

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: P709035

Luminaire Tested: **24APR-76-181L940-UNV**

Issue Date: 09/12/2023



Test Information

Test Method: LM-79-08
Report Number: P709035
Test Lab: INNOVATION CENTER(G2)
Issue Date: 09/12/2023
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: FAIL-SAFE
Catalog Number: 24APR-76-181L940-UNV
Description: ArcMed Patient Recessed 2x4 Fixture Ambient and Exam Light
Light Source: 4000K CCT, 90 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

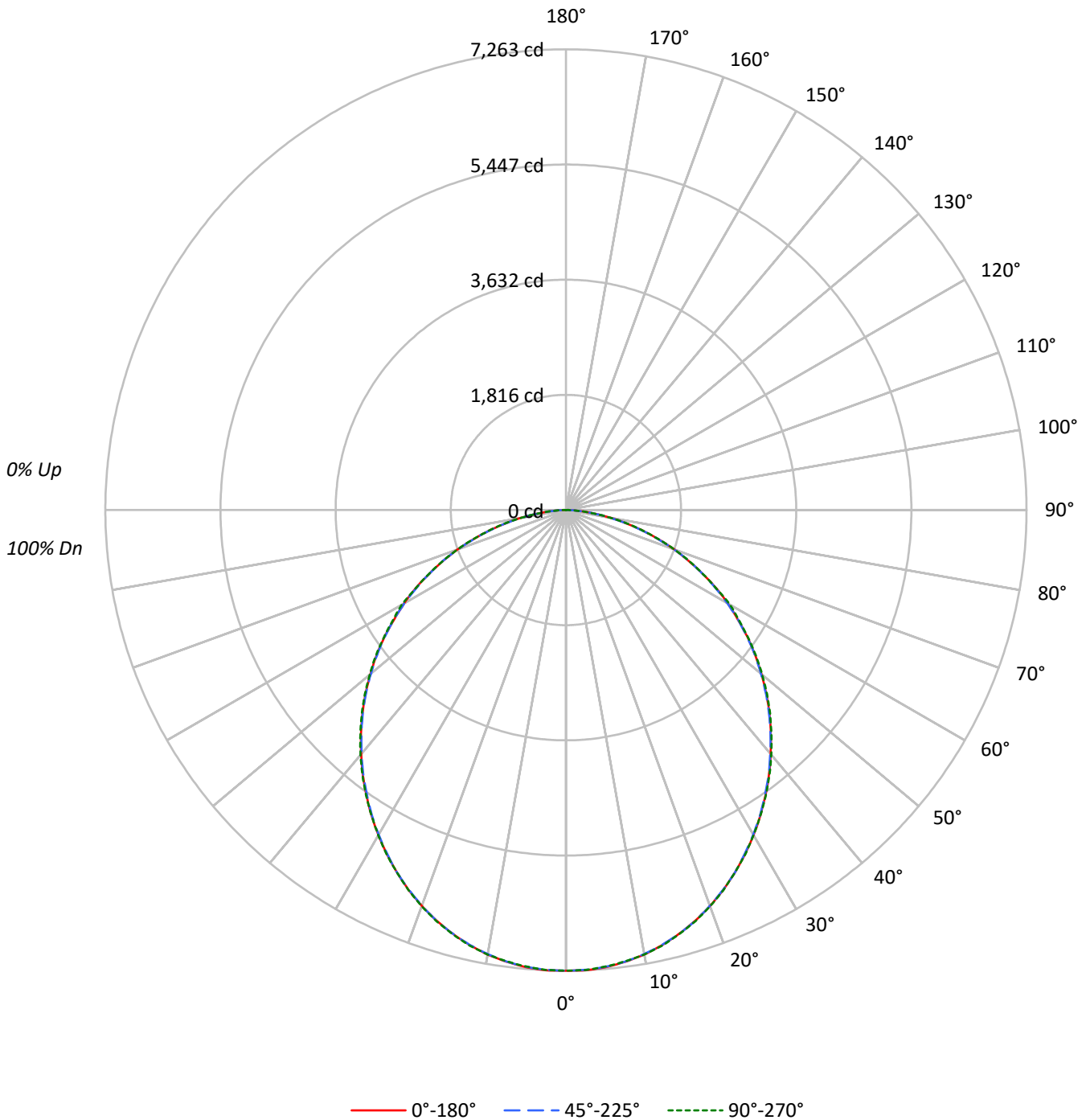
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 19600.1 lumens
Efficiency: N/A
Efficacy: 94.0 lumens/watt
Spacing Criteria (0/90/45): 1.21 / 1.21 / 1.33
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 208.5
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

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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	92	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	73	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	51
5	76	63	54	48	74	62	54	47	60	53	47	58	52	46	56	51	46	46	46	46	44
6	70	57	48	42	68	56	48	42	54	47	41	53	46	41	51	45	40	40	40	40	38
7	65	52	43	37	64	51	43	37	49	42	36	48	41	36	47	41	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	40	34	29	29	29	29	27
10	53	40	32	27	52	40	32	27	39	32	27	38	31	27	37	31	26	26	26	26	25

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	9772	9772	9772
5°	9773	9763	9758
10°	9722	9713	9721
15°	9630	9630	9641
20°	9511	9505	9519
25°	9363	9359	9359
30°	9193	9179	9194
35°	9014	8990	9025
40°	8823	8805	8852
45°	8634	8617	8663
50°	8428	8406	8460
55°	8198	8177	8226
60°	7927	7908	8047
65°	7566	7569	7588
70°	7151	7113	7159
75°	6524	6473	6516
80°	5632	5562	5600
85°	4394	4350	4340



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	686.4	3.5
10°-20°	1949.5	9.9
20°-30°	2903.3	14.8
30°-40°	3430.0	17.5
40°-50°	3499.2	17.9
50°-60°	3122.2	15.9
60°-70°	2353.9	12.0
70°-80°	1319.8	6.7
80°-90°	335.8	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°	5539.2	28.3
0°-40°	8969.2	45.8
0°-60°	15590.6	79.5
0°-90°	19600.1	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	19600.1	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	7263	7263	7263	7263	7263	
5°	7236	7232	7229	7230	7225	687
15°	6913	6909	6913	6918	6921	1949
25°	6307	6299	6304	6309	6304	2905
35°	5488	5480	5473	5489	5495	3433
45°	4538	4535	4528	4542	4553	3500
55°	3495	3487	3486	3496	3507	3122
65°	2377	2365	2377	2384	2384	2358
75°	1255	1233	1245	1238	1254	1328
85°	285	274	282	281	281	340
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	7262.9	7262.9	7262.9	7262.9	7262.9
2.5°	7262.9	7259.4	7256.6	7255.9	7257.3
5°	7235.7	7232.2	7228.7	7230.1	7224.6
7.5°	7183.4	7184.1	7181.3	7182.0	7175.7
10°	7115.7	7112.3	7109.5	7115.7	7115.0
12.5°	7024.4	7018.1	7020.9	7030.6	7031.3
15°	6913.4	6909.3	6913.4	6918.3	6921.1
17.5°	6787.2	6783.7	6788.6	6789.3	6794.9
20°	6642.8	6638.6	6638.6	6645.6	6648.4
22.5°	6483.1	6476.8	6478.2	6483.1	6486.5
25°	6306.6	6298.9	6303.8	6309.4	6303.8
27.5°	6116.1	6112.0	6107.1	6114.1	6123.1
30°	5917.3	5909.0	5908.3	5913.2	5918.0
32.5°	5707.4	5697.6	5697.6	5703.9	5708.1
35°	5487.6	5480.0	5473.0	5489.0	5494.6
37.5°	5260.9	5251.9	5251.2	5260.9	5270.0
40°	5023.1	5015.4	5013.3	5030.1	5039.8
42.5°	4783.1	4778.2	4773.4	4790.1	4797.8
45°	4537.6	4534.8	4528.5	4541.8	4552.9
47.5°	4285.1	4276.0	4273.9	4289.3	4300.4
50°	4026.3	4022.8	4015.8	4029.8	4041.6
52.5°	3764.0	3759.8	3754.9	3767.5	3780.0
55°	3494.7	3487.1	3485.7	3496.1	3506.6
57.5°	3214.3	3208.0	3217.8	3227.6	3235.9
60°	2945.8	2931.1	2938.8	2950.0	2990.4
62.5°	2675.8	2650.0	2655.6	2686.3	2668.8
65°	2376.6	2364.7	2377.3	2384.2	2383.5
67.5°	2096.1	2082.2	2101.0	2095.4	2103.8
70°	1817.8	1793.4	1808.1	1810.2	1819.9
72.5°	1530.4	1509.5	1522.1	1528.3	1534.6
75°	1254.9	1233.3	1245.1	1238.2	1253.5
77.5°	980.8	967.5	975.2	980.1	991.9
80°	726.9	712.2	717.8	718.5	722.7
82.5°	492.5	481.3	482.7	495.3	490.4
85°	284.6	274.1	281.8	281.1	281.1
87.5°	110.9	102.5	110.2	109.5	108.1
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)