

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: P708998

Luminaire Tested: **24APR-49L940-X-UNV**

Issue Date: 09/12/2023



Test Information

Test Method: LM-79-08
Report Number: P708998
Test Lab: INNOVATION CENTER(G2)
Issue Date: 09/12/2023
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: FAIL-SAFE
Catalog Number: 24APR-49L940-X-UNV
Description: ArcMed Patient Recessed 2x4 Fixture Ambient Light
Light Source: 4000K CCT, 90 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

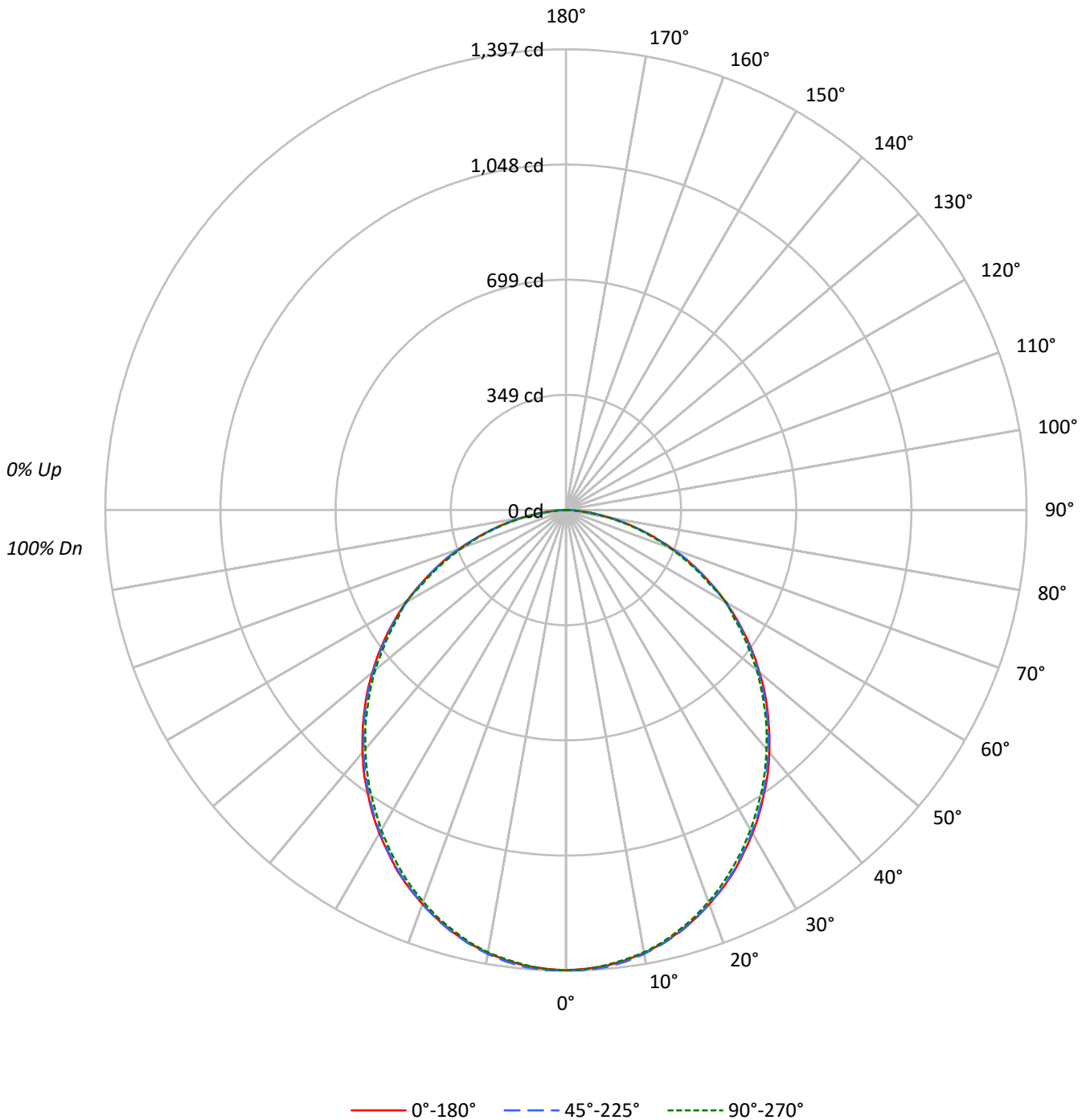
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 3718.0 lumens
Efficiency: N/A
Efficacy: 86.9 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): 42.8
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: P708998
CATALOG NUMBER: 24APR-49L940-X-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	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°	1878	1878	1878
5°	1874	1879	1871
10°	1863	1868	1861
15°	1846	1849	1839
20°	1821	1821	1810
25°	1794	1790	1776
30°	1759	1753	1739
35°	1722	1716	1702
40°	1685	1676	1662
45°	1647	1638	1621
50°	1604	1598	1582
55°	1560	1552	1532
60°	1508	1498	1519
65°	1439	1435	1408
70°	1351	1352	1316
75°	1226	1217	1189
80°	1054	1040	1012
85°	806	798	736



TEST NUMBER: P708998
 CATALOG NUMBER: 24APR-49L940-X-UNV

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	131.8	3.5
10°-20°	373.5	10.0
20°-30°	554.4	14.9
30°-40°	652.5	17.6
40°-50°	663.2	17.8
50°-60°	589.5	15.9
60°-70°	444.7	12.0
70°-80°	247.0	6.6
80°-90°	61.4	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°	1059.7	28.5
0°-40°	1712.2	46.1
0°-60°	2964.9	79.7
0°-90°	3718.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3718.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1396	1396	1396	1396	1396	
5°	1387	1390	1391	1389	1386	132
15°	1325	1326	1327	1324	1320	374
25°	1208	1207	1206	1200	1196	556
35°	1048	1049	1045	1038	1036	656
45°	865	865	861	854	852	667
55°	665	660	662	654	653	594
65°	452	449	451	445	442	448
75°	236	233	234	232	229	250
85°	52	51	52	50	48	63
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1395.9	1395.9	1395.9	1395.9	1395.9
2.5°	1392.3	1395.0	1396.8	1394.6	1394.1
5°	1387.4	1389.7	1391.4	1389.2	1385.6
7.5°	1377.6	1380.3	1381.6	1379.4	1374.5
10°	1363.8	1366.5	1366.9	1364.7	1362.0
12.5°	1346.9	1348.6	1348.6	1346.9	1343.7
15°	1325.0	1326.3	1327.2	1324.1	1320.1
17.5°	1300.0	1302.3	1301.4	1296.5	1294.7
20°	1272.0	1273.7	1271.5	1268.4	1264.4
22.5°	1241.2	1241.6	1239.9	1236.3	1232.3
25°	1208.2	1207.3	1205.5	1200.2	1196.2
27.5°	1169.9	1171.6	1167.2	1162.3	1159.6
30°	1132.0	1132.4	1128.0	1121.7	1119.5
32.5°	1091.4	1090.5	1087.4	1080.7	1077.1
35°	1048.1	1048.6	1044.6	1038.3	1036.1
37.5°	1006.2	1003.6	1000.4	993.3	992.0
40°	959.4	959.0	954.5	948.3	946.1
42.5°	912.6	912.2	908.6	902.4	900.6
45°	865.4	865.4	860.9	853.8	852.0
47.5°	817.2	815.4	812.3	806.1	803.8
50°	766.4	765.0	763.3	756.1	755.7
52.5°	716.4	715.6	712.4	706.2	702.6
55°	665.2	660.3	661.6	654.5	653.1
57.5°	612.6	607.7	610.3	604.1	601.4
60°	560.4	555.5	556.8	552.8	564.4
62.5°	506.9	503.8	503.8	513.2	496.2
65°	452.1	449.4	450.7	444.9	442.3
67.5°	398.1	394.1	402.6	391.9	387.4
70°	343.3	340.6	343.7	337.5	334.4
72.5°	288.9	286.7	285.8	283.5	280.9
75°	235.8	232.7	234.1	232.3	228.7
77.5°	184.1	183.2	182.8	180.6	177.9
80°	136.0	135.1	134.2	132.4	130.6
82.5°	90.9	90.1	89.6	88.7	88.3
85°	52.2	50.8	51.7	49.5	47.7
87.5°	19.6	19.2	20.1	18.3	16.9
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)