

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: P709058

Luminaire Tested: **4APN-X-X-RL940-UNV**

Issue Date: 09/12/2023



Test Information

Test Method: LM-79-08
Report Number: P709058
Test Lab: INNOVATION CENTER(G2)
Issue Date: 09/12/2023
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: FAIL-SAFE
Catalog Number: 4APN-X-X-RL940-UNV
Description: ArcMed Patient Recessed 4 FT x6 IN Fixture READING Light
Light Source: 4000K CCT, 90 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

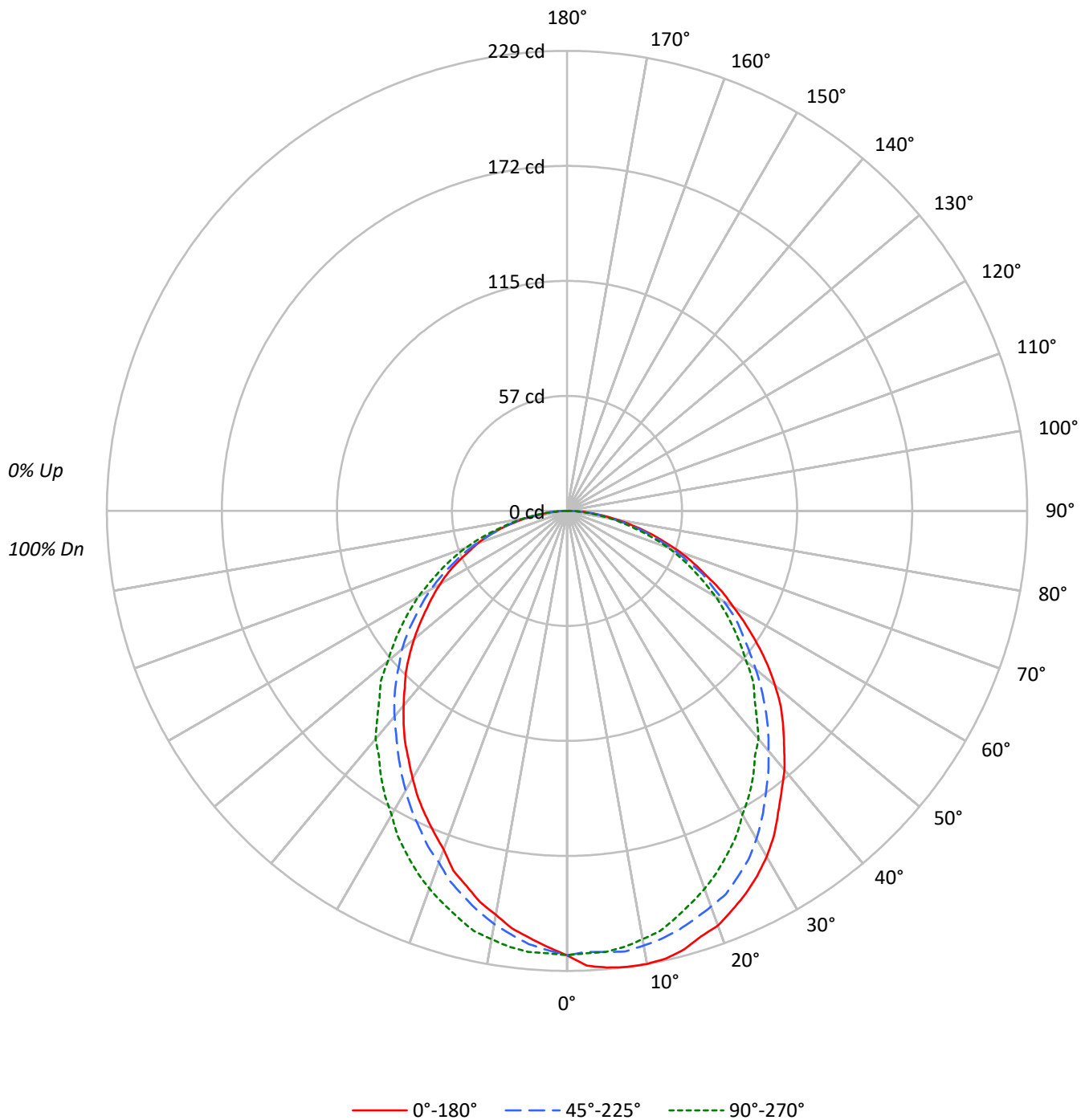
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 576.4 lumens
Efficiency: N/A
Efficacy: 38.2 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 1.18 / 1.3
Luminous Opening: Rectangular (W 0.5' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 15.1
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
RC	80				70					50					30					10
RW	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10	50	30	10
RCR																				
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100		
1	109	104	100	96	106	102	98	94	98	94	91	94	91	89	90	88	86	84		
2	99	91	84	78	96	89	83	77	85	80	76	82	78	74	79	75	72	70		
3	90	80	72	65	88	78	71	65	75	69	64	73	67	62	70	65	61	59		
4	83	71	62	56	81	70	61	55	67	60	54	65	59	54	63	57	53	51		
5	76	63	55	48	74	62	54	48	60	53	47	58	52	47	56	51	46	44		
6	71	57	48	42	69	56	48	42	54	47	41	53	46	41	51	45	41	39		
7	65	52	43	37	64	51	43	37	50	42	37	48	41	36	47	41	36	34		
8	61	48	39	33	59	47	39	33	45	38	33	44	38	33	43	37	33	31		
9	57	44	35	30	56	43	35	30	42	35	30	41	34	30	40	34	29	28		
10	53	40	32	27	52	40	32	27	39	32	27	38	31	27	37	31	27	25		

AVERAGE LUMINANCE (cd/sqm):

	0°	90°	180°
0°	1190	1190	1190
5°	1233	1191	1153
10°	1251	1183	1115
15°	1259	1168	1077
20°	1258	1147	1027
25°	1249	1120	991
30°	1235	1085	955
35°	1204	1060	923
40°	1183	1041	889
45°	1158	1004	862
50°	1131	975	831
55°	1085	947	801
60°	1028	919	786
65°	978	880	762
70°	941	843	744
75°	871	759	711
80°	793	697	651
85°	716	574	525



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	20.9	3.6
10°-20°	58.8	10.2
20°-30°	86.5	15.0
30°-40°	100.6	17.4
40°-50°	101.3	17.6
50°-60°	89.9	15.6
60°-70°	67.9	11.8
70°-80°	39.2	6.8
80°-90°	11.4	2.0
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°	166.1	28.8
0°-40°	266.7	46.3
0°-60°	457.8	79.4
0°-90°	576.4	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	576.4	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	221	221	221	221	221	
5°	228	220	220	216	213	22
15°	226	216	210	199	193	64
25°	210	201	189	174	167	97
35°	183	172	161	147	140	115
45°	152	140	132	120	113	117
55°	116	106	101	92	85	103
65°	77	74	69	63	60	77
75°	42	40	36	33	34	44
85°	12	11	9	9	8	13
90°	0	0	0	0	0	

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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°
0°	221.2	221.2	221.2	221.2	221.2	221.2	221.2	221.2	221.2
2.5°	226.6	224.3	219.7	218.9	220.4	222.8	218.9	219.7	217.3
5°	228.2	225.1	220.4	218.1	220.4	220.4	216.5	215.8	213.4
7.5°	229.0	225.9	221.2	217.3	218.9	218.1	212.7	211.9	209.6
10°	229.0	225.9	219.7	215.8	216.5	215.0	208.8	207.2	204.1
12.5°	228.2	224.3	218.1	213.4	214.2	211.1	204.1	201.8	199.5
15°	225.9	221.2	215.8	211.1	209.6	206.5	198.7	196.4	193.3
17.5°	222.0	218.9	212.7	207.2	204.9	201.0	193.3	190.2	187.8
20°	219.7	215.0	209.6	203.4	200.2	194.8	186.3	183.2	179.3
22.5°	215.0	211.1	206.5	197.1	194.8	188.6	180.8	176.2	173.1
25°	210.3	205.7	201.0	192.5	188.6	183.2	173.9	170.0	166.9
27.5°	204.9	200.2	195.6	186.3	182.4	176.2	167.6	163.0	160.7
30°	198.7	194.0	188.6	180.8	174.6	169.2	160.7	156.8	153.7
32.5°	191.7	186.3	180.8	173.1	168.4	162.2	153.7	149.8	146.7
35°	183.2	177.7	172.3	166.1	161.4	155.2	146.7	143.6	140.5
37.5°	175.4	170.0	164.5	159.1	153.7	149.8	139.7	136.6	133.5
40°	168.4	161.4	156.0	151.4	148.2	140.5	133.5	129.6	126.5
42.5°	159.9	153.7	148.2	144.4	139.7	135.1	127.3	123.4	119.5
45°	152.1	145.1	139.7	136.6	131.9	126.5	120.3	116.4	113.3
47.5°	144.4	136.6	131.2	128.1	125.7	118.8	113.3	110.2	106.3
50°	135.1	128.1	122.6	120.3	116.4	111.0	107.1	103.2	99.3
52.5°	125.7	120.3	114.1	112.5	108.7	104.8	100.1	97.0	92.4
55°	115.6	111.0	106.3	104.8	100.9	97.8	92.4	90.0	85.4
57.5°	105.6	102.5	99.3	97.0	93.1	89.3	85.4	83.0	79.2
60°	95.5	93.9	90.0	90.8	85.4	81.5	78.4	76.1	73.0
62.5°	86.9	85.4	81.5	79.2	76.8	73.0	70.6	69.1	66.7
65°	76.8	76.1	74.5	71.4	69.1	65.2	62.9	61.3	59.8
67.5°	68.3	67.5	64.4	62.9	61.3	57.4	55.9	54.3	52.8
70°	59.8	58.2	56.7	55.9	53.6	49.7	48.1	46.6	47.3
72.5°	50.5	49.7	47.3	48.1	45.0	41.9	40.4	41.9	41.1
75°	41.9	41.1	39.6	38.0	36.5	34.2	33.4	34.9	34.2
77.5°	33.4	32.6	31.0	30.3	28.7	26.4	27.9	27.2	26.4
80°	25.6	24.8	23.3	23.3	22.5	20.2	21.0	21.0	21.0
82.5°	17.9	17.9	17.1	16.3	14.7	14.0	14.7	14.7	14.0
85°	11.6	11.6	10.9	10.1	9.3	8.5	9.3	9.3	8.5
87.5°	7.0	6.2	5.4	5.4	4.7	4.7	4.7	4.7	3.1
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)