

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: P709031

Luminaire Tested: **24APR-67-160L935-UNV**

Issue Date: 09/12/2023



Test Information

Test Method: LM-79-08
Report Number: P709031
Test Lab: INNOVATION CENTER(G2)
Issue Date: 09/12/2023
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: FAIL-SAFE
Catalog Number: 24APR-67-160L935-UNV
Description: ArcMed Patient Recessed 2x4 Fixture Ambient and Exam Light
Light Source: 3500K CCT, 90 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

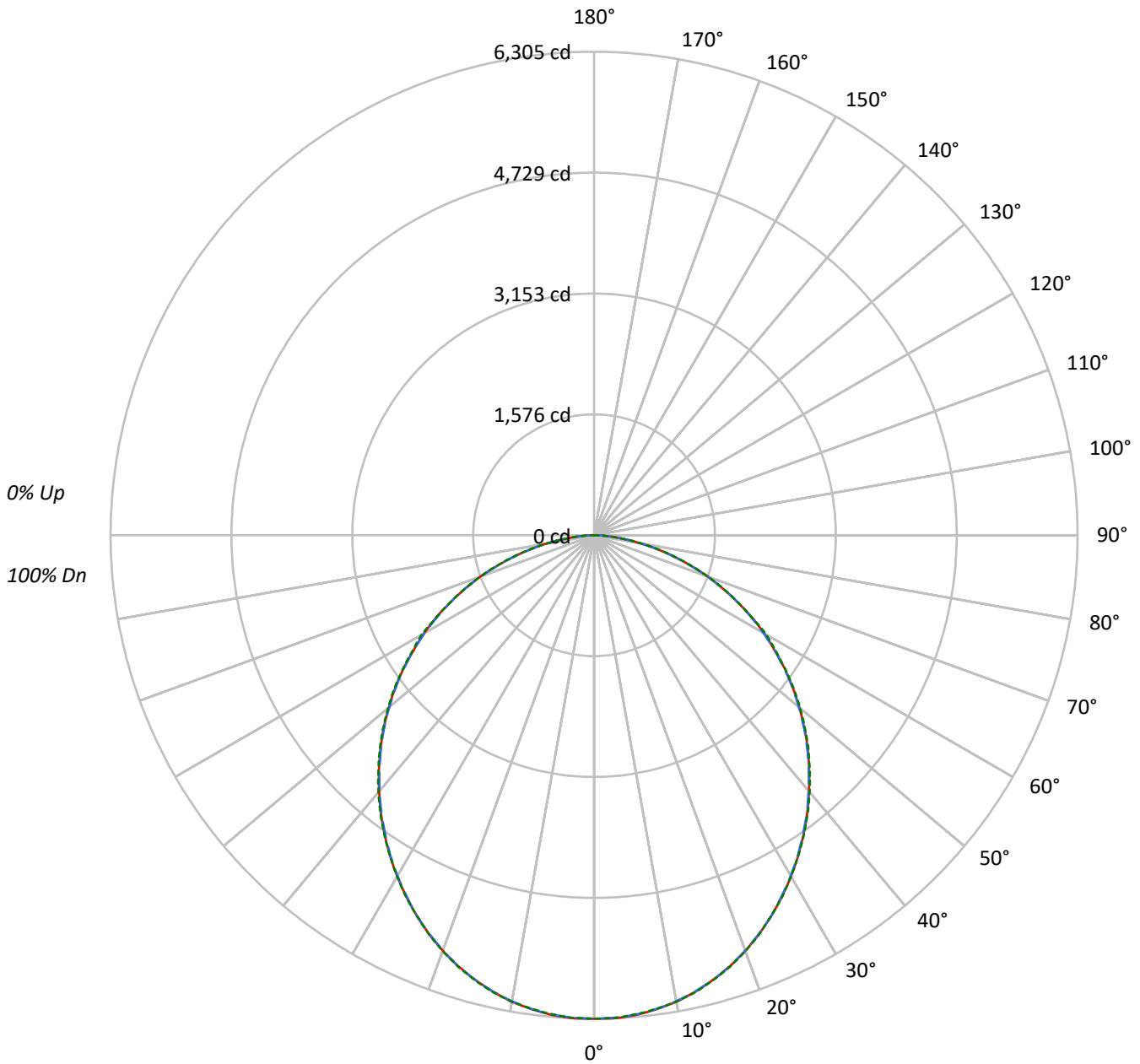
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 17014.3 lumens
Efficiency: N/A
Efficacy: 93.7 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): 181.5
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



— 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°	8483	8483	8483
5°	8483	8475	8470
10°	8439	8432	8438
15°	8360	8360	8369
20°	8257	8251	8264
25°	8127	8124	8124
30°	7981	7968	7982
35°	7825	7804	7834
40°	7659	7644	7684
45°	7495	7480	7520
50°	7316	7297	7344
55°	7116	7098	7141
60°	6881	6865	6986
65°	6568	6570	6587
70°	6208	6174	6215
75°	5663	5619	5657
80°	4889	4828	4861
85°	3815	3776	3767



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	595.9	3.5
10°-20°	1692.3	9.9
20°-30°	2520.3	14.8
30°-40°	2977.5	17.5
40°-50°	3037.5	17.9
50°-60°	2710.3	15.9
60°-70°	2043.3	12.0
70°-80°	1145.7	6.7
80°-90°	291.5	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°	4808.4	28.3
0°-40°	7785.9	45.8
0°-60°	13533.8	79.5
0°-90°	17014.3	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	17014.3	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	6305	6305	6305	6305	6305	
5°	6281	6278	6275	6276	6272	596
15°	6001	5998	6001	6006	6008	1692
25°	5475	5468	5472	5477	5472	2521
35°	4764	4757	4751	4765	4770	2980
45°	3939	3936	3931	3943	3952	3038
55°	3034	3027	3026	3035	3044	2710
65°	2063	2053	2064	2070	2069	2047
75°	1089	1071	1081	1075	1088	1153
85°	247	238	245	244	244	295
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	6304.8	6304.8	6304.8	6304.8	6304.8
2.5°	6304.8	6301.7	6299.3	6298.7	6299.9
5°	6281.1	6278.1	6275.1	6276.3	6271.5
7.5°	6235.7	6236.3	6233.9	6234.5	6229.1
10°	6177.0	6174.0	6171.5	6177.0	6176.4
12.5°	6097.7	6092.2	6094.6	6103.1	6103.7
15°	6001.4	5997.8	6001.4	6005.6	6008.0
17.5°	5891.8	5888.8	5893.0	5893.6	5898.4
20°	5766.4	5762.8	5762.8	5768.9	5771.3
22.5°	5627.8	5622.3	5623.5	5627.8	5630.8
25°	5474.6	5467.9	5472.2	5477.0	5472.2
27.5°	5309.3	5305.6	5301.4	5307.5	5315.3
30°	5136.7	5129.4	5128.8	5133.1	5137.3
32.5°	4954.4	4946.0	4946.0	4951.4	4955.0
35°	4763.7	4757.0	4751.0	4764.9	4769.7
37.5°	4566.9	4559.0	4558.4	4566.9	4574.8
40°	4360.4	4353.7	4351.9	4366.5	4374.9
42.5°	4152.1	4147.9	4143.6	4158.2	4164.8
45°	3939.0	3936.5	3931.1	3942.6	3952.3
47.5°	3719.8	3711.9	3710.1	3723.4	3733.1
50°	3495.1	3492.1	3486.0	3498.1	3508.4
52.5°	3267.4	3263.8	3259.6	3270.5	3281.4
55°	3033.7	3027.0	3025.8	3034.9	3044.0
57.5°	2790.3	2784.8	2793.3	2801.8	2809.0
60°	2557.1	2544.4	2551.1	2560.8	2595.9
62.5°	2322.8	2300.4	2305.2	2331.9	2316.7
65°	2063.0	2052.7	2063.6	2069.7	2069.1
67.5°	1819.6	1807.5	1823.8	1819.0	1826.3
70°	1578.0	1556.8	1569.5	1571.3	1579.8
72.5°	1328.5	1310.4	1321.3	1326.7	1332.2
75°	1089.3	1070.6	1080.9	1074.8	1088.1
77.5°	851.4	839.9	846.5	850.8	861.1
80°	631.0	618.2	623.1	623.7	627.3
82.5°	427.5	417.8	419.0	429.9	425.7
85°	247.1	238.0	244.6	244.0	244.0
87.5°	96.3	89.0	95.7	95.1	93.9
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)