517.0	1521.6	1534.6	1542.0
65°	1360.1	1353.9	1362.4	1375.5	1378.3
67.5°	1200.4	1194.2	1198.7	1207.8	1220.3
70°	1043.6	1027.1	1035.0	1044.7	1056.6
72.5°	878.7	864.5	875.9	883.8	892.4
75°	721.8	708.2	716.2	712.8	729.8
77.5°	564.4	554.7	561.6	568.4	581.5
80°	418.9	408.1	413.8	416.6	422.3
82.5°	285.3	277.4	279.1	290.4	287.0
85°	165.4	158.6	163.7	166.0	168.2
87.5°	65.4	59.1	64.2	65.9	66.5
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)