

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: P708937

Luminaire Tested: **24APR-X-138L840-UNV**

Issue Date: 09/12/2023



Test Information

Test Method: LM-79-08
Report Number: P708937
Test Lab: INNOVATION CENTER(G2)
Issue Date: 09/12/2023
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: FAIL-SAFE
Catalog Number: 24APR-X-138L840-UNV
Description: ArcMed Patient Recessed 2x4 Fixture EXAM Light
Light Source: 4000K CCT, 80 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

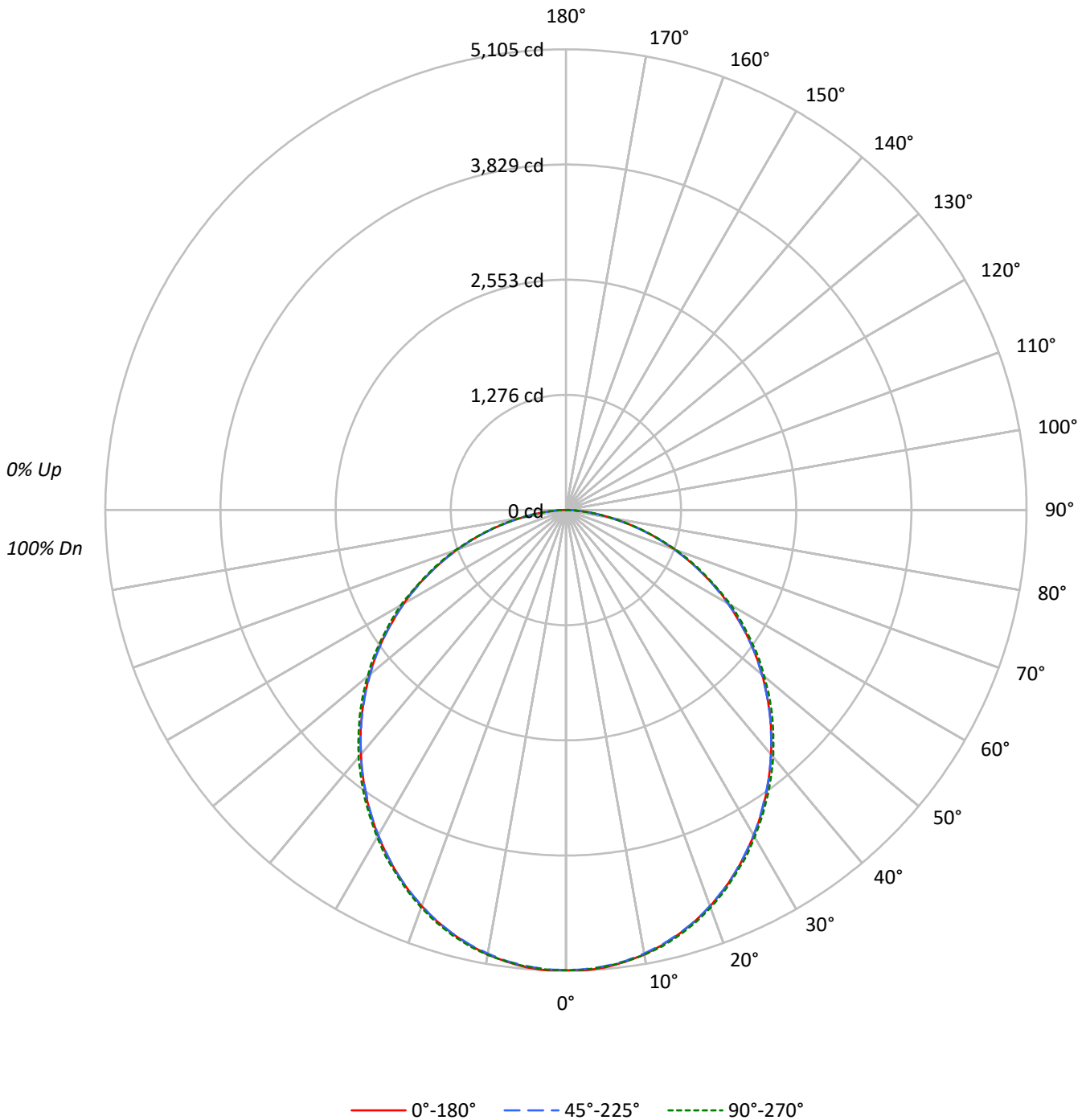
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 13838.9 lumens
Efficiency: N/A
Efficacy: 133.6 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): 103.6
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	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°	6861	6861	6861
5°	6869	6851	6857
10°	6834	6819	6837
15°	6770	6765	6791
20°	6689	6684	6714
25°	6583	6585	6607
30°	6468	6464	6499
35°	6346	6331	6388
40°	6211	6208	6278
45°	6083	6079	6152
50°	5942	5930	6009
55°	5780	5772	5852
60°	5590	5586	5694
65°	5336	5345	5407
70°	5059	5017	5122
75°	4624	4588	4675
80°	4000	3951	4032
85°	3146	3114	3200



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	482.1	3.5
10°-20°	1370.6	9.9
20°-30°	2044.2	14.8
30°-40°	2418.8	17.5
40°-50°	2471.6	17.9
50°-60°	2208.8	16.0
60°-70°	1664.9	12.0
70°-80°	937.1	6.8
80°-90°	240.7	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°	3896.9	28.2
0°-40°	6315.8	45.6
0°-60°	10996.2	79.5
0°-90°	13838.9	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	13838.9	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	5100	5100	5100	5100	5100	
5°	5086	5078	5072	5077	5077	483
15°	4860	4854	4856	4866	4875	1371
25°	4434	4428	4436	4450	4450	2043
35°	3863	3855	3854	3880	3889	2416
45°	3197	3194	3194	3219	3233	2465
55°	2464	2464	2460	2482	2495	2201
65°	1676	1668	1679	1695	1698	1664
75°	890	873	882	878	899	941
85°	204	195	202	204	207	243
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	5099.5	5099.5	5099.5	5099.5	5099.5
2.5°	5105.1	5097.4	5091.8	5094.6	5096.7
5°	5085.5	5078.5	5072.2	5077.1	5077.1
7.5°	5048.4	5044.9	5040.0	5044.2	5045.6
10°	5002.2	4994.5	4991.0	5000.8	5004.3
12.5°	4937.0	4927.9	4930.7	4943.4	4949.0
15°	4860.0	4853.7	4856.5	4866.3	4875.4
17.5°	4772.5	4765.5	4771.8	4780.2	4788.6
20°	4671.6	4664.6	4668.1	4680.0	4689.1
22.5°	4559.5	4552.5	4556.7	4567.2	4577.0
25°	4434.2	4427.9	4435.6	4449.6	4450.3
27.5°	4303.2	4296.2	4298.3	4313.0	4326.3
30°	4163.1	4154.0	4160.3	4175.0	4183.4
32.5°	4016.0	4007.6	4012.5	4029.3	4039.1
35°	3863.3	3854.9	3854.2	3880.2	3889.3
37.5°	3701.6	3696.7	3700.9	3721.9	3733.1
40°	3536.3	3529.3	3534.2	3560.8	3574.1
42.5°	3368.9	3364.7	3365.4	3392.0	3402.5
45°	3196.6	3193.8	3194.5	3219.0	3233.0
47.5°	3018.7	3012.4	3015.2	3040.4	3055.1
50°	2838.7	2837.3	2833.1	2858.3	2870.9
52.5°	2653.8	2651.0	2651.0	2673.4	2691.6
55°	2464.0	2464.0	2460.5	2482.2	2494.8
57.5°	2265.1	2266.5	2272.1	2291.7	2304.3
60°	2077.4	2070.4	2076.0	2093.5	2115.9
62.5°	1890.4	1869.3	1874.9	1891.1	1900.2
65°	1676.0	1668.3	1678.8	1694.9	1698.4
67.5°	1479.2	1471.5	1477.1	1488.3	1503.7
70°	1285.9	1265.6	1275.4	1287.3	1302.0
72.5°	1082.8	1065.3	1079.3	1089.1	1099.6
75°	889.5	872.7	882.5	878.3	899.3
77.5°	695.5	683.6	692.0	700.4	716.5
80°	516.2	502.9	509.9	513.4	520.4
82.5°	351.6	341.8	343.9	357.9	353.7
85°	203.8	195.4	201.7	204.5	207.3
87.5°	80.5	72.8	79.1	81.2	81.9
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)