

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: P708846

Luminaire Tested: **24APR-X-52L940-UNV**

Issue Date: 09/12/2023



Test Information

Test Method: LM-79-08
Report Number: P708846
Test Lab: INNOVATION CENTER(G2)
Issue Date: 09/12/2023
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: FAIL-SAFE
Catalog Number: 24APR-X-52L940-UNV
Description: ArcMed Patient Recessed 2x2 Fixture EXAM Light
Light Source: 4000K CCT, 90 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

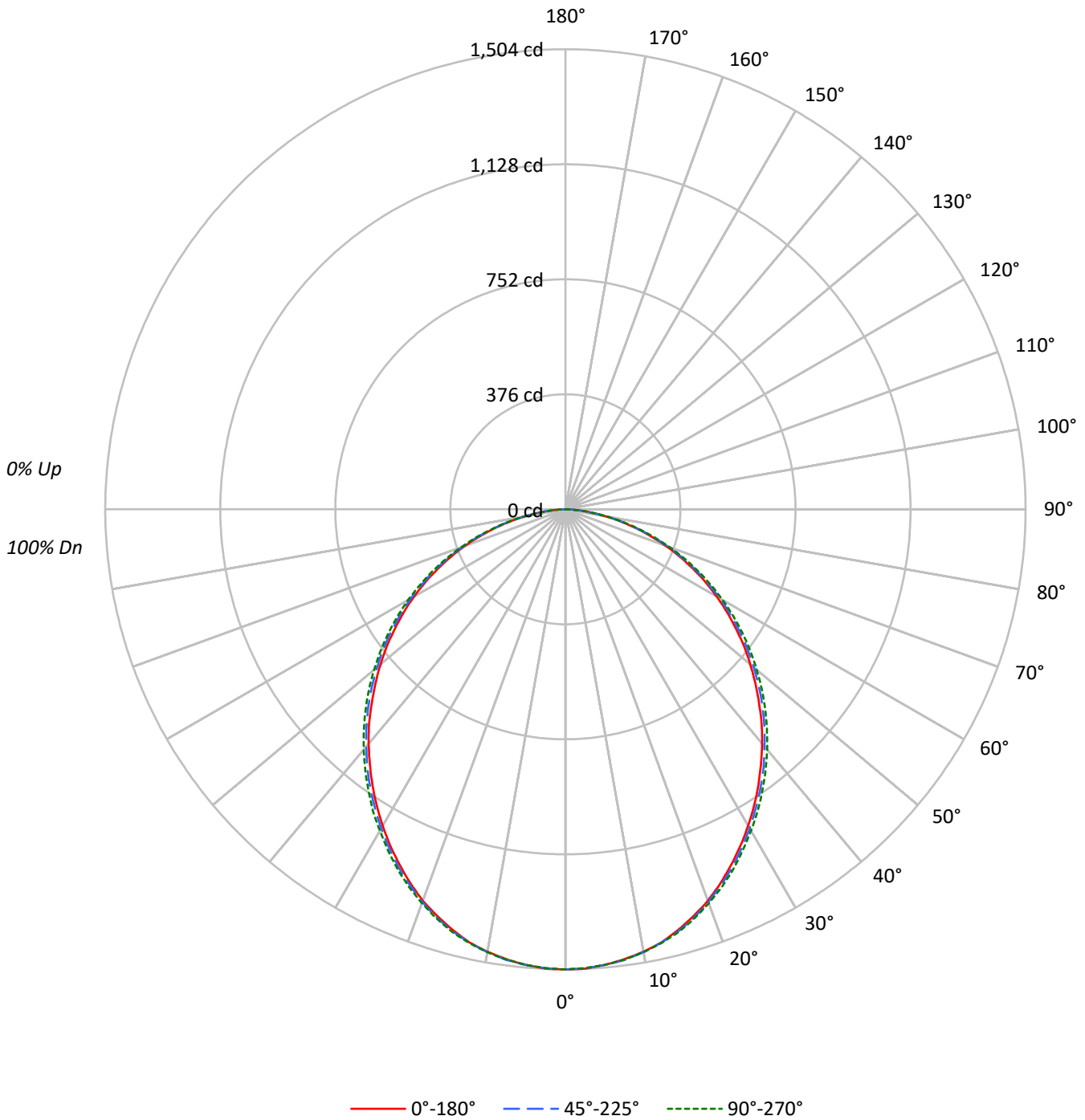
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 3942.6 lumens
Efficiency: N/A
Efficacy: 92.8 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 1.2 / 1.31
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

Input Watts (W): 42.5
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: P708846
CATALOG NUMBER: 24APR-X-52L940-UNV

Luminous Intensity Polar Plot





TEST NUMBER: P708846
 CATALOG NUMBER: 24APR-X-52L940-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	73	73	73	73	70
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	62	56	81	70	62	55	67	60	55	65	59	54	63	58	53	53	53	53	51
5	76	64	55	48	74	63	54	48	60	53	47	58	52	47	57	51	46	46	46	46	44
6	71	57	49	42	69	56	48	42	55	47	42	53	46	41	51	45	41	41	41	41	39
7	66	52	43	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	40	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°	4048	4048	4048
5°	4038	4039	4037
10°	4014	4018	4019
15°	3966	3977	3985
20°	3899	3912	3925
25°	3807	3833	3855
30°	3711	3742	3770
35°	3613	3652	3688
40°	3515	3556	3603
45°	3405	3466	3514
50°	3302	3364	3417
55°	3189	3256	3313
60°	3074	3137	3197
65°	2925	2991	3048
70°	2740	2799	2856
75°	2472	2533	2580
80°	2086	2162	2183
85°	1550	1649	1621



TEST NUMBER: P708846
 CATALOG NUMBER: 24APR-X-52L940-UNV

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	142.0	3.6
10°-20°	402.2	10.2
20°-30°	594.1	15.1
30°-40°	695.1	17.6
40°-50°	702.1	17.8
50°-60°	620.6	15.7
60°-70°	464.5	11.8
70°-80°	258.2	6.5
80°-90°	63.8	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°	1138.3	28.9
0°-40°	1833.4	46.5
0°-60°	3156.1	80.1
0°-90°	3942.6	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3942.6	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1504	1504	1504	1504	1504	
5°	1495	1495	1495	1496	1494	142
15°	1424	1424	1428	1430	1430	401
25°	1282	1284	1291	1295	1298	591
35°	1100	1103	1112	1119	1122	688
45°	895	901	911	920	923	691
55°	680	685	694	703	706	609
65°	459	463	470	476	479	455
75°	238	239	244	248	248	252
85°	50	52	53	52	52	61
90°	0	0	0	0	0	



TEST NUMBER: P708846

CATALOG NUMBER: 24APR-X-52L940-UNV

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1504.4	1504.4	1504.4	1504.4	1504.4
2.5°	1503.0	1503.0	1501.7	1502.1	1501.2
5°	1494.9	1495.4	1495.4	1495.8	1494.5
7.5°	1483.3	1484.2	1485.5	1486.0	1484.6
10°	1468.9	1469.8	1470.3	1472.1	1470.7
12.5°	1450.1	1450.5	1451.0	1453.7	1452.3
15°	1423.6	1424.5	1427.6	1430.3	1430.3
17.5°	1394.0	1395.8	1399.4	1403.0	1402.1
20°	1361.7	1363.0	1366.2	1371.1	1370.7
22.5°	1323.5	1324.9	1329.4	1334.8	1336.1
25°	1282.3	1284.1	1290.8	1294.8	1298.4
27.5°	1239.6	1241.9	1248.2	1254.5	1256.2
30°	1194.3	1197.9	1204.2	1210.9	1213.2
32.5°	1148.1	1149.9	1158.4	1165.6	1170.1
35°	1099.7	1102.8	1111.8	1119.4	1122.5
37.5°	1049.9	1054.3	1063.8	1071.8	1074.5
40°	1000.5	1004.1	1012.2	1022.5	1025.6
42.5°	949.4	952.5	962.4	971.3	974.5
45°	894.6	901.4	910.8	920.2	923.3
47.5°	841.7	848.0	857.4	866.8	870.4
50°	788.7	795.5	803.5	813.4	816.1
52.5°	735.8	741.2	749.7	758.2	762.3
55°	679.7	685.1	694.1	702.6	706.2
57.5°	626.8	630.4	638.9	647.0	650.1
60°	571.1	574.7	582.8	591.3	594.0
62.5°	516.4	518.7	526.3	534.4	536.1
65°	459.4	462.6	469.7	476.0	478.7
67.5°	403.8	406.5	412.8	419.5	420.8
70°	348.2	350.0	355.8	360.7	363.0
72.5°	292.1	293.9	300.2	302.8	305.1
75°	237.8	239.1	243.6	248.1	248.1
77.5°	184.8	187.1	190.7	192.5	193.4
80°	134.6	136.8	139.5	141.3	140.9
82.5°	88.8	91.1	92.9	93.8	92.9
85°	50.2	52.0	53.4	52.5	52.5
87.5°	19.7	20.6	21.5	21.1	20.2
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)