

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: P708951

Luminaire Tested: **24APR-X-160L935-UNV**

Issue Date: 09/12/2023



Test Information

Test Method: LM-79-08
Report Number: P708951
Test Lab: INNOVATION CENTER(G2)
Issue Date: 09/12/2023
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: FAIL-SAFE
Catalog Number: 24APR-X-160L935-UNV
Description: ArcMed Patient Recessed 2x4 Fixture EXAM Light
Light Source: 3500K CCT, 90 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

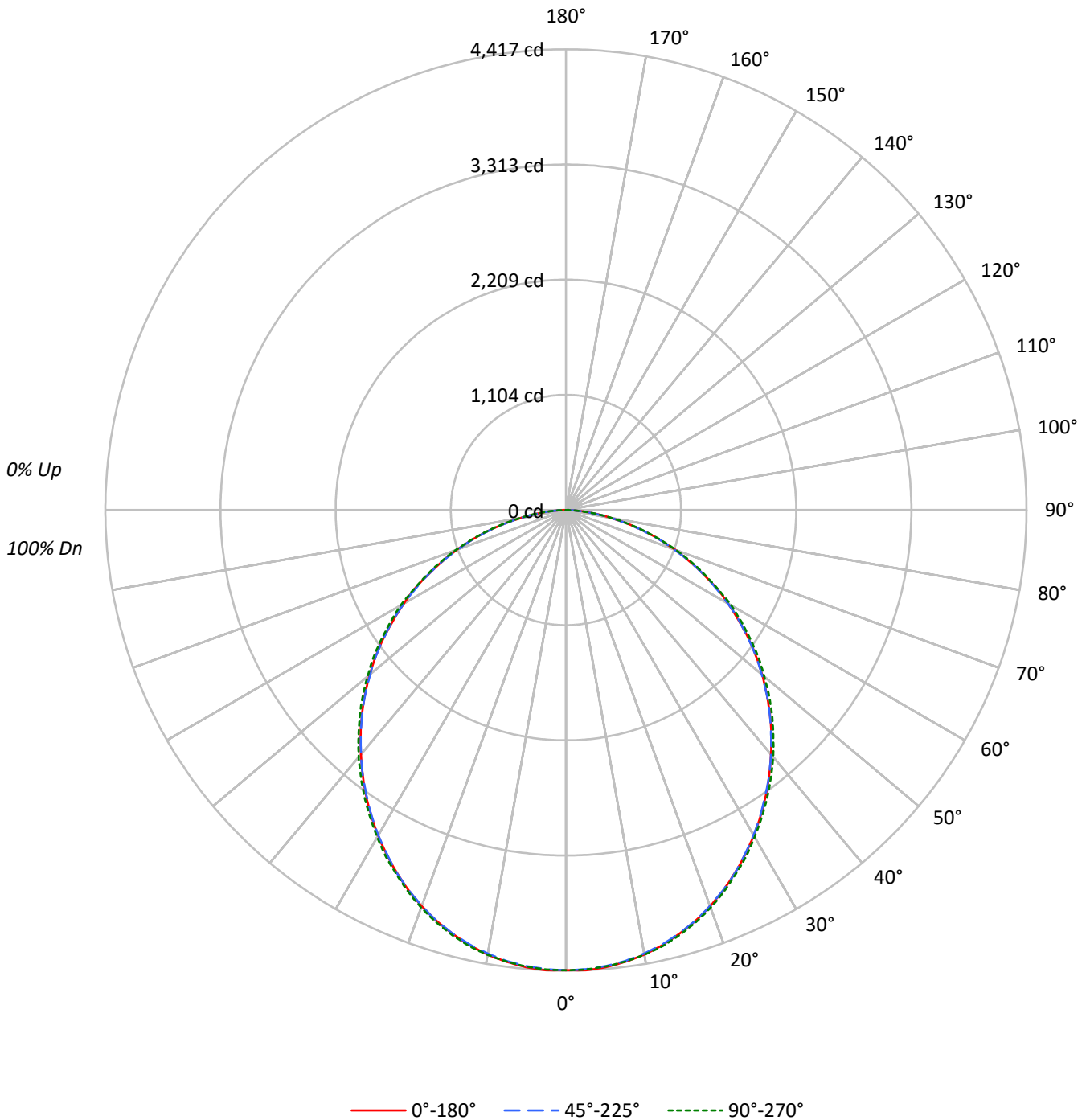
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 11974.5 lumens
Efficiency: N/A
Efficacy: 98.8 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): 121.2
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

TEST NUMBER: P708951
CATALOG NUMBER: 24APR-X-160L935-UNV

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°	5937	5937	5937
5°	5943	5928	5933
10°	5914	5900	5916
15°	5858	5853	5876
20°	5788	5783	5810
25°	5696	5698	5717
30°	5597	5593	5624
35°	5491	5478	5528
40°	5374	5371	5432
45°	5263	5260	5323
50°	5142	5131	5200
55°	5001	4994	5064
60°	4837	4834	4927
65°	4617	4625	4679
70°	4377	4342	4432
75°	4001	3970	4045
80°	3460	3419	3489
85°	2723	2694	2770



TEST NUMBER: P708951
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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	417.1	3.5
10°-20°	1186.0	9.9
20°-30°	1768.8	14.8
30°-40°	2093.0	17.5
40°-50°	2138.6	17.9
50°-60°	1911.2	16.0
60°-70°	1440.6	12.0
70°-80°	810.9	6.8
80°-90°	208.3	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°	3371.9	28.2
0°-40°	5464.9	45.6
0°-60°	9514.8	79.5
0°-90°	11974.5	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	11974.5	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	4412	4412	4412	4412	4412	
5°	4400	4394	4389	4393	4393	418
15°	4205	4200	4202	4211	4219	1186
25°	3837	3831	3838	3850	3851	1768
35°	3343	3336	3335	3357	3365	2090
45°	2766	2764	2764	2785	2798	2133
55°	2132	2132	2129	2148	2159	1904
65°	1450	1444	1453	1467	1470	1440
75°	770	755	764	760	778	814
85°	176	169	174	177	179	210
90°	0	0	0	0	0	

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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	4412.5	4412.5	4412.5	4412.5	4412.5
2.5°	4417.4	4410.7	4405.9	4408.3	4410.1
5°	4400.4	4394.4	4388.9	4393.1	4393.1
7.5°	4368.3	4365.3	4361.0	4364.7	4365.9
10°	4328.3	4321.6	4318.6	4327.1	4330.1
12.5°	4271.9	4264.1	4266.5	4277.4	4282.2
15°	4205.3	4199.8	4202.2	4210.7	4218.6
17.5°	4129.5	4123.5	4128.9	4136.2	4143.5
20°	4042.2	4036.2	4039.2	4049.5	4057.4
22.5°	3945.3	3939.2	3942.9	3951.9	3960.4
25°	3836.8	3831.3	3838.0	3850.1	3850.7
27.5°	3723.5	3717.4	3719.2	3732.0	3743.5
30°	3602.3	3594.4	3599.8	3612.6	3619.8
32.5°	3475.0	3467.7	3472.0	3486.5	3495.0
35°	3342.9	3335.6	3335.0	3357.4	3365.3
37.5°	3202.9	3198.6	3202.3	3220.5	3230.2
40°	3059.9	3053.8	3058.0	3081.1	3092.6
42.5°	2915.0	2911.4	2912.0	2935.0	2944.1
45°	2765.9	2763.5	2764.1	2785.3	2797.5
47.5°	2612.0	2606.6	2609.0	2630.8	2643.5
50°	2456.3	2455.0	2451.4	2473.2	2484.1
52.5°	2296.3	2293.8	2293.8	2313.2	2329.0
55°	2132.0	2132.0	2129.0	2147.8	2158.7
57.5°	1959.9	1961.1	1966.0	1982.9	1993.9
60°	1797.5	1791.4	1796.3	1811.4	1830.8
62.5°	1635.7	1617.5	1622.4	1636.3	1644.2
65°	1450.2	1443.6	1452.7	1466.6	1469.6
67.5°	1279.9	1273.3	1278.1	1287.8	1301.2
70°	1112.7	1095.1	1103.6	1113.9	1126.6
72.5°	936.9	921.8	933.9	942.4	951.5
75°	769.7	755.1	763.6	760.0	778.1
77.5°	601.8	591.5	598.8	606.0	620.0
80°	446.6	435.1	441.2	444.2	450.3
82.5°	304.2	295.7	297.6	309.7	306.0
85°	176.4	169.1	174.5	177.0	179.4
87.5°	69.7	63.0	68.5	70.3	70.9
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)