

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: P708964

Luminaire Tested: **24APR-85L830-X-UNV**

Issue Date: 09/12/2023



Test Information

Test Method: LM-79-08
Report Number: P708964
Test Lab: INNOVATION CENTER(G2)
Issue Date: 09/12/2023
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: FAIL-SAFE
Catalog Number: 24APR-85L830-X-UNV
Description: ArcMed Patient Recessed 2x4 Fixture Ambient Light
Light Source: 3000K CCT, 80 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

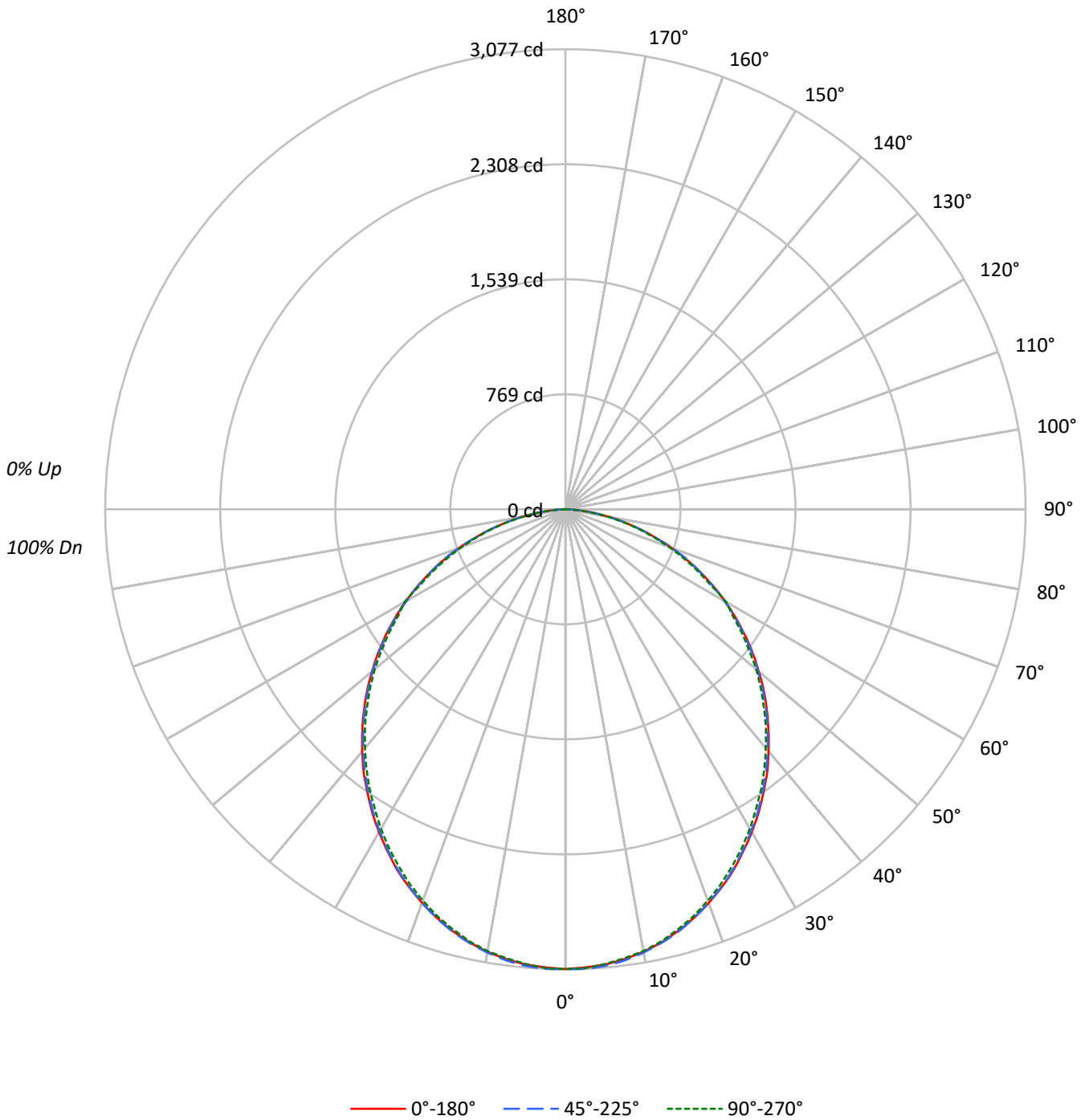
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 8190.4 lumens
Efficiency: N/A
Efficacy: 104.6 lumens/watt
Spacing Criteria (0/90/45): 1.21 / 1.2 / 1.32
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 78.3
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

TEST NUMBER: P708964
CATALOG NUMBER: 24APR-85L830-X-UNV

Luminous Intensity Polar Plot





TEST NUMBER: P708964
 CATALOG NUMBER: 24APR-85L830-X-UNV

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	80	76	82	78	74	79	76	72	72	72	72	70
3	90	80	72	65	88	78	71	65	75	69	64	73	67	63	70	65	61	61	61	61	59
4	83	71	62	56	81	70	61	55	67	60	54	65	59	54	63	57	53	53	53	53	51
5	76	63	55	48	74	62	54	48	60	53	47	58	52	47	56	51	46	46	46	46	44
6	70	57	48	42	69	56	48	42	54	47	41	53	46	41	51	45	41	41	41	41	39
7	65	52	43	37	64	51	43	37	50	42	37	48	41	36	47	41	36	36	36	36	34
8	61	47	39	33	59	47	39	33	45	38	33	44	37	33	43	37	32	32	32	32	30
9	57	44	35	30	55	43	35	30	42	35	30	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	27	27	27	27	25

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	4137	4137	4137
5°	4128	4140	4123
10°	4105	4114	4099
15°	4066	4073	4051
20°	4012	4011	3988
25°	3951	3943	3912
30°	3874	3860	3831
35°	3793	3780	3749
40°	3712	3693	3661
45°	3627	3609	3571
50°	3534	3520	3485
55°	3437	3419	3375
60°	3322	3301	3346
65°	3171	3161	3102
70°	2975	2979	2898
75°	2701	2680	2619
80°	2321	2290	2230
85°	1774	1758	1623



TEST NUMBER: P708964
 CATALOG NUMBER: 24APR-85L830-X-UNV

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	290.4	3.5
10°-20°	822.8	10.0
20°-30°	1221.2	14.9
30°-40°	1437.5	17.6
40°-50°	1460.9	17.8
50°-60°	1298.6	15.9
60°-70°	979.6	12.0
70°-80°	544.1	6.6
80°-90°	135.3	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°	2334.4	28.5
0°-40°	3771.9	46.1
0°-60°	6531.4	79.7
0°-90°	8190.4	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	8190.4	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	3075	3075	3075	3075	3075	
5°	3056	3061	3065	3060	3052	290
15°	2919	2922	2924	2917	2908	823
25°	2662	2660	2656	2644	2635	1225
35°	2309	2310	2301	2287	2282	1445
45°	1906	1906	1896	1881	1877	1470
55°	1465	1454	1458	1442	1439	1309
65°	996	990	993	980	974	986
75°	520	513	516	512	504	551
85°	115	112	114	109	105	138
90°	0	0	0	0	0	



TEST NUMBER: P708964

CATALOG NUMBER: 24APR-85L830-X-UNV

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	3075.0	3075.0	3075.0	3075.0	3075.0
2.5°	3067.2	3073.1	3077.0	3072.1	3071.1
5°	3056.4	3061.3	3065.2	3060.3	3052.4
7.5°	3034.8	3040.7	3043.6	3038.7	3027.9
10°	3004.3	3010.2	3011.2	3006.3	3000.4
12.5°	2967.0	2970.9	2970.9	2967.0	2960.1
15°	2918.9	2921.8	2923.8	2916.9	2908.1
17.5°	2863.9	2868.8	2866.8	2856.0	2852.1
20°	2802.0	2805.9	2801.0	2794.1	2785.3
22.5°	2734.2	2735.2	2731.3	2723.4	2714.6
25°	2661.6	2659.6	2655.7	2643.9	2635.0
27.5°	2577.1	2581.0	2571.2	2560.4	2554.5
30°	2493.6	2494.6	2484.8	2471.0	2466.1
32.5°	2404.2	2402.3	2395.4	2380.7	2372.8
35°	2309.0	2310.0	2301.1	2287.4	2282.5
37.5°	2216.7	2210.8	2203.9	2188.2	2185.2
40°	2113.5	2112.6	2102.7	2089.0	2084.1
42.5°	2010.4	2009.4	2001.6	1987.8	1983.9
45°	1906.3	1906.3	1896.5	1880.8	1876.8
47.5°	1800.2	1796.3	1789.4	1775.7	1770.8
50°	1688.3	1685.3	1681.4	1665.7	1664.7
52.5°	1578.3	1576.3	1569.4	1555.7	1547.8
55°	1465.3	1454.5	1457.5	1441.8	1438.8
57.5°	1349.4	1338.6	1344.5	1330.8	1324.9
60°	1234.5	1223.7	1226.7	1217.8	1243.4
62.5°	1116.7	1109.8	1109.8	1130.4	1093.1
65°	995.9	990.0	992.9	980.2	974.3
67.5°	877.0	868.2	886.9	863.3	853.5
70°	756.2	750.3	757.2	743.5	736.6
72.5°	636.4	631.5	629.5	624.6	618.7
75°	519.5	512.7	515.6	511.7	503.8
77.5°	405.6	403.7	402.7	397.8	391.9
80°	299.5	297.6	295.6	291.7	287.8
82.5°	200.4	198.4	197.4	195.4	194.5
85°	114.9	112.0	113.9	109.0	105.1
87.5°	43.2	42.2	44.2	40.3	37.3
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)