

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: P709018

Luminaire Tested: **24APR-49-116L840-UNV**

Issue Date: 09/12/2023



Test Information

Test Method: LM-79-08
Report Number: P709018
Test Lab: INNOVATION CENTER(G2)
Issue Date: 09/12/2023
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: FAIL-SAFE
Catalog Number: 24APR-49-116L840-UNV
Description: ArcMed Patient Recessed 2x4 Fixture Ambient and Exam Light
Light Source: 4000K CCT, 80 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

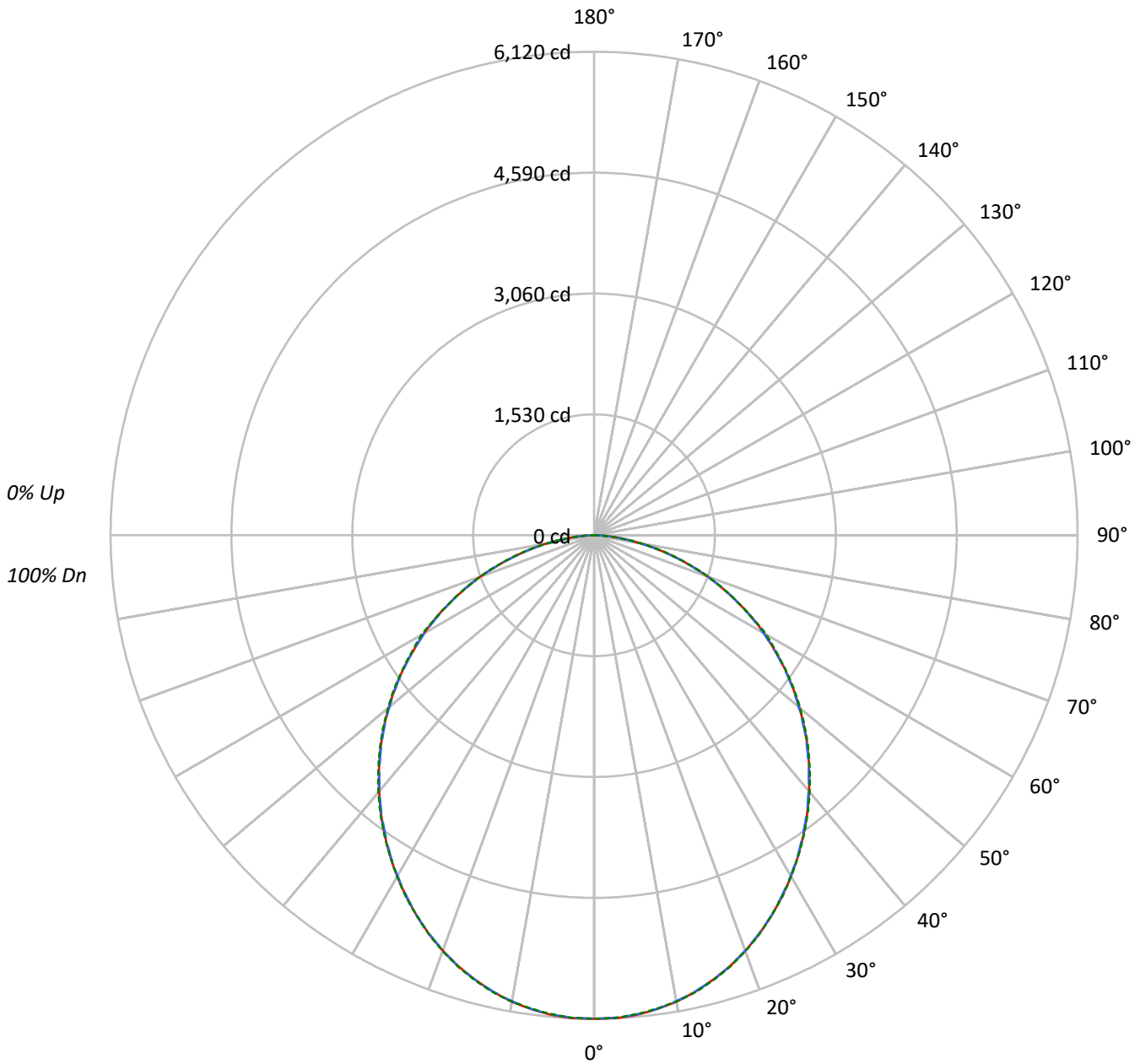
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 16514.6 lumens
Efficiency: N/A
Efficacy: 128.3 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): 128.7
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



— 0°-180° - - 45°-225° - - - 90°-270°



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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°	8234	8234	8234
5°	8234	8226	8222
10°	8191	8184	8191
15°	8114	8114	8123
20°	8014	8009	8021
25°	7889	7885	7885
30°	7746	7734	7747
35°	7595	7574	7604
40°	7434	7419	7458
45°	7275	7260	7300
50°	7101	7083	7128
55°	6907	6890	6931
60°	6679	6663	6780
65°	6375	6377	6394
70°	6026	5993	6032
75°	5497	5454	5491
80°	4745	4686	4718
85°	3702	3665	3657



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	578.4	3.5
10°-20°	1642.6	9.9
20°-30°	2446.2	14.8
30°-40°	2890.1	17.5
40°-50°	2948.3	17.9
50°-60°	2630.7	15.9
60°-70°	1983.3	12.0
70°-80°	1112.0	6.7
80°-90°	283.0	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°	4667.2	28.3
0°-40°	7557.2	45.8
0°-60°	13136.3	79.5
0°-90°	16514.6	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	16514.6	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	6120	6120	6120	6120	6120	
5°	6097	6094	6091	6092	6087	579
15°	5825	5822	5825	5829	5832	1643
25°	5314	5307	5311	5316	5311	2447
35°	4624	4617	4611	4625	4630	2892
45°	3823	3821	3816	3827	3836	2949
55°	2945	2938	2937	2946	2955	2630
65°	2002	1992	2003	2009	2008	1987
75°	1057	1039	1049	1043	1056	1119
85°	240	231	237	237	237	287
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	6119.6	6119.6	6119.6	6119.6	6119.6
2.5°	6119.6	6116.6	6114.3	6113.7	6114.9
5°	6096.7	6093.7	6090.8	6092.0	6087.3
7.5°	6052.6	6053.2	6050.8	6051.4	6046.1
10°	5995.6	5992.6	5990.3	5995.6	5995.0
12.5°	5918.6	5913.3	5915.6	5923.9	5924.5
15°	5825.1	5821.6	5825.1	5829.2	5831.6
17.5°	5718.7	5715.8	5719.9	5720.5	5725.2
20°	5597.1	5593.6	5593.6	5599.4	5601.8
22.5°	5462.5	5457.2	5458.4	5462.5	5465.4
25°	5313.8	5307.3	5311.4	5316.1	5311.4
27.5°	5153.3	5149.8	5145.7	5151.6	5159.2
30°	4985.8	4978.8	4978.2	4982.3	4986.4
32.5°	4808.9	4800.7	4800.7	4806.0	4809.5
35°	4623.8	4617.3	4611.4	4625.0	4629.7
37.5°	4432.8	4425.1	4424.5	4432.8	4440.4
40°	4232.3	4225.9	4224.1	4238.2	4246.4
42.5°	4030.2	4026.0	4021.9	4036.0	4042.5
45°	3823.3	3820.9	3815.6	3826.8	3836.2
47.5°	3610.5	3602.9	3601.1	3614.0	3623.4
50°	3392.5	3389.5	3383.6	3395.4	3405.4
52.5°	3171.5	3167.9	3163.8	3174.4	3185.0
55°	2944.6	2938.1	2937.0	2945.8	2954.6
57.5°	2708.3	2703.0	2711.3	2719.5	2726.5
60°	2482.0	2469.7	2476.2	2485.6	2519.7
62.5°	2254.6	2232.8	2237.5	2263.4	2248.7
65°	2002.4	1992.4	2003.0	2008.9	2008.3
67.5°	1766.2	1754.4	1770.3	1765.6	1772.6
70°	1531.7	1511.1	1523.4	1525.2	1533.4
72.5°	1289.5	1271.9	1282.5	1287.7	1293.0
75°	1057.4	1039.1	1049.1	1043.2	1056.2
77.5°	826.4	815.2	821.7	825.8	835.8
80°	612.4	600.1	604.8	605.4	608.9
82.5°	414.9	405.5	406.7	417.3	413.2
85°	239.8	231.0	237.4	236.9	236.9
87.5°	93.5	86.4	92.9	92.3	91.1
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)