

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: P708853

Luminaire Tested: **22APR-34-80L830-UNV**

Issue Date: 09/12/2023



Test Information

Test Method: LM-79-08
Report Number: P708853
Test Lab: INNOVATION CENTER(G2)
Issue Date: 09/12/2023
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: FAIL-SAFE
Catalog Number: 22APR-34-80L830-UNV
Description: ArcMed Patient Recessed 2x2 Fixture Ambient and Exam Light
Light Source: 3000K CCT, 80 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

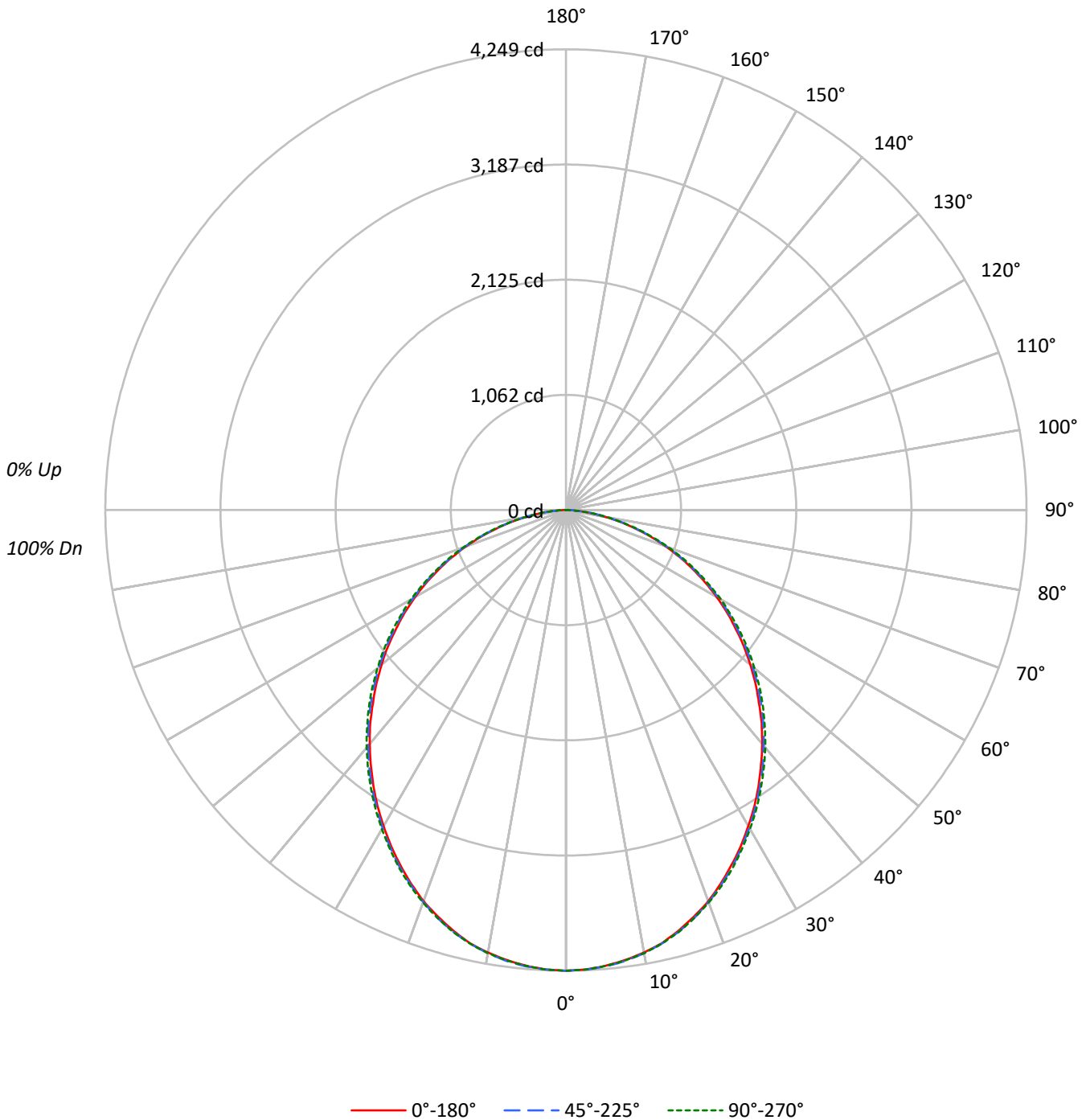
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 11051.9 lumens
Efficiency: N/A
Efficacy: 107.0 lumens/watt
Spacing Criteria (0/90/45): 1.18 / 1.19 / 1.31
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

Input Watts (W): 103.3
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	95	98	95	92	94	91	89	90	88	86	86	86	86	84
2	99	91	84	79	97	89	83	78	86	81	76	82	78	74	79	76	73	73	73	73	71
3	91	80	72	66	88	79	71	65	76	69	64	73	67	63	70	66	62	62	62	62	60
4	83	71	63	56	81	70	62	56	67	60	55	65	59	54	63	58	53	53	53	53	51
5	76	64	55	48	74	63	54	48	61	53	47	59	52	47	57	51	46	46	46	46	44
6	71	57	49	42	69	57	48	42	55	47	42	53	46	41	51	46	41	41	41	41	39
7	66	52	44	37	64	51	43	37	50	42	37	48	42	37	47	41	36	36	36	36	34
8	61	48	39	33	60	47	39	33	46	38	33	44	38	33	43	37	33	33	33	33	31
9	57	44	36	30	56	43	35	30	42	35	30	41	34	30	40	34	30	30	30	30	28
10	54	41	33	27	52	40	32	27	39	32	27	38	32	27	37	31	27	27	27	27	25

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	11435	11435	11435
5°	11397	11411	11402
10°	11326	11343	11340
15°	11187	11217	11222
20°	10995	11018	11033
25°	10730	10780	10814
30°	10456	10514	10553
35°	10177	10246	10299
40°	9890	9968	10049
45°	9583	9701	9785
50°	9297	9408	9504
55°	8978	9098	9210
60°	8650	8765	8889
65°	8222	8358	8453
70°	7695	7799	7911
75°	6920	7049	7141
80°	5842	5994	6048
85°	4372	4563	4536



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	400.9	3.6
10°-20°	1133.9	10.3
20°-30°	1671.3	15.1
30°-40°	1950.6	17.6
40°-50°	1965.8	17.8
50°-60°	1735.0	15.7
60°-70°	1297.5	11.7
70°-80°	719.1	6.5
80°-90°	177.8	1.6
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°	3206.2	29.0
0°-40°	5156.7	46.7
0°-60°	8857.5	80.1
0°-90°	11051.9	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	11051.9	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	4249	4249	4249	4249	4249	
5°	4219	4224	4224	4225	4221	400
15°	4016	4023	4026	4030	4028	1132
25°	3614	3622	3631	3638	3642	1665
35°	3098	3105	3119	3131	3135	1938
45°	2518	2534	2549	2567	2571	1945
55°	1914	1925	1939	1957	1963	1713
65°	1291	1298	1313	1323	1328	1279
75°	666	669	678	685	687	707
85°	142	146	148	146	147	173
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	4249.3	4249.3	4249.3	4249.3	4249.3
2.5°	4241.3	4245.8	4242.2	4245.8	4242.2
5°	4219.2	4224.5	4224.5	4225.4	4221.0
7.5°	4186.5	4192.7	4195.3	4196.2	4190.0
10°	4144.9	4151.1	4151.1	4154.6	4150.2
12.5°	4091.8	4095.3	4094.4	4099.7	4096.2
15°	4015.6	4022.7	4026.3	4029.8	4028.0
17.5°	3930.7	3939.5	3942.2	3948.4	3943.9
20°	3839.5	3845.7	3847.5	3857.2	3852.8
22.5°	3730.6	3736.8	3743.0	3751.9	3752.8
25°	3613.8	3621.8	3630.6	3637.7	3642.1
27.5°	3493.4	3501.4	3509.4	3518.2	3520.0
30°	3365.1	3374.8	3383.7	3394.3	3396.1
32.5°	3235.9	3239.4	3252.7	3264.2	3269.5
35°	3097.8	3104.9	3119.0	3131.4	3135.0
37.5°	2957.1	2967.7	2982.7	2996.0	2999.6
40°	2815.5	2824.3	2837.6	2855.3	2860.6
42.5°	2672.1	2678.3	2696.0	2711.0	2715.4
45°	2518.1	2534.0	2549.0	2566.7	2571.2
47.5°	2371.1	2383.5	2398.6	2415.4	2422.5
50°	2220.7	2235.7	2247.2	2265.8	2270.2
52.5°	2070.2	2080.0	2095.9	2111.8	2118.9
55°	1913.6	1925.1	1939.2	1956.9	1963.1
57.5°	1763.1	1769.3	1785.2	1800.3	1805.6
60°	1607.3	1613.5	1628.6	1644.5	1651.6
62.5°	1451.5	1456.9	1469.2	1487.8	1487.8
65°	1291.3	1297.5	1312.6	1323.2	1327.6
67.5°	1135.6	1140.9	1151.5	1164.8	1171.0
70°	978.0	982.4	991.3	1004.6	1005.5
72.5°	820.5	824.9	836.4	840.8	847.0
75°	665.6	669.1	678.0	685.1	686.8
77.5°	517.8	523.1	529.3	531.9	534.6
80°	377.0	382.4	386.8	389.4	390.3
82.5°	249.6	254.9	257.6	259.3	258.4
85°	141.6	146.0	147.8	146.0	146.9
87.5°	55.8	58.4	60.2	59.3	57.5
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)