

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: P709041

Luminaire Tested: **24APR-67-160L950-UNV**

Issue Date: 09/12/2023



Test Information

Test Method: LM-79-08
Report Number: P709041
Test Lab: INNOVATION CENTER(G2)
Issue Date: 09/12/2023
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: FAIL-SAFE
Catalog Number: 24APR-67-160L950-UNV
Description: ArcMed Patient Recessed 2x4 Fixture Ambient and Exam Light
Light Source: 5000K CCT, 90 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

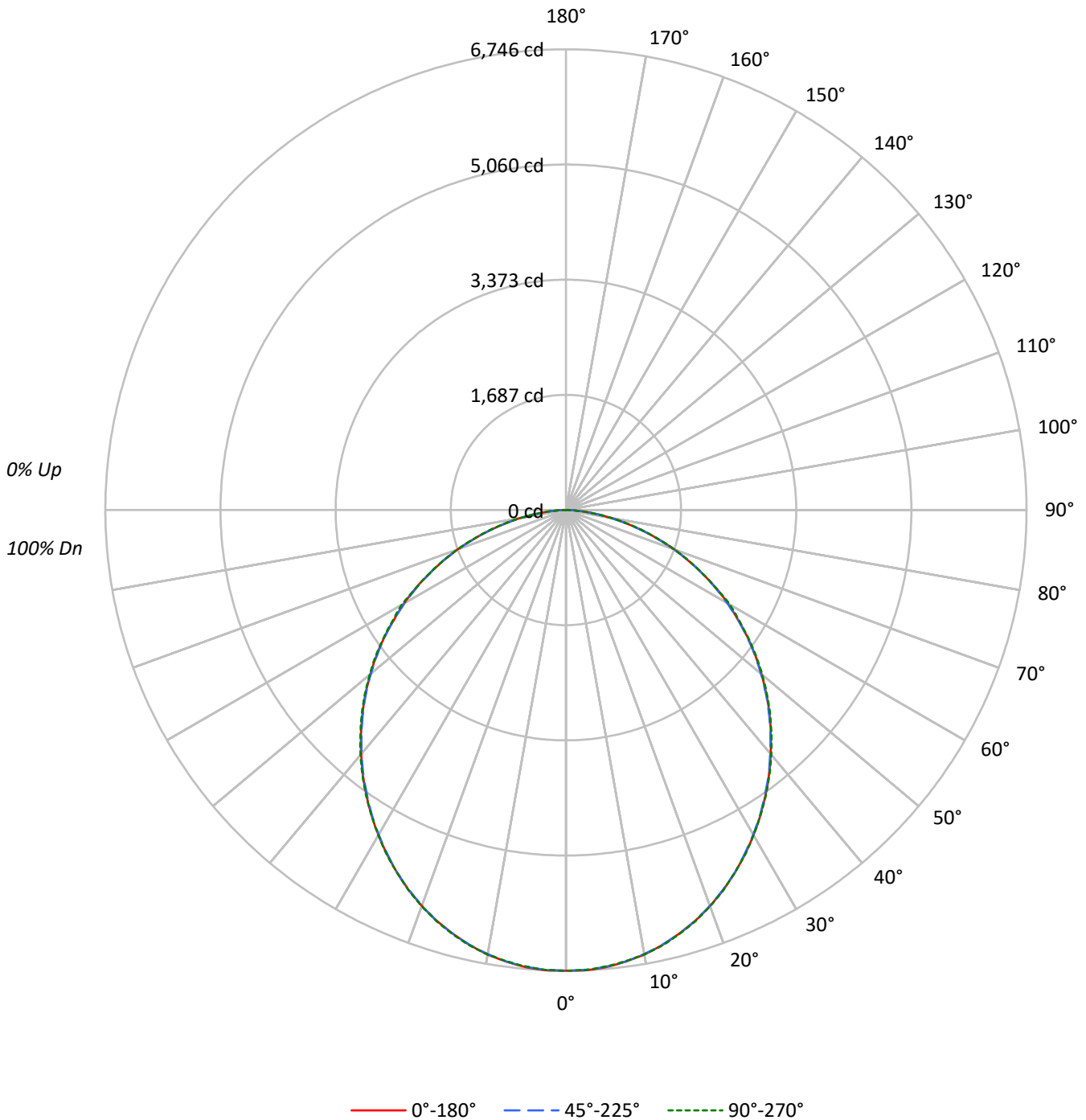
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 18204.1 lumens
Efficiency: N/A
Efficacy: 100.3 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): 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





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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°	9076	9076	9076
5°	9077	9068	9063
10°	9029	9021	9029
15°	8944	8944	8954
20°	8834	8828	8841
25°	8696	8692	8692
30°	8539	8526	8540
35°	8372	8349	8382
40°	8194	8178	8222
45°	8019	8003	8046
50°	7828	7807	7857
55°	7614	7594	7640
60°	7363	7345	7474
65°	7027	7029	7048
70°	6642	6606	6650
75°	6059	6012	6052
80°	5231	5166	5201
85°	4080	4040	4031



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	637.5	3.5
10°-20°	1810.6	9.9
20°-30°	2696.5	14.8
30°-40°	3185.7	17.5
40°-50°	3250.0	17.9
50°-60°	2899.9	15.9
60°-70°	2186.2	12.0
70°-80°	1225.8	6.7
80°-90°	311.9	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°	5144.6	28.3
0°-40°	8330.4	45.8
0°-60°	14480.2	79.5
0°-90°	18204.1	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	18204.1	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	6746	6746	6746	6746	6746	
5°	6720	6717	6714	6715	6710	638
15°	6421	6417	6421	6426	6428	1811
25°	5857	5850	5855	5860	5855	2698
35°	5097	5090	5083	5098	5103	3188
45°	4214	4212	4206	4218	4229	3250
55°	3246	3239	3237	3247	3257	2899
65°	2207	2196	2208	2214	2214	2190
75°	1166	1145	1156	1150	1164	1234
85°	264	255	262	261	261	316
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	6745.6	6745.6	6745.6	6745.6	6745.6
2.5°	6745.6	6742.4	6739.8	6739.2	6740.5
5°	6720.4	6717.1	6713.9	6715.2	6710.0
7.5°	6671.8	6672.4	6669.8	6670.5	6664.7
10°	6608.9	6605.7	6603.1	6608.9	6608.3
12.5°	6524.1	6518.2	6520.8	6529.9	6530.5
15°	6421.1	6417.2	6421.1	6425.6	6428.2
17.5°	6303.8	6300.6	6305.1	6305.7	6310.9
20°	6169.7	6165.8	6165.8	6172.3	6174.9
22.5°	6021.3	6015.5	6016.8	6021.3	6024.6
25°	5857.4	5850.3	5854.8	5860.0	5854.8
27.5°	5680.5	5676.7	5672.1	5678.6	5687.0
30°	5495.9	5488.1	5487.5	5492.0	5496.5
32.5°	5300.9	5291.8	5291.8	5297.6	5301.5
35°	5096.8	5089.7	5083.2	5098.1	5103.3
37.5°	4886.2	4877.8	4877.2	4886.2	4894.7
40°	4665.3	4658.2	4656.3	4671.8	4680.9
42.5°	4442.5	4437.9	4433.4	4448.9	4456.1
45°	4214.4	4211.8	4206.0	4218.3	4228.7
47.5°	3979.9	3971.5	3969.5	3983.8	3994.1
50°	3739.5	3736.3	3729.8	3742.8	3753.8
52.5°	3495.9	3492.0	3487.5	3499.2	3510.8
55°	3245.8	3238.7	3237.4	3247.1	3256.9
57.5°	2985.4	2979.6	2988.6	2997.7	3005.5
60°	2736.0	2722.4	2729.5	2739.8	2777.4
62.5°	2485.2	2461.3	2466.4	2495.0	2478.8
65°	2207.3	2196.3	2207.9	2214.4	2213.8
67.5°	1946.9	1933.9	1951.4	1946.2	1954.0
70°	1688.4	1665.7	1679.3	1681.2	1690.3
72.5°	1421.4	1402.0	1413.7	1419.5	1425.3
75°	1165.5	1145.4	1156.5	1150.0	1164.2
77.5°	910.9	898.6	905.7	910.3	921.3
80°	675.1	661.5	666.7	667.3	671.2
82.5°	457.4	447.0	448.3	460.0	455.5
85°	264.3	254.6	261.7	261.1	261.1
87.5°	103.0	95.2	102.4	101.7	100.4
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)